Chapter Contents

List of Figures

List of Tables

3.0 SOCIAL AND LAND USE

This chapter addresses the potential impacts of the alternatives on a number of social and land use factors. These include changes to land use and land development regulations, neighborhood cohesion, the visual character of the affected environments, historic and archeological resources, schools, community facilities, parklands, and safety. For each of these factors, the existing conditions are inventoried, potential impacts are identified and potential mitigation for adverse impacts is outlined.

For purposes of discussion, the proposed corridor has been divided into ten segments as depicted in Figure 3.0-1.

All graphics for Chapter 3.0 are included at the end of this chapter.

3.1 DEMOGRAPHIC OVERVIEW

This section describes demographic characteristics, as listed below, for the Ohio-Kentucky-Indiana region and the seventeen jurisdictions within the I-71 Corridor. Demographic data for the existing condition was obtained from the decennial census for Year 2000.

- Total population and racial profile in corridor (2000 Census)
- Median household income in corridor (2000 Census)
- Number of persons below poverty level in corridor (2000 Census)
- Female headed households with children in corridor (2000 Census)
- Rate of unemployment in corridor (2000 Census)
- Number of persons by occupation (2000 Census)
- Forecast population and employment for Year 2020

3.1.1 POPULATION

The I-71 Corridor traverses portions of two states, two counties, seventeen jurisdictions, and the service areas of two regional transit authorities. In the year 2000, the population for the state of Kentucky was 4,041,769 and the population for the state of Ohio was 11,353,140, as reported by the U.S. Census. The eight-county metropolitan area of the Ohio-Kentucky-Indiana regional area had a population of 1,646,395 in Year 2000. The Year 2000 population of Kenton County, Kentucky, was 151,464 and Hamilton County, Ohio's population was 845,303. Table 3.1.1 presents total population figures and profiles racial and ethnic groups for each of the seventeen jurisdictions in the I-71 Corridor. Table 3.1-2 shows population figures and profiles racial and ethnic groups for each of the eleven Cincinnati neighborhoods within the corridor. Population figures for the metro area are defined as the Primary Metropolitan Statistical Area (PMSA) as reported by the U.S. Census.

The population of the PMSA was 1,646,395 and included a minority population of 15.9 percent. In the corridor, Golf Manor Village had the highest percent of minorities at 64.6 percent, followed by Silverton with 53.3 percent and Cincinnati with 46.6 percent.

Table 3.1.1: Total Population and Racial Profile in Corridor

Jurisdiction	Total Population	One race							Two or more races	Hispanic Origin	Percent Minority
		Total	White	African American	American Indian, Alaskan Native	Asian	Native Hawaiian and Other Pacific Islander	Other			
Metro Area[1]	1,646,395	1,628,463	1,385,104	213,475	2,921	19,482	434	7,047	17,932	17,717	15.9
Amberley Village	3,425	3,393	2,994	303	3	82	0	11	32	18	12.2
Blue Ash	12,513	12,393	10,897	627	31	800	2	36	120	122	12.9
Cincinnati	331,285	325,732	175,492	142,176	709	5,132	130	2,093	5,553	4,230	46.6
Deer Park	5,982	5,940	5,774	101	11	41	0	13	42	40	3.4
Elmwood Place Village	2,681	2,649	2,463	146	15	5	2	18	32	44	8.6
Evendale Village	3,090	3,064	2,666	223	0	166	0	9	26	17	13.4
Golf Manor Village	3,999	3,929	1,369	2,515	2	28	0	15	70	24	64.6
Madeira	8,923	8,866	8,539	115	12	169	0	31	57	69	4.4
Montgomery	10,163	10,059	9,553	160	5	331	0	10	104	78	5.7
Norwood	21,675	21,379	20,429	509	80	167	4	190	296	401	6.2
Reading	11,292	11,151	10,579	361	18	133	2	58	141	89	5.9
Sharonville	13,804	13,592	12,250	666	16	524	3	133	212	317	12.0
Silverton	5,178	5,056	2,357	2,605	10	42	2	40	122	60	53.3
St. Bernard	4,924	4,881	4,501	318	9	31	1	21	43	32	8.4
Columbia Township	6,557	6,475	4,723	1,633	16	76	0	0	82	61	27.2
Sycamore Township	19,675	19,497	17,695	894	25	810	5	68	178	241	10.4
Covington	43,370	42,688	37,752	4,397	105	147	15	272	682	600	12.8

Source: U.S. Census Bureau, Census 2000

[1]Geographic Area: Cincinnati, OH-KY-IN PMSA

Table 3.1-2: Total Population and Number of Persons by Racial Group by Neighborhood

Statistical Neighborhood Approximations	Total Population		One race						Two or more races	Hispanic Origin
		Total	White	African American	American Indian, Alaskan Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race		
Avondale	16,298	16,095	1,116	14,839	23	62	6	49	203	113
CBD – Riverfront	3,189	3,125	1,780	1,246	10	62	6	21	64	78
Clifton	8,546	8,397	6,425	1,283	14	596	2	77	149	193
Corryville	3,830	3,733	1,610	1,904	16	161	0	42	97	50
Evanston	7,928	7,814	735	6,996	16	33	0	34	114	49
Fairview-Clifton Heights	7,366	7,169	5,379	1,436	21	267	4	62	197	137
Kennedy Heights	5,296	5,200	1,113	4,016	11	17	0	43	96	60
Mount Auburn	6,516	6,403	1,551	4,755	18	27	2	50	113	67
Over-the-Rhine	7,638	7,476	1,482	5,876	25	32	1	60	162	172
Pleasant Ridge	8,872	8,704	5,378	3,158	19	75	5	69	168	117
University Heights	8,753	8,458	5,745	1,616	11	1,106	7	63	205	141
Total	84,232	82,574	32,314	47,125	184	2,438	33	570	1,568	1,177

Source: City of Cincinnati, Department of Planning, Census 2000

3.1.2 INCOME AND HOUSEHOLDS

Table 3.1.3 shows the median income for the PMSA and the seventeen jurisdictions in the I-71 Corridor. The City of Montgomery had the highest median household income with $89,224. The cities of Cincinnati and Covington had the lowest median household income with $29,493 and $30,735, respectively. Correspondingly, the cities of Cincinnati and Covington had the highest rate of persons living below the poverty level, as shown in Table 3.1.4. In 2000, Cincinnati's population included 21.9 percent persons living below the poverty level and Covington's population included 18.4 percent, compared to 9.7 percent for the metro area.

Table 3.1.3: Median Household Income in Corridor

Jurisdiction	Median Household Income ($)
Metro Area[1]	44,248
Amberley Village	81,492
Blue Ash	61,591
Cincinnati	29,493
Deer Park	39,692
Elmwood Place Village	29,017
Evendale Village	91,052
Golf Manor Village	37,111
Madeira	59,626
Montgomery	89,224
Norwood	32,223
Reading	39,140
Sharonville	47,055
Silverton	35,117
St. Bernard	37,356
Columbia Township	39,919
Sycamore Township	51,155
Covington	30,735

Source: U.S. Census Bureau, 2000
[1]Cincinnati, OH-KY-IN PMSA

Table 3.1.4: Number of Persons Below Poverty Level in Corridor

Jurisdiction	Persons for whom poverty status is determined	Persons Below Poverty Level	Percent Below Poverty Level
Metro Area[1]	1,613,052	156,307	9.7
Amberley Village	3,404	120	3.5
Blue Ash	12,607	588	4.7
Cincinnati	318,152	69,722	21.9
Deer Park	5,760	303	5.3
Elmwood Place Village	2,672	507	19.0
Evendale Village	3,085	10	0.3
Golf Manor Village	3,999	428	10.7
Madeira	8,643	116	1.3
Montgomery	9,818	278	2.8
Norwood	21,546	2,780	12.9
Reading	11,048	811	7.3
Sharonville	13,368	538	4.0
Silverton	5,109	486	9.5
St. Bernard	4,914	428	8.7
Columbia Township	6,595	610	9.2
Sycamore Township	19,260	748	3.9
Covington	42,228	7,763	18.4

Source: U.S. Census Bureau, 2000
[1]Cincinnati, OH-KY-IN PMSA

As shown in Table 3.1.5, the City of Cincinnati had the highest number of female headed households with children in the corridor with a total of 18,316 (12.4 percent of population). This is more than three times the number of female headed households with children than all of the other sixteen jurisdictions combined, which totals 5,191. Even higher than the City of Cincinnati, were Columbia Township and Golf Manor Village with a rate of 14.2 percent and 12.8 percent, respectively.

Table 3.1.5: Female Headed Households with Children in Corridor

Jurisdiction	Total Households	Female Headed Households w/children	Percent Female Headed Households w/children
Metro Area[1]	645,048	49,724	7.7
Amberley Village	1,338	29	2.2
Blue Ash	4,990	265	5.3
Cincinnati	148,095	18,316	12.4
Deer Park	2,634	125	4.7
Elmwood Place Village	1,061	127	12.0
Evendale Village	1,062	21	2.0
Golf Manor Village	1,751	224	12.8
Madeira	3,383	140	4.1
Montgomery	3,616	93	2.6
Norwood	9,270	680	7.3
Reading	4,885	293	6.0
Sharonville	6,211	318	5.1
Silverton	2,534	185	7.3
St. Bernard	2,069	143	6.9
Columbia Township	1,884	267	14.2
Sycamore Township	8,282	391	4.7
Covington	18,257	1,890	10.4

Source: U.S. Census Bureau, Census 2000
[1]Cincinnati, OH-KY-IN PMSA

3.1.3 EMPLOYMENT

Table 3.1.6 presents 1990 employment data for the Cincinnati PMSA and for the seventeen jurisdictions in the I-71 Corridor. In 2000, the PMSA had 841,289 persons in the labor force. Civilians in the labor force composed 840,782 of those persons. Of those in the civilian labor force, 36,080 were unemployed. It was estimated that 4.31 percent of the civilian labor force was unemployed in the PMSA. Jurisdictions with higher rates of unemployment than the estimated PMSA included: the City of Cincinnati, Elmwood Place Village, Norwood, Silverton, and Covington.

The distribution of employed persons by occupation throughout the I-71 Corridor is presented in Table 3.1.7.

Table 3.1.6: Rate of Unemployment in Corridor

Jurisdiction	Persons 16 years and over	In Labor Force	Civilian labor force	Unemployed (Civilian labor force)	Percent Unemployed
Metro Area[1]	1,257,165	841,289	840,782	36,080	4.3
Amberley Village	2,724	1,626	1,626	53	3.3
Blue Ash	10,027	6,809	6,809	183	2.7
Cincinnati	257,766	162,546	162,466	11,892	7.3
Deer Park	4,776	3,072	3,072	109	3.5
Elmwood Place Village	1,971	1,233	1,233	96	7.8
Evendale Village	2,342	1,551	1,551	44	2.8
Golf Manor Village	3,098	2,085	2,085	127	6.1
Madeira	6,810	4,228	4,228	78	1.8
Montgomery	7,578	4,977	4,971	101	2.0
Norwood	17,217	11,270	11,264	579	5.1
Reading	9,038	5,972	5,972	251	4.2
Sharonville	11,227	7,337	7,337	237	3.2
Silverton	4,269	2,776	2,776	138	5.0
St. Bernard	3,826	2,393	2,393	47	2.0
Columbia Township	4,964	3,276	3,276	211	6.4
Sycamore Township	15,707	9,713	9,713	252	3.0
Covington	33,213	21,028	21,028	1,313	6.2

Source: U.S. Census Bureau, 2000
[1]Cincinnati, OH-KY-IN PMSA

Table 3.1.7: Number of Persons by Occupation (2000 Census)

Jurisdiction	Employed Persons over 16	Management, Professional, and Related Occupations	Service Occupations	Sales and Office Occupations	Farming, Fishing, and Forestry Occupations	Construction, Extraction, and Maintenance Occupations	Production, Transportation, and Material Moving Occupations
Metro Area	804,702	273,905	113,144	226,127	1,383	70,654	119,489
Amberley Village	1,573	953	92	430	0	36	62
Blue Ash	6,626	3,523	591	1,670	15	285	542
Cincinnati	150,574	53,908	26,936	39,592	182	9,567	20,389
Deer Park	2,963	861	479	931	0	295	397
Elmwood Place Village	1,137	113	193	308	0	122	401
Evendale Village	1,507	819	95	438	0	66	89
Golf Manor Village	1,958	634	366	538	0	106	314
Madeira	4,150	2,126	411	1,129	0	178	306
Montgomery	4,870	3,092	322	1,144	11	106	195
Norwood	10,685	2,543	1,850	3,030	5	1,087	2,170
Reading	5,721	1,437	891	1,817	8	593	975
Sharonville	7,100	2,900	976	1,903	11	417	893
Silverton	2,638	804	458	811	10	234	321
St. Bernard	2,346	612	363	666	8	267	430
Columbia Township	3,065	1,104	589	791	0	174	407
Sycamore Township	9,461	4,168	1,197	2,572	10	518	996
Covington	19,715	4,648	3,659	2,104	22	1,835	3,678

Source: U.S. Census Bureau, 2000

[1]Cincinnati, OH-KY-IN PMSA

3.1.4 FORECAST POPULATION AND EMPLOYMENT

In the eight-county metropolitan area (consisting of Boone, Butler, Campbell, Clermont, Dearborn, Hamilton, Kenton, and Warren Counties), population and employment are projected to increase by Year 2020. Total population is estimated to increase 17.01 percent and employment is estimated to increase 19.20 percent, as presented in Table 3.1.8.

The Ohio-Kentucky-Indiana Regional Council of Governments (OKI) estimates that employment within ½-mile of the proposed I-71 Corridor Light Rail Transit (LRT) alignment was 263,300 in 1995. OKI estimates that in Year 2020, employment within ½-mile of the proposed I-71 Corridor LRT alignment will be 282,200; an estimated increase of 7.18 percent.

OKI estimates that the population within ½-mile of the proposed I-71 Corridor LRT alignment was 213,000 in 1995. OKI estimates that in Year 2020, the population within ½-mile of the proposed I-71 Corridor LRT alignment will be 198,900, an estimated decrease of 6.62 percent. The decline is a result of out migration from the central core of the region to the suburbs. However, job retention is high in the central area resulting in a heavy "in bound" commuting population and thus further reinforcing the need for a strong transportation system.

Table 3.1.8: Forecast Population and Employment for Year 2020

	Base Year 1995	Forecast Year 2020	Growth (Percent)
Metropolitan Area			
Total Population	1,851,200	2,166,000	17.01
Total Employment	942,700	1,123,700	19.20
Central Business District			
Total Employment	80,300	94,900	18.18
Employment - Percent of Metropolitan Area	8.52	8.45	
Employment Density (employee/acre)	150.70	178.05	
Corridor			
Total Population	213,000	198,900	-6.62
Total Employment	263,300	282,200	7.18
Population - Percent of Metropolitan Area	11.51	9.18	
Employment - Percent of Metropolitan Area	27.93	25.11	
Corridor Area (acres)	25,730	25,730	
Population Density (population/acre)	8.28	7.73	
Employment Density (employees/acre)	10.23	10.97	

Source: New Starts Data

3.2 LAND USE

3.2.1 EXISTING AND PLANNED LAND USE

3.2.1.1 Existing Land Use

Figures 3.2-1a through 3.2-1c illustrate the generalized pattern of existing land uses within a 2-mile corridor adjoining the proposed alignment. Land use data in Hamilton County is generalized from the County Assessor's Office data and updated based on field inspection. Land use in Covington is based on Kenton County data, refined through field inspection and aerial photograph interpretation. Land use has been classified in the following categories:

- Low density residential (one- and two-family dwellings)
- High density residential (multi-family)
- Commercial (including office and mixed use)
- Industrial
- Parks and open space
- Public and semi-public (government buildings, schools and colleges, religious institutions)
- Transportation and utilities
- Undeveloped (including agricultural land, found in only a few locations within the corridor)

Land use is described by segment and, within each segment, by station area, covering an area ½- mile from the proposed station site or the proposed I-71 Corridor LRT alignment (See Figures 3.2-2a through 3.2-2u).

Covington Segment

The entire proposed I-71 Corridor LRT alignment within the city of Covington falls within three overlapping ½-mile radius station areas: 12th Street, Pike Street, and Riverfront. The proposed **12th Street Station** is located adjacent to an existing railroad right-of-way surrounded by older industrial and warehouse uses, storage and automobile repair. West of the station site, single-family houses on small lots extend west to I-71/75. Most of the residential neighborhoods north of 13th Street are located in a series of National Register historic districts.

East of the proposed 12th Street Station site, the southern end of Covington's downtown district is centered on both sides of Madison Avenue, with a mix of community institutions (library, schools, daycare), small-scale commercial uses, larger single-family houses (some converted to offices) and older industrial buildings. The Cathedral Basilica of the Assumption dominates the skyline. Running east-west just north of the proposed station site, 12th Street includes scattered commercial storefronts mixed with residential uses; it is scheduled to be widened from two to four lanes by KYTC in an unrelated project.

The proposed **Pike Street Station** is located on a triangular parcel currently occupied by commercial, institutional and storage buildings, bordering an older commercial district along Pike Street. Other land uses in the area include day care and social service agencies, schools and churches. The core of the

downtown business district, along Madison Street, is one block east of the station site; City Hall, offices and financial institutions are clustered here. Residential neighborhoods predominate to the west of the CSX rail line.

The proposed **Riverfront Station** would be located on one of two potential sites between Fifth Street and Second Street. Option A includes an elevated platform adjacent to the Clay Wade Bailey Bridge at Second Street. Option B is located at grade level north of Fifth Street between Johnson Street and the elevated CSX Railroad bridge approach. Both sites are located in a redeveloping area that is currently dominated by large parking lots and auto-oriented uses, including fast food restaurants, auto repair and service stations, hotels and single-use retail establishments. The IRS regional office and processing center occupies several square blocks and is located one block east of the station. Both potential station sites are within ½-mile of Covington's riverfront redevelopment area, which now includes several large hotel and office towers, the Northern Kentucky Convention Center, and the Transit Authority of Northern Kentucky (TANK) Transit Center. Option B is within two blocks of Covington's Mainstrasse Village, a revitalized historic district located on Sixth Street west of the CSX Railroad. The district's economy is centered on specialty retail and restaurant uses, and it is the site of several major festivals.

Ohio River Crossing Segment

This segment, which crosses the Ohio River and extends inland as far as East Third Street, does not include any stations. Land uses along this portion of the Cincinnati riverfront are dominated by highway and railroad rights-of-way, and public parking lots or industrial land slated for redevelopment.

Cincinnati Riverfront Segment

The Banks Station is proposed to be located on paired platforms on either side of the depressed Fort Washington Way (I-71), between the city's two major sports stadiums, Paul Brown Stadium and Great American Ballpark, for football and baseball, respectively. As discussed under Chapter 5.0 Economic Impact Analysis, "The Banks" area is the location of a major riverfront redevelopment project, including residential, retail, office and hotel lodging, the National Underground Railroad Freedom Center, and a new riverfront park. The planned uses include seven blocks of mixed-use retail and residential buildings supported on two-floor parking structures. A transit center would link LRT with existing transit routes. Currently, much of the area is under construction. Land use along the north side of Third Street is currently a mix of surface and structured parking and office buildings.

Downtown Cincinnati Segment

The proposed **Government Square and Courthouse Stations** both consist of paired platforms on Main and Walnut Streets. Both are central to Cincinnati's downtown, surrounded by a diverse and pedestrian-oriented mix of land uses: government buildings, office buildings, street-level retail, entertainment, and a growing amount of housing. Government Square is dominated by federal buildings and corporate offices, it is also the site of the main bus transfer center of SORTA. The proposed Courthouse Station area is characterized by mid-rise mixed use buildings with ground-floor retail and offices or apartments above, along with civic buildings: the Hamilton County courthouse, justice center and offices, and the main downtown public library. Outside the downtown core but within ½- mile of the proposed stations, extensive surface parking and I-71/I-471 interchanges are located on the east side, while City Hall and the Convention Center are located on the west, surrounded by low- to mid-rise office and housing development (including several new infill housing projects).

Over-the-Rhine Segment

The proposed **Over-the-Rhine Station** site is located in the block south of Liberty Street, at a point that effectively marks the transition between downtown and the largely residential neighborhood of Mount Auburn, climbing the hillside to the northeast. Over-the-Rhine, one of the city's oldest and most densely populated neighborhoods, has recently seen substantial revitalization, including new townhouses and art studios, galleries, and restaurants on Main Street. Business incubator space has been occupied by "dot com" companies, usually on upper floors. Liberty Street, the primary east-west arterial street, is a commercial and residential corridor. To the north of Liberty Street, the steep hillside of Mount Auburn is largely residential in character.

Mount Auburn Tunnel Segment

This underground section of the proposed I-71 Corridor LRT alignment serves the Mount Auburn neighborhood and Christ Hospital, a major regional medical facility now undergoing expansion. The proposed **Mount Auburn Station** site is located adjacent to the hospital's front entrance. Other major uses include the William Howard Taft National Historic Site, a juvenile court, and several elementary schools and parks. Residential areas are predominantly single-family, with some multi-family buildings along Auburn Avenue and scattered areas of vacant land.

Uptown Segment

The Uptown segment includes six potential stations, located along two alternate alignments. The proposed site of the **Uptown Station** is in the center of Jefferson Street between Charlton and Daniels, just north of the Mount Auburn tunnel portal. The University of Cincinnati academic campus is located to the west of the station, with a full range of academic, athletic, and student life facilities. The University of Cincinnati is engaged in a multi-year master planning process that has resulted in construction of multiple new buildings, parks, and plazas to serve its roughly 33,000 students. New dormitories are currently under construction along Jefferson Avenue. On the east side of Jefferson is an area dominated by student rental housing in converted single-family houses and multi-family buildings. Two blocks east is the business district of Corryville, a revitalized district along "Short Vine" Street, where streetscape improvements and other initiatives have attracted a broad range of retail, services, and restaurants serving the campus and nearby residents. University Plaza, an older strip shopping center, lies at the southern end of Vine Street.

The business district of the Clifton Heights neighborhood lies along the southern boundary of the University of Cincinnati campus, on Calhoun and McMillan Streets, within ½- mile of the station. This district consists of small campus-serving retail and restaurants, in a mixture of older storefronts and newer franchise restaurants.

The proposed **Zoo Station**, part of the northerly alignment (Alternative 3 and 4), would be located along the east side of Vine Street south of Erkenbrecher Avenue on the Option A alignment. The Cincinnati Zoo lies just north of the proposed station site. The Medical Campus lies south and east of this station site, with its wide variety of hospitals and other institutions. Single-family houses and a multi-story office building are located along Vine Street. The residential area of Clifton Heights and Burnet Woods, a large city park, are located northwest of the proposed station site.

There are two alternate sites for the proposed **Medical Center Station**. Option A is located south of Sabin Way in the heart of the University of Cincinnati Medical Campus, between Children's Hospital and

University Hospital, surrounded by smaller medical buildings and surface and structured parking. The residential neighborhoods of Avondale, Corryville, and Clifton Heights lie beyond the Medical Campus.

The Option B station site is located just north of Dr. Martin Luther King, Jr. Drive (MLK) in an area predominantly occupied by surface parking. MLK is the border between the Medical Campus and residential/commercial areas of Corryville to the south. New multi-family is on the south side of the street.
There are two alternate sites for the proposed **Avondale Station**, both of which are located just west of Reading Road, at the eastern edge of the Medical Campus. Option A is located south of Hickman Avenue, a residential street, surrounded by single- and multi-family housing. Reading Road is lined with commercial and institutional uses.

Option B is located just north of MLK, on a block occupied by surface parking. Free-standing commercial buildings, offices, and a nursing home cluster around the Reading Road intersection. I-71 is located a ¼-mile east of both proposed station sites, crossed only by major streets such as MLK. Single-family housing predominates in the neighborhoods on all sides of the Medical Campus.

Avondale to Norwood Segment

The proposed alignment follows a former Conrail railroad right-of-way, much of which is now owned by SORTA. The alignment runs northeast between the residential neighborhood of Avondale to the west and the largely industrial uses that border I-71. The site of the proposed LRT yard and shops is located east of the alignment between Fredonia and Blair Avenues west of I-71. This area is predominately in industrial and warehouse use. The right-of-way crosses over then runs parallel to Victory Parkway, with wooded open space on either side, before entering another industrial area south of the Xavier University campus.

The proposed **Xavier/Evanston Station** is located along the former Conrail railroad right-of-way north of Dana Avenue. The right-of-way separates the Xavier University campus from several large industrial and storage buildings. Several major projects have recently been completed on the Xavier University campus, including student dormitories, The Cintas Center, a basketball arena, and conference center complex. The Xavier University campus extends west of Victory Parkway, although most buildings are within a ¼-mile of the proposed station site. East of the right-of-way, Norwood Plaza, an older shopping center, is among small commercial and industrial uses located along Montgomery Road. The Hamilton County Business Center (a business incubator center) is located along Mentor Avenue just west of the right-of-way. Surrounding single-family residential neighborhoods extend from Cincinnati's Evanston neighborhood into the City of Norwood.

The proposed I-71 Corridor LRT alignment continues northeast along the SORTA owned Blue Ash line through the city of Norwood. Portions of the right-of-way have been purchased for residential yards or developed as parking lots for businesses along Montgomery Road. The alignment crosses Montgomery Road at Lafayette Avenue and continues into Norwood's central business district (CBD). The Norwood CBD includes both the older commercial area along Montgomery Road and the "triangle" between that street and the railroad right-of-way. This area was once the site of a General Motors's factory complex (which closed in the late 1980s). This site has been redeveloped as a series of shopping centers and office complexes. Fairly dense residential neighborhoods, dominated by single-family houses on small lots, surround the CBD.

The proposed **Norwood Station** site is located south of Smith Road adjacent to the Surrey Square Shopping Center.

Norwood to Blue Ash Segment

The proposed I-71 Corridor LRT alignment continues northeast following the Blue Ash line. Immediately surrounding the alignment and to the east and south are industrial and warehouse facilities. To the northwest is a mix of commercial and residential uses. Skirting the I&O McCullough railyard, the alignment runs between the Cincinnati neighborhood of Pleasant Ridge (a mix of medium-density single-family and multi-family housing, with some undeveloped wooded slopes) and a portion of Columbia Township largely developed with "big box" retail near the Ridge Avenue/I-71 Interchange.

The proposed **Ridge Station** site is located just north of this boundary, along Blue Ash line right-of-way west of Ridge Avenue. The proposed station would utilize an office currently occupied by the National Institute of Occupational Safety and Health (NIOSH) and its associated parking lot. Scattered small commercial uses and residential neighborhoods are located along Ridge Avenue to the north, and a large concentration of large and small highway-oriented retail surrounds the site to the south.

The proposed I-71 Corridor LRT alignment continues northeast through a heavily wooded area, with medium-density residential neighborhoods to the west and Woodford Park to the east. This pattern of residential uses intermixed with scattered parks and schools continues through the Cincinnati neighborhood of Kennedy Heights and into the City of Silverton. Here the alignment crosses Montgomery Road at the proposed **Silverton Station** site.

Silverton has a small traditional downtown centered on Montgomery and Plainfield Roads, with older multi-story buildings, a small park, and historic train station, along with more auto-oriented strip shopping centers and single-use businesses. The proposed Silverton Station site includes an existing Metro park & ride lot and facility, an adjacent strip shopping center, and a few small apartment and office buildings. Surrounding areas are residential.

The proposed I-71 Corridor LRT alignment continues through the Silverton business district along Plainfield Road and into the City of Deer Park. From this point, Blue Ash Road runs alongside the railroad right-of-way, lined with a mix of commercial, residential, and industrial uses. The proposed **Galbraith Road Station** site, at Blue Ash and Galbraith Roads, is surrounded by this diverse mix of uses, which include electrical substations, schools, churches, a large park, and a cluster of mid-rise multi-family buildings. Residential neighborhoods surround the proposed station site. A major medical center (Jewish Hospital) and a regional shopping mall (Kenwood Towne Centre) are located ½ mile east of the station site.

Blue Ash Segment

The proposed I-71 Corridor LRT alignment continues north parallel to Blue Ash Road through a primarily residential area of Sycamore Township. It then crosses into the City of Blue Ash, passing a large industrial park to the west of the right-of-way, and crossing over the Ronald Reagan Cross-Country Highway on a new railroad bridge.

The proposed **Cooper Station** site is located just to the west of a shopping center (The Crossings of Blue Ash), which is one of the anchors of the city's largely redeveloped downtown, centered on the intersection of Kenwood and Cooper Roads. The downtown includes a typical mix of retail, offices, town square park, and post office; most commercial uses occupy newer buildings built in the 1980s and 1990s. A large multi-family complex is located within ½- mile of the proposed station site to the southwest. The city's municipal and recreation center are located about ½-mile northwest of the station.

North of the Blue Ash downtown, the existing rail right-of-way generally marks a boundary between large industrial and office campuses to the west and low-density suburban residential development to the east. The proposed **Pfeiffer Station** site is located on a narrow triangle of land between Kenwood Road and a major concentration of office parks and office-showroom buildings, along with service and commercial uses along Pfeiffer Road. New multi-story corporate offices are currently being developed in this area. The Blue Ash Airport, a general aviation facility, is located southwest of the proposed station area.

The proposed I-71 Corridor LRT alignment leaves the rail right-of-way north of the proposed Pfeiffer Station, and cuts through the Techwoods Circle office park area to parallel Reed Hartman Highway running north. Warehouse and distribution facilities in this area are now being redeveloped for office and office-warehouse uses. The proposed **Reed Hartman Station** site is located in a redeveloping area, on the site of a large distribution center, with a "Class B" office park and a cluster of restaurants to the west. Wooded slopes drop steeply to a small stream valley southwest of the site. Additional office buildings, banks, hotels, and fast food restaurants are clustered around the intersections with Creek Road to the south and Cornell Road to the north. Recently developed low-density residential areas are located to the northwest, along Cornell Road, and extend into the adjacent City of Sharonville.

North of Cornell Park Drive the proposed I-71 Corridor LRT alignment turns east to the proposed **Cornell Park Station** site, located in an area of surface parking with office and industrial buildings. The Procter & Gamble Sharon Woods Technical Center is located immediately to the north, as are the playing fields of the Blue Ash Sports Center. Additional hotels and offices are clustered along Reed Hartman Highway. The Deerfield North Industrial Park extends to the southeast. The city boundaries between Blue Ash, Sharonville, and Sycamore Township are located within a ½- mile of the proposed station site. Much of the adjacent land in Sharonville is occupied by the Sharon Woods golf course and several multi-family complexes.

3.2.1.2 Planned Land Use and Zoning

Planned land use can be described in terms of current planning efforts, whether these are comprehensive plans or plans for smaller areas. However, most of the cities and townships in the corridor do not have up-to-date comprehensive plans, although some are engaged in planning efforts, and most are actively engaged in planning for economic development or redevelopment. Some of the major institutions in the I-71 Corridor, such as the University of Cincinnati and Xavier University, have developed master plans that will directly affect future land use in their respective portions of the corridor.

In the absence of comprehensive or master planning, the current pattern of zoning can act as a surrogate for "planned land use." However, zoning can indicate an existing condition, a condition that existed in the past, or a desired future condition, depending on when the regulations were enacted or changed.

This section describes current planning and/or zoning efforts in each of the municipalities along the proposed I-71 Corridor LRT alignment, and summarizes their existing zoning pattern. The extent to which existing zoning is supportive of transit-oriented development is also assessed. These data are presented for each municipality and the ten potential alignment segments are not referenced.

City of Covington

The City of Covington does not maintain its own comprehensive plan; planning functions are assumed by the Northern Kentucky Area Planning Commission. This agency is currently updating its 1996 Kenton County Comprehensive Plan. This plan identifies Covington's CBD as a commercial hub, and identifies

the Covington Industrial Area along the CSX Railroad south of Eighth Street as a major industrial center. However, the current plan lacks detail at the local level.

Counties and independent municipalities within the Commonwealth of Kentucky are required to maintain a comprehensive plan and to update the plan every five years. Kenton County has recently partnered with the OKI to create a new transportation plan for the County. Following a series of public meetings, the Kenton County Transportation Plan is expected to be completed in 2003. This plan is intended to address all transportation modes in the County including the proposed alternatives developed in the I-71 Corridor Transportation Study.

Existing zoning around the proposed station areas is generally transit-supportive. The proposed 12th Street Station area is zoned for general industrial use along the railroad right-of-way, reflecting past uses. Commercial areas along Madison are zoned "general commercial," allowing a wide range of retail, service, office, trades, and mixed-use residential uses on small lots, with a maximum height of six-stories. Surrounding residential districts west of the proposed station site are primarily zoned for medium-density single- and two-family residences, while the south side of 12th Street is zoned for neighborhood commercial uses (non-auto-oriented) on small lots. The City of Covington has designated the 12th Street Station site as a brownfield redevelopment area and has encouraged the development of light industry on and around the site.

The proposed Pike Street Station area includes small areas near the railroad right-of-way zoned for industrial use. Much of the Pike Street corridor is zoned "general commercial." The nearby downtown district along Madison Avenue is zoned "CBD," allowing a full range of retail, office, service, institutional, and mixed-use residential buildings, with floor-area-ratios of up to 7.0 (building area of 7 times the lot area), and buildings built up to the sidewalk. Nearby residential areas west of the railroad right-of-way are zoned "Urban Residential," a flexible district that permits attached and detached single- and two-family residences and small retail and service establishments within existing buildings.

The proposed Riverfront Station sites are located on Covington's Riverfront West Development Site. The City of Covington has promoted the sites for the station as phased major office and commercial development with structured parking to be constructed between Third Street and the floodwall. The City has investigated state and federal sources of funding to relocate the earthern floodwall and build infrastructure improvements to encourage private development. The Option A aerial station is envisioned to be directly integrated into the commercial/office development. The sites are close to Covington's historic Mainstrasse Village and residential districts, but are surrounded by more auto-oriented commercial uses, redevelopment areas, and surface parking. The area west of Johnson Street is zoned for industrial use (reflecting previous use patterns), while the area to the east (including the IRS service center) is zoned for professional office use. The Mainstrasse Village area is zoned for specialized retail, service, entertainment, and other tourist-related uses, on small lots that maintain the area's pedestrian character.

City of Cincinnati

Cincinnati has not updated its citywide comprehensive plan, known as the *Coordinated City Plan*, since 1980. The City has prepared an urban renewal plan, *Cincinnati 2000*, for its CBD, and is currently engaged in planning for several neighborhoods within the proposed LRT corridor, notably the Over-the-Rhine neighborhood and the Clifton Heights area, in partnership with University of Cincinnati.

Zoning Code Update - The City is currently updating its zoning code, which was released to the public in draft form in 2002. The update is intended to simplify and streamline the code, reduce the number of

variance requests and hearings, establish development standards that reflect neighborhood character, and encourage mixed use development. While the Planning Department initially considered developing a Transit Oriented Development (TOD) district, they have instead decided to integrate TOD principles into the range of other commercial districts, in an effort to consolidate and simplify the ordinance.

The current code is "pyramidal" in form: districts are arranged by level of intensity or density, with each more intense district permitting all the uses allowed in the less intense districts. The new code will be more flexible and will encourage a more diverse mix of uses. Three primary business districts are planned: Neighborhood, Community, and General. However, an additional set of three "character districts" can be used to refine the base districts: "Pedestrian," "Mixed Use," and "Automobile." Residential uses are now allowed only on upper floors in commercial districts; they will be allowed in more locations. Small-scale manufacturing will also be permitted in some commercial districts. These changes should enhance flexibility and increase the diversity of uses in station areas. A new Planned Development district can also be used to link zoning in station areas to a specific station area plan.

Existing Zoning - Existing zoning for most proposed station areas within the city is generally supportive of transit-oriented development. All the proposed downtown stations (from The Banks through Courthouse) are located in the Downtown Development District, which allows a full range of uses and densities; it is divided into subdistricts, and requires a high level of design review, with bonuses for public amenities. Off-street parking is required only for new residential and office construction.

The Over-the-Rhine, Mount Auburn, Uptown, Avondale, and Xavier/Evanston Station areas generally are zoned for medium- to high-density multi-family, commercial, and office development. The large medical and university campuses are zoned Institutional-Residential, permitting a mix of uses similar to those found in abutting districts. The proposed Ridge Station area is zoned for limited commercial use and medium-density multi-family development, in keeping with existing neighborhood character.

Over-the-Rhine Master Plan - Planning staff and a neighborhood task force completed the Over-the-Rhine Comprehensive Master Plan in June 2002. The importance of this effort has been emphasized by City Council due to the recent civil demonstrations in that area.

The following preliminary goals have been established for the plan:

- Make Over-the-Rhine a model for diverse and inclusive business development.
- Establish a link between the Over-the-Rhine workforce and job training and employment opportunities in Over-the-Rhine and throughout the City.
- Strengthen and create destination points that attract and encourage neighborhood and regional participation.
- Ensure the opportunity for Over-the-Rhine residents financially literate and independent.

These goals are to be accomplished through specific infrastructure projects. In addition to providing for the transportation needs of the Over-the-Rhine residents, which are primarily low income, minority, and many transit dependent, Over-the Rhine is the critical link between downtown (Cincinnati CBD) and Uptown.

The plan specifically supports the transit improvement including expanded and enhanced bus service, a light rail system, and a trolley or street car system.

University of Cincinnati Planning - University of Cincinnati has been engaged in master planning since 1990, and is now finalizing the third update of that plan. Goals of the master plan include additional on-campus housing, signature architecture, and public spaces and buildings that enhance student life. University of Cincinnati planning also extends to revitalization of adjacent neighborhood business districts, working collaboratively with community organizations.

Completed master plan components include:

- New green spaces on both East and West sides of the campus - Campus Green, McMicken Commons, University Commons
- Multiple new buildings, additions and renovations, focusing on signature architecture, often "wrapping" older undistinguished buildings
- Main Street - a central core of buildings serving student life activities, combining information, administration, recreation, food and entertainment
- Residence Halls - two complexes along Jefferson Avenue, one on Calhoun, with street-level retail and underground parking
- Varsity Village - athletic fields and a new building
- Community development activities - These focus on the two bordering areas of Corryville and Clifton Heights, or "Uptown"
- Incorporation of I-71 Corridor (Option A) alignment along Jefferson Avenue and through the Medical Center complex

Clifton Heights Plan - Within the Calhoun/McMillan corridor of Clifton Heights, University of Cincinnati has worked with the City to develop the *Clifton Heights/ University of Cincinnati Joint Urban Renewal Plan* (April 2001). The plan goals include retaining and renovating the higher-quality buildings, replacing the franchise architecture, drive-throughs and surface parking, attracting national retail chains, and revitalizing existing businesses. Design guidelines and streetscape improvements are planned.

The Corryville business district (along "Short Vine" Street) has been undergoing revitalization since the 1990s. A new streetscape was constructed in 1995, assisted by University of Cincinnati's College of Design, Architecture, and Planning, and a new Corryville Community Center opened in 1999. University of Cincinnati is working with neighborhood organizations to attract additional neighborhood-service retail and develop new market-rate housing. Bellevue Gardens, a 40-unit apartment complex sponsored in part by University of Cincinnati has recently been completed on MLK. The blocks on the east side of Jefferson Avenue, adjacent to the proposed Uptown Station, are another area targeted for this new housing.

Off-street parking requirements citywide are generally low, compared to most suburban areas, ranging from 1 to 1.5 spaces per residential unit, and 1 space per 3 beds at dormitories. Retail uses require no parking for the first 2,000 square feet, then 2 spaces per 250 square feet. Office uses require 1 space per 750 square feet under most conditions.

City of Norwood

The City is now in the process of updating its 1969 Comprehensive Plan. There are no specific redevelopment plans being considered for the proposed station area. The main change proposed in the Comprehensive Plan is the downzoning of many residential areas from medium- to low-density, and from

high-density (multi-family) to medium-density, in order to discourage the spread of student housing. However, it is likely that multi-family zoning will remain along Lafayette Avenue adjoining the proposed Norwood Station site.

Existing zoning closely reflects existing land use in most cases. The Xavier/Evanston station area in Norwood is zoned for heavy industrial use south of Cleneay Avenue, and office uses to the north, while areas along Montgomery Road are zoned for general commercial use. Surrounding residential areas are zoned for medium-density single- and two-family housing. The Norwood station area includes CBD and general commercial zoning. The area north of Smith Road, now developed with a mixture of shopping centers and warehouses, is still zoned for heavy industrial use, reflecting previous conditions. Residential blocks adjoining the commercial areas are generally zoned for multi-family use.

The area around the proposed Norwood Station historically has been dominated by heavy industry, specifically the General Motors plant, a major part of city's economic base, which closed in 1987. The City has encouraged extensive redevelopment in the area, replacing the plant with a series of shopping centers and office complexes, which have reinforced the City's traditional downtown district along Montgomery Road.

Columbia Township

Columbia Township is made up of several discontinuous areas between the cities of Cincinnati, Silverton, Madeira, and Indian Hill. Land use in the township is governed by Hamilton County's zoning ordinance. No current planning efforts have been undertaken for the section of the township adjacent to the proposed Ridge Station. The zoning is somewhat inconsistent with the area's character, which is dominated by big-box retail and freestanding highway-oriented commercial uses. Areas immediately south of the proposed Ridge Station site and west of Ridge Avenue are zoned for heavy industrial use, while the area immediately east of Ridge Avenue is zoned for light industrial use. However, both districts permit a broad range of retail, office, warehouse, and distribution uses as well. Areas further east (Wal-Mart and a large multi-family complex) are zoned as planned commercial and multi-family districts, in which specific densities and conditions are established in development plans.

City of Silverton

The City of Silverton has supported and promoted the concept of transit-oriented development around the proposed Silverton Station, identifying several parcels adjacent to the proposed station site for redevelopment. A nonprofit development group was recently formed to revitalize the downtown, beginning with a study of potential improvements in that district.

The City does not have an updated comprehensive plan. Its zoning reflects the existing pattern of land use around the station, which is immediately adjacent to the city's small downtown. Part of the proposed station site and the CBD between the railroad right-of-way and Silverton Avenue is zoned for integrated, pedestrian-oriented specialty and general retail use, emphasizing shared parking and high lot coverage. A design review overlay district is in place in the CBD, requiring review of any new construction, alterations, or remodelings of existing buildings by a Design Review Board. The remainder of the proposed station site and adjoining areas along Montgomery Road are zoned for neighborhood-scale retail and service uses. The area south of Montgomery Road and east of the railroad right-of-way is zoned for office and service uses.

City of Deer Park

The City of Deer Park, like many other small and fully-developed communities in the region, lacks a current comprehensive plan; its most recent plan dates back to 1983. The zoning for the area around the proposed Galbraith Road Station site reflects existing land use patterns along Blue Ash Road, an older commercial and rail corridor. The immediate area of the proposed station is zoned for light industry, which also permits most commercial uses. The Blue Ash Road frontage is largely zoned for commercial use, permitting a range of residential, office, retail, and service uses, including automotive services. Surrounding neighborhoods are zoned for medium-density single- and two-family residences.

Sycamore Township

The Hamilton County Regional Planning Commission has recently embarked on an effort to update the County's 1964 comprehensive plan. One of the primary goals is to stem the population loss experienced by the County over the last twenty years. This broad-based effort, called "Community Compass", will will include not only unincorporated areas but the county municipalities. The effort began in the fall of 2000 and expected to result in recommendations for Hamilton County administrators to implement in 2003. Columbia and Sycamore Townships will be specifically affected by this plan.

Sycamore Township has contracted with the Hamilton County Regional Planning Commission to prepare an updated comprehensive plan. That plan indicates that no major changes are currently planned for the existing land uses in the area around the proposed Galbraith Road Station site. Parcels along Blue Ash Road are a mix of light industry, general retail, and office uses, surrounded by largely single-family residential neighborhoods, with a few large multi-family complexes within a ½-mile radius of the station site.

City of Blue Ash

The City of Blue Ash has actively supported the proposed I-71 Corridor LRT project, and is interested in creating transit-supportive land use regulations around proposed station areas. The City's comprehensive plan was prepared in 1989, and many of its goals have been accomplished. The City's main focus has been the redevelopment of low-intensity warehouses, office-showrooms, and manufacturing uses into 4 to 5-story office buildings, including corporate campuses. The city still retains some vacant residential land, but has also been experiencing tear-downs and revised subdivision of large lots.

The area just east of the proposed Cooper Station serves as the city's downtown. The area was redeveloped in the early 1990s as a series of well-designed commercial centers set in a pedestrian-oriented streetscape. The area is zoned "downtown commercial," permitting retail sales and service (not including auto-oriented and drive-through uses), offices, restaurants, a variety of institutional uses, and multi-family housing. Off-street parking requirements are slightly lower than in other commercial districts. There is some interest in mixed use development within the area, with a traditional neighborhood development character. Surrounding residential areas are zoned for single- and two-family dwellings on 7,500 square foot lots.

The other three station sites proposed within Blue Ash are all major employment centers, located in areas that are transitioning from warehouse and manufacturing uses to "Class A" office parks. The proposed Pfeiffer Station site is located between an older residential area along Kenwood Road and an office park area to the west. The residential area is zoned for low-density single-family dwellings on 15,000 square foot lots. Commercial areas along Glendale-Milford Road are zoned planned commercial, which permits

a wide range of retail, service, office, and institutional uses, with no minimum lot size, and with site design standards to provide parking lot landscaping and internal pedestrian circulation. Office and business park areas are zoned "office-industrial," a district that, as its name implies, is focused on office and light industrial uses, including warehouse, wholesale, and distribution uses. Lodging, business services, restaurants, and many institutional uses are also permitted.

The proposed Reed Hartman Station site is surrounded by an office and business park area, largely zoned "office-industrial." A residential area northwest of the station site is zoned for low-density single-family dwellings on 20,000 square foot lots.

The proposed Cornell Park Station site has a similar character and is also zoned "office-industrial." An area along Grooms Road is zoned for light industrial use, with design standards similar to the office-industrial district. The Cornell Road corridor between these two station areas is zoned "general commercial," quite similar in its requirements to the "planned commercial" district.

3.2.2 IMPACTS RELATED TO LAND USE

3.2.2.1 No-Build Alternative

Under the No-Build Alternative, no improvements to public transportation are planned to occur within the corridor. The projects currently programmed in the regional Transportation Improvement Program for fiscal years 1998 – 2001 are all currently under construction, and these would be completed. Therefore, there would be no redevelopment, displacement or relocation directly associated with this alternative. The No-Build Alternative would not provide an alternative mode of transit in the I-71 Corridor.

3.2.2.2 Transportation Systems Management (TSM) Alternative

The TSM Alternative would include expansion of the current bus systems and a variety of other low-cost capital improvements to the existing transportation system, such as carpooling and telecommuting programs, Intelligent Transportation Systems (ITS), and traffic engineering improvements. This analysis will focus on expansion of the existing bus systems. The additional capital improvements have not as yet been clearly defined in terms of size and location, so their potential impacts on land use cannot be addressed.

Transit centers for the region's bus systems would be constructed at twelve locations, including four that lie within the I-71 Corridor. These are:

- Peebles Corner (Gilbert Avenue and McMillan Street): a largely commercial intersection east of I-71, about ½ mile east of the proposed Avondale LRT station.
- Reading (US 42 and Galbraith Road), about two miles west of the proposed Galbraith Road LRT station.
- Kenwood (vicinity of Kenwood Road and I-71): an area just south of the large Kenwood Town Center shopping center, about a mile east and south of the proposed Silverton and Galbraith Road LRT stations.
- Fields Ertel Road and I-71, over a mile north of the proposed Cornell Park LRT station (the northern terminus of the LRT corridor)

No specific plans for these centers have as yet been developed, although it is likely that most would require some acquisition of property. Without more detailed plans, however, it cannot be determined whether properties in the vicinity of these stations would be directly impacted. There may also be some potential for intensification of existing land uses or of transit-related redevelopment in these areas.

3.2.2.3 LRT Alternatives

Station Area Planning and Development Characteristics

Station "areas" are defined for the purpose of this analysis as land within a ½-mile radius of the proposed station sites, as shown on Figures 3.2.2a through 3.2.2u, Major Land Uses and Facilities. This analysis assumes that none of the proposed alternatives would have significant impacts on existing land use beyond the station areas. In other words, land use in areas along the proposed alignment between stations would not be expected to change significantly beyond the acquisition and removal of selected properties, addressed under Displacements and Partial Property Acquisition. In some cases, these acquisitions could have an impact on specific neighborhoods or residential enclaves, and those issues are addressed in Section 3.3, Community Facilities and Neighborhood Cohesion. This analysis focuses on the potential for transit-supportive development in station areas.

The introduction of LRT can stimulate land development near stations if there is a strong investment climate and if public plans, regulations, and, possibly, incentives are in place. In turn, station area development can help to increase system ridership, guide regional growth, and broaden the range of housing choices.

Station Area Classification System and Guidelines for Development

The OKI publication *Guidelines for Station Neighborhood Development* (September 2000) was prepared to guide local officials and land developers when making investments near LRT stations, in order to take advantage of these access improvements. The *Guidelines* classify each proposed station site into one of six "station neighborhood" categories, based on their location and existing land use pattern:

- Central Business District
- Urban Mixed Use
- Specialty Urban
- Town Center/Urban Neighborhood
- Suburban Employment
- Suburban Multi-Use

The term "station neighborhoods" is equivalent to the term "station areas" used in this analysis. Table 3.2.1 describes the desired general characteristics, types of land use, transit service and development approach for each type of station area.

Table 3.2.1: Types of Station Neighborhoods

Type of Station Neighborhood	Station Neighborhood Features			
	Major Characteristics	**Desired Typical Land Uses**	**Transit Service**	**Development Approach**
Central Business District Cincinnati Riverfront Government Square Court Street	High density Mixed use buildings Employment center Retail center Community facilities Structured parking Pedestrian orientation Grid streets	Offices Retail businesses Housing Hotels and restaurants Cultural facilities Government offices	Light rail Local bus Taxi Shuttle	Redevelopment and Infill
Urban Mixed Use Covington Riverfront Mount Auburn Avondale	Mid and high density Mixed and multi land use Employment center Community facilities Structured and surface parking Grid streets	Housing Retail and service businesses Major institutions	Light rail Local bus Taxi	Redevelopment and Infill
Specialty Urban Uptown Medical Center Xavier / Evanston	Campus (hospital, school) Mixed and multiple land use Mid to high density Employment center Structured or surface parking Grid or modified street pattern	Offices Hospital and clinics University facilities Housing Retail and service businesses University-related cultural facilities	Light rail Local bus Feeder bus University bus Taxi Park & ride	Redevelopment and Infill
Town Center / Urban Neighborhood 12th Street Pike Street Over-the-Rhine Norwood Silverton	Mixed and multiple land use Moderate employment "Main Street" shops On-street parking Grid streets Pedestrian orientation	Shops facing the street Low- and mid-density attached housing Mid-density offices Government offices Civic plaza / town square	Light rail Feeder bus Taxi Park & ride	Redevelopment and infill
Suburban Employment Reed Hartman Pfeiffer Road Cornell Park Ridge	Singularity of land use Scattered attached housing Auto orientation Interconnected streets Neighborhood businesses	Low- and mid-density housing Offices Manufacturing Research and development Some retail business	Light rail Feeder bus Park & ride	New growth and infill
Suburban Multi-Use Galbraith Road Cooper Road	Mixed and multiple land uses Employment and retail center Mid and low density Structured and open parking Curvilinear and grid streets	Industry Offices Some retail business Mid- and high-density housing	Light rail Feeder bus Park & ride	New growth and infill

Source: URS, 2001

The following analysis examines the degree to which existing land use patterns, plans and development regulations are supportive of station area development, using the categories and desired land uses shown in Table 3.2.1. The analysis also considers the type and intensity of development that might be expected, given the degree of public and private support shown through recent plans and development proposals.

Tables 5.13.12 – 5.3.15 (Chapter 5.0 Economic Impact Analysis) show the potential for new development induced by transit within each station area, based on an evaluation of economic conditions as well as public policies.

LRT Alternative 1

All of the LRT alternatives extend from Covington to Blue Ash. They differ in terms of which stations are included along among two potential sets of alternative locations and alignments. Thus, Alternative 1 includes the at-grade Covington Riverfront Station and the Cincinnati alignment that follows MLK Drive.

Covington Segment
The patterns of land use around each of the three proposed station sites are generally transit-supportive – land uses are diverse, most lots are small, housing densities are relatively high, and there is a high degree of pedestrian connectivity between uses. However, some changes in zoning would be needed to foster new station area development that is transit-supportive.

The proposed Twelfth Street Station area is classified according to the *Guidelines for Station Neighborhood Development* as a "Town Center/Urban Neighborhood." Desirable land uses would include shops facing the street, low- and mid-density attached housing, and mid-density offices and civic uses. The immediate station area is currently zoned to reflect existing and past industrial uses. A transit overlay district or another district that permits mixed use would help to stimulate redevelopment around the station. The residential districts immediately west of the station site could not be redeveloped for more intense residential or mixed use without a change in zoning. However, commercial areas along Madison east of the station site are already zoned to permit a wide range of commercial, office and residential uses, and redevelopment or intensification of land use could occur under the existing zoning.

The proposed Pike Street Station area is classified according to the *Guidelines* as a "Town Center/Urban Neighborhood" (see 12th Street above). The area is already fairly densely developed with a mix of uses that include older commercial businesses, offices, churches, social service agencies and other neighborhood institutions. Small areas near the CSX railroad right-of-way are still zoned for industrial use and would need to be rezoned to support additional transit-oriented development. Surrounding areas are already zoned to allow a wide range of uses in both commercial and residential areas, and could support additional transit-oriented development.

The proposed Covington Riverfront Station area is classified according to the *Guidelines* as an "urban mixed use" area. Desirable land uses include offices, manufacturing, research and development, along with low- and mid-density housing and some retail business. The proposed site would be located at grade on the edge of a redeveloping area dominated by large parking lots and small freestanding commercial buildings. The historic Mainstrasse Village is located just to the south across Fifth Street, offering access to specialty shops, restaurants, and compact residential development. There is good potential for transit-supportive development, as surface parking could be converted to housing and office and service uses.

Existing zoning in the Mainstrasse Village area supports infill development at a similar scale and density. Other zoning districts are less geared toward mixed use. Zoning on the block where the proposed station site is located is "highway commercial," permitting a broad range of land uses but requiring a minimum

10,000 square foot lot size. This district does not permit housing alone or in combination with other uses. The area north of the station site is zoned for industrial uses west of Johnson Street and professional office park use east of Johnson. Zoning changes would therefore be needed to foster more compact mixed use that includes housing in these areas.

Ohio River Crossing Segment
No stations are located within this segment.

Cincinnati Riverfront Segment
The proposed The Banks Station area is classified in the *Guidelines* as "central business district." In addition to the existing sports stadiums and planned public facilities, desirable land uses include high-density residential, retail and offices. These uses are all planned as part of the area's redevelopment. Existing zoning, the Downtown Development District, allows a full range of uses and densities, with a high level of design review. Off-street parking is required only for new residential and office construction. (The Banks redevelopment project includes structured parking).

Downtown Cincinnati Segment
The proposed Government Square Station area is classified in the *Guidelines* as "central business district." Multi-story office buildings, government buildings and civic and performance venues currently dominate the area, along with street-level retail. Additional desirable uses would include high-density housing. Given the built-out nature of the area, there is relatively little potential for new land uses, except where surface parking lots may be converted to other uses.

The proposed Courthouse Station area is also classified as "central business district" in the *Guidelines*. Mid-rise office buildings with street-level retail dominate, along with the Hamilton County government center. Surface parking lots present opportunities for mixed-use development. The area has potential for mid- to high-density housing in combination with the existing office and retail uses. The Downtown Development District zoning (described above) presents no barriers to additional infill or redevelopment in these areas.

Over-the-Rhine Segment
The proposed Over-the-Rhine Station is located in the center of a redeveloping area characterized by an influx of dot com companies, specialty retail, and new attached and loft-type housing. It is classified in the *Guidelines* as a "town center/urban neighborhood." Desirable land uses would include mid-density offices, shops facing the street, and low- and mid-density attached housing. There is good potential for additional redevelopment of existing buildings, although little vacant land is available south of Liberty Street. Existing zoning in the area, a combination of high-density residential and general commercial, appears to present no barriers to additional redevelopment for office and multi-family use.

Mount Auburn Tunnel Segment
The area around the proposed Mount Auburn Station, the only underground station on the LRT corridor, is classified in the *Guidelines* as an "urban mixed use" area. It is dominated by the major institution of Christ Hospital, but also includes historic residential areas along Mt. Auburn Avenue and other institutional uses. Additional desirable land uses would include housing of all types and retail and service businesses. The area has potential for redevelopment with medium- and high-density housing and limited commercial uses. Existing zoning along Mt. Auburn Avenue is designed to permit conversion of existing housing into medium-density office and limited commercial uses. Surrounding residential areas are zoned to allow medium- to high-density development (25 to 30 units per acre for multi-family housing).

Uptown Segment

The proposed Uptown Station is located between the west campus and the Corryville commercial district, which serves both the campus and the surrounding neighborhood. The area is classified in the *Guidelines* as a "specialty urban" area, dominated by the campus and other institutions. The area already has a full range of typical desirable land uses, which would benefit from the increased accessibility offered by the proposed station. Additional high-density housing, primarily serving the student market, could be developed in the area, and the University has long-range plans for housing redevelopment along Jefferson Avenue. Residential zoning in this area would allow attached and multi-family housing at up to approximately 20 units per acre.

The area around the proposed Medical Center "Option B" Station site on MLK is classified in the *Guidelines* as "specialty urban." MLK is the boundary between the large Medical Campus and the Corryville and Avondale residential neighborhoods to the south. Desirable land uses would include medium-density housing, and housing redevelopment is already underway just across MLK from the proposed station site. Existing zoning permits medium-density residential use and office uses in these areas.

Avondale to Norwood Segment

The area around the proposed Avondale "Option B" Station at MLK and Reading Road is classified in the *Guidelines* as "urban mixed use." Like the nearby Medical Center "Option B" site, it is located on the boundary between the Medical Campus and surrounding residential neighborhoods; the intersection is also a commercial node. There is some land available for new housing and retail/service uses. Existing zoning would permit this level of redevelopment.

The proposed Xavier/Evanston Station area is classified in the *Guidelines* as "specialty urban." It also shares some characteristics of the "urban mixed use" areas, as it straddles the boundary between the Xavier University campus and both residential and industrial areas in Cincinnati and Norwood. Additional desirable land uses would include student and staff housing, offices and limited retail and service uses. Existing zoning in Cincinnati would generally permit redevelopment, although the proposed station site itself is still zoned for industrial use. Zoning districts in the station area within the City of Norwood include a manufacturing district at the station site and a "general business district" along the Montgomery Road corridor, neither of which permit residential uses. Zoning in Norwood would therefore need to be modified to encourage redevelopment that included housing.

The proposed Norwood Station area is classified in the *Guidelines* as a "town center/urban neighborhood." Nearby land uses include newer shopping centers and office complexes and civic buildings such as Norwood's City Hall, library and U.S. post office. Additional desirable land uses include additional office uses and medium-density attached housing. Existing zoning includes both the "central business district," which permits housing as part of mixed-use buildings, and the "general business" and industrial zoning districts, neither of which permit residential uses. These districts would need to be modified to encourage mixed-use redevelopment. Some of the surrounding residential blocks are zoned to permit medium-density multi-family housing.

Norwood to Blue Ash Segment

The area around the proposed Ridge Station is classified in the *Guidelines* as a "town center/urban neighborhood." This classification might be more applicable to the Pleasant Ridge neighborhood, located about ½-mile to the north of the station site along Ridge Avenue. The station area in Columbia Township is oriented toward the nearby I-71 interchange and is dominated by "big box" and other freestanding auto-oriented retail uses. Additional desirable land uses would include office uses and medium- and high-density housing, especially along Ridge Avenue to the north of the proposed station site. Existing

Cincinnati zoning in this area would allow medium- to high-density housing, but no office uses. The proposed station site itself is zoned for manufacturing use. Columbia Township is governed by Hamilton County zoning, which would permit a fairly broad range of retail and office uses in most locations in the station area, but would generally not permit housing. Thus, zoning would permit some intensification of existing land uses, but would need to be updated to encourage larger-scale redevelopment.

The proposed Silverton Station area is classified in the *Guidelines* as a "town center/urban neighborhood," a classification that largely reflects its existing land use pattern, in which traditional "main street" buildings are interspersed with more auto-oriented freestanding commercial buildings, and surrounded by largely single-family neighborhoods. Additional desirable land uses would include infill retail and office uses and medium-density housing. Existing zoning would support additional commercial and office uses, but would need to be modified to allow housing as part of mixed-use developments.

The proposed Galbraith Station area is classified as "suburban multi-use." It displays a land use pattern characteristic of many older suburbs, of scattered industrial, commercial and multi-family uses along a highway (and active) corridor. Additional desirable land uses would include medium-density housing (attached or mixed-use) integrated with infill retail and office uses. Existing zoning in both the City of Deer Park and Sycamore Township largely reflects existing land uses, and does not allow medium-density housing. However, Sycamore Township's land use plan designates some areas along Blue Ash Road for mixed use. The zoning in both jurisdictions would need to be modified to encourage transit-oriented redevelopment.

Blue Ash Segment

The area surrounding the proposed Cooper Station is classified in the *Guidelines* as "suburban multi-use." However, given that the area is essentially the City's downtown, and has been redeveloped with "downtown" characteristics (high pedestrian connectivity and scale, street-fronting shops, integration of commercial, employment and civic uses) it shares many characteristics of a "town center/urban neighborhood." Additional desirable land uses would include medium- to high-density housing integrated with retail and office uses. The City's Comprehensive Plan (1989) and existing Downtown Commercial zoning encourage this type of infill and redevelopment.

The proposed Pfeiffer Station area is classified in the *Guidelines* as a "suburban employment" center. Since the proposed station site is located at the boundary between an older single-family residential area and a developing employment center, it also shares some "suburban multi-use" characteristics. Additional desirable land uses would include office and retail development designed with more of a pedestrian orientation, and possibly additional medium-density housing. Existing zoning west of the existing rail line permits a wide range of commercial and employment uses but no housing. Existing zoning along Kenwood Road permits a continuation of the existing pattern of low-density single-family housing. Changes to existing zoning, or possible a transit-oriented overlay district, would be needed to allow any integration of residential and nonresidential uses.

The proposed Reed-Hartman Station area, like the Pfeiffer Station area, is classified in the *Guidelines* as a "suburban employment" center, and is currently undergoing redevelopment from an office-warehouse area to one dominated by "Class A" corporate offices. Large-lot single-family housing is located in the northwest quadrant of the station area, but is not connected to it via streets or paths. Additional desirable land uses would include additional retail and service uses (such as restaurants) with a greater degree of pedestrian connectivity to the office campuses. Varied-density housing may also be appropriate, but is not part of the city's plan for this area as a high-quality office campus. Existing zoning permits intensification of the current uses, and includes site design standards to improve aesthetics and vehicular circulation. Zoning modifications would be needed to foster a more pedestrian-oriented pattern.

The proposed Cornell Park Station area, while not classified in the *Guidelines*, can also be classified as a "suburban employment" center, dominated by large corporate research facilities and smaller office-warehouse buildings. Retail and service uses are clustered around the Reed Hartman – Cornell Road intersection, about ¼ mile from the proposed station site. Given this existing land use pattern, additional desirable land uses might include small retail and service business integrated into these office complexes, to serve employees and reduce the need for automobile travel. Existing zoning would permit such uses, but (as mentioned above) would benefit from site design standards to encourage a pedestrian orientation.

LRT Alternative 2

Alternative 2 includes the above-grade Covington Riverfront Station (Option "A"), described below, rather than the at-grade station site (Option "B"). All other stations are identical to those discussed under Alternative 1.

Covington Segment
The Covington Riverfront Station area is classified according to the *Guidelines for Station Neighborhood Development* as an "urban mixed use neighborhood." Desirable land uses include offices, manufacturing, research and development, along with low- and mid-density housing and some retail business. The proposed site (Option "A") would be located above grade in a redeveloping area dominated by large parking lots, small auto-oriented commercial uses and the large IRS regional office and processing center. This area would be well suited to transit-supportive development that combines mid-density housing and office uses. Existing zoning permits a range of industrial uses west of Johnson Street and professional office park use east of Johnson Street; areas west of the bridge are zoned for highway-oriented commercial uses. Therefore, zoning changes would be needed to permit mixed use, including any residential uses, in these areas, and to encourage a more pedestrian-oriented development pattern.

LRT Alternative 3

LRT Alternative 3 includes the at-grade Covington Riverfront Station (Option "B") described under Alternative 1 and the Cincinnati alignment that includes the proposed Zoo Station and that follows a more northerly route through the University Medical Campus. All the proposed stations located along that alignment that differ from Alternatives 1 or 2 are described below.

Covington Segment
The Covington Riverfront Station area is classified according to the *Guidelines* as an "urban mixed use" area. Desirable land uses include offices, manufacturing, research and development, along with low- and mid-density housing and some retail business. The proposed site (Option "B") would be located at grade on the edge of a redeveloping area dominated by large parking lots and small freestanding commercial buildings. The historic Mainstrasse Village is located just to the south across Fifth Street, offering access to specialty shops, restaurants, and compact residential development. There is good potential for transit-supportive development, as surface parking could be converted to housing, office and service uses.

Existing zoning in the Mainstrasse Village area supports infill development at a similar scale and density. Other zoning districts are less geared toward mixed use. Zoning on the block where the station site is located is "highway commercial," permitting a broad range of land uses but requiring a minimum 10,000 square foot lot size. This district does not permit housing alone or in combination with other uses. The area north of the proposed station site is zoned for industrial uses west of Johnson Street and professional office park use east of Johnson. Zoning changes would therefore be needed to foster more compact mixed use that includes housing in these areas.

Uptown Segment
The proposed Zoo Station area was not classified in the *Guidelines* (since it was proposed following their publication) but would seem to fall into the "specialty urban" category, dominated as it is by a large recreational/educational facility. Additional desirable land uses in the area would include new infill housing and limited retail/service uses serving Zoo visitors. However, relatively little land is available for redevelopment and market interest is not as strong as in other station areas. Existing zoning would support redevelopment: it includes a small general commercial district adjacent to the proposed station site and medium-density residential in surrounding areas (up to about 20 units per acre).

The area around the proposed Medical Center Option "A" Station site near Sabin Way and Children's Hospital can be classified as "specialty urban," since it is centrally located within this large complex of hospitals and other medical institutions. These institutions would derive considerable benefit from the increased accessibility and alternative transportation choices that LRT would provide, especially because they now face continual pressure to add parking for employees and clients. The built-out nature of the area limits the potential for complementary land uses, although additional retail and service businesses might be appropriate. The existing "institutional-residential" zoning allows such land uses if they are present in adjacent districts, but only where these districts abut a particular lot. However, this condition is only found on the periphery of the large Medical Campus.

Avondale to Norwood Segment
The proposed Avondale Option "A" Station area at Hickman Avenue is not classified in the *Guidelines* (since it was proposed following their publication) but would seem to fall into the "urban mixed use" category. The area is characterized by a combination of small free-standing commercial uses, single-family and multi-family housing east of Harvey Avenue, and the eastern edge of the Medical Campus just west of Harvey Avenue. Development of the station would entail the removal of several single-family and multi-family housing units. Additional desirable land uses would include replacement housing, additional infill housing, and retail/service uses. There is little available land for redevelopment in the area, and limited market interest. However, existing zoning would support additional residential infill and some intensification of commercial uses along Reading Road.

LRT Alternative 4

LRT Alternative 4 includes the above-grade Covington Riverfront station site described under Alternative 2 and the Option "A" station sites (including the Zoo Station) along the northerly alignment, as described above under Alternative 3. For ease of reference, the Covington site is described again below.

The Covington Riverfront Station area is classified according to the *Guidelines for Station Neighborhood Development* as an "urban mixed use neighborhood." Desirable land uses include offices, manufacturing, research and development, along with low- and mid-density housing and some retail business. The proposed site (Option "A") is located above grade in a redeveloping area dominated by large parking lots, small auto-oriented commercial uses and the large IRS regional office and processing center. This area would be well suited to transit-supportive development that combines mid-density housing and office uses. Existing zoning permits a range of industrial uses west of Johnson Street and professional office park use east of Johnson; areas west of the bridge are zoned for highway-oriented commercial uses. Therefore, zoning changes would be needed to permit mixed use, including any residential uses, in these areas, and to encourage a more pedestrian-oriented development pattern.

Conclusion: Differences among Alternatives

In terms of impacts on land use and the potential for transit-supportive station area development, the two proposed Covington Riverfront station sites, located only a block apart, are essentially identical in terms of their potential for station area development. Both have substantial land available for redevelopment, and both are close to important employment and tourist centers.

Therefore, the major differences in impacts are found between Alternatives 1 and 2 (MLK) and Alternatives 3 and 4 (Zoo). Alternatives 1 and 2 do not provide direct or convenient access to major medical institutions such as University Hospital, Children's Hospital and Holmes Hospital, and provide no access to the Cincinnati Zoo. However, they do provide access to medical and other institutions along MLK (such as the Vontz Center) and to residential neighborhoods south of MLK. More land is generally available within these neighborhoods and at Reading Road for transit-supportive development.

Alternatives 3 and 4 are more effective in providing direct and convenient access to major institutions and attractions such as the Cincinnati Zoo, University Hospital and Children's Hospital. However, because surrounding areas are largely built-out or because land for redevelopment is largely unavailable, these station areas have less potential for transit-supportive development. In addition, more existing land uses would be removed or displaced under these alternatives (see Economic Impacts).

3.2.3 POTENTIAL MITIGATION MEASURES RELATED TO LAND USE

Mitigation measures are generally related to potential adverse impacts on existing land uses. Instances where properties at proposed station sites or within the proposed alignment would be acquired are addressed in this document under Section 3.4 - Displacements and Partial Property Acquisition. Thus, most of the potential land use impacts addressed in this section are positive in nature, either involving improved accessibility to community facilities and employment centers or potential transit-supportive development that would contribute to community cohesiveness and revitalization.

In cases where transit-supportive development is prevented or made more difficult by existing zoning, mitigation could include station area planning and zoning assistance by OKI or other project partners. A relatively simple transit-oriented overlay district would be sufficient to allow many small communities (i.e., Norwood, Silverton, and Deer Park) to promote an appropriate mix of offices, retail and housing in their proposed station areas.

3.3 NEIGHBORHOODS, COMMUNITY FACILITIES, AND COMMUNITY COHESION

3.3.1 NEIGHBORHOOD HISTORY AND CHARACTERISTICS

Community facilities contribute to the social fabric of each community. These facilities are visited both by necessity and choice and provide essential public services. The way in which these facilities are used and accessed can impact the well-being of the communities.

For purposes of this analysis, the following facilities were inventoried and evaluated:

- Government buildings (federal, state and local government buildings including city halls, libraries, fire stations, police stations, post offices, etc.)
- Schools, public and private
- Places of worship

- Day care centers
- Hospitals, nursing homes, other medical facilities
- Senior housing and assisted living facilities
- Nonprofit activity centers (e.g., YMCA, Girl Scout camps, American Legions, missions, shelters, etc.)
- Parks and recreation facilities
- Concentrations of employment or commercial centers

For this analysis, it was assumed that the following types of activities or actions have the potential to impact community facilities:

- Physical changes that affect access
- Changes in connectivity and circulation patterns, including pedestrian and bicycle access, traffic levels and traffic pattern changes that affect access
- Displacements which would have an impact on community character and cohesion
- Redevelopment or new development that would provide new services or amenities to the community
- Improved mobility or access to transit services provided to the community
- Noise and vibration levels

Figures 3.3-1a through 3.3-1c show the location of each neighborhood or community described below.

Figures 3.3-2a through 3.3-2c indicate the location of the major community facilities relative to the alignment of the proposed I-71 Corridor LRT. Some of these facilities are also noted on Figures 3.2-2a through 3.2-2u, I-71 Corridor Study Area Major Land Uses and Facilities.

3.3.1.1 Covington Segment

The City of Covington, population 43,000, is the oldest and largest city in Kenton County and the Northern Kentucky region. The city's earliest settlements date from the 1790s and it reached its peak population in the 1960s. Developments generally spread from the Ohio River southward. Covington gradually grew throughout the 19th century and experienced its highest rate of growth at the beginning of the 20th century as the construction of the Roebling Suspension bridge and the completion of the Kentucky Central Railroad and later the C&O and L&N railroad increased the accessibility of the city and led to extensive industrial and commercial growth. The city has experienced a gradual decline in population over the past 40 years. During the past twenty years the city has embarked on a program to promote its riverfront for office, retail, and tourism.

Located south across the Ohio River from Cincinnati, Covington is a riverfront city with historic architecture and charm and a growing business district anchored by successful redevelopment projects. The proposed I-71 Corridor LRT alignment would start in the north-central part of Covington and proceed north toward the Ohio River crossing and downtown Cincinnati.

Major hotels on the riverfront serve Covington and visitors to Cincinnati attractions. The Internal Revenue Service is a major employer in the CBD along with government offices.

The CSX Railroad and related industries that divide Covington mark the western boundary of downtown, with the historic Mainstrasse Village to the west. The railroad is slightly below grade near 12th Street and rises on an embankment to Fifth Street and then continues north to cross the Ohio River.

Madison Avenue and Scott Boulevard, primarily north-south thoroughfares, are lined with historic commercial structures. Pike Street is an important diagonal route from the southwest lined by handsome three-story brick and stone buildings. Fourth and Fifth Streets are primarily east-west arterials linking I-71/75 to downtown Covington and Newport. Downtown Covington's rectangular shape is defined by I-71/75 to the west, the Licking River to the east, and the Ohio River to the north.

Community Facilities - Notable landmarks and community facilities include the historic Mainstrasse Village, Goebels Park, Mother of God Church, the U.S. Courthouse, Linden Grove Cemetery, Cathedral Basilica of the Assumption, Covington Latin High School, Carnegie Arts Center, Kenton County Public Library, Carlisle Elementary School, City Hall, Northern Kentucky Convention Center, River Center, and the Internal Revenue Service (IRS) Regional Service Center.

3.3.1.2 Ohio River Crossing, Cincinnati Riverfront, and Downtown Cincinnati Segments

Seven major bridges over the Ohio River connect downtown Cincinnati to northern Kentucky, including the historic Roebling Suspension Bridge. The proposed I-71 Corridor LRT would cross the river on a new LRT bridge immediately east (upstream) of the Clay Wade Bailey Bridge.

The Cincinnati Riverfront is the oldest center of settlement and development in the region and is in the midst of a massive reconstruction program, including new football and baseball stadiums and a new park. I-71/US 50, known locally as Fort Washington Way, was substantially reconstructed during the last five years. The alignment of the interstate was straightened and narrowed with downtown access ramps relocated to the eastern and western ends of the riverfront. The depressed highway had been a barrier between the CBD north of Third Street and the riverfront to the south since its completion in 1963. The new alignment reclaimed urban land for redevelopment and provides a friendlier pedestrian environment. The proposed I-71 Corridor LRT would operate as a split one-way pair along the outer edge of Second and Third Streets and could be crossed by pedestrians at any point.

Downtown Cincinnati is a vibrant CBD consisting of high-rise office buildings and historic commercial structures. The residential population of downtown Cincinnati is approximately 3,000. Fountain Square is the heart of downtown surrounded by shops and restaurants. I-71 turns to the north, defining the eastern edge of downtown, while I-75 is located on the west side of downtown. Large surface parking lots are located on the east and west sides of downtown near the many freeway and surface street interchanges. The proposed I-71 Corridor LRT would operate as a split one-way pair at grade on Walnut and Main Streets, serving its major retail, office, and government centers.

Community Facilities - Downtown Cincinnati's landmarks and community facilities include Paul Brown Stadium, Cincinnati Convention Center, Fountain Square, the Aronoff Center for the Arts, the U.S. Courthouse, Taft Theater, Cincinnati-Hamilton County Public Library, Procter & Gamble Headquarters, Hamilton County Courthouse, Contemporary Arts Center, Great American Ballpark and the National Underground Railroad Freedom Center (under construction).

3.3.1.3 Over-the-Rhine Segment

.
Over-the-Rhine was largely developed in the latter half of the 19th century. The neighborhood was primarily residential and was once one of the most densely populated urban areas in the United States with a population over 100,000. As improvements to the city's transit system were developed as the 19th century came to a close, the neighborhood began to lose residents as the surrounding hilltops were developed with new housing. The neighborhood declined throughout the 20th century and is now ranked as one of the city's poorest neighborhoods.

The area's wealth of four- and five-story brick Italianate buildings has made it the largest historic district in the nation. Recent renovations have brought investment to the Main Street entertainment district in the form of restaurants and nightclubs, shops, "dot com" companies and upper-story residential units. However, the majority of the 7,600 residents (of whom 75 percent are African American) live near and below poverty level. Pendleton is a sub-district in the Over-the-Rhine neighborhood north of Liberty and east of Sycamore Street known for its many art galleries, studios, and houses with views of downtown.

Significant public and private investment in the Over-the-Rhine neighborhood has had major impacts. Utility pole consolidation and burying utility wires underground has improved the visual appearance of the Main Street Corridor. The Merchants on Main have banned together to bring entertainment and dining to this district, making it a "night life" destination. The Over-the-Rhine Comprehensive Plan outlines specific goals and strategies to further enhance Over-the-Rhine. Several low interest loan programs exist to encourage redevelopment in the Over-the-Rhine area.

Liberty Street is the primary east-west arterial roadway in Over-the-Rhine. Central Parkway is a landscaped boulevard running north-south on the west side, then turning east between 10th and 12th Streets. Washington Park is the largest open space in the neighborhood.

The proposed I-71 Corridor LRT alignment would run through the heart of this neighborhood on Main and Walnut Streets in the same manner as in the downtown.

Community Facilities - Notable landmarks and community facilities include Findlay Market, the School for the Creative and Performing Arts, Washington Park, the Over-the-Rhine Community Center, Rothenburg Elementary School, Music Hall, Memorial Hall, Emery Theater, Uptown Arts Center, Old St. Mary's Church, and Pendelton Art Center.

3.3.1.4 Mount Auburn Tunnel Segment

The construction of the Main Street incline and later cable and street cars in the 1880s allowed residents in the basin of Cincinnati to easily access the newly developed homes on the hilltop overlooking downtown. This neighborhood was one of Cincinnati's first suburbs, allowing for commuting into the CBD while removed from the crowded conditions below. Mt. Auburn is generally centered along Auburn Avenue; side streets slope down from this spine.

The Mount Auburn neighborhood rises above the downtown river valley. Hilltop views made Mount Auburn the historic home of Cincinnati's elite. These remain its key features today. The neighborhood has many historic mansions, streets lined with Victorian era houses, and condominiums. Home to approximately 6,500 residents, portions of the neighborhood are being renovated for single/multi-family and commercial uses.

Parks, a key feature of the area, are distributed around the slopes of the hill. Christ Hospital occupies a central location at the summit of the Mount Auburn neighborhood and is the area's main employer.

The proposed I-71 Corridor LRT would enter the southern tunnel portal north of Liberty Street. Primary access to the Mt. Auburn Tunnel Station would be located on the east side of Auburn Avenue between Earnshaw and Gilman Avenue. The LRT would emerge from the tunnel on Jefferson Avenue between Corry and Charlton Streets.

Community Facilities - Notable landmarks and community facilities include Christ Hospital, the William H. Taft Historic Site, Taft Elementary School, Jackson Hill Park, Inwood Park, and several churches.

3.3.1.5 Uptown Segment

The University of Cincinnati campus is divided into a west academic campus, where the majority of student services are located, and an eastern campus that includes UC's medical school and medical complex. The west campus is a ¼-mile square bounded by Calhoun Street, Clifton Avenue, Jefferson Avenue, and MLK Drive.

The University of Cincinnati has an enrollment of approximately 33,000, of which roughly one-third are part-time. Many of the full- and part-time students live in the surrounding neighborhoods and in dormitories on campus. Students, faculty, and staff add to the market for commercial districts in Clifton Heights, University Heights, and Fairview neighborhoods (known as CUF), along Vine Street in Corryville, and along Ludlow Avenue in the Clifton Heights neighborhood.

The concentration of medical facilities north of MLK Drive produces a dense land use pattern. University Hospital is adjacent to the Veterans Administration Hospital, Children's Hospital, Shriner's Burn Institute, Health Alliance Business Center, and Holmes Hospital. Other facilities include Kingsgate Conference Center and other university buildings.

University Neighborhoods - The City of Cincinnati collectively refers to the Clifton Heights, University Heights and Fairview neighborhoods as the CUF neighborhood. All are located to the south and west of the University of Cincinnati campus. The Corryville neighborhood is located directly east of the campus across Jefferson Avenue and south of MLK Drive. Avondale is located to the east of Vine Street and north of MLK Drive.

Community Facilities – Major landmarks and community facilities include the many buildings and facilities of the University of Cincinnati campus and medical complex, as well as the Corryville Community Center on Eden Avenue, the Krueck Community Center on McMillan Avenue, the University Plaza Shopping Center, Burnet Woods Park, Inwood Park, and the Hauck Botanic Gardens. Schools in the area include Hughes High School at McMillan and Clifton Avenues and Merry Middle School at Highland Avenue and Oak Street.

3.3.1.6 Avondale to Norwood Segment

To the north and east of the University of Cincinnati medical complex is the Avondale neighborhood. With 16,300 residents, Avondale is the largest of Cincinnati's neighborhoods in the Corridor. Traditional and new housing styles are found along tree-lined streets, mainly as single or duplex units. Avondale is recognized as the home of the Cincinnati Zoo, which is directly north of Erkenbrecher Avenue and the Uptown medical complex. The proposed site of the I-71 LRT yard and shop facility would be located in Avondale adjacent to I-71 between Fredonia Avenue and Victory Parkway.

Major transportation corridors running northeast shape the community boundaries and land use in the area. Reading Road is a mix of commercial and residential uses and vacant land. I-71 and Victory Parkway separate Avondale from the Walnut Hills and Evanston neighborhoods. The railroad right-of-way parallels I-71 in this area.

Northeast of Avondale is the neighborhood of Evanston, home to approximately 8,000 residents.

Xavier University has approximately 6,500 students. Wooded vegetation and industrial land uses surround the railroad right-of-way in this area.

The proposed Xavier/Evanston Station would be located directly across the tracks from Xavier University and its new student residential complex "The Commons". This station is envisioned as a potential transfer point for future LRT alignments utilizing Norfolk Southern rights-of-way that converge at the site.

The proposed I-71 Corridor LRT alignment would run east of the Avondale neighborhood and west of the Evanston neighborhood in the Blue Ash line right-of-way.

Community Facilities - Notable landmarks and community facilities in Avondale include the Cincinnati Zoo, Hauck Botanic Gardens, Woodward Park, Losantiville Triangle, many places of worship, University Hospital, Children's Hospital and the VA Hospital. Landmarks and community facilities in Evanston include Xavier University, St. Marks School and Calvary Cemetery.

City of Norwood

The proposed I-71 Corridor LRT alignment would continue diagonally through the middle of Norwood in the SORTA owned Blue Ash line with the station located south of Smith Road adjacent to the Surrey Square Shopping Center.

The City of Norwood is a community of 22,000 residents within an area of three square miles, completely surrounded by the City of Cincinnati. The Central Parke business district is a recent redevelopment success on a former General Motors factory site. Central location and good railroad and highway access sustain a strong industrial base in Norwood. Stable neighborhoods provide housing in a variety of styles for area employees.

SR 562 (Norwood Lateral Expressway) connects I-71 and I-75, while Montgomery Avenue serves as the main north-south arterial. Remnants of the Conrail right-of-way can still be found, but portions of the right-of-way have been purchased and developed over the last 20 years.

Community Facilities - Notable landmarks and community facilities include Norwood Plaza, Surrey Square, Rookwood Pavilion, Rookwood Commons Shopping Center, Central Parke Business District, Norwood Senior and Junior High Schooland Immaculate Conception Church. Waterworks Park near the city center provides a variety of recreational facilities.

3.3.1.7 Norwood to Blue Ash Segment

The City of Cincinnati nearly encloses a section of Columbia Township, and the neighborhoods of Pleasant Ridge and Kennedy Heights are located north of Columbia Township.

Pleasant Ridge dates from the 1790s, getting its start as a satellite community and growing in the latter half of the 19th century with the opening of rail access. Kennedy Heights was annexed into the city in 1914 as a predominately residential neighborhood with hilltop views. Both neighborhoods are largely residential, but Pleasant Ridge also has a business district concentrated along Montgomery Road.

The proposed I-71 Corridor LRT alignment would run in the SORTA owned Blue Ash line right-of-way through this segment.

Community Facilities - Community facilities include Pleasant Ridge Park and Kennedy Heights Park, which abut the existing railroad right-of-way about ½- to 1-mile east of Ridge Avenue, and the NIOSH office adjacent to the proposed station site, as well as Lang Playfield and several places of worship.

Columbia Township

A portion of Columbia Township extends in a narrow east-west corridor south of the Pleasant Ridge and Kennedy Heights neighborhoods. The proposed I-71 Corridor LRT alignment would run in the existing SORTA owned Blue Ash line right-of-way and abut the western edge of Columbia Township. The proposed Ridge Station adjoins the commercial district at Ridge Avenue.

The western portion of Columbia Township, between the Cincinnati border and I-71 interchange with Ridge Avenue, is a large conglomeration of "big box" retail outlets, convenience food restaurants, and automobile service centers.

Ridge Avenue is the main arterial to the north or south in the area. Montgomery Road is a main route to the southwest and northeast. The Blue Ash line and CSX line converge on the border of Pleasant Ridge and Norwood. The Blue Ash line extends northeast through Pleasant Ridge and Kennedy Heights and is the proposed LRT alignment.

Community Facilities - Community facilities include the Highland Ridge Plaza shopping center.

City of Silverton

The City of Silverton is a community of approximately 5,000 residents. The city is predominately residential, but auto-oriented commercial development is located along Montgomery Road just north of the proposed Silverton Station.

The proposed I-71 Corridor LRT alignment would run in the SORTA-owned existing railroad right-of-way through the City of Silverton.

Community Facilities - Community facilities include an existing Metro Park & ride lot, the Old Silverton Railroad Station and park, Silverton City Hall, a post office, Silverton Field Park, and Silverton Elementary School. Facilities west of the line include a church along Montgomery Road immediately north of the proposed station and the St. Therese Home of the Aged.

City of Deer Park

The City of Deer Park includes the proposed Galbraith Road Station just north of Galbraith Road. This community of approximately 6,000 residents is primarily residential but includes small commercial buildings along Galbraith Road and Blue Ash Road. The proposed I-71 Corridor LRT alignment would

occupy the existing Blue Ash line right-of-way and the proposed station would be located near its northern border.

Community Facilities - Community facilities near the proposed Galbraith Road Station include the Amity Elementary School, Deer Park Baptist Elementary School, St. John's School, Howard Elementary School, Chamberlin Park, and Deer Park City Hall.

Sycamore Township

Sycamore Township, composed of 20,0000 residents, is separated into two locations, one of which the proposed I-71 Corridor LRT alignment would pass through before entering the City of Blue Ash. (The other segment is to the north near the interchange of I-71 and I-275.) There would not be a station in this community. The proposed alignment would run in the SORTA-owned railroad right-of-way through this segment.

Community Facilities - Jewish Hospital and Kenwood Towne Centre are located ½-mile from the station site at Galbraith Road.

3.3.1.8 City of Blue Ash Segment

Blue Ash was incorporated in 1962 and the vast majority of growth has occurred during the last 20 years. This community is the largest suburban employment center in the region. The population enjoys one of the highest per capita incomes in the region as well. While original commercial development was centered on warehouse and light industrial facilities, much of the growth in recent years has been professional offices and supporting retail uses. Blue Ash is also home to the Blue Ash Airport which lies southwest of the intersection of Glendale Milford Road and Reed Hartman Highway. The general aviation airport is owned by the City of Cincinnati.

Blue Ash is a growing municipality with 12,000 residents and a daytime population of over 70,000. There are four I-71 Corridor LRT stations proposed within Blue Ash. The proposed I-71 Corridor LRT alignment would continue to run in the existing SORTA owned Blue Ash line right-of-way until just north of Pfeiffer Road, where it would split from the corridor and run across private property to Reed Hartman Highway.

The proposed Cooper Station would be located just west of the major retail center of Blue Ash. The area has emerged as the city's downtown as a result of recent private investments, streetscape improvements, and a nearby park. The I-71 Corridor LRT alignment would run through the center of this city and serve residential, retail, and employment centers.

Community Facilities - Community facilities include the Blue Ash Towne Square and Veterans Memorial Park (¼-mile east of the station along Cooper Road), the Sycamore Branch Post Office and the Crossings Shopping Center (immediately east of the station). The Blue Ash Municipal and Recreation Center is located ¾-mile to the northwest of the station along Cooper Road. North of Cooper Road from the Blue Ash City Hall are the Bethesda Care Center and Hospice of Cincinnati.

The proposed Pfeiffer Station would be between the Lakeforest Drive, to the west and Highland Grove park, to the east and Kenwood Drive.

Community Facilities - Community facilities within ½-mile of the station site include several corporate office parks, Highland Grove Park and Pfeiffer Woods Park and St. Ursuline Academy.

The proposed Reed Hartman and Cornell Park Stations would be located in the midst of a major office and industrial section.

Community Facilities - Aside from commercial office developments, there are no community facilities in the area of the proposed Reed Hartman Station. East of the proposed Cornell Park Station is the Blue Ash Sports Center, a large complex of playing fields.

3.3.2 IMPACTS RELATED TO NEIGHBORHOODS

3.3.2.1 No-Build Alternative

Under the No-Build Alternative, no improvements to public transportation are planned to occur within the corridor. The projects currently programmed in the regional Transportation Improvement Program for fiscal years 1998 – 2001 are all currently under construction, and these would be completed.

The level of traffic increase expected over the next 20 years will adversely affect the cohesion and quality of life in existing neighborhoods, especially in the urban neighborhoods of Covington and Cincinnati and the inner suburban communities of Norwood, Silverton and Deer Park, since these are likely to be traversed by increasing volumes of commuter traffic. Positive impacts offered by the LRT Alternatives, such as improved mobility, affordable transportation, improved bicycle and pedestrian facilities/connections, and potential development or redevelopment opportunities in the proposed station areas would not be realized.

3.3.2.2 Transportation Systems Management (TSM) Alternative

The TSM Alternative would include expansion of the current bus systems and a variety of other low-cost capital improvements to the existing transportation system, such as carpooling and telecommuting programs, ITS, and traffic engineering improvements. Expansion of the current bus system would have a generally positive impact on existing neighborhoods and community facilities by improving access and mobility for residents. However, it may be that increases in bus service will produce minor negative impacts in terms of increased noise and vibration along those bus routes. Until the specific nature and location of these improvements are defined, their impacts cannot be assessed in any greater detail.

3.3.2.3 LRT Alternatives

Station Area Impacts for All Alternatives

In general, the LRT alternative would provide enhanced access to community facilities within the station areas (defined for this analysis as areas within a ½-mile radius of the proposed stations), although there is certainly less convenience in areas beyond ¼ mile, or roughly a five-minute walk. Benefits would extend to employees at major employment centers and health care facilities, employees and visitors to government offices, students and faculty at schools, colleges and universities, and visitors to numerous attractions. Each alignment provides a different degree of access to the same cluster of community facilities. Table 3.3.1 lists the major facilities that would potentially benefit from this improved access, and the potential impacts to neighborhood cohesion or character within the station areas.

Potential negative impacts on community facilities fall into several categories:

- noise and vibration
- changes in circulation patterns that disrupt existing vehicular or pedestrian access
- partial or total removal of facilities

Impacts to parklands are specifically assessed in Section 3.7, Parklands. Impacts to land, structures and community facilities that would be acquired for the proposed LRT are discussed in Section 3.4, Displacements and Partial Property Acquisition, but are also noted in Table 3.3.2. Noise and vibration impacts are assessed in Section 4.4.

Table 3.3.1: Impacts of LRT Station Development on Community Facilities and Neighborhood Cohesion

Station Location	Neighborhood or Community	Impacts: Improved Access to Community Facilities	Impacts on Neighborhood Cohesion	Potential Mitigation
12th Street	City of Covington	Covington Latin High School, several elementary schools and child care centers, a senior citizen high rise, the Cathedral Basilica of the Assumption, and several other places of worship and related social services.	Minimal impacts to circulation since alignment follows existing rail right-of-way. Removal of 11 mainly industrial/warehouse buildings; 11 residences in 7 buildings.	Redevelopment could replace lost housing with new buildings sensitive to historic context.
Pike Street	City of Covington	Covington City Hall, Kenton County Public Library, Carnegie Arts Center, Northern Kentucky Community Center, U.S. Court House, Mother of God Church and other churches, Covington Community Center, and several elementary schools.	Removal of 5 buildings (commercial, warehouse and residential).	Redevelopment with buildings of similar scale and character could eventually strengthen mixed use area.
Riverfront "A"	City of Covington	Northern Kentucky Convention Center, TANK Transit Center, Kenton County Courthouse, IRS Service Center, and other riverfront office buildings and hotels.	Creates an additional visual barrier in an area already affected by elevated rail right-of-way and bridge approach. Removal of 1 commercial building will have little impact as area redevelops.	Incorporation of station into planned Riverfront West redevelopment.
Riverfront "B"	City of Covington	Mainstrasse Village historic retail/residential district, several elementary schools, U.S. Courthouse, IRS Service Center, Covington City Hall, several churches, and riverfront office buildings and hotels.	The at-grade alternative creates less of a visual barrier in an area already affected by elevated rail right-of-way and bridge approach. Removal of 4 small commercial buildings will have relatively little impact as area redevelops.	
The Banks	Cincinnati Riverfront	The Banks redevelopment area, including Paul Brown Stadium, the Great American Ballpark and the National Underground Rail Road Freedom Center.	Will improve visual and physical access to redeveloping area. On-going redevelopment activities will gradually increase visual and physical linkages between downtown CBD and riverfront.	

Station Location	Neighborhood or Community	Impacts: Improved Access to Community Facilities	Impacts on Neighborhood Cohesion	Potential Mitigation
Government Square	Downtown	Wide range of offices and government buildings and arts facilities, including Federal Courthouse, Federal Reserve Bank, Aronoff Center for the Arts, Taft Theater, Convention Center	Paired on-street route creates an additional visual element in a highly developed area. Tracks at grade are not a barrier to pedestrian circulation, but will impact on-street parking.	
Court Street	Downtown	Wide range of offices and government buildings and facilities, including Hamilton County Courthouse and offices, Hamilton County Public Library, City Hall, etc.	Creates an additional visual element in a highly developed area. Tracks at grade are not a barrier to pedestrian circulation, but will impact on-street parking.	
Over-the-Rhine	OTR	School for the Creative and Performing Arts, Washington and Filson Parks, Rothenburg Elementary School, Uptown Arts Center, and concentration of incubator businesses and redeveloped housing in OTR.	Route between buildings changes circulation patterns, opens up block interiors for potential redevelopment. Removal of 5 commercial/office buildings and 1 multi-family building (12 units).	Redevelopment may replace lost uses and residential units
Mount Auburn	Mount Auburn	Christ Hospital, William H. Taft Historic Site, several elementary schools, churches and parks.	Removal of 1 mixed-use building; minimal impact on neighborhood cohesion	
Uptown	Uptown, Clifton Heights, CUF, Corryville	UC campus and its sports/entertainment facilities (Shoemaker Center, Nippert Stadium, Corbett Arts Center), and the commercial district.	Station location improves pedestrian access across Jefferson Avenue.	
Zoo	Clifton Heights, Avondale, Corryville	Cincinnati Zoo, VA Hospital, EPA offices and other facilities in northwest part of Medical Campus.	Removal of 9 residential units in 5 buildings; lessens the cohesion of small residential enclave along Vine and Erkenbrecher (already impacted by proximity of large institutions).	Landscaping and station design could mitigate visual impacts
Medical Center (A)	Avondale, Corryville	Medical campus facilities, including Children's Hospital, University Hospital, Shriners Hospital –Burn Institute, etc.	Loss of open space (plaza), medical (MRI) building, parking facilities	Landscaping and station design could mitigate visual impacts.

Station Location	Neighborhood or Community	Impacts: Improved Access to Community Facilities	Impacts on Neighborhood Cohesion	Potential Mitigation
Medical Center (B)	Avondale, Corryville	Medical campus facilities, including University Hospital, Medical Arts Building, Vontz Center, and residential Corryville neighborhood south of MLK Drive, schools, parks and places of worship.	Negative impact on views of buildings along MLK Drive.	Landscaping and station design could mitigate visual impacts.
Avondale (A)	Avondale	East side of medical campus, including Health Alliance Business Center; Temple Bible College, residential and commercial area along Reading Road	Removal of at least 6 residential units; negative impact on small residential enclave along Hickman Avenue (already impacted by proximity of large institutions)	Redevelopment may restore housing units and increase viability of commercial area.
Avondale (B)	Avondale	East side of medical campus, including Health Alliance Business Center, State Hospital; commercial node at Reading Road and MLK Drive; Hauck Botanic Gardens and Merry Middle School		
Xavier/ Evanston	Evanston, City of Norwood	Xavier University campus, Xavier Commons (new residential complex), Cintas Center, A. B. Cohen Center, etc. Neighborhood facilities in Evanston and Norwood include community center, St. Marks School, Victory Park and ball fields, Norwood Plaza shopping center, several places of worship, etc.	Removal of 1 warehouse building should have negligible impact on neighborhood cohesion.	
Norwood	City of Norwood,	Downtown civic buildings, including post office, Norwood City Hall, library, several elementary schools, high school, several shopping centers and office complexes.	Removal of a portion of shopping center and former Contractor's Warehouse building.	Facilities may be replaced through redevelopment. Landscaping and station design could add visual interest and amenities to area currently dominated by surface parking.

Station Location	Neighborhood or Community	Impacts: Improved Access to Community Facilities	Impacts on Neighborhood Cohesion	Potential Mitigation
Ridge	Pleasant Ridge, Kennedy Heights (Cinci.); Columbia Township	Pleasant Ridge Park, Woodford Park, Nativity School. Also provides transportation alternatives to large auto-oriented commercial area in Columbia Township.	Removal of a government office building and small commercial buildings	Landscaping and station design could add visual interest and amenities to area currently dominated by surface parking. Functional replacement of government facility.
Silverton	City of Silverton, Kennedy Heights, small areas of Columbia Township, City of Deer Park, Amberley Village	Silverton CBD and civic buildings, including City Hall, post office, historic railroad station and park, retail businesses, several elementary schools, a nursing home, several places of worship	Removal of Silverton Center (strip shopping center) and 34 residential units (5 buildings) has potential impacts on transitional area at edge of CBD.	Redevelopment proposed to add commercial/office uses; design may improve appearance and pedestrian character of Montgomery Road streetscape. Landscaping and station design could enhance appearance of CBD.
Galbraith	City of Deer Park, Sycamore Township	Several elementary schools, Deer Park High School, Chamberlin Park, numerous small retail and industrial establishments.	Removal of 15 buildings and 1 residential unit.	Station design and landscaping could add visual interest and amenities to area currently characterized by poorly integrated industrial, commercial, residential uses and visual clutter.
Cooper	City of Blue Ash	Blue Ash CBD includes mix of retail, offices, multi-family and civic uses, including Town Square Park, post office, senior housing. YMCA,City Recreation Center, and several middle schools on periphery.		

Station Location	Neighborhood or Community	Impacts: Improved Access to Community Facilities	Impacts on Neighborhood Cohesion	Potential Mitigation
Pfeiffer	City of Blue Ash	Emerging retail and office area, includes Highland Grove and Pfeiffer Woods Parks, City garage and fire station, Ursuline Academy, Blue Ash Airport.	Removal of 2 industrial – warehouse and commercial buildings; negligible impact on community cohesion since area is still developing. Potential visual impact on residential neighborhood east of Kenwood Road, warehouses have been removed for park.	Integration of station design into New Highland Grove Park (railroad theme) will help to link it to residential neighborhood, will add visual interest and amenities to developing suburban area.
Reed-Hartman	City of Blue Ash,	Emerging office park and employment center; no community facilities in station area.	Removal of 1 industrial building; negligible impact on community cohesion since area is still developing.	Potential improvements to pedestrian connectivity between uses on either side of highway.
Cornell Park	City of Blue Ash, portions of Sharonville and Sycamore Township	Existing office and industrial park, scattered commercial and lodging facilities, Girl Scouts headquarters, Blue Ash Sports Center. Mobile home park and multi-family complex in Sharonville/Sycamore Township. Potential improvements to pedestrian connectivity.	Removal of 5 office and industrial buildings; negligible impact on community cohesion since area is still developing	Station design and landscaping could add visual interest and amenities to developing suburban area.

There are only minor differences among the alternatives in terms of their impact on community facilities and neighborhood cohesion. Alternatives 1 and 2 (the alignment along the south edge of the Medical Campus) serve the Corryville residential neighborhood south of MLK Drive, while Alternatives 3 and 4 (the alignment that includes the Zoo Station) would serve both the Zoo and the center of the Medical Campus.

The proposed Zoo station would displace a number of residential units along Vine Street, thereby lessening the cohesion of that small residential enclave (already surrounded by large institutional uses). This alignment through the Medical Campus also removes additional buildings and dwelling units at the proposed Avondale (A) station site.

The impacts of right-of-way acquisition through the Uptown segment would be greater under Alternatives 1 and 2 – a total of 97 dwelling units would be removed (most of them in one multi-family building along MLK Drive) compared to 23 under Alternatives 3 and 4.

Right-of-Way Impacts for All Alternatives

The proposed LRT would run through or directly adjacent to the following neighborhoods and communities:

- City of Covington : East Lewisburg, Seminary Square, downtown, MutterGottes and Westside/MainStrasse
- Cincinnati: Riverfront, Downtown, Over-the-Rhine, Mount Auburn, Corryville, Clifton Heights/University Heights/Fairview (CUF), Avondale, Evanston, Pleasant Ridge and Kennedy Heights neighborhoods
- City of Norwood
- Columbia Township
- Sycamore Township
- City of Silverton
- City of Deer Park
- City of Blue Ash

Impacts may include street and sidewalk closings, partial loss of front yards or other yard areas, and removal of buildings. Table 3.3.2 lists these impacts by segment.

Table 3.3.2: Impacts of LRT Trackway Construction on Neighborhood Cohesion

Segment	Neighborhood or Community	Property Removals*	Street Closings or other Changes in Circulation	Potential Mitigation
Covington	City of Covington	Several buildings removed close to Pike Street at ends of new cul-de-sac	Athey Street closed with cul-de-sac	Redevelopment could replace lost buildings.
Ohio River Crossing	Covington/ Cincinnati	none	none	
Cincinnati Riverfront	Cincinnati Riverfront	none	Changes to circulation already planned as part of The Banks redevelopment	
Downtown Cincinnati	Downtown	none	none	
Over-the-Rhine	Over-the-Rhine	none	Some loss of parking and circulation changes around station site	
Mount Auburn	Mount Auburn	Removal of community garden, playground, and several buildings for tunnel construction staging area	Closing of Peete Street and Antique Street for tunnel construction staging area	Restoration following construction
Uptown – MLK Drive Alignment (Alternatives 1 and 2)	Clifton Heights, CUF, Corryville	Partial removal of front yards along east side Jefferson Avenue due to widening. Removal of residential buildings along south side MLK Drive between Vine and Euclid. Removal of large multi-family building north of MLK Drive between Bellevue and Eden.	Closing of Ahrens Street and Euclid Avenue south of MLK Drive.	Pedestrian walkways to station could be provided.

Segment	Neighborhood or Community	Property Removals*	Street Closings or other Changes in Circulation	Potential Mitigation
Uptown – Zoo Alignment (Alternatives 3 and 4)	Clifton Heights, CUF, Corryville	Partial removal of front yards along east side Jefferson Avenue due to widening. Removal of one medical building and changes to walkways through Medical Campus	Closing of Louis Avenue east of Vine Street. Closing of Hickman Avenue for Avondale Station	Pedestrian walkways could be provided.
Avondale to Norwood	Avondale	Removal of industrial buildings for potential Yard and Shops site west of I-71 between Fredonia and Blair Removal of 4 buildings along right-of-way in Norwood	Closure of two local streets east of Reading Road. Removal of sidewalk from Blair Court to Victory Parkway Closure of Huston Avenue, Delaware, Ashland Avenues in Norwood.	Pedestrian walkways could be provided.
Norwood to Blue Ash	City of Norwood, Pleasant Ridge, Kennedy Heights; Columbia Township; City of Silverton, Amberley Village, City of Deer Park, Sycamore Township		Closure of Beech Street at Highland in Norwood. Closure of Highland Avenue south of Silverton Station Closure of three local streets west of Blue Ash Road for Galbraith Station parking area.	Pedestrian walkways could be provided.
Blue Ash	City of Blue Ash	none	none	

*Property removals within station areas are shown in Table 3.3.1.

The greatest impacts to neighborhood cohesion due to street closings and property removals would occur within the Covington, Over-the-Rhine, Uptown and the Avondale to Norwood segments (see Tables 5.3.5 through 5.3.8 in Chapter 5.0 Economic Impact Analysis). The most noticeable visual and physical impacts to neighborhood cohesion would occur in two areas:

- Within the Norwood segment, the LRT alignment would follow a former rail right-of-way that has been acquired by owners of abutting properties, and is used primarily as rear yards, parking and storage areas.
- Within the Uptown segment under Alternatives 1 and 2, where the LRT alignment extending from the Zoo through the Medical campus would remove buildings, change pedestrian circulation patterns and close several local streets.
- Within the Uptown segment under Alternatives 3 and 4, where the LRT alignment paralleling MLK Drive would result in closure of several local streets and change planned views of University buildings from that road.

3.3.3 IMPACTS RELATED TO CONSTRUCTION

Construction impacts associated with any of the four LRT Alternatives could potentially result in temporary air, noise, vibration, water quality, visual, traffic and access impacts in any of the neighborhoods located in the proposed corridor. Areas where impacts are likely to be most significant include all station sites, areas of tunnel or overpass construction, and two other sites:

- The proposed yard and shop site just west of I-71 between Fredonia and Blair Avenues. This is an existing industrial area already buffered from residential neighborhoods by existing roads and rail lines.
- The proposed tunnel staging area east of Main Street in the Mount Auburn neighborhood, where a playground and garden associated with Rothenburg Elementary School would be removed during construction, similar but somewhat reduced impacts would result at the north tunnel portal on Jefferson Street.

Any air quality impacts associated with construction activities would be temporary and would consist of increased emissions from diesel-powered construction equipment and wind-blown dust. Air pollution associated with the creation of airborne particles could be effectively controlled through the use of watering or the application of calcium chloride in accordance with best management practices.

Noise and vibration impacts could result from heavy equipment movement and construction activities such as compaction. Potential noise and vibration impacts could be controlled through the use of best management practices. Potential water quality impacts resulting from erosion and sedimentation would be controlled through the use of best management practices, including temporary vegetation, sodding, mulching, sandbagging, sediment checks, artificial coverings and berms.

Some construction equipment and materials stored for the project may be visually displeasing to local residents. This would be a temporary situation and would result in no long-lasting effects. Appropriate requirements could be incorporated into construction contracts to minimize access impacts to homes and businesses. Construction activities often result in temporary changes to local traffic patterns and access routes to nearby homes and businesses. Maintenance of traffic and the sequence of construction would be

planned and scheduled so as to minimize traffic delays and inconvenience. Access to all neighborhoods and residential areas would be maintained throughout the construction period.

3.3.4 POTENTIAL MITIGATION MEASURES (NEIGHBORHOOD COHESION)

Mitigation measures for station development are identified in Table 3.3.1; mitigation measures for trackway construction are identified in Table 3.3.2.

In general, mitigation measures include the following:

- In areas where buildings are proposed to be removed, redevelopment with buildings of similar scale and character could eventually strengthen these areas and mitigate the loss of neighborhood cohesion.
- In areas where pedestrian, bicycle or vehicular traffic would be impeded by fences or other barriers, providing alternative pedestrian or bicycle routes could ultimately restore or improve access.
- Landscaping and attractive station design could mitigate visual impacts caused by station or trackway construction.
- In areas where local streets would be closed or sidewalks removed due to trackway construction, pedestrian walkways could be provided to maintain some degree of connectivity and pedestrian access to commercial streets, community facilities and LRT station.

3.4 DISPLACEMENTS AND PARTIAL PROPERTY ACQUISITION

This section summarizes the residential and commercial displacements and land acquisition associated with the proposed alternative actions. It includes a brief section on the legal requirements for equitable treatment, a description of the methodology used to identify properties within the study area, identification of those properties, impacts as a result of an alternative and potential mitigation measures.

3.4.1 LEGAL REQUIREMENTS

Federal statutes have been enacted to establish a uniform policy for the fair and equitable treatment of persons whose homes or businesses are acquired or who suffer displacement as a result of programs designed and funded by the federal government for the benefit of the public as a whole. Some of the applicable laws that guide government actions for acquisitions, displacements, and relocations are:

- 49 CFR Part 24, The "Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970," as amended, and .
- National Environmental Policy Act (NEPA)

These laws and regulations provide for a structured process to provide just compensation for property acquisition and practical and financial assistance in helping individuals and businesses transition into a comparable situation. Private property acquisition for any actions evaluated in this report will comply with the appropriate portions of the identified laws and statutes.

For individuals whose place of residence is affected, there is a requirement that comparable replacement housing is available, that replacement housing units must be "decent safe and sanitary", and must be functionally equivalent to the number of rooms and living space, location, and general improvements.

Replacement dwellings must also meet all of the minimum housing requirements established by federal regulations and conform to occupancy codes.

Relocation benefits may also be available for businesses, farms, and non-profit organizations. Payment may be made for:

- Moving costs
- Loss of tangible personal property loss as a result of relocation or discontinuance of an operation
- Reestablishment expenses
- Costs incurred in identifying a replacement site

Businesses, farms or non-profit organizations may be eligible for fixed payments in lieu of moving and reestablishment costs.

3.4.2 METHODOLOGY AND ASSUMPTIONS

The analysis examines the amount, location, and type of property that could potentially be acquired to accommodate construction of the proposed alternatives. For this analysis, it was assumed that all construction would be accomplished within the boundaries of the acquired property and easements or existing public right-of-way. Right-of-way acquisitions for roadway improvements including in the No-Build Alternative were identified as part of that project's final design. Additional property needed to implement the TSM Alternative will predominantly be associated with proposed new transit centers. Properties needed to construct the LRT alternatives were identified based on preliminary engineering plans for the various system components. LRT station site plans and track right-of-way boundaries were used to establish the potential acquisition area.

3.4.3 PROPERTY ACQUISITION AND DISPLACEMENT IMPACTS

3.4.3.1 No-Build Alternative

This alternative utilizes the existing transportation system and includes improvements currently programmed in the regional Transportation Improvement Program (TIP) for fiscal years 1998 through 2001. Because these roadway improvement projects have been completed, it is assumed that their impacts are accounted for as part of the existing environment. Consequently, this alternative will not require acquisition of any additional private property to expand the public right-of-way and should, therefore, not significantly impact the existing tax base or result in residential or commercial business displacements.

Future highway widening projects may have impacts that will need to be analyzed in conjunction with those specific project plans.

3.4.3.2 TSM Alternative

This alternative utilizes a variety of low-capital-cost improvements to the existing transportation system designed to improve transportation conditions in the I-71 corridor and elsewhere in the region. It would include major expansion of the current bus system, transportation demand management (TDM) programs

such as carpooling and telecommuting, Intelligent Transportation Systems (ITS) (e.g., ARTIMIS), and traffic engineering improvements.

Bus service expansion for the TSM Alternative would include improved local and express service and the addition of transit centers where several bus routes converge to facilitate bus transfers. It is assumed that many of these improvements to expand the public right-of-way can be achieved without acquiring additional private property, except to accommodate the proposed transit centers.

Specific sites for the proposed transit center have not been identified at this time, making it impossible to accurately determine property acquisition requirements. It is anticipated that some of the proposed transit centers will be located at proposed LRT station sites.

3.4.3.3 Build (LRT) Alternatives

Four alternative alignments, representing slight variations on the proposed LRT route between Covington, Kentucky and Blue Ash, Ohio are being considered in this report. The alternatives and their specific variations include:

- Alternative 1 - Covington Riverfront – at grade station; no Zoo station; Medical Center B station, Avondale B station
- Alternative 2 - Covington Riverfront – above grade station; no Zoo station; Medical Center B station, Avondale B station
- Alternative 3 - Covington Riverfront – at grade station; Zoo station; Medical Center A station, Avondale A station
- Alternative 4 - Covington Riverfront – above grade station; Zoo station; Medical Center A station, Avondale A station

LRT Stations

Alternatives 1 and 2 include 20 potential stations and alternatives 3 and 4 include 21 potential stations (see Section 2, Figures 2.2-3a and 2.2-3b). All of the stations are within established or developing portions of the Cincinnati metropolitan area. As a result, in many locations, station area construction would require removing buildings and displacing businesses and residents. In some cases, particularly public and railroad properties, permanent easements may need to be obtained if the property cannot, or need not, be acquired outright. In addition, temporary easements may be needed to accommodate anticipated construction and associated staging activities. However, until the system design is further refined, traffic control and access requirements cannot be clearly defined and are included in this report only as rough estimates. Table 3.4.1 depicts the potential property acquisition and displacements associated with each of the LRT alternatives.

Table 3.4.1: Station Area Property Acquisition

Alternative	Land to be Acquired (s.f.)	Building Removal		
		Non-Residential	Residential	Dwelling Units
1	2,885,200	56	15	65
2	2,820,300	53	15	65
3	2,899,000	56	26	79
4	2,834,100	53	26	79

Source: URS, 2001

Trackway Improvements

Like the proposed LRT station areas, the proposed trackways and rail yard areas are within developed portions of the Cincinnati metropolitan area. While portions of the tracks are proposed to be located in public right-of-way or within existing rail corridors, construction will require some property acquisitions, permanent easements, removal of buildings and displacement of business and residents. Table 3.4.2 depicts the potential property acquisitions and displacements associated with the proposed trackways for each of the LRT alternatives.

Table 3.4.2: Trackway Property Acquisition

Alternative	Land to be Acquired (s.f.)	Building Removal		
		Non-Residential	Residential	Dwelling Units
1	2,779,000	30	42	140
2	2,711,000	29	42	140
3	2,731,000	28	29	73
4	2,799,000	27	29	73

Source: URS, 2001

3.4.4 MITIGATION MEASURES

Loss of private property will be minimalized where possible during the final design process. In addition, these effects will be mitigated by payment of fair compensation and providing relocation assistance as required by the statutes and regulations identified in Section 3.4.1 of this chapter.

3.5 VISUAL AND AESTHETIC CONDITIONS

This section describes the visual characteristics and aesthetic resources of the project corridor, the potential for impacts at various locations along the proposed alignment, and potential means to mitigate these impacts.

3.5.1 VISUAL ENVIRONMENT

The proposed 19 mile long I-71 Corridor LRT alignment passes through visual environments of diverse character. From south to north the character and quality of the views range from stark industrial rail corridor landscapes through older historic neighborhoods, across the Ohio River and into the densest part of downtown Cincinnati. The proposed corridor progresses north through typical first and second ring suburban neighborhoods and terminates in an area of lush suburban office park scenery. Approximately half of the proposed alignment is located within the SORTA-owned Blue Ash line. For purposes of this discussion, the proposed I-71 Corridor LRT alignment has been divided into ten segments as depicted in Figure 3.0-1.

3.5.1.1 Covington Segment

The Covington Segment begins with a station just south of 12th Street between Russell Avenue and the CSX rail line. The proposed 12th Street Station platform and parking area would run under the 12th Street

overpass adjacent to the existing railroad right-of-way. The 12th Street area is a transitional zone on the southern fringe of downtown Covington. Views adjacent to the proposed station reveal warehouses, loading docks, semi-trailer storage, and various older industrial type structures (see Figure 3.5-1a). The landscape in general is unkempt, with overgrown scrub-type vegetation. Some of the surrounding bridge structures appear in need of repair.

Within view of the corridor are various industrial buildings such as Hammonds Service Center and Allen K Packaging. The National Register Wadsworth Electric Company building can also be seen. To the west, older single- and multi-family housing is visible west of the railroad-type development. Two- and three-story buildings with businesses at street level and apartments above are visible to the east. An imposing structure of stone and stained glass, the Cathedral Basilica of the Assumption, is visible to the east. A twelve-story senior citizen high-rise (Golden Towers) also stands out above other structures.

The proposed Pike Street Station is located approximately 100 feet east of the existing railroad right-of-way between Eighth Street and Pike Street. The entire area is a historic district. Three- and four-story brick buildings, many with first floor businesses, are the predominant building types (see Figure 3.5-1a). Most of the area has a comfortable pedestrian scale with narrow streets and some brick sidewalks and intersections. A two-story brick and stone building which served as the Covington passenger train station has been remodeled into office space. The proposed Pike Street Station is directly south of this building and the tracks will pass within ten feet of the office entrance canopy. Adjacent to and east of the proposed station is a parking lot and vehicle storage area. A parking lot, some brick industrial and residential buildings and a car sales lot are visible across Washington Street. Retaining walls and abutments for the above grade CSX tracks provide a substantial visual barrier to the west. The Mother of God Church, which is listed on the National Register of Historic Places, comes into view just north of the old Covington Station.

Riverfront Station is the northernmost proposed station in Covington. It has not been determined whether it will be at-grade or elevated. The proposed at-grade station would be north of Fifth Street east of the existing railroad. The visual character of this area is a mix of old and new structures and roadways (see Figure 3.5-1a). Auto-oriented businesses are not pedestrian friendly. Buildings in the area are generally of a lower quality such as metal shed or wood frame structures. The CSX railroad bridge structure towers over several of the intersections and some of the areas under the bridge structure area used for general storage.

The proposed station is to be north of Third Street, east of the entrance ramp to the Clay Wade Bailey Bridge. Views at grade are of parking lots and warehouse buildings (see Figure 3.5-1b). The IRS building can be seen to the east. The bridge structures along with floodwalls and dikes provide near complete visual barriers to the north and west at ground level. The area directly east of the proposed station site is the proposed Riverfront West Development site. From the elevated station level, the view is of downtown Cincinnati with riverfront development in the foreground.

3.5.1.2 Ohio River Crossing Segment

Continuing north across the bridge will open up views of the Ohio River with the Clay Wade Bailey Bridge/CSX Bridge and Brent Spence Bridge to the west and the Roebling Suspension Bridge to the east. Views of Paul Brown Stadium and the future site of The Banks redevelopment project are impressive. New riverfront development in the area will be in full view.

3.5.1.3 Cincinnati Riverfront Segment

After crossing the Ohio River, the north and south bound tracks will be split until they come together again north of the Over-the-Rhine area. The Banks Stations are proposed to be on Second and Third Streets between Walnut and Vine (see Figure 3.5-1b). Reconstruction of Fort Washington Way between Second and Third Streets has provided new bridges, lighting, trees, and other streetscape elements that make the area a gateway into downtown Cincinnati. Views to the north are of multi-story office, warehouse, and parking structures. The southbound station is located across Third Street from the historically sensitive Dixie Terminal Building. Development including the Great American Ballpark and the National Underground Railroad Freedom Center are currently under construction south of Second Street and will eventually dominate the views to the south. The view from the proposed stations will be over Fort Washington Way, which is an open cut between Second and Third Streets.

3.5.1.4 Downtown Cincinnati Segment

As the corridor turns north through downtown, the northbound tracks are proposed to be street running northbound on Main Street and the southbound on Walnut Street. Multi-story buildings and narrow streets contain the view. The right-of-way through most of downtown is only 66 feet, constraining the view shed.

The Government Square Station is proposed to be located between Fifth and Sixth Streets. The northbound station will be in full view of the Federal Courthouse Building and the John Weld Peck Federal Building. Extending a full block, the Federal building imposes a complete visual barrier, making the street appear narrow (see Figure 3.5-1b). The proposed southbound station will be in view of the Federal Courthouse building and the Dubois Tower and Fifth Third Bank Buildings (see Figure 3.5-1c). The right-of-way in this block is 78 feet, constraining the view shed. A large bus shelter sits on the west side of Walnut.

Court Street is part of an historic district where the Courthouse Station is proposed (between Ninth and Court). The proposed northbound station is adjacent to an existing parking lot and three six-story buildings housing several businesses (see Figure 3.5-1c). One of these buildings, The Nathaniel Ropes Building at 917 Main, is on the National Historic Register. A 12-story modern office building and parking ramp can be seen behind the parking lot. On the east side of Main Street are two older six-story buildings. Covering one square block to the north, the Hamilton County Courthouse can also be seen. It is an imposing pillared, stone structure with a landscaped plaza facing Main Street (see Figure 3.5-1c). The proposed southbound station is adjacent to a parking lot on the east and a four-story brick building and the Cincinnati and Hamilton County Library on the west. Views at the library site are constrained by a brick walled courtyard. Other views from the station site include a mixture of modern office and parking structures and various brick multi-story buildings.

3.5.1.5 Over-the-Rhine Segment

The proposed Over-the-Rhine Station is located in the Over-the-Rhine National Register Historic District. Many of the three- and four-story buildings (particularly on Main Street) have been renovated, with shops at street level and office/housing above. Views of the area project an image of civic pride (see Figure 3.5-1d). Across Liberty Street several three- and four-story brick buildings can be seen. These buildings are of a less aesthetic quality and some are in poor condition (see Figure 3.5-1d). The southbound tracks are proposed to be in the same alignment as the northbound tracks north of Liberty Street. The proposed southbound tracks angle across the block south of Liberty Street over to Walnut Street. Views from the station will include the newly renovated Uptown Arts Center and a small parking lot. The view looking

down Clay Street will include parking and the backs of some of the Main Street and Walnut Street buildings.

3.5.1.6 Mount Auburn Tunnel Segment

Rothenberg Elementary School (a historically sensitive building) can be seen from the corridor south of the proposed tunnel portal at Schiller Street. The tracks will be in a tunnel from Schiller Street to Jefferson Avenue, so there will be no views to or from the corridor with the exception of Mount Auburn Station. Views of the station area will include vents and entry structures on the east side of Auburn Avenue between Earnshaw Avenue and Albion Place. From the proposed station, views to the west include Christ Hospital buildings and its main entrance drive (see Figure 3.5-1d). To the north a stately stone church (Mount Auburn Baptist) can be seen. Buildings along the street include brick apartments and some large brick houses. Directly east is a grassy slope with trees.

3.5.1.7 Uptown Segment

Views of the proposed Uptown Station will consist of the tracks coming up from the portal south of Charlton Street, through an open cut down the middle of Jefferson Avenue, meeting grade at Daniels Street (see Figure 3.5-1e). To the east University buildings (including multi-story housing) and University green space can be seen. East of Jefferson Avenue well-kept apartment buildings and some less attractive housing units, typical student housing, can be seen. A double row of street trees is prominent on the west boulevard of Jefferson Avenue.

North of University Avenue alternative proposed alignments are under consideration. Option A goes north adjacent to Vine Street. West of Vine Street a multi-story office building, and the Cincinnati Zoo and parking lot can be seen along with semi-mature trees in a small boulevard behind the sidewalk. Views east of Vine Street show parking lots and several residences. Power poles line the sidewalk edge. Well-kept single and multi-family residences line the south side of Erkenbrecher Avenue. Power lines and streetlights are also prominent (see Figure 3.5-1e). North of Erkenbrecher Avenue, the Cincinnati Zoo parking area can be seen through a buffer of mature trees.

Views around the proposed Option A Medical Center Station are typical of a well established, continually evolving medical campus (see Figure 3.5-1e). The area is a mix of old and new hospital and residential buildings, parking lots and parking structures, some in various stages of construction. Option B generally parallels MLK Drive to I-71, then north along SORTA owned Blue Ash line right-of-way. The proposed Option B Medical Center Station has chaotic views of parking lots, the large parking structure, a newer wood frame apartment complex (Bellevue Gardens), older housing units, and a large, contemporary Vontz Center, all tied together with roadways of all sizes (see Figure 3.5-1f). MLK Drive has been widened west of Eden Avenue, providing a landscaped median and tree-lined boulevards.

3.5.1.8 Avondale to Norwood Segment

The proposed Option A Avondale Station is located on Hickman Avenue between Harvey Avenue and Reading Road. On the edge of an older neighborhood one can see a mix of lower class residential buildings along with various small businesses (see Figure 3.5-1f). Grades rise toward the Medical Center and its buildings are visible in the background. The proposed Option B Avondale Station is located at the northwest corner of MLK Drive and Reading Road. It is a large, fairly busy signaled intersection, with parking lots on two corners and gas stations on the other two corners (see Figure 3.5-1f). Views are fairly open in all directions, encompassing the Medical Center area as well as various residential, institutional, and commercial structures.

North of Avondale the proposed I-71 Corridor LRT alignment runs on SORTA-owned Blue Ash line to the proposed Xavier/Evanston Station just north of Dana Avenue. Views are consistent with a long established rail corridor (see Figure 3.5-1g). The station is located between two large industrial buildings, next to a large overflow parking lot for Xavier University. The buildings and existing vegetation mostly obscures views of the station. Views from the station are of chain links fencing surrounding the backsides and loading areas of the industrial buildings.

In Norwood, the proposed corridor runs on the SORTA owned Blue Ash line right-of-way. The proposed Norwood Station is located on the backside of Surrey Square Shopping Center south of Smith Road (see Figure 3.5-1g). The area is an inner ring suburb with strip type shopping centers mixed with commercial business buildings and a new multi-story office building and parking structure. Views are wide-open with some landscaping at individual businesses. To the south and east a neighborhood of well-kept older two and one half story houses can be seen.

3.5.1.9 Norwood to Blue Ash Segment

The proposed I-71 Corridor LRT alignment continues north on the SORTA owned Blue Ash line right-of-way. The proposed Ridge Station is located just west of Ridge Avenue. The site slopes steeply to the south from the tracks (see Figure 3.5-1g). Existing buildings and vegetation obscure views of the site. Ridge Avenue is a busy road, with four lanes narrowing to two lanes north of the tracks. Views from the station encompass some small business buildings and housing to the north, and a K-Mart, Cintas facility, a Kentucky Fried Chicken, a public health facility, and several large parking lots to the south.

The proposed Silverton Station is located in the railroad right-of-way south of its intersection with Montgomery Road. A small park and replica rail depot is visible to the north (see Figure 3.5-1h). A new SORTA training facility occupies the northeast end of the site. A small 1960's era shopping center is visible south of the site. Small businesses line the north side of Montgomery Road. An older single family residential neighborhood with mature trees is visible south and east of the tracks.

The proposed Galbraith Road Station is located in the railroad right-of-way north of Galbraith Road. Across Blue Ash Road an existing electrical substation is the prominent view along with a suburban style gas station. The backsides of various small concrete block and brick industrial buildings are adjacent to the tracks to the west (see Figure 3.5-1h). South of the site one can see several small businesses facing the tracks on the east side of Blue Ash Road, with angled parking adjacent to the tracks on the west side of Blue Ash Road.

3.5.1.10 Blue Ash Segment

The proposed Cooper Station is located in the railroad right-of-way south of Cooper Road. Views from the site include the backside and loading area of the Crossings Shopping Center, along with head-in parking very close to the tracks to the east (see Figure 3.5-1h). West of the site is an older residential neighborhood. Large electrical power lines run along the right-of-way.

The proposed Pfeiffer Station is located in the railroad right-of-way, north of Pfeiffer Road. The area is suburban in character, with wide roadways and businesses with large setbacks and well-maintained landscaping (see Figure 3.5-1i). A large warehouse building sits directly west of the station site. East of the tracks is a residential neighborhood.

The proposed Reed Hartman Station is located in the railroad right-of-way, north of Osborne Boulevard. The area is currently undergoing construction of a suburban office park. A suburban corporate center is visible across Reed Hartman Highway (see Figure 3.5-1i).

The proposed Cornell Park Station is located south of the Procter and Gamble Sharon Woods Technical Center. The station area faces the backside of two office showroom buildings and a large parking lot for Cornell Plaza. Widely spaced office buildings with green space and landscaped parking lots characterize the Procter and Gamble campus to the north (see Figure 3.5-1i).

3.5.2 METHODOLOGY

Visual impacts are changes in the existing conditions within the visual environment, which may be brought about by construction of the various system design options. The visual environments are described in the discussion on visual and aesthetic character in the previous section. Since the changes that may result from the construction of the I-71 project are subjective, this assessment will discuss impacts as they relate to various elements of the LRT system. Elements that may have high visual impact include: substantial construction, elevated tracks/stations, park & ride lots, substantial property acquisition, and location away from an existing rail corridor. Elements that may have moderate visual impact include: minimal construction, at-grade tracks/stations, drop-off parking only, minimal property acquisition, and location adjacent to an existing rail corridor. Elements that may have low visual impact include: minimal construction, underground tracks/stations, no parking/drop-off, no property acquisition, and location on existing railroad tracks.

3.5.3 IMPACTS RELATED TO VISUAL/AESTHETIC CONDITIONS

This section describes the visual impacts related to the I-71 LRT corridor as a result of construction and proposed land use changes under the three alternatives of no-build, TSM, and build. Assessment of the impacts is made within the context of the corridor and proposed station areas using the methodology described in section 3.5.2.

3.5.3.1 No-Build Alternative

The No-Build Alternative would have no visual/aesthetic impact.

3.5.3.2 TSM Alternative

In general the roadway improvements for the TSM alternative would have low visual impact because the improvements are within existing transportation corridors. The TSM alternative might have visual impacts near some of the proposed transit hub locations. These facilities would have similar visual impacts as the corresponding LRT park & ride sites described in the following section. The hub locations have not been sufficiently identified and described to assess visual impacts at this time.

3.5.3.3 Build (LRT) Alternatives

Visual impacts resulting from the build alternatives might range from minor and hardly noticeable to fairly substantial. Impacts could be positive as well as negative. Since most of the visual impacts would be system-wide, the impacts are discussed here in the context of the LRT system components: construction, surface tracks, elevated tracks, overhead contact system (OCS), stations, and park & ride facilities.

Construction Visual Impacts

The construction activities related to the project may have only a temporary impact on the visual environment. The activities and impacts may vary depending upon the type of construction required. The most significant visual impacts may be where bridges or tunnels are required for grade separation. Construction visual impacts may include the movement of machinery, construction of temporary roads and access drives, scaffolding and cranes, and temporary construction fences and staging areas. Areas likely to have significant visual construction impacts are The Covington Riverfront Station site (in the elevated alternative) and the Mt. Auburn tunnel area, especially at the portals and the station entrance. The proposed tunnel area near the intersection of MLK Drive and Eden Avenue would also have impacts, as well as the Medical Center to Avondale section (in the Zoo alternative). Probably the most significant visual construction impact would result from the construction of a new bridge crossing the Ohio River.

Surface LRT Track Visual Impacts

Surface LRT tracks consist of rails, supports and infill material around the rails. Tracks may be either ballasted or embedded. Ballasted tracks consist of rails on ties surrounded by rock ballast and are generally used where visual character is not a significant factor. Embedded tracks consist of rails embedded in pavement and are used at street crossings and where the tracks are in a shared right-of-way with other modes of transportation. Embedded track may also be used together with decorative paving to enhance urban streetscapes or in other areas where special treatment is desired.

Surface LRT tracks within or adjacent to existing rail alignments or within tunnels may have low visual impact. Surface LRT tracks may have a moderate to high visual impact where new alignments are not within or adjacent to an existing rail corridor (except tunnel alignments). This condition occurs on Second and Third Streets, and Main and Walnut Streets in downtown Cincinnati continuing to one-half block north of Liberty Street. It also occurs in both the Zoo and "no" Zoo alternatives from the Uptown Station east to Fredonia Avenue where the LRT alignment rejoins an existing (abandoned) rail corridor. The LRT alignment stays on or adjacent to rail corridor until it diverges from the rail corridor north of the Pfeiffer Station to the end of the proposed alignment at the Cornell Park Station.

Elevated LRT Track Visual Impacts

Elevated tracks for crossing roadways, water bodies or other obstacles can be either structure or a combination of embankment and structure. The embankment may be a berm with slopes, or it may be built up using retaining walls. Where conditions require it the tracks may be built on elevated structure, which requires structural columns, beams and railings. Since the elevated portions of the LRT system may be at a height of 25 feet or more, they may be some of the most visible elements. Portions of the track which are proposed to be elevated are the Covington Riverfront Station in alternatives three and four, the proposed bridge over the Ohio River, the MLK Drive Crossing in alternatives two and four, and the crossing of the Norwood Lateral in Norwood.

Overhead Contact Wires and Supports

The OCS includes support structures and overhead wires for supplying electrical power to the vehicles. Where adjacent support structures such as buildings or light poles are not available, special support poles for the LRT system may need to be installed. These poles can be 16 feet tall or more, with brackets to support wires across the tracks.

Two types of OCS wire support systems can be used. For general applications, a two-wire system can be used where the top wire is a support wire with the power cable hung below it. This-system requires more wires and has a greater visual impact. In areas more sensitive to visual impact such as a downtown or streetscaped area, a single trolley-type wire can be used which is supported by cross-wires. The OCS system will be visible throughout the entire corridor, with the exception of the tunnel areas.

LRT Station Visual Impact

The proposed LRT stations may consist of one platform in the center of the tracks or one platform on each side of the tracks. The platforms may be 14 inches in height and from 12 to 24 feet in width. The proposed platforms are designed at approximately 200 feet in length to accommodate two-car trains, with expansion space for a three-car platform, which may become necessary in the future. Each platform may have approximately a 24-foot access ramp at one or both ends.

The station may include canopy structures that may cover approximately 25 to 50 percent of the station platform area. In addition, the station may use safety railings and/or bollards for defining the station areas and discouraging unwanted track crossings. The platform area may also include ticket vending and validating machines, map and information displays, lights and other urban design elements such as windscreens, benches and litter receptacles.

In addition to the platform and structures, the station area may also include bus bays, drop-off and pick-up areas, parking lots for park & ride use, and stormwater storage ponds. The sizes of the total station areas may vary widely depending on the demand for parking and bus space, and the availability of adjacent space.

Of all the station elements, the park-and ride lots may have the highest visual impact. Stations which are proposed to include park & ride lots are 12th Street, Xavier/Evanston, Ridge, Silverton, Galbraith, Pfeiffer, and Cornell Park.

LRT Yard and Shop Facility Visual Impact

The yard and shop facility for the proposed LRT system may accommodate storage, maintenance, and repair of the LRT vehicles and equipment. It may include rail sidings, maintenance and repair shops, storage areas, and administrative buildings. The yard and shop facility may be located south of Ridgeway Avenue, between Fredonia Avenue and Blair Court.

LRT Vehicle Visual Impact

The LRT vehicles may be approximately 8 feet wide, 10 feet high, and 90 feet long. They may be operated as single cars or in two-car trains (potentially three-car trains in the future). The visual impact of the vehicles themselves may be minimal, since they will be similar in size to other transportation vehicles in general use.

Lighting Visual Impact

All stations, bus drop-offs, and park & ride facilities will be properly lit to ensure public safety. Lighting for the park & ride areas may be tall parking lot type lighting, and may have some visual impact on adjacent property. This type of lighting might occur in the station areas listed above which have park & ride lots.

Property Acquisition Visual Impact

Property acquisition may have a moderate to high visual impact depending on the number, type, and quality of structures that are removed. The level of impact may also depend upon the type and quality of the site re-use or redevelopment. One area of high impact may be the Over-The-Rhine District, which is an area of older historic structures, many of which have been renovated. Approximately 12 commercial/residential/retail structures may be acquired in this area. Another area of high visual impact would be the alignment including the Zoo, Medical Center and Avondale Station areas (both Zoo and no Zoo alignments). In addition to the 20-30 structures that may be acquired, this area contains a number of monumental civic and health care related buildings where it may be desirable to preserve certain views. Two other areas that may have moderate to high impact include the south portal of the Mt. Auburn tunnel and the Galbraith Station area. Both of these areas may require the acquisition of existing buildings.

3.5.4 VISUAL IMPACT MITIGATION

Mitigation of visual impacts can take many forms and be achieved in a number of ways. Construction impacts might be reduced by the use of berms and temporary landscaping. More attractive types of fencing might also be used which would provide screening and may even incorporate elements of local artwork.

Careful design of the basic system components can help mitigate the visual impact of the required infrastructure throughout the corridor. These components include the OCS system, surface tracks, elevated tracks, bridges, piers, abutments, fences and retaining walls, and other facilities such as sub-stations and yard and shops areas. To minimize the visual impact of the system, trolley-type OCS wires could be used in the Downtown Cincinnati and Over-The-Rhine areas. Another mitigation technique might be the use of integrally colored concrete or other special surface treatments where tracks are embedded. These treatments could be part of an overall design theme or color scheme that would help blend the tracks into visually sensitive environments. Fencing might be more decorative in nature. Elevated structures, bridges, retaining walls, and other structural components might also incorporate a unifying design theme using common colors or materials.

Embellishment of LRT station elements is another way to reduce the visual impact and enhance the appearance of the system. Special treatments or details could consist of incorporating unique textures or patterns into concrete. Shelters and platforms could be designed to reflect local character and pride. Shelters could also be designed in a minimal way so as not to compete with or block existing buildings or views (such as in the Over-The-Rhine area or the Medical Center area). Other enhancement items to complement or highlight the infrastructure facilities can include special designs for shelter components such as ticket vending machines, trash receptacles, benches, railings, and lighting techniques and fixtures. Landscaping can also be an especially effective means for mitigating visual impacts by creating “green” edges, breaking up expanses of paving, providing screening from adjacent uses, and detention of stormwater runoff.

The environment around the LRT system can also be enhanced to mitigate visual impacts. This approach can include items such as improving the streetscapes around the stations or creating/embellishing public spaces adjacent to the stations. This could improve access to the stations and contribute to overall comfort and safety. Pedestrian connections could also be made to surrounding businesses or neighborhoods. Creating or improving public spaces could involve the construction of small parks or plazas, which could serve as waiting areas, places for relaxation, or as enhancement of the general visual environment of the LRT station area. Another mitigation method might be to redevelop underutilized areas or create new development in conjunction with the LRT station. This development could include

transit oriented and transit supportive commercial services such as daycare facilities, convenience stores, dry cleaners, coffee shops, office buildings, and higher density residential uses. There are several excellent opportunities along the corridor for redevelopment. These areas include the Pike Street and Covington Riverfront areas, the Over-The-Rhine area, the Avondale area, the Xavier/Evanston area, and the Reed Hartman area.

3.6 CULTURAL RESOURCES

3.6.1 LEGAL AND REGULATORY REQUIREMENTS

Federal legislation requires governmental agencies to consider their impacts to historic and archaeological resources before undertaking a project. Section 106 of the National Historic Preservation Act of 1966 (NHPA 1992, as amended) mandates that federal agencies, or their designees, including the recipients of federal funds or applicants for federal permits or licenses, consider the effects of their actions on historic properties. A historic property is defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for, inclusion in the National Register of Historic Places (NRHP). The Section 106 process consists of steps for (1) identifying and evaluating historic properties; (2) assessing the effects of an undertaking on historic properties; and (3) consultation for methods to avoid, minimize, or mitigate any adverse effects.

3.6.1.1 Methodology

The proposed I-71 Corridor LRT alignment is defined as the Minimum Operable Segment (MOS) extending from Covington, Kentucky to Blue Ash, Ohio, including approximately 20 station locations, 19 miles of trackage with accompanying overhead catenary system, a maintenance facility, tunnel portals and tunnel portal construction area. Consultation meetings were held with staff from the Ohio Historic Preservation Office (OHPO) in Columbus, Ohio on April 24, 2001 and with the Kentucky Heritage Council (KHC) in Frankfort, Kentucky on April 25, 2001 to establish an Area of Potential Effects (APE) and appropriate survey methods for identifying historic properties. The APE and survey approach for both archaeological and architectural resources are discussed in the sections below.

3.6.1.2 Archaeological Resources

The physical area delineated for the identification of archaeological resources, or APE, was limited to the immediate physical impact area of those locations within the proposed MOS alignment right-of-way that would be subjected to substantial direct ground disturbance. Specifically, the project components that were determined to have substantial direct ground disturbance include station platforms, power substations, bridge and elevated track piers, embedded/cut-and-cover trackage, tunnel portals and associated construction staging areas, street segments requiring grade lowering or re-alignment, building demolitions, detention ponds, and construction of a maintenance facility.

The inventory of archaeological resources was begun by identifying all previously recorded archaeological sites located in the APE, as well as any recorded within 500 feet of the APE limits. In Ohio, archival data pertaining to previously recorded archaeological resources was obtained from OHPO in Columbus, Ohio. In Kentucky, these data are stored at the KHC in Frankfort, Kentucky, and the Office of the State Archaeologist (OSA) in Lexington, Kentucky. Results of this search in Kentucky revealed that there are no previously recorded sites in the APE and that two sites are located within 500 feet of the APE limits. The results of the search in Ohio indicate that one site is located in the APE while four sites

are situated within 500 feet of the APE limits. Additional information about each of these sites is provided in the following section in Table 3.6.1.

The selection of areas requiring archaeological field survey to identify resources was determined by first assessing the levels of previous disturbance within the defined APE. The assessment of the level of previous subsurface disturbance within the APE was based upon previous development and utilities. Cincinnati Area Geographic Information System (CAGIS) shapefiles containing the locations and sizes of buried sanitary sewers, storm sewers, and water mains were factored into the assessment, with the exception of Covington and the Ohio River Crossing segment, for which CAGIS data were not available. Those areas within the APE determined to have a high level of previous subsurface disturbance were eliminated from further consideration as the potential to contain intact resources was considered to be too low.

Those areas within the APE determined to have moderate or low levels of previous disturbance were then assessed for their potential to contain significant, intact archaeological deposits. This was accomplished by looking for pre-existing environmental factors, such as distance to perennial water sources or prominent landforms that signify high potential areas for prehistoric resources, and by conducting archival research of historic maps, plats, and photographs that may denote the former locations of historic features within those areas.

Those areas determined to have moderate to low levels of previous disturbance and a high potential for containing significant, intact archaeological deposits are recommended for field testing during the Final Environmental Impact Statement (FEIS) phase of the project. Additional information on these areas recommended for field testing are provided in the text of the following section and presented in Table 3.6.2.

3.6.1.3 Architectural Resources

The APE for architectural resources was determined in consultation with OHPO and KHC and was defined as including only those resources fronting along the proposed MOS corridor alignment. Where building demolitions are proposed, adjacent resources on side streets that would be exposed to the corridor alignment were also included in the APE. At proposed station locations, the APE was extended to include the site of the facility and any surrounding resources that may have a view of the proposed station. Lastly, in Mount Auburn at the proposed tunnel portals, the APE includes the construction staging areas for the north and south portals as well as an area covering approximately 200 feet either side of the proposed tunnel to ensure consideration of those resources that may be impacted by potential vibrations during construction.

The inventory of architectural resources was begun by identifying previously recorded resources within the APE through a literature and site file review at OHPO, the Cincinnati Historic Conservation Office, the Cincinnati Preservation Association (CPA), the KHC in Frankfort, Kentucky, and the Economic Development Department of the City of Covington. Information gathered included properties and sites listed or determined eligible for the National Register of Historic Places and National Register Historic Districts, locally designated properties and districts in both Cincinnati and Covington, and inventory forms for properties previously surveyed but not designated either locally or for the National Register.

The literature search was also supplemented by a preliminary reconnaissance-level survey of the study area in Fall 2000 to gather basic information on all resources along the proposed corridor. Covering an area 500 feet either side of the proposed alignment, this information was used to assess the number and type of resources present and to generate maps used in planning the full Phase I field survey.

During June and July 15, 2001, a full Phase I field survey was carried out on all properties within the APE as was agreed upon in the consultation meetings held in April 2001 with OHPO and KHC, and in a subsequent field visit by staff from OHPO on April 30-May 1, 2001 to view the resources along the proposed corridor in Ohio. The level of recordation varied in Ohio and Kentucky based on a field assessment of the resource's perceived potential for listing on the NRHP and level of previous recordation, if any.

In the Covington segment of the corridor, most of the proposed corridor was contained in five existing NRHP districts. A small number of properties outside the districts were evaluated, but none were found to be eligible. Because most of the alignment was contained within existing NRHP districts, the report for the Covington segment was able to move beyond the determination of eligibility and into the assessment of effects phase. Results are noted in Sections 3.6.2.3 and 3.6.3.2.

In Ohio, the multi-level approach to field recordation resulted in documentation of 1,134 architectural resources. Of this number, 573 properties were mapped, photographed, and documented on Ohio Historic Inventory (OHI) forms for the first time. Forms for 48 properties previously inventoried were updated. The remaining 513 properties were mapped with an address, based on methodology agreed upon in meetings with the OHPO. Two existing local and two existing NRHP districts were evaluated as part of this investigation. Recommendations for NRHP eligibility are noted below in Section 3.6.2.3 and summarized in Table 3.6.4. No assessment of effects can occur until the Ohio State Historic Preservation Office (SHPO) has reviewed and commented on eligibility recommendations.

National Register Criteria

During the Phase I survey, each property was assessed for its potential to be listed on the NRHP. The criteria for determining whether resources are eligible for listing on the NRHP, as set forth in federal regulation 36 CFR 60, were used to evaluate each site. In order to qualify for listing on the NRHP a resource must "possess integrity of location, design, setting, materials, workmanship, feeling, association," and must meet one of the four following criteria:

- Associated with events that have made a significant contribution to the broad patterns of U.S. history;
- Associated with the lives of persons significant to U.S. history;
- Embody the distinctive characteristics of a type, period, or method of construction, that represents the work of a master, or that possesses high artistic value, or that represent a significant or distinguishable entity whose components may lack individual distinction; or
- Yield, or be likely to yield, information important in prehistory or history.

Evaluation of the potential effects of project components on identified resources were determined using the Criteria of Effect and Adverse Effect (36 CFR 800.9). The Criteria of Effect states that an undertaking has an effect on a historic property when it may alter characteristics, such as its location, setting, or use, that may qualify it for inclusion in the National Register. An adverse effect occurs when an undertaking diminishes the integrity of a property's location, design, setting, materials, workmanship, feeling, or association. An adverse effect may include:

- Physical destruction, damage, or alteration of all or part of the property;
- Isolation of the property from, or alteration of, the character of the property's setting;

- Introduction of visual, audible, or atmospheric elements that are out of character with the property or that alter its setting;
- Neglect of a property resulting in its deterioration or destruction; and
- Transfer, lease, or sale of the property.

The following sections, divided into archaeological and architectural resources, provide a description of the resources identified within the study area that are either listed on or recommended eligible for listing on the NRHP. Information is divided into the ten corridor segments identified previously in this report.

3.6.2 INVENTORY OF HISTORIC AND ARCHAEOLOGICAL RESOURCES

3.6.2.1 Archaeological Resources

The report entitled, Phase I Archaeological Investigations of the I-71 Corridor LRT Project, Hamilton County, Ohio and Kenton County, Kentucky (Gray and Pape, Inc., October 2001), was submitted to the KHC and the OHPO for their review and concurrence. This report reviews known sites within the project's APE and provides recommendations for areas that are assessed as having a high potential for significant, intact archaeological resources. These identified areas should be subjected to a systematic Phase I field survey during the FEIS phase of the project to determine if resources are present, if they are NRHP eligible, and if they may be impacted by any of the proposed project components.

For each segment below, the APE for archaeological resources is described, previously recorded sites are discussed, and specific areas with high archaeological potential are recommended for field testing.

Covington Segment

The APE for the Covington Segment includes the proposed locations of both at-grade and above grade trackage, three passenger stations, two substations, eight bridges, and approximately 20 demolitions. No previously recorded archaeological resources are located within the APE defined for this segment; however, two sites are located outside the APE and within the 500-foot study area. Site 15Ke119 is a late nineteenth century house site and Site 15Ke125 is the archaeological expression of the mid- to late-nineteenth century Notre Dame Academy church and convent. Historic research on areas within the APE for this segment indicates that 21 areas have a high potential to contain intact archaeological deposits and should be further investigated during the FEIS phase of the project to determine if significant archaeological resources may be present. The 21 areas include 12 building demolitions, two stations, two substations, four bridges and one at-grade track segment.

Ohio River Crossing Segment

The APE for the Ohio River Crossing Segment includes the proposed locations of five bridges, one building demolition, and one substation. No previously recorded archaeological resources are located within the APE defined for this segment. Historic research on areas within the APE for this segment indicates that three areas have a high potential to contain intact archaeological deposits and should be investigated during the FEIS phase of the project to determine if significant archaeological resources may be present. These three areas include the proposed locations of two bridges and one building demolition.

Cincinnati Riverfront Segment

The APE for the Cincinnati Riverfront Segment includes the proposed locations of two passenger stations, one substation, and one turnback/track storage area with an associated bridge. One previously recorded archaeological resource is located within the APE defined for this segment. This resource is Site 33Ha113, a Precontact Period Hopewell mound site that had been assessed as being destroyed by modern development and construction. Historic research on areas within the APE for this segment indicates that two areas have a high potential to contain intact archaeological deposits and should be investigated during the FEIS phase of the project to determine if significant archaeological resources may be present. These two areas include the locations of the proposed turnback/storage track and an associated bridge.

Downtown Cincinnati Segment

The APE for the Downtown Cincinnati Segment includes the proposed locations of five passenger stations and one substation. No previously recorded archaeological resources are located within the APE defined for this segment; however, two sites are located outside the APE and within the 500-foot study area. These two sites include Site 33Ha314, a Woodland Period elliptical earthwork, and Site 33Ha315, a Woodland Period semicircular earthwork. Historic research on areas within the APE for this segment indicates that two areas have a high potential to contain intact archaeological deposits. These two areas include the location of a passenger station and a substation.

Over-the-Rhine Segment

The APE for the Over-the-Rhine Segment includes the proposed locations of one passenger station, one substation, and approximately 28 building demolitions. No previously recorded archaeological resources are located within the APE defined for this segment. Historic research on areas within the APE for this segment indicates that 16 areas have a high potential to contain intact archaeological deposits and should be investigated during the FEIS phase of the project to determine if significant archaeological resources may be present. These 16 areas include the proposed locations of the passenger station, substation, and 14 building demolitions.

Mount Auburn Tunnel Segment

Archaeological assessment has not been completed for this segment. This segment will be assessed for its archaeological potential along with the Zoo alignment option in an addendum report. Recommendations for areas with high potential for significant, intact archaeological resources will be identified in the addendum report to the KHC and OHPO.

The APE for the Mount Auburn Tunnel Segment includes the proposed locations of two tunnel portals and associated staging areas, one passenger station, one substation, and three ventilation shafts and associated staging areas. No previously recorded sites are located within the APE defined for this segment; however, Site 33Ha431, a nineteenth century residential site is located within the 500-foot study area. The assessment of the potential for significant, intact archaeological deposits is not yet completed for this segment.

Uptown Segment

The APE for the Uptown Segment includes the proposed locations of two passenger stations, two substations, one bridge, and approximately fifteen building demolitions. No previously recorded archaeological resources are located within the APE defined for this segment. Historic research on areas

within the APE for this segment indicates that eight parcels have a high potential to contain intact archaeological deposits and should be investigated during the FEIS phase of the project to determine if significant archaeological resources may be present. These eight areas include the locations of one passenger station, one substation, and six proposed building demolitions.

The area included in the proposed Zoo alignment option was not included in the assessment of this segment. The Zoo alignment option will be assessed for archaeological potential along with the Mount Auburn Tunnel segment in an addendum report to the KHC and OHPO.

Avondale to Norwood Segment

The APE for the Avondale to Norwood Segment includes the proposed locations of three passenger stations, five substations, one bridge, twenty-seven building demolitions, and one yard/shop facility. No previously recorded archaeological resources are located within the APE defined for this segment; however, Site 33Ha87[1], the Norwood Mound Site is located outside the APE and within the 500-foot study area. Historic research on areas within the APE for this segment indicates that five areas have a high potential to contain intact archaeological deposits and should be investigated during the FEIS phase of the project to determine if significant archaeological resources may be present. These five areas include the proposed locations of two passenger stations, two substations, and one building demolition.

Norwood to Blue Ash Segment

The APE for the Norwood to Blue Ash Segment includes the proposed locations of three passenger stations, six substations, three bridges, and one building demolition. No previously recorded archaeological resources are located within the APE defined for this segment. Historic research on areas within the APE for this segment indicates that no areas have a high potential to contain intact archaeological deposits and no further identification efforts are recommended.

Blue Ash Segment

The APE for the Blue Ash Segment includes the proposed locations of four passenger stations, six substations, one bridge, and five building demolitions. No previously recorded archaeological resources are located within the APE defined for this segment. Historic research on areas within the APE for this segment indicates that no parcels have a high potential to contain intact archaeological deposits and no further identification efforts are recommended.

Table 3.6.1: Previously Inventoried Archaeological Sites within the Proposed Corridor

OAI #	Period	Description	Segment	Site Size	Relation to APE	NRHP Status
15Ke119	Historic, late 19th Century	Residential	Covington	0.2 acre	Outside	Ineligible
15Ke125	Historic, late 19th Century	Church and Convent site	Covington	1.3 acres	Outside	Ineligible
33Ha113	Hopewell	Mound	Cincinnati Riverfront	8' high x 120' long x 60' wide	Within	Not evaluated
33Ha314 (33Ha2/1)	Woodland	Elliptical earthwork	Downtown Cincinnati	800' by 660' and 3' high	Outside	Not evaluated
33Ha315 (33Ha2/1)	Woodland	Semicircular earthwork	Downtown Cincinnati		Outside	Not evaluated
33Ha431	Historic, 19th Century	Residential	Mount Auburn Tunnel	100' x 220'	Outside	Not evaluated
33Ha87(1)	Woodland	Mound	Avondale to Norwood	13.5' high x 130' diameter	Outside	Not evaluated

Source: Gray and Pape, Inc, Phase I Archaeological Investigation of the I-71 Corridor Light Rail Transit Project, Hamilton County, Ohio and Kenton County, Kentucky (October 2001)

3.6.2.2 Archaeological Resources Summary

The archaeological assessments in the Ohio and Kentucky segments (except for the Mount Auburn Tunnel segment and the Zoo Alignment option) are currently being reviewed by the KHC and OHPO. Once the KHC and OHPO have provided comments on the areas recommended for field testing, this section will be updated to reflect the most current information. A research design will be developed in consultation with the KHC and OHPO to guide field testing on the agreed upon parcels during the FEIS phase of the project. Once field testing and evaluation is completed, FTA will make a determination of eligibility on all identified sites, subject to the review and concurrence of the KHC and OHPO.

Only one previously recorded site, Site 33Ha113 in the Downtown Cincinnati Segment, was identified as being within the APE defined for the LRT alignment; however, the site has been assessed as being destroyed by modern development. A total of 57 areas have been identified as having the potential to contain significant, intact archaeological deposits and are recommended for field testing during the FEIS phase of the project. A list of these areas recommended for field testing is provided in Table 3.6.2.

Table 3.6.2: Areas Identified with Potential for Archaeological Resources

Segment and Identified Impact	Recommendation
Covington	
Demolition 3 – Russell Street	Additional investigation
Demolition 4 – 12th Street	Additional investigation
Demolition 5 – 12th Street	Additional investigation
Demolition 6 – 12th Street	Additional investigation
Demolition 7 – 12th Street	Additional investigation
Construct new bridge at 11th Street	Additional investigation
Traction Power Substation (1008)	Additional investigation
Construct new pedestrian bridge at Robbins Street.	Additional investigation
At-grade track between Ninth and Eighth Street	Additional investigation
Demolition 1 – Athey Street	Additional investigation

Segment and Identified Impact	Recommendation
Demolition 2 – Athey Street	Additional investigation
Demolition 3 – Athey Street	Additional investigation
Demolition 4 – Johnson Street	Additional investigation
Demolition 5 – Johnson Street	Additional investigation
Construct new bridge (1035)	Additional investigation
Demolition 1 (No address)	Additional investigation
Construct new bridge between Third and Fourth Street (1040)	Additional investigation
Demolition 2 (No address)	Additional investigation
Covington Riverfront Station	Additional investigation
Traction Power Substation (1053)	Additional investigation
Covington Riverfront Station (Option 2)	Additional investigation
Ohio River Crossing	
Construct new bridge S of Access Rd (1057)	Additional investigation
Construct new bridge Second Street (1080)	Additional investigation
Demolition 511 Water Street	Additional investigation
Cincinnati Riverfront	
Construct new bridge 5080	Additional investigation
Turnback and track storage	Additional investigation
Downtown Cincinnati	
Substation at Eighth Street	Additional investigation
Courthouse Station NB	Additional investigation
Over-the-Rhine	
O-T-R Station SB	Additional investigation
Demolition 1414 – 1416 Walnut Street	Additional investigation
Demolition 1418 – 1420 Walnut Street.	Additional investigation
Demolition 1432 Walnut Street	Additional investigation
Demolition 228 E. Clifton	Additional investigation
Demolition 232 E. Clifton	Additional investigation
Over-the-Rhine, cont.	
Demolition 232R E. Clifton	Additional investigation
Demolition 1713 Main Street	Additional investigation
Demolition 1701 Main Street	Additional investigation
Demolition 10 Antique Street	Additional investigation
Demolition 225 Peete Street	Additional investigation
Demolition 1713 Main Street.	Additional investigation
Demolition 304 Mulberry Street	Additional investigation
Demolition 306 Mulberry Street	Additional investigation
Demolition 309 Mulberry Street	Additional investigation
Substation on Antique Street	Additional investigation
Uptown	
Demolition 9 Martin Luther King Jr. Drive	Additional investigation
Demolition 11 Martin Luther King Jr. Drive	Additional investigation
Demolition 13 Martin Luther King Jr. Drive	Additional investigation
Demolition 3021 Ahrens Street	Additional investigation
Demolition 3027 Eden Avenue	Additional investigation
Demolition 215 Piedmont Avenue	Additional investigation

Segment and Identified Impact	Recommendation
Medical Center station (option B)	Additional investigation
Substation	Additional investigation
Avondale to Norwood	
Avondale station	Additional investigation
Substation	Additional investigation
Norwood Station	Additional investigation
Demolition 5035/5037 Beech Street	Additional investigation
Traction Power Substation (xx)	Additional investigation

Source: Gray and Pape, Inc., Phase I Archaeological Investigation of the I-71 Corridor Light Rail Transit Project, Hamilton County, Ohio and Kenton County, Kentucky (October 2001)

3.6.2.3 Architectural Resources

A Cultural Resource Survey for I-71 Corridor Light Rail Transit in Covington, Kenton County, Kentucky (H. Powell and Co., Inc., July 2001) was submitted to the Kentucky Heritage Council and evaluated the Covington segment. The Kentucky Heritage Council reviewed this document and has responded with a determination of effects as discussed below and in Section 3.6.3.2. *The Phase I Architectural Survey of the Proposed I-71 Corridor Light Rail Transit, Hamilton County, Ohio* (3 volumes) (Gray & Pape, Inc., October 2001) has been submitted to the Ohio Historic Preservation Office for review and comment on eligibility recommendations.

In each segment, NRHP-listed properties and districts and local historic districts and properties are noted. Properties recommended eligible for the NRHP are discussed in more detail.

Covington Segment

In Covington the proposed I-71 Corridor LRT alignment begins at 12th Street and continues to the Ohio River, passing through five NRHP districts: East Lewisburg, Seminary Square, West Side/Mainstrasse, Covington Downtown, and Mutter Gottes/Old Town. All but East Lewisburg also have local historic district designation by the City of Covington. A large portion of the alignment is contained within either the National Register or local counterpart of these historic districts.

Adjacent to the proposed alignment at 20 W. 11th Street is the Wadsworth Electric Company, an intact early twentieth century industrial building, named to the NRHP as an individual property in 1994.

A total of 13 areas, including both individual properties and districts, were examined within the Area of Potential Effect for the I-71 Corridor LRT alignment in Covington. Aside from the districts and property noted above, no additional properties were found to meet NRHP criteria. The NRHP-listed and eligible districts and individual NRHP property are identified in Table 3.6.3.

Table 3.6.3: Architectural Resources Listed or Determined Eligible: Covington Segment

Street Number	Street Name	Building/ District Name	NR Recommendation /Status	Relevant National Register Criterion
		East Lewisburg District	Determined Eligible, 1995	
		Seminary Square District	NR Listed, 1980; Local District, 1980	A: Associated with the Western Baptist Theological Institute until 1890, and then a fashionable residential neighborhood C: Contains a variety of late nineteenth century dwellings and a predominance of townhouses and Victorian complexes
22	W. 11th Street	Wadsworth Electric Co.	NR Listed, 1994	A: Significant as home of a leading manufacturer of electrical switches and an innovator in safety switches.
		Covington Downtown District	NR Listed, 1983, 1991; Local District	A: Historic and ongoing function as the commercial, financial and legal center for the city C: A variety of late nineteenth and early twentieth century buildings, particularly medium-size brick buildings with Italianate detailing.
		Mutter Gottes District	NR Listed, 1980; Local District	A: Early residential neighborhood identified with the city's strong German heritage C: Identified by noteworthy mid-to-late nineteenth century domestic architecture, from modest to grand.
		West Side/Main-strasse District	NR Listed, 1983; Local District	A: Associated with the German community in Covington from the mid-nineteenth century to 1900 C: A nineteenth century neighborhood with vernacular residential, religious, institutional and commercial architecture

Source: H. Powell and Co., Inc., A Cultural Resource Survey for I-71 Corridor Light Rail Transit in Covington, Kenton County Kentucky (August 2001)

Ohio River Crossing Segment

A new Ohio River bridge, located east of the Clay Wade Bailey Bridge, is proposed for the LRT crossing at the Ohio River. The Clay Wade Bailey Bridge dates to 1974, although the piers are remnants of an earlier bridge. A 1930 railroad bridge is located on the west side of the Clay Wade Bailey Bridge. The NRHP-listed Cincinnati and Covington (Roebling) Suspension Bridge is located approximately one-half mile east of the proposed crossing.

Cincinnati Riverfront Segment

Historic districts within this segment include the NRHP-listed Main and Third Street Cluster and the Main and Third Street Local Historic District. Another six properties along West Third Street, and Vine Street have been declared eligible for the National Register; one additional property, 444 West Third

Street has been officially determined not eligible. No additional properties have been recommended eligible in this segment.

Downtown Cincinnati Segment

The proposed Downtown Cincinnati segment includes several certified local historic districts, including the Main Street Historic District and the Court Street district that includes all of Court Street within the proposed I-71 Corridor LRT. The evaluation of the Court Street Certified Local Historic District completed as part of this inventory recommended that the district boundary be extended to include the Woodward Building and Loan at 1029 Main Street.

There are 3 individual NRHP properties within this segment of the proposed corridor. Those that front immediately on Walnut or Main along the proposed alignment include the Gwynne Building at 602-604 Main Street, the Nathaniel Ropes Building at 917 Main Street, and the Young Women's Christian Association at 898 Walnut Street.

The following historic district and six buildings are recommended eligible for the NRHP, pending SHPO review and comment on eligibility recommendations in the Downtown Cincinnati segment.

Fourth and Walnut Streets Commercial Style Historic District. The proposed Fourth and Walnut Streets Commercial Style Historic District has been recommended eligible for the NRHP, pending SHPO review and comment. The Fourth and Walnut Streets District includes five office buildings that date from 1900 to 1913 and are located between West Fourth and Walnut to West Fifth Street and Walnut. Three buildings, including the First National Bank at 101-105 East Fourth Street; the Cincinnati Traction Company/Tri-State Saving and Loan Building at Fifth and Walnut; and the Union Savings Bank and Trust Company at 36 East Fourth Street, were designed by nationally known architect Daniel H. Burnham. Also included in the proposed district are the Mercantile Library Building designed by local architects Joseph and Bernard Steinkamp; and the Dixie Terminal Building, designed by local architects Garber & Woodward. This small district is recommended eligible under Criteria A and C for its significant association with Cincinnati's growth at the turn of the century and the downtown's transformation from smaller-scale nineteenth century residential and commercial buildings to the multi-story skyscrapers that still dominate the area's physical character.

Cincinnati Gas & Electric Building. Located at 139 East Fourth Street, the Cincinnati Gas & Electric Building was built in 1930. It was designed by Cincinnati architects, Garber & Woodward, who won an American Institute of Architects award for the building in 1931. The façade was designed by nationally known architect John Russell Pope, known for his design of the Jefferson Memorial in Washington D.C. The building is recommended eligible for the NRHP under Criterion C as a fine example of the Neo-Classical Revival in downtown Cincinnati and as one of the best works of the architectural firm of Garber & Woodward. It is also important for its association with John Russell Pope, known as a master of the Neo-Classical Revival in the United States.

Potter Stewart U.S. Courthouse. Potter Stewart U. S. Courthouse, originally the U. S. Post Office and Courthouse, 501 East Fifth Street, was built in 1939. Supervising Architect of the Treasury Department, Louis A. Simon, and Supervising Engineer, Neal A. Melick, were responsible for the building. The building is recommended eligible under Criterion C as an example of refined Neo-Classical Revival design typical of government buildings built during the New Deal era. It was one of only a few large building construction projects in downtown Cincinnati towards the end of the Great Depression in the late 1930s. The postal service functions were moved out of the building in the 1980s, and the building renamed in honor of former Supreme Court Justice Potter Stewart, a Cincinnati native, in 1994.

Hotel Metropole/Metropole Apartments. The Hotel Metropole/Metropole Apartments at 609 Walnut Street, was constructed by Joseph C. Thomas, beginning in 1912 but not completed until 1924. The hotel was one of several downtown hotels, including the Gibson and the Netherland Plaza, built between World Wars I and II. The architect of the building is unknown, but the architectural detailing is indicative of the Neo-Classical Revival style. The Hotel Metropole is recommended eligible for the NRHP under Criterion C for its Mannerist Neo-Classical styling that is unusual for early twentieth century commercial and institutional buildings in the city.

Gibson Flats/Gibson Lofts. The Gibson Flats Building, 633-637 Walnut Street, was built in the 1870s. It was purchased by Thomas Gibson, head of a plumbing supply concern, in the 1880s. Gibson remodeled the building into flats, adding a mansard roof and placing his initials on the building's façade. Gibson's building was one of the earliest "French flats" in the downtown area, and was distinguished by the rare provision of a private kitchen and bathroom in each apartment. The building's remodeled Second Empire façade is representative of a scarce architectural style in downtown; the only other notable example is the Palace/Cincinnatian Hotel on West Sixth and Vine streets, also listed in the NRHP as part of the Samuel Hannaford/Samuel Hannaford & Sons Thematic Nomination. The Gibson Flats is recommended eligible for the NRHP under Criterion C as an early example of the "French flats" building type and as a rare example of the Second Empire style in downtown Cincinnati.

St. Louis Church. St. Louis Church, East Eighth and Walnut streets, was built in 1928. It is recommended eligible for the NRHP under Criterion C and Criterion Consideration A. The building's architectural design presents an early example of Art Deco in the city, with its sharp sculptural form and stylized ornamentation. It replaced an earlier church, St. Ludwig, which had been on the site since at least 1870. Originally a German parish, its name was changed in 1914 to St. Louis, a result of the anti-German hysteria at the onset of World War I. The church lost its parish boundaries at this time when it became a "parish-at-large," serving primarily Roman Catholics who worked downtown. When it was built, the structure also housed the business offices for the Archdiocese of Cincinnati. The 1928 structure was designed by McGinnis and Walsh, a Boston firm that was also responsible for the Church of the Immaculate Conception in Washington D.C., and for the interior of the Basilica of St. Mary in Minneapolis.

Hibben Dry Goods Company Building. The Hibben Dry Goods Company Building, 700 Walnut Street was built in 1900-1901. The company was founded in 1896 and relocated to its new Seventh and Walnut location from Fourth Street a few years later. Like most of Hannaford/Hannaford & Sons' commissions, the building presents a sophisticated rendition of a style popular at the time. The Commercial Style elements of the building are enhanced by the corbelled brick cornice and arcaded effect seen in the uppermost story windows. The building is recommended eligible under Criterion C as an addition to the Thematic Resources of Samuel Hannaford/Samuel Hannaford & Sons, 1858-1900 NRHP nomination. Listed in 1980, the original nomination included 55 buildings from this time period.

Over-the-Rhine Segment

Virtually the entire segment is within the Over-the-Rhine National Register Historic District. Although the boundaries vary slightly, Over-the-Rhine South, south of Liberty Street, is also designated as a local historic district.

There are four individually listed National Register buildings in the proposed corridor: the Alms and Doepke Dry Goods Company at 222 East Central Parkway; the Old St. Mary's Church, School and

Rectory at 123 E. 13th Street; the Theodore Krumburg Building at 1201 Main Street; and the Rhine Main Apartments/ S.C. Mayer Residence at 1614 Main Street.

Mount Auburn Tunnel Segment

Field survey has not been completed on this segment for properties that will be primarily affected by the proposed tunnel. This segment will be evaluated along with the Zoo alignment option in an addendum report. Potentially eligible properties will be identified in the addendum report to the SHPO.

Properties located in the Over-the-Rhine National Register District, at the south end of the Mount Auburn Tunnel segment, were surveyed in conjunction with others in the Over-the-Rhine segment.

Portions of the Over-the-Rhine National Register District, and the National Register Mount Auburn Historic District are within this segment. Over-the-Rhine North, north of Liberty Street, was designated as a local historic district in September 2001. Although the tunnels are underground and will have no visual impact, care will be taken to review tunnel portals and any stations that may impact historic structures.

Uptown Segment

From the Uptown proposed LRT alignment segment northward, there are no existing National Register historic districts and few existing individual National Register properties. There are no individual properties recommended eligible in this segment. There is one potential historic district recommended eligible for the NRHP, pending SHPO review and comment, in this segment.

The proposed Corryville Jefferson Avenue/Vine Street Historic District has been recommended eligible for the NRHP, pending SHPO review and comment. This district includes residential, commercial and institutional buildings that are associated with this early hilltop neighborhood of Cincinnati. The district includes the east side of Jefferson Avenue and both sides of (short) Vine Street between Corry and W. Rochelle streets. Included within the APE for this project is Jefferson Avenue; the segment of Vine is outside the APE. The section of the proposed district within the APE contains 44 properties along Jefferson Avenue and West Daniels Street. The grouping of buildings is the most intact section of this neighborhood, which has been subjected to encroachment from the various institutions that border it.

The section of the proposed Jefferson Avenue District facing the University retains a significant grouping of late nineteenth century townhouses that are primarily Italianate in design. For the most part, these buildings were developed in the 1880s and 1890s, although there are examples of bungalows and other early twentieth century styles, particularly at the north end of the district. The houses are, for the most part, tall and narrow and situated on narrow lots, although corner buildings are often larger and are more likely to be mixed use buildings, with storefronts on the first floors and apartments above. Vine Street includes mixed used and commercial properties from the same time period, which originally served as the neighborhood's business district and has evolved into a university-focused commercial area. The neighborhood developed as a result of transportation developments in the late nineteenth century, providing housing for people fleeing the density of Over-the-Rhine. One of the first hilltop neighborhoods to develop as primarily working class, it was largely German in character until the mid-twentieth century. The western part of the neighborhood, west of Jefferson Avenue, has been encroached upon by the University of Cincinnati and by 1960s urban renewal development. The northern part of the neighborhood along MLK Drive has been encroached upon by the University Hospital complex and the widening of MLK Drive.

The proposed Jefferson Avenue/Vine Street district is recommended eligible for the NRHP under Criterion A for its association with the development of a solidly German-American community on the hilltop in the late nineteenth century and its subsequent growth in the early twentieth century. The district is also recommended eligible under Criterion C as it represents the most intact section of this early hilltop suburb, now fragmented by the ambitious twentieth century developments of various institutions adjacent to it.

The area surrounding the Zoo alignment option will be evaluated along with the Mount Auburn Tunnel segment in an addendum report.

Avondale to Norwood Segment

Avondale/Evanston
There is one NRHP property in this segment, the Coca-Cola Bottling Plant at 1507 Dana Avenue, listed in 1987. There is one property recommended eligible for the NRHP, pending SHPO review and comment.

Rubel Baking Company Building. Rubel Baking Company, 3025 Bathgate Street, Cincinnati was built in 1930. The company, founded in 1882 by Elias F. Rubel, was originally located on West Sixth Street. Ruble's sons, Ben, Max and Sam, continued the company and were responsible for the construction of the "new" building, which originally held large industrial ovens. When its construction was announced, it was called "one of the largest baking plants" in the United States. Rubel Baking Company was best known for its Heidelberg Rye bread, which was the first sliced, cellophane wrapped bread in Cincinnati when it was introduced in 1933. Rubel Baking Company remained in business until 1978, when Pennington Breads bought the formulas and trade names for Rubel's breads. The building is recommended eligible under Criterion A for the important innovations introduced by the company and under Criterion C for its Beaux Arts architectural elements as applied to an industrial building.

City of Norwood
There are no NRHP-listed districts or individual properties in Norwood. One property, the Foy-Johnson Company at 1776 Mentor, has been declared eligible for the NRHP. There are two individual properties and one MPL designation recommended eligible for the NRHP, pending SHPO review and comment

Williams House. The Williams House, 1906 Williams Avenue, is a frame Italianate house representing an early suburban estate in the former Mill Creek Township, prior to the area's incorporation as the industrial community of Norwood. The house was built between 1867-1870 by William C. Baker, who married a granddaughter of Jonathan Williams, an early landowner in the area. In the late nineteenth century, the area was still primarily suburban and featured a number of large scale houses situated on several acres of land. The house is one of few buildings from this period in the Norwood area to survive. The setting retains a rural suburban appearance through the mature landscaping that surrounds the house. The Williams House is recommended eligible for the NRHP under Criterion A for its association with the early suburban development in this section of the former Mill Creek Township, prior to Norwood's rise as an important industrial center in Hamilton County.

Hopkins Avenue Depot. Hopkins Avenue Depot, 4226 Montgomery Road, Norwood, is the only remaining depot located in Norwood and the only remaining structure affiliated with the Cincinnati, Lebanon and Northern (CL&N) railroad, which was instrumental in the late nineteenth and early twentieth century development of Norwood. Unlike other depots associated with the CL&N, the Hopkins Avenue Depot was not owned by the railroad, but by the Hopkins Avenue Depot Company. The company was organized in June 1888 by a group of Norwood real estate developers; CL&N furnished the materials for the depot structure. In addition to the depot's service as a passenger and freight depot, it

was also used as a post office by the U.S. Government, which leased space in the depot from 1900 to 1910. The CL&N ceased passenger service in 1933, and for the next 50 years the Hopkins Avenue Depot Company leased the building to a succession of service station operations. In 1983, the building was purchased from the last heir of the company and rehabilitated for use as office space.

The Hopkins Avenue depot building is recommended eligible for the NRHP under Criterion A for its association with late nineteenth century real estate and transportation development in the City of Norwood, and under Criterion C as the only remaining train station in Hamilton County associated with the late nineteenth century development of the CL&N.

Norwood Industrial Properties Multiple Property Designation. Norwood's industrial properties are recommended eligible for the NRHP for consideration within a Multiple Properties Submission. Fourteen extant late nineteenth and early twentieth century industrial complexes built between 1897 and 1915 are located in Norwood, nicknamed the "the city that industry built." Five of these fourteen complexes are located in the APE. These are the Siemens Energy and Automation (originally the Bullock Electric Company) Building at 4620 Forest Avenue, built 1897-98; the Salvation Army Rehabilitation Center (originally the Kemper-Thomas Company) 2265 Park Avenue, built c. 1902; the present King Wrecking Company (originally Weir Frog Company) building at 5038 Beech Street, built c. 1905; the Foy-Johnson, Inc. building (now Hamilton County Business Incubator) at 1776 Mentor Avenue, built c. 1912 as a two-building complex (previously determined NRHP eligible); and the Perry & Derrick Company at 2510 Highland Avenue, built c. 1915.

Norwood's first industry opened in 1898, and the small city quickly developed an industrial base. These industries were attracted to the community for the same reasons as the new residents, including lower taxes, improved water sources, and accessibility. The buildings are largely intact and manifest the concern for aesthetics that was an important feature of the model factory movement that spread across the country beginning in the late nineteenth century. Characteristic of the movement was the aesthetic interest of the owners in erecting substantial and architecturally striking buildings that reflected not only their good taste and financial commitment but their hopes for future economic success. Factory owners also sought to achieve social welfare goals, believing that pleasing buildings could provide cultural training for their workers by attracting a stable and content workforce and perhaps even providing a measure of social control of the workforce. By 1915, a number of important industries had relocated to Norwood in handsome new buildings that primarily reflected the Second Renaissance Revival style of architecture.

The five buildings within the APE are recommended eligible for NRHP listing under Criterion C for their distinctive architecture which is characteristic of the period and represents the philosophy of industrial construction in the model factory movement. The buildings are also recommended eligible for NRHP listing under Criterion A for the their significant association with Norwood's industrial development at the turn of the century, which had a profound impact on the community's character.

Norwood to Blue Ash Segment

There are no NRHP districts or properties in this segment. Two individual properties are recommended eligible, pending SHPO review and comment.

Woltz Building. The Woltz Building, 7045-7047 Montgomery Road, Silverton, was built in 1888 by John W. Woltz, a real estate developer, who promoted Silverton's early growth in the late nineteenth century. It is an intact example of a late nineteenth century Queen Anne mixed use building and is significant because of its association with early efforts to develop Silverton as a commuter suburb. When originally constructed, the building had commercial space on the first floor, apartments on the second

floor, and a public hall and ballroom on the third floor. The building had fallen into disrepair and was rehabilitated in the mid-1980s with eight apartments on the upper floors and a restaurant on the first floor. The Woltz Building is recommended eligible for the NRHP under Criterion A as an important representative of late nineteenth century suburban development in Silverton, and under Criterion C as an example of Queen Anne style architecture as adapted to a large scale, multi-use building in suburban Cincinnati.

Interurban Railway and Transit Company Car Barn. Interurban Railway and Transit Company Car Barn, 7234 Blue Ash Road, Deer Park, is significant for its association with the Interurban Railway & Terminal Company (IR&T). The IR&T, begun in 1903, was an interurban line that served commuters from Norwood to the city of Lebanon in Warren County to the north. Competition with other railroads and growing reliance on the automobile as a mode of transportation made the IR&T unprofitable and it ceased business in 1922. Since 1967, the building has housed Stewart Industries, Deer Park's largest business. The IR&T Car Barn is recommended eligible for the NRHP under Criterion A for its association with the interurban line that connected downtown Cincinnati to Lebanon and played a significant role in the development of the communities along the northeastern corridor in Hamilton and Warren counties between 1903-1922.

Blue Ash Segment

There are no NRHP district or individually designated buildings in this segment. One building and one district are recommended eligible, pending SHPO review and comment.

Isaac Conklin House. The Isaac Conklin House, 4658 Cooper Road, Blue Ash, is an I-house, built c. 1845 by Isaac Conklin who arrived in Hamilton County in the early nineteenth century. Now surrounded by newer residences and other structures, the house is associated with Blue Ash's earliest development as a farming community. Isaac's son, John T., owned the house and 100 acres in 1869. In addition to his farming activities, John Conklin was a real estate developer who, after the arrival of the CL&N railroad in the late 1880s, subdivided a large portion of his land for residential lots. Conklin's subdivision extended from Railroad Avenue west to Conklin, from Cooper Avenue on the north, and to Hunt Avenue on the south. This house remained in the Conklin family through the 1940s. The Conklin House is recommended eligible for the NRHP under Criterion A due to its association with early settlement efforts in Sycamore Township and under Criterion C as an intact and relatively rare example of a mid-nineteenth century I-house in northeastern Hamilton County.

Aldine Drive/Kenwood Road Historic District. This proposed historic district is a cluster of 11 Tudor Revival and Colonial Revival houses on Aldine Drive and Kenwood Road. Built between c. 1937-1940, these houses represent a post-Depression middle class suburban development. Their presence in Blue Ash at such an early date in this area's suburban development is also significant. The buildings are typical of the scaled-down appearance of these earlier styles from this period following the worst years of the Great Depression, concurrent with the onset of mid-twentieth century suburbanization in Hamilton County. Like many buildings constructed in the late 1930s, the styles of these houses recall those built in the 1920s, with Tudor Revival and Colonial Revival predominating.

The Aldine Drive/Kenwood Road Tudor Revival Historic District is recommended eligible for the NRHP under Criterion A for its association with the nascent efforts to resume homebuilding activities after the most crippling years of the Great Depression. The buildings are associated with the first wave of mid-twentieth century suburban development in the Blue Ash area. The group of buildings also is recommended eligible under Criterion C for the sophisticated design of the individual buildings and the cohesive qualities that they collectively demonstrate, in spite of their construction by multiple builders.

3.6.2.4 Architectural Resources Summary

The Ohio segments (except for the Mount Auburn Tunnel segment and Zoo alignment option) are currently being reviewed by OHPO. When OHPO has provided concurrence and/or comments on FTA's determinations of eligibility and effect, this section will be updated to reflect the most current information regarding eligibility. Table 3.6.4 summarizes all previously listed National Register properties and districts, locally designated properties and districts, and properties and districts recommended eligible for the National Register in the Ohio segments. Each is identified by project segment.

Table 3.6.4: Architectural Resources Listed, Officially Determined Eligible, or Recommended Eligible for the NRHP (Ohio Segments)

Street Number	Street Name	Building Name/ District Name	OHI Number	Level of Documentation	NR Recommendation/ Status	Relevant National Register Criterion	Comments
CINCINNATI RIVERFRONT							
Cincinnati Riverfront ***National Register and Local Historic District***							
208-210 300-302 304-306	E. Third Street Main Street Main Street	Main and Third Street Cluster		DE	NR District (1983)	C: Significant grouping of high style late nineteenth and early twentieth century commercial buildings	
208-210 300-302 304-306 308-310 312-314 316-318	E. Third Street Main Street Main Street Main Street Main Street Main Street	Main and Third Street Local District		DE	Local District	C: Significant grouping of high style late nineteenth and early twentieth century commercial buildings	
308-310 312-314 316-318	Main Street Main Street Main Street			DE	Determined Eligible (February 1983)	C: Significant grouping of high style late nineteenth and early twentieth century commercial buildings	Determined eligible by National Register office after owner objection to NR listing
Cincinnati Riverfront ***Individual Buildings Previously Determined Eligible***							
	W. Third Street between Vine and Walnut	Olympic Auto Park	HAM-5573-44	U	NR Eligible Determination of Eligibility (1998)	C: Intact and sophisticated example of a c. 1940 Art Moderne parking garage	OHPO review in 1998 as part of proposed Fort Washington Way reconstruction project; no specific criterion cited
108	W. Third Street	Wheeler Building	HAM-5536-44	U	NR Eligible Determination of Eligibility (1993)	C: Nearly the last remnant of this type of commercial warehouse building along the riverfront -Third Street area	OHPO review in 1993 of proposed new Cincinnati-Covington Ohio River Bridge
112	W. Third Street	Saunders Building	HAM-5537-440	U	NR Eligible Determination of Eligibility (1993)	C: Nearly the last remnant of this type of commercial warehouse building along the riverfront -Third Street area	OHPO review in 1993 of proposed new Cincinnati-Covington Ohio River Bridge
116	W. Third Street	Hoover Building	HAM-5538-44	U	NR Eligible Determination of Eligibility (1993)	C: Nearly the last remnant of this type of commercial warehouse building along the riverfront -Third Street area	OHPO review in 1993 of proposed new Cincinnati-Covington Ohio River Bridge
118	W. Third Street	Lapp Building	HAM-5539-44	U	NR Eligible Determination of Eligibility (1993)	C: Nearly the last remnant of this type of commercial warehouse building along the riverfront -Third Street area	OHPO review in 1993 of proposed new Cincinnati-Covington Ohio River Bridge

Street Number	Street Name	Building Name/ District Name	OHI Number	Level of Documentation	NR Recommendation/ Status	Relevant National Register Criterion	Comments
Cincinnati Riverfront *Individual Buildings Previously Determined Eligible, cont.*							
444	W. Third Street	Hennegan Building	HAM-5571-44	U	Officially determined not eligible (1998)		OHPO review in 1998 as part of proposed Fort Washington Way reconstruction project
301	Vine Street	Central Trust (PNC) Annex	HAM-1657-44	U	NR Eligible Determination of Eligibility (1993)		OHPO review in 1993 of proposed new Cincinnati-Covington Ohio River Bridge; no specific criterion cited
DOWNTOWN CINCINNATI							
Downtown Cincinnati *Local Historic Districts*							
600-830, 601-835	Main Street	Main Street Certified Local Historic District		DE	Certified Local Historic District	A: Associated with significant trends in the city's commerce from 1875 to 1920 C: Cohesive collection of late nineteenth and early twentieth century multi-story buildings	
39, 41, 50, 54, 118, 138 1019	Court Street Main Street	Court Street Certified Local Historic District		DE	Certified Local Historic District	A: Associated with the commercial operations of the Miami-Erie Canal and as a city marketplace C: District contains some very fine and rare examples of commercial architecture in the city	
1029	Main Street	Woodward Building and Loan	HAM-6931-44	LF	Extend boundary to include this building in existing Court Street Certified Local Historic District	C: Good example of a late Art Deco commercial structure that contributes to architectural character of the Court Street district	
Downtown Cincinnati *Individually Listed Buildings*							
602	Main Street	Gwynne Building	HAM-1617-44	U	NR	C: Designed by Ernest Flagg, this Beaux Arts skyscraper is one of only a handful of extant examples of his signature style	
917	Main Street	Nathaniel Ropes Building	HAM-7274-44	LF	NR	C: A rare example of Queen Anne commercial architecture in downtown Cincinnati that exhibits distinctive elements of the style	
898	Walnut Street	YWCA of Cincinnati	HAM-7114-44	LF	NR	A: Associated with important social humanitarian efforts in Cincinnati C: One of few Neo-Gothic commercial structures in downtown Cincinnati	

Downtown Cincinnati *Proposed Fourth and Walnut District*							
36	E. Fourth Street	Union Savings Bank and Trust Company/ Bartlett Building	HAM-2035-44	U	NR Eligible (Fourth & Walnut Commercial Style HD)	A: Associated with the move of Cincinnati's financial institutions from Third Street to Fourth Street at the turn of the century and the earliest construction of skyscrapers in the city	
41-53	E. Fourth Street	Dixie Terminal Building	HAM-1713-44	U	NR Eligible (Fourth & Walnut Commercial Style HD)	C: Excellent examples of Commercial style buildings in downtown Cincinnati and the earliest grouping of the city's skyscrapers	
101-105	E. Fourth Street	First National Bank Building/ Fourth & Walnut Center	HAM-1658-44	U	NR Eligible (Fourth & Walnut Commercial Style HD)		
414	Walnut Street	Mercantile Library Building	HAM-6928-44	U	NR Eligible (Fourth & Walnut Commercial Style HD)		
	SE Corner of Fifth and Walnut Streets	Cincinnati Traction Company Building/ Tri-State Savings & Loan	HAM-1788-44	U	NR Eligible (Fourth & Walnut Commercial Style HD)		
Downtown Cincinnati *Individual Buildings Recommended Eligible*							
139	E. Fourth Street	Cincinnati Gas & Electric Building	HAM-1659-44	U	NR Eligible	C: Designed by the local firm of Garber & Woodward, this is a fine example of the Neo-Classical Revival style and one of their best works	
501	E. Fifth Street	Potter Stewart U.S. Courthouse	HAM-6925-44	LF	NR Eligible	C: Good example of 1930s Neo-Classicism and one of few large building projects in Cincinnati in late 1930s	
609	Walnut Street	Hotel Metropole/ Metropole Apartments	HAM-6980-44	LF	NR Eligible	C: Significant for its Mannerist Neo-Classical architecture	
633, 637	Walnut Street	Gibson Flats/Gibson Lofts	HAM-6926-44	LF	NR Eligible	C: An early example of a flat-type apartment building and a rare example of the French Second Empire style in downtown Cincinnati	

Downtown Cincinnati *Individual Buildings Recommended Eligible*							
29	E. Eighth Street	St. Louis Church	HAM-2053-44	U	NR Eligible and Local Landmark	C and Criterion Consideration A: Significant as an early example of the Art Deco style in Cincinnati and a fine example of work by Boston architects, McGinnis & Walsh	
700	Walnut Street	Hibben Dry Goods Company Building	HAM-5487-44	U	NR Eligible as part of Samuel Hannaford/Samuel Hannaford & Sons Thematic Nomination	C: A sophisticated example of Commercial style by Samuel Hannaford & Sons, which was not identified with the firm at time of Samuel Hannaford Thematic nomination in 1979	
OVER-THE-RHINE							
Over-the Rhine *National Register and Local Historic District*							
1110-1440 1119, 1122-1412, 1447 449 30, 100	Main Street Walnut Street E. 13th Street E. Central Parkway	Over-the-Rhine National Register and Local Historic District		M	Over-the-Rhine NR & Local	A: Associated with the large German community that settled in Cincinnati in the nineteenth century C: A cohesive nineteenth century neighborhood with excellent examples of commercial, residential and ecclesiastical architecture	
1416, 1414	Walnut Street		HAM-6932-4	SF	Over-the-Rhine NR & Local		
1413	Clay Street		HAM-6933-4	SF	Over-the-Rhine NR & Local		
1418,1420	Walnut Street		HAM-6934-4	SF	Over-the-Rhine NR & Local		
1422, 1424	Walnut Street		HAM-6935-4	SF	Over-the-Rhine NR & Local		
1417	Clay Street		HAM-6936-4	SF	Over-the-Rhine NR & Local		
1432	Walnut Street		HAM-6937-4	SF	Over-the-Rhine NR & Local		
1434, 1436	Walnut Street		HAM-6938-4	SF	Over-the-Rhine NR & Local		
1438	Walnut Street	Grammer's	HAM-6939-4	SF	Over-the-Rhine NR & Local		
123	Liberty Street	Uptown Arts Center	HAM-6940-4	SF	Over-the-Rhine NR & Local		
1431, 1433	Main Street	Wellage & Buxton Framers	HAM-6941-4	SF	Over-the-Rhine NR & Local		

Over-the Rhine ***National Register and Local Historic District, cont.***							
1435, 1437	Main Street	Take The Cake	HAM-6942-4	SF	Over-the-Rhine NR & Local		
Over-the Rhine ***Individually Listed Buildings within National Register and Local Historic District***							
222	East Central Parkway	Alms and Doepke Building	HAM-2231-4	U	Samuel Hannaford Thematic NR/ Over-the-Rhine NR	C: Designed by Cincinnati's premier nineteenth century architectural firm	
123	East 13th Street	Old St. Mary's Church	HAM-7275-4	LF	NR	C and Criterion Consideration A: Significant as the oldest extant church in Cincinnati, and its Greek Revival and baroque elements	
1201	Main Street	Theodore Krumberg Building	HAM-7276-4	LF	NR	C: Excellent example of Italianate architecture that embodies the materials, design, and distinctive characteristics of the style.	
1614	Main Street	Rhine Main Apartments/ S. C. Mayer Residence	HAM-2033-4	SF	Samuel Hannaford Thematic NR/ Over-the-Rhine NR	C: Designed by Cincinnati's premier nineteenth century architectural firm	
MOUNT AUBURN TUNNEL							
Mount Auburn Tunnel *National Register and Local Historic District*							
(Partial survey; remainder will be included in addendum report)							
1601,1603	Main Street		HAM-6943-4	SF	Over-the-Rhine NR & Local	A: Associated with the large German community that settled in Cincinnati in the nineteenth century	
1605	Main Street		HAM-6944-4	SF	Over-the-Rhine NR & Local	C: A cohesive nineteenth-century neighborhood with excellent examples of commercial residential, and ecclesiastical architecture	
1607, 1609, 1611	Main Street		HAM-6945-4	SF	Over-the-Rhine NR & Local		
165	McMicken Avenue		HAM-6946-4	SF	Over-the-Rhine NR & Local		
163	McMicken Avenue		HAM-6947-4	SF	Over-the-Rhine NR & Local		
161	McMicken Avenue		HAM-6948-4	SF	Over-the-Rhine NR & Local		
157,159	McMicken Avenue	Schaller Bros. Stable/ Don's Crankshaft Co.	HAM-6949-4	SF	Over-the-Rhine NR & Local		
1600	Main Street		HAM-6950-4	SF	Over-the-Rhine NR & Local		

Mount Auburn Tunnel *National Register and Local Historic District, cont.*							
1602	Main Street		HAM-6951-4	SF	Over-the-Rhine NR & Local		
1604	Main Street	Taste Buds	HAM-6952-4	SF	Over-the-Rhine NR & Local		
1606	Main Street		HAM-6953-4	SF	Over-the-Rhine NR & Local		
1608	Main Street		HAM-6954-4	SF	Over-the-Rhine NR & Local		
1610	Main Street		HAM-6955-4	SF	Over-the-Rhine NR & Local		
1612	Main Street		HAM-6956-4	SF	Over-the-Rhine NR & Local		
158	McMicken Avenue		HAM-6958-4	SF	Over-the-Rhine NR & Local		
154	McMicken Avenue		HAM-6959-4	SF	Over-the-Rhine NR & Local		
1632, 1634	Main Street		HAM-6960-4	SF	Over-the-Rhine NR & Local		
1701	Main Street	USA Peace Groceries	HAM-6962-4	SF	Over-the-Rhine NR & Local		
232	E. Clifton Avenue		HAM-6963-4	SF	Over-the-Rhine NR & Local		
232 R	E. Clifton Avenue		HAM-6964-4	SF	Over-the-Rhine NR & Local		
228	E. Clifton Avenue		HAM-6965-4	SF	Over-the-Rhine NR & Local		
226	E. Clifton Avenue		HAM-6966-4	SF	Over-the-Rhine NR & Local		
241	E. Clifton Avenue	Rothenburg School	HAM-544-4	U	Over-the-Rhine NR & Local		
1722	Main Street		HAM-6967-4	SF	Over-the-Rhine NR & Local		
10	Antique Street		HAM-6968-4	SF	Over-the-Rhine NR & Local		
225	Peete Street		HAM-6969-4	SF	Over-the-Rhine NR & Local		
217	Mulberry Street		HAM-6970-4	SF	Over-the-Rhine NR & Local		
215	Mulberry Street		HAM-6971-4	SF	Over-the-Rhine NR & Local		

Mount Auburn Tunnel ***National Register and Local Historic District, cont.***							
213	Mulberry Street		HAM-6972-4	SF	Over-the-Rhine NR & Local		
211	Mulberry Street		HAM-6973-4	SF	Over-the-Rhine NR & Local		
209	Mulberry Street		HAM-6974-4	SF	Over-the-Rhine NR & Local		
207	Mulberry Street		HAM-6975-4	SF	Over-the-Rhine NR & Local		
206	Mulberry Street		HAM-6976-4	SF	Over-the-Rhine NR & Local		
309	Mulberry Street		HAM-6977-4	SF	Over-the-Rhine NR & Local		
304	Mulberry Street		HAM-6978-4	SF	Over-the-Rhine NR & Local		
306	Mulberry Street		HAM-6979-4	SF	Over-the-Rhine NR & Local		
UPTOWN							
Uptown ***Proposed Corryville Jefferson Avenue/Vine Street Historic District***							
2610	Jefferson Avenue		HAM-6630-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)	A: Associated with the late nineteenth and early twentieth century development of this early hilltop suburb settled mainly by Germans	
2612	Jefferson Avenue		HAM-6631-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)	C: Collection of residential, commercial, and institutional buildings that compose the most intact section of this early suburb	
2614	Jefferson Avenue		HAM-6632-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2616	Jefferson Avenue		HAM-6633-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2618	Jefferson Avenue		HAM-6634-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2620	Jefferson Avenue		HAM-6635-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		

Uptown ***Proposed Corryville Jefferson Avenue/Vine Street Historic District, cont.***							
2624	Jefferson Avenue		HAM-6636-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2626	Jefferson Avenue		HAM-6637-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2628	Jefferson Avenue		HAM-6638-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2630	Jefferson Avenue		HAM-6639-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2700	Jefferson Avenue	Jefferson House	HAM-6640-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2706	Jefferson Avenue		HAM-6641-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2708	Jefferson Avenue		HAM-6642-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2710	Jefferson Avenue		HAM-6830-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2712	Jefferson Avenue		HAM-6643-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2714	Jefferson Avenue		HAM-6644-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2716	Jefferson Avenue		HAM-6645-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2718	Jefferson Avenue		HAM-6646-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2720	Jefferson Avenue		HAM-6647-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		

Uptown ***Proposed Corryville Jefferson Avenue/Vine Street Historic District, cont.***							
2722	Jefferson Avenue		HAM-6648-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2724	Jefferson Avenue		HAM-6649-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
29	West Daniels Street		HAM-6650-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2800	Jefferson Avenue		HAM-6651-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2802	Jefferson Avenue		HAM-6652-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2804	Jefferson Avenue		HAM-6653-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2808	Jefferson Avenue		HAM-6654-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2810, 2812, 2814	Jefferson Avenue		HAM-6655-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2816	Jefferson Avenue		HAM-6656-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2818, 2820	Jefferson Avenue		HAM-6657-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2822	Jefferson Avenue		HAM-6658-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2824	Jefferson Avenue	Hi Rise Deli	HAM-6659-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		

Uptown ***Proposed Corryville Jefferson Avenue/Vine Street Historic District, cont.***							
2900	Jefferson Avenue	Kilgrue's; Buzz Coffee House	HAM-6660-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2902	Jefferson Avenue		HAM-6661-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2904	Jefferson Avenue		HAM-6662-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2908	Jefferson Avenue		HAM-6663-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2910	Jefferson Avenue		HAM-6664-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2912	Jefferson Avenue		HAM-6665-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2914	Jefferson Avenue		HAM-6666-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2918	Jefferson Avenue		HAM-6831-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2922	Jefferson Avenue		HAM-6832-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2924	Jefferson Avenue		HAM-6833-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2926	Jefferson Avenue		HAM-6834-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2928	Jefferson Avenue		HAM-6667-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		
2930	Jefferson Avenue		HAM-6668-2	SF	NR Eligible (Corryville Jefferson Ave./ Vine St. HD)		

Uptown *Proposed Corryville Jefferson Avenue/Vine Street Historic District, cont.*							
3028	Vine Street	Clifford Memorial Chapel/ The Truth Missionary Baptist Church	HAM-1905-2	U	Officially determined not eligible (1988)		OHPO concurred with the City of Cincinnati Historic Conservation Board decision that the building was not eligible (June 1, 1988)
Uptown *Zoo Alignment Option*							
To be evaluated separately in addendum report							
AVONDALE TO NORWOOD							
Avondale/ Evanston *Individual Buildings Previously Listed*							
1507	Dana Avenue	Coca-Cola Bottling Plant; F & W Publications	HAM-6843-29	LF	NR	C: Excellent intact example of a Art Moderne industrial building	
Avondale/ Evanston *Individual Buildings Recommended Eligible*							
3025	Bathgate Street	Rubel Bakery; Tom Thakes Enterprises	HAM-6593-1	LF	NR Eligible	A: Associated with Rubel Baking Company founded in 1882, an important innovative company C: Example of twentieth century Beaux Arts elements as applied to an industrial building	
City of Norwood *Individual Buildings Recommended Eligible*							
1906	Williams	Williams House	HAM-4548-58	U	NR Eligible	A: Associated with the early suburban development in this section of the former Mill Creek Township, prior to Norwood's rise as an important industrial center in Hamilton County.	
4226	Montgomery Road	Hopkins Ave. Depot/CL&N RR Office	HAM-4580-58	U	NR Eligible	A: Last remaining structure associated with the CL&N railroad, an important component in the early development of Norwood	
City of Norwood *Industrial Buildings Multiple Properties NRE*							
1775, 1776	Mentor Avenue	Foy-Johnson Inc.	HAM-4546-58	U	NR Eligible Norwood Industrial Multiple Properties: Determined Eligible (September 1995)	A: Associated with the earliest phase of Norwood's industrial development, which began in the late nineteenth century and had a profound impact on the community's character	Determined eligible by OHPO in 1995 in Section 106 Review of Proposed Hamilton County Incubator Project
2265	Park Avenue	The Kemper-Thomas Company; Salvation Army Rehabilitation Center	HAM-4526-58	U	NR Eligible Norwood Industrial Multiple Properties	C: Fine examples of the architectural embodiment of the Model Factory Movement	
4620	Forest Avenue	Bullock Electric Company;	HAM-4533-58	U	NR Eligible Norwood Industrial Multiple		

		Siemens Energy & Automation			Properties		
5038	Beech Street	Weir Frog Co.; King Wrecking Services	HAM-4515-58	U	NR Eligible Norwood Industrial Multiple Properties		
2510	Highland Avenue	Perry & Derrick Co.	HAM-4513-58	U	NR Eligible Norwood Industrial Multiple Properties		
NORWOOD TO BLUE ASH							
Norwood to Blue Ash *Individual Buildings Recommended Eligible*							
7047	Montgomery Road	Woltz Building; Silverton Grill	HAM-2789-50	U	NR Eligible	A: Associated with early suburban development in Silverton C: Significant example of a late nineteenth century Queen Anne mixed-use building in suburban Hamilton County	
7234	Blue Ash Road	IR&T; Stewart Industries	HAM-4591-50	U	NR Eligible	A: Associated with and constructed by the Interurban Railway & Terminal Company (IR&T), a significant interurban located between Norwood and Blue Ash	
BLUE ASH							
Blue Ash *Individual Buildings Recommended Eligible*							
4658	Cooper Road	Isaac Conklin House	HAM-2862-50	U	NR Eligible	A: Associated with the early settlement of Sycamore Township C: Intact and relatively rare example of an early nineteenth century I-house in NE Hamilton County	

Blue Ash *Proposed Aldine Drive and Kenwood Road Historic District*							
9876	Kenwood Road		HAM-6738-50	SF	NR Eligible (Aldine Drive/Kenwood Road Historic District)	A: Associated with post-Depression suburban housing efforts in NE Hamilton County C: Significant and architecturally cohesive collection of Tudor and Colonial Revival houses dating from c.1937-1941 that predates most of Blue Ash's mid-twentieth century suburban development	
9900	Kenwood Road		HAM-6741-50	SF	NR Eligible (Aldine Drive/Kenwood Road Historic District)		
9916	Kenwood Road		HAM-6742-50	SF	NR Eligible (Aldine Drive/Kenwood Road Historic District)		
9926	Kenwood Road		HAM-6743-50	SF	NR Eligible (Aldine Drive/Kenwood Road Historic District)		
9936	Kenwood Road		HAM-6744-50	SF	NR Eligible (Aldine Drive/Kenwood Road Historic District)		
9946	Kenwood Road		HAM-6745-50	SF	NR Eligible (Aldine Drive/Kenwood Road Historic District)		
9956	Kenwood Road		HAM-6746-50	SF	NR Eligible (Aldine Drive/Kenwood Road Historic District)		
9966	Kenwood Road		HAM-6629-50	SF	NR Eligible (Aldine Drive/Kenwood Road Historic District)		
9976	Kenwood Road		HAM-6747-50	SF	NR Eligible (Aldine Drive/Kenwood Road Historic District)		
4964	Aldine Drive		HAM-6739-50	SF	NR Eligible (Aldine Drive/Kenwood Road Historic District)		
4965	Aldine Drive		HAM-6740-50	SF	NR Eligible (Aldine Drive/Kenwood Road Historic District)		

Source: Gray and Pape, 2001, Legend for Abbreviations: NR = National Register, U=update to OHI form, M=mapping only, SF=short OHI form, LF=long OHI form, DE=District Evaluation)

3.6.3 IMPACTS RELATED TO HISTORIC AND ARCHAEOLOGICAL RESOURCES

3.6.3.1 Archaeological resources

The results of the inventory of previously recorded archaeological sites and the assessment of the potential for corridor segments to contain significant, intact archaeological deposits suggests that numerous, as yet unrecorded, archaeological resources may be present within the Cincinnati LRT project corridor. While it is acknowledged that much of the proposed construction related to the alternatives discussed below will occur within existing street or railroad rights-of-way that have already been extensively disturbed and have low potential for significant, intact archaeological deposits, certain components related to these alternatives will occur in areas either outside disturbed right-of-way or below the current level of disturbance. Based on this assessment, it will be necessary to conduct a systematic archaeological survey of those areas identified as having a potential for significant, intact archaeological resources during the FEIS phase of this project. To that end, the report entitled, *Phase I Archaeological Investigation of the I-71 Corridor Light Rail Transit Project, Hamilton County, Ohio and Kenton County, Kentucky* (Gray & Pape, Inc., October 2001) has been submitted to the OHPO and KHC for their review and comment on recommendations for those areas needing field testing. It should be noted that this report does not include an assessment of the potential for archaeological resources to be present in the Mount Auburn Tunnel or Cincinnati Zoo Segments as they have not yet been completed.

Any sites identified during field testing and subsequently determined NRHP eligible by the FTA will be assessed for any effect that proposed project components may have on them. NRHP eligible sites determined to be adversely affected by the proposed project will have mitigation plans developed in consultation with the KHC and OHPO to minimize or avoid any adverse effects and will be implemented prior to any construction activities.

No-Build Alternative

Committed funded road improvement projects along the I-71 and I-75 corridors included as part of the No-Build Alternative will occur largely within state-owned previously disturbed right-of-way where archaeological potential is low. Section 106 of the NHPA, however, requires that prior to the release of federal funds for implementation of these projects, that efforts be taken to identify any archaeological resources that may be located within the APE defined for these individual projects. Further, federal agencies are required to assess the potential effects of these undertakings on those resources identified within the APE and make reasonable attempts to avoid or minimize those effects.

TSM Alternative

This alternative consists primarily of low cost improvements to existing transportation infrastructure within already disturbed public right-of-way, with the exception of the proposed transit centers for which specific locations have not yet been finalized. When specific locations for these transit centers, as well as the nature of the other planned improvements, have been finalized it is anticipated that those projects utilizing federal funds or requiring federal permits would be subject to the requirements of Section 106 of the NHPA. This law requires that federal agencies consider the effect of any proposed undertakings on cultural resources and make reasonable attempts to avoid or minimize effects to them prior to issuance of funds or permits to project applicants.

Build (LRT) Alternatives

Alternative 1
A total of 57 areas would require field testing during the FEIS phase of the project to determine if significant, intact archaeological resources are present and if they would be directly impacted by this alternative.

Alternative 2
The same 57 areas identified under Alternative 1 would still require field testing during the FEIS phase of the project. However, in the area of Covington where the proposed track would be above grade, only the specific locations of the elevated track piers would require testing in these identified areas. Under this alternative, the segment with elevated tracks may allow greater flexibility to re-align pier locations to avoid any identified sites and would serve to minimize any anticipated impacts to this segment.

Alternative 3
The same 57 areas identified under Alternative 1 would require field testing during the FEIS phase of the project. It should be noted that an assessment of the potential for significant, intact archaeological resources is not yet completed for that portion of the LRT alignment defined for the Cincinnati Zoo area.

Alternative 4
The same 57 areas identified under Alternative 2 would require field testing during the FEIS phase of the project. It should be noted that an assessment of the potential for significant, intact archaeological resources is not yet completed for that portion of the LRT alignment defined for the Cincinnati Zoo area.

3.6.3.2 Architectural Resources

The KHC received *A Cultural Resource Survey for I-71 Corridor Light Rail Transit in Covington, Kenton County, Kentucky* (H. Powell and Co., Inc., July 2001). This document identified the existing historic districts in the Covington segment and evaluated impacts to them.

The *Phase I Architectural Survey of the Proposed I-71 Corridor Light Rail Transit, Hamilton County, Ohio* (Gray & Pape, Inc., October 2001) was submitted to the OHPO on October 4, 2001. This report identified existing NRHP and local historic districts, existing NRHP individual properties, and recommended as eligible three additional historic districts, a Multiple Property designation, and eleven individual buildings. Response from the OHPO on eligibility is pending. After a determination of eligibility, a determination of effects for the Ohio segments will be undertaken.

The *Phase I Architectural Survey of the Proposed I-71 Corridor Light Rail Transit, Hamilton County, Ohio* did not include the Zoo alignment option or the Mount Auburn Tunnel segment in its assessment. These sections will be surveyed and reported on in an Addendum report.

All build alternative evaluations are based on information contained in the May 30, 2001, LRT Preliminary Engineering Draft Environmental Impact Statement (DEIS) Plan Set. Known proposed impacts, including proposed station locations and proposed demolitions, have been identified by segment for future analysis when eligibility recommendations have been reviewed for the Ohio segments.

No-Build Alternative

This alternative utilizes the existing transportation system and includes improvements currently programmed in the regional TIP for fiscal years 1998 through 2001. If these roadway improvement

projects have been completed, it is assumed that their impacts are accounted for as part of the existing environment. Should any projects remain to be completed, Section 106 of the NHPA requires that prior to the release of federal funds for implementation of these projects, that efforts be taken to identify any architectural resources that may be located within the APE defined for these individual projects. Further, federal agencies are required to assess the potential effects of these undertakings on those resources identified within the APE and make reasonable attempts to avoid or minimize those effects.

TSM Alternative

This alternative utilizes a variety of low-capital-cost improvements to the existing transportation system designed to improve transportation conditions in the I-71 corridor. It would include major expansion of the current bus system, TDM programs such as carpooling and telecommuting, ITS and traffic engineering improvements.

Bus expansions for the TSM alternative would include improved local and express service and the addition of transit centers where several bus routes would converge to facilitate bus transfers. It is assumed that many of these improvements can be achieved without acquiring additional private property to expand the public right-of-way, except to accommodate the proposed transit centers. Specific locations and proposed improvements for the proposed transit centers have not been identified at this time. When specific locations for the centers, or any other improvements which could affect historic resources are identified, Phase I survey will be carried out to identify any properties that may be eligible for the NRHP, and effects determined after eligibility decisions from the Kentucky or Ohio SHPO.

Build (LRT) Alternatives

Alternative 1

Covington Segment
Known Potential Impacts. The Covington Segment includes the 12th Street, Pike Street and Covington Riverfront (at-grade) stations, at-grade and above-grade trackage, substations near 109 W. 11th Street and near the Riverfront station, eight bridges and approximately 20 demolitions.

Historic Resources Impacts. The Covington segment of the I-71 alignment is largely contained within National Register districts. Other properties that may be affected outside of the districts have been evaluated and found not eligible. The Kentucky Heritage Council has reviewed the recommendations for the Covington Segment and found that there will be an Adverse Effect to five National Register Historic Districts, and an Adverse Effect on two individually listed buildings (see Appendix 3-1 for correspondence). Of the approximately 20 demolitions, 14 are contributing properties within National Register districts. Another 82 buildings will suffer effects from changes to their viewshed and/or historic character (Table 3.6.5). The effects are concentrated in the areas surrounding the 12th Street and Pike Street stations. For architectural resources, neither the elevated or at-grade Covington Riverfront stations have any adverse effects.

Table 3.6.5 Covington Segment Effects

NR District/Site	Buildings Demolished	Land Acquisition	View/Historic Character Changes	KHC Determination of Effects (August 2001)
East Lewisburg District				**Adverse Effect**
	1210 Russell	1210-1222 Russell	1211 Russell	
	1212 Russell		1217 Russell	
	1214 Russell		1221 Russell	
	1218 Russell		1227 Russell	
	1220 Russell		1229 Russell	
	1222 Russell		1231 Russell	
	1232 Russell		1302-04 Russell	
Seminary Square District				**Adverse Effect**
	No building demolitions	East of 109 W. 11th St.	1107 Russell	
			1108 Russell	
			1109 Russell	
			1111 Russell	
			1114 Russell	
			1115 Russell	
			1117 Russell	
			1119 Russell	
			1123 Russell	
			1125 Russell	
			1127 Russell	
			106 W. 11th St.	
			108 W. 11th St.	
			109 W. 11th St.	
			110 W. 11th St.	
			111 W. 11th St.	
			111 R. W. 11th St.	
			115 W. 11th St.	
			119 W. 11th St.	
			111 Robbins St.	
			113 Robbins St.	
			115 Robbins St.	
			117 Robbins St.	
			113 W. 10th St.	
			117 W. 10th St.	
Wadsworth Electric Manufacturing Co. 20 W. 11th St.				**Adverse Effect**
	No building demolitions	Potential acquisition on N. side of W. 11th St. and S. side of Robbins for bridges	20 W. 11th St.	
Covington Downtown District				**Adverse Effect**
	137 Pike St.	Area between W. Eighth and Pike	31 W. Eighth St.	
	139 Pike St.		32 W. Eighth St.	
	141 Pike St.		34 W. Eighth St.	
	Distillery Warehouse		722 Washington St.	

NR District/Site	Buildings Demolished	Land Acquisition	View/Historic Character Changes	KHC Determination of Effects (August 2001)
Covington Downtown District, cont.				**Adverse Effect**
			728 Washington St.	
			730 Washington St.	
			40 Pike St.	
			102-104 Pike St.	
			106 Pike St.	
			108 Pike St.	
			110-112 Pike St.	
			115 Pike St.	
			121 Pike St.	
			124 Pike St.	
			125 Pike St.	
			129 Pike St.	
			103-32 Pike St.	
			138 Pike St.	
			140 Pike St.	
			200 Pike St.	
			632 Russell St.	
Mutter Gottes District				**Adverse Effect**
	211 Athey Ave.	211-221 Athey Ave.	202-228 Athey Ave.	
	217 Athey Ave.		210 Athey Ave.	
	221 Athey St. Ave.		212 Athey Ave.	
	Brick paved street		218 Athey Ave.	
			224 Athey Ave.	
			226 Athey Ave.	
			228 Athey Ave.	
			215 W. SixthSixth St.	
			216 W. SixthSixth St.	
			217 W. SixthSixth St.	
			218 W. SixthSixth St.	
			221 W. SixthSixth St.	
			227 W. SixthSixth St.	
			229 W. SixthSixth St.	
			230 W. Sixth St.	
			526 Craig St.	
			530 Craig St.	
			532 Craig St.	
			224 Kentucky St.	
			237 Kentucky St.	
			239 Kentucky St.	
			240 Kentucky St.	
			241 Kentucky St.	
			242 Kentucky St.	

NR District/Site	Buildings Demolished	Land Acquisition	View/Historic Character Changes	KHC Determination of Effects (August 2001)
West Side/ Mainstrasse District				**Adverse Effect**
	No building demolitions	Land from block between W 10th and W Ninth	119 W. Ninth St.	
			123 W. Ninth St.	
			125 W. Ninth St.	
		Rerouting of Pershing Street	812 Russell St.	
Total NRHP Effects	**14 Buildings, 1 structure (street)**		**82 Buildings**	

Source: H. Powell and Co., Inc., July 2001

The Kentucky Heritage Council has identified the following Adverse Effects:

- An Adverse Effect upon the East Lewisburg Historic District because of the taking of seven contributing structures and due to direct visual and audible impacts;
- An Adverse Effect upon the Seminary Square Historic District because of direct visual and audible impacts;
- An Adverse Effect upon the Covington Downtown Historic District because of the taking of four contributing structures and due to major visual and character altering impacts through construction of a station;
- An Adverse Effect upon the Mutter Gottes Historic District because of the taking of three contributing structures and a portion of a brick paved street, and due to direct visual and audible impacts;
- An Adverse Effect on the West Side Mainstrasse District because of the taking of property from the historic boundary and due to visual impacts;
- An Adverse Effect on the Wadsworth Electric Company, due to alterations of the property's setting;
- An Adverse Effect on the C and O Depot, due to alterations of the property's setting.

Ohio Segments

Table 3.6.6 identifies all proposed demolitions and the level of recordation for those buildings. It should be noted that only some of the buildings noted in Table 3.6.6 proposed for demolition are considered or recommended eligible; they are noted in the text below.

Ohio River Crossing Segment
Known Potential Impacts. The construction of a new river crossing located east of the Clay Wade Bailey Bridge will require a minimum of four new bridges connecting the actual river crossing with the northbound and southbound alignments in the Riverfront segment. A traction power substation is proposed on the Ohio side of the river.

Historic Resources Impacts. One building at 511 Water Street is proposed for demolition; it is not recommended eligible. Consideration should be given to any impacts on the viewshed or setting of a 1930s railroad bridge on the west side of the Clay Wade Bailey Bridge and the NRHP Roebling

Suspension Bridge approximately one-half mile east of the proposed crossing, as design work proceeds. Proposed designs and determination of effects would occur in consultation with SHPO in later project phases.

Cincinnati Riverfront Segment
Known Potential Impacts. A northbound The Banks Station is located on the south side of Second Street between Vine and Walnut and the corresponding southbound The Banks Station is on the south side of Third Street between Vine and Walnut. A traction power substation is proposed at the southeast corner of Walnut and Second streets.

Historic Resources Impacts. No architectural resources have been identified for demolition in this segment.

Downtown Cincinnati Segment
Known Potential Impacts. This segment contains a pair of one-way alignments running from Second and Third streets north on the west side of Main Street and south on the east side of Walnut Street. The northbound Government Square station will be located on the west side of Main north of East Fifth Street and adjacent to the Government Square transit center (proposed for reconstruction). The northbound Courthouse Station is proposed for the west side of Main north of East Ninth Street. The southbound stations include the Government Square Station on the east side of Walnut north of Fifth Street, and the Courthouse Station on the east side of Walnut north of East Ninth Street. A transit power substation will be located at the northwest corner of Eighth and Main streets in an existing surface parking lot. Other proposed changes include reconstruction of curbs and sidewalks and changes of curb height to accommodate access to the trains.

Historic Resources Impacts. No architectural resources have been identified for demolition in this segment.

Over-the-Rhine Segment
Known Potential Impacts. The LRT alignment in this segment runs northbound on the west side of Main Street and southbound on the east side of Walnut Street. Both northbound and southbound enter in a tunnel portal north of Liberty and Main streets, in the vicinity of Mulberry Street, within the Mount Auburn Tunnel segment. The northbound Over-the-Rhine Station is located on the west side of Main Street between East Fourteenth and Melindy streets. The southbound Over-the-Rhine station is proposed for the existing parking lot of the Uptown Arts Center facing East Liberty Street between Main and Walnut streets. Other changes proposed include reconstruction and lowering of Main Street in areas to accommodate the station platforms. The two parallel routes in this segment join at the junction of Main and East Liberty streets. This turn will necessitate the demolition of buildings addressed 1414 through 1432 on the east side of Walnut, and two buildings addressed on Clay Street, to both accommodate the turn and additional parking.

Historic Resources Impacts. The entirety of Over-the-Rhine in the project area is listed in the NRHP. In addition, the portion of Over-the-Rhine south of Liberty Street is a locally designated historic district. Six buildings included in the NRHP district and the local historic district are proposed for demolition (Table3.6.6). Demolition of properties within National Register historic districts are reviewed by the SHPO when Federal funds or permits are involved in the project. Determination of effects and discussion of mitigation would occur in consultation with the SHPO in later project phases. Demolitions or exterior changes to buildings within local historic districts are reviewed and approved by the Historic Conservation Board (HCB) in Cincinnati, a nine-member group of professionals appointed by the City Manager.

Mount Auburn Tunnel Segment

Known Potential Impacts. Phase I survey was conducted only in the southern portion of this segment between East Liberty Street and the intersection of Main and Mulberry streets. Phase I survey was not conducted in the areas to the north (the tunnel under Mount Auburn) during this phase of the investigation because the extent of the effects were not known to the degree necessary to determine the appropriate survey methods or extent of the APE. The results of survey for the remainder of the segment will be presented in an addendum report.

In the southern portion of the segment prior to the tunnel portal at Main and Mulberry streets, the paired route is aligned east of the existing Main Street right-of-way. This will result in the demolition of five buildings at the intersection of East Liberty, Main, and McMicken, as well as four buildings facing Main and two facing Mulberry. The alignment in this area will also result in the creation of a new cul-de-sac at Antique and Peete streets. A transit power substation will be located at Antique Street and Clifton Avenue, resulting in the demolition of four buildings.

Historic Resources Impacts. Buildings proposed for demolition in this segment are all located in the Over-the-Rhine NRHP district. A local historic district for Over-the-Rhine north of Liberty Street was designated in late September 2001. Demolitions or exterior changes to buildings within local historic districts are reviewed and approved by the HCB in Cincinnati. Demolition of properties within National Register historic districts are reviewed by the SHPO when Federal funds or permits are involved in the project. Demolition of properties or taking of land within historic districts is typically viewed as an adverse effect and would require mitigation if the project proceeds as proposed. Determination of effects and discussion of mitigation would occur in consultation with the SHPO in later project phases.

Effects resulting from boring procedures needed for the tunnel may also have impacts on architectural resources; these potential effects will be determined after determination of eligibility and in consultation with the SHPO in later project phases.

Uptown Segment

Known Proposed Impacts. The proposed LRT alignment will emerge from the tunnel at Jefferson Avenue south of W. Charlton Street and includes paired stations located in the center of a widened Jefferson Avenue (widened on the west side). A substation is proposed to be located within the University of Cincinnati right-of-way north of W. Charlton Street on the west side of Jefferson Avenue. The route will then follow Jefferson Avenue, with a central alignment from Charlton Street to MLK Drive. The alignment then curves from Jefferson to the south side of MLK Drive**,** requiring the demolition of 12 buildings, to accommodate the curve that requires the creation of cul-de-sacs at the north ends of Ahrens and Euclid avenues. The alignment then crosses over to the north side of MLK Drive on an overpass bridge at Eden Avenue and bridges over Highland and Burnet avenues. The proposed Medical Center Station Option B (elevated) is located between Bellvue and Highland avenues. Other proposed changes include retaining walls, and street infrastructure changes including reconstructed sidewalks, curbs and gutters.

Historic Resources Impacts. There are 16 buildings proposed for demolition in this segment. None of these buildings are located in the proposed Corryville Jefferson Avenue/Vine Street Historic District being evaluated for eligibility. Two of the buildings proposed for demolition are post-1960 and do not meet eligibility qualifications. Other buildings proposed for demolition were inventoried, however none have been recommended eligible. The most distinctive building is the Clifford Memorial Chapel (HAM-1905-2) at 3028 Vine Street; it has been officially determined not eligible by the SHPO.

All properties are subject to eligibility review by the SHPO; should the SHPO determine any properties eligible, demolition would be viewed as an adverse effect and require mitigation. Determination of effects and discussion of mitigation would occur in consultation with the SHPO in later project phases.

Avondale to Norwood Segment
For architectural resources, this segment has been further subdivided into Avondale/Evanston and the City of Norwood because of a large number of properties in the City of Norwood.

Avondale/Evanston:
Known Potential Impacts. The proposed Avondale Station B is located at the northwest corner of MLK Drive and Reading Road. East of Reading Road, the line continues north of the existing MLK Drive right-of-way, requiring cul-de-sac changes at Borrman Street and Savoy Place and six demolitions. A substation is proposed for the west side of Van Buren north of MLK Drive. East of Van Buren, the alignment then follows the SORTA line, formerly the Indiana & Ohio Railroad right-of-way, from Reading Road and MLK Drive to Dana Avenue. A new bridge over the LRT right-of-way, is proposed at Whittier Street to replace an existing bridge that is less than 50 years old. A large parcel at Fredonia and Melbourne avenues has been identified as the LRT yard site and would cause the demolition of several early twentieth century industrial buildings. The Xavier Station is proposed for east of Dana Avenue near Idlewild and Newton avenues. A traction power substation is proposed for the site southwest of the proposed station.

Historic Resources Impacts. There are 10 buildings proposed for demolition in this segment. Two of the buildings proposed for demolition are post-1970 and do not meet eligibility qualifications. Other buildings proposed for demolition were inventoried, however none have been recommended eligible. These properties are subject to eligibility review by the SHPO; should the SHPO determine any properties eligible, demolition would be viewed as an adverse effect and require mitigation. Determination of effects and discussion of mitigation would occur in consultation with the SHPO in later project phases.

The Coca-Cola Bottling Plant, the single NRHP property north of Corry Street within the project area, is located just north of the proposed LRT right-of-way. The south elevation of the building is approximately 100 feet from the centerline of the proposed line. Any potential effects to this building or any others determined eligible would be discussed in consultation with the SHPO in later project phases.

City of Norwood:
Known Potential Impacts. Within the City of Norwood, the alignment generally follows the SORTA right-of-way from Dana Avenue north to the City of Norwood limits. The Norwood Station is proposed for the southwest corner of Smith Road and Lafayette Avenue. Traction power substations are planned for the intersection of Forest and Harris avenues, and on the north side of Highland Avenue near Beech Street. The alignment is raised crossing the CSX Railroad, Forest Avenue and the Norwood Lateral until reaching Norwood Avenue. The proposed alignment northeast from Huston to Montgomery involves the demolition of six more recently constructed residential buildings on Mentor Street. Other proposed changes in this segment include the construction of soundwalls, retaining walls, modified roadways and grade crossing protections systems,

Historic Resources Impacts. There are 13 properties proposed for demolition in the City of Norwood. Eight of these properties date from 1980 or later and are not eligible. The other properties have been inventoried and none of them has been declared eligible. None of the proposed demolitions are buildings included in the proposed Norwood Industrial Properties Multiple Property designation.

All properties are subject to eligibility review by the SHPO; should the SHPO determine any properties eligible, demolition would be viewed as an adverse effect and require mitigation. Determination of effects and discussion of mitigation would occur in consultation with the SHPO in later project phases.

Norwood to Blue Ash Segment
Known Proposed Impacts. This alignment contains the Ridge Avenue Station at Ridge Avenue; the Silverton station at Montgomery Road and Hedge (Highland) Avenue; and the Galbraith Station at the northwest corner of Galbraith Road and Blue Ash Road. Traction power substations are located adjacent to the Ridge Avenue parking lot; northeast of Robison Road; adjacent to the Silverton station parking lot; north of the intersection with Webster Avenue; at the corner of the Galbraith station lot near the intersection with Kugler Mill Road; and an additional substation near the line and Elizabeth Place. Other potential changes proposed for this segment may include soundwalls, grade crossing protection systems, retaining walls, a new frontage road, and new bridges.

Historic Resources Impacts. There are nine properties recommended for demolition in the Norwood to Blue Ash segment. All properties were inventoried; none were recommended eligible. All properties are subject to eligibility review by the SHPO; should the SHPO determine any properties eligible, demolition would be viewed as an adverse effect and require mitigation. Determination of effects and discussion of mitigation would occur in consultation with the SHPO in later project phases.

Blue Ash Segment
Known Potential Impacts. Four stations are proposed for this segment, including the Cooper Station at Blue Ash Road; Pfeiffer Road Station north of Pfeiffer Road at Lake Forest west of Kenwood; Reed Hartman Station at Osborne Boulevard, and Cornell Park Station at the Sharon Woods Technical Center. Traction power substations are proposed at Kenwood Road; at the intersection of Creek Road; in the Pfeiffer Road Station parking lot; prior to Cornell Road; and in the parking lot of the Cornell Park station. Other potential changes proposed for this segment may include soundwalls, grade crossing protection systems, road improvements, retaining walls, and new bridges.

Historic Resources Impacts. Three demolitions have been identified in this segment; all three properties are of recent construction and do not meet eligibility criteria. None of the properties are included in the proposed Aldine Drive and Kenwood Road Historic District.

All properties are subject to eligibility review by the SHPO; should the SHPO determine any properties eligible, demolition would be viewed as an adverse effect and require mitigation. Determination of effects and discussion of mitigation would occur in consultation with the SHPO in later project phases.

Alternative 2

Impacts for architectural resources are the same as detailed for Alternative 1. Neither the above-grade or at-grade stations in the Covington segments will have any effect on architectural resources. A determination of effects would occur after review and comment on eligibility recommendations, in consultation with the SHPO.

Alternative 3

Impacts for architectural resources are the same as detailed for Alternative 1 Impacts are subject to change pending an inventory and recommendations on eligibility of architectural resources in the Zoo alignment option and the Mount Auburn Tunnel segment. A determination of effects would occur after review and comment on eligibility recommendations, in consultation with the SHPO.

Zoo Alignment Option
The Zoo alignment option travels from the intersection of MLK Drive and Vine Street north to Erkenbrecher Avenue adjacent to the Cincinnati Zoo. The route then travels southeast through the complex of hospitals and associated institutions between Vine Street and Reading Road. East of Reading Road, the line is located between Ridgeway Avenue and Whittier Street and connects with the former Indiana & Ohio line that is now proposed for the LRT right-of-way. Phase I survey was not conducted in this segment during this phase of work because the extent of the effects were not known to the degree necessary to determine the appropriate survey methods or extent of the APE. The results of survey for this segment will be presented in an addendum report.

Alternative 4

Impacts for architectural resources are the same as detailed for Alternative 1. Impacts are subject to change pending an inventory and recommendations on eligibility of architectural resources in the Zoo alignment option and the Mount Auburn Tunnel segment. A determination of effects would occur after review and comment on eligibility recommendations, in consultation with the SHPO.

Zoo Alignment Option
See Alternative 3, above.

Table 3.6.6: Architectural Resources Proposed for Demolition

Street Number	Street Name	Building Name	OHI Number	Construction Period	Level of Documentation	NRHP Status	Relevant National Criterion	Comments
Cincinnati Riverfront								
511	Water Street	Hilltop Basic Resources, Inc.	HAM-6624-44	1950-1959	SF			
Downtown Cincinnati								
No resources impacted								
Over-the-Rhine								
1416, 1414	Walnut Street		HAM-6932-4	1880-1889	SF/DE	Over-The-Rhine NR & Local	A: Associated with the large German community that settled in Cincinnati in the nineteenth century C: A cohesive nineteenth century neighborhood with excellent examples of commercial, residential and ecclesiastical architecture	
1418, 1420	Walnut Street		HAM-6934-4	1880-1889	SF/DE	Over-The-Rhine NR and Local		
1422,1424	Walnut Street		HAM-6935-4	1880-1889	SF/DE	Over-The-Rhine NR & Local		
1432	Walnut Street		HAM-6937-4	1960-1969	SF/DE	Over-The-Rhine NR & Local		
1413	Clay Street		HAM-6933-4	1960-1969	SF/DE	Over-The-Rhine NR & Local		
1417	Clay Street		HAM-6936-4	1900-1909	SF/DE	Over-The-Rhine NR & Local		
Mount Auburn Tunnel (partial survey; remainder will be included in addendum report)								
1601-1603	Main Street		HAM-6943-4	1920-1929	SF/DE	Over-The-Rhine NR & Local		
1605	Main Street		HAM-6944-4	1880-1889	SF/DE	Over-The-Rhine NR & Local		
1607, 1609, 1611	Main Street		HAM-6945-4	1880-1889	SF/DE	Over-The-Rhine NR & Local		
163	McMicken Avenue		HAM-6947-4	1890-1899	SF/DE	Over-The-Rhine NR & Local		
165	McMicken Avenue		HAM-6946-4	1880-1889	SF/DE	Over-The-Rhine NR & Local		
1701	Main Street	USA Peace Groceries	HAM-6962-4	1870-1879	SF/DE	Over-The-Rhine NR & Local		
228	E. Clifton Avenue		HAM-6965-4	1880-1889	SF/DE	Over-The-Rhine NR & Local		
232	E. Clifton Avenue		HAM-6963-4	1870-1879	SF/DE	Over-The-Rhine NR & Local		
232 R	E. Clifton Avenue		HAM-6964-4	1870-1879	SF/DE	Over-The-Rhine NR & Local		
1722	Main Street		HAM-6967-4	1890-1899	SF/DE	Over-The-Rhine NR & Local		
10	Antique Street		HAM-6968-4	1870-1879	SF/DE	Over-The-Rhine NR & Local		
225	Peete Street		HAM-6969-4	1880-1889	SF/DE	Over-The-Rhine NR & Local		
304	Mulberry Street		HAM-6978-4	1860-1869	SF/DE	Over-The-Rhine NR & Local		
306	Mulberry Street		HAM-6979-4	1870-1879	SF/DE	Over-The-Rhine NR & Local		
309	Mulberry Street		HAM-6977-4	1880-1889	SF/DE	Over-The-Rhine NR & Local		
Uptown								
3024	Vine Street		HAM-6670-2	1880-1889	LF			
3028	Vine Street	Clifford Memorial Chapel/ The Truth Missionary Baptist Church	HAM-1905-2	1888-1890	U	NRE, Determined not Eligible June 1981		OHPO concurred with the City of Cincinnati Historic Conservation Board decision that the building was not eligible (6/1/88)
9	E. Dr. Martin Luther King Jr. Dr.		HAM-6671-2	1880-1889	LF			
11	E. Dr. Martin Luther King Jr. Dr.		HAM-6672-2	1900-1909	LF			
13	E. Dr. Martin Luther King Jr. Dr.		HAM-6673-2	1900-1909	LF			

Street Number	Street Name	Building Name	OHI Number	Construction Period	Level of Documentation	NRHP Status	Relevant National Criterion	Comments
Uptown, cont.								
3021	Ahrens Street		HAM-6674-2	1910-1919	LF			
3026	Ahrens Street		HAM-6677-2	1900-1909	LF			
3028	Ahrens Street		HAM-6678-2	1900-1909	LF			
27	E. Dr. Martin Luther King Jr. Dr.		HAM-6679-2	1920-1929	LF			
29	E. Dr. Martin Luther King Jr. Dr.		HAM-6680-2	1910-1919	LF			
3021	Euclid Avenue		HAM-6682-2	1900-1909	LF			
3023	Euclid Avenue		HAM-6684-2	1900-1909	LF			
105	E. Dr. Martin Luther King Jr. Dr.			1970-1979	M			
215	Piedmont Avenue	Piedmont Mews		1960-1969	M			
Zoo Alignment Option								
To be evaluated separately in addendum report								
Avondale/Evanston								
3100	Reading Road	BP		1990-1999	M			
20	Bowman Terrace		HAM-6580-1		LF			
3108	Savoy Place	Greater Canaan Missionary Baptist Church		1970-1979	M			
3112	Borrman Avenue		HAM-6585-1		LF			
3114	Savoy Place		HAM-6581-1		LF			
3116	Savoy Place		HAM-6582-1		LF			
3111	Borrman Avenue		HAM-6584-1		LF			
814	Dellway Street	Great Atlantic & Pacific Tea Company/ S & S Delivery & Warehouse	HAM-6620-1	1930	SF			
840	Dellway Street	Tucson Steel Co./ M & M Metals Inc.	HAM-6621-1	1930-1939	SF			
860	Dellway Street	Profiles in Design Cabinetry	HAM-6622-1	1950-1959	SF			
City of Norwood								
1810	Mentor Avenue		HAM-6836-58	1990-1999	SF			
1812	Mentor Avenue		HAM-6917-58	1990-1999	SF			
1814	Mentor Avenue		HAM-6920-58	1990-1999	SF			
1816	Mentor Avenue		HAM-6921-58	1990-1999	SF			
1818	Mentor Avenue		HAM-6837-58	1990-1999	SF			
3935	Ivanhoe Avenue		HAM-6839-58	1990-1999	LF			
1944	Waverly Avenue		HAM-7034-58	1880-1889	LF			
4600	Park Avenue			1980-1989	M			
4701	Forest Avenue	Forest Converting Co. Inc.	HAM-7064-58	1950-1959	SF			
2501	Norwood Avenue	Palmer Thermometer Co.	HAM-4521-58	1930-1939	U			
2506	Norwood Avenue	Klerman Auto Body & Service	HAM-7069-58	1920-1929	SF			
5037	Beech Street	HVAC Ship; Sheppard Chemical Co.; Specific Mixture Tool	HAM-7075-58	1920-1929	SF			
Norwood to Blue Ash - Pleasant Ridge								
3010	Delmar Road		HAM-6566-15	1930-1939				
Norwood to Blue Ash - Kennedy Heights								

Street Number	Street Name	Building Name	OHI Number	Construction Period	Level of Documentation	NRHP Status	Relevant National Criterion	Comments
No resources impacted								
Norwood to Blue Ash - Silverton								
No resources impacted								
Norwood to Blue Ash - Deer Park								
8211	Blue Ash Road	Bill's Kenwood Pool & Hot Tubs	HAM-6850-50	1940-1949	LF			
8383	Blue Ash Road	Owens Precision Grinding	HAM-6857-50	1940-1949	LF			
4315	Myrtle Avenue	Sign Studio	HAM-6851-50	1958	LF			
4320	Myrtle Avenue		HAM-6852-50	1940-1949	LF			
Norwood to Blue Ash - Sycamore Township								
8383	Blue Ash Road	Owens Precision Grinding	HAM-6857-50	190-1949	LF			
4323	Kugler Mill Road	Happy Hearts Day Care	HAM-6863-50	1990-1999	SF			
Norwood to Blue Ash - Sycamore Township								
8401	Blue Ash Road	Max & Sons General Machine Work, Inc.	HAM-6861-50		SF			
Blue Ash								
4730	Lake Forest Drive			1970-1979	M			
4750	Lake Forest Drive	Cabot Industries		1970-1979	M			

Source: Gray and Pape, 2001

Legend for Abbreviations: NR=National Register, M=Mapping, SF=short OHI form, LF=long OHI form, DE=District Evaluation

3.6.4 SECTION 4(F) EVALUATION OF CULTURAL RESOURCES

The alternatives under consideration have the potential to involve properties listed or eligible for listing on the NRHP. The project corridor would run through five NRHP-listed or eligible historic districts (East Lewisburg, Seminary Square, Covington Downtown, Mutter Gottes, and West Side/Mainstrasse) in the Covington segment for which the KHC has already determined an adverse effect. However, other districts and individual properties within the Kentucky and Ohio portions of the project corridor are still awaiting eligibility determinations. Until these eligibility determinations have been made and alignment options finalized, a detailed evaluation of impacts cannot be completed. Any proposed acquisition of Section 4(f) properties requires a determination of applicability under Section 4(f) of the U.S. Department of Transportation Act of 1966. The FEIS will include the Section 4(f) properties' determination, avoidance alternatives, efforts to minimize impacts, and proposed mitigation measures.

The No-Build and TSM alternatives would likely avoid Section 4(f) impacts, however, these would need to be determined on a project-specific basis. Additionally, these alternatives would not fulfill the purpose and need of the Cincinnati LRT project.

3.6.5 MITIGATION MEASURES RELATED TO HISTORIC AND ARCHAEOLOGICAL RESOURCES

Appropriate mitigation measures for NRHP-listed or eligible properties and districts adversely affected by the selected alternative will be identified and negotiated with the OHPO, KHC, and any identified consulting parties once impacts have been fully defined for the FEIS.

3.6.6 IMPACTS RELATED TO CONSTRUCTION

Construction impacts associated with the No-Build, TSM, and four build alternatives would result in both temporary and permanent impacts to archaeological and architectural resources. Construction impacts to archaeological sites could range from total destruction to compaction by heavy machinery in staging areas. Once any NRHP eligible archaeological sites have been identified, project effects will be determined in consultation with OHPO and KHC and appropriate mitigation measures will be developed and implemented to address any construction and other project-related impacts.

Construction impacts to architectural resources could include temporary air, noise, vibration, visual, and access-related impacts to historic structures and districts. Potential air quality impacts will be temporary and will be minimized through Best Management Practices for dust abatement and to control diesel-powered heavy equipment emissions. Noise and visual impacts will also be temporary and will be controlled through Best Management Practices to reduce overall noise from heavy equipment and screen construction activities where possible. Vibration impacts may cause both temporary and long-term impacts to fragile historic structures and will be minimized through Best Management Practices. Access-related impacts will be addressed by ensuring that access to all historic buildings is maintained through measures including traffic control and scheduling of construction activities to minimize traffic delays and access-related inconveniences. After NRHP-eligible architectural resources have been identified and reviewed, project effects will be determined in consultation with OHPO and KHC and appropriate mitigation measures will be developed and implemented to address any construction and other project-related impacts.

3.7 PARKLANDS

Consideration of potential impacts to public parks and recreation lands is an important analysis required under federal law. Parks located within ½-mile of the I-71 Corridor LRT alignments are shown on Figures 3.7-1a through Figure 3.7-1c and briefly discussed below.

3.7.1 LEGAL AND REGULATORY REQUIREMENTS

The United States Department of Transportation Act of 1966, Section 4(f) as amended (49 USC 303), prohibits the acquisition and conversion of public park or recreation land for any federally funded transportation project, unless a determination is made that:

- There is no feasible or prudent alternative to use of the land; and
- The proposed action includes all possible planning to minimize harm to the land resulting from its use for the transportation project.

The meaning of "use" in this context is the taking or acquiring of land or property for construction of a permanent transportation facility, or if not taken or acquired, the substantial impairment of its use for the intended park or recreation use.

Based on the final determination of desired action in the proposed I-71 Corridor LRT, a complete Section 4(f) analysis may be required. This would include documentation that there is no feasible or prudent alternative to taking the parkland.

The second major federal regulation regarding parklands is Section 6(f) of the Land and Water Conservation Fund Act of 1965 (LAWCON). Section 6(f) stipulates that any land planned, developed, or improved with LAWCON funds cannot be converted to uses other than parks, recreation, or open space unless land of at least equal fair market value and reasonably equivalent usefulness is provided. Anytime a transportation project will cause such a conversion, regardless of funding sources, equivalent replacement land must be provided.

3.7.2 PARKS AND RECREATION INVENTORY

An inventory of park and recreation facilities within ½-mile of the proposed I-71 Corridor LRT alignments in each jurisdiction is given in this section. Parks in the City of Cincinnati are owned and maintained by the Cincinnati Park Board. A separate Public Recreation Commission maintains and operates recreational facilities in the City of Cincinnati. Parks owned and operated by the cities of Covington, Norwood, Silverton, Deer Park, Sycamore Township, and Blue Ash are also described. Parks or other facilities are described from south to north as follows.

Covington Segment

Annie Hargreaves Park – Located adjacent to the west edge of the proposed LRT alignment, between Robbins Street and Tenth Street, Annie Hargreaves Park serves as a neighborhood playground. It includes a basketball court, play structure, and picnic areas.

Goebel Park - Located between I-71/ I-75 and Philadelphia Street, Goebel Park proves passive recreation opportunities including two shelters with picnic tables and grills, a gazebo, playground, and landscaped garden plantings. A distinguishing feature in the eight-acre park is the clock tower with a mechanical

display marking the hour, which adds a Teutonic touch to the park and its context in the historic Mainstrasse Village.

William Randolph Park - Serving downtown Covington, William Randolph Park is located at Eighth and Greenup Streets, and includes a number of recreational facilities. The four-acre park has a swimming pool, basketball courts, and fenced and lighted softball diamond. The park recently received an Urban Forestry grant to upgrade plantings.

Cincinnati Riverfront, Downtown Cincinnati, Over-the-Rhine, Mount Auburn Tunnel and Uptown Segments

Central Riverfront Park – The Cincinnati Central Riverfront Park is one of several complex, monumental public projects concurrently being development on Cincinnati's riverfront. The park consists of approximately 50 acres of public space that links nearly 3 miles of riverfront with Downtown Cincinnati and interconnects various sports and cultural facilities on the riverfront. The park includes walkways, fountains, terraces, and a Great Lawn for staging concerts and events. Continuous pedestrian paths connect this park to existing riverfront parks to the east (Yeatmans Cove, Bicentennial Commons). The park is currently in the preliminary design phase and construction, which is depending on funding and construction, is not anticipated to begin until at least 2003.

Lytle Park - Lytle Park features formal gardens with seasonal displays in downtown Cincinnati. The 2.3-acre park is bounded by Fourth and Lawrence Streets. I-71 is in a tunnel running under the park.

Sawyer Point – Located on the riverfront, Sawyer Point features a number of features, including: three sand volleyball courts, tennis courts, shallow water pool, Serpentine Wall, P&G Pavilion (site for several free concerts), Yeatman's Cove, playground.

Yeatman's Cove Park - Known locally as the levee or public landing, Yeatman's Cove is the historic river landing that led to the establishment of the city of Cincinnati. Located adjacent to downtown between the Taylor-Southgate Bridge and the L&N Railroad Bridge, Yeatmans Cove is part of the complex of landscaped riverfront parks.

Theodore M. Berry International Friendship Park – Located east of Downtown Cincinnati and Sawyer Point Park along the riverfront area.

Fountain Square - Fountain Square is an urban plaza located at the corner of Vine and Fourth Street in the heart of downtown Cincinnati. The square is surrounded by shops and restaurants, and open air vendors serve the many downtown office workers. Free concerts, festivals, and other events are staged on the square. Fountain Square also has an ice rink.

Piatt Park - Piatt Park, located downtown between Vine and Elm Streets, was Cincinnati's first park. The 0.84 acre park is an urban green space two blocks long. The park is home to statues of presidents Garfield and Harrison. Piatt Park is scheduled to be redesigned. Plans include new plantings and relocation of the presidential statues. New benches and seat-walls will be installed.

Washington Park - Washington Park is an historic, turn of the 19th to 20th century park in the heart of the Over-the-Rhine neighborhood. Located at Elm, Race, and 12th Streets, Washington Park is 5.6 acres. The park was used for large exhibitions in the 19th century and has also been home to a wide variety of monuments. Facilities include a bandstand and seating area.

Inwood Park - Inwood Park is a 20-acre park located on Vine Street. The park was a quarry and features a lake which is used for ice skating in the winter. Facilities include a large recreation building, a children's wading pool and a swimming pool, tennis courts and other play facilities.

Jackson Hill Park - This 8-acre park is located at Eleanor Place and Dorchester Avenues in Mount Auburn. The park features picnic facilities and new play equipment

Burnett Woods - Burnet Woods is a large park at 89 acres and serves a number of neighborhoods and the University of Cincinnati, located at Clifton Avenue between MLK Drive and Ludlow. The park hosts summer concerts from the Burnet Woods bandstand, built in 1911. Trailside Nature Center was built by the federal Works Project Administration with work completed in 1940. The interior of the Trailside was recently renovated to include a children's museum and handicap access meeting room for nature education programs. The artificial lake, southeast of Trailside, was constructed in 1875. The park offers picnic areas with shelter, grills, and children's play equipment.

Cincinnati Zoo and Botanical Garden – In existence since 1875, the Cincinnati Zoo and Botanical Garden now exhibits over 700 different animal species and over 3,000 types of plants. Opened 365 days a year, it attracts about 1.3 million visitors each year. The Zoo and Botanical Garden encompass 70-acres at the intersection of Vine St. and Erkenbrecher Avenue.

Hauck Botanic Gardens - A wide variety of ornamental gardens and tree collections are open to visitors of the Hauck Botanic Gardens. The 8-acre garden is located Burnet Avenue and Oak Street.

Losantiville Triangle - "Losantiville" Triangle is located at Reading Road and Burnet Avenue. The 5-acre park has tennis courts and landscaped open space.

Avondale to Norwood Segment

Victory Parkway: Hoyles Park, Woodward Park, and Victory Park - Victory Park is a 3.5-mile long landscaped highway that connects a number of parks in the Walnuts Hills and Avondale neighborhoods. Three landscaped parks form wooded areas along Victory Park in the area southwest of Xavier University. Hoyles Park is on the east side of the parkway immediately south of I-71 and next to Walnut Hills High School. Woodward Park is to the west of the parkway just north of I-71 between Cleveland and Forest Avenues. Victory Park is a wooded area to the east of the parkway and adjacent to the former Indiana and Ohio railroad corridor. Additional park areas with recreation facilities are found on both sides of the parkway north of Xavier University at the intersection of the parkway with Ledgewood Drive.

Martin Luther King Jr. Park - This 6-acre park and recreation area, located at Reading Road and Burton Avenue in Avondale offers landscaped open space, community gardens, picnic facilities, and play equipment.

Victory Park - Across the Montgomery Avenue from Surrey Square, Victory Park includes a veteran's memorial with a commemorative wall and military tank. The park also serves passive and active recreation needs with a gazebo and wading pool.

Doral Field - A neighborhood park taking a single city block between Kenilworth and Robertson Avenues, Doral Field includes two softball diamonds and soccer field.

Waterworks Park - Located south of the Norwood Lateral Expressway and the Chessie System railroad corridor off Harris Avenue, Waterworks Park is a major community sports facility on the site of a former

waterworks. High school football games are played at Waterworks Park in its stadium with bleacher seating and outdoor track. The facility also includes a baseball diamond, recreation building, swimming pool, and play equipment.

Tower Park - A small neighborhood park located around the community water tower off Indian Mound Avenue, Tower Park features tennis courts and an historic Indian mound on the National Register of Historic Places.

Lindner Park and McCullough House - The former estate of the McCullough family located off Cypress Way, Lindner Park features the McCullough House and the surrounding 14-acre grounds. The park includes walking trails, formal gardens, and fishing pond.

Norwood to Blue Ash Segment

Pleasant Ridge Park - Located on Ridge Avenue, south of Parkview Avenue, this 9-acre park is jointly owned by the Cincinnati Park Board and the Recreation Commission. An indoor-outdoor swimming pool is the centerpiece of the park. In addition, there are tennis courts, baseball diamonds, swings, and picnic tables located under mature trees.

Woodford Park and Lang Field – This small 1.5-acre park is located at Woodford Road and Kennedy Avenue in the Kennedy Heights neighborhood. Woodford is adjacent to Lang Field, which is owned and operated by the Cincinnati Recreation Commission. Lang Field is split by Robinson Road and includes tennis courts on the eastside of the road and a ballfield on the west side of the road.

Drake Park - Daniel Drake Park's 66 acres include a shelter building, play equipment, and a popular sledding hill. The park is located off Woodford Road.

Kennedy Heights Park -This 12.5-acre park is located at Robinson and Woodford Roads. The landscaped open space has rolling hills, mature trees, walking paths, a shelter house, and picnic tables.

Silverton Park - The main community park facility in Silverton, Silverton Park includes baseball diamonds, tennis courts, a basketball court, two picnic shelters, playground equipment, and a walking path. The 12.5-acre park is located along East Road with an entrance off Montgomery Road.

Chamberlain Park - Found at the center of Deer Park west of Blue Ash Road, Chamberlain Park is an important community facility offering residents nearly 10 acres of active and passive park space. The facility includes baseball diamonds which convert to a soccer field, a walking path, two playground equipment areas, and two picnic shelters.

Bechtold Park - Owned and maintained the Township of Sycamore, Bechtold Park is 25 acres in size accessed off Sycamore Road. Park facilities include a community lodge, two baseball diamonds, football and soccer field, two sand volleyball courts, four picnic shelters, and a nature trail.

Blue Ash Segment

Hunt Park - Located west of Blue Ash Road along Hunt Road, Hunt Park is two acres and focused on serving as neighborhood greenspace. The park features walking paths and a small playground.

Blue Ash Town Square and Bicentennial Veterans Memorial Park - The Blue Ash Town Square plaza serves downtown Blue Ash, off Hunt Road south of Cooper Road, as a venue for informal gatherings and

scheduled events. The square includes a central fountain and landscape plantings. Adjacent to the Town Square is the Bicentennial Veterans Memorial Park. The memorial consists of sculptures installed in a circle and flagpoles commemorating major foreign wars. The ground is surfaced with inscribed brick pavers.

Blue Ash Recreation Center - Accessed from Cooper Road west of Blue Ash Road, the Recreation Center is a large concentration of active fitness facilities. The center includes an outdoor Olympic-size swimming pool, waterslides, wading pool, eight tennis courts, two gymnasiums, two racquetball courts, fitness equipment center, locker rooms and showers, and meeting rooms.

Blue Ash Nature Park - The Nature Park is seven heavily wooded acres directly adjacent to the Blue Ash Recreation Center that offer passive recreation opportunities. The park has walking trails, picnic areas, shelters, and playgrounds.

Blue Ash Sports Center - Located on Grooms Road north of the Sharon Woods Technical Center and near the I-275/I-71 interchange, the 37-acre Blue Ash Sports Center includes ten baseball diamonds and six soccer fields.

Highland Grove Park – The park is being developed on land acquired to widen Kenwood Road. It is located north of Pfeiffer Road and west of Kenwood Road. The park will be for passive recreation, featuring a nostalgic railroad station shelter and theme based on a former park near this location that was served by passenger trains. The park will include two gazebos, a walking path, picnic tables, benches, and playground equipment.

Pfeiffer Woods Park – This park is located on the east side of Kenwood Road south of Pfeiffer Road. This passive park features a small lake with a fountain and picnic facilities. The lake also serves as storm water retention for the Kenwood Road improvements currently underway.

3.7.3 IMPACTS RELATED TO PARKLANDS

This section describes the potential impacts associated with the proposed transportation alternatives on existing and proposed parks and recreation lands. These impacts are evaluated for the No-Build, TSM, and four Build (LRT) alternatives. Each of the park and recreation lands described in the previous section has been evaluated for potential impacts associated with the proposed alternatives.

Impacts were evaluated with respect to potential direct effects as well as indirect effects (proximity effects) based on available information obtained from community officials. Direct effects are impacts that are the direct result of the proposed action, such as when land is acquired from a park site and permanently incorporated into the transportation facility. Proximity effects are those impacts related to the project proximity, which are so severe that the activities, features, or attributes, which qualify a park for protection under Section 4(f) of the Department of Transportation Act of 1966, are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the parks are substantially diminished.

A matrix summarizing the potential impacts at each park is provided on Table 3.7.1. A discussion of the potential impacts by alternative follows.

Table 3.7.1: Park and Recreation Land Impacts by Alternative

Park Name	ALTERNATIVES											
	No Build		TSM		Alternative 1		Alternative 2		Alternative 3		Alternative 4	
	Direct	Proximity	Direct	Proximity	Direct	Proximity	Direct	Proximity	Direct	Proximity	Direct	Proximity
Annie Hargreaves	-	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y
Goebels	-	-	-	-	N	N	N	N	N	N	N	N
William Randolph	-	-	-	-	N	N	N	N	N	N	N	N
Central Riverfront	-	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y
Lytle	-	-	-	-	N	N	N	N	N	N	N	N
Yeatmans Cove	-	-	-	-	N	N	N	N	N	N	N	N
Fountain Square	-	-	-	-	N	N	N	N	N	N	N	N
Piatt	-	-	-	-	N	N	N	N	N	N	N	N
Washington	-	-	-	-	N	N	N	N	N	N	N	N
Inwood	-	-	-	-	N	N	N	N	N	N	N	N
Jackson Hill	-	-	-	-	N	N	N	N	N	N	N	N
Burnett Woods	-	-	-	-	N	N	N	N	N	N	N	N
Cincinnati Zoo	-	-	-	-	N	N	N	N	Y	Y	Y	Y
Hauck Botanic Gardens	-	-	-	-	N	N	N	N	N	N	N	N
Losantiville Triangle	-	-	-	-	N	N	N	N	N	N	N	N
Victory Parkway/Victory/Woodward	-	-	-	-	N	Y	N	Y	N	Y	N	Y
Hoyles	-	-	-	-	N	N	N	N	N	N	N	N
Martin Luther King Jr.	-	-	-	-	N	N	N	N	N	N	N	N
Victory (Norwood)	-	-	-	-	N	N	N	N	N	N	N	N
Doral Field	-	-	-	-	N	N	N	N	N	N	N	N
Waterworks	-	-	-	-	N	N	N	N	N	N	N	N
Tower	-	-	-	-	N	N	N	N	N	N	N	N
Lindner Park and McCullough House	-	-	-	-	N	N	N	N	N	N	N	N
Pleasant Ridge	-	-	-	-	N	N	N	N	N	N	N	N
Woodford/Lang Field	-	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y
Drake	-	-	-	-	N	N	N	N	N	N	N	N
Kennedy Heights	-	-	-	-	N	Y	N	Y	N	Y	N	Y
Silverton	-	-	-	-	N	N	N	N	N	N	N	N
Chamberlain	-	-	-	-	N	Y	N	Y	N	Y	N	Y
Bechtold	-	-	-	-	N	N	N	N	N	N	N	N
Hunt	-	-	-	-	N	N	N	N	N	N	N	N
Blue Ash Town Square and	-	-	-	-	N	N	N	N	N	N	N	N
Blue Ash Recreation Center	-	-	-	-	N	N	N	N	N	N	N	N
Blue Ash Nature Park	-	-	-	-	N	N	N	N	N	N	N	N
Blue Ash Sports Center	-	-	-	-	N	N	N	N	N	N	N	N
Highland Grove	-	-	-	-	N	Y	N	Y	N	Y	N	Y
Pfeiffer Woods	-	-	-	-	N	N	N	N	N	N	N	N

Note: Impacts based on preliminary engineering drawings of 5/30/01

3.7.3.1 No-Build

The proposed No-Build Alternative would have no adverse impacts on parks and recreation lands located along the proposed I-71 LRT Corridor.

3.7.3.2 TSM

The proposed TSM Alternative would have no adverse impacts on parks and recreation lands located along the proposed I-71 LRT Corridor.

3.7.3.3 Build (LRT) Alternatives

There are four build alternatives being considered in this report. With regard to park and recreation lands, the only significant difference in these alternatives is that two of the proposed alignments – Alternatives 3 and 4 - will potentially impact the Cincinnati Zoo. As such, the following description of direct and indirect impacts considers all the alternatives together. There are 38 existing and proposed parks and recreation lands located within ½ mile of each of the proposed LRT alignment alternatives. In addition, Alternatives 3 and 4 are located within ½ mile of the Cincinnati Zoo.

Direct Impacts

As currently proposed, two parks and the Cincinnati Zoo would be directly impacted by right-of-way acquisition or permanent easements associated with all the proposed alignments. These include:

Annie Hargreaves – The proposed LRT alignment will pass through the east side of the park and require relocation of an existing basketball court, play structure and picnic tables.

Central Riverfront – The proposed LRT alignment will pass over the western portion of this park on a new Ohio River LRT bridge. Some easements will be required for construction of bridge piers.

Cincinnati Zoo – The proposed LRT alignment for Alternatives 3 and 4 will be located on Erkenbrecher Avenue along the south edge of the Cincinnati Zoo. Approximately eight feet of Zoo property will need to be acquired for street widening to accommodate the proposed LRT trackway. This will reduce the green space around the perimeter of the Zoo, but will not directly impact any of the Zoo facilities or exhibits. The Zoo is currently revising the main entrance and has acquired adjacent property for additional parking, and these will not be impacted by the proposed LRT alignment.

Indirect Impacts

As currently proposed, eight parks and the Cincinnati Zoo could experience indirect impacts due to proximity to the proposed alternative alignments. Indirect impacts may include noise, air quality, visual, vibration, or access impacts that substantially impair or diminish the protected activities, features, or attributes of the parks. These parks include:

Annie Hargreaves – The park currently abuts an active existing CSX rail corridor. The introduction of an additional track and LRT service adjacent to the existing rail corridor is not anticipated to increase the indirect impacts that park users currently experience and should not interfere with use of the park or its facilities.

Central Riverfront – The proposed LRT alignment will cross the Ohio River on a new Ohio River LRT bridge that will pass over the western portion of this park. This portion of the park is proposed to include walking paths, informal landscaped areas, and recreation fields. The proposed new LRT bridge will be adjacent to the Clay Wade Bailey Bridge, which currently supports an active existing CSX rail line as well as vehicular traffic. The proposed LRT bridge will be located directly east side of the Clay Wade Bailey Bridge. While there may be some visual, noise, or vibration impacts resulting from the proposed LRT and new bridge, the introduction of new rail service and the new bridge are not anticipated to result in any significant adverse impacts to the park below. However, to minimize visual impacts, it is recommended that the new LRT bridge should be designed to be aesthetically compatible with the existing Clay Wade Bailey Bridge.

Cincinnati Zoo – The proposed LRT alignment for Alternatives 3 and 4 will be located on Erkenbrecher Avenue along the south edge of the Cincinnati Zoo. The road is proposed to be widened by eight-feet to accommodate the LRT track. The widening will bring the road and proposed LRT track closer to the existing Zoo facilities and exhibits. As a result, impacts from noise and vibration from road traffic and the proposed LRT service may increase on some Zoo exhibits, particularly the elephant exhibit.

Victory Parkway/Victory/Woodward – The proposed LRT alignment is located adjacent to an active existing Conrail rail corridor and crosses Victory Parkway on an existing railroad bridge. There will not be any permanent property acquisition required, however, there will likely be temporary disruptions to traffic on Victory Parkway necessary to accommodate construction modifications on the existing railroad bridge to retrofit it for the proposed LRT track. While there may be some visual, noise, or vibration impacts resulting from the proposed LRT, the introduction of new rail service into the existing rail corridor is not anticipated to result in any additional adverse impacts to the park below.

Woodford/Lang Field - The proposed LRT alignment is located on SORTA owned Blue Ash line right-of-way that runs along the north side of these parks. The introduction of new rail service into the existing rail corridor is not anticipated to result in any additional adverse impacts to these adjacent parks.

Kennedy Heights - The proposed LRT alignment is located on SORTA owned Blue Ash line right-of-way that runs along the south side of this park. Some existing vegetation may be removed, temporarily making the existing rail corridor more visible from the park. While there may be some visual, noise, or vibration impacts resulting from the proposed LRT, the introduction of new rail service into the existing rail corridor is not anticipated to result in any additional adverse impacts to the park.

Chamberlain – The proposed LRT alignment is located on SORTA owned Blue Ash line right-of-way that runs along the southeast side of this park. Some temporary visual and access impacts may occur as a result of vegetation removal and sidewalk reconstruction. A fence is proposed between the rail tracks and the park, which will impact pedestrian access to the park from the east. While there may be some visual, noise, or vibration impacts resulting from the proposed LRT, the introduction of new rail service into the existing rail corridor is not anticipated to result in any additional adverse impacts to the park.

Highland Grove – The proposed LRT alignment will abut the west edge of this park. The park is currently in the construction phase and was designed to incorporate a railroad theme. The proposed adjacent LRT station was considered during the design of this park and therefore should not result in any adverse impacts on this new park.

Summary of Impacts

While each of the proposed four Build Alternatives will result in some direct and indirect impacts, the majority of the impacts are anticipated to be temporary and none should substantially impair or diminish the activities, features, or attributes at any of the 38 parks or the Cincinnati Zoo. However, mitigation measures may be required to reduce some impacts, particularly regarding Section 4(f) and 6(f) use as described in the following sections. The details and feasibility of specific measures will be further evaluated as part of the FEIS and Section 4(f) Evaluation.

3.7.4 SECTION 4(F) PROPERTIES

Section 4(f) of the United States Department of Transportation Act of 1966 protects public parks and recreation lands from conversion to transportation use unless there is no prudent or feasible alternative to such use. Use of Section 4(f) land occurs when land from the property is acquired for a transportation project; there is a temporary occupancy of the property that is adverse; or the proximity effects of the transportation project are so great that use of the property is substantially impaired resulting in diminished use of the site.

The evaluation of Section 4(f) use considers such factors as any possible physical impact or use of the property, visual impacts, noise, and other significant environmental impacts that might substantially impair or diminish the character of the property or its use. Examples are provided in 23 CFR 771.135 and are discussed as follows:

- The projected noise level increase attributable to the project substantially interferes with use and enjoyment of a resource protected by Section 4(f), such as: hearing a performance at an outdoor amphitheater; sleeping in the sleeping area of a campground; enjoyment of a historic site where a quiet setting is a generally recognized feature or attribute of the site's significance; or enjoyment of an urban park where serenity and quiet are significant attributes.
- The proximity of the proposed project substantially impairs aesthetic features or attributes of a resource protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the resource. An example of substantial impairment to visual or aesthetic qualities would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historical building, or detracts from the setting of a park or historic site which derives its value in substantial part from its setting.
- The project results in a restriction of access to the Section 4(f) resource, which substantially diminishes the utility of the resource.
- The vibration impact from operation of the project substantially impairs the use of a Section 4(f) resource, such as projected vibration levels from a rail transit project that are great enough to affect the structural integrity of a historic building or substantially diminish the utility of the building.
- The ecological intrusion of the project substantially diminishes the value of wildlife habitat in a wildlife or waterfowl refuge adjacent to the project or substantially interferes with the access to a wildlife or waterfowl refuge, when such access is necessary for established wildlife migration or critical life cycle processes.

3.7.4.1 No-Build

The proposed No-Build alternative would result in no Section 4(f) use impacts at any of the 38 parks or the Cincinnati Zoo that are located within ½ mile of the proposed I-71 LRT Corridor alternatives.

3.7.4.2 TSM

The proposed TSM alternative would result in no Section 4(f) use impacts at any of the 38 parks or the Cincinnati Zoo located within ½ mile of the proposed I-71 LRT Corridor alternatives.

3.7.4.3 Build (LRT) Alternatives

The potential direct and indirect impacts on each of the 38 parks and the Cincinnati Zoo were discussed previously in Section 3.7.3. As currently proposed, two parks and the Cincinnati Zoo would be directly impacted by right-of-way acquisition or permanent easements. These include: Annie Hargreaves, Central Riverfront, and the Cincinnati Zoo. However, it is not anticipated that the required acquisitions will substantially impair or diminish the activities, features, or attributes at these parks.

Given the urbanized land use setting in which many of the parks are located and the location of the proposed LRT alignments within an existing rail corridor, indirect impacts related to noise, vibration, visual aesthetics, and access should not be significantly different than the impacts resulting from current conditions. While several of the parks provide passive areas for wildlife habitat, most are designed for a mix of active and passive use and are generally developed in character.

In conclusion, it is not anticipated that any of the Build Alternatives would result in impacts that would substantially impair or diminish the use of any park properties or facilities. However, due to the permanent acquisition requirements at the parks mentioned above, a Section 4(f) Evaluation under Section 4(f) of the Department of Transportation Act of 1966 may be required to ensure appropriate impact mitigation. Mitigation measures may include, but are not limited to, obtaining replacement lands, using appropriate design measures to minimize impacts and enhance remaining lands, or providing compensation.

3.7.5 SECTION 6(F) USE

Section 6(f) of the Land and Water Conservation Fund Act of 1965 (LAWCON or L&WCF) protects land planned, developed or improved with LAWCON funds from being converted to uses other than outdoor recreational use. No such conversions are allowed unless replacement land of at least equal fair market value and reasonably equivalent usefulness is provided. Easements allowing a transportation agency to enter the property to undertake maintenance, slope easements, etc., which do not involve converting land to a non-outdoor recreation use are not subject to Section 6(f) requirements. Section 6(f) involvement may be present even though no Section 4(f) use exists.

Direct acquisition requirements for the proposed LRT alternatives will only impact two parks and the Cincinnati Zoo. Therefore these are the only parks with potential Section 6(f) involvement. Potential impacts include:

Annie Hargreaves - To be completed.

Central Riverfront - The City of Cincinnati is in the process of acquiring all the land for the proposed 55-acre Central Riverfront park. To date, the westerly 15-acres of the proposed park, which would be

directly impacted by permanent easements for the proposed LRT, have not been purchased. The City is currently seeking State and Federal funding to complete acquisition and help fund park improvements. While no LAWCON funds have been used on the park so far, the City will consider all funding sources available for future acquisition and improvements.

Cincinnati Zoo - To be completed.

3.7.6 IMPACTS RELATED TO CONSTRUCTION

Construction impacts associated with any of the four Build Alternatives could potentially result in temporary air, noise, vibration, water quality, visual, and access impacts at any of the parks and recreation lands located within ½ mile of the proposed alignments. It is anticipated that construction of the entire proposed LRT system would last approximately four years. However, construction impacts at any one location are not expected to last longer than a few months. Locations involving tunnels, new bridges, or extensive earthwork would experience longer construction periods than locations requiring minimal physical improvements.

Any air quality impacts associated with construction activities would be temporary and would be in the form of emissions from diesel-powered construction equipment and wind-blown dust. Air pollution associated with the creation of airborne particles would be effectively controlled through the use of watering or the application of calcium chloride in accordance with Best Management Practices.

Noise and vibration impacts could result from heavy equipment movement and construction activities such as compaction. Potential noise and vibration impacts would be controlled through the use of Best Management Practices. Potential water quality impacts resulting from erosion and sedimentation would be controlled through the use of geotextile erosion control fencing, temporary grassing, sodding, mulching, sandbagging, sediment checks, artificial coverings, and berms.

Some construction equipment and materials stored for the project may be visually displeasing to park users and local residents. This would be a temporary situation and would result in no long lasting effects. Maintenance of traffic and sequence of construction would be planned and scheduled to minimize traffic delays and inconvenience. Access to all parks would be maintained throughout the construction period.

3.8 SAFETY AND SECURITY

3.8.1 PERSONAL SAFETY AND SECURITY

This section describes existing safety and security conditions, identifies potential areas of concern for residents and transit users as well as proposed facility security measures and pedestrian and vehicular safety design features under consideration.

This project falls under the Federal Transit Administration's Rail *Fixed Guideway System State Safety Oversight Regulation, (49 CFR Part 659*). This regulation requires that the effected states, (Ohio and Kentucky) designate an oversight agency to oversee the safety of the rail transit systems operating within their borders. The Ohio Department of Transportation, Office of Transit is the designated oversight agency for the Greater Cleveland Regional Transit Authority, Ohio's only rail fixed guideway system. There currently is no designated oversight agency in Kentucky. The two states also have the option of designating a single oversight agency.

SORTA/TANK as the operating agencies for this proposed I-71 Corridor LRT system are required to submit a *System Safety Program Plan*, (SSPP) and a *Security Plan* as part of the SSPP or a separate document.

It is anticipated that a portion of the proposed I-71 Corridor LRT system will operate on the general railroad system,(I&O Railroad-Blue Ash Subdivision) Therefore, additional safety requirements may be imposed by the Federal Railroad Administration (FRA). Waivers of some FRA safety regulations may be considered in accordance with the FRA's joint policy with the FTA.

As part of preliminary engineering a preliminary hazard analysis will be performed to identify, assess and resolve potential hazards to safety and security. Hazard analysis should be conducted in accordance with the *Hazard Analysis Guidelines for Transit Projects* as published by the FTA Office of Safety and Security.

Because bus operations are a substantial amount of SORTA/TANK's existing and potential transit ridership, system safety and security plans must incorporate impacts of bus operations.

3.8.1.1 Existing Conditions

The respective municipalities throughout the I-71 Corridor provide police, fire, and medical emergency services.

- South of the Ohio River the City of Covington provides all emergency services.
- The Cities of Cincinnati, Norwood, and Blue Ash provide all emergency services within their municipal borders.
- The Cities of Deer Park and Silverton operate a joint fire district for emergency services within their combined municipal boundaries.
- Sycamore Township provides emergency services within its borders.

In addition to these municipal departments, security services are also provided by the University of Cincinnati, the Hamilton County Sheriff, as well as CSX security personnel on CSX right-of-way. Hospitals are located in Covington, the Uptown and Mount Auburn areas of Cincinnati, and Sycamore Township.

Enhanced 911 emergency dispatching systems are in place throughout the corridor as is cellular phone service.

3.8.1.2 Impacts Related to Personal Safety and Property

No-Build Alternative

To be completed.

TSM Alternative

To be completed.

Build (LRT) Alternatives

Summaries of potential Safety and Security Issues for the proposed LRT station areas are as follows:

12th Street

This proposed station and parking lot will be located adjacent to active CSX Railroad tracks. Intrusion barriers will be provided to prevent transit patrons from trespassing on railroad property as well as preventing railroad personnel or equipment from vehicles from entering the transit station property. The station site is at-grade an primarily accessible from the west. It is generally surrounded by light industrial activity with a parking area adjacent to and providing access to existing business to the south. Vehicular and pedestrian interaction between the businesses and transit patrons will occur in the parking area. The station's pedestrian access from the east is via stairs from the 12th Street Bridge (KY 1120). The stairs will require lighting and snow/ice removal. A portion of the station platform and parking will be located under the 12th Street Bridge. Vandal protection barriers will be provided to prevent objects from being thrown from the bridge to the station area.

Pike Street

This proposed station will be at grade and generally surrounded by railroad embankment, small businesses and social agencies. There will be grade crossings at Eighth and Pike Streets at either end of the station platforms. The parking area proposed between Athey, Russel, and Pike Streets and the CSX tracks will not be retained by SORTA/TANK and not included in station security and maintenance services.

Riverfront

There are currently two proposed alternatives under consideration.

For the at-grade option there are proposed grade crossings at Fourth and Fifth Streets at either end of the station platforms. The station would be accessible from any direction and is currently surrounded by small commercial development.

The elevated structure option is envisioned to be incorporated into a planned office/commercial development to be developed by the City of Covington. Access to the station platform is by elevator and stairs, which will be independent of and in addition to, pedestrian access, from the commercial development. This proposed station will include distinct security/maintenance issues, which must be coordinated with any future development. Stairs and elevators would be expected to be well lit and maintained. Natural surveillance opportunities will be limited. In addition, a means to control or prevent pedestrian access from the adjacent Clay Wade Bailey Bridge must be developed. Prevention of unauthorized trespassing onto the adjacent transit bridges will require consideration.

The Banks

These proposed platforms will be located on the sidewalks of Second and Third Streets in Cincinnati. The proposed Second Street or northbound platform will abut a plaza for the National Freedom Center museum complex. This platform will be accessed from the east and west but pedestrian access from the plaza to the south must be coordinated with the Museum and Hamilton County. In addition, parking facilities, bus staging and potentially other transit service will operate on the lower level of Second Street. Access to the station from this lower level will be provided via stairs and elevators located in the plaza

mentioned above. This station will require coordination of security/maintenance issues, with the National Freedom Center Museum, Hamilton County, (garage owners), and operators of the transit center. Additionally, major mixed use development is envisioned to be developed on elevated parking structures immediately to the south of the station area.

Both platforms will be located in heavy pedestrian/vehicular areas. Special events at nearby sports venues such as Great American Ballpark will fill station areas with transit users and other pedestrians. Grade crossings are located on Walnut and Vine Streets at either end of both station platforms.

Government Square

These proposed platforms will be located on the sidewalks of Main and Walnut Streets adjacent to the Federal Courthouse in the Central Business District of Cincinnati. Heavy pedestrian and bus/vehicular traffic will occur in the vicinity of the platforms especially at the southern end of the platforms adjacent to the Government Square bus terminal operated by SORTA. Due to site constraints, the ends of the platforms will be slightly elevated above the surrounding sidewalks. Railings will be placed to prevent accidental falls due to the difference in grade. In addition the platform edges will be somewhat higher than the typical curb in the central business district. Tactile warning strips will be installed at these platforms and throughout the system.

The platform area is currently under surveillance by federal security personnel and video cameras. Coordination of surveillance and security with federal security personnel will need to occur.

Courthouse

These proposed platforms will be located on the sidewalks of Main and Walnut Streets south of Court Street. Grade crossings will occur at Ninth and Court Streets at either end of the platforms. This area experiences heavy pedestrian traffic during weekday business hours. In addition the platform edge will be somewhat higher than the typical curb in the central business district. Tactile warning strips will be installed.

Over-the-Rhine

These proposed platforms will be at grade in the block south of Liberty Street. They are surrounded by small businesses. Adjacent parking will not be retained by SORTA/TANK but may be included in station security and maintenance services in coordination with the City of Cincinnati. This area has historically experienced higher crime rates than City of Cincinnati as a whole. Transit users and patrons are expected to interact with adjacent businesses and institutions. Pedestrian crossings of the southbound track will expected to be provided. Opportunities for natural surveillance are good and expected to be enhanced by supplemental lighting. Platform edges will be somewhat higher than the typical curb in the central business district. Tactile warning strips will be installed.

Mount Auburn

This proposed subterranean station will be located approximately 180 feet below grade. Access from the surface will be via elevators and emergency stairs. Emergency egress plans and evacuation procedures will be developed in coordination with local authorities and local, state and federal life safety regulations. A station attendant/security officer may be considered to enhance security and assistance to transit patrons. The station facility, as well as the entire transit tunnel will require significant planning to address security and safety issues.

Uptown

This proposed center platform station will be located in the median of Jefferson Avenue. The academic campus of the University of Cincinnati lies across the street to the west. The mixed use "University Village" district of the Corryville area of Cincinnati lies to the east. The station platform will be partially at-grade. Pedestrian crossings of the tracks will be located at Charlton and Daniels Streets. The Charlton crossing will utilize stairs. This area will experience heavy pedestrian traffic while the University is in session. Special consideration will be required to control pedestrian crossings of Jefferson Avenue and the trackway. Sight distance to from the transit tunnel to the south will be limited. This is otherwise a high visibility area with ample natural surveillance.

Medical Center

There are two locations being considered for this proposed station. Both are within the University of Cincinnati medical campus, partially located in retained cut, and with limited natural surveillance.

Option B will have primary pedestrian access from the east via stairs from a new Highland Ave overpass structure. The stairs will require lighting and snow/ice removal. A portion of the station platform and parking will be located under the Highland Avenue Bridge. Vandal protection barriers will be considered to prevent objects from being thrown from the bridge to the station area. Prevention of trespassing onto the adjacent transit bridge and retained cut will require consideration.

Option A will be located in the heart of the medical campus with pedestrian access from either end. There are significant grade differences at the site which require various steps, ramps and retaining wall sections. This site will experience significant pedestrian traffic at all hours. Impacts to existing pedestrian circulation and building egress will require special consideration.

Sight distance along the tracks at either end of the station area will be limited. Security and maintenance operations will require close coordination with the University of Cincinnati and other medical institutions in the area. Prevention of unauthorized trespassing in the adjacent Burnet Avenue tunnel section will require consideration.

Avondale

There are two locations being considered for this proposed station. Both locations are at grade with ample natural surveillance. The sites are surrounded by commercial, office, and residential uses.

Grade crossings will occur at Harvey Avenue and Reading Road at either end of the platforms.

Either option is envisioned to be incorporated into a commercial/office redevelopment of the block bounded by Harvey/Martin Luther King/Reading and Hickman. SORTA envisions the site to be a transit hub with bus/rail facilities combined with commercial development. Security and maintenance issues must be coordinated with any future development. This area has historically experienced higher crime rates than the City of Cincinnati as a whole.

Option A would require a cul-de-sac at Hickman Avenue and shares the street with adjacent residential properties. Shared parking and pedestrian activity is likely to occur. Off-street parking adjacent to the station area on Harvey Avenue is expected to be a privately owned and maintained restricted parking area.

Zoo

This proposed station location will be located between Vine Street to the west and existing residences to the east. Access will be from the platform ends. Fencing or other barriers will be considered to guide pedestrian movements to and from the platform and to prevent trespassing into the adjacent residential property.
A pedestrian crossing of the tracks and Vine Street is anticipated north of the platform to provide access to a planned visitor center for the Cincinnati Zoo to be located on the southwest corner of Vine and Erkenbrecher Streets. Sight distance along the trackway to the north of the platform will be limited due to the track curvature at the intersection of Vine and Erkenbrecher Streets.

Xavier/Evanston

This proposed station platform will be located at grade but set back from existing streets. The platform will be located directly across from the Xavier Commons student housing complex developed by Xavier University. Fencing or other barriers will be required to guide pedestrian movements to and from the platform and to prevent trespassing into the adjacent industrial property. A pedestrian crossing of the tracks is anticipated north of the platform that will serve as the primary pedestrian access to Xavier University's campus. This station will experience heavy pedestrian traffic during special events at the Cintas Center just north of the station. Natural surveillance will be limited.

Norwood

This proposed station platform will occupy a portion of the existing parking area of Surrey Square Shopping Center. The primary safety security issue is to guide pedestrians to and from the adjacent retail areas. The site is at-grade and close to the existing road network so natural surveillance is possible. There will be a grade crossing on Smith Road just to the north of the platform.

Ridge

This proposed station location is surrounded by large commercial development to the south and east and by residential properties to the north and west. The station will be located at municipal border of the City of Cincinnati and Columbia Township. Vehicle/pedestrian conflicts on Ridge Avenue have been identified as a community concern. There are currently no sidewalks or provisions for pedestrian movement on Ridge Avenue. Fencing or other barriers may be required to guide or prevent pedestrian movement from residential areas to the north of the existing tracks. The site is somewhat set back and grade separated from Ridge Avenue and adjoining property so natural surveillance may be limited. Parking and access drives to the station may be shared with existing or potential commercial development to the south of the site. Safety, security and maintenance issues related to parking and access drives will require coordination with the existing and/or future commercial developments.

Silverton

This proposed station location is generally surrounded by commercial/retail development. Parking will be shared with potential development at the west end of the site. Safety, security and maintenance issues related to parking and access drives will require coordination with future commercial developments. There will be a pedestrian track crossings at either end of the platform. The station is somewhat lower than but close to Montgomery Road allowing for a fair degree of natural surveillance.

Galbraith

This proposed station location will be at-grade along Blue Ash Road. It lies partially in the City of Deer Park and partially in Sycamore Township. The station abuts a Cinergy Substation and some residential property. There is ample natural surveillance. Some fencing or other means to guide pedestrians to designated track crossings will be required. There will be grade crossings of Galbraith and Kugler Mill Roads at either end of the station area.

Cooper

This proposed station will be at-grade and surrounded by commercial and residential development. There will be a grade crossing of Cooper Road adjacent to the platform. There is ample natural surveillance.

Pfeiffer

This proposed station will be at-grade and is adjoined by commercial development to the north and west. The City of Blue Ash is developing a city park, (Highland Grove) immediately to the east of the station location. Some fencing or other means to guide pedestrians to designated track crossings will be required. There will be a grade crossing on Glendale-Milford Road south of the platform area. There is ample natural surveillance during business hours.

Reed Hartman

This proposed station location is generally at grade and adjoins by commercial/office development. Some fencing or other means to guide pedestrians to designated track crossings will be required. There will be a grade crossing on Obsorne Boulevard south of the platform area. Osborne Boulevard and Reed Hartman Highway experience heavy vehicular traffic, particularly at peak hours.

Cornell Park

This proposed station location is generally at-grade and is surrounded by office/industrial development. Some fencing or other means to guide pedestrians to designated track crossings will be required. Procter and Gamble's Sharon Woods Technical Center abuts the station area to the north. Security and maintenance will require coordination with Procter and Gamble. Some fencing or other means to guide pedestrians to designated track crossings and parking areas will be required. This site is somewhat isolated from adjacent roadways resulting in limited natural surveillance. The primary safety/security issue is to prevent trespassing into the office/industrial areas outside of hours of business.

Stations from Ridge to Pfeiffer will be located in the joint use portion of the alignment with the I&O Railroad operating during non-operational hours for the LRT System. The public should be discouraged from entering these station areas outside of the normal LRT operating hours.

The proposed grade separated segments of the alignment (bridges and tunnels) will require particular attention to prevent trespassing. Bridge and tunnel sections will incorporate various means for evacuation in the event of a failure or emergency.

The Mount Auburn Tunnel facility is expected to include emergency cross passages, refuge areas, egress shafts and ventilation systems in the event of an emergency. City, county and state authorities will play an integral role in planning and developing operational and emergency life/safety procedures.

The yard-and-shop facility is planned to be located in the Avondale area of Cincinnati adjacent to I-71. This area is somewhat remote and grade separated from the surrounding residential and commercial development. This facility, as well as electrical substation sites will require perimeter security measures to prevent trespassing.

3.8.1.3 Impacts Related to Construction

No-Build Alternative

To be completed.

TSM Alternative

To be completed.

Build (LRT) Alternatives

Construction impacts related to proposed construction of the LRT build alternative could potentially result in temporary hazards to personal safety in or near construction zones and potential security issues related to vandalism or theft. OSHA construction safety standards are expected to be maintained at all times. Access to construction zones will be limited by fencing, barriers and other means to prevent access by unauthorized persons.

Construction activities will temporarily impact several roadways, pedestrian areas and access to adjacent properties. Where construction that impacts roadways traffic and pedestrian traffic will be maintained in accordance with ODOT/KYTC standards and the local jurisdiction's requirements. Temporary changes in access to adjacent residences and business will be coordinated on a site specific basis in order to promote the safety and security of owners and the general public. Coordinated planning will be required for emergency vehicle access to hospital facilities in the Uptown area of Cincinnati during construction.

Impacts to vehicular and pedestrian traffic will primarily occur in Covington, the Central Business District, Over-the-Rhine and Uptown areas of Cincinnati.

Construction of the proposed Ohio River bridge will be coordinated with the United States Coast Guard, and Corps of Engineers, as well as state and local authorities to minimize potential hazards to adjacent land owners as well as commercial and recreational users of the Ohio River.

3.8.1.4 Mitigation Measures Related to Personal Safety and Property

No-Build Alternative

To be completed.

TSM Alternative

To be completed.

Build (LRT) Alternatives

In general, the existing municipal police would add patrol circulation in and around station platform areas and parking lots. Regular police patrol coverage combined with natural and video surveillance will provide deterrence to potential criminal activity.

Additionally, if circumstances warrant, these sworn officers or private security firms could be contracted by SORTA/TANK for specific locations and duties. It is not anticipated that SORTA/TANK will establish an in-house transit security force.

Station areas and parking facilities will be well lit with limited visual obstructions. The presence of transit users as well as nearby residents, business, students, and patrons contribute to the natural surveillance of station locations. It is anticipated that station platforms would provide patron access to pay telephones (911 service) & call for aid phones and could be equipped with a closed circuit television system.

SORTA/TANK will clean and maintain station areas as operator of the proposed system. Regular cleaning and maintenance of the stations will contribute to real and perceived safety and cleanliness for transit users and adjacent residents, businesses and property owners. The opportunity for coordination of cleaning and maintenance with existing municipal programs should be possible at some station locations.

Materials selection and physical features of the proposed transit environment will further serve to discourage criminal activity, among the items that may be incorporated are the following:

- Fire/vandal resistant pedestrian barriers that direct pedestrian flow.
- Effective graphics will include informational and regulatory messages, signage designed and strategically placed to attract attention. Sign materials will be selected to be fire/vandal resistant and American with Disabilities Act (ADA) compliant.
- System facilities will utilize vandal resistant materials to protect assets. Fasteners should be such that non-traditional tools are required for disassembly.
- Operator shields to provide protection from patron assaults.

3.8.2 PEDESTRIAN AND VEHICULAR SAFETY

3.8.2.1 Existing Conditions

Pedestrian and vehicular traffic will occur throughout the corridor on, adjacent to, and crossing the proposed I-71 Corridor LRT. The proposed system will run in both exclusive rights-of-way as well as shared right-of-way with pedestrian and vehicular traffic. In the CBD and Over-the-Rhine areas of Cincinnati there are several private driveways and public alleys that access the portions of Main and Walnut Streets proposed to be utilized for the LRT alignment.

A portion of the proposed I-71 Corridor LRT alignment from Lester Road in Cincinnati to the proposed Pfeiffer Station will run on active, though lightly used, freight railroad operated by the I & O Railroad. Grade crossings, both public and private are currently controlled by a variety of grade crossing warning systems including gates, lights, bells and signage. There are several public and private crossings of the existing railroad, many of which are not signed or controlled.

There are no dedicated bicycle lanes on roadways shared with, or adjacent to, the proposed LRT alignment. There is signage to direct vehicles to "share the road" with bicycles on Jefferson Avenue adjacent to the University of Cincinnati Campus.

3.8.2.2 Impacts of Pedestrian and Vehicular Safety

No-Build Alternative

To be completed.

TSM Alternative

To be completed.

Build (LRT) Alternatives

The introduction of the proposed LRT system will introduce a new form of pedestrian and vehicular interaction not currently present in the region. The majority of residents have not experienced interaction with LRT either from a vehicular or pedestrian standpoint.

Where the proposed alignment runs in, or adjacent to, existing streets there will be potential modifications to current lane configurations, signal locations and turning movements. Intersection modifications, directional change and or new medians are expected to be introduced at various locations.

Where the proposed alignment runs on the active freight railroad, the light rail vehicles will operate at higher speeds and more frequently than current freight operations. Freight operations will be restricted to hours when the proposed LRT system is not operating.

3.8.2.3 Mitigation Measures Related to Pedestrian and Vehicular Safety

No-Build Alternative

To be completed.

TSM Alternative

To be completed.

Build (LRT) Alternatives

A public information and education process will be developed to inform area residents and authorities of changes to vehicular and pedestrian changes resulting from the proposed LRT system.

Signals and signage will be provided in accordance with the USDOT and State MUTCD manuals. Road & sidewalk design, marking and materials will be in accordance with federal, state, and local regulations.

Where possible, private driveways, alleys, and other non-signalized crossings of the alignment would be eliminated or relocated.

Grade crossings would consist of various combinations of conventional traffic signals, flashing lights, bells, cantilevers and crossing gates.

Other wayside features would be utilized to guide pedestrian, bicycle, and vehicular interaction with the proposed LRT system in the corridor. These features could include any combination of signage, pavement marking and materials, fencing and physical barriers. Pedestrian crossings of the tracks would be directed to signalized intersections or specifically designated areas.

Proposed light rail vehicles may incorporate the following features to maximize the safety of pedestrians, vehicles, and passengers.

- Safety mirrors or video cameras to allow the vehicle operator to effectively see the sides and rear of the vehicles.
- Visual and auditory warning devices and high visibility markings or paint schemes
- Impact resistant windows and windshields.
- Sensitive edges on passenger doors for detection of obstructions with automatic and manual release
- Public address system and variable message signs with interior and exterior capabilities
- Emergency braking capabilities.

3.9 ENVIRONMENTAL JUSTICE

This section explains how Environmental Justice concerns have been addressed in the evaluation of the proposed alternatives for the I-71 Corridor LRT facility. This section also identifies how areas protected under the Environmental Justice Executive Order 12898 were defined and the extent to which areas of low-income, minority, and transit dependent populations would be affected by the alternatives under evaluation. The issues discussed in this section pertain to the social factors analyzed in Chapter 3.0. These include effects related to neighborhood cohesion, displacements, visual and aesthetic conditions, historic and archaeological resources, and parklands. Additional analysis regarding environmental, economic, and transportation issues can be found in Chapters 4.0, 5.0, and 6.0.

3.9.1 LEGAL AND REGULATORY REQUIREMENTS

Presidential Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,* (February 11, 1994) requires that federal agencies consider and address disproportionate adverse environmental effects of proposed federal projects on minority and low income communities. The Order states:

> *To the greatest extent practicable and permitted by law…each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations…(subsection 1-101).*
>
> *Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including*

populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin (sub section 2-2).

The intent of the Department of Transportation Final Order on Environmental Justice [DOT Order 5610.2, *Environmental Justice*, (April 15, 1997)] is to integrate the goals of Executive Order 12898 into DOT operations.

> *...National Environmental Policy Act of 1969 (NEPA), Title VI of the Civil Rights Act of 1964 (Title VI), ..., the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and other DOT statutes, regulations and guidance that address or affect infrastructure planning and decision making; social, economic, or environmental matters; public health; and public involvement.*

In February 2000, the Ohio Environmental Justice Task Force was formed to address environmental justice issues in transportation projects throughout Ohio. The Task Force produced *Guidance and Best Practice for Incorporating Environmental Justice into Ohio Transportation Planning and Environmental Processes*, draft version, dated May 30, 2000, with addenda added September 2000.

In addition to the federal actions to address Environmental Justice in minority populations and low-income populations, the May 30, 2000, draft guidance states that it may be prudent to include handicapped, elderly, and households without vehicles to the same level of analysis as low income and minority populations. Therefore, to satisfy the draft guidance, this section will also address the potential effects on populations with mobility limitations, elderly populations, and concentrations of households without vehicles and potential mitigation measures. To meet both the requirements of NEPA and Executive Order 12898, this section addresses the characteristics of the affected communities, potential effects on minority and low-income populations and potential mitigation measures.

3.9.2 COMMUNITY CHARACTERISTICS

To determine if disproportionately high and adverse effects would be borne by historically disadvantaged communities, 1990 Census block group data were used to identify areas of low-income, minority and elderly populations; populations with mobility limitations; and households without vehicles adjacent to the proposed I-71 Corridor alternatives. The impact assessment area likely to be affected by the alternatives under evaluation was defined as any census block group within ½-mile of the centerline of the proposed I-71 Corridor LRT alignment. Ethnic composition and income characteristics within the impact assessment area have been identified in accordance with definitions established by U.S. Department of Transportation (USDOT) and the U.S. Environmental Protection Agency (EPA) guidance on Environmental Justice.

To identify areas of minority, low-income and elderly populations; populations with mobility limitations; and populations without vehicles, these population groups were compared to the estimated county average of each respective population group in Kenton County, Kentucky, and Hamilton County, Ohio. Table 3.9.1 summarizes county averages for each category. Since the proposed I-71 Corridor LRT alignment traverses two counties in two states, potential Environmental Justice issue areas were identified as those Census block groups that contained averages higher than the county average for each state's respective county. For the analysis, total census block groups were utilized even if only part of the block group was within the proposed corridor.

Table 3.9.1: Kenton and Hamilton Counties Demographic Overview

	Kenton County		Hamilton County	
	Persons	Average County Percent	Persons	Average County Percent
Total Population	**151,464**	**N/A**	**845,303**	**N/A**
Population 16+	115,846	N/A	651,648	N/A
Households	59,444	N/A	346,790	N/A
Minority	10,776	7.1	238,330	28.2
Persons Below Poverty	13,487	9.0	97,692	11.8
Elderly	16,769	11.1	113,898	13.5
Mobility Limitations	9,246	8.0	49,108	7.5
No Vehicle	5,936	10.0	46,805	13.5

Source: U.S. Census Bureau, 2000

3.9.2.1 Minority Populations

Based on the USDOT April 15, 1997, Order 5610.2, the definitions of minority and minority populations are as follows:

Minority - means a person who is: (1) Black (a person having origins in any of the black racial groups of Africa); (2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture, regardless of race); (3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or (4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

Minority Population - means any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity.

In Kenton County, the 2000 county average of minority persons was estimated to be 7.1 percent and in Hamilton County, the 2000 county average of minority persons was estimated to be 28.2 percent. Census block groups that contain minority populations higher than each county's average for the I-71 Corridor are shown in Figure 3.9-1. These shaded areas will be evaluated in this social and land use impact section for disproportionately high and adverse effects.

3.9.2.2 Low Income Populations

Based on USDOT April 15, 1997, Order 56102 the definitions of low income and low income populations are as follows:

Low-Income - means a person whose median household income is at or below the Department of Health and Human Services poverty guidelines.[1]

[1] The Department of Health and Human Services states that "…1999 and 2000 poverty guidelines should NOT be used in connection with determining poverty population figures from 2000 Decennial Census data. Poverty population figures are calculated using the Census Bureau poverty thresholds, not the poverty guidelines."

Low-Income Population - means a readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity.

In Kenton County, the 2000 county average of low-income persons was estimated to be 9.0 percent and in Hamilton County, the 2000 county average of low-income persons was estimated to be 11.8 percent. Census block groups that contain low-income populations higher than each county's average for the I-71 Corridor are shown in Figure 3.9-2. These areas will be evaluated in this social and land use impact section for disproportionately high and adverse effects.

3.9.2.3 Elderly Populations

For this evaluation, elderly was defined as persons age 65 and older.

In Kenton County, the 2000 county average of elderly persons was estimated to be 11.1 percent and in Hamilton County, the 2000 county average of elderly persons was estimated to be 13.5 percent. Census block groups that contain elderly populations higher than the each county's average for the I-71 Corridor are shown in Figure 3.9-3. These areas will be evaluated in this social and land use section impact section for disproportionately high and adverse effects.

3.9.2.4 Populations with Mobility Limitations

As defined by the U.S. Census Bureau, persons 16 and older were identified as having a mobility limitation if they had a health condition that lasted for six or more months and which made it difficult to go outside the home alone.

In Kenton County, the 2000 county average of persons with mobility limitations was estimated to be 8.0 percent and in Hamilton County, the 2000 county average of persons with mobility limitations was estimated to be 7.5 percent. Census block groups that contain populations with mobility limitations higher than each county's average for the I-71 Corridor are shown in Figure 3.9-4. These areas will be evaluated in the environmental impact section for disproportionately high and adverse effects.

3.9.2.5 No Vehicle Households

In Kenton County, the 2000 county average of no vehicle households was estimated to be 10.0 percent and in Hamilton County, the 2000 county average of no vehicle households was estimated to be 13.5 percent. Census block groups that contain no vehicle households higher than each county's average for the I-71 Corridor are shown in Figure 3.9-5. These areas will be evaluated in the this social and land use impact section for disproportionately high and adverse effects.

3.9.3 IMPACTS RELATED TO ENVIRONMENTAL JUSTICE FOR SOCIAL FACTORS

3.9.3.1 Methodology

The analysis for social factors includes an examination of the effect of the alternatives on minority, low-income, age 65 and over, mobility limitation, and no vehicle populations (collectively referred to as protected populations), as shown in Figures 3.9.1 through 3.9.5, with regard to the issues discussed in

Chapter 3 including neighborhood cohesion, displacements, visual and aesthetic concerns, historic and archeological resources and parklands. As illustrated on the figures, protected populations are identified along the majority of the proposed LRT line. In general, minority populations are concentrated in the southern third of the corridor and between the proposed stations of Ridge and Silverton. Low Income populations and no vehicle populations are concentrated in the southern half of the corridor. Elderly populations and populations with mobility limitations are evenly distributed throughout the corridor.

No-Build Alternative

Positive impacts offered by the Build Alternative, such as improved mobility, affordable transportation and potential redevelopment opportunities, would not be provided with the No-Build Alternative. Impacts would be borne by protected populations in terms of benefits forgone, such as increased mobility, improved access to local businesses and educational facilities, visual enhancements provided in station area and potential improvements to pedestrian and bicycle connections.

TSM Alternative

The TSM Alternative would not result in the level of benefit offered by the Build Alternative. Impacts would be borne by protected populations in terms of benefits forgone, such as increased mobility, improved access to local businesses and educational facilities, visual enhancements provided in station area and potential improvements to pedestrian and bicycle connections.

Build (LRT) Alternatives

The impact assessment for each social factor is analyzed to determine the number and magnitude of effect on minority, low-income, age 65 and over, mobility limitation, an no vehicle populations as compared to non-minority, non-low-income, non-elderly, non-mobility limitations, and with vehicle populations (Table 3.9.2). Positive and adverse impacts are discussed for each alternative.

Table 3.9.2: Social Factor Analysis

POPULATION GROUP	IMPACTS			
	Alt. 1 Cov. At-grade	**Alt. 2 Cov. Above grade**	**Alt. 3 Cov. At-grade and Zoo**	**Alt. 4 Cov. Above grade and zoo**
Minority Impact Areas				
Displacements – Station Areas				
Residential	65 d.u. (15 bldgs.)	65 d.u. (15 bldgs.)	79 d.u. (26 bldgs.)	79 d.u. (26 bldgs.)
Non-Residential	55	52	55	52
Displacements – Trackway				
Residential	133 d.u. (35 bldgs.)	133 d.u. (35 bldgs.)	66 d.u. (22 bldgs.)	66 d.u. (22 bldgs.)
Non Residential	27	26	25	24
Displaced Community Facilities	Federal office building	Federal office building	Federal office building	Federal office building
Parklands Impacted	Annie Hargreaves Victory Parkway Woodford/Lang Kennedy Heights Highland Grove	Annie Hargreaves Victory Parkway Woodford/Lang Kennedy Heights Highland Grove	Annie Hargreaves Cincinnati Zoo Victory Parkway Woodford/Lang Kennedy Heights Highland Grove	Annie Hargreaves Cincinnati Zoo Victory Parkway Woodford/Lang Kennedy Heights Highland Grove
Non-Minority Impact Areas				
Displacements – Station Areas				
Residential	0	0	0	0
Non Residential	1	1	1	1
Displacements – Trackway Property				
Residential	7 d.u. (7 bldgs.)	7 d.u. (7 bldgs.)	7 d.u. (7 bldgs.)	7 d.u. (7 bldgs.)
Non Residential	3	4	3	3
Displaced Community Facilities	Day care center	Day care center	Day care center	Day care center
Parklands Impacted	Central Riverfront Chamberlain	Central Riverfront Chamberlain	Central Riverfront Chamberlain	Central Riverfront Chamberlain

POPULATION GROUP	IMPACTS			
	Alt. 1 Cov. At-grade	**Alt. 2 Cov. Above grade**	**Alt. 3 Cov. At-grade and Zoo**	**Alt. 4 Cov. Above grade and zoo**
Low-Income Impact Areas				
Displacements – Station Areas				
Residential	64 d.u. (14 bldgs.)	64 d.u. (14 bldgs.)	78 d.u. (25 bldgs.)	78 d.u. (25 bldgs.)
Non Residential	41	38	41	38
Displacements – Trackway Property				
Residential	140 d.u. (42 bldgs.)	140 d.u. (42 bldgs.)	73 d.u. (29 bldgs.)	73 d.u. (29 bldgs.)
Non Residential	28	27	26	25
Displaced Community Facilities	Day care center Federal office building	Day care center Federal office building	Day care center Federal office building	Day care center Federal office building
Parklands Impacted	Annie Hargreaves Victory Parkway Highland Grove	Annie Hargreaves Victory Parkway Highland Grove	Annie Hargreaves Cincinnati Zoo Victory Parkway Highland Grove	Annie Hargreaves Cincinnati Zoo Victory Parkway Highland Grove
Non-Low Income Impact Areas				
Displacements – Station Areas				
Residential	1 d.u. (1 bldg.)	1 d.u. (1 bldg.)	1 d.u. (1 bldg.)	1 d.u. (1 bldg.)
Non Residential	15	15	15	15
Displacements – Trackway Property				
Residential	0 d.u. (0 bldg.)	0 d.u. (0 bldg.)	0 d.u. (0 bldg.)	0 d.u. (0 bldg.)
Non Residential	2	3	2	2
Displaced Community Facilities	None	None	None	None
Parklands Impacted	Central Riverfront Woodford/Lang Kennedy Heights Chamberlain	Central Riverfront Woodford/Lang Kennedy Heights Chamberlain	Central Riverfront Woodford/Lang Kennedy Heights Chamberlain	Central Riverfront Woodford/Lang Kennedy Heights Chamberlain
Age 65 and Over Impact Areas				
Displacements– Station Areas				
Residential	65 d.u. (15 bldgs.)	65 d.u. (15 bldgs.)	79 d.u. (26 bldgs.)	79 d.u. (26 bldgs.)
Non Residential	56	53	56	53
Displacements – Trackway Property				
Residential	104-109 d.u. (25-30 bldgs.)	104-109 d.u. (25-30 bldgs.)	30-35 d.u. (10-15 bldgs.)	30-35 d.u. (10-15 bldgs.)
Non Residential	9 to 12	9 to 11	7 to 10	7 to 9
Displaced Community Facilities	Day care center Federal office building	Day care center Federal office building	Day care center Federal office building	Day care center Federal office building

POPULATION GROUP	IMPACTS			
	Alt. 1 Cov. At-grade	**Alt. 2 Cov. Above grade**	**Alt. 3 Cov. At-grade and Zoo**	**Alt. 4 Cov. Above grade and zoo**
Age 65 and Over Impact Areas, cont.				
Parklands Impacted	Annie Hargreaves Victory Parkway Woodford/Lang Kennedy Heights Chamberlain Highland Grove	Annie Hargreaves Victory Parkway Woodford/Lang Kennedy Heights Chamberlain Highland Grove	Annie Hargreaves Cincinnati Zoo Victory Parkway Woodford/Lang Kennedy Heights Chamberlain Highland Grove	Annie Hargreaves Cincinnati Zoo Victory Parkway Woodford/Lang Kennedy Heights Chamberlain Highland Grove
Under Age 65 Impact Areas				
Displacements– Station Areas				
Residential	0	0	0	0
Non Residential	0	0	0	0
Displacements – Trackway Property				
Residential	31 to 36 d.u. (12 to 17 bldgs.)	31 to 36 d.u. (12 to 17 bldgs.)	38 to 43 d.u. (14 to 19 bldgs.)	38 to 43 d.u. (14 to 19 bldgs.)
Non Residential	18 to 21	18 to 20	18 to 21	18 to 20
Displaced Community Facilities	None	None	None	None
Parklands Impacted	Central Riverfront	Central Riverfront	Central Riverfront	Central Riverfront
Mobility Limitations				
Displacements– Station Areas				
Residential	65 d.u. (15 bldgs.)	65 d.u. (15 bldgs.)	79 d.u. (26 bldgs.)	79 d.u. (26 bldgs.)
Non Residential	50	47	50	47
Displacements – Trackway Property				
Residential	27 to 124 d.u. (21 to 39 bldgs.)	27 to 124 d.u. (21 to 39 bldgs.)	34 to 57 d.u. (23 to 26 bldgs.)	34 to 57 d.u. (23 to 26 bldgs.)
Non Residential	9 to 14	8 to 13	9 to 12	8 to 11
Displaced Community Facilities	Day care center Federal office building	Day care center Federal office building	Day care center Federal office building	Day care center Federal office building

POPULATION GROUP	IMPACTS			
	Alt. 1 Cov. At-grade	**Alt. 2 Cov. Above grade**	**Alt. 3 Cov. At-grade and Zoo**	**Alt. 4 Cov. Above grade and zoo**
Mobility Limitations, cont.				
Parklands Impacted	Annie Hargreaves Victory Parkway Woodford/Lang Kennedy Heights Chamberlain Highland Grove	Annie Hargreaves Victory Parkway Woodford/Lang Kennedy Heights Chamberlain Highland Grove	Annie Hargreaves Cincinnati Zoo Victory Parkway Woodford/Lang Kennedy Heights Chamberlain Highland Grove	Annie Hargreaves Cincinnati Zoo Victory Parkway Woodford/Lang Kennedy Heights Chamberlain Highland Grove
Non-Mobility Limitations Impact Areas				
Displacements– Station Areas				
Residential	0	0	0	0
Non Residential	6	6	6	6
Displacements – Trackway Property				
Residential	16 to 113 d.u. (3 to 21 bldgs.)	16 to 113 d.u. (3 to 21 bldgs.)	16 to 39 d.u. (3 to 6 bldgs.)	16 to 39 d.u. (3 to 6 bldgs.)
Non Residential	16 to 21	16 to 21	16 to 19	16 to 19
Displaced Community Facilities	None	None	None	None
Parklands Impacted	Central Riverfront	Central Riverfront	Central Riverfront	Central Riverfront
No Vehicle Households				
Displacements– Station Areas				
Residential	65 d.u. (15 bldgs.)	65 d.u. (15 bldgs.)	79 d.u. (26 bldgs.)	79 d.u. (26 bldgs.)
Non Residential	48	45	48	45
Displacements – Trackway Property				
Residential	133 d.u. (35 bldgs.)	133 d.u. (35 bldgs.)	66 d.u. (22 bldgs.)	66 d.u. (22 bldgs.)
Non Residential	25	24	23	22
Displaced Community Facilities	Day care center Federal office building	Day care center Federal office building	Day care center Federal office building	Day care center Federal office building
Parklands Impacted	Annie Hargreaves Victory Parkway Chamberlain	Annie Hargreaves Victory Parkway Chamberlain	Annie Hargreaves Cincinnati Zoo Victory Parkway Chamberlain	Annie Hargreaves Cincinnati Zoo Victory Parkway Chamberlain

POPULATION GROUP	IMPACTS			
	Alt. 1 Cov. At-grade	**Alt. 2 Cov. Above grade**	**Alt. 3 Cov. At-grade and Zoo**	**Alt. 4 Cov. Above grade and zoo**
With Vehicle Households				
Displacements– Station Areas				
Residential	0	0	0	0
Non Residential	8	8	8	8
Displacements – Trackway Property				
Residential	7 d.u. (7 bldgs.)	7 d.u. (7 bldgs.)	7 d.u. (7 bldgs.)	7 d.u. (7 bldgs.)
Non Residential	5	6	5	5
Displaced Community Facilities	None	None	None	None
Parklands Impacted	Central Riverfront Woodford/Lang Kennedy Heights Highland Grove	Central Riverfront Woodford/Lang Kennedy Heights Highland Grove	Central Riverfront Woodford/Lang Kennedy Heights Highland Grove	Central Riverfront Woodford/Lang Kennedy Heights Highland Grove

Alternative 1

Neighborhoods, Community Facilities and Community Cohesion

In general, the LRT Alternative would provide enhanced access to community facilities within the station areas and would not have a significant negative impact on the cohesiveness of the neighborhoods along the LRT route. Each alignment provides a different degree of access to the same cluster of community facilities. Table 3.3.1 in Section 3.3.2 lists the major facilities that would potentially benefit from this improved access, and the potential impacts to neighborhood cohesion or character within the station areas. For Alternative 1, the negative impacts of right-of-way acquisition through the Uptown segment would total 97 dwelling units to be removed (most of them in one multi-family building along MLK Drive) in the Corryville and Avondale neighborhoods. These neighborhoods have concentrations of minority, low income, elderly, mobility limitation and no vehicle populations. Table 3.3.2, also in Section 3.3.2, identifies impacts of the LRT trackway construction on neighborhood cohesion. The greatest impacts to neighborhood cohesion due to street closings and property removals would occur within the Covington, Over-the-Rhine, Uptown and the Avondale to Norwood segments (Tables 5.3.5 through 5.3.8). These segments are in minority, low income and no vehicle population areas.

Displacements

Table 3.9.3 summarizes the total displacements in minority, low income, elderly, mobility limitation and no vehicle population areas as compared to total displacements for Alternative 1. As shown in the table, the majority of acquisitions would occur in minority, low income, elderly, mobility limitation and no vehicle population areas. Residential and non residential displacements would have the potential to adversely effect minority, low income, elderly, mobility limitations and no vehicle populations.

Table 3.9.3: Summary of Displacements for Alternative 1

	Building Removal		
	Non Residential	Residential	Dwelling Units (d.u.)
Alternative 1	**86**	**57**	**205**
Population Group			
Minority	82	50	198
Low-Income	69	56	204
Age 65 and Over	65 to 68	40 to 45	169 to 174
Mobility Limitations	59 to 64	36 to 54	92 to 189
No Vehicle	73	50	198

Visual/Aesthetic Conditions

Visual impacts would be system-wide and related to construction, surface, tracks, elevated tracks, OCS, stations and park & ride facilities. Visual impacts would be more prevalent in station areas, but would have the potential to be positive changes with improved landscaping. Visual impacts would be moderate to high where new alignments are not within or adjacent to an existing rail corridor. This condition occurs in the Cincinnati Riverfront, Downtown Cincinnati, Over-the-Rhine, Uptown and Blue Ash (north of Pfeiffer Station) segments. The five protected populations were identified in the Downtown Cincinnati, Over-the-Rhine, Uptown segments. Minority, low income and over age 65 populations were identified in the Blue Ash segment (north of Pfeiffer Station). No protected populations were identified in the Cincinnati Riverfront segment.

Visual impacts would be high at stations with proposed park & ride facilities. These stations are 12th Street, Xavier/Evanston, Ridge, Silverton, Galbraith, Pfeiffer and Cornell Park. All five protected populations were identified in the areas of the 12th Street, Xavier/Evanston, Ridge, Silverton stations. Minority, over age 65, mobility limitation and no vehicle populations were identified in the area of the Galbraith station. Minority, low income, over age 65, mobility limitation populations were identified in the area of the Pfeiffer stations. And, minority, low income and over age 65 populations were identified in the area of the Cornell Park station. The proposed location of the LRT yard and shop facility is in an area where all five protected populations have been identified. The yard and shop facility would cause visual impacts with the associated storage areas, rail sidings, maintenance and repair shops, and administrative buildings.

Property acquisitions may also cause visual impacts. One area of high impact may be the Over-the-Rhine District, which is an area where all five protected populations have been identified. This is an area of older historic structures, many of which have been renovated. Approximately 12 commercial/ residential/retail structures may be acquired in this area. The Uptown segment, an area where all five protected populations have been identified, may require the acquisition of 20-30 structures, which may cause high visual impacts. This area contains a number of monumental civic and healthcare related buildings where it may be desirable to preserve certain views. Two other areas that may have moderate to high impact include the south portal of the Mount Auburn tunnel and the Galbraith Station area. Both of these areas may have 7-8 structures acquired. The south portal area of the Mount Auburn tunnel has concentrations of minority, low income, mobility limitation and no vehicle populations. The Galbraith Station area has concentrations of minority, elderly, mobility limitation and no vehicle populations.

Areas likely to have visual construction impacts are the Mount Auburn tunnel area, especially at the portals and the station entrance and proposed tunnel area near the intersection of MLK Drive and Eden Avenue. The most prevalent visual construction impact would result from the construction of the new bridge crossing the Ohio River. These visual construction impacts would occur in areas were the five protected populations have been identified.

Cultural Resources

Archaeological Resources -- A systematic archaeological survey of those areas identified as having a potential for significant, intact archaeological resources would be conducted during the FEIS phase of this project. The report entitled, Phase 1 Archaeological.

Architectural Resources -- In the existing historic districts in the Covington segment, 14 buildings and 1 structure (street) would be demolished and 82 buildings would incur view/historic character changes. These impacts would adversely effect the minority, low income, elderly, mobility limitation and no vehicle population areas that are located along the proposed alignment in Covington. For the Ohio segments, a total of 74 buildings are proposed for demolition (Table 3.6.6). It should be noted that only some of the buildings proposed for demolition are considered or recommended eligible for National Register status. Of the 74 buildings proposed for demolition, 60 are located in minority population areas and 14 buildings are located in non-minority population areas. Low income and no vehicle population areas would have 65 buildings proposed for demolition with 9 buildings in non-low income and with vehicle population areas.

All properties are subject to eligibility review by the OHPO; should the OHPO determine any properties eligible, demolition would be viewed as an adverse effect and require mitigation. Determination of effects would occur in consultation with OHPO in later project phases.

Parklands
Annie Hargreaves Park is located in an area where protected populations have been identified, as shown in Table 3.9.2, and it would be directly impacted. Relocation of an existing basketball court, play structure and picnic tables would be necessary.

Of the seven parks indirectly impacted (including Annie Hargreaves), six parks are located within an area where protected populations have been identified. Direct and indirect impacts to parklands would not adversely effect minority, low-income, age 65 and over, mobility limitation, and no vehicle populations.

Alternative 2

Neighborhoods, Community Facilities and Community Cohesion
Impacts and benefits to neighborhoods, community facilities and community cohesion for Alternative 2 are the same as Alternative 1.

Displacements
Table 3.9.4 summarizes the total displacements in minority, low income, elderly, mobility limitation and no vehicle population areas as compared to total displacements for Alternative 2. As shown in the table, the majority of acquisitions would occur in minority, low income, elderly, mobility limitation and no vehicle population areas. Residential and non residential displacements would have the potential to adversely effect minority, low income, elderly, mobility limitations and no vehicle populations.

Table 3.9.4: Summary of Displacements for Alternative 2

	Building Removal		
	Non Residential	Residential	Dwelling Units (d.u.)
Alternative 2	**82**	**57**	**205**
Population Group			
Minority	78	50	198
Low-Income	62	56	204
Age 65 and Over	62 to 64	40 to 45	169 to 174
Mobility Limitations	55 to 60	36 to 54	90 to 189
No Vehicle	69	50	198

Visual/Aesthetic Conditions
Visual impacts for Alternative 2 would be similar to Alternative 1, however, there would be additional visual construction impacts with an above grade Covington Riverfront station. This station site is located within the five protected populations were identified, would have visual construction impacts with an above grade station.

Cultural Resources
Cultural Resources impacts for Alternative 2 would be similar to Alternative 1.

Parklands
Parkland impacts for Alternative 2 would be similar to Alternative 1.

Alternatives 3

Neighborhoods, Community Facilities and Community Cohesion
Impacts and benefits to neighborhoods, community facilities and community cohesion for Alternative 3 are the same as Alternative 1 with the exception of displacements within the Uptown segment. Under Alternative 3, dwelling units that would be removed total 23 in the Corryville and Avondale neighborhoods.

Displacements and Partial Property Acquisition
Table 3.9.5 summarizes the total displacements in minority, low income, elderly, mobility limitation and no vehicle population areas as compared to total displacements for Alternative 3. As shown in the table, the majority of acquisitions would occur in minority, low income, elderly, mobility limitation and no vehicle population areas. Residential and non residential displacements would have the potential to adversely effect minority, low income, elderly, mobility limitations and no vehicle populations .

Table 3.9.5: Summary of Displacements for Alternative 3

	Building Removal		
	Non Residential	Residential	Dwelling Units (d.u.)
Alternative 3	**84**	**55**	**152**
Population Group			
Minority	80	48	145
Low-Income	67	54	151
Age 65 and Over	63 to 66	36 to 41	109 to 114
Mobility Limitations	59 to 62	49 to 52	113 to 136
No Vehicle	71	48	145

Visual/Aesthetic Conditions
Visual impacts for Alternative 3 would be similar to Alternative 1.

Cultural Resources
Cultural Resources impacts for Alternative 3 would be similar to Alternative 1. The Zoo alignment will be evaluated separately in an addendum report.

Parklands
Parkland impacts would be similar to Alternative 1 for Alternative 3, with the additional impact to the Cincinnati Zoo. The zoo is located in an area where all five protected populations are located.

Alternative 4

Neighborhoods, Community Facilities and Community Cohesion
Impacts and benefits to neighborhoods, community facilities and community cohesion for Alternative 4 are the same as Alternative 3.

Displacements
Table 3.9.6 summarizes the total displacements in minority, low income, elderly, mobility limitation and no vehicle population areas as compared to total displacements for Alternative 4. As shown in the table, the majority of acquisitions would occur in minority, low income, elderly, mobility limitation and no vehicle population areas. Residential and non residential displacements would have the potential to adversely effect minority, low income, elderly, mobility limitations and no vehicle populations .

Table 3.9.6: Summary of Displacements for Alternative 4

	Building Removal		
	Non Residential	Residential	Dwelling Units (d.u.)
Alternative 4	**80**	**55**	**152**
Population Group			
Minority	76	48	145
Low-Income	63	54	151
Age 65 and Over	60 to 62	36 to 41	109 to 114
Mobility Limitations	55 to 58	49 to 52	113 to 136
No Vehicle	67	48	145

Visual/Aesthetic Conditions
Visual impacts for Alternative 4 would be similar to Alternative 1, however, there would be additional visual construction impacts with an above grade Covington Riverfront station. This station site is located within the five protected populations were identified, would have visual construction impacts with an above grade station.

Cultural Resources
Cultural Resources impacts for Alternative 4 would be similar to Alternative 1. The Zoo alignment will be evaluated separately in an addendum report.

Parklands
Parkland impacts would be similar to Alternative 1 for Alternative 4, with the additional impact to the Cincinnati Zoo. The zoo is located in an area where all five protected populations are located.

3.9.4 MITIGATION MEASURES RELATED TO ENVIRONMENTAL JUSTICE FOR SOCIAL FACTORS

Benefits and adverse impacts of the Build Alternatives to minority, low-income, elderly, mobility limitation and no vehicle populations are due to the significant number of census block groups that contain these populations in the project corridor. The No-Build and TSM Alternatives would not offer the benefits associated with the Build Alternative.

All impacts identified in this document would be mitigated, if possible, to avoid adverse impacts to all neighborhoods, with special concern and emphasis to minority, low-income, elderly, mobility limitation and no vehicle populations. The active involvement of all neighborhoods in the corridor would continue to be a goal through design and implementation. Public engagement for all communities in the corridor will continue through the length of this project and is explained in detail in Chapter 8, Public Outreach and Education.