

3.5 Neighborhoods and Equity

This section summarizes the IBR Program's benefits and impacts to neighborhoods and the broadened view of equity priority communities.

Transportation infrastructure substantially influences neighborhoods and communities: highways and transit connect people with their homes and daily destinations, while local streets and paths provide circulation for drivers, bicyclists, and pedestrians within their neighborhoods. Modifying or building new transportation infrastructure can improve these connections and can also change a community's character, such as by improving commutes for nearby residents and increasing community investment or displacing neighborhood resources and increasing noise levels for residents adjacent to the highway. Thoughtful planning and design of transportation infrastructure can increase benefits to surrounding communities and reduce negative impacts.

The IBR Program defines **equity priority communities** as those who experience and/or have experienced discrimination and exclusion based on identity or status. The IBR Program provides a two-part definition for equity:

1. **Process equity** means that the IBR Program centers and prioritizes access, influence, and decision-making power for equity priority communities in establishing objectives, design, implementation, and evaluation of success.
2. **Outcome equity** is the result of successful process equity and is demonstrated by tangible transportation, community, and economic benefits for equity priority communities.

Together, process equity and outcome equity contribute to addressing the harmful impacts and removing longstanding injustices experienced by equity priority communities.

The information in this section is based on the IBR Neighborhoods and Populations Technical Report and Equity Technical Report

3.5.1 Changes or New Information Since 2013

The Columbia River Crossing (CRC) Final EIS and Record of Decision were completed in 2011, and design refinements were addressed in subsequent NEPA re-evaluations in 2012 and 2013. Since then, the following changes and new information have affected the potential impacts relating to neighborhoods, and equity. The changes for this section are organized by topic.

Neighborhoods

- Updated demographic information, neighborhood characteristics, and community resources within the study area.
- Updated analysis of the Modified LPA and design options.

Terms and Definitions

As defined by the IBR Program, **Equity priority communities** refer to populations who experience and/or have experienced discrimination and exclusion based on identity or status, including:

- Black, Indigenous, and People of Color
- People with disabilities
- Communities with limited English proficiency
- Persons with lower incomes
- Houseless individuals and families
- Immigrants and refugees
- Young people (under 25 years of age)
- Older people (65 years or older)

- Updated analysis of long-term, short-term, direct, indirect, and cumulative effects on Oregon and Washington neighborhoods resulting from the Modified LPA.

Equity

- New Equity Technical Report based on the IBR Program Equity Framework.
- Coordination and engagement with newly chartered Community Advisory Group and Equity Advisory Committee per the IBR Equity Framework, as well as updated public engagement efforts.
- Identification of long-term, short-term, direct, indirect, and cumulative effects to equity communities resulting from the Modified LPA and design options.

Table 3.5-1 compares the impacts and benefits between the CRC LPA as identified in the Final EIS (2011) and the IBR Modified LPA. While the CRC Final EIS evaluated neighborhoods, equity was not explicitly studied.

The IBR Program did not identify any impacts from the Modified LPA that would differ substantially from those of the CRC LPA. The CRC LPA and Modified LPA would both be consistent with neighborhood plans, emissions for all Mobile Source Air Toxics and criteria pollutants would be expected to be lower than existing conditions, I-5 travel times and reliability would improve, and access to transit, bike, and pedestrian facilities would increase under both the CRC LPA and Modified LPA. A detailed description of impacts and benefits to neighborhoods and equity from the IBR Modified LPA and associated design options follows.

IBR Equity Framework

The IBR Program is committed to centering equity by developing a shared understanding of what the Program seeks to achieve and how it will be achieved. IBR Equity Framework outlines the Program's approach and tools it will use to advance equity.

1 Table 3.5-1. Comparison of Effects from the Columbia River Crossing LPA and the IBR Modified LPA

Technical Considerations	Technical Subgroup	CRC Effects Identified in the 2011 Final EIS	Modified LPA	Explanation of Differences
Displacements	Residential	59	43	Modified LPA design changes would reduce residential property acquisition. Key design changes include replacing the full interchange on Hayden Island with a partial interchange and moving the LRT alignment closer to I-5 (removing the proposed couplet in downtown Vancouver).
	Business	69	33	Commercial property acquisitions would also decrease due to the Modified LPA's smaller footprint.
Neighborhoods	Access to resources	<ul style="list-style-type: none"> Displacement of Hayden Island Safeway and bottle return. 	<ul style="list-style-type: none"> None identified. 	The Safeway grocery store (including a pharmacy and bottle return) closed after the CRC project was suspended. A new Target store, replacing some of these services, was constructed outside the Modified LPA footprint.
	Community cohesion	<ul style="list-style-type: none"> Improved cohesion with light-rail and transit-oriented development Would result in residential and commercial displacements. Reduced access to restaurants, wage-earning jobs on Hayden Island 	<ul style="list-style-type: none"> Similar to the CRC LPA, but with fewer residential and commercial displacements 	Impacts of the CRC project and the Modified LPA for Hayden Island are similar and would affect community cohesion despite benefits from improved transit, bicycle, and pedestrian connections. The CRC project would cause more residential and commercial displacements due to differences in design footprint.
	Noise and vibration	<ul style="list-style-type: none"> 110 residential equivalent impacts after mitigation 	<ul style="list-style-type: none"> 122 residential equivalent impacts after mitigation. 	Change in highway footprint at the I-5/SR 500/ 39th Street Interchange and in Oregon. Change in transit alignment and proximity of alignment to the direct fixation trackway in downtown Vancouver.
	Tolling	<ul style="list-style-type: none"> Tolling would increase overall household transportation 	<ul style="list-style-type: none"> Similar to CRC LPA; however, mitigation for tolling effects on 	Although changes in external economic conditions over time (e.g., inflation) may have influenced household costs related

Technical Considerations	Technical Subgroup	CRC Effects Identified in the 2011 Final EIS	Modified LPA	Explanation of Differences
		<p>costs and would require a higher share of income for low-income populations. Transponder mitigation for low-income populations would offset this impact.</p> <ul style="list-style-type: none"> Tolls would reduce travel times and improve travel time reliability. 	<p>low-income populations is still under development in coordination with ODOT and WSDOT (see Section 3.20, Environmental Justice).</p>	<p>to tolling, the effects would be similar between CRC and the Modified LPA.</p>
Equity	High-capacity transit	N/A ^a	<ul style="list-style-type: none"> All equity priority communities to experience increased access to jobs and services via transit. Three equity priority communities are estimated to see greater increases in access than their counterparts. 	New analysis completed for the Modified LPA.
	Highway and driving improvements	N/A	<ul style="list-style-type: none"> 18% to 20% more jobs accessed during AM peak and 3% during midday (on average) for all equity priority communities living in the Program area. 	New analysis completed for the Modified LPA.
	Houseless populations	N/A	<ul style="list-style-type: none"> Residential displacement for those living within existing or to-be-acquired right of way. 	New analysis completed for the Modified LPA.

Technical Considerations	Technical Subgroup	CRC Effects Identified in the 2011 Final EIS	Modified LPA	Explanation of Differences
	Long-term displacement potential	N/A	<ul style="list-style-type: none"> Potential for gentrification due to improved amenities and livability 	New analysis completed for the Modified LPA.
	Tolling	N/A	<ul style="list-style-type: none"> New toll requires higher proportion of income for low-income drivers. ODOT and WSDOT are evaluating implementation of low-income toll program. 	New analysis completed for the Modified LPA.

a The CRC project EIS did not identify, define, or evaluate impacts/burdens and opportunities to equity populations.

CRC = Columbia River Crossing; LPA = locally preferred alternative; LRT = light-rail transit; N/A = not applicable

Residential Equivalently = used to equate the use of common outdoor areas to individual outdoor use areas for parks or other non-residential household uses. The calculation includes the usage factor of the area, the number of uses, and the equation of users to residences.

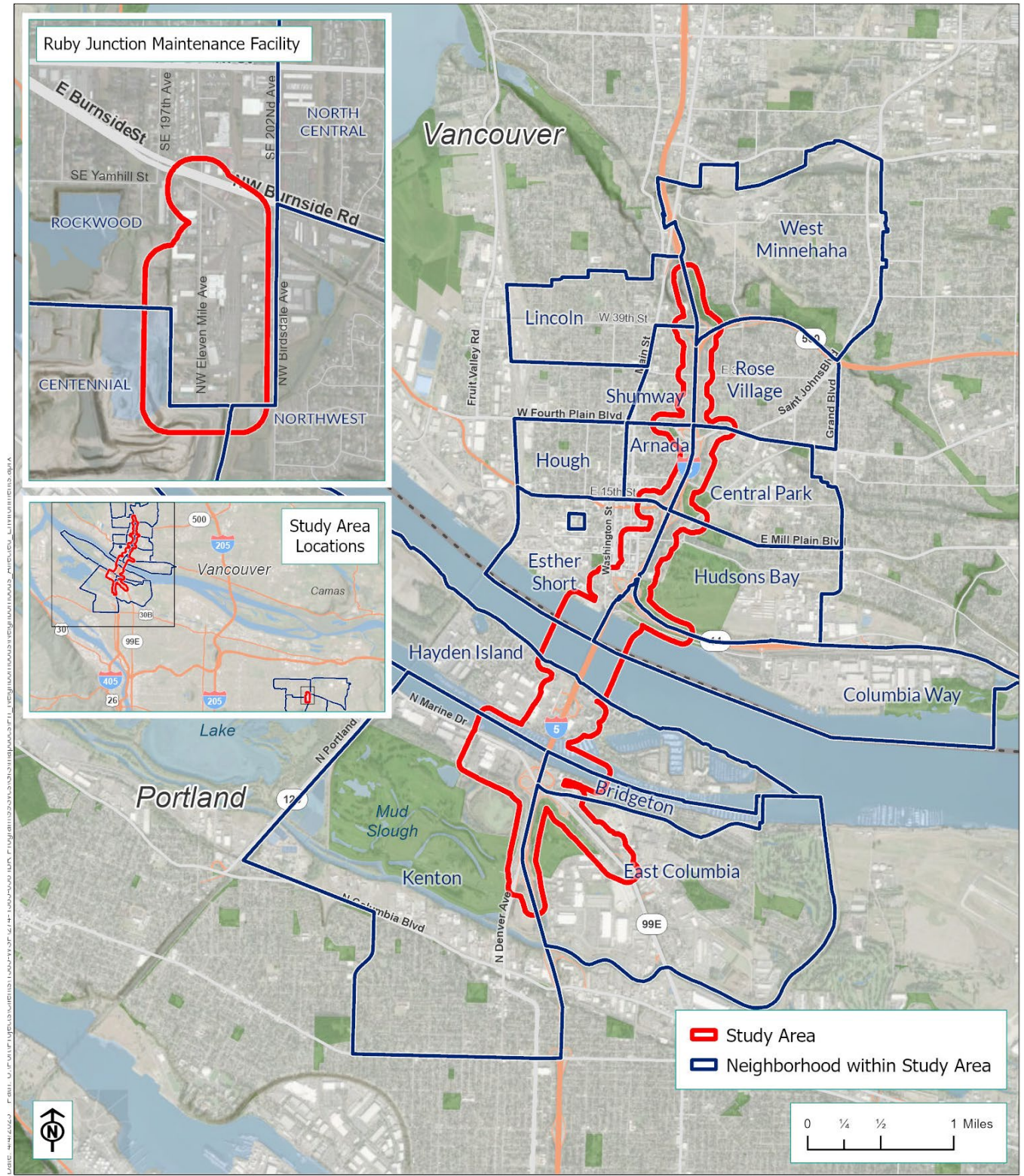
3.5.2 Existing Conditions

The IBR corridor includes a 5-mile segment of I-5 approximately between the SR 500 interchange in Washington and the I-5/Columbia Boulevard interchange in Oregon, as well as the Ruby Junction Maintenance Facility in Gresham, Oregon.

Neighborhoods

The study area includes 15 neighborhoods (Figure 3.5-1 and Table 3.5-2).

1 Figure 3.5-1. Neighborhoods in the Study Area



1 Table 3.5-2. Study Area Neighborhoods

City	Neighborhood
Portland	Bridgeton
	East Columbia
	Hayden Island
	Kenton
Gresham	Rockwood
Vancouver	Arnada
	Central Park
	Columbia Way
	Esther Short
	Hough
	Hudson's Bay
	Lincoln
	Rose Village
	Shumway
	West Minnehaha

2 Data that help identify the overall neighborhood character and equity priority communities, which are
3 detailed in the IBR Neighborhoods and Populations Technical Report, include:

- 4 • Total population.
- 5 • Household size.
- 6 • Demographics of and equity priority communities compared to city and county.
- 7 • Median assessed home value.
- 8 • Crime rate statistics.
- 9 • Inventory of community resources.
- 10 • Neighborhood cohesion.

Neighborhood Demographics

Each neighborhood has a unique character formed by its residents, community resources, businesses, and landmarks. Table 3.5-3 through Table 3.5-8 display the race/ethnicity, demographic, and age characteristics of study area neighborhoods in Oregon and Washington. For Oregon neighborhoods, data for Portland and Multnomah County are provided for comparison. For Washington neighborhoods, data for Vancouver and Clark County are provided for comparison. Several distinctions within the demographics of the study area are summarized as follows:

People with disabilities. The disabled population rate varies across study area neighborhoods. The Esther Short neighborhood reports a 25% disability rate, likely due to the senior housing in the area. All other neighborhood disability rates fall between about 11% and 19% (see Table 3.5-5 and Table 3.5-6).

Older adults and children. The Columbia Way neighborhood has the largest rate of people over 65, with 38.6%; all other study area neighborhoods have a rate between 6.5% and 26%. The Columbia Way neighborhood has the lowest percentage of children (age 18 or younger), at 3.2%, while the Rockwood neighborhood has the highest percentage of children, at 28.3% (see Table 3.5-7 and Table 3.5-8).

Car ownership. The neighborhoods vary in their reliance on auto transportation. Thirty percent of households in the Esther Short neighborhood report not owning a car. The Hough neighborhood also shows relatively low rates of car ownership; 20% of the residents do not own a car. All other neighborhoods have a rate of households without a car between 2.1% and 16.5% (see Table 3.5-5 and Table 3.5-6).

Terms and Definitions

Community resources and cohesion.

Community resources typically include educational, religious, health care, cultural, and recreational facilities. Community cohesion measures how well residents can connect with one another within their community. These connections can occur at gathering places such as schools, community centers, parks, or transit stations. High home ownership rates and active neighborhood associations also contribute to cohesion.

Table 3.5-3. Race/Ethnicity for Oregon Study Area Neighborhoods, Portland, and Multnomah County

Study Area Neighborhood	Total Population	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Two or More Races	Hispanic or Latino Alone
Hayden Island	2,373	76.5%	0.8%	2.1%	0.9%	0.4%	<0.1%	4.2%	15.0%
Bridgeton	701	69.4%	21.1%	1.9%	0.1%	<0.1%	0.0%	4.3%	3.1%
East Columbia	1,141	52.7%	16.8%	0.1%	16.2%	1.0%	0.0%	5.6%	7.7%
Kenton	7,626	67.6%	8.7%	0.6%	2.2%	0.9%	<0.1%	8.6%	11.4%
Rockwood	13,712	40.0%	7.5%	1.6%	6.4%	2.1%	<0.1%	3.6%	38.7%
Portland	650,380	69.5%	5.7%	0.6%	8.6%	0.6%	0.4%	4.8%	9.8%
Multnomah County	809,869	68.9%	5.2%	0.7%	7.7%	0.6%	0.4%	4.7%	11.8%

Source: U.S. Census Bureau 2021.

1 Table 3.5-4. Race/Ethnicity for Washington Study Area Neighborhoods, Vancouver, and Clark County

Study Area Neighborhood	Total Population	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Two or More Races	Hispanic or Latino Alone
W. Minnehaha	3,839	69.5%	2.9%	0.4%	1.3%	3.3%	0.0%	8.8%	13.8%
Lincoln	4,029	79.9%	2.9%	0.2%	2.8%	<0.1%	0.1%	6.6%	7.4%
Shumway	1,094	79.3%	2.3%	0.4%	3.0%	2.3%	0.2%	7.0%	5.4%
Rose Village	5,780	55.3%	1.3%	0.6%	0.9%	2.4%	<0.1%	11.1%	28.5%
Hough	2,795	86.1%	1.8%	0.3%	1.5%	<0.1%	<0.1%	2.4%	7.9%
Arnada	991	74.4%	1.5%	1.8%	1.7%	0.2%	1.4%	12.0%	7.0%
Central Park	2,174	81.7%	6.0%	0.1%	1.5%	<0.1%	0.3%	1.5%	9.0%
Esther Short	2,821	75.9%	6.1%	2.1%	2.5%	0.7%	0.9%	3.8%	8.0%
Hudson's Bay	2,034	76.5%	0.2%	<0.1%	2.5%	<0.1%	<0.1%	11.5%	9.2%
Columbia Way	1,195	76.5%	1.1%	<0.1%	12.7%	<0.1%	<0.1%	2.1%	7.6%
Vancouver	182,792	70.0%	2.1%	0.3%	5.5%	1.5%	0.2%	5.7%	14.6%
Clark County	481,950	77.5%	1.7%	0.5%	4.7%	0.7%	0.2%	4.7%	10.0%

2 Source: U.S. Census Bureau 2021.

Table 3.5-5. Demographic Characteristics for Oregon Study Area Neighborhoods, Portland, and Multnomah County

Study Area Neighborhood	Families below Poverty Level	Low-Income Population (<2x poverty level)	Disabled ^a	Large Families ^b	Owner-Occupied Housing	Home Value Index ^c	Housing Units with No Vehicle
Hayden Island	3.0%	14.8%	17.3%	7.2%	76.2%	\$315,632	4.0%
Bridgeton	0.1%	18.9%	11.0%	2.5%	44.8%	\$385,931	2.1%
E. Columbia	6.3%	10.9%	11.0%	7.9%	76.6%	\$425,977	3.0%
Kenton	5.7%	23.4%	10.8%	6.9%	71.1%	\$457,029	10.2%
Rockwood	21.5%	49.6%	13.5%	23.3%	40.9%	\$353,825 ^d	12.7%
Portland	7.7%	27.2%	11.9%	11.1%	53.1%	\$508,250	14.0%
Multnomah County	8.2%	28.3%	12.3%	12.3%	54.4%	\$474,991	12.9%

Source: U.S. Census Bureau 2021.

^a Disability is defined by the existence of a physical, mental, or emotional condition lasting 6 months or more in household members 5 years of age and older that makes it difficult to perform activities including working and leaving home.

^b Large family means five or more people per household.

^c Zillow Home Value Index, January 2021. <https://www.zillow.com/research/data/>.

^d Neighborhood-specific value unavailable for Rockwood. Reported home value is for Zip code 97233, which includes Ruby Junction and much of Rockwood neighborhood.

1 Table 3.5-6. Demographic Characteristics for Washington Study Area Neighborhoods, Vancouver, and Clark
2 County

Study Area Neighborhood	Families below Poverty Level	Low-Income Population (<2x poverty level)	Disabled ^a	Large Families ^b	Owner-Occupied Housing	Home Value Index ^c	Housing Units with No Vehicle
West Minnehaha	3.9%	30.9%	13.3%	26.6%	60.1%	\$389,650	2.7%
Lincoln	8.6%	24.9%	14.3%	11.0%	58.7%	\$419,358	10.7%
Shumway	1.0%	24.9%	15.8%	5.7%	50.2%	\$394,907	13.4%
Rose Village	14.0%	37.7%	15.1%	19.0%	46.7%	\$316,998	8.7%
Hough	11.4%	30.2%	18.9%	12.2%	45.2%	\$408,568	20.1%
Arnada	10.1%	38.1%	14.8%	1.2%	28.6%	\$429,085	16.5%
Central Park	7.2%	25.8%	12.7%	15.8%	39.4%	\$331,351	10.2%
Esther Short	17.2%	50.6%	25.0%	6.3%	19.0%	\$348,447	31.0%
Hudson's Bay	1.7%	29.4%	13.2%	8.1%	34.1%	\$353,304	9.9%
Columbia Way	0.1%	22.9%	15.4%	<0.1%	49.0%	\$353,935	8.2%
Vancouver	8.4%	30.3%	14.0%	14.1%	51.7%	\$402,113	7.0%
Clark County	6.0%	22.9%	12.1%	15.8%	67.1%	\$428,582	4.6%

3 Source: U.S. Census Bureau 2021.

4 a Disability is defined by the existence of a physical, mental, or emotional condition lasting 6 months or more in household members 5
5 years of age and older, that makes it difficult to perform activities including working and leaving home.

6 b Large family means five or more people per household.

7 c Zillow Home Value Index, January 2021. <https://www.zillow.com/research/data/>.

1 Table 3.5-7. Population Age for Oregon Study Area Neighborhoods, Portland, and Multnomah County

Study Area Neighborhood	Total Population	0 to 4 Years	5 to 17 Years	18 to 64 Years	65 and Older
Hayden Island	2,371	<0.1%	8.6%	63.3%	26.0%
Bridgeton	701	4.9%	12.2%	71.7%	11.7%
East Columbia	1,141	3.6%	15.5%	69.5%	11.1%
Kenton	7,626	6.6%	10.1%	75.4%	9.3%
Rockwood	13,712	8.9%	19.4%	64.6%	8.9%
Portland	650,380	4.9%	12.5%	69.4%	13.2%
Multnomah County	809,869	5.5%	13.4%	67.9%	13.5%

2 Source: U.S. Census Bureau 2021.

3 Table 3.5-8. Population Age for Washington Study Area Neighborhoods, Vancouver, and Clark County

Study Area Neighborhood	Total Population	0 to 4 Years	5 to 17 Years	18 to 64 Years	65 and Older
West Minnehaha	3,839	8.6%	16.8%	61.4%	14.3%
Lincoln	4,029	7.2%	14.0%	64.5%	14.5%
Shumway	1,094	3.9%	9.6%	69.1%	16.6%
Rose Village	5,780	8.5%	17.5%	68.3%	6.5%
Hough	2,795	5.2%	11.0%	61.7%	22.2%
Arnada	991	4.9%	12.2%	71.7%	11.7%
Central Park	2,174	6.7%	10.7%	70.4%	12.2%
Esther Short	2,821	1.5%	2.9%	73.4%	21.4%
Hudson's Bay	2,034	4.2%	11.8%	65.0%	19.5%
Columbia Way	1,195	<0.1%	3.2%	60.7%	38.6%
Vancouver	182,792	6.6%	15.8%	61.5%	16.2%
Clark County	481,950	6.1%	17.9%	60.6%	15.4%

4 Source: U.S. Census Bureau 2021.

5 **Neighborhood Plans**

6 Neighborhoods often define themselves and strengthen their identities through neighborhood plans, which
7 are formally adopted by city-supported neighborhood associations. The Cities of Portland and Vancouver
8 formally adopt these neighborhood plans as part of their respective comprehensive plans. All neighborhoods

in the study area have an adopted plan except for the East Columbia, Rockwood in Gresham, and Columbia Way neighborhoods.

Neighborhood plans typically include goals, objectives, proposed comprehensive plan and zoning changes, and an implementation strategy. Within the study area, neighborhood plans with goals relevant to potential benefits and impacts of the IBR Program include:

- Minimize the adverse impacts of increased density; support density adjacent to transit.
- Preserve existing housing stock; preserve historic character.
- Reduce transportation-related noises and odor; mitigate I-5 noise.
- Reduce speeding within the neighborhood.
- Enhance and maintain on-street parking, including bike parking.
- Maintain adequate transit service; support development of light-rail.
- Improve bicycle and pedestrian facilities and connections.
- Protect the Columbia River from contaminants.

Equity

For each equity priority community, Table 3.5-15 lists the percentage that population comprises in the Program area and the broader Portland-Vancouver metropolitan area. People with disabilities, persons with lower incomes, and older adults make up a large share of the Program area population compared to the metropolitan area. Percentages of young people and immigrants and refugees are lower in the Program area than in the metropolitan area, while percentages of Black, Indigenous, and People of Color (BIPOC) and limited English proficiency populations are similar. Section 3.20, Environmental Justice, discusses existing conditions and potential long-term effects on low-income and minority populations.

Table 3.5-9. Equity Priority Community Percentages in Program Area and Metropolitan Area

Community	Description	Percent Program Area Population	Percent Portland-Vancouver Metropolitan Area Population
Black, Indigenous, and People of Color	People selecting any race/ethnicity combination besides White/non-Hispanic on the census.	30%	31%
People with Disabilities	People living with a serious difficulty within four basic areas of functioning: hearing, vision, cognition, and ambulation.	16%	12%
Communities with Limited English Proficiency	People who indicate that they speak English less than “very well.”	6%	7%
Persons with Lower Incomes	People or households with income at or below 200% of the federal poverty level.	31%	24%

Community	Description	Percent Program Area Population	Percent Portland-Vancouver Metropolitan Area Population
Immigrants and Refugees	People born outside of the United States (“Foreign Born Population”).	9%	13%
Young People	People under 25 years of age.	23%	29%
Older Adults	People 65 years of age or older.	18%	15%

1

2 An equity index tool was developed to identify where equity priority communities live in the study area and
3 the metropolitan region. The equity index awards points to geographic areas (block groups or census tracts)
4 in the study area that have an above-average percentage of equity priority populations compared to the
5 metropolitan region. For example, 25% of the region’s households are low-income according to census
6 information (U.S. Census Bureau 2022), so a point was awarded to a study area block group if greater than
7 25% of households were low-income. Figure 3.5-3 shows a screenshot of this interactive web-based tool,
8 showing that most equity priority communities are located in downtown Vancouver and east of the study
9 area.

The screenshot shows the ArcGIS web application interface. The top panel displays the 'Census Data' layer, which is currently set to 'Equity Index Score'. The legend indicates five categories: 8-9 (dark green), 6-7 (medium green), 4-5 (light green), 2-3 (very light green), and 0-1 (white). The bottom panel displays the 'LPA Design + Footprint' layer, which is currently set to 'IBR LPA Primary Study Area'. The legend indicates three categories: IBR LPA Primary Study Area (red outline), IBR LPA SR 14 Design (light blue), and IBR LPA Design (dark blue). The map shows the IBR LPA Primary Study Area in red, overlaid on the Equity Index Score data. The map includes labels for various locations such as Vancouver, Clark College, Pearson Airfield, and Faloma.

Public involvement is important to data gathering, building trust, and developing viable solutions. Meaningful public involvement in the IBR Program included forming two advisory groups: the Community Advisory Group and Equity Advisory Group. The advisory groups are composed mainly of regional community members who were identified and appointed to represent a diverse range of perspectives. The IBR Program has been conducting public and community engagement since October 2021, including gathering feedback from residents, businesses, and community-based organizations within the study area to learn more about the communities. This process is documented in the IBR Community Engagement Report (IBR 2021) and is described in Appendix B.

Under the No-Build Alternative, there would be no Program-related change to existing neighborhoods, community facilities, or social resources. Neighborhoods in the study area would continue to develop according to local and regional plans, though their development might not be fully consistent with goals that

assume improved mobility in the I-5 corridor and expanded transit access; for example, the goals of the Hayden Island Plan would likely not be realized without the construction of a high-capacity transit station on the island. Section 3.4, Land Use, contains more information on local land use plans. There would be no changes in noise or vibration levels or transportation patterns that would change community cohesion, but study area neighborhoods would not benefit from reduced congestion, improved mobility, or access to employment opportunities from increased transit connectivity and improved active transportation connections.

Equity

The No-Build Alternative would not move the IBR Program forward toward its equity objectives. Equity priority communities would not benefit from increased mobility and accessibility resulting from construction of light-rail, active transportation facilities, or highway improvements.

In terms of potential burdens, the No-Build Alternative would avoid short- and long- term displacement of residents and businesses, as well as other construction-related impacts such as traffic diversion, noise, temporary reductions in air quality, and cost burdens of tolling. Above-average concentrations of equity priority communities were identified in each subarea where these impacts would occur.

Modified LPA

Neighborhoods

Oregon

Potential effects on neighborhoods from the Modified LPA were assessed using six questions defined by the IBR Program to evaluate impacts and benefits. Table 3.5-16 summarizes the questions and answers for each Oregon neighborhood in the study area.

The Modified LPA is not anticipated to adversely affect community cohesion in most neighborhoods, except for Hayden Island. In the Hayden Island neighborhood, the Modified LPA is anticipated to adversely affect the neighborhood's community cohesion, particularly among the floating home community, where there would be changes to views and displacements of some floating homes. Fourteen businesses, and the 130 jobs associated with them, would be displaced, many of which are restaurants that provide places for neighbors to meet. In addition, bridge lifts associated with the single-level movable-span bridge option would cause backups that would reduce reliability for all travel modes, similar to the No-Build Alternative, which would negatively affect neighborhood cohesion.

However, neighborhood cohesion on Hayden Island would be improved by a more continuous street system, improved pedestrian and bicycle facilities, and transit that increases connections for residents under the Modified LPA. This assessment is described in more detail in the Neighborhoods and Populations Technical Report. The single-level fixed-span and single-level movable-span bridge design options may help to maintain or improve neighborhood cohesion by providing additional transit station location options on Hayden Island compared to the double-deck fixed-span configuration, which would provide more opportunities for connection to residences and development.

The Modified LPA analysis and conclusions is the same for all design options considered, unless otherwise noted. Design options include:

- One or two auxiliary lanes in each direction of I-5
- Three bridge configuration options: double-deck fixed-span, single-level fixed-span, or single-level movable-span
- SR 14 interchange with or without C Street ramps
- I-5 mainline centered or shifted west
- Park-and-ride options

1 Table 3.5-10. Overview of Potential Effects on Oregon Neighborhoods

Potential Effect Question	Hayden Island	Bridgeton	East Columbia	Kenton	Rockwood
Will the Program displace people or community resources, including businesses?	Residential and business displacement	Business displacement	Impacts to Delta Park (loss of 1 acre of off-leash area)	Residential and business displacement	Business displacement
Will the program create direct or indirect impacts to social services by displacing them?	No	No	No	No	No
Will the Program separate neighborhood residents from community resources?	No	No	No	No	No
Will the Program change travel such that it will affect access to community resources?	No	No	No	No	No
Will the Program change community cohesion?	Yes, positively and negatively	No	No	No	No
Is the Program consistent with existing neighborhood plan goals?	Yes	Yes	N/A ¹	Yes	N/A ^a

2 a This neighborhood does not have an approved neighborhood plan.

3 *Washington*

4 Table 3.5-17 summarizes the answers to the same set of questions for the study area neighborhoods in
5 Vancouver. The Modified LPA is not anticipated to adversely affect community cohesion in these
6 neighborhoods.

7 The Modified LPA would require the acquisition of a portion of Marshall Park in the Central Park neighborhood
8 for a retaining wall along I-5. The retaining wall would displace horseshoe pits, landscaping, and trees that
9 serve as a buffer between the community center and I-5; the current community center and senior center
10 would remain. Compared to the centered mainline, the I-5 Mainline Westward Shift design option would
11 require two additional property acquisitions: the Normandy Apartments, where 33 residential units would be
12 displaced, and the Regal City Center complex, where three businesses would be displaced. This is a notable
13 effect, especially for those living in these units. However, these displacements are not anticipated to
14 substantially alter neighborhood cohesion because the Normandy Apartments are located at the edge of the
15 neighborhood in an otherwise nonresidential area. Moreover, the displaced businesses, which are not
16 considered community resources, make up a small portion of overall commercial property in the
17 neighborhood.

18 Three sites are being considered for the Waterfront Park and Ride. Depending on the site selected, there
19 would be up to four parcels acquired, with up to one business displacement. The potential displacement of a
20 single business at the Waterfront Park and Ride site; however, it would not affect neighborhood cohesion.
21 Two sites are being considered for the Evergreen Park and Ride; depending on the site, up to five parcels
22 would be acquired, with no businesses or residential units displaced. For a more detailed analysis, see the
23 Neighborhoods and Populations Technical Report.

The Modified LPA design options would have differing effects on travel reliability, congestion, and neighborhood cohesion, depending on their specific design elements. The single-level fixed-span and single-level movable-span bridge design options would have a lower profile than the double-deck fixed-span configuration at the bridge landing in downtown Vancouver. The single-level bridge configurations would provide more flexibility in potential locations for the Vancouver Waterfront Station compared to the double-deck fixed-span configuration.

In addition, the single-level bridges would provide more opportunities for connection to residences and development, helping to maintain or improve neighborhood cohesion. However, bridge lifts associated with the single-level movable-span bridge option could cause backups that would reduce reliability for all travel modes similar to the No-Build Alternative. These backups could spill into neighborhood streets, limiting circulation within the neighborhood, impeding access to community facilities, and, thereby, negatively affecting neighborhood cohesion.

The design option eliminating the C Street ramps would redirect traffic from downtown Vancouver to the Mill Plain Boulevard interchange. This would result in additional traffic delay at intersections near the Mill Plain Boulevard interchange, which could reduce neighborhood cohesion in the Esther Short neighborhood by substantially increasing travel delay for residents and people accessing the neighborhood. These impacts would occur in an Equity Priority.

Table 3.5-11. Overview of Anticipated Effects on Vancouver Neighborhoods

Potential Effect Question	Rose Village	Hough	Arnada	Central Park	Esther Short	Hudson's Bay	Columbia Way
Will the program displace people or community resources, including businesses?	No	No	No	Impacts to Marshall Park through land acquisition	Business displacements Residential displacements (design options)	No	No
Will the program create direct or indirect impacts to social services by displacing them?	No	No	No	No	No	No	No
Will the Program separate neighborhood residents from community resources?	No	No	No	No	No	No	No
Will the Program change travel such that it will affect access to community resources?	No	No	No	No	No	No	No
Will the Program change community cohesion?	No	No	No	No	No	No	No
Is the Program consistent with existing neighborhood plan goals?	Yes	Yes	Yes	Yes	Yes	Yes	N/A ^a

^a This neighborhood does not have an approved neighborhood plan.

Equity

This equity assessment looks at the distribution of benefits and burdens. Benefits from the Modified LPA to equity priority communities include increased access to high-capacity transit, increased availability of active transportation, and highway and driving travel time reductions. Burdens to equity priority communities include potential displacement of encampments of houseless populations, residential displacements, and the additional transportation cost from tolling.

The Modified LPA would benefit equity priority communities with increased mobility and accessibility choices—specifically, the high-capacity transit and active transportation program elements. These new transportation improvements would help address existing gaps for those who depend on modes other than auto transportation. While all members of the local community would have access to 50% or more jobs via improved mode choices compared to the No-Build Alternative, the high-capacity transit analysis did identify some disparities in terms of distribution of benefits (i.e., increased access) between equity priority communities living in the study area and their non-equity priority counterparts. To address this, the program is working closely with C-TRAN to optimize the transit network and create convenient bus connections from the Evergreen Station to surrounding racially diverse neighborhoods.

Terms and Definitions

Counterparts. Those who are not members of a particular equity priority community. For example, the counterpart to the BIPOC community is the White, non-Hispanic population.

Distribution of Benefits

High-Capacity Transit

The equity analysis used demographic and jobs data to examine how the Modified LPA's light-rail alignment would affect transit riders' mobility. Specifically, the analysis estimated how many jobs (a proxy for access to both employment and services) would be within a 45-minute trip on the 2045 transit network. The 45-minute threshold is consistent with a similar analysis conducted by the Portland Bureau of Transportation (Portland Bureau of Transportation 2020).

The equity analysis found that the degree of transit access improvements would differ across equity priority communities and the general population. Based on where members of equity priority communities currently live, three equity priority groups (people with disabilities, persons with lower incomes, and older adults) are estimated to see greater increases in access to jobs and services during both the peak and midday hours. Based on where they currently live, four equity priority groups (BIPOC communities, limited English proficiency, immigrants and refugees, and young people) would experience an increase in accessibility but the increase would be less than the general population. Table 3.5-19 shows the transit access improvements expected for equity priority communities in the study area.

Table 3.5-12. Transit Access Improvements for Equity Priority Residents: Percentage Increase in Jobs Access in a 45-minute Trip

Equity Priority Community	Morning Peak Increase for Average Member of Community (e.g., BIPOC)	Morning Peak Increase for Average Counterpart (e.g., White Non-Hispanic/ Latino)	Midday Increase for Average Member of Community (e.g., BIPOC)	Midday Increase for Average Counterpart (e.g., White Non-Hispanic/ Latino)
Black, Indigenous, and People of Color (BIPOC)	60%	72%	57%	73%
People with Disabilities	78%	64%	71%	58%
Communities with Limited English Proficiency	74%	78%	61%	71%
Persons with Lower Incomes	63%	59%	59%	57%
Immigrants and Refugees	62%	67%	52%	61%
Young People (under 25)	52%	63%	48%	60%
Older Adults (65+)	67%	56%	66%	52%
Houseless Individuals and Families	<i>Data not available to perform analysis.</i>	<i>Data not available to perform analysis.</i>	<i>Data not available to perform analysis.</i>	<i>Data not available to perform analysis.</i>

Sources: Metro 2045 Regional Model; 2020 Census (U.S. Census Bureau 2020); 2016-2020 American Community Survey (U.S. Census Bureau 2022).

a Average access is calculated based on residential distribution of each demographic group and weighted accordingly.

Estimated access improvements are similar when comparing equity priority communities and the general public at the regional level (i.e., the average resident of the four-county region in each group would see similar increases in access to jobs reachable within a 45-minute transit ride).

Demographic characteristics of residents within a half-mile walk of a station are largely similar to the Program area as a whole, meaning the stations serve equity priority communities at a level expected given where they live in the Program area. Disparities would exist if stations were located in neighborhoods that do not represent the Program area demographics (for example, if the population within a half-mile walk of stations was 10% BIPOC when the Program area population is 31% BIPOC). Access improvements are therefore considered equitable.

Active Transportation

Active transportation components of the Modified LPA would strongly support the equity objective to “improve mobility, accessibility, and connectivity, especially for lower-income travelers, people with disabilities, and historically underserved communities that experience transportation barriers.” The facilities

would provide new and safe connections for all people of all abilities and would improve the quality of existing connections.

Several of the Modified LPA design options would have different long-term effects on active transportation. Experiences could differ for the various age and ability levels, depending on grade, height, and distance of each option. Impacts associated with active transportation by bridge configuration design options include the following:

- People walking, bicycling, or rolling on the shared-use path would be more exposed to noise from highway vehicles on the single-level fixed-span and the single-level movable-span bridge configurations compared to the double-deck configuration. Blind and low-vision individuals could experience the greatest noise interference in their active transportation as they use sound as an aid in navigation.
- The single-level movable-span bridges both would have a lower bridge height over the Columbia River compared to the double-deck fixed-span bridges and single-level fixed-span; a lower bridge height would decrease the length of the uphill and downhill grades on the shared use path so all users would have a shorter distance to climb and descend.
- Some equity priority communities are more affected by discrimination and violence, and they might prefer the single-level fixed-span and single-level movable-span bridges due to their visibility from passing vehicles, thereby providing a potential increase in security. In comparison, active transportation users would travel on the lower deck of the double-deck fixed-span configuration and would not be visible from passing vehicles on the upper decks.
- With the single-level movable-span bridge configuration, active transportation users could experience additional travel delays when bridge openings would occur. These delays would be similar to the No-Build Alternative; however, fewer bridge openings are anticipated with the Modified LPA single-level movable-span bridges due to increased vertical navigation clearance when the bridges would be in the closed position compared to the existing Interstate Bridge.

These differences in impacts to active transportation users could adversely affect equity priority communities more than the general population—in particular, BIPOC, low-income, and people with disabilities—due to their greater reliance on modes besides driving.

Highway and Driving Improvements

The Program area analysis estimates that, due to reduced congestion, within a 45-minute commute each demographic group would be able to reach an average of 18% to 20% more jobs during the morning peak and an average of about 3% more jobs during the midday under the Modified LPA compared to the No-Build Alternative. This equates to an increase in access to about 170,000 to 187,000 jobs during the morning peak and 35,000 to 42,000 jobs during the midday.

Within the Portland -Vancouver metropolitan area, average access improvements from the Modified LPA would be 3% to 4% (an additional 30,000 to 38,000 jobs) during the morning peak and about 1% (an additional 12,000 to 14,000 jobs) during the midday compared to the No-Build Alternative. Estimated increased access to jobs would be similar between equity priority communities and the general public. The addition of a second auxiliary lane in each direction would have a slightly greater increase in jobs access for all demographic groups due to faster travel times within the corridor from less congestion.

Distribution of Burdens

Table 3.5-20 presents an analysis of the associated property impacts identified for each five geographic subareas and the specific equity priority communities affected by these property impacts. All subareas have high concentrations of multiple equity priority communities. The IBR Program has conducted outreach to potentially affected communities in each of these subareas and will continue to engage the community and

- 1 consult with the Equity Advisory Group to identify and address potential impacts throughout the planning and
- 2 design phases.

3 Table 3.5-13. Overview of Impacts to Equity Priority Communities in the Study Area

Study Area Subarea	Equity Priority Communities with Above-Average Representation ^a	Property Acquisitions and Displacements
Oregon Mainland	<ul style="list-style-type: none"> • BIPOC • Low-Income • People with Disabilities • Older Adults 	<ul style="list-style-type: none"> • 4 single-family homes displaced (3 floating homes, 1 on land). • 5 retail/service businesses displaced. • 20 partial parcel acquisitions.
Hayden Island	<ul style="list-style-type: none"> • People with Disabilities • Older Adults 	<ul style="list-style-type: none"> • 32 single-family homes displaced (all floating homes). • 14 retail/service businesses displaced. • 20 partial parcel acquisitions.
Downtown Vancouver	<ul style="list-style-type: none"> • Low-Income • People with Disabilities • Older Adults 	<ul style="list-style-type: none"> • 10 office/professional/healthcare businesses displaced. • 30 partial parcel acquisitions.
Upper Vancouver	<ul style="list-style-type: none"> • BIPOC • Limited English proficiency • Low-Income • Older Adults • Young People 	<ul style="list-style-type: none"> • 7 single-family homes displaced. • 33 multifamily units displaced (I-5 Mainline Westward Shift design option only). • 58 partial parcel acquisitions.
Ruby Junction	<ul style="list-style-type: none"> • BIPOC • Immigrants and Refugees • Low-Income • Young People 	<ul style="list-style-type: none"> • 3 retail/service businesses displaced.

4 Sources: 2020 Census (U.S. Census Bureau 2020), 2016–2020 American Community Survey (U.S. Census Bureau 2022)

5 a Equity priority communities are listed where their percentage of the population is above average for the Portland-Vancouver
6 metropolitan area in at least one census tract in that geographic area.

7 BIPOC = Black, Indigenous, and People of Color

8 **Houseless Populations**

9 The Modified LPA would likely displace houseless individuals and families staying in the study area during
10 construction, including those living within existing or to-be-acquired right of way. While many experiencing
11 houselessness either choose or are forced to relocate regularly, others remain in place for extended times
12 when they have found a safe location with limited disturbances. Thus, the number of houseless people
13 present in the study area and would be displaced at the time of construction is unknown. As design
14 progresses and construction is scheduled, the IBR Program will continue to coordinate with local jurisdictions
15 and these organizations to determine potential impacts, such as displacements and how construction-related
16 closures or transit delays could affect access to food assistance and other resources

17 **Tolling**

18 The Modified LPA tolling program would place a burden on low-income travelers, who are disproportionately
19 BIPOC. ODOT and WSDOT are evaluating the implementation of a low-income toll program, providing some

financial relief for qualified drivers. The details of this program—such as income thresholds, subsidy form, and amounts—would be determined in the future.

3.5.5 Temporary Effects

No-Build Alternative

There would be no temporary effects to neighborhoods or equity priority communities under the No-Build Alternative.

Modified LPA

Neighborhoods

On-site Construction

Neighborhoods in the study area would experience temporary effects from construction of the Modified LPA. These effects would generally increase with proximity to construction areas and could include:

- Noise and vibration
- Dust and emissions
- Traffic delays, detours, and traffic spillover into neighborhoods
- Property easements for temporary construction staging areas
- Sidewalk disruptions and closures (which could impede access and mobility for disabled persons)

Neighborhoods near the bridge construction activity, such as Hayden Island and Esther Short, would experience some of these effects over several years. Neighborhoods farther from the bridge construction could expect to experience effects in a more concentrated time frame. Roadway and transit construction effects in other areas would cause traffic disruption and noise intermittently for several months.

Section 3.3, Property Acquisitions and Displacements, details the temporary easements that would be required to reconstruct sidewalks, build retaining walls, and other types of roadway features. None of these temporary easements would adversely affect neighborhood cohesion or livability.

Off-Site Staging Areas and Casting Yards

Most neighborhoods in the study area would not have temporary construction staging areas nearby. However, the Hayden Island neighborhood would experience temporary increases in noise levels, congestion on local roads, and reduced visual quality from the use of the Thunderbird Hotel site for staging because of its proximity to more densely populated areas. All neighborhoods in the study area could experience temporary noise and increases in truck traffic during construction, particularly in areas adjacent to I-5. Given that the potential construction duration could be up to 15 years, neighborhood quality and cohesion could be adversely affected during construction for portions of neighborhoods adjacent to the corridor. However, construction effects in most neighborhoods are likely to be intermittent and temporary, since work would occur in different portions of the corridor at different times. See the Neighborhoods and Populations Technical Reports for a discussion of temporary effects for each neighborhood in the study area.

Equity

Table 3.5-22 summarizes temporary, construction-related impacts to equity priority communities.

1 Table 3.5-14. Overview of Temporary Effects to Equity Priority Communities in the Study Area.

Study Area Subarea	Equity Priority Communities with Above-Average Representation ^a	Construction-Related Impacts
Oregon Mainland	<ul style="list-style-type: none"> • BIPOC • Low-Income • People with Disabilities • Older Adults 	<ul style="list-style-type: none"> • Temporary increase in noise levels, reduced air quality (e.g., fugitive dust), and increase in truck traffic during construction, particularly in the areas immediately adjacent to I-5. • Temporary adverse effect on visual quality (e.g., construction equipment and activities blocking views, high-visibility signage, lighting during nighttime work). • Traffic detours and road closures. • Traffic spillovers in the Bridgeton, East Columbia, and Kenton neighborhoods.
Hayden Island	<ul style="list-style-type: none"> • People with Disabilities • Older Adults 	<ul style="list-style-type: none"> • Temporary increase in noise levels, reduced air quality (e.g., fugitive dust), and increase in truck traffic during construction, particularly in the areas immediately adjacent to I-5. • Residents living in floating homes and the mobile home park may be particularly susceptible to air emissions due to their proximity to both the highway and transit alignments. • Temporary effects on visual quality. • Traffic detours and road closures.
Downtown Vancouver	<ul style="list-style-type: none"> • Low-Income • People with Disabilities • Older Adults 	<ul style="list-style-type: none"> • Temporary increase in noise levels, reduced air quality (e.g., fugitive dust), and increase in truck traffic during construction, particularly in the areas immediately adjacent to I-5. • Temporary adverse effects on visual quality. • Traffic detours and road closures. • Temporary closures of east-west bicycle and pedestrian connections at SR 14, Evergreen Boulevard, and Mill Plain Boulevard.
Upper Vancouver	<ul style="list-style-type: none"> • BIPOC • Limited English proficiency • Low-Income • Older Adults • Young People 	<ul style="list-style-type: none"> • Temporary increase in noise levels, reduced air quality (e.g., fugitive dust), and increase in truck traffic during construction, particularly in the areas immediately adjacent to I-5. • Temporary adverse effects on visual quality. • Traffic detours and road closures. • Temporary closures of east-west bicycle and pedestrian connections at McLoughlin Boulevard, Fourth Plain Boulevard, 29th Street and 33rd Street. • Traffic spillovers in the Minnehaha, Rose Village, Central Park, Hudson's Bay, and Columbia Way neighborhoods.

Study Area Subarea	Equity Priority Communities with Above-Average Representation ^a	Construction-Related Impacts
Ruby Junction	<ul style="list-style-type: none"> • BIPOC • Immigrants and Refugees • Low-Income • Young People 	<ul style="list-style-type: none"> • Temporary increase in noise levels, reduced air quality (e.g., fugitive dust), and increase in truck traffic during construction. • Temporary adverse effects on visual quality. • Traffic detours and road closures.

^a Equity priority communities are listed where their percentage of the population is above average for the Portland-Vancouver metropolitan area in at least one census tract in that geographic area.

Sources: 2020 Census (U.S. Census Bureau 2020), 2016–2020 American Community Survey (U.S. Census Bureau 2022)

BIPOC = Black, Indigenous, and People of Color

3.5.6 Indirect Effects

Neighborhoods

The Modified LPA is anticipated to have the most notable indirect effects on the Hayden Island and Esther Short neighborhoods, as light-rail stations in these neighborhoods would have the potential to support transit-oriented development. Such redevelopment would not be caused by the Modified LPA; rather, it would help facilitate redevelopment identified in community plans (see Section 3.4, Land Use and Economic Activity, for further discussion of this topic).

The Hayden Island neighborhood would experience the most pronounced changes as a result of the redevelopment because transit-oriented development is planned to replace some of the dispersed, auto-oriented shopping centers that exist today. Creating a less auto-oriented environment for residents to travel between home and their services would provide more opportunities for residents to interact with one another and easily access potential new community resources. Similarly, providing smaller-scale commercial services close to housing and transit would encourage residents to use services provided in their neighborhood rather than needing to leave the island to access the same services.

In the Esther Short neighborhood, potential new transit-oriented development would add to cohesion in ways similar to those for Hayden Island. New housing and commercial services, particularly around light-rail transit stations, would give residents the opportunity to walk, bicycle, or take transit to services close to their homes, therefore providing more chances for residents to interact with one another and use community resources.

Equity

Over time, there would be an increased risk of residential displacement where the Modified LPA improves neighborhood amenities and livability, potentially increasing housing costs to unaffordable levels for lower-income residents. An analysis conducted in 2019 for the City of Vancouver as part of an anti-displacement plan identified downtown Vancouver, the Meadow Homes neighborhood, and the Maplewood neighborhood as particularly vulnerable to neighborhood change and residential displacement (City of Vancouver n.d.). downtown Vancouver is home to high concentrations of BIPOC residents, low-income households, people with disabilities, and seniors. While Meadow Homes and Maplewood are not in the Program area, they are a short distance east, are also home to a large concentration of equity priority communities and may be affected by Modified LPA improvements.

3.5.7 Potential Avoidance, Minimization, and Mitigation Measures

Long-Term Effects

Regulatory Mitigation

- When displacement cannot be avoided, federal and state regulations require property to be purchased at fair market value and all displaced residents to be provided with replacement housing and relocation assistance. Federal regulations, such as the Uniform Relocation Act, and state statutes determine the standards and procedures for providing such replacement housing, based on the characteristics of individual households. Relocation benefit packages usually include replacement housing for owners and renters, moving costs, and assistance in locating replacement housing. Relocation benefits for businesses can include moving costs, site search expenses, and business re-establishment expenses.

Project-Specific Mitigation

Specific mitigation for effects on neighborhoods includes:

- The Modified LPA is anticipated to have an overall neutral effect on visual quality in study area neighborhoods. Future design charrettes could be held during the design phase with residents and stakeholders of the Kenton, Bridgeton, and East Columbia neighborhoods to help counter the long-term adverse neighborhood effects of the original freeway infrastructure and better integrate new facilities into the neighborhoods.
- The IBR Program would avoid and minimize impacts to community resources and neighborhood cohesion wherever feasible. Strategies to minimize impacts to neighborhood cohesion could include providing additional community gathering spaces such as park space and pedestrian and bicycle facilities.

Specific mitigation for effects on equity includes:

- The IBR Program team is conducting additional research to determine the extent and degree of impacts related to property acquisitions and construction to equity priority communities; this research may inform potential strategies to avoid, minimize, and/or mitigate those impacts. This research would include continued engagement with the advisory groups, partner agencies, and the community.
- The IBR Program is also in the early stages of investigating and identifying potential community benefits through a collaborative effort with the community and guided by the IBR Program Equity Framework. Possible types of community benefits could include a variety of investments and strategies to ensure workforce and contracting equity, enhance the local community, and offset burdens associated with the construction and operation of the Modified LPA.

Temporary Effects

Regulatory Mitigation

Required measures to minimize construction impacts overall, such as construction best management practices, would also reduce impacts to neighborhoods and equity-priority communities. These measures are used to address construction effects such as temporary easements, noise, dust, emissions from construction vehicles, and visual clutter. Best management practices applicable to the potential impacts described above

in Section 3.5.5 are discussed in Section 3.3, Acquisitions and Displacements; Section 3.09, Visual Quality; Section 3.10, Air Quality; and Section 3.11, Noise and Vibration.

Project-Specific Mitigation

- Conduct construction activities during nighttime hours to minimize traffic detours, delays, and spillovers into the neighborhood. Shield nighttime lighting.
- Hold community meetings before construction starts to inform residents of the construction timeline, relevant staging plans, ramp and road closures, and detour plans.
- Install temporary signage to inform drivers of traffic delays because of construction and/or heavy equipment entering or leaving the highway may be installed.
- Provide signs for local business assistance alerting customers of continued operation and a hotline for construction information.
- Conduct regional outreach activities to provide information on construction-related impacts and detours that include communications to businesses, agencies, and community-based organizations within the greater Portland and Vancouver area, as well as to WSDOT and ODOT. Traffic advisories and updates would be made available to the public to help make travel choices.
- Place communication and signage for temporary routes for pedestrians and biking well in advance of the detour areas. Wayfinding signage would be accessible, consistent, thorough, and maintained.
- Coordinate with affected property owners to minimize potential impacts to structures and access points during construction.
- Restore removed landscaping on properties following construction.
- Pay property owners in exchange for the use of their property during construction.