Bellevue 120th Avenue NE Corridor Project

PRELIMINARY DRAFT
Community Effects Technical Report

prepared for
City of Bellevue

prepared by
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August 20, 2010

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Acronyms and Abbreviations

BEA	Bureau of Economic Analysis
GIS	Geographic Information System
RIMS	Regional Input-Output Modeling System
STIP	Statewide Transportation Improvement Plan

Executive Summary

Land use near the project corridor is primarily characterized by moderate-density commercial developments with a mix of institutional, residential, retail, and office uses. Land uses directly adjacent to the 120th Avenue NE corridor consist of automobile dealerships, small strip malls, office buildings, medical offices, and parking lots. There are residential communities located in the southern portion of the study area, on both the east and west side. Open space near the project corridor includes the Bel-Red Mini Park, located east of the project corridor at 124th Avenue NE and Bel-Red Road. No environmental justice populations are located in the project study area.

Overall, the proposed Bellevue 120th Avenue NE Corridor Project would benefit the community by providing better traffic, pedestrian, and bicycle access to the area. The project would serve to enhance community cohesion as part of the City of Bellevue's future plans for the Bel-Red Subarea. It is envisioned that this subarea would become an area of mixed-use transit-oriented development that would provide for new community centers outside of the Bellevue downtown area. It would also help bring additional economic and social opportunities to the area.

No significant effects to community resources are anticipated as part of this project. However, there would be minor effects on economics, street trees, and visual resources that would be mitigated in the following manner:

- Economic Effects: Where acquisition causes the relocation of a business, the extent of this effect is considered in the relocation services and payments made under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. 4601 et seq).
- Community Facility Effects: Street trees would be protected and replaced according to the City of Bellevue Land Use Code 20.50.046.
- Visual Effects: Lighting in the area would follow the *Bel-Red Subarea Design Guidelines*.

1.0 Introduction

1.1 Purpose of This Report

This *Community Effects Technical Report* is being prepared as part of the Bellevue 120th Avenue NE Corridor Project for the City of Bellevue, which proposes to widen 120th Avenue NE from NE 8th Street in the south to Northup Way in the north. The purpose of this report is to describe the existing land use, zoning, economics, and demographics of the community in the study area; discuss the potential adverse and beneficial effects of the project on the community during both construction and operation; and identify mitigation measures to minimize potential effects, as needed.

1.1.1 Permits Needed

There would be no permits required with respect to the community resources discussed in this technical report.

2.0 Proposed Project

2.1 Project Overview

The 120th Avenue NE Corridor Project (Segments 2 and 3) extends from just south of NE 8th Street to Northup Way. The City of Bellevue (City) proposes to widen the existing corridor from a two-lane roadway to a five-lane roadway. Figure 2-1 shows the project study area.

Figure 2-1. Project Study Area

The elements of the project include the following:

- Widen to five travel lanes (two travel lanes in each direction and a center turn lane)
- Realign the roadway south of Bel-Red Road to improve intersection operations at the NE 8th Street intersection
- Install continuous sidewalks and bicycle lanes on both sides of the street designed to City arterial street standards
- Include planting strips on both sides of the roadway, and other green spaces where possible
- Install storm drainage and water quality facilities that use natural drainage practices
- Connect with and minimize adverse effects to open-space areas and wetlands
- Accommodate new intersections with the planned NE 15th/16th Street Corridor and Sound Transit's East Link light rail line

Other project elements include illumination, landscaping, structural walls, traffic signals, and new and relocated utilities (Figure 2-2).

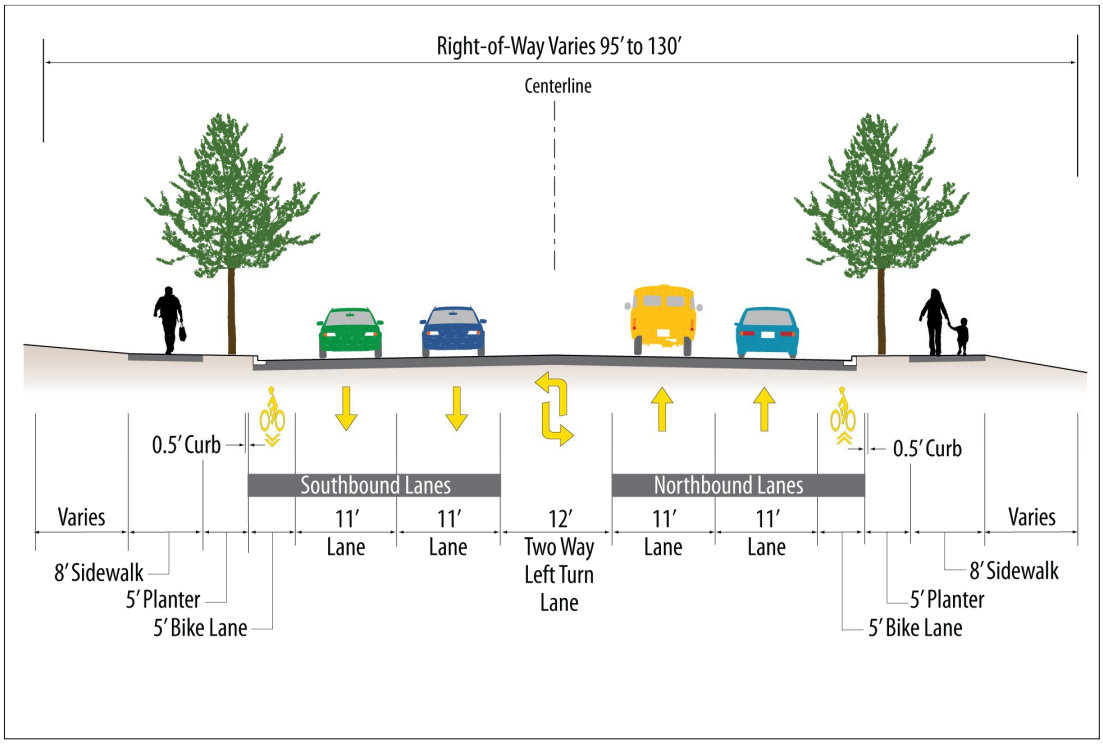

Figure 2-2. Typical Cross-Section

The term "right-of-way", as used in this report, includes both right-of-way owned by the City and permanent easement, i.e. the complete footprint of the project.

Project construction would occur over a two-year period. It is assumed that the improvements from NE 8th Street to NE 12th Street would be completed and opened to traffic prior to those from NE 12th Street to Northup Way. This construction sequencing would minimize traffic impacts.

A minimum of one lane would be open for traffic in each direction along 120th Avenue NE as the project is constructed. The construction would occur on one-half of the roadway at a time. Only Bel-Red Road would be closed for any length of time (9 to 12 months) during the realignment of 120th Avenue NE near NE 8th Street.

Generally, the work is anticipated to occur in the following sequences:

- Contractor Mobilization—Months 1 and 2
- NE 8th Street to NE 12th Street Improvements—Months 3–12:
  - Traffic control and temporary erosion control
  - Utility relocation/installation
  - Roadway Side 1—Retaining walls, grading, paving, signals, and illumination
  - Roadway Side 2—Retaining walls, grading, paving, signals, and illumination
- NE 12th Street to Northup Way Improvements—Months 13-24
  - Traffic control and temporary erosion control
  - Utility relocation/installation
  - Roadway Side 1—Retaining walls, grading, paving, signals, and illumination
  - Roadway Side 2—Retaining walls, grading, paving, signals, and illumination

The *Project Description Technical Report* contains a detailed description of the project.

3.0 Methods

3.1 Methods Used in this Analysis

The following methods were applied to the effects analysis contained in this report. Reasons were provided for methods that varied from Washington Department of Transportation standards.

3.1.1 Land Use and Zoning

The land use analysis is based on the existing land use patterns and future development trends in the Bel-Red Subarea Corridor. Land use and transportation information was obtained through the following Regional and City Plans and Policies:

- Statewide Transportation Improvement Plan (STIP)
- The City of Bellevue 2011-2016 Transportation Improvement Plan
- Washington Transportation Plan 2007-2026
- Puget Sound Regional Council Transportation 2040 Appendix B – Projects and Programs by SMART Corridor
- Puget Sound Regional Council Transportation 2040 Appendix C – Multicounty Planning Policies
- City of Bellevue Comprehensive Plan (amended February 2009)
- Bel-Red Sub Area Plan
- Bel-Red Overlake Transportation Facilities Plan
- Bel-Red Land Use Area Technical Memorandum, Appendix A
- Bel-Red Corridor Project Existing Conditions

3.1.2 Neighborhood Character

The neighborhood character analysis is based on site visits conducted during July and August 2010 and information acquired from the City of Bellevue, including the subarea plans noted in Section 3.1.1.

3.1.3 Social Composition

The primary approach to analyzing population and demographic data follows the outline provided in the Washington Department of Transportation *Environmental Procedures Manual*. Resource issues involving community cohesion, population and demographics, and environmental justice (including minority and low-income populations) were reviewed. Census data was collected from 2000 U.S. Census and included data on:

- population
- racial composition
- household characteristics
- household income

Specific census information was used to describe the study area characteristics. Census blocks were used to best approximate the small size of the study area. In some cases, the geographic boundaries for the census blocks extended beyond the immediate study area; however, block information provided the best source of data on population characteristics. Some census data, such as median household income, is not available at the census block level. Therefore, to collect this information for the study area, census block groups were used. The four census block groups that cover the study area extend much further beyond the project limits and incorporate a large number of residences well outside of where the project would occur. To be as inclusive as possible, for both census block and census block groups, data was included even if only a portion of the block or block group was within the determined project study area.

3.1.4 Economic Environment

The number of properties to be acquired was identified to calculate the corresponding reduction of property tax revenue. Benefits and effects of property acquisitions were discussed as they relate to changes in government revenues. The number of affected employees was used to assess the effect of the displacement of workers when buildings were acquired.

Benefits and effects on regional economic activity were estimated using U.S. Department of Commerce Bureau of Economic Analysis (BEA) Regional Input-Output Modeling System (RIMS) II multipliers (BEA 1997). Temporary economic effects to businesses were evaluated within or adjacent to the area of immediate effect (construction zone). The construction footprint was evaluated for its disruptive effects on the businesses immediately adjacent to the construction. Disruption factors evaluated include loss of on-street parking, loss of sidewalk access and visibility, and loss of freight delivery parking. Temporary jobs created during construction were estimated using BEA RIMS II multipliers (BEA 1997).

Off-street parking effects were estimated by overlaying the engineering line work over an aerial. Two effects determined the loss of a parking space: 1) street infrastructure would be constructed over a parking space, or 2) there would be no room for vehicle maneuvering into or out of a parking space.

3.1.5 Public Services

The public services analysis is based on information acquired from the City of Bellevue, including Geographic Information System (GIS) data and the Bellevue School District website.

- Bellevue School District, All Schools Directory Website http://www.bsd405.org/Default.aspx?tabid=178

- GIS data shapefiles:
  - "Firehouse"
  - "Pstation"
  - "Schools"
  - "Strnet"

3.1.6 Community Facilities

The community facilities analysis is based on information acquired from the City of Bellevue, including GIS data and individual department websites, as well as the King County Library System website.

- Parks and Community Services Department Website
  http://www.ci.bellevue.wa.us/parks_intro.htm
- Transportation Department Website
  http://www.bellevuewa.gov/walking_biking.htm
- GIS data shapefiles:
  - "Bikenetwork"
  - "Citytrees"
  - "Lakes"
  - "Parksite"
  - "Parksproperty"
  - "Trails"
- King County Library System, Bellevue Library Information Website
  http://www.kcls.org/bellevue/about.cfm

3.1.7 Utilities

The utilities analysis is based on information acquired during surveys performed for the project and from the City of Bellevue, including GIS data and the Utilities Department website.

- Utilities Department Website
  http://www.ci.bellevue.wa.us/utilities.htm
- GIS data shapefiles:
  - "Oilpipes"
  - "Powerline"
  - "Sd_basin"
  - "Utilgrid"

3.1.8 Visual and Aesthetic

The visual and aesthetic analysis is based on site visits conducted during July and August 2010 and general neighborhood characteristic information obtained from the City of Bellevue. Potential effects on the visual resources are discussed in qualitative terms rather than completing a quantitative assessment pursuant to Federal Highway Administration guidance. This determination was made due to

the absence of sensitive resources and receptors along the route, as well as the nature of the project, primarily involving changes in elevation rather than the construction of overhead structures.

4.0 Existing Conditions

4.1 Land Use and Zoning

The project corridor is located in the eastern portion of the Bel-Red Subarea within the City of Bellevue, King County, Washington.

The Washington State Legislature enacted the Growth Management Act in 1990 "to create a method for comprehensive land use planning involving citizens, counties, cities, and the private sector that would prevent uncoordinated and unplanned growth". The project is subject to the following Regional and City plan policies:

- The Puget Sound Regional Council Transportation 2040 Multicounty Policies
- The City of Bellevue Comprehensive Plan
- The City of Bellevue Bel-Red Subarea Plan

4.1.1 Land Use

Land use near the project corridor is primarily characterized by moderate-density commercial developments with a mix of institutional, residential, retail, and office uses. Land uses directly adjacent to the 120th Avenue NE corridor consist of automobile dealerships, small strip malls, office buildings, medical offices, and parking lots. The residential community of Lake Bellevue Village is located to the west of 120th Avenue NE, just south of NE 12th Street, and consists of three two- and three-story condominiums. The condominium community includes a shopping complex that offers various services and amenities to nearby residents. Another cluster of residences is located on the eastern side of the project corridor. Two apartment complexes are within the triangular intersection of NE 8th Street and Bel-Red Road, roughly at and east of 122nd Avenue NE. Brierwood, located at 12022 NE 8th Street, is a two-story apartment building; Midlakes Apartments, located at 12028 NE 8th Street, is also a two-story apartment building. Four additional two-story condominium buildings are also located at 12107 NE Bel-Red Road. Open space near the project corridor includes the Bel-Red Mini Park, located east of the project corridor at 124th Avenue NE and Bel-Red Road.

4.1.2 Zoning

The project corridor is located within six different zoning districts, as shown in Figure 4-1. Table 4-1 identifies the various land uses and six zoning districts.

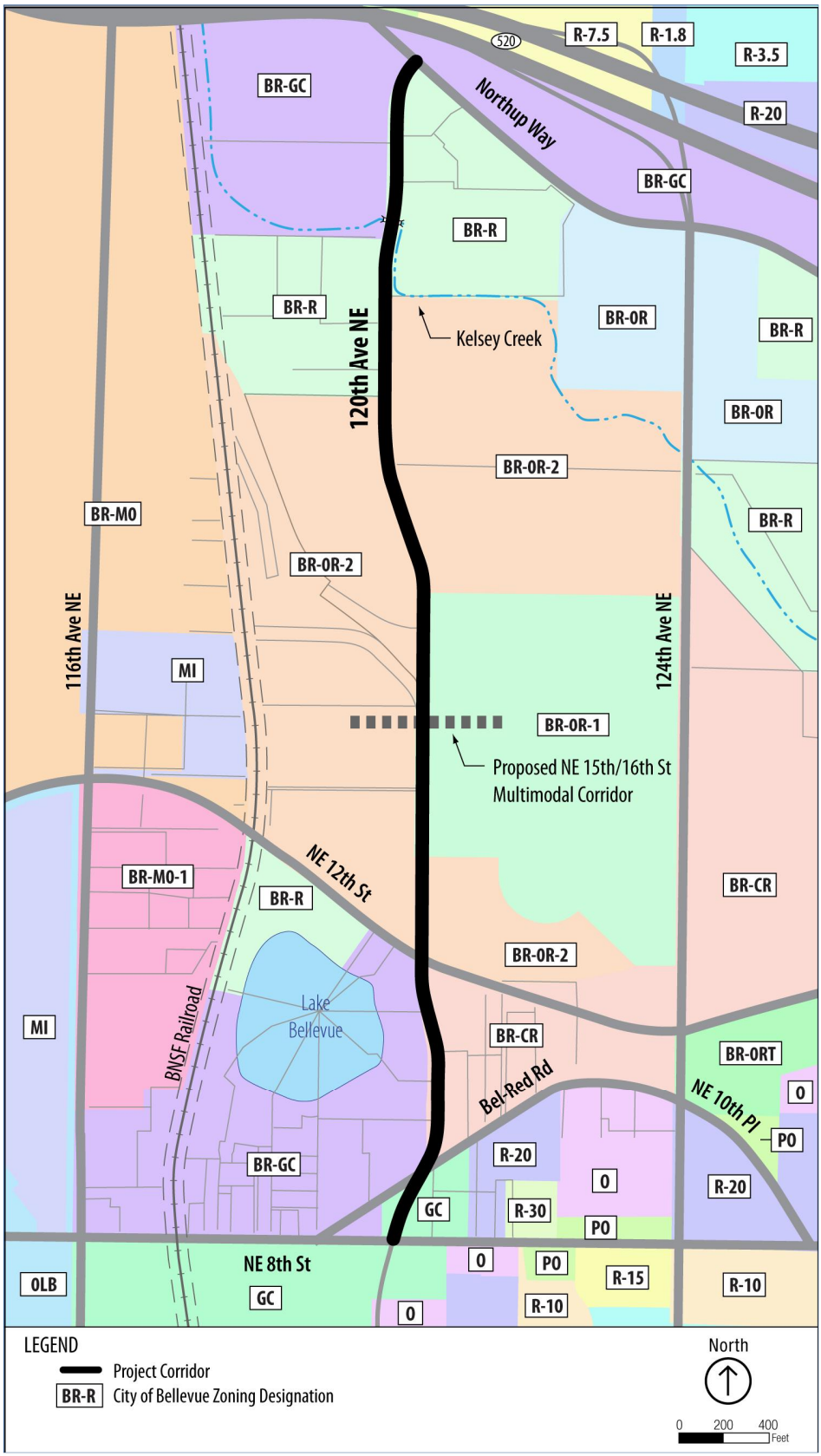

Figure 4-1. Study Area and Surrounding Zoning/Land Use

Table 4-1. Land Use and Zoning Districts

Zoning District	Zoning Designation and Purpose	Permitted Land Uses
BR-OR	Bel-Red Office/Residential To provide an area for a mix of office, housing, and retail uses, with office as the predominant use.	Single-Family Dwelling* Two to Four Dwelling Units per Structure Five or more Dwelling Units per Structure Accessory parking, highway and street right-of-way, local utility systems, and satellite dishes
BR-OR-1	Bel-Red Office/Residential Node 1 To provide an area for a mix of office, housing, and retail uses within the core of a nodal area, with office as the predominant use. The district is limited in extent in order to provide the level of intensity appropriate for areas in close proximity to the highest levels of transit service within the Bel-Red area.	Single-Family Dwelling* Two to Four Dwelling Units per Structure Five or more Dwelling Units per Structure Accessory parking, highway and street right-of-way, local utility systems, and satellite dishes
BR-OR-2	Bel-Red Office/Residential Node 2 To provide an area for a mix of office, housing, and retail uses, with office as the predominant use. The district is located within a node but outside the node's core, and building heights provide for a transition between the node's core and areas outside the node.	Single-Family Dwelling* Two to Four Dwelling Units per Structure Five or more Dwelling Units per Structure Accessory parking, highway and street right-of-way, local utility systems, and satellite dishes
BR-R	Bel-Red Residential To provide an area for residential uses. Limited retail and service uses are permitted secondary to residential use, in order to provide the amenity of shopping and services within easy walking distance of residential structures.	Single-Family Dwelling* Two to Four Dwelling Units per Structure Five or more Dwelling Units per Structure Accessory parking, highway and street right-of-way, local utility systems, and satellite dishes
BR-CR	Bel-Red Commercial Residential To provide an area for a mix of housing, retail, office, and services. Multiple uses are encouraged on individual sites, in individual buildings, and in the district as a whole.	Single-Family Dwelling* Two to Four Dwelling Units per Structure* Five or more Dwelling Units per Structure* Accessory parking, highway and street right-of-way, local utility systems, and satellite dishes Manufacturing uses under 20,000 square feet
BR-GC	Bel-Red General Commercial To provide an area for a wide variety of business activities that provides goods and services to other businesses and the general public.	Work-live units Accessory parking, highway and street right-of-way, local utility systems, and satellite dishes Manufacturing uses under 20,000 square feet

Source: Excerpted from the City of Bellevue, Ordinance 5874

Note: *A minimum density of 10 units per acre shall be achieved for new single-family dwelling units. This requirement does not apply to work-live units.

In May 2009, the City of Bellevue adopted a zoning ordinance for the Bel-Red Subarea in support of City and Regional initiatives to attract new mixed-use development. One of the purposes of this effort was to plan for future smart growth in the Bel-Road Subarea, including pedestrian and bike friendly access and transit-oriented development associated with the future light rail corridor.

4.2 Neighborhood Character

The project corridor is primarily defined by a mix of light industrial and commercial uses. The residential area to the west is nestled around the northern shore of Lake Bellevue and is slightly detached from nearby high volume areas; the residential area to the east is bounded by Bel-Red Road to the north, office buildings to the west, and NE 8th Street to the south. Roadways are mostly tree-lined, while sidewalks and curbs appear inconsistently along segments of the corridor.

Street parking is currently allowed along portions of 120th Avenue NE and is largely utilized by employees of the various businesses along the project alignment.

4.3 Social Composition

4.3.1 Community Cohesion

The proposed project corridor lies primarily within Bellevue's Bel-Red Subarea, as shown in Figure 4-2. The project's northern terminus borders the Bridle Trails Subarea, while the southern terminus borders the Wilburton/NE 8th Street Subarea.

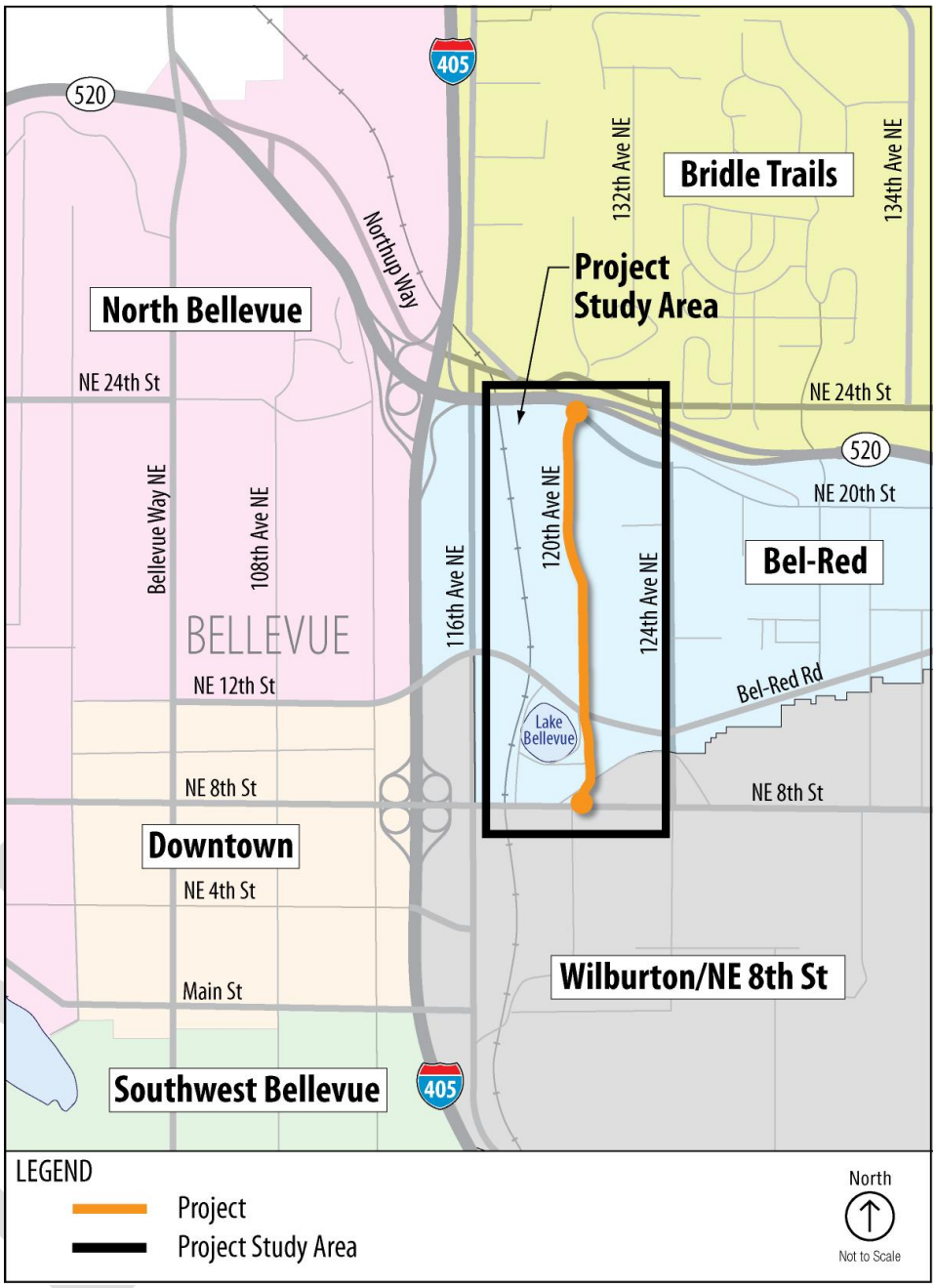

Figure 4-2. Study Area and Surrounding Subareas

The Bel-Red Subarea is characterized by a mix of light industrial and commercial uses. Particularly on the western end, land uses include sprawling, large lot warehouses and distribution buildings, with areas of surface parking. Within the overall subarea, residential uses are extremely limited. A goal of the Bel-Red Subarea Plan is to encourage Bel-Red redevelopment to result in a diversity of housing types and prices, including a significant share of “workforce housing”. As

future redevelopment in the area occurs, a stronger presence of residential uses is anticipated.

Aside from the Lake Bellevue Village Community, on Lake Bellevue in the Bel-Red Subarea, all other residents in the general project vicinity are largely located in the Bridle Trails and Wilburton/NE 8th Street Subareas; the two complexes to the east of the project are within the NE 8th Street Subarea. The 120th Avenue NE corridor is one of the few north/south arterials that provide mobility in the Bel-Red Subarea; the corridor has an important role in linking the bordering Bridle Trails and Wilburton/NE 8th Street Subareas.

4.3.2 Population and Demographics

Fourteen 2000 U.S. Census tract blocks that encompass the study area represent the demographics for the study area. Because not all census data is available at the census tract block level, some demographics for the study area are represented by four 2000 U.S. Census tract block groups that encompass the study area, as shown in Figure 4-3.

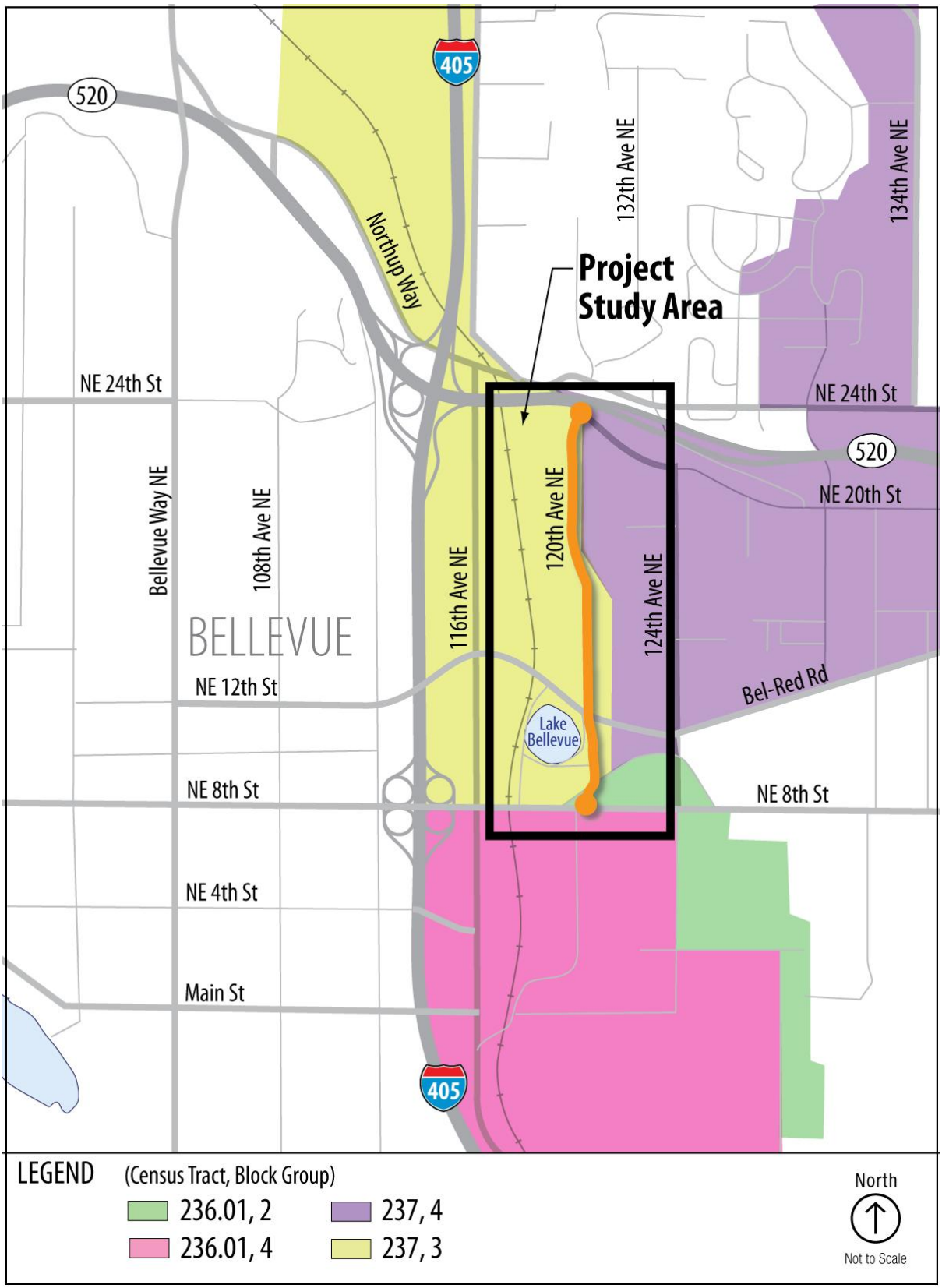

Figure 4-3. Study Area 2000 U.S. Census Tract Block Groups

The population of the study area blocks is quite small compared to the larger population present in the City of Bellevue (Table 4-2). Only three census tract blocks of the 14 that make up the study area contribute to the total population. Census tract 237 block 3020 represents the Lake Bellevue Village condominiums near the project, while census tract 236.01 blocks 2004 and 4002 represent residences further east of the southern project limit.

Table 4-2. Study Area Census Information

Census Tract	Block	Total Population
236.01	2004	126
236.01	4002	284
236.01	4004	0
236.01	4005	0
237	1007	0
237	1016	0
237	1031	0
237	1032	0
237	3015	0
237	3016	0
237	3017	0
237	3018	0
237	3020	116
237	3021	0
Study Area		526
City of Bellevue		109,569
King County		1,737,034

Source: U.S. Census Bureau, 2000

The census data indicates that 60 percent of the study area residents are in renter-occupied units. The median income is slightly less than the city median, but higher than the county median (Table 4-3). Approximately 25 percent of the population is disabled and 9.5 percent are over 65 years old. Roughly 5.6 percent of the study area population is transit-dependent.

Table 4-3. Population Characteristics

Geographic Area	65 Years and Older	Persons with Disabilities*	Transit-Dependent*	Median Household Income*	Average Household Size	Percent Owner-Occupied Housing	Percent Renter-Occupied Housing
Study Area	9.5%	25%	5.6%	$59,529	1.7	40%	60%
City of Bellevue	13.4%	25%	5.6%	$62,338	2.4	58.2%	36.5%
King County	10.5%	28%	9.3%	$53, 157	2.4	57.3%	38.5%

Source: U.S. Census Bureau, 2000

Note: *Census data was unavailable at the census tract block level; therefore, census tract (CT) block groups (BG) were used. The CT BGs that encompass the study area are CT 236.01 BGs 2 and 4 and CT 237 BGs 1 and 3. The resulting population is much larger because these BGs cover the Bridle Trials and Wilburton/NE 8th Street Subareas, which contain a greater amount of residential land uses.

4.3.3 Regional and Community Growth

The study area is located within the City of Bellevue's highly industrial and commercial Bel-Red Subarea, which is comprised of large lot warehouses, distribution buildings, surface parking, and very few residential uses scattered throughout. However, transit and transit-oriented development projects have been planned for the area and future growth is expected.

King County and the City of Bellevue have experienced considerable growth during the past decade (Table 4-4). These population increases are reflected by current census data, and it is reasonable to expect that both have continued to increase since completion of the 2000 Census.

Table 4-4. Community Population Growth

Geographic Area	1990 Population	2000 Population	Increase from 1990 – 2000	2010 Estimate Population*
City of Bellevue	86,874	109,569	26%	122,900
King County	1,507,319	1,737,034	15.2%	1,933,400

Source: U.S. Census Bureau, 2000

*Source: *Washington State Office of Financial Management official April 1, 2010 population estimates*

4.3.4 Environmental Justice

Under Executive Order 12898, all federal actions must consider effects on minority and low-income populations and provide mitigation where disproportionate adverse effects would occur to these groups. Census information was reviewed for the study area to determine the presence of minority and low-income groups (Table 4-5). The study area includes residents from a variety of racial and ethnic groups; however, it is generally equal to or has a lower total percentage of minority populations than the larger surrounding regional areas.

Table 4-5. Study Area Racial Characteristics

Geographic Area	Total Pop.	One Race						Two or More Races	Hispanic
		White	Black or African American	American Indian & Alaska Native	Asian	Native Hawaiian & Pacific Islander	Some Other Race		
Study Area	526	407	6	6	83	4	7	13	24
		77%	1%	1%	16%	1%	1%	2%	5%
City of Bellevue	109,569	81,441	2,183	356	19,056	257	2,785	3,491	5,827
		74%	2%	0%	17%	0%	3%	3%	5%
King County	1,737,034	1,315,507	93,875	15,922	187,745	9,013	44,473	70,499	95,242
		76%	5%	1%	16%	1%	1%	2%	5%

Source: U.S. Census Bureau, 2000
Note: Percentages may not total due to rounding.

Approximately 6 percent of the study area population was below the poverty line in 1999 (Table 4-6); data from 1999 is the most recent available in the 2000 Census. This is a slightly higher percentage than that of the City of Bellevue as a whole, but still lower than the County's percentage.

Table 4-6. Poverty Status

Geographic Area	Population Below the Poverty Level
Study Area	6.1%
City of Bellevue	5.7%
King County	8.3%

Source: U.S. Census Bureau, 2000
Note: Census data was unavailable at the census tract block level; therefore, census tract (CT) block groups (BG) were used. The CT BGs that encompass the study area are CT 236.01 BGs 2 and 4 and CT 237 BGs 1 and 3. The resulting population is much larger because these BGs cover the Bridle Trials and Wilburton/NE 8th Street Subareas, which contain a greater amount of residential land uses.

4.4 Economic Environment

4.4.1 Property Taxes

The study area occurs within the City of Bellevue's tax code area 0330; the corresponding levy rate for Year 2010 is 7.89339 percent. Businesses receive a single property tax bill from King County, which collects the property tax for all governmental entities in the county. Property in Bellevue is taxed by a combination of some, but not all, of the following jurisdictions: City of Bellevue, Bellevue and Issaquah School Districts, King County, Port of Seattle, Regional Emergency Medical Services, and the State School Fund.

There are 33 properties directly adjacent to the project. Applying the Year 2010 levy rate to the total assessed value of these properties would generate roughly

$21,494,072 in property taxes. King County collected $324 billion dollars in property taxes in 2010.

4.4.2 City Taxes

The City of Bellevue collects general taxes from businesses, mostly in the form of the business and occupation tax, but also including utility, gambling, and admission taxes.

4.5 Public Services

Locations of public services in and around the study area are discussed below; Figure 4-4 shows the general locations.

4.5.1 Police Protection

The Bellevue Police Department maintains a Headquarters and four substations in the City of Bellevue: Crossroads, Factoria, Spiritwood, and Transit Center. The Bellevue Police Department Headquarters and the Transit Center Substation are located approximately 1 mile from the southern terminus of the project in the southwestern direction; the remaining three substations are well outside of the study area.

4.5.2 Fire Protection

The Bellevue Fire Department maintains a Headquarters and nine stations in the City of Bellevue. The Bellevue Fire Department Headquarters is located approximately 1 mile from the southern terminus of the project, near the Bellevue Police Department Headquarters, and Station 6 is located over a half-mile east of the project study area. The remaining eight stations are well outside of the study area.

4.5.3 Schools

The Bellevue School District is comprised of 16 elementary schools, six middle schools, five high schools, and three alternative schools of varying grade levels. There are no educational facilities in the study area.

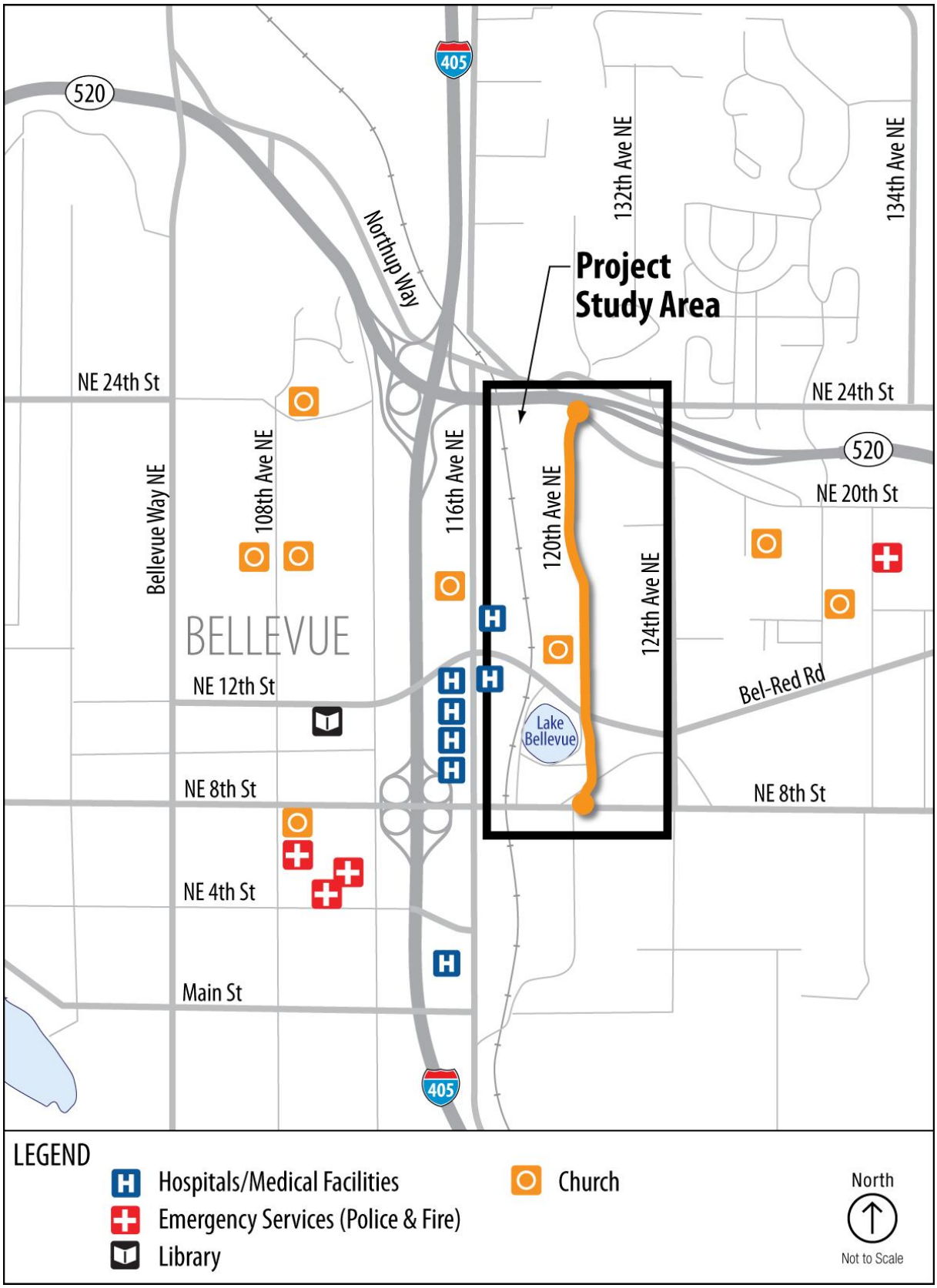

Figure 4-4. Study Area and Surrounding Public and Community Resources

4.6 Community Facilities

4.6.1 Community Resources

Locations of community resources in and around the study area are discussed below; Figure 4-4 shows the general locations.

Churches

The All Saints Episcopal Church is located within the study area; it holds service for approximately 50 to 100 people. There are approximately seven other churches near the project, but outside of the study area. To the east, there are the Blue Sky and Living Hope Bible Churches; to the west there is another Living Hope Bible Church location, as well as Bellewood Presbyterian Church, First United Methodist Church, Church of Jesus Christ, and the First Congregational Church.

Hospitals

Two medical facilities are generally located along the eastern side of 116th Avenue NE, approximately 0.25 miles to the west of the project corridor: Overlake Hospital Medical Center's Medical Imaging Facility and Seattle Children's Bellevue Clinic and Surgery Center. Four other medical facilities are located along the western side of 116th Avenue NE: Overlake Hospital Medical Center, Overlake Hospital Medical Center's Women's Clinic, Children's Hospital and Medical Center, and Group Health Bellevue Medical Center.

Libraries

The Bellevue Regional Library is located at the intersection of NE 12th Street and 110th Avenue NE, approximately 0.5 miles west of the project corridor. The Bellevue Regional Library is the largest library in the King County Library System. This regional reference center houses the most comprehensive and sophisticated reference collection in the system. The library is open from 9 a.m. to 9 p.m. Monday through Thursday, from 10 a.m. to 6 p.m. Friday and Saturday, and from 12 to 8 p.m. on Sunday.

4.6.2 Recreational Resources

The City of Bellevue offers nearly 100 parks and other recreational facilities. Recreational resources near the project include bike paths, trails, and parks. Locations of recreational resources in and around the study area are discussed below. Figure 4-5 shows the general locations.

Parks

The Bel-Red Mini Park is located approximately 0.15 mile from the project, on the southwestern corner of NE 12th Street and 124th Avenue NE. This park is roughly one-third of an acre and offers a picnic area and open space for users daily from dawn until dusk. There are no other designated parks near the project.

Trails

The Parks and Community Services Department maintains more than 50 miles of trails throughout Bellevue. No trails traverse the project corridor; however, there are a few gravel paths within the Bel-Red Mini Park. In addition, there is an asphalt trail that runs easterly along State Route 520 to the east of the northern project terminus.

Bike Paths

The *2009 Bike Map* on the Transportation Department's website illustrates two bike paths crossing 120th Avenue NE; one path follows Northup Way, and the other follows NE 12th Street/Bel-Red Road. Both of these paths are shown as "caution areas" on the bike map, as they follow streets with generally higher traffic. Bicyclists should use caution due to traffic volumes and/or the lack of shoulders or wide curb lanes.

Streams and Lakes

Kelsey Creek is currently routed underneath 120th Avenue NE in the northern portion of the project; the creek exits on the eastern side of the road through a culvert. No evidence of recreational use was observed during the site visits, and none is anticipated, as there are no fish present and the stream is generally not wide enough for other recreational uses such as kayaking or canoeing.

Lake Bellevue is located approximately 150 feet to the west of 120th Avenue NE at its closest near the southern portion of the project. The area surrounding the lake is highly developed and includes restaurants and high-density residences. Associated with Lake Bellevue is Sturtevant Creek, which exits on the western side of the lake and continues to the south. No recreational uses were observed during the site visits. Due to limited access, it is anticipated that Lake Bellevue and the portion of Sturtevant Creek near the project do not serve as recreational resources.

4.6.3 Street Trees

While street trees are not used particularly for recreation, their presence can dramatically change the feeling and character of an area. Along the project corridor, there are 20 City trees located in planter strips on the western side of the 120th Avenue NE and NE 12th Street intersection (Figure 4-5). The trees extend northward for approximately 700 feet. There are other City trees located along NE 12th Street; however, they are not directly adjacent to 120th Avenue NE.

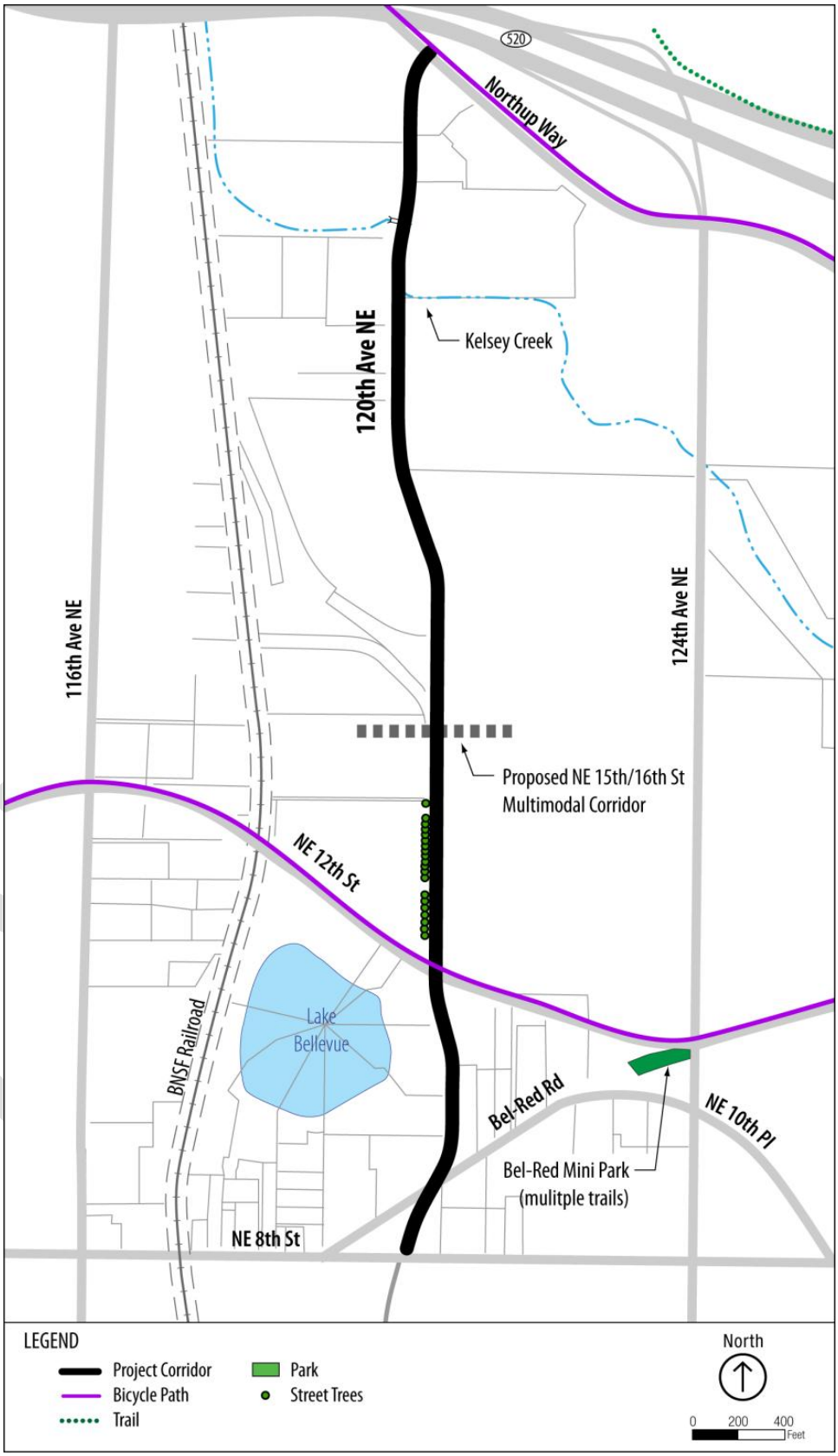

Figure 4-5. Project Corridor Recreational Resources and Street Trees

4.7 Utilities

This section discusses both City- and privately-owned utilities in the region and in the project corridor.

4.7.1 Above-Ground Utilities

Overhead power lines run along 120th Avenue NE from roughly the driveway of the Metro Transit Baseyard (1227 124th Avenue NE) that occurs on 120th Avenue NE south to NE 12th Street; a portion of this line is underground (see Section 4.7.3). There are also streetlights present along portions of 120th Avenue NE in the project corridor.

4.7.2 Surface Utilities

The project occurs within the West Tributary and Sturtevant Creek Basins, and the existing storm sewer system in the area currently consists of catch basins that direct stormwater to underground pipes. This system extends from the northern terminus of the project to roughly the Pella Windows & Doors building located at 1919 120th Avenue NE.

There are five power vaults located at ground level on the eastern corner of the intersection of 120th Avenue NE at Northup Way. Three more are located just north of the Teledesic building's parking lot and driveway at 1445 120th Avenue NE.

4.7.3 Underground Utilities

From the northern terminus of the project, the same overhead power lines discussed in Section 4.7.1 are underground until they reach the Metro Transit Baseyard's driveway; the lines are also underground at the Burlington Northern Santa Fe (BNSF) Corridor that occurs on the western side of 120th Avenue NE just north of Barrier Audi (1533 120th Avenue NE).

There are also two underground power lines that cross 120th Avenue NE perpendicularly. One line occurs at the driveway to the Bellevue Trade Center (2023 120th Avenue NE), and the other occurs just south of the driveway to the Metro Transit Baseyard.

There are communications lines present within the project corridor. Teledesic owns and maintains a broadband fiber optic line that extends from the northern terminus of the project to the parking lot of their building. Verizon, Quest, Comcast, and the City of Bellevue all own and maintain telecommunications infrastructure running the entire length of the project corridor.

A gas-oil line begins roughly at the Barclay Dean Interiors building location and continues south along the project corridor. Puget Sound Energy owns and maintains this line.

The City of Bellevue Utilities Department owns and maintains a potable water line and a wastewater system that are present within the project corridor. Bellevue's drinking water is acquired through the Cascade Water Alliance. The

potable water line extends through the entire length of the project, while the wastewater system is currently present from the northern terminus of the project to roughly the driveway to the building at 1899 120th Avenue NE.

4.8 Visual and Aesthetics

The existing 120th Avenue NE is a slightly curving roadway with gentle slopes and minor-to-moderate changes in grade throughout. Portions of the roadway were constructed in areas that slope downward to the west, as evidenced by the sharp upward slope on one side of the road and an immediate drop on the other. Drivers generally travel to places of employment or use the road as a throughway to other destinations, such as the Brierwood Center, Lowe's, and other businesses. Other than the restaurants surrounding Lake Bellevue and the Bel-Red Mini Park, there are no destinations near the project that would attract the attention of drivers or cause them to stop along the roadway. Because of the generally destination-focused travel along 120th Avenue NE, drivers and other users are not considered visually sensitive receptors.

Development in the area currently consists mostly of light industrial and business uses. There are a few large warehouses within the northern portion of the study area, and multiple car dealerships along the southern portion.

Much of the existing roadway corridor is lined with indigenous trees growing in unimproved areas; the southern portion of the corridor includes City-owned trees that are contained in planters along the sidewalk. Many of these trees are fairly tall; however, they do not provide the corridor with shading or a visual canopy.

5.0 Environmental Effects

5.1 Direct Effects on Community Resources

Direct effects are caused by the action and occur at the same time and place as the project.

5.1.1 Effects During Construction

Land Use and Zoning

There would be no effects on land use and zoning during project construction. The Contractor would be responsible for implementing the conditions of any permits and approvals from the City of Bellevue.

Neighborhood Character

Because of the largely industrial character of the study area, it lacks a strong neighborhood character or cohesiveness that would be adversely affected by project construction.

During construction activities, the availability of street parking would likely decrease due to partial road closures and the presence of construction equipment. The employees of the surrounding businesses, the largest users of street parking, would temporarily need to park elsewhere while construction activities took place. It is anticipated that the project would not have an adverse effect on street parking in the area, due to the small number of drivers using street parking.

Social Composition

Community Cohesion

The proposed project would result in temporary effects on mobility around the project corridor during construction activities. Short-term lane closures and detours would occasionally occur along the proposed route, and noise and dust from construction activities could be noticeable in some locations. Only Bel-Red Road would be closed for any length of time, from months 9 through12. Although temporary detours may be needed, the project would be sequenced to always allow for both north and south travel along 120th Avenue NE (i.e., one side of the street's centerline) to remain open and fully operational for users. Thus, it is anticipated that neighborhood cohesion would not be seriously affected; it is expected that mobility in the area would not be greatly impaired.

Population and Housing

Construction effects to populations and housing in the study area would include construction equipment noise, air pollution from construction equipment and machinery emissions and dust, and additional light and glare from construction equipment. There would be no increase or decrease to population or housing due to the project during construction.

Regional and Community Growth

Project construction activities would not likely affect regional and community growth. Although some residents may refrain from driving in the area during construction periods, the construction of the project would not likely affect growth during the expected construction period.

Environmental Justice

Environmental justice populations near the project corridor would be affected by lane closures, detours, and dust and noise from construction activities in the same manner as other residents. These groups are not expected to be inconvenienced by these activities to a greater extent than the population as a whole. Low-income populations may be somewhat more transit-dependent than the overall population, and local bus routes may be slowed or delayed moving through the project corridor during construction. However, such occurrences would affect all transit users equally, and would be temporary and limited. Therefore, local mobility may be slightly affected, but it is not expected to disproportionately affect environmental justice populations.

Economic Environment

County and Regional Economic Activity

Beneficial economic effects would be experienced at the county and regional level from the construction of the project. This section assesses the likely overall economic effects that would be attributed to construction of the project, as measured by increases in county and regional activity, employment, and associated job earnings. Attachment A, the RIMS II Tech Memo, presents the detailed analysis, including implementation of the RIMS II input-output model.

Project Total Costs

For purposes of assessing the economic effects on output, earnings, and employment, the focus is placed on the project capital costs (construction and right-of-way acquisition) of the Build Alternative as an accurate measure of the capital investment that would likely occur for the project. It is assumed that no project capital costs would be incurred with the No Build Alternative. Table 5-1 and Table 5-2 show the funding sources of the estimated capital expenditures, as well as details of the capital cost estimate by portion of the total capital cost attributed to right-of-way acquisitions and the portion attributed to the cost of construction.

Table 5-1. Capital Costs and Funding Sources of the Build Alternative

Capital Cost Estimate ($ millions)	Funding Source ($ millions and Share)	
	Federal	Local
38.9	27.2 (70%)	11.7 (30%)

Table 5-2. Total Project Costs of the Build Alternative

Total Project Cost Estimate ($ millions)	Project Cost Component ($ millions and Share)	
	Construction Cost[1, 2]	Right-of-Way Acquisition
38.9	19.4 (49.9%)	19.5 (50.1%)

[1] The sales tax portion of the construction cost is estimated to be $0.2 million.
[2] Construction cost includes the cost of preliminary engineering, $1.1 million.

For purposes of examining the regional economic effects, all of the federal earmark grants and federal general funding are assumed to be new funds that would otherwise not be spent regionally or within the state in the absence of the project. All state and local funding sources are assumed to be expended with or without this project, because these funds are raised by taxing local and/or state residents and are specifically earmarked for transportation projects within the region or state.

Summary of Gross Economic Effects

For every $1 spent on construction capital cost for the project, $1.80 of additional economic activity would be generated in King County; slightly more than $2 would be generated in the region. This additional economic activity would occur across all economic and labor sectors. Also, every dollar spent on capital costs translates directly into about $0.43 in new wages and salary earnings for the jobs generated outside of the construction field.

New demand for construction would generate gross direct effects equal to the capital cost of $19.4 million of the total $38.9 million project cost. The King County gross multiplied effect on output would total approximately $35.1 million for all industries not directly involved with construction of the project. Of this amount, $8.4 million would be paid to workers as wage and salary earnings for the jobs generated beyond those directly involved with project construction. The estimated average number of jobs related to construction of the project would be 27 jobs per year, representing about $2.4 million per year in wages and benefits.

These figures do not include the secondary benefits, presented in Section 5.1.2.

Summary of Net Economic Effects

For the portion of the project funding that comes from the federal government (outside of the region or state), the net effect on the regional economy from this new money would be less than the gross effect associated with the expenditure of all of the construction capital cost. The same new demand for construction expenditures would generate net direct effects equal to $24.6 million (70 percent of $19.4 million[1]) of construction dollars after accounting for local funds that would otherwise be spent in the regional economy with similar multiplied effects. Of this amount, $5.9 million would be paid to workers as wage and salary earnings for the net new jobs created beyond those directly involved with project

[1] As detailed in Table 5-2, construction costs are only part of the total capital cost estimate. Right-of-way acquisition is estimated to cost $21.0 million, and construction (including preliminary engineering) is estimated to cost $20.6 million for a total of $41.6 million estimated project capital costs.

construction. This does not include the secondary benefits presented in Section 5.1.2.

Summary of Benefits for Regional Economic Activity

The cost associated with construction of the project would result in additional (gross) activity throughout all economic sectors within King County and the region. This gross economic activity is derived from the multiplier effects on the capital expenditures for the project. Examples of capital expenditures include the direct hiring of temporary construction workers, the purchase of construction materials and equipment, and the expenditure of capital funds to acquire new rights-of-way.

The amount of new economic activity directly associated with the project (for construction and right-of-way acquisition) that is the result of new money entering the King County economy would be $45.6 million; the amount of new earnings (wages) entering the King County economy would be $8.7 million. The portion of new money attributable to overall construction costs is 70 percent. The amount of new money assumes that both committed and anticipated federal funds are received for this project. If anticipated federal funding were not provided for the project, the net economic benefit associated with new money would decrease. All other funding sources are coming from the region or King County (local sources) and would likely be spent in the local economy even in the absence of this project.

Temporary Jobs Created During Construction

Temporary jobs would be created to construct the project. The duration of these temporary jobs varies with the construction plan, but is expected to be about 24 months. The estimates of the direct labor force needed to construct the project were calculated based on the average construction labor rate between June 2009 and June 2010 of $43 per hour.

The average number of jobs directly related to construction would be 27 per year. The direct jobs needed to construct the project would generate approximately $2.4 million in direct wages per year. Assuming that the construction duration is approximately 24 months, the total construction labor for the project would be 54 person-year jobs.

New demand for construction would generate gross direct effects equal to the capital cost of $19.4 million in construction dollars. The gross multiplied effect on output would total approximately $35.1 million for all industries in King County not directly involved with the project. Of this amount, $8.4 million would be paid to the 27 workers as wage and salary earnings for the jobs generated beyond those directly involved with the construction of the project. The amount of new indirect and induced earnings (wages) as a result of money entering the county's economy would be $5.9 million.

Summary of Benefits for Employment

Compared with the existing conditions, the employment associated with construction of the project would result in additional (gross) employment

throughout all economic sectors within King County and the Puget Sound region. This gross employment is derived from the multiplication effects of the capital expenditures for the project. Examples of capital expenditures include direct hire of temporary construction workers, purchase of construction materials and equipment, and expenditure of capital funds to acquire new rights-of-way.

The number of new jobs directly associated with the project that would be the result of new money entering the King County economy is 230 jobs, and new money would constitute 70 percent of overall construction costs. All other funding would come from the state or the Puget Sound region and would likely be spent in the local/state economy even without this project.

Sales taxes would be generated through the purchase of goods and materials related to construction. The project would generate sales tax of $0.2 million.

Property Taxes

Construction activities would not have an effect on property taxes in the study area, as tax rates would not be raised or lowered due to the construction work, and there would be no effects on property values during construction of the project.

Business Effects

Project construction would cause disturbances and inconveniences to businesses and business customers adjacent to the construction area. Customers and business employees could experience the following temporary effects:

- The presence of construction workers, heavy construction equipment, and materials within the construction area.
- An increase in traffic congestion around the work zone.
- Temporary road closures, traffic diversions, and alterations to property access (see *Transportation Technical Report*).
- Loss of on-street parking.
- Airborne dust (see *Air Quality Technical Report*).
- Noise and vibrations from construction equipment and vehicles (see *Noise/Vibration Technical Report*).
- Decreased visibility and alterations of access to businesses for customers.
- Rerouted pedestrian walk-up access to primary business entrance.

Public Services

There are no public services facilities within 0.5 miles of the project; therefore, it is reasonably anticipated that project construction would have no effects on public services facilities.

It is also anticipated that public services response times would not be affected by project construction activities. While construction would require partial closures and other temporary traffic modifications along 120th Avenue NE, the Contractor

would be responsible for creating a suitable Maintenance of Traffic Plan to ensure that access is maintained for the duration of construction activities. Also, the project is anticipated to be phased to always allow for one side of the road's centerline to remain open and fully operational. Therefore, it is anticipated that public services response times would not be adversely affected by the construction of the project.

There is one intersection within the project limits that occurs at NE 12th Street; construction activities would likely require adjustments to traffic operations at this intersection. However, public services response times would not be adversely affected, as there are alternative access points to and along NE 12th Street that could be utilized in an emergency.

Community Facilities

Community Resources

The All Saints Episcopal Church is directly adjacent to the project corridor. During construction, the church would be temporarily affected by noise and dust pollution. If a variance is obtained to allow for construction to occur on weekends, measures should be included to minimize the noise effects in this area during services. In addition, street parking would not be available during construction as overflow to the church parking area. However, the project corridor contains additional unrestricted parking that could be used without significant inconvenience to the church's community.

It is anticipated that the medical facilities and library that are near the project would not experience any adverse effects due to construction activities. There is enough distance and existing development between these facilities and the project corridor that any construction-related effects would not affect them.

Recreational Resources

Construction of the project would not affect any parks, trails, or water resources that could be used for recreation.

The two bike paths that cross 120th Avenue NE within the project corridor may experience temporary modifications during construction activities. However, partial access would be maintained, and they would not be adversely affected.

Street Trees

The widening of 120th Avenue NE would require the removal of the 20 City trees located along the project corridor. A survey for significant trees, as defined by the City of Bellevue Land Use Code 20.50.046, would be performed prior to construction to establish which ones would require protection.

Utilities

There would be temporary effects during construction, including potential interruptions in services when relocated utilities are brought online. However, these interruptions would be limited both in their occurrence and in duration, and it is anticipated that they would not be so severe as to cause an adverse effect on any surrounding users. Also, in planning for utility relocations service

interruptions, reasonable efforts would be made to schedule this work during times of minimal use to minimize any effects.

The overhead utilities in the northern portion of the project corridor could be relocated underground; if not, the poles would be relocated behind the sidewalk. The gas-oil line owned by Puget Sound Energy may be upgraded and relocated during construction, which could require greater disruptions in service than experienced by other utilities. However, reasonable efforts would be made to sequence and schedule the utility relocation to minimize any effects.

Visual and Aesthetics

There would be temporary effects during construction, including the presence of heavy machinery and large construction equipment. The Contractor would coordinate with the City to secure appropriate locations for use as staging and lay down areas for the duration of construction activities. In addition, the presence of best management practices, including the use of straw bales and silt fences, would modify the landscape alongside the road. Because of the existing uses in the project corridor and temporary nature of the construction work, it is anticipated that the presence of construction equipment, materials, and personnel would not have such a significant effect on the visual experience of users travelling along the project corridor as to be considered an adverse effect.

Construction activities would necessitate the removal of some trees, which may affect the visual environment. Tree replacement would be performed pursuant to the City of Bellevue code for the Bel-Red Subarea.

5.1.2 Effects During Operation

Land Use and Zoning

Construction of the project would comply with local land use and zoning districts. The project would not affect established patterns of land use nor would it require changes to local zoning regulations.

The project's consistency with specific goals and objectives of the six Regional and City plans listed in Section 4.1 is presented below:

Statewide Transportation Improvement Program

The STIP is comprised of federally funded state and local roadway projects that have been identified through the planning process as high priority. The proposed project is listed on the 2009-2010 STIP and is noted as having regional significance.

The City of Bellevue 2011-2016 Transportation Improvement Plan

The proposed project is listed on the City of Bellevue 2011-2016 Transportation Improvement Program and is included in the Adopted 2009-2015 Capital Investment Program.

Washington Transportation Plan 2007-2026

The Washington Transportation Plan 2007-2026 provides a 20-year outlook on the expanding transportation needs of Washington State. The proposed project

conforms to the following policies and recommendations of the Washington Transportation Commission:

- Preservation
  - Protect our investments by keeping transportation infrastructure in sound operating condition.
  - Emphasize infrastructure preservation and maintenance as the priority in funding transportation programs.
- Economic Vitality
  - Support the economy through reduced barriers to the movement of people, products, and information.
  - Support transportation investment that contributes to economic development.
- Mobility
  - Identify and preserve vital transportation corridors and sites for future transportation uses.
- Growth Management Act
  - Encourage efficient multi-modal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.
  - Retain open space, enhance recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.

The Puget Sound Regional Council Transportation 2040 Multicounty Policies

Within the Puget Sound Regional Council Transportation 2040 Plan, the project has been identified as an East Side SMART Corridor. The project is consistent with the following policies:

- MPP-DO-43: Design communities to provide an improved environment for walking and bicycling.
- MPP-T-1: Maintain and operate transportation systems to provide safe, efficient, and reliable movement of people, goods, and services.
- MPP-T-12: Give regional funding priority to transportation improvements that serve regional growth centers and regional manufacturing and industrial centers.
- MPP-T-15: Improve local street patterns-including their design and how they are used-for walking, bicycling, and transit use to enhance communities, connectivity, and physical activity.
- MPP-T-16: Promote and incorporate bicycle and pedestrian travel as important modes of transportation by providing facilities and reliable connections.

The City of Bellevue Comprehensive Plan

- Policy TR-24: Incorporate pedestrian and bicycle facility improvements into roadway projects, and incorporate transit/high-occupancy vehicles improvements where feasible.
- Policy TR-25: Provide for adequate roadway, pedestrian, and bicycling connections in newly developing and redeveloping areas of the city, promoting both internal access and linkages with the rest of the city.
- Policy TR-43: Provide sufficient arterial right-of-way width to permit landscaping, and to accommodate pedestrian and bicycle facilities, while considering neighborhood character and context.

The City of Bellevue Bel-Red Subarea Plan

- Policy S-BR-59: Design Bel-Red Subarea arterials and local streets in a manner that contributes to community character, open space, and environmental enhancements.
- Policy S-BR-63: Improve pedestrian connectivity and the quality of the pedestrian environment with a comprehensive sidewalk and trail system, including through-block pedestrian connections, and mid-block crossings.

Neighborhood Character

The construction of the project would substantially improve the function of 120th Avenue NE. Physical improvements of the project, including the addition of gutters, curbs, sidewalks, and bike trails would increase the aesthetic character of the corridor and create an opportunity for additional transportation alternatives for pedestrians and cyclists.

Street parking would no longer be allowed along the length of 120th Avenue NE within the project corridor. It is anticipated that this would affect some of the local business employees, and, to a lesser extent, may affect some of the business' customers. However, the overall improved traffic connectivity and addition of bike lanes may encourage more customers to visit the area using alternative transportation methods, which would decrease the demand for street parking.

Social Composition

Community Cohesion

The proposed project would result in improved connectivity along the project corridor and within the surrounding communities. The addition of bike lanes to 120th Avenue NE would allow for safer, increased bicycle and pedestrian access to and along the project corridor; the redesign of the road would result in a much safer roadway. The project overall has the potential to have a positive effect on community cohesion in the area.

Population and Housing

It is anticipated that the completion of the proposed project would not have any effect on population or housing in the area. The project would increase

connectivity to the area, but the widening of the road would not result in additional residences being built or the removal of any existing residences.

Regional and Community Growth

Completion of the project would not directly affect regional or community growth. The project is comprised of a roughly 1.1 mile-long portion of 120th Avenue NE, and while widening the roadway would not induce any additional growth by itself, it is part of the early phase of planned development for the area as set forth in the *Bel-Red Subarea Plan*. The area surrounding the project corridor is almost completely developed, with little to no space for additional uses. Future land uses in the area are anticipated to be of a higher density than currently along the corridor, but require additional development beyond this one project to be realized.

Environmental Justice

The enhanced mobility anticipated with the Build Alternative would have a positive effect on residents in the surrounding areas, including environmental justice populations.

Economic Environment

Property Acquisitions & Property Taxes

Project improvements would require full acquisition of up to five parcels and partial acquisition of approximately 28 parcels. Partial acquisitions would consist of strips of land along the project corridor to accommodate the widened road and associated support facilities. The parcels subject to partial acquisition would retain any existing buildings, maintain their current function, and continue to pay property taxes. The amount of property taxes paid may change for the properties subject to partial acquisition if they are reassessed by the King County Department of Assessments. Because these reassessments would be on a case-by-case basis and would occur sometime after completion of the right-of-way acquisition, an estimate cannot be made at this time regarding what changes in property taxes would occur.

Full Acquisitions

The economic effect of potentially fully acquiring up to five parcels would be to convert them permanently from private to public ownership. Parcels in public ownership are exempt from paying property taxes on the assessed value of the parcel. Total property taxes that would be lost as a result of these full acquisitions are slightly less than $1.02 million annually (Table 5-3). This estimate was based on actual amounts collected in 2010 by the King County Finance and Business Operations for all of the parcels to be acquired. This estimate is for 1 year and represents roughly 0.35 percent of all property tax revenue collected by King County in 2010. Construction of the project would slightly but permanently decrease the number of available parcels across which the property tax load is distributed.

Table 5-3. Anticipated Full Acquisitions and Property Tax Loss Information

Parcel Number	Parcel Use	2010 Tax Rate (%)	2010 Property Total Assessed Value[1]	2010 Property Tax*
3325059179	Shell Gas Station and Mini-Mart	7.89339	$3,177,700	$250,829
1099100425	Barrier – Mercedes Benz Dealership	7.89339	$1,273,000	$100,483
1099100420	Barrier – Mercedes Benz Dealership	7.89339	$1,014,400	$80,071
1099100419	Barrier – Mercedes Benz Dealership	7.89339	$2,630,700	$207,652
1099100167	Barrier – Porsche Dealership	7.89339	$4,774,800	$376,894
Total				$1,015,929
King County Total Real Property Taxes Collected in 2010				$290,000,000
Percent of King County Property Tax Removed Due to the Project				0.35%

[1] *Source: County 2010a*
[2] *Source: County 2010b*
Note: *Figures rounded up to nearest whole dollar amount.

Although up to five parcels could be acquired, only three have buildings situated on them. The removal of these buildings would displace roughly 59 employees. These employees earn an estimated aggregate annual income of approximately $3.36 million; aggregate annual income could be as low as $2.42 million or as high as $4.22 million.

Partial and Parking Acquisitions

Employee, customer, and bus parking spaces in front of numerous businesses would be removed at various locations due to the roadway widening. An estimated 223 to 312 parking spaces may be removed and not replaced in association with the project. Spaces that would be removed would be in strips along the infrastructure improvements. In some locations, the new right-of-way would be located where the spaces currently exist. In other locations, the lack of room to maneuver into and out of spaces would render the parking spaces unusable.

There are up to four properties that face potential partial and parking acquisitions that could result in long-term effects.

- Parcel 1099100165: Brierwood Center, LLC (12001 NE 12th Street) could lose roughly 29 percent of its parking. This would designate the facility as "underparked" in its current configuration and may impact the value of the property by up to 30 percent. These effects may result in a full acquisition of this property if they prove to make it no longer viable. However, the remainder of the property could also be redeveloped and reconfigured to once again be a viable business location.
- Parcel 2825059307: Bellevue Trade Center (2023 120th Avenue NE) would potentially lose approximately 11 parking spaces, which would not result in an adverse effect on the property. However, in order to preserve the driveway access to this building, 20 feet would need to be removed from the two wings of the C-shaped building that are closer to 120th

Avenue NE. The building is currently divided into four office suites, so this could result in two business relocations. The suites are currently unoccupied, and if remain that way, there would be no effect on businesses in this building.

- Parcel 2825059309: This building (12031 Northup Way) houses three businesses and offices: ABM Janitorial Services, Trane Parts, and Group One Northwest, Inc. This building will lose all of its parking fronting 120th Avenue NE; this may result in the relocation of all three businesses in this building.
- Parcel 2825059310: This building (12021 Northup Way) houses multiple businesses and offices, including Tap Plastics, Inc., American Games Billiards and Bar Stools, and the GroomingSPA. This building will lose a small amount of parking, as well as access to its west loading dock. This may result in up to one business relocation.

Any driveway relocations required would maintain comparable access to the businesses they currently serve.

Anticipated Effects

After construction of the project, the City could sell those parcels that were either fully or partially acquired and are not part of the permanent roadway right-of-way as surplus property, returning them to private ownership. Parcels returned to private ownership would pay property taxes and could provide opportunities as replacement properties for displaced businesses, allowing owners to remain in the community. Some remnant parcels, however, may not be sold and redeveloped following construction because of potential access constraints caused by the proposed roadway changes.

The project would improve traffic flow and access to and from the businesses and establishments along 120th Avenue NE, as well as to and from businesses and establishments that would rely on 120th Avenue NE to move goods and people but are not originating in or destined for the area. Some businesses may be adversely affected by the changes in traffic flow along 120th Avenue NE.

Public Services

It is anticipated that the project would not have any effects on public services facilities or response times. The project would not directly result in any additional residences or businesses being constructed in the area, therefore, there would be no additional demand on public services. Also, the project would increase the capacity of the existing roadway, so there would be no adverse effects on public services response times. As traffic levels increase in the future, the widened roadway will relieve congestion and allow for better emergency access to the planned development of the Bel-Red Subarea.

Community Facilities

Community Resources

Upon completion of construction, the widened 120th Avenue NE is anticipated to have beneficial effects on community resources by providing better access to local facilities, such as the church, and through access to facilities in the general vicinity, such as the hospitals. The project would also improve pedestrian and bicycle facilities along the road, providing additional resources where none exist at this time, providing additional access to community resources.

Recreational Resources

The project would include the construction of designated bike lanes and wider sidewalks on each side of 120th Avenue NE and would result in a positive effect on transportation connectivity along the project corridor as it pertains to bicycle and pedestrian movements. This potential increase in connectivity would create alternative ways to access recreational resources in the area, but would not directly affect those resources.

Street Trees

Tree replacement would occur pursuant to the Section 20.20.900 of the *Bel-Red Subarea General Land Use Code Amendments*. Additional trees may be planted in the 5-foot-wide landscaped buffer included in the construction design.

Utilities

Once completed, it is anticipated that the project would not have any effects on utilities. The project would not directly result in any additional residences or businesses being constructed in the area; therefore, there would be no additional demand on existing utilities due to the project.

The relocation of the utilities would allow for the potential undergrounding of the overhead electrical lines in the northern portion of 120th Avenue NE and would result in utilities being installed in common trenches for ease of access and repair, likely one for electrical and one set of conduits for telecommunications. Stormwater systems would also be upgraded at this time, and water lines would be adjusted to allow for better maintenance access in the future. The potentially upgraded and relocated gas-oil line could result in improved service and allow for better maintenance access in the future as well.

Visual and Aesthetics

Once completed, the project would have effects on the visual and aesthetic character of the area, but it is anticipated that none would result in an adverse effect in the area.

NE 15th/16th Street Corridor

In the location of the proposed NE 15th/16th Street Corridor, 120th Avenue NE would be higher than its existing elevation. The grade changes would be largest south of the Multimodal Corridor, where the roadway elevation may be as much as 10 feet higher than it currently is in order to accommodate the planned East Link light rail alignment.

In general, this rise in elevation would result in the road's elevations generally matching that of the surrounding area on the east side. This additional height would likely change the view of businesses on the west side of the road. In that area, the existing slopes are already fairly steep, and businesses immediately south of the future corridor are planned to be acquired as part of the light rail project. The Audi dealership at 1533 120th Avenue NE would remain and may experience the greatest visual effect of this overcrossing. However, as this business does not rely upon views as a component of its business, it would not be considered a sensitive receptor and no adverse effects would be expected. For other businesses along the project corridor, the grade would be gradual and the changes not so great; therefore, it is not anticipated that any existing views would be so severely affected as to experience an adverse effect.

It is not anticipated that the Lake Bellevue residents' visual experience would be adversely affected due to the project. These residences are also west of 120th Avenue NE, and therefore already face the existing steep slopes on the eastern side of the road. Also, it is likely that these residents value and take advantage of their views of the lake and wider panoramic views in the southwest direction. The widened road would not create a substantial difference from their existing view of the roadway.

120th Avenue NE from Bel-Red Road through to NE 8th Street

120th Avenue NE currently intersects with Bel-Red Road in the north and NE 8th Street in the south, with an interruption in the road. The project would result in modifications to the northern intersection with Bel-Red Road to allow 120th Avenue NE to continue in the south-southwest direction to generally match the existing intersection with NE 8th Street in the south. This realignment and newly constructed portion of 120th Avenue NE would result in a new visual presence and experience in this location.

The residential complexes located east of the project corridor, within the triangular intersection of NE 8th Street and Bel-Red Road could experience a change in their visual experience when looking to the west. The Brierwood and Midlakes apartment buildings are already bounded on the western side by fairly tall trees and two office buildings that would remain, but the land slopes downward to the east in this location. The presence of the newly constructed portion of 120th Avenue NE here is not anticipated to result in an adverse effect on the visual experience of residents of these complexes as the area changes from parking to traffic. The two office buildings to the west would remain, and residents in these two-story buildings already have a view of Bel-Red Road and its intersection with NE 8th Street to the west.

Three of the four two-story buildings that comprise the Midlakes condominium complex are adjacent to Bel-Red Road, with fairly tall trees acting as a buffer so they are not directly adjacent to the road; the fourth building is southeast of the other three. Residents of these buildings currently have a view of the existing intersection of 120th Avenue NE with Bel-Red Road. The project would result in 120th Avenue NE being three lanes wider and modifications would be made to

the existing intersection, but these changes are not anticipated to be so significant as to have an adverse effect on the visual experience of any of the residents here.

Other Roadway Components

The road design contains a 5-foot-wide planter strip on either side of the highway, and landscaping would comply with code set forth for the *Bel-Red Subarea Design Guidelines*. The design for retaining walls would also comply with these guidelines.

The project would result in the installation of nighttime-operational streetlights along the entire 1.1-mile length of the project corridor. This could be considered a positive effect on human use and activity in the area, particularly as a safety issue along what is now a largely unlit roadway corridor. However, as the area develops in the future and additional residential unit are added, excessive street lighting could be a disturbance to people's enjoyment of the area and change the visual nature of the roadway. Street lighting would follow the *Bel-Red Subarea Design Guidelines*, including the use of lower poles and more efficient lighting that provides more focused energy with less stray light.

5.2 Indirect Effects on Community Resources

Indirect effects are associated with a project and occur later in time or farther removed in distance; but they are still reasonably foreseeable (e.g., induced land development from highway projects).

While the 120th Avenue NE project would not contribute significantly to indirect effects, it is part of a larger *Bel-Red Subarea Plan* that is discussed in Section 5.3. This project is focused on improving transportation and traffic flow in the area. By itself, its indirect effects would be minor and beneficial to community resources. Mainly, they would result from additional capacity on the roadway and better access to properties along the roadway or in the project vicinity. For example:

- Better access to the All Saints Episcopal Church could result in additional participation and community cohesion in the future, allowing this and other facilities to become meeting points for area residents.
- The residents to the north and east of the corridor would be better able to access hospital facilities west of the corridor, and in turn be better accessed by public services, which could allow these areas to grow.
- Business and restaurants in the Lake Bellevue area could be more easily accessed by residents to the north and east of the project, resulting in increased economic stimulation of this area.

Any growth that the project could stimulate in the area is currently being planned for as part of the City of Bellevue's new *Comprehensive Plan* and the *Bel-Red Subarea Plan*. Since the study area is predominantly commercial and industrial,

additional traffic flow and use of the corridor is generally considered a beneficial effect. As a result, no adverse indirect effects are anticipated due to the project.

5.3 Cumulative Effects on Community Resources

Cumulative effects result from the incremental effects of the action when added to other past, present, and reasonably foreseeable actions, regardless of the agency or person initiating the other actions. At this time, reasonably foreseeable projects in the area include:

- Spring District: Wright Runstad & Company, in joint venture with Shorenstein Properties, LLC has planned the development of the Spring District, a 36-acre mixed-use urban neighborhood within the Bel-Red Corridor. The Spring District will consist of up to 1,000 multi-family residences, over 3 million square feet of office space and several high-density buildings that will provide retail services. The proposed development will be located at the northeast corner of 120th Avenue NE and NE 12th Street.
- Sound Transit's East Link Project: This project will consist of an electric light rail train system that will connect areas between Seattle and Overlake Transit Center in Redmond. It is anticipated that the system will have a station just east of the intersection of 120th Avenue NE and NE 15th Street, located in the Spring District development. This project is expected to be completed between 2016 and 2021.
- Construction of the light rail will result in the acquisition of property at 1445 120th Avenue NE. Since not all of the property will be used for the light rail track, some portion of it will be redeveloped. As this is already a commercial property, the nature of the land use is unlikely to change significantly.
- NE 15th Street/124th Avenue NE: In concert with East Link light rail project, NE 15th Street will be constructed to 124th Avenue NE, which will be widened to five lanes. The anticipated traffic flow pattern from downtown to eastbound State Route 520 is: NE 4th Street to 120th Avenue NE to NE 15th Street to 124th Avenue NE to State Route 520.

The 120th Avenue NE project is a part of the larger Bel-Read Subarea planning effort and is included in the plan. The redevelopment of this area is intended to change its nature from a commercial/industrial area to one that consists of mixed-use smart growth, including residential, transit-oriented development. From a community standpoint, this would be considered a beneficial effect, as community centers are developed around the future 120th Avenue NE light rail station and at 130th Avenue NE. Each of these transit-oriented development areas will contain its own mixture of commercial and residential facilities and provide pedestrian and bicycle facilities to connect these communities, both internally and with each other. Part of the plan includes a recreational trail along the West Tributary to Kelsey Creek, providing recreational connectivity as well.

While this new community will increase the demand for community services and public facilities, many of these would be included within the developments themselves, providing better access to future residents. Encouraging mixed-use development, the *Bel-Red Subarea Plan* will also result in job and commercial opportunities, providing additional economic benefit to residents of both this area and surrounding communities.

5.4 Mitigation Measures

The following mitigation measures would be put in place to protect community resources in the 120th Avenue NE study area:

- Economic Effects: Where acquisition causes the relocation of business, the extent of this impact is considered in the relocation services and payments made under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. 4601 et seq).
- Community Facility Effects: The widening of 120th Avenue NE would require the removal of the 20 City trees located along the project corridor. A survey for significant trees, as defined by the City of Bellevue Land Use Code 20.50.046, would be performed prior to construction to establish which ones would require protection. Tree replacement would occur pursuant to the Section 20.20.900 of the Bel-Red Subarea General Land Use Code Amendments.
- Visual Effects: Street lighting would follow the *Bel-Red Subarea Design Guidelines*, including the use of lower poles and more efficient lighting that provides more focused energy with less stray light.

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Bellevue 120th Avenue NE Corridor Project

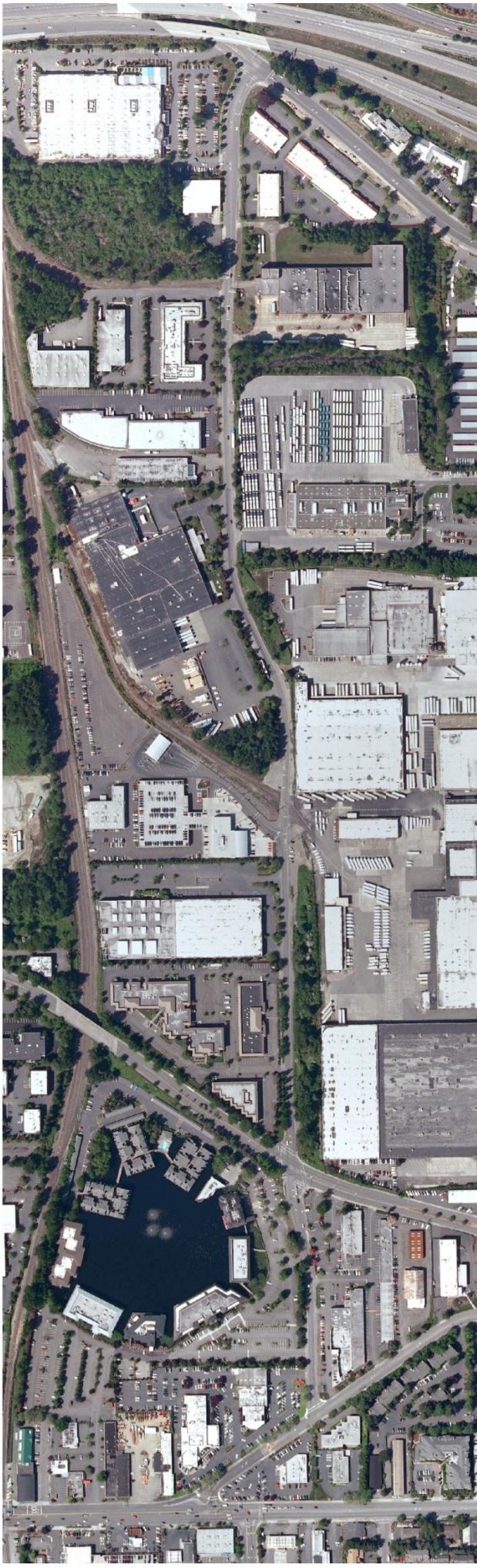
PRELIMINARY DRAFT
Community Effects Technical Report

Attachment A
RIMS II Detailed Model Analysis

prepared for
City of Bellevue

prepared by
Parsons Brinckerhoff

August 20, 2010



1.1 Introduction

1.1.1 Regional Economic Activity

Considerable economic effects would result at the county and regional level from construction of the proposed Bellevue 120th Avenue NE Widening Project (Build Alternative) relative to not building the project (No Build Alternative). The intent of this analysis is to assess the likely overall economic effects that would be attributed to construction, as measured by increases in regional activity, employment, and associated job earnings. This analysis does not account for the economic impacts of reduced congestion and shorter travel times through the corridor facilitated by the road widening.

1.1.2 Terminology and Methods

To analyze the economic effects of the project capital investment, it is necessary to examine the economic reactions that an increase in the demand for construction goods and services creates. Economists use input-output models to analyze how changes in the production of a specific firm or industry alter the flow of funds into and out of all other industries, as well as households. By tracing how production in one economic sector consumes the output of other sectors as production inputs and how each of these other sectors in turn influences the demand for the output of yet other sectors, input-output analysis facilitates the calculation of multipliers. These multipliers provide a quantitative estimate of changes in economic activity, employment, and job earnings within the local economy (county or region) that compound from initial new expenditures.

Defining the terms below will aid in understanding how project construction would lead to multiplied economic effects on the economies of the central Puget Sound region.

- Direct Effects: The increases in demand for roadway construction and related materials and services within a defined regional economy arising from undertaking the project. Direct effects are usually measured as construction expenditures, but also can be expressed in the number of new construction jobs or job earnings.
- Indirect Effects: The sum of all inter-firm and inter-industry transactions that filter through the regional economy resulting from the purchase of material and labor inputs by the firms directly affected in the course of producing their construction-related output.
- Induced Effects: The increases in household consumption of goods and services of all firms within the regional economy by the workers who receive additional earnings resulting from either the direct or indirect effects of construction.
- Total Effects: The sum of the direct, indirect, and induced economic effects as measured by the overall increase in economic activity, employment, and/or earnings within the regional economy. Total effects are also

referred to as the total multiplied effects, where the multiplier is the factor ratio of total to direct effects.

- Gross Effects: The economic effects of total project expenditures—in terms of direct, indirect, and induced effects—prior to assessing what proportion of those expenditures and subsequent effects would likely have still occurred in some other manner in the absence of the project being evaluated.
- Net or "New Money" Effects: Only those economic effects—in terms of direct, indirect, and induced effects—attributable to funds that are uniquely available for expenditure on the subject project. These funds would otherwise not enter the regional economy. Economists tend to emphasize the net or new money effects as more accurate measures of the true increases in output, employment, and earnings.

Construction expenditures would occur over two years, directly creating new demand for construction materials and labor inputs. These direct effects would then lead to indirect or secondary effects, as the production of output by firms in other industries increases to supply the demand for inputs to the construction industry. Both the direct and indirect effects of construction expenditures cause firms in all industries to employ more workers to meet increases in demand; this leads to induced effects as the additional wages and salaries paid to workers lead to higher consumer spending.

The economic effects at the county and regional level due to the influx of capital construction funds are quantified as direct and indirect effects. The direct and indirect effects are calculated using multipliers provided by the U.S. Department of Commerce Bureau of Economic Analysis' (BEA) Regional Input-Output Modeling System (RIMS II) for King County and the central Puget Sound region. The central Puget Sound region is defined as King, Pierce, and Snohomish Counties. The detailed application of these RIMS II multipliers is presented below.

1.1.3 Economic Effects

For purposes of assessing the economic effects on output, earnings, and employment, the focus is placed on the project capital costs (construction and right-of-way acquisition) of the Build Alternative as an accurate measure of the capital investment that would likely occur for the project. It is assumed that no project capital costs would be incurred with the No Build Alternative.

Table 1. Capital Costs and Funding Sources of the Build Alternative

Capital Cost Estimate ($ millions)	Funding Source ($ millions and Share)	
	Federal	Local
38.9	27.2 (70%)	11.7 (30%)

Table 1 lists the project capital cost estimates, distribution of funding sources, and regional and state new money estimates for the project. The distribution of

funding sources has been developed by the design team and is the list of potential funding mechanisms currently available. Percentage shares of the capital cost estimates are also provided. For purposes of examining the regional economic effects, all of the federal earmark grants and federal general funding sources are assumed to be new money that would otherwise not be spent either regionally or within the state in the absence of the project. All state, regional, and city funding sources are assumed to be expended with or without this project and are not considered to be new money. All state, regional, and city funding sources, including local improvement district taxes, are tax-based funding of local and/or state residents or property owners specifically earmarked for transportation projects within the region or state. The difference between the capital cost and new money net direct effect for the Build Alternative is assumed to be expended with or without the project, thereby qualifying the difference only as a gross effect.

1.2 Application of RIMS II Multipliers

Three classes of RIMS II final demand multipliers and one class of direct effect multipliers were used to estimate the gross and net effects:

1. Final Demand Output Multipliers translated the initial project capital expenditures (demand) for construction outputs to the total multiplied effect on the demand for output of all firms/industries (in dollars) within the regional economy.
2. Final Demand Earnings Multipliers translated the same direct project expenditures into the total multiplied effect on wage and salary earnings within the regional economy.
3. Final Demand Employment Multipliers converted project expenditures into the total multiplied effect on employment within the regional economy, expressed in person-year jobs. This is generally used when there is no estimate of direct employment available.
4. Direct Effect Employment Multipliers translated direct employment into the total multiplied effect on employment within the regional economy, expressed in person-year jobs.

For application of the RIMS II final demand multipliers, capital costs were divided into two categories. Table 2 presents the capital cost distribution for the project by two industry expenditure/multiplier categories. Table 3 presents final demand multipliers, as well as direct effect multipliers, for King County and the central Puget Sound region. All construction labor, construction materials, and right-of-way acquisition were assumed to be obtained locally.

Table 2. Total Project Costs of the Build Alternative

Total Project Cost Estimate ($ millions)	Project Cost Component ($ millions and Share)	
	Construction Cost[1]	Right-of-Way Acquisition
38.9	19.4 (49.5%)	19.5 (50.1%)

[1]Includes preliminary engineering cost of $1.1 million.

Table 3. Capital Costs Multipliers

Expenditure Category	BEA RIMS II Multiplier Industry Classification & Number	Final Demand Multipliers			Direct Effect Multipliers	
		Output (dollars)	Earnings (dollars)	Employment (jobs)	Earnings (dollars)	Employment (jobs)
King County Multipliers						
Construction	11.0400 Highways and Streets	1.8081	0.4328	11.5	1.9334	2.4057
Right-of-Way	71.0201 Real Estate Agents, Managers, Operators, and Lessors	1.5392	0.2076	8.5	2.569	2.1197
Central Puget Sound Regional Multipliers						
Construction	11.0400 Highways and Streets	2.0627	0.6093	16.4	2.0837	2.6392
Right-of-Way	71.0201 Real Estate Agents, Managers, Operators, and Lessors	1.5920	0.2517	10.1	2.8933	2.3467

The gross total (direct, indirect, and induced) effects on output and earnings can be calculated by multiplying the expenditure in millions of dollars by category in Table 2 by the appropriate final demand multiplier in Table 3. Under the Build Alternative, expenditures of $19.4 million in the construction category would yield a gross output effect on all County economy industries of ($19.4M × 1.8081) = $35.1M; the capital expenditures would yield a gross output effect on all regional economy industries of ($19.4M × 2.0627) = $40.0M.

Some of the county and regional economic output would have occurred anyway without construction of this project. The more realistic measure of net effects on economic output can be assessed by multiplying the gross output effect by the average of percentages of general construction expenditures in representing new money (committed and/or anticipated) to the region listed in Table 1. This gives ($19.4M × 70% × 1.8081) = $24.6M, which represents the net increase in economic output attributable to new money entering King County specifically; (19.4M x 70% x 2.0627) = $28.0M to the central Puget Sound region. The gross and net effects form the upper and lower boundaries within which the true effects would likely fall, with net effects being the lower bound. Although the true magnitude of the effects would be closer to the net effects in the absence of this project, some of the non-new money tax and/or consumer dollars spent elsewhere may result in smaller multipliers than with this project. King County industries would experience a net increase in economic output of ($19.4M × 70% × 1.8081) = $24.6 million. Similar calculations can be performed for the other expenditure categories.

1.3 Summary of Economic Effects

The following tables exhibit the gross and net total effects on output and earnings for King County and the central Puget Sound region. Table 4 presents the gross total economic effects for King County and the central Puget Sound region. Under the Build Alternative, new demand for construction would generate gross direct effects equal to the capital cost of $20.6 million of construction dollars. Adding in the indirect and induced effects on the output of other regional firms, the gross multiplied effect on output would total approximately $37.2 million over the construction period. In addition, $8.9 million would be paid to workers in King County as wage and salary earnings for the jobs generated.

Table 4. Gross Total Regional Economic Impacts[1]

Alternative & Expenditure Category	Direct Gross Expenditures ($ millions)	King County Gross Total Effects		Central Puget Sound Region Gross Total Effects	
		Output ($ millions)	Earnings ($ millions)	Output ($ millions)	Earnings ($ millions)
Build Alternative	38.9	65.1	12.4	71.1	16.7
Construction	19.4	35.1	8.4	40.0	11.8
Right-of-Way	19.5	30.0	4.0	31.0	4.9

[1] Includes only effects directly associated with the expenditure of construction and right-of-way funds and does not include secondary economic benefits.

Table 5 presents the net total economic effects attributable to new money for King County and the central Puget Sound region. Under the Build Alternative, the same new demand for construction expenditures would generate net direct effects equal to $26.1 million (70 percent of $20.6 million) in midyear construction dollars after accounting for local funds that would otherwise still be spent in the regional economy with similar multiplied effects. Adding in the indirect and induced effects on the output of other county firms, the net multiplied effect on output would total $48.7 million over the construction period. Of this amount, $9.3 million would be paid to workers as wage and salary earnings for the net new jobs created.

Table 5. Net New Money Total Economic Impacts[1]

Alternative & Expenditure Category	Direct Gross Expenditures ($ millions)	Percent Contribution Due to New Money Funds[2]	King County Net Total Effects		Central Puget Sound Region Gross Total Effects	
			Output ($ millions)	Earnings ($ millions)	Output ($ millions)	Earnings ($ millions)
Build Alternative	38.9	70%	45.6	8.7	49.7	11.7
Construction	19.4		24.6	5.9	28.0	8.3
Right-of-Way	19.5		21.0	2.8	21.7	3.4

[1] Includes only effects directly associated with the expenditure of construction and right-of-way funds and does not include secondary economic benefits.
[2] Includes Committed New Money Funds. See Table 1.

While the gross total economic effects are useful for examining the overall magnitude of the project, the net total economic effect measures represent more generally accepted and appropriate estimates of the true economic effects that would arise solely from project construction. The gross and net effects form the upper and lower boundaries within which the true effects would likely fall, with net effects being the lower bound. Although the true magnitude of the effects would be closer to the net effects, in the absence of this project, some of the non-new money tax and/or consumer dollars spent elsewhere may result in smaller multipliers than with this project.

1.4 Summary of Benefits for the County Economic Activity

This discussion of benefits includes only benefits directly associated with the expenditure of construction and right-of-way funds during the construction period and does not include indirect economic benefits after construction is completed. The cost associated with construction of the Build Alternative would result in additional (gross) activity throughout all economic sectors within King County. This gross economic activity is derived from the multiplication effects on the capital expenditures for the project. Examples of capital expenditures include the direct hire of temporary construction workers, the purchase of construction materials and equipment, and the expenditure of capital funds to acquire new rights-of-way.

The amount of new economic activity directly associated with the Build Alternative that is the result of new money entering King County's economy is $24.6 million. The amount of new earnings (wages) entering King County's economy is $5.9 million. These estimates assume that all of the committed and anticipated new money funds are received for the project.

1.4.1 Temporary Economic Effects to Businesses, Including Construction Expenditures on Sales Tax Revenue

Sales Tax Revenue

Sales taxes would be generated through the purchase of goods and materials related to construction. Table 6 lists the estimated amount of sales tax generated for the Build Alternative based on construction costs only. Sales tax estimates were not generated for non-construction costs such as right-of-way acquisition and engineering.

Table 6. Total Capital Costs and Sales Tax Generated ($ millions)

Alternative	Total Capital Cost	Total Sales Tax Generated
Build Alternative	$38.9	$0.2

The project sales tax estimates are based on the construction cost estimates. These estimates will be refined once additional information regarding project design and funding becomes available. The sales tax generated would be received by cities and counties throughout the central Puget Sound region. The proportion

of tax generation received by each jurisdiction is unknown because it is dependent where construction materials are purchased in the region.

These sales tax estimates are only related to direct construction expenditures. This analysis does not include an evaluation of the change in sales tax revenue collected by businesses in the project area that potentially would be affected by construction activities.

Temporary Jobs Created During Construction

With implementation of the Build Alternative, temporary jobs would be created to construct the project. The duration of these temporary jobs is expected to be about 24 months.

A hybrid approach was used to estimate the gross and net increases in employment attributable to new money entering King County. Both direct effect and final demand multipliers (see Table 3) were used to estimate employment effects for the Build Alternative. Direct effect multipliers were used on the estimates of the direct labor force to be employed in constructing the Build Alternative, as presented in Table 7. Final demand multipliers were used to estimate capital costs for right-of-way acquisition, as no direct labor estimates have been generated by the project design team for this expenditure category.

The estimates of the direct jobs generated by the project were calculated based on the approximate cost for construction contracts and the assumption that the average labor rate in 2011 would be about $43 per hour.[1] The direct effect of these temporary construction jobs on the economy would cause the indirect effect of creating additional jobs throughout King County and the central Puget Sound region. Using the direct effect multipliers for highway and street construction presented in Table 3, we can calculate the secondary effect of regional job creation in the same manner used to calculate the gross output and earnings using only the direct gross expenditures.

No estimate of the direct labor force needed to perform right-of-way acquisition was prepared by the project design team; consequently, the capital costs associated with this task are used to quantify employment effects in the same manner that gross output and earnings were estimated for all capital costs using final demand multipliers presented in Table 3.

The Build Alternative would have direct gross expenditures of $19.5 million in the right-of-way category and would yield a gross employment effect on all regional industries of ($19.5M × 10) = 195 person-year jobs.

[1] The labor rate was estimated by averaging the past 12 months (June 2009 – June 2010) of hourly construction wage ($28.50) provided by the Current Employment Statistics available at: LMEA http://www.workforceexplorer.com/cgi/dataanalysis/?PAGEID=94&SUBID=149. This wage was multiplied by a total compensation multiplier of 1.5, which was determined based the ratio of wages and salaries to total compensation of the construction industry during the 1st quarter 2010 available at: BLS http://www.bls.gov/iag/tgs/iag23.htm#earnings.

For the construction expenditure category, a direct generation of 27 person-year jobs would yield a gross employment effect on all county economies of (27 person-year jobs × 2.4057) = 132 person-year jobs. Summing these gross employment effects together yields the total gross employment effect to the county economy of 342 person-year jobs.

Some of these jobs would have occurred without construction of the project. The more realistic measure of net effects on employment can be assessed by multiplying the gross total employment effect by the percentage of capital expenditures representing new money (committed and anticipated) for the county listed in Table 1. This gives ($19.5 × 10) + ((27 person-year jobs × 2.4057) × 70%) = 229 person-year jobs, which represents the net increase in employment attributable to new money entering King County.

Table 7. Gross County and Regional Total Employment Effects and Net New Money Total Employment Effects

Alternative & Expenditure Category	Build Alternative	Construction	Right-of-Way
Direct Gross Expenditures ($ millions)	--	--	19.5
King County Final Demand Employment (prs-yr jobs)	--	--	195
Central Puget Sound Region Final Demand Employment (prs-yr jobs)	--	--	197
Annual Average Construction Employment (jobs)	--	27	--
Construction Duration (years)	--	2	--
Total Construction Labor (prs-yr jobs)	--	54	--
King County Direct Effect Employment (prs-yr jobs)	--	132	--
Central Puget Sound Region Direct Effect Employment (prs-yr jobs)	--	145	--
King County Gross Employment (prs-yr jobs)	327	--	--
Central Puget Sound Region Gross Employment (prs-yr jobs)	342	--	--
Average Percent Contribution Due to New Money Funds	70%	--	--
King County Net Employment (prs-yr jobs)	229	--	--
Central Puget Sound Region Net Employment (prs-yr jobs)	239	--	--

prs-yr jobs = person-year jobs.
Construction duration assumes 2 years for the Build Alternative.
Central Puget Sound Region is defined as King, Pierce, and Snohomish Counties.
Final Demand Employment shows the translation from right-of-way gross expenditures into direct, indirect, and induced employment. Direct Effect Employment shows the translation from temporary construction employment into direct, indirect, and induced employment.
Gross Employment is the sum of Final Demand Employment and Direct Effect Employment. Gross Employment is all direct, indirect, and induced employment.
Net Employment is that fraction of Gross Employment that represents all direct, indirect, and induced employment associated with new money (committed and anticipated).

1.4.2 Summary of Benefits for Employment

Compared with existing conditions, the employment associated with the construction the Build Alternative would result in additional (gross) employment throughout all economic sectors within King County and the central Puget Sound region. This gross employment is derived from the multiplication effects on capital expenditures for the project. Examples of capital expenditures include the direct hire of temporary construction workers, the purchase of construction materials and equipment, and the expenditure of capital funds to acquire new rights-of-way. Therefore, the higher the capital cost, the more direct, indirect, and

induced jobs are generated within King County and the central Puget Sound region.

The number of new jobs directly associated with the Build Alternative is the result of new money (committed and anticipated) entering the county economy and is estimated at 229 jobs; 239 jobs are estimated for the regional economy. The portion of new money to overall construction costs is 70 percent. All other fund sources come from within either the state or the central Puget Sound region; these funds would likely be spent in the local economy even without this project.