Washington State Intersection Screening Tool (Version 2.0) and Greenhouse Gas Estimating Methodologies and Results

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The East Link Project is located in a carbon monoxide (CO) maintenance area; therefore, the state and federal air quality conformity regulations require a demonstration to ensure transportation activities associated with the project will not cause new air quality violations, worsen existing violations, or delay timely attainment of the National Ambient Air Quality Standards (NAAQS). To satisfy this requirement, air quality modeling is used to calculate air quality impacts for comparison of build with no build conditions. The project must meet air quality conformity standards for a CO maintenance area. CO is the only pollutant for which quantitative modeling guidance for transportation projects exists.

The Washington State Intersection Screening Tool (WASIST), Version 2.0, was selected to model and analyze the CO levels of the specifically impacted intersections in the project vicinity. Developed by the Washington State Department of Transportation (WSDOT), WASIST is a screening model for determining the worst-case scenario for CO concentrations at signalized intersections and on metered roadways. WASIST uses predefined traffic data to estimate the project-generated CO emissions by inputting a combination of worse-case scenarios simultaneously into the model to produce the highest possible level of CO emissions. By using a combination of these worse-case scenarios and predefined data assumptions, the model can estimate worse-case CO concentrations for intersections and metered roadways within the project area. Traffic data for the project area were collected to determine which intersections would be representative for modeling and further degrade the level of service (LOS) from "D" to "E" or "F" under the future build alternatives. Screened intersections meeting these criteria underwent a CO hot-spot modeling screening analysis. If the worse-case intersections do not impact air quality, then all other intersections would experience a lesser impact. Exhibits 4.6-2 through 4.6-4 in Section 4.6, Air Quality, of the Final EIS show all intersections considered and those that meet the WASIST criteria for modeling CO concentrations.

The initial step in the WASIST modeling process is to perform a prescreen. This requires three informational inputs: the intersection location, the traffic volume on the intersection's busiest leg, and the distance of the closest receptors to the roadway edge. Once these are entered into the model, the results of the prescreen are summarized and displayed with a "pass" or "fail" result given in the report. A "pass" result does not require a complete WASIST analysis; a "fail" result, however, does require a complete WASIST analysis be performed to better estimate the intersection's impact on ambient CO concentrations. There are three informational data input categories necessary to perform a complete WASIST analysis:

1. **General inputs.** These include the project's general characteristics, such as the project name, intersections name, year of the analysis, background concentration, and whether the project is located in a CO maintenance area.

2. **Intersection inputs.** These include detailed information on the modeled intersection, the intersection layout, peak-hour traffic volumes, approach speed, and signal timing.

3. **Receptor inputs.** These include more specific information concerning receptors and the distance from the edge of the roadways and quadrants in which they are located.

After these informational data inputs are entered, the model calculates the worst-case CO concentrations at the specified intersections. The results of the 1-hour and 8-hour CO concentrations that were calculated are summarized in a report. If the specified receptor CO concentrations are less than the 1-hour and 8-hour NAAQS

of 35 parts per million (ppm) and 9 ppm, respectively, then the intersection does not require further CO hot-spot dispersion modeling, and it passes the complete WASIST analysis. Further, CO concentrations would not be expected to exceed the NAAQS, and no additional modeling would be required.

References

WSDOT. 2005. Washington State Intersection Screening Tool, Version 2.0. Washington State Department of Transportation, Olympia, Washington. June 2009.

Segment A

Preferred Alternative A1 CO Concentrations

Existing CO Concentrations			No Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
South Royal Brougham Way and 4th Avenue South	D	6.9	South Royal Brougham Way and 4th Avenue South	D	4.1	South Royal Brougham Way and 4th Avenue South	F	4.9	South Royal Brougham Way and 4th Avenue South	D	4.1	South Royal Brougham Way and 4th Avenue South	F	4.9
Dearborn Street and Rainier Avenue South	F	6.8	Dearborn Street and Rainier Avenue South	F	4.3	Dearborn Street and Rainier Avenue South	F	4.7	Dearborn Street and Rainier Avenue South	F	4.3	Dearborn Street and Rainier Avenue South	F	4.8
Rainier Avenue South and 23rd Avenue South	D	6.5	Rainier Avenue South and 23rd Avenue South	E	4.2	Rainier Avenue South and 23rd Avenue South	F	4.6	Rainier Avenue South and 23rd Avenue South	E	4.1	Rainier Avenue South and 23rd Avenue South	F	4.6
North Mercer Way and Island Crest Way	B	3.8	North Mercer Way and Island Crest Way	D	3.6	North Mercer Way and Island Crest Way	E	3.9	North Mercer Way and Island Crest Way	D	3.6	North Mercer Way and Island Crest Way	E	3.9

CO concentrations in parts per million (ppm).

** Intersections did not trigger modeling requirements.

Segment B

Alternative B1 CO Concentrations

Existing CO Concentrations			No Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
108: 112th Avenue SE and Bellevue Way	F	7.2	108: 112th Avenue SE and Bellevue Way	D	4.6	108: 112th Avenue SE and Bellevue Way	D	5.2	108: 112th Avenue SE and Bellevue Way	E	4.6	108: 112th Avenue SE and Bellevue Way	E	5.4
**			14: Bellevue Way and 112th Avenue SE	C	4.6	14: Bellevue Way and 112th Avenue SE	C	5.3	14: Bellevue Way and 112th Avenue SE	D	4.7	14: Bellevue Way and 112th Avenue SE	D	5.2
SE 8th Street and 118th Avenue SE	F	5.4	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.1	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.1

CO concentrations in parts per million (ppm).

** Intersections did not trigger modeling requirements.

Alternative B2A CO Concentrations

Existing CO Concentrations			No Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
108: 112th Avenue SE and Bellevue Way	F	7.2	108: 112th Avenue SE and Bellevue Way	D	4.6	108: 112th Avenue SE and Bellevue Way	D	5.2	108: 112th Avenue SE and Bellevue Way	D	4.5	108: 112th Avenue SE and Bellevue Way	D	5.2
**			14: Bellevue Way and 112th Avenue SE	C	4.6	14: Bellevue Way and 112th Avenue SE	C	5.3	14: Bellevue Way and 112th Avenue SE	F	4.8	14: Bellevue Way and 112th Avenue SE	F	5.4
SE 8th Street and 118th Avenue SE	F	5.4	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.1	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.1

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Alternative B2E CO Concentrations

| Existing CO Concentrations | | | No Build CO Concentrations | | | | | | Build Concentrations | | | | | |
| | | | 2020 | | | 2030 | | | 2020 | | | 2030 | | |
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
108: 112th Avenue SE and Bellevue Way	F	7.2	108: 112th Avenue SE and Bellevue Way	D	4.6	108: 112th Avenue SE and Bellevue Way	D	5.2	108: 112th Avenue SE and Bellevue Way	D	4.6	108: 112th Avenue SE and Bellevue Way	D	5.2
**			14: Bellevue Way and 112th Avenue SE	C	4.6	14: Bellevue Way and 112th Avenue SE	C	5.3	14: Bellevue Way and 112th Avenue SE	C	4.8	14: Bellevue Way and 112th Avenue SE	C	5.3
SE 8th Street and 118th Avenue SE	F	5.4	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.1	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.1

CO concentrations in parts per million (ppm).

** Intersections did not trigger modeling requirements.

Preferred Alternative B2M-C9T CO Concentrations

			No Build CO Concentrations						Build Concentrations					
Existing CO Concentrations			**2020**			**2030**			**2020**			**2030**		
Intersection	**LOS**	**CO Conc.**	**Intersection**	**LOS**	**CO Conc.**	**Intersection**	**LOS**	**CO Conc.**	**Intersection**	**LOS**	**CO Conc.**	**Intersection**	**LOS**	**CO Conc.**
108: 112th Avenue SE and Bellevue Way	F	7.2	108: 112th Avenue SE and Bellevue Way	D	4.6	108: 112th Avenue SE and Bellevue Way	D	5.2	108: 112th Avenue SE and Bellevue Way	D	4.6	108: 112th Avenue SE and Bellevue Way	D	5.2
**			14: Bellevue Way and 112th Avenue SE	C	4.6	14: Bellevue Way and 112th Avenue SE	C	5.3	14: Bellevue Way and 112th Avenue SE	C	4.8	14: Bellevue Way and 112th Avenue SE	**C**	5.3
SE 8th Street and 118th Avenue SE	F	5.4	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.1	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.1

CO concentrations in parts per million (ppm).

** Intersections did not trigger modeling requirements.

Note: WASIST results reflect CO concentrations for *Preferred Alternative B2M* connecting to *Preferred Alternative C9T*.

Preferred Alternative B2M-C11A CO Concentrations

Existing CO Concentrations			No Build CO Concentrations						Build Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
108: 112th Avenue SE and Bellevue Way	F	7.2	108: 112th Avenue SE and Bellevue Way	D	4.6	108: 112th Avenue SE and Bellevue Way	D	5.2	108: 112th Avenue SE and Bellevue Way	D	4.6	108: 112th Avenue SE and Bellevue Way	D	5.2
**			14: Bellevue Way and 112th Avenue SE	C	4.6	14: Bellevue Way and 112th Avenue SE	C	5.3	14: Bellevue Way and 112th Avenue SE	C	4.8	14: Bellevue Way and 112th Avenue SE	**C**	5.3
SE 8th Street and 118th Avenue SE	F	5.4	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.1	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.2

CO concentrations in parts per million (ppm).

** Intersections did not trigger modeling requirements.

Alternative B3 CO Concentrations

Existing CO Concentrations			No Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
108: 112th Avenue SE and Bellevue Way	F	7.2	108: 112th Avenue SE and Bellevue Way	D	4.6	108: 112th Avenue SE and Bellevue Way	D	5.2	108: 112th Avenue SE and Bellevue Way	D	4.6	108: 112th Avenue SE and Bellevue Way	D	5.2
**			14: Bellevue Way and 112th Avenue SE	C	4.6	14: Bellevue Way and 112th Avenue SE	C	5.3	14: Bellevue Way and 112th Avenue SE	F	4.8	14: Bellevue Way and 112th Avenue SE	F	5.4
SE 8th Street and 118th Avenue SE	F	5.4	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.1	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.2

CO concentrations in parts per million (ppm).

** Intersections did not trigger modeling requirements.

Alternative B7 CO Concentrations

Existing CO Concentrations			No Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
108: 112th Avenue SE and Bellevue Way	F	7.2	108: 112th Avenue SE and Bellevue Way	D	4.6	108: 112th Avenue SE and Bellevue Way	D	5.2	108: 112th Avenue SE and Bellevue Way	D	4.5	108: 112th Avenue SE and Bellevue Way	D	5.2
**			14: Bellevue Way and 112th Avenue SE	C	4.6	14: Bellevue Way and 112th Avenue SE	C	5.3	14: Bellevue Way and 112th Avenue SE	C	4.5	14: Bellevue Way and 112th Avenue SE	C	5.3
SE 8th Street and 118th Avenue SE	F	5.4	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.1	SE 8th Street and 118th Avenue SE	F	4.5	SE 8th Street and 118th Avenue SE	F	5.2

* CO concentrations in parts per million (ppm).

** Intersections did not trigger modeling requirements.

Segment C

Alternative C1T CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations							Build CO Concentrations							
			2020			2030				2020			2030				
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.		Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.		
Main Street and Bellevue Way	E	6.8	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0		Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0		
Main Street and 112th Avenue SE	E	6.5	Main Street and 112th Avenue SE	F	4.2	Main Street and 112th Avenue SE	F	4.8		Main Street and 112th Avenue SE	F	4.3	Main Street and 112th Avenue SE	F	4.8		
**			NE 2nd Street and 110th Avenue NE	E	3.8	NE 2nd Street and 110th Avenue NE	C	4.0		NE 2nd Street and 110th Avenue NE	E	3.8	NE 2nd Street and 110th Avenue NE	C	4.0		
**			NE 2nd Street and 112th Avenue NE	C	3.8	NE 2nd Street and 112th Avenue NE	C	4.4		NE 2nd Street and 112th Avenue NE	D	3.9	NE 2nd Street and 112th Avenue NE	C	4.4		
NE 4th Street and 106th Avenue NE	D	5.7	NE 4th Street and 106th Avenue NE	**D**	4.0	NE 4th Street and 106th Avenue NE	**D**	**4.3**		NE 4th Street and 106th Avenue NE	**D**	4.0	NE 4th Street and 106th Avenue NE	**D**	**4.3**		
NE 4th Street and 108th Avenue NE	D	6.0	NE 4th Street and 108th Avenue NE	**E**	4.0	NE 4th Street and 108th Avenue NE	**E**	**4.7**		NE 4th Street and 108th Avenue NE	**E**	4.1	NE 4th Street and 108th Avenue NE	**F**	**4.8**		
**			NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.8		NE 4th Street and 110th Avenue NE	E	4.2	NE 4th Street and 110th Avenue NE	E	4.6		
NE 4th Street and 112th Avenue NE	D	6.5	NE 4th Street and 112th Avenue NE	**D**	4.3	NE 4th Street and 112th Avenue NE	**E**	**4.8**		NE 4th Street and 112th Avenue NE	**D**	4.3	NE 4th Street and 112th Avenue NE	E	4.8		
NE 8th Street and 106th Avenue NE	D	6.2	NE 8th Street and 106th Avenue NE	**D**	4.1	NE 8th Street and 106th Avenue NE	**D**	**4.6**		NE 8th Street and 106th Avenue NE	**D**	4.2	NE 8th Street and 106th Avenue NE	**D**	**4.6**		
NE 8th Street and 108th Avenue NE	F	6.5	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	E	4.8		NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	F	4.8		
NE 8th Street and 110th Avenue NE	F	6.6	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0		NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0		
NE 8th Street and 116th Avenue NE	F	7.5	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4		NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4		
NE 12th Street and 112th Avenue NE	D	6.4	NE 12th Street and 112th Avenue NE	E	5.2	NE 12th Street and 112th Avenue NE	F	4.8		NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8		

CO concentrations in parts per million (ppm).

** Intersections did not trigger modeling requirements.

Alternative C2T CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build Concentrations					
			2020			2030			2020			C2T		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Main Street and Bellevue Way	E	6.8	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0
Main Street and 112th Avenue NE	E	6.5	Main Street and 112th Avenue NE	F	4.2	Main Street and 112th Avenue NE	F	4.8	Main Street and 112th Avenue NE	F	4.3	Main Street and 112th Avenue NE	F	4.8
**			NE 2nd Street and 110th Avenue NE	E	3.8	NE 2nd Street and 110th Avenue NE	C	4.0	NE 2nd Street and 110th Avenue NE	E	3.8	NE 2nd Street and 110th Avenue NE	C	4.0
**			NE 2nd Street and 112th Avenue NE	C	3.8	NE 2nd Street and 112th Avenue NE	C	4.4	NE 2nd Street and 112th Avenue NE	D	3.9	NE 2nd Street and 112th Avenue NE	C	4.4
NE 4th Street and 106th Avenue NE	D	5.7	NE 4th Street and 106th Avenue NE	**D**	**4.0**	NE 4th Street and 106th Avenue NE	D	4.3	NE 4th Street and 106th Avenue NE	E	4.0	NE 4th Street and 106th Avenue NE	D	4.3
NE 4th Street and 108th Avenue NE	D	6.0	NE 4th Street and 108th Avenue NE	**E**	**4.0**	NE 4th Street and 108th Avenue NE	E	4.7	NE 4th Street and 108th Avenue NE	E	4.1	NE 4th Street and 108th Avenue NE	F	4.8
**			NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.8	NE 4th Street and 110th Avenue NE	E	4.2	NE 4th Street and 110th Avenue NE	E	4.6
NE 4th Street and 112th Avenue NE	D	6.5	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	**E**	**4.8**	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	E	4.8
NE 8th Street and 106th Avenue NE	D	6.2	NE 8th Street and 106th Avenue NE	**D**	**4.1**	NE 8th Street and 106th Avenue NE	D	4.6	NE 8th Street and 106th Avenue NE	D	4.2	NE 8th Street and 106th Avenue NE	D	4.6
NE 8th Street and 108th Avenue NE	F	6.5	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	E	4.8	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	F	4.8
NE 8th Street and 110th Avenue NE	F	6.6	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0
NE 8th Street and 116th Avenue NE	F	7.5	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4
NE 12th Street and 112th Avenue NE	D	6.4	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8

CO concentrations in parts per million (ppm).

** Intersections did not trigger modeling requirements.

Alternative C3T CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Main Street and Bellevue Way	E	6.8	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0
Main Street and 112th Avenue NE	E	6.5	Main Street and 112th Avenue NE	F	4.2	Main Street and 112th Avenue NE	F	4.8	Main Street and 112th Avenue NE	F	4.3	Main Street and 112th Avenue NE	F	4.8
**			NE 2nd Street and 110th Avenue NE	E	3.8	NE 2nd Street and 110th Avenue NE	C	4.0	NE 2nd Street and 110th Avenue NE	D	3.8	NE 2nd Street and 110th Avenue NE	C	4.0
**			NE 2nd Street and 112th Avenue NE	C	3.8	NE 2nd Street and 112th Avenue NE	C	4.4	NE 2nd Street and 112th Avenue NE	D	3.9	NE 2nd Street and 112th Avenue NE	C	4.4
NE 4th Street and 106th Avenue NE	D	5.7	NE 4th Street and 106th Avenue NE	**D**	**4.0**	NE 4th Street and 106th Avenue NE	D	4.3	NE 4th Street and 106th Avenue NE	D	4.0	NE 4th Street and 106th Avenue NE	D	4.3
NE 4th Street and 108th Avenue NE	D	6.0	NE 4th Street and 108th Avenue NE	**E**	**4.0**	NE 4th Street and 108th Avenue NE	E	4.7	NE 4th Street and 108th Avenue NE	D	4.1	NE 4th Street and 108th Avenue NE	E	4.8
**			NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.8	NE 4th Street and 110th Avenue NE	D	4.2	NE 4th Street and 110th Avenue NE	E	4.6
NE 4th Street and 112th Avenue NE	D	6.5	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	E	4.8	NE 4th Street and 112th Avenue NE	E	4.3	NE 4th Street and 112th Avenue NE	E	4.8
NE 8th Street and 106th Avenue NE	D	6.2	NE 8th Street and 106th Avenue NE	**D**	**4.1**	NE 8th Street and 106th Avenue NE	D	4.6	NE 8th Street and 106th Avenue NE	D	4.2	NE 8th a Street and 106th Avenue NE	D	4.6
NE 8th Street and 108th Avenue NE	F	6.5	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	E	4.8	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	F	4.8
NE 8th Street and 110th Avenue NE	F	6.6	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0
NE 8th Street and 116th Avenue NE	F	7.5	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4
NE 12th Street and 112th Avenue NE	D	6.4	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Alternative C4A CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Main Street and Bellevue Way	E	6.8	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0	Main Street and Bellevue Way	F	4.4	Main Street and Bellevue Way	F	5.0
Main Street and 112th Avenue NE	E	6.5	Main Street and 112th Avenue NE	F	4.2	Main Street and 112th Avenue NE	F	4.8	Main Street and 112th Avenue NE	F	4.3	Main Street and 112th Avenue NE	F	4.9
**			NE 2nd Street and 110th Avenue NE	E	3.8	NE 2nd Street and 110th Avenue NE	C	4.0	NE 2nd Street and 110th Avenue NE	D	3.8	NE 2nd Street and 110th Avenue NE	D	4.0
**			NE 2nd Street and 112th Avenue NE	C	3.8	NE 2nd Street and 112th Avenue NE	C	4.4	NE 2nd Street and 112th Avenue NE	D	3.8	NE 2nd Street and 112th Avenue NE	D	4.5
NE 4th Street and 106th Avenue NE	D	5.7	NE 4th Street and 106th Avenue NE	**D**	**4.0**	NE 4th Street and 106th Avenue NE	**D**	**4.3**	NE 4th Street and 106th Avenue NE	D	4.1	NE 4th Street and 106th Avenue NE	E	4.5
NE 4th Street and 108th Avenue NE	D	6.0	NE 4th Street and 108th Avenue NE	E	4.0	NE 4th Street and 108th Avenue NE	E	4.7	NE 4th Street and 108th Avenue NE	D	4.0	NE 4th Street and 108th Avenue NE	F	4.6
**			NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.8	NE 4th Street and 110th Avenue NE	D	4.0	NE 4th Street and 110th Avenue NE	F	4.6
NE 4th Street and 112th Avenue NE	D	6.5	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	**E**	**4.8**	NE 4th Street and 112th Avenue NE	**E**	**4.4**	NE 4th Street and 112th Avenue NE	F	5.1
NE 8th Street and 106th Avenue NE	D	6.2	NE 8th Street and 106th Avenue NE	**D**	**4.1**	NE 8th Street and 106th Avenue NE	D	4.6	NE 8th Street and 106th Avenue NE	D	4.3	NE 8th Street and 106th Avenue NE	D	4.8
NE 8th Street and 108th Avenue NE	F	6.5	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 106th Avenue NE	E	4.8	NE 8th Street and 108th Avenue NE	D	4.1	NE 8th Street and 108th Avenue NE	D	4.7
NE 8th Street and 110th Avenue NE	F	6.6	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0	NE 8th Street and 110th Avenue NE	E	4.2	NE 8th Street and 110th Avenue NE	F	4.8
NE 8th Street and 116th Avenue NE	F	7.5	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4	NE 8th Street and 116th Avenue NE	D	4.8	NE 8th Street and 116th Avenue NE	D	5.4
NE 12th Street and 112th Avenue NE	D	6.4	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Alternative C7E CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Main Street and Bellevue Way	E	6.8	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0
Main Street and 112th Avenue NE	E	6.5	Main Street and 112th Avenue NE	F	4.2	Main Street and 112th Avenue NE	F	4.8	Main Street and 112th Avenue NE	F	4.2	Main Street and 112th Avenue NE	F	4.8
**			NE 2nd and 110th Avenue NE	E	3.8	NE 2nd and 110th Avenue NE	C	4.0	NE 2nd and 110th Avenue NE	E	3.8	NE 2nd and 110th Avenue NE	C	4.0
**			NE 2nd Street and 112th Avenue NE	C	3.8	NE 2nd Street and 112th Avenue NE	C	4.4	NE 2nd Street and 112th Avenue NE	D	3.9	NE 2nd Street and 112th Avenue NE	D	4.5
NE 4th Street and 106th Avenue NE	D	5.7	**	**D**	**4.0**	NE 4th Street and 106th Avenue NE	**D**	**4.3**	NE 4th Street and 106th Avenue NE	E	4.0	NE 4th Street and 106th Avenue NE	E	4.3
NE 4th Street and 108th Avenue NE	D	6.0		E	4.0	NE 4th Street and 108th Avenue NE	E	4.7	NE 4th Street and 108th Avenue NE	E	4.1	NE 4th Street and 108th Avenue NE	F	4.7
**			NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.8	NE 4th Street and 110th Avenue NE	E	4.2	NE 4th Street and 110th Avenue NE	E	4.6
NE 4th Street and 112th Avenue NE	D	6.5	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	**E**	**4.8**	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	E	4.8
NE 8th Street and 106th Avenue NE	D	6.2	NE 8th Street and 106th Avenue NE	**D**	**4.1**	NE 8th Street and 106th Avenue NE	D	4.6	NE 8th Street and 106th Avenue NE	D	4.2	NE 8th Street and 106th Avenue NE	D	4.5
NE 8th Street and 108th Avenue NE	F	6.5	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	E	4.8	NE 8th Street and 108th Avenue NE	**D**	**4.3**	NE 8th Street and 108th Avenue NE	E	4.8
NE 8th Street and 110th Avenue NE	F	6.6	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0
NE 8th Street and 116th Avenue NE	F	7.5	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Ave Avenue NE	D	5.4
NE 12th Street and 112th Avenue NE	D	6.4	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Alternative C8E CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Main Street and Bellevue Way	E	6.8	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0
Main Street and 112th Avenue NE	E	6.5	Main Street and 112th Avenue NE	F	4.2	Main Street and 112th Avenue NE	F	4.8	Main Street and 112th Avenue NE	F	4.5	Main Street and 112th Avenue NE	F	4.9
**			NE 2nd and 110th Avenue NE	E	3.8	NE 2nd and 110th Avenue NE	C	4.0	NE 2nd and 110th Avenue NE	E	3.8	NE 2nd and 110th Avenue NE	C	4.0
**			NE 2nd Street and 112th Avenue NE	C	3.8	NE 2nd Street and 112th Avenue NE	C	4.4	NE 2nd Street and 112th Avenue NE	D	3.9	NE 2nd Street and 112th Avenue NE	D	4.4
NE 4th Street and 106th Avenue NE	D	5.7	NE 4th Street and 106th Avenue NE	**D**	**4.0**	NE 4th Street and 106th Avenue NE	**D**	**4.3**	NE 4th Street and 106th Avenue NE	D	4.0	NE 4th Street and 106th Avenue NE	D	4.4
NE 4th Street and 108th Avenue NE	D	6.0	NE 4th Street and 108th Avenue NE	E	4.0	NE 4th Street and 108th Avenue NE	E	4.7	NE 4th Street and 108th Avenue NE	E	4.2	NE 4th Street and 108th Avenue NE	F	4.8
**			NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.8	NE 4th Street and 110th Avenue NE	E	4.2	NE 4th Street and 110th Avenue NE	E	4.7
NE 4th Street and 112th Avenue NE	D	6.5	**	**D**	**4.3**	NE 4th Street and 112th Avenue NE	**E**	**4.8**	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	E	4.9
NE 8th Street and 106th Avenue NE	D	6.2	NE 8th Street and 106th Avenue NE	**D**	**4.1**	NE 8th Street and 106th Avenue NE	D	4.6	NE 8th Street and 106th Avenue NE	D	4.2	NE 8th Street and 106th Avenue NE	D	4.6
NE 8th Street and 108th Avenue NE	F	6.5	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	E	4.8	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 106th Avenue NE	F	4.8
NE 8th Street and 110th Avenue NE	F	6.6	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0	NE 8th Street and 110th Avenue NE	F	4.4	NE 8th Street and 110th Avenue NE	F	5.0
NE 8th Street and 116th Avenue NE	F	7.5	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4	NE 8th Street and 116th Avenue NE	D	4.6	NE 8th Street and 116th Avenue NE	D	5.4
NE 12th Street and 112th Avenue NE	D	6.4	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8	NE 12th Street and 112th Avenue NE	F	4.3	NE 12th Street and 112th Avenue NE	F	4.8

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Alternative C9A CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Main Street and Bellevue Way	E	6.8	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0
Main Street and 112th Avenue NE	E	6.5	Main Street and 112th Avenue NE	F	4.2	Main Street and 112th Avenue NE	F	4.8	Main Street and 112th Avenue NE	F	4.2	Main Street and 112th Avenue NE	F	4.8
**			NE 2nd Street and 110th Avenue NE	E	3.8	NE 2nd Street and 110th Avenue NE	C	4.0	NE 2nd Street and 110th Avenue NE	E	3.7	NE 2nd Street and 110th Avenue NE	C	4.0
**			NE 2nd Street and 112th Avenue NE	C	3.8	NE 2nd Street and 112th Avenue NE	C	4.4	NE 2nd Street and 112th Avenue NE	D	3.9	NE 2nd Street and 112th Avenue NE	C	4.4
NE 4th Street and 106th Avenue NE	D	5.7	NE 4th Street and 106th Avenue NE	**D**	**4.0**	NE 4th Street and 106th Avenue NE	**D**	**4.3**	NE 4th Street and 106th Avenue NE	D	4.0	NE 4th Street and 106th Avenue NE	D	4.3
NE 4th Street and 108th Avenue NE	D	6.0	NE 4th Street and 108th Avenue NE	E	4.0	NE 4th Street and 108th Avenue NE	E	4.7	NE 4th Street and 108th Avenue NE	E	4.1	NE 4th Street and 108th Avenue NE	F	4.8
**			NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.8	NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.5
NE 4th Street and 112th Avenue NE	D	6.5	**	**D**	**4.3**	NE 4th Street and 112th Avenue NE	**E**	**4.8**	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	E	4.8
NE 8th Street and 106th Avenue NE	D	6.2	NE 8th Street and 106th Avenue NE	**D**	**4.1**	NE 8th Street and 106th Avenue NE	D	4.6	NE 8th Street and 106th Avenue NE	D	4.2	NE 8th Street and 106th Avenue NE	D	4.6
NE 8th Street and 108th Avenue NE	F	6.5	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	E	4.8	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 106th Avenue NE	E	4.8
NE 8th Street and 110th Avenue NE	F	6.6	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0
NE 8th Street and 116th Avenue NE	F	7.5	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4	NE 8th Street and 116th Avenue NE	D	4.8	NE 8th Street and 116th Avenue NE	D	5.4
NE 12th Street and 112th Avenue NE	D	6.4	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Preferred Alternative C9T CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Main Street and Bellevue Way	E	6.8	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0
Main Street and 112th Avenue NE	E	6.5	Main Street and 112th Avenue NE	F	4.2	Main Street and 112th Avenue NE	F	4.8	Main Street and 112th Avenue NE	F	4.3	Main Street and 112th Avenue NE	F	4.8
**			NE 2nd and 110th Avenue NE	E	3.8	NE 2nd and 110th Avenue NE	C	4.0	NE 2nd and 110th Avenue NE	E	3.8	NE 2nd and 110th Avenue NE	C	4.0
**			NE 2nd Street and 112th Avenue NE	C	3.8	NE 2nd Street and 112th Avenue NE	C	4.4	NE 2nd Street and 112th Avenue NE	D	3.8	NE 2nd Street and 112th Avenue NE	C	4.4
NE 4th Street and 106th Avenue NE	D	5.7	NE 4th Street and 106th Avenue NE	**D**	**4.0**	NE 4th Street and 106th Avenue NE	**D**	**4.3**	NE 4th Street and 106th Avenue NE	D	4.0	NE 4th Street and 106th Avenue NE	D	4.3
NE 4th Street and 108th Avenue NE	D	6.0	NE 4th Street and 108th Avenue NE	E	4.0	NE 4th Street and 108th Avenue NE	E	4.7	NE 4th Street and 108th Avenue NE	E	4.1	NE 4th Street and 108th Avenue NE	F	4.7
**			NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.8	NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.6
NE 4th Street and 112th Avenue NE	D	6.5	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	**E**	**4.8**	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	D	4.8
NE 8th Street and 106th Avenue NE	D	6.2	NE 8th Street and 106th Avenue NE	**D**	**4.1**	NE 8th Street and 106th Avenue NE	D	4.6	NE 8th Street and 106th Avenue NE	D	4.2	NE 8th Street and 106th Avenue NE	D	4.6
NE 8th Street and 108th Avenue NE	F	6.5	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	E	4.8	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 106th Avenue NE	E	4.8
NE 8th Street and 110th Avenue NE	F	6.6	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0	NE 8th Street and 110th Avenue NE	FE	4.3	NE 8th Street and 110th Avenue NE	F	5.0
NE 8th Street and 116th Avenue NE	F	7.5	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4	NE 8th Street and 116th Avenue NE	D	4.8	NE 8th Street and 116th Avenue NE	D	5.4
NE 12th Street and 112th Avenue NE	D	6.4	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Preferred Alternative C11A CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Main Street and Bellevue Way	E	6.8	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0
Main Street and 112th Avenue NE	E	6.5	Main Street and 112th Avenue NE	F	4.2	Main Street and 112th Avenue NE	F	4.8	Main Street and 112th Avenue NE	F	4.3	Main Street and 112th Avenue NE	F	4.8
**			NE 2nd Street and 110th Avenue NE	E	3.8	NE 2nd Street and 110th Avenue NE	C	4.0	NE 2nd Street and 110th Avenue NE	E	3.8	NE 2nd Street and 110th Avenue NE	C	4.0
**			NE 2nd Street and 112th Avenue NE	C	3.8	NE 2nd Street and 112th Avenue NE	C	4.4	NE 2nd Street and 112th Avenue NE	D	3.9	NE 2nd Street and 112th Avenue NE	D	4.5
NE 4th Street and 106th Avenue NE	D	5.7	NE 4th Street and 106th Avenue NE	**D**	**4.0**	NE 4th Street and 106th Avenue NE	**D**	**4.3**	NE 4th Street and 106th Avenue NE	E	4.0	NE 4th Street and 106th Avenue NE	E	4.3
NE 4th Street and 108th Avenue NE	D	6.0	NE 4th Street and 108th Avenue NE	E	4.0	NE 4th Street and 108th Avenue NE	E	4.7	NE 4th Street and 108th Avenue NE	F	4.1	NE 4th Street and 108th Avenue NE	F	4.7
**			NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.8	NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.6
NE 4th Street and 112th Avenue NE	D	6.5	**	**D**	**4.3**	NE 4th Street and 112th Avenue NE	**E**	**4.8**	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	E	4.8
NE 8th Street and 106th Avenue NE	D	6.2	NE 8th Street and 106th Avenue NE	**D**	**4.1**	NE 8th Street and 106th Avenue NE	D	4.6	NE 8th Street and 106th Avenue NE	D	4.2	NE 8th Street and 106th Avenue NE	E	4.6
NE 8th Street and 108th Avenue NE	F	6.5	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	E	4.8	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 106th Avenue NE	E	4.8
NE 8th Street and 110th Avenue NE	F	6.6	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0	NE 8th Street and 110th Avenue NE	E	4.4	NE 8th Street and 110th Avenue NE	F	5.0
NE 8th Street and 116th Avenue NE	F	7.5	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4	NE 8th Street and 116th Avenue NE	D	4.8	NE 8th Street and 116th Avenue NE	D	5.4
NE 12th Street and 112th Avenue NE	D	6.4	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Alternative C14E CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Main Street and Bellevue Way	E	6.8	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0	Main Street and Bellevue Way	F	4.5	Main Street and Bellevue Way	F	5.0
Main Street and 112th Avenue NE	E	6.5	Main Street and 112th Avenue NE	F	4.2	Main Street and 112th Avenue NE	F	4.8	Main Street and 112th Avenue NE	F	4.3	Main Street and 112th Avenue NE	F	4.8
**			NE 2nd Street and 110th Avenue NE	E	3.8	NE 2nd Street and 110th Avenue NE	C	4.0	NE 2nd Street and 110th Avenue NE	E	3.8	NE 2nd Street and 110th Avenue NE	C	4.0
**			NE 2nd Street and 112th Avenue NE	C	3.8	NE 2nd Street and 112th Avenue NE	C	4.4	NE 2nd Street and 112th Avenue NE	D	3.8	NE 2nd Street and 112th Avenue NE	D	4.5
NE 4th Street and 106th Avenue NE	D	5.7	NE 4th Street and 106th Avenue NE	**D**	**4.0**	NE 4th Street and 106th Avenue NE	**D**	**4.3**	NE 4th Street and 106th Avenue NE	D	4.0	NE 4th Street and 106th Avenue NE	E	4.3
NE 4th Street and 108th Avenue NE	D	6.0	NE 4th Street and 108th Avenue NE	E	4.0	NE 4th Street and 108th Avenue NE	E	4.7	NE 4th Street and 108th Avenue NE	E	4.1	NE 4th Street and 108th Avenue NE	F	4.7
**			NE 4th Street and 110th Avenue NE	E	4.1	NE 4th Street and 110th Avenue NE	E	4.8	NE 4th Street and 110th Avenue NE	E	4.2	NE 4th Street and 110th Avenue NE	E	4.6
NE 4th Street and 112th Avenue NE	D	6.5	**	**D**	**4.3**	NE 4th Street and 112th Avenue NE	**E**	**4.8**	NE 4th Street and 112th Avenue NE	**D**	**4.3**	NE 4th Street and 112th Avenue NE	E	4.8
NE 8th Street and 106th Avenue NE	D	6.2	NE 8th Street and 106th Avenue NE	**D**	**4.1**	NE 8th Street and 106th Avenue NE	D	4.6	NE 8th Street and 106th Avenue NE	D	4.2	NE 8th Street and 106th Avenue NE	D	4.6
NE 8th Street and 108th Avenue NE	F	6.5	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 108th Avenue NE	E	4.8	NE 8th Street and 108th Avenue NE	D	4.3	NE 8th Street and 106th Avenue NE	E	4.8
NE 8th Street and 110th Avenue NE	F	6.6	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0	NE 8th Street and 110th Avenue NE	E	4.3	NE 8th Street and 110th Avenue NE	F	5.0
NE 8th Street and 116th Avenue NE	F	7.5	NE 8th Street and 116th Avenue NE	D	4.7	NE 8th Street and 116th Avenue NE	D	5.4	NE 8th Street and 116th Avenue NE	D	4.8	NE 8th Street and 116th Avenue NE	D	5.4
NE 12th Street and 112th Avenue NE	D	6.4	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8	NE 12th Street and 112th Avenue NE	E	4.3	NE 12th Street and 112th Avenue NE	F	4.8

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Segment D

Preferred Alternative D2A CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
NE 20th Street and 140th Avenue NE	D	7.3	NE 20th Street and 140th Avenue NE	F	4.7	NE 20th Street and 140th Avenue NE	F	5.4	NE 20th Street and 140th Avenue NE	F	4.6	NE 20th Street and 140th Avenue NE	F	5.4
NE 20th Street and 148th Avenue NE	E	7.8	NE 20th Street and 148th Avenue NE	F	4.8	NE 20th Street and 148th Avenue NE	E	5.1	NE 20th Street and 148th Avenue NE	F	4.7	NE 20th Street and 148th Avenue NE	E	5.1
NE 24th Street and 148th Avenue NE	E	8.2	NE 24th Street and 148th Avenue NE	F	5.0	NE 24th Street and 148th Avenue NE	F	5.7	NE 24th Street and 148th Avenue NE	F	5.0	NE 24th Street and 148th Avenue NE	F	5.7
NE 40th Street and 156th Avenue NE	D	8.0	NE 40th Street and 156th Avenue NE	E	4.6	NE 40th Street and 156th Avenue NE	F	5.4	NE 40th Street and 156th Avenue NE	E	4.8	NE 40th Street and 156th Avenue NE	F	5.5

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Alternative D2E CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
NE 20th Street and 140th Avenue NE	D	7.3	NE 20th Street and 140th Avenue NE	F	4.7	NE 20th Street and 140th Avenue NE	F	5.4	NE 20th Street and 140th Avenue NE	F	4.6	NE 20th Street and 140th Avenue NE	F	5.4
NE 20th Street and 148th Avenue NE	E	7.8	NE 20th Street and 148th Avenue NE	F	4.8	NE 20th Street and 148th Avenue NE	E	5.1	NE 20th Street and 148th Avenue NE	F	4.7	NE 20th Street and 148th Avenue NE	E	5.1
NE 24th Street and 148th Avenue NE	E	8.2	NE 24th Street and 148th Avenue NE	F	5.0	NE 24th Street and 148th Avenue NE	F	5.7	NE 24th Street and 148th Avenue NE	F	5.0	NE 24th Street and 148th Avenue NE	F	5.7
NE 40th Street and 156th Avenue NE	D	8.0	NE 40th Street and 156th Avenue NE	E	4.6	NE 40th Street and 156th Avenue NE	F	5.4	NE 40th Street and 156th Avenue NE	E	4.8	NE 40th Street and 156th Avenue NE	F	5.5

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Alternative D3 CO Concentrations

Existing CO Concentrations			No Build CO Concentrations						Build CO Concentrations					
			2020			**2030**			**2020**			**2030**		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
NE 20th Street and 140th Avenue NE	D	7.3	NE 20th Street and 140th Avenue NE	F	4.7	NE 20th Street and 140th Avenue NE	F	5.4	NE 20th Street and 140th Avenue NE	F	4.7	NE 20th Street and 140th Avenue NE	F	5.4
NE 20th Street and 148th Avenue NE	E	7.8	NE 20th Street and 148th Avenue NE	F	4.8	NE 20th Street and 148th Avenue NE	E	5.1	NE 20th Street and 148th Avenue NE	F	4.6	NE 20th Street and 148th Avenue NE	F	5.5
NE 24th and 148th Avenue NE	E	8.2	NE 24th Street and 148th Avenue NE	F	5.0	NE 24th Street and 148th Avenue NE	F	5.7	NE 24th St and 148th Avenue NE	F	5.0	NE 24th St and 148th Avenue NE	F	5.7
NE 40th Street and 156th Avenue NE	D	8.0	NE 40th Street and 156th Avenue NE	E	4.6	NE 40th Street and 156th Avenue NE	F	5.4	NE 40th Street and 156th Avenue NE	E	4.8	NE 40th Street and 156th Avenue NE	F	5.5

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Alternative D5 CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
NE 20th Street and 140th Avenue NE	D	7.3	NE 20th Street and 140th Avenue NE	F	4.7	NE 20th Street and 140th Avenue NE	F	5.4	NE 20th Street and 140th Avenue NE	F	4.6	NE 20th Street and 140th Avenue NE	F	5.4
NE 20th Street and 148th Avenue NE	E	7.8	NE 20th Street and 148th Avenue NE	F	4.8	NE 20th Street and 148th Avenue NE	E	5.1	NE 20th Street and 148th Avenue NE	F	4.7	NE 20th Street and 148th Avenue NE	E	5.2
NE 24th Street and 148th Avenue NE	E	8.2	NE 24th Street and 148th Avenue NE	F	5.0	NE 24th Street and 148th Avenue NE	F	5.7	NE 24th Street and 148th Avenue NE	F	5.0	NE 24th Street and 148th Avenue NE	F	5.7
NE 40th Street and 156th Avenue NE	D	8.0	NE 40th Street and 156th Avenue NE	E	4.6	NE 40th Street and 156th Avenue NE	F	5.4	NE 40th Street and 156th Avenue NE	E	4.7	NE 40th Street and 156th Avenue NE	F	5.5

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Segment E

Alternative E1 CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Redmond Way and NE 76th Street	E	7.0	Redmond Way and NE 76th Street		4.5	Redmond Way and NE 76th Street	D	5.2	Redmond Way and NE 76th Street	C	4.5	Redmond Way and NE 76th Street	C	5.2
**			Redmond Way and 161th Avenue NE	D	3.7	Redmond Way and 161th Avenue NE	E	4.0	Redmond Way and 161th Avenue NE	C	3.7	Redmond Way and 161th Avenue NE	D	3.9
West Lake Sammamish Parkway and Leary Way (SR 520 westbound and West Lake Sammamish Parkway)	F	8.0	SR 520 westbound and West Lake Sammamish Parkway	F	5.1	SR 520 westbound and West Lake Sammamish Parkway	F	5.9	SR 520 westbound and West Lake Sammamish Parkway	F	5.1	SR 520 westbound and West Lake Sammamish Parkway	F	5.9
SR 520 eastbound and Redmond Way	D	7.5	Redmond Way and SR 520 eastbound	E	5.4	Redmond Way and SR 520 eastbound	F	6.1	SR 520 eastbound and Redmond Way	C	5.4	S SR 520 eastbound and Redmond Way	E	6.6

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Preferred Alternative E2 CO Concentrations

Existing CO Concentrations			No Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Redmond Way and NE 76th Street	E	7.0	Redmond Way and NE 76th Street		4.5	Redmond Way and NE 76 Street	D	5.2	Redmond Way and NE 76th Street	C	4.5	Redmond Way and NE 76th Street	C	5.2
**			Redmond Way and 161th Avenue NE	D	3.7	Redmond Way and 161th Avenue NE	E	4.0	Redmond Way and 161th Avenue NE	C	3.7	Redmond Way and 161th Avenue NE	D	4.0
West Lake Sammamish Parkway and Leary Way (SR 520 westbound and West Lake Sammamish Parkway)	F	8.0	SR 520 westbound and West Lake Sammamish Parkway	F	5.1	SR 520 westbound and West Lake Sammamish Parkway	F	5.9	SR 520 westbound and West Lake Sammamish Parkway	F	5.1	SR 520 westbound and West Lake Sammamish Parkway	F	5.9
SR 520 eastbound and Redmond Way	D	7.5	Redmond Way and SR 520 eastbound	E	5.4	Redmond Way and SR 520 eastbound	F	6.1	SR 520 eastbound and Redmond Way	C	5.4	SR 520 eastbound and Redmond Way	E	6.6

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

Alternative E4 CO Concentrations

Existing CO Concentrations			No-Build CO Concentrations						Build CO Concentrations					
			2020			2030			2020			2030		
Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.	Intersection	LOS	CO Conc.
Redmond Way and NE 76th Street	E	7.0	Redmond Way and NE 76th Street		4.5	Redmond Way and NE 76th Street	D	5.2	Redmond Way and NE 76th Street	C	4.5	Redmond Way and NE 76th Street	C	5.2
**			Redmond Way and 161st Avenue NE	D	3.7	Redmond Way and 161st Avenue NE	E	3.9	Redmond Way and 161st Avenue NE	C	3.7	Redmond Way and 161st Avenue NE	D	3.9
West Lake Sammamish Parkway and Leary Way (SR 520 westbound and West Lake Sammamish Parkway)	F	8.0	SR 520 westbound and West Lake Sammamish Parkway	F	5.1	SR 520 westbound and West Lake Sammamish Parkway	F	5.9	SR 520 westbound and West Lake Sammamish Parkway	F	5.1	SR 520 westbound and West Lake Sammamish Parkway	F	5.9
SR 520 eastbound and Redmond Way	D	7.5	Redmond Way and SR 520 eastbound	E	5.4	Redmond Way and SR 520 eastbound	F	6.6	SR 520 eastbound and Redmond Way	C	5.4	SR 520 eastbound and Redmond Way	E	6.6

* CO concentrations in parts per million (ppm).
** Intersections did not trigger modeling requirements.

CO_2 Equivalent Emissions Savings for High and Low East Link Project Ridership for the Puget Sound Region

Energy Consumption during Operations for Region

Vehicle Type	Consumption Factor (Btu/mile)	2030 No Build		2030 Build - High Ridership		2030 Build - Low Ridership		% Change in Btus from No Build	
		Daily VMT	Million Btu	Daily VMT	Million Btu	Daily VMT	Million Btu	High Ridership	Low Ridership
Passenger vehicle	5,894	111,389,000	656,531	111,159,647	655,179	111,212,303	655,489	-0.2%	-0.2%
Heavy duty	22,077	5,085,486	112,272	5,084,386	112,248	5,084,386	112,248	-0.02%	-0.02%
Transit bus	39,906	201,916	8,058	199,056	7,944	199,056	7,944	-1.4%	-1.4%
Commuter rail	94,587	1,524	144	1,524	144	1,524	144	0.0%	0.0%
Light rail	62,601	12,241	766	16,600	1,039	16,600	1,039	35.6%	35.6%
Total		116,690,167	777,771	116,461,213	776,554	116,513,869	776,864		

Passenger vehicle includes automobiles, motorcycles, and light trucks.

Gallons of Fuel Consumed and CO_2 Emissions for Region

Vehicle Type	Fuel Consumption Factor (mile/gal)[a]	CO_2 (g/gal)	2030 No Build			2030 Build-High Ridership			2030 Build-Low Ridership		
			Daily VMT	Fuel Consumed (gallons)	CO_2 Emissions (metric tonnes)	Daily VMT	Fuel Consumed (gallons)	CO_2 Emissions (metric tonnes)	Daily VMT	Fuel Consumed (gallons)	CO_2 Emissions (metric tonnes)
Passenger vehicle	22.9	8,810	111,389,000	4,864,148	42,853	111,159,647	4,854,133	42,765	111,212,303	4,856,432	42,785
Heavy duty	5.8	10,150	5,085,486	876,808	8,900	5,084,386	876,618	8,898	5,084,386	876,618	8,898
Transit bus			201,916			199,056			199,056		
Diesel	4.1	10,274	139,322	33,981	349	137,349	33,500	344	137,349	33,500	344
Hybrid	3.4	10,274	24,230	7,126	73	23,887	7,026	72	23,887	7,026	72
CNG	4.0	7,517	22,211	5,553	42	21,896	5,474	41	21,896	5,474	41
Trolley	37,270	8,482	16,127	4,813	41	15,586	4,651	39	15,586	4,651	39
Commuter rail	94,587	8,810	1,524	1,154	10	1,524	1,154	10	1,524	1,154	10
Light rail	62,601	8,810	12,241	6,136	54	16,600	8,321	73	16,600	8,321	73
Total			116,892,057	5,799,720	52,322	116,659,931	5,790,877	52,243	116,712,587	5,793,177	52,263

[a] The consumption factor for trolley, commuter rail, and light rail are in BTU per mile, not miles per gallon.

CO_2 Equivalent Emissions Savings for High and Low East Link Project Ridership for the Project Subarea

Energy Consumption during Operations for Subarea

Vehicle Type	Consumption Factor (Btu/mile)	2030 No Build		2030 Build - High Ridership		2030 Build - Low Ridership		% Change in Btus from No Build	
		Daily VMT	Million Btu	Daily VMT	Million Btu	Daily VMT	Million Btu	High Ridership	Low Ridership
Passenger vehicle	5,894	39,649,559	233,695	39,431,673	232,410	39,481,697	232,705	-0.6	-0.4
Heavy duty	22,077	1,849,522	40,832	1,849,938	40,841	1,849,938	40,841	0.02	0.02
Transit bus	39,906	112,890	4,505	110,028	4,391	110,028	4,391	-2.5	-2.5
Commuter rail	94,587	312	30	312	30	312	30	0.0	0.0
Light rail	62,601	8,745	547	13,053	817	13,053	817	49.3	49.3
Total		41,621,028	279,608	41,405,004	278,489	41,455,028	278,784		

Passenger vehicle includes automobiles, motorcycles, and light trucks.

Gallons of Fuel Consumed and CO_2 Emissions for Subarea

Vehicle Type	Fuel Consumption Factor (mile/gal)[a]	CO_2 (g/gal)	2030 No Build			2030 Build-High Ridership			2030 Build-Low Ridership		
			Daily VMT	Fuel Consumed (gallons)	CO_2 Emissions (metric tonnes)	Daily VMT	Fuel Consumed (gallons)	CO_2 Emissions (metric tonnes)	Daily VMT	Fuel Consumed (gallons)	CO_2 Emissions (metric tonnes)
Passenger vehicle	22.9	8,810	39,649,559	1,731,422	15,254	39,431,673	1,721,907	15,170	39,481,697	1,724,092	15,189
Heavy duty	5.8	10,150	1,849,522	318,883	3,237	1,849,938	318,955	3,237	1,849,938	318,955	3,237
Transit bus			112,890			110,028			110,028		
Diesel	4.1	10,274	77,894	18,999	195	75,919	18,517	190	75,919	18,517	190
Hybrid	3.4	10,274	13,547	3,984	41	13,203	3,883	40	13,203	3,883	40
CNG	4.0	7,517	12,418	3,104	23	12,103	3,026	23	12,103	3,026	23
Trolley	37,270	8,482	6,558	1,957	17	6,155	1,837	16	6,155	1,837	16
Commuter rail	94,587	8,810	312	236	2	312	236	2	312	236	2
Light rail	62,601	8,810	8,745	4,384	39	13,053	6,543	58	13,053	6,543	58
Total			41,731,445	2,082,969	18,807	41,512,385	2,074,904	18,736	41,562,409	2,077,089	18,755

[a] The consumption factor for trolley, commuter rail, and light rail are in BTU per mile, not miles per gallon.