## **5 APPENDICES**





Source: City of Seattle, 2023.

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### **A** Scoping Notice & Comment Summary

This appendix includes the main scoping report published November 2022, which contains the summary of written comments, engagement hub responses received, and stakeholder and public meeting input. The full scoping report, including the complete compilation of comment letters, is available online at:

https://www.seattle.gov/opcd/one-seattle-plan/project-documents



**One Seattle** Comprehensive Plan Update

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# Environmental Impact Statement (EIS) Scoping Report

November 2022

Prepared by: City of Seattle BERK Consulting

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### Introduction

#### What is the One Seattle Comprehensive Plan?

The City of Seattle is updating its Comprehensive Plan. The Comprehensive Plan is the vision for how our city grows and makes investments. The Plan guides City decisions about where we locate housing and jobs, and where we invest in transportation, utilities, parks, and other public assets. The updated Plan, which we are calling the One Seattle Comprehensive Plan, will address new and longstanding challenges including racial inequities, housing costs, access to economic opportunity and education, and climate change. We will explore different approaches to growth and investment, along with new strategies to reduce displacement pressures. The One Seattle Plan project began March 2022 with the goal of adopting an updated Plan in 2024. More information on the Comprehensive Plan Update process is available at: <a href="https://www.seattle.gov/opcd/one-seattle-plan">https://www.seattle.gov/opcd/one-seattle-plan</a>.

#### What is an Environmental Impact Statement?

An Environmental Impact Statement (EIS) is an informational document that provides the City, public, and other agencies with environmental information to be considered in the decision-making process. An EIS is required under the State Environmental Policy Act (SEPA) (<u>RCW</u> <u>43.21C</u>) for many large projects. An EIS describes:

- existing conditions in the city;
- proposed actions and alternatives (e.g., new policies and growth strategies);
- adverse environmental impacts that may occur;
- mitigation measures to reduce or eliminate adverse impacts; and
- potential significant, unavoidable, and adverse impacts.

The EIS focuses on identifying and avoiding adverse impacts and can also identify potential beneficial outcomes. The EIS evaluation and mitigation measures will help inform the development of the One Seattle Plan.

The first step in creating an EIS is to hold a scoping period. During scoping, the City released a draft approach to undertaking EIS analysis including the topics that would be covered and the alternatives that will be evaluated, in order to get feedback. The City held a scoping period in June through August 2022. In cooperation with a team of consultants, the City is now conducting the first phase of EIS analysis and expects to publish a Draft EIS in May 2023. After another comment period, the City will begin analysis of a final proposal, including a preferred alternative, and will publish a Final EIS in Spring 2024.

#### What are EIS Alternatives?

An EIS is required to identify and analyze alternative approaches to meeting the goals of a proposal. In the case of comprehensive plans, these EIS alternatives represent different growth strategies that describe the types and location of new homes and jobs that are anticipated during a 20-year planning period (2024–2044). Alternatives should represent a diverse range of options that can highlight the impacts of different potential policy choices. The alternatives should be broad enough that the final preferred alternative, which is included in the final plan, will fall within the range of the alternatives studied in the EIS. The City is not required or expected to choose one alternative (from among the alternatives studied in the DEIS) that will be included in the final plan; rather, the final plan can include a mixed or hybrid approach that draws from any of the strategies and locations studied in the alternatives.

#### 130th & 145th Street Station Areas

The City is conducting additional in-depth analysis of the NE 130<sup>th</sup> and 145<sup>th</sup> Street station areas in preparation for zoning changes under consideration ahead of the opening of new light rail stations. The NE 130<sup>th</sup> and 145<sup>th</sup> Street station areas analysis will be folded into the citywide EIS. The scoping process included three station area alternatives nested in the citywide alternatives as summarized in **Exhibit 1**.

#### Exhibit 1. 130th and 145th Street Station Area Alternatives Summary

| Citywide Alternative                                | Alternative 1: No Action                          | Alternative 2: Focused   | Alternative 5: Combined  |
|---|---|--|--|
| Approach in 130 <sup>th</sup> and 145 <sup>th</sup> | Baseline growth and pattern with existing zoning. | Cluster growth in newly<br>designated neighborhood<br>anchors. | Potential new urban village at NE<br>130 <sup>th</sup> Street station and neighborhood<br>anchor at NE 145 <sup>th</sup> Street. |

#### **Detailed EIS Scoping Comment Summary**

In addition to this document, the City has also created a detailed summary of the comments received including appendixes containing the text of these comments. This document is available at: <u>https://www.seattle.gov/opcd/one-seattle-plan/project-documents</u>.

### **Summary of the Scoping Process**

At the beginning of the scoping process, the City released a <u>scoping fact sheet</u>, <u>notice</u>, and overview website describing the draft approach and held a 60-day comment period from June 23 through August 22 to solicit feedback on the draft approach. During the comment period, the City held two citywide scoping meetings on June 29 and July 19 and a special meeting on the 130<sup>th</sup> and 145<sup>th</sup> Street station areas on July 21.

OPCD also co-facilitated two engagement focus groups and a series of one-to-one interviews with Department of Neighborhoods <u>Community Liaison</u> partners. Community Liaisons are professionals paid by the City to serve as resources to engage with communities of color and other historically marginalized communities more effectively. The Community Liaisons also augment other language access services for non-English speaking communities. These discussions focused on both the individual Community Liaison's perspectives, as well as what each Community Liaison had been hearing in community. Community Liaisons were also instrumental in conducting outreach to inform their communities about the scoping process and guide individuals through the formal commenting process on OPCD's Engagement Hub. This outreach helped to overcome technical barriers to submitting comments, such as not having a working email address, by offering opportunities to submit verbal or hand-written comments through the Community Liaisons at focus groups and interviews.

During the comment period, the City received 1,496 comments through the Comprehensive Plan Engagement Site, <u>engage.oneseattleplan.com</u>, and 95 comments via email. We also received comment letters representing the following organizations:

- 350 Seattle
- American Institute of Architects
- Beacon Development Group
- Beacon Hill Council
- Bellwether Housing
- Community Housing
- Futurewise
- Habitat for Humanity
- Housing Development Consortium
- Interim CDA
- Labor Council
- Laurelhurst Community Council
- Master Builders
- Magnolia Community Council
- Mercy Housing
- Plymouth Housing

- Puget Sound Regional Council
- Puget Sound Sage
- Public Health Seattle-King County
- Seattle Neighborhood Greenways
- SEIU 1199
- Sierra Club
- Sightline
- Seattle Metropolitan Chamber of Commerce
- Seattle Planning Commission
- Seattle Public Schools
- Tech 4 Housing
- Transit Riders Union
- Urban Forestry Commission
- Urbanist
- Welcoming Wallingford



### **Topics to be Analyzed**

#### **Comment Summary**

Comments suggested a wide range of topics that should be covered in the environmental analysis. The most common comments on this subject were to consider the impact of potential changes on housing cost, residential and commercial displacement, tree canopy, and greenhouse gas emissions.

Many comments specifically suggested that we need to quantify these impacts at a regional level as well as a city level. Some also suggested that we should try to model potential outcomes specifically for low-income households, people of color, immigrants and refugees, LGBTQ+ people, and disabled persons. A couple of comments suggested that analysis of commercial displacement should be included in the EIS rather than in a separate document.

A detailed list of topics mentioned in comments is shown in **Exhibit 2**.

| EIS Category               | Specific Topics Mentioned   |
|----------------------------|---|
| Earth & Water Quality      | <ul><li>Permeable area</li><li>Runoff</li></ul>   |
| Air Quality/GHG            | <ul> <li>GHG emissions</li> <li>Light and air quality concerns</li> <li>People within distance of high-volume roadways experience highest pollution levels within the first 500 feet of a roadway.</li> </ul> |
| Plants & Animals           | <ul><li>Urban ecosystem services</li><li>Biodiversity</li></ul>   |
| Energy & Natural Resources | <ul> <li>Changes to state building codes, SCL green energy, and plans for<br/>electrification</li> </ul>  |
| Noise                      | <ul><li>Airplane noise</li><li>Arterial and major roadway noise and proximity to housing</li></ul>  |
| Land Use Patterns          | <ul> <li>Localized impact of development in specific areas</li> <li>Where development is most likely to occur (particularly under a scenario of comprehensive rezones)</li> </ul>                             |

#### **Exhibit 2. Topics Mentioned in Comments**

| EIS Category                         | Specific Topics Mentioned  |
|--------------------------------------|--|
|                                      | <ul><li>неат impacts and impervious areas</li><li>Height/scale</li></ul>   |
| Historic Resources                   | <ul> <li>Resources that exist beyond formal local designation and/or<br/>National Register listing (individual or district)</li> </ul>   |
| Population, Employment, &<br>Housing | <ul> <li>Diversity of housing types</li> <li>Number, type, and cost of new homes</li> <li>Impact on BIPOC households</li> </ul>  |
| Transportation                       | <ul><li>Distance to shops and services</li><li>Pedestrian safety</li></ul>   |
| Public Services & Utilities          | <ul> <li>Access to amenities (what % of residents will have access to parks, waterfront, etc.?)</li> <li>North precinct police station capacity</li> <li>Sewer system and water system capacity</li> </ul> |

#### **Revised Proposal**

The comments received will help shape where the City focuses the EIS analysis and identify specific metrics that it will consider studying. The City and consultant team will analyze each of the categories in the left column of **Exhibit 2** in the EIS, including a summary of the affected environment (existing conditions) and a separate analysis of adverse environmental impacts that may occur under each of the proposed alternatives. We will strive to consider each of the specific comment topics in the EIS, though the analysis will be citywide in nature. The environmental evaluation will include quantitative and qualitative approaches such as models (e.g., transportation) or adopted standards (e.g., stormwater LID practices, levels of service, etc.) to determine the effect of the alternatives. The EIS will also identify specific mitigation measures to reduce or eliminate adverse environmental impacts and any potential significant, unavoidable, and adverse impacts for each environmental topic. Evaluation and mitigation measures identified in the EIS will ultimately help inform development of the One Seattle Plan.

Comments received suggested that we should pay particular attention to analysis of impacts for housing displacement and tree canopy. For housing displacement, the City and consultant team will conduct detailed analysis of existing trends and potential future impacts. This work will start with analysis of where households vulnerable to displacement live as well existing trends in housing price, size, and demographics for existing and new construction. We will also look at recent trends in demolitions, rehabilitations, and condominium conversion and what new construction is producing. Next, we will use the City's development capacity model to evaluate likely development scenarios. These scenarios will identify the types of housing produced and demolished in order to understand overall impacts on the housing market. We will also have a qualitative analysis of impacts on housing cost locally and regionally. This work will provide a comprehensive understanding of the many factors that will influence displacement under each alternative. For tree canopy, we will analyze past trends on tree canopy and development to understand the potential impact of various alternatives. This work will be based on a Canopy Cover Assessment the City is conducting using LIDAR and satellite imagery from 2016 and 2021. The analysis will assess canopy cover change across the city during this period and specifically analyze sites with new housing or large commercial structures built 2017–2021 and 2012–2014. The City will estimate the number of sites in various zones that are likely to redevelop under each alternative based on past trends and on analysis of potential changes to Neighborhood Residential zones. We will then apply data from the Canopy Cover Assessment to understand potential impact of new development on tree canopy cover.

The City and consultant team will also analyze the regional impact of the proposal and alternatives in the EIS. For example, some environmental topics will consider:

- The consistency of the alternatives with major state and regional policies that influence the One Seattle Comprehensive Plan Update—such as the Growth Management Act, VISION 2050, and the King County Countywide Planning Policies—and selected other relevant regional plans and policy documents.
- How implementation of the alternatives may affect global climate change through GHG emissions related to transportation and land use changes, increased impervious surfaces, loss of open space and habitat, changes to utility and transportation networks, and other impacts of development. This will include a quantitative analysis of the regional impact of emissions of air pollutants—including greenhouse gases (GHGs)—from tail pipe, roadway, buildings, utility use, solid waste, and area sources under each alternative.
- The impact of land use and growth changes proposed under each alternative in relation to regional housing supply, cost, and sprawl.

### Alternatives

#### **Comment Summary**

The most frequent type of comment received on this topic was an expression of support for specific alternatives. While measuring support of different alternatives was not the primary purpose of the scoping period and the City does not intend to simply choose one alternative from among those studied to include in the final plan, this feedback is still important as it helps the City understand what people value as it pertains to the range of alternatives that the EIS should explore. Most comments supported implementing a growth pattern that would lead to significant increases in the supply and diversity of new housing; however, opinions varied on the size of change desired and the potential locations of new housing.

Many comments expressed support for an "Alternative 6" that would create more opportunities for new housing than Alternative 5. While different groups and individuals had different ideas about what an Alternative 6 might include, they tended to include:

- 1. Allowing more high-rise towers in existing urban centers and villages.
- 2. Allowing more space for apartments and condominiums near transit and parks.
- 3. Allowing a diversity of housing types including cottage housing and small apartments and condominiums in all Neighborhood Residential zones.

A coalition of 17 organizations led by the Housing Development Consortium, a member organization representing affordable housing providers, summarized their version of Alternative 6 as follows: "It could look like a connected network of complete neighborhoods, allowing 4- to 6-story apartments in all neighborhoods, with bonuses for affordable homes by right, and ground floor commercial and community spaces to serve people's daily needs."

Below is a chart showing the number of people commenting about different alternatives. Most comments expressed support for a specific alternative, although some comments discussed the pros and cons of different alternatives.



#### Exhibit 3. Relative Number of Comments on Alternatives

Note: Comment from letters, meetings, and hub. Some commenters provided input on more than one alternative. Sources: City of Seattle, 2022; BERK, 2022.

Separately, Councilmember Pedersen requested an "Alternative L" that would limit changes in Neighborhood Residential zones to projects with 100% low-income housing and located in frequent transit corridors. There were no other public comments on this specific approach.

Many other comments focused on the pros and cons of adding significant capacity for new housing. Comments supporting more housing in more locations tended to focus on the importance of:

- Reducing the cost of housing.
- Addressing the exclusivity of many neighborhoods by creating new, lower-cost housing options.
- Increasing the diversity of housing options.
- Reducing displacement by reducing housing costs and creating more housing options.
- Creating more space for affordable housing projects.
- Reducing greenhouse gas emissions by allowing people to locate in areas near transit, jobs, shops, and services.
- Reducing regional sprawl.

Comments requesting a smaller or less intensive change in capacity for new housing tended to focus on the importance of:

- Focusing growth near transit where it will have the least impact on traffic, on-street parking, and car ownership.
- Limiting change in certain areas to retain existing housing, preserve tree canopy, and support architectural character.

- Reducing demolitions of existing detached homes, particularly those occupied by renters
- Reducing impacts on infrastructure.

Many people expressed support for making it easier for people to walk and bike to everyday needs. These comments often support the concept of "15-minute neighborhoods" where people can meet most daily needs within a short walk of their home. Many comments expressed a desire to allow more flexibility for commercial spaces including creating or expanding neighborhood business districts, allowing more corner stores, encouraging grocery stores in more neighborhoods, and allowing at-home and low-impact commercial uses everywhere. Others expressed concern about allowing commercial uses in the middle of Neighborhood Residential zones. Many comments referenced the importance of locating new housing near existing shops and services and investing in walking and biking infrastructure to make it easier and safer to walk and bike to local businesses.

Other comments to modify alternatives suggested:

- Focusing new housing away from busy streets or areas with bad air quality.
- Adding more urban villages rather than just smaller nodes.
- Allowing more capacity for apartments in existing urban villages.
- Allowing more housing in areas of low displacement risk and areas with amenities; specific areas mentioned included Madison Park, Queen Anne, Magnolia, Laurelhurst, Sunset Hill, Wedgwood, Northgate, Montlake, the east side of Capitol Hill, and the Central District.
- Studying additional housing, equal to the same rate of growth that occurred over the last 10 years.
- Treating land use on corner lots differently.

The following pages outline the updated alternatives we will study in the EIS and the comments we received specific to each alternative. The first pages give additional information on housing and place types the EIS will discuss, and the remaining pages detail the updated alternatives.

#### **Housing Types**

Below is an overview of common housing types that will be discussed in the place types and alternatives shown in this report.

#### Detached homes are in their own structure that do not share walls with any other homes.





Existing home preserved with two new homes added behind (left), three homes on

one lot (middle), and eight homes on two lots (right).





Detached Accessory Dwelling Unit (DADU) A second unit added to a residential lot, usually behind the main house.



**Cottage Housing** Detached homes of 2-3 stories arranged around a shared open space.

#### Attached houses share walls with other homes, where each unit is owned outright.













**Courtyard Housing** Attached homes of 2-3 stories arranged around a shared open space.





**Townhouse & Rowhouse** Homes that share a wall with another home that

can all be owned outright.

#### Stacked housing includes multiple units arranged vertically.



Duplex & Triplex (side-by-side)

Two or three units that share walls with one another.

Foursquare A traditional form with two units per floor in a structure that often resembles a large house.



8-plex A four-story structure with two homes per floor.



Condos of 5-8 Stories Midrise buildings with multiple homes per floor that can be rented as apartments or owned as condominium units.

**Apartments &** 



Sixplex A three-story structure with two homes per floor.

#### **Highrise Apartments** & Condos

Buildings above 12 stories with multiple homes per floor that can be rented as apartments or owned as condominium units.

#### **Place Types**

The alternatives described in this report discuss a set of place types that describe the characteristics of different areas and the types of development that might occur there. Some place types align closely with existing elements of the urban village strategy; others are new concepts created for this update. The place types are defined as follows:

- Urban Centers are regionally designated places with a diverse mix of uses, housing, and employment including several centers that comprise greater Downtown along with the University District and Northgate. These areas are Seattle's densest neighborhoods and contain most of the City's jobs.
- **Urban Villages** are dense, walkable, mixed-use places with a wide range of housing and businesses located near transit, amenities, and jobs.
- **Neighborhood Anchors** are places with a wide range of housing and businesses that primarily serve the local community. These areas are similar to urban villages, but with a smaller size and lower intensity of allowed development.
- Corridors are areas near frequent transit and large parks. These areas could allow a wide range of housing types ranging from duplexes, triplexes, and fourplexes to 5-story buildings closer to transit in areas that are currently zoned exclusively for detached homes. Corridors include areas already zoned for multifamily and commercial use.
- **Broad changes to Neighborhood Residential zones** would allow flexibility for new forms of housing in areas currently zoned exclusively for detached homes.
- Manufacturing and Industrial Centers are regionally designated industrial job centers. The One Seattle Plan process would not change the boundaries of these centers nor the goals and policies for these areas. The boundaries, goals, and policies for these areas are currently being updated as part of the <u>Industrial and Maritime Strategy</u> project.

|                                       | Broad Neighborhood<br>Residential Changes | Corridors | Neighborhood<br>Anchors | Urban<br>Villages | Urban<br>Centers |
|---------------------------------------|---|-----------|-------------------------|-------------------|------------------|
| Detached home                         | X   | Х         |                         |                   |                  |
| Duplex, triplex, and fourplex         | X   | X         | X                       |                   |                  |
| Townhouse and rowhouse                | X   | X         | X                       | X                 |                  |
| Sixplex/3-story stacked flats         | Х   | Х         | Х                       | X                 |                  |
| 4- to 5-story building                |   | Х         | Х                       | X                 | X                |
| 6- to 7-story buildings               |   |           | X                       | X                 | X                |
| 8- to 12-story buildings              |   |           |                         | X                 | X                |
| Highrise buildings (above 12 stories) |   |           |                         |                   | X                |

#### Exhibit 4. Most Common Housing Types Expected by Place Type

Source: City of Seattle, 2022.

#### Alternative 1: No Action

Every EIS must have a no action alternative that studies what would happen if no changes were implemented in order to compare it to other alternatives. The no action alternative for the One Seattle Plan maintains the status quo of focusing most housing and jobs within existing **urban centers** and **urban villages** with no change to land use patterns. It also incorporates changes proposed as part of the recent Industrial and Maritime Strategy EIS.

#### **Comment Summary**

There were few comments on Alternative 1 compared to other alternatives. Several commenters felt that job and housing numbers in Alternative 1 seem too small for expected growth. Those comments that supported Alternative 1 felt that preserving Seattle's supply of detached homes with yards was important for raising families or that current zoning already allows a variety of housing across all zones in the city.

#### **Revised Alternative**

Alternative 1 will study the impact of adding 80,000 new homes and 158,000 jobs over 20 years, based on growth targets adopted by the King County Growth Management Council for the years 2019-2044. The 20-year estimates for the EIS have been adjusted to account for population, housing, and employment change for the years 2019-2023. These homes and jobs will be distributed across the city based on the growth that occurred between 2010 and 2020 and the distribution of growth in the Seattle 2035 comprehensive plan. In addition, growth in any urban center or urban village does not exceed existing zoned capacity.

Under this alternative, new housing will continue to be primarily rental apartments concentrated in existing mixed-use areas. Most land outside urban centers and villages will remain limited to high cost detached houses. New jobs will continue to be located primarily in existing urban centers and villages.

#### Exhibit 5. Alternative 1: No Action



Source: City of Seattle, 2022.

#### **Alternative 2: Focused**

This alternative will study the creation of additional areas of focused growth called **neighborhood anchors** to create more housing around shops and services. Neighborhood anchors would be similar to urban villages in that they would allow a wide range of housing types and commercial space, but with a smaller geographic size and lower intensity of allowed development. This alternative would result in a greater range of housing options with amenities and services in many neighborhoods.

#### **Comment Summary**

Most comments on Alternatives 2 focused on the potential benefits of this approach in focusing growth near transit and limiting potential impacts to other areas. Some people suggest adding more urban villages rather than or in addition to adding neighborhood anchors. Comments about the location of potential neighborhood anchors (and housing in general) tended to focus on:

- Identifying areas of focused growth in a diversity of areas so that more people have an opportunity to walk and bike to everyday needs
- Focusing new housing away from busy streets or areas with bad air quality
- Allowing more housing in areas of low displacement risk and areas with amenities; specific areas mentioned included Madison Park, Queen Anne, Magnolia, Laurelhurst, Sunset Hill, Wedgwood, Northgate, Montlake, east side of Capitol Hill, and the Central District

#### **Revised Alternative**

The updated Alternative 2 identifies specific locations that could be considered as future neighborhood anchors. Centered around existing commercial areas, these locations were identified based on previous planning with minor additions to ensure citywide coverage. The adopted 1994 Comprehensive Plan included locations for neighborhood anchors that were later removed in the 2004 Plan update. The potential neighborhood anchors shown in Alternative 2 include those locations designated in the 1994 plan as well as designated pedestrian overlay districts. After mapping these areas, we identified significant neighborhood gaps and included six additional locations representing existing business districts.

Each potential neighborhood anchor is shown as a circle of 1,000-foot radius (about 3-4 blocks), trimmed where necessary to prevent overlap with any industrial zoning or other growth areas. Neighborhood anchors could contain a mix of residential and mixed-use development from townhouses to 5- to 7-story apartments and mixed-use buildings. The neighborhood anchors within the 130<sup>th</sup> and 145<sup>th</sup> Street station areas are shown with more detailed specific boundaries due to previous neighborhood planning work in that area.

Alternative 2 will study a total housing growth of 100,000 housing units (20,000 more than the no action alternative) to account for the potential additional housing demand that could be met within the neighborhood anchors. As in Alternative 1, 80,000 units would be located primarily in existing urban centers and villages, with the additional 20,000 locating within the new

neighborhood anchors. Potential neighborhood anchors in areas with low displacement risk would be allocated 50 percent more housing units than those in areas with high displacement risk. This distribution is generally consistent with our approach of encouraging housing choice in all neighborhoods while focusing additional growth in areas with low displacement risk. This alternative studies the same number of jobs as the no action alternative but includes a small shift in the distribution of jobs and commercial space toward neighborhood anchors consistent with the distribution of new housing. All neighborhood anchors already contain areas zoned for commercial or mixed-use development; however, we expect additional jobs and commercial space in these areas might increase more quickly due to the local demand from new housing.

This alternative addresses City Council's request for an alternative that supports the development of "15-minute neighborhoods" where more people can walk to everyday needs.

#### Exhibit 6. Alternative 2: Focused



Source: City of Seattle, 2022.

#### **Alternative 3: Broad**

This alternative will study allowing a wider range of low-scale housing options, like triplexes and fourplexes, in all Neighborhood Residential (NR) zones. This approach would:

- Expand housing choices in all neighborhoods.
- Increase production of homeownership options.
- Address exclusionary nature of current zoning.
- Allow more housing options near existing large parks and other neighborhood amenities.

#### **Comment Summary**

Comments on Alternative 3 tended to focus on the benefits and potential impacts of this option. Discussion of benefits tended to focus on the importance of allowing more housing choices in neighborhoods citywide to address limited supply, expand more homeownership options, address exclusivity, and prevent impacts to cities south of Seattle as people leave Seattle to find homeownership opportunities and compete for limited housing in those areas. Discussion of impacts focused on potential impacts to infrastructure, on-street parking, or architectural character as well as whether increasing capacity in these areas is necessary if we allow more apartments and condominium construction in other areas.

Many comments requested that this alternative study allowing development denser than triplexes or fourplexes. These requests often suggested allowing buildings with stacked units such as "sixplexes" rather than just detached and attached units. Other comments also suggested allowing additional capacity for affordable housing.

#### **Revised Alternative**

This alternative will study allowing detached and attached homes in all Neighborhood Residential areas, including duplexes, triplexes, and fourplexes as well as stacked flats including sixplexes on larger lots. Market-rate development in these areas will continue to have a 3-story height limit, consistent with current rules in Neighborhood Residential zones. The City will also study potential height, floor area, or density bonuses for affordable housing projects.

This alternative studies a total housing growth of 100,000 housing units (20,000 more than the no action alternative) to account for the potential additional housing demand that could be met with broad zoning changes. As in Alternative 1, 80,000 units would be located primarily in existing urban centers and villages, with the additional 20,000 accommodated in new housing types within Neighborhood Residential zones. This alternative studies the same number of jobs as the no action alternative but would include a small shift in the distribution of jobs and commercial space toward existing Neighborhood Residential areas to reflect local demand with the distribution of new housing. The City will also consider allowing more flexibility for commercial space in these areas such as allowing corner stores or making it easier to operate at-home businesses.

This alternative addresses City Council's request for an alternative that provides additional housing capacity and housing type diversity in Neighborhood Residential areas. The commercial flexibility to be studied addresses City Council's request for an alternative that supports the development of "15-minute neighborhoods" where more people can walk to everyday needs.

#### Exhibit 7. Alternative 3: Broad



Source: City of Seattle, 2022.

#### **Alternative 4: Corridors**

This alternative will study allowing a wider range of housing options only in **corridors** to focus growth near transit and amenities. This alternative would increase production of both homeownership and rental options in various neighborhoods and support city and regional investment in transit.

#### **Comment Summary**

Similar to Alternative 2, most comments on Alternative 4 focused on the potential benefits of focusing growth near transit and limiting potential impacts to other areas. Several comments expressed concern that Alternative 4 would focus new housing on busy streets where residents would be impacted by air pollution, noise, and reduced safety due to the high volume and speed of traffic. These comments often focused on the equity impacts of placing apartments (which tend to house lower-income households and thus are disproportionally households of color) in areas with a potential lower quality of life. Other comments on this alternative suggested that the City should allow even more zoning for apartments in areas close to transit and expanding corridors to a broader area such as a 15-minute walk.

#### **Revised Alternative**

The corridors studied in this alternative are defined as areas within a 10-minute walk from a light rail station and a 5-minute walk from frequent bus transit service and entrances to large parks. Frequent bus transit meets the City's existing definition of at least four trips per hour between 6 a.m. and 7 p.m. and twice hourly in other timeframes on weekdays and weekends. Large parks include large multi-block parks designated as Tier 1, 2, or 3 though the City's Outside Citywide initiative. Under this approach, corridors include about 50 percent of areas currently zoned Neighborhood Residential, excluding parks.

Within corridors, this alternative would allow housing ranging from duplexes, triplexes, and fourplexes to 5-story apartments. These corridors also include some areas already zoned for multifamily and commercial development that could also have changes in height.

We received comments on the importance of encouraging housing near transit, shops, and services without focusing it primarily on the busy streets where these amenities are located. Consequently, this alternative would tend to focus growth in locations that are just off busy streets in existing Neighborhood Residential zones. However, this alternative would still study some additional residential growth on lots located directly on busy streets.

This alternative studies a total housing growth of 100,000 housing units (20,000 more than the No Action Alternative) to account for the potential additional housing demand that could be met within the corridors. As in Alternative 1, 80,000 units would be located primarily in existing urban centers and villages, with the additional 20,000 accommodated in new housing types within the corridors. This alternative studies the same number of jobs as the no action alternative but includes a small shift in the distribution of jobs and commercial space toward transit corridors, consistent with the distribution of new housing.

#### **Exhibit 8. Alternative 4: Corridors**



Source: City of Seattle, 2022.

#### **Alternative 5: Combined**

Alternative 5 will study the largest increase in supply and diversity of housing across Seattle. It includes the strategies for encouraging housing growth in Alternatives 2, 3, and 4 plus some additional changes to existing urban center and village boundaries and changes to place type designations. This alternative would:

- Accommodate abundant housing in neighborhoods across the city
- Promote a greater range of rental and ownership housing
- Address past underproduction of housing and rising housing costs

#### **Comment Summary**

Most comments on Alternative 5 were expressions of support for this approach or comments that more change was needed to address our housing crisis. Many comments on how to change Alternative 5 were also relevant to other alternatives, like allowing more space for apartments and condominiums near transit and parks or allowing a wider diversity of housing types in all Neighborhood Residential zones. Additionally, some comments suggested that Alternative 5 should also include increased capacity for housing in existing urban centers and villages.

#### **Revised Alternative**

Alternative 5 represents a combination of the revised Alternatives 2, 3, and 4. Additionally, it would study the following additional changes:

- Expanding the boundaries of seven urban centers and villages to include a 10-minute (half-mile) walkshed from their central point or light rail station. Several urban centers and villages were already expanded to this size under previous projects. The remaining urban centers and villages include four neighborhoods not considered in past work that are relatively small compared to other urban villages (Admiral, Greenwood–Phinney Ridge, Morgan Junction, and Upper Queen Anne) and three areas with new light rail stations (Uptown, West Seattle Junction at Avalon, Othello at Graham Street).
- Designating Ballard as an urban center rather than an urban village. This change would suggest a larger role for this area as a housing and, particularly, job center and could make it eligible for greater transportation funding from regional funding sources. It would also make it possible to allow high-rise zoning in this area as part of future zoning changes.
- Designating NE 130th Street station area as an urban village rather than a neighborhood anchor. This change would result in a larger rezone to accommodate more housing and job growth.
- Studying additional housing growth in existing urban centers that do not meet standards for designation as a Metro Growth Center by the Puget Sound Regional Council and existing urban villages that do not meet the standards for designation as a Countywide Center by the King County Growth Management Planning Council, both of which are criteria for eligibility to for receive certain transportation funds. Specifically, we would study higher levels of

growth in six urban centers and villages, including Northgate, Crown Hill, Othello, Rainier Beach, South Park, and Westwood–Highland Park.

This alternative studies a total housing growth of 120,000 housing units (40,000 more than the no action alternative) to account for the potential additional housing demand that could be met within the areas of change identified in Alternatives 2, 3, and 4 as well as changes to existing and new centers and villages. As in Alternative 1, 80,000 units would be located primarily in existing urban centers and villages, with the additional 40,000 accommodated in other areas. The distribution of jobs and housing would be a combination of the other alternatives after accounting for expanded urban village boundaries and potential changes to place type designations.

#### **Exhibit 9. Alternative 5: Combined**



Source: City of Seattle, 2022.

### **Investments, Policies, & Regulations**

The EIS deals with investments, policies, and regulations by:

- 1. Studying the impacts of changes proposed as part of the Comprehensive Plan Update; and
- 2. Identifying mitigating measures that could address impacts resulting from potential changes, including growth strategies studied in each of the alternatives.

The initial documentation provided by the City at the beginning of scoping did not contain a specific proposal for the investments, policies, and regulations that could be included in the plan update.

#### **Comments Summary**

The City received many suggestions about desired investments and specific changes to policy and regulations to include in the One Seattle Plan. Many people expressed a desire for adding more amenities as the city grows. The most common amenities mentioned included green space, Green Streets, bike infrastructure, street calming, and bus-only lanes. Other comments on this subject varied substantially, but the following actions were mentioned by multiple people:

- Strengthen tree regulations
- Remove or reduce existing regulations and processes such as parking requirements and design review
- Implement anti-displacement measures
- Increase transit funding
- Fund local community groups to acquire land
- Implement rent control
- Incentivize mass timber and passive house construction
- Create more accessible units
- Create a height bonus for affordable housing across the city
- Purchase older apartments to preserve their affordability

### **Revised EIS Scope**

The topics mentioned above will be considered as part of EIS process either as changes that could be proposed by the One Seattle Plan or as mitigating measure that could be included in the EIS. In addition to those topics, the City will also study potential changes to development standards that would support City goals such as allowing more people to walk or bike to everyday needs, encouraging better building design, or reducing the cost of housing. These could include approaches such as:

- Modifying heights, lot size, density limits, coverage limits, setbacks, amenity standards, and other similar standards affecting the scale and form of new construction.
- Allowing more flexibility for commercial uses such as more retail on arterial streets, home businesses, and corner stores in certain areas.
- Allowing more height and/or floor area for projects that provide needed housing types or public open space.
- Supporting the vibrancy of downtown as a 24-hour neighborhood by allowing the conversion of office or hotel space to residential in downtown.
- Reducing or eliminating parking requirements.
- Combining the multifamily and mixed-use/commercial designations on the Comprehensive Plan's Future Land Use Map categories to reflect that commercial space may be reasonable in a wider variety of areas.
- Prohibiting residential development in C2 zones.
- Changing the Industrial designation on the Comprehensive Plan's Future Land Use Map to an Industrial/Commercial designation including C2 zones to reflect those areas where residential development is limited.
- Other changes to goal and policy statements.

The EIS will also study changes to investments, policies, and regulations specifically designed to minimize displacement. While increasing the supply and diversity of housing is necessary to address the increasing housing prices that are driving displacement, it is also not sufficient by itself to address the displacement that is occurring. In addition to analyzing the impacts of different growth strategies on displacement, we will also study other anti-displacement actions including but not limited to:

- Generating more affordable housing in NR zones by implementing MHA or a voluntary incentive program.
- Allowing more height and/or floor area for affordable housing and equitable development projects.
- Funding nonprofit groups to purchase property to support community stabilization.
- Updating tenant relocation assistance requirements.

Other measures that will be considered for meeting City goals or mitigating the impacts of development include:

- Moving toward a proactive system of identifying and reviewing historic buildings.
- Requiring street trees with new development in all non-industrial zones.
- Requiring mitigation for removal of existing trees.
- Updating our transportation level of service standards and concurrency requirements.

### **Next Steps**

The City is now working with an EIS consultant team led by BERK Consulting to begin analysis. This analysis will be summarized in a Draft EIS released along with the Draft Plan in spring of 2023. Once the Draft EIS is released, we will hold a 60-day comment period to solicit feedback. We will then develop and analyze a final preferred alternative that will be included in the updated Plan. While creating the preferred alternative, we will also develop legislation to implement changes to zoning and development standards that would help enact the vision in the updated Plan. Public engagement around the draft legislation will occur starting in late 2023. We will summarize updates to the Draft EIS and analysis of a preferred alternative in a Final EIS released with the Mayor's Recommended Plan, which we will send to City Council for review and adoption in 2024. Updated legislation would also be analyzed in the Final EIS and sent to City Council allowing with the Mayor's Recommended Plan.

Concurrent with the development of the Draft EIS, the City will continue engagement to inform the creation of the Draft Plan. More information on events and other opportunities for engagement is available on our engagement website at <u>engage.oneseattleplan.com</u>.

#### **Exhibit 10. Comprehensive Plan Process**

| 2022   | Q2                                       | Q3  | Q4                         | 2023  | Q2 | Q3   | Q   | 4   | 2024   | Q2   | Q3   |
|--|--|---|----------------------------|---|----|--|---|---|--|--|--|
| Project Lau<br>Develop and s<br>project backg<br>public engage | nch<br>share<br>round and<br>ement tools | Shaping the<br>Identify major<br>issues and po<br>growth strate | e Plan<br>otential<br>gies | Drafting the Plan<br>Analyze public input<br>and develop goals ar<br>policies | nd | Review + Re<br>Formal public<br>on analysis of<br>strategies and | f <b>ine</b><br>comment<br>growth<br>draft plan | Final P<br>Finalize<br>with pre<br>alternati<br>legislati | lan + Zoning<br>d Mayor's plan<br>ferred growth<br>ve and zoning<br>on | Plan Ado<br>City Counc<br>approval o<br>and impler | <b>ption</b><br>il review,<br>f final plan,<br>nentation |

Source: City of Seattle, 2022; BERK, 2022.

## **B** Detailed Estimated Growth by Alternative

### Growth by Alternative

|   | Analysi      | s Zone 1 | Analysi      | s Zone 2    | Analysi | s Zone 3    | Analysi | s Zone 4 | Analysi      | s Zone 5 | Analysi | s Zone 6 | Analysi | s Zone 7    | Analysi | s Zone 8 | Т      | otal    |
|---|--------------|----------|--------------|-------------|---------|-------------|---------|----------|--------------|----------|---------|----------|---------|-------------|---------|----------|--------|---------|
|   | HU           | Jobs     | HU           | Jobs        | HU      | Jobs        | HU      | Jobs     | HU           | Jobs     | HU      | Jobs     | HU      | Jobs        | HU      | Jobs     | HU     | Jobs    |
| Alternative 1                                 | Target       | Target   | Target       | Target      | Target  | Target      | Target  | Target   | Target       | Target   | Target  | Target   | Target  | Target      | Target  | Target   | Target | Target  |
| Urban Centers                                 | -            | -        | 6,049        | 6,740       | 3,595   | 2,646       | 18,265  | 90,214   | 9,061        | 3,359    | -       | -        | -       | -           | -       | -        | 36,970 | 102,959 |
| Hub Urban Villages                            | 7,588        | 6,504    | 927          | 622         | -       | -           | -       | -        | -            | -        | 3,128   | 1,597    | -       | -           | 1,242   | 3,053    | 12,885 | 11,776  |
| Residential Urban Villages                    | 3,822        | 2,020    | 1,466        | 366         | 402     | 281         | 1,010   | 281      | 3,193        | 1,067    | 1,143   | 897      | 259     | 450         | 3,469   | 2,373    | 14,764 | 7,735   |
| Manufacturing Industrial Centers              | -            | -        | -            | -           | 628     | 6,100       | -       | -        | -            | -        | -       | -        | 848     | 12,700      | -       | -        | 1,476  | 18,800  |
| Growth Area (Maritime Industrial)             | -            | -        | -            | -           | -       | -           | -       | -        | 144          | -        | -       | -        | 392     | -           | 140     | -        | 676    | -       |
| Outside Subareas (This Alternative)           | 1,040        | 1,377    | 2,006        | 1,376       | 534     | 447         | -       | -        | 570          | 102      | 1,225   | 1,027    | 168     | 412         | 951     | 2,075    | 6,494  | 6,816   |
| Outside Subareas (No Change All Alternatives) | 1,302        | 1,999    | 2,346        | 1,777       | 859     | 1,060       | 138     | 238      | 286          | 164      | 683     | 1,533    | 262     | 1,007       | 859     | 2,136    | 6,735  | 9,914   |
| Total   | 13,752       | 11,900   | 12,794       | 10,881      | 6,018   | 10,534      | 19,413  | 90,733   | 13,254       | 4,692    | 6,179   | 5,054    | 1,929   | 14,569      | 6,661   | 9,637    | 80,000 | 158,000 |
| Share of Target                               | <b>17.2%</b> | 7.5%     | <b>16.0%</b> | <b>6.9%</b> | 7.5%    | <b>6.7%</b> | 24.3%   | 57.4%    | <b>16.6%</b> | 3.0%     | 7.7%    | 3.2%     | 2.4%    | <b>9.2%</b> | 8.3%    | 6.1%     |        |         |

|   | Analysi      | s Zone 1       | Analysi      | s Zone 2       | Analysi      | s Zone 3       | Analysi      | s Zone 4       | Analysi      | s Zone 5       | Analysi      | s Zone 6       | Analysi      | s Zone 7       | Analysi      | s Zone 8       | T            | otal           |
|---|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|
| Alternative 2                                 | HU<br>Target | Jobs<br>Target |
| Urban Centers                                 | -            | -              | 6,049        | 6,538          | 3,595        | 2,566          | 18,265       | 87,508         | 9,061        | 3,258          | -            | -              | -            | -              | -            | -              | 36,970       | 99,870         |
| Hub Urban Villages                            | 7,588        | 6,310          | 927          | 603            | -            | -              | -            | -              | -            | -              | 3,128        | 1,543          | -            | -              | 1,242        | 2,961          | 12,885       | 11,417         |
| Residential Urban Villages                    | 3,822        | 1,957          | 1,466        | 355            | 402          | 273            | 1,010        | 273            | 3,193        | 1,035          | 1,143        | 870            | 259          | 437            | 3,469        | 2,335          | 14,764       | 7,535          |
| Manufacturing Industrial Centers              | -            | -              | -            | -              | 628          | 6,100          | -            | -              | -            | -              | -            | -              | 848          | 12,700         | -            | -              | 1,476        | 18,800         |
| Growth Area (Maritime Industrial)             | -            | -              | -            | -              | -            | -              | -            | -              | 144          | -              | -            | -              | 392          | -              | 140          | -              | 676          | -              |
| Neighborhood Anchor - Low Risk                | 5,394        | 2,236          | 6,541        | 2,198          | 2,402        | 857            | -            | -              | 3,430        | 723            | 1,706        | 441            | -            | -              | 546          | 128            | 20,019       | 6,583          |
| Neighborhood Anchor - High Risk               | -            | -              | 453          | 122            | -            | -              | -            | -              | -            | -              | 2,308        | 1,217          | 506          | 471            | 881          | 235            | 4,148        | 2,045          |
| Outside Subareas (This Alternative)           | 262          | 64             | 482          | 157            | 183          | 5              | -            | -              | 217          | 19             | 459          | 22             | 4            | -              | 720          | 1,866          | 2,327        | 2,133          |
| Outside Subareas (No Change All Alternatives) | 1,302        | 1,939          | 2,346        | 1,724          | 859          | 1,028          | 138          | 230            | 286          | 159            | 683          | 1,488          | 262          | 977            | 859          | 2,072          | 6,735        | 9,617          |
| Total   | 18,368       | 12,506         | 18,264       | 11,697         | 8,069        | 10,829         | 19,413       | 88,011         | 16,331       | 5,194          | 9,427        | 5,581          | 2,271        | 14,585         | 7,857        | 9,597          | 100,000      | 158,000        |
| Share of Target                               | <b>18.4%</b> | <b>7.9%</b>    | <b>18.3%</b> | 7.4%           | 8.1%         | <b>6.9%</b>    | <b>19.4%</b> | 55.7%          | <b>16.3%</b> | 3.3%           | 9.4%         | <b>3.5%</b>    | 2.3%         | <b>9.2%</b>    | <b>7.9%</b>  | 6.1%           |              |                |

|   | Analysi      | s Zone 1       | Analysi      | s Zone 2       | Analysi      | s Zone 3       | Analysi      | s Zone 4       | Analysi      | s Zone 5       | Analysi      | s Zone 6       | Analysi      | s Zone 7       | Analysi      | s Zone 8       | Т            | otal           |
|---|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|
| Alternative 3                                 | HU<br>Target | Jobs<br>Target |
| Urban Centers                                 | -            | -              | 6,049        | 6,538          | 3,595        | 2,566          | 18,265       | 87,508         | 9,061        | 3,258          | -            | -              | -            | -              | -            | -              | 36,970       | 99,870         |
| Hub Urban Villages                            | 7,588        | 6,310          | 927          | 603            | -            | -              | -            | -              | -            | -              | 3,128        | 1,543          | -            | -              | 1,242        | 2,961          | 12,885       | 11,417         |
| Residential Urban Villages                    | 3,822        | 1,957          | 1,466        | 355            | 402          | 273            | 1,010        | 273            | 3,193        | 1,035          | 1,143        | 870            | 259          | 437            | 3,469        | 2,335          | 14,764       | 7,535          |
| Manufacturing Industrial Centers              | -            | -              | -            | -              | 628          | 6,100          | -            | -              | -            | -              | -            | -              | 848          | 12,700         | -            | -              | 1,476        | 18,800         |
| Growth Area (Maritime Industrial)             | -            | -              | -            | -              | -            | -              | -            | -              | 144          | -              | -            | -              | 392          | -              | 140          | -              | 676          | -              |
| Neighborhood Residential                      | 4,095        | 754            | 7,921        | 221            | 875          | 18             | -            | -              | 741          | 284            | 4,480        | 23             | 21           | -              | 4,290        | 4,606          | 22,423       | 5,906          |
| Outside Subareas (This Alternative)           | 760          | 1,330          | 1,497        | 1,389          | 355          | 439            | -            | -              | 334          | 87             | 743          | 1,056          | 165          | 401            | 217          | 153            | 4,071        | 4,855          |
| Outside Subareas (No Change All Alternatives) | 1,302        | 1,939          | 2,346        | 1,724          | 859          | 1,028          | 138          | 230            | 286          | 159            | 683          | 1,488          | 262          | 977            | 859          | 2,072          | 6,735        | 9,617          |
| Total   | 17,567       | 12,290         | 20,206       | 10,830         | 6,714        | 10,424         | 19,413       | 88,011         | 13,759       | 4,823          | 10,177       | 4,980          | 1,947        | 14,515         | 10,217       | 12,127         | 100,000      | 158,000        |
| Share of Target                               | <b>17.6%</b> | <b>7.8%</b>    | 20.2%        | <b>6.9%</b>    | 6.7%         | <b>6.6%</b>    | 19.4%        | 55.7%          | <b>13.8%</b> | <b>3.1%</b>    | <b>10.2%</b> | 3.2%           | 1.9%         | <b>9.2%</b>    | <b>10.2%</b> | 7.7%           |              |                |

|   | Analysi      | ysis Zone 1 Analysis Zone 2 |              | Analysi        | s Zone 3     | Analysi        | Analysis Zone 4 |                | Analysis Zone 5 |                | Analysis Zone 6 |                | s Zone 7     | e 7 Analysis Zone 8 |              | 8 Total        |              |                |
|---|--------------|-----------------------------|--------------|----------------|--------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|--------------|---------------------|--------------|----------------|--------------|----------------|
| Alternative 4                                 | HU<br>Target | Jobs<br>Target              | HU<br>Target | Jobs<br>Target | HU<br>Target | Jobs<br>Target | HU<br>Target    | Jobs<br>Target | HU<br>Target    | Jobs<br>Target | HU<br>Target    | Jobs<br>Target | HU<br>Target | Jobs<br>Target      | HU<br>Target | Jobs<br>Target | HU<br>Target | Jobs<br>Target |
| Urban Centers                                 | -            | -                           | 6,049        | 6,538          | 3,595        | 2,566          | 18,265          | 87,508         | 9,061           | 3,258          | -               | -              | -            | -                   | -            | -              | 36,970       | 99,870         |
| Hub Urban Villages                            | 7,588        | 6,310                       | 927          | 603            | -            | -              | -               | -              | -               | -              | 3,128           | 1,543          | -            | -                   | 1,242        | 2,961          | 12,885       | 11,417         |
| Residential Urban Villages                    | 3,822        | 1,957                       | 1,466        | 355            | 402          | 273            | 1,010           | 273            | 3,193           | 1,035          | 1,143           | 870            | 259          | 437                 | 3,469        | 2,335          | 14,764       | 7,535          |
| Manufacturing Industrial Centers              | -            | -                           | -            | -              | 628          | 6,100          | -               | -              | -               | -              | -               | -              | 848          | 12,700              | -            | -              | 1,476        | 18,800         |
| Growth Area (Maritime Industrial)             | -            | -                           | -            | -              | -            | -              | -               | -              | 144             | -              | -               | -              | 392          | -                   | 140          | -              | 676          | -              |
| Neighborhood Residential-Corridor             | 3,579        | 1,165                       | 8,484        | 129            | 694          | -              | -               | -              | 719             | 449            | 4,114           | 12             | 33           | -                   | 3,584        | 2,155          | 21,207       | 3,910          |
| Outside Subareas (This Alternative)           | 910          | 1,371                       | 1,769        | 1,549          | 460          | 447            | -               | -              | 404             | 91             | 993             | 1,098          | 164          | 401                 | 587          | 1,894          | 5,287        | 6,851          |
| Outside Subareas (No Change All Alternatives) | 1,302        | 1,939                       | 2,346        | 1,724          | 859          | 1,028          | 138             | 230            | 286             | 159            | 683             | 1,488          | 262          | 977                 | 859          | 2,072          | 6,735        | 9,617          |
| Total   | 17,201       | 12,742                      | 21,041       | 10,898         | 6,638        | 10,414         | 19,413          | 88,011         | 13,807          | 4,992          | 10,061          | 5,011          | 1,958        | 14,515              | 9,881        | 11,417         | 100,000      | 158,000        |
| Share of Target                               | <b>17.2%</b> | <b>8.1%</b>                 | <b>21.0%</b> | <b>6.9%</b>    | 6.6%         | <b>6.6%</b>    | 19.4%           | 55.7%          | 13.8%           | 3.2%           | 10.1%           | 3.2%           | 2.0%         | 9.2%                | 9.9%         | 7.2%           |              |                |

|   | Analysis Zone 1 |             | Analysi      | s Zone 2 | Analysi | s Zone 3 | Analysi      | s Zone 4     | Analysi | s Zone 5 | Analysi | s Zone 6 | Analysi | is Zone 7   | Analysi | s Zone 8 | Т       | otal    |
|---|-----------------|-------------|--------------|----------|---------|----------|--------------|--------------|---------|----------|---------|----------|---------|-------------|---------|----------|---------|---------|
|   | HU              | Jobs        | HU           | Jobs     | HU      | Jobs     | HU           | Jobs         | ΗU      | Jobs     | HU      | Jobs     | HU      | Jobs        | HU      | Jobs     | HU      | Jobs    |
| Alternative 5                                 | Target          | Target      | Target       | Target   | Target  | Target   | Target       | Target       | Target  | Target   | Target  | Target   | Target  | Target      | Target  | Target   | Target  | Target  |
| Urban Centers                                 | 6,042           | 4,097       | 6,049        | 6,403    | 3,634   | 2,514    | 18,265       | 85,703       | 9,061   | 3,191    | -       | -        | -       | -           | -       | -        | 43,051  | 101,908 |
| Hub Urban Villages                            | 2,546           | 2,256       | 927          | 591      | -       | -        | -            | -            | -       | -        | 3,140   | 1,526    | -       | -           | 1,242   | 2,900    | 7,855   | 7,273   |
| Residential Urban Villages                    | 3,838           | 1,928       | 3,110        | 704      | 429     | 267      | 1,010        | 267          | 3,194   | 1,014    | 2,884   | 1,152    | 1,659   | 671         | 6,738   | 2,875    | 22,862  | 8,878   |
| Manufacturing Industrial Centers              | -               | -           | -            | -        | 628     | 6,100    | -            | -            | -       | -        | -       | -        | 848     | 12,700      | -       | -        | 1,476   | 18,800  |
| Growth Area (Maritime Industrial)             | -               | -           | -            | -        | -       | -        | -            | -            | 144     | -        | -       | -        | 392     | -           | 140     | -        | 676     | -       |
| Neighborhood Anchor - Low Risk                | 4,495           | 1,893       | 5,127        | 1,799    | 2,002   | 707      | -            | -            | 2,830   | 510      | 1,406   | 333      | -       | -           | 446     | 92       | 16,306  | 5,334   |
| Neighborhood Anchor - High Risk               | -               | -           | -            | -        | -       | -        | -            | -            | -       | -        | 2,083   | 1,101    | 461     | 443         | 791     | 194      | 3,335   | 1,738   |
| Neighborhood Residential                      | 1,885           | 6           | 2,569        | 84       | 310     | 4        | -            | -            | 240     | -        | 1,878   | 14       | -       | -           | 1,966   | 3,005    | 8,848   | 3,113   |
| Neighborhood Residential-Corridor             | 1,390           | 457         | 3,429        | 49       | 305     | -        | -            | -            | 346     | 177      | 1,674   | 5        | 14      | -           | 1,698   | 850      | 8,856   | 1,538   |
| Outside Subareas (This Alternative)           | -               | -           | -            | -        | -       | -        | -            | -            | -       | -        | -       | -        | -       | -           | -       | -        | -       | -       |
| Outside Subareas (No Change All Alternatives) | 1,302           | 1,899       | 2,346        | 1,688    | 859     | 1,007    | 138          | 226          | 286     | 156      | 683     | 1,457    | 262     | 956         | 859     | 2,029    | 6,735   | 9,418   |
| Total   | 21,498          | 12,536      | 23,557       | 11,318   | 8,167   | 10,599   | 19,413       | 86,196       | 16,101  | 5,048    | 13,748  | 5,588    | 3,636   | 14,770      | 13,880  | 11,945   | 120,000 | 158,000 |
| Share of Target                               | <b>17.9%</b>    | <b>7.9%</b> | <b>19.6%</b> | 7.2%     | 6.8%    | 6.7%     | <b>16.2%</b> | <b>54.6%</b> | 13.4%   | 3.2%     | 11.5%   | 3.5%     | 3.0%    | <b>9.3%</b> | 11.6%   | 7.6%     |         |         |
# Total Existing and Net New Housing Units by Alternative

|            |                           | Total Existing |           | Net    | Units (HU Ta | rget)  |        | Total Existing |           | Net .  | lobs (Jobs Ta | rget)  |        |
|------------|---------------------------|----------------|-----------|--------|--------------|--------|--------|----------------|-----------|--------|---------------|--------|--------|
| Alt 1 Type | Name of Center            | Units          | No Action | Alt 2  | Alt 3        | Alt 4  | Alt 5  | Jobs           | No Action | Alt 2  | Alt 3         | Alt 4  | Alt 5  |
| UC         | Downtown                  | 34,696         | 13,658    | 13,658 | 13,658       | 13,658 | 13,658 | 288,234        | 63,149    | 61,255 | 61,255        | 61,255 | 59,992 |
| UC         | First Hill/Capitol Hill   | 40,139         | 9,061     | 9,061  | 9,061        | 9,061  | 9,061  | 45,527         | 3,359     | 3,258  | 3,258         | 3,258  | 3,191  |
| UC         | University District       | 11,792         | 3,862     | 3,862  | 3,862        | 3,862  | 3,862  | 16,911         | 3,888     | 3,771  | 3,771         | 3,771  | 3,694  |
| UC         | South Lake Union          | 11,199         | 4,607     | 4,607  | 4,607        | 4,607  | 4,607  | 57,498         | 27,065    | 26,253 | 26,253        | 26,253 | 25,712 |
| UC         | Uptown                    | 8,837          | 3,595     | 3,595  | 3,595        | 3,595  | 3,634  | 25,643         | 2,646     | 2,567  | 2,567         | 2,567  | 2,514  |
| UC         | Northgate                 | 5,171          | 2,187     | 2,187  | 2,187        | 2,187  | 2,187  | 13,010         | 2,852     | 2,766  | 2,766         | 2,766  | 2,709  |
| HUV        | Ballard                   | 12,259         | 5,042     | 5,042  | 5,042        | 5,042  | 6,042  | 8,434          | 4,129     | 4,005  | 4,005         | 4,005  | 4,097  |
| HUV        | Bitter Lake Village       | 3,439          | 1,009     | 1,009  | 1,009        | 1,009  | 1,009  | 8,965          | 2,064     | 2,002  | 2,002         | 2,002  | 1,961  |
| HUV        | Fremont                   | 3,990          | 1,537     | 1,537  | 1,537        | 1,537  | 1,537  | 7,251          | 311       | 302    | 302           | 302    | 295    |
| HUV        | Lake City                 | 2,834          | 927       | 927    | 927          | 927    | 927    | 2,387          | 622       | 603    | 603           | 603    | 591    |
| HUV        | Mt Baker                  | 4,295          | 1,242     | 1,242  | 1,242        | 1,242  | 1,242  | 8,884          | 3,053     | 2,961  | 2,961         | 2,961  | 2,900  |
| HUV        | West Seattle Junction     | 6,452          | 3,128     | 3,128  | 3,128        | 3,128  | 3,140  | 5,745          | 1,597     | 1,543  | 1,543         | 1,543  | 1,526  |
| RUV        | 23rd & Union-Jackson      | 8,577          | 1,977     | 1,977  | 1,977        | 1,977  | 1,977  | 6,765          | 679       | 659    | 659           | 659    | 645    |
| RUV        | Admiral                   | 1,265          | 415       | 415    | 415          | 415    | 845    | 2,249          | 250       | 243    | 243           | 243    | 311    |
| RUV        | Aurora-Licton Springs     | 4,268          | 952       | 952    | 952          | 952    | 952    | 5,679          | 416       | 404    | 404           | 404    | 395    |
| RUV        | Columbia City             | 4,023          | 1,484     | 1,484  | 1,484        | 1,484  | 1,484  | 3,105          | 1,048     | 1,017  | 1,017         | 1,017  | 996    |
| RUV        | Crown Hill                | 2,636          | 643       | 643    | 643          | 643    | 643    | 1,459          | 328       | 318    | 318           | 318    | 312    |
| RUV        | Eastlake                  | 4,090          | 1,010     | 1,010  | 1,010        | 1,010  | 1,010  | 5,601          | 281       | 273    | 273           | 273    | 267    |
| RUV        | Green Lake                | 2,791          | 809       | 809    | 809          | 809    | 809    | 1,953          | 167       | 162    | 162           | 162    | 159    |
| RUV        | Greenwood-Phinney Ridge   | 2,546          | 501       | 501    | 501          | 501    | 517    | 2,737          | 583       | 564    | 563           | 563    | 563    |
| RUV        | Madison-Miller            | 3,770          | 1,216     | 1,216  | 1,216        | 1,216  | 1,216  | 1,759          | 388       | 376    | 376           | 376    | 369    |
| RUV        | Morgan Junction           | 1,549          | 329       | 329    | 329          | 329    | 1,439  | 690            | 171       | 166    | 166           | 166    | 354    |
| RUV        | North Beacon Hill         | 3,138          | 482       | 482    | 482          | 482    | 482    | 1,073          | 702       | 681    | 681           | 681    | 667    |
| RUV        | Othello                   | 4,357          | 1,129     | 1,129  | 1,129        | 1,129  | 2,648  | 2,892          | 342       | 365    | 365           | 365    | 642    |
| RUV        | Rainier Beach             | 2,365          | 374       | 374    | 374          | 374    | 2,124  | 3,119          | 281       | 273    | 273           | 273    | 571    |
| RUV        | Roosevelt                 | 3,540          | 1,466     | 1,466  | 1,466        | 1,466  | 1,466  | 3,191          | 366       | 355    | 355           | 355    | 348    |
| RUV        | South Park                | 1,368          | 259       | 259    | 259          | 259    | 1,659  | 1,075          | 450       | 437    | 437           | 437    | 671    |
| RUV        | Upper Queen Anne          | 1,564          | 402       | 402    | 402          | 402    | 429    | 1,503          | 281       | 273    | 273           | 273    | 267    |
| RUV        | Wallingford               | 3,425          | 917       | 917    | 917          | 917    | 917    | 3,847          | 526       | 510    | 510           | 510    | 500    |
| RUV        | Westwood-Highland Park    | 2,486          | 399       | 399    | 399          | 399    | 600    | 2,572          | 476       | 462    | 462           | 462    | 487    |
| MIC        | Ballard-Interbay-Northend | 138            | 628       | 628    | 628          | 628    | 628    | 17,377         | 6,100     | 6,100  | 6,100         | 6,100  | 6,100  |
| MIC        | Greater Duwamish          | 204            | 848       | 848    | 848          | 848    | 848    | 61,917         | 12,700    | 12,700 | 12,700        | 12,700 | 12,700 |

# Total Housing Units and Jobs by Alternative

|            |                           |          |           | Total Housi | ing Units |        |        |          |           | Total J        | lobs    |         |                |
|------------|---------------------------|----------|-----------|-------------|-----------|--------|--------|----------|-----------|----------------|---------|---------|----------------|
| Alt 1 Type | Name                      | Existing | No Action | Alt 2       | Alt 3     | Alt 4  | Alt 5  | Existing | No Action | Alt 2          | Alt 3   | Alt 4   | Alt 5          |
| UC         | Downtown                  | 34,696   | 48,354    | 48,354      | 48,354    | 48,354 | 48,354 | 288,234  | 351,383   | 349,489        | 349,489 | 349,489 | 348,226        |
| UC         | First Hill/Capitol Hill   | 40,139   | 49,200    | 49,200      | 49,200    | 49,200 | 49,200 | 45,527   | 48,886    | 48,785         | 48,785  | 48,785  | 48,718         |
| UC         | University District       | 11,792   | 15,654    | 15,654      | 15,654    | 15,654 | 15,654 | 16,911   | 20,799    | 20,682         | 20,682  | 20,682  | 20,605         |
| UC         | South Lake Union          | 11,199   | 15,806    | 15,806      | 15,806    | 15,806 | 15,806 | 57,498   | 84,563    | 83,751         | 83,751  | 83,751  | 83,210         |
| UC         | Uptown                    | 8,837    | 12,432    | 12,432      | 12,432    | 12,432 | 12,471 | 25,643   | 28,289    | 28,210         | 28,210  | 28,210  | 28,157         |
| UC         | Northgate                 | 5,171    | 7,358     | 7,358       | 7,358     | 7,358  | 7,358  | 13,010   | 15,862    | 15,776         | 15,776  | 15,776  | 15,719         |
| HUV        | Ballard                   | 12,259   | 17,301    | 17,301      | 17,301    | 17,301 | 18,301 | 8,434    | 12,563    | 12,439         | 12,439  | 12,439  | 12,531         |
| HUV        | Bitter Lake Village       | 3,439    | 4,448     | 4,448       | 4,448     | 4,448  | 4,448  | 8,965    | 11,029    | 10,967         | 10,967  | 10,967  | 10,926         |
| HUV        | Fremont                   | 3,990    | 5,527     | 5,527       | 5,527     | 5,527  | 5,527  | 7,251    | 7,562     | 7,553          | 7,553   | 7,553   | 7,546          |
| HUV        | Lake City                 | 2,834    | 3,761     | 3,761       | 3,761     | 3,761  | 3,761  | 2,387    | 3,009     | 2,990          | 2,990   | 2,990   | 2,978          |
| HUV        | Mt Baker                  | 4,295    | 5,537     | 5,537       | 5,537     | 5,537  | 5,537  | 8,884    | 11,937    | 11,845         | 11,845  | 11,845  | 11,784         |
| HUV        | West Seattle Junction     | 6,452    | 9,580     | 9,580       | 9,580     | 9,580  | 9,592  | 5,745    | 7,342     | 7,288          | 7,288   | 7,288   | 7,271          |
| RUV        | 23rd & Union-Jackson      | 8,577    | 10,554    | 10,554      | 10,554    | 10,554 | 10,554 | 6,765    | 7,444     | 7,424          | 7,424   | 7,424   | 7,410          |
| RUV        | Admiral                   | 1,265    | 1,680     | 1,680       | 1,680     | 1,680  | 2,110  | 2,249    | 2,499     | 2,492          | 2,492   | 2,492   | 2,560          |
| RUV        | Aurora-Licton Springs     | 4,268    | 5,220     | 5,220       | 5,220     | 5,220  | 5,220  | 5,679    | 6,095     | 6,083          | 6,083   | 6,083   | 6,074          |
| RUV        | Columbia City             | 4,023    | 5,507     | 5,507       | 5,507     | 5,507  | 5,507  | 3,105    | 4,153     | 4,122          | 4,122   | 4,122   | 4,101          |
| RUV        | Crown Hill                | 2,636    | 3,279     | 3,279       | 3,279     | 3,279  | 3,279  | 1,459    | 1,787     | 1,777          | 1,777   | 1,777   | 1,771          |
| RUV        | Eastlake                  | 4,090    | 5,100     | 5,100       | 5,100     | 5,100  | 5,100  | 5,601    | 5,882     | 5 <i>,</i> 874 | 5,874   | 5,874   | 5 <i>,</i> 868 |
| RUV        | Green Lake                | 2,791    | 3,600     | 3,600       | 3,600     | 3,600  | 3,600  | 1,953    | 2,120     | 2,115          | 2,115   | 2,115   | 2,112          |
| RUV        | Greenwood-Phinney Ridge   | 2,546    | 3,047     | 3,047       | 3,047     | 3,047  | 3,063  | 2,737    | 3,320     | 3,301          | 3,300   | 3,300   | 3,300          |
| RUV        | Madison-Miller            | 3,770    | 4,986     | 4,986       | 4,986     | 4,986  | 4,986  | 1,759    | 2,147     | 2,135          | 2,135   | 2,135   | 2,128          |
| RUV        | Morgan Junction           | 1,549    | 1,878     | 1,878       | 1,878     | 1,878  | 2,988  | 690      | 861       | 856            | 856     | 856     | 1,044          |
| RUV        | North Beacon Hill         | 3,138    | 3,620     | 3,620       | 3,620     | 3,620  | 3,620  | 1,073    | 1,775     | 1,754          | 1,754   | 1,754   | 1,740          |
| RUV        | Othello                   | 4,357    | 5,486     | 5,486       | 5,486     | 5,486  | 7,005  | 2,892    | 3,234     | 3,257          | 3,257   | 3,257   | 3,534          |
| RUV        | Rainier Beach             | 2,365    | 2,739     | 2,739       | 2,739     | 2,739  | 4,489  | 3,119    | 3,400     | 3,392          | 3,392   | 3,392   | 3,690          |
| RUV        | Roosevelt                 | 3,540    | 5,006     | 5,006       | 5,006     | 5,006  | 5,006  | 3,191    | 3,557     | 3,546          | 3,546   | 3,546   | 3,539          |
| RUV        | South Park                | 1,368    | 1,627     | 1,627       | 1,627     | 1,627  | 3,027  | 1,075    | 1,525     | 1,512          | 1,512   | 1,512   | 1,746          |
| RUV        | Upper Queen Anne          | 1,564    | 1,966     | 1,966       | 1,966     | 1,966  | 1,993  | 1,503    | 1,784     | 1,776          | 1,776   | 1,776   | 1,770          |
| RUV        | Wallingford               | 3,425    | 4,342     | 4,342       | 4,342     | 4,342  | 4,342  | 3,847    | 4,373     | 4,357          | 4,357   | 4,357   | 4,347          |
| RUV        | Westwood-Highland Park    | 2,486    | 2,885     | 2,885       | 2,885     | 2,885  | 3,086  | 2,572    | 3,048     | 3,034          | 3,034   | 3,034   | 3,059          |
| MIC        | Ballard-Interbay-Northend | 138      | 766       | 766         | 766       | 766    | 766    | 17,377   | 23,477    | 23,477         | 23,477  | 23,477  | 23,477         |
| MIC        | Greater Duwamish          | 204      | 1,052     | 1,052       | 1,052     | 1,052  | 1,052  | 61,917   | 74,617    | 74,617         | 74,617  | 74,617  | 74,617         |

# C Infill Exemption Summary of Law & List of Codes as Mitigation

# **C** HOUSING & INFILL EXEMPTION

# 1 Introduction

Seattle is considering updating our thresholds for environment review consistent with the housing and infill exemption provisions of the State Environmental Policy Act (SEPA).

Currently, Seattle exempts single-family residential development of 4 units or less from undergoing review under SEPA. Using the infill exemption under RCW 43.21c.229, the City has varied the exemption levels depending on if the proposal is inside or outside of an urban center or urban village and if that area is below or above planned growth estimates. The basic residential exemptions until recently were set at low levels that vary by zone type outside of urban centers or urban villages, ranging from 4 to 20 units depending on zone category. However, state bill ESSHB 5412, which was passed in 2023, removed SEPA review for most residential uses through at least September 2025. Seattle Director's Rule 9-2023 describes the current SEPA thresholds on an interim basis due to the influence of changes related to ESSHB 5412. Commercial uses in some commercial or industrial zones are in the range of default and maximum exemptions. See **Exhibit 1**.

| Project Type   | Outside UC/UV                            | In UC/UV Growth Less Than<br>Estimates | In UC/UV Growth Greater than Estimates |  |
|--|--|--|--|--|
| Single family residential                                | 4  | 4                                      | 4                                      |  |
| Multifamily residential                                  | 4  | NR, RSL, I: 4                          | NR, RSL, I: 4                          |  |
|  |  | MPC-YT: 30                             | All others: 20                         |  |
|  |  | Downtown: 250                          |  |  |
|  |  | LR, NC, C, MR, HR, SM: 200             |  |  |
| Office, school, commercial<br>(square feet) w/parking or | NR, RSL, and LR, MR,<br>HR, NC: 4,000 sf | NR, RSL, LR1, MPC-YT,<br>Industrial:   | 12,000 sf                              |  |
| stand-alone parking lot                                  | C1, C2, and SM,<br>Industrial: 12,000 sf | 12,000 sf (not part of mixed use dev)  |  |  |

#### Exhibit 1. Categorical Exemptions—State Rules and City Regulations

| Project Type | Outside UC/UV | In UC/UV Growth Less Than<br>Estimates   | In UC/UV Growth Greater than Estimates |
|--------------|---------------|--|--|
|              |               | LR2, LR3, MR, HR, NC1, NC2,<br>NC3, C1, C2, SM, Downtown:<br>30,000 sf if part of mixed<br>use development |  |

UC = Urban Center, UV = Urban Village. Other acronyms refer to zone names. See this link for more context: https://library.municode.com/wa/seattle/codes/municipal\_code?nodeId=TIT25ENPRHIPR\_CH25.05ENPOPR\_SUBCHAPTER\_I\_XCAEX\_25.05.800CAEX.

The City is considering applying an updated housing and infill exemption under RCW 43.21C.229. This would allow the City to exempt residential development and modify thresholds for mixed-use development after the temporary residential exemption expires. Development that is not subject to SEPA would still be subject to the City's robust development regulations and permit review process.

This document outlines requirements, identifies proposed infill exemption locations, and describes policies and regulations that mitigate impacts.

# 2 Infill Exemption Allowances

To accommodate infill development in urban areas not meeting the density goals of a Comprehensive Plan, the City can establish an infill exemption where development that is consistent with City regulations is not required to undergo new environmental review, provided that the probable adverse environmental impacts have been adequately addressed by local regulations and that the City's Comprehensive Plan was previously subject to an Environmental Impact Statement (EIS). The City of Seattle is preparing a new EIS for its Comprehensive Plan periodic update due in 2024.

The provisions in RCW 43.21C.229 allows cities to exempt residential development and raise SEPA thresholds for, mixed-use development including housing, and single-purpose commercial (non-retail) development up to 65,000 square feet.

Senate Bill 5412 (2023) added new section RCW 43.21C.229(3) allowing the City to adopt a new SEPA exemption for all project actions proposing to develop housing units provided:

- the development is consistent with all development regulations;
- the development is consistent with the proposed use or density and intensity of use in the designated infill area;
- the EIS prepared for the exemption analyzes multimodal transportation impacts, including impacts to neighboring jurisdictions, transit facilities, and the state transportation system including documented consultation with the Washington State Department of Transportation;

- the EIS documents that the comprehensive plan, subarea plans, adopted regulations, and state and federal regulations adequately mitigates impacts; and
- there is a 60-day notice to affected tribes, state agencies, and other jurisdictions and public before the environmental analysis is completed.

The Infill Exemption process is summarized in **Exhibit 2**.





# **3 Housing & Infill Exemption Legislation**

This section quotes key infill exemption provisions.

# RCW 43.21C. 229<sup>1</sup>

## Section 1

RCW 43.12C. 229 aims to accommodate infill and housing developments. Any city or county planning under RCW 36.70A.040 is authorized by this section to establish categorical exemptions from the requirements of this chapter. An exemption may be adopted by a city or county under this subsection if it meets the following criteria in Sections 2 and 3.

## Section 2

- (a) Exempt government action related to development proposed to fill in an urban growth area, designated according to RCW 36.70A.110, where current density and intensity of use in the area is roughly equal to or lower than called for in the goals and policies of the applicable comprehensive plan and the development is either:
  - Residential development;
  - Mixed-use development; or
  - Commercial development up to 65,000, excluding retail development;

<sup>&</sup>lt;sup>1</sup> Infill development—Categorical exemptions from chapter: <u>https://app.leg.wa.gov/RCW/default.aspx?cite=43.21C.229&pdf=true</u> as amended <u>https://lawfilesext.leg.wa.gov/biennium/2023-24/Pdf/Bills/Session%20Laws/Senate/5412-S2.SL.pdf</u>.

- (b) It does not exempt government action related to development that is inconsistent with the applicable comprehensive plan or would clearly exceed the density or intensity of use called for in the goals and policies of the applicable comprehensive plan;
- (c) The local government considers the specific probable adverse environmental impacts of the proposed action and determines that these specific impacts are adequately addressed by the development regulations or other applicable requirements of the comprehensive plan, subarea plan element of the comprehensive plan, planned action ordinance, or other local, state, or federal rules or laws;
- (d)
  - The city or county's applicable comprehensive plan was previously subjected to environmental analysis through an environmental impact statement under the requirements of this chapter prior to adoption; or
  - <sup>D</sup> The city or county has prepared an environmental impact statement that considers the proposed use or density and intensity of use in the area proposed for an exemption under this section.

### **Section 3**

- All project actions that propose to develop one or more residential housing units within the incorporated areas in an urban growth area designated pursuant to RCW 36.70A.110 or middle housing with the incorporated areas in an urban growth area designated pursuant to RCW 36.70.110, and that meet the criteria identified in section (a) and section (b) of this subsection, are categorically exempt from the requirements of this chapter. For purposes of this section, "middle housing" has the same meaning as in RCW 36.70.030. Jurisdictions shall satisfy the following criteria prior to the adoption of the categorical exemption under this subsection:
  - (a) The city or county shall find that the proposed development is consistent with all development regulations implementing an applicable comprehensive plan adopted according to chapter 36.70A. RCW by the jurisdiction in which the development is proposed, with the exception of any development regulation that is inconsistent with applicable provisions of chapter 36.70A RCW; and
  - (b) The city or county has prepared environmental analysis that considers the proposed use or density and intensity of use in the area proposed for an exemption under this section and analyzes multimodal transportation impacts, including impacts to neighboring jurisdictions, transit facilities, and the state transportation system.
    - (i) Such environmental analysis shall include documentation that requirements for environmental analysis, protection, and mitigation for impacts to elements of the environment have been adequately addressed for the development exempted. The requirements may be addressed in locally adopted comprehensive plans, subarea plans, adopted development regulation, other applicable local ordinances and regulations, or applicable state and federal regulations. The city or county must document its consultation with the department of transportation on impacts to state-

owned transportation facilities including consideration of whether mitigation is necessary for impacts to transportation facilities.

- (ii) Before finalizing the environmental analysis pursuant to (b) (i), the city or county shall provide a minimum of 60 days' notice to affected tribes, relevant state agencies, other jurisdictions that may be impacts, and the public. If a city or county identifies that mitigation measures are necessary to address specific probable adverse impacts, the city or county must address those impacts required mitigation identified in the environmental analysis pursuant to this subsection (3) (b) through locally adopted comprehensive plans, subarea plans, development regulations, or other applicable local ordinances and regulations. Mitigation measures shall be detailed in an associated environmental determination.
- The categorical exemption is effective 30 days following action by a city or county pursuant to (b) (ii) of this subsection.

#### **Section 4**

 Until September 30, 2025, all project actions that propose to develop one or more residential housing or middle housing units within a city west of the crest of the Cascade mountains with a population of 700,000 or more are categorically exempt from the requirements of this chapter. After September 30, 2025, project actions that propose to develop one or more residential housing or middle housing units within the city may utilize the categorical exemption in subsection (3) of this section.

## **Section 5**

Any categorical exemption adopted by a city or county under this section applies even if it differs from the categorical exemptions adopted by rule of the department under RCW 10 43.21C.110(1)(a). Nothing in this section shall invalidate categorical exemptions or environmental review procedures adopted by a city or county under a planned action pursuant to RCW 43.21C.440. However, any categorical exemption adopted by a city or county under 14 this section shall be subject to the rules of the department adopted according to RCW 43.21C.110(1)(a) that provide exceptions to the use of categorical exemptions adopted by the department.

## When Infill Exemptions Do Not Apply

Under RCW 43.21C.229(5), the infill or housing categorical exemption adopted by a city or county is still subject to the exceptions adopted by rule by the Department of Ecology.

If any of the following exceptions apply, then a proposed project is not exempt from SEPA:

- The proposal includes other non-exempt activities, see WAC 197-11-305:(1)(b).
- The proposal is undertaken wholly or partly on lands covered by water, see WAC 197-11-800:(1)(a)(i).

- The proposal requires a non-exempt NPDES permit, including construction stormwater general permits for sites 5 acres and above, see WAC 197-11-800:(1)(a)(ii).
- The proposal requires a non-exempt license governing emissions to air, see WAC 197-11-800:(1)(a)(iii).
- The proposal requires a land use decision that is not exempt under WAC 197-11-800:(6), see WAC 197-11-800:(1)(a)(iv).
- The proposal includes demolition of structures or facilities with recognized historical significance such as listing in a historic register, see WAC 197-11-800:(2)(g).
- The proposal requires a Class IV forest practices approval, see RCW 43.21C.037.

## **Effective Date**

Categorical exemptions adopted under RCW 43.21C.229 (3) become effective 30-days after the adoption of the enacting ordinance, except that the City of Seattle cannot adopt the housing exemption until the current temporary housing exemption expires on September 30, 2025. After that date the City may enact such regulations with an effective date of October 1, 2025.

# **4 Overview Housing & Infill Exemption Components**

The City is considering a residential exemption and raising SEPA thresholds for, mixed-use development including housing, and single-purpose commercial (non-retail) development up to 65,000 square feet throughout the City. Final exemptions could vary by place type or other geographic location.

# **Alternatives & Growth Evaluated**

Five alternatives are reviewed in the Draft EIS that would vary the potential locations for new and expanded mixed use centers as well as allow middle housing in more Neighborhood Residential areas.

See **Exhibit 3** for a comparison of housing and job growth numbers. Growth by place type is included in Appendix B of the Draft EIS.

|         | Alternative 1:<br>No Action | Alternative 2:<br>Focused | Alternative 3:<br>Broad | Alternative 4:<br>Corridor | Alternative 5:<br>Combined |
|---------|-----------------------------|---------------------------|-------------------------|----------------------------|----------------------------|
| Housing | 80,000                      | 100,000                   | 100,000                 | 100,000                    | 120,000                    |
| Jobs    | 158,000                     | 158,000                   | 158,000                 | 158,000                    | 158,000                    |

#### Exhibit 3. Summary of Housing and Job Growth Share—Citywide Alternatives

Sources: City of Seattle, 2023; BERK, 2023.

# **Housing Types**

The alternatives allow more infill development to support a range of housing types including middle housing. The City proposes other code changes to improve environmental quality as described in the following section. The housing types that would be most commonly built are illustrated in **Exhibit 4**.

#### **Exhibit 4. Example Housing Types**



Detached Homes on a Small Lot Existing home preserved with two new homes added behind (left), three homes on one lot (middle), and eight homes on two lots (right).

Detached Accessory Dwelling Unit (DADU) A second unit added to a residential lot, usually behind the main house.







stories arranged around a shared open space.



Duplex & Triplex (side-by-side) Two or three units that share walls with one another.



Foursquare A traditional form with two units per floor in a structure that often resembles a large house.

8-plex

A four-story

structure

with two

homes per floor.





**Courtyard Housing** Attached homes of 2-3 stories arranged around a shared open space.

Sixplex

A three-story

structure with two

homes per floor.

Homes that share a wall with another home that



**Apartments & Condos of 5-8 Stories** Midrise buildings with multiple homes per floor that can be rented as apartments or owned as

condominium units.



**Highrise Apartments** 

& Condos Buildings above 12 stories with multiple homes per floor that can be rented as apartments or owned as condominium units.





Infill development would allow for dwellings that fit the intent of the zone, and would be subject to City zoning standards for height, setbacks, landscaping, access, etc. See the type and densities of housing by place type in **Exhibit 5**.

|                                       | Urban<br>Neighborhood | Corridors | Neighborhood<br>Centers | Urban<br>Centers | Regional<br>Centers |
|---------------------------------------|-----------------------|-----------|-------------------------|------------------|---------------------|
| Detached home                         | X                     | X         |                         |                  |                     |
| Duplex, triplex, and fourplex         | X                     | X         | X                       |                  |                     |
| Townhouse and rowhouse                | X                     | X         | X                       | X                |                     |
| Sixplex/3-story stacked flats         | X                     | X         | X                       | X                |                     |
| 4- to 5-story building                |                       | X         | X                       | X                | X                   |
| 6- to 7-story buildings               |                       |           | X                       | X                | X                   |
| 8- to 12-story buildings              |                       |           |                         | X                | X                   |
| Highrise buildings (above 12 stories) |                       |           |                         |                  | X                   |

#### Exhibit 5. Most Common Housing Types Expected in Future Development by Place Type

Source: City of Seattle, 2022.

# **Mitigating Policies & Regulations**

The State Environmental Policy Act (SEPA) was passed by the Washington State Legislature in 1971. The statute creates a review and evaluation framework centering the identification and mitigation of impacts to the natural and built environment.

Numerous state and federal laws also require that counties and cities like Seattle adopt regulations protecting water quality, wetlands, streams, fish and wildlife, floodplains, archaeological and cultural resources, air quality, noise, transportation, building, fire protection, energy, and more.

The Governor's Office for Regulatory Innovation and Assistance provides guidebooks and flow charts to help clarify complex procedures illustrating the level of scrutiny given to development. (See: <u>https://www.oria.wa.gov/site/alias\_oria/347/Permitting.aspx</u>.)

The City of Seattle has numerous regulations that apply to development, and that have improved in specificity and quality since the passage of SEPA in 1971. The City can condition development through its permit review process.

The City applies critical area protection, tree protection, stormwater controls, archaeological resources protection, recreation, landscaping and open space standards, view protection, adequate public facilities and services, lighting, storage, solid waste and recycling, streets, sidewalks, trails, and access, design standards, and other protections.

The City's key regulations are listed in **Exhibit 6**. Several are undergoing amendment with the One Seattle Comprehensive Plan periodic update to address critical areas regulations and best available science, new zones and housing allowances, and design standards particularly for centers and transit-oriented development. In addition, the City is updating the Seattle Transportation Plan and Seattle Parks Master Plan. New regulations and other standards could flow from those plan updates.

| Title   | Subtitles and Chapters   |
|---|--|
| Title 22 - BUILDING AND<br>CONSTRUCTION CODES   | Subtitle I - Construction Codes<br>Subtitle IB - Grading Code<br>Subtitle II - Housing Code<br>Subtitle V - Plumbing Code<br>Subtitle VI - Fire Code<br>Subtitle VIII - Stormwater Code<br>Subtitle IX - Permit Fees<br>Subtitle IX - Permit Fees  |
| Title 23 - LAND USE CODE<br>Subtitle I - General Provisions<br>Subtitle II - Platting Requirements<br>Subtitle III - Land Use Regulations<br>Subtitle IV - Administration | Subtitle I - General ProvisionsSubtitle II Platting RequirementsSubtitle III - Land Use RegulationsDivision 1 - Land Use ZonesDivision 2 - Authorized Uses and Development StandardsChapter 23.40 - Compliance with Regulations Required—ExceptionsChapter 23.41 - Design ReviewChapter 23.42 - General Use ProvisionsChapter 23.42 - General Use ProvisionsChapter 23.45 - MultifamilyChapter 23.46 - ResidentialChapter 23.47 - CommercialChapter 23.48 - Seattle MixedChapter 23.50 - IndustrialChapter 23.50 - IndustrialChapter 23.51 - Public Facilities in Residential ZonesChapter 23.51 - Public Schools in Residential ZonesChapter 23.52 - Transportation Concurrency, and Transportation ImpactMitigationChapter 23.53 - Requirements For Streets, Alleys, and EasementsChapter 23.54 - Quantity and Design Standards for Access, Off-Street Parking, and Solid Waste StorageChapter 23.55 - SignsChapter 23.57 - Communications Regulations |

#### **Exhibit 6. Current Zoning and Municipal Code Chapters**

| Title                    | Subtitles and Chapters   |
|--------------------------|--|
|                          | Chapter 23.58a - Incentive Provisions  |
|                          | Chapter 23.58b - Affordable Housing Impact Mitigation Program for Commercial Development |
|                          | Chapter 23.58c - Mandatory Housing Affordability for Residential<br>Development          |
|                          | Chapter 23.58d - Green Building Standard   |
|                          | Division 3 - Overlay Districts   |
|                          | Chapter 23.59 - General Provisions   |
|                          | Chapter 23.60a - Seattle Shoreline Master Program Regulations                            |
|                          | Chapter 23.61 - Station Area Overlay District  |
|                          | Chapter 23.64 - Airport Height Overlay District  |
|                          | Chapter 23.66 - Special Review Districts   |
|                          | Chapter 23.67 - Southeast Seattle Reinvestment Area                                      |
|                          | Chapter 23.69 - Major Institution Overlay District                                       |
|                          | Chapter 23.70 - Mobile Home Park Overlay District  |
|                          | Chapter 23.71 - Northgate Overlay District   |
|                          | Chapter 23.72 - Sand Point Overlay District  |
|                          | Chapter 23.73 - Pike/Pine Conservation Overlay District                                  |
|                          | Chapter 23.74 - Stadium Transition Area Overlay District                                 |
|                          | Division 4 - Master Planned Communities  |
|                          | Chapter 23.75 - Master Planned Communities   |
|                          | Subtitle IV - Administration   |
|                          | Division 1 - Land Use Approval Procedures  |
|                          | Chapter 23.80 - Essential Public Facilities  |
|                          | Division 2 - General Terms   |
|                          | Chapter 23.84A - Definitions   |
|                          | Chapter 23.86 - Measurements   |
|                          | Division 3 - Implementation  |
|                          | Chapter 23.88 - Rules; Interpretation  |
|                          | Chapter 23.90 - Enforcement of the Land Use Code   |
|                          | Chapter 23.91 - Citation—Hearings—Penalties  |
| Title 25 - ENVIRONMENTAL | Chapter 25.02 - Commute Trip Reduction   |
| PROTECTION AND HISTORIC  | Chapter 25.05 - Environmental Policies and Procedures                                    |
| PRESERVATION             | Chapter 25.06 - Floodplain Development   |
|                          | Chapter 25.08 - Noise Control  |
|                          | Chapter 25.09 - Regulations for Environmentally Critical Areas                           |
|                          | Chapter 25.10 - Radiofrequency Radiation   |
|                          | Chapter 25.11 - Tree Protection  |
|                          | Chapter 25.12 - Landmarks Preservation   |
|                          | Chapter 25.16 - Ballard Avenue Landmark District   |
|                          | Chapter 25.20 - Columbia City Landmark District  |
|                          | Chapter 25.21 - Fort Lawton Landmark District  |

| Title | Subtitles and Chapters   |
|-------|--|
|       | Chapter 25.22 - Harvard-Belmont Landmark District              |
|       | Chapter 25.24 - Pike Place Market Historical District          |
|       | Chapter 25.28 - Pioneer Square Historical District             |
|       | Chapter 25.30 - Sand Point Naval Air Station Landmark District |
|       | Chapter 25.32 - Table of Historical Landmarks                  |

As part of the EIS, the ability of existing and proposed policies and regulations to serve as mitigation are included in **Section 5**.

# 5 Current Mitigation Measures

**Exhibit 7** identifies current regulations, plans, and policies that serve as mitigation measures for new development. The City is anticipating new or updated regulations as part of the Proposal and action alternatives. These codes will be added to the chart such as in the Final EIS.

Key acronyms include:

- SMC: Seattle Municipal Code (City of Seattle)
- RCW: Revised Code of Washington (State)
- WAC: Washington Administrative Code (State)
- USC: United States Code (Federal)

#### Exhibit 7. Current Regulations, Plans, and Policies Serving as Mitigation Measures

| EIS Topic | Applicable Regulation                 | Code Citation   | Notes/Comments  |
|-----------|---------------------------------------|---|---|
| Earth and | d Water Quality                       |   |   |
|           | Coastal Zone Management Act           | <u>16 USC 1451 et seq.</u>  | Goal is to preserve, protect, develop, and<br>where possible, to restore or enhance the<br>resources of the nation's coastal zone.  |
|           | Shoreline Management Act              | <ul> <li><u>RCW 90.58</u></li> <li><u>WAC 173-26</u></li> </ul>                     | Balance shoreline use, public access, and<br>environmental conservation and protection.<br>Protect critical areas and ensure no-net-loss<br>of shoreline ecological function. |
|           | Shoreline Master Program              | <u>SMC 23.60A</u>   |   |
|           | National Flood Insurance Act of 1968  | <u>The Federal</u><br><u>Emergency</u><br><u>Management</u><br><u>Agency (FEMA)</u> | Flooding is addressed through participation<br>in the National Flood Insurance Program<br>(NFIP). Flood Insurance Rate Map (FIRM) or<br>Flood Hazard Boundary Maps identify   |
|           | Flood Disaster Protection Act of 1973 | <u>42 USC 4001 et seq.</u>  | according to varying levels of flood risk.  |

| EIS Topic | Applicable Regulation  | Code Citation  | Notes/Comments  |
|-----------|--|--|---|
|           | Floodplain Management Presidential<br>Executive Order 11988  | <u>FEMA</u>  | Restricts building in floodways, and allows<br>construction in floodplain provided<br>standards for floodproofing are addressed.  |
|           | Flood Control Management Act   | <u>RCW 86</u>  |   |
|           | Floodplain Development   | <u>SMC 25.06</u>   |   |
|           | <ul> <li>Critical Areas Ordinance</li> <li>SMC 25.09.080—Landslide-Prone<br/>Areas</li> <li>SMC 25.09.090—Steep Slope Erosion<br/>Hazard Areas</li> <li>SMC 25.09.100—Liquefaction-Prone<br/>Areas</li> <li>SMC 25.09.110—Peat Settlement-<br/>Prone Areas</li> <li>SMC 25.09.160—Wetlands and<br/>Wetland Buffers</li> <li>SMC 25.09.200—Fish and Wildlife<br/>Habitat Conservation Areas</li> <li>SMC 25.09.220—Abandoned</li> </ul> | <u>SMC 25.09</u>   | <ul> <li>Protects functions and values of critical areas .</li> <li>Protects life and property from hazards.</li> <li>Protects water quality (erosion, wetlands, riparian regulations)</li> </ul>   |
|           | Landfills<br>Stormwater Code and Manual  | <u>SMC Title 22,</u><br><u>Subtitle VIII</u><br>See Sections<br>22,800 to 22,808 | <ul> <li>Stormwater, Grading &amp; Drainage<br/>ordinances include environmental &amp; water<br/>quality protections, to meet applicable<br/>State guidance that includes Ecology's<br/>Stormwater Management Manual</li> </ul>   |
|           | Stormwater Management Manual for<br>Western Washington (Ecology Manual)  | <u>Department of</u><br><u>Ecology</u>   |   |
|           | Washington State Department of<br>Transportation (WSDOT) Highway<br>Runoff Manual  | <u>Washington State</u><br><u>Department of</u><br><u>Transportation</u>         |   |
|           | Water Quality Standards for Surface<br>Waters  | <u>WAC 173-201A</u>  | <ul> <li>Designated water uses and criteria.</li> </ul>   |
|           | Water Quality Standards for<br>Groundwater   | <u>WAC 173-200</u>   | <ul> <li>Maintain the highest quality of the state's<br/>groundwaters and protect existing and<br/>future beneficial uses of the groundwater.</li> </ul>  |
|           | Water Pollution Control Act  | <u>RCW 90.48</u>   | Control and prevent the pollution of streams,<br>lakes, rivers, ponds, inland waters, salt<br>waters, water courses, and other surface and<br>underground waters of the state of<br>Washington  |
|           | National Pollutant Discharge<br>Elimination System (NPDES)<br>Construction Stormwater General<br>Permit  | <u>Department of</u><br><u>Ecology</u>   | Manage and control stormwater runoff so<br>that it does not pollute downstream waters.<br>Implement a stormwater program that<br>provides equal or greater protection of<br>receiving waters and pollutant control as<br>compared to the Stormwater Management<br>Manual of Western Washington in effect. |

| <b>EIS Topic</b> | Applicable Regulation   | Code Citation  | Notes/Comments   |
|------------------|---|--|--|
|                  | WSDOT Hydraulics Manual   | <u>Hydraulics</u><br><u>Manual</u>   | Policy for designing hydraulic features<br>related to Washington State Department of<br>Transportation (WSDOT) roadways<br>including hydrology, culverts, open-channel<br>flow, drainage collection and conveyance<br>systems, water crossings, and pipe materials.<br>The Hydraulics Manual makes frequent<br>references to WSDOT's Highway Runoff<br>Manual, which provides WSDOT's<br>requirements for managing stormwater<br>discharges to protect water quality,<br>beneficial uses of the state's waters, and the<br>aquatic environment in general. |
|                  | Washington State Hydraulic Code   | <u>WAC 220-660</u>   | Minimize project-specific and cumulative<br>impacts to fish life as a result of proposals to<br>use, divert, obstruct, or change the natural<br>flow or bed of any of the salt or freshwaters<br>of the state.   |
|                  | Clean Water Act<br>See the following Sections:<br>• 401—Water Quality Certification<br>• 402—National Pollutant Discharge<br>Elimination System<br>• 404—Permits for Dredge or Fill | <u>USC 1251 et seq.</u>  | Regulates discharges of pollutants into the<br>waters of the U.S. and regulates quality<br>standards for surface waters.   |
|                  | Rivers and Harbors Act of 1899 See<br>Section 408   | <u>33 USC 408</u>  | Protects navigable waters in the development of harbors and other construction and excavation.   |
|                  | Safe Drinking Water Act<br>See Chapter 6A   | <u>42 USC 300f et</u><br><u>seq.</u>   | Protect the quality of drinking water in the U.S.  |
| Air Qual         | ity   |  |  |
|                  | <u>National Ambient Air Quality Standards</u><br><u>(NAAQS)</u>   |  | Requires US EPA to set National Ambient Air<br>Quality Standards (40 CFR part 50) for six<br>principal pollutants ("criteria" air<br>pollutants) which can be harmful to public<br>health and the environment.   |
|                  | <u>Washington State Department of</u><br><u>Ecology Rules</u>   |  | Ecology and the Puget Sound Clean Air<br>Agency monitors and tracks emissions to<br>make sure levels of outdoor air pollutants<br>meet federal and state air quality standards.<br>They focus on EPA's "criteria" pollutants and<br>other chemicals broadly known as air toxics.   |
|                  | Puget Sound Clean Air Agency Rules  |  | Regulates a range of businesses and industries and construction to meet air standards.   |
|                  | Washington State Energy Code  | <u>SMC Chapter 22.101</u><br><u>- Adoption of</u><br><u>Construction Codes</u> | Regulates the energy-use features of new<br>and remodeled buildings.<br>Seattle is planning to adopt the 2021 energy<br>code in <u>2024</u> .  |

| <b>EIS Topic</b> | Applicable Regulation   | Code Citation                     | Notes/Comments  |  |  |  |
|------------------|---|-----------------------------------|---|--|--|--|
|                  | <u>Seattle Climate Action Plan and</u><br><u>Strategies</u>       |                                   | A set of short- and long-term actions to<br>reduce contributors of greenhouse gases,<br>particularly transportation and buildings.  |  |  |  |
|                  | Seattle Energy Benchmarking Law                                   | <u>SMC 22.920</u>                 | Building owners of each building subject to<br>nonresidential benchmarking requirements<br>shall provide to the Director energy<br>benchmarking reports and, energy<br>performance ratings for each subject<br>building.  |  |  |  |
|                  | <u>Seattle Transportation Electrification</u><br><u>Blueprint</u> |                                   | Consists of a series of initial steps Seattle is<br>committed to reducing climate pollution in<br>the transportation sector.  |  |  |  |
| Plants a         | nd Animals  |                                   |   |  |  |  |
|                  | Environmentally Critical Areas<br>Ordinance                       | <u>SMC 25.09</u>                  | Protects and regulates activities on or<br>adjacent to critical areas; critical areas<br>include geologic hazard areas, flood-prone<br>areas, wetlands, and fish and wildlife habitat<br>conservation areas (which include streams,<br>riparian corridors, wildlife habitats mapped<br>or designated by WDFW, corridors<br>connecting priority habitats, and areas that<br>support species of local importance) |  |  |  |
|                  | Shoreline Master Program  | <u>SMC 23.60A</u>                 | Regulates activities in and near major water<br>bodies (e.g., rivers, large lakes, marine<br>waters), establishes requirements for<br>maintaining native vegetation.  |  |  |  |
|                  | Tree Protection Ordinance   | <u>SMC 25.11</u>                  | Protects exceptional trees (i.e., trees or<br>groups of trees that constitute an important<br>community resource because of their unique<br>historical, ecological, or aesthetic value),<br>establishes requirements for replacing trees<br>that are cut down, and requires a pre-<br>construction survey to be conducted by a<br>licensed arborist.  |  |  |  |
|                  | Tree Planting, Green Factor, and Street<br>Tree requirements      | SMC Title 23,<br>various sections | Requires planting of trees, landscaping, and<br>other green infrastructure on private<br>property and the right-of-way  |  |  |  |
|                  | Clean Water Act   | Section 401                       | Requires certification for any projects that<br>may result in a discharge into waters of the<br>United States to ensure that the discharge<br>complies with applicable state water quality<br>requirements.   |  |  |  |
|                  | Clean Water Act   | Section 404                       | Requires authorization for excavating, land<br>clearing, or discharging dredged or fill<br>material into waters of the United States,<br>including wetlands   |  |  |  |
|                  | Migratory Bird Treaty Act   | <u>16 U.S.C. 703-712</u>          | Prohibits the taking, killing, or possession of<br>migratory birds or any parts, nests, or eggs<br>of such birds, except as authorized by U.S.<br>Fish and Wildlife Service (USFWS).  |  |  |  |

| EIS Topic | Applicable Regulation                              | Code Citation                       | Notes/Comments   |  |  |  |
|-----------|--|-------------------------------------|--|--|--|--|
|           | Bald and Golden Eagle Protection Act               | <u>16 U.S.C. 668-668d</u>           | Prohibits the taking (including disturbance) of eagles or their nests, except as authorized by USFWS.  |  |  |  |
|           | Marine Mammal Protection Act                       | <u>16 USC Ch. 31</u>                | Prohibits injury or harm (including<br>disturbance) to marine mammals, except as<br>authorized by National Marine Fisheries<br>Service (NMFS).   |  |  |  |
|           | Endangered Species Act                             | Section 7<br>Consultation           | Requires federal agencies to ensure that<br>actions they authorize (e.g., through<br>issuance of a permit), fund, or carry out are<br>not likely to jeopardize the continued<br>existence of any endangered or threatened<br>species or result in the destruction or<br>adverse modification of critical habitat for<br>those species.   |  |  |  |
|           | Tree Canopy Cover Assessment                       |                                     | City program with goal of conducing<br>citywide tree cover assessment every 5<br>years   |  |  |  |
| Energy a  | nd Natural Resources                               |                                     |  |  |  |  |
|           | Washington State Energy Code                       | SMC Chapter 22.101<br>- Adoption of | Regulates the energy-use features of new and remodeled buildings.  |  |  |  |
|           |  | Construction Codes                  | Seattle is planning to adopt the 2021 energy code in <u>2024</u> .   |  |  |  |
|           | Seattle Energy Benchmarking Law                    | <u>SMC 22.920</u>                   | Building owners of each building subject to<br>nonresidential benchmarking requirements<br>shall provide to the Director energy<br>benchmarking reports and, energy<br>performance ratings for each subject<br>building.   |  |  |  |
|           | The Seattle Building Tune-Ups<br>Ordinance         | <u>SMC 22.930</u>                   | Applies to all nonresidential buildings that<br>are (1) equal to or larger than 50,000 square<br>feet of floor area; and (2) are subject to<br>Energy Benchmarking requirements. Once<br>every five years, owners of buildings subject<br>to this Chapter 22.930 are required to<br>conduct a tune-up of building energy and<br>water systems and submit a report to the<br>City of findings, outcomes, and actions taken<br>based on the tune-up. |  |  |  |
|           | Building Emissions Performance<br>Standards (BEPS) | <u>Legislation</u>                  | After two years of extensive stakeholder<br>engagement and development of the policy<br>by OSE and unanimous approval by City<br>Council, Mayor Harrell signed the Building<br>Emissions Performance Standard (BEPS)<br>policy for existing commercial and<br>multifamily buildings larger than 20,000<br>square feet into law on December 13, 2023.   |  |  |  |
| Noise     |  |                                     |  |  |  |  |
|           | City of Seattle Noise Control Ordinance            | SMC Chapter 25.08                   | Sets exterior sound level limits between residential, commercial, and industrial uses.   |  |  |  |

| EIS Topic Applicable Regulation   | Code Citation                               | Notes/Comments   |
|---|---|--|
| Land Use Patterns and Urban Form / Relations                                      | hip to Plans, Policie                       | es, and Regulations  |
| Seattle Design Review Program   | SMC Chapter 23.41                           | Addresses site design, access, frontage,<br>landscaping, materials, appearance, etc.   |
|   |   | There are three types of Design Review.<br>SDCI Design Review staff review many<br>smaller buildings through Streamlined<br>Design Review and Administrative Design<br>Review. Larger buildings may require Full<br>Design Review, which includes both public<br>Design Review Board meetings and review<br>by City staff. All Design Review includes an<br>opportunity for public comment and<br>involvement.   |
| Design Standards and Development<br>Regulations                                   | <u>SMC Title 23.</u><br><u>Subtitle III</u> | Regulates land uses, scale, density, access,<br>landscaping, signage, light and glare, views,<br>parking and more.   |
| <u>Streets Illustrated, Seattle's Right-of-</u><br><u>Way Improvements Manual</u> |   | The Right-of-Way Improvements Manual is<br>intended to help property owners,<br>developers, & architects involved with the<br>design, permitting, & construction of<br>Seattle's street right-of-way.  |
| <u>Green Building Incentives</u>  | SMC Title 23                                | <ul> <li>Priority Green Expedited: Available for all new construction projects. Offers faster building permit review and processing for projects that meet green building requirements with a focus on clean energy, resource conservation, indoor air quality, and lead hazard reduction.</li> <li>Green Building Standard: Gives additional development capacity in specific zones in exchange for meeting green building requirements.</li> <li>Living Building Pilot Program: Offers additional height, floor area ratio (FAR), and Design Review departure requests for projects that meet aggressive energy and water requirements and Living Building Petal Certification.</li> <li>2030 Challenge: Offers additional height, FAR, and Design Review departure requests for projects that meet the 2030 Challenge.</li> </ul> |

| <b>EIS Topic</b>                    | Applicable Regulation  | Code Citation         | Notes/Comments  |  |  |  |  |  |  |
|-------------------------------------|--|-----------------------|---|--|--|--|--|--|--|
|                                     | Sustainable Buildings and Sites Policy                         |                       | <ul> <li>The Policy sets the following goals for City-<br/>owned properties:</li> <li>New construction and major renovations<br/>5,000 ft2 or greater must meet LEED Gold<br/>as well as key performance requirements<br/>for energy and water efficiency, waste<br/>diversion, and bicycle facilities.</li> <li>Tenant Improvements 5,000 ft2 or greater<br/>with a scope of work that includes<br/>mechanical, electrical, and plumbing must<br/>meet LEED Gold as well as water efficiency<br/>and waste diversion requirements.</li> <li>Small projects—either new construction,<br/>renovations, or tenant improvements—are<br/>to utilize Capital GREEN, a green design<br/>and construction evaluation tool<br/>developed by FAS, in project planning and<br/>development.</li> <li>All new and existing sites projects shall<br/>follow best management practices.</li> </ul> |  |  |  |  |  |  |
| Population, Housing, and Employment |  |                       |   |  |  |  |  |  |  |
|                                     | Mandatory Housing Affordability <u>(MHA)</u><br><u>Program</u> | <u>Chapter 23.58c</u> | Implement an affordable housing incentive<br>program authorized by RCW 36.70A.540. To<br>achieve the goal of providing affordable<br>housing in Seattle, development subject to the<br>MHA requirements must contribute to<br>affordable housing as part of most<br>commercial, residential, or live-work projects.<br>This contribution can be provided by<br>including affordable housing units within new<br>development (performance option) or paying<br>into a fund that will support the development<br>of affordable housing (payment option).  |  |  |  |  |  |  |
|                                     | Multifamily Housing Property Tax<br>Exemption <u>Program</u>   | <u>Chapter 5.72</u>   | The Multifamily Property Tax Exemption<br>(MFTE) Program provides a tax exemption<br>on eligible multifamily housing in exchange<br>for income- and rent-restricted units. By<br>supporting mixed-income residential<br>development in the urban centers, the MFTE<br>program ensures affordability as the<br>community grows.  |  |  |  |  |  |  |
|                                     | Seattle Housing Levy (SHL)                                     | <u>SHL Program</u>    | Helps fund the production and protection of<br>affordable units. <u>Voters approved the \$970</u><br><u>Million Housing Levy renewal in 2023.</u><br><u>2023 Levy Fact Sheet.</u>   |  |  |  |  |  |  |
|                                     | Rental Housing Program   |                       | The Rental Housing Program funds the development of affordable rental housing in Seattle using local funds such as the <u>Seattle Housing Levy</u> , federal funds, and other fund sources.   |  |  |  |  |  |  |

| <b>EIS Topic</b> | Applicable Regulation                                       | Notes/Comments  |  |  |  |
|------------------|---|---|--|--|--|
|                  | Homeownership Program                                       |   | The Office of Housing provides<br>downpayment assistance to first-time<br>homebuyers at or below 80% of area median<br>income through partnerships with local<br>nonprofits and lending institutions.  |  |  |
|                  | <u>Home Repair Program</u>                                  |   | The Home Repair Loan Program provides<br>affordable loans to income-qualified<br>homeowners to address critical health,<br>safety, and structural issues. The program is<br>designed for owner-occupied single family<br>homes with low- to moderate-income<br>households.   |  |  |
|                  | The Weatherization Program                                  |   | The HomeWise Weatherization Program<br>provides free energy efficiency<br>improvements to qualified homes. The Office<br>of Housing's weatherization program has<br>different income eligibility thresholds<br>depending on the heat source (i.e. electricity,<br>gas, or oil) and whether the housing is<br>renter- or owner-occupied. <u>2023 Income</u><br><u>Limits.</u> |  |  |
|                  | Just Cause Eviction Ordinance                               | <ul> <li><u>SMC 22.205</u> -<br/>Seattle Just Cause<br/>Eviction<br/>Ordinance</li> <li><u>RCW</u></li> <li><u>59.18.200</u>; <u>SMC</u></li> <li><u>7.24.030</u> -<br/>Renewal of Term<br/>Leases</li> </ul> | The Just Cause Eviction Ordinance, passed in<br>1980, prevents landlords from arbitrarily<br>ending a rental agreement.<br>As of July 2021, landlords must offer tenants<br>in expiring term leases a renewal unless they<br>have a just cause reason not to renew the<br>tenancy. Notice must be issued 60 to 90 days<br>prior to the expiration of the tenancy.            |  |  |
|                  | <u>The Tenant Relocation Assistance</u><br>Ordinance (TRAO) | Tenant Relocation<br>Assistance<br>Ordinance, <u>SMC</u><br><u>22.210</u> .   | <ul> <li>The Tenant Relocation Assistance Ordinance<br/>has two primary benefits for renters being<br/>displaced by development:</li> <li>Provide relocation assistance to low-<br/>income households</li> <li>Provide all households with adequate time<br/>to search for new housing and move</li> </ul>   |  |  |
|                  | Economic Displacement Relocation<br>Assistance (EDRA)       | <u>Ord 126451</u>   | Applies to any housing cost increase totaling<br>10% or more within the same 12 month<br>period. Tenant households earning 80% or<br>less of Seattle's average median income<br>(AMI) that give notice to vacate after receipt<br>of a 10% or more increase will be eligible to<br>apply for financial assistance.   |  |  |
|                  | Washington State Residential Landlord-<br>Tenant Act        | RCW 59.18   | Establishes rights and responsibilities for tenants and landlords  |  |  |

| <b>EIS Topic</b> | Applicable Regulation  | Code Citation                     | Notes/Comments  |  |  |  |
|------------------|--|-----------------------------------|---|--|--|--|
|                  | <u>Equitable Development Initiative (EDI)</u>  |                                   | \$9.5 million in awards to multiple Equitable<br>Development Initiative (EDI) partners to<br>support property ownership among Seattle's<br>diverse communities in neighborhoods at<br>high risk of displacement. The EDI funding is<br>intended to support community<br>organizations for site acquisition and major<br>capital projects, as well as capacity-building<br>support to organizations that are still<br>developing their plans for permanent homes<br>in Seattle.  |  |  |  |
|                  | King County Property Tax Relief  |                                   | Provides property tax exemptions and<br>deferrals for low-income, senior, and<br>disabled property owners to help them<br>remain in place.  |  |  |  |
| Cultural         | Resources  |                                   |   |  |  |  |
|                  | City of Seattle Historic Preservation<br>Program                                     | <u>SMC 25.12 through</u><br>25.30 | Designates, preserves, protects, and<br>enhances sites, improvements and objects<br>which reflect significant elements of the<br>City's cultural, aesthetic, social, economic,<br>political, architectural, engineering, historic<br>or other heritage. Protections of designated<br>landmarks are provided by design review of<br>proposed alterations and the issuance of a<br>Certificate of Approval (SMC 25.12). Owners<br>of properties that have received Seattle<br>Landmark designation may take advantage of<br>City incentives including a Special Tax<br>Valuation, Zoning Code Relief, Building Code<br>Relief, and special incentives for downtown<br>landmarks, such as the transfer of<br>development rights (TDR). |  |  |  |
|                  | Washington Executive 21-02   |                                   | Washington Executive 21-02 (formerly 05-<br>05) requires that impacts to cultural<br>resources must be considered as part of any<br>state-funded project or investment and must<br>include consultation with DAHP and with<br>Tribal governments.   |  |  |  |
|                  | Washington State Archaeological Sites<br>and Resources Protection Act                | <u>RCW 27.53</u>                  | Requires a permit to excavate or remove any archaeological resource located on public or Tribal lands.  |  |  |  |
|                  | Registration of Historic Archaeological<br>Resources on State-Owned Aquatic<br>Lands | <u>25-46 WAC</u>                  | Establishes registration procedures for<br>previously unreported historic<br>archaeological resources discovered on, in,<br>or under state-owned aquatic lands as<br>provided for in chapter 27.53 RCW.   |  |  |  |

| <b>EIS Topic</b> | Applicable Regulation  | Code Citation                                       | n Notes/Comments   |  |  |  |  |
|------------------|--|---|--|--|--|--|--|
|                  | National Historic Preservation Act<br>(NHPA)                         | <u>36 CFR Part 800</u>                              | Commonly referred to as Section 106. Has<br>implementing regulations (36 CFR Part 800),<br>that require federal agencies (or others who<br>have received federal grants or funds, or a<br>federal permit or license) to take into<br>account the effects of their undertakings on<br>historic properties, by identifying historic<br>properties, assessing adverse effects, and<br>resolving those adverse effects.  |  |  |  |  |
|                  | Archaeological Resources Protection Act<br>(ARPA)                    |   | Protects archaeological resources.   |  |  |  |  |
|                  | National American Graves Protection<br>and Repatriation Act (NAGPRA) |   | Creates protections for Native American burial sites, remains, and cultural objects.   |  |  |  |  |
|                  | <u>The National Environmental Protection</u><br><u>Act</u>           |   | Requires federal agencies to assess whether<br>a major federal action has the potential to<br>significantly affect the human environment<br>prior to making decisions. This is done<br>through the preparation of an<br>Environmental Assessment (EA) or an EIS.   |  |  |  |  |
|                  | Cultural Space Agency  |   | Program to help cultural organizations<br>purchase space so they can remain in their<br>communities.   |  |  |  |  |
| Transpo          | rtation  |   |  |  |  |  |  |
|                  | Transportation Impact Mitigation                                     | SMC 23.52,<br>subchapter 2                          | Requires impact analysis and mitigation for projects meeting certain standards.  |  |  |  |  |
|                  | Transportation Concurrency   | SMC 23.52,<br>subchapter 1                          | Implements GMA policy that transportation<br>improvements or strategies should be made<br>concurrently with land development   |  |  |  |  |
|                  | Commuter Benefit Ordinance   | <u>SMC 14.30</u>                                    | Businesses with 20 or more employees are<br>required to offer their employees the<br>opportunity to make a monthly pre-tax<br>payroll deduction for transit or vanpool<br>expenses.  |  |  |  |  |
|                  | <u>Commute Trip Reduction</u>  | <u>Chapter 25.02</u> -<br>Commute Trip<br>Reduction | <ul> <li>An employer of 100+ employees who report<br/>to work at a single site between 6 - 9 a.m.<br/>must:</li> <li>Appoint and maintain an individual to act<br/>as an Employee Transportation<br/>Coordinator.</li> <li>Submit a program report to the City for<br/>review and approval once every two years.</li> <li>Exercise a good faith effort by<br/>collaborating with the City in its<br/>administration and implementation of the<br/>law.</li> <li>Conduct a commuter survey once every<br/>two years to measure employees' drive<br/>alone rates.</li> </ul> |  |  |  |  |

| <b>EIS Topic</b> | Applicable Regulation   | Code Citation | Notes/Comments  |
|------------------|---|---------------|---|
|                  | <u>Pedestrian and Bicycle System</u><br><u>Improvements</u>   |               | Capital list with protected bike lane projects<br>funded through the end of the Levy to Move<br>Seattle. Seattle is also<br>building Neighborhood<br>Greenways and Healthy Streets.   |
|                  | Transportation systems management<br>and operations (TSMO) maximizes<br>efficiency of the existing multimodal<br>transportation system by implementing<br>low-cost, near-term improvements to<br>improve overall system performance.<br>TSMO solutions can improve safety and<br>provide flexibility to address changing<br>conditions. Strategies can also prioritize<br>movement of specific modes, including<br>freight, transit, and active<br>transportation. Many of these strategies<br>would require coordination with<br>partner agencies, such as Port of Seattle,<br>King County Metro, and Sound Transit. |               | Seattle already utilizes some TSMO<br>strategies to reduce traffic congestion and<br>improve vehicle flow, including providing<br>drivers with updated travel information and<br>managing the flow of traffic through<br>intersections. SDOT has an ongoing effort to<br>improve the operations of traffic signals,<br>including some corridors with adaptive<br>signal control, which coordinates signal<br>timing changes in response to real-time<br>traffic volume data in order to reduce traffic<br>congestion and improve vehicular flow.<br>Additionally, Seattle's Transit Master Plan,<br>Freight Master Plan, and Seattle Industrial<br>Areas Freight Access Project identify speed<br>and reliability improvements, such as transit<br>and/or freight lanes that could improve<br>mobility for those modes. Expanding existing<br>programs or implementing new TSMO<br>strategies, in coordination with regional<br>partners, could help mitigate impacts to<br>corridor travel time, screenlines,<br>intersection LOS in the NE 130th/NE 145th<br>Street Subarea, and state facilities by<br>increasing efficiency of the existing system. |
|                  | <u>Transportation Demand Management</u><br>(TDM)  |               | Transportation demand management (TDM)<br>strategies can help reduce congestion and<br>travel time impacts by reducing demand for<br>automobile travel and supporting travel by<br>other modes. Seattle currently promotes a<br>variety of TDM strategies to encourage<br>travel by carpooling, vanpooling, transit,<br>walking, and biking, as well as reducing trips<br>by teleworking. These include the Commute<br>Trip Reduction (CTR) Program,<br>Transportation Management Programs<br>(TMPs), and the Commuter Benefits<br>Ordinance which are described above along<br>with additional measures Seattle could<br>consider adding to its programmatic TDM<br>efforts.   |
|                  | Transportation Management Program   |               | The City works with building managers and<br>managers to help implement strategies that<br>facilitate tenants' use of a full range of travel<br>options, including transit, walking,<br>carpooling, and bicycling. Successful<br>Transportation Management Programs<br>(TMPs) provide transit use incentives,<br>promote active commutes, and include<br>parking management strategies.   |

| EIS Topic | Applicable Regulation   | Code Citation                      | Notes/Comments  |
|-----------|---|------------------------------------|---|
|           | Metro Connects  |                                    | King County Metro's vision for providing<br>more service, more choices and one easy-to-<br>use system over a 30 year period   |
|           | Washington State Department of<br>Transportation Development Services |                                    | Reviews development projects for potential impacts to state transportation facilities   |
|           | Washington State Ferries  |                                    | Reviews development projects for potential impacts to the state ferry system  |
| Public Se | ervices   |                                    |   |
|           | <u>Crime Prevention Coordinators</u>                                  |                                    | SPD has Crime Prevention Coordinators<br>(CPCs) who are experts in crime prevention<br>techniques. SPD also advises on natural<br>surveillance and other techniques to provide<br>design of development and landscaping that<br>allows for visibility and increase safety.  |
|           | Micro Community Policing Plans  |                                    | SPD has developed Micro Community<br>Policing Plans (MCPP) with community<br>engagement and considering crime data to<br>help direct police services to address the<br>individual needs of each community.  |
|           | Seattle Fire Protection Systems Code                                  | Seattle Building<br>Code Section 9 | Regulates Fire Protection Systems.  |
|           | Seattle Land Use Code   | <u>Title 23</u><br>SMC 23.60A      | <ul> <li>The Seattle Land Use Code contains development regulations, including standards governing the design and placement of exterior site and building illumination and recreation/open space. The LUC also provides for SPR review when subdivisions over a certain size are proposed.</li> <li>The Seattle Shoreline Master Program requires shoreline public access for development that creates a demand.</li> </ul> |
|           | <u>Seattle Solid Waste, Solid Waste</u><br><u>Management Planning</u> |                                    | Seattle Solid Waste develops a Solid Waste<br>Management Plan at consistent intervals to<br>ensure that departmental policies align with<br>their stated goals. The most recent draft<br>update to this plan commits to a zero-waste<br>vision in which Seattleites produce and use<br>less to ensure reduced impacts to human<br>health and the environment.   |
|           | <u>Seattle Public Utilities</u><br><u>Strategic Business Plan</u>     |                                    | Seattle Public Utilities also produces<br>strategic business plans every 5 years which<br>include solid waste elements and ways in<br>which SPU can support the Solid Waste<br>Division through investments to reach its<br>stated goals from the Solid Waste<br>Management Plan.   |

| <b>EIS Topic</b>       | Applicable Regulation                           | Code Citation  | Notes/Comments  |  |  |  |
|------------------------|---|--|---|--|--|--|
| Utilities <sup>2</sup> | 2   |  |   |  |  |  |
|                        | Water Code                                      | <u>SMC Title 21.</u><br><u>Subtitle I</u>  | Water Rates and Regulations   |  |  |  |
|                        | Building and Construction Codes                 | SMC Title 22   | Includes plumbing and fire codes  |  |  |  |
|                        | City of Seattle Standards and<br>Specifications | <u>Standard</u><br><u>Specifications for</u><br><u>Road, Bridge, and</u><br><u>Municipal</u><br><u>Construction (2020)</u> | The 2020 Standard Specifications apply<br>whenever any public or private construction<br>is performed within the Rights-of-Way of the<br>City of Seattle, including work performed by<br>private parties at their own expense under<br>authority granted by ordinance of the City<br>Council or by permit from the Seattle<br>Department of Transportation's Street Use<br>section. |  |  |  |
|                        | Washington State Department of Health           | WAC Title 246  | Public Water Systems.<br>See Chapters 290-296.  |  |  |  |

<sup>&</sup>lt;sup>2</sup> Authority for requiring utility improvements and using building features that reduce demand for utilities is identified in rules, codes and policies and are applied during permitting reviews. These include construction codes including the Building Code, Electrical Code, Energy Code, Fuel Gas Code; Plumbing Code, and the Stormwater Code, and rules promulgated by City/County Planning and Public Utilities departments, including water, sewer, storm drain & electrical system improvements.

# D Air Quality & GHG Appendix

#### Seattle Comprehensive Plan On-Road Emissions Summary

Buses

0.4

2.3

1.0

MT=Metric Ton

| Existing |       |         |       |                 |              |            |                  |               |                |     |          |
|----------|-------|---------|-------|-----------------|--------------|------------|------------------|---------------|----------------|-----|----------|
| -        | VOC   | CO      | NOX   | PM10<br>Exhaust | PM10<br>BWTW | Total PM10 | PM2.5<br>Exhaust | PM2.5<br>BWTW | Total<br>PM2.5 | SO2 |          |
|          |       |         |       |                 | Tons         | /Year      |                  |               |                |     | MTCO2e   |
| Cars     | 276.2 | 1,760.4 | 109.8 | 1.6             | 0.0          | 1.7        | 1.4              | 0.0           | 1.5            | 1.4 | 14,761.0 |
| Trucks   | 7.4   | 38.7    | 6.2   | 1.1             | 0.0          | 1.1        | 0.9              | 0.0           | 1.0            | 0.1 | 8,344.4  |
| Buses    | 0.5   | 5.2     | 0.7   | 1.1             | 0.0          | 1.1        | 0.9              | 0.0           | 0.9            | 0.0 | 7,964.4  |
| Total    | 284.0 | 1,804.2 | 116.7 | 3.8             | 0.1          | 3.8        | 3.3              | 0.0           | 3.3            | 1.5 | 31,069.8 |

| Alternative | 1<br>VOC | CO    | NOX  | PM10<br>Exhaust | PM10<br>BWTW | Total PM10 | PM2.5<br>Exhaust | PM2.5<br>BWTW | Total<br>PM2.5 | SO2 |          |
|-------------|----------|-------|------|-----------------|--------------|------------|------------------|---------------|----------------|-----|----------|
|             |          |       |      |                 | Tons         | /Year      |                  |               |                |     | MTCO2e   |
| Cars        | 151.6    | 642.0 | 48.7 | 4.6             | 0.1          | 4.7        | 4.1              | 0.0           | 4.1            | 0.2 | 28,553.9 |
| Trucks      | 5.3      | 15.3  | 6.7  | 0.1             | 0.0          | 0.1        | 0.1              | 0.0           | 0.1            | 0.0 | 763.0    |
| Buses       | 0.4      | 2.3   | 1.0  | 0.0             | 0.0          | 0.0        | 0.0              | 0.0           | 0.0            | 0.0 | 91.3     |
| Total       | 157.3    | 659.6 | 56.4 | 4.7             | 0.1          | 4.8        | 4.2              | 0.0           | 4.2            | 0.2 | 29,408.2 |

| Alternative 2 |       |       |      |         |      |            |         |       |       |     |          |
|---------------|-------|-------|------|---------|------|------------|---------|-------|-------|-----|----------|
|               |       |       |      | PM10    | PM10 |            | PM2.5   | PM2.5 | Total |     |          |
|               | VOC   | CO    | NOX  | Exhaust | BWTW | Total PM10 | Exhaust | BWTW  | PM2.5 | SO2 |          |
|               |       |       |      |         | Tons | /Year      |         |       |       |     | MTCO2e   |
| Cars          | 156.0 | 660.5 | 50.1 | 4.8     | 0.1  | 4.8        | 4.2     | 0.0   | 4.2   | 0.2 | 29,374.1 |
| Trucks        | 5.3   | 15.4  | 6.7  | 0.1     | 0.0  | 0.1        | 0.1     | 0.0   | 0.1   | 0.0 | 770.0    |
| Buses         | 0.4   | 2.3   | 1.0  | 0.0     | 0.0  | 0.0        | 0.0     | 0.0   | 0.0   | 0.0 | 91.3     |
| Total         | 161.7 | 678.2 | 57.8 | 4.9     | 0.1  | 4.9        | 4.3     | 0.0   | 4.3   | 0.2 | 30,235.5 |

SO2

0.0

0.2 0.0

0.0

MTCO2e 29,371.3

772.2

91.3

| Alternative | 3     |       |      | PM10    | PM10 |            | PM2 5   | PM2 5 | Total |
|-------------|-------|-------|------|---------|------|------------|---------|-------|-------|
|             | VOC   | CO    | NOX  | Exhaust | BWTW | Total PM10 | Exhaust | BWTW  | PM2.5 |
|             |       |       |      |         | Ton  | s/Year     |         |       |       |
| Cars        | 156.0 | 660.5 | 50.1 | 4.8     | 0.1  | 4.8        | 4.2     | 0.0   | 4.2   |
| Trucks      | 5.3   | 15.4  | 6.7  | 0.1     | 0.0  | 0.1        | 0.1     | 0.0   | 0.1   |

0.0

| Total         | 161.7 | 678.2 | 57.8 | 4.9     | 0.1  | 4.9        | 4.3     | 0.0   | 4.3   | 0.2 | 30,234.8 |
|---------------|-------|-------|------|---------|------|------------|---------|-------|-------|-----|----------|
| Alternative 5 |       |       |      |         |      |            |         |       |       |     |          |
|               |       |       |      | PM10    | PM10 |            | PM2.5   | PM2.5 | Total |     |          |
|               | VOC   | CO    | NOX  | Exhaust | BWTW | Total PM10 | Exhaust | BWTW  | PM2.5 | SO2 |          |
|               |       |       |      |         | Tons | /Year      |         |       |       |     | MTCO2e   |
| Cars          | 161.4 | 683.1 | 51.9 | 4.9     | 0.1  | 5.0        | 4.4     | 0.0   | 4.4   | 0.2 | 30,375.3 |
| Trucks        | 5.4   | 15.6  | 6.8  | 0.1     | 0.0  | 0.1        | 0.1     | 0.0   | 0.1   | 0.0 | 779.3    |
| Buses         | 0.4   | 2.3   | 1.0  | 0.0     | 0.0  | 0.0        | 0.0     | 0.0   | 0.0   | 0.0 | 91.3     |
| Total         | 167.1 | 701.0 | 59.6 | 5.0     | 0.1  | 5.1        | 4.5     | 0.0   | 4.5   | 0.2 | 31,245.9 |

0.0

0.0

0.0

0.0

| Transportation-I | Related Cri | teria Poll | lutant E | missions ( | Ton | s/Year) |   |         |     |   |
|------------------|-------------|------------|----------|------------|-----|---------|---|---------|-----|---|
|                  |             |            |          |            |     | PM10    |   | PM2.5   |     |   |
|                  | VOC         | CO         |          | NOx        |     | Exhaust |   | Exhaust | SO2 |   |
|                  |             |            |          |            |     |         |   |         |     |   |
| Existing         | 2           | 84         | 1,804    |            | 117 |         | 4 | 3       |     | 2 |
| Alt 1            | 1           | 57         | 660      |            | 56  |         | 5 | 4       |     | 0 |
| Alt 2            | 1           | 62         | 678      |            | 58  |         | 5 | 4       |     | 0 |
| Alt 3            | 1           | 62         | 678      |            | 58  |         | 5 | 4       |     | 0 |
| Alt 5            | 1           | 67         | 701      |            | 60  |         | 5 | 4       |     | 0 |

| Road Transportation Emissions (MTCO2e) |          |         |        |        |        |  |  |  |  |  |  |
|--|----------|---------|--------|--------|--------|--|--|--|--|--|--|
|  | Existing | Alt 1   | Alt 2  | Alt 3  | Alt 5  |  |  |  |  |  |  |
| Cars                                   | 14,761   | 28,554  | 29,374 | 29,371 | 30,375 |  |  |  |  |  |  |
| Trucks                                 | 8,344    | 763     | 770    | 772    | 779    |  |  |  |  |  |  |
| Buses                                  | 7,964    | 91      | 91     | 91     | 91     |  |  |  |  |  |  |
| Total                                  | 31,070   | 29,408  | 30,235 | 30,235 | 31,246 |  |  |  |  |  |  |
|  |          | (1,662) | (834)  | (835)  | 176    |  |  |  |  |  |  |



Transportation Exhaust Criteria Pollutant Emissions (Tons/yr)



# Seattle Comprehensive Plan Operational GHG Emissions

| Existing   |  |                     |                            |         |
|------------|--|---------------------|----------------------------|---------|
|            | Transportation                             |                     | 31,070                     |         |
| Alternativ | /e 1                                       |                     |                            |         |
|            | Transportation<br>Building Energy<br>Waste |                     | 29,408<br>48,422<br>60.834 | (1,662) |
|            |  | Total Emissions     |                            | 107,594 |
|            |  | Growth (population) |                            | 164,000 |
|            |  | per capita MTCO2e   |                            | 0.66    |
| Alternativ | /e 2                                       |                     |                            |         |
|            | Transportation<br>Building Energy<br>Waste |                     | 30,235<br>50,489<br>64,053 | (834)   |
|            |  | Total Emissions     |                            | 113,708 |
|            |  | Growth (population) |                            | 205,000 |
|            |  | per capita MTCO2e   |                            | 0.55    |
| Alternativ | /e 3                                       |                     |                            |         |
|            | Transportation<br>Building Energy<br>Wasto |                     | 30,235<br>50,926           | (835.0) |
|            | Waste                                      | Total Emissions     | 04,274                     | 114 385 |
|            |  | Growth (population) |                            | 205.000 |
|            |  | per capita MTCO2e   |                            | 0.56    |
| Alternativ | ve 4                                       | 1 1                 |                            |         |
|            | Transportation<br>Building Energy<br>Waste |                     | 30,235<br>50,654<br>64 294 | (835.0) |
|            | Thatte                                     | Total Emissions     | 01,271                     | 114,113 |
|            |  | Growth (population) |                            | 205,000 |
|            |  | per capita MTCO2e   |                            | 0.56    |
| Alternativ | /e 5                                       | · ·                 |                            |         |
|            | Transportation<br>Building Energy<br>Waste |                     | 31,246<br>52,785<br>67,917 | 176     |
|            |  | Total Emissions     |                            | 120,878 |
|            |  | Growth (population) |                            | 246,000 |
|            |  | per capita MTCO2e   |                            | 0.49    |

## Seattle Comprehensive Plan Solid Waste Assumptions

|                     | Existing   | Alternative 1 | Alternative 2     | Alternative 3 | Alternative 5 |
|---------------------|------------|---------------|-------------------|---------------|---------------|
|                     |            |               | Annual VMT        |               |               |
| Cars                | 20,332,000 | 22,213,000    | 22,532,000        | 22,382,000    | 22,920,000    |
| Trucks              | 1,871,300  | 2,144,100     | 2,166,900         | 2,211,100     | 2,202,100     |
| Buses               | 68,930     | 77,150        | 77,140            | 77,140        | 77,140        |
| Total VMT           | 22,272,230 | 24,434,250    | 24,776,040        | 24,670,240    | 25,199,240    |
|                     |            |               |                   |               |               |
| Total cars + trucks | 22,203,300 | 24,357,100    | 24,698,900        | 24,593,100    | 25,122,100    |
| units               | 80000      | 100000        | 100000            | 100000        | 120000        |
| VMT/DU              | 277.54125  | 243.571       | 246.989           | 245.931       | 209.3508333   |
|                     |            |               |                   |               |               |
|                     | Existing   | Alternative 1 | Alternative 2     | Alternative 3 | Alternative 5 |
|                     |            | Annual        | Fuel Usage (MMBtu | ר)            |               |
| Gasoline            | 347,084    | 338,092       | 347,762           | 347,732       | 359,567       |
| Diesel              | 14,149     | 20,230        | 20,672            | 20,692        | 21,219        |
| CNG                 | 116        | 161           | 162               | 162           | 163           |
| Ethanol             | 621        | 631           | 649               | 955           | 671           |

### Seattle Comprehensive Plan Housing Type Assumptions

| Unit Type     | CalEEMod Unit Type    | Alt 1 | Alt 2  | Alt 3  | Alt 4  | Alt 5  |
|---------------|-----------------------|-------|--------|--------|--------|--------|
| Single Family | Single Family         | 1389  | 698    | 1111   | 1111   | 1111   |
| Small ADU     | Multifamily low rise  | 2593  | 1977   | 14247  | 5522   | 4056   |
| Townhome      | Townhome              | 648   | 533    | 4260   | 1578   | 1128   |
| Multi family  | Multi family mid rise | 75370 | 96792  | 80382  | 91789  | 113705 |
|               |                       | 80000 | 100000 | 100000 | 100000 | 120000 |

|  | Analysis Zone 1  |   | Analysis Zone 2  | Analysis Zone 3                                      | Analysis Zone 4                                    | Analysis Zone 5  | Analysis Zone 6                                    | Analysis Zone 7                                    | Analysis Zone 8                                     | Total  |
|--|--|---|--|--|--|--|--|--|---|--|
| Alternative 1  | HU Capacity HU Target Jobs Capacity Jobs Target        |   | HU HU<br>Capacity Target Jobs Capacity Jobs Target     | Jobs Jobs<br>HU Capacity HU Target Capacity Target   | HU Jobs Jobs<br>Capacity HU Target Capacity Target | HU Jobs Jobs<br>Capacity HU Target Capacity Target       | HU Jobs Jobs<br>Capacity HU Target Capacity Target | HU Jobs Jobs<br>Capacity HU Target Capacity Target | HU Jobs Jobs<br>t Capacity HUTarget Capacity Target | HU Jobs Jobs<br>Capacity HUTaroet Capacity Taroet  |
| Urban Centers  |  |   | 14,654 6,049 19,048 6,740                              | 4,290 3,595 12,017 2,646                             | 26,610 18,265 91,768 90,214                        | 11,536 9,061 3,359 3,359                                 | 9  |  |   | 57,090 36,970 126,192 102,959  |
| Hub Urban Villages   | 16,404 7,588 28,714 6,504                              |   | 4,159 927 2,216 622                                    | <br>1 1 1 1  |  | 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.                   | 4,004 3,128 1,597 1,597                            |  | 10,128 1,242 15,699 3,05*                           | 3 34,695 12,885 48,226 11,776  |
| Nesidential Urban Villages<br>Manufacturing Industrial Contern           | 12,708 3,822 5,090 2,020                               |   | 2,188 1,400 930 300                                    | 638 402 289 281<br>542 629 4.064 6.100               | 1,314 1,010 613 281                                | 5,309 3,193 2,751 1,06                                   | 7 5,792 1,143 2,081 89                             | 2,096 949 17,070 12,70                             | 3 11,961 3,469 4,729 2,373                          | 3 41,066 14,764 18,605 7,735<br>2,629 1,476 21,124 19,900  |
| Growth Area (Maritime Industrial)  |  |   |  |  |  | 148 144 90 -   |  | 535 392 317 -                                      | 144 140 81 -  | 827 676 488 -  |
| Outside Subareas (This Alternative)                                      | 2,386 1,040 2,307 1,377                                |   | 4,602 2,006 2,305 1,376                                | 1,224 534 749 447                                    |  | 1,308 570 171 10   | 2 2,809 1,225 1,720 1,02                           | 386 168 690 41                                     | 2 2,181 951 3,475 2,07                              | 5 14,896 6,494 11,417 6,816  |
| Outside Subareas (No Change All Alternatives)                            | 2,987 1,302 3,348 1,999                                |   | 5,381 2,346 2,977 1,777                                | <br>1,971 859 1,775 1,060                            | 316 138 398 238                                    | 656 286 275 16   | 4 1,567 683 2,569 1,53                             | 602 262 1,687 1,00                                 | /7 1,970 859 3,578 2,136                            | à 15,450 6,735 16,607 9,914  |
| Total  | 34,485 13,752 39,459 11,900                            |   | 30,984 12,794 27,482 10,881                            | <br>8,665 6,018 18,894 10,534                        | 28,240 19,413 92,779 90,733                        | 1 18,957 13,254 6,646 4,693                              | 2 14,172 6,179 7,967 5,05                          | 4,765 1,929 21,880 14,56                           | 9 26,384 6,661 27,562 9,633                         | / 166,652 80,000 242,669 158,000   |
| snare or larget  | 17.2% 7.5%   |   | 10.0% 6.9%   | 7.5% 6.7%  | 24.3% 57.43  | 6 16.6% 3.0  | % <i>1.1</i> % 3.2                                 | 6 2.4% 9.3   | .% 8.3% 6.11  | *  |
|  | Analysis Zone 1  |   | Analysis Zone 2  | Analysis Zone 3                                      | Analysis Zone 4                                    | Analysis Zone 5  | Analysis Zone 6                                    | Analysis Zone 7                                    | Analysis Zone 8                                     | Total  |
|  |  |   | HU HU  | stade adol   | HU Jobs Jobs                                       | HU Jobs Jobs   | HU Jobs Jobs                                       | HU Jobs Jobs                                       | HU Jobs Jobs  | HU Jobs Jobs   |
| Alternative 2  | HU Capacity HU Target Jobs Capacity Jobs Target        |   | Capacity Target Jobs Capacity Jobs Target              | HU capacity HU Target Capacity Target                | Capacity HU larget Capacity Target                 | Lapacity HU larget Capacity Target                       | Capacity HU larget Capacity Target                 | capacity HU larget capacity large                  | Capacity Hu Target Capacity Target                  | Eagled and a second sec |
| Hub Urban Villages   | 16.404 7.588 28.714 6.310                              |   | 4 159 927 2 216 603                                    | 4,270 3,575 12,017 2,580                             | 20,010 18,203 71,708 87,300                        | 11,536 9,061 3,359 3,25                                  | 4 004 3 128 1 597 1 54                             |  | 10 128 1 242 15 699 2 96                            | 1 34.695 12.885 48.226 11.417  |
| Residential Urban Villages   | 12,708 3,822 5,090 1,957                               |   | 2,188 1,466 936 355                                    | 638 402 289 273                                      | 1,314 1,010 613 273                                | 5,309 3,193 2,751 1,03                                   | 5 5,792 1,143 2,081 87                             | 1,156 259 2,116 43                                 | 37 11,961 3,469 4,729 2,33                          | 5 41,066 14,764 18,605 7,535   |
| Manufacturing Industrial Centers   |  |   |  | <br>542 628 4,064 6,100                              |  |  |  | 2,086 848 17,070 12,70                             | 0.  | 2,628 1,476 21,134 18,800  |
| Growth Area (Maritime Industrial)  |  |   | 4171 4 541 2 070 2 100                                 |  |  | 148 144 90 -   |  | 535 392 317 -                                      | 144 140 81 -  | 827 676 488 -  |
| Neighborhood Anchor - Low Risk   | 2,377 3,374 2,177 2,230                                |   | 4,171 0,541 2,078 2,196<br>390 453 99 122              | 753 2,402 141 857                                    |  | 742 3,430 180 72.  | 1700 2308 1485 1212                                | 384 506 690 47                                     | 71 636 881 159 23                                   | 5 3,110 4,148 2,433 2,045  |
| Outside Subareas (This Alternative)                                      | 601 262 109 64   |   | 1,105 482 175 157                                      | 419 183 8 5  |  | 498 217 32 1   | 9 1,052 459 28 2                                   | 9 4  | 1,652 720 3,280 1,86                                | 6 5,336 2,327 3,632 2,133  |
| Outside Subareas (No Change All Alternatives)                            | 2,987 1,302 3,348 1,939                                |   | 5,381 2,346 2,977 1,724                                | <br>1,971 859 1,775 1,028                            | 316 138 398 230                                    | 656 286 275 15   | 9 1,567 683 2,569 1,488                            | 602 262 1,687 97                                   | /7 1,970 859 3,578 2,07.                            | 2 15,450 6,735 16,607 9,617  |
| Total  | 35,099 18,368 39,460 12,506                            |   | 32,048 18,264 27,529 11,697                            | 8,813 8,069 18,894 10,829                            | 28,240 19,413 92,779 88,011                        | 19,089 16,331 6,693 5,19                                 | 4 14,784 9,427 7,967 5,58                          | 4,772 2,271 21,880 14,58                           | .5 26,650 7,857 27,561 9,597                        | / 169,495 100,000 242,763 158,000  |
| snare or larget  | 18.4% 7.9%   |   | 18.3% 7.4%   | 8.1% 0.9%  | 19.4% 55.7   | 6 16.5% 3.5  | % 9.4% 3.5   | 6 2.3% 9.3   | 36 7.9% 6.11  | *  |
|  | Analysis Zone 1  |   | Analysis Zone 2  | Analysis Zone 3                                      | Analysis Zone 4                                    | Analysis Zone 5  | Analysis Zone 6                                    | Analysis Zone 7                                    | Analysis Zone 8                                     | Total  |
| Alternation 2  | 181 Campailes 181 Terrart John Comparity, John Terrart |   | HU HU<br>Compatibu Taranat Jaka Compatibu Jaka Taranat | Jobs Jobs  | HU Jobs Jobs                                       | HU Jobs Jobs<br>Comparity IIII Terrent Comparity Terrent | HU Jobs Jobs                                       | HU Jobs Jobs                                       | HU Jobs Jobs  | HU Jobs Jobs   |
| Alternative 3  | Ho capacity Ho faiger sous capacity sous faiger        |   | Capacity Target Jobs capacity Jobs Target              | 4 300 2 505 12 017 2 544                             | 26.610 19.265 01.260 97.500                        | 11 526 0.061 2.250 2.250                                 | capacity Ho rarger capacity rarger                 | capacity no target capacity target                 | capacity no raiger capacity raiger                  | 57 non 24 970 124 192 99 970   |
| Hub Urban Villages   | 16.404 7.588 28.714 6.310                              |   | 4.159 927 2.216 603                                    |  |  |  | 4.004 3.128 1.597 1.543                            |  | 10.128 1.242 15.699 2.96                            | 34,695 12,885 48,226 11,417  |
| Residential Urban Villages   | 12,708 3,822 5,090 1,957                               |   | 2,188 1,466 936 355                                    | <br>638 402 289 273                                  | 1,314 1,010 613 273                                | 5,309 3,193 2,751 1,03                                   | 5 5,792 1,143 2,081 87                             | 1,156 259 2,116 43                                 | J7 11,961 3,469 4,729 2,33 <sup>r</sup>             | 5 41,066 14,764 18,605 7,535   |
| Manufacturing Industrial Centers   |  |   | 1  | 542 628 4,064 6,100                                  |  | 1. 1. 1. 1. 1.   |  | 2,086 848 17,070 12,70                             |   | 2,628 1,476 21,134 18,800  |
| Growth Area (Maritime Industrial)<br>Neighborhood Residential            | 9 210 4 095 123 754                                    |   | 17.892 7.921 154 221                                   | <br>1680 875 24 18                                   |  | 148 144 90 ·<br>1218 741 37 28                           | 4 9454 4480 15 2                                   | 535 392 317 -                                      | 144 140 81 -<br>8589 4290 3176 460                  | 6 48 284 22 423 3 529 5 906  |
| Outside Subareas (This Alternative)                                      | 1.741 760 2.193 1.330                                  |   | 3.429 1.497 2.156 1.389                                | 812 355 721 439                                      |  | 767 334 139 8  | 7 1.702 743 1.707 1.05                             | 376 165 690 40                                     | J1 498 217 277 15                                   | 3 9.325 4.071 7.883 4.855  |
| Outside Subareas (No Change All Alternatives)                            | 2,987 1,302 3,348 1,939                                |   | 5,381 2,346 2,977 1,724                                | 1,971 859 1,775 1,028                                | 316 138 398 230                                    | 656 286 275 15   | 9 1,567 683 2,569 1,48                             | 602 262 1,687 97                                   | 7 1,970 859 3,578 2,075                             | 2 15,450 6,735 16,607 9,617  |
| Total  | 43,050 17,567 39,468 12,290                            |   | 47,703 20,206 27,487 10,830                            | <br>9,933 6,714 18,890 10,424                        | 28,240 19,413 92,779 88,011                        | 19,634 13,759 6,651 4,82                                 | 3 22,719 10,177 7,969 4,98                         | 4,796 1,947 21,880 14,51                           | 5 33,290 10,217 27,540 12,127                       | / 209,365 100,000 242,664 158,000  |
| share of harges  |  |   |  |  |  |  |  |  |   |  |
|  | Analysis Zone 1  |   | Analysis Zone 2  | Analysis Zone 3                                      | Analysis Zone 4                                    | Analysis Zone 5  | Analysis Zone 6                                    | Analysis Zone 7                                    | Analysis Zone 8                                     | Total  |
| Alternative 4  | HILCapacity HILTarget Jobs Capacity Jobs Target        |   | HU HU<br>Capacity Target Jobs Capacity Jobs Target     | Jobs Jobs<br>HII Capacity HII Target Capacity Target | HU Jobs Jobs<br>Capacity HIITarnet Capacity Target | HU Jobs Jobs<br>Canacity HUTarnet Canacity Tarnet        | HU Jobs Jobs<br>Capacity HUTarnet Capacity Tarnet  | HU Jobs Jobs<br>Capacity HIITarget Capacity Target | HU Jobs Jobs<br>Capacity HII Target Capacity Target | HU Jobs Jobs<br>Capacity HILTarpet Capacity Tarpet   |
| Urban Centers  |  |   | 14.654 6.049 19.048 6.538                              | 4,290 3,595 12,017 2,566                             | 26.610 18.265 91.768 87.506                        | 11.536 9.061 3.359 3.25                                  | 8  |  |   | 57.090 36.970 126.192 99.870   |
| Hub Urban Villages   | 16,404 7,588 28,714 6,310                              |   | 4,159 927 2,216 603                                    | <br>   |  |  | 4,004 3,128 1,597 1,543                            |  | 10,128 1,242 15,699 2,96                            | 1 34,695 12,885 48,226 11,417  |
| Residential Urban Villages   | 12,708 3,822 5,090 1,957                               |   | 2,188 1,466 936 355                                    | 638 402 289 273                                      | 1,314 1,010 613 273                                | 5,309 3,193 2,751 1,03                                   | 5 5,792 1,143 2,081 870                            | 1,156 259 2,116 43                                 | .7 11,961 3,469 4,729 2,335                         | s 41,066 14,764 18,605 7,535   |
| Manufacturing Industrial Centers<br>Growth Area (Maritime Industrial)    |  |   |  | 542 628 4,064 6,100                                  |  | 149 144 90   |  | 2,086 848 17,070 12,70                             | 144 140 91  | 2,628 1,476 21,134 18,800  |
| Neighborhood Residential-Corridor  | 5,081 3,579 104 1,165                                  |   | 12,150 8,484 15 129                                    | 914 694 -  |  | 816 719 37 44  | 9 5,718 4,114 1 12                                 | 41 33  | 4,744 3,584 175 2,15'                               | 5 29,464 21,207 332 3,910  |
| Outside Subareas (This Alternative)                                      | 2,090 910 2,212 1,371                                  |   | 4,063 1,769 2,295 1,549                                | 1,055 460 741 447                                    |  | 929 404 139 9  | 1 2,277 993 1,720 1,09                             | 376 164 690 40                                     | 1 1,347 587 3,284 1,89                              | 4 12,137 5,287 11,081 6,851  |
| Outside Subareas (No Change All Alternatives)                            | 2,987 1,302 3,348 1,939                                |   | 5,381 2,346 2,977 1,724                                | 1,971 859 1,775 1,028                                | 316 138 398 230                                    | 656 286 275 15   | 9 1,567 683 2,569 1,48                             | 602 262 1,687 97                                   | 7 1,970 859 3,578 2,073                             | 2 15,450 6,735 16,607 9,617  |
| 101al  | 39,270 17,201 39,468 12,742                            |   | 42,595 21,041 27,487 10,898                            | <br>9,410 6,638 18,886 10,414                        | 10.4% 55.7%  | 19,394 13,807 6,651 4,99                                 | 2 19,358 10,061 7,968 5,01                         | 4,796 1,958 21,880 14,51                           | 5 30,294 9,881 27,546 11,417                        | 7 193,357 100,000 242,665 158,000  |
| share of harges  | 11.2.10 G. 10  |   | 21.00  | 0.00   |  |  |  | - 100 /1   |   | •  |
|  | Analysis Zone 1  |   | Analysis Zone 2  | Analysis Zone 3                                      | Analysis Zone 4                                    | Analysis Zone 5  | Analysis Zone 6                                    | Analysis Zone 7                                    | Analysis Zone 8                                     | Total  |
| Alternative 5  | HILCapacity HILTarget Jobs Capacity Jobs Target        |   | HU HU<br>Capacity Target Jobs Capacity Jobs Target     | JODS JODS JODS HUTarnet Canacity Tarnet              | HU JODS JODS Capacity HUTarget Capacity Target     | Canacity HUTarnet Canacity Tarnet                        | HU JODS JODS<br>Capacity HILTarget Capacity Target | HU JODS JODS<br>Capacity HILTarget Capacity Target | HU JODS JODS<br>Capacity HUTarget Capacity Target   | HU JODS JODS<br>Capacity HILTarpet Capacity Tarpet   |
| Urban Centers  | 5,601 6,042 4,129 4,097                                |   | 14,654 6,049 19,048 6,403                              | 4,367 3,634 12,017 2,514                             | 26,610 18,265 91,768 85,703                        | 11,536 9,061 3,359 3,19                                  | 1 · · · · ·  | · · · · · ·  |   | 62,768 43,051 130,321 101,908  |
| Hub Urban Villages   | 10,803 2,546 24,585 2,256                              |   | 4,159 927 2,216 591                                    | <br>   |  |  | 4,071 3,140 1,612 1,528                            |  | 10,128 1,242 15,699 2,907                           | J 29,161 7,855 44,112 7,273  |
| Residential Urban Villages   | 12,998 3,838 5,108 1,928                               |   | 10,440 3,110 1,852 704                                 | 708 429 289 267                                      | 1,314 1,010 613 267                                | 5,317 3,194 2,751 1,014                                  | 4 6,048 2,884 2,081 1,152                          | 1,156 1,659 2,116 67                               | 1 12,079 6,738 4,827 2,875                          | 5 50,060 22,862 19,637 8,878   |
| Manufacturing Industrial Centers<br>Growth Area (Maritime Industrial)    |  |   |  | 542 628 4,064 6,100                                  |  | 149 144 90   |  | 2,086 848 17,070 12,70                             | 144 140 91  | 2,628 1,476 21,134 18,800  |
| Neighborhood Anchor - Low Risk   | 2.399 4.495 2.199 1.893                                |   | 4.811 5.127 1.455 1.799                                | 953 2.002 741 707                                    |  | 942 2.830 186 510  | 0 669 1.406 207 33                                 |  | 159 446 35 9  | 2 9,933 16.306 4.823 5.334   |
| Neighborhood Anchor - High Risk  |  |   |  | <br>   |  |  | 1,373 2,083 1,485 1,10                             | 377 461 690 44                                     | 43 452 791 160 19                                   | 4 2,202 3,335 2,335 1,738  |
| Neighborhood Residential   | 4,033 1,885 6 6  |   | 5,487 2,569 84 84                                      | 591 310 4 4  |  | 395 240  | 3,777 1,878 14 1                                   | 1  | 3,716 1,966 2,988 3,005                             | 5 17,999 8,848 3,096 3,113   |
| Neignbornood Kesidentiai-Corridor<br>Outside Subseast (This Alternativa) | 4,227 1,390 93 457                                     |   | 10,616 3,429 10 49                                     | 305  |  | 650 346 36 17  | / 4,88/ 1,6/4 1                                    | 33 14  | 4,458 1,698 173 850                                 | 1 25,674 8,856 313 1,538   |
| Outside Subareas (No Change All Alternatives)                            | 2,987 1,302 3,348 1.899                                |   | 5,381 2,346 2,977 1.688                                | 1,971 859 1,775 1.007                                | 316 138 398 226                                    | 656 286 275 15   | 6 1,567 683 2,569 1.45                             | 602 262 1,687 95                                   | i6 1,970 859 3,578 2.02                             | 9 15,450 6,735 16,607 9.418  |
| Total  | 43,050 21,498 39,468 12,536                            |   | 55,548 23,557 27,642 11,318                            | 9,933 8,167 18,890 10,599                            | 28,240 19,413 92,779 86,190                        | 19,644 16,101 6,697 5,04                                 | 8 22,392 13,748 7,969 5,58                         | 4,789 3,636 21,880 14,71                           | 0 33,106 13,880 27,541 11,94                        | 5 216,702 120,000 242,866 158,000  |
| Share of Target  | 17.9% 7.9%   |   | 19.6% 7.2%   | <br>6.8% 6.7%  | 16.2% 54.6   | 6 13.4% 3.2  | % 11.5% 3.5  | 6 3.0% 9.3   | .% 11.6% 7.6  | <u>ś</u>   |
|  | Hausing  |   |  |  |  |  |  |  |   |  |
|  | Alt1 Alt2 Alt3 Alt4                                    | 1 | Alt 5  |  |  |  |  |  |   |  |
| Area 1 Northwest   | 17.2% 18.4% 17.6% 17.29                                | 6 | 17.9%  |  |  |  |  |  |   |  |

| Area 2 Northeast                     | 16.0%                  | 18.3%      | 20.2%      | 21.0%       |            | 19.6%  |
|--------------------------------------|------------------------|------------|------------|-------------|------------|--------|
| Area 3 West                          | 7.5%                   | 8.1%       | 6.7%       | 6.6%        |            | 6.8%   |
| Area 4 Downtown                      | 24.3%                  | 19.4%      | 19.4%      | 19.4%       |            | 16.2%  |
| Area 5 East                          | 16.6%                  | 16.3%      | 13.8%      | 13.8%       |            | 13.4%  |
| Area 6 Souhwest                      | 7.7%                   | 9.4%       | 10.2%      | 10.1%       |            | 11.5%  |
| Area 7 Duwamish Manufacturing Center | 2.4%                   | 2.3%       | 1.9%       | 2.0%        |            | 3.0%   |
| Area 8 Southeast                     | 8.3%                   | 7.9%       | 10.2%      | 9.9%        |            | 11.6%  |
| Total                                | 100.0%                 | 100.0%     | 100.0%     | 100.0%      |            | 100.0% |
|                                      | Jobs                   |            |            |             |            |        |
|                                      | Alt 1                  | Alt 2      | Alt 3      | Alt 4       |            | Alt 5  |
| Area 1 Northwest                     | 7.5%                   | 7.9%       | 7.8%       | 8.1%        |            | 7.9%   |
| Area 2 Northeast                     | 6.9%                   | 7.4%       | 6.9%       | 6.9%        |            | 7.2%   |
| Area 3 West                          | 6.7%                   | 6.9%       | 6.6%       | 6.6%        |            | 6.7%   |
| Area 4 Downtown                      | 57.4%                  | 55.7%      | 55.7%      | 55.7%       |            | 54.6%  |
| Area 5 East                          | 3.0%                   | 3.3%       | 3.1%       | 3.2%        |            | 3.2%   |
| Area 6 Souhwest                      | 3.2%                   | 3.5%       | 3.2%       | 3.2%        |            | 3.5%   |
| Area 7 Duwamish Manufacturing Center | 9.2%                   | 9.2%       | 9.2%       | 9.2%        |            | 9.3%   |
| Area 8 Southeast                     | 6.1%                   | 6.1%       | 7.7%       | 7.2%        |            | 7.6%   |
| Total                                | 100.0%                 | 100.0%     | 100.0%     | 100.0%      |            | 100.0% |
|                                      |                        |            |            |             |            |        |
| Square Footage                       | Using Job Targets      |            | 250        | square feet |            |        |
|                                      | Commercial Square Feet |            |            |             |            |        |
|                                      | Alt 1                  | Alt 2      | Alt 3      | Alt 4       | Alt 5      |        |
| Area 1 Northwest                     | 2,618,000              | 2,751,320  | 2,703,800  | 2,803,240   | 2,757,920  |        |
| Area 2 Northeast                     | 2,393,820              | 2,573,340  | 2,382,600  | 2,397,560   | 2,439,960  |        |
| Area 3 West                          | 1,803,167              | 1,868,067  | 1,778,967  | 1,776,767   | 1,017,467  |        |
| Area 4 Downtown                      | 19,961,260             | 19,362,420 | 19,362,420 | 19,362,420  | 18,963,120 |        |
| Area 5 East                          | 1,032,240              | 1,142,680  | 1,061,060  | 1,098,240   | 1,110,560  |        |
| Area 6 Souhwest                      | 1,111,880              | 1,227,820  | 1,095,600  | 1,102,420   | 1,229,360  |        |
| Area 7 Duwamish Manufacturing Center | 2,134,397              | 2,137,917  | 2,122,517  | 2,122,517   | 2,170,558  |        |
| Area 8 Southeast                     | 2,120,140              | 2,111,340  | 2,667,940  | 2,511,740   | 2,627,900  |        |
| IOIAI                                | 33,174,904             | 33,174,904 | 33,174,904 | 33,174,904  | 33,174,845 |        |
|                                      |                        |            |            |             |            |        |

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Selli SML 54% 44% Ceneral 88% 12.0% SML beloging SML 88% com SML beloging SML 88% com chystel excluding SML 88% com and 1% up per Cenux 6% the Map 2019

#### Potential Job Sector Split

Notes: Assume less SF in Downtown Office Ensure 10% higher retail/service in neighborhoods For MIC, match SIML EIS

#### Jobs per SF in King County UGC for Seattle

#### Commercial Industrial Low 275 500 300 Hiah 700

https://kingcounty.gov/-/media/depts/executive/performance-strategy-budget/regional-planning/GrowthManagement/GMPC-2021/GMPC-Meeting-062321/KC-UGC-Final-Draft-Report-June-2021.ashx?la=en

## Suggest using SIML Assumptions 250 700

For office shows some smaller square feet which may be appropriate given change in Downtown/elsewhere due to COVID effects. For Industrial shows higher range and still similar to SIML for conservative Air Q.

JOBS per SF: CAI, September 1, 2020: Seattle Maritime and Industrial StrategyEmployment Trends and Land Use Alternatives Analysis

Absorption Assumptions: Required Redevelopment Land Absorption assumptions: Required Redevelopment Land Absorption assumptions by subarea expressed as square feet of land per job is calculated by dividing square feet of building area per job Exhibit 24. Absorption Assumptions by subarea. No Action Alternative, 2035 Sources: Paget Sound Regional Council, 2020: Community Attributes Inc., 2020.

| atle       | htery                     | Blat | hetayi<br>Daus | litetayi<br>Snihlare | SOOV<br>Sadun | SubRel/<br>Geogetion |
|------------|---------------------------|------|----------------|----------------------|---------------|----------------------|
| (ihe       | Kapitaliy & Taxian        | 1,0  | 181            | 230                  | 200           | 1                    |
| h          | Constaction and Utilities | 8    | 1,0            | [3]                  | 10            | 18                   |
| lonillî li |                           | H    | 9              | 57                   | ท             | 8                    |
| h          | Distriction & Sconnecte   | 8    | 10             | 13                   | 10            | 18                   |
| h          | Rod & Beezge Protocion    | 8    | 1,0            | [3]                  | 10            | 18                   |
| h          | ketopae                   | 88   | 14             | 13                   | 10            | 78                   |
| h          | Tasportation & Lugistics  | 8    | 1,0            | [3]                  | 10            | 18                   |
| h          | laine                     | 88   | 14             | 13                   | 10            | 18                   |
| h          | OterNaufaturg             | 81   | 10             | 13                   | 10            | 11                   |
| billi Alb  | sébi                      | li   | 1              | 57                   | 5             | 8                    |
| losti Alti | elenies                   | h    | 9              | 57                   | 5             | 8                    |
| 648        | Grement                   | 18   | 200            | 10                   | 0             | II                   |
| 648        | Bizla                     | 18   | 200            | 10                   | 40            | I                    |

SECTOR SPLITS: CAI, September 1, 2020: Seattle Maritime and Industrial StrategyEmployment Trends and Land Use Alternatives Analysis

#### Total Historic and Projected Employment by Industry, City of Seattle, 2010-2035

Sources: Bureau of Labor Statistics, 2020; Puget Sound Regional Council, 2020; Washington State Employment Security Department, 2020; Community Attributes Inc., 2020.

|                            | 2010    | 2015    | 2019    | 2025    | 2018  | 2035    |                   |        |
|----------------------------|---------|---------|---------|---------|-------|---------|-------------------|--------|
|                            | 2010    | 2015    | 2010    | 2035    | CAGR  | Growth  | Estimate 2035 Sha | are by |
| All Other Services         | 209,800 | 232,600 | 249,500 | 280,400 | 0.7%  | 30,900  | Commercial        |        |
| Hospitality & Tourism      | 52,800  | 63,400  | 70,800  | 95,300  | 1.8%  | 24,500  | Commercial        | SIN    |
| Distribution & E-commerce  | 20,500  | 38,700  | 60,400  | 104,400 | 3.3%  | 44,000  | Industrial        | Bas    |
| Education                  | 58,900  | 66,500  | 59,000  | 58,400  | -0.1% | -600    | Commercial        | BIN    |
| ICT                        | 23,900  | 36,000  | 50,400  | 129,400 | 5.7%  | 79,000  | Commercial        | Gre    |
| Government                 | 48,700  | 46,600  | 49,400  | 49,000  | 0.0%  | -400    | Commercial        | Tot    |
| Construction and Utilities | 23,200  | 27,400  | 34,400  | 52,900  | 2.6%  | 18,500  | Industrial        | _      |
| All Other Retail           | 21,900  | 23,400  | 23,000  | 24,500  | 0.4%  | 1,500   | Commercial        |        |
| Food & Beverage Production | 13,100  | 15,900  | 16,500  | 22,600  | 1.9%  | 6,100   | Industrial        | Pre    |
| Maritime                   | 16,500  | 15,100  | 15,600  | 15,900  | 0.1%  | 300     | Industrial        | Ind    |
| Other Manufacturing        | 10,900  | 11,200  | 10,600  | 8,300   | -1.4% | -2,300  | Industrial        | _      |
| Transportation & Logistics | 7,200   | 7,700   | 9,100   | 11,800  | 1.5%  | 2,700   | Industrial        | Pre    |
| Aerospace                  | 9,500   | 8,700   | 7,900   | 7,900   | 0.0%  | 0       | Industrial        |        |
| Suppressed                 | 100     | 100     | 200     | 200     | 0.0%  | 0       |                   |        |
| Total                      | 517,100 | 593,000 | 656,800 | 861,000 | 1.6%  | 204,200 |                   |        |

| SIML Emp SF  |  |                                       |
|--|--|---------------------------------------|
| Base Year Split  | Industrial   | Non-Industrial                        |
| BINMIC   | 6,783,129  | 5,375,837                             |
| Greater Duwamisł   | 34632076   | 13,896,776                            |
| Total  | 41,415,205   | 19,272,613                            |
|  |  |                                       |
| Preferred Alternativ   | ve - Balanced  | Gross<br>% Industrial                 |
| Preferred Alternativ<br>Industrial Emp<br>70.853                           | ve - Balanced<br>Total Emp<br>134.045                  | Gross<br>% Industrial<br>52.9%        |
| Preferred Alternation<br>Industrial Emp<br>70,853<br>Preferred Alternation | ve - Balanced<br>Total Emp<br>134,045<br>ve - Balanced | Gross<br>% Industrial<br>52.9%<br>Net |

Commercial

54%

Industrial

46%

Questions Assume all Commercial in neighborhoods? Assume SIMIL breakdown in MICs? By Jobs or SF?

#### SECTOR SPLITS: Census on the Map, Total Jobs

| Jobs by N/    | N/ Citywide<br>2019 |       | SIML 2019 |            |           | Citywide Minus SIML<br>2019 |            |           |         |                |           |
|---------------|---------------------|-------|-----------|------------|-----------|-----------------------------|------------|-----------|---------|----------------|-----------|
|               | Count               | Share |           | Count      | Share     |                             | 20         | 19        |         |                |           |
| Aariculture.  | 1.261               | 0.2%  |           | 741        | 1.0%      |                             | 520        |           |         |                |           |
| Mining Qua    | 135                 | 0.0%  |           | 48         | 0.1%      |                             | 87         |           |         |                |           |
| Utilities     | 3.312               | 0.6%  |           | 168        | 0.2%      |                             | 3.144      |           |         |                |           |
| Construction  | 24.590              | 4.2%  |           | 6.653      | 8.9%      |                             | 17.937     |           |         |                |           |
| Manufacturi   | 27.519              | 4.7%  |           | 16,482     | 22.2%     |                             | 11.037     |           |         |                |           |
| Wholesale T   | 20.904              | 3.6%  |           | 7.200      | 9.7%      |                             | 13,704     |           |         |                |           |
| Retail Trade  | 40,787              | 7.0%  |           | 4,593      | 6.2%      |                             | 36,194     |           |         |                |           |
| Transportati  | 23,520              | 4.0%  |           | 6,334      | 8.5%      |                             | 17,186     |           |         |                |           |
| Information   | 36,909              | 6.3%  |           | 4,143      | 5.6%      |                             | 32,766     |           |         |                |           |
| Finance and   | 20,464              | 3.5%  |           | 397        | 0.5%      |                             | 20,067     |           |         |                |           |
| Real Estate   | 13,993              | 2.4%  |           | 1,373      | 1.8%      |                             | 12,620     |           |         |                |           |
| Professional  | 76,267              | 13.1% |           | 4,219      | 5.7%      |                             | 72,048     |           |         |                |           |
| Managemer     | 18,644              | 3.2%  |           | 7,103      | 9.5%      |                             | 11,541     |           |         |                |           |
| Administratic | 24,073              | 4.1%  |           | 2,802      | 3.8%      |                             | 21,271     |           |         |                |           |
| Educational   | 45,713              | 7.8%  |           | 813        | 1.1%      |                             | 44,900     |           |         |                |           |
| Health Care   | 89,138              | 15.3% |           | 1,625      | 2.2%      |                             | 87,513     |           |         |                |           |
| Arts, Enterta | 14,268              | 2.4%  |           | 2,219      | 3.0%      |                             | 12,049     |           |         |                |           |
| Accommoda     | 55,410              | 9.5%  |           | 4,955      | 6.7%      |                             | 50,455     |           |         |                |           |
| Other Servic  | 26,194              | 4.5%  |           | 2,357      | 3.2%      |                             | 23,837     |           |         |                |           |
| Public Admi   | 19,695              | 3.4%  |           | 157        | 0.2%      |                             | 19,538     |           |         |                |           |
|               |                     |       |           | Citywide   |           |                             | SIML       |           |         | Citywide Minus | SIML      |
|               |                     |       | Total     | Industrial | Ind Share | Total                       | Industrial | Ind Share | Total   | Industrial     | Ind Share |
|               |                     |       | 582,796   | 101,241    | 17.37%    | 74,382                      | 37,626     | 50.58%    | 508,414 | 63,615         | 12.51%    |



#### Seattle Comprehensive Plan Solid Waste Assumptions

|                                       | Alt 1  | Alt 2            | Alt 3  | Alt 4  | Alt 5  |
|---------------------------------------|--------|------------------|--------|--------|--------|
| Solid waste                           |        |                  |        |        |        |
| Single Family Residential (tons/year) | 2,115  | 1,063            | 1,692  | 1,692  | 1,692  |
| MultiFamily Residential (tons/year)   | 28,310 | 35,762           | 35,613 | 35,613 | 42,816 |
| jobs (tons/year)                      | 90,542 | 90,542           | 90,542 | 90,542 | 90,542 |
| CAP                                   | 70     | % diversion rate |        |        |        |
|                                       |        |                  |        |        |        |
| Single Family (tons/year)             | 2,115  | 1,063            | 1,692  | 1,692  | 1,692  |
| multifamily low rise (tons/year)      | 934    | 712              | 5,131  | 1,989  | 1,461  |
| Townhome (tons/year)                  | 233    | 192              | 1,534  | 568    | 406    |
| multi family mid rise (tons/year)     | 27,143 | 34,858           | 28,948 | 33,056 | 40,949 |
| Commercial (tons/year)                | 76,044 | 76,044           | 76,044 | 76,044 | 76,044 |
| Industrial (tons/year)                | 14,498 | 14,498           | 14,498 | 14,498 | 14,498 |

Notes:

#### Employment Waste

3.14 lbs/day 0.57305 tons/year

#### Residential Waste

|               | Total Generated Housing units |               |              |  |  |  |  |
|---------------|-------------------------------|---------------|--------------|--|--|--|--|
|               | Tons (2020)                   | (2020 Census) | tons/DU/year |  |  |  |  |
| Single Family | 232038                        | 152380.404    | 1.522754855  |  |  |  |  |
| Multi-Family  | 83701                         | 232418.596    | 0.360130392  |  |  |  |  |

Source: Seattle Public Utilities, City of Seattle 2022 Solid Waste Plan Update: Moving Upstream
# MOVES Methodology and Assumptions

The Motor Vehicle Emissions Simulator (MOVES) by the US Environmental Protection Agency is a stateof-the-science emission modeling system that estimates emissions for mobile sources at the national, county, and project level for criteria air pollutants, greenhouse gases, and air toxics.

Estimating vehicle emissions for the Seattle Comprehensive Plan Environmental Impact Study relied on the county level analysis of the model. The following model inputs were taken from the 2017 Washington Comprehensive Emissions Inventory Technical Support Document (WCEI) and data provided by the City. All other MOVES inputs relied on default assumptions for Kings County, Washington.

- VMT Data
- Average Speed Distribution
- Source (vehicle) Type Populations
- Road Type Distribution

Population characteristics were pulled from the WCEI and used to transform provided City VMT data and average speed distributions to fit within MOVES source VMT, population, and speed breakdowns. MOVES assumes fuel economy compliance and average values with the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule. Adjustment ratios for energy (fuel) consumption and CO<sub>2</sub> emission factors (based on the SAFE final rule) vary by model year from 2017 through 2025.<sup>1</sup> Vehicle models after 2025 are conservatively assumed to have 2025 emissions and fuel use factors. Vehicle models before 2017, which is the implementation year of the SAFE Final Rule, assume CAFE standards.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> *MOVES3 technical guidance - US EPA*. (n.d.). Retrieved March 3, 2023, from <u>https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1010M5F.pdf</u>

<sup>&</sup>lt;sup>2</sup> *MOVES3 technical guidance - US EPA*. (n.d.). Retrieved March 3, 2023, from https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100NNUQ.pdf

# Appendix Key

| City Vehicle Category | sourceTypeID | sourceTypeName               |
|-----------------------|--------------|------------------------------|
|                       | 11           | Motorcycle                   |
| Car                   | 21           | Passenger Car                |
|                       | 31           | Passenger Truck              |
|                       | 32           | Light Commercial Truck       |
|                       | 41           | Other Buses                  |
| Bus                   | 42           | Transit Bus                  |
|                       | 43           | School Bus                   |
|                       | 52           | Single Unit Short-haul Truck |
| Truck                 | 53           | Single Unit Long-haul Truck  |
|                       | 61           | Combination Short-haul Truck |
|                       | 62           | Combination Long-haul Truck  |

| FuelTypeID | FuelTypeName                    |
|------------|---------------------------------|
| 1          | Gasoline                        |
| 2          | Diesel Fuel                     |
| 3          | Compressed Natural Gas<br>(CNG) |
| 5          | Ethanol (E-85)                  |

# Exisiting - MOVES Output Summary

| Energy Consumption of Fuel (MMBtu) |           |         |       |           |  |  |  |
|------------------------------------|-----------|---------|-------|-----------|--|--|--|
| Fuel Type                          | Cars      | Trucks  | Buses | Total     |  |  |  |
| Gasoline                           | 345,396.9 | 1,561.7 | 125.2 | 347,083.8 |  |  |  |
| Diesel                             | 8,074.3   | 5,323.0 | 752.0 | 14,149.2  |  |  |  |
| CNG                                | -         | 63.0    | 52.8  | 115.8     |  |  |  |
| Ethanol (E-85)                     | 620.5     | -       | -     | 620.5     |  |  |  |

| Pollutant Emissions (tpy) |        |        |          |      |            |             |                    |
|---------------------------|--------|--------|----------|------|------------|-------------|--------------------|
| Vehicle Type              | VOC    | NOX    | CO       | SOX  | Total PM10 | Total PM2.5 | CO2e (Metric Tons) |
| Cars                      | 276.22 | 109.84 | 1,760.37 | 1.43 | 1.67       | 1.45        | 14,761.02          |
| Trucks                    | 7.35   | 6.23   | 38.65    | 0.08 | 1.08       | 0.95        | 8,344.42           |
| Buses                     | 0.45   | 0.66   | 5.15     | 0.03 | 1.06       | 0.93        | 7,964.38           |
| Total                     | 284.02 | 116.74 | 1,804.17 | 1.54 | 3.81       | 3.32        | 31,069.81          |

| Particulate Matter Emissions (tpy) |              |               |              |               |  |  |  |
|------------------------------------|--------------|---------------|--------------|---------------|--|--|--|
| Vehicle Type                       | Exhaust PM10 | Exhaust PM2.5 | BW & TW PM10 | BW & TW PM2.5 |  |  |  |
| Cars                               | 1.63         | 1.44          | 0.04         | <0.01         |  |  |  |
| Trucks                             | 1.07         | 0.94          | 0.01         | <0.01         |  |  |  |
| Buses                              | 1.05         | 0.93          | 0.01         | <0.01         |  |  |  |
| Total                              | 3.74         | 3.31          | 0.06         | 0.01          |  |  |  |

# Alternative 1 - MOVES Output Summary

| Energy Consumption of Fuel (MMBtu) |           |         |       |           |  |  |  |
|------------------------------------|-----------|---------|-------|-----------|--|--|--|
| Fuel Type                          | Cars      | Trucks  | Buses | Total     |  |  |  |
| Gasoline                           | 336,190.6 | 1,774.4 | 127.0 | 338,092.0 |  |  |  |
| Diesel                             | 13,508.1  | 5,938.1 | 783.4 | 20,229.6  |  |  |  |
| CNG                                | -         | 110.9   | 49.7  | 160.6     |  |  |  |
| Ethanol (E-85)                     | 630.5     | -       | -     | 630.5     |  |  |  |

| Pollutant Emissions (tpy) |        |       |        |       |            |             |                    |
|---------------------------|--------|-------|--------|-------|------------|-------------|--------------------|
| Vehicle Type              | VOC    | NOX   | CO     | SOX   | Total PM10 | Total PM2.5 | CO2e (Metric Tons) |
| Cars                      | 151.63 | 48.74 | 641.98 | 0.16  | 4.67       | 4.09        | 28,553.89          |
| Trucks                    | 5.25   | 6.68  | 15.25  | <0.01 | 0.11       | 0.08        | 763.00             |
| Buses                     | 0.44   | 0.96  | 2.32   | <0.01 | 0.01       | 0.01        | 91.32              |
| Total                     | 157.31 | 56.37 | 659.55 | 0.16  | 4.78       | 4.19        | 29,408.21          |

| Particulate Matter Emissions (tpy) |              |               |              |               |  |  |  |
|------------------------------------|--------------|---------------|--------------|---------------|--|--|--|
| Vehicle Type                       | Exhaust PM10 | Exhaust PM2.5 | BW & TW PM10 | BW & TW PM2.5 |  |  |  |
| Cars                               | 4.62         | 4.09          | 0.05         | <0.01         |  |  |  |
| Trucks                             | 0.09         | 0.08          | 0.01         | <0.01         |  |  |  |
| Buses                              | 0.01         | 0.01          | <0.01        | <0.01         |  |  |  |
| Total                              | 4.72         | 4.18          | 0.06         | 0.01          |  |  |  |

# Alternative 2 - MOVES Output Summary

| Energy Consumption of Fuel (MMBtu) |           |         |       |           |  |  |  |
|------------------------------------|-----------|---------|-------|-----------|--|--|--|
| Fuel Type                          | Cars      | Trucks  | Buses | Total     |  |  |  |
| Gasoline                           | 345,844.3 | 1,790.8 | 127.0 | 347,762.1 |  |  |  |
| Diesel                             | 13,895.2  | 5,993.4 | 783.5 | 20,672.2  |  |  |  |
| CNG                                | -         | 112.0   | 49.7  | 161.7     |  |  |  |
| Ethanol (E-85)                     | 648.6     | -       | -     | 648.6     |  |  |  |

| Pollutant Emissions (tpy) |        |       |        |       |            |             |                    |
|---------------------------|--------|-------|--------|-------|------------|-------------|--------------------|
| Vehicle Type              | VOC    | NOX   | СО     | SOX   | Total PM10 | Total PM2.5 | CO2e (Metric Tons) |
| Cars                      | 156.00 | 50.14 | 660.51 | 0.16  | 4.80       | 4.21        | 29,374.10          |
| Trucks                    | 5.29   | 6.74  | 15.38  | <0.01 | 0.11       | 0.09        | 770.02             |
| Buses                     | 0.44   | 0.96  | 2.32   | <0.01 | 0.01       | 0.01        | 91.33              |
| Total                     | 161.73 | 57.84 | 678.21 | 0.16  | 4.92       | 4.31        | 30,235.44          |

| Particulate Matter Emissions (tpy) |              |               |              |               |  |  |  |
|------------------------------------|--------------|---------------|--------------|---------------|--|--|--|
| Vehicle Type                       | Exhaust PM10 | Exhaust PM2.5 | BW & TW PM10 | BW & TW PM2.5 |  |  |  |
| Cars                               | 4.75         | 4.21          | 0.05         | <0.01         |  |  |  |
| Trucks                             | 0.09         | 0.08          | 0.01         | <0.01         |  |  |  |
| Buses                              | 0.01         | 0.01          | <0.01        | <0.01         |  |  |  |
| Total                              | 4.86         | 4.30          | 0.06         | 0.01          |  |  |  |

# Alternative 3 - MOVES Output Summary

| Energy Consumption of Fuel (MMBtu) |           |         |       |           |  |  |  |
|------------------------------------|-----------|---------|-------|-----------|--|--|--|
| Fuel Type                          | Cars      | Trucks  | Buses | Total     |  |  |  |
| Gasoline                           | 345,808.9 | 1,796.4 | 127.0 | 347,732.2 |  |  |  |
| Diesel                             | 13,893.4  | 6,015.5 | 783.5 | 20,692.3  |  |  |  |
| CNG                                | -         | 112.5   | 49.7  | 162.2     |  |  |  |
| Ethanol (E-85)                     | 648.5     | -       | -     | 648.5     |  |  |  |

|   | Pollutant Emissions (tpy) |       |        |       |      |      |           |  |  |  |  |  |
|---|---------------------------|-------|--------|-------|------|------|-----------|--|--|--|--|--|
| Vehicle Type VOC NOX CO SOX Total PM10 Total PM2.5 CO2e (Metric |                           |       |        |       |      |      |           |  |  |  |  |  |
| Cars  | 156.00                    | 50.14 | 660.50 | 0.16  | 4.75 | 4.21 | 29,371.26 |  |  |  |  |  |
| Trucks  | 5.29                      | 6.74  | 15.39  | <0.01 | 0.09 | 0.08 | 772.21    |  |  |  |  |  |
| Buses   | 0.44                      | 0.96  | 2.32   | <0.01 | 0.01 | 0.01 | 91.32     |  |  |  |  |  |
| Total   | 161.73                    | 57.84 | 678.21 | 0.16  | 4.86 | 4.30 | 30,234.78 |  |  |  |  |  |

|   | Particulate Matter Emissions (tpy) |      |       |       |  |  |  |  |  |  |  |
|---|------------------------------------|------|-------|-------|--|--|--|--|--|--|--|
| Vehicle Type Exhaust PM10 Exhaust PM2.5 BW & TW PM10 BW & TW PM |                                    |      |       |       |  |  |  |  |  |  |  |
| Cars  | 4.75                               | 4.21 | 0.05  | 0.01  |  |  |  |  |  |  |  |
| Trucks  | 0.09                               | 0.08 | 0.01  | <0.01 |  |  |  |  |  |  |  |
| Buses   | 0.01                               | 0.01 | <0.01 | <0.01 |  |  |  |  |  |  |  |
| Total   | 4.86                               | 4.30 | 0.06  | 0.01  |  |  |  |  |  |  |  |

# Alternative 5 - MOVES Output Summary

| Energy Consumption of Fuel (MMBtu) |           |         |       |           |  |  |  |  |  |  |
|------------------------------------|-----------|---------|-------|-----------|--|--|--|--|--|--|
| Fuel Type Cars Trucks Buses Total  |           |         |       |           |  |  |  |  |  |  |
| Gasoline                           | 357,628.0 | 1,812.4 | 127.0 | 359,567.5 |  |  |  |  |  |  |
| Diesel                             | 14,367.8  | 6,067.3 | 783.6 | 21,218.7  |  |  |  |  |  |  |
| CNG                                | -         | 113.4   | 49.7  | 163.1     |  |  |  |  |  |  |
| Ethanol (E-85)                     | 670.7     | -       | -     | 670.7     |  |  |  |  |  |  |

|   | Pollutant Emissions (tpy) |       |        |       |      |      |           |  |  |  |  |  |
|---|---------------------------|-------|--------|-------|------|------|-----------|--|--|--|--|--|
| Vehicle Type VOC NOX CO SOX Total PM10 Total PM2.5 CO2e (Metr |                           |       |        |       |      |      |           |  |  |  |  |  |
| Cars  | 161.35                    | 51.86 | 683.13 | 0.17  | 4.96 | 4.36 | 30,375.28 |  |  |  |  |  |
| Trucks  | 5.35                      | 6.81  | 15.55  | <0.01 | 0.11 | 0.09 | 779.30    |  |  |  |  |  |
| Buses   | 0.44                      | 0.96  | 2.32   | <0.01 | 0.01 | 0.01 | 91.33     |  |  |  |  |  |
| Total   | 167.14                    | 59.63 | 701.00 | 0.17  | 5.09 | 4.45 | 31,245.91 |  |  |  |  |  |

|              | Particulate Matter Emissions (tpy) |               |              |               |  |  |  |  |  |  |  |
|--------------|------------------------------------|---------------|--------------|---------------|--|--|--|--|--|--|--|
| Vehicle Type | Exhaust PM10                       | Exhaust PM2.5 | BW & TW PM10 | BW & TW PM2.5 |  |  |  |  |  |  |  |
| Cars         | 4.91                               | 4.35          | 0.05         | <0.01         |  |  |  |  |  |  |  |
| Trucks       | 0.10                               | 0.09          | 0.01         | <0.01         |  |  |  |  |  |  |  |
| Buses        | 0.01                               | 0.01          | <0.01        | <0.01         |  |  |  |  |  |  |  |
| Total        | 5.02                               | 4.45          | 0.06         | 0.01          |  |  |  |  |  |  |  |

#### Existing - MOVES3 Raw Data (in grams)

| Fuel | Source | voc      | со        | NOx      | Exhaust PM10 | Exhaust PM2.5 | Brake PM10 | Tire PM10 | Brake PM2.5 | Tire PM2.5 | SO2   | Total Energy (in<br>Joules) | CO2 Equiv   |
|------|--------|----------|-----------|----------|--------------|---------------|------------|-----------|-------------|------------|-------|-----------------------------|-------------|
| 1    | 11     | 89651    | 433906    | 26580    | 857          | 758           | 607        | 195       | 76          | 29         | 99    | 2.06518E+11                 | 14980114    |
| 1    | 21     | 86887960 | 377444576 | 22882190 | 2351674      | 2080336       | 19339      | 6928      | 2417        | 1039       | 83620 | 1.75152E+14                 | 13452663808 |
| 2    | 21     | 975254   | 3876465   | 259825   | 30418        | 27985         | 447        | 160       | 56          | 24         | 777   | 3.16407E+12                 | 249328832   |
| 5    | 21     | 68815    | 261573    | 15814    | 1601         | 1416          | 13         | 5         | 2           | 1          | 66    | 1.21108E+11                 | 9329335     |
| 1    | 31     | 39408576 | 157328960 | 10889318 | 1365948      | 1208343       | 8552       | 2762      | 1069        | 414        | 43752 | 9.16441E+13                 | 7105861120  |
| 2    | 31     | 1087115  | 3196286   | 3686041  | 27862        | 25633         | 673        | 237       | 84          | 36         | 1349  | 5.49143E+12                 | 425450432   |
| 5    | 31     | 130194   | 458056    | 31672    | 3911         | 3460          | 25         | 8         | 3           | 1          | 148   | 2.7092E+11                  | 21013776    |
| 1    | 32     | 42078020 | 181813312 | 12307787 | 1431811      | 1266607       | 8700       | 2826      | 1087        | 424        | 46713 | 9.7845E+13                  | 7605724672  |
| 2    | 32     | 1091511  | 2759973   | 5139476  | 19417        | 17864         | 693        | 253       | 87          | 38         | 1475  | 6.00281E+12                 | 464232256   |
| 5    | 32     | 147482   | 502735    | 34674    | 4275         | 3782          | 26         | 8         | 3           | 1          | 160   | 2.92224E+11                 | 22671220    |
| 1    | 41     | 117659   | 758328    | 79068    | 5337         | 4721          | 29         | 4         | 4           | 1          | 30    | 62693715968                 | 5636622     |
| 2    | 41     | 79194    | 289039    | 333168   | 667          | 613           | 450        | 52        | 56          | 8          | 77    | 3.12153E+11                 | 24705524    |
| 3    | 41     | 503      | 96952     | 136      | 25           | 22            | 26         | 2         | 3           | 0          | 7     | 23555983360                 | 6147819     |
| 1    | 42     | 143095   | 847921    | 88843    | 6010         | 5317          | 24         | 4         | 3           | 1          | 33    | 69638766592                 | 6268355     |
| 2    | 42     | 88472    | 322076    | 370191   | 743          | 684           | 235        | 29        | 29          | 4          | 84    | 3.4108E+11                  | 27036770    |
| 3    | 42     | 524      | 107853    | 116      | 28           | 25            | 18         | 2         | 2           | 0          | 8     | 25995003904                 | 6826649     |
| 1    | 43     | 3214     | 15244     | 1441     | 120          | 107           | 1          | 0         | 0           | 0          | 1     | 1641576064                  | 145973      |
| 2    | 43     | 48019    | 109391    | 180210   | 234          | 216           | 255        | 33        | 32          | 5          | 43    | 1.73361E+11                 | 13797880    |
| 3    | 43     | 74       | 9218      | 26       | 5            | 4             | 5          | 1         | 1           | 0          | 1     | 2876934144                  | 755243      |
| 1    | 52     | 2073727  | 10753850  | 1409047  | 79580        | 70398         | 641        | 181       | 80          | 27         | 665   | 1.393E+12                   | 148764992   |
| 2    | 52     | 2173634  | 1734560   | 3865419  | 5774         | 5313          | 3917       | 862       | 490         | 129        | 993   | 4.04099E+12                 | 349237952   |
| 3    | 52     | 2634     | 316183    | 655      | 71           | 63            | 95         | 13        | 12          | 2          | 22    | 71958577152                 | 39192624    |
| 1    | 53     | 1083722  | 2588266   | 248346   | 15353        | 13582         | 669        | 181       | 84          | 27         | 240   | 5.02264E+11                 | 42748404    |
| 2    | 53     | 333525   | 589783    | 1129765  | 1876         | 1726          | 4015       | 862       | 502         | 129        | 365   | 1.48533E+12                 | 116858080   |
| 3    | 53     | 863      | 88204     | 648      | 27           | 24            | 96         | 13        | 12          | 2          | 10    | 30457241600                 | 6500381     |
| 2    | 61     | 129721   | 383837    | 377694   | 900          | 828           | 855        | 199       | 107         | 30         | 103   | 4.17304E+11                 | 33482108    |
| 3    | 61     | 479      | 57620     | 204      | 17           | 15            | 26         | 4         | 3           | 1          | 5     | 16308088832                 | 5117634     |
| 2    | 62     | 34668    | 449106    | 396003   | 892          | 821           | 987        | 232       | 123         | 35         | 99    | 4.0302E+11                  | 30305280    |

#### Alternative 1 - MOVES3 Raw Data (in grams)

| Fuel S | Source | voc      | со        | NOx      | Exhaust PM10 | Exhaust PM2.5 | Brake PM10 | Tire PM10 | Brake PM2.5 | Tire PM2.5 | SO2   | Total Energy (in<br>Joules) | CO2 Equiv   |
|--------|--------|----------|-----------|----------|--------------|---------------|------------|-----------|-------------|------------|-------|-----------------------------|-------------|
| 1      | 11     | 89277    | 430798    | 26408    | 850          | 752           | 600        | 193       | 75          | 29         | 98    | 2.04967E+11                 | 14867524    |
| 1      | 21     | 84448336 | 366858272 | 22239672 | 2285651      | 2021931       | 19105      | 6869      | 2388        | 1030       | 81293 | 1.70278E+14                 | 13078079488 |
| 2      | 21     | 947869   | 3767896   | 252530   | 29564        | 27199         | 442        | 159       | 55          | 24         | 756   | 3.07621E+12                 | 242400160   |
| 5      | 21     | 66883    | 254237    | 15370    | 1556         | 1376          | 13         | 5         | 2           | 1          | 64    | 1.17737E+11                 | 9069535     |
| 1      | 31     | 38302108 | 152916592 | 10583562 | 1327596      | 1174417       | 8448       | 2738      | 1056        | 411        | 42535 | 8.90944E+13                 | 6908027904  |
| 2      | 31     | 1056592  | 3106818   | 3582576  | 27080        | 24914         | 665        | 235       | 83          | 35         | 1312  | 5.3392E+12                  | 413648768   |
| 5      | 31     | 126539   | 445209    | 30783    | 3802         | 3363          | 25         | 8         | 3           | 1          | 144   | 2.63382E+11                 | 20428640    |
| 1      | 32     | 40896612 | 176713168 | 11962203 | 1391612      | 1231047       | 8595       | 2802      | 1074        | 420        | 45413 | 9.51227E+13                 | 7393971200  |
| 2      | 32     | 1060864  | 2682723   | 4995211  | 18872        | 17362         | 685        | 251       | 86          | 38         | 1434  | 5.83638E+12                 | 451353600   |
| 5      | 32     | 143341   | 488634    | 33700    | 4155         | 3676          | 26         | 8         | 3           | 1          | 156   | 2.84088E+11                 | 22039582    |
| 1      | 41     | 117659   | 758327    | 79068    | 5337         | 4721          | 29         | 4         | 4           | 1          | 30    | 62691049472                 | 5636430     |
| 2      | 41     | 79194    | 289035    | 333159   | 667          | 613           | 449        | 52        | 56          | 8          | 77    | 3.12139E+11                 | 24704548    |
| 3      | 41     | 502      | 96947     | 136      | 25           | 22            | 26         | 2         | 3           | 0          | 7     | 23554007040                 | 6147578     |
| 1      | 42     | 143095   | 847923    | 88843    | 6010         | 5317          | 23         | 4         | 3           | 1          | 33    | 69636947968                 | 6268224     |
| 2      | 42     | 88472    | 322072    | 370184   | 743          | 683           | 234        | 29        | 29          | 4          | 84    | 3.41069E+11                 | 27035952    |
| 3      | 42     | 524      | 107850    | 116      | 28           | 25            | 18         | 2         | 2           | 0          | 8     | 25993469952                 | 6826469     |
| 1      | 43     | 3214     | 15244     | 1441     | 120          | 107           | 1          | 0         | 0           | 0          | 1     | 1641457024                  | 145964      |
| 2      | 43     | 48019    | 109389    | 180205   | 234          | 216           | 254        | 33        | 32          | 5          | 43    | 1.7335E+11                  | 13797019    |
| 3      | 43     | 74       | 9217      | 26       | 5            | 4             | 5          | 1         | 1           | 0          | 1     | 2876554240                  | 755200      |
| 1      | 52     | 2055602  | 10658698  | 1396735  | 78883        | 69782         | 627        | 176       | 78          | 26         | 658   | 1.3775E+12                  | 147225936   |
| 2      | 52     | 2154646  | 1718550   | 3830742  | 5720         | 5262          | 3833       | 837       | 479         | 126        | 981   | 3.99493E+12                 | 345394368   |
| 3      | 52     | 2600     | 313035    | 638      | 70           | 62            | 93         | 13        | 12          | 2          | 22    | 71042408448                 | 38827148    |
| 1      | 53     | 1074233  | 2564454   | 246161   | 15217        | 13461         | 654        | 176       | 82          | 26         | 236   | 4.94611E+11                 | 42139928    |
| 2      | 53     | 330589   | 583780    | 1118975  | 1856         | 1708          | 3929       | 837       | 491         | 126        | 359   | 1.46191E+12                 | 115067312   |
| 3      | 53     | 846      | 87055     | 631      | 27           | 24            | 94         | 13        | 12          | 2          | 9     | 29905813504                 | 6420442     |
| 2      | 61     | 128578   | 380273    | 374034   | 888          | 817           | 837        | 193       | 105         | 29         | 101   | 4.1117E+11                  | 33006202    |
| 3      | 61     | 471      | 56973     | 199      | 17           | 15            | 26         | 4         | 3           | 1          | 5     | 16057075712                 | 5064491     |
| 2      | 62     | 34355    | 444952    | 392188   | 881          | 810           | 967        | 225       | 121         | 34         | 98    | 3.97034E+11                 | 29858814    |

#### Alternative 2 - MOVES3 Raw Data (in grams)

| Fuel So | ource | VOC      | со        | NOx      | Exhaust PM10 | Exhaust PM2.5 | Brake PM10 | Tire PM10 | Brake PM2.5 | Tire PM2.5 | SO2   | Total Energy (in | CO2 Equiv   |
|---------|-------|----------|-----------|----------|--------------|---------------|------------|-----------|-------------|------------|-------|------------------|-------------|
| 1       | 11    | 90005    | 436676    | 26727    | 863          | 763           | 614        | 196       | 77          | 29         | 99    | 2.07891E+11      | 15079790    |
| 1       | 21    | 86888120 | 377450112 | 22882212 | 2351681      | 2080342       | 19564      | 6983      | 2445        | 1048       | 83628 | 1.75169E+14      | 13453901824 |
| 2       | 21    | 975255   | 3876588   | 259826   | 30418        | 27985         | 452        | 161       | 57          | 24         | 777   | 3.16446E+12      | 249357136   |
| 5       | 21    | 68816    | 261577    | 15814    | 1601         | 1416          | 14         | 5         | 2           | 1          | 66    | 1.21119E+11      | 9330182     |
| 1       | 31    | 39408664 | 157331264 | 10889330 | 1365950      | 1208346       | 8651       | 2784      | 1081        | 418        | 43757 | 9.16532E+13      | 7106513408  |
| 2       | 31    | 1087118  | 3196405   | 3686064  | 27862        | 25633         | 680        | 239       | 85          | 36         | 1349  | 5.49218E+12      | 425506016   |
| 5       | 31    | 130194   | 458062    | 31672    | 3912         | 3460          | 26         | 8         | 3           | 1          | 148   | 2.70947E+11      | 21015668    |
| 1       | 32    | 42078124 | 181815552 | 12307801 | 1431814      | 1266611       | 8800       | 2849      | 1100        | 427        | 46717 | 9.78547E+13      | 7606427136  |
| 2       | 32    | 1091514  | 2760079   | 5139507  | 19417        | 17864         | 701        | 255       | 88          | 38         | 1475  | 6.00362E+12      | 464292160   |
| 5       | 32    | 147482   | 502742    | 34674    | 4275         | 3782          | 26         | 8         | 3           | 1          | 160   | 2.92251E+11      | 22673136    |
| 1 4     | 41    | 117659   | 758321    | 79068    | 5337         | 4721          | 29         | 4         | 4           | 1          | 30    | 62695645184      | 5636762     |
| 2       | 41    | 79194    | 289045    | 333179   | 667          | 613           | 451        | 52        | 56          | 8          | 77    | 3.12169E+11      | 24706708    |
| 3       | 41    | 503      | 96955     | 137      | 25           | 22            | 26         | 2         | 3           | 0          | 7     | 23558006784      | 6148078     |
| 1 4     | 42    | 143095   | 847917    | 88843    | 6010         | 5317          | 24         | 4         | 3           | 1          | 33    | 69640691712      | 6268494     |
| 2       | 42    | 88472    | 322080    | 370199   | 743          | 684           | 235        | 29        | 29          | 4          | 84    | 3.41096E+11      | 27037942    |
| 3       | 42    | 524      | 107855    | 116      | 28           | 25            | 18         | 2         | 2           | 0          | 8     | 25996738560      | 6826853     |
| 1 4     | 43    | 3214     | 15244     | 1441     | 120          | 107           | 1          | 0         | 0           | 0          | 1     | 1641715456       | 145983      |
| 2       | 43    | 48019    | 109392    | 180215   | 234          | 216           | 255        | 33        | 32          | 5          | 43    | 1.73378E+11      | 13799094    |
| 3       | 43    | 74       | 9218      | 26       | 5            | 4             | 5          | 1         | 1           | 0          | 1     | 2877393664       | 755296      |
| 1       | 52    | 2073698  | 10752545  | 1409030  | 79578        | 70396         | 637        | 178       | 80          | 27         | 664   | 1.39001E+12      | 148549104   |
| 2       | 52    | 2173614  | 1733827   | 3864699  | 5771         | 5309          | 3891       | 847       | 486         | 127        | 990   | 4.03141E+12      | 348531264   |
| 3       | 52    | 2625     | 315839    | 646      | 71           | 63            | 94         | 13        | 12          | 2          | 22    | 71711801344      | 39172764    |
| 1       | 53    | 1083693  | 2587069   | 248330   | 15351        | 13580         | 664        | 178       | 83          | 27         | 238   | 4.99341E+11      | 42537976    |
| 2       | 53    | 333504   | 589069    | 1129064  | 1873         | 1723          | 3988       | 847       | 498         | 127        | 363   | 1.47609E+12      | 116176776   |
| 3       | 53    | 856      | 87869     | 638      | 27           | 24            | 95         | 13        | 12          | 2          | 9     | 30213101568      | 6480817     |
| 2       | 61    | 129711   | 383664    | 377408   | 897          | 825           | 850        | 196       | 106         | 29         | 102   | 4.15084E+11      | 33318466    |
| 3       | 61    | 476      | 57491     | 201      | 17           | 15            | 26         | 4         | 3           | 1          | 5     | 16212164608      | 5110281     |
| 2       | 62    | 34659    | 448920    | 395728   | 889          | 818           | 981        | 228       | 123         | 34         | 98    | 4.00838E+11      | 30144454    |

#### Alternative 3 - MOVES3 Raw Data (in grams)

| Fuel | Source | voc      | со        | NOx      | Exhaust PM10 | Exhaust PM2.5 | Brake PM10 | Tire PM10 | Brake PM2.5 | Tire PM2.5 | SO2   | Total Energy (in<br>Joules) | CO2 Equiv   |
|------|--------|----------|-----------|----------|--------------|---------------|------------|-----------|-------------|------------|-------|-----------------------------|-------------|
| 1    | 11     | 89651    | 433906    | 26580    | 857          | 758           | 607        | 195       | 76          | 29         | 99    | 2.06518E+11                 | 14980114    |
| 1    | 21     | 86887960 | 377444576 | 22882190 | 2351674      | 2080336       | 19339      | 6928      | 2417        | 1039       | 83620 | 1.75152E+14                 | 13452663808 |
| 2    | 21     | 975254   | 3876465   | 259825   | 30418        | 27985         | 447        | 160       | 56          | 24         | 777   | 3.16407E+12                 | 249328832   |
| 5    | 21     | 68815    | 261573    | 15814    | 1601         | 1416          | 13         | 5         | 2           | 1          | 66    | 1.21108E+11                 | 9329335     |
| 1    | 31     | 39408576 | 157328960 | 10889318 | 1365948      | 1208343       | 8552       | 2762      | 1069        | 414        | 43752 | 9.16441E+13                 | 7105861120  |
| 2    | 31     | 1087115  | 3196286   | 3686041  | 27862        | 25633         | 673        | 237       | 84          | 36         | 1349  | 5.49143E+12                 | 425450432   |
| 5    | 31     | 130194   | 458056    | 31672    | 3911         | 3460          | 25         | 8         | 3           | 1          | 148   | 2.7092E+11                  | 21013776    |
| 1    | 32     | 42078020 | 181813312 | 12307787 | 1431811      | 1266607       | 8700       | 2826      | 1087        | 424        | 46713 | 9.7845E+13                  | 7605724672  |
| 2    | 32     | 1091511  | 2759973   | 5139476  | 19417        | 17864         | 693        | 253       | 87          | 38         | 1475  | 6.00281E+12                 | 464232256   |
| 5    | 32     | 147482   | 502735    | 34674    | 4275         | 3782          | 26         | 8         | 3           | 1          | 160   | 2.92224E+11                 | 22671220    |
| 1    | 41     | 117659   | 758328    | 79068    | 5337         | 4721          | 29         | 4         | 4           | 1          | 30    | 62693715968                 | 5636622     |
| 2    | 41     | 79194    | 289039    | 333168   | 667          | 613           | 450        | 52        | 56          | 8          | 77    | 3.12153E+11                 | 24705524    |
| 3    | 41     | 503      | 96952     | 136      | 25           | 22            | 26         | 2         | 3           | 0          | 7     | 23555983360                 | 6147819     |
| 1    | 42     | 143095   | 847921    | 88843    | 6010         | 5317          | 24         | 4         | 3           | 1          | 33    | 69638766592                 | 6268355     |
| 2    | 42     | 88472    | 322076    | 370191   | 743          | 684           | 235        | 29        | 29          | 4          | 84    | 3.4108E+11                  | 27036770    |
| 3    | 42     | 524      | 107853    | 116      | 28           | 25            | 18         | 2         | 2           | 0          | 8     | 25995003904                 | 6826649     |
| 1    | 43     | 3214     | 15244     | 1441     | 120          | 107           | 1          | 0         | 0           | 0          | 1     | 1641576064                  | 145973      |
| 2    | 43     | 48019    | 109391    | 180210   | 234          | 216           | 255        | 33        | 32          | 5          | 43    | 1.73361E+11                 | 13797880    |
| 3    | 43     | 74       | 9218      | 26       | 5            | 4             | 5          | 1         | 1           | 0          | 1     | 2876934144                  | 755243      |
| 1    | 52     | 2073727  | 10753850  | 1409047  | 79580        | 70398         | 641        | 181       | 80          | 27         | 665   | 1.393E+12                   | 148764992   |
| 2    | 52     | 2173634  | 1734560   | 3865419  | 5774         | 5313          | 3917       | 862       | 490         | 129        | 993   | 4.04099E+12                 | 349237952   |
| 3    | 52     | 2634     | 316183    | 655      | 71           | 63            | 95         | 13        | 12          | 2          | 22    | 71958577152                 | 39192624    |
| 1    | 53     | 1083722  | 2588266   | 248346   | 15353        | 13582         | 669        | 181       | 84          | 27         | 240   | 5.02264E+11                 | 42748404    |
| 2    | 53     | 333525   | 589783    | 1129765  | 1876         | 1726          | 4015       | 862       | 502         | 129        | 365   | 1.48533E+12                 | 116858080   |
| 3    | 53     | 863      | 88204     | 648      | 27           | 24            | 96         | 13        | 12          | 2          | 10    | 30457241600                 | 6500381     |
| 2    | 61     | 129721   | 383837    | 377694   | 900          | 828           | 855        | 199       | 107         | 30         | 103   | 4.17304E+11                 | 33482108    |
| 3    | 61     | 479      | 57620     | 204      | 17           | 15            | 26         | 4         | 3           | 1          | 5     | 16308088832                 | 5117634     |
| 2    | 62     | 34668    | 449106    | 396003   | 892          | 821           | 987        | 232       | 123         | 35         | 99    | 4.0302E+11                  | 30305280    |

#### Alternative 5 - MOVES3 Raw Data (in grams)

| Fuel | Source | voc      | со        | NOx      | Exhaust PM10 | Exhaust PM2.5 | Brake PM10 | Tire PM10 | Brake PM2.5 | Tire PM2.5 | SO2   | Total Energy (in<br>Joules) | CO2 Equiv   |
|------|--------|----------|-----------|----------|--------------|---------------|------------|-----------|-------------|------------|-------|-----------------------------|-------------|
| 1    | 11     | 90877    | 443808    | 27118    | 878          | 777           | 632        | 200       | 79          | 30         | 101   | 2.11425E+11                 | 15336329    |
| 1    | 21     | 89866488 | 390379904 | 23666588 | 2432285      | 2151646       | 20105      | 7123      | 2513        | 1068       | 86479 | 1.8114E+14                  | 13912647680 |
| 2    | 21     | 1008686  | 4009267   | 268732   | 31461        | 28944         | 465        | 165       | 58          | 25         | 804   | 3.27217E+12                 | 257848944   |
| 5    | 21     | 71174    | 270538    | 16356    | 1656         | 1465          | 14         | 5         | 2           | 1          | 69    | 1.25248E+11                 | 9648342     |
| 1    | 31     | 40759504 | 162720464 | 11262601 | 1412771      | 1249764       | 8892       | 2839      | 1111        | 426        | 45248 | 9.47766E+13                 | 7348794880  |
| 2    | 31     | 1124382  | 3305766   | 3812398  | 28817        | 26511         | 698        | 244       | 87          | 37         | 1395  | 5.67892E+12                 | 439979168   |
| 5    | 31     | 134657   | 473753    | 32758    | 4046         | 3579          | 26         | 8         | 3           | 1          | 153   | 2.80181E+11                 | 21732226    |
| 1    | 32     | 43520460 | 188044320 | 12729695 | 1480892      | 1310025       | 9043       | 2905      | 1130        | 436        | 48309 | 1.0119E+14                  | 7865763840  |
| 2    | 32     | 1128929  | 2854509   | 5315656  | 20082        | 18476         | 720        | 260       | 90          | 39         | 1525  | 6.20776E+12                 | 480085376   |
| 5    | 32     | 152538   | 519964    | 35862    | 4422         | 3912          | 27         | 9         | 3           | 1          | 166   | 3.02215E+11                 | 23446494    |
| 1    | 41     | 117659   | 758319    | 79068    | 5337         | 4721          | 29         | 4         | 4           | 1          | 30    | 62699704320                 | 5637055     |
| 2    | 41     | 79195    | 289053    | 333194   | 667          | 613           | 453        | 52        | 57          | 8          | 77    | 3.12194E+11                 | 24708568    |
| 3    | 41     | 503      | 96961     | 137      | 25           | 22            | 26         | 2         | 3           | 0          | 7     | 23561328640                 | 6148482     |
| 1    | 42     | 143096   | 847912    | 88843    | 6010         | 5317          | 24         | 4         | 3           | 1          | 33    | 69644083200                 | 6268740     |
| 2    | 42     | 88472    | 322087    | 370211   | 743          | 684           | 236        | 29        | 30          | 4          | 84    | 3.4112E+11                  | 27039696    |
| 3    | 42     | 524      | 107859    | 116      | 28           | 25            | 18         | 2         | 2           | 0          | 8     | 25999525888                 | 6827170     |
| 1    | 43     | 3214     | 15244     | 1441     | 120          | 107           | 1          | 0         | 0           | 0          | 1     | 1641938944                  | 145999      |
| 2    | 43     | 48019    | 109395    | 180222   | 234          | 216           | 256        | 33        | 32          | 5          | 43    | 1.73403E+11                 | 13800921    |
| 3    | 43     | 74       | 9219      | 26       | 5            | 4             | 5          | 1         | 1           | 0          | 1     | 2878100224                  | 755376      |
| 1    | 52     | 2096735  | 10872160  | 1424680  | 80462        | 71178         | 651        | 181       | 81          | 27         | 671   | 1.4064E+12                  | 150267840   |
| 2    | 52     | 2197758  | 1753408   | 3908087  | 5837         | 5370          | 3977       | 862       | 497         | 129        | 1002  | 4.07931E+12                 | 352633152   |
| 3    | 52     | 2659     | 319467    | 658      | 72           | 63            | 96         | 13        | 12          | 2          | 23    | 72606498816                 | 39616364    |
| 1    | 53     | 1095739  | 2616013   | 251092   | 15523        | 13732         | 679        | 181       | 85          | 27         | 241   | 5.05831E+11                 | 43078472    |
| 2    | 53     | 337218   | 595936    | 1142071  | 1896         | 1744          | 4076       | 862       | 510         | 129        | 367   | 1.49557E+12                 | 117695192   |
| 3    | 53     | 869      | 88963     | 650      | 28           | 24            | 98         | 13        | 12          | 2          | 10    | 30646528000                 | 6561326     |
| 2    | 61     | 131154   | 388015    | 381768   | 908          | 836           | 869        | 199       | 109         | 30         | 103   | 4.20412E+11                 | 33741384    |
| 3    | 61     | 483      | 58171     | 205      | 18           | 16            | 27         | 4         | 3           | 1          | 5     | 16425464832                 | 5169889     |
| 2    | 62     | 35047    | 454009    | 400299   | 900          | 828           | 1004       | 232       | 125         | 35         | 100   | 4.06027E+11                 | 30533616    |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Seattle Comprehensive Plan - Alt 1

Siskiyou County, Annual

# **1.0 Project Characteristics**

#### 1.1 Land Usage

| Land Uses               | Size      | Metric            | Lot Acreage | Floor Surface Area | Population |
|-------------------------|-----------|-------------------|-------------|--------------------|------------|
| User Defined Commercial | 33,174.90 | User Defined Unit | 0.00        | 33,174,904.00      | 0          |
| User Defined Industrial | 17,710.27 | User Defined Unit | 0.00        | 17,710,268.00      | 0          |
| Apartments Low Rise     | 2,593.00  | Dwelling Unit     | 162.06      | 2,593,000.00       | 5316       |
| Apartments Mid Rise     | 75,370.00 | Dwelling Unit     | 1,983.42    | 75,370,000.00      | 154509     |
| Condo/Townhouse         | 648.00    | Dwelling Unit     | 40.50       | 648,000.00         | 1328       |
| Single Family Housing   | 1,389.00  | Dwelling Unit     | 450.97      | 2,500,200.00       | 2847       |

# **1.2 Other Project Characteristics**

| Urbanization               | Urban              | Wind Speed (m/s)           | 2.2   | Precipitation Freq (Days)  | 85    |
|----------------------------|--------------------|----------------------------|-------|----------------------------|-------|
| Climate Zone               | 14                 |                            |       | Operational Year           | 2045  |
| Utility Company            | Seattle City Light |                            |       |                            |       |
| CO2 Intensity<br>(Ib/MWhr) | 31.35              | CH4 Intensity<br>(Ib/MWhr) | 0.029 | N2O Intensity<br>(Ib/MWhr) | 0.006 |

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - SF, 2.05 persons per DU

Construction Phase - Ops only

Vehicle Trips - Energy and Solid Waste Only

Woodstoves - Energy and Solid Waste Only

Consumer Products - Energy and Solid Waste Only

Area Coating - Energy and Solid Waste Only

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscape Equipment - Energy and Solid Waste Only

Energy Use - Electricity: SCL Carbon Neutral; NG: SCL, EIA

Water And Wastewater - Energy and Solid Waste Only

Solid Waste - Seattle Public Utilities, City of Seattle 2022 Solid Waste Plan Update: Moving Upstream to Zero Waste (2022-2027), December 2022

| Table Name           | Column Name   | Default Value | New Value |
|----------------------|---------------|---------------|-----------|
| tblConstructionPhase | NumDays       | 10,000.00     | 0.00      |
| tblConstructionPhase | PhaseEndDate  | 11/15/2061    | 7/18/2023 |
| tblEnergyUse         | LightingElect | 810.36        | 0.00      |
| tblEnergyUse         | LightingElect | 741.44        | 0.00      |
| tblEnergyUse         | LightingElect | 1,001.10      | 0.00      |
| tblEnergyUse         | LightingElect | 1,608.84      | 0.00      |
| tblEnergyUse         | NT24E         | 3,172.76      | 0.00      |
| tblEnergyUse         | NT24E         | 3,054.10      | 0.00      |
| tblEnergyUse         | NT24E         | 3,795.01      | 0.00      |
| tblEnergyUse         | NT24E         | 6,155.97      | 0.00      |
| tblEnergyUse         | NT24NG        | 1,599.00      | 2,301.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 2,028.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 3,029.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 4,576.00  |
| tblEnergyUse         | NT24NG        | 0.00          | 16.60     |
| tblEnergyUse         | NT24NG        | 0.00          | 10.40     |
| tblEnergyUse         | T24E          | 165.27        | 0.00      |
| tblEnergyUse         | T24E          | 176.92        | 0.00      |
| tblEnergyUse         | T24E          | 204.10        | 0.00      |
| tblEnergyUse         | T24E          | 191.61        | 0.00      |
| tblEnergyUse         | T24NG         | 8,768.16      | 0.00      |
| tblEnergyUse         | T24NG         | 2,182.40      | 0.00      |
| tblEnergyUse         | T24NG         | 3,351.17      | 0.00      |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| tblEnergyUse    | T24NG                    | 9,528.86   | 0.00          |
|-----------------|--------------------------|------------|---------------|
| tblFireplaces   | NumberGas                | 1,087.35   | 0.00          |
| tblFireplaces   | NumberGas                | 53,235.60  | 0.00          |
| tblFireplaces   | NumberGas                | 293.15     | 0.00          |
| tblFireplaces   | NumberGas                | 383.90     | 0.00          |
| tblFireplaces   | NumberWood               | 691.95     | 0.00          |
| tblFireplaces   | NumberWood               | 33,877.20  | 0.00          |
| tblFireplaces   | NumberWood               | 186.55     | 0.00          |
| tblFireplaces   | NumberWood               | 244.30     | 0.00          |
| tblLandUse      | LandUseSquareFeet        | 0.00       | 33,174,904.00 |
| tblLandUse      | LandUseSquareFeet        | 0.00       | 17,710,268.00 |
| tblLandUse      | Population               | 7,416.00   | 5,316.00      |
| tblLandUse      | Population               | 215,558.00 | 154,509.00    |
| tblLandUse      | Population               | 1,853.00   | 1,328.00      |
| tblLandUse      | Population               | 3,973.00   | 2,847.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 909.42     | 934.00        |
| tblSolidWaste   | SolidWasteGenerationRate | 44,524.32  | 27,143.00     |
| tblSolidWaste   | SolidWasteGenerationRate | 245.18     | 233.00        |
| tblSolidWaste   | SolidWasteGenerationRate | 357.75     | 2,115.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 0.00       | 76,044.00     |
| tblSolidWaste   | SolidWasteGenerationRate | 0.00       | 14,498.00     |
| tblVehicleTrips | ST_TR                    | 8.14       | 0.00          |
| tblVehicleTrips | ST_TR                    | 4.91       | 0.00          |
| tblVehicleTrips | ST_TR                    | 8.14       | 0.00          |
| tblVehicleTrips | ST_TR                    | 9.54       | 0.00          |
| tblVehicleTrips | SU_TR                    | 6.28       | 0.00          |
| tblVehicleTrips | SU_TR                    | 4.09       | 0.00          |
| tblVehicleTrips | SU_TR                    | 6.28       | 0.00          |
| tblVehicleTrips | SU_TR                    | 8.55       | 0.00          |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| tblVehicleTrips | WD_TR               | 7.32             | 0.00 |
|-----------------|---------------------|------------------|------|
| tblVehicleTrips | WD_TR               | 5.44             | 0.00 |
| tblVehicleTrips | WD_TR               | 7.32             | 0.00 |
| tblVehicleTrips | WD_TR               | 9.44             | 0.00 |
| tblWater        | IndoorWaterUseRate  | 128,809,508.65   | 0.00 |
| tblWater        | IndoorWaterUseRate  | 6,306,388,447.95 | 0.00 |
| tblWater        | IndoorWaterUseRate  | 34,727,095.66    | 0.00 |
| tblWater        | IndoorWaterUseRate  | 45,477,509.88    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 81,205,994.59    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 3,975,766,630.23 | 0.00 |
| tblWater        | OutdoorWaterUseRate | 21,893,169.00    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 28,670,604.06    | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 98.85            | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 4,839.60         | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 26.65            | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 34.90            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 98.85            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 4,839.60         | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 26.65            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 34.90            | 0.00 |

# 2.0 Emissions Summary

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 2.1 Overall Construction

# **Unmitigated Construction**

|         | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Year    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| 2023    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# Mitigated Construction

|         | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Year    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| 2023    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

|                      | ROG  | NOx  | со   | SO2  | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N20  | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent<br>Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00             | 0.00            | 0.00          | 0.00              | 0.00             | 0.00           | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

Start Date

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|  |  |  | Highest |  |  |
|--|--|--|---------|--|--|
|--|--|--|---------|--|--|

# 2.2 Overall Operational

# Unmitigated Operational

|          | ROG      | NOx     | со       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2        | NBio- CO2       | Total CO2       | CH4            | N2O    | CO2e             |  |
|----------|----------|---------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|--------|------------------|--|
| Category |          |         |          |        | ton              | s/yr            |               |                   |                  |                | MT/yr           |                 |                 |                |        |                  |  |
| Area     | 749.5106 | 6.8305  | 591.8643 | 0.0314 |                  | 3.2957          | 3.2957        |                   | 3.2957           | 3.2957         | 0.0000          | 971.2128        | 971.2128        | 0.9259         | 0.0000 | 994.3606         |  |
| Energy   | 4.8639   | 43.7254 | 33.5374  | 0.2653 |                  | 3.3605          | 3.3605        |                   | 3.3605           | 3.3605         | 0.0000          | 48,135.53<br>73 | 48,135.53<br>73 | 0.9226         | 0.8825 | 48,421.58<br>27  |  |
| Mobile   | 0.0000   | 0.0000  | 0.0000   | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Waste    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 24,555.20<br>78 | 0.0000          | 24,555.20<br>78 | 1,451.171<br>2 | 0.0000 | 60,834.48<br>80  |  |
| Water    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Total    | 754.3745 | 50.5559 | 625.4016 | 0.2967 | 0.0000           | 6.6562          | 6.6562        | 0.0000            | 6.6562           | 6.6562         | 24,555.20<br>78 | 49,106.75<br>01 | 73,661.95<br>79 | 1,453.019<br>7 | 0.8825 | 110,250.4<br>313 |  |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 2.2 Overall Operational

# **Mitigated Operational**

|          | ROG      | NOx     | со       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2        | NBio- CO2       | Total CO2       | CH4            | N2O    | CO2e             |  |
|----------|----------|---------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|--------|------------------|--|
| Category |          |         |          |        | ton              | s/yr            |               |                   |                  |                | MT/yr           |                 |                 |                |        |                  |  |
| Area     | 749.5106 | 6.8305  | 591.8643 | 0.0314 |                  | 3.2957          | 3.2957        |                   | 3.2957           | 3.2957         | 0.0000          | 971.2128        | 971.2128        | 0.9259         | 0.0000 | 994.3606         |  |
| Energy   | 4.8639   | 43.7254 | 33.5374  | 0.2653 |                  | 3.3605          | 3.3605        |                   | 3.3605           | 3.3605         | 0.0000          | 48,135.53<br>73 | 48,135.53<br>73 | 0.9226         | 0.8825 | 48,421.58<br>27  |  |
| Mobile   | 0.0000   | 0.0000  | 0.0000   | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Waste    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 24,555.20<br>78 | 0.0000          | 24,555.20<br>78 | 1,451.171<br>2 | 0.0000 | 60,834.48<br>80  |  |
| Water    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Total    | 754.3745 | 50.5559 | 625.4016 | 0.2967 | 0.0000           | 6.6562          | 6.6562        | 0.0000            | 6.6562           | 6.6562         | 24,555.20<br>78 | 49,106.75<br>01 | 73,661.95<br>79 | 1,453.019<br>7 | 0.8825 | 110,250.4<br>313 |  |

|                      | ROG  | NOx  | со   | SO2  | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N20  | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent<br>Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00             | 0.00            | 0.00          | 0.00              | 0.00             | 0.00           | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

# **3.0 Construction Detail**

# **Construction Phase**

| Phase<br>Number | Phase Name | Phase Type | Start Date | End Date  | Num Days<br>Week | Num Days | Phase Description |
|-----------------|------------|------------|------------|-----------|------------------|----------|-------------------|
| 1               | Demolition | Demolition | 7/19/2023  | 7/18/2023 | 5                | 0        |                   |

#### Acres of Grading (Site Preparation Phase): 0

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

#### Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

## OffRoad Equipment

| Phase Name | Offroad Equipment Type   | Amount | Usage Hours | Horse Power | Load Factor |
|------------|--------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1      | 8.00        | 81          | 0.73        |
| Demolition | Excavators               | 3      | 8.00        | 158         | 0.38        |
| Demolition | Rubber Tired Dozers      | 2      | 8.00        | 247         | 0.40        |

### Trips and VMT

| Phase Name | Offroad Equipment | Worker Trip | Vendor Trip | Hauling Trip | Worker Trip | Vendor Trip | Hauling Trip | Worker Vehicle | Vendor        | Hauling       |
|------------|-------------------|-------------|-------------|--------------|-------------|-------------|--------------|----------------|---------------|---------------|
|            | Count             | Number      | Number      | Number       | Length      | Length      | Length       | Class          | Vehicle Class | Vehicle Class |
| Demolition | 6                 | 15.00       | 0.00        | 0.00         | 10.80       | 7.30        | 20.00        | LD_Mix         | HDT_Mix       | HHDT          |

**3.1 Mitigation Measures Construction** 

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.2 Demolition - 2023

**Unmitigated Construction On-Site** 

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Worker   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.2 Demolition - 2023

#### **Mitigated Construction On-Site**

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### **Mitigated Construction Off-Site**

|          | ROG    | NOx    | СО     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | '/yr   |        |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Worker   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 4.1 Mitigation Measures Mobile

|             | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Mitigated   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# 4.2 Trip Summary Information

|                         | Avei    | age Daily Trip Ra | te     | Unmitigated | Mitigated  |
|-------------------------|---------|-------------------|--------|-------------|------------|
| Land Use                | Weekday | Saturday          | Sunday | Annual VMT  | Annual VMT |
| Apartments Low Rise     | 0.00    | 0.00              | 0.00   |             |            |
| Apartments Mid Rise     | 0.00    | 0.00              | 0.00   |             |            |
| Condo/Townhouse         | 0.00    | 0.00              | 0.00   |             |            |
| Single Family Housing   | 0.00    | 0.00              | 0.00   |             |            |
| User Defined Commercial | 0.00    | 0.00              | 0.00   |             |            |
| User Defined Industrial | 0.00    | 0.00              | 0.00   |             |            |
| Total                   | 0.00    | 0.00              | 0.00   |             |            |

# 4.3 Trip Type Information

|                     |            | Miles      |             |            | Trip %     |             |         | Trip Purpos | e %     |
|---------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use            | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted    | Pass-by |
| Apartments Low Rise | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| Apartments Mid Rise | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| Condo/Townhouse     | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|                         |            | Miles      |             |            | Trip %     |             |         | Trip Purpos | e %     |
|-------------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use                | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted    | Pass-by |
| Single Family Housing   | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| User Defined Commercial | 9.50       | 7.30       | 7.30        | 0.00       | 0.00       | 0.00        | 0       | 0           | 0       |
| User Defined Industrial | 9.50       | 7.30       | 7.30        | 0.00       | 0.00       | 0.00        | 0       | 0           | 0       |

# 4.4 Fleet Mix

| Land Use                | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise     | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Apartments Mid Rise     | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Condo/Townhouse         | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Single Family Housing   | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| User Defined Commercial | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| User Defined Industrial | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |

# 5.0 Energy Detail

Historical Energy Use: N

# 5.1 Mitigation Measures Energy

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|                            | ROG                   | NOx     | CO      | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2       | Total CO2       | CH4    | N2O    | CO2e            |
|----------------------------|-----------------------|---------|---------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|--------|--------|-----------------|
| Category                   |                       |         |         |        | ton              | s/yr            |               |                   |                  |                |          |                 | МТ              | /yr    |        |                 |
| Electricity<br>Mitigated   |                       |         |         |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000          | 0.0000          | 0.0000 | 0.0000 | 0.0000          |
| Electricity<br>Unmitigated | n<br>n<br>n<br>n<br>n |         |         |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000          | 0.0000          | 0.0000 | 0.0000 | 0.0000          |
| NaturalGas<br>Mitigated    | 4.8639                | 43.7254 | 33.5374 | 0.2653 |                  | 3.3605          | 3.3605        |                   | 3.3605           | 3.3605         | 0.0000   | 48,135.53<br>73 | 48,135.53<br>73 | 0.9226 | 0.8825 | 48,421.58<br>27 |
| NaturalGas<br>Unmitigated  | 4.8639                | 43.7254 | 33.5374 | 0.2653 |                  | 3.3605          | 3.3605        |                   | 3.3605           | 3.3605         | 0.0000   | 48,135.53<br>73 | 48,135.53<br>73 | 0.9226 | 0.8825 | 48,421.58<br>27 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.2 Energy by Land Use - NaturalGas

## **Unmitigated**

|                            | NaturalGa<br>s Use | ROG    | NOx     | CO      | SO2             | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total   | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total  | Bio- CO2 | NBio- CO2       | Total CO2       | CH4             | N2O             | CO2e            |
|----------------------------|--------------------|--------|---------|---------|-----------------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Land Use                   | kBTU/yr            |        |         |         |                 | ton              | s/yr            |                 |                   |                  |                 |          |                 | МТ              | /yr             |                 |                 |
| Apartments Low<br>Rise     | 5.96649e<br>+006   | 0.0322 | 0.2749  | 0.1170  | 1.7500e-<br>003 |                  | 0.0222          | 0.0222          |                   | 0.0222           | 0.0222          | 0.0000   | 318.3948        | 318.3948        | 6.1000e-<br>003 | 5.8400e-<br>003 | 320.2869        |
| Apartments Mid<br>Rise     | 1.5285e<br>+008    | 0.8242 | 7.0431  | 2.9971  | 0.0450          |                  | 0.5694          | 0.5694          |                   | 0.5694           | 0.5694          | 0.0000   | 8,156.677<br>3  | 8,156.677<br>3  | 0.1563          | 0.1495          | 8,205.148<br>4  |
| Condo/Townhous<br>e        | 1.96279e<br>+006   | 0.0106 | 0.0904  | 0.0385  | 5.8000e-<br>004 |                  | 7.3100e-<br>003 | 7.3100e-<br>003 |                   | 7.3100e-<br>003  | 7.3100e-<br>003 | 0.0000   | 104.7421        | 104.7421        | 2.0100e-<br>003 | 1.9200e-<br>003 | 105.3645        |
| Single Family<br>Housing   | 6.35606e<br>+006   | 0.0343 | 0.2929  | 0.1246  | 1.8700e-<br>003 |                  | 0.0237          | 0.0237          |                   | 0.0237           | 0.0237          | 0.0000   | 339.1838        | 339.1838        | 6.5000e-<br>003 | 6.2200e-<br>003 | 341.1994        |
| User Defined<br>Commercial | 5.50703e<br>+008   | 2.9695 | 26.9953 | 22.6760 | 0.1620          |                  | 2.0516          | 2.0516          |                   | 2.0516           | 2.0516          | 0.0000   | 29,387.63<br>10 | 29,387.63<br>10 | 0.5633          | 0.5388          | 29,562.26<br>70 |
| User Defined<br>Industrial | 1.84187e<br>+008   | 0.9932 | 9.0288  | 7.5842  | 0.0542          |                  | 0.6862          | 0.6862          |                   | 0.6862           | 0.6862          | 0.0000   | 9,828.908<br>4  | 9,828.908<br>4  | 0.1884          | 0.1802          | 9,887.316<br>7  |
| Total                      |                    | 4.8639 | 43.7254 | 33.5374 | 0.2653          |                  | 3.3605          | 3.3605          |                   | 3.3605           | 3.3605          | 0.0000   | 48,135.53<br>73 | 48,135.53<br>73 | 0.9226          | 0.8825          | 48,421.58<br>27 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.2 Energy by Land Use - NaturalGas

# Mitigated

|                            | NaturalGa<br>s Use | ROG    | NOx     | СО      | SO2             | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total   | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total  | Bio- CO2 | NBio- CO2       | Total CO2       | CH4             | N2O             | CO2e            |
|----------------------------|--------------------|--------|---------|---------|-----------------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Land Use                   | kBTU/yr            |        |         |         |                 | ton              | s/yr            |                 |                   |                  |                 |          |                 | МТ              | /yr             |                 |                 |
| Apartments Low<br>Rise     | 5.96649e<br>+006   | 0.0322 | 0.2749  | 0.1170  | 1.7500e-<br>003 |                  | 0.0222          | 0.0222          |                   | 0.0222           | 0.0222          | 0.0000   | 318.3948        | 318.3948        | 6.1000e-<br>003 | 5.8400e-<br>003 | 320.2869        |
| Apartments Mid<br>Rise     | 1.5285e<br>+008    | 0.8242 | 7.0431  | 2.9971  | 0.0450          |                  | 0.5694          | 0.5694          |                   | 0.5694           | 0.5694          | 0.0000   | 8,156.677<br>3  | 8,156.677<br>3  | 0.1563          | 0.1495          | 8,205.148<br>4  |
| Condo/Townhous<br>e        | 1.96279e<br>+006   | 0.0106 | 0.0904  | 0.0385  | 5.8000e-<br>004 |                  | 7.3100e-<br>003 | 7.3100e-<br>003 |                   | 7.3100e-<br>003  | 7.3100e-<br>003 | 0.0000   | 104.7421        | 104.7421        | 2.0100e-<br>003 | 1.9200e-<br>003 | 105.3645        |
| Single Family<br>Housing   | 6.35606e<br>+006   | 0.0343 | 0.2929  | 0.1246  | 1.8700e-<br>003 |                  | 0.0237          | 0.0237          |                   | 0.0237           | 0.0237          | 0.0000   | 339.1838        | 339.1838        | 6.5000e-<br>003 | 6.2200e-<br>003 | 341.1994        |
| User Defined<br>Commercial | 5.50703e<br>+008   | 2.9695 | 26.9953 | 22.6760 | 0.1620          |                  | 2.0516          | 2.0516          |                   | 2.0516           | 2.0516          | 0.0000   | 29,387.63<br>10 | 29,387.63<br>10 | 0.5633          | 0.5388          | 29,562.26<br>70 |
| User Defined<br>Industrial | 1.84187e<br>+008   | 0.9932 | 9.0288  | 7.5842  | 0.0542          |                  | 0.6862          | 0.6862          |                   | 0.6862           | 0.6862          | 0.0000   | 9,828.908<br>4  | 9,828.908<br>4  | 0.1884          | 0.1802          | 9,887.316<br>7  |
| Total                      |                    | 4.8639 | 43.7254 | 33.5374 | 0.2653          |                  | 3.3605          | 3.3605          |                   | 3.3605           | 3.3605          | 0.0000   | 48,135.53<br>73 | 48,135.53<br>73 | 0.9226          | 0.8825          | 48,421.58<br>27 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity

# **Unmitigated**

|                            | Electricity<br>Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|--------------------|-----------|--------|--------|--------|
| Land Use                   | kWh/yr             |           | MT     | /yr    |        |
| Apartments Low<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity

# Mitigated

|                            | Electricity<br>Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|--------------------|-----------|--------|--------|--------|
| Land Use                   | kWh/yr             |           | MT     | /yr    |        |
| Apartments Low<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# 6.0 Area Detail

6.1 Mitigation Measures Area

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|             | ROG      | NOx    | СО       | SO2    | Fugitive<br>PM10      | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5     | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e     |
|-------------|----------|--------|----------|--------|-----------------------|-----------------|---------------|-----------------------|------------------|----------------|----------|-----------|-----------|--------|--------|----------|
| Category    |          |        |          |        | ton                   | s/yr            |               |                       |                  |                |          |           | МТ        | /yr    |        |          |
| Mitigated   | 749.5106 | 6.8305 | 591.8643 | 0.0314 |                       | 3.2957          | 3.2957        |                       | 3.2957           | 3.2957         | 0.0000   | 971.2128  | 971.2128  | 0.9259 | 0.0000 | 994.3606 |
| Unmitigated | 749.5106 | 6.8305 | 591.8643 | 0.0314 | <b></b><br> <br> <br> | 3.2957          | 3.2957        | <b></b><br> <br> <br> | 3.2957           | 3.2957         | 0.0000   | 971.2128  | 971.2128  | 0.9259 | 0.0000 | 994.3606 |

# 6.2 Area by SubCategory

**Unmitigated** 

|                          | ROG      | NOx    | со       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e     |
|--------------------------|----------|--------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|----------|
| SubCategory              |          |        |          |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | '/yr   |        |          |
| Architectural<br>Coating | 216.2680 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000   |
| Consumer<br>Products     | 515.5118 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000   |
| Hearth                   | 0.0000   | 0.0000 | 0.0000   | 0.0000 |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000   |
| Landscaping              | 17.7308  | 6.8305 | 591.8643 | 0.0314 |                  | 3.2957          | 3.2957        |                   | 3.2957           | 3.2957         | 0.0000   | 971.2128  | 971.2128  | 0.9259 | 0.0000 | 994.3606 |
| Total                    | 749.5106 | 6.8305 | 591.8643 | 0.0314 |                  | 3.2957          | 3.2957        |                   | 3.2957           | 3.2957         | 0.0000   | 971.2128  | 971.2128  | 0.9259 | 0.0000 | 994.3606 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 6.2 Area by SubCategory

# Mitigated

|                          | ROG      | NOx    | СО          | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e     |
|--------------------------|----------|--------|-------------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|----------|
| SubCategory              |          |        |             |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | /yr    |        |          |
| Architectural<br>Coating | 216.2680 |        | ,<br>,<br>, |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000   |
| Consumer<br>Products     | 515.5118 |        | ,<br>,<br>, |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000   |
| Hearth                   | 0.0000   | 0.0000 | 0.0000      | 0.0000 |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000   |
| Landscaping              | 17.7308  | 6.8305 | 591.8643    | 0.0314 |                  | 3.2957          | 3.2957        |                   | 3.2957           | 3.2957         | 0.0000   | 971.2128  | 971.2128  | 0.9259 | 0.0000 | 994.3606 |
| Total                    | 749.5106 | 6.8305 | 591.8643    | 0.0314 |                  | 3.2957          | 3.2957        |                   | 3.2957           | 3.2957         | 0.0000   | 971.2128  | 971.2128  | 0.9259 | 0.0000 | 994.3606 |

# 7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|             | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|-----------|--------|--------|--------|
| Category    |           | MT     | /yr    |        |
| Mitigated   | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 7.2 Water by Land Use

# <u>Unmitigated</u>

|                            | Indoor/Out<br>door Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|------------------------|-----------|--------|--------|--------|
| Land Use                   | Mgal                   |           | МТ     | /yr    |        |
| Apartments Low<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                        | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 7.2 Water by Land Use

Mitigated

|                            | Indoor/Out<br>door Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|------------------------|-----------|--------|--------|--------|
| Land Use                   | Mgal                   |           | MT     | /yr    |        |
| Apartments Low<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                        | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# 8.0 Waste Detail

# 8.1 Mitigation Measures Waste

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Category/Year

|             | Total CO2       | CH4            | N2O    | CO2e            |
|-------------|-----------------|----------------|--------|-----------------|
|             |                 | MT             | /yr    |                 |
| Mitigated   | 24,555.20<br>78 | 1,451.171<br>2 | 0.0000 | 60,834.48<br>80 |
| Unmitigated | 24,555.20<br>78 | 1,451.171<br>2 | 0.0000 | 60,834.48<br>80 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 8.2 Waste by Land Use

**Unmitigated** 

|                            | Waste<br>Disposed | Total CO2       | CH4            | N2O    | CO2e            |
|----------------------------|-------------------|-----------------|----------------|--------|-----------------|
| Land Use                   | tons              |                 | МТ             | 7/yr   |                 |
| Apartments Low<br>Rise     | 934               | 189.5936        | 11.2047        | 0.0000 | 469.7100        |
| Apartments Mid<br>Rise     | 27143             | 5,509.783<br>7  | 325.6189       | 0.0000 | 13,650.25<br>59 |
| Condo/Townhous<br>e        | 233               | 47.2969         | 2.7952         | 0.0000 | 117.1761        |
| Single Family<br>Housing   | 2115              | 429.3259        | 25.3724        | 0.0000 | 1,063.636<br>7  |
| User Defined<br>Commercial | 76044             | 15,436.24<br>48 | 912.2559       | 0.0000 | 38,242.64<br>31 |
| User Defined<br>Industrial | 14498             | 2,942.963<br>0  | 173.9241       | 0.0000 | 7,291.066<br>2  |
| Total                      |                   | 24,555.20<br>78 | 1,451.171<br>2 | 0.0000 | 60,834.48<br>80 |
### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 8.2 Waste by Land Use

**Mitigated** 

|                            | Waste<br>Disposed | Total CO2       | CH4            | N2O    | CO2e            |  |  |  |  |  |
|----------------------------|-------------------|-----------------|----------------|--------|-----------------|--|--|--|--|--|
| Land Use                   | tons              |                 | MT/yr          |        |                 |  |  |  |  |  |
| Apartments Low<br>Rise     | 934               | 189.5936        | 11.2047        | 0.0000 | 469.7100        |  |  |  |  |  |
| Apartments Mid<br>Rise     | 27143             | 5,509.783<br>7  | 325.6189       | 0.0000 | 13,650.25<br>59 |  |  |  |  |  |
| Condo/Townhous<br>e        | 233               | 47.2969         | 2.7952         | 0.0000 | 117.1761        |  |  |  |  |  |
| Single Family<br>Housing   | 2115              | 429.3259        | 25.3724        | 0.0000 | 1,063.636<br>7  |  |  |  |  |  |
| User Defined<br>Commercial | 76044             | 15,436.24<br>48 | 912.2559       | 0.0000 | 38,242.64<br>31 |  |  |  |  |  |
| User Defined<br>Industrial | 14498             | 2,942.963<br>0  | 173.9241       | 0.0000 | 7,291.066<br>2  |  |  |  |  |  |
| Total                      |                   | 24,555.20<br>78 | 1,451.171<br>2 | 0.0000 | 60,834.48<br>80 |  |  |  |  |  |

# 9.0 Operational Offroad

| Equipment Type Number Hours/Day Days/Year Horse Power Load Factor Fuel Type | be |
|---|----|

# **10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

|  | Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|--|----------------|--------|-----------|------------|-------------|-------------|-----------|
|--|----------------|--------|-----------|------------|-------------|-------------|-----------|

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| Equipment Type         | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|------------------------|--------|----------------|-----------------|---------------|-----------|
| User Defined Equipment |        |                |                 |               |           |
| Equipment Type         | Number |                |                 |               |           |
| 11.0 Vegetation        |        |                |                 |               |           |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## **Seattle Comprehensive Plan - Alt 2**

Siskiyou County, Annual

# **1.0 Project Characteristics**

#### 1.1 Land Usage

| Land Uses               | Size      | Metric            | Lot Acreage | Floor Surface Area | Population |
|-------------------------|-----------|-------------------|-------------|--------------------|------------|
| User Defined Commercial | 33,174.90 | User Defined Unit | 0.00        | 33,174,904.00      | 0          |
| User Defined Industrial | 17,710.27 | User Defined Unit | 0.00        | 17,710,268.00      | 0          |
| Apartments Low Rise     | 1,977.00  | Dwelling Unit     | 123.56      | 1,977,000.00       | 4053       |
| Apartments Mid Rise     | 96,792.00 | Dwelling Unit     | 2,547.16    | 96,792,000.00      | 198424     |
| Condo/Townhouse         | 533.00    | Dwelling Unit     | 33.31       | 533,000.00         | 1093       |
| Single Family Housing   | 698.00    | Dwelling Unit     | 226.62      | 1,256,400.00       | 1431       |

#### **1.2 Other Project Characteristics**

| Urbanization               | Urban              | Wind Speed (m/s)           | 2.2   | Precipitation Freq (Days) | 85    |
|----------------------------|--------------------|----------------------------|-------|---------------------------|-------|
| Climate Zone               | 14                 |                            |       | Operational Year          | 2045  |
| Utility Company            | Seattle City Light |                            |       |                           |       |
| CO2 Intensity<br>(Ib/MWhr) | 31.35              | CH4 Intensity<br>(Ib/MWhr) | 0.029 | N2O Intensity (Ib/MWhr)   | 0.006 |

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - SF, 2.05 persons per DU

Construction Phase - Ops only

Vehicle Trips - Energy and Solid Waste Only

Woodstoves - Energy and Solid Waste Only

Consumer Products - Energy and Solid Waste Only

Area Coating - Energy and Solid Waste Only

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscape Equipment - Energy and Solid Waste Only

Energy Use - Electricity: SCL Carbon Neutral; NG: SCL, EIA

Water And Wastewater - Energy and Solid Waste Only

Solid Waste - Seattle Public Utilities, City of Seattle 2022 Solid Waste Plan Update: Moving Upstream to Zero Waste (2022-2027), December 2022

| Table Name           | Column Name   | Default Value | New Value |
|----------------------|---------------|---------------|-----------|
| tblConstructionPhase | NumDays       | 10,000.00     | 0.00      |
| tblConstructionPhase | PhaseEndDate  | 11/15/2061    | 7/18/2023 |
| tblEnergyUse         | LightingElect | 810.36        | 0.00      |
| tblEnergyUse         | LightingElect | 741.44        | 0.00      |
| tblEnergyUse         | LightingElect | 1,001.10      | 0.00      |
| tblEnergyUse         | LightingElect | 1,608.84      | 0.00      |
| tblEnergyUse         | NT24E         | 3,172.76      | 0.00      |
| tblEnergyUse         | NT24E         | 3,054.10      | 0.00      |
| tblEnergyUse         | NT24E         | 3,795.01      | 0.00      |
| tblEnergyUse         | NT24E         | 6,155.97      | 0.00      |
| tblEnergyUse         | NT24NG        | 1,599.00      | 2,301.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 2,028.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 3,029.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 4,576.00  |
| tblEnergyUse         | NT24NG        | 0.00          | 16.60     |
| tblEnergyUse         | NT24NG        | 0.00          | 10.40     |
| tblEnergyUse         | T24E          | 165.27        | 0.00      |
| tblEnergyUse         | T24E          | 176.92        | 0.00      |
| tblEnergyUse         | T24E          | 204.10        | 0.00      |
| tblEnergyUse         | T24E          | 191.61        | 0.00      |
| tblEnergyUse         | T24NG         | 8,768.16      | 0.00      |
| tblEnergyUse         | T24NG         | 2,182.40      | 0.00      |
| tblEnergyUse         | T24NG         | 3,351.17      | 0.00      |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| tblEnergyUse    | T24NG                    | 9,528.86   | 0.00          |
|-----------------|--------------------------|------------|---------------|
| tblFireplaces   | NumberGas                | 1,087.35   | 0.00          |
| tblFireplaces   | NumberGas                | 53,235.60  | 0.00          |
| tblFireplaces   | NumberGas                | 293.15     | 0.00          |
| tblFireplaces   | NumberGas                | 383.90     | 0.00          |
| tblFireplaces   | NumberWood               | 691.95     | 0.00          |
| tblFireplaces   | NumberWood               | 33,877.20  | 0.00          |
| tblFireplaces   | NumberWood               | 186.55     | 0.00          |
| tblFireplaces   | NumberWood               | 244.30     | 0.00          |
| tblLandUse      | LandUseSquareFeet        | 0.00       | 33,174,904.00 |
| tblLandUse      | LandUseSquareFeet        | 0.00       | 17,710,268.00 |
| tblLandUse      | Population               | 5,654.00   | 4,053.00      |
| tblLandUse      | Population               | 276,825.00 | 198,424.00    |
| tblLandUse      | Population               | 1,524.00   | 1,093.00      |
| tblLandUse      | Population               | 1,996.00   | 1,431.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 909.42     | 712.00        |
| tblSolidWaste   | SolidWasteGenerationRate | 44,524.32  | 34,858.00     |
| tblSolidWaste   | SolidWasteGenerationRate | 245.18     | 192.00        |
| tblSolidWaste   | SolidWasteGenerationRate | 357.75     | 1,063.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 0.00       | 76,044.00     |
| tblSolidWaste   | SolidWasteGenerationRate | 0.00       | 14,498.00     |
| tblVehicleTrips | ST_TR                    | 8.14       | 0.00          |
| tblVehicleTrips | ST_TR                    | 4.91       | 0.00          |
| tblVehicleTrips | ST_TR                    | 8.14       | 0.00          |
| tblVehicleTrips | ST_TR                    | 9.54       | 0.00          |
| tblVehicleTrips | SU_TR                    | 6.28       | 0.00          |
| tblVehicleTrips | SU_TR                    | 4.09       | 0.00          |
| tblVehicleTrips | SU_TR                    | 6.28       | 0.00          |
| tblVehicleTrips | SU_TR                    | 8.55       | 0.00          |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| tblVehicleTrips | WD_TR               | 7.32             | 0.00 |
|-----------------|---------------------|------------------|------|
| tblVehicleTrips | WD_TR               | 5.44             | 0.00 |
| tblVehicleTrips | WD_TR               | 7.32             | 0.00 |
| tblVehicleTrips | WD_TR               | 9.44             | 0.00 |
| tblWater        | IndoorWaterUseRate  | 128,809,508.65   | 0.00 |
| tblWater        | IndoorWaterUseRate  | 6,306,388,447.95 | 0.00 |
| tblWater        | IndoorWaterUseRate  | 34,727,095.66    | 0.00 |
| tblWater        | IndoorWaterUseRate  | 45,477,509.88    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 81,205,994.59    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 3,975,766,630.23 | 0.00 |
| tblWater        | OutdoorWaterUseRate | 21,893,169.00    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 28,670,604.06    | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 98.85            | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 4,839.60         | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 26.65            | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 34.90            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 98.85            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 4,839.60         | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 26.65            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 34.90            | 0.00 |

2.0 Emissions Summary

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 2.1 Overall Construction

# **Unmitigated Construction**

|         | ROG    | NOx     | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|--------|---------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Year    |        | tons/yr |        |        |                  |                 |               |                   |                  | MT/yr          |          |           |           |        |        |        |
| 2023    | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# Mitigated Construction

|         | ROG     | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|---------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Year    | tons/yr |        |        |        |                  |                 |               |                   | MT/yr            |                |          |           |           |        |        |        |
| 2023    | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

|                      | ROG  | NOx  | со   | SO2  | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N20  | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent<br>Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00             | 0.00            | 0.00          | 0.00              | 0.00             | 0.00           | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

Start Date

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|  |  | Highest |  |  |
|--|--|---------|--|--|
|--|--|---------|--|--|

# 2.2 Overall Operational

# Unmitigated Operational

|          | ROG      | NOx     | со       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2        | NBio- CO2       | Total CO2       | CH4            | N2O    | CO2e             |
|----------|----------|---------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|--------|------------------|
| Category |          |         |          |        | ton              | s/yr            |               |                   |                  |                |                 |                 | МТ              | /yr            |        |                  |
| Area     | 829.8837 | 8.5370  | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000          | 1,213.788<br>7  | 1,213.788<br>7  | 1.1568         | 0.0000 | 1,242.708<br>8   |
| Energy   | 5.0716   | 45.5001 | 34.2926  | 0.2766 |                  | 3.5040          | 3.5040        |                   | 3.5040           | 3.5040         | 0.0000          | 50,190.90<br>03 | 50,190.90<br>03 | 0.9620         | 0.9202 | 50,489.15<br>98  |
| Mobile   | 0.0000   | 0.0000  | 0.0000   | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |
| Waste    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 25,854.35<br>00 | 0.0000          | 25,854.35<br>00 | 1,527.948<br>3 | 0.0000 | 64,053.05<br>77  |
| Water    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |
| Total    | 834.9553 | 54.0372 | 774.0068 | 0.3159 | 0.0000           | 7.6233          | 7.6233        | 0.0000            | 7.6233           | 7.6233         | 25,854.35<br>00 | 51,404.68<br>90 | 77,259.03<br>90 | 1,530.067<br>1 | 0.9202 | 115,784.9<br>263 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 2.2 Overall Operational

# **Mitigated Operational**

|          | ROG      | NOx     | СО       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2        | NBio- CO2       | Total CO2       | CH4            | N2O    | CO2e             |
|----------|----------|---------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|--------|------------------|
| Category |          |         |          |        | ton              | s/yr            |               |                   |                  |                |                 |                 | МТ              | '/yr           |        |                  |
| Area     | 829.8837 | 8.5370  | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000          | 1,213.788<br>7  | 1,213.788<br>7  | 1.1568         | 0.0000 | 1,242.708<br>8   |
| Energy   | 5.0716   | 45.5001 | 34.2926  | 0.2766 |                  | 3.5040          | 3.5040        |                   | 3.5040           | 3.5040         | 0.0000          | 50,190.90<br>03 | 50,190.90<br>03 | 0.9620         | 0.9202 | 50,489.15<br>98  |
| Mobile   | 0.0000   | 0.0000  | 0.0000   | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |
| Waste    | n        |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 25,854.35<br>00 | 0.0000          | 25,854.35<br>00 | 1,527.948<br>3 | 0.0000 | 64,053.05<br>77  |
| Water    | n        |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |
| Total    | 834.9553 | 54.0372 | 774.0068 | 0.3159 | 0.0000           | 7.6233          | 7.6233        | 0.0000            | 7.6233           | 7.6233         | 25,854.35<br>00 | 51,404.68<br>90 | 77,259.03<br>90 | 1,530.067<br>1 | 0.9202 | 115,784.9<br>263 |

|                      | ROG  | NOx  | со   | SO2  | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N20  | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent<br>Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00             | 0.00            | 0.00          | 0.00              | 0.00             | 0.00           | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

# **3.0 Construction Detail**

# **Construction Phase**

| Phase<br>Number | Phase Name | Phase Type | Start Date | End Date  | Num Days<br>Week | Num Days | Phase Description |
|-----------------|------------|------------|------------|-----------|------------------|----------|-------------------|
| 1               | Demolition | Demolition | 7/19/2023  | 7/18/2023 | 5                | 0        |                   |

#### Acres of Grading (Site Preparation Phase): 0

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

#### Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

## OffRoad Equipment

| Phase Name | Offroad Equipment Type   | Amount | Usage Hours | Horse Power | Load Factor |
|------------|--------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1      | 8.00        | 81          | 0.73        |
| Demolition | Excavators               | 3      | 8.00        | 158         | 0.38        |
| Demolition | Rubber Tired Dozers      | 2      | 8.00        | 247         | 0.40        |

#### Trips and VMT

| Phase Name | Offroad Equipment | Worker Trip | Vendor Trip | Hauling Trip | Worker Trip | Vendor Trip | Hauling Trip | Worker Vehicle | Vendor        | Hauling       |
|------------|-------------------|-------------|-------------|--------------|-------------|-------------|--------------|----------------|---------------|---------------|
|            | Count             | Number      | Number      | Number       | Length      | Length      | Length       | Class          | Vehicle Class | Vehicle Class |
| Demolition | 6                 | 15.00       | 0.00        | 0.00         | 10.80       | 7.30        | 20.00        | LD_Mix         | HDT_Mix       | HHDT          |

**3.1 Mitigation Measures Construction** 

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.2 Demolition - 2023

# **Unmitigated Construction On-Site**

|          | ROG    | NOx     | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|---------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        | tons/yr |        |        |                  |                 |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Off-Road | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        |                  |                 |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Worker   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 3.2 Demolition - 2023

#### **Mitigated Construction On-Site**

|          | ROG    | NOx     | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|---------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        | tons/yr |        |        |                  |                 |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Off-Road | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000  | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### **Mitigated Construction Off-Site**

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Worker   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 4.1 Mitigation Measures Mobile

|             | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Mitigated   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# 4.2 Trip Summary Information

|                         | Avei    | age Daily Trip Ra | te     | Unmitigated | Mitigated  |
|-------------------------|---------|-------------------|--------|-------------|------------|
| Land Use                | Weekday | Saturday          | Sunday | Annual VMT  | Annual VMT |
| Apartments Low Rise     | 0.00    | 0.00              | 0.00   |             |            |
| Apartments Mid Rise     | 0.00    | 0.00              | 0.00   |             |            |
| Condo/Townhouse         | 0.00    | 0.00              | 0.00   |             |            |
| Single Family Housing   | 0.00    | 0.00              | 0.00   |             |            |
| User Defined Commercial | 0.00    | 0.00              | 0.00   |             |            |
| User Defined Industrial | 0.00    | 0.00              | 0.00   |             |            |
| Total                   | 0.00    | 0.00              | 0.00   |             |            |

# 4.3 Trip Type Information

|                     |            | Miles      |             |            | Trip %     |             |         | Trip Purpos | e %     |
|---------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use            | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted    | Pass-by |
| Apartments Low Rise | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| Apartments Mid Rise | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| Condo/Townhouse     | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|                         |            | Miles      |             |            | Trip %     |             |         | Trip Purpos | e %     |
|-------------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use                | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted    | Pass-by |
| Single Family Housing   | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| User Defined Commercial | 9.50       | 7.30       | 7.30        | 0.00       | 0.00       | 0.00        | 0       | 0           | 0       |
| User Defined Industrial | 9.50       | 7.30       | 7.30        | 0.00       | 0.00       | 0.00        | 0       | 0           | 0       |

# 4.4 Fleet Mix

| Land Use                | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise     | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Apartments Mid Rise     | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Condo/Townhouse         | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Single Family Housing   | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| User Defined Commercial | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| User Defined Industrial | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |

# 5.0 Energy Detail

Historical Energy Use: N

# 5.1 Mitigation Measures Energy

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|                            | ROG                       | NOx     | со      | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2       | Total CO2       | CH4    | N2O    | CO2e            |
|----------------------------|---------------------------|---------|---------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|--------|--------|-----------------|
| Category                   |                           |         |         |        | ton              | s/yr            |               |                   |                  | MT             | /yr      |                 |                 |        |        |                 |
| Electricity<br>Mitigated   |                           |         |         |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000          | 0.0000          | 0.0000 | 0.0000 | 0.0000          |
| Electricity<br>Unmitigated | n<br>11<br>11<br>11<br>11 |         |         |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000          | 0.0000          | 0.0000 | 0.0000 | 0.0000          |
| NaturalGas<br>Mitigated    | 5.0716                    | 45.5001 | 34.2926 | 0.2766 |                  | 3.5040          | 3.5040        |                   | 3.5040           | 3.5040         | 0.0000   | 50,190.90<br>03 | 50,190.90<br>03 | 0.9620 | 0.9202 | 50,489.15<br>98 |
| NaturalGas<br>Unmitigated  | 5.0716                    | 45.5001 | 34.2926 | 0.2766 |                  | 3.5040          | 3.5040        |                   | 3.5040           | 3.5040         | 0.0000   | 50,190.90<br>03 | 50,190.90<br>03 | 0.9620 | 0.9202 | 50,489.15<br>98 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.2 Energy by Land Use - NaturalGas

### **Unmitigated**

|                            | NaturalGa<br>s Use | ROG             | NOx     | СО      | SO2             | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total   | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total  | Bio- CO2 | NBio- CO2       | Total CO2       | CH4             | N2O             | CO2e            |
|----------------------------|--------------------|-----------------|---------|---------|-----------------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Land Use                   | kBTU/yr            |                 |         |         |                 | ton              | s/yr            |                 |                   |                  |                 |          |                 | МТ              | /yr             |                 |                 |
| Apartments Low<br>Rise     | 4.54908e<br>+006   | 0.0245          | 0.2096  | 0.0892  | 1.3400e-<br>003 |                  | 0.0170          | 0.0170          |                   | 0.0170           | 0.0170          | 0.0000   | 242.7561        | 242.7561        | 4.6500e-<br>003 | 4.4500e-<br>003 | 244.1987        |
| Apartments Mid<br>Rise     | 1.96294e<br>+008   | 1.0585          | 9.0449  | 3.8489  | 0.0577          |                  | 0.7313          | 0.7313          |                   | 0.7313           | 0.7313          | 0.0000   | 10,475.00<br>48 | 10,475.00<br>48 | 0.2008          | 0.1920          | 10,537.25<br>25 |
| Condo/Townhous<br>e        | 1.61446e<br>+006   | 8.7100e-<br>003 | 0.0744  | 0.0317  | 4.7000e-<br>004 |                  | 6.0100e-<br>003 | 6.0100e-<br>003 |                   | 6.0100e-<br>003  | 6.0100e-<br>003 | 0.0000   | 86.1536         | 86.1536         | 1.6500e-<br>003 | 1.5800e-<br>003 | 86.6655         |
| Single Family<br>Housing   | 3.19405e<br>+006   | 0.0172          | 0.1472  | 0.0626  | 9.4000e-<br>004 |                  | 0.0119          | 0.0119          |                   | 0.0119           | 0.0119          | 0.0000   | 170.4466        | 170.4466        | 3.2700e-<br>003 | 3.1200e-<br>003 | 171.4594        |
| User Defined<br>Commercial | 5.50703e<br>+008   | 2.9695          | 26.9953 | 22.6760 | 0.1620          |                  | 2.0516          | 2.0516          |                   | 2.0516           | 2.0516          | 0.0000   | 29,387.63<br>10 | 29,387.63<br>10 | 0.5633          | 0.5388          | 29,562.26<br>70 |
| User Defined<br>Industrial | 1.84187e<br>+008   | 0.9932          | 9.0288  | 7.5842  | 0.0542          |                  | 0.6862          | 0.6862          |                   | 0.6862           | 0.6862          | 0.0000   | 9,828.908<br>4  | 9,828.908<br>4  | 0.1884          | 0.1802          | 9,887.316<br>7  |
| Total                      |                    | 5.0716          | 45.5001 | 34.2926 | 0.2766          |                  | 3.5040          | 3.5040          |                   | 3.5040           | 3.5040          | 0.0000   | 50,190.90<br>03 | 50,190.90<br>03 | 0.9620          | 0.9202          | 50,489.15<br>98 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.2 Energy by Land Use - NaturalGas

# Mitigated

|                            | NaturalGa<br>s Use | ROG             | NOx     | СО      | SO2             | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total   | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total  | Bio- CO2 | NBio- CO2       | Total CO2       | CH4             | N2O             | CO2e            |
|----------------------------|--------------------|-----------------|---------|---------|-----------------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Land Use                   | kBTU/yr            |                 |         |         |                 | ton              | s/yr            |                 |                   |                  |                 |          |                 | МТ              | /yr             |                 |                 |
| Apartments Low<br>Rise     | 4.54908e<br>+006   | 0.0245          | 0.2096  | 0.0892  | 1.3400e-<br>003 |                  | 0.0170          | 0.0170          |                   | 0.0170           | 0.0170          | 0.0000   | 242.7561        | 242.7561        | 4.6500e-<br>003 | 4.4500e-<br>003 | 244.1987        |
| Apartments Mid<br>Rise     | 1.96294e<br>+008   | 1.0585          | 9.0449  | 3.8489  | 0.0577          |                  | 0.7313          | 0.7313          |                   | 0.7313           | 0.7313          | 0.0000   | 10,475.00<br>48 | 10,475.00<br>48 | 0.2008          | 0.1920          | 10,537.25<br>25 |
| Condo/Townhous<br>e        | 1.61446e<br>+006   | 8.7100e-<br>003 | 0.0744  | 0.0317  | 4.7000e-<br>004 |                  | 6.0100e-<br>003 | 6.0100e-<br>003 |                   | 6.0100e-<br>003  | 6.0100e-<br>003 | 0.0000   | 86.1536         | 86.1536         | 1.6500e-<br>003 | 1.5800e-<br>003 | 86.6655         |
| Single Family<br>Housing   | 3.19405e<br>+006   | 0.0172          | 0.1472  | 0.0626  | 9.4000e-<br>004 |                  | 0.0119          | 0.0119          |                   | 0.0119           | 0.0119          | 0.0000   | 170.4466        | 170.4466        | 3.2700e-<br>003 | 3.1200e-<br>003 | 171.4594        |
| User Defined<br>Commercial | 5.50703e<br>+008   | 2.9695          | 26.9953 | 22.6760 | 0.1620          |                  | 2.0516          | 2.0516          |                   | 2.0516           | 2.0516          | 0.0000   | 29,387.63<br>10 | 29,387.63<br>10 | 0.5633          | 0.5388          | 29,562.26<br>70 |
| User Defined<br>Industrial | 1.84187e<br>+008   | 0.9932          | 9.0288  | 7.5842  | 0.0542          |                  | 0.6862          | 0.6862          |                   | 0.6862           | 0.6862          | 0.0000   | 9,828.908<br>4  | 9,828.908<br>4  | 0.1884          | 0.1802          | 9,887.316<br>7  |
| Total                      |                    | 5.0716          | 45.5001 | 34.2926 | 0.2766          |                  | 3.5040          | 3.5040          |                   | 3.5040           | 3.5040          | 0.0000   | 50,190.90<br>03 | 50,190.90<br>03 | 0.9620          | 0.9202          | 50,489.15<br>98 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity

# **Unmitigated**

|                            | Electricity<br>Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|--------------------|-----------|--------|--------|--------|
| Land Use                   | kWh/yr             |           | MT     | /yr    |        |
| Apartments Low<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity

# Mitigated

|                            | Electricity<br>Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|--------------------|-----------|--------|--------|--------|
| Land Use                   | kWh/yr             |           | MT     | /yr    |        |
| Apartments Low<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# 6.0 Area Detail

6.1 Mitigation Measures Area

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|             | ROG      | NOx    | CO       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5     | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|-------------|----------|--------|----------|--------|------------------|-----------------|---------------|-----------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| Category    |          |        |          |        | ton              | s/yr            |               |                       |                  |                |          |                | MT             | /yr    |        |                |
| Mitigated   | 829.8837 | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                       | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |
| Unmitigated | 829.8837 | 8.5370 | 739.7142 | 0.0392 | <b></b>          | 4.1193          | 4.1193        | <b></b><br> <br> <br> | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |

# 6.2 Area by SubCategory

**Unmitigated** 

|                          | ROG      | NOx    | со       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|--------------------------|----------|--------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| SubCategory              |          |        |          |        | ton              | s/yr            |               |                   |                  |                |          |                | МТ             | /yr    |        |                |
| Architectural<br>Coating | 216.2680 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Consumer<br>Products     | 591.4629 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Hearth                   | 0.0000   | 0.0000 | 0.0000   | 0.0000 |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Landscaping              | 22.1529  | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |
| Total                    | 829.8837 | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 6.2 Area by SubCategory

# Mitigated

|                          | ROG      | NOx    | СО       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|--------------------------|----------|--------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| SubCategory              |          |        |          |        | ton              | s/yr            |               |                   |                  |                |          |                | МТ             | /yr    |        |                |
| Architectural<br>Coating | 216.2680 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Consumer<br>Products     | 591.4629 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Hearth                   | 0.0000   | 0.0000 | 0.0000   | 0.0000 |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Landscaping              | 22.1529  | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |
| Total                    | 829.8837 | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |

# 7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|             | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|-----------|--------|--------|--------|
| Category    |           | MT     | /yr    |        |
| Mitigated   | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 7.2 Water by Land Use

# <u>Unmitigated</u>

|                            | Indoor/Out<br>door Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|------------------------|-----------|--------|--------|--------|
| Land Use                   | Mgal                   |           | МТ     | /yr    |        |
| Apartments Low<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                        | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 7.2 Water by Land Use

Mitigated

|                            | Indoor/Out<br>door Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|------------------------|-----------|--------|--------|--------|
| Land Use                   | Mgal                   |           | МТ     | /yr    |        |
| Apartments Low<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                        | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# 8.0 Waste Detail

# 8.1 Mitigation Measures Waste

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Category/Year

|             | Total CO2       | CH4            | N2O    | CO2e            |
|-------------|-----------------|----------------|--------|-----------------|
|             |                 | MT             | /yr    |                 |
| Mitigated   | 25,854.35<br>00 | 1,527.948<br>3 | 0.0000 | 64,053.05<br>77 |
| Unmitigated | 25,854.35<br>00 | 1,527.948<br>3 | 0.0000 | 64,053.05<br>77 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 8.2 Waste by Land Use

**Unmitigated** 

|                            | Waste<br>Disposed | Total CO2       | CH4            | N2O    | CO2e            |
|----------------------------|-------------------|-----------------|----------------|--------|-----------------|
| Land Use                   | tons              |                 | МТ             | /yr    |                 |
| Apartments Low<br>Rise     | 712               | 144.5296        | 8.5415         | 0.0000 | 358.0659        |
| Apartments Mid<br>Rise     | 34858             | 7,075.859<br>0  | 418.1713       | 0.0000 | 17,530.14<br>11 |
| Condo/Townhous<br>e        | 192               | 38.9743         | 2.3033         | 0.0000 | 96.5571         |
| Single Family<br>Housing   | 1063              | 215.7794        | 12.7522        | 0.0000 | 534.5843        |
| User Defined<br>Commercial | 76044             | 15,436.24<br>48 | 912.2559       | 0.0000 | 38,242.64<br>31 |
| User Defined<br>Industrial | 14498             | 2,942.963<br>0  | 173.9241       | 0.0000 | 7,291.066<br>2  |
| Total                      |                   | 25,854.35<br>00 | 1,527.948<br>3 | 0.0000 | 64,053.05<br>77 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 8.2 Waste by Land Use

**Mitigated** 

|                            | Waste<br>Disposed | Total CO2       | CH4            | N2O    | CO2e            |
|----------------------------|-------------------|-----------------|----------------|--------|-----------------|
| Land Use                   | tons              |                 | МТ             | ī/yr   |                 |
| Apartments Low<br>Rise     | 712               | 144.5296        | 8.5415         | 0.0000 | 358.0659        |
| Apartments Mid<br>Rise     | 34858             | 7,075.859<br>0  | 418.1713       | 0.0000 | 17,530.14<br>11 |
| Condo/Townhous<br>e        | 192               | 38.9743         | 2.3033         | 0.0000 | 96.5571         |
| Single Family<br>Housing   | 1063              | 215.7794        | 12.7522        | 0.0000 | 534.5843        |
| User Defined<br>Commercial | 76044             | 15,436.24<br>48 | 912.2559       | 0.0000 | 38,242.64<br>31 |
| User Defined<br>Industrial | 14498             | 2,942.963<br>0  | 173.9241       | 0.0000 | 7,291.066<br>2  |
| Total                      |                   | 25,854.35<br>00 | 1,527.948<br>3 | 0.0000 | 64,053.05<br>77 |

# 9.0 Operational Offroad

| Equipment Type Number Hours/Day Days/Year Horse Power Load Factor Fuel Type |                |        |           |           |             |             |           |
|---|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|   | Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |

# **10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

|  | Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|--|----------------|--------|-----------|------------|-------------|-------------|-----------|
|--|----------------|--------|-----------|------------|-------------|-------------|-----------|

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| Equipment Type         | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|------------------------|--------|----------------|-----------------|---------------|-----------|
| User Defined Equipment |        |                |                 |               |           |
| Equipment Type         | Number |                |                 |               |           |
| 11.0 Vegetation        |        |                |                 |               |           |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### **Seattle Comprehensive Plan - Alt 3**

Siskiyou County, Annual

# **1.0 Project Characteristics**

#### 1.1 Land Usage

| Land Uses               | Size      | Metric            | Lot Acreage | Floor Surface Area | Population |
|-------------------------|-----------|-------------------|-------------|--------------------|------------|
| User Defined Commercial | 33,174.90 | User Defined Unit | 0.00        | 33,174,904.00      | 0          |
| User Defined Industrial | 17,710.27 | User Defined Unit | 0.00        | 17,710,268.00      | 0          |
| Apartments Low Rise     | 14,247.00 | Dwelling Unit     | 890.44      | 14,247,000.00      | 29206      |
| Apartments Mid Rise     | 80,382.00 | Dwelling Unit     | 2,115.32    | 80,382,000.00      | 164783     |
| Condo/Townhouse         | 4,260.00  | Dwelling Unit     | 266.25      | 4,260,000.00       | 8733       |
| Single Family Housing   | 1,111.00  | Dwelling Unit     | 360.71      | 1,999,800.00       | 2278       |

#### **1.2 Other Project Characteristics**

| Urbanization               | Urban              | Wind Speed (m/s)           | 2.2   | Precipitation Freq (Days)  | 85    |
|----------------------------|--------------------|----------------------------|-------|----------------------------|-------|
| Climate Zone               | 14                 |                            |       | Operational Year           | 2045  |
| Utility Company            | Seattle City Light |                            |       |                            |       |
| CO2 Intensity<br>(Ib/MWhr) | 31.35              | CH4 Intensity<br>(Ib/MWhr) | 0.029 | N2O Intensity<br>(Ib/MWhr) | 0.006 |

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - SF, 2.05 persons per DU

Construction Phase - Ops only

Vehicle Trips - Energy and Solid Waste Only

Woodstoves - Energy and Solid Waste Only

Consumer Products - Energy and Solid Waste Only

Area Coating - Energy and Solid Waste Only

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscape Equipment - Energy and Solid Waste Only

Energy Use - Electricity: SCL Carbon Neutral; NG: SCL, EIA

Water And Wastewater - Energy and Solid Waste Only

Solid Waste - Seattle Public Utilities, City of Seattle 2022 Solid Waste Plan Update: Moving Upstream to Zero Waste (2022-2027), December 2022

| Table Name           | Column Name   | Default Value | New Value |
|----------------------|---------------|---------------|-----------|
| tblConstructionPhase | NumDays       | 10,000.00     | 0.00      |
| tblConstructionPhase | PhaseEndDate  | 11/15/2061    | 7/18/2023 |
| tblEnergyUse         | LightingElect | 810.36        | 0.00      |
| tblEnergyUse         | LightingElect | 741.44        | 0.00      |
| tblEnergyUse         | LightingElect | 1,001.10      | 0.00      |
| tblEnergyUse         | LightingElect | 1,608.84      | 0.00      |
| tblEnergyUse         | NT24E         | 3,172.76      | 0.00      |
| tblEnergyUse         | NT24E         | 3,054.10      | 0.00      |
| tblEnergyUse         | NT24E         | 3,795.01      | 0.00      |
| tblEnergyUse         | NT24E         | 6,155.97      | 0.00      |
| tblEnergyUse         | NT24NG        | 1,599.00      | 2,301.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 2,028.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 3,029.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 4,576.00  |
| tblEnergyUse         | NT24NG        | 0.00          | 16.60     |
| tblEnergyUse         | NT24NG        | 0.00          | 10.40     |
| tblEnergyUse         | T24E          | 165.27        | 0.00      |
| tblEnergyUse         | T24E          | 176.92        | 0.00      |
| tblEnergyUse         | T24E          | 204.10        | 0.00      |
| tblEnergyUse         | T24E          | 191.61        | 0.00      |
| tblEnergyUse         | T24NG         | 8,768.16      | 0.00      |
| tblEnergyUse         | T24NG         | 2,182.40      | 0.00      |
| tblEnergyUse         | T24NG         | 3,351.17      | 0.00      |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| tblEnergyUse    | T24NG                    | 9,528.86   | 0.00          |
|-----------------|--------------------------|------------|---------------|
| tblFireplaces   | NumberGas                | 1,087.35   | 0.00          |
| tblFireplaces   | NumberGas                | 53,235.60  | 0.00          |
| tblFireplaces   | NumberGas                | 293.15     | 0.00          |
| tblFireplaces   | NumberGas                | 383.90     | 0.00          |
| tblFireplaces   | NumberWood               | 691.95     | 0.00          |
| tblFireplaces   | NumberWood               | 33,877.20  | 0.00          |
| tblFireplaces   | NumberWood               | 186.55     | 0.00          |
| tblFireplaces   | NumberWood               | 244.30     | 0.00          |
| tblLandUse      | LandUseSquareFeet        | 0.00       | 33,174,904.00 |
| tblLandUse      | LandUseSquareFeet        | 0.00       | 17,710,268.00 |
| tblLandUse      | Population               | 40,746.00  | 29,206.00     |
| tblLandUse      | Population               | 229,893.00 | 164,783.00    |
| tblLandUse      | Population               | 12,184.00  | 8,733.00      |
| tblLandUse      | Population               | 3,177.00   | 2,278.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 909.42     | 5,131.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 44,524.32  | 28,948.00     |
| tblSolidWaste   | SolidWasteGenerationRate | 245.18     | 1,534.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 357.75     | 1,692.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 0.00       | 76,044.00     |
| tblSolidWaste   | SolidWasteGenerationRate | 0.00       | 14,498.00     |
| tblVehicleTrips | ST_TR                    | 8.14       | 0.00          |
| tblVehicleTrips | ST_TR                    | 4.91       | 0.00          |
| tblVehicleTrips | ST_TR                    | 8.14       | 0.00          |
| tblVehicleTrips | ST_TR                    | 9.54       | 0.00          |
| tblVehicleTrips | SU_TR                    | 6.28       | 0.00          |
| tblVehicleTrips | SU_TR                    | 4.09       | 0.00          |
| tblVehicleTrips | SU_TR                    | 6.28       | 0.00          |
| tblVehicleTrips | SU_TR                    | 8.55       | 0.00          |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| tblVehicleTrips | WD_TR               | 7.32             | 0.00 |
|-----------------|---------------------|------------------|------|
| tblVehicleTrips | WD_TR               | 5.44             | 0.00 |
| tblVehicleTrips | WD_TR               | 7.32             | 0.00 |
| tblVehicleTrips | WD_TR               | 9.44             | 0.00 |
| tblWater        | IndoorWaterUseRate  | 128,809,508.65   | 0.00 |
| tblWater        | IndoorWaterUseRate  | 6,306,388,447.95 | 0.00 |
| tblWater        | IndoorWaterUseRate  | 34,727,095.66    | 0.00 |
| tblWater        | IndoorWaterUseRate  | 45,477,509.88    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 81,205,994.59    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 3,975,766,630.23 | 0.00 |
| tblWater        | OutdoorWaterUseRate | 21,893,169.00    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 28,670,604.06    | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 98.85            | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 4,839.60         | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 26.65            | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 34.90            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 98.85            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 4,839.60         | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 26.65            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 34.90            | 0.00 |

# 2.0 Emissions Summary

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 2.1 Overall Construction

# **Unmitigated Construction**

|         | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Year    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| 2023    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# Mitigated Construction

|         | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Year    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| 2023    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

|                      | ROG  | NOx  | со   | SO2  | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N20  | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent<br>Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00             | 0.00            | 0.00          | 0.00              | 0.00             | 0.00           | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

Start Date

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|  |  |  | Highest |  |  |
|--|--|--|---------|--|--|
|--|--|--|---------|--|--|

# 2.2 Overall Operational

# Unmitigated Operational

|          | ROG                  | NOx     | со       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2        | NBio- CO2       | Total CO2       | CH4            | N2O    | CO2e             |  |
|----------|----------------------|---------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|--------|------------------|--|
| Category |                      |         |          |        | tons             | s/yr            |               |                   |                  |                | MT/yr           |                 |                 |                |        |                  |  |
| Area     | 831.1741             | 8.5370  | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000          | 1,213.788<br>7  | 1,213.788<br>7  | 1.1568         | 0.0000 | 1,242.708<br>8   |  |
| Energy   | 5.1154               | 45.8749 | 34.4520  | 0.2790 |                  | 3.5343          | 3.5343        |                   | 3.5343           | 3.5343         | 0.0000          | 50,624.89<br>54 | 50,624.89<br>54 | 0.9703         | 0.9281 | 50,925.73<br>39  |  |
| Mobile   | 0.0000               | 0.0000  | 0.0000   | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Waste    | 10<br>10<br>10<br>10 |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 25,951.78<br>56 | 0.0000          | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>04  |  |
| Water    |                      |         |          |        | , <b></b>        | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Total    | 836.2895             | 54.4119 | 774.1662 | 0.3183 | 0.0000           | 7.6536          | 7.6536        | 0.0000            | 7.6536           | 7.6536         | 25,951.78<br>56 | 51,838.68<br>41 | 77,790.46<br>97 | 1,535.833<br>7 | 0.9281 | 116,462.8<br>931 |  |

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 2.2 Overall Operational

# **Mitigated Operational**

|          | ROG      | NOx     | СО       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2        | NBio- CO2       | Total CO2       | CH4            | N2O    | CO2e             |  |
|----------|----------|---------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|--------|------------------|--|
| Category |          |         |          |        | ton              | s/yr            |               |                   |                  |                | MT/yr           |                 |                 |                |        |                  |  |
| Area     | 831.1741 | 8.5370  | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000          | 1,213.788<br>7  | 1,213.788<br>7  | 1.1568         | 0.0000 | 1,242.708<br>8   |  |
| Energy   | 5.1154   | 45.8749 | 34.4520  | 0.2790 |                  | 3.5343          | 3.5343        |                   | 3.5343           | 3.5343         | 0.0000          | 50,624.89<br>54 | 50,624.89<br>54 | 0.9703         | 0.9281 | 50,925.73<br>39  |  |
| Mobile   | 0.0000   | 0.0000  | 0.0000   | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Waste    | n        |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 25,951.78<br>56 | 0.0000          | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>04  |  |
| Water    | n        |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Total    | 836.2895 | 54.4119 | 774.1662 | 0.3183 | 0.0000           | 7.6536          | 7.6536        | 0.0000            | 7.6536           | 7.6536         | 25,951.78<br>56 | 51,838.68<br>41 | 77,790.46<br>97 | 1,535.833<br>7 | 0.9281 | 116,462.8<br>931 |  |

|                      | ROG  | NOx  | со   | SO2  | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N20  | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent<br>Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00             | 0.00            | 0.00          | 0.00              | 0.00             | 0.00           | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

# **3.0 Construction Detail**

# **Construction Phase**

| Phase<br>Number | Phase Name | Phase Type | Start Date | End Date  | Num Days<br>Week | Num Days | Phase Description |
|-----------------|------------|------------|------------|-----------|------------------|----------|-------------------|
| 1               | Demolition | Demolition | 7/19/2023  | 7/18/2023 | 5                | 0        |                   |

### Acres of Grading (Site Preparation Phase): 0

# EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

#### Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

## OffRoad Equipment

| Phase Name | Offroad Equipment Type   | Amount | Usage Hours | Horse Power | Load Factor |
|------------|--------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1      | 8.00        | 81          | 0.73        |
| Demolition | Excavators               | 3      | 8.00        | 158         | 0.38        |
| Demolition | Rubber Tired Dozers      | 2      | 8.00        | 247         | 0.40        |

#### Trips and VMT

| Phase Name | Offroad Equipment | Worker Trip | Vendor Trip | Hauling Trip | Worker Trip | Vendor Trip | Hauling Trip | Worker Vehicle | Vendor        | Hauling       |
|------------|-------------------|-------------|-------------|--------------|-------------|-------------|--------------|----------------|---------------|---------------|
|            | Count             | Number      | Number      | Number       | Length      | Length      | Length       | Class          | Vehicle Class | Vehicle Class |
| Demolition | 6                 | 15.00       | 0.00        | 0.00         | 10.80       | 7.30        | 20.00        | LD_Mix         | HDT_Mix       | HHDT          |

**3.1 Mitigation Measures Construction**
## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Demolition - 2023

## **Unmitigated Construction On-Site**

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# Unmitigated Construction Off-Site

|          | ROG    | NOx    | СО     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | '/yr   |        |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Worker   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Demolition - 2023

### **Mitigated Construction On-Site**

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### **Mitigated Construction Off-Site**

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Worker   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 4.1 Mitigation Measures Mobile

|             | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Mitigated   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## 4.2 Trip Summary Information

|                         | Aver    | age Daily Trip Ra | te     | Unmitigated | Mitigated  |
|-------------------------|---------|-------------------|--------|-------------|------------|
| Land Use                | Weekday | Saturday          | Sunday | Annual VMT  | Annual VMT |
| Apartments Low Rise     | 0.00    | 0.00              | 0.00   |             |            |
| Apartments Mid Rise     | 0.00    | 0.00              | 0.00   |             |            |
| Condo/Townhouse         | 0.00    | 0.00              | 0.00   |             |            |
| Single Family Housing   | 0.00    | 0.00              | 0.00   |             |            |
| User Defined Commercial | 0.00    | 0.00              | 0.00   |             |            |
| User Defined Industrial | 0.00    | 0.00              | 0.00   |             |            |
| Total                   | 0.00    | 0.00              | 0.00   |             |            |

# 4.3 Trip Type Information

|                     |            | Miles      |             |            | Trip %     |             |         | Trip Purpos | e %     |
|---------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use            | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted    | Pass-by |
| Apartments Low Rise | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| Apartments Mid Rise | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| Condo/Townhouse     | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|                         |            | Miles      |             |            | Trip %     |             |         | Trip Purpos | e %     |
|-------------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use                | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted    | Pass-by |
| Single Family Housing   | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| User Defined Commercial | 9.50       | 7.30       | 7.30        | 0.00       | 0.00       | 0.00        | 0       | 0           | 0       |
| User Defined Industrial | 9.50       | 7.30       | 7.30        | 0.00       | 0.00       | 0.00        | 0       | 0           | 0       |

# 4.4 Fleet Mix

| Land Use                | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise     | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Apartments Mid Rise     | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Condo/Townhouse         | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Single Family Housing   | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| User Defined Commercial | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| User Defined Industrial | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |

# 5.0 Energy Detail

Historical Energy Use: N

# 5.1 Mitigation Measures Energy

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|                            | ROG                   | NOx     | CO      | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2       | Total CO2       | CH4    | N2O    | CO2e            |
|----------------------------|-----------------------|---------|---------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|--------|--------|-----------------|
| Category                   |                       |         |         |        | ton              | s/yr            |               |                   |                  |                |          |                 | МТ              | /yr    |        |                 |
| Electricity<br>Mitigated   |                       |         |         |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000          | 0.0000          | 0.0000 | 0.0000 | 0.0000          |
| Electricity<br>Unmitigated | n<br>n<br>n<br>n<br>n |         |         |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000          | 0.0000          | 0.0000 | 0.0000 | 0.0000          |
| NaturalGas<br>Mitigated    | 5.1154                | 45.8749 | 34.4520 | 0.2790 |                  | 3.5343          | 3.5343        |                   | 3.5343           | 3.5343         | 0.0000   | 50,624.89<br>54 | 50,624.89<br>54 | 0.9703 | 0.9281 | 50,925.73<br>39 |
| NaturalGas<br>Unmitigated  | 5.1154                | 45.8749 | 34.4520 | 0.2790 |                  | 3.5343          | 3.5343        |                   | 3.5343           | 3.5343         | 0.0000   | 50,624.89<br>54 | 50,624.89<br>54 | 0.9703 | 0.9281 | 50,925.73<br>39 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.2 Energy by Land Use - NaturalGas

## **Unmitigated**

|                            | NaturalGa<br>s Use | ROG    | NOx     | CO      | SO2             | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2       | Total CO2       | CH4             | N2O             | CO2e            |
|----------------------------|--------------------|--------|---------|---------|-----------------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Land Use                   | kBTU/yr            |        |         |         |                 | ton              | s/yr            |               |                   |                  |                |          |                 | MT              | /yr             |                 |                 |
| Apartments Low<br>Rise     | 3.27823e<br>+007   | 0.1768 | 1.5106  | 0.6428  | 9.6400e-<br>003 |                  | 0.1221          | 0.1221        |                   | 0.1221           | 0.1221         | 0.0000   | 1,749.390<br>9  | 1,749.390<br>9  | 0.0335          | 0.0321          | 1,759.786<br>6  |
| Apartments Mid<br>Rise     | 1.63015e<br>+008   | 0.8790 | 7.5115  | 3.1964  | 0.0480          |                  | 0.6073          | 0.6073        |                   | 0.6073           | 0.6073         | 0.0000   | 8,699.085<br>0  | 8,699.085<br>0  | 0.1667          | 0.1595          | 8,750.779<br>3  |
| Condo/Townhous<br>e        | 1.29035e<br>+007   | 0.0696 | 0.5946  | 0.2530  | 3.8000e-<br>003 |                  | 0.0481          | 0.0481        |                   | 0.0481           | 0.0481         | 0.0000   | 688.5820        | 688.5820        | 0.0132          | 0.0126          | 692.6739        |
| Single Family<br>Housing   | 5.08394e<br>+006   | 0.0274 | 0.2343  | 0.0997  | 1.5000e-<br>003 |                  | 0.0189          | 0.0189        |                   | 0.0189           | 0.0189         | 0.0000   | 271.2982        | 271.2982        | 5.2000e-<br>003 | 4.9700e-<br>003 | 272.9104        |
| User Defined<br>Commercial | 5.50703e<br>+008   | 2.9695 | 26.9953 | 22.6760 | 0.1620          |                  | 2.0516          | 2.0516        |                   | 2.0516           | 2.0516         | 0.0000   | 29,387.63<br>10 | 29,387.63<br>10 | 0.5633          | 0.5388          | 29,562.26<br>70 |
| User Defined<br>Industrial | 1.84187e<br>+008   | 0.9932 | 9.0288  | 7.5842  | 0.0542          |                  | 0.6862          | 0.6862        |                   | 0.6862           | 0.6862         | 0.0000   | 9,828.908<br>4  | 9,828.908<br>4  | 0.1884          | 0.1802          | 9,887.316<br>7  |
| Total                      |                    | 5.1154 | 45.8749 | 34.4520 | 0.2790          |                  | 3.5343          | 3.5343        |                   | 3.5343           | 3.5343         | 0.0000   | 50,624.89<br>54 | 50,624.89<br>54 | 0.9703          | 0.9281          | 50,925.73<br>39 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.2 Energy by Land Use - NaturalGas

## Mitigated

|                            | NaturalGa<br>s Use | ROG    | NOx     | СО      | SO2             | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2       | Total CO2       | CH4             | N2O             | CO2e            |
|----------------------------|--------------------|--------|---------|---------|-----------------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Land Use                   | kBTU/yr            |        |         |         |                 | ton              | s/yr            |               |                   |                  |                |          |                 | МТ              | /yr             |                 |                 |
| Apartments Low<br>Rise     | 3.27823e<br>+007   | 0.1768 | 1.5106  | 0.6428  | 9.6400e-<br>003 |                  | 0.1221          | 0.1221        |                   | 0.1221           | 0.1221         | 0.0000   | 1,749.390<br>9  | 1,749.390<br>9  | 0.0335          | 0.0321          | 1,759.786<br>6  |
| Apartments Mid<br>Rise     | 1.63015e<br>+008   | 0.8790 | 7.5115  | 3.1964  | 0.0480          |                  | 0.6073          | 0.6073        |                   | 0.6073           | 0.6073         | 0.0000   | 8,699.085<br>0  | 8,699.085<br>0  | 0.1667          | 0.1595          | 8,750.779<br>3  |
| Condo/Townhous<br>e        | 1.29035e<br>+007   | 0.0696 | 0.5946  | 0.2530  | 3.8000e-<br>003 |                  | 0.0481          | 0.0481        |                   | 0.0481           | 0.0481         | 0.0000   | 688.5820        | 688.5820        | 0.0132          | 0.0126          | 692.6739        |
| Single Family<br>Housing   | 5.08394e<br>+006   | 0.0274 | 0.2343  | 0.0997  | 1.5000e-<br>003 |                  | 0.0189          | 0.0189        |                   | 0.0189           | 0.0189         | 0.0000   | 271.2982        | 271.2982        | 5.2000e-<br>003 | 4.9700e-<br>003 | 272.9104        |
| User Defined<br>Commercial | 5.50703e<br>+008   | 2.9695 | 26.9953 | 22.6760 | 0.1620          |                  | 2.0516          | 2.0516        |                   | 2.0516           | 2.0516         | 0.0000   | 29,387.63<br>10 | 29,387.63<br>10 | 0.5633          | 0.5388          | 29,562.26<br>70 |
| User Defined<br>Industrial | 1.84187e<br>+008   | 0.9932 | 9.0288  | 7.5842  | 0.0542          |                  | 0.6862          | 0.6862        |                   | 0.6862           | 0.6862         | 0.0000   | 9,828.908<br>4  | 9,828.908<br>4  | 0.1884          | 0.1802          | 9,887.316<br>7  |
| Total                      |                    | 5.1154 | 45.8749 | 34.4520 | 0.2790          |                  | 3.5343          | 3.5343        |                   | 3.5343           | 3.5343         | 0.0000   | 50,624.89<br>54 | 50,624.89<br>54 | 0.9703          | 0.9281          | 50,925.73<br>39 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity

## **Unmitigated**

|                            | Electricity<br>Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|--------------------|-----------|--------|--------|--------|
| Land Use                   | kWh/yr             |           | MT     | /yr    |        |
| Apartments Low<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity

## Mitigated

|                            | Electricity<br>Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|--------------------|-----------|--------|--------|--------|
| Land Use                   | kWh/yr             |           | MT     | /yr    |        |
| Apartments Low<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# 6.0 Area Detail

6.1 Mitigation Measures Area

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|             | ROG      | NOx    | CO       | SO2    | Fugitive<br>PM10       | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5     | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|-------------|----------|--------|----------|--------|------------------------|-----------------|---------------|-----------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| Category    |          |        |          |        | ton                    | s/yr            |               |                       |                  |                |          |                | МТ             | /yr    |        |                |
| Mitigated   | 831.1741 | 8.5370 | 739.7142 | 0.0392 |                        | 4.1193          | 4.1193        |                       | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |
| Unmitigated | 831.1741 | 8.5370 | 739.7142 | 0.0392 | <b></b><br>-<br>-<br>- | 4.1193          | 4.1193        | <b></b><br> <br> <br> | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |

# 6.2 Area by SubCategory

<u>Unmitigated</u>

|                          | ROG      | NOx    | со       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|--------------------------|----------|--------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| SubCategory              |          |        |          |        | ton              | s/yr            |               |                   |                  |                |          |                | МТ             | '/yr   |        |                |
| Architectural<br>Coating | 216.2680 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Consumer<br>Products     | 592.7533 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Hearth                   | 0.0000   | 0.0000 | 0.0000   | 0.0000 |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Landscaping              | 22.1529  | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |
| Total                    | 831.1741 | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 6.2 Area by SubCategory

## Mitigated

|                          | ROG      | NOx    | СО       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|--------------------------|----------|--------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| SubCategory              |          |        |          |        | ton              | s/yr            |               |                   |                  |                |          |                | МТ             | /yr    |        |                |
| Architectural<br>Coating | 216.2680 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Consumer<br>Products     | 592.7533 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Hearth                   | 0.0000   | 0.0000 | 0.0000   | 0.0000 |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Landscaping              | 22.1529  | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |
| Total                    | 831.1741 | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |

# 7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|             | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|-----------|--------|--------|--------|
| Category    |           | MT     | /yr    |        |
| Mitigated   | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 7.2 Water by Land Use

## <u>Unmitigated</u>

|                            | Indoor/Out<br>door Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|------------------------|-----------|--------|--------|--------|
| Land Use                   | Mgal                   |           | МТ     | /yr    |        |
| Apartments Low<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                        | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 7.2 Water by Land Use

Mitigated

|                            | Indoor/Out<br>door Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|------------------------|-----------|--------|--------|--------|
| Land Use                   | Mgal                   |           | МТ     | /yr    |        |
| Apartments Low<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                        | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# 8.0 Waste Detail

# 8.1 Mitigation Measures Waste

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Category/Year

|             | Total CO2       | CH4            | N2O    | CO2e            |
|-------------|-----------------|----------------|--------|-----------------|
|             |                 | MT             | /yr    |                 |
| Mitigated   | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>04 |
| Unmitigated | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>04 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 8.2 Waste by Land Use

**Unmitigated** 

|                            | Waste<br>Disposed | Total CO2       | CH4            | N2O    | CO2e            |
|----------------------------|-------------------|-----------------|----------------|--------|-----------------|
| Land Use                   | tons              |                 | МТ             | /yr    |                 |
| Apartments Low<br>Rise     | 5131              | 1,041.546<br>6  | 61.5536        | 0.0000 | 2,580.387<br>7  |
| Apartments Mid<br>Rise     | 28948             | 5,876.182<br>4  | 347.2724       | 0.0000 | 14,557.99<br>32 |
| Condo/Townhous<br>e        | 1534              | 311.3881        | 18.4025        | 0.0000 | 771.4509        |
| Single Family<br>Housing   | 1692              | 343.4607        | 20.2980        | 0.0000 | 850.9094        |
| User Defined<br>Commercial | 76044             | 15,436.24<br>48 | 912.2559       | 0.0000 | 38,242.64<br>31 |
| User Defined<br>Industrial | 14498             | 2,942.963<br>0  | 173.9241       | 0.0000 | 7,291.066<br>2  |
| Total                      |                   | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>05 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 8.2 Waste by Land Use

**Mitigated** 

|                            | Waste<br>Disposed | Total CO2       | CH4            | N2O    | CO2e            |
|----------------------------|-------------------|-----------------|----------------|--------|-----------------|
| Land Use                   | tons              |                 | МТ             | ī/yr   |                 |
| Apartments Low<br>Rise     | 5131              | 1,041.546<br>6  | 61.5536        | 0.0000 | 2,580.387<br>7  |
| Apartments Mid<br>Rise     | 28948             | 5,876.182<br>4  | 347.2724       | 0.0000 | 14,557.99<br>32 |
| Condo/Townhous<br>e        | 1534              | 311.3881        | 18.4025        | 0.0000 | 771.4509        |
| Single Family<br>Housing   | 1692              | 343.4607        | 20.2980        | 0.0000 | 850.9094        |
| User Defined<br>Commercial | 76044             | 15,436.24<br>48 | 912.2559       | 0.0000 | 38,242.64<br>31 |
| User Defined<br>Industrial | 14498             | 2,942.963<br>0  | 173.9241       | 0.0000 | 7,291.066<br>2  |
| Total                      |                   | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>05 |

# 9.0 Operational Offroad

| Equipment Type Number Hours/Day Days/Year Horse Power Load Factor | Fuel Type |
|---|-----------|

# **10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

|  | Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|--|----------------|--------|-----------|------------|-------------|-------------|-----------|
|--|----------------|--------|-----------|------------|-------------|-------------|-----------|

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| Equipment Type         | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|------------------------|--------|----------------|-----------------|---------------|-----------|
| User Defined Equipment |        |                |                 |               |           |
| Equipment Type         | Number |                |                 |               |           |
| 11.0 Vegetation        |        |                |                 |               |           |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

### Seattle Comprehensive Plan - Alt 4

Siskiyou County, Annual

## **1.0 Project Characteristics**

#### 1.1 Land Usage

| Land Uses               | Size      | Metric            | Lot Acreage | Floor Surface Area | Population |
|-------------------------|-----------|-------------------|-------------|--------------------|------------|
| User Defined Commercial | 33,174.90 | User Defined Unit | 0.00        | 33,174,904.00      | 0          |
| User Defined Industrial | 17,710.27 | User Defined Unit | 0.00        | 17,710,268.00      | 0          |
| Apartments Low Rise     | 5,522.00  | Dwelling Unit     | 345.13      | 5,522,000.00       | 11320      |
| Apartments Mid Rise     | 91,789.00 | Dwelling Unit     | 2,415.50    | 91,789,000.00      | 188167     |
| Condo/Townhouse         | 1,578.00  | Dwelling Unit     | 98.63       | 1,578,000.00       |            |
| Single Family Housing   | 1,111.00  | Dwelling Unit     | 360.71      | 1,999,800.00       | 2278       |

#### **1.2 Other Project Characteristics**

| Urbanization               | Urban              | Wind Speed (m/s)           | 2.2   | Precipitation Freq (Days)  | 85    |
|----------------------------|--------------------|----------------------------|-------|----------------------------|-------|
| Climate Zone               | 14                 |                            |       | Operational Year           | 2045  |
| Utility Company            | Seattle City Light |                            |       |                            |       |
| CO2 Intensity<br>(Ib/MWhr) | 31.35              | CH4 Intensity<br>(Ib/MWhr) | 0.029 | N2O Intensity<br>(Ib/MWhr) | 0.006 |

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - SF, 2.05 persons per DU

Construction Phase - Ops only

Vehicle Trips - Energy and Solid Waste Only

Woodstoves - Energy and Solid Waste Only

Consumer Products - Energy and Solid Waste Only

Area Coating - Energy and Solid Waste Only

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscape Equipment - Energy and Solid Waste Only

Energy Use - Electricity: SCL Carbon Neutral; NG: SCL, EIA

Water And Wastewater - Energy and Solid Waste Only

Solid Waste - Seattle Public Utilities, City of Seattle 2022 Solid Waste Plan Update: Moving Upstream to Zero Waste (2022-2027), December 2022

| Table Name           | Column Name   | Default Value | New Value |
|----------------------|---------------|---------------|-----------|
| tblConstructionPhase | NumDays       | 10,000.00     | 0.00      |
| tblConstructionPhase | PhaseEndDate  | 11/15/2061    | 7/18/2023 |
| tblEnergyUse         | LightingElect | 810.36        | 0.00      |
| tblEnergyUse         | LightingElect | 741.44        | 0.00      |
| tblEnergyUse         | LightingElect | 1,001.10      | 0.00      |
| tblEnergyUse         | LightingElect | 1,608.84      | 0.00      |
| tblEnergyUse         | NT24E         | 3,172.76      | 0.00      |
| tblEnergyUse         | NT24E         | 3,054.10      | 0.00      |
| tblEnergyUse         | NT24E         | 3,795.01      | 0.00      |
| tblEnergyUse         | NT24E         | 6,155.97      | 0.00      |
| tblEnergyUse         | NT24NG        | 1,599.00      | 2,301.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 2,028.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 3,029.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 4,576.00  |
| tblEnergyUse         | NT24NG        | 0.00          | 16.60     |
| tblEnergyUse         | NT24NG        | 0.00          | 10.40     |
| tblEnergyUse         | T24E          | 165.27        | 0.00      |
| tblEnergyUse         | T24E          | 176.92        | 0.00      |
| tblEnergyUse         | T24E          | 204.10        | 0.00      |
| tblEnergyUse         | T24E          | 191.61        | 0.00      |
| tblEnergyUse         | T24NG         | 8,768.16      | 0.00      |
| tblEnergyUse         | T24NG         | 2,182.40      | 0.00      |
| tblEnergyUse         | T24NG         | 3,351.17      | 0.00      |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| tblEnergyUse    | T24NG                    | 9,528.86   | 0.00          |
|-----------------|--------------------------|------------|---------------|
| tblFireplaces   | NumberGas                | 1,087.35   | 0.00          |
| tblFireplaces   | NumberGas                | 53,235.60  | 0.00          |
| tblFireplaces   | NumberGas                | 293.15     | 0.00          |
| tblFireplaces   | NumberGas                | 383.90     | 0.00          |
| tblFireplaces   | NumberWood               | 691.95     | 0.00          |
| tblFireplaces   | NumberWood               | 33,877.20  | 0.00          |
| tblFireplaces   | NumberWood               | 186.55     | 0.00          |
| tblFireplaces   | NumberWood               | 244.30     | 0.00          |
| tblLandUse      | LandUseSquareFeet        | 0.00       | 33,174,904.00 |
| tblLandUse      | LandUseSquareFeet        | 0.00       | 17,710,268.00 |
| tblLandUse      | Population               | 15,793.00  | 11,320.00     |
| tblLandUse      | Population               | 262,517.00 | 188,167.00    |
| tblLandUse      | Population               | 3,177.00   | 2,278.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 909.42     | 1,989.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 44,524.32  | 33,056.00     |
| tblSolidWaste   | SolidWasteGenerationRate | 245.18     | 568.00        |
| tblSolidWaste   | SolidWasteGenerationRate | 357.75     | 1,692.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 0.00       | 76,044.00     |
| tblSolidWaste   | SolidWasteGenerationRate | 0.00       | 14,498.00     |
| tblVehicleTrips | ST_TR                    | 8.14       | 0.00          |
| tblVehicleTrips | ST_TR                    | 4.91       | 0.00          |
| tblVehicleTrips | ST_TR                    | 8.14       | 0.00          |
| tblVehicleTrips | ST_TR                    | 9.54       | 0.00          |
| tblVehicleTrips | SU_TR                    | 6.28       | 0.00          |
| tblVehicleTrips | SU_TR                    | 4.09       | 0.00          |
| tblVehicleTrips | SU_TR                    | 6.28       | 0.00          |
| tblVehicleTrips | SU_TR                    | 8.55       | 0.00          |
| tblVehicleTrips | WD_TR                    | 7.32       | 0.00          |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| tblVehicleTrips | WD_TR               | 5.44             | 0.00 |
|-----------------|---------------------|------------------|------|
| tblVehicleTrips | WD_TR               | 7.32             | 0.00 |
| tblVehicleTrips | WD_TR               | 9.44             | 0.00 |
| tblWater        | IndoorWaterUseRate  | 128,809,508.65   | 0.00 |
| tblWater        | IndoorWaterUseRate  | 6,306,388,447.95 | 0.00 |
| tblWater        | IndoorWaterUseRate  | 34,727,095.66    | 0.00 |
| tblWater        | IndoorWaterUseRate  | 45,477,509.88    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 81,205,994.59    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 3,975,766,630.23 | 0.00 |
| tblWater        | OutdoorWaterUseRate | 21,893,169.00    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 28,670,604.06    | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 98.85            | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 4,839.60         | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 26.65            | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 34.90            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 98.85            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 4,839.60         | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 26.65            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 34.90            | 0.00 |

# 2.0 Emissions Summary

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 2.1 Overall Construction

## **Unmitigated Construction**

|         | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Year    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| 2023    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# Mitigated Construction

|         | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Year    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| 2023    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

|                      | ROG  | NOx  | со   | SO2  | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N20  | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent<br>Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00             | 0.00            | 0.00          | 0.00              | 0.00             | 0.00           | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

Start Date

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| Highest |
|---------|
|---------|

# 2.2 Overall Operational

# Unmitigated Operational

|          | ROG      | NOx     | со       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2        | NBio- CO2       | Total CO2       | CH4            | N2O    | CO2e             |
|----------|----------|---------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|--------|------------------|
| Category |          |         |          |        | ton              | s/yr            |               |                   |                  |                |                 |                 | МТ              | /yr            |        |                  |
| Area     | 831.1741 | 8.5370  | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000          | 1,213.788<br>7  | 1,213.788<br>7  | 1.1568         | 0.0000 | 1,242.708<br>8   |
| Energy   | 5.0881   | 45.6414 | 34.3527  | 0.2775 |                  | 3.5154          | 3.5154        |                   | 3.5154           | 3.5154         | 0.0000          | 50,354.52<br>20 | 50,354.52<br>20 | 0.9651         | 0.9232 | 50,653.75<br>37  |
| Mobile   | 0.0000   | 0.0000  | 0.0000   | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |
| Waste    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 25,951.78<br>56 | 0.0000          | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>04  |
| Water    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |
| Total    | 836.2622 | 54.1785 | 774.0669 | 0.3168 | 0.0000           | 7.6347          | 7.6347        | 0.0000            | 7.6347           | 7.6347         | 25,951.78<br>56 | 51,568.31<br>07 | 77,520.09<br>63 | 1,535.828<br>5 | 0.9232 | 116,190.9<br>130 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 2.2 Overall Operational

## **Mitigated Operational**

|          | ROG      | NOx     | СО       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2        | NBio- CO2       | Total CO2       | CH4            | N2O    | CO2e             |
|----------|----------|---------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|--------|------------------|
| Category |          |         |          |        | ton              | s/yr            |               |                   |                  |                |                 |                 | MT              | /yr            |        |                  |
| Area     | 831.1741 | 8.5370  | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000          | 1,213.788<br>7  | 1,213.788<br>7  | 1.1568         | 0.0000 | 1,242.708<br>8   |
| Energy   | 5.0881   | 45.6414 | 34.3527  | 0.2775 |                  | 3.5154          | 3.5154        |                   | 3.5154           | 3.5154         | 0.0000          | 50,354.52<br>20 | 50,354.52<br>20 | 0.9651         | 0.9232 | 50,653.75<br>37  |
| Mobile   | 0.0000   | 0.0000  | 0.0000   | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |
| Waste    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 25,951.78<br>56 | 0.0000          | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>04  |
| Water    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |
| Total    | 836.2622 | 54.1785 | 774.0669 | 0.3168 | 0.0000           | 7.6347          | 7.6347        | 0.0000            | 7.6347           | 7.6347         | 25,951.78<br>56 | 51,568.31<br>07 | 77,520.09<br>63 | 1,535.828<br>5 | 0.9232 | 116,190.9<br>130 |

|                      | ROG  | NOx  | со   | SO2  | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N20  | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent<br>Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00             | 0.00            | 0.00          | 0.00              | 0.00             | 0.00           | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

# **3.0 Construction Detail**

#### **Construction Phase**

| Phase<br>Number | Phase Name | Phase Type | Start Date | End Date  | Num Days<br>Week | Num Days | Phase Description |
|-----------------|------------|------------|------------|-----------|------------------|----------|-------------------|
| 1               | Demolition | Demolition | 7/19/2023  | 7/18/2023 | 5                | 0        |                   |

### Acres of Grading (Site Preparation Phase): 0

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

#### Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

## OffRoad Equipment

| Phase Name | Offroad Equipment Type   | Amount | Usage Hours | Horse Power | Load Factor |
|------------|--------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1      | 8.00        | 81          | 0.73        |
| Demolition | Excavators               | 3      | 8.00        | 158         | 0.38        |
| Demolition | Rubber Tired Dozers      | 2      | 8.00        | 247         | 0.40        |

#### Trips and VMT

| Phase Name | Offroad Equipment | Worker Trip | Vendor Trip | Hauling Trip | Worker Trip | Vendor Trip | Hauling Trip | Worker Vehicle | Vendor        | Hauling       |
|------------|-------------------|-------------|-------------|--------------|-------------|-------------|--------------|----------------|---------------|---------------|
|            | Count             | Number      | Number      | Number       | Length      | Length      | Length       | Class          | Vehicle Class | Vehicle Class |
| Demolition | 6                 | 15.00       | 0.00        | 0.00         | 10.80       | 7.30        | 20.00        | LD_Mix         | HDT_Mix       | HHDT          |

**3.1 Mitigation Measures Construction** 

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Demolition - 2023

**Unmitigated Construction On-Site** 

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Worker   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 3.2 Demolition - 2023

### **Mitigated Construction On-Site**

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### **Mitigated Construction Off-Site**

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Worker   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 4.1 Mitigation Measures Mobile

|             | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category    |        |        |        |        |                  |                 |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| Mitigated   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## 4.2 Trip Summary Information

|                         | Avei    | age Daily Trip Ra | te     | Unmitigated | Mitigated  |
|-------------------------|---------|-------------------|--------|-------------|------------|
| Land Use                | Weekday | Saturday          | Sunday | Annual VMT  | Annual VMT |
| Apartments Low Rise     | 0.00    | 0.00              | 0.00   |             |            |
| Apartments Mid Rise     | 0.00    | 0.00              | 0.00   |             |            |
| Condo/Townhouse         | 0.00    | 0.00              | 0.00   |             |            |
| Single Family Housing   | 0.00    | 0.00              | 0.00   |             |            |
| User Defined Commercial | 0.00    | 0.00              | 0.00   |             |            |
| User Defined Industrial | 0.00    | 0.00              | 0.00   |             |            |
| Total                   | 0.00    | 0.00              | 0.00   |             |            |

# 4.3 Trip Type Information

|                     |            | Miles      |             |            | Trip %     |             |         | Trip Purpos | e %     |
|---------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use            | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted    | Pass-by |
| Apartments Low Rise | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| Apartments Mid Rise | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| Condo/Townhouse     | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|                         |            | Miles      |             |            | Trip %     |             |         | Trip Purpos | e %     |
|-------------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use                | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted    | Pass-by |
| Single Family Housing   | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| User Defined Commercial | 9.50       | 7.30       | 7.30        | 0.00       | 0.00       | 0.00        | 0       | 0           | 0       |
| User Defined Industrial | 9.50       | 7.30       | 7.30        | 0.00       | 0.00       | 0.00        | 0       | 0           | 0       |

# 4.4 Fleet Mix

| Land Use                | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise     | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Apartments Mid Rise     | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Condo/Townhouse         | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Single Family Housing   | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| User Defined Commercial | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| User Defined Industrial | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |

# 5.0 Energy Detail

Historical Energy Use: N

# 5.1 Mitigation Measures Energy

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|                            | ROG    | NOx     | CO      | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2       | Total CO2       | CH4    | N2O    | CO2e            |
|----------------------------|--------|---------|---------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|--------|--------|-----------------|
| Category                   |        |         |         |        | ton              | s/yr            |               |                   |                  |                |          |                 | МТ              | /yr    |        |                 |
| Electricity<br>Mitigated   |        |         |         |        |                  | 0.0000          | 0.0000        | ,<br>,<br>,       | 0.0000           | 0.0000         | 0.0000   | 0.0000          | 0.0000          | 0.0000 | 0.0000 | 0.0000          |
| Electricity<br>Unmitigated |        |         |         |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000          | 0.0000          | 0.0000 | 0.0000 | 0.0000          |
| NaturalGas<br>Mitigated    | 5.0881 | 45.6414 | 34.3527 | 0.2775 |                  | 3.5154          | 3.5154        |                   | 3.5154           | 3.5154         | 0.0000   | 50,354.52<br>20 | 50,354.52<br>20 | 0.9651 | 0.9232 | 50,653.75<br>37 |
| NaturalGas<br>Unmitigated  | 5.0881 | 45.6414 | 34.3527 | 0.2775 |                  | 3.5154          | 3.5154        |                   | 3.5154           | 3.5154         | 0.0000   | 50,354.52<br>20 | 50,354.52<br>20 | 0.9651 | 0.9232 | 50,653.75<br>37 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.2 Energy by Land Use - NaturalGas

## **Unmitigated**

|                            | NaturalGa<br>s Use | ROG    | NOx     | CO      | SO2             | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2       | Total CO2       | CH4             | N2O             | CO2e            |
|----------------------------|--------------------|--------|---------|---------|-----------------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Land Use                   | kBTU/yr            |        |         |         |                 | ton              | s/yr            |               |                   |                  |                |          |                 | МТ              | /yr             |                 |                 |
| Apartments Low<br>Rise     | 1.27061e<br>+007   | 0.0685 | 0.5855  | 0.2491  | 3.7400e-<br>003 |                  | 0.0473          | 0.0473        |                   | 0.0473           | 0.0473         | 0.0000   | 678.0471        | 678.0471        | 0.0130          | 0.0124          | 682.0764        |
| Apartments Mid<br>Rise     | 1.86148e<br>+008   | 1.0037 | 8.5774  | 3.6500  | 0.0548          |                  | 0.6935          | 0.6935        |                   | 0.6935           | 0.6935         | 0.0000   | 9,933.571<br>1  | 9,933.571<br>1  | 0.1904          | 0.1821          | 9,992.601<br>3  |
| Condo/Townhous<br>e        | 4.77976e<br>+006   | 0.0258 | 0.2202  | 0.0937  | 1.4100e-<br>003 |                  | 0.0178          | 0.0178        |                   | 0.0178           | 0.0178         | 0.0000   | 255.0663        | 255.0663        | 4.8900e-<br>003 | 4.6800e-<br>003 | 256.5820        |
| Single Family<br>Housing   | 5.08394e<br>+006   | 0.0274 | 0.2343  | 0.0997  | 1.5000e-<br>003 |                  | 0.0189          | 0.0189        |                   | 0.0189           | 0.0189         | 0.0000   | 271.2982        | 271.2982        | 5.2000e-<br>003 | 4.9700e-<br>003 | 272.9104        |
| User Defined<br>Commercial | 5.50703e<br>+008   | 2.9695 | 26.9953 | 22.6760 | 0.1620          |                  | 2.0516          | 2.0516        |                   | 2.0516           | 2.0516         | 0.0000   | 29,387.63<br>10 | 29,387.63<br>10 | 0.5633          | 0.5388          | 29,562.26<br>70 |
| User Defined<br>Industrial | 1.84187e<br>+008   | 0.9932 | 9.0288  | 7.5842  | 0.0542          |                  | 0.6862          | 0.6862        |                   | 0.6862           | 0.6862         | 0.0000   | 9,828.908<br>4  | 9,828.908<br>4  | 0.1884          | 0.1802          | 9,887.316<br>7  |
| Total                      |                    | 5.0881 | 45.6414 | 34.3527 | 0.2775          |                  | 3.5154          | 3.5154        |                   | 3.5154           | 3.5154         | 0.0000   | 50,354.52<br>20 | 50,354.52<br>20 | 0.9651          | 0.9232          | 50,653.75<br>37 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.2 Energy by Land Use - NaturalGas

## Mitigated

|                            | NaturalGa<br>s Use | ROG    | NOx     | СО      | SO2             | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2       | Total CO2       | CH4             | N2O             | CO2e            |
|----------------------------|--------------------|--------|---------|---------|-----------------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Land Use                   | kBTU/yr            |        |         |         |                 | ton              | s/yr            |               |                   |                  |                |          |                 | МТ              | /yr             |                 |                 |
| Apartments Low<br>Rise     | 1.27061e<br>+007   | 0.0685 | 0.5855  | 0.2491  | 3.7400e-<br>003 |                  | 0.0473          | 0.0473        |                   | 0.0473           | 0.0473         | 0.0000   | 678.0471        | 678.0471        | 0.0130          | 0.0124          | 682.0764        |
| Apartments Mid<br>Rise     | 1.86148e<br>+008   | 1.0037 | 8.5774  | 3.6500  | 0.0548          |                  | 0.6935          | 0.6935        |                   | 0.6935           | 0.6935         | 0.0000   | 9,933.571<br>1  | 9,933.571<br>1  | 0.1904          | 0.1821          | 9,992.601<br>3  |
| Condo/Townhous<br>e        | 4.77976e<br>+006   | 0.0258 | 0.2202  | 0.0937  | 1.4100e-<br>003 |                  | 0.0178          | 0.0178        |                   | 0.0178           | 0.0178         | 0.0000   | 255.0663        | 255.0663        | 4.8900e-<br>003 | 4.6800e-<br>003 | 256.5820        |
| Single Family<br>Housing   | 5.08394e<br>+006   | 0.0274 | 0.2343  | 0.0997  | 1.5000e-<br>003 |                  | 0.0189          | 0.0189        |                   | 0.0189           | 0.0189         | 0.0000   | 271.2982        | 271.2982        | 5.2000e-<br>003 | 4.9700e-<br>003 | 272.9104        |
| User Defined<br>Commercial | 5.50703e<br>+008   | 2.9695 | 26.9953 | 22.6760 | 0.1620          |                  | 2.0516          | 2.0516        |                   | 2.0516           | 2.0516         | 0.0000   | 29,387.63<br>10 | 29,387.63<br>10 | 0.5633          | 0.5388          | 29,562.26<br>70 |
| User Defined<br>Industrial | 1.84187e<br>+008   | 0.9932 | 9.0288  | 7.5842  | 0.0542          |                  | 0.6862          | 0.6862        |                   | 0.6862           | 0.6862         | 0.0000   | 9,828.908<br>4  | 9,828.908<br>4  | 0.1884          | 0.1802          | 9,887.316<br>7  |
| Total                      |                    | 5.0881 | 45.6414 | 34.3527 | 0.2775          |                  | 3.5154          | 3.5154        |                   | 3.5154           | 3.5154         | 0.0000   | 50,354.52<br>20 | 50,354.52<br>20 | 0.9651          | 0.9232          | 50,653.75<br>37 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity

## **Unmitigated**

|                            | Electricity<br>Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|--------------------|-----------|--------|--------|--------|
| Land Use                   | kWh/yr             |           | MT     | /yr    |        |
| Apartments Low<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity

## Mitigated

|                            | Electricity<br>Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|--------------------|-----------|--------|--------|--------|
| Land Use                   | kWh/yr             |           | MT     | /yr    |        |
| Apartments Low<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

# 6.0 Area Detail

6.1 Mitigation Measures Area

### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|             | ROG      | NOx    | CO       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|-------------|----------|--------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| Category    |          |        |          |        | ton              | s/yr            |               |                   |                  |                |          |                | МТ             | /yr    |        |                |
| Mitigated   | 831.1741 | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |
| Unmitigated | 831.1741 | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |

# 6.2 Area by SubCategory

<u>Unmitigated</u>

|                          | ROG      | NOx    | со       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|--------------------------|----------|--------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| SubCategory              |          |        |          |        | ton              | s/yr            |               |                   |                  |                |          |                | МТ             | '/yr   |        |                |
| Architectural<br>Coating | 216.2680 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Consumer<br>Products     | 592.7533 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Hearth                   | 0.0000   | 0.0000 | 0.0000   | 0.0000 |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Landscaping              | 22.1529  | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |
| Total                    | 831.1741 | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |
#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 6.2 Area by SubCategory

#### Mitigated

|                          | ROG      | NOx    | СО       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|--------------------------|----------|--------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| SubCategory              |          |        |          |        | ton              | s/yr            |               |                   |                  |                |          |                | МТ             | /yr    |        |                |
| Architectural<br>Coating | 216.2680 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Consumer<br>Products     | 592.7533 |        |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Hearth                   | 0.0000   | 0.0000 | 0.0000   | 0.0000 |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Landscaping              | 22.1529  | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |
| Total                    | 831.1741 | 8.5370 | 739.7142 | 0.0392 |                  | 4.1193          | 4.1193        |                   | 4.1193           | 4.1193         | 0.0000   | 1,213.788<br>7 | 1,213.788<br>7 | 1.1568 | 0.0000 | 1,242.708<br>8 |

## 7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|             | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|-----------|--------|--------|--------|
| Category    |           | MT     | /yr    |        |
| Mitigated   | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 7.2 Water by Land Use

#### <u>Unmitigated</u>

|                            | Indoor/Out<br>door Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|------------------------|-----------|--------|--------|--------|
| Land Use                   | Mgal                   |           | МТ     | /yr    |        |
| Apartments Low<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                        | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 7.2 Water by Land Use

#### Mitigated

|                            | Indoor/Out<br>door Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|------------------------|-----------|--------|--------|--------|
| Land Use                   | Mgal                   |           | МТ     | /yr    |        |
| Apartments Low<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                        | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## 8.0 Waste Detail

#### 8.1 Mitigation Measures Waste

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### Category/Year

|             | Total CO2       | CH4            | N2O    | CO2e            |
|-------------|-----------------|----------------|--------|-----------------|
|             |                 | МТ             | /yr    |                 |
| Mitigated   | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>04 |
| Unmitigated | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>04 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 8.2 Waste by Land Use

**Unmitigated** 

|                            | Waste<br>Disposed | Total CO2       | CH4            | N2O    | CO2e            |
|----------------------------|-------------------|-----------------|----------------|--------|-----------------|
| Land Use                   | tons              |                 | МТ             | ī/yr   |                 |
| Apartments Low<br>Rise     | 1989              | 403.7490        | 23.8609        | 0.0000 | 1,000.271<br>1  |
| Apartments Mid<br>Rise     | 33056             | 6,710.069<br>3  | 396.5537       | 0.0000 | 16,623.91<br>26 |
| Condo/Townhous<br>e        | 568               | 115.2989        | 6.8140         | 0.0000 | 285.6481        |
| Single Family<br>Housing   | 1692              | 343.4607        | 20.2980        | 0.0000 | 850.9094        |
| User Defined<br>Commercial | 76044             | 15,436.24<br>48 | 912.2559       | 0.0000 | 38,242.64<br>31 |
| User Defined<br>Industrial | 14498             | 2,942.963<br>0  | 173.9241       | 0.0000 | 7,291.066<br>2  |
| Total                      |                   | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>05 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 8.2 Waste by Land Use

**Mitigated** 

|                            | Waste<br>Disposed | Total CO2       | CH4            | N2O    | CO2e            |
|----------------------------|-------------------|-----------------|----------------|--------|-----------------|
| Land Use                   | tons              |                 | МТ             | 7/yr   |                 |
| Apartments Low<br>Rise     | 1989              | 403.7490        | 23.8609        | 0.0000 | 1,000.271<br>1  |
| Apartments Mid<br>Rise     | 33056             | 6,710.069<br>3  | 396.5537       | 0.0000 | 16,623.91<br>26 |
| Condo/Townhous<br>e        | 568               | 115.2989        | 6.8140         | 0.0000 | 285.6481        |
| Single Family<br>Housing   | 1692              | 343.4607        | 20.2980        | 0.0000 | 850.9094        |
| User Defined<br>Commercial | 76044             | 15,436.24<br>48 | 912.2559       | 0.0000 | 38,242.64<br>31 |
| User Defined<br>Industrial | 14498             | 2,942.963<br>0  | 173.9241       | 0.0000 | 7,291.066<br>2  |
| Total                      |                   | 25,951.78<br>56 | 1,533.706<br>6 | 0.0000 | 64,294.45<br>05 |

## 9.0 Operational Offroad

|   |                |        | -         |           |             |             |           |
|---|----------------|--------|-----------|-----------|-------------|-------------|-----------|
| Equipment Type Number Hours/Day Days/Year Horse Power Load Factor Fuel Type | Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |

## **10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

|  | Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|--|----------------|--------|-----------|------------|-------------|-------------|-----------|
|--|----------------|--------|-----------|------------|-------------|-------------|-----------|

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| Equipment Type         | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|------------------------|--------|----------------|-----------------|---------------|-----------|
| User Defined Equipment |        |                |                 |               |           |
| Equipment Type         | Number |                |                 |               |           |
| 11.0 Vegetation        |        |                |                 |               |           |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### **Seattle Comprehensive Plan - Alt 5**

Siskiyou County, Annual

#### **1.0 Project Characteristics**

#### 1.1 Land Usage

| Land Uses               | Size       | Metric            | Lot Acreage | Floor Surface Area | Population |
|-------------------------|------------|-------------------|-------------|--------------------|------------|
| User Defined Commercial | 33,174.85  | User Defined Unit | 0.00        | 33,174,845.00      | 0          |
| User Defined Industrial | 17,710.25  | User Defined Unit | 0.00        | 17,710,246.00      | 0          |
| Apartments Low Rise     | 4,056.00   | Dwelling Unit     | 253.50      | 4,056,000.00       | 8315       |
| Apartments Mid Rise     | 113,705.00 | Dwelling Unit     | 2,992.24    | 113,705,000.00     | 233095     |
| Condo/Townhouse         | 1,128.00   | Dwelling Unit     | 70.50       | 1,128,000.00       | 2312       |
| Single Family Housing   | 1,111.00   | Dwelling Unit     | 360.71      | 1,999,800.00       | 2278       |

#### **1.2 Other Project Characteristics**

| Urbanization               | Urban              | Wind Speed (m/s)           | 2.2   | Precipitation Freq (Days)  | 85    |
|----------------------------|--------------------|----------------------------|-------|----------------------------|-------|
| Climate Zone               | 14                 |                            |       | Operational Year           | 2045  |
| Utility Company            | Seattle City Light |                            |       |                            |       |
| CO2 Intensity<br>(Ib/MWhr) | 31.35              | CH4 Intensity<br>(Ib/MWhr) | 0.029 | N2O Intensity<br>(Ib/MWhr) | 0.006 |

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - SF, 2.05 persons per DU

Construction Phase - Ops only

Vehicle Trips - Energy and Solid Waste Only

Woodstoves - Energy and Solid Waste Only

Consumer Products - Energy and Solid Waste Only

Area Coating - Energy and Solid Waste Only

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscape Equipment - Energy and Solid Waste Only

Energy Use - Electricity: SCL Carbon Neutral; NG: SCL, EIA

Water And Wastewater - Energy and Solid Waste Only

Solid Waste - Seattle Public Utilities, City of Seattle 2022 Solid Waste Plan Update: Moving Upstream to Zero Waste (2022-2027), December 2022

| Table Name           | Column Name   | Default Value | New Value |
|----------------------|---------------|---------------|-----------|
| tblConstructionPhase | NumDays       | 10,000.00     | 0.00      |
| tblConstructionPhase | PhaseEndDate  | 11/15/2061    | 7/18/2023 |
| tblEnergyUse         | LightingElect | 810.36        | 0.00      |
| tblEnergyUse         | LightingElect | 741.44        | 0.00      |
| tblEnergyUse         | LightingElect | 1,001.10      | 0.00      |
| tblEnergyUse         | LightingElect | 1,608.84      | 0.00      |
| tblEnergyUse         | NT24E         | 3,172.76      | 0.00      |
| tblEnergyUse         | NT24E         | 3,054.10      | 0.00      |
| tblEnergyUse         | NT24E         | 3,795.01      | 0.00      |
| tblEnergyUse         | NT24E         | 6,155.97      | 0.00      |
| tblEnergyUse         | NT24NG        | 1,599.00      | 2,301.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 2,028.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 3,029.00  |
| tblEnergyUse         | NT24NG        | 1,599.00      | 4,576.00  |
| tblEnergyUse         | NT24NG        | 0.00          | 16.60     |
| tblEnergyUse         | NT24NG        | 0.00          | 10.40     |
| tblEnergyUse         | T24E          | 165.27        | 0.00      |
| tblEnergyUse         | T24E          | 176.92        | 0.00      |
| tblEnergyUse         | T24E          | 204.10        | 0.00      |
| tblEnergyUse         | T24E          | 191.61        | 0.00      |
| tblEnergyUse         | T24NG         | 8,768.16      | 0.00      |
| tblEnergyUse         | T24NG         | 2,182.40      | 0.00      |
| tblEnergyUse         | T24NG         | 3,351.17      | 0.00      |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| tblEnergyUse    | T24NG                    | 9,528.86   | 0.00          |
|-----------------|--------------------------|------------|---------------|
| tblFireplaces   | NumberGas                | 1,087.35   | 0.00          |
| tblFireplaces   | NumberGas                | 53,235.60  | 0.00          |
| tblFireplaces   | NumberGas                | 293.15     | 0.00          |
| tblFireplaces   | NumberGas                | 383.90     | 0.00          |
| tblFireplaces   | NumberWood               | 691.95     | 0.00          |
| tblFireplaces   | NumberWood               | 33,877.20  | 0.00          |
| tblFireplaces   | NumberWood               | 186.55     | 0.00          |
| tblFireplaces   | NumberWood               | 244.30     | 0.00          |
| tblLandUse      | LandUseSquareFeet        | 0.00       | 33,174,845.00 |
| tblLandUse      | LandUseSquareFeet        | 0.00       | 17,710,246.00 |
| tblLandUse      | Population               | 11,600.00  | 8,315.00      |
| tblLandUse      | Population               | 325,196.00 | 233,095.00    |
| tblLandUse      | Population               | 3,226.00   | 2,312.00      |
| tblLandUse      | Population               | 3,177.00   | 2,278.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 909.42     | 1,461.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 44,524.32  | 40,949.00     |
| tblSolidWaste   | SolidWasteGenerationRate | 245.18     | 406.00        |
| tblSolidWaste   | SolidWasteGenerationRate | 357.75     | 1,692.00      |
| tblSolidWaste   | SolidWasteGenerationRate | 0.00       | 76,044.00     |
| tblSolidWaste   | SolidWasteGenerationRate | 0.00       | 14,498.00     |
| tblVehicleTrips | ST_TR                    | 8.14       | 0.00          |
| tblVehicleTrips | ST_TR                    | 4.91       | 0.00          |
| tblVehicleTrips | ST_TR                    | 8.14       | 0.00          |
| tblVehicleTrips | ST_TR                    | 9.54       | 0.00          |
| tblVehicleTrips | SU_TR                    | 6.28       | 0.00          |
| tblVehicleTrips | SU_TR                    | 4.09       | 0.00          |
| tblVehicleTrips | SU_TR                    | 6.28       | 0.00          |
| tblVehicleTrips | SU_TR                    | 8.55       | 0.00          |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| tblVehicleTrips | WD_TR               | 7.32             | 0.00 |
|-----------------|---------------------|------------------|------|
| tblVehicleTrips | WD_TR               | 5.44             | 0.00 |
| tblVehicleTrips | WD_TR               | 7.32             | 0.00 |
| tblVehicleTrips | WD_TR               | 9.44             | 0.00 |
| tblWater        | IndoorWaterUseRate  | 128,809,508.65   | 0.00 |
| tblWater        | IndoorWaterUseRate  | 6,306,388,447.95 | 0.00 |
| tblWater        | IndoorWaterUseRate  | 34,727,095.66    | 0.00 |
| tblWater        | IndoorWaterUseRate  | 45,477,509.88    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 81,205,994.59    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 3,975,766,630.23 | 0.00 |
| tblWater        | OutdoorWaterUseRate | 21,893,169.00    | 0.00 |
| tblWater        | OutdoorWaterUseRate | 28,670,604.06    | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 98.85            | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 4,839.60         | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 26.65            | 0.00 |
| tblWoodstoves   | NumberCatalytic     | 34.90            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 98.85            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 4,839.60         | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 26.65            | 0.00 |
| tblWoodstoves   | NumberNoncatalytic  | 34.90            | 0.00 |

2.0 Emissions Summary

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 2.1 Overall Construction

#### **Unmitigated Construction**

|         | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Year    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| 2023    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## Mitigated Construction

|         | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|---------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Year    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| 2023    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Maximum | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

|                      | ROG  | NOx  | со   | SO2  | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N20  | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent<br>Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00             | 0.00            | 0.00          | 0.00              | 0.00             | 0.00           | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

Start Date

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|  |  |  | Highest |  |  |
|--|--|--|---------|--|--|
|--|--|--|---------|--|--|

## 2.2 Overall Operational

## Unmitigated Operational

|          | ROG      | NOx     | со       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2        | NBio- CO2       | Total CO2       | CH4            | N2O    | CO2e             |  |
|----------|----------|---------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|--------|------------------|--|
| Category |          |         |          |        | tons             | s/yr            |               |                   |                  |                | MT/yr           |                 |                 |                |        |                  |  |
| Area     | 913.7058 | 10.2436 | 887.5641 | 0.0471 |                  | 4.9428          | 4.9428        |                   | 4.9428           | 4.9428         | 0.0000          | 1,456.364<br>5  | 1,456.364<br>5  | 1.3877         | 0.0000 | 1,491.057<br>0   |  |
| Energy   | 5.3022   | 47.4711 | 35.1313  | 0.2892 |                  | 3.6633          | 3.6633        |                   | 3.6633           | 3.6633         | 0.0000          | 52,473.49<br>87 | 52,473.49<br>87 | 1.0057         | 0.9620 | 52,785.32<br>25  |  |
| Mobile   | 0.0000   | 0.0000  | 0.0000   | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Waste    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 27,413.92<br>95 | 0.0000          | 27,413.92<br>95 | 1,620.116<br>8 | 0.0000 | 67,916.85<br>01  |  |
| Water    |          |         |          |        | , <b></b>        | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Total    | 919.0080 | 57.7147 | 922.6954 | 0.3363 | 0.0000           | 8.6061          | 8.6061        | 0.0000            | 8.6061           | 8.6061         | 27,413.92<br>95 | 53,929.86<br>32 | 81,343.79<br>28 | 1,622.510<br>3 | 0.9620 | 122,193.2<br>296 |  |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 2.2 Overall Operational

#### **Mitigated Operational**

|          | ROG      | NOx     | СО       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2        | NBio- CO2       | Total CO2       | CH4            | N2O    | CO2e             |  |
|----------|----------|---------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|--------|------------------|--|
| Category |          |         |          |        | ton              | s/yr            |               |                   |                  |                | MT/yr           |                 |                 |                |        |                  |  |
| Area     | 913.7058 | 10.2436 | 887.5641 | 0.0471 |                  | 4.9428          | 4.9428        |                   | 4.9428           | 4.9428         | 0.0000          | 1,456.364<br>5  | 1,456.364<br>5  | 1.3877         | 0.0000 | 1,491.057<br>0   |  |
| Energy   | 5.3022   | 47.4711 | 35.1313  | 0.2892 |                  | 3.6633          | 3.6633        |                   | 3.6633           | 3.6633         | 0.0000          | 52,473.49<br>87 | 52,473.49<br>87 | 1.0057         | 0.9620 | 52,785.32<br>25  |  |
| Mobile   | 0.0000   | 0.0000  | 0.0000   | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Waste    | n        |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 27,413.92<br>95 | 0.0000          | 27,413.92<br>95 | 1,620.116<br>8 | 0.0000 | 67,916.85<br>01  |  |
| Water    |          |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000          | 0.0000          | 0.0000          | 0.0000         | 0.0000 | 0.0000           |  |
| Total    | 919.0080 | 57.7147 | 922.6954 | 0.3363 | 0.0000           | 8.6061          | 8.6061        | 0.0000            | 8.6061           | 8.6061         | 27,413.92<br>95 | 53,929.86<br>32 | 81,343.79<br>28 | 1,622.510<br>3 | 0.9620 | 122,193.2<br>296 |  |

|                      | ROG  | NOx  | со   | SO2  | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N20  | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent<br>Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00             | 0.00            | 0.00          | 0.00              | 0.00             | 0.00           | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

## **3.0 Construction Detail**

#### **Construction Phase**

| Phase<br>Number | Phase Name | Phase Type | Start Date | End Date  | Num Days<br>Week | Num Days | Phase Description |
|-----------------|------------|------------|------------|-----------|------------------|----------|-------------------|
| 1               | Demolition | Demolition | 7/19/2023  | 7/18/2023 | 5                | 0        |                   |

#### Acres of Grading (Site Preparation Phase): 0

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

#### Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

| Phase Name | Offroad Equipment Type   | Amount | Usage Hours | Horse Power | Load Factor |
|------------|--------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1      | 8.00        | 81          | 0.73        |
| Demolition | Excavators               | 3      | 8.00        | 158         | 0.38        |
| Demolition | Rubber Tired Dozers      | 2      | 8.00        | 247         | 0.40        |

#### Trips and VMT

| Phase Name | Offroad Equipment | Worker Trip | Vendor Trip | Hauling Trip | Worker Trip | Vendor Trip | Hauling Trip | Worker Vehicle | Vendor        | Hauling       |
|------------|-------------------|-------------|-------------|--------------|-------------|-------------|--------------|----------------|---------------|---------------|
|            | Count             | Number      | Number      | Number       | Length      | Length      | Length       | Class          | Vehicle Class | Vehicle Class |
| Demolition | 6                 | 15.00       | 0.00        | 0.00         | 10.80       | 7.30        | 20.00        | LD_Mix         | HDT_Mix       | HHDT          |

**3.1 Mitigation Measures Construction** 

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 3.2 Demolition - 2023

**Unmitigated Construction On-Site** 

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Worker   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 3.2 Demolition - 2023

#### **Mitigated Construction On-Site**

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | МТ        | /yr    |        |        |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### **Mitigated Construction Off-Site**

|          | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| Hauling  | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Worker   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total    | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 4.1 Mitigation Measures Mobile

|             | ROG    | NOx    | CO     | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category    |        |        |        |        | ton              | s/yr            |               |                   |                  |                |          |           | MT        | /yr    |        |        |
| Mitigated   | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000           | 0.0000          | 0.0000        | 0.0000            | 0.0000           | 0.0000         | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### 4.2 Trip Summary Information

|                         | Avei    | age Daily Trip Ra | te     | Unmitigated | Mitigated  |
|-------------------------|---------|-------------------|--------|-------------|------------|
| Land Use                | Weekday | Saturday          | Sunday | Annual VMT  | Annual VMT |
| Apartments Low Rise     | 0.00    | 0.00              | 0.00   |             |            |
| Apartments Mid Rise     | 0.00    | 0.00              | 0.00   |             |            |
| Condo/Townhouse         | 0.00    | 0.00              | 0.00   |             |            |
| Single Family Housing   | 0.00    | 0.00              | 0.00   |             |            |
| User Defined Commercial | 0.00    | 0.00              | 0.00   |             |            |
| User Defined Industrial | 0.00    | 0.00              | 0.00   |             |            |
| Total                   | 0.00    | 0.00              | 0.00   |             |            |

## **4.3 Trip Type Information**

|                     |            | Miles      |             |            | Trip %     |             |         | Trip Purpos | e %     |
|---------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use            | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted    | Pass-by |
| Apartments Low Rise | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| Apartments Mid Rise | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| Condo/Townhouse     | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|                         |            | Miles      |             |            | Trip %     |             |         | Trip Purpos | e %     |
|-------------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use                | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted    | Pass-by |
| Single Family Housing   | 10.80      | 7.30       | 7.50        | 42.30      | 19.60      | 38.10       | 86      | 11          | 3       |
| User Defined Commercial | 9.50       | 7.30       | 7.30        | 0.00       | 0.00       | 0.00        | 0       | 0           | 0       |
| User Defined Industrial | 9.50       | 7.30       | 7.30        | 0.00       | 0.00       | 0.00        | 0       | 0           | 0       |

## 4.4 Fleet Mix

| Land Use                | LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Low Rise     | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Apartments Mid Rise     | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Condo/Townhouse         | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| Single Family Housing   | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| User Defined Commercial | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |
| User Defined Industrial | 0.534542 | 0.059637 | 0.191637 | 0.128334 | 0.022737 | 0.006209 | 0.003994 | 0.022357 | 0.000379 | 0.000132 | 0.026770 | 0.000794 | 0.002479 |

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|                            | ROG    | NOx     | СО      | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2       | Total CO2       | CH4    | N2O    | CO2e            |
|----------------------------|--------|---------|---------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|--------|--------|-----------------|
| Category                   |        |         |         |        | ton              | s/yr            |               |                   |                  |                |          |                 | MT              | /yr    |        |                 |
| Electricity<br>Mitigated   |        |         |         |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000          | 0.0000          | 0.0000 | 0.0000 | 0.0000          |
| Electricity<br>Unmitigated |        |         |         |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000          | 0.0000          | 0.0000 | 0.0000 | 0.0000          |
| NaturalGas<br>Mitigated    | 5.3022 | 47.4711 | 35.1313 | 0.2892 |                  | 3.6633          | 3.6633        |                   | 3.6633           | 3.6633         | 0.0000   | 52,473.49<br>87 | 52,473.49<br>87 | 1.0057 | 0.9620 | 52,785.32<br>25 |
| NaturalGas<br>Unmitigated  | 5.3022 | 47.4711 | 35.1313 | 0.2892 |                  | 3.6633          | 3.6633        |                   | 3.6633           | 3.6633         | 0.0000   | 52,473.49<br>87 | 52,473.49<br>87 | 1.0057 | 0.9620 | 52,785.32<br>25 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 5.2 Energy by Land Use - NaturalGas

#### **Unmitigated**

|                            | NaturalGa<br>s Use | ROG    | NOx     | CO      | SO2             | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2       | Total CO2       | CH4             | N2O             | CO2e            |
|----------------------------|--------------------|--------|---------|---------|-----------------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Land Use                   | kBTU/yr            |        |         |         |                 | ton              | s/yr            |               |                   |                  |                |          |                 | МТ              | /yr             |                 |                 |
| Apartments Low<br>Rise     | 9.33286e<br>+006   | 0.0503 | 0.4300  | 0.1830  | 2.7400e-<br>003 |                  | 0.0348          | 0.0348        |                   | 0.0348           | 0.0348         | 0.0000   | 498.0367        | 498.0367        | 9.5500e-<br>003 | 9.1300e-<br>003 | 500.9963        |
| Apartments Mid<br>Rise     | 2.30594e<br>+008   | 1.2434 | 10.6254 | 4.5215  | 0.0678          |                  | 0.8591          | 0.8591        |                   | 0.8591           | 0.8591         | 0.0000   | 12,305.36<br>01 | 12,305.36<br>01 | 0.2359          | 0.2256          | 12,378.48<br>47 |
| Condo/Townhous<br>e        | 3.41671e<br>+006   | 0.0184 | 0.1574  | 0.0670  | 1.0000e-<br>003 |                  | 0.0127          | 0.0127        |                   | 0.0127           | 0.0127         | 0.0000   | 182.3288        | 182.3288        | 3.4900e-<br>003 | 3.3400e-<br>003 | 183.4123        |
| Single Family<br>Housing   | 5.08394e<br>+006   | 0.0274 | 0.2343  | 0.0997  | 1.5000e-<br>003 |                  | 0.0189          | 0.0189        |                   | 0.0189           | 0.0189         | 0.0000   | 271.2982        | 271.2982        | 5.2000e-<br>003 | 4.9700e-<br>003 | 272.9104        |
| User Defined<br>Commercial | 5.50702e<br>+008   | 2.9695 | 26.9952 | 22.6760 | 0.1620          |                  | 2.0516          | 2.0516        |                   | 2.0516           | 2.0516         | 0.0000   | 29,387.57<br>87 | 29,387.57<br>87 | 0.5633          | 0.5388          | 29,562.21<br>44 |
| User Defined<br>Industrial | 1.84187e<br>+008   | 0.9932 | 9.0288  | 7.5842  | 0.0542          |                  | 0.6862          | 0.6862        |                   | 0.6862           | 0.6862         | 0.0000   | 9,828.896<br>2  | 9,828.896<br>2  | 0.1884          | 0.1802          | 9,887.304<br>4  |
| Total                      |                    | 5.3022 | 47.4711 | 35.1313 | 0.2892          |                  | 3.6633          | 3.6633        |                   | 3.6633           | 3.6633         | 0.0000   | 52,473.49<br>87 | 52,473.49<br>87 | 1.0057          | 0.9620          | 52,785.32<br>25 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 5.2 Energy by Land Use - NaturalGas

#### Mitigated

|                            | NaturalGa<br>s Use | ROG    | NOx     | СО      | SO2             | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2       | Total CO2       | CH4             | N2O             | CO2e            |
|----------------------------|--------------------|--------|---------|---------|-----------------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Land Use                   | kBTU/yr            |        |         |         |                 | ton              | s/yr            |               |                   |                  |                |          |                 | МТ              | /yr             |                 |                 |
| Apartments Low<br>Rise     | 9.33286e<br>+006   | 0.0503 | 0.4300  | 0.1830  | 2.7400e-<br>003 |                  | 0.0348          | 0.0348        |                   | 0.0348           | 0.0348         | 0.0000   | 498.0367        | 498.0367        | 9.5500e-<br>003 | 9.1300e-<br>003 | 500.9963        |
| Apartments Mid<br>Rise     | 2.30594e<br>+008   | 1.2434 | 10.6254 | 4.5215  | 0.0678          |                  | 0.8591          | 0.8591        |                   | 0.8591           | 0.8591         | 0.0000   | 12,305.36<br>01 | 12,305.36<br>01 | 0.2359          | 0.2256          | 12,378.48<br>47 |
| Condo/Townhous<br>e        | 3.41671e<br>+006   | 0.0184 | 0.1574  | 0.0670  | 1.0000e-<br>003 |                  | 0.0127          | 0.0127        |                   | 0.0127           | 0.0127         | 0.0000   | 182.3288        | 182.3288        | 3.4900e-<br>003 | 3.3400e-<br>003 | 183.4123        |
| Single Family<br>Housing   | 5.08394e<br>+006   | 0.0274 | 0.2343  | 0.0997  | 1.5000e-<br>003 |                  | 0.0189          | 0.0189        |                   | 0.0189           | 0.0189         | 0.0000   | 271.2982        | 271.2982        | 5.2000e-<br>003 | 4.9700e-<br>003 | 272.9104        |
| User Defined<br>Commercial | 5.50702e<br>+008   | 2.9695 | 26.9952 | 22.6760 | 0.1620          |                  | 2.0516          | 2.0516        |                   | 2.0516           | 2.0516         | 0.0000   | 29,387.57<br>87 | 29,387.57<br>87 | 0.5633          | 0.5388          | 29,562.21<br>44 |
| User Defined<br>Industrial | 1.84187e<br>+008   | 0.9932 | 9.0288  | 7.5842  | 0.0542          |                  | 0.6862          | 0.6862        |                   | 0.6862           | 0.6862         | 0.0000   | 9,828.896<br>2  | 9,828.896<br>2  | 0.1884          | 0.1802          | 9,887.304<br>4  |
| Total                      |                    | 5.3022 | 47.4711 | 35.1313 | 0.2892          |                  | 3.6633          | 3.6633        |                   | 3.6633           | 3.6633         | 0.0000   | 52,473.49<br>87 | 52,473.49<br>87 | 1.0057          | 0.9620          | 52,785.32<br>25 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

# 5.3 Energy by Land Use - Electricity

#### **Unmitigated**

|                            | Electricity<br>Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|--------------------|-----------|--------|--------|--------|
| Land Use                   | kWh/yr             |           | MT     | /yr    |        |
| Apartments Low<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 5.3 Energy by Land Use - Electricity

#### Mitigated

|                            | Electricity<br>Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|--------------------|-----------|--------|--------|--------|
| Land Use                   | kWh/yr             |           | МТ     | /yr    |        |
| Apartments Low<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0                  | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## 6.0 Area Detail

6.1 Mitigation Measures Area

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|             | ROG      | NOx     | CO       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5     | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|-------------|----------|---------|----------|--------|------------------|-----------------|---------------|-----------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| Category    |          |         |          |        | ton              | s/yr            |               |                       |                  |                |          |                | МТ             | /yr    |        |                |
| Mitigated   | 913.7058 | 10.2436 | 887.5641 | 0.0471 |                  | 4.9428          | 4.9428        |                       | 4.9428           | 4.9428         | 0.0000   | 1,456.364<br>5 | 1,456.364<br>5 | 1.3877 | 0.0000 | 1,491.057<br>0 |
| Unmitigated | 913.7058 | 10.2436 | 887.5641 | 0.0471 | <b></b>          | 4.9428          | 4.9428        | <b></b><br> <br> <br> | 4.9428           | 4.9428         | 0.0000   | 1,456.364<br>5 | 1,456.364<br>5 | 1.3877 | 0.0000 | 1,491.057<br>0 |

## 6.2 Area by SubCategory

**Unmitigated** 

|                          | ROG      | NOx     | со       | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|--------------------------|----------|---------|----------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| SubCategory              |          |         |          |        | ton              | s/yr            |               |                   |                  |                |          |                | МТ             | '/yr   |        |                |
| Architectural<br>Coating | 216.2680 |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Consumer<br>Products     | 670.8629 |         |          |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Hearth                   | 0.0000   | 0.0000  | 0.0000   | 0.0000 |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Landscaping              | 26.5749  | 10.2436 | 887.5641 | 0.0471 |                  | 4.9428          | 4.9428        |                   | 4.9428           | 4.9428         | 0.0000   | 1,456.364<br>5 | 1,456.364<br>5 | 1.3877 | 0.0000 | 1,491.057<br>0 |
| Total                    | 913.7058 | 10.2436 | 887.5641 | 0.0471 |                  | 4.9428          | 4.9428        |                   | 4.9428           | 4.9428         | 0.0000   | 1,456.364<br>5 | 1,456.364<br>5 | 1.3877 | 0.0000 | 1,491.057<br>0 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 6.2 Area by SubCategory

#### Mitigated

|                          | ROG      | NOx     | СО          | SO2    | Fugitive<br>PM10 | Exhaust<br>PM10 | PM10<br>Total | Fugitive<br>PM2.5 | Exhaust<br>PM2.5 | PM2.5<br>Total | Bio- CO2 | NBio- CO2      | Total CO2      | CH4    | N2O    | CO2e           |
|--------------------------|----------|---------|-------------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------------|----------------|--------|--------|----------------|
| SubCategory              |          |         |             |        | ton              | s/yr            |               |                   |                  |                |          |                | МТ             | /yr    |        |                |
| Architectural<br>Coating | 216.2680 |         | 1<br>1<br>1 |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Consumer<br>Products     | 670.8629 |         | ,<br>,<br>, |        |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Hearth                   | 0.0000   | 0.0000  | 0.0000      | 0.0000 |                  | 0.0000          | 0.0000        |                   | 0.0000           | 0.0000         | 0.0000   | 0.0000         | 0.0000         | 0.0000 | 0.0000 | 0.0000         |
| Landscaping              | 26.5749  | 10.2436 | 887.5641    | 0.0471 |                  | 4.9428          | 4.9428        |                   | 4.9428           | 4.9428         | 0.0000   | 1,456.364<br>5 | 1,456.364<br>5 | 1.3877 | 0.0000 | 1,491.057<br>0 |
| Total                    | 913.7058 | 10.2436 | 887.5641    | 0.0471 |                  | 4.9428          | 4.9428        |                   | 4.9428           | 4.9428         | 0.0000   | 1,456.364<br>5 | 1,456.364<br>5 | 1.3877 | 0.0000 | 1,491.057<br>0 |

## 7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

|             | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|-----------|--------|--------|--------|
| Category    |           | MT     | /yr    |        |
| Mitigated   | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 7.2 Water by Land Use

#### <u>Unmitigated</u>

|                            | Indoor/Out<br>door Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|------------------------|-----------|--------|--------|--------|
| Land Use                   | Mgal                   |           | МТ     | /yr    |        |
| Apartments Low<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                        | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 7.2 Water by Land Use

Mitigated

|                            | Indoor/Out<br>door Use | Total CO2 | CH4    | N2O    | CO2e   |
|----------------------------|------------------------|-----------|--------|--------|--------|
| Land Use                   | Mgal                   |           | MT     | /yr    |        |
| Apartments Low<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Apartments Mid<br>Rise     | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Condo/Townhous<br>e        | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Single Family<br>Housing   | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Commercial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| User Defined<br>Industrial | 0/0                    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Total                      |                        | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## 8.0 Waste Detail

#### 8.1 Mitigation Measures Waste

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### Category/Year

|             | Total CO2       | CH4            | N2O    | CO2e            |
|-------------|-----------------|----------------|--------|-----------------|
|             |                 | МТ             | /yr    |                 |
| Mitigated   | 27,413.92<br>95 | 1,620.116<br>8 | 0.0000 | 67,916.85<br>01 |
| Unmitigated | 27,413.92<br>95 | 1,620.116<br>8 | 0.0000 | 67,916.85<br>01 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

## 8.2 Waste by Land Use

**Unmitigated** 

|                            | Waste<br>Disposed | Total CO2       | CH4            | N2O    | CO2e            |
|----------------------------|-------------------|-----------------|----------------|--------|-----------------|
| Land Use                   | tons              |                 | МТ             | /yr    |                 |
| Apartments Low<br>Rise     | 1461              | 296.5698        | 17.5268        | 0.0000 | 734.7391        |
| Apartments Mid<br>Rise     | 40949             | 8,312.276<br>9  | 491.2415       | 0.0000 | 20,593.31<br>43 |
| Condo/Townhous<br>e        | 406               | 82.4143         | 4.8706         | 0.0000 | 204.1780        |
| Single Family<br>Housing   | 1692              | 343.4607        | 20.2980        | 0.0000 | 850.9094        |
| User Defined<br>Commercial | 76044             | 15,436.24<br>48 | 912.2559       | 0.0000 | 38,242.64<br>31 |
| User Defined<br>Industrial | 14498             | 2,942.963<br>0  | 173.9241       | 0.0000 | 7,291.066<br>2  |
| Total                      |                   | 27,413.92<br>95 | 1,620.116<br>8 | 0.0000 | 67,916.85<br>01 |

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

#### 8.2 Waste by Land Use

**Mitigated** 

|                            | Waste<br>Disposed | Total CO2       | CH4            | N2O    | CO2e            |  |  |  |
|----------------------------|-------------------|-----------------|----------------|--------|-----------------|--|--|--|
| Land Use                   | tons              |                 | MT/yr          |        |                 |  |  |  |
| Apartments Low<br>Rise     | 1461              | 296.5698        | 17.5268        | 0.0000 | 734.7391        |  |  |  |
| Apartments Mid<br>Rise     | 40949             | 8,312.276<br>9  | 491.2415       | 0.0000 | 20,593.31<br>43 |  |  |  |
| Condo/Townhous<br>e        | 406               | 82.4143         | 4.8706         | 0.0000 | 204.1780        |  |  |  |
| Single Family<br>Housing   | 1692              | 343.4607        | 20.2980        | 0.0000 | 850.9094        |  |  |  |
| User Defined<br>Commercial | 76044             | 15,436.24<br>48 | 912.2559       | 0.0000 | 38,242.64<br>31 |  |  |  |
| User Defined<br>Industrial | 14498             | 2,942.963<br>0  | 173.9241       | 0.0000 | 7,291.066<br>2  |  |  |  |
| Total                      |                   | 27,413.92<br>95 | 1,620.116<br>8 | 0.0000 | 67,916.85<br>01 |  |  |  |

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|                |        | -         |           |             |             |           |
|                |        |           |           |             |             |           |

## **10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

|  | Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|--|----------------|--------|-----------|------------|-------------|-------------|-----------|
|--|----------------|--------|-----------|------------|-------------|-------------|-----------|

#### EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

| Equipment Type         | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|------------------------|--------|----------------|-----------------|---------------|-----------|
| User Defined Equipment |        |                |                 |               |           |
| Equipment Type         | Number |                |                 |               |           |
| 11.0 Vegetation        |        |                |                 |               |           |

# E Energy Appendix

#### Seattle Comprehensive Plan On-Road Transportation Fuel

|                | Existing |        |       |             |              |
|----------------|----------|--------|-------|-------------|--------------|
|                | Cars     | Trucks | Buses | Million BTU | trillion Btu |
| Gasoline       | 345,397  | 1,562  | 125   | 347,084     | 0.3471       |
| Diesel         | 8,074    | 5,323  | 752   | 14,149      | 0.0141       |
| CNG            | -        | 63     | 53    | 116         | 0.0001       |
| Ethanol (E-85) | 621      | -      | -     | 621         | 0.0006       |

|                | Alternative 1 |        |       |             |              |            |
|----------------|---------------|--------|-------|-------------|--------------|------------|
|                | Cars          | Trucks | Buses | Million BTU | trillion Btu | % of state |
| Gasoline       | 336,191       | 1,774  | 127   | 338,092     | 0.3381       | 0.131%     |
| Diesel         | 13,508        | 5,938  | 783   | 20,230      | 0.0202       | 0.013%     |
| CNG            | -             | 111    | 50    | 161         | 0.0002       | 1.606%     |
| Ethanol (E-85) | 631           | -      | -     | 631         | 0.0006       | 0.003%     |

|                | Alternative 2 |        |       |             |              |            |
|----------------|---------------|--------|-------|-------------|--------------|------------|
|                | Cars          | Trucks | Buses | Million BTU | trillion Btu | % of state |
| Gasoline       | 345,844       | 1,791  | 127   | 347,762     | 0.3478       | 0.135%     |
| Diesel         | 13,895        | 5,993  | 784   | 20,672      | 0.0207       | 0.014%     |
| CNG            | -             | 112    | 50    | 162         | 0.0002       | 1.617%     |
| Ethanol (E-85) | 649           | -      | -     | 649         | 0.0006       | 0.003%     |

|                | Alternative 3 |        |       |             |              |            |
|----------------|---------------|--------|-------|-------------|--------------|------------|
|                | Cars          | Trucks | Buses | Million BTU | trillion Btu | % of state |
| Gasoline       | 345,809       | 1,796  | 127   | 347,732     | 0.3477       | 0.135%     |
| Diesel         | 13,893        | 6,016  | 784   | 20,692      | 0.0207       | 0.014%     |
| CNG            | -             | 113    | 50    | 162         | 0.0002       | 1.622%     |
| Ethanol (E-85) | 649           | -      | -     | 649         | 0.0006       | 0.003%     |

|                | Alternative 5 |        |       |             |              |            |
|----------------|---------------|--------|-------|-------------|--------------|------------|
|                | Cars          | Trucks | Buses | Million BTU | trillion Btu | % of state |
| Gasoline       | 357,628       | 1,812  | 127   | 359,567     | 0.3596       | 0.139%     |
| Diesel         | 14,368        | 6,067  | 784   | 21,219      | 0.0212       | 0.014%     |
| CNG            | -             | 113    | 50    | 163         | 0.0002       | 1.631%     |
| Ethanol (E-85) | 671           |        | -     | 671         | 0.0007       | 0.003%     |

\* Fuel use based on MOVES model outputs. VMT for Alternative 4 not provided. Growth and VMT assumptions consistent with Alternative 2 and 3

#### Net increase in fuel consumption compared to Existing

|                | Alt 1 |         | Alt 2   | Alt 3   | Alt 4   | Alt 5   |
|----------------|-------|---------|---------|---------|---------|---------|
| Gasoline       |       | -0.0090 | 0.0007  | 0.0006  | 0.0007  | 0.0125  |
| Diesel         |       | 0.0061  | 0.0065  | 0.0065  | 0.0065  | 0.0071  |
| CNG            |       | 0.00004 | 0.00005 | 0.00005 | 0.00005 | 0.00005 |
| Ethanol (E-85) |       | -0.0013 | -0.0013 | -0.0013 | -0.0013 | -0.0013 |
|                |       |         |         |         |         |         |
|                | Alt 1 |         | Alt 2   | Alt 3   | Alt 4   | Alt 5   |
| Gasoline       |       | -0.003% | 0.000%  | 0.000%  | 0.000%  | 0.005%  |
| Diesel         |       | 0.004%  | 0.004%  | 0.004%  | 0.004%  | 0.005%  |
| CNG            |       | 0.448%  | 0.459%  | 0.464%  | 0.459%  | 0.473%  |
| Ethanol (E-85) |       | -0.006% | -0.006% | -0.006% | -0.006% | -0.006% |

| Washington State Fuel Usage in 2020 |        |  |  |  |  |
|-------------------------------------|--------|--|--|--|--|
| Trillion Btu                        |        |  |  |  |  |
| gasoline                            | 258.20 |  |  |  |  |
| Diesel                              | 150.00 |  |  |  |  |
| NG                                  | 0.01   |  |  |  |  |
| ethanol                             | 20.30  |  |  |  |  |

\* US EIA, 2020
Seattle Comprehensive Plan Electricity Consumption

2020 State of Washington

| Electricity | 1779.4 trillion bto | u |
|-------------|---------------------|---|
| Natural Gas | 355 trillion bt     | J |

| RESIDENTIAL                               |                |               |               |               |               |
|---|----------------|---------------|---------------|---------------|---------------|
|   | Alternative 1  | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
| Target Housing Growth<br>(dwelling units) | 0              | 0             | 0             | 0             | 0             |
| Single Family                             | 1,389          | 698           | 1,111         | 1,111         | 1,111         |
| Townhome                                  | 648            | 533           | 4,260         | 1,578         | 1,128         |
| Multi-family Low Rise                     | 2,593          | 1,977         | 14,247        | 5,522         | 4,056         |
| Multi-family Mid Rise                     | 75,370         | 96,792        | 80,382        | 91,789        | 113,705       |
| Million Btu                               | 1,285,659      | 1,581,937     | 1,644,496     | 1,605,522     | 1,910,979     |
| Trillion Btu                              | 1.29           | 1.58          | 1.64          | 1.61          | 1.91          |
| percent of state                          | 0.07%          | 0.09%         | 0.09%         | 0.09%         | 0.11%         |
| Station Area                              |                |               |               |               |               |
|   | Alternative 1  | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
| units                                     | 840            | 2,208         |               |               | 2,703         |
| million btu                               | 14,868         | 39,082        |               |               | 42,167        |
| trillion btu                              | 0.01           | 0.04          |               |               | 0.04          |
| percent of state                          | 0.0008%        | 0.0022%       |               |               | 0.0024%       |
|   | Alternative 1  | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
| Growth(SF)                                | 33,174,904     | 33,174,904    | 33,174,904    | 33,174,904    | 33,174,845    |
| Estimated Electricity<br>Demand (kBtu)    | 1,562,537,978  | 1,562,537,978 | 1,562,537,978 | 1,562,537,978 | 1,562,535,200 |
| Million Btu                               | 1,562,538      | 1,562,538     | 1,562,538     | 1,562,538     | 1,562,535     |
| Trillion Btu                              | 1.56           | 1.56          | 1.56          | 1.56          | 1.56          |
| percent of state                          | 0.09%          | 0.09%         | 0.09%         | 0.09%         | 0.09%         |
| Station Area                              |                |               |               |               |               |
|   | Alternative 1  | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
| SF  | 178,948        | 244,963       |               |               | 251,033       |
| Estimated Electricity<br>Demand (kBtu)    | 8,428,451      | 11,537,757    |               |               | 11,823,654    |
| million btu                               | 0.400          | 11 538        |               |               | 11.824        |
|   | 8,428          | 11,550        |               |               |               |
| trillion btu                              | 8,428<br>0.008 | 0.012         |               |               | 0.012         |

| INDUSTRIAL                                      |                |                |               |               |                |
|---|----------------|----------------|---------------|---------------|----------------|
|   | Alternative 1  | Alternative 2  | Alternative 3 | Alternative 4 | Alternative 5  |
| Target Industrial<br>Growth(SF)                 | 17,710,268     | 17,710,268     | 17,710,268    | 17,710,268    | 17,710,246     |
| Estimated Electricity<br>Demand (kBtu)          | 368,373,574    | 368,373,574    | 368,373,574   | 368,373,574   | 368,373,117    |
| Million Btu                                     | 368,374        | 368,374        | 368,374       | 368,374       | 368,373        |
| Trillion Btu                                    | 0.37           | 0.37           | 0.37          | 0.37          | 0.37           |
| percent of state                                | 0.02%          | 0.02%          | 0.02%         | 0.02%         | 0.02%          |
| TOTAL Energy (trillion Btu)<br>percent of state | 3.22<br>0.18%  | 3.51<br>0.20%  | 3.58<br>0.20% | 3.54<br>0.20% | 3.84<br>0.22%  |
| Station Area                                    | 0.02<br>0.001% | 0.05<br>0.003% | NA            | NA<br>NA      | 0.05<br>0.003% |

Washington State Consumption Rates *Residential Electricity Usage* 

#### 7.49 MW hours per unit per year<sup>1</sup> 0.9737 Million BTU per unit <sup>2</sup>

Seattle City Light, 2020 SCL Fingertip Facts Booklet, 2020. <sup>1</sup> https://www.seattle.gov/documents/Departments/CityLight/FingertipFacts.pdf U.S. Census Bureau, Decennial Census, 2020, H1 occupancy Status. https://data.census.gov/table?t=Housing+Units&g=0400000US53, accessed February 2023

Commercial Energy Consumption Rates

Electricty NG 47.1 kBtu/SF 16.6 kBtu/SF

Source: Average Energy Use Intensity: Seattle Open Data, 2020 Building Energy Benchmarking https://data.seattle.gov/dataset/2020-Building-Energy-Benchmarking/auez-gz8p/data

Industrial Energy Consumption Rates

Electricty NG 20.8 kBtu/SF 10.4 kBtu/SF

Source: Average Energy Use Intensity: Seattle Open Data, 2020 Building Energy Benchmarking https://data.seattle.gov/dataset/2020-Building-Energy-Benchmarking/auez-gz8p/data

#### Seattle Comprehensive Plan Residential Electricity Consumption

2020 State of Washington

| Electricity<br>Natural Gas | 1779.4<br>355 | trillion btu<br>trillion btu |               |               |               |
|----------------------------|---------------|------------------------------|---------------|---------------|---------------|
| RESIDENTIAL                |               |                              |               |               |               |
|                            | Alternative 1 | Alternative 2                | Alternative 3 | Alternative 4 | Alternative 5 |
| Target Housing Growth      |               |                              |               |               |               |
| (dwelling units)           |               |                              |               |               |               |
| Single Family              | 1,389         | 698                          | 1,111         | 1,111         | 1,111         |
| Townhome                   | 648           | 533                          | 4,260         | 1,578         | 1,128         |
| Multi-family Low Rise      | 2,593         | 1,977                        | 14,247        | 5,522         | 4,056         |
| Multi-family Mid Rise      | 75,370        | 96,792                       | 80,382        | 91,789        | 113,705       |
| Million Btu                | 1,285,659     | 1,581,937                    | 1,644,496     | 1,605,522     | 1,910,979     |
| Trillion Btu               | 1.29          | 1.58                         | 1.64          | 1.61          | 1.91          |
| percent of state           | 0.07%         | 0.09%                        | 0.09%         | 0.09%         | 0.11%         |
| Station Area               |               |                              |               |               |               |
|                            | Alternative 1 | Alternative 2                | Alternative 3 | Alternative 4 | Alternative 5 |
| units                      | 840           | 2,208                        |               |               | 2,703         |
| million btu                | 14,868        | 39,082                       |               |               | 42,167        |
| trillion btu               | 0.01          | 0.04                         |               |               | 0.04          |
| percent of state           | 0.0008%       | 0.0022%                      |               |               | 0.0024%       |

|                       | Electricity mbtu/unit | Alt 1 | Alt 2  | Alt 3  | Alt 4  | Alt 5  |
|-----------------------|-----------------------|-------|--------|--------|--------|--------|
| Single Family         | 35.2                  | 1389  | 698    | 1111   | 1111   | 1111   |
| multifamily low rise  | 17.7                  | 2593  | 1977   | 14247  | 5522   | 4056   |
| Townhome              | 23.3                  | 648   | 533    | 4260   | 1578   | 1128   |
| multi family mid rise | 15.6                  | 75370 | 96792  | 80382  | 91789  | 113705 |
|                       |                       |       |        |        |        |        |
|                       |                       | 80000 | 100000 | 100000 | 100000 | 120000 |

EIA, CE4.10 Annual Household site end-use consumption by fuel in the West - averages, 2015 https://www.eia.gov/consumption/residential/data/2015/index.php?view=consumption#by%20End%20uses%20by%20fuel

Seattle Comprehensive Plan Natural Gas Consumption

2020 State of Washington

| Electricity | 1779.4 trillion btu |
|-------------|---------------------|
| Natural Gas | 339.3 trillion btu  |

#### RESIDENTIAL

|   | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
|---|---------------|---------------|---------------|---------------|---------------|
| Target Housing Growth<br>(dwelling units) |               |               |               |               |               |
| Single Family                             | 1,389         | 698           | 1,111         | 1,111         | 1,111         |
| Townhome                                  | 648           | 533           | 4,260         | 1,578         | 1,128         |
| Multi-family Low Rise                     | 2,593         | 1,977         | 14,247        | 5,522         | 4,056         |
| Multi-family Mid Rise                     | 75,370        | 96,792        | 80,382        | 91,789        | 113,705       |
| Million Btu                               | 167,136       | 205,652       | 213,785       | 208,718       | 248,427       |
| Trillion Btu                              | 0.17          | 0.21          | 0.21          | 0.21          | 0.25          |
| percent of state                          | 0.05%         | 0.06%         | 0.06%         | 0.06%         | 0.07%         |
| Station Area                              |               |               |               |               |               |
|   | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
| units                                     | 840           | 2,208         | -             | -             | 2,703         |
| million btu                               | 1,933         | 5,081         | -             | -             | 5,482         |
| trillion btu                              | 0.00          | 0.01          | -             | -             | 0.01          |
| percent of state                          | 0.0005%       | 0.0014%       |               |               | 0.0015%       |

#### COMMERCIAL

|                                 | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|
| Target Commercial<br>Growth(SF) | 33,174,904    | 33,174,904    | 33,174,904    | 33,174,904    | 33,174,845    |
| Estimated NG Demand<br>(kBtu)   | 550,703,406   | 550,703,406   | 550,703,406   | 550,703,406   | 550,702,427   |
| Million Btu                     | 550,703       | 550,703       | 550,703       | 550,703       | 550,702       |
| Trillion Btu                    | 0.55          | 0.55          | 0.55          | 0.55          | 0.55          |
|                                 | 0.03%         | 6 0.03%       | 0.03%         | 0.03%         | 0.03%         |

| Station Area        |               |               |
|---------------------|---------------|---------------|
|                     | Alternative 1 | Alternative 2 |
| SF                  | 178,948       | 244,963       |
| Estimated NG Demand | 2 070 527     | 1 044 204     |

| Estimated NG Demand (kBtu) | 2,970,537 | 4,066,386 | 4,167,148 |
|----------------------------|-----------|-----------|-----------|
| million btu                | 2,971     | 4,066     | 4,167     |
| trillion btu               | 0.0030    | 0.0041    | 0.0042    |
| percent of state           | 0.0002%   | 0.0002%   | 0.0002%   |
|                            |           |           |           |

Alternative 3

Alternative 4

Alternative 5

251,033

| INDUSTRIAL                      |               |               |               |               |               |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|
|                                 | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
| Target Industrial<br>Growth(SF) | 17,710,268    | 17,710,268    | 17,710,268    | 17,710,268    | 17,710,246    |
| Estimated NG Demand<br>(kBtu)   | 184,186,787   | 184,186,787   | 184,186,787   | 184,186,787   | 184,186,558   |
| Million Btu                     | 184,187       | 184,187       | 184,187       | 184,187       | 184,187       |
| Trillion Btu                    | 0.18          | 0.18          | 0.18          | 0.18          | 0.18          |
| percent of state                | 0.01%         | 0.01%         | 6 0.01%       | 0.01%         | 0.01%         |
|                                 |               |               |               |               |               |
| TOTAL Energy (trillion Btu)     | 0.90          | 0.94          | 0.95          | 0.94          | 0.98          |
| percent of state                | 0.27%         | 0.28%         | 6 0.28%       | 0.28%         | 0.29%         |
| Station Area                    | 0.005         | 0.009         |               |               | 0.010         |
|                                 | 0.001%        | 0.003%        | /<br>0        |               | 0.003%        |

Washington State Consumption Rates *Residential Natural Gas Con* 

28.24 Million BTU per unit <sup>1</sup> 3.6712 Million BTU per unit <sup>2</sup>

U.S. EIA, Washington Natural Gas Total Consumption. https://www.eia.gov/dnav/ng/hist/na1490\_swa\_2a.htm, accessed <sup>1</sup> February 2023 U.S. Census Bureau, Decennial Census, 2020, H1 occupancy Status.

https://data.census.gov/table?t=Housing+Units&g=0400000US53, accessed February 2023

 $^{\rm 2}$  residential natural gas use other than space and water heating approximaely 13% of total

https://www.eia.gov/consumption/residential/data/2015/index.php?view=consumption#by%20End%20uses%20by%20fuel

Commercial Energy Consumption Rates

| Electricty | 47.1 kBtu/SF |
|------------|--------------|
| NG         | 16.6 kBtu/SF |

Source: Average Energy Use Intensity: Seattle Open Data, 2020 Building Energy Benchmarking https://data.seattle.gov/dataset/2020-Building-Energy-Benchmarking/auez-gz8p/data

Industrial Energy Consumption Rates

Electricty NG 20.8 kBtu/SF 10.4 kBtu/SF

Source: Average Energy Use Intensity: Seattle Open Data, 2020 Building Energy Benchmarking https://data.seattle.gov/dataset/2020-Building-Energy-Benchmarking/auez-gz8p/data

#### Seattle Comprehensive Plan Residential Electricity Consumption

2020 State of Washington

percent of state

| Electricity           | 1779.4        | trillion btu  |               |               |               |
|-----------------------|---------------|---------------|---------------|---------------|---------------|
| Natural Gas           | 355           | trillion btu  |               |               |               |
| RESIDENTIAL           |               |               |               |               |               |
|                       | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
| Target Housing Growth |               |               |               |               |               |
| (dwelling units)      |               |               |               |               |               |
| Single Family         | 1,389         | 698           | 1,111         | 1,111         |               |
| Townhome              | 648           | 533           | 4,260         | 1,578         |               |
| Multi-family Low Rise | 2,593         | 1,977         | 14,247        | 5,522         |               |
| Multi-family Mid Rise | 75,370        | 96,792        | 80,382        | 91,789        | 11            |
| Million Btu           | 167,136       | 205,652       | 213,785       | 208,718       | 24            |
| Trillion Btu          | 0.17          | 0.21          | 0.21          | 0.21          |               |
| percent of state      | 0.05%         | 0.06%         | 0.06%         | 0.06%         |               |
| Station Area          |               |               |               |               |               |
|                       | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
| units                 | 840           | 2,208         |               |               |               |
| million btu           | 1,933         | 5,081         |               |               |               |
| trillion btu          | 0.00          | 0.01          |               |               |               |
| percent of state      | 0.0005%       | 0.0014%       |               |               | 0.0           |

1,111 1,128

4,056 113,705 248,427

0.25 0.07%

2,703 5,482

0.01 0.0015%

|                       | NG mbtu/unit | Alt 1 | Alt 2  | Alt 3  | Alt 4  | Alt 5  | Kbtu |
|-----------------------|--------------|-------|--------|--------|--------|--------|------|
| Single Family         | 4.576        | 1389  | 698    | 1111   | 1111   | 1111   | 4576 |
| multifamily low rise  | 2.301        | 2593  | 1977   | 14247  | 5522   | 4056   | 2301 |
| Townhome              | 3.029        | 648   | 533    | 4260   | 1578   | 1128   | 3029 |
| multi family mid rise | 2.028        | 75370 | 96792  | 80382  | 91789  | 113705 | 2028 |
|                       |              | 80000 | 100000 | 100000 | 100000 | 120000 |      |

EIA, CE4.10 Annual Household site end-use consumption by fuel in the West - averages, 2015 https://www.eia.gov/consumption/residential/data/2015/index.php?view=consumption#by%20End%20uses%20by%20fuel

residential natural gas use other than space and water heating approximaely 13% of total https://www.eia.gov/consumption/residential/data/2015/index.php?view=consumption#by%20End%20uses%20by%20fuel

### Seattle Comprehensive Plan Solid Waste Assumptions

|                     | Existing Alternative 1 |               | Alternative 2     | Alternative 3 | Alternative 5 |
|---------------------|------------------------|---------------|-------------------|---------------|---------------|
|                     |                        |               | Annual VMT        |               |               |
| Cars                | 20,332,000             | 22,213,000    | 22,532,000        | 22,382,000    | 22,920,000    |
| Trucks              | 1,871,300              | 2,144,100     | 2,166,900         | 2,211,100     | 2,202,100     |
| Buses               | 68,930                 | 77,150        | 77,140            | 77,140        | 77,140        |
| Total VMT           | 22,272,230             | 24,434,250    | 24,776,040        | 24,670,240    | 25,199,240    |
|                     |                        |               |                   |               |               |
| Total cars + trucks | 22,203,300             | 24,357,100    | 24,698,900        | 24,593,100    | 25,122,100    |
| units               | 80000                  | 100000        | 100000            | 100000        | 120000        |
| VMT/DU              | 277.54125              | 243.571       | 246.989           | 245.931       | 209.3508333   |
|                     |                        |               |                   |               |               |
|                     | Existing               | Alternative 1 | Alternative 2     | Alternative 3 | Alternative 5 |
|                     |                        | Annual        | Fuel Usage (MMBtu | ר)            |               |
| Gasoline            | 347,084                | 338,092       | 347,762           | 347,732       | 359,567       |
| Diesel              | 14,149                 | 20,230        | 20,672            | 20,692        | 21,219        |
| CNG                 | 116                    | 161           | 162               | 162           | 163           |
| Ethanol             | 621                    | 631           | 649               | 955           | 671           |

#### Seattle Comprehensive Plan Housing Type Assumptions

| Unit Type     | CalEEMod Unit Type    | Alt 1 | Alt 2  | Alt 3  | Alt 4  | Alt 5  |
|---------------|-----------------------|-------|--------|--------|--------|--------|
| Single Family | Single Family         | 1389  | 698    | 1111   | 1111   | 1111   |
| Small ADU     | Multifamily low rise  | 2593  | 1977   | 14247  | 5522   | 4056   |
| Townhome      | Townhome              | 648   | 533    | 4260   | 1578   | 1128   |
| Multi family  | Multi family mid rise | 75370 | 96792  | 80382  | 91789  | 113705 |
|               |                       | 80000 | 100000 | 100000 | 100000 | 120000 |

|   | Analysis Zone 1  |           | Analysis Zone 2  | 1       | Analysis Zone 3                                    | Analysis Zone 4                                    | Analysis Zone 5                                     | Analysis Zone 6  | Analysis Zone 7                                   | Analysis Zone 8   | Total  |
|---|--|-----------|--|---------|--|--|---|--|---|---|--|
| Alternative 1   | HU Capacity HU Target Jobs Capacity Jobs Target        |           | HU HU<br>Capacity Target Jobs Capacity Jobs Target     |         | Jobs Jobs<br>HU Capacity HU Target Capacity Target | HU Jobs Jobs<br>Capacity HU Target Capacity Target | HU Jobs Jobs<br>Capacity HU Target Capacity Target  | HU Jobs Jobs<br>Capacity HUTarget Capacity Target      | HU Jobs Jobs<br>Capacity HU Target Capacity Targe | HU Jobs Jobs<br>Capacity HUTarget Capacity Target         | HU Jobs Jobs<br>Capacity HUTaroet Capacity Taroet                |
| Urban Centers   |  |           | 14,654 6,049 19,048 6,740                              |         | 4,290 3,595 12,017 2,646                           | 26,610 18,265 91,768 90,214                        | 4 11,536 9,061 3,359 3,35                           | 9  |   |   | 57,090 36,970 126,192 102,959                                    |
| Hub Urban Villages  | 16,404 7,588 28,714 6,504                              |           | 4,159 927 2,216 622                                    | -       | 1 1 1 1  |  |   | 4,004 3,128 1,597 1,59                                 |   | 10,128 1,242 15,699 3,05                                  | 3 34,695 12,885 48,226 11,776                                    |
| Residential Urban Villages  | 12,708 3,822 5,090 2,020                               |           | 2,188 1,466 936 366                                    |         | 638 402 289 281<br>542 438 404 6100                | 1,314 1,010 613 281                                | 1 5,309 3,193 2,751 1,06                            | 57 5,792 1,143 2,081 89                                | 1,156 259 2,116 4                                 | 30 11,961 3,469 4,729 2,373                               | 3 41,066 14,764 18,605 7,735                                     |
| Growth Area (Maritime Industrial)                                     |  |           |  |         | 342 826 4,084 8,100                                |  | 148 144 90 .  |  | 535 392 317                                       | 144 140 81  | 827 676 488 -  |
| Outside Subareas (This Alternative)                                   | 2.386 1.040 2.307 1.377                                |           | 4.602 2.006 2.305 1.376                                |         | 1.224 534 749 447                                  |  | 1.308 570 171 10                                    | 2 2.809 1.225 1.720 1.02                               | 7 386 168 690 4                                   | 12 2.181 951 3.475 2.07                                   | 5 14.896 6.494 11.417 6.816                                      |
| Outside Subareas (No Change All Alternatives)                         | 2,987 1,302 3,348 1,999                                |           | 5,381 2,346 2,977 1,777                                |         | 1,971 859 1,775 1,060                              | 316 138 398 238                                    | 3 656 286 275 16                                    | 4 1,567 683 2,569 1,53                                 | 8 602 262 1,687 1,0                               | J7 1,970 859 3,578 2,13                                   | 6 15,450 6,735 16,607 9,914                                      |
| Total   | 34,485 13,752 39,459 11,900                            |           | 30,984 12,794 27,482 10,881                            |         | 8,665 6,018 18,894 10,534                          | 28,240 19,413 92,779 90,733                        | 3 18,957 13,254 6,646 4,69                          | 2 14,172 6,179 7,967 5,05                              | 4 4,765 1,929 21,880 14,5                         | 39 26,384 6,661 27,562 9,63                               | 7 166,652 80,000 242,669 158,000                                 |
| Share of Target   | 17.2% 7.59   |           | 16.0% 6.99   |         | 7.5% 6.7%  | 24.3% 57.4   | % 16.6% 3.0   | 76 7.7% 3.2  | % 2.4% 9.   | 2% 8.3% 6.1   | *  |
|   | Analysis Zone 1  | 1         | Analysis Zone 2  | 1       | Analysis Zone 3                                    | Analysis Zone 4                                    | Analysis Zone 5                                     | Analysis Zone 6  | Analysis Zone 7                                   | Analysis Zone 8   | Total  |
|   | · · · · · · · · · · · · · · · · · · ·                  | 1         | но но  |         | Jobs Jobs  | HU Jobs Jobs                                       | HU Jobs Jobs  | HU Jobs Jobs   | HU Jobs Jobs                                      | HU Jobs Jobs  | HU Jobs Jobs   |
| Alternative 2   | HU Capacity HU Target Jobs Capacity Jobs Target        |           | Capacity Target Jobs Capacity Jobs Target              |         | HU Capacity HU Target Capacity Target              | Capacity HU Target Capacity Target                 | Capacity HU Target Capacity Target                  | Capacity HU Target Capacity Target                     | Capacity HU Target Capacity Targe                 | t Capacity HU Target Capacity Target                      | Capacity HU Target Capacity Target                               |
| Urban Centers   |  |           | 14,654 6,049 19,048 6,538                              |         | 4,290 3,595 12,017 2,566                           | 26,610 18,265 91,768 87,508                        | 3 11,536 9,061 3,359 3,25                           |  |   |   | 57,090 36,970 126,192 99,870                                     |
| Hub Urban Villages  | 16,404 7,588 28,714 6,310                              |           | 4,159 927 2,216 603                                    |         |  | 1            | <br>5 200 2 102 2 251 1 02                          | 4,004 3,128 1,597 1,54                                 | 1154 250 2114 4                                   | 10,128 1,242 15,699 2,967                                 | 1 34,695 12,885 48,226 11,417                                    |
| Manufacturing Industrial Centers                                      | 12,706 3,822 3,070 1,757                               |           | 2,100 1,400 730 333                                    |         | 542 628 4.064 6.100                                | 1,314 1,010 613 273                                | 5 5,307 5,175 2,751 1,05                            | 3,792 1,143 2,061 87                                   | 2086 848 17 070 12 7                              | 37 11,701 3,407 4,727 2,33<br>00                          | 2 628 1 476 21 134 18 800  |
| Growth Area (Maritime Industrial)                                     |  |           |  |         |  |  | 148 144 90 -  |  | 535 392 317 -                                     | 144 140 81 -  | 827 676 488 -  |
| Neighborhood Anchor - Low Risk  | 2,399 5,394 2,199 2,236                                |           | 4,171 6,541 2,078 2,198                                |         | 953 2,402 741 857                                  |  | 942 3,430 186 72                                    | 13 669 1,706 207 44                                    |   | 159 546 35 12   | 8 9,293 20,019 5,446 6,583                                       |
| Neighborhood Anchor - High Risk                                       |  |           | 390 453 99 122   |         |  |  |   | 1,700 2,308 1,485 1,21                                 | 7 384 506 690 4                                   | /1 636 881 159 23   | 5 3,110 4,148 2,433 2,045  |
| Outside Subareas (This Alternative)                                   | 601 262 109 64   |           | 1,105 482 175 157                                      | -       | 419 183 8 5  |  | 498 217 32 1  | 19 1,052 459 28 2                                      | 9 4   | 1,652 720 3,280 1,86                                      | 6 5,336 2,327 3,632 2,133  |
| Outside subareas (No unange All Alternatives)                         | 2,987 1,302 3,348 1,939<br>35,000 19,269 39,460 12,506 |           | 5,381 2,346 2,977 1,724<br>22,049 19,264 27,529 11,607 |         | 1,9/1 859 1,7/5 1,028<br>9,913 9,069 19,904 10,939 | 316 138 398 230                                    | J 656 286 275 15<br>19.099 16.221 6.693 5.19        | 19 1,567 083 2,569 1,48<br>M 14,704 9,427 7,947 5,59   | 3 602 262 1,687 9<br>4 4,773 2,271 21,990 14,50   | 7/ 1,9/0 859 3,5/8 Z,0/2<br>95 26,650 7,957 27,561 9,59   | 2 15,450 6,735 16,607 9,617<br>7 169,495 100,000 242,762 159,000 |
| Share of Target   | 18.4% 7.99   | · · · · · | 18.3% 7.49   |         | 8.1% 6.9%  | 19.4% 55.7   | % 16.3% 3.3   | 9.4% 3.5   | % 2.3% 9.   | 2% 7.9% 6.1   | %  |
|   | to the Tax of  |           | And the American                                       |         | 1  |  |   |  |   | -   |  |
| · · · · · · · · · · · · · · · · · · ·                                 | Analysis zone i  |           | Analysis zone z<br>HU HU                               |         | Analysis zone 3<br>Jobs Jobs                       | HU Jobs Jobs                                       | HU Jobs Jobs  | HU Jobs Jobs   | HU Jobs Jobs                                      | HU Jobs Jobs  | HU Jobs Jobs   |
| Alternative 3   | HU Capacity HU Target Jobs Capacity Jobs Target        |           | Capacity Target Jobs Capacity Jobs Target              |         | HU Capacity HU Target Capacity Target              | Capacity HU Target Capacity Target                 | Capacity HU Target Capacity Target                  | Capacity HU Target Capacity Target                     | Capacity HU Target Capacity Targe                 | t Capacity HU Target Capacity Target                      | Capacity HU Target Capacity Target                               |
| Urban Centers   |  |           | 14,654 6,049 19,048 6,538                              |         | 4,290 3,595 12,017 2,566                           | 26,610 18,265 91,768 87,506                        | 3 11,536 9,061 3,359 3,25                           | 8 8  |   | T · · · ·   | 57,090 36,970 126,192 99,870                                     |
| Hub Urban Villages  | 16,404 7,588 28,714 6,310                              | -         | 4,159 927 2,216 603                                    | -       |  |  |   | 4,004 3,128 1,597 1,54                                 |   | 10,128 1,242 15,699 2,96                                  | 1 34,695 12,885 48,226 11,417                                    |
| Residential Urban Villages  | 12,708 3,822 5,090 1,957                               | -         | 2,188 1,466 936 355                                    | -       | 638 402 289 273                                    | 1,314 1,010 613 273                                | 3 5,309 3,193 2,751 1,03                            | 15 5,792 1,143 2,081 87                                | 1,156 259 2,116 4                                 | 37 11,961 3,469 4,729 2,33                                | a 41,066 14,764 18,605 7,535                                     |
| Growth Area (Maritime Industrial)                                     |  |           |  |         | 342 826 4,084 8,100                                |  | 148 144 90 .  |  | 535 392 317                                       | 144 140 81  | 827 676 488 -  |
| Neighborhood Residential  | 9,210 4,095 123 754                                    |           | 17,892 7,921 154 221                                   |         | 1,680 875 24 18                                    |  | 1,218 741 37 28                                     | 4 9,654 4,480 15 2                                     | 3 41 21   | 8,589 4,290 3,176 4,60                                    | 6 48,284 22,423 3,529 5,906                                      |
| Outside Subareas (This Alternative)                                   | 1,741 760 2,193 1,330                                  |           | 3,429 1,497 2,156 1,389                                |         | 812 355 721 439                                    |  | 767 334 139 8                                       | 87 1,702 743 1,707 1,05                                | 376 165 690 41                                    | 01 498 217 277 15   | 3 9,325 4,071 7,883 4,855  |
| Outside Subareas (No Change All Alternatives)                         | 2,987 1,302 3,348 1,939                                |           | 5,381 2,346 2,977 1,724                                |         | 1,971 859 1,775 1,028                              | 316 138 398 230                                    | 0 656 286 275 15                                    | 9 1,567 683 2,569 1,48                                 | 3 602 262 1,687 9                                 | 17 1,970 859 3,578 2,07                                   | 2 15,450 6,735 16,607 9,617                                      |
| Total<br>Share of Tarnet  | 43,050 17,567 39,468 12,290                            | · ·       | 47,703 20,206 27,487 10,830                            |         | 9,933 6,714 18,890 10,424                          | 28,240 19,413 92,119 88,01                         | 19,634 13,759 6,651 4,82                            | 22,719 10,177 7,969 4,98<br>10,2% 32                   | 1 4,196 1,947 21,880 14,5<br>196 9                | 75 33,290 10,217 27,540 12,12<br>76 10,25 77              | 7 209,365 100,000 242,664 158,000                                |
|   |  |           |  |         |  |  |   |  |   |   |  |
|   | Analysis Zone 1  |           | Analysis Zone 2  |         | Analysis Zone 3                                    | Analysis Zone 4                                    | Analysis Zone 5                                     | Analysis Zone 6  | Analysis Zone 7                                   | Analysis Zone 8   | Total  |
| Alternative 4   | HU Capacity HU Target Jobs Capacity Jobs Target        |           | Capacity Target Jobs Capacity Jobs Target              |         | HU Capacity HU Target Capacity Target              | Capacity HU Target Capacity Target                 | Capacity HU Target Capacity Target                  | t Capacity HU Target Capacity Target                   | Capacity HU Target Capacity Targe                 | t Capacity HU Target Capacity Target                      | Capacity HU Target Capacity Target                               |
| Urban Centers   |  |           | 14,654 6,049 19,048 6,538                              |         | 4,290 3,595 12,017 2,566                           | 26,610 18,265 91,768 87,508                        | 3 11,536 9,061 3,359 3,25                           | 8  |   |   | 57,090 36,970 126,192 99,870                                     |
| Hub Urban Villages  | 16,404 7,588 28,714 6,310                              |           | 4,159 927 2,216 603                                    |         |  |  |   | 4,004 3,128 1,597 1,54                                 | 8   | 10,128 1,242 15,699 2,96                                  | 1 34,695 12,885 48,226 11,417                                    |
| Residential Urban Villages  | 12,708 3,822 5,090 1,957                               |           | 2,188 1,466 936 355                                    |         | 638 402 289 273                                    | 1,314 1,010 613 273                                | 3 5,309 3,193 2,751 1,03                            | 15 5,792 1,143 2,081 87                                | 0 1,156 259 2,116 4                               | 37 11,961 3,469 4,729 2,33                                | 5 41,066 14,764 18,605 7,535                                     |
| Manufacturing Industrial Centers<br>Crowth Area (Manifima Industrial) |  |           |  |         | 542 628 4,064 6,100                                |  | 140 144 00  |  | 2,086 848 17,070 12,70                            | 10  | 2,628 1,476 21,134 18,800  |
| Neighborhood Residential-Corridor                                     | 5.081 3.579 104 1.165                                  |           | 12.150 8.484 15 129                                    |         | 914 694 .  |  | 816 719 37 44                                       | 9 5.718 4.114 1 1                                      | 2 41 33   | 4.744 3.584 175 2.15                                      | 5 29,464 21,207 332 3,910  |
| Outside Subareas (This Alternative)                                   | 2,090 910 2,212 1,371                                  |           | 4,063 1,769 2,295 1,549                                |         | 1,055 460 741 447                                  |  | 929 404 139 9                                       | 71 2,277 993 1,720 1,09                                | 3 376 164 690 4                                   | 01 1,347 587 3,284 1,89                                   | 4 12,137 5,287 11,081 6,851                                      |
| Outside Subareas (No Change All Alternatives)                         | 2,987 1,302 3,348 1,939                                |           | 5,381 2,346 2,977 1,724                                |         | 1,971 859 1,775 1,028                              | 316 138 398 230                                    | 0 656 286 275 15                                    | i9 1,567 683 2,569 1,48                                | 3 602 262 1,687 9                                 | 77 1,970 859 3,578 2,07                                   | 2 15,450 6,735 16,607 9,617                                      |
| Total   | 39,270 17,201 39,468 12,742                            |           | 42,595 21,041 27,487 10,898                            |         | 9,410 6,638 18,886 10,414                          | 28,240 19,413 92,779 88,011                        | 1 19,394 13,807 6,651 4,99                          | 12 19,358 10,061 7,968 5,01                            | 1 4,796 1,958 21,880 14,5                         | 15 30,294 9,881 27,546 11,41                              | 7 193,357 100,000 242,665 158,000                                |
| share or larget   | 17.2% 8.19   |           | 21.0% 6.97   | •       | 6.6% 6.6%  | 19.4% 55.7   | 15 13.8% 3.2  | 76 10.1% 3.2   | n 20n 9.  | 25 9.95 1.2   | h  |
|   | Analysis Zone 1  |           | Analysis Zone 2  |         | Analysis Zone 3                                    | Analysis Zone 4                                    | Analysis Zone 5                                     | Analysis Zone 6  | Analysis Zone 7                                   | Analysis Zone 8   | Total  |
| Alternative F   | URI Comparity URI Toronal John Comparity, John Toronal |           | HU HU<br>Comparity Terrart John Comparity John Terrart |         | Jobs Jobs  | HU Jobs Jobs                                       | HU Jobs Jobs<br>Compatibu UUTermet Compatibu Termet | HU Jobs Jobs   | HU Jobs Jobs                                      | HU Jobs Jobs  | HU Jobs Jobs   |
| Anemative 5   | Ho capacity Ho faiger Jobs capacity Jobs faiger        |           | 14.654 6.049 10.05 Capacity 3005 Target                | · · · · | A 267 2 624 12 017 2 514                           | 26.610 19.265 91.769 95.702                        | 11 526 0 061 2 250 2 10                             | capacity no rarger capacity rarger                     | capacity Ho target capacity target                | i capacity no raiger capacity raiger                      | 62.769 42.051 120.221 101.009                                    |
| Hub Urban Villages  | 10.803 2.546 24.585 2.256                              |           | 4.159 927 2.216 591                                    |         | 4,307 3,034 12,017 2,314                           | 10,010 10,100 11,100 00,100                        |   | 4.071 3.140 1.612 1.52                                 |   | 10.128 1.242 15.699 2.90                                  | 0 29.161 7.855 44.112 7.273                                      |
| Residential Urban Villages  | 12,998 3,838 5,108 1,928                               |           | 10,440 3,110 1,852 704                                 |         | 708 429 289 267                                    | 1,314 1,010 613 267                                | 7 5,317 3,194 2,751 1,01                            | 4 6,048 2,884 2,081 1,15                               | 2 1,156 1,659 2,116 6                             | 71 12,079 6,738 4,827 2,87                                | 5 50,060 22,862 19,637 8,878                                     |
| Manufacturing Industrial Centers                                      |  |           |  | -       | 542 628 4,064 6,100                                |  |   |  | 2,086 848 17,070 12,70                            | 30  | 2,628 1,476 21,134 18,800  |
| Growth Area (Maritime Industrial)                                     |  | -         | 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.                 | -       | 1  |  | 148 144 90 -  |  | 535 392 317 -                                     | 144 140 81 -  | 827 676 488 -  |
| Neighborhood Anchor - Low Risk  | 2,399 4,495 2,199 1,893                                |           | 4,811 5,127 1,455 1,799                                |         | 953 2,002 741 707                                  |  | 942 2,830 186 51                                    | 1 1 272 2 092 1 495 1 10                               | 277 461 690 4                                     | 42 452 791 140 19   | 2 9,953 10,300 4,823 5,334<br>4 2,202 2,225 2,225 1,729          |
| Neighborhood Residential  | 4.033 1.885 6 6  |           | 5.487 2.569 84 84                                      |         | 591 310 4 4  |  | 395 240   | 3,777 1,878 14 1                                       | 4   | 3.716 1.966 2.988 3.00                                    | 5 17.999 8.848 3.096 3.113                                       |
| Neighborhood Residential-Corridor                                     | 4,229 1,390 93 457                                     |           | 10,616 3,429 10 49                                     |         | 801 305  |  | 650 346 36 17                                       | 7 4,887 1,674 1  | i 33 14 · ·                                       | 4,458 1,698 173 85/                                       | 0 25,674 8,856 313 1,538   |
| Outside Subareas (This Alternative)                                   |  |           |  |         |  |  |   |  |   |   |  |
| Uutside Subareas (No Unange All Alternatives)<br>Total                | 43.050 21.498 39.469 12.526                            |           | 5,381 2,346 2,977 1,688<br>55,548 23,557 27,642 11,210 | -       | 9.923 8.167 18.89 1.007                            | 310 138 398 220<br>28.240 19.413 92.770 04.104     | 000 286 275 15                                      | 10 1,567 683 2,569 1,45<br>18 22,392 13,748 7,970 6,60 | 4 789 3.636 21.887 9                              | 20 1,970 859 3,578 2,029<br>20 33.106 13.880 27.541 11.04 | / ID,4DU 6,73D 16,607 9,418<br>5 216 702 120 000 242 866 159 000 |
| Share of Target   | 17.9%  |           | 19.6% 7.29   |         | 6.8% 6.7%  | 16.2% 54.6   | 13.4% 13.04 3.2                                     | × 11.5% 3.5  | 3.0% 9.   | 3% 11.6% 7.6  | A 10,704 120,000 242,000 120,000                                 |
|   |  |           |  |         |  |  |   |  |   |   |  |
|   | Housing Alt 1 Alt 2 Alt 2 Alt 3                        |           | All 5  |         |  |  |   |  |   |   |  |
| Area 1 Northwest  | 17.2% 18.4% 17.6% 17.29                                | 6         | 17.9%  |         |  |  |   |  |   |   |  |
| Anna 2 Marthurst  | 16.097 10.097 20.097 21.09                             |           | 10.69  |         |  |  |   |  |   |   |  |

| Area 1 Northwest                     | 17.2%                  | 18.4%         | 17.6%         | 17.2%         | 1          |
|--------------------------------------|------------------------|---------------|---------------|---------------|------------|
| Area 2 Northeast                     | 16.0%                  | 18.3%         | 20.2%         | 21.0%         | 1          |
| Area 3 West                          | 7.5%                   | 8.1%          | 6.7%          | 6.6%          |            |
| Area 4 Downtown                      | 24.3%                  | 19.4%         | 19.4%         | 19.4%         | 1          |
| Area 5 East                          | 16.6%                  | 16.3%         | 13.8%         | 13.8%         | 1          |
| Area 6 Souhwest                      | 7.7%                   | 9.4%          | 10.2%         | 10.1%         | 1          |
| Area 7 Duwamish Manufacturing Center | 2.4%                   | 2.3%          | 1.9%          | 2.0%          |            |
| Area 8 Southeast                     | 8.3%                   | 7.9%          | 10.2%         | 9.9%          | 1          |
| Total                                | 100.0%                 | 100.0%        | 100.0%        | 100.0%        | 10         |
|                                      | Jobs                   |               |               |               |            |
|                                      | Alt 1                  | Alt 2         | Alt 3         | Alt 4         |            |
| Area 1 Northwest                     | 7.5%                   | 7.9%          | 7.8%          | 8.1%          |            |
| Area 2 Northeast                     | 6.9%                   | 7.4%          | 6.9%          | 6.9%          |            |
| Area 3 West                          | 6.7%                   | 6.9%          | 6.6%          | 6.6%          |            |
| Area 4 Downtown                      | 57.4%                  | 55.7%         | 55.7%         | 55.7%         | 5          |
| Area 5 East                          | 3.0%                   | 3.3%          | 3.1%          | 3.2%          |            |
| Area 6 Souhwest                      | 3.2%                   | 3.5%          | 3.2%          | 3.2%          |            |
| Area 7 Duwamish Manufacturing Center | 9.2%                   | 9.2%          | 9.2%          | 9.2%          |            |
| Area 8 Southeast                     | 6.1%                   | 6.1%          | 7.7%          | 7.2%          |            |
| Total                                | 100.0%                 | 100.0%        | 100.0%        | 100.0%        | 10         |
| Saurana Enotana                      | Linn Joh Tarnets       |               | 250           | unumo foot    |            |
| aquare roomge                        | Commercial Square Feet |               | 230           | Aparre reet   |            |
|                                      | Alt 1                  | Alt 2         | Alt 3         | Alt 4         | Alt 5      |
| Area 1 Northwest                     | 2,618,000              | 2,751,320     | 2,703,800     | 2,803,240     | 2,757,920  |
| Area 2 Northeast                     | 2,393,820              | 2,573,340     | 2,382,600     | 2,397,560     | 2,489,960  |
| Area 3 West                          | 1,803,167              | 1,868,067     | 1,778,967     | 1,776,767     | 1,817,467  |
| Area 4 Downtown                      | 19,961,260             | 19,362,420    | 19,362,420    | 19,362,420    | 18,963,120 |
| Area 5 East                          | 1,032,240              | 1,142,680     | 1,061,060     | 1,098,240     | 1,110,560  |
| Area 6 Souhwest                      | 1,111,880              | 1,227,820     | 1,095,600     | 1,102,420     | 1,229,360  |
| Area 7 Duwamish Manufacturing Center | 2,124,397              | 2,137,917     | 2,122,517     | 2,122,517     | 2,178,558  |
| Area 8 Southeast                     | 2,120,140              | 2,111,340     | 2,667,940     | 2,511,740     | 2,627,900  |
| T I                                  |                        | 00 4 3 4 00 4 | 00 4 3 4 00 4 | 00 4 3 4 00 4 | 00 434 045 |

132,700 132,700 132,700 132,700 132,699

| Using Job Targets      |            | 700        | quare feet |           |
|------------------------|------------|------------|------------|-----------|
| Industrial Square Feet |            |            |            |           |
| Alt 1                  | Alt 2      | Alt 3      | Alt 4      | Alt 5     |
| 999,600                | 1,050,504  | 1,032,360  | 1,070,328  | 1,053,00  |
| 914,004                | 982,548    | 909,720    | 915,432    | 950,71    |
| 2,324,922              | 2,349,712  | 2,315,692  | 2,314,852  | 2,330,31  |
| 7,621,572              | 7,392,924  | 7,392,924  | 7,392,924  | 7,240,44  |
| 294,128                | 435,295    | 405,132    | 419,328    | 424,03    |
| 424,535                | 468,804    | 418,320    | 420,924    | 449,25    |
| 4,221,988              | 4,223,332  | 4,217,452  | 4,217,452  | 4,238,84  |
| 809,508                | 806,148    | 1,018,668  | 959,028    | 1,003,31  |
| 17,710,268             | 17,710,268 | 17,710,268 | 17,710,268 | 17,710,24 |
|                        |            |            |            |           |
| 25 300                 | 25 300     | 25 300     | 25 300     | 25.30     |



#### Potential Job Sector Split

Notes: Assume less SF in Downtown Office Ensure 10% higher retail/service in neighborhoods For MIC, match SIML EIS

#### Jobs per SF in King County UGC for Seattle

#### Commercial Industrial Low 275 500 300 Hiah 700

https://kingcounty.gov/-/media/depts/executive/performance-strategy-budget/regional-planning/GrowthManagement/GMPC-2021/GMPC-Meeting-062321/KC-UGC-Final-Draft-Report-June-2021.ashx?la=en

#### Suggest using SIML Assumptions 250 700

For office shows some smaller square feet which may be appropriate given change in Downtown/elsewhere due to COVID effects. For Industrial shows higher range and still similar to SIML for conservative Air Q.

JOBS per SF: CAI, September 1, 2020: Seattle Maritime and Industrial StrategyEmployment Trends and Land Use Alternatives Analysis

Absorption Assumptions: Required Redevelopment Land Absorption assumptions: Required Redevelopment Land Absorption assumptions by subarea expressed as square feet of land per job is calculated by dividing square feet of building area per job Exhibit 24. Absorption Assumptions by subarea. No Action Alternative, 2035 Sources: Paget Sound Regional Council, 2020: Community Attributes Inc., 2020.

| atle       | htery                     | Blat | Blat hétaj l<br>Daus Sn |     | itetay SOO<br>Snihlae Badun |    |
|------------|---------------------------|------|-------------------------|-----|-----------------------------|----|
| (ihe       | Kapitaliy & Taxian        | 1,0  | 181                     | 230 | 200                         | 1  |
| h          | Constaction and Utilities | 8    | 1,0                     | [3] | 10                          | 18 |
| lonillî li |                           | H    | 9                       | 57  | ท                           | 8  |
| h          | Distriction & Sconnecte   | 8    | 10                      | 13  | 10                          | 18 |
| h          | Rod & Beezge Protocion    | 8    | 1,0                     | [3] | 10                          | 18 |
| h          | ketopae                   | 83   | 14                      | 13  | 10                          | 78 |
| h          | Tasportation & Lugistics  | 8    | 1,0                     | [3] | 10                          | 18 |
| h          | laine                     | 83   | 14                      | 13  | 10                          | 18 |
| h          | OterNaufaturg             | 81   | 10                      | 13  | 10                          | 11 |
| billi Alb  | sébi                      | li   | 1                       | 57  | 5                           | 8  |
| losti Alti | elenies                   | h    | 9                       | 57  | 5                           | 8  |
| 648        | Grement                   | 18   | 200                     | 10  | 0                           | II |
| 648        | Bizla                     | 18   | 200                     | 10  | 40                          | I  |

SECTOR SPLITS: CAI, September 1, 2020: Seattle Maritime and Industrial StrategyEmployment Trends and Land Use Alternatives Analysis

#### Total Historic and Projected Employment by Industry, City of Seattle, 2010-2035

Sources: Bureau of Labor Statistics, 2020; Puget Sound Regional Council, 2020; Washington State Employment Security Department, 2020; Community Attributes Inc., 2020.

|                            | 2010    | 2015    | 2019    | 2025    | 2018  | 2035    |                   |        |
|----------------------------|---------|---------|---------|---------|-------|---------|-------------------|--------|
|                            | 2010    | 2015    | 2010    | 2035    | CAGR  | Growth  | Estimate 2035 Sha | are by |
| All Other Services         | 209,800 | 232,600 | 249,500 | 280,400 | 0.7%  | 30,900  | Commercial        |        |
| Hospitality & Tourism      | 52,800  | 63,400  | 70,800  | 95,300  | 1.8%  | 24,500  | Commercial        | SIN    |
| Distribution & E-commerce  | 20,500  | 38,700  | 60,400  | 104,400 | 3.3%  | 44,000  | Industrial        | Bas    |
| Education                  | 58,900  | 66,500  | 59,000  | 58,400  | -0.1% | -600    | Commercial        | BIN    |
| ICT                        | 23,900  | 36,000  | 50,400  | 129,400 | 5.7%  | 79,000  | Commercial        | Gre    |
| Government                 | 48,700  | 46,600  | 49,400  | 49,000  | 0.0%  | -400    | Commercial        | Tot    |
| Construction and Utilities | 23,200  | 27,400  | 34,400  | 52,900  | 2.6%  | 18,500  | Industrial        | _      |
| All Other Retail           | 21,900  | 23,400  | 23,000  | 24,500  | 0.4%  | 1,500   | Commercial        |        |
| Food & Beverage Production | 13,100  | 15,900  | 16,500  | 22,600  | 1.9%  | 6,100   | Industrial        | Pre    |
| Maritime                   | 16,500  | 15,100  | 15,600  | 15,900  | 0.1%  | 300     | Industrial        | Ind    |
| Other Manufacturing        | 10,900  | 11,200  | 10,600  | 8,300   | -1.4% | -2,300  | Industrial        | _      |
| Transportation & Logistics | 7,200   | 7,700   | 9,100   | 11,800  | 1.5%  | 2,700   | Industrial        | Pre    |
| Aerospace                  | 9,500   | 8,700   | 7,900   | 7,900   | 0.0%  | 0       | Industrial        |        |
| Suppressed                 | 100     | 100     | 200     | 200     | 0.0%  | 0       |                   |        |
| Total                      | 517,100 | 593,000 | 656,800 | 861,000 | 1.6%  | 204,200 |                   |        |

| SIML Emp SF  |  |                                       |
|--|--|---------------------------------------|
| Base Year Split  | Industrial   | Non-Industrial                        |
| BINMIC   | 6,783,129  | 5,375,837                             |
| Greater Duwamisł   | 34632076   | 13,896,776                            |
| Total  | 41,415,205   | 19,272,613                            |
|  |  |                                       |
| Preferred Alternativ   | /e - Balanced  | Gross<br>% Industrial                 |
| Preferred Alternativ   | ve - Balanced<br>Total Emp<br>134.045                  | Gross<br>% Industrial<br>52.9%        |
| Preferred Alternativ<br>Industrial Emp<br>70,853<br>Preferred Alternativ | ve - Balanced<br>Total Emp<br>134,045<br>ve - Balanced | Gross<br>% Industrial<br>52.9%<br>Net |

Commercial

54%

Industrial

46%

Questions Assume all Commercial in neighborhoods? Assume SIMIL breakdown in MICs? By Jobs or SF?

#### SECTOR SPLITS: Census on the Map, Total Jobs

| Jobs by N/    | Citywi | ide   |         | SIN          |           |        | Citywide M | linus SIML |         |                |           |
|---------------|--------|-------|---------|--------------|-----------|--------|------------|------------|---------|----------------|-----------|
|               | Count  | Share |         | Count        | Share     |        | 20         | 19         |         |                |           |
| Aariculture.  | 1.261  | 0.2%  |         | 741          | 1.0%      |        | 520        |            |         |                |           |
| Mining Qua    | 135    | 0.0%  |         | 48           | 0.1%      |        | 87         |            |         |                |           |
| Utilities     | 3.312  | 0.6%  |         | 168          | 0.2%      |        | 3.144      |            |         |                |           |
| Construction  | 24,590 | 4.2%  |         | 6.653        | 8.9%      |        | 17.937     |            |         |                |           |
| Manufacturi   | 27,519 | 4.7%  |         | 16,482       | 22.2%     |        | 11.037     |            |         |                |           |
| Wholesale T   | 20.904 | 3.6%  |         | 7.200        | 9.7%      |        | 13,704     |            |         |                |           |
| Retail Trade  | 40,787 | 7.0%  |         | 4,593        | 6.2%      |        | 36,194     |            |         |                |           |
| Transportati  | 23,520 | 4.0%  |         | 6,334        | 8.5%      |        | 17,186     |            |         |                |           |
| Information   | 36,909 | 6.3%  |         | 4,143        | 5.6%      |        | 32,766     |            |         |                |           |
| Finance and   | 20,464 | 3.5%  |         | 397          | 0.5%      |        | 20,067     |            |         |                |           |
| Real Estate   | 13,993 | 2.4%  |         | 1,373        | 1.8%      |        | 12,620     |            |         |                |           |
| Professional  | 76,267 | 13.1% |         | 4,219        | 5.7%      |        | 72,048     |            |         |                |           |
| Managemer     | 18,644 | 3.2%  |         | 7,103        | 9.5%      |        | 11,541     |            |         |                |           |
| Administratic | 24,073 | 4.1%  |         | 2,802        | 3.8%      |        | 21,271     |            |         |                |           |
| Educational   | 45,713 | 7.8%  |         | 813          | 1.1%      |        | 44,900     |            |         |                |           |
| Health Care   | 89,138 | 15.3% |         | 1,625        | 2.2%      |        | 87,513     |            |         |                |           |
| Arts, Enterta | 14,268 | 2.4%  |         | 2,219        | 3.0%      |        | 12,049     |            |         |                |           |
| Accommoda     | 55,410 | 9.5%  |         | 4,955        | 6.7%      |        | 50,455     |            |         |                |           |
| Other Servic  | 26,194 | 4.5%  |         | 2,357        | 3.2%      |        | 23,837     |            |         |                |           |
| Public Admi   | 19,695 | 3.4%  |         | 157          | 0.2%      |        | 19,538     |            |         |                |           |
|               |        |       |         | Citywide     |           |        | SIML       |            |         | Citywide Minus | SIML      |
|               |        |       | Total   | Industrial I | Ind Share | Total  | Industrial | Ind Share  | Total   | Industrial     | Ind Share |
|               |        |       | 582,796 | 101,241      | 17.37%    | 74,382 | 37,626     | 50.58%     | 508,414 | 63,615         | 12.51%    |



### **F** Noise Appendix

| Project Name:   | One Seattle Comprehensive Plan |
|-----------------|--------------------------------|
| Project Number: | 90074000                       |
| Scenario:       | Existing                       |
| Ldn/CNEL:       | CNEL                           |

| Assumed 24-Hour Traffic Distribution: | Day    | Evening | Night |
|---------------------------------------|--------|---------|-------|
| Total ADT Volumes                     | 77.70% | 12.70%  | 9.60% |
| Medium-Duty Trucks                    | 87.43% | 5.05%   | 7.52% |
| Heavy-Duty Trucks                     | 89.10% | 2.84%   | 8.06% |

|                               |  |       |        |        |       |        | Vehic  | e Mix  | Distance from Centerline of Roadw |         |            | way        |         |
|-------------------------------|--|-------|--------|--------|-------|--------|--------|--------|-----------------------------------|---------|------------|------------|---------|
|                               |  |       | Median | ADT    | Speed | Alpha  | Medium | Heavy  | CNEL at                           |         | Distance t | to Contour | •       |
| # Roadway                     | Segment                                      | Lanes | Width  | Volume | (mph) | Factor | Trucks | Trucks | 150 Feet                          | 70 CNEL | 65 CNEL    | 60 CNEL    | 55 CNEL |
| 1 Martin Luther King Jr Way S | Between S Jackson St and S Massachusetts St  | 2     | 0      | 15,426 | 25    | 0      | 2.0%   | 1.0%   | 58.4                              | -       | 33         | 105        | 332     |
| 2 Martin Luther King Jr Way S | Between S Orcas St and S Graham St           | 4     | 28     | 20,000 | 25    | 0      | 2.0%   | 1.0%   | 59.7                              | -       | -          | 139        | 440     |
| 3 Harbor Ave SW/Alki Ave SW   | Between SW Admiral Way and California Way SW | 2     | 14     | 12,240 | 25    | 0      | 2.0%   | 1.0%   | 57.5                              | -       | -          | 83         | 264     |
| 4 Beacon Ave S                | Between S Spokane St and S Columbian Way     | 2     | 14     | 6,677  | 25    | 0      | 2.0%   | 1.0%   | 54.8                              | -       | -          | 46         | 144     |
| 5 34th Ave W                  | Between W Barrett St and W McGraw St         | 2     | 0      | 5,893  | 25    | 0      | 2.0%   | 1.0%   | 54.3                              | -       | -          | 40         | 127     |
| 6 Roosevelt Way NE            | Between NE Northgate Way and 80th St         | 2     | 0      | 10,233 | 25    | 0      | 2.0%   | 1.0%   | 56.7                              | -       | -          | 70         | 220     |
| 7 Roosevelt Way NE            | Between 5th Ave NE and 10th Ave NE           | 4     | 0      | 19,461 | 30    | 0      | 2.0%   | 1.0%   | 60.9                              | -       | 59         | 186        | 588     |
| 8 15th Ave NE                 | Between NE 135th St and NE 145th St          | 4     | 14     | 16,860 | 25    | 0      | 2.0%   | 1.0%   | 58.9                              | -       | -          | 116        | 367     |

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location. "-" = contour is located within the roadway right-of-way.

| Project Name:                       |                             |        |         |       |  |  |
|-------------------------------------|-----------------------------|--------|---------|-------|--|--|
| Project Number:                     |                             |        |         |       |  |  |
| Scenario:                           | : Horizon Year Plus Project |        |         |       |  |  |
| Ldn/CNEL:                           | CNEL                        |        |         |       |  |  |
|                                     |                             |        |         |       |  |  |
| Assumed 24-Hour Traffic Distributio | n:                          | Day    | Evening | Night |  |  |
| Total ADT Volumes                   |                             | 77.70% | 12.70%  | 9.60% |  |  |
| Medium-Duty Trucks                  |                             | 87.43% | 5.05%   | 7.52% |  |  |
| Heavy-Duty Trucks                   |                             | 89.10% | 2.84%   | 8.06% |  |  |

|                               |                                    |       |        |        |       |        | Vehicl | e Mix  | Distance from Centerline of Roadway |         |            | way       |         |
|-------------------------------|------------------------------------|-------|--------|--------|-------|--------|--------|--------|-------------------------------------|---------|------------|-----------|---------|
|                               |                                    |       | Median | ADT    | Speed | Alpha  | Medium | Heavy  | CNEL at                             |         | Distance t | o Contour | •       |
| # Roadway                     | Segment                            | Lanes | Width  | Volume | (mph) | Factor | Trucks | Trucks | 59.0                                | 70 CNEL | 65 CNEL    | 60 CNEL   | 55 CNEL |
| 1 Martin Luther King Jr Way S | Between S Jackson St and S Massach | 2     | 0      | 19,300 | 25    | 0      | 2.0%   | 1.0%   | 59.4                                | -       | 42         | 131       | 415     |
| 2 Martin Luther King Jr Way S | Between S Orcas St and S Graham St | 4     | 28     | 24,700 | 25    | 0      | 2.0%   | 1.0%   | 60.6                                | -       | -          | 172       | 543     |
| 3 Harbor Ave SW/Alki Ave SW   | Between SW Admiral Way and Califor | 2     | 14     | 13,500 | 25    | 0      | 2.0%   | 1.0%   | 57.9                                | -       | -          | 92        | 291     |
| 4 Beacon Ave S                | Between S Spokane St and S Columb  | 2     | 14     | 7,300  | 25    | 0      | 2.0%   | 1.0%   | 55.2                                | -       | -          | 50        | 157     |
| 5 34th Ave W                  | Between W Barrett St and W McGraw  | 2     | 0      | 6,500  | 25    | 0      | 2.0%   | 1.0%   | 54.7                                | -       | -          | 44        | 140     |
| 6 90074000                    | Between NE Northgate Way and 80th  | 2     | 0      | 11,100 | 25    | 0      | 2.0%   | 1.0%   | 57.0                                | -       | -          | 75        | 239     |
| 7 Roosevelt Way NE            | Between 5th Ave NE and 10th Ave NE | 4     | 0      | 19,900 | 30    | 0      | 2.0%   | 1.0%   | 61.0                                | -       | 60         | 190       | 601     |
| 8 15th Ave NE                 | Between NE 135th St and NE 145th S | 4     | 14     | 20,700 | 25    | 0      | 2.0%   | 1.0%   | 59.8                                | -       | -          | 143       | 451     |

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.

| Project Name:<br>Project Number: | One Seattle Comprehensive Plan<br>90074000 |               |         |       |  |  |  |
|----------------------------------|--|---------------|---------|-------|--|--|--|
| Scenario:<br>Ldn/CNEL:           | Horizon Year Plus Project<br>CNEL          | Alternativ    | /e 2    |       |  |  |  |
| Assumed 24-Hour Traffic Distribu | ition:                                     | Day<br>77 70% | Evening | Night |  |  |  |

| Total ADT Volumes  | 77.70% | 12.70% | 9.60% |
|--------------------|--------|--------|-------|
| Medium-Duty Trucks | 87.43% | 5.05%  | 7.52% |
| Heavy-Duty Trucks  | 89.10% | 2.84%  | 8.06% |

|                               |                                    |       |        |        |       |        | Vehic  | le Mix | Distance from Centerline of Roadway |         |            | way       |         |
|-------------------------------|------------------------------------|-------|--------|--------|-------|--------|--------|--------|-------------------------------------|---------|------------|-----------|---------|
|                               |                                    |       | Median | ADT    | Speed | Alpha  | Medium | Heavy  | CNEL at                             |         | Distance t | o Contour | •       |
| # Roadway                     | Segment                            | Lanes | Width  | Volume | (mph) | Factor | Trucks | Trucks | 150 Feet                            | 70 CNEL | 65 CNEL    | 60 CNEL   | 55 CNEL |
| 1 Martin Luther King Jr Way S | Between S Jackson St and S Massach | 2     | 0      | 19,500 | 25    | 0      | 2.0%   | 1.0%   | 59.5                                | -       | 42         | 133       | 419     |
| 2 Martin Luther King Jr Way S | Between S Orcas St and S Graham St | 4     | 28     | 25,000 | 25    | 0      | 2.0%   | 1.0%   | 60.6                                | -       | -          | 174       | 550     |
| 3 Harbor Ave SW/Alki Ave SW   | Between SW Admiral Way and Califor | 2     | 14     | 13,500 | 25    | 0      | 2.0%   | 1.0%   | 57.9                                | -       | -          | 92        | 291     |
| 4 Beacon Ave S                | Between S Spokane St and S Columb  | 2     | 14     | 7,600  | 25    | 0      | 2.0%   | 1.0%   | 55.4                                | -       | -          | 52        | 164     |
| 5 34th Ave W                  | Between W Barrett St and W McGraw  | 2     | 0      | 7,100  | 25    | 0      | 2.0%   | 1.0%   | 55.1                                | -       | -          | 48        | 153     |
| 6 Roosevelt Way NE            | Between NE Northgate Way and 80th  | 2     | 0      | 12,000 | 25    | 0      | 2.0%   | 1.0%   | 57.4                                | -       | -          | 82        | 258     |
| 7 Roosevelt Way NE            | Between 5th Ave NE and 10th Ave NE | 4     | 0      | 21,100 | 30    | 0      | 2.0%   | 1.0%   | 61.3                                | -       | 64         | 202       | 638     |
| 8 15th Ave NE                 | Between NE 135th St and NE 145th S | 4     | 14     | 21,700 | 25    | 0      | 2.0%   | 1.0%   | 60.0                                | -       | -          | 150       | 473     |

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.

| Project Name:                  | One Seattle Comprehensive Plan | One Seattle Comprehensive Plan          |         |       |  |  |  |  |
|--------------------------------|--------------------------------|---|---------|-------|--|--|--|--|
| Project Number:                | 90074000                       | 90074000                                |         |       |  |  |  |  |
| Scenario:                      | Horizon Year Plus Project      | Horizon Year Plus Project Alternative 3 |         |       |  |  |  |  |
| Ldn/CNEL:                      | CNEL                           | CNEL                                    |         |       |  |  |  |  |
| Assumed 24-Hour Traffic Distri | bution:                        | Day                                     | Evening | Night |  |  |  |  |

| Total ADT Volumes  | 77.70% | 12.70% | 9.60% |
|--------------------|--------|--------|-------|
| Medium-Duty Trucks | 87.43% | 5.05%  | 7.52% |
| Heavy-Duty Trucks  | 89.10% | 2.84%  | 8.06% |

|                               |                                    |       |        |        |       |        | Vehic  | le Mix | Distance from Centerline of Roadway |         |            | way        |         |
|-------------------------------|------------------------------------|-------|--------|--------|-------|--------|--------|--------|-------------------------------------|---------|------------|------------|---------|
|                               |                                    |       | Median | ADT    | Speed | Alpha  | Medium | Heavy  | CNEL at                             |         | Distance t | to Contour |         |
| # Roadway                     | Segment                            | Lanes | Width  | Volume | (mph) | Factor | Trucks | Trucks | 150 Feet                            | 70 CNEL | 65 CNEL    | 60 CNEL    | 55 CNEL |
| 1 Martin Luther King Jr Way S | Between S Jackson St and S Massach | 2     | 0      | 19,300 | 25    | 0      | 2.0%   | 1.0%   | 59.4                                | -       | 42         | 131        | 415     |
| 2 Martin Luther King Jr Way S | Between S Orcas St and S Graham St | 4     | 28     | 25,500 | 25    | 0      | 2.0%   | 1.0%   | 60.7                                | -       | -          | 177        | 561     |
| 3 Harbor Ave SW/Alki Ave SW   | Between SW Admiral Way and Califor | 2     | 14     | 13,700 | 25    | 0      | 2.0%   | 1.0%   | 57.9                                | -       | -          | 93         | 296     |
| 4 Beacon Ave S                | Between S Spokane St and S Columb  | 2     | 14     | 8,000  | 25    | 0      | 2.0%   | 1.0%   | 55.6                                | -       | -          | 55         | 173     |
| 5 34th Ave W                  | Between W Barrett St and W McGraw  | 2     | 0      | 7,000  | 25    | 0      | 2.0%   | 1.0%   | 55.0                                | -       | -          | 48         | 151     |
| 6 Roosevelt Way NE            | Between NE Northgate Way and 80th  | 2     | 0      | 12,400 | 25    | 0      | 2.0%   | 1.0%   | 57.5                                | -       | -          | 84         | 267     |
| 7 Roosevelt Way NE            | Between 5th Ave NE and 10th Ave NE | 4     | 0      | 21,900 | 30    | 0      | 2.0%   | 1.0%   | 61.4                                | -       | 66         | 209        | 662     |
| 8 15th Ave NE                 | Between NE 135th St and NE 145th S | 4     | 14     | 21,700 | 25    | 0      | 2.0%   | 1.0%   | 60.0                                | -       | -          | 150        | 473     |

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.

| One Seattle Comprehensive Plan<br>90074000 |         |             |  |  |  |  |
|--|---------|-------------|--|--|--|--|
| Alternative 5                              |         |             |  |  |  |  |
| Day  | Evening | Night       |  |  |  |  |
|  | Day     | Day Evening |  |  |  |  |

| Total ADT Volumes  | 77.70% | 12.70% | 9.60% |
|--------------------|--------|--------|-------|
| Medium-Duty Trucks | 87.43% | 5.05%  | 7.52% |
| Heavy-Duty Trucks  | 89.10% | 2.84%  | 8.06% |

|                               |                                    |       |        |        |       |        | Vehicle Mix Distance from Centerline of Ro |        |          | e of Road | way        |           |         |
|-------------------------------|------------------------------------|-------|--------|--------|-------|--------|--|--------|----------|-----------|------------|-----------|---------|
|                               |                                    |       | Median | ADT    | Speed | Alpha  | Medium                                     | Heavy  | CNEL at  |           | Distance t | o Contour | •       |
| # Roadway                     | Segment                            | Lanes | Width  | Volume | (mph) | Factor | Trucks                                     | Trucks | 150 Feet | 70 CNEL   | 65 CNEL    | 60 CNEL   | 55 CNEL |
| 1 Martin Luther King Jr Way S | Between S Jackson St and S Massach | 2     | 0      | 19,500 | 25    | 0      | 2.0%                                       | 1.0%   | 59.5     | -         | 42         | 133       | 419     |
| 2 Martin Luther King Jr Way S | Between S Orcas St and S Graham St | 4     | 28     | 25,900 | 25    | 0      | 2.0%                                       | 1.0%   | 60.8     | -         | -          | 180       | 570     |
| 3 Harbor Ave SW/Alki Ave SW   | Between SW Admiral Way and Califor | 2     | 14     | 13,900 | 25    | 0      | 2.0%                                       | 1.0%   | 58.0     | -         | -          | 95        | 300     |
| 4 Beacon Ave S                | Between S Spokane St and S Columb  | 2     | 14     | 8,400  | 25    | 0      | 2.0%                                       | 1.0%   | 55.8     | -         | -          | 57        | 181     |
| 5 34th Ave W                  | Between W Barrett St and W McGraw  | 2     | 0      | 7,000  | 25    | 0      | 2.0%                                       | 1.0%   | 55.0     | -         | -          | 48        | 151     |
| 6 Roosevelt Way NE            | Between NE Northgate Way and 80th  | 2     | 0      | 12,500 | 25    | 0      | 2.0%                                       | 1.0%   | 57.5     | -         | -          | 85        | 269     |
| 7 Roosevelt Way NE            | Between 5th Ave NE and 10th Ave NE | 4     | 0      | 22,200 | 30    | 0      | 2.0%                                       | 1.0%   | 61.5     | -         | 67         | 212       | 671     |
| 8 15th Ave NE                 | Between NE 135th St and NE 145th S | 4     | 14     | 22,600 | 25    | 0      | 2.0%                                       | 1.0%   | 60.2     | -         | -          | 156       | 493     |

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.

### **G** Land Use Appendices

- G.1 Land Use Existing Conditions Tables
- G.2 Updating Seattle's Neighborhood Residential Zones

### G.1 Land Use Existing Conditions Tables

#### App Exhibit G.1-1. Generalized Zoning Categories

| Zoning Designation   | Description   |
|--|---|
| Neighborhood<br>Residential 1, 2, and 3<br>NR1, NR2, and NR3 | Areas characterized by houses, also known as detached single-family dwelling units, on lots of a compatible scale and character. The NR1, NR2, and NR3 zone designations correspond to the minimum lot size required for each single-family dwelling unit (9,600 sf, 7,200 sf, and 5,000 sf respectively). Allowed housing types include one detached house per lot, with up to two attached ADUs within the same structure or up to one attached ADU and one detached ADU.   |
| <b>Neighborhood</b><br><b>Residential Small Lot</b><br>RSL   | Areas allow for the development of one or more dwelling units in small-scale structures<br>on lots in urban villages. RSL allows for a broader range of housing types through new<br>development and conversion of existing single-family houses into multiple dwelling<br>units. Allowed housing types include detached dwelling units, apartments, carriage<br>houses, cottage housing developments, rowhouse developments, and townhouse<br>developments. Each principal unit may have one attached or detached ADU. Lots can<br>have attached or stacked principal dwelling units, which is not allowed in NR zones.  |
| <b>Lowrise Multifamily</b><br>LR1, LR2, and LR3              | Lowrise 1 (LR1): Areas characterized by low-density, small-scale multi-family housing types similar in character to single family zones. Most appropriate outside of Growth Areas. <sup>1</sup><br>Lowrise 2 (LR2): Areas characterized by multifamily housing types in existing small-scale multi-family neighborhoods with arterial streets. Most appropriate within Growth Areas. <sup>1</sup><br>Lowrise 3 (LR3): Areas characterized by multifamily housing types in existing moderate-scale neighborhoods with good transit service along arterial street and near commercial zones. Most appropriate within Growth Areas. <sup>1</sup><br>ADUs are allowed with single-family dwelling units, rowhouses, and townhouses in LR zones, subject to specific development standards per 23.45.545.I. ADUs do not count towards the density limit. |
| <b>Midrise Multifamily</b><br>MR                             | Areas that allow denser housing up to eight stories in urban villages and urban centers.<br>Development standards for midrise multifamily zones emphasize residential character<br>and allow for scale and building types that differ from those in less intensive residential<br>areas to accommodate a greater density of development to support nearby businesses.<br>Street-level commercial uses are allowed in midrise zones to allow residents greater<br>access to services and to promote an active street environment without detracting from<br>the overall residential character desired for high-density neighborhoods.  |
| Highrise Multifamily<br>HR                                   | Highrise multifamily zoning designations apply only in urban centers, where the mix of activities offers convenient access to regional transit and to a full range of residential services and amenities, as well as to jobs. Street-level commercial uses are allowed in   |

| Zoning Designation  | Description   |
|---|---|
|   | nighrise neighborhoods to allow residents greater access to services and to promote an active street environment without detracting from the overall residential character desired for high-density neighborhoods.  |
| Seattle Mixed<br>SM   | The Seattle Mixed zone provides for a wide range of uses to encourage mixed-use neighborhoods.  |
| <b>Neighborhood<br/>Commercial</b><br>NC1, NC2, and NC3       | Neighborhood Commercial 1 (NC1): Small-scale shopping areas that provide<br>convenience retail sales and services to the surrounding residential neighborhood.<br>Characterized by an attractive pedestrian environment, small businesses and lot sizes,<br>and limited transit service.  |
|   | Neighborhood Commercial 2 (NC2): Moderately-sized pedestrian-oriented shopping<br>areas that provide a range of goods and services to the surrounding neighborhoods.<br>Compatible uses include housing and offices. Characterized by an attractive pedestrian<br>environment, medium businesses and lot sizes, and moderate transit service.   |
|   | Neighborhood Commercial 3 (NC3): Larger pedestrian-oriented shopping districts that provide a wide range of goods and services to the surrounding neighborhood and a larger community or region. Compatible uses include housing, offices, and business support services. Characterized by intense pedestrian activity, varied business and lot sizes, and good transit service.  |
|   | Pedestrian-Designated Zones (P): The P designation is a suffix applied to NC zones<br>along pedestrian-oriented commercial streets. Areas are characterized by intense<br>pedestrian activity, uninterrupted commercial frontage, many businesses per block,<br>and excellent transit service. Access for pedestrians, bicyclists, and transit is favored<br>over the automobile.   |
| <b>Commercial</b><br>C1 and C2                                | Commercial 1 (C1): Auto-oriented commercial areas that provide a range of retail and<br>services to the surrounding neighborhoods and the larger community or region.<br>Characterized by large parcels that favor automobile access over pedestrians and<br>transit.   |
|   | Commercial 2 (C2): Auto-oriented commercial areas that provide a range of non-retail<br>businesses to the larger community or region. Compatible uses include manufacturing<br>and warehousing. Characterized by larger parcels that favor automobile access over<br>pedestrian and transit, which may be adjacent to industrial zones.   |
| <b>Downtown</b><br>DH1, DH2, DMC, DMR,<br>DOC1, DOC2, and DRC | Downtown Harborfront (DH1 and DH2): Applies to waterfront lots and adjacent harbor<br>areas within the Urban Harborfront Shoreline Environment or partially within a<br>shoreline environment. Allowed uses include economically viable marines uses that<br>meet the needs of waterborne commerce and opportunities for public access and<br>recreation.   |
|   | Downtown Mixed Commercial (DMC): Areas adjacent to the office core, office<br>expansions areas, and retail core that provide a transition in the level of activity and<br>scale of development. Permitted uses include office and commercial (though at a lower<br>density than the DOC areas) and housing and other uses generating activity without<br>substantially contributing to peak-hour traffic. The DMC encourages a diversity of<br>development compatible with adjacent areas through a range of height limits. |
|   | Downtown Mixed Residential (DMR): Areas outside special review districts identified<br>for development of a predominantly residential community. Nonresidential uses are<br>allowed that reinforce but don't detract from the primary function of the area. Multiple<br>height, mix of use, and density classifications are allowed to promote a diversity and<br>harmony with existing development.  |
|   | Downtown Office Core (DOC1 and DOC2): The most concentrated areas of office activity<br>and areas adjacent to those core office areas where a transition to mixed-use areas is  |

| Zoning Designation   | Description   |
|--|---|
|  | desired. I nese areas are intended to accommodate a large snare of Downtown's future<br>employment growth in addition to other complementary uses (such as housing, retail,<br>hotels, and cultural and entertainment facilities).  |
|  | Downtown Retail Core (DRC): Area containing the major department stores and with<br>the greatest concentration of Downtown's retail activity. This area should be the<br>principal center of shopping for both Downtown and the region. Other uses are allowed<br>provided they augment but do not detract from this primary function.  |
| <b>Pike Market Mixed</b><br>PMM  | The PMM zone applies to Pike Place Market, recognizes and preserve the unique character, scale, and function of the Market and its surroundings, and allows development of a compatible mix of uses.  |
| <b>Pioneer Square<br/>Mixed</b><br>PSM   | Applies to areas within the Pioneer Square Preservation District (see also Special Review Districts in <b>App Exhibit G.1-2</b> ). The PSM zone recognizes the historic nature of the area and encourages mixed-use development compatible in use and scale with existing development in Pioneer Square.  |
| <b>International District</b><br><b>Mixed and</b><br><b>Residential</b><br>IDM and IDR | Applies to areas within the International Special Review District (see also Special Review Districts in <b>App Exhibit G.1-2</b> ). The IDM zone applies to areas of the Special Review District identified for mixed-use development, recognizes the area's unique social character, mix of use, and urban design character, and encourages a wide range of uses, housing above the street-level, and the rehabilitation of existing buildings. The IDR zone applies to areas of the Special Review District identified for residential development and maintains the areas primarily for residential use with compatible supporting uses.   |
| <b>Industrial</b><br>MML, II, UI, IC   | Maritime Manufacturing and Logistics (MML): The MML zone is intended to provide<br>long term predictability to landowners, business owners and investors that the area<br>will remain an industrial area.<br>Industry and Innovation (II): The purpose of the II zone is to create a transit-oriented<br>area characterized by modern industrial buildings that supports a mix of economic<br>innovation and emerging industries, and commercial development with high<br>employment density.<br>Urban Industrial (UI): The purpose of the Urban Industrial (UI) zone is to foster vibrant<br>districts that support a mix of local manufacturing, production, arts, and a sense of<br>place.<br>Industrial Commercial (IC): The purpose of the Industrial Commercial zone is to<br>promote development of businesses which incorporate a mix of industrial and<br>commercial activities including light manufacturing and research and development<br>while accommodating a wide range of other employment activities. |

1 Growth Areas include urban centers, urban villages, and station area overlay districts. Sources: Seattle 2035, as amended through 2021; <u>SMC Title 23</u>, 2022; Seattle Industrial and Maritime Strategy Final EIS, 2022; BERK, 2023.

| District                                       | Purpose  |
|--|--|
| Shoreline Districts                            | The Shoreline District, or Shoreline Master Program, regulates development of the shorelines in Seattle to protect the ecosystems of the shoreline areas, encourage water-dependent uses; provide for maximum public use and enjoyment of the shorelines of the city, and preserve, enhance, and increase views of the water and access to the water.  |
| Station Area<br>Overlay District               | The Station Area Overlay District regulates land use and development in a manner that supports transit-oriented development near light rail stations.  |
| Airport Height<br>Overlay District             | The purpose of the Airport Height Overlay District is to ensure safe and unobstructed takeoff and landing approach paths to King County International Airport (Boeing Field).  |
| Special Review<br>Districts                    | Council can establish by ordinance special review districts that may include use and development standards to control development. Two special review districts—the Pioneer Square Preservation District and the International Special Review District—are currently designated.   |
| Southeast Seattle<br>Reinvestment Area         | The intent of this area is to promote community revitalization and investment, and to encourage development which supports business activity and provides employment opportunities and needed services to the residents of Southeast Seattle.  |
| Major Institution<br>Overlay District          | Major Institution Overlay Districts regulate Seattle's major educational and medical institutions in a way that balances the needs of the institution with the needs of adjacent communities and neighborhoods. Unique zoning rules are developed for each major institution through the adoption of a Major Institution Master Plan (MIMP) that identifies a boundary (MIOD) within which the revised rules apply and identifies the specific rules that will apply to development within this boundary. MIMPs and corresponding MIODs have been established for thirteen major medical and educational institutions in Seattle.  |
| Northgate Overlay<br>District                  | The purpose of this district is to create an environment in the Northgate Area that is more amenable to pedestrians and supportive of commercial development, protect the residential character of residential neighborhoods, and support the use of Northgate as a regional high-capacity transportation center.  |
| Sand Point Overlay<br>District                 | The purpose of this district is to integrate Sand Point into the city as a multi-purpose regional center that provides expanded opportunity for recreation, education, arts, cultural and community activities; increased public access to the shoreline and enhanced open space and natural areas; opportunities for affordable housing and community and social services with a special priority for addressing the needs of homeless families; and expanded opportunity for low-impact economic development uses which could provide employment and services for residents of the property and for the broader community.   |
| Pike/Pine<br>Conservation<br>Overlay District  | The Pike/Pine Overlay District is intended to preserve and enhance the balance of residential and commercial uses in the area by encouraging residential development and development that combines residential and non-residential uses, while also providing additional opportunities for commercial development to balance the substantial amount of residential development. The overlay is also intended to promote the conservation of Pike/Pine's existing historic character by limiting new development to a scale that is compatible with the established development pattern, accommodating arts facilities and small businesses at street level, and encouraging the retention of the existing structures and their architectural features that establish the District's architectural character. |
| Stadium Transition<br>Area Overlay<br>District | The STAOD centers on large sports facilities and allows uses complementary to them. It is intended to contribute to a safer pedestrian environment for those attending events and permits a mix of uses, supporting the pedestrian-oriented character of the area as well as the surrounding industrial zone, while minimizing conflicts with industrial uses. Use   |

#### App Exhibit G.1-2. Overlay Districts

| District                             | Purpose   |
|--------------------------------------|---|
| 21AOD                                | provisions and development standards are designed to create a pedestrian connection<br>with downtown; discourage encroachment on nearby industrial uses to the south; and<br>create a pedestrian-friendly streetscape. Allowing a mix of uses, including office<br>development, is intended to encourage redevelopment and to maintain the health and<br>vibrancy of the area during times when the sports facilities are not in operation. |
| Master Planned<br>Communities<br>MPC | An MPC zone designation is intended to support highly coordinated infill development<br>with a higher level of environmental sustainability, affordable housing, and publicly<br>accessible open space than is typically provided through conventional lot-by-lot<br>development by allowing greater flexibility in the application of zoning and development<br>requirements   |

Sources: <u>SMC Title 23</u>, 2022; BERK, 2023.

| Future Land Llas                           |                      |                      |                      | EIS Anal             | ysis Area            |                      |                      |                      |                       |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|
| Designation                                | 1                    | 2                    | 3                    | 4                    | 5                    | 6                    | 7                    | 8                    | Citywide              |
| Urban Center                               | 1 ac.<br>(0.0%)      | 1,148 ac.<br>(10.5%) | 334 ac.<br>(5.0%)    | 1,346 ac.<br>(74.8%) | 895 ac.<br>(17.4%)   | _                    | 3 ac.<br>(0.0%)      | _                    | 3,726 ac.<br>(6.4%)   |
| Hub Urban Village                          | 1,080 ac.<br>(10.4%) | 138 ac.<br>(1.3%)    | _                    | _                    | _                    | 269 ac.<br>(2.9%)    | _                    | 447 ac.<br>(5.4%)    | 1,934 ac.<br>(3.3%)   |
| Residential Urban<br>Village               | 1,042 ac.<br>(10.0%) | 170 ac.<br>(1.6%)    | 53 ac.<br>(0.8%)     | 260 ac.<br>(14.4%)   | 697 ac.<br>(13.5%)   | 474 ac.<br>(5.1%)    | 254 ac.<br>(4.4%)    | 1,414 ac.<br>(17.2%) | 4,362 ac.<br>(7.5%)   |
| Manufacturing<br>Industrial Center         | 1 ac.<br>(0.0%)      |                      | 1,243 ac.<br>(18.7%) | 1 ac.<br>(0.1%)      |                      | 2 ac.<br>(0.0%)      | 5,130 ac.<br>(91.5%) | _                    | 6,426 ac.<br>(11.1%)  |
| Neighborhood<br>Residential Areas          | 6,095 ac.<br>(58.7%) | 7,433 ac.<br>(68.3%) | 3,135 ac.<br>(47.1%) | 7 ac.<br>(0.4%)      | 2,493 ac.<br>(48.4%) | 5,844 ac.<br>(63.3%) | 36 ac.<br>(0.6%)     | 4,768 ac.<br>(58.0%) | 29,810 ac.<br>(51.5%) |
| Multi-Family<br>Residential Areas          | 456 ac.<br>(4.4%)    | 423 ac.<br>(3.9%)    | 579 ac.<br>(8.7%)    | 49 ac.<br>(2.7%)     | 358 ac.<br>(6.9%)    | 859 ac.<br>(9.3%)    | 26 ac.<br>(0.5%)     | 194 ac.<br>(2.4%)    | 2,945 ac.<br>(5.1%)   |
| Commercial / Mixed<br>Use Areas            | 510 ac.<br>(4.9%)    | 292 ac.<br>(2.7%)    | 325 ac.<br>(4.9%)    | 84 ac.<br>(4.7%)     | 68 ac.<br>(1.3%)     | 321 ac.<br>(3.5%)    | 101 ac.<br>(1.8%)    | 147 ac.<br>(1.8%)    | 1,849 ac.<br>(3.2%)   |
| Industrial Areas                           | _                    |                      | 10 ac.<br>(0.2%)     | _                    | _                    |                      | _                    | 18 ac.<br>(0.2%)     | 10 ac.<br>(0.0%)      |
| Major Institutions                         | 75 ac.<br>(0.7%)     | 396 ac.<br>(3.6%)    | 66 ac.<br>(1.0%)     | _                    | 18 ac.<br>(0.3%)     | 92 ac.<br>(1.0%)     | _                    | 37 ac.<br>(0.4%)     | 683 ac.<br>(1.2%)     |
| Cemetery                                   | 156 ac.<br>(1.5%)    | 46 ac.<br>(0.4%)     | 28 ac.<br>(0.4%)     | _                    | 38 ac.<br>(0.7%)     | 15 ac.<br>(0.2%)     | —                    | _                    | 284 ac.<br>(0.5%)     |
| City-Owned Open Space                      | 964 ac.<br>(9.3%)    | 834 ac.<br>(7.7%)    | 876 ac.<br>(13.2%)   | 51 ac.<br>(2.8%)     | 588 ac.<br>(11.4%)   | 1,352 ac.<br>(14.6%) | 55 ac.<br>(1.0%)     | 1,207 ac.<br>(14.7%) | 5,927 ac.<br>(10.2%)  |
| Total Acres & Percent<br>of Citywide Total | 10,381 ac.<br>(18%)  | 10,879 ac.<br>(19%)  | 6,649 ac.<br>(11%)   | 1,799 ac.<br>(3%)    | 5,154 ac.<br>(9%)    | 9,228 ac.<br>(16%)   | 5,606 ac.<br>(10%)   | 8,214 ac.<br>(14%)   | 57,908 ac.<br>(100%)  |

#### App Exhibit G.1-3. Future Land Use Designations—Acres Citywide and by EIS Analysis Area

Sources: City of Seattle, October 2023; BERK, 2023.

|  |                      |                      |                      | EIS Ana            | lysis Area           |                      |                      |                      |                       |
|--|----------------------|----------------------|----------------------|--------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|
| Generalized Zoning                         | 1                    | 2                    | 3                    | 4                  | 5                    | 6                    | 7                    | 8                    | Citywide              |
| Neighborhood<br>Residential                | 7,079 ac.<br>(68.2%) | 8,294 ac.<br>(76.1%) | 3,963 ac.<br>(59.6%) | 25 ac.<br>(1.4%)   | 3,048 ac.<br>(59.1%) | 7,032 ac.<br>(76.2%) | 37 ac.<br>(0.7%)     | 5,885 ac.<br>(71.6%) | 35,364 ac.<br>(61.0%) |
| Residential Small Lot                      | 222 ac.<br>(2.1%)    | 32 ac.<br>(0.3%)     | _                    | _                  | 154 ac.<br>(3.0%)    | 202 ac.<br>(2.2%)    | 209 ac.<br>(3.7%)    | 542 ac.<br>(6.6%)    | 1,361 ac.<br>(2.3%)   |
| Lowrise Multifamily                        | 1,435 ac.<br>(13.8%) | 717 ac.<br>(6.6%)    | 602 ac.<br>(9.1%)    | 141 ac.<br>(7.8%)  | 954 ac.<br>(18.5%)   | 1,094 ac.<br>(11.9%) | 55 ac.<br>(1.0%)     | 1,031 ac.<br>(12.6%) | 6,030 ac.<br>(10.4%)  |
| Midrise Multifamily                        | 38 ac.<br>(0.4%)     | 133 ac.<br>(1.2%)    | 51 ac.<br>(0.8%)     | 27 ac.<br>(1.5%)   | 184 ac.<br>(3.6%)    | 198 ac.<br>(2.1%)    | _                    | 24 ac.<br>(0.3%)     | 655 ac.<br>(1.1%)     |
| Highrise Multifamily                       | _                    |                      | _                    | _                  | 96 ac.<br>(1.9%)     | _                    | _                    | _                    | 96 ac.<br>(0.2%)      |
| Seattle Mixed                              |                      | 125 ac.<br>(1.1%)    | 281 ac.<br>(4.2%)    | 304 ac.<br>(16.9%) |                      | _                    |                      | 76 ac.<br>(0.9%)     | 785 ac.<br>(1.4%)     |
| Neighborhood<br>Commercial                 | 708 ac.<br>(6.8%)    | 676 ac.<br>(6.2%)    | 97 ac.<br>(1.5%)     | 50 ac.<br>(2.8%)   | 483 ac.<br>(9.4%)    | 411 ac.<br>(4.4%)    | 70 ac.<br>(1.2%)     | 477 ac.<br>(5.8%)    | 2,971 ac.<br>(5.1%)   |
| Commercial                                 | 596 ac.<br>(5.7%)    | 97 ac.<br>(0.9%)     | 250 ac.<br>(3.8%)    | 188 ac.<br>(10.5%) | 19 ac.<br>(0.4%)     | 199 ac.<br>(2.2%)    | 69 ac.<br>(1.2%)     | 144 ac.<br>(1.7%)    | 1,561 ac.<br>(2.7%)   |
| Downtown                                   |                      |                      |                      | 739 ac.<br>(41.1%) |                      | _                    |                      |                      | 739 ac.<br>(1.3%)     |
| Pike Market                                |                      | _                    | _                    | 25 ac.<br>(1.4%)   | _                    | _                    | _                    | _                    | 25 ac.<br>(0.0%)      |
| Pioneer Square                             | _                    |                      | _                    | 102 ac.<br>(5.7%)  | _                    | _                    | 3 ac. (0.0%)         | _                    | 105 ac.<br>(0.2%)     |
| International District                     |                      |                      | _                    | 102 ac.<br>(5.7%)  |                      | _                    | _                    | _                    | 103 ac.<br>(0.2%)     |
| Industrial                                 | 217 ac.<br>(2.1%)    | 13 ac.<br>(0.1%)     | 1,338 ac.<br>(20.1%) | 93 ac.<br>(5.2%)   | 5 ac. (0.1%)         | 2 ac. (0.0%)         | 5,171 ac.<br>(92.1%) |                      | 6,838 ac.<br>(11.8%)  |
| Major Institution<br>Overlay               | 85 ac.<br>(0.8%)     | 809 ac.<br>(7.4%)    | 66 ac.<br>(1.0%)     |                    | 171 ac.<br>(3.3%)    | 92 ac.<br>(1.0%)     |                      | 37 ac.<br>(0.4%)     | 1,259 ac.<br>(2.2%)   |
| Master Planned<br>Community                |                      |                      |                      | 3 ac.<br>(0.2%)    | 40 ac.<br>(0.8%)     |                      |                      |                      | 43 ac.<br>(0.1%)      |
| Total Acres & Percent<br>of Citywide Total | 10,379 ac.<br>(18%)  | 10,896 ac.<br>(19%)  | 6,649 ac.<br>(11%)   | 1,799 ac.<br>(3%)  | 5,153 ac.<br>(9%)    | 9,229 ac.<br>(16%)   | 5,613 ac.<br>(10%)   | 8,217 ac.<br>(14%)   | 57,934 ac.<br>(100%)  |

#### App Exhibit G.1-4. Generalized Zoning—Acres Citywide and by EIS Analysis Area

Sources: City of Seattle, October 2023; BERK, 2023.

App Exhibit G.1-5. Shoreline Environment Designations—Acres Citywide and by EIS Analysis Area

|  | EIS Analysis Area  |                    |                    |                    |                    |                    |                      |                    |                      |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|--------------------|----------------------|
| Shoreline Designation                      | 1                  | 2                  | 3                  | 4                  | 5                  | 6                  | 7                    | 8                  | Citywide             |
| Conservancy<br>Management                  | 339 ac.<br>(32.4%) | 80 ac.<br>(10.5%)  | 168 ac.<br>(9.5%)  | 5 ac.<br>(1.2%)    | 61 ac.<br>(11.9%)  | 44 ac.<br>(4.0%)   | 1 ac. (0.1%)         | 57 ac.<br>(8.4%)   | 754 ac.<br>(10.1%)   |
| Conservancy Navigation                     | 82 ac.<br>(7.9%)   | 3 ac.<br>(0.4%)    | 140 ac.<br>(7.9%)  | 3 ac.<br>(0.9%)    | 2 ac.<br>(0.4%)    | 0.2 ac.<br>(0.0%)  | 0.2 ac.<br>(0.0%)    | 2 ac. (0.4%)       | 234 ac.<br>(3.1%)    |
| Conservancy<br>Preservation                | 150 ac.<br>(14.3%) | 199 ac.<br>(26.1%) | 615 ac.<br>(34.7%) | _                  | 160 ac.<br>(31.2%) | 337 ac.<br>(30.6%) | 58 ac.<br>(4.9%)     | 112 ac.<br>(16.5%) | 1,632 ac.<br>(21.9%) |
| Conservancy Recreation                     | 132 ac.<br>(12.7%) | 293 ac.<br>(38.5%) | 336 ac.<br>(19.0%) | 6 ac.<br>(1.5%)    | 164 ac.<br>(31.9%) | 548 ac.<br>(49.7%) | 12 ac.<br>(1.0%)     | 402 ac.<br>(59.3%) | 1,894 ac.<br>(25.4%) |
| Conservancy Waterway                       | 13 ac.<br>(1.3%)   | 1 ac.<br>(0.1%)    |                    | 22 ac.<br>(5.7%)   |                    |                    | _                    | _                  | 36 ac.<br>(0.5%)     |
| Urban Commercial                           | 182 ac.<br>(17.4%) | 32 ac.<br>(4.1%)   | —                  | 160 ac.<br>(41.0%) | 3 ac.<br>(0.6%)    | 11 ac.<br>(1.0%)   | —                    | 8 ac.<br>(1.1%)    | 395 ac.<br>(5.3%)    |
| Urban General                              | 20 ac.<br>(1.9%)   | _                  | 21 ac.<br>(1.2%)   | 0.3 ac.<br>(0.1%)  | —                  | —                  | 4 ac. (0.3%)         | _                  | 44 ac.<br>(0.6%)     |
| Urban Harborfront                          | —                  | —                  | —                  | 130 ac.<br>(33.3%) | —                  | —                  | —                    | —                  | 130 ac.<br>(1.7%)    |
| Urban Maritime                             | 56 ac.<br>(5.3%)   | 3 ac.<br>(0.4%)    | 97 ac.<br>(5.5%)   | 35 ac.<br>(9.0%)   | _                  | _                  | _                    | _                  | 191 ac.<br>(2.6%)    |
| Urban Residential                          | 70 ac.<br>(6.7%)   | 151 ac.<br>(19.8%) | 86 ac.<br>(4.8%)   | 28 ac.<br>(7.3%)   | 123 ac.<br>(23.9%) | 162 ac.<br>(14.7%) |                      | 97 ac.<br>(14.3%)  | 716 ac.<br>(9.6%)    |
| Urban Industrial                           | 2 ac.<br>(0.2%)    |                    | 309 ac.<br>(17.4%) | 0.2 ac.<br>(0.1%)  |                    | 0.1 ac.<br>(0.0%)  | 1,110 ac.<br>(93.7%) |                    | 1,421 ac.<br>(19.1%) |
| Total Acres & Percent<br>of Citywide Total | 1,045 ac.<br>(14%) | 761 ac.<br>(10%)   | 1,772 ac.<br>(24%) | 390 ac.<br>(5%)    | 513 ac.<br>(7%)    | 1,102 ac.<br>(15%) | 1,185 ac.<br>(16%)   | 678 ac.<br>(9%)    | 7,447 ac.<br>(100%)  |

Sources: City of Seattle, 2022; BERK, 2023.

#### App Exhibit G.1-6. Current Land Use—Acres Citywide and by EIS Analysis Area

|                            | EIS Analysis Area |           |           |           |           |           |           |           |            |
|----------------------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Current Use Category       | 1                 | 2         | 3         | 4         | 5         | 6         | 7         | 8         | Citywide   |
| Commercial / Mixed-Use     | 653 ac.           | 537 ac.   | 536 ac.   | 642 ac.   | 260 ac.   | 214 ac.   | 296 ac.   | 222 ac.   | 3,360 ac.  |
|                            | (9.1%)            | (6.6%)    | (13.1%)   | (62.1%)   | (7.8%)    | (3.3%)    | (7.3%)    | (3.9%)    | (8.4%)     |
| Industrial                 | 107 ac.           | 33 ac.    | 203 ac.   | 35 ac.    | 15 ac.    | 22 ac.    | 1,513 ac. | 78 ac.    | 2,007 ac.  |
|                            | (1.5%)            | (0.4%)    | (5.0%)    | (3.4%)    | (0.4%)    | (0.3%)    | (37.3%)   | (1.4%)    | (5.0%)     |
| Multi-Family               | 842 ac.           | 570 ac.   | 389 ac.   | 154 ac.   | 615 ac.   | 482 ac.   | 37 ac.    | 394 ac.   | 3,483 ac.  |
|                            | (11.8%)           | (7.0%)    | (9.5%)    | (14.9%)   | (18.4%)   | (7.5%)    | (0.9%)    | (7.0%)    | (8.7%)     |
| Single Family              | 4,099 ac.         | 4,736 ac. | 1,440 ac. | 33 ac.    | 1,515 ac. | 3,788 ac. | 148 ac.   | 3,247 ac. | 19,005 ac. |
|                            | (57.3%)           | (58.6%)   | (35.3%)   | (3.2%)    | (45.5%)   | (59.1%)   | (3.7%)    | (57.4%)   | (47.7%)    |
| Major Institution & Public | 338 ac.           | 1,025 ac. | 500 ac.   | 89 ac.    | 217 ac.   | 298 ac.   | 1,436 ac. | 335 ac.   | 4,240 ac.  |
| Facilities / Utilities     | (4.7%)            | (12.7%)   | (12.3%)   | (8.6%)    | (6.5%)    | (4.6%)    | (35.4%)   | (5.9%)    | (10.7%)    |
| Parks / Open Space /       | 765 ac.           | 1,016 ac. | 827 ac.   | 42 ac.    | 604 ac.   | 1,206 ac. | 51 ac.    | 960 ac.   | 5,471 ac.  |
| Cemeteries                 | (10.7%)           | (12.6%)   | (20.3%)   | (4.1%)    | (18.1%)   | (18.8%)   | (1.2%)    | (17.0%)   | (13.7%)    |
| Vacant                     | 324 ac.           | 145 ac.   | 172 ac.   | 36 ac.    | 88 ac.    | 368 ac.   | 559 ac.   | 401 ac.   | 2,094 ac.  |
|                            | (4.5%)            | (1.8%)    | (4.2%)    | (3.5%)    | (2.6%)    | (5.7%)    | (13.8%)   | (7.1%)    | (5.3%)     |
| Easement / Unclassified    | 22 ac.            | 25 ac.    | 8 ac.     | 3 ac.     | 17 ac.    | 32 ac.    | 16 ac.    | 19 ac.    | 143 ac.    |
|                            | (0.3%)            | (0.3%)    | (0.2%)    | (0.3%)    | (0.5%)    | (0.5%)    | (0.4%)    | (0.3%)    | (0.4%)     |
| Total Acres & Percent of   | 7,151 ac.         | 8,087 ac. | 4,075 ac. | 1,033 ac. | 3,332 ac. | 6,411 ac. | 4,056 ac. | 5,656 ac. | 39,802 ac. |
| Citywide Total             | (18%)             | (20%)     | (10%)     | (3%)      | (8%)      | (16%)     | (10%)     | (14%)     | (100%)     |

Sources: City of Seattle, 2022; BERK, 2023.

### **March 2024**









## Updating Seattle's Neighborhood Residential zones

A proposal to increase housing choice and fulfill requirements of House Bill 1110



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# Introduction

### Purpose

This report describes an initial proposal for updating Seattle's Neighborhood Residential zoning, including visualizations of potential outcomes. Neighborhood Residential represents Seattle's lowest-density residential zoning and consists primarily of detached homes.

New Neighborhood Residential zoning is one part of the City's effort to update our Comprehensive Plan, which guides how our city grows and makes investments. The Plan guides City decisions about where we locate housing and the types of housing allowed in different areas of the city. Our updated Plan, called the One Seattle Plan, will address challenges new and old: racial disparities, increasing housing costs, access to economic opportunity and education, climate change, and more. To address these issues, it will be critical to identify ways to increase the supply, diversity, and affordability of housing and ensure all neighborhoods are accessible to households with a diverse range of incomes and housing needs. Updating our Neighborhood Residential zones, which represent the majority of Seattle, is necessary to ensure that we address this need.

Updating our Neighborhood Residential zones is also required under new state law. Passed in 2023, House Bill 1110 (HB 1110) requires cities across the state to allow a greater quantity and variety of housing in areas currently reserved for detached homes. HB 1110 also provides flexibility to apply a different approach in areas with high displacement risk. Seattle's Neighborhood Residential zones play an important role by providing opportunities for households to own homes with multiple bedrooms and direct access to outdoor space on relatively calm streets. But these neighborhoods are not accessible to everyone.

Historically, many Seattle neighborhoods had racially restrictive covenants that explicitly prohibited people of color from occupying or owning property. Though ruled legally unenforceable in 1948, these covenants cemented a pattern of racial segregation and exclusion that Seattle's restrictive zoning has sustained over time. Today, the high cost of housing, especially in areas with Neighborhood Residential zoning, continues to limit who can access these neighborhoods and worsens affordability in Seattle overall. The median sales price of a detached home now exceeds \$1 million. Rising housing prices force people to move away from communities they love and make many neighborhoods with access to large parks and schools accessible only to high-income households.

As we envision how Neighborhood Residential zones should grow and evolve, we aim to sustain the positive aspects of these places while ensuring more people can benefit from living there.

More information on the One Seattle Plan including an overview of the proposed overall growth strategy and opportunities to participate in public engagement, are available at the One Seattle Plan website.

### A new growth strategy for Seattle

Today, more than two-thirds of the city is zoned Neighborhood Residential, excluding parks and industrial areas. In the One Seattle Plan, the substantial majority of these areas would remain in Neighborhood Residential zoning. Some other areas near transit, shops, and services would change to a different zone.

The One Seattle Plan proposes several changes to Seattle's current growth strategy, which focuses jobs and housing in Urban Centers and Urban Villages. The Plan proposes to rename these areas Regional Centers and Urban Centers, respectively, and to expand several of these existing growth centers. The Plan also creates a new designation called Neighborhood Centers near high-capacity transit and existing neighborhood business districts. In these new and expanded centers, areas currently zoned Neighborhood Residential would be changed to other zones (like Lowrise Multifamily) where development of larger buildings could occur. Our existing centers also contain areas currently zoned Residential Small Lot (RSL). Development standards in RSL zones differ from other Neighborhood Residential zones. We propose to remove RSL as a zoning category. Areas currently zoned RSL with low risk of displacement or within a half mile of a light rail station would be rezoned to Lowrise 1 (LR1), a multifamily zone that allows a similar number of units but more floor area. Areas zoned RSL located elsewhere would be rezoned to one of the updated Neighborhood Residential zones.

The maps below show the current extent of Neighborhood Residential zoning and our initial proposal for areas that would be rezoned to other zones.

The remainder of this document summarizes the types of development likely to occur in areas that would remain in Neighborhood Residential zoning.



### Goals for updating Neighborhood Residential zoning

The City has undertaken a substantial amount of public engagement on housing in recent years. Prior to the One Seattle Plan, our Housing Choices initiative explored the types of housing people wanted to see more of through surveys, focus groups, and other discussions. A summary of feedback is available on our project website. During the initial phases of the One Seattle Plan, we hosted in-person and online discussions to inform the creation of the draft plan and the Neighborhood Residential concepts shown in this document. A summary of this process and feedback is available on the <u>One Seattle Plan website</u>. Many comments received during these efforts reflect what people want for Seattle and the broader region, while other comments addressed the unique role of Neighborhood Residential zones.

Based on this input, we developed the following goals that represent specific outcomes updated Neighborhood Residential zones should achieve.

#### **Citywide goals**

As part of a new Growth Strategy, updated Neighborhood Residential zones should:

- Increase the supply of housing to ease increasing housing prices caused by competition for limited supply
- Increase diversity of housing options in neighborhoods throughout Seattle to address exclusion and so more people can live and stay in the neighborhoods they love
- Allow more affordable rental and ownership types in neighborhoods throughout Seattle
- Create more opportunities for income-restricted affordable housing, especially permanently affordable homes
- Reduce residential displacement and support existing residents, particularly lowincome households, who are struggling to stay in their neighborhood as it grows
- Address past and ongoing harms from housing discrimination, racial disparities, and exclusionary zoning
- Create more complete, walkable neighborhoods throughout the city where more people can walk or bike to everyday destinations such as local shops, parks, transit, cultural amenities, and services
- · Comply with new state rules about housing

#### **Zone-specific goals**

We should develop updated Neighborhood Residential zones that specifically:

- Create more opportunities for smaller, lower-cost homes
- Increase the feasibility of incomerestricted affordable housing
- Discourage one-for-one replacement of existing homes, which reduces the number of smaller homes without increasing housing choices
- Create opportunities for groundrelated open space and trees
- Create **well-designed buildings** compatible with the existing urban fabric

# Existing rules in Neighborhood Residential zones

Today, Seattle has four Neighborhood Residential zones: Neighborhood Residential 1 (NR1), Neighborhood Residential 2 (NR2), Neighborhood Residential 3 (NR3), and Residential Small Lot (RSL).

In **NR1, NR2, and NR3 zones,** one principal dwelling unit is allowed per lot, and new lots can be created only if they meet a minimum lot size. For example, in NR3, a 7,000-square-foot site can have only one principal unit because it cannot be divided into two lots that both meet the minimum lot size of 5,000 square feet. However, a 10,000-square-foot site can be divided into two lots, each of which could have a principal unit.

In **Residential Small Lot zones**, multiple principal dwelling units are allowed on a lot. Development is regulated by a maximum density limit of one dwelling per 2,000 square feet of lot area and by a minimum lot area of 2,000 square feet, which prevents the creation of small lots to circumvent the density limit.

All four existing NR zones allow **accessory dwelling units (ADUs)**, small, secondary residences on the same lot as a principal unit. ADUs are subject to different size and location standards than principal units and cannot be sold separately from the principal units except as part of a condominium that comprises the entire lot. An attached ADU (AADU) is an ADU located within or attached to the principal unit, and a detached ADU (DADU) is an ADU located in a separate accessory structure.

As described on the following page, the size and scale of buildings in NR1, NR2, and NR3 zones is currently regulated primarily through standards for floor area ratio (FAR), height, lot coverage, and setbacks. The Seattle Department of Construction and Inspections (SDCI) has a detailed description of the development standards for these zones.

|                                   | Description  | NR1  | NR2  | NR3  | RSL     |  |
|-----------------------------------|--|--|--|--|---------|--|
| Minimum lot size<br>(square feet) | Minimum land area required to create a new lot                                 | 9,600  | 7,200  | 5,000  | 2,000   |  |
| Dwelling units allowed            | Number of homes allowed on a site  | 1 principal and 2  | 2 accessory dwell  | 1 principal unit and 1 ADU per 2,000 sq ft of lot area |         |  |
| Maximum density                   | Effective maximum density<br>at minimum lot size<br>(principal units and ADUs) | 1 unit per<br>3,200 sq ft<br>of lot area                                   | 1 unit per<br>2,400 sq ft<br>of lot area                       | 1 unit per 1,000 sq<br>ft of lot area                  |         |  |
| Floor area<br>ratio (FAR)         | Ratio of maximum building<br>floor area to lot area                            | Effective FAR for<br>• 0.55 FAR with<br>• 0.75 FAR with<br>• 0.95 FAR with | r a 5,000-square-f<br>lout ADUs<br>lone ADU<br>l two ADUs      | 0.75 FAR   |         |  |
| Lot coverage                      | Percentage of the lot that can be covered by structures                        | 35 percent for lo<br>sq feet plus 15 p                                     | ots 5,000 sq ft or<br>percent lot area o                       | 50 percent   |         |  |
| Height limit                      | Maximum height from<br>ground to the highest<br>point of the structure         | 30 feet plus up t  | o 5 feet for a pitc  | 30 feet plus up to 5<br>feet for a pitched roof        |         |  |
| Front setback                     | Minimum distance from<br>front lot line to building                            | Average of adjace 20 feet, whichever                                       | Average of adjacent buildings or<br>20 feet, whichever is less |  | 10 feet |  |
| Rear setback                      | Minimum distance from rear lot line to building                                | 25 feet or 20 per<br>depth, whicheve                                       | rcent of lot<br>r is less                                      | 10 feet without alley<br>None with alley               |         |  |
| Side setback                      | Minimum distance from side lot line to building                                | 5 feet   |  | 5 feet   |         |  |

#### **Current Neighborhood Residential development standards**

<sup>1</sup> These are not codified numbers and would differ on sites of other sizes.

## Detached house with garage (existing NR)

A new single detached house with a detached or attached garage under existing Neighborhood Residential development standards.





Street-level view

Existing precedent

#### Example with alley

| Total units            | 1           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.55        |
| Unit size*             | 2,500 sq ft |
| Stories                | 3           |
| Lot size               | 5,000 sq ft |
| Building coverage      | 22%         |
| Usable open space 📖    | 65%         |
| Building plus paving   | 32%         |
| Parking spaces         | 1           |
|                        |             |





\* Note: Does not include 250 sq ft garage

#### Example without alley

| Total units            | 1           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.55        |
| Unit size              | 2,750 sq ft |
| Stories                | 3           |
| Lot size               | 5,000 sq ft |
| Building coverage      | 18%         |
| Usable open space 鱡    | 72%         |
| Building plus paving   | 21%         |
| Parking spaces         | 1           |





## **Detached house with DADU (existing NR)**

A new single detached house with a detached ADU in the rear yard under existing Neighborhood Residential development standards.



Street-level view



Existing precedent

#### **Example with alley**

| Total units            | 2           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.75        |
| Average unit size      | 1,875 sq ft |
| Stories                | 2-3         |
| Lot size               | 5,000 sq ft |
| Building coverage      | 29%         |
| Usable open space 鱡    | 50%         |
| Building plus paving   | 44%         |
| Parking spaces         | 2           |





#### Example without alley

| Total units            | 2           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.75        |
| Average unit size      | 1,875 sq ft |
| Stories                | 2-3         |
| Lot size               | 5,000 sq ft |
| Building coverage      | 29%         |
| Usable open space 📖    | 52%         |
| Building plus paving   | 41%         |
| Parking spaces         | 1           |





## House with attached and detached ADUs (existing NR)

A new house with an attached ADU and a detached ADU under existing Neighborhood Residential development standards.



Street-level view

#### **Example with alley**

| Total units            | 3           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.95        |
| Average unit size      | 1,583 sq ft |
| Stories                | 2-3         |
| Lot size               | 5,000 sq ft |
| Building coverage      | 38%         |
| Usable open space 📖    | 30%         |
| Building plus paving   | 58%         |
| Parking spaces         | 2           |







Existing precedent



#### Example without alley

| Total units            | 3           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.95        |
| Average unit size      | 1,583 sq ft |
| Stories                | 2-3         |
| Lot size               | 5,000 sq ft |
| Building coverage      | 38%         |
| Usable open space 📖    | 27%         |
| Building plus paving   | 54%         |
| Parking spaces         | 1           |





## Two detached houses and two DADUs (existing RSL)

Two new detached houses with two detached ADUs under existing Residential Small Lot (RSL) development standards.





Street-level view

Existing precedent

| Total units            | 4           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.75        |
| Average unit size      | 937 sq ft   |
| Stories                | 2           |
| Lot size               | 5,000 sq ft |
| Building coverage      | 37%         |
| Usable open space 🚿    | 21%         |
| Building plus paving   | 60%         |
| Parking spaces         | 3           |
|                        |             |




# Updating Seattle's Neighborhood Residential zoning

### New state legislation on housing

In 2023, the Washington State Legislature adopted House Bill 1110 (HB 1110), often referred to as the Middle Housing Bill. HB 1110 requires cities in Washington to allow **middle housing** throughout residential areas and limits how cities can regulate this housing. The bill defines middle housing as "buildings that are compatible in scale, form, and character with single-family houses and contains two or more attached, stacked, or clustered homes including duplexes, triplexes, fourplexes, fiveplexes, sixplexes, townhouses, stacked flats, courtyard apartments, and cottage housing." In Seattle, the bill requires zoning that allows:

- · At least four units on all residential lots
- At least six units on residential lots within a quarter mile of major transit stops (such as light rail and bus rapid transit)
- At least six units on residential lots if two units are income-restricted affordable housing

The bill also provides an alternative approach wherein cities can exclude up to 25 percent of existing lots dedicated to detached housing if those excluded areas meet certain criteria. This can include areas at high risk of displacement. The concepts described in this document are intended to comply with the requirements of HB 1110.







### Zoning changes to implement HB 1110

The proposal for updated Neighborhood Residential zoning would increase the number of units allowed on a lot to expand housing choices and comply with state law, while generally maintaining the number of stories and amount of floor area allowed today. The proposed development standards focus on increasing access to these neighborhoods by encouraging construction of more smaller homes that have comparatively lower prices.

Neighborhood Residential zones would continue to use FAR to regulate the scale of development, with the maximum FAR progressing based on the number of units on the site to encourage housing choices and discourage underdevelopment. We would modify several other development standards to create better outcomes for development at this scale:

 Lot coverage would increase to 50 percent, compared to 35-40 percent for most lots today. This would help accommodate two-story buildings, which are less common today because the current lot coverage limit requires three-story buildings to achieve the maximum FAR.

- Front and rear setbacks would be reduced to allow a wider range of layouts and more usable open spaces for residents in the interior of a site. The larger setbacks and separations between buildings required today often result in cookiecutter layouts with little or no usable open space in the middle of the project. We would encourage porches by allowing them in the front setback.
- Unit lot subdivision would be allowed, as required by new state law. This would allow straightforward fee simple sale and ownership of homes, compared to the more complex condominium arrangements used currently when multiple homes are built and sold on one site.
- New open space requirements would result in more usable open space for residents.

Together, these changes will help achieve the goals outlined earlier in this document.

| Maximum density                        | 1 unit per 1,250 square feet of lot area except that, consistent with state law, at<br>least four units are allowed on all lots, regardless of lot size, and six units within<br>a quarter-mile walk of major transit or if two units are affordable  |
|--|---|
| Floor area<br>ratio (FAR)              | <ul> <li>0.9 FAR for density of at least 1 unit per 2,200 sq ft (e.g., three or four units on a 5,000 sq ft lot)</li> <li>0.7 FAR for density between 1/4,000 and 1/2,200 sq ft (e.g., two units on a 5,000 sq ft lot)</li> <li>0.5 FAR for density below 1/4,000 sq ft (e.g., one unit on a 5,000 sq ft lot)</li> </ul>  |
| Lot coverage                           | 50 percent  |
| Height limit                           | <ul> <li>3 stories for market-rate development</li> <li>4 stories for development with income-restricted affordable homes</li> </ul>  |
| Minimum<br>open space<br>requirement   | <ul> <li>20 percent of lot area</li> <li>The minimum dimension for usable open space is 10 feet or, if the open space includes a circulation pathway serving multiple buildings, 13 feet</li> <li>Open space may be private or shared</li> </ul>  |
| Minimum<br>setbacks and<br>separations | <ul> <li>Front: 10 feet</li> <li>Rear: 10 feet without an alley and zero feet with an alley</li> <li>Side: 5 feet</li> <li>Separation between buildings within property: 6 feet</li> <li>Covered porches may extend up to 6 feet into setback, with up to 100 sq ft per porch allowed in setback</li> <li>Bay windows and balconies may extend up to 2 feet into setback if limited to 8 feet in width</li> <li>We are considering reduced setbacks for development meeting a higher standard open space</li> </ul> |

#### Key standards in updated Neighborhood Residential zones

# **Three detached houses**

Three detached houses, each three stories. Open space is along the front of the houses (with an alley) or between the houses (without an alley).





Street-level view

Existing precedent

#### Example with alley

| Total units            | 3           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.9         |
| Average unit size      | 1,500 sq ft |
| Stories                | 3           |
| Lot size               | 5,000 sq ft |
| Building coverage      | 33%         |
| Usable open space 📖    | 36%         |
| Building plus paving   | 57%         |
| Parking spaces         | 3           |





#### Example without alley

| Total units            | 3           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.9         |
| Average unit size      | 1,500 sq ft |
| Stories                | 3           |
| Lot size               | 5,000 sq ft |
| Building coverage      | 33%         |
| Usable open space 鱡    | 28%         |
| Building plus paving   | 61%         |
| Parking spaces         | 3           |





# Semi-attached housing with autocourt

One two-story detached home facing the street and two three-story attached homes in the rear. All units have garages off a shared autocourt in the middle of the site.





Street-level view

Existing precedent

| Total units            | 3           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.9         |
| Average unit size      | 1,500 sq ft |
| Stories                | 2-3         |
| Lot size               | 5,000 sq ft |
| Building coverage      | 34%         |
| Usable open space 🚿    | 26%         |
| Building plus paving   | 61%         |
| Parking spaces         | 3           |





# **Preserved house and duplex**

Two three-story attached homes are added behind an existing home. Half of the floor area in the existing home is exempt from the FAR limit.



Street-level view

#### Example with alley

| Total units            | 3           |  |
|------------------------|-------------|--|
| Floor area ratio (FAR) | 1.0         |  |
| Average unit size*     | 1,666 sq ft |  |
| Stories                | 2-3         |  |
| Lot size               | 5,000 sq ft |  |
| Building coverage      | 39%         |  |
| Usable open space 📖    | 45%         |  |
| Building plus paving   | 52%         |  |
| Parking spaces         | 2           |  |



Street



Existing precedent



\* Note: The average includes the preserved home

#### Example without alley

| Total units            | 3           |
|------------------------|-------------|
| Floor area ratio (FAR) | 1.0         |
| Average unit size      | 1,666 sq ft |
| Stories                | 2-3         |
| Lot size               | 5,000 sq ft |
| Building coverage      | 39%         |
| Usable open space 鱡    | 36%         |
| Building plus paving   | 56%         |
| Parking spaces         | 1           |





# Triplex

Three attached homes with a shared open space in the rear half of the site.





Street-level view

Existing precedent

| Total units            | 3           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.9         |
| Average unit size      | 1,500 sq ft |
| Stories                | 3           |
| Lot size               | 5,000 sq ft |
| Building coverage      | 30%         |
| Usable open space 🔊    | 44%         |
| Building plus paving   | 53%         |
| Parking spaces         | 3           |



## Four detached houses

Four detached homes, two facing the street and two facing the alley, with narrow open space running lengthwise between the buildings.





Street-level view

Existing precedent

| t 10 <sup>×</sup> 15 <sup>×</sup><br>50 <sup>×</sup> | NICH BRING | Alley | 4<br>0.9<br>1,125 sq ft<br>3<br>5,000 sq ft<br>34%<br>22%<br>68%<br>4 | Total units<br>Floor area ratio (FAR)<br>Average unit size<br>Stories<br>Lot size<br>Building coverage<br>Usable open space<br>Building plus paving<br>Parking spaces |
|--|------------|-------|---|---|
|--|------------|-------|---|---|

# **Two duplexes without alley**

Four homes in two duplexes resulting in a mix of two- and three-bedroom homes.





Existing precedent

| Total units            | 4           |  |
|------------------------|-------------|--|
| Floor area ratio (FAR) | 0.9         |  |
| Average unit size      | 1,125 sq ft |  |
| Stories                | 2-3         |  |
| Lot size               | 5,000 sq ft |  |
| Building coverage      | 35%         |  |
| Usable open space 📖    | 22%         |  |
| Building plus paving   | 64%         |  |
| Parking spaces         | 4           |  |
|                        |             |  |





| Total units            | 4           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.9         |
| Average unit size      | 1,125 sq ft |
| Stories                | 2-3         |
| Lot size               | 5,000 sq ft |
| Building coverage      | 41%         |
| Usable open space 鱡    | 35%         |
| Building plus paving   | 62%         |
| Parking spaces         | 2           |





# Two duplexes with alley

Four homes in two side-by-side duplexes on an alley site.





Street-level view

Existing precedent

| $\begin{array}{c} 4 \\ 0.9 \\ 0$ | 4<br>(FAR) 0.9<br>e 1,125 sq ft<br>2-3<br>5,000 sq ft<br>ge 38%<br>ace ≥ 31%<br>ving 65%<br>4 | Total units<br>Floor area ratio (FAR)<br>Average unit size<br>Stories<br>Lot size<br>Building coverage<br>Usable open space<br>Building plus paving<br>Parking spaces |
|--|---|---|
|--|---|---|

Street

# A tailored approach for areas at high risk of displacement

Central to the vision of the One Seattle Plan is minimizing displacement, defined as the relocation of residents, businesses, or institutions from an area due to forces outside their control. Displacement can occur when households and businesses cannot afford the cost to rent or maintain ownership of their existing space, must leave due to other precipitating events, and cannot afford other available spaces that would let them remain in their community.

As part of the One Seattle Plan, we have updated the City's **Displacement Risk Index**, which identifies areas where displacement may be more likely due to the share of people and households who are more vulnerable to displacement, the presence of amenities and infrastructure that can generate market pressure, and economic conditions that affect the likelihood of displacement. The maps below show the City's analysis of displacement risk across Seattle and in areas with updated Neighborhood Residential zoning. Low- and moderate-income homeowners, particularly homeowners of color, often face challenges to staying rooted in their community. These challenges can be particularly acute in communities of color, which historically formed in part because people of color were denied access to other parts of Seattle. These residents often own homes that have remained in their family for generations despite past and ongoing discriminatory practices like redlining and predatory speculation. We often hear these homeowners express interest in adding housing to their property, but uncertainty about their ability to do so and concern that the more profitable and likely outcome for their neighbors could be selling their homes and leaving the community. Over time, this phenomenon contributes to ongoing cultural displacement.



In areas with high displacement risk, we propose to create a distinct zone with development standards that differ from other Neighborhood Residential zones. This proposal uses flexibility allowed under HB 1110 for a different approach to zoning in areas of high displacement risk.

The purpose of a distinct zone in these areas is to increase opportunities for homeowners to add units to their property while encouraging the preservation of existing homes. This zone would support homeowners wishing to stay in place and add housing to their property to offset the cost of homeownership, build wealth, or create space for family or community members. Applying different standards in there areas could also shift development toward areas of low displacement risk. This zoning strategy complements others that the Plan supports to stabilize vulnerable households and communities and empower existing homeowners to stay in place and thrive.

Most development standards for Neighborhood Residential zoning in areas at high risk of displacement would mirror the citywide standards. The table below shows proposed departures from those standards to achieve the goals outlined above. The map on the previous page provide general guidance on where this zone may be applied. Actual zone boundaries for areas at risk of displacement would be refined through further analysis and engagement with affected communities.

#### Zoning standards in areas with high displacement risk

|                           | Difference   | Rationale  |
|---------------------------|--|--|
| Density                   | 1 unit per 1,650 square feet of lot, compared to 1<br>unit per 1,250 square feet in areas with low risk.<br>This would allow three rather than four<br>units on a 5,000-square-foot lot. | It is generally impractical to add more than two units<br>to a property while preserving an existing home. A<br>lower density would not discourage homeowners from<br>adding units to their property but would encourage<br>preservation of existing homes when units are added. |
| Floor area<br>ratio (FAR) | 0.8 FAR, compared to 0.9 FAR in areas with<br>low risk, with the exemption for preserving an<br>existing home increased from 0.1 to 0.2 FAR.   | These changes would reduce the amount of floor area<br>allowed when demolishing an existing building but<br>generally provide the same amount of floor area when<br>preserving an existing home. This approach would<br>further encourage the preservation of existing homes.    |

# Affordable housing bonus

Neighborhood Residential zones are some of the most expensive and exclusive areas of Seattle. The updated Neighborhood Residential zones would help address this pattern by increasing housing supply overall and allowing smaller housing types in particular. But most new market-rate housing in these areas will remain unaffordable to low-income households due to factors like the high cost of development. Achieving more racial and economic inclusion in Neighborhood Residential areas — a central objective of the One Seattle Plan — requires proactive policies to encourage creation of housing affordable to low-income people in these neighborhoods.

One way to support this goal is with development standards that increase the feasibility of low-income housing. Today, restrictive zoning limits its feasibility in Neighborhood Residential areas. Under House Bill 1110, cities like Seattle must allow six units per lot if at least two are affordable to low-income households. The proposed Neighborhood Residential zones would further increase the feasibility of low-income housing by allowing additional height, floor area, and density on sites within a quarter-mile of frequent transit.

Most low-income housing created with these provisions would likely be permanently affordable homeownership developments as it is difficult to do affordable rental housing at this small scale. Recent examples of permanently affordable homeownership projects in Seattle include cottagestyle development in Residential Small Lot zones and stacked affordable condos in Capitol Hill.

#### Development standards used for modeling

Affordable housing development would be subject to all standards for NR zones with the following exceptions:

| Maximum height         | 4 stories                  |
|------------------------|----------------------------|
| Maximum lot coverage   | 60 percent                 |
| Maximum density        | 1 unit per 400 square feet |
| Floor area ratio (FAR) | 1.8                        |





# Affordable housing with bonus

A small apartment that includes homes affordable to low-income households. Units would likely be owned as permanently affordable condominium units. A single stair provides access to the units on each floor.



Street-level view

Existing precedent

| Total units            | 8           |  |  |  |  |
|------------------------|-------------|--|--|--|--|
| Floor area ratio (FAR) | 1.8         |  |  |  |  |
| Average unit size      | 1,125 sq ft |  |  |  |  |
| Stories                | 4           |  |  |  |  |
| Lot size               | 5,000 sq ft |  |  |  |  |
| Building coverage      | 45%         |  |  |  |  |
| Usable open space 🚿    | 44%         |  |  |  |  |
| Building plus paving   | 47%         |  |  |  |  |
| Parking spaces         | 0           |  |  |  |  |





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# **Corner stores**

One goal of the One Seattle Plan is to create neighborhoods where people can walk and bike to everyday needs. Corner stores help to achieve this goal by providing services and retail in primarily residential areas that may be far from larger business districts. Allowing small commercial uses in residential zones also allows entrepreneurs to start small businesses that contribute to neighborhood vibrancy and cohesion. Relics of the era when small corner stores were ubiquitous exist throughout Seattle's residential areas, though most have since been converted to residential uses due to changes in zoning intended to create more separation of uses.

We propose to allow limited commercial uses, such as retail and food and beverage services, on corner lots in Neighborhood Residential zones. Commercial uses would be limited to the ground floor and basements, although ancillary uses such as storage and office spaces could be allowed on the upper floors. Rules would apply regarding hours of operation, delivery, noise, odor, and the location and screening of solid waste and other outdoor activities.

New corner stores would most likely result through conversion of existing residential structures, including reestablishing commercial uses in structures previously used as a business. Depending on the size and layout of the structure, residential uses could be maintained on site. For example, an existing two-story structure could be converted into a small corner store with storage and offices on the second floor, or the second story could remain in residential use for the operator's home or as a rental unit. Alternatively, a garage in the front of a unit could be converted into a commercial use such as a cafe - common in Seattle's Residential-Commercial (RC) zones – while maintaining the existing home behind it. Some new development with purpose-built commercial could be built on corners with heavier pedestrian and traffic volumes. However, development of this type would likely occur infrequently due to the high cost of new construction and the relatively lower value of commercial space outside business districts.

#### Development standards used for modeling

Development with commercial uses on corner lots would have to meet all Neighborhood Residential standards with the following exceptions:

| Setback and<br>separations | <ul> <li>Reduced setback of two feet from street lot lines for commercial spaces on the ground floor</li> <li>Upper floors would still be required to set back 10 feet</li> </ul> |  |                |  |  |  |  |  |  |  |  |
|----------------------------|---|--|----------------|--|--|--|--|--|--|--|--|
| Height and Noise           | <ul> <li>Two additional feet of<br/>taller ceilings and ac</li> </ul>   |  |                |  |  |  |  |  |  |  |  |
|                            |   |  | Lange of South |  |  |  |  |  |  |  |  |



### **Corner store**

A mixed-use building with ground-floor commercial space that serves the surrounding neighborhood and four homes in the two stories above. The ground floor would be subject to a reduced setback while the upper floors would still need to meet the 10-foot setback requirement. This type of development would be allowed only on corner lots.





Street-level view

Existing precedent

| Total units            | 4           |
|------------------------|-------------|
| Floor area ratio (FAR) | 0.9         |
| Average unit size      | 700 sq ft   |
| Commercial size        | 1,750 sq ft |
| Stories                | 3           |
| Lot size               | 5,000 sq ft |
| Building coverage      | 34%         |
| Usable open space 뺋    | 36%         |
| Building plus paving   | 56%         |
| Parking spaces         | 3           |





# Additional changes to development standards

### **Off-street parking**

Off-street parking requirements can have significant impacts on the design and cost of housing and increase car usage and greenhouse gas emissions. While offstreet parking can reduce competition for parking on the street, it also increases the cost of construction; reduces the amount of space available for housing, open space, and trees; increases hardscape and runoff; and encourages vehicle ownership and use. On small lots, driveways, maneuvering areas, and parking stalls can take up a substantial portion of the site and dictate the layout of everything else on the site. In many cases, these areas end up occupying the entire interior of a site, leaving only small areas of open space at the front and rear. However, off-street parking can also support goals like providing space for electric vehicle charging.

Currently, Neighborhood Residential zones require one off-street parking space per principal dwelling unit, unless the lot is smaller than 3,000 square feet, less than 30 feet in width, or located in an Residential Small Lot zone near frequent transit. Given that ADUs do not require parking, Neighborhood Residential zones effectively require one parking space per three dwelling units. New state law also prohibits cities from requiring off-street parking within one-half mile walking distance of a stop on a light rail, commuter rail, bus rapid transit, or trolley bus line.

We are considering whether to remove parking requirements in remaining areas where they are present today. Even if not required, many if not most new homes in Neighborhood Residential zones are likely to include parking. Sites with alley access will likely include parking for most or all units due to the ease in parking directly off the alley. On sites without alley access, a broader range of outcomes are possible, including development with a parking space for every home and development with no parking at all. Rather than bring vehicles into the center of a site, some builders may offer a mix of units with and without dedicated off-street parking, with the latter offered at a slightly lower price point. The development examples in this document illustrate a range of parking outcomes given these possible scenarios.

### **Open space**

Open space on lots in Neighborhood Residential zones creates space for residents to be outside and for trees and vegetation. Our proposal is a requirement that 20 percent of the lot be set aside as open space. Open space would include areas outside building footprints, driveways, and parking stalls with a width and depth of at least 10 feet or, if they contain a pathway accessing multiple units, 13 feet. Covered porches would count towards open space, but balconies and roof decks would not. Open space may be shared between multiple units or private. During public engagement, many people supported creating more homeownership options that allow for usable green space. This proposed standard aims to ensure a reasonable amount of open space in new developments, while giving builders flexibility in how they integrate it into different designs. To create the development examples in this document, we tested different approaches to open space. The 20 percent requirement was achievable under all scenarios but required careful design in many situations. Each development example in this document includes an open space calculation and identifies where the open space is located on the lot.

### **Trees and vegetation**

Trees in Neighborhood Residential zones are protected by multiple regulations:

- The Tree Protection Code limits the number, size, and type of trees that may be removed from private property and establishes requirements for replacing trees that are cut down.
- Tree planting requirements require planting of trees as part of development.
- Street tree requirements limit removal of street trees and require planting of new street trees as part development.
- Environmentally Critical Areas (ECA) and Shoreline regulations protect trees and vegetation around shorelines, creeks, wetlands, and steep slopes.

The tree protection and street tree requirements were recently updated in May 2023 to lower the size thresholds and provide stronger protections for trees subject to regulation, require mitigation when trees are removed, and require the planting of street trees as part of development in Neighborhood Residential zones. As part of the One Seattle Plan, the City is considering updating the tree planting requirements and available departures in Neighborhood Residential zones. The purpose of this update would be to help meet citywide tree canopy within the new context of development allowed in these areas.

### **Other potential changes**

Other changes that could considered as part of developing new Neighborhood Residential zones include:

- Height: Height limits could be changed slightly to encourage more livable units and better design outcomes within the existing three-story limit. Specifically, the City is considering increasing the height limit from 30 feet to 32 feet. The current height limit pushes builders to locate the first floor at grade and have minimum separation between floors in order to achieve reasonable floor to ceiling heights. A higher limit could allow the first floor to be raised above grade to create privacy and separation for residents, provide more acoustic separation between floors, and/or result in higher floor to ceiling heights which allow in more light and create better living space.
- Pitched roof exemption: Pitched roofs are allowed extend up to five feet above the height limit if they meet a minimum pitch of 4:12. But it is often difficult to fit a pitched roof within this height, resulting in flat or minimally pitched roofs. This provision could be increased to eight feet to make it easier to accommodate pitched roofs. We would also allow a height exception for shed roofs (roofs slanted in only one direction) since they support solar panels.
- Design standards: Updated Neighborhood Residential zones could include new requirements that support ensure quality design. These standards could foster clear entrances facing the street, encourage high-quality materials, and improve the design of corner units.

# Next steps & engagement

The purpose of this document is to communicate possible outcomes for updating Neighborhood Residential zones to solicit feedback that guides the development of a more detailed proposal. The City of Seattle is looking for feedback on these concepts and the draft Comprehensive Plan during winter and spring 2024. Comments can be submitted online on the Comp Plan Engagement Hub at engage.oneseattleplan.com or by email at OneSeattleCompPlan@seattle.gov.

We will also host in-person open houses so community members can talk directly with staff. More information on the Comprehensive Plan Update and events is available at <u>seattle</u>. gov/opcd/one-seattle-plan/get-involved.

After this engagement period, several additional rounds of public engagement will follow before changes to zoning and development standards occur.





### **H** Transportation Appendices

- H.1 Pedestrian Master Plan Pedestrian Improvement Network
- H.2 Transit Passenger Load

Seattle Department of Transportation

# CITY OF SEATTLE PEDESTRIAN MASTER PLAN



### June 2017





#### FIGURE 4-2: PRIORITY INVESTMENT NETWORK, NORTHWEST SECTOR



#### FIGURE 4-3: PRIORITY INVESTMENT NETWORK, NORTHEAST SECTOR



#### FIGURE 4-4: PRIORITY INVESTMENT NETWORK, WEST SECTOR

#### FIGURE 4-5: PRIORITY INVESTMENT NETWORK, EAST SECTOR



#### FIGURE 4-6: PRIORITY INVESTMENT NETWORK, SOUTHWEST SECTOR



#### FIGURE 4-7: PRIORITY INVESTMENT NETWORK, SOUTHEAST SECTOR



| Inbound |                               |  |  |                                  |   | Outbound  |  |   |                                   |  |  |                                  |   |   |  |   |
|---------|-------------------------------|--|--|----------------------------------|---|---|--|---|-----------------------------------|--|--|----------------------------------|---|---|--|---|
| Route   | Inbound Trips<br>in PM Period | Average<br>Maximum<br>Load of PM<br>Period Trips | Average Max<br>Load of Most<br>Crowded PM<br>Period Trip | Average<br>Crowding<br>Threshold | Crowding<br>Threshold<br>Ratio of<br>Average Max<br>Load over PM<br>Peak Period | Crowding<br>Threshold<br>Ratio of<br>Average Max<br>Load of Most<br>Crowded PM<br>Peak Period<br>Trip | Number of<br>Trips Over<br>Crowding<br>Threshold | Percent of<br>Trips Over<br>Crowding<br>Threshold | Outbound<br>Trips in PM<br>Period | Average<br>Maximum<br>Load of PM<br>Period Trips | Average Max<br>Load of Most<br>Crowded PM<br>Period Trip | Average<br>Crowding<br>Threshold | Crowding<br>Threshold<br>Ratio of<br>Average Max<br>Load over PM<br>Peak Period | Crowding<br>Threshold<br>Ratio of<br>Average Max<br>Load of Most<br>Crowded PM<br>Peak Period<br>Trip | Number of<br>Trips Over<br>Crowding<br>Threshold | Percent of<br>Trips Over<br>Crowding<br>Threshold |
| 1       | 17                            | 14   | 23   | 52                               | 0.27  | 0.44  | 0  | 0%  | 18                                | 27   | 41   | 52                               | 0.53  | 0.79  | 0  | 0%  |
| 2       | 22                            | 25   | 41   | 52                               | 0.48  | 0.79  | 0  | 0%  | 18                                | 37   | 47   | 52                               | 0.71  | 0.90  | 0  | 0%  |
| 3       | 18                            | 33   | 46   | 52                               | 0.63  | 0.88  | 0  | 0%  | 15                                | 32   | 44   | 52                               | 0.62  | 0.85  | 0  | 0%  |
| 4       | 11                            | 31   | 44   | 52                               | 0.59  | 0.85  | 0  | 0%  | 17                                | 28   | 43   | 52                               | 0.54  | 0.83  | 0  | 0%  |
| 5       | 15                            | 21   | 35   | 78                               | 0.27  | 0.44  | 0  | 0%  | 31                                | 46   | 66   | 77                               | 0.60  | 0.94  | 0  | 0%  |
| /       | 29                            | 22   | 41   | /4                               | 0.29  | 0.55  | 0  | 0%  | 28                                | 3/   | 54   | /4                               | 0.51  | 0.73  | 0  | 0%  |
| 8       | 21                            | 55   | 17   | /8                               | 0.71  | 0.92  | 0  | 0%  | 19                                | 29   | 44   | /8                               | 0.37  | 0.56  | 0  | 0%  |
| 10      | 5                             | 13   | 1/   | 51                               | 0.26  | 0.33  | 0  | 0%  | 27                                | 25   | 31   | 51                               | 0.49  | 0.61  | 0  | 0%  |
| 11      | 16                            | 21   | 23   | J2<br>70                         | 0.22  | 0.44  | 0  | 0%  | 16                                | ZZ<br>//1  | 50   | JZ<br>70                         | 0.42  | 0.02  | 0  | 0%  |
| 12      | 22                            | 16   | 23   | 52                               | 0.27  | 0.57  | 0  | 0%  | 21                                | 25   | 39   | 52                               | 0.33  | 0.75  | 0  | 0%  |
| 13      | 16                            | 19   | 25   | 52                               | 0.37  | 0.48  | 0  | 0%  | 16                                | 34   | 43   | 52                               | 0.65  | 0.83  | 0  | 0%  |
| 14      | 16                            | 13   | 30   | 52                               | 0.24  | 0.58  | 0  | 0%  | 16                                | 37   | 49   | 52                               | 0.71  | 0.94  | 0  | 0%  |
| 15      | 0                             | -  | 0  | -                                | -   | 0.00  | 0  | -   | 10                                | 52   | 64   | 79                               | 0.66  | 0.81  | 0  | 0%  |
| 17      | 0                             | -  | 0  | -                                | -   | 0.00  | 0  | -   | 9                                 | 48   | 68   | 79                               | 0.60  | 0.86  | 0  | 0%  |
| 18      | 0                             | -  | 0  | -                                | -   | 0.00  | 0  | -   | 9                                 | 45   | 60   | 76                               | 0.60  | 0.88  | 0  | 0%  |
| 19      | 0                             | -  | 0  | -                                | -   | 0.00  | 0  | -   | 6                                 | 25   | 36   | 60                               | 0.42  | 0.71  | 0  | 0%  |
| 21      | 15                            | 23   | 40   | 78                               | 0.29  | 0.51  | 0  | 0%  | 27                                | 34   | 60   | 79                               | 0.43  | 0.76  | 0  | 0%  |
| 22      | 4                             | 8  | 19   | 51                               | 0.16  | 0.37  | 0  | 0%  | 4                                 | 7  | 11   | 51                               | 0.14  | 0.22  | 0  | 0%  |
| 24      | 8                             | 19   | 29   | 68                               | 0.27  | 0.43  | 0  | 0%  | 11                                | 39   | 54   | 73                               | 0.54  | 0.69  | 0  | 0%  |
| 26      | 8                             | 19   | 2/   | /8                               | 0.25  | 0.35  | 0  | 0%  | 12                                | 43   | 60   | /8                               | 0.55  | 0.77  | 0  | 0%  |
| 2/      | 8                             | 12   | 19   | 68<br>79                         | 0.17  | 0.25  | 0  | 0%  | 10                                | 26   | 45   | 62                               | 0.42  | 0.71  | 0  | 0%  |
| 28      | 0                             | 11   | 14   | /8                               | 0.14  | 0.18  | 0  | 0%  | 15                                | 49   | 60<br>E /  | 76                               | 0.65  | 0.85  | 0  | 0%  |
| 25      | 8                             | - 14   | 19   | - 60                             | - 0.24  | 0.00  | 0  | - 0%  | 12                                | 30   | 34   | 58                               | 0.30  | 0.71  | 0  | 0%  |
| 32      | 11                            | 20   | 29   | 59                               | 0.24  | 0.51  | 0  | 0%  | 10                                | 31   | 46   | 59                               | 0.52  | 0.73  | 0  | 0%  |
| 33      | 8                             | 21   | 31   | 68                               | 0.30  | 0.40  | 0  | 0%  | 12                                | 35   | 52   | 69                               | 0.50  | 0.96  | 0  | 0%  |
| 36      | 38                            | 15   | 33   | 58                               | 0.27  | 0.58  | 0  | 0%  | 34                                | 34   | 49   | 58                               | 0.59  | 0.94  | 0  | 0%  |
| 37      | 0                             | -  | 0  | -                                | -   | 0.00  | 0  | -   | 4                                 | 14   | 16   | 58                               | 0.24  | 0.31  | 0  | 0%  |
| 40      | 22                            | 30   | 48   | 77                               | 0.39  | 0.62  | 0  | 0%  | 40                                | 49   | 74   | 74                               | 0.66  | 1.12  | 1  | 3%  |
| 41      | 18                            | 14   | 21   | 79                               | 0.18  | 0.27  | 0  | 0%  | 37                                | 42   | 60   | 79                               | 0.53  | 0.76  | 0  | 0%  |
| 43      | 4                             | 21   | 29   | 75                               | 0.28  | 0.39  | 0  | 0%  | 6                                 | 14   | 20   | 77                               | 0.18  | 0.25  | 0  | 0%  |
| 44      | 27                            | 21   | 30   | 74                               | 0.29  | 0.41  | 0  | 0%  | 26                                | 50   | 66   | 74                               | 0.68  | 0.89  | 0  | 0%  |
| 45      | 19                            | 16   | 20   | 77                               | 0.22  | 0.37  | 0  | 0%  | 26                                | 45   | 64   | 76                               | 0.59  | 0.82  | 0  | 0%  |
| 47      | 10                            | 4  | 17   | 52<br>60                         | 0.08  | 0.10  | 0  | 0%  | 10                                | 11   | 16   | 52<br>¢°                         | 0.22  | 0.31  | 0  | 0%  |
| 48      | 25                            | 28   | 4/   | 69                               | 0.41  | 0.05  | 0  | 0%  | 21                                | 50   | 20   | 60                               | 0.23  | 0.04  | 0  | 0%  |
| 45      | 10                            | 17   | 43   | 37                               | 0.46  | 0.59  | 0  | 0%  | 11                                | 18   | 29   | 37                               | 0.47  | 0.78  | 0  | 0%  |
| 55      | 10                            | 38   | 38   | 79                               | 0.48  | 0.48  | 0  | 0%  | 11                                | 29   | 42   | 74                               | 0.39  | 0.55  | 0  | 0%  |
| 56      | 0                             | -  | 0  | -                                | -   | 0.00  | 0  | -   | 8                                 | 39   | 53   | 79                               | 0.49  | 0.67  | 0  | 0%  |
| 57      | 0                             | -  | 0  | -                                | -   | 0.00  | 0  | -   | 5                                 | 41   | 49   | 79                               | 0.52  | 0.62  | 0  | 0%  |
| 60      | 17                            | 21   | 50   | 51                               | 0.42  | 0.98  | 0  | 0%  | 16                                | 27   | 35   | 51                               | 0.53  | 0.69  | 0  | 0%  |
| 62      | 16                            | 28   | 39   | 76                               | 0.37  | 0.50  | 0  | 0%  | 22                                | 49   | 68   | 71                               | 0.69  | 1.00  | 1  | 5%  |
| 63      | 0                             | -  | 0  | -                                | -   | 0.00  | 0  | -   | 9                                 | 41   | 53   | 51                               | 0.81  | 1.04  | 1  | 11%   |
| 64      | 0                             | -  | 0  | -                                | -   | 0.00  | 0  | -   | 8                                 | 42   | 57   | 68                               | 0.62  | 1.00  | 1  | 13%   |
| 65      | 23                            | 12   | 29   | 61                               | 0.20  | 0.59  | 0  | 0%  | 26                                | 40   | 52   | 61                               | 0.66  | 0.98  | 0  | 0%  |
| 6/      | 25                            | 14   | 22   | 60<br>7c                         | 0.23  | 0.45  | 0  | 0%  | 24                                | 40   | 54   | 50                               | 0.66  | 0.98  | 0  | 0%  |
| 70      | 25                            | 10   | 40   | / J<br>51                        | 0.30  | 0.02  | 0  | 0%  | 20                                | 39   | 25   | /3<br>51                         | 0.32  | 0.72  | 0  | 0%  |
| 74      | 0                             | - 12   | 14   | - 51                             | - 0.24  | 0.00  | 0  | - 076   | 11                                | 28   | 45   | 79                               | 0.34  | 0.57  | 0  | 0%  |
| 75      | 19                            | 14   | 18   | 59                               | 0.23  | 0.38  | 0  | 0%  | 21                                | 30   | 44   | 60                               | 0.50  | 0.90  | 0  | 0%  |
| 76      | 0                             | -  | 0  |                                  | -   | 0.00  | 0  | -   | 11                                | 48   | 63   | 78                               | 0.62  | 0.81  | 0  | 0%  |
| 77      | 0                             | -  | 0  | -                                | -   | 0.00  | 0  | -   | 10                                | 41   | 63   | 79                               | 0.52  | 0.80  | 0  | 0%  |
| 78      | 6                             | 4  | 4  | 49                               | 0.07  | 0.08  | 0  | 0%  | 6                                 | 8  | 10   | 49                               | 0.16  | 0.20  | 0  | 0%  |
| 673     | 28                            | 15   | 21   | 76                               | 0.19  | 0.28  | 0  | 0%  | 39                                | 48   | 62   | 76                               | 0.63  | 0.82  | 0  | 0%  |
| 674     | 30                            | 34   | 49   | 76                               | 0.45  | 0.64  | 0  | 0%  | 33                                | 54   | 70   | 76                               | 0.71  | 0.92  | 0  | 0%  |
| 675     | 25                            | 33   | 55   | 76                               | 0.43  | 0.72  | 0  | 0%  | 44                                | 52   | 73   | 76                               | 0.68  | 0.96  | 0  | 0%  |

### I Area Specific Service Maps





Map Date: March 2023






































































Map Date: March 2023



