

## MEMORANDUM

To: Jesse Hannahs, PE, City of Marysville

From: Brad Lincoln, PE *BL*

Subject: Cascade Multifamily Comprehensive Plan Map and Rezone  
Trip Generation Analysis

Date: February 15, 2023

Project: 090223015

Kimley-Horn and Associates, Inc. has been retained to provide a trip generation analysis to evaluate the potential change in trip generation which could result from a comprehensive plan map and zoning change from the previously approved high-cube warehouse space to the proposed residential zoning. The Cascade Multifamily Comprehensive Plan Map/Rezone includes three parcels (31053400200700, 31053400200700, and 31053400200800) totaling 48.01 acres. The site is located in the southeast corner of 51<sup>st</sup> Avenue at Levin Road/152<sup>nd</sup> Street NE. A site vicinity map is shown in **Figure 1**.



**Figure 1: Site Vicinity Map**

The Cascade Multifamily Comprehensive Plan Map and rezone site was previously approved for warehousing use and the proposal is to rezone the parcel to a residential use. The residential zoning is

anticipated to allow for approximately 684 multifamily residential units. It is anticipated that the site will have access to 51<sup>st</sup> Avenue and 152<sup>nd</sup> Street NE.

## 1. TRIP GENERATION – PREVIOUSLY APPROVED USE

The previously approved use included 432,000 square-feet (SF) of high-cube warehouse space. The trip generation calculations for the previously approved use are based on data published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 11<sup>th</sup> Edition (2021)* for ITE Land Use Code 154, High-Cube Warehouse. The weekday trip generation calculations for the approved use are summarized in **Table 1**.

**Table 1: Trip Generation Summary – Previously Approved Use**

High-Cube Warehouse 432,000 SF	Average Daily Trips			AM Peak-Hour Trips			PM Peak-Hour Trips		
	In	Out	Total	In	Out	Total	In	Out	Total
Generation Rate	1.40 trips per 1,000 SF			0.08 trips per 1,000 SF			0.10 trips per 1,000 SF		
Splits	50%	50%	100%	77%	23%	100%	28%	72%	100%
Trips	303	302	605	27	8	35	12	31	43

The previously approved 432,000 SF of high-cube warehouse space is anticipated to generate approximately 605 new weekday average daily trips with approximately 35 new weekday AM peak-hour trips and approximately 43 new weekday PM peak-hour trips.

## 2. TRIP GENERATION – PROPOSED ZONING

The trip generation calculations for the proposed zoning are based on data published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 11<sup>th</sup> Edition (2021)* for ITE Land Use Code 221, Multifamily Housing (Mid-Rise). The weekday trip generation calculations for the proposed zoning are summarized in **Table 2**.

**Table 2: Trip Generation Summary – Proposed Zoning**

Multifamily Housing (Mid-Rise) 684 Units	Average Daily Trips			AM Peak-Hour Trips			PM Peak-Hour Trips		
	In	Out	Total	In	In	Out	Total	Out	In
Generation Rate	4.54 trips per Unit			0.37 trips per Unit			0.39 trips per Unit		
Splits	50%	50%	100%	23%	77%	100%	61%	39%	100%
Trips	1,553	1,552	3,105	58	195	253	163	104	267

The 684 multifamily (mid-rise) units under the proposed zoning would be anticipated to generate approximately 3,105 new weekday average daily trips with approximately 253 new weekday AM peak-hour trips and approximately 267 new weekday PM peak-hour trips.

**3. IMPACTS OF PROPOSED ZONING**

The proposed zoning would potentially generate 2,500 additional new weekday daily trips with 218 new additional weekday AM peak-hour trips and 224 new additional weekday PM peak-hour trips beyond what was previously approved. The City of Marysville evaluates the traffic impacts of a development based on analysis of intersections impacted by 25 or more peak-hour trips. The proposed zoning would result in several City of Marysville intersections being impacted by 25 peak-hour trips, including:

- State Avenue at 116<sup>th</sup> Street NE
- State Avenue at 128<sup>th</sup> Street NE
- State Avenue at 136<sup>th</sup> Street NE
- 51<sup>st</sup> Avenue NE at 132<sup>nd</sup> Street NE
- 51<sup>st</sup> Avenue NE at 136<sup>th</sup> Street NE
- 51<sup>st</sup> Avenue NE at 152<sup>nd</sup> Street NE
- Smokey Point Boulevard at 156<sup>th</sup> Street NE
- Smokey Point Boulevard at 152<sup>nd</sup> Street NE

A full traffic impact analysis would be required as part of the land use application and impacts would need to be fully evaluated and mitigated, if necessary.

The difference in traffic mitigation fees has also been evaluated. The current traffic mitigation fees are \$6,300 per PM peak-hour trip for residential uses and \$2,220 per PM peak-hour trip for commercial uses. The change in traffic mitigation fees with the proposed zoning are summarized in **Table 3**.

**Table 3: Change in Traffic Mitigation Fees**

Zoning	Land Use	Size	PM Peak-Hour Trips	Fee per Trip	Traffic Mitigation Fee
Proposed Zoning	Residential Multifamily	684 units	267	\$6,300	\$1,652,100
Existing Approval	High-Cube Warehouse	432,000 SF	43	\$2,220	\$95,460
<b>INCREASE</b>					<b>\$1,586,640</b>

The proposed zoning would result in approximately \$1,586,640 in additional traffic mitigation fees, assuming there are not applicable credits for roadway improvements.