

MEMORANDUM

To: Jesse Hannahs, PE, City of Marysville

From: Brad Lincoln, PE *BL*

Subject: Mavin/Undi Comprehensive Plan Map/Rezone
Trip Generation Analysis

Date: January 25, 2023

Project: 090223005

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 and zoning change from the existing R12 zoning to the proposed comprehensive plan and zoning designation of General Commercial. The Mavis/Undi Comprehensive Plan Map/Rezone includes three parcels (31052900200700, 3105290020200, and 31052900202100) totaling 2.64 acres. The site is located in the northwest corner of 27th Avenue NE at 169th Place NE. A site vicinity map is shown in Figure 1.



Figure 1: Site Vicinity Map

The Mavis/Undi Comprehensive Plan Map/Rezone site is currently zoned “R12 Low Density Multi-Family” and the proposal is to rezone the parcel to “General Commercial.” It is anticipated that the site will have access to 169th Place NE, regardless of the zoning. However, a General Commercial zoning would likely have internal connectivity to adjacent parcels with commercial zoning.

1. TRIP GENERATION – CURRENT ZONING

The current zoning of “R12 Low Density Multi-Family” would allow up to 48 multifamily units with density incentives. The units would be anticipated to be in 3 story buildings. The trip generation calculations for the existing zoning are based on data published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 11th Edition (2021)* for ITE Land Use Code 220, Multifamily Housing (Low-Rise). The weekday trip generation calculations for the existing zoning are summarized in Table 1.

Table 1: Trip Generation Summary – Existing Zoning

R12 Zoning 48 Units	Average Daily Trips			AM Peak-Hour Trips			PM Peak-Hour Trips		
	In	Out	Total	In	Out	Total	In	Out	Total
Generation Rate	6.74 trips per Unit			0.40 trips per Unit			0.51 trips per Unit		
Splits	50%	50%	100%	24%	76%	100%	63%	37%	100%
Trips	162	162	324	5	15	20	15	9	24

The 48 multifamily units under the existing zoning would be anticipated to generate approximately 324 weekday average daily trips with approximately 20 weekday AM peak-hour trips and approximately 24 weekday PM peak-hour trips.

2. TRIP GENERATION – PROPOSED ZONING

The proposed zoning of “General Commercial” would allow for approximately 35,000 square-feet (SF) of retail space, based on an assumption of 30% building coverage. The trip generation calculations for the proposed zoning are based on data published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 11th Edition (2021)* for ITE Land Use Code 822, Strip Retail Plaza (<40k). Additionally, a 40% pass-by reduction has been applied based on data published by ITE for similar land uses. This 40% pass-by reduction would also likely include crossover trips from adjacent residential units. The weekday trip generation calculations for the proposed zoning are summarized in Table 2.

Table 2: Trip Generation Summary – Proposed Zoning

General Commercial 35,000 SF Retail	Average Daily Trips			AM Peak-Hour Trips			PM Peak-Hour Trips		
	In	Out	Total	In	Out	Total	In	Out	Total
Generation Rate	54.45 trips per 1,000 SF			2.36 trips per 1,000 SF			6.59 trips per 1,000 SF		
Splits	50%	50%	100%	60%	40%	100%	50%	50%	100%
Trips ¹	572	572	1,144	30	20	50	69	69	138

¹ Includes a 40% pass-by reduction based on data for similar uses.

The 35,000 SF of retail space under the proposed zoning would be anticipated to generate approximately 1,144 weekday average daily trips with approximately 50 weekday AM peak-hour trips and approximately 138 weekday PM peak-hour trips.

3. IMPACTS OF PROPOSED ZONING

The proposed zoning would potentially generate 820 additional weekday daily trips with 30 additional weekday AM peak-hour trips and 114 additional weekday PM peak-hour trips. 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 current zoning would not result in 25 peak-hour trips being generated and therefore analysis of surrounding intersections would not typically be required. The proposed zoning would result in several City of Marysville intersections being impacted by 25 peak-hour trips, including:

- 27th Avenue NE at 169th Place NE
- 27th Avenue NE at SR-531/172nd Street NE
- Smokey Point Boulevard at 156th Street NE
- Smokey Point Boulevard at 152nd Street NE

The only intersection that has been close to operating below LOS D is 27th Avenue NE at SR-531/172nd Street NE. However, future roadway connections identified in the Lakewood Neighborhood Master Plan would help divert traffic from this intersection. Additionally, the approval of this rezone would not outright approve a 35,000 SF retail use on these parcels. 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
Existing R12 Low Density Multi Family	Residential Multifamily	48 units	24	\$6,300	\$151,200
Proposed General Commercial	Commercial Retail	35,000 SF	138	\$2,220	\$306,360

The proposed zoning would result in approximately \$155,000 in additional traffic mitigation fees, assuming there are not applicable credits for roadway improvements.