

MEMORANDUM

To:	Karyn Hanson, City of Newberg
	Ashley Smith, City of Newberg
	Doug Rux, City of Newberg
From:	William Reynolds, PE (OR), AICP, PTP
	RBT Consultants
Date:	June 8, 2022
Subject:	Virginia Garcia Ambulatory Health Clinic Expansion – Trip Generation Memo

Introduction

The following memo summarizes the estimated number of AM and PM peak hour vehicle trips for the proposed expansion of the existing Virginia Garcia Clinic, located at 2251 E Hancock Street in Newberg, OR.

Notes from a pre-application meeting for the project held on May 11, 2022, indicated that a Traffic Study *will not be required* based on an assumed expansion size of 9,000 ft². This memo serves to update the assumed number of vehicle trips based on the gross square footage of 9,625 ft², which includes the roof deck, using the current version ITE's Trip Generation Manual.

Project Trip Generation

The proposed land use most closely corresponds to the following land use category within the current version of ITE's Trip Generation Manual (11th Edition):

• Medical-Dental Office Building (Land Use Code 720)

Traffic impact analyses typically analyze traffic conditions during the AM and PM weekday peak periods, generally assumed to occur from 7 AM to 9 AM during the morning and 4 PM to 6 PM during the evening. The following trip rates correspond to the average trip rate for each time period shown:

- Daily
 - **36.00** vehicle trips per 1,000 ft² (50% entering / 50% exiting)
- AM Peak Hour of Adjacent Street Traffic (One Hour Between 7 and 9 a.m.)
 - **3.10** vehicle trips per 1,000 ft² (79% entering / 21% exiting)
- PM Peak Hour of Adjacent Street Traffic (One Hour Between 4 and 6 p.m.)
 - **3.93** vehicle trips per 1,000 ft² (30% entering / 70% exiting)

Table 1 shows the corresponding peak hour trips for the AM and PM peak hours of adjacent street traffic.

Table 1: Peak Hour Vehicle Trip	S						
				AM Pea	ık Hour	PM Pea	ık Hour
Land Use	ITE Code	Units	Daily Trips	In	Out	In	Out
Medical-Dental Office Building	720	9,625 ft ²	347	24	6	11	27
				30 t	rips	38 t	rips

Traffic Study Requirements

Per Newberg Development Code 15.220.030(B)(14) a traffic study is required or may be required based on the following criteria:

Traffic Study. A traffic study shall be submitted for any project that generates in excess of **40 trips per p.m. peak hour**. This requirement may be waived by the director when a determination is made that a previous traffic study adequately addresses the proposal and/or when off-site and frontage improvements have already been completed which adequately mitigate any traffic impacts and/or the proposed use is not in a location which is adjacent to an intersection which is functioning at a poor level of service. A traffic study may be required by the director for projects below 40 trips per p.m. peak hour where the use is located immediately adjacent to an intersection functioning at a poor level of service. The traffic study shall be conducted according to the City of Newberg design standards. [Ord. 2619, 5-16-05; Ord. 2451, 12-2-96. Code 2001 § 151.192.]

Using the current version of ITE's Trip Generation Manual (11th Edition) and the gross square footage of the proposed expansion, the project is not expected to generate in excess of 40 vehicle trips during the PM peak hour (assumed to be between 4 PM and 6 PM).

Next Steps

Based on the estimated number of new PM peak hour vehicle trips for the proposed project, **no additional traffic analysis is recommended**. However, if City staff determine that a traffic study will be needed, prior to developing a Traffic Impact Analysis (TIA), a TIA scoping memo will be developed and submitted to the City, identifying a draft methodology for review. This would include number of intersections, scenarios to be analyzed, trip distribution, background growth rates, and plan for turning movement data collection.

Closing

Please feel free to reach out to me to discuss the contents of this Memo.

Sincerely,

William Reynolds, PE (OR), AICP, PTP RBT Consultants



Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 18

Avg. 1000 Sq. Ft. GFA: 15

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
36.00	14.52 - 100.75	13.38

Data Plot and Equation



Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 24

Avg. 1000 Sq. Ft. GFA: 25

Directional Distribution: 79% entering, 21% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.10	0.87 - 14.30	1.49

500 Х 400 300 T = Trips Ends 200 X 100 × Х Х × 0 20 40 60 80 X = 1000 Sq. Ft. GFA × Study Site - Fitted Curve - Average Rate

Data Plot and Equation

Fitted Curve Equation: Ln(T) = 0.90 Ln(X) + 1.34



R²= 0.80

100

Medical-Dental Office Building - Stand-Alone (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 30

Avg. 1000 Sq. Ft. GFA: 23

Directional Distribution: 30% entering, 70% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.93	0.62 - 8.86	1.86

600 × 400 T = Trips Ends × × 200 X X Х × × × 0 20 40 60 80 100 X = 1000 Sq. Ft. GFA - Average Rate × Study Site - Fitted Curve Fitted Curve Equation: T = 4.07(X) - 3.17 R²= 0.77

Data Plot and Equation

