



1130 SW Morrison St., Suite 318
Portland, OR 97205
503.248.0313
lancastermobley.com

Memorandum

To: Erin Upham
Axis Design Group

From: Daniel Stumpf, PE

Date: July 15, 2024

Subject: Herzog-Meier Volkswagen-Volvo Dealership



Introduction

This memorandum reports the findings of a trip generation analysis conducted for the proposed modification of the existing Herzog-Meier Volkswagen-Volvo dealership located at 4275 SW 139th Way in Beaverton, Oregon. The proposal will include the construction of a new 9,575 square foot service building and remodeling of the dealership's existing service building. Access to the site will be provided via existing driveways along SW 141st Avenue, SW Whitney Way, and SW 139th Way.

The purpose of this memorandum is to examine the projected trip generation of the site following construction of the proposed project during the AM peak hour, PM peak hour, and average weekday. The trip generation analysis is intended to determine if the project exceeds the City of Beaverton's or ODOT's trip generation thresholds for requiring a Traffic Impact Analysis (TIA).

Location Description

Project Site Description

The subject site is located north of SW Tualatin Valley Highway (OR-8), south of SW Whitney Way, east of SW 141st Avenue, and west of SW 139th Way in Beaverton, Oregon. The site consists of a single property (tax lot 1S116BB-03300) which encompasses an approximate total of 4.52 acres. The nearby land uses to the east and west of the site consist of automobile dealerships while land uses to the north and south consist of vehicle servicing/repair businesses and residential uses.

The site is currently developed as the Herzog-Meier Volkswagen-Volvo automobile dealership and service station. Access to the site is currently available via a single driveway along SW 141st Avenue, one driveway along SW Whitney Way, and two driveways along SW 139th Way.

Vicinity Roadways

The proposed development is located adjacent to four roadways, where Table 1 provides a description of these vicinity roadways.

Table 1: Vicinity Roadway Descriptions

| Street Name | Jurisdiction | Functional Classification | Speed (MPH) | On-Street Parking | Curbs & Sidewalks | Bicycle Lanes |
|-----------------------------------|----------------------------|---------------------------------------|-------------|-------------------|-----------------------|-----------------------|
| SW Tualatin Valley Highway (OR-8) | City of Beaverton/ ODOT | Principal Arterial (Statewide Hwy) | 35/45 | Not Permitted | Partial Both Sides | Partial Both Sides |
| SW Whitney Way | City of Beaverton | Local Street | 20 | Permitted | South Side | None |
| SW 141st Avenue | City of Beaverton | Collector | 20 | Permitted | Partial Both Sides | None |
| SW 139th Way | City of Beaverton | Local Street | 20 | Permitted | Both Sides | None |

Notes: Functional Classification and Jurisdiction based on City of Beaverton TSP/ODOT's TranGIS website.

Figure 1 below presents an aerial image of the nearby vicinity with the project site outlined in yellow.



Figure 1: Aerial Photo of Site Vicinity (Image from Google Earth)

Trip Generation

The proposed modification of the existing Herzog-Meier Volkswagen-Volvo dealership will include the construction of a new 9,575 square foot service building. To estimate the number of trips that will be generated by this building, trip rates from the *Trip Generation Manual*¹ were used. Data from land use codes 840, *Automobile Sales (New)*, was used to estimate the proposed building’s trip generation based on the square footage of the gross building floor area.

The trip generation calculations show that the proposed project is expected to generate an additional 18 AM peak hour trips, 23 PM peak hour trips, and 266 average weekday trips relative to the site under existing conditions. The trip generation estimates are summarized in Table 2. Detailed trip generation calculations are included as an attachment to this memorandum

Table 2: Trip Generation Summary

| ITE Code | | Size | AM Peak Hour | | | PM Peak Hour | | | Weekday Total |
|----------|------------------------|----------|--------------|------|-------|--------------|------|-------|---------------|
| | | | Enter | Exit | Total | Enter | Exit | Total | |
| 840 | Automobile Sales (New) | 9,575 SF | 13 | 5 | 18 | 9 | 14 | 23 | 267 |

Per the City of Beaverton’s Development Code Section 60.55.20.2 Analysis Threshold, “A *Traffic Impact Analysis* is required when the proposed land use change or development will generate 300 vehicles or more per day (vpd) in average weekday trips as determined by the City Engineer.” Additionally, per Table 3.2: *TIA Threshold and Analysis Areas* in ODOT’s *Development Review Guidelines*², a TIA would be necessary if the proposed development were to add 50 AM or PM peak hour trips, or 300 average daily trips impacts to an ODOT intersection.

Since the proposed project is estimated to generate trips at levels below the City’s and ODOT’s 50 peak hour and 300 average weekday trip threshold, the above thresholds for requiring a TIA are not met.

Conclusions

The construction of the proposed 9,575 square foot service building within the existing Herzog-Meier Volkswagen-Volvo dealership is projected to generate an additional 18 AM peak hour trips, 23 PM peak hour trips, and 266 average weekday trips relative to the site under existing conditions. According to City of Beaverton’s Development Code Section 60.55.20.2 and ODOT’s intersection impact thresholds, the proposed project is not projected to trigger either agency’s peak hour or average daily trip generation thresholds for requiring a full Traffic Impact Analysis. Therefore, the preparation of this trip generation memorandum is sufficient to report the minimal impacts of the proposed project to the transportation system.

If you have any questions or concerns regarding this analysis or need further assistance, please don’t hesitate to contact us.

¹ Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, 2021.

² Oregon Department of Transportation, *Development Review Guidelines*, 2017.



SITE PLAN LEGEND

| | | |
|------------------------|-----------------------|-------------|
| (E) CONCRETE | (E) LANDSCAPE | (E) ASPHALT |
| (N) CONCRETE | (N) LANDSCAPE | (N) ASPHALT |
| (E) PROPERTY LINE | (E) OVHD. POWER LINE | |
| (E) FENCE LINE | (N) BLDG. FOOTPRINT | |
| (E) BLDG. FOOTPRINT | (E) FIRE HYDRANT | |
| (E) IN-GROUND LIGHT | (E) RAIN DRAIN | |
| (E) POWER UTILITY POLE | (E) STORM CATCH BASIN | |
| (E) POWER VAULT | (E) SANITARY MANHOLE | |
| VEHICLE CIRCULATION | (E) STORM MANHOLE | |
| (E) SIGN | (E) WATER VALVE/METER | |
| (E) TREE - EVERGREEN | (E) AREA DRAIN | |
| (E) TREE - DECIDUOUS | (E) GAS VALVE/METER | |

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AXIS
 DESIGN GROUP
 11104 S.E. STARK STREET
 PORTLAND, OR 97216
 T: 503.284.0988 | F: 503.546.9276

HERZOG-MEIER VOLKSWAGEN-VOLVO SERVICE EXPANSION
 4275 SW 139TH WAY
 BEAVERTON, OR 97005

REVISIONS

| No. | Description | Date |
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DRAWN BY: ECU
 CHECKED BY: TRB
 JOB NO: 19-040
 DATE: 03/14/24
 ISSUED FOR: LAND USE

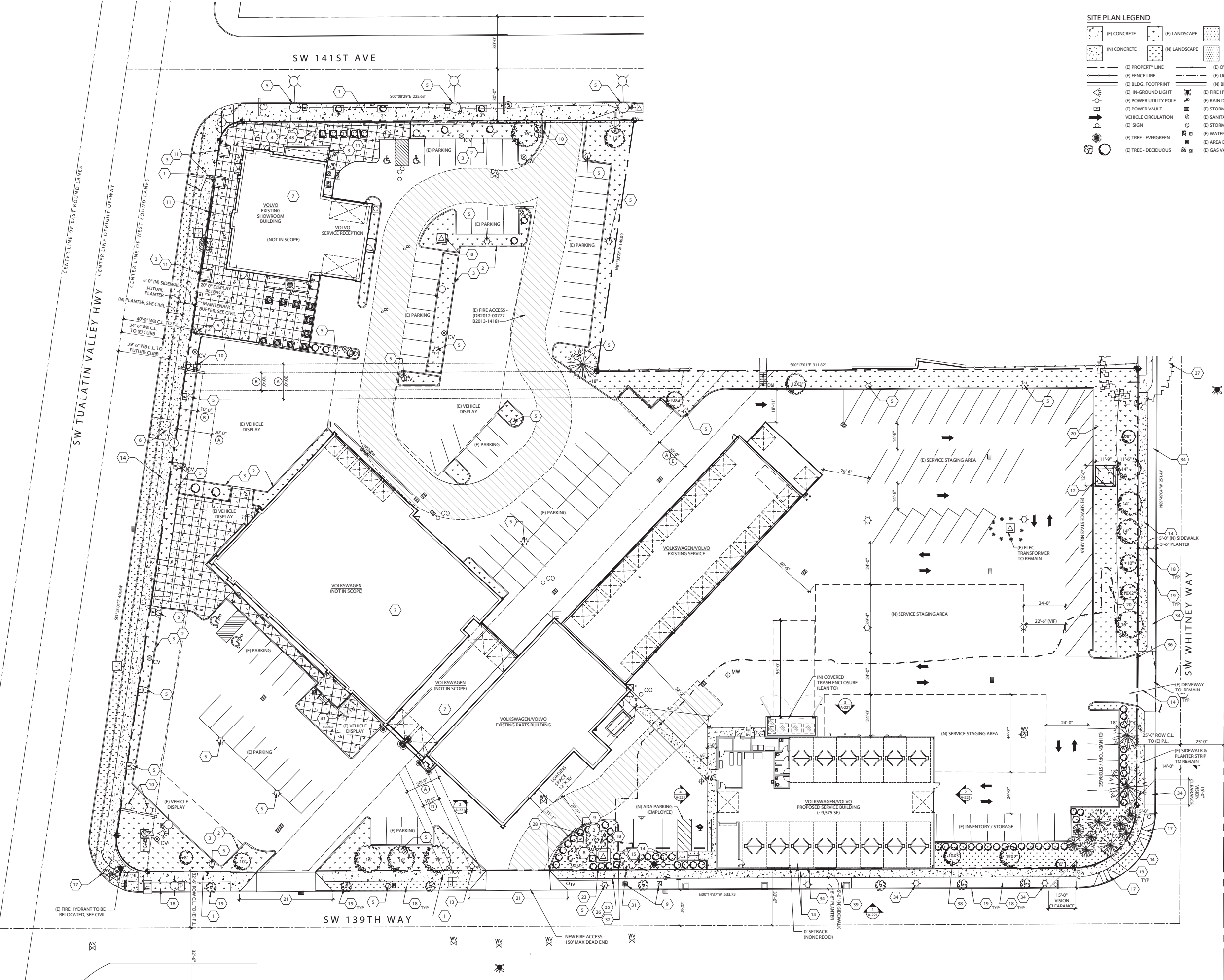
SHEET TITLE
 SITE PLAN
 PROPOSED

SHEET NO.

1 SITE PLAN - PROPOSED
 SCALE: 1" = 20'



S:\projects\2019 Projects\19-040_VW Volvo Service Building\3_Current\CAD\CAD Service Expansion\A-102 - Site Plan - Proposed.dwg © Plot Date: Jun 7 24 07:17 AM





TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition

Land Use: Automobile Sales (New)
Land Use Code: 840
Land Use Subcategory: All Sites
Setting/Location: General Urban/Suburban
Variable: 1000 SF GFA
Trip Type: Vehicle
Formula Type: Rate
Variable Quantity: 9.575

WARNING: Variable Quantity is less than Minimum Survey Size for Peak Hours

AM PEAK HOUR

Trip Rate: 1.86

| | Enter | Exit | Total |
|-------------------|-------|------|-------|
| Directional Split | 73% | 27% | |
| Trip Ends | 13 | 5 | 18 |

PM PEAK HOUR

Trip Rate: 2.42

| | Enter | Exit | Total |
|-------------------|-------|------|-------|
| Directional Split | 40% | 60% | |
| Trip Ends | 9 | 14 | 23 |

WEEKDAY

Trip Rate: 27.84

| | Enter | Exit | Total |
|-------------------|-------|------|-------|
| Directional Split | 50% | 50% | |
| Trip Ends | 134 | 133 | 267 |

SATURDAY

Trip Rate: 52.24

| | Enter | Exit | Total |
|-------------------|-------|------|-------|
| Directional Split | 50% | 50% | |
| Trip Ends | 250 | 250 | 500 |

Caution: Small Sample Size