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Memorandum

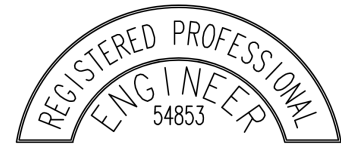
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From: **Myla Cross**
Todd Mobley, PE

Date: **October 2, 2023**

Subject: **NW Bronson Road Zone Change – File No. CPA2022-0001/ZMA2022-0003**
Transportation Impact Analysis, Addendum #1



EXPIRES: 12/31/2024

Introduction

This memorandum is written as an addendum to the Traffic Impact Analysis (TIA) dated August 24, 2023. The purpose of this memo is to respond to ODOT comments dated September 22, 2023. Those comments raise concerns regarding the comparative worst-case trip generation analysis in the TIA, the applicable performance standard for ODOT facilities, and a request for additional analysis at Highway 26 eastbound and westbound ramp intersections with Bethany Boulevard.

Project Information / Scope of Work

The scope of work for the TIA related to the zone change was coordinated closely with the City of Beaverton traffic engineering staff. This included any impacts to ODOT facilities, and the most reasonable worst-case scenario under the existing zoning – Mixed Residential B and the proposed zoning – General Commercial. The project site encompasses approximately 1.88 acres, however, the steep topography of the southern portion of the site nearest the freeway limits the development potential for retail uses, limiting the amount of developable area. However, the development of multi-family residential on the site would be less encumbered by the slopes and the need for arterial frontage.

Under the existing Residential Mixed B zoning, the minimum residential density is townhomes at 1,300 sf per unit. Based on the topography and size of the project site, an estimated 44 dwelling units of single-family attached housing could reasonably be constructed on the project site. This yields 21 morning peak hour trips, 25 evening peak hour trips and 316 average weekday trips.

Trip generation was analyzed for a 3,000 square foot fast-food restaurant and compared to 81 units of low-rise multi-family housing to determine the worst-case scenario under the proposed General Commercial zoning. Both the fast-food restaurant and multi-family housing are allowed uses. Based on the comparison, the fast-

food restaurant was determined to be the higher trip generator with a total of 67 primary peak hour trips, 45 primary peak hour trips, and 673 average weekday trips.

The potential net change in trip generation potential after the proposed rezone is projected to be 46 new morning peak hour trips, 20 new evening peak hour trips, and 357 new average weekday trips.

According to the City of Beaverton’s Development Code section 66.55.20, a TIA must include an analysis of intersections that fall within the proposed development’s “area of influence”. The “area of influence” includes all points of access to the public street system, all intersections of regional significance (arterials, collectors, and neighborhood routes) within 1,000 linear feet from all points of access onto the public street system, and all intersections that experience an impact exceeding five percent of existing morning or evening peak hour traffic volume.

Per Table 3.2: TIA Threshold and Analysis Areas in ODOT’s *Development Review Guidelines*, the area for analysis is defined as the area significantly affected by the development, within reason. Based on best practices, Table 3.2 recommends analysis at intersections where traffic is increased by 50 peak hour trips, or 400 weekday trips.

Based on the project site trip impacts and proximity to the site, the following two intersections were analyzed for the TIA. This scope was confirmed by the City of Beaverton.

1. NW Bronson Road & Site Access
2. NW Bethany Boulevard & W Bronson Road

Trip Assignment & Specific Impacts

The following trip distribution was used in the TIA and approved by the City of Beaverton:

- Approximately 10 percent of site trips will travel to/from the north along NW Bethany Boulevard;
- Approximately 30 percent of trips will travel to/from the east along Highway 26;
- Approximately 20 percent of site trips will travel to/from the west along NW Bronson Road;
- Approximately 15 percent of trips will travel to/from the west along Highway 26; and
- Approximately 25 percent of site trips will travel to/from the south along NW Bethany Boulevard.

Table 1 shows the number of trips and estimated percent impact at the Highway 26 interchange based on the projected trip distribution during the morning peak hour, evening peak hour, and an average weekday. The Average Annual Daily Traffic (AADT) was estimated using ODOT’s TransGIS, the morning and evening peak hour traffic was estimated to be ten percent of the daily volume.

Table 1: Trip Assignment

Intersection	% of Site Trips	AADT	Morning Peak Hour			Evening Peak Hour			Daily trips	
			Volume	Trips	% Impact	Volume	Trips	% Impact	Trips	% Impact
Hwy 26 WB & Bethany Blvd	70%	19,300	1,930	32	1.66%	3,600	14	0.39%	250	1.30%
Hwy 26 EB & Bethany Blvd	55%	19,300	1,930	25	1.30%	3,300	11	0.33%	196	1.02%



As stated above, Table 3.2 recommends analysis at ODOT intersections where traffic is increased by 50 peak hour trips, or 400 weekday trips. Neither of the interchange intersections are projected to be impacted by more than 32 peak hour trips or more than 250 or more weekday trips, therefore, these intersections should not be required to be analyzed.

Furthermore, the analysis presented in the TIA shows that the evening peak hour is the critical peak regarding intersection operation. The trip assignment shows that during the evening peak hour only 14 trips would be added to the Highway 26 interchange area, for an increase of less than 0.4%.

Oregon Highway Plan Significant Effect Determination

The Oregon Highway Plan (OHP) Action 1F.5 considers amendments to adopted plans such as the subject zone change that trigger the Transportation Planning Rule (TPR). Specifically, it defines the level at which an impact is di minimis and represents a “small increase” that is not sufficient to result in a significant effect:

If an amendment subject to OAR 660-012-0060 increases the volume to capacity ratio further, or degrades the performance of a facility so that it does not meet an adopted mobility target at the planning horizon, it will significantly affect the facility unless it falls within the thresholds listed below for a small increase in traffic.

The threshold for a small increase in traffic between the existing plan and the proposed amendment is defined in terms of the increase in total average daily trip volumes as follows:

- *Any proposed amendment that does not increase the average daily trips by more than 400.*

As documented in this memorandum, the potential net increase in trips at the interchange area will be 250 trips, which is well under ODOT’s own threshold for determining whether there can be a significant effect.

Conclusion

City traffic and engineering staff were closely involved in the scoping for the TIA and they performed a subsequent review of the report. The TIA demonstrates that there is no “significant effect” and that the TPR is satisfied.

For the following reasons, the additional analysis requested by ODOT at the Highway 26 interchange is not necessary:

1. The project study area was confirmed with the City of Beaverton and satisfies Beaverton Development Code section 66.55.20.
2. Potential trip impacts to the interchange area are well below those identified in ODOT’s *Development Review Guidelines*.
3. As defined by trip impact thresholds in the *Oregon Highway Plan*, there is no significant effect to the interchange area, regardless of the operation of the ramp terminals.

If you have any questions regarding this information, please do not hesitate to contact us directly.

