

Memorandum

To: **NAME**

From: **TRAFFIC ENGINEER**

Date: **November 13, 2023**

Subject: **Development C**
Transportation Compliance Letter

Introduction

This Transportation Compliance Letter (TCL) details a trip generation and accounting analysis for the proposed **Development C**, to be located within the Landing on the Cowlitz (LOT) Master Plan area in Castle Rock, Washington. The project will develop a **15,000 square foot hardware store**.

Since the proposed development will be located in the Landing on the Cowlitz Master Plan area, according to the LOT Development Agreement all subsequent land use development applications in the LOT Master Plan area are required to prepare a trip generation and accounting analysis to verify the following:

- Ensure total site trip generation of all existing/planned/proposed developments within the LOT Master Plan area does not exceed the reserved number of PM peak hour trips.
- Determine if/when mitigation will be triggered at nearby transportation facilities based on the total PM peak hour trip generation of all existing/planned/proposed developments within the LOT Master Plan area.

The City of Castle Rock has reserved transportation capacity for the LOT development. The LOT development has been granted an initial 1,000 PM peak hour trips for reservation. Additional transportation capacity, up to 1,750 PM peak hour trips, may be reserved when the development consumes 80% (800 PM peak hour trips) of the initial capacity as outlined in the Development Agreement.

Detailed trip generation calculations and supporting data are included as attachments to this memorandum.

Project Site Description

ENTER DEVELOPMENT SPECIFIC NARRATIVE/DESCRIPTION

Trip Generation Analysis

To estimate the number of trips that will be generated by the proposed use, trip rates from the *Trip Generation Manual*¹ were used. Data from the land use code 821, Hardware/Paint Store, was used to estimate site trip generation based on the square footage of the gross building floor area.

In accordance with the *Landing on the Cowlitz Master Plan Transportation Impact Study (TIS)*, dated November 13, 2023, the following internal capture rates were applied to the proposed development's trip generation:

- AM Peak Hour: Approximately 6% of the total site trips.
- PM Peak Hour & Average Weekday: Approximately 13% of the total site trips.

IF APPLICABLE INSERT PASS-BY TRIP DATA

The trip generation calculations show that the proposed development is projected to generate the following:

- Total Trips (Excluding Internal Capture Trips): X AM peak hour trips, X PM peak hour trips, and X average weekday trips.
- Pass-by Trips (Excluding Internal Capture Trips): X AM peak hour trips, X PM peak hour trips, and X average weekday trips.
- Primary Trips (Excluding Internal Capture Trips): X AM peak hour trips, X PM peak hour trips, and X average weekday trips.

The trip generation estimates are summarized in Table 1. Detailed trip generation calculations are included as an attachment to this memorandum.

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



Table 1: Trip Generation Summary

Land Use Code		Size	AM Peak Hour			PM Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Hardware/Paint Store	816	15,000 SF	8	6	14	21	24	45	122
<i>Pass-by Trips</i>	-	0% (0%)	0	0	0	0	0	0	0
Total Primary Trips			8	6	14	21	24	45	122
<i>Internal Trip Reduction (Total Trips)</i>		6% (13%)	0	1	1	3	3	6	16
<i>Internal Trip Reduction (Pass-by Trips)</i>			0	0	0	0	0	0	0
<i>Internal Trip Reduction (Primary Trips)</i>			0	1	1	3	3	6	16
Total External Trips			8	5	13	18	21	39	106
<i>Total External Pass-by Trips</i>			0	0	0	0	0	0	0
Total External Primary Trips			8	5	13	18	21	39	106

Table Notes: AM and PM/ADT internal and pass-by rates denoted as AM (PM/ADT).

Trip Accounting Analysis

As described above, the proposed development will be located within the LOTC Master Plan where per the LOTC Development Agreement a reserved number of PM peak hour trips are vested. Additionally, PM peak hour thresholds to determine when transportation mitigation at nearby facilities would be necessary were established. To determine if the proposed development will not exceed the vested trip thresholds or trigger the need for transportation mitigation, a trip accounting analysis was conducted.

LOTC Trip Accounting

Development C will be the third development application proposed in the LOTC Master Plan area, where currently the total remaining trips vested are **850 PM peak hour trips**. After approval of **Development C**, **805** PM peak hour trips will remain available in the bank of trips. Table 2 below summarizes the remaining trips vested in the LOTC Master Plan area following approval of the proposed development application.



Table 2: Remaining Vested Trip Summary (Total Trips Generated)

Project Name	Total PM Peak Hour Trips Allocated	Total PM Peak Hour Trips Remaining in Bank	Cumulative PM Peak Hour Trips Consumed from Bank
LOTC Master Plan	-	1,000	-
Development A	100	900	100
Subdivision B	50	850	150
Proposed Development C	45	805	195

Mitigation Threshold Analysis

Per the *Landing on the Cowlitz Master Plan TIS*, three intersections were identified as requiring capacity related mitigation improvements at specific impact thresholds. These intersections include the following:

1. SR-411 at Westside Highway
 - a. Mitigation required under 2043 conditions with or without impacts from the LOTC Master Plan area.
 - b. The LOTC will impact the intersection with 15% of externally generated primary trips.
2. Site Access at Huntington Avenue
 - a. Mitigation required once impacted by 657 PM peak hour trips.
 - b. The LOTC will impact the intersection with 100% of externally generated primary trips and pass-by trips.
3. I-5 Northbound Ramps at Huntington Avenue
 - a. Mitigation required once impacted by 384 PM peak hour trips.
 - b. The LOTC will impact the intersection with the following:
 - i. 10% of externally generated primary trips exiting the site.
 - ii. 50% of externally generated primary trips entering the site.
 - iii. 47.5% of externally generated pass-by trips.

Table 3 evaluates the PM peak hour trip thresholds of mitigation at nearby transportation facilities and if they will be necessary as part of this application.



Table 3: Mitigation Trip Impact Summary (Externally Generated PM Peak Hour Trips)

Transportation Facility	Planned Mitigation	Mitigation Threshold	Prior Approved Development Impacts	Proposed Development Impacts	Total Trip Impact	Mitigation Threshold Exceeded?	
<i>Apply Externally Generated Primary Trip Impacts</i>							
1	SR-411 at Westside Highway	TBD, Collect Proportionate Share Contributions	0	23	7	30	Yes
<i>Apply Externally Generated Primary & Pass-by Trip Impacts</i>							
2	Site Access at Huntington Avenue	Single Lane Roundabout with NEB Right-turn Bypass Lane	657	150	45	195	No
3	I-5 NB Ramps at Huntington Avenue	TBD	384	90	12	102	No

A trip assignment figure for the proposed development is included as an attachment to this TCL.

Analysis Summary

Based on Tables 2 and 3, the proposed development will not increase PM peak hour trip generation to a level that exceeds the number of trips vested in the LOTC Master Plan area. The threshold for improvements at **Intersection 1** are met; however, these improvements were triggered without impacts from the LOTC Master Plan project. No other mitigation is necessary or recommended as part of the **Development C** application.

Conclusions

ENTER FINDINGS AND RECOMMENDATIONS

