

MACKENZIE.

DESIGN DRIVEN | CLIENT FOCUSED

April 22, 2019

City of Tualatin
Attention: Tony Doran
18880 SW Martinazzi Avenue
Tualatin, OR 97062

Re: **Mutual Materials - Tualatin**
Trip Generation and Distribution Letter
Project Number 2190107.01

Dear Mr. Doran,

Mackenzie has prepared this letter for to provide estimates of the proposed Mutual Materials development trip generation and distribution. We understand staff will use this information to determine if a traffic impact analysis is needed for the project's application.

SITE CONDITIONS

Existing

The proposed site for the Mutual Materials is located at 10700 SW Tualatin Sherwood Road. The 5-acre site is currently zoned General Manufacturing (MG) and is comprised of Tax Lot 2S127AA02100. The site is currently vacant and has access to SW Tualatin Sherwood Road via one driveway shared with adjacent uses.

Proposed

The proposed development on this site is a new wholesale sales facility and distribution yard for masonry, pavers, and similar building materials. The development will consist of a material storage and loading yard, a 4,200-SF office/showroom building and an 11,700-SF storage building, associated parking, landscaping/screening, and on-site surface water management facilities.

TRIP GENERATION

Trip generation estimates are typically based on land uses listed in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual* or surveys of similar uses. The closest uses available include *Specialty Trade Contractor* and *Building Materials and Lumber Store*, both of which have larger buildings. Based on the building size, it was estimated daily trips could range from approximately 160 to 280.

As discussed during the pre-application process, a survey was conducted at a similar Mutual Materials facility at 10019 NE 72nd Avenue in Vancouver, Washington. This site has similar overall usable area and building sizes as the proposed site in Tualatin. The survey was conducted between the hours of 6:00 AM and 5:00 PM on Tuesday April 9, 2019, which includes 30 minutes before and after business hours. Results are summarized in the table below and are proposed to be used for



the new site's trip estimates. A detailed summary of the survey is attached to this letter which identifies the 15-minute volume for both entering and exiting vehicles at both driveways for the Vancouver site.

TABLE 1 – TRIP GENERATION				
Source	Daily			PM Peak Hour (4PM-5PM)
	In	Out	Total	
Existing Counts	101	104	205	16

The peak hour of the site was found to be between 1:55 – 2:55 PM with a total of 32 trips, which occurs earlier than the typical PM peak hour between 4:00 – 6:00 PM.

TRIP DISTRIBUTION

Trip distribution was based upon evaluation of the existing traffic patterns and assumptions for nearby industrial development projects. The following distribution was assumed for the Mutual Materials development:

- 65% to and from the East on Tualatin Sherwood Road
- 35% to and from the West on Tualatin Sherwood Road

CONCLUSION

The proposed Mutual Materials site is expected to generate a total of 16 PM peak hour trips and 205 daily trips. It is estimated that 35% of site trips will travel to and from the west on Tualatin-Sherwood Road. The peak hour of the site occurs outside the typical peak hours of analysis, which helps to reduce the site's impact on the surrounding transportation system.

We trust this information is sufficient for the City to confirm no additional analysis would be needed. Please contact us if you have any questions or need additional information.

Sincerely,



Brent Ahrend, PE
Associate Principal | Traffic Engineer

Enclosure: Trip Survey Summary

c: Mike McCarthy – City of Tualatin
Adam Solomonson, Daniel Reid, Jenn Scola, Suzannah Stanley – Mackenzie



EXPIRES: 12/31/19

Traffic Counts

Date: 4/9/2019 Mutual Materials Dwy & NE 101st St Mutual Materials Dwy & NE 72nd Ave

Start Time	101st St		72nd Ave	
	In	Out	In	Out
6:00 AM	0	0	0	0
6:05 AM	0	0	1	0
6:10 AM	0	0	0	0
6:15 AM	0	0	0	0
6:20 AM	0	0	1	0
6:25 AM	0	0	1	0
6:30 AM	0	0	0	0
6:35 AM	0	0	0	0
6:40 AM	0	0	0	0
6:45 AM	0	0	1	0
6:50 AM	0	0	0	1
6:55 AM	0	1	1	0
7:00 AM	0	0	0	0
7:05 AM	0	0	0	0
7:10 AM	0	0	1	0
7:15 AM	0	0	1	1
7:20 AM	0	0	2	0
7:25 AM	0	0	0	0
7:30 AM	0	0	2	0
7:35 AM	0	0	1	1
7:40 AM	0	0	0	0
7:45 AM	0	0	0	2
7:50 AM	0	0	2	2
7:55 AM	0	0	1	0
8:00 AM	0	0	0	0
8:05 AM	0	0	0	0
8:10 AM	0	0	0	0
8:15 AM	0	0	2	0
8:20 AM	0	0	0	0
8:25 AM	0	0	2	1
8:30 AM	0	0	0	1
8:35 AM	0	0	1	1
8:40 AM	0	0	4	0
8:45 AM	0	0	2	2
8:50 AM	0	0	0	2
8:55 AM	0	0	0	1
9:00 AM	0	0	1	3
9:05 AM	0	0	1	1
9:10 AM	0	0	1	1
9:15 AM	0	0	0	1
9:20 AM	0	0	3	0
9:25 AM	0	0	1	0
9:30 AM	0	0	0	2
9:35 AM	0	0	2	0
9:40 AM	0	0	0	0
9:45 AM	0	0	0	0
9:50 AM	0	0	0	1
9:55 AM	0	0	1	1
10:00 AM	0	0	1	1
10:05 AM	0	0	0	1
10:10 AM	0	0	0	1
10:15 AM	0	0	1	0
10:20 AM	0	0	0	1
10:25 AM	0	0	1	1
10:30 AM	0	0	0	0
10:35 AM	0	0	2	1
10:40 AM	0	0	0	0
10:45 AM	0	0	0	2
10:50 AM	0	0	0	0
10:55 AM	0	0	1	0
11:00 AM	0	0	1	0
11:05 AM	0	0	0	0
11:10 AM	0	0	1	0
11:15 AM	1	0	2	1
11:20 AM	0	1	3	1
11:25 AM	0	0	0	1
11:30 AM	0	0	0	1
11:35 AM	0	0	1	2
11:40 AM	0	1	3	1
11:45 AM	0	1	1	1
11:50 AM	0	0	0	1
11:55 AM	0	0	1	0

Mutual Materials Dwy & NE 101st St Mutual Materials Dwy & NE 72nd Ave

Start Time	101st St		72nd Ave	
	In	Out	In	Out
12:00 PM	0	0	2	1
12:05 PM	0	0	0	3
12:10 PM	0	0	1	0
12:15 PM	0	0	2	1
12:20 PM	1	0	1	0
12:25 PM	0	0	0	2
12:30 PM	0	1	1	0
12:35 PM	0	0	1	1
12:40 PM	0	0	0	1
12:45 PM	0	0	0	1
12:50 PM	0	0	2	0
12:55 PM	0	0	0	0
1:00 PM	0	0	0	0
1:05 PM	0	0	0	2
1:10 PM	0	0	1	1
1:15 PM	0	0	2	2
1:20 PM	0	0	1	1
1:25 PM	0	0	2	0
1:30 PM	0	0	0	1
1:35 PM	0	0	0	0
1:40 PM	0	0	0	0
1:45 PM	0	0	0	0
1:50 PM	0	0	2	0
1:55 PM	0	0	1	2
2:00 PM	0	0	3	3
2:05 PM	1	1	1	2
2:10 PM	0	0	0	0
2:15 PM	1	0	0	2
2:20 PM	0	0	2	0
2:25 PM	0	0	2	1
2:30 PM	0	1	0	1
2:35 PM	0	0	0	0
2:40 PM	0	0	1	2
2:45 PM	0	0	2	0
2:50 PM	0	0	1	2
2:55 PM	0	0	1	0
3:00 PM	0	0	2	0
3:05 PM	0	0	0	4
3:10 PM	1	0	0	2
3:15 PM	0	0	0	0
3:20 PM	0	0	1	0
3:25 PM	0	0	0	1
3:30 PM	0	0	0	2
3:35 PM	0	0	0	1
3:40 PM	0	0	0	0
3:45 PM	0	0	0	0
3:50 PM	0	0	0	0
3:55 PM	0	0	3	0
4:00 PM	0	0	1	2
4:05 PM	0	0	0	2
4:10 PM	0	0	0	0
4:15 PM	0	0	1	0
4:20 PM	0	0	0	0
4:25 PM	0	0	1	0
4:30 PM	0	0	0	2
4:35 PM	0	0	0	4
4:40 PM	0	0	0	3
4:45 PM	0	0	0	0
4:50 PM	0	0	0	0
4:55 PM	0	0	0	0

Daily Total	5	7	96	97
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Site Total	Enter	Exit
	101	104