

Appendix H

Trip Generation Analysis

MEMORANDUM

To: Mr. Ray Barragan & Ms. Lisa Kranitz, City of Gardena
From: Serine Ciandella & Rita Garcia
Date: May 1, 2019
Subject: **Melia 178th Street Project – Trip Generation Analysis**

The City of Gardena retained Kimley-Horn and Associates, Inc. to prepare a trip generation analysis for the proposed Melia 178th Street Project (Project), located at 1515 West 178th Street, City of Gardena.

The Project site is currently occupied by an active trucking warehouse use (i.e., RoadEx America). The Project proposes to remove this existing use and, in its place, develop a residential community consisting of 114 three-story, attached townhomes. Therefore, the trips currently associated with the Project site would be taken as a trip credit to offset the new trips that would be generated by the proposed Project.

Trip generation estimates for the existing trucking warehouse have been developed by collecting AM and PM peak hour traffic count data at the two existing site driveways on 178th Street. Trip generation estimates for the proposed Project are based on the ITE Trip Generation Manual (10th Edition) trip generation rates for ITE Land Use 221 – Multifamily Residential – Mid-Rise (3 – 10 stories). A summary of the data collection and the trip generation analysis is presented below.

Existing Trucking Warehouse Trip Generation

Traffic count data was collected at the Project site driveways on Monday, March 25, from 6:00 AM to 9:00 AM, and from 3:00 PM to 7:00 PM, for a total of seven hours of data collection. The driveway counts included a separate tally of passenger cars and trucks.

The data collection also included counts of pedestrians walking to/from the Project site. Throughout the data collection period, individuals were observed parking on 178th Street or Denker Avenue and walking to/from the Project site. The street parking in the area was observed to be heavily occupied during the daytime hours. During the seven-hour data collection period, as many as 78 pedestrians were observed entering/exiting the Project site during the AM peak hour. These pedestrians were assumed to be trucking warehouse employees or visitors, and therefore were counted as vehicular trips associated with the existing trucking warehouse.

A summary of the existing AM and PM peak hour period site trips, broken down by passenger cars, trucks, and pedestrians, is provided on **Table 1**. As indicated in **Table 1**, passenger cars, trucks, and pedestrians generate approximately 63 AM peak hour trips and 64 PM peak hour trips.

Table 1 Summary of RoadEx Driveway Traffic Data Collection			
Period	Type of Trip¹	Trips During Entire Data Collection Period²	Trips During Peak Hour^{2, 3}
AM (Morning) (6:00 AM to 9:00 AM)	Passenger Cars	16	7
	Trucks	47	20
	Sub-Total	63	27
	Pedestrians	78	36
	Total Morning	141	63
PM (Evening) (3:00 PM to 7:00 PM)	Passenger Cars	33	15
	Trucks	76	21
	Sub-Total	109	36
	Pedestrians	66	28
	Total Evening	175	64
Total AM and PM Trips		316	127
<p>Notes:</p> <ol style="list-style-type: none"> 1. For purposes of reporting the results of the data collection at the Project site driveways: <ul style="list-style-type: none"> • Cars = Passenger cars entering or exiting the site driveways. • Trucks = Trucks entering or exiting the site driveways. • Pedestrians = Individuals observed parking on the street and walking to/from the Project site. 2. Accounts for both inbound and outbound movements (i.e., trips). 3. Highest single hour of traffic during the AM and PM data collection periods. 			

Proposed Project Trip Generation

The trip generation estimates for the proposed Project are summarized on **Table 2**. Based on the ITE trip generation rates for Multifamily Residential – Mid-Rise, the proposed Project is estimated to generate 620 average daily trips (ADT), with 41 AM peak hour trips and 51 PM peak hour trips.

TABLE 2 COMPARISON OF PROJECT TRIP GENERATION EXISTING: RoadEx Trucking PROPOSED: Melia Homes Multifamily Residential									
Land Use	ITE Code	Unit	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
RoadEx Trucking Business	<i>Site traffic volumes based on peak period driveway counts - March, 2019</i>								
Multifamily Housing (Mid-Rise)	221	DU	5.440	0.094	0.266	0.360	0.268	0.172	0.440
Land Use	Quantity	Unit	Trip Generation Estimates						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Existing Use									
RoadEx Trucking Business - Vehicles			n/a	13	14	27	16	20	36
Pedestrians to and from RoadEx ²			n/a	26	10	36	9	19	28
Total Existing Trips			n/a	39	24	63	25	39	64
Proposed Use									
Multifamily Housing (Mid-Rise)	114	DU	620	11	30	41	31	20	51
Net Difference (Proposed Minus Existing)			n/a	-28	6	-22	6	-19	-13
¹ Source: Institute of Transportation Engineers (ITE) <u>Trip Generation Manual</u> , 10th Edition ² Throughout the data collection period, individuals were observed parking on 178th Street or Denker Avenue and walking to and from the RoadEx property. Each pedestrian entering or exiting the RoadEx site is assumed to be a RoadEx employee or visitor, and is counted as a vehicular trip associated with the existing RoadEx business.									

Trip Generation Analysis

As previously noted, the Project proposes to remove the existing trucking warehouse. Therefore, the trips currently associated with the Project site would be taken as a trip credit to offset the new trips that would be generated by the proposed Project.

Traffic Volumes. A summary of the existing site trips and proposed Project trips is provided in **Table 2**. When the existing trips generated by the trucking warehouse are subtracted from the proposed Project trip generation estimates, the Project would result in -22 AM peak hour trips and -13 PM peak hour trips. Thus, the Project would result in a net decrease in peak hour trips.

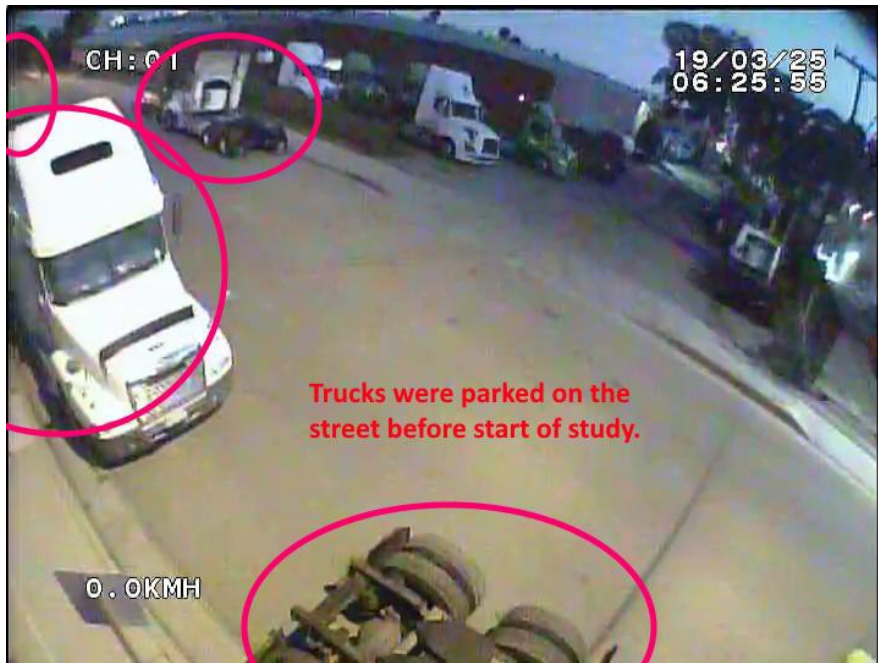
Existing Conditions on the Surrounding Streets. In addition to the existing traffic levels currently associated with the Project site, two traffic-related conditions exist on the surrounding street system:

- As previously mentioned, individuals were observed parking on the street and walking to/from the Project site. During the seven-hour data collection period, as many as 78 pedestrians were observed entering or exiting the Project site; see **Table 2**.
- During the data collection period, several large trucks were observed parked along 178th Street, or pulled over, idling and waiting for an opening on the Project site. **Table 3** summarizes the instances observed, along with the time of day and duration. **Exhibit 1** provides photographs of some of the trucks observed parked or waiting on 178th Street.

Project implementation would remove the existing trucking warehouse, thus, removing the associated trucking activities including the street parking and idling described above. Therefore, circulation and capacity on the street system serving the Project site would improve with Project implementation.

<p align="center">Table 3 Summary of Truck Activity on 178th Street</p>		
Activity on 178th Street	Time of Day	Duration
Several trucks parked – both sides of street	Trucks were parked on 178 th Street when the data collectors arrived at 6:00 AM	Unknown
1 truck parked – north side of street	Prior to 6:00 AM to 7:35 AM	1 hour 35 minutes
1 truck waiting – south side of street	7:25 to 7:35 AM	10 minutes
1 truck waiting – north side of street	2:48 to 2:58 PM	10 minutes
1 truck waiting – north side of street	3:43 to 3:59 PM	16 minutes
1 truck waiting – north side of street	4:07 to 4:10 PM	3 minutes
1 truck waiting – north side of street	4:52 to 5:07 PM	15 minutes
1 truck waiting – north side of street	5:44 to 5:57 PM	13 minutes
1 truck waiting – south side of street	6:09 to 6:15 PM	6 minutes

EXHIBIT 1 – IMAGES OF TRUCKS ON 178TH STREET



Trucks Parked on 178th Street Prior to 6:00 AM Data Collection

Truck Waiting on South Side of 178th Street - 7:25 - 7:35 AM

