

# KLEIN

TRAFFIC CONSULTING, LLC

156 Walker Road  
West Orange, NJ 07052  
973-985-3464  
leekleintraffic@gmail.com

January 31, 2023

Hiren Ramani  
Shaun Kumar Gupta  
OM GANESH BAYONNE LLC  
1 Flagship Street  
Bayonne, NJ 07002

VIA EMAIL: [hiren@ramanigroup.net](mailto:hiren@ramanigroup.net)  
[shaun789@gmail.com](mailto:shaun789@gmail.com)

**Re: Traffic Engineering and Parking Evaluation  
Proposed 281 Multifamily Housing (High-Rise) and 6,325 SF Commercial Space  
with 550 On-Site Parking Spaces  
Chosin Few Way - 40<sup>th</sup> Street, Hudson County, NJ**

Dear Mr. Ramani and Mr. Gupta:

This traffic engineering evaluation letter outlines the findings, recommendations and conclusions of Klein Traffic Consulting, LLC (Klein Traffic) for the above-referenced project.

## **Introduction**

This subject site is part of Harbor Station South Redevelopment Plan. The proposal is to build 281 units of multifamily housing (high-rise) and 6,325 square feet of commercial space with 550 on-site parking spaces. The site access is via a two-way driveway on 40<sup>th</sup> Street. Traffic would access the site using 40<sup>th</sup> Street to either Chosin Few Way to Goldsborough Drive and Route 440 or 40<sup>th</sup> Street over Route 440 into Bayonne. The subject site is located within 0.4-mile/8-minute walk of and is easily accessible to the 45<sup>th</sup> Street Hudson-Bergen Light Rail station.

## **Transit Options**

At the intersection of 45<sup>th</sup> Street with Avenue E, which is approximately 0.4 miles or a 8-minute walk from the proposed development, there is the 45<sup>th</sup> Street Hudson-Bergen Light Rail station, which provides mass transit service to Manhattan, Jersey City, Hoboken, and other destinations. It is my understanding that shuttle bus service may be arranged to connect the subject site with the Light Rail station, making the Light Rail a more attractive commuting option for residents. The frequency, variety, and proximity of public transportation makes this site ideal for residents to leave their car at home or to not own a car at all. Thus, making this location ideal for residents who want access to Manhattan, Jersey City, Hoboken, and other destinations via mass transit.

### **Traffic Analysis**

Using the NJDOT HAPS system for calculating trip generation, which is based on the *Trip Generation, 11<sup>th</sup> Edition*, published by the Institute of Transportation Engineers (ITE), we calculated the trip generation and provided the calculations in a summary table. Table 1 – Trip Generation Summary shows the new vehicle trip generation for the proposed 281 dwelling units of multifamily housing (high-rise) and 6,325 square feet of commercial space. We referenced plans prepared by the architectural company, JMA. The combination of 281 high-rise dwelling units and 6,325 square feet of commercial space would generate 106 vehicle trips during the weekday AM peak hour, 190 vehicle trips during the weekday PM peak hour, and 181 vehicle trips during the Saturday peak hour in and out of the site driveway. However, a certain percentage of residents of the proposed multifamily housing units would be expected to take advantage of the nearby mass transportation option for commuting to and from work. The trip generation calculations do not include a mass transit usage reduction factor on the residential trips. Also, there is a component of the commercial trip generation calculation known as “pass-by trips”, which are trips made as intermediate stops on the way from an origin to a primary destination, such as from work to home. Pass-by trips are attracted from traffic already on the road passing the site on an adjacent road. Pass-by trips could account for approximately 87% of the trips generated in the PM peak hour and 38% of the Saturday peak hour trips. That is to say that those pass-by trips are not new trips to the roadway network. Based on the small amount of commercial square footage, the proposed space will primarily serve the local residents with very little traffic accessing the commercial space from outside the immediate area. The smaller the commercial space, the higher pass-by percentage, the less new vehicle trips generated by the commercial space. Therefore, the trip generation calculations would be considered conservative.

### **Parking Analysis**

Based on the local parking requirements of 1.0 parking spaces per dwelling unit, and 3 parking spaces per 1,000 square feet of retail space, the required number of parking spaces would be 300: 19 parking spaces for the 6,325 square feet of commercial space and 281 parking spaces for the 281 units of multifamily housing units. The site plan proposes 550 parking spaces, which exceeds the parking requirement by 250 parking spaces or 83 percent more parking spaces than required by the Harbor Station South Redevelopment Plan.

### **Electric Vehicle Charging Stations**

NJ legislation C.40:55D-4 states that “e. A parking space prepared with electric vehicle supply equipment or Make-Ready equipment pursuant to this section shall count as at least two parking spaces for the purposes of complying with the minimum parking spaces requirement. This subsection shall result in a reduction of no more than 10 percent of the total required parking.” The legislation continues: “f. All parking space calculations for electric vehicle supply equipment and Make-Ready equipment pursuant to this section shall be rounded up to the next full parking space.” Since the site proposes 15 percent (83 EVCS/make-ready parking spaces) of the proposed 550 parking spaces as Electric Vehicle Charging Stations (EVCS) per the

legislation, then a 10 percent reduction in the required parking spaces can be permitted, which would result in a reduction in the required parking by 30 parking spaces from 300 to 270 required parking spaces. Therefore, 83 parking spaces would be designed and equipped as EVCS/Make-Ready equipment.

### **Parking Requirement with EVCS/Make-Ready Equipment**

We also calculated the parking requirements of the 281 dwelling units and 6,325 square feet of commercial space based on the local Ordinance parking requirements for the individual uses proposed within the subject site to be 270 parking spaces, with the 10 percent reduction in the parking requirement due to the proposed 83 EVCS/Make-Ready equipment, 15 percent of the 550 proposed parking spaces. We used the temporal distribution data provided in the *Parking Generation, 5<sup>th</sup> Edition*, published by the Institute of Transportation Engineers (ITE) for each land use to prepare the shared parking analysis. We determined the number of parking spaces required for the 281 dwelling units to be 281 parking spaces based on the reduced parking requirement implemented by the NJ legislation C.40:55D-4 for EVCS/Make-Ready equipment to be 1.0 parking space per dwelling unit. We calculated the local Ordinance parking requirement of 3 parking spaces per 1,000 square feet to be 19 parking spaces for the 6,325 square feet of commercial space. With the 10 percent reduction in parking requirement from the EVCS/Make-Ready equipment, the required parking for the 6,325 square feet of commercial space is 17 parking spaces. The total parking requirement with the 10 percent reduction for EVCS/Make-Ready equipment is 270 parking spaces.

### **Loading Accommodations**

A designated loading space of 12 feet wide by 40 feet long has been provided within the parking garage. It would be expected that deliveries would be made via single-unit box trucks, such as UPS and FedEx trucks, which would park in the loading space and gain access to the commercial spaces through the service doors into the hallway to the rear of the commercial spaces.

### **Site Plan Review**

We reviewed the proposed site plan from a traffic circulation and access perspective. Adequate signing, striping, landscaping, street lighting, adequate sight distance and safe ingress and egress to and from the proposed site driveway on 40<sup>th</sup> Street will be provided. The two-way driveway on 40<sup>th</sup> Street is adequate to provide access into and out of the parking lot. The driving aisles are proposed at 24 feet wide, and the parking spaces are proposed at 9 feet wide by 18 feet long. The parking garage is proposed with 12 ADA compliant parking spaces, including 2 van accessible parking spaces, which is more than the required 2 percent or 11 ADA compliant parking spaces required for 550 proposed parking spaces. These parking spaces are located adjacent to the building entrances. Adequate sidewalks are provided to provide pedestrian access between the building and the parking lot.

**Conclusions**

It is my professional opinion as a certified Professional Traffic Operations Engineer that the proposed 281 dwelling units of multifamily housing (high-rise) and 6,325 square feet of commercial space with 550 on-site parking spaces will not have a negative traffic impact on the surrounding streets. The proposed development would generate the number of peak hour vehicle trips that were contemplated in the Harbor Station South Redevelopment Plan. The nearby light rail station and potential shuttle bus system would provide an alternative commuting option from their personal vehicle, thus reducing the vehicle trips generated by the project during the weekday AM and PM peak commuter periods. This proposed project has been contemplated within Harbor Station South Redevelopment Plan.

The site plan provides 550 parking spaces, which exceeds the requirement of 270 parking spaces with the 10 percent reduction due to the implementation of 83 parking spaces with EVCS/Make-Ready equipment.

The site plan has been designed to accommodate residents, employees, customers, and other pedestrians, as well as delivery, service, and emergency vehicle access.

In conclusion, the development of this project would have no significant impact on the traffic operations of area roadways and intersections and would not have a significant impact on local parking conditions.

The foregoing is a true representation of my findings.

Sincerely,



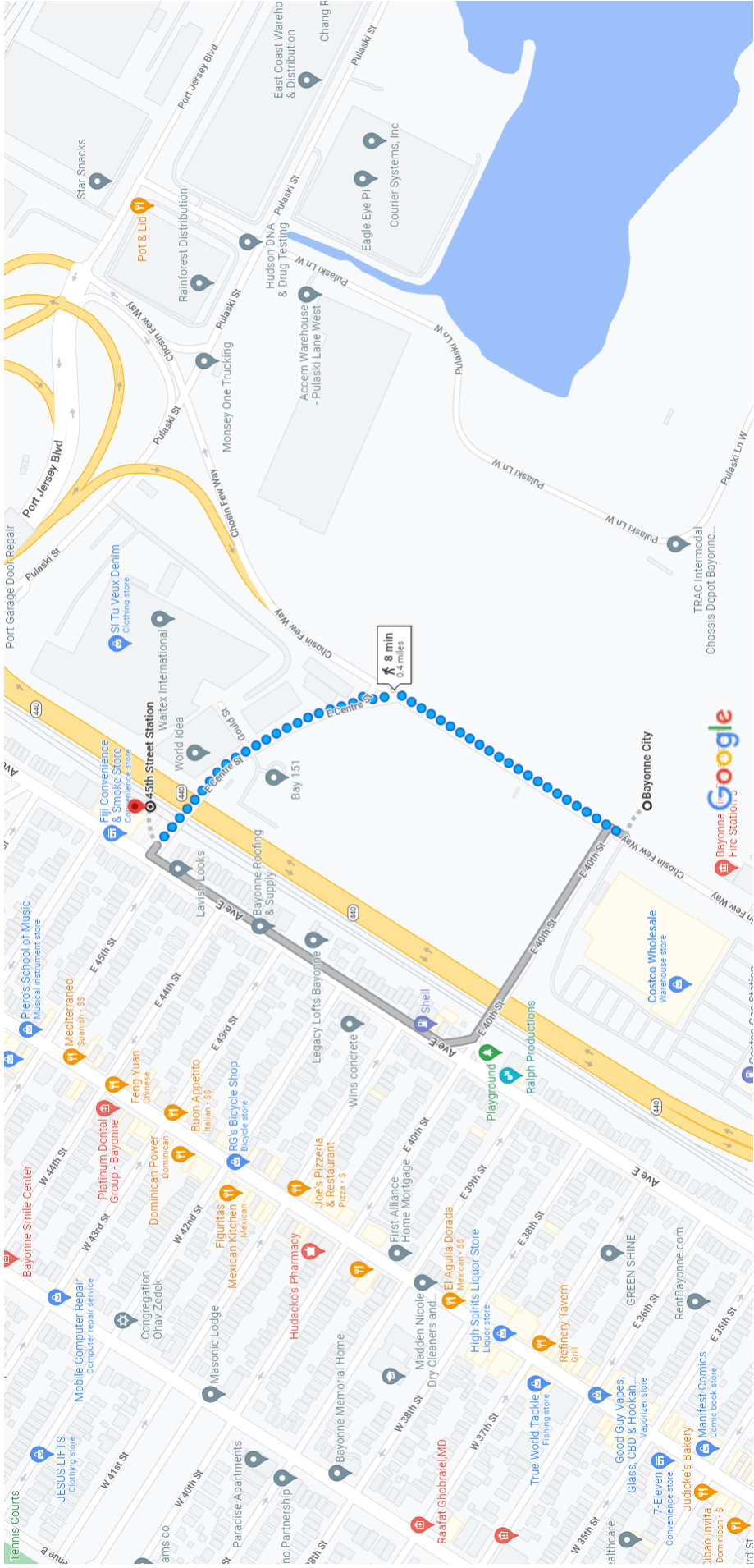
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Lee D. Klein, P.E., PTOE  
NJPE 24GE03710400  
PTOE Certification 1627

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# Google Maps Bayonne City, Bayonne, NJ to 45th Street Station, Bayonne, NJ 07002

Walk 0.4 mile, 8 min



Map data ©2023 200 ft

**TABLE 1 - TRIP GENERATION SUMMARY (USING NJDOT HAPS TRIP GENERATION RATES)  
 CHOSIN FEW - 40TH STREET - PHASE 1  
 CHOSIN FEW WAY WITH 40TH STREET, BAYONNE, HUDSON COUNTY, NJ**

CURRENTLY PROPOSED		LAND USE										
CODE	LAND USE DESCRIPTION	UNITS OF MEASURE (X)	AM PEAK HOUR	PM PEAK HOUR	WEEKDAY DAILY TRIPS	WEEKEND PEAK HOUR	WEEKEND DAILY TRIPS	AM PEAK HOUR	PM PEAK HOUR	WEEKDAY DAILY TRIPS	WEEKEND PEAK HOUR	WEEKEND DAILY TRIPS
222	Multifamily Housing (High-Rise >10 Floor)	281	100	114	1319	111	1332	100	114	1319	111	1332
820	Shopping Center	6,325	6	77	920	70	292	6	77	920	70	292
<b>TOTAL SITE-GENERATED DRIVEWAY TRIPS</b>			<b>106</b>	<b>191</b>	<b>2239</b>	<b>181</b>	<b>1624</b>	<b>106</b>	<b>191</b>	<b>2239</b>	<b>181</b>	<b>1624</b>
<b>PASS-BY CREDIT (-87% PM; -38% SATURDAY)</b>			<b>0</b>	<b>-67</b>		<b>-27</b>		<b>0</b>	<b>-67</b>		<b>-27</b>	
<b>TOTAL SITE-GENERATED NEW TRIPS</b>			<b>106</b>	<b>124</b>		<b>154</b>		<b>106</b>	<b>124</b>		<b>154</b>	

SOURCE: NJDOT, BUREAU OF MAJOR ACCESS PERMITS, HAPS, TRIP GENERATION, FEBRUARY 8, 2019