

TRAFFIC IMPACT STUDY

For

**Pathside, LLC
Proposed Mixed-Use Building**

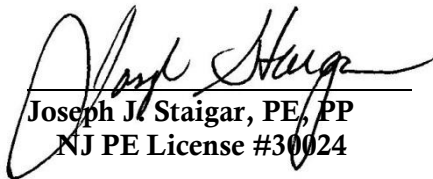
Property Located at:

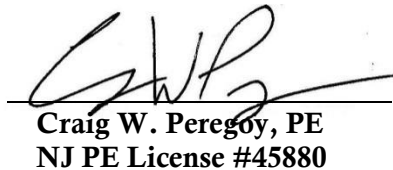
**499 Summit Avenue
Block 9501 – Lot 18
City of Jersey City, Hudson County, NJ**

Prepared by:



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1656-15-001T

INTRODUCTION

It is proposed to construct a high-rise mixed-use building with 607 residential units above 3,183 SF of ground floor commercial space (The Project) on a parcel of land located along southbound Summit Avenue between its intersections with Sip Avenue and Magnolia Avenue in the City of Jersey City, Hudson County, New Jersey. (See Figure 1, in the Technical Appendix of this report). The site is currently developed with a surface parking lot and was previously developed with a Burger King Restaurant with drive-thru. The site is in close proximity to the Journal Square Transportation Center.

Access to the existing parking lot is provided via separate ingress and egress driveways along Summit Avenue. Access to the proposed development will be provided via two (2) driveways including a full-movement driveway proximate to the existing parking lot egress driveway and a secondary ingress-only driveway to the north that will serve a drop off/delivery area, adjacent to the lobby, which ultimately connects to the primary driveway. On-site parking will be facilitated via a valet operation, the specifics of which are described in a separate document.

Dynamic Traffic, LLC has been retained to prepare this study to assess the traffic impact associated with the construction of The Project on the adjacent roadway network. This study documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.
- Traffic volume data was obtained from a recently updated Traffic Impact Study for a nearby development.
- Projections of traffic to be generated by the proposed development were prepared utilizing trip generation data as published by the Institute of Transportation Engineers. Site traffic was then assigned to the adjacent street system based upon the anticipated directional distribution.
- Capacity analyses were conducted for the Future Build conditions for the proposed site driveways.
- The proposed site driveways were inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, and conformance with accepted design standards.

EXISTING CONDITIONS

A review of the existing roadway conditions near the proposed site was conducted to provide the basis for assessing the traffic impact of the development. This included field investigations of the surrounding roadways and intersections.

Existing Roadway Conditions

The following are descriptions of the roadways in the study area:

Summit Avenue is an Urban Minor Collector roadway under the jurisdiction of the City of Jersey City. In the vicinity of the site the posted speed limit is 25 MPH and the roadway provides one travel lane in each direction in a general north/south orientation. No on-street parking is permitted along the site frontage although parking is permitted opposite the site on the northbound side and to the north of the site on both sides. No parking is permitted on the bridge over the railroad tracks to the south of the site. Summit Avenue provides a straight horizontal alignment and a relatively flat vertical alignment. The land uses along Summit Avenue in the vicinity of The Project are a mix of commercial and residential.

Existing Mass Transit Facilities

NJ Transit provides significant bus and train service in the immediate area surrounding the site. Bus service within the vicinity of the site is provided via several bus lines as detailed in Appendix B which provide service to destinations such as Exchange Place, Hoboken Terminal, Union City, North Bergen, Bayonne, Hackensack and the Port Authority Bus Terminal in New York City. The nearest bus stop is located approximately 500 feet north of the site at Pavonia Avenue. Train service is provided at the Journal Square Transportation Center, located adjacent to the site. This facility provides access to numerous NJ Transit bus lines, as well as the Journal Square PATH station which provides service to destinations such as Newark, Exchange Place, World Trade Center and 33rd Street in New York City.

Existing Pedestrian and Bicycle Facilities

Pedestrian and bicycle facilities are provided in the form of sidewalk along both sides of Summit Avenue, Pavonia Avenue and Magnolia Avenue. The sidewalks along each of these roadways extend throughout the immediate area surrounding the site and are interconnected with other streets well beyond the block in which the site is located, providing a very accessible network of pedestrian and bicycle facilities including a pedestrian connection to the Journal Square Transportation Center. One of the only existing bike lanes in Ward C is just north of the site along Magnolia Avenue, easily accessed from the subject property. The Jersey City Bicycle Master Plan also proposes a new protected bike lane along Summit Avenue.

Jersey City School Travel Plan

The Jersey City School Travel Plan does not propose any improvements in the immediate vicinity of the site, however numerous improvement measures throughout the City are identified which could likely be implemented. According to the School Travel Plan, these improvements could include updated crosswalk markings, updated curb ramps and truncated domes, and installing delineators.

Vision Zero Action Report

The Vision Zero Action Report identifies roadways within the City where fatal and serious injury crashes are most common, which is referred to as the High Injury Network (HIN). Of note is that the portion of Summit Avenue along the subject site frontage is included on the HIN. As such, the Vision Zero Action Report proposes various improvement measures such as traffic calming devices, neighborhood slow zones and crosswalk visibility features that may be implemented along Summit Avenue in the vicinity of the site.

Pedestrian Enhancement Plan

The Pedestrian Enhancement Plan does not propose any specific improvements along the Summit Avenue site frontage. However, pavement marking improvements are suggested at the intersection of Summit Avenue and Sip Avenue, south of the site. Those markings have been implemented.

On-Street Parking

The on-street parking was reviewed along the block in which the subject property is located. The following are descriptions of the surrounding roadways:

- Northbound Summit Avenue from the railroad bridge to Magnolia Avenue can park five (5) cars.
- Southbound Summit Avenue from the railroad bridge to Magnolia Avenue provides three (3) parking meters.

FUTURE CONDITIONS

Future Traffic Volumes

Future traffic volumes were obtained from the October 8, 2020 Updated Traffic Impact Study prepared by Langan Engineering & Environmental Services, Inc. for 1 Journal Square Tower. Specifically, the 2022 Future Build traffic volumes were utilized as a baseline for analysis and considered as “existing” volumes. Collection of updated traffic count data would not produce reliable information given the extent of construction in the area and the ongoing impacts of the Covid-19 pandemic. The data from the 1 Journal Square Tower report is more representative of “typical” conditions and includes the following nearby developments:

- 1 Journal Square Tower – 1,723 residential apartments and a 40,284 square foot supermarket along Sip Avenue.
- KRE (Kushner Real Estate Group) development – 1,840 residential apartments on Pavonia Avenue.
- Kushner Companies development - 741 residential apartments, 15,070 square feet of retail space and 90,280 square feet of office space at 30 Journal Square.

Figure 2 in Appendix A displays the baseline traffic volumes.

Regardless of whether the subject site is developed or not, traffic volumes on the surrounding roadways are expected to increase as a result of developments throughout the region. A growth rate for roadways within the study area was obtained from the NJDOT Annual Background Growth Rate Table, which indicates a growth rate of 1.0% per year. This growth rate accounts for other development outside of the immediate area. Therefore, Future No Build traffic volumes were developed by applying the background growth rate of 1.0% for three (3) years to the study area roadways. Figure 3, in Appendix A, shows the Future No Build traffic volumes.

Traffic Generation

Projections of future traffic volumes for the proposed project were developed utilizing data as published in the Institute of Transportation Engineers (ITE) publication *Trip Generation, 11th Edition* for Land Use Codes (LUC) 222 – Multi-Family Housing (High-Rise) Close to Rail Transit and LUC 822 – Strip Retail Plaza. Table I summarizes the projected trips generated by the proposed development utilizing the ITE data for the critical weekday morning and weekday evening peak street hours (PSH).

**Table I
Trip Generation Projections**

Land Use	AM PSH			PM PSH		
	In	Out	Total	In	Out	Total
607 High Rise Residential Units	27	34	61	63	22	85
3,183 SF Ground Floor Commercial	5	3	8	12	10	22
Total	32	37	69	75	32	107

In addition to projecting vehicular trip generation, the ITE data also provides projections of walk, bike and transit trips. Table II below details a breakdown of these projections.

**Table II
Trip Generation Projections – Modal Split**

Land Use	AM PSH			PM PSH		
	In	Out	Total	In	Out	Total
Vehicular Trip Ends	32	37	69	75	32	107
Walk+Bike+Transit Trip Ends	52	63	115	41	14	55

As described previously, there is a significant amount of mass transit availability within easy and convenient walking distance including the Journal Square Transportation Center which will have a significant effect on the traffic characteristics of The Project. In fact, US Census journey to work data suggests that only 15.7% of residents of the subject census tract utilize a vehicle to commute whereas the ITE data suggests a 37.5% ratio of vehicular usage per Table II. However, conservatively, no further adjustments are made to the ITE trip rate data to account for the likely higher utilization of mass transit for daily commutation purposes for the proposed building. It should be noted that ride-share and deliveries are also accounted for in the above vehicular trip generation projections.

Furthermore, there will also be internal interaction between the residential units and ground floor commercial space. Realistically, the retail space will serve the local community and residents of the proposed building and nearby buildings thereby replacing a portion of the vehicular trip generation with “internally captured” and pedestrian trips. However, again, no further adjustments were made to the ITE trip rate data to account for the internal interaction between the different land uses.

Lastly, it should be noted that no credit is taken for the removal of traffic generated by the existing parking lot on the subject site. This allows for a conservative assessment of a “worst case” scenario from a traffic impact perspective.

Once the magnitude of traffic to be generated by the site is known, it is necessary to assign that traffic to the adjacent street system. The distribution of new traffic to the surrounding roadways is based on the location of primary arterial roadways, major signalized intersections and existing traffic patterns. Located in Appendix A, Figure 4 illustrates the site generated volumes assigned to the study area network. Site generated traffic was added to the Future No Build traffic volumes to develop the Future Build traffic volumes as shown on Figure 5 in Appendix A.

Future Capacity Analysis

Operational conditions at the site driveway were analyzed under the No Build and Build conditions utilizing the methodology described in the *Highway Capacity Manual*, published by the Transportation Research Board. In general, the term Level of Service (LOS) is used to provide a “qualitative” evaluation of capacity based upon certain “quantitative” calculations related to empirical values, such as traffic volume and intersection control.

An unsignalized (STOP sign controlled) driveway or side street along a through route is seldom critical from an overall capacity standpoint, however, it may be of great significance to the capacity of the minor cross-route, and it may influence the quality of traffic flow on both. When analyzing an unsignalized intersection, it is assumed that both the major street through and right turn movements

are unimpeded and have the right-of-way over all side street traffic and left turns from the major street. All other turning movements in the intersection cross, merge with, or are otherwise impeded by major street movements. Traffic delays at unsignalized intersections are determined by sequentially processing these impeded movements. Table III describes the level of service ranges for unsignalized (stop controlled) intersections.

**Table III
Level of Service Criteria
for Unsignalized Intersections**

Level of Service	Average Control Delay (seconds per vehicle)
a	0.0 to 10.0
b	10.1 to 15.0
c	15.1 to 25.0
d	25.1 to 35.0
e	35.1 to 50.0
f	greater than 50.0

It should be noted that the analyses within the *Highway Capacity Manual* assume a random arrival for all the movements, which may not be the case if an adjacent traffic signal is present that platoons vehicles, such as the signalized intersections of Summit Avenue with Sip Avenue and Magnolia Avenue.

All capacity analyses were performed utilizing Highway Capacity Software (HCS). Table IV summarizes the levels of service (LOS) and delays. All capacity analysis calculation worksheets are contained in Appendix C.

**Table IV
Future Build Levels of Service**

Intersection	Direction/ Movement		AM PSH	PM PSH
Summit Avenue & Site Driveway	EB	LR	E (47)	B (11)
	NB	L	E (43)	B (11)

A (#) - Intersection Level of Service (seconds of delay per vehicle)

As shown, even with a very conservative estimation of future traffic volumes, the site driveway will operate at acceptable levels of service during the critical weekday morning and weekday evening peak hours. In fact, the calculated 95th percentile queue length for site egress is calculated to be less than two (2) vehicles which can be accommodated on site without impact to site circulation.

The provision of a secondary ingress driveway to facilitate deliveries and pick-up/drop-off activity will enhance the operational traffic flow on site and is particularly desirable given the increasing utilization of delivery services as well as ride share services such as Uber and Lyft.

FINDINGS & CONCLUSIONS

Findings

Based upon the detailed analyses as documented herein, the following findings are noted:

- The proposed 607 residential units and 3,183 SF of commercial space is projected to generate a maximum of 32 vehicle entering trips and 37 vehicle exiting trips during the morning peak hour and 35 vehicle entering trips and 72 vehicle exiting trips during the evening peak hour without consideration of the removal of the traffic generated by the existing parking lot.
- The Project is located within a short walk of multiple NJ Transit bus lines as well as the Journal Square Transportation Center which is located adjacent to the site.
- Access to the site will be provided via one (1) full movement driveway along Summit Avenue with a secondary ingress driveway to serve deliveries and pick-up/drop-off activity.
- The site driveway is projected to operate within acceptable ranges of delay for an urban area and the queue lengths for exiting vehicles can be accommodated on site without negatively impacting circulation.
- As proposed, The Project's site driveway and internal circulation have been designed to provide for safe and efficient movement of automobiles.

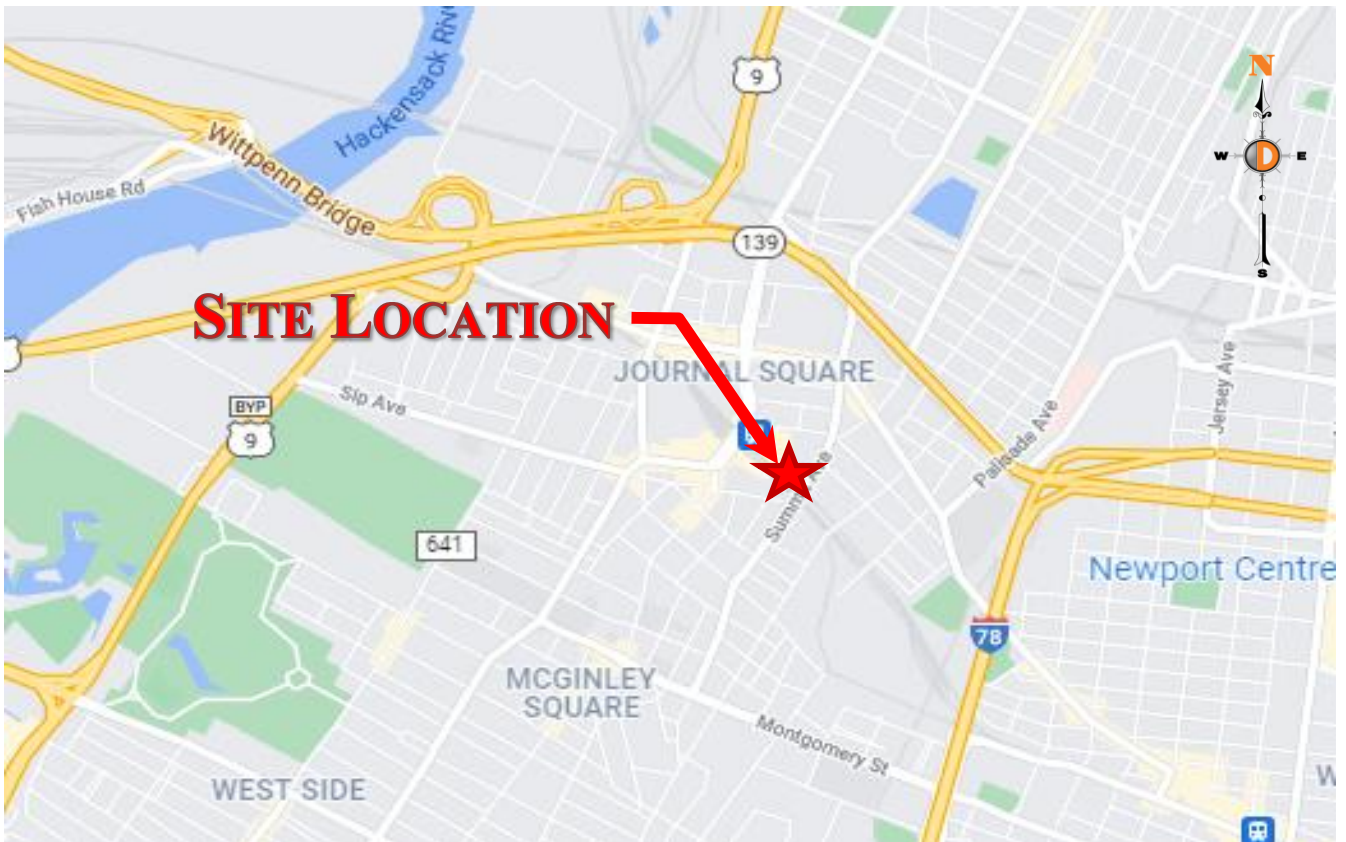
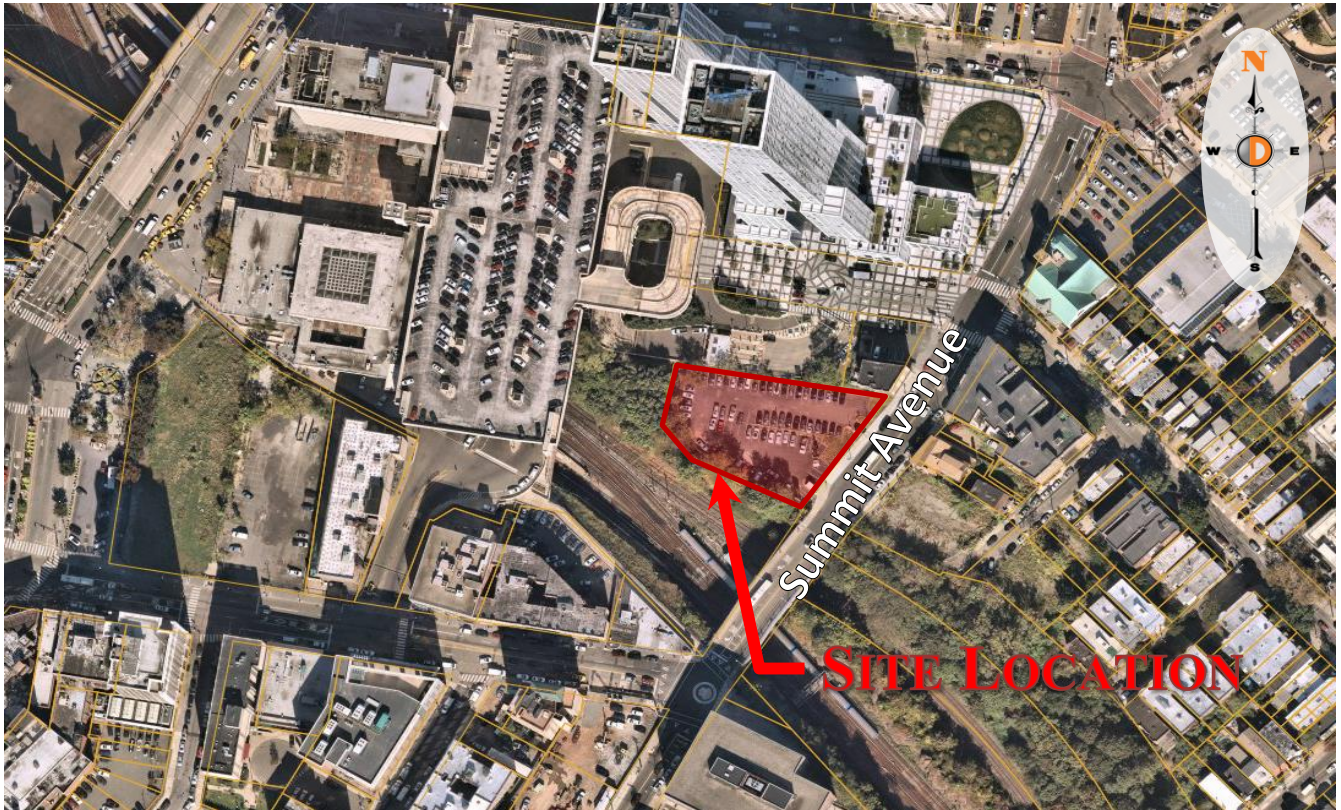
Conclusions

Based upon our Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic, LLC that the adjacent street system of the City of Jersey City will not experience any significant degradation in operating conditions with the construction of The Project.

Technical Appendix

Appendix A

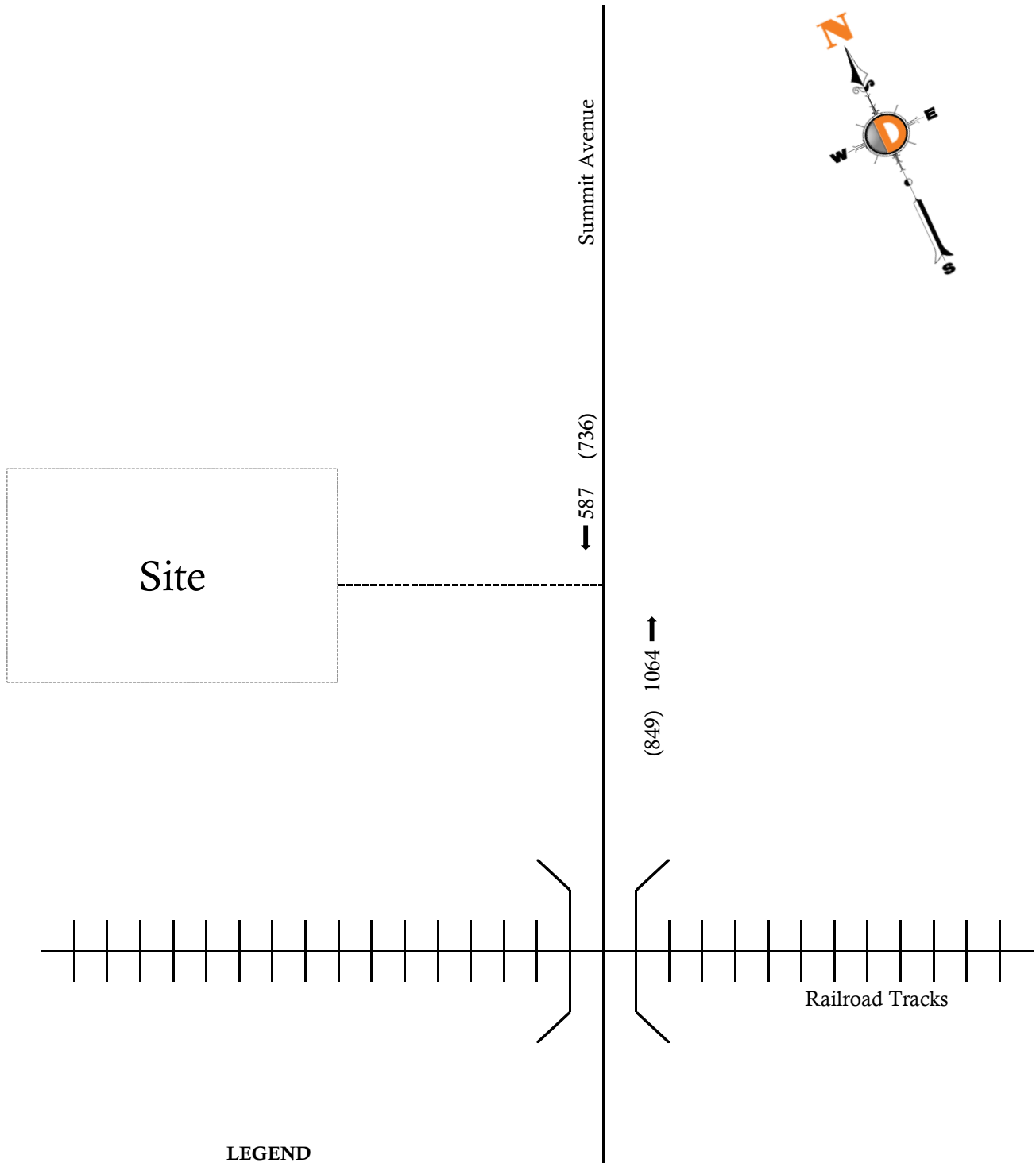
Traffic Volume Figures



Proposed Mixed Use Development
 Traffic Impact Study
 1656-15-001TE

Figure 1

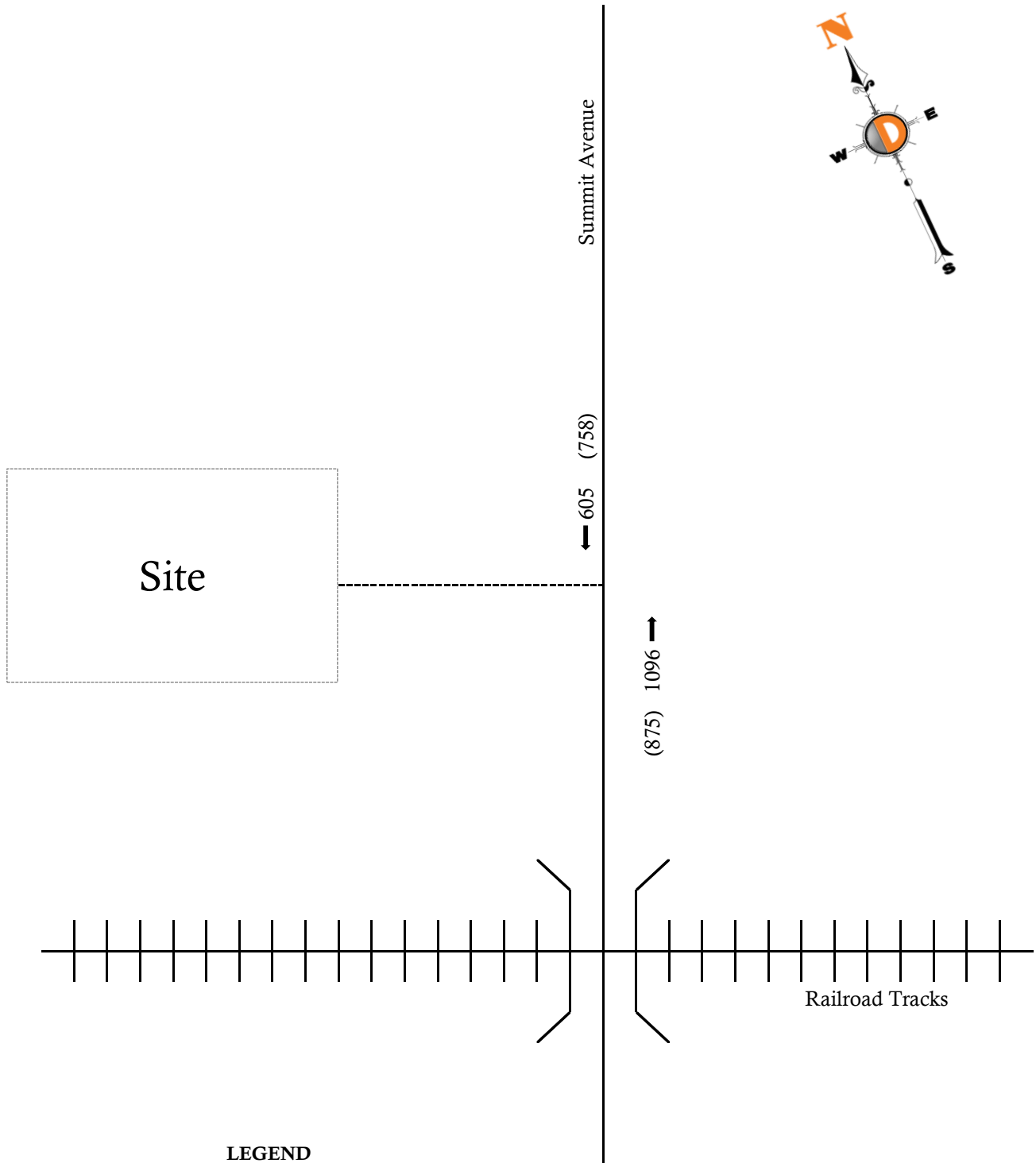
Site Location Map



Proposed Mixed Use Development
 Traffic Impact Study
 1656-15-001TE

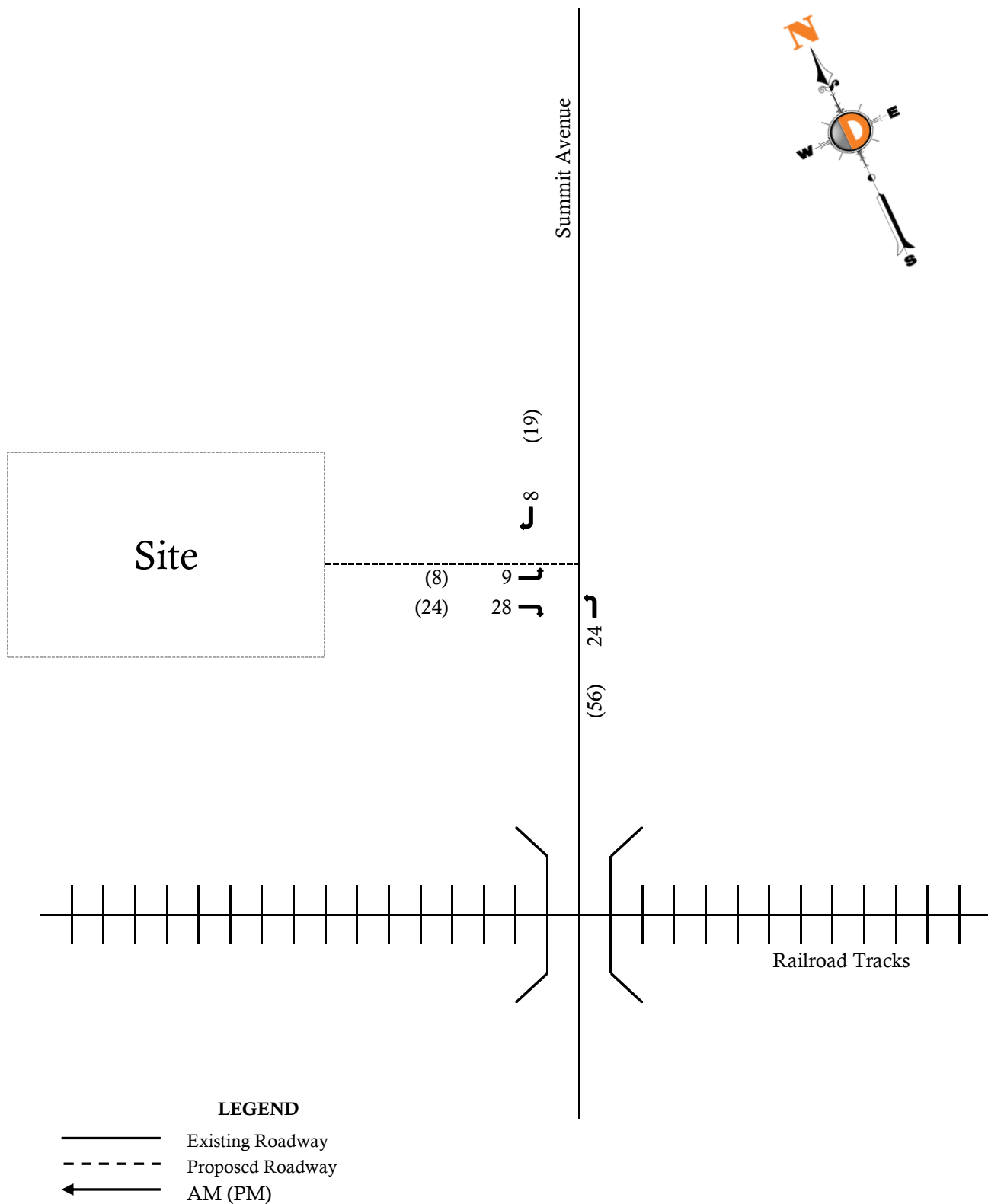
Figure 2

Existing Traffic Volumes



- LEGEND**
- Existing Roadway
 - - - Proposed Roadway
 - ← AM (PM)

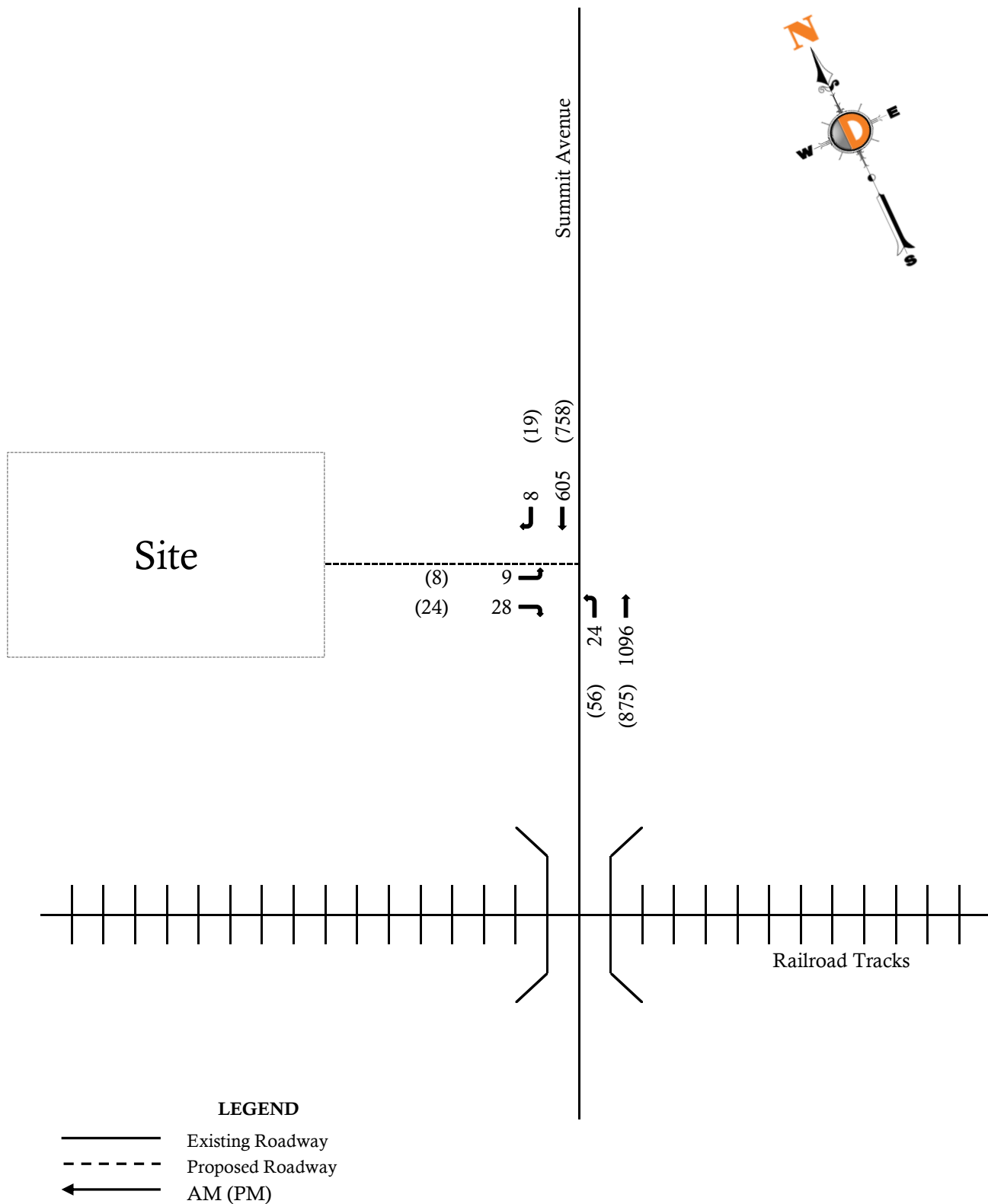




Proposed Mixed Use Development
 Traffic Impact Study
 1656-15-001TE

Figure 4

Total Site Generated Trips



Appendix B

Project Information

SUMMIT AVE AT PAVONIA AVE[Walking Directions - 0.15 miles NE](#)**BUS 119 119 JERSEY CITY AND BAYONNE VIA JFK BLVD-Exact Fare**

07:12 AM, 07:32 AM, 07:52 AM, 08:17 AM, 08:47 AM

**BUS 83 83 JERSEY CITY JOURNAL SQ-Exact Fare**

07:13 AM, 07:28 AM, 07:51 AM, 07:58 AM, 08:13 AM, 08:35 AM, 08:57 AM

**BUS 87 87 GATES AVE VIA JOURNAL SQ-Exact Fare**

07:02 AM, 07:18 AM, 07:28 AM, 07:35 AM, 07:41 AM, 07:54 AM, 08:01 AM, 08:07 AM, 08:14 AM, 08:20 AM, 08:27 AM, 08:30 AM, 08:34 AM, 08:39 AM, 08:51 AM, 08:57 AM

**BUS 88 88C JERSEY CITY JOURNAL SQ VIA CENTRAL-Exact Fare**

08:31 AM

CENTRAL AVE AT PAVONIA AVE[Walking Directions - 0.15 miles NE](#)**BUS 80 80 GATES AVE VIA JOURNAL SQ-Exact Fare**

07:11 AM, 07:26 AM, 07:41 AM, 07:56 AM, 08:11 AM, 08:26 AM, 08:56 AM

**BUS 80 80S GATES AVENUE VIA SIP AVENUE VIA JOURNAL SQ-Exact Fare**

08:04 AM

**BUS 84 84 JOURNAL SQ VIA BERGENLINE-Exact Fare**

07:10 AM, 07:37 AM, 08:01 AM, 08:25 AM, 08:55 AM

**BUS 84 84P JOURNAL SQ VIA PARK AVE-Exact Fare**

07:25 AM, 07:49 AM, 08:13 AM, 08:40 AM

SUMMIT AVE AT NEWKIRK ST[Walking Directions - 0.24 miles SW](#)**BUS 6 6 MERRITT STREET VIA OCEAN AVE-Exact Fare**

07:08 AM, 07:38 AM, 08:03 AM, 08:28 AM, 08:58 AM

**BUS 6 6L LAFAYETTE LOOP-Exact Fare**

07:48 AM, 08:43 AM

SUMMIT AVE 130 N OF ACADEMY ST.[Walking Directions - 0.27 miles SW](#)**BUS 6 6 JOURNAL SQUARE-Exact Fare**

07:20 AM, 07:30 AM, 07:45 AM, 08:10 AM, 08:20 AM, 08:40 AM

BERGEN AVE AT NEWKIRK ST[Walking Directions - 0.30 miles W](#)**BUS 80 80 EXCHANGE PL VIA JOURNAL SQ-Exact Fare**

07:09 AM, 07:17 AM, 07:27 AM, 07:39 AM, 07:57 AM, 08:00 AM, 08:06 AM, 08:18 AM, 08:27 AM, 08:37 AM, 08:49 AM

**BUS 80 80 JOURNAL SQUARE-Exact Fare**

07:51 AM, 08:09 AM

**BUS 87 87 HOBOKEN-PATH VIA JOURNAL SQ-Exact Fare**

07:00 AM, 07:09 AM, 07:19 AM, 07:26 AM, 07:32 AM, 07:39 AM, 07:45 AM, 07:59 AM, 08:05 AM, 08:09 AM, 08:17 AM, 08:23 AM, 08:31 AM, 08:39 AM, 08:43 AM, 08:52 AM

**BUS 87 87 JOURNAL SQ-Exact Fare**

07:03 AM, 07:12 AM, 07:22 AM, 07:30 AM, 07:34 AM, 07:36 AM, 07:42 AM, 07:48 AM, 07:55 AM, 07:57 AM, 08:01 AM, 08:35 AM, 08:47 AM, 08:57 AM

NEWARK AVE AT SUMMIT AVE[Walking Directions - 0.30 miles NE](#)**BUS 80 80S EXCHANGE PL VIA SIP AVE VIA JOURNAL SQ-Exact Fare**

07:33 AM, 07:45 AM, 07:57 AM

**BUS 82 82 EXCHANGE PL PATH-Exact Fare**

07:14 AM, 07:24 AM, 07:49 AM, 08:34 AM



BUS 84 84 91ST STREET VIA BERGENLINE-Exact Fare

07:03 AM, 07:33 AM, 08:03 AM, 08:43 AM



BUS 84 84P 91ST STREET VIA PARK AVE-Exact Fare

07:18 AM, 07:48 AM, 08:23 AM

JOURNAL SQUARE PATH STATION



[Walking Directions - 0.31 miles NW](#)



PATH Path Journal Sq-33rd St

07:09 AM, 07:14 AM, 07:19 AM, 07:24 AM, 07:28 AM, 07:33 AM, 07:37 AM, 07:42 AM, 07:46 AM, 07:51 AM, 07:55 AM, 08:00 AM, 08:04 AM, 08:09 AM, 08:13 AM, 08:18 AM, 08:22 AM, 08:27 AM, 08:31 AM, 08:36 AM, 08:40 AM, 08:45 AM, 08:49 AM, 08:54 AM, 08:58 AM



PATH Path Newark-WTC

07:02 AM, 07:07 AM, 07:12 AM, 07:16 AM, 07:20 AM, 07:25 AM, 07:30 AM, 07:34 AM, 07:39 AM, 07:43 AM, 07:48 AM, 07:52 AM, 07:57 AM, 08:01 AM, 08:06 AM, 08:10 AM, 08:15 AM, 08:19 AM, 08:24 AM, 08:28 AM, 08:33 AM, 08:37 AM, 08:42 AM, 08:46 AM, 08:51 AM, 08:55 AM, 09:00 AM



PATH Path WTC-Newark

07:03 AM, 07:08 AM, 07:13 AM, 07:18 AM, 07:23 AM, 07:28 AM, 07:33 AM, 07:37 AM, 07:41 AM, 07:46 AM, 07:50 AM, 07:55 AM, 07:59 AM, 08:04 AM, 08:08 AM, 08:13 AM, 08:17 AM, 08:22 AM, 08:26 AM, 08:31 AM, 08:35 AM, 08:40 AM, 08:44 AM, 08:49 AM, 08:53 AM, 08:58 AM

HOBOKEN AVE AT SUMMIT AVE



[Walking Directions - 0.33 miles NE](#)



BUS 119 119 NEW YORK-Exact Fare

07:06 AM, 07:15 AM, 07:21 AM, 07:27 AM, 07:37 AM, 07:38 AM, 07:52 AM, 07:53 AM, 08:07 AM, 08:23 AM, 08:39 AM, 08:55 AM



BUS 88 88C NORTH BERGEN 91ST STREET VIA CENTRAL-Exact Fare

08:38 AM

SUMMIT AVE AT NEWARK AVE[Walking Directions - 0.33 miles N](#)**BUS 83 83 HACKENSACK-Exact Fare**

07:23 AM, 07:42 AM, 08:02 AM, 08:47 AM

**BUS 83 83W HACKENSACK VIA WESTSIDE-Exact Fare**

07:13 AM

SIP AVE AT TONNELLE AVE[Walking Directions - 0.38 miles W](#)**BUS 80 80S GATES AVE VIA SIP AVE-Exact Fare**

08:27 AM

SIP AVE AT TONNELLE AVE[Walking Directions - 0.39 miles W](#)**BUS 1 1 JERSEY CITY JOURNAL SQ VIA RIVER TERMINAL-Exact Fare**

08:37 AM, 08:54 AM

**BUS 1 1 JERSEY CITY JOURNAL SQUARE VIA HUDSON CO CORRECTION CNTR-E**

07:32 AM

**BUS 1 1 JERSEY CITY JOURNAL SQUARE-Exact Fare**

08:17 AM

**BUS 10 10 JERSEY CITY JOURNAL SQUARE-Exact Fare**

07:07 AM, 07:15 AM, 07:23 AM, 07:31 AM, 07:39 AM, 07:47 AM, 07:55 AM, 08:03 AM, 08:11 AM, 08:19 AM, 08:28 AM, 08:37 AM, 08:46 AM, 08:55 AM

**BUS 80 80S JOURNAL SQ VIA SIP AVE-Exact Fare**

07:08 AM, 08:18 AM, 08:39 AM, 08:51 AM

JFK BLVD 300 N OF TONNELLE AVE

[Walking Directions - 0.41 miles W](#)**BUS 10 10 BAYONNE-Exact Fare**

07:12 AM, 07:27 AM, 07:42 AM, 07:57 AM, 08:12 AM, 08:32 AM, 08:52 AM

JOURNAL SQUARE TRANSPORTATION CENTER[Walking Directions - 0.43 miles NW](#)**BUS 1 1 NEWARK 16TH ST-Exact Fare**

07:52 AM

**BUS 1 1 NEWARK IVY HILL VIA HUDSON CO CORRECTION CNTR-Exact Fare**

07:12 AM, 08:33 AM

**BUS 1 1 NEWARK-IVY HILL VIA RIVER TERM-Exact Fare**

08:54 AM

**BUS 125 125 NEW YORK-Exact Fare**

07:30 AM, 08:30 AM

**BUS 2 2 SECAUCUS VIA NJ INTL & BULK MAIL CTR-Exact Fare**

07:35 AM, 08:35 AM

**BUS 2 2 SECAUCUS VIA SECAUCUS PLAZA-Exact Fare**

07:15 AM, 07:55 AM, 08:15 AM, 09:00 AM

**BUS 2 2R SECAUCUS EXPRESS-Exact Fare**

07:20 AM, 07:50 AM, 08:20 AM

**BUS 64 64J WEEHAWKEN VIA JOURNAL SQ**

07:19 AM, 07:59 AM, 08:38 AM

**BUS 88 88 NORTH BERGEN 91ST STREET-Exact Fare**

07:05 AM, 07:20 AM, 07:35 AM, 07:50 AM, 08:05 AM, 08:20 AM, 08:50 AM

JFK BLVD AT COTTAGE ST[Walking Directions - 0.45 miles NW](#)

**BUS 125 125 JERSEY CITY JOURNAL SQUARE-Exact Fare**

08:11 AM

**BUS 2 2 JERSEY CITY JOURNAL SQ VIA NJ INTL & BULK MAIL CTR-Exact F**

07:12 AM, 08:12 AM

**BUS 2 2 JERSEY CITY JOURNAL SQ VIA SECAUCUS PLAZA-Exact Fare**

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**BUS 88 88 JERSEY CITY JOURNAL SQ-Exact Fare**

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NEWARK AVE 350 E OF PALISADE AVE.[Walking Directions - 0.47 miles E](#)**BUS 86 86 UNION CITY-Exact Fare**

07:14 AM, 08:09 AM

NEWARK AVE AT PAVONIA AVE#[Walking Directions - 0.48 miles SE](#)**BUS 86 86E NEWPORT MALL VIA EXCHANGE PLACE-Exact Fare**

07:06 AM, 07:46 AM, 08:36 AM

Appendix C

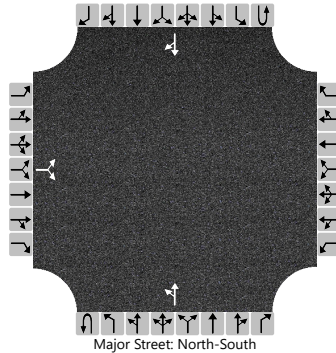
Capacity Analysis

HCS7 Two-Way Stop-Control Report

General Information

Analyst	CWP	Intersection	Site Driveway
Agency/Co.	Dynamic Traffic, LLC	Jurisdiction	City of Jersey City
Date Performed	11/3/2021	East/West Street	Site Driveway
Analysis Year	2025	North/South Street	Summit Avenue
Time Analyzed	Build AM Peak Hour	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	499 Summit Avenue		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		9		28						24	1096				605	8
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			40							26						
Capacity, c (veh/h)			125							669						
v/c Ratio			0.32							0.04						
95% Queue Length, Q ₉₅ (veh)			1.3							0.1						
Control Delay (s/veh)			47.0							10.6						
Level of Service (LOS)			E							B						
Approach Delay (s/veh)	47.0								1.4							
Approach LOS	E															

Pedestrian Level of Service				
Flow (ped/hr)	175		0	0
Two-Stage Crossing	No			
Pedestrian Platooning	No			
Conflicting Vehicular Flow (veh/h)				
Average Delay (s)	0.2			
Level of Service (LOS)	A			

HCS7 Two-Way Stop-Control Report

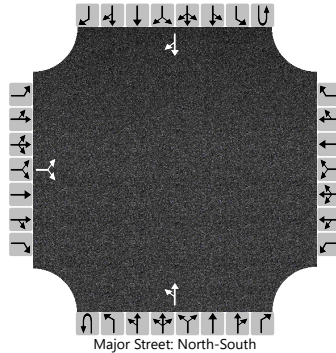
General Information

Analyst	CWP
Agency/Co.	Dynamic Traffic, LLC
Date Performed	11/3/2021
Analysis Year	2025
Time Analyzed	Build PM Peak Hour
Intersection Orientation	North-South
Project Description	499 Summit Avenue

Site Information

Intersection	Site Driveway
Jurisdiction	City of Jersey City
East/West Street	Site Driveway
North/South Street	Summit Avenue
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		8		24						56	875				758	19
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			34							59						
Capacity, c (veh/h)			127							633						
v/c Ratio			0.27							0.09						
95% Queue Length, Q ₉₅ (veh)			1.0							0.3						
Control Delay (s/veh)			43.4							11.3						
Level of Service (LOS)			E							B						
Approach Delay (s/veh)	43.4								2.7							
Approach LOS	E															