DOLAN&DEAN
CONSULTING ENGINEERS, LLC

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TRAFFIC IMPACT ANALYSIS

STADIUM PLAZA
SHOPPING CENTER

BLOCK 26102, LOTS 2 & 3
JERSEY CITY, HUDSON COUNTY, NEW JERSEY

MAY 3, 2022

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INTRODUCTION

This Traffic Impact Analysis has been prepared to support a site plan application for a proposed building expansion on Block 26102, Lots 1 & 2 in Jersey City, Hudson County. The subject property is located in the southeast portion of the Stadium Plaza shopping center along Route 440 and Kellogg Street. The proposal includes expanding, and re-tenanting the building formally occupied by K-Mart for use as a Target. In total, 32,567 square feet of building area will be added to the 86,830 square foot building formerly occupied by K-Mart. While any development changes on the subject property may affect traffic conditions, both the volume and characteristics of that traffic are of important consideration in the evaluation of this application.

Dolan & Dean Consulting Engineers, LLC (D&D) has been retained by the applicant to prepare this Traffic Impact Analysis for the proposed building expansion and renovations. This traffic study identifies the potential change in traffic activity that would arise from the proposed Target. In addition, this analysis has examined the existing traffic conditions in the immediate site vicinity and performed an assessment of the impacts on traffic conditions arising from the subject application. Further, an evaluation has been made of the site suitability for the proposed use, based on traffic engineering, safety, and access criteria.

As part of this review, particular focus has been placed on several elements of the traffic characteristics of the proposed Target, specifically:

- Examination of existing on-street traffic and physical conditions of the roadway system in the site vicinity;

- A projection of typical traffic activity associated with the proposed Target;

- A projection of future traffic volumes;

- An analysis of future driveway operations; and

- A review of the Site Plans focusing on general access design and interior circulation, and parking sufficiency.

EXISTING TRAFFIC CONDITIONS

EXISTING ROADWAY CONDITIONS

As noted, the site is located with frontage along Kellogg Street and Route 440, on Block 26102, Lots 1 & 2 in Jersey City, Hudson County. The site is occupied by a shopping center totaling 179,094 square feet, inclusive of two pad sites currently operating with a Wendy's with drive-thru facilities and a Capital One Bank with three drive in lanes. Currently, 86,830 square feet of on-site building area is vacant. This space was formally occupied by K-mart.

NJ Route 440 is under state jurisdiction and has a general north/south orientation, running between US Route 1 & 9 to the north, through Bayonne and ending at the New York State border to the south. Within the general site vicinity, the highway provides two lanes in the northbound direction and three lanes heading southbound with paved shoulders of varying width, that in some areas allow for supplemental "exit only", right-turn lanes. The posted speed limit near the site is 45 miles per hour.

Kellogg Street is a local, dead-end roadway with a general northwest/southeast orientation. The roadway currently provides access to the Stadium Plaza Shopping Center and the Society Hill residential community and continues west into the Bayfront redevelopment site. Near the Route 440 intersection, Kellogg Street provides two lanes of travel in each direction but narrows to one lane in each direction west of the connector road. There is no posted speed limit.

Just northwest of the site along Route 440 is a 100+ acre redevelopment project known as "Bayfront" that is proposed with an estimated build-out year of 2043. The redevelopment will completely alter the surrounding area

and requires planned changes to the adjacent roadway network. At this time, construction approvals, and appropriate project phasing plans regarding the redevelopment have yet to be released. Therefore, due to the inability to appropriately forecast future roadway geometry and operations, this analysis is based on existing conditions.

EXISTING TRAFFIC VOLUMES

To examine the existing traffic conditions near the site, manual turning movement counts were recently conducted during typical weekday evening and Saturday mid-day hours during time periods when traffic through the area is typically at peak levels and the shopping center is busiest.

To address the existing traffic conditions during peak traffic periods, traffic counts were conducted on Thursday, February 17, 2022, during periods of fair weather from 4:00 p.m. to 6:30 p.m. and Saturday, February 19, 2022 from 11:00 a.m. to 1:00 p.m. Traffic was counted at the 4 existing driveways to the Stadium Plaza shopping center along Route 440 and Kellogg Street. Appended Figure 2 illustrates the existing traffic volumes and patterns found during peak hours.

ANALYSIS OF EXISTING TRAFFIC VOLUMES

While traffic volumes provide a measure of activity on the area roadway system, it is also important to evaluate how well that system can accommodate those volumes – i.e., a comparison of peak hour traffic volumes with available roadway capacity. Traffic activity was observed to freely flow along Kellogg Street and Route 440 without significant constraints during the evening and Saturday peak hours.

Volume/capacity, Level of Service analyses were conducted for the existing traffic volumes at the subject intersections using the Synchro computer software. This type of analysis is performed to assess intersection operations and to identify any areas of excessive delay.

By definition capacity represents the maximum number of vehicles that can be accommodated given the constraints of roadway geometry, environment, traffic characteristics, and controls. Intersections are usually the critical point in any road network since it is at such points that conflicts exist between through, crossing, and turning traffic. It is at these locations where congestion is most likely to occur. A description of intersection Levels of Service is noted below:

INTERSECTION LEVELS OF SERVICE AND DELAY

Level of Service	Signalized Delay per Vehicle (seconds)	Unsignalized Delay per Vehicle (seconds)
A	< 10.0	<0-10
B	>10 and <20	>10 to <15
C	>20 and < 35	>15 to <25
D	>35 and < 55	> 25 to <35
E	>55 and < 80	> 35 to <50
F	> 80	>50

The existing Levels of Service, which summarize operating conditions are shown on Figure 3. As shown, all movements in the subject driveway intersections operate at Level of Service "B" or better during both peak hours.

TRAFFIC CHARACTERISTICS OF THE PROPOSED USE

PROJECTED TRIP GENERATION

The potential traffic generation from any land use is directly related to the type, size, and characteristic of the use itself. The specific site location may also affect trip generation such as volumes of passing street traffic, availability of mass transit, and competing uses.

Trip generation projections are customarily made using estimates as compiled by the Institute of Transportation Engineers (ITE) in the Trip Generation Manual, 11th Edition for uses that closely resemble the anticipated operation. For this study, the ITE 820 "Shopping Center" land use is appropriate. The following peak hour trip estimates were determined by calculating the difference in trip generation associated with a 92,264 SF shopping center (existing occupied areas) and 211,661 SF Shopping Center (proposed gross floor area).

TABLE I
ESTIMATED TRIP GENERATION

Evening Peak Hour			Saturday Peak Hour		
Enter	Exit	Total	Enter	Exit	Total
208	227	435	287	263	550

The above peak hour trip projections assume that alternate forms of transportation are not readily available and would be automobile traffic. However, Jersey City Census data reveals that approximately 61.5% of residents in this area do not use personal vehicles to commute and therefore do not impact the roadway system from automobile use. In addition, construction recently started on the Hudson Bergen Light Rail extension, which will provide rail service to the adjacent "Bayfront" redevelopment parcel. Upon completion of the HBLR extension, future customers will be within a short walking distance to the new mass-transit hub and therefore, will have an alternat form of transportation. As the timing of the proposed development and completion of the HBLR extension cannot be accurately

predicted at this time, in order to perform a conservative traffic analysis, no credit for reduced automobile traffic was taken for future mass transit use.

As also noted, the proposed Target will take over and expand on space formally used by K-Mart. The K-Mart was at one point open and generating traffic. It is therefore important to compare future Target traffic with the activity previously generated by the K-Mart when open. Table II compares the forecasted volumes for the K-Mart and proposed Target.

TABLE II
TRIP GENERATION COMPARISON

Land Use	Evening Peak Hour			Saturday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Existing K-Mart	156	170	326	214	196	410
Proposed Target	208	227	435	287	263	550
Traffic Difference	+52	+57	+109	+73	+67	+140

As shown, the proposed Target will generate volumes that are comparable to the traffic that would otherwise be generated by the K-Mart when it was in operation. Therefore, the proposed redevelopment will not measurably affect the area traffic conditions, as they will be similar to those associated with the former K-Mart use.

FUTURE TRAFFIC CONDITIONS

ANALYSIS OF FUTURE TRAFFIC

An annual 1.5% traffic growth rate factor as developed by NJDOT for Hudson County was used and applied to the existing traffic volumes for a 2024 development horizon year. Forecasted vehicle trips from the adjacent redevelopment of Lot 1, Block 24602 as residential (158 units) were then added to the adjusted volumes to develop future "no-build" traffic volumes. Site traffic was then added to the "no build" volumes to create the future "build" scenario. Appended Figures 5 & 6 depict the evening and Saturday peak hour traffic volumes for the "no-build" and "build" scenario.

Revised volume/capacity, Level of Service analyses were conducted for projected future traffic conditions at the proposed site driveways. As shown on Figures 7 and 8, during the evening peak hour, exiting movements at both Kellogg Street driveways will drop down one level of service tier, while all other movements will continue to operate at Levels of Service equivalent to those forecasted under no-build conditions. Consequently, it is expected that the proposed development will be able to operate safely and efficiently while having minimal impact on adjacent roadways.

SITE ACCESS AND CIRCULATION

As part of this study, the site plans prepared by Bohler Engineering, NJ LLC were reviewed with particular focus on the site circulation scheme, sufficiency of the proposed internal driveway circulation, overall site access and a detailed parking review. The following items address on-site design characteristics:

- Access to the site will continue to be provided through the existing access system. Inclusive of two full-movement driveways along Kellogg Street, one right-in/right-out driveway along Route 440 and one right-in only driveway along Route 440.

- As designed, driveways will lead directly to parking aisles allowing for convenient access to parking spaces. 1,000 parking spaces are proposed for the overall property, and 425 spaces are required. The required parking supply is therefore satisfied.

- The proposed parking fields for Target will provide 9-foot wide by 18-foot deep parking spaces served by two-way access aisles. As a result, efficient traffic flow will be provided throughout the main parking fields and will afford convenient circulation through the site for all vehicle types.

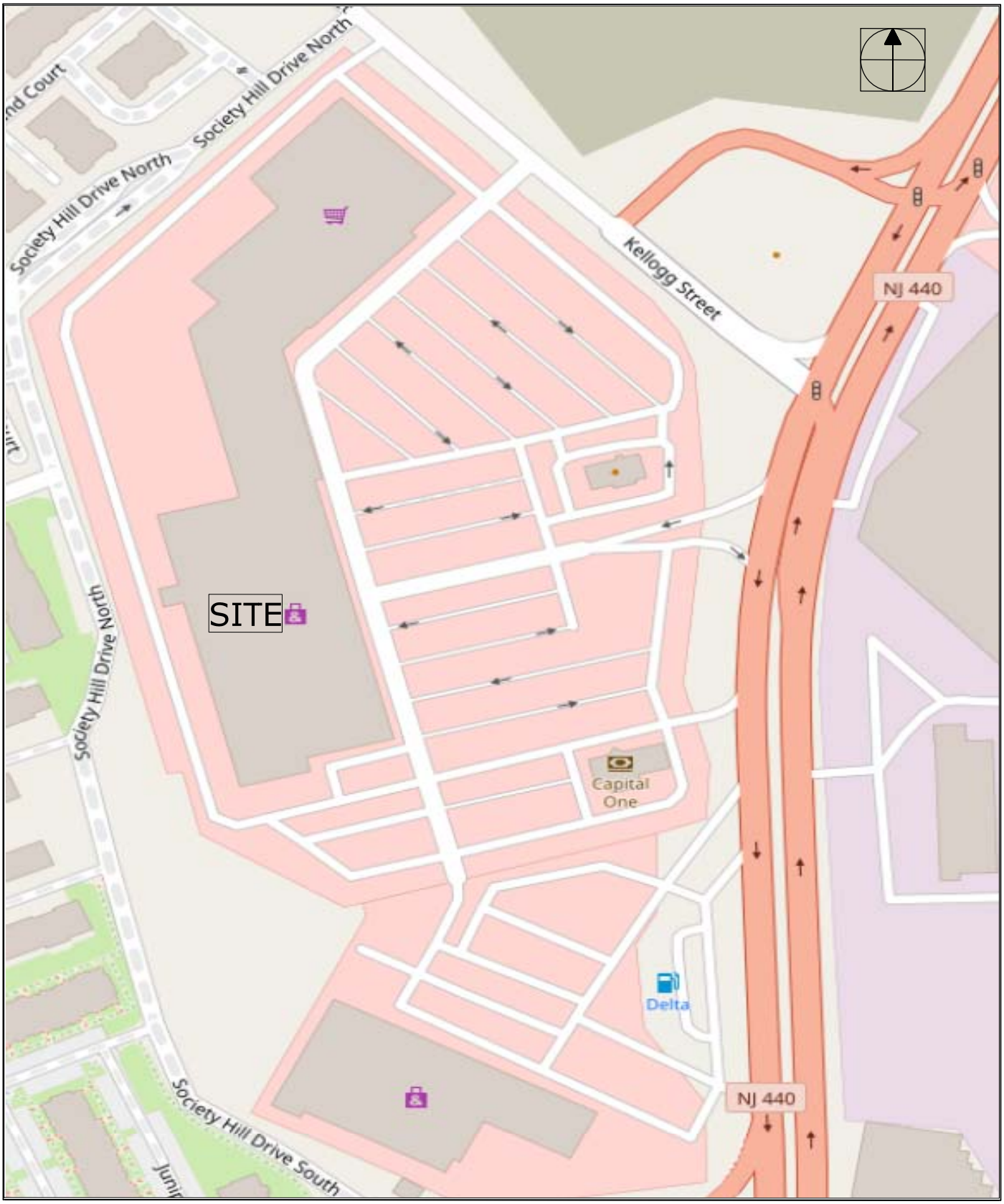
Based on these findings, the site will operate safely and efficiently with an adequate parking supply provided to accommodate peak demands for each individual use.

CONCLUSIONS

This analysis has shown that the proposed site development would not result in additional traffic demands that would create negative traffic impacts along Route 440 or the adjacent streets and the anticipated demand would be similar to what was historically generated while K-Mart was in operation. From this analysis, the projected traffic generation, can be readily accommodated by the existing roadway system no significant changes in off-site operating conditions are anticipated. Traffic attracted to the site will not contribute to any off-tract congestion or unfavorable conditions.

Safe and efficient access and circulation will be provided to/from the subject site with prudent and reasonable driver behavior. The site layout plan has been prepared consistent with accepted traffic engineering and design standards and will provide sufficient parking based on the ordinance.

TECHNICAL APPENDIX



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HUDSON COUNTY, NEW JERSEY

FIGURE 1

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SITE LOCATION MAP

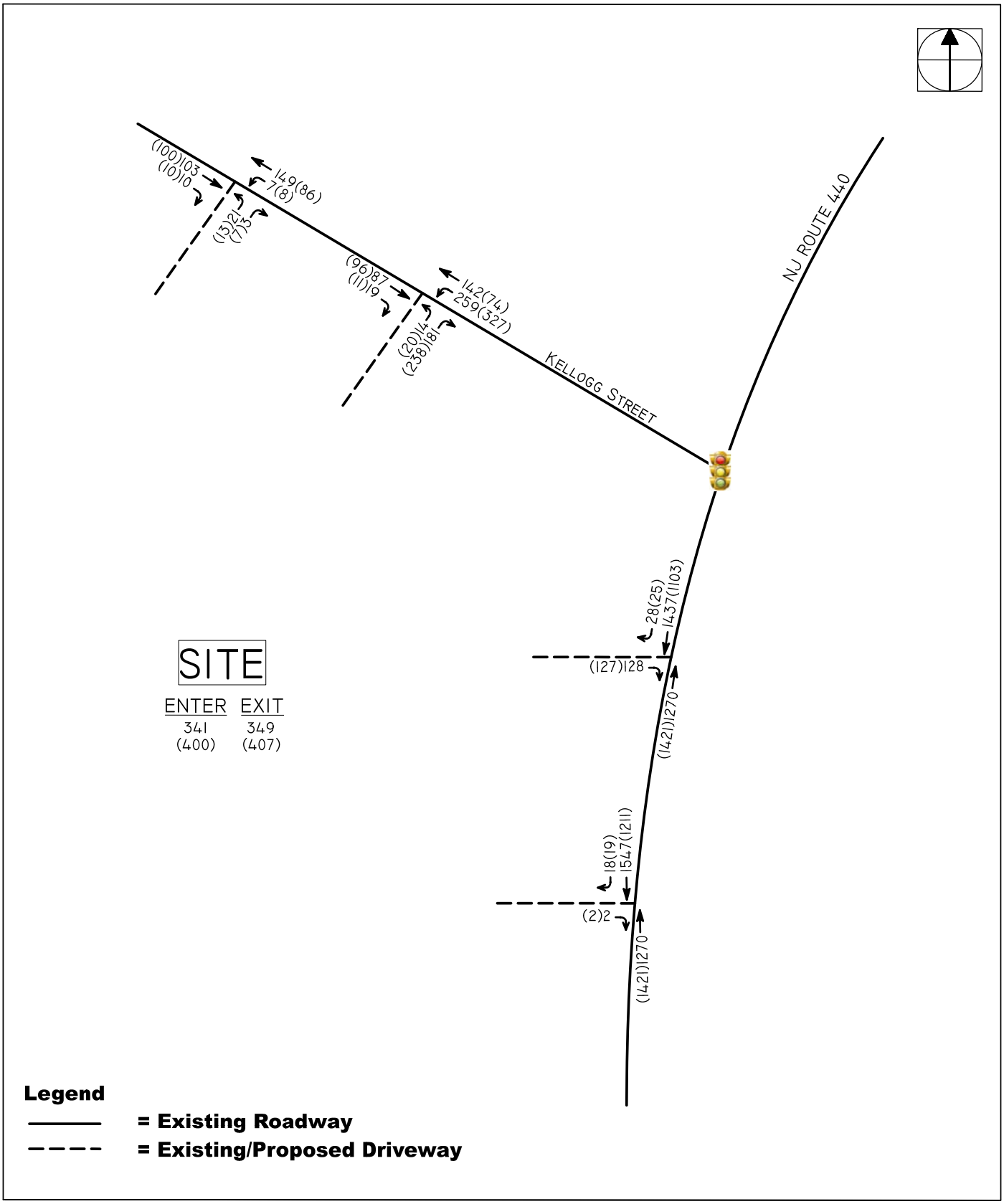

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FIGURE 2

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EXISTING TRAFFIC VOLUMES
EVENING (SATURDAY) PEAK HOUR

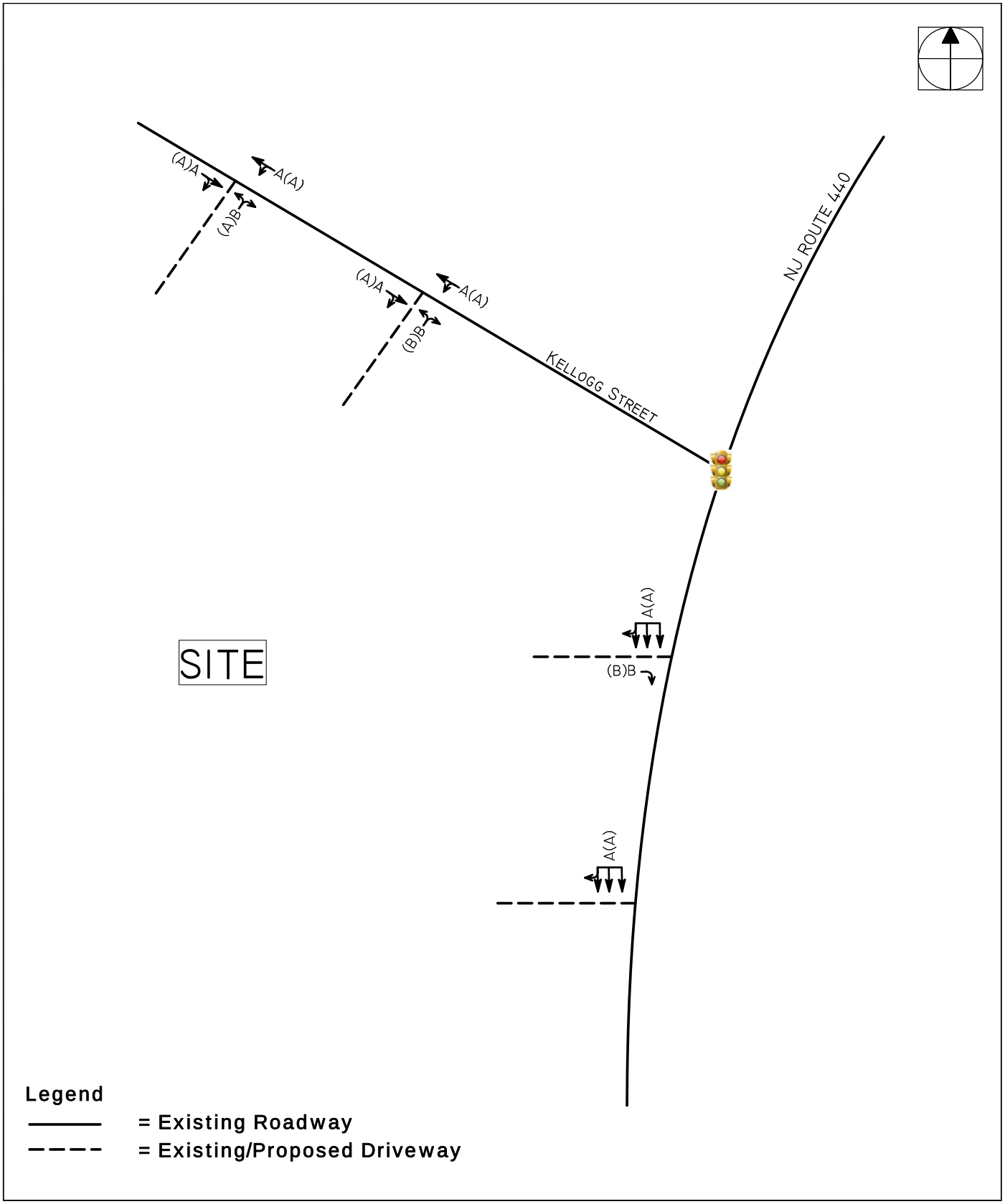

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FIGURE 3

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EXISTING LEVELS OF SERVICE
EVENING (SATURDAY) PEAK HOUR

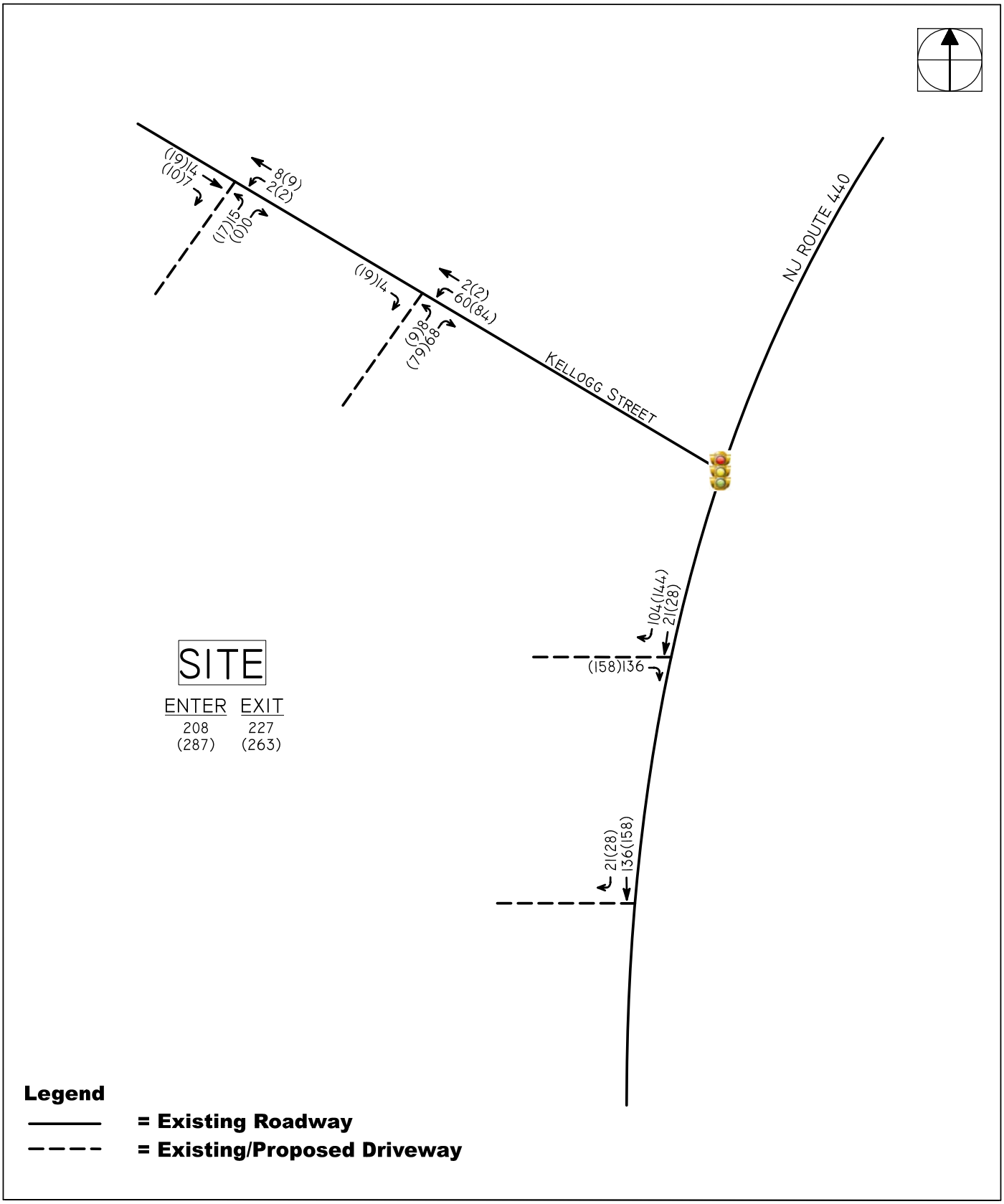

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FIGURE 4

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SITE GENERATED TRAFFIC VOLUMES
EVENING (SATURDAY) PEAK HOUR

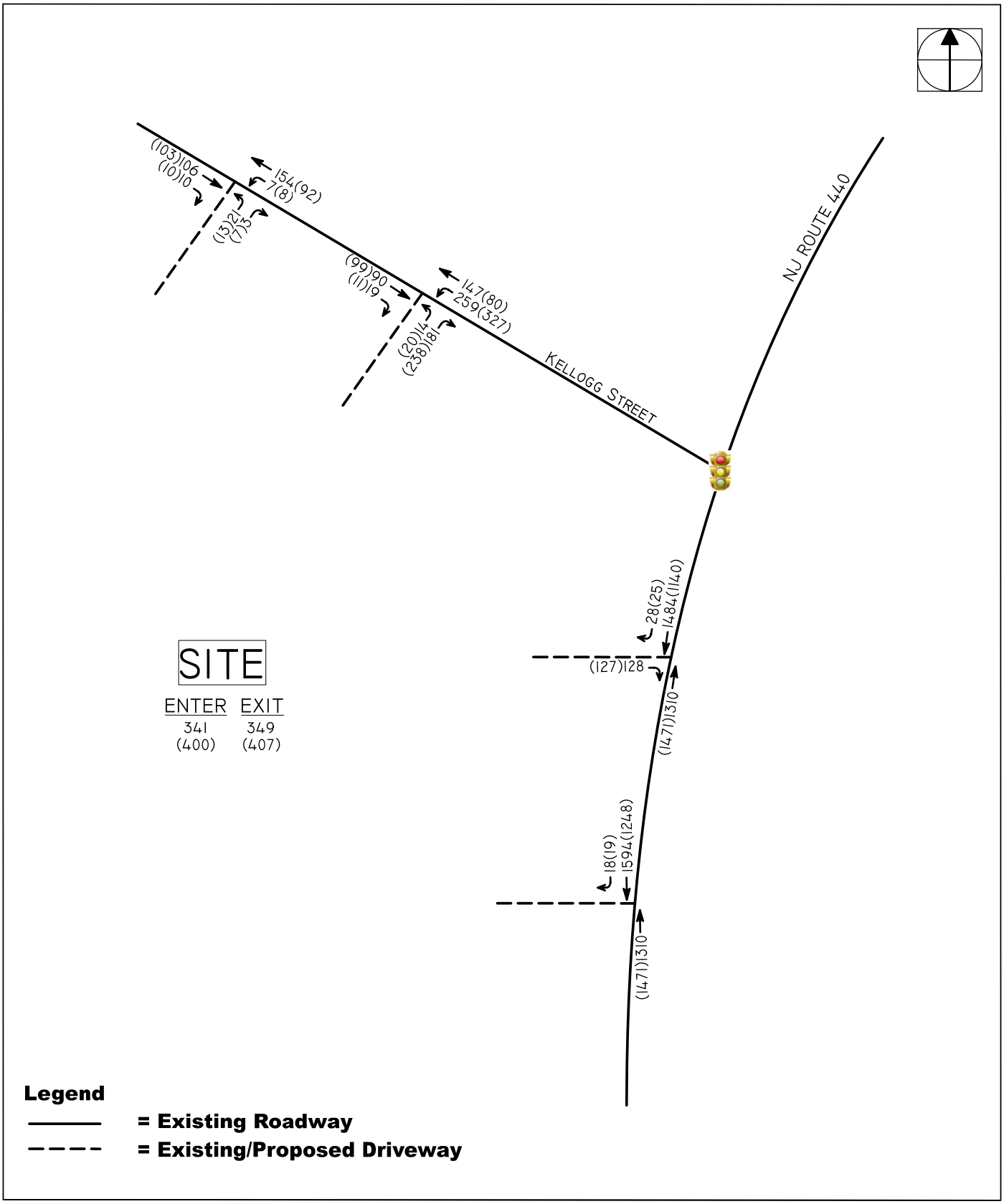

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FIGURE 5

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NO-BUILD TRAFFIC VOLUMES
EVENING (SATURDAY) PEAK HOUR

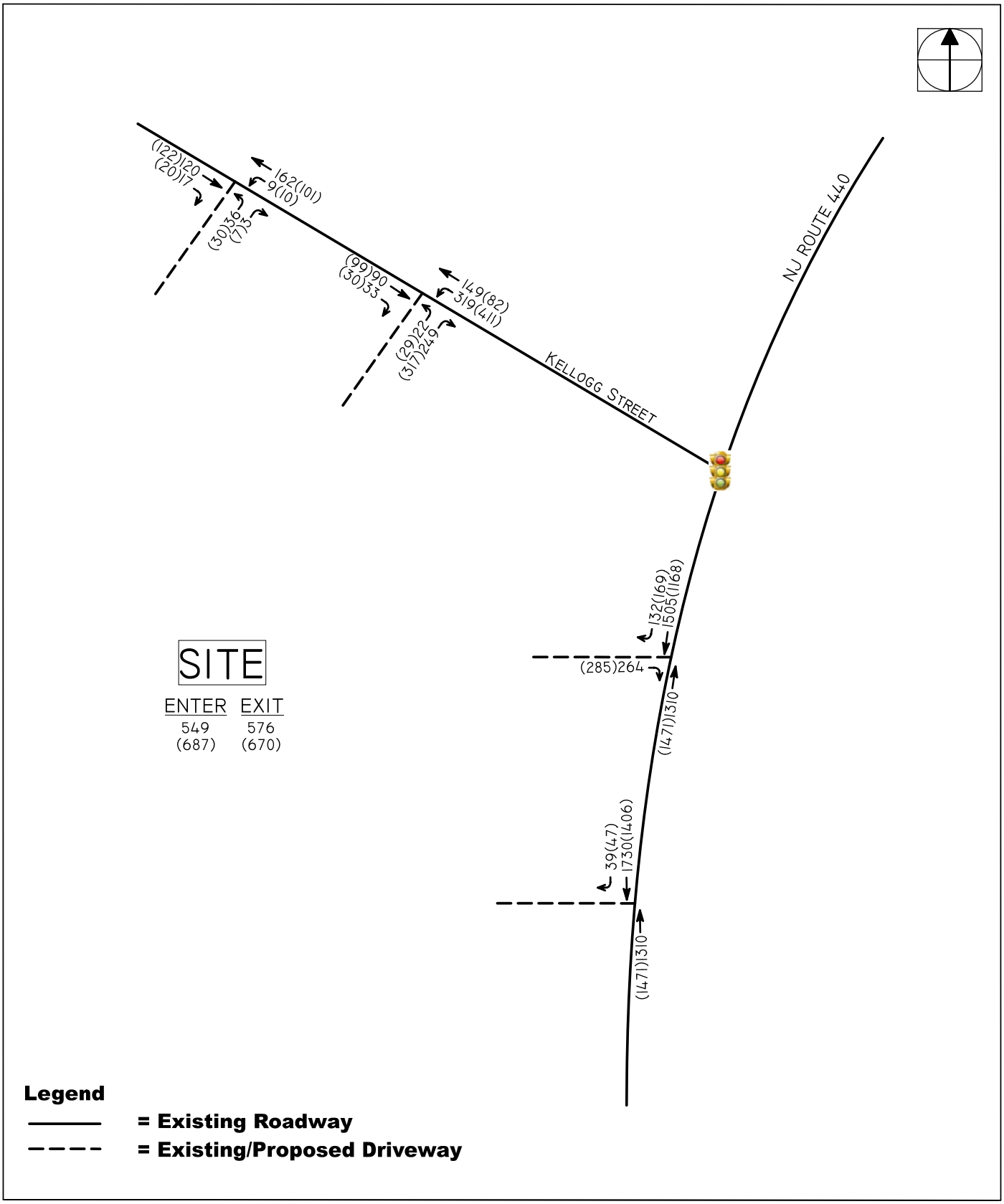

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FIGURE 6

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BUILD TRAFFIC VOLUMES
EVENING (SATURDAY) PEAK HOUR

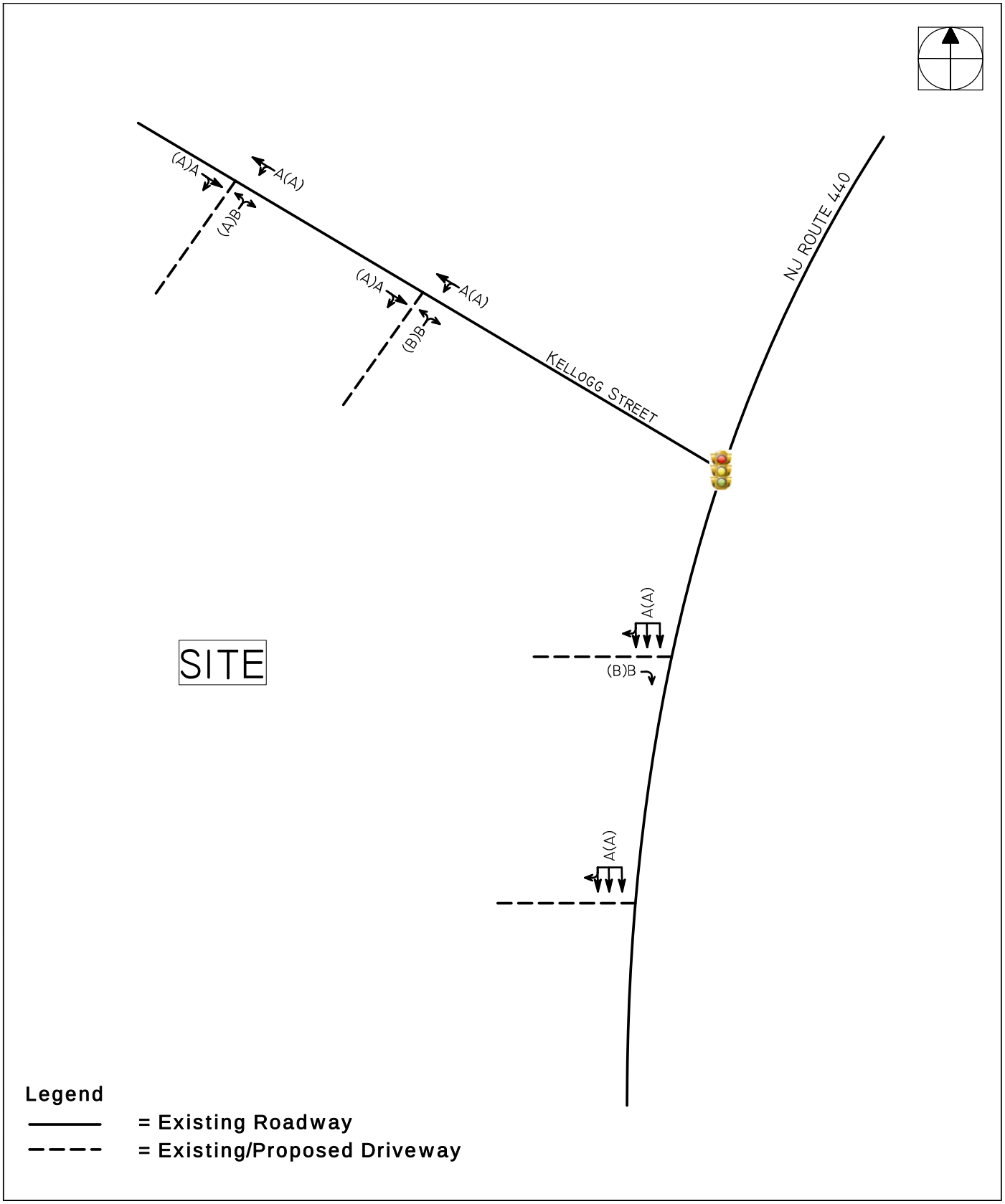

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FIGURE 7

DOLAN & DEAN
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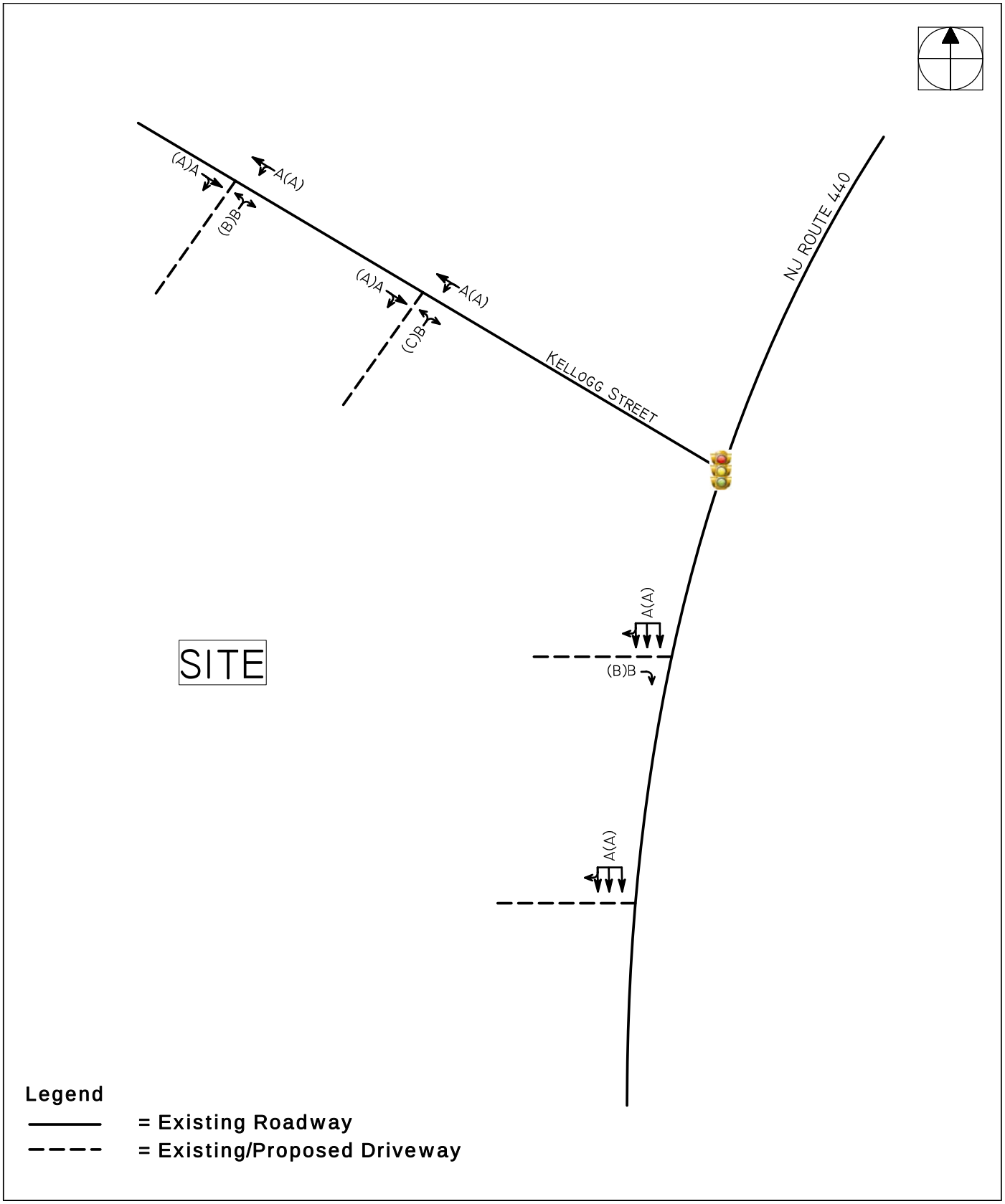
NO BUILD LEVELS OF SERVICE
EVENING (SATURDAY) PEAK HOUR



STADIUM PLAZA
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FIGURE 8

DOLAN & DEAN
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BUILD LEVELS OF SERVICE
EVENING (SATURDAY) PEAK HOUR

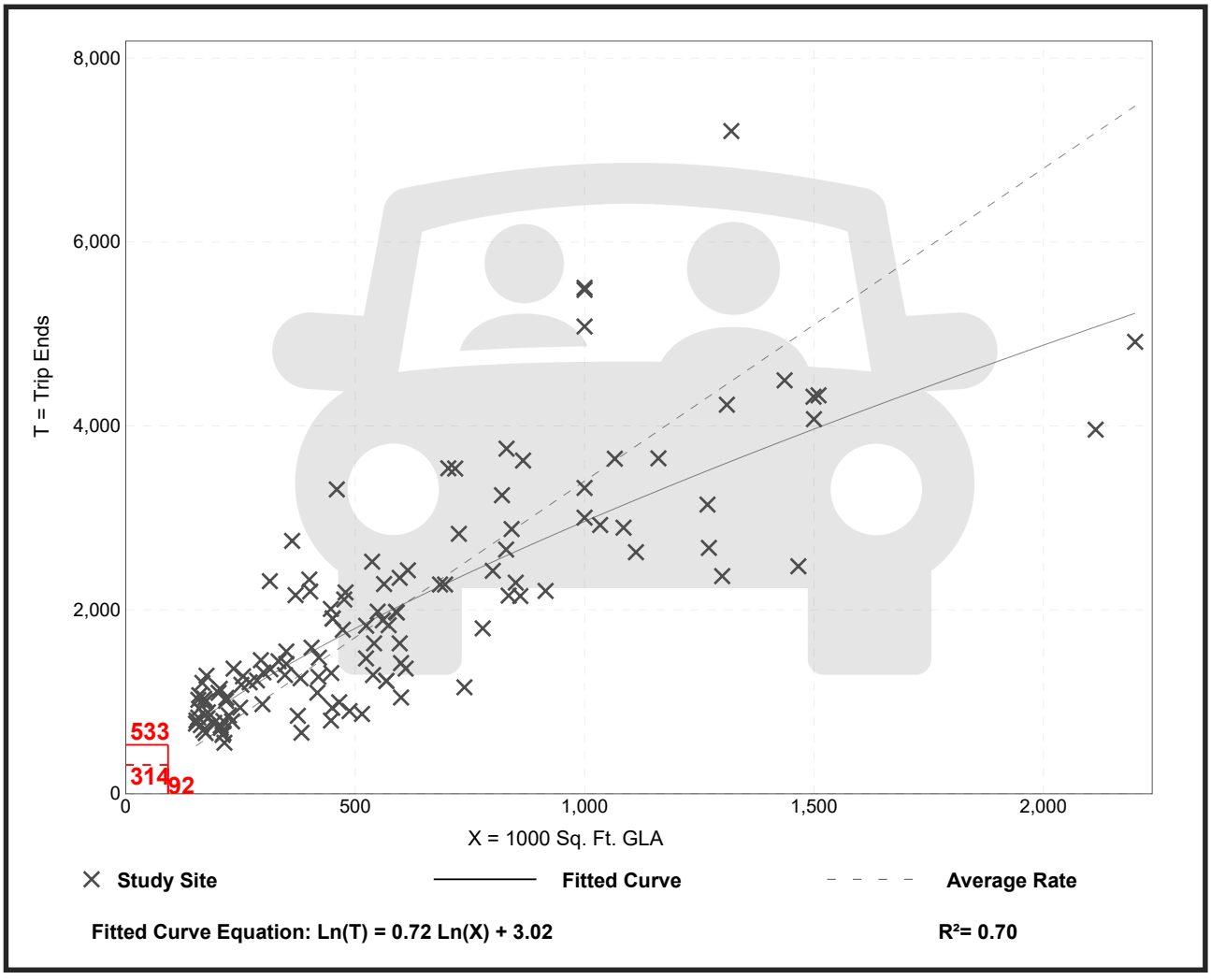
Shopping Center (>150k)
(820)

Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 126
Avg. 1000 Sq. Ft. GLA: 581
Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.40	1.57 - 7.58	1.26

Data Plot and Equation



Shopping Center (>150k)
(820)

Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 126
Avg. 1000 Sq. Ft. GLA: 581
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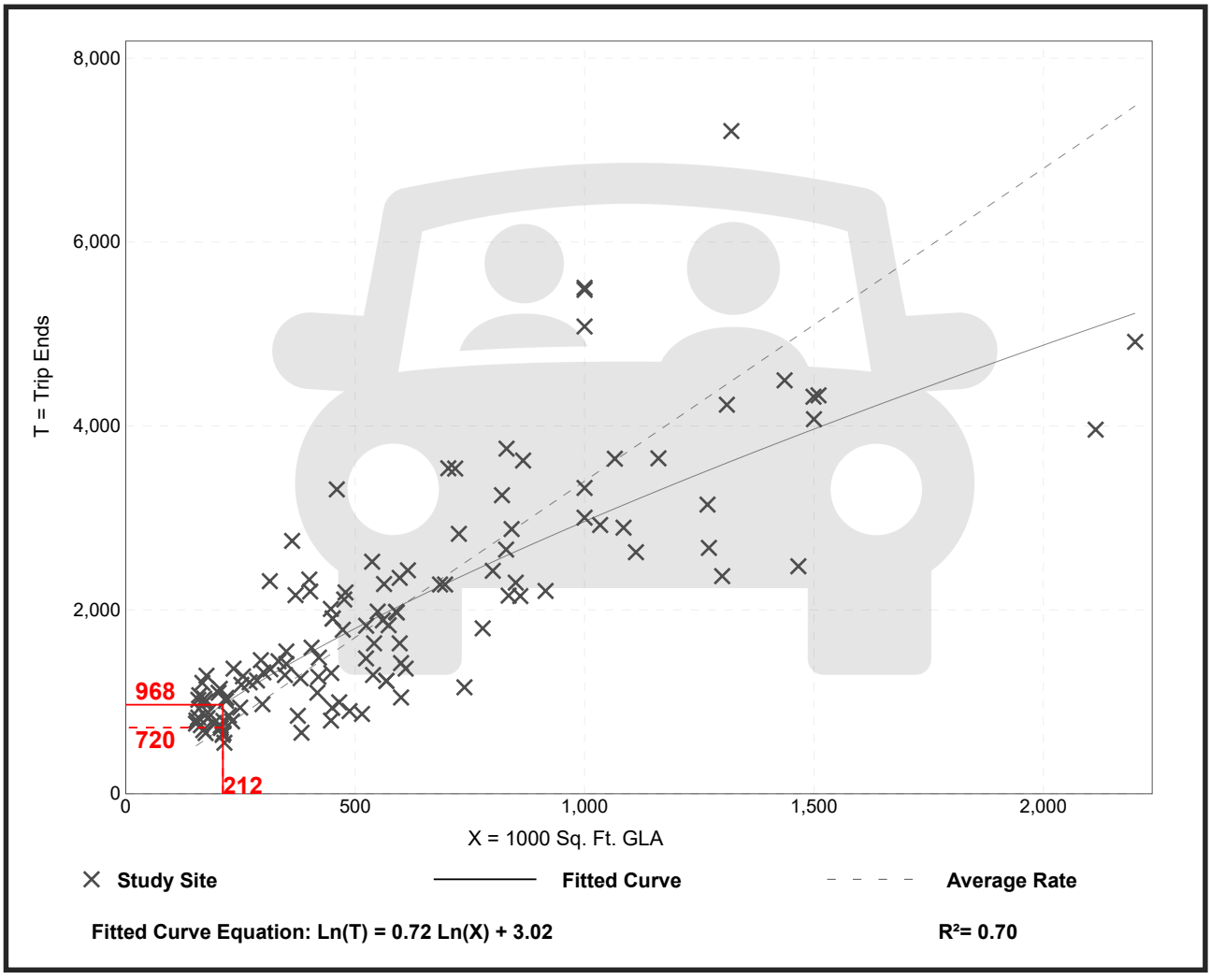
Average Rate	Range of Rates	Standard Deviation
3.40	1.57 - 7.58	1.26

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.72 Ln(X) + 3.02

R^2= 0.70

Shopping Center (>150k)
(820)

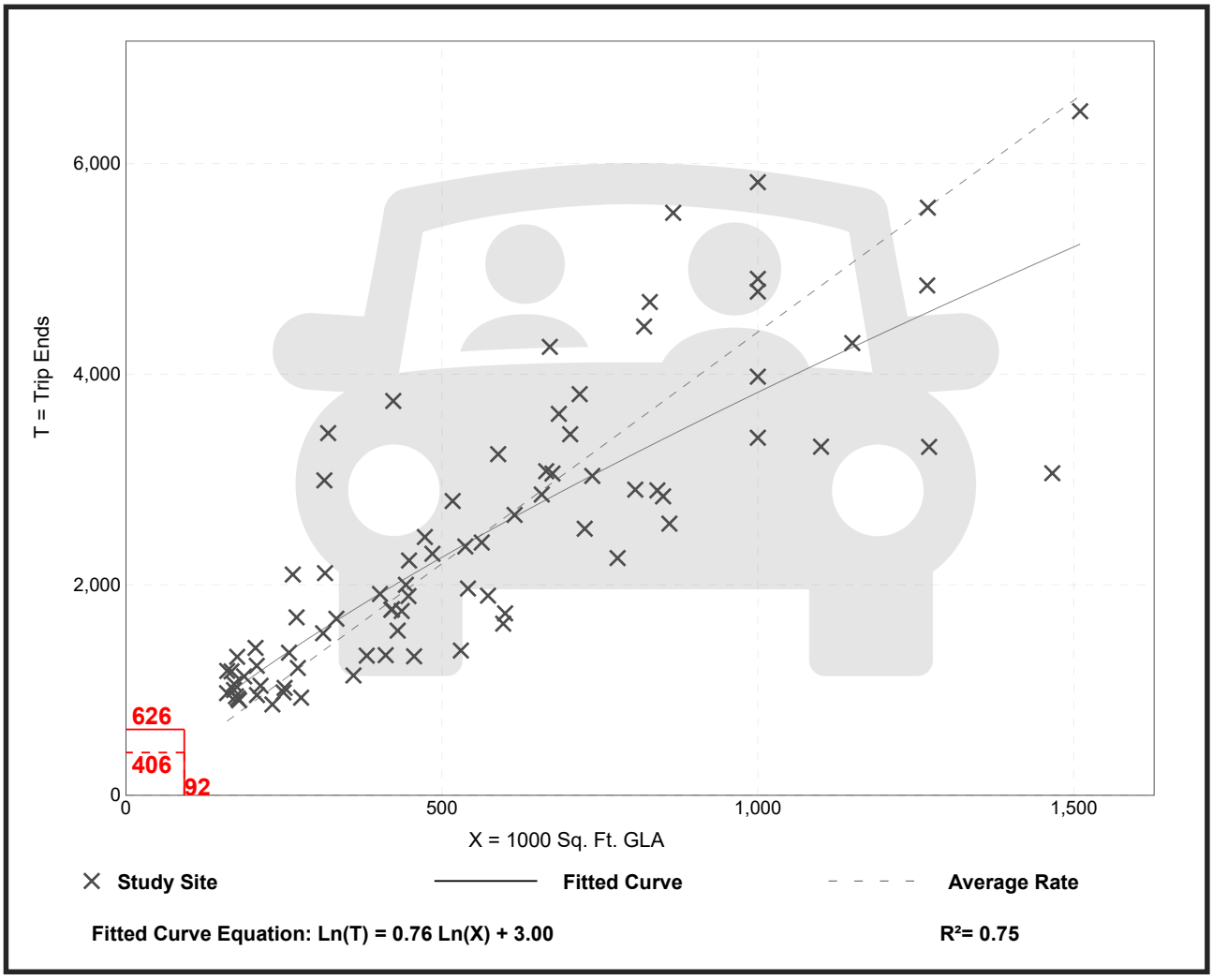
Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 81
Avg. 1000 Sq. Ft. GLA: 559
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
4.40	2.09 - 10.75	1.41

Data Plot and Equation



Shopping Center (>150k)
(820)

Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 81
Avg. 1000 Sq. Ft. GLA: 559
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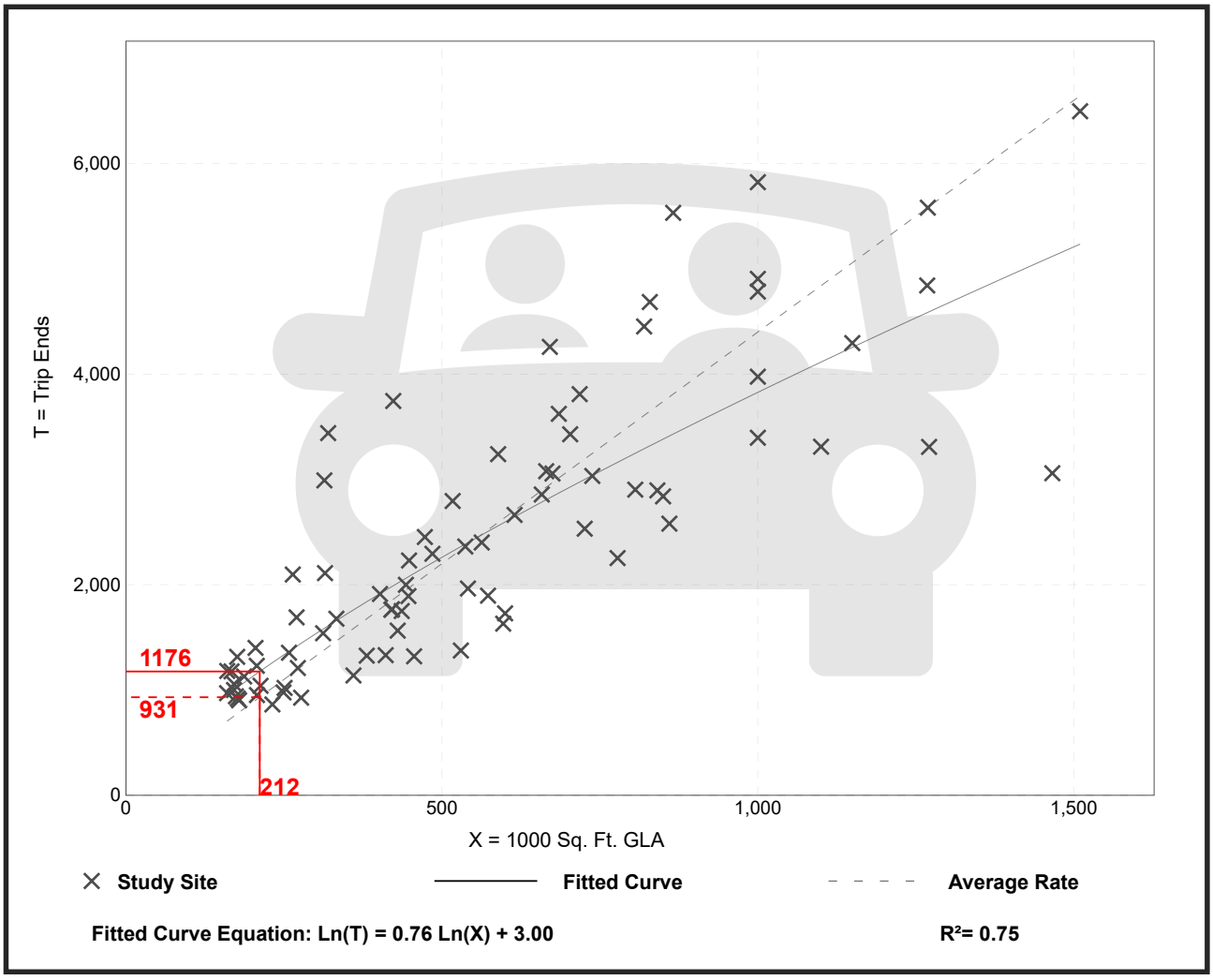
Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
4.40	2.09 - 10.75	1.41

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.76 Ln(X) + 3.00 **R^2= 0.75**

Intersection	
Int Delay, s/veh	1

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	103	10	7	149	21	3
Future Vol, veh/h	103	10	7	149	21	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	108	11	7	157	22	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	119	0	285	114
Stage 1	-	-	-	-	114	-
Stage 2	-	-	-	-	171	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1482	-	710	944
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	864	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1482	-	706	944
Mov Cap-2 Maneuver	-	-	-	-	706	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	860	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.3	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	729	1482	-	-	-
HCM Lane V/C Ratio	0.035	0.005	-	-	-
HCM Control Delay (s)	10.1	7.4	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	87	19	259	142	14	181
Future Vol, veh/h	87	19	259	142	14	181
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	1	0	0	1
Mvmt Flow	92	20	273	149	15	191

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	112	0	797	102
Stage 1	-	-	-	-	102	-
Stage 2	-	-	-	-	695	-
Critical Hdwy	-	-	4.11	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	1484	-	358	956
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	499	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1484	-	286	956
Mov Cap-2 Maneuver	-	-	-	-	286	-
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	399	-

Approach	SE	NW	NE
HCM Control Delay, s	0	5.1	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	818	1484	-	-	-
HCM Lane V/C Ratio	0.251	0.184	-	-	-
HCM Control Delay (s)	10.9	8	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	1	0.7	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	128	0	1270	1437	28
Future Vol, veh/h	0	128	0	1270	1437	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	2	0	6	6	11
Mvmt Flow	0	131	0	1296	1466	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	748	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*645	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*645	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	645	-	-
HCM Lane V/C Ratio	-	0.202	-	-
HCM Control Delay (s)	-	12	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	1421	1211	19
Future Volume (Veh/h)	0	0	0	1421	1211	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	0	0	0	1435	1223	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					465	
pX, platoon unblocked	0.95	0.95	0.95			
vC, conflicting volume	1950	417	1242			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1814	199	1068			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	68	773	627			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	718	718	489	489	264
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	19
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.42	0.42	0.29	0.29	0.16
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					
Approach Delay (s)	0.0		0.0		
Approach LOS					

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.8

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	100	10	8	86	13	7
Future Vol, veh/h	100	10	8	86	13	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	25
Heavy Vehicles, %	0	0	25	0	0	29
Mvmt Flow	102	10	8	88	13	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	112	0	211	107
Stage 1	-	-	-	-	107	-
Stage 2	-	-	-	-	104	-
Critical Hdwy	-	-	4.35	-	6.4	6.49
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.425	-	3.5	3.561
Pot Cap-1 Maneuver	-	-	1346	-	782	878
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	925	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1346	-	777	878
Mov Cap-2 Maneuver	-	-	-	-	777	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	919	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.7	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	843	1346	-	-	-
HCM Lane V/C Ratio	0.049	0.006	-	-	-
HCM Control Delay (s)	9.5	7.7	0	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-	-

Intersection	
Int Delay, s/veh	7.5

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	96	11	327	74	20	238
Future Vol, veh/h	96	11	327	74	20	238
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	98	11	334	76	20	243

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	109	0	848	104
Stage 1	-	-	-	-	104	-
Stage 2	-	-	-	-	744	-
Critical Hdwy	-	-	4.11	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	1488	-	334	953
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	473	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1488	-	256	953
Mov Cap-2 Maneuver	-	-	-	-	256	-
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	362	-

Approach	SE	NW	NE
HCM Control Delay, s	0	6.6	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	787	1488	-	-	-
HCM Lane V/C Ratio	0.335	0.224	-	-	-
HCM Control Delay (s)	11.9	8.1	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	1.5	0.9	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	127	0	1421	1103	25
Future Vol, veh/h	0	127	0	1421	1103	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	0	2	0	2	4	8
Mvmt Flow	0	128	0	1435	1114	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	570	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*716	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*716	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	716	-	-
HCM Lane V/C Ratio	-	0.179	-	-
HCM Control Delay (s)	-	11.1	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	1310	1594	18
Future Volume (Veh/h)	0	0	0	1310	1594	18
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	1337	1627	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					465	
pX, platoon unblocked	0.88	0.88	0.88			
vC, conflicting volume	2304	551	1645			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2018	36	1272			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	46	916	489			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	668	668	651	651	343
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	18
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.39	0.39	0.38	0.38	0.20
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					
Approach Delay (s)	0.0		0.0		
Approach LOS					

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	106	10	7	154	21	3
Future Vol, veh/h	106	10	7	154	21	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	112	11	7	162	22	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	123	0	294	118
Stage 1	-	-	-	-	118	-
Stage 2	-	-	-	-	176	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1477	-	701	939
Stage 1	-	-	-	-	912	-
Stage 2	-	-	-	-	859	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1477	-	697	939
Mov Cap-2 Maneuver	-	-	-	-	697	-
Stage 1	-	-	-	-	912	-
Stage 2	-	-	-	-	855	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.3	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	720	1477	-	-	-
HCM Lane V/C Ratio	0.035	0.005	-	-	-
HCM Control Delay (s)	10.2	7.5	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	90	19	259	147	14	181
Future Vol, veh/h	90	19	259	147	14	181
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	1	0	0	1
Mvmt Flow	95	20	273	155	15	191

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	115	0	806	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	701	-
Critical Hdwy	-	-	4.11	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	1480	-	354	952
Stage 1	-	-	-	-	924	-
Stage 2	-	-	-	-	496	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1480	-	282	952
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	924	-
Stage 2	-	-	-	-	396	-

Approach	SE	NW	NE
HCM Control Delay, s	0	5.1	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	813	1480	-	-	-
HCM Lane V/C Ratio	0.252	0.184	-	-	-
HCM Control Delay (s)	10.9	8	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	1	0.7	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	128	0	1310	1484	28
Future Vol, veh/h	0	128	0	1310	1484	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	2	0	6	6	11
Mvmt Flow	0	131	0	1337	1514	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	772	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*631	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*631	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	631	-	-
HCM Lane V/C Ratio	-	0.207	-	-
HCM Control Delay (s)	-	12.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.8	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	1471	1248	19
Future Volume (Veh/h)	0	0	0	1471	1248	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	0	0	0	1486	1261	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					465	
pX, platoon unblocked	0.95	0.95	0.95			
vC, conflicting volume	2014	430	1280			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1870	195	1094			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	62	775	610			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	743	743	504	504	271
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	19
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.44	0.44	0.30	0.30	0.16
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					
Approach Delay (s)	0.0		0.0		
Approach LOS					

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	42.0%	ICU Level of Service		A
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	1.8

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	103	10	8	92	13	7
Future Vol, veh/h	103	10	8	92	13	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	25
Heavy Vehicles, %	0	0	25	0	0	29
Mvmt Flow	105	10	8	94	13	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	115	0	220	110
Stage 1	-	-	-	-	110	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	-	-	4.35	-	6.4	6.49
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.425	-	3.5	3.561
Pot Cap-1 Maneuver	-	-	1343	-	773	875
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	920	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1343	-	768	875
Mov Cap-2 Maneuver	-	-	-	-	768	-
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	914	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.6	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	837	1343	-	-	-
HCM Lane V/C Ratio	0.049	0.006	-	-	-
HCM Control Delay (s)	9.5	7.7	0	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-	-

Intersection	
Int Delay, s/veh	7.4

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	99	11	327	80	20	238
Future Vol, veh/h	99	11	327	80	20	238
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	101	11	334	82	20	243

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	112	0	857	107
Stage 1	-	-	-	-	107	-
Stage 2	-	-	-	-	750	-
Critical Hdwy	-	-	4.11	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	1484	-	330	950
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	470	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1484	-	252	950
Mov Cap-2 Maneuver	-	-	-	-	252	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	359	-

Approach	SE	NW	NE
HCM Control Delay, s	0	6.5	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	782	1484	-	-	-
HCM Lane V/C Ratio	0.337	0.225	-	-	-
HCM Control Delay (s)	11.9	8.1	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	1.5	0.9	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	127	0	1471	1140	25
Future Vol, veh/h	0	127	0	1471	1140	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	0	2	0	2	4	8
Mvmt Flow	0	128	0	1486	1152	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	589	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*701	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*701	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	701	-	-
HCM Lane V/C Ratio	-	0.183	-	-
HCM Control Delay (s)	-	11.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	1310	1730	39
Future Volume (Veh/h)	0	0	0	1310	1730	39
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	1337	1765	40
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					465	
pX, platoon unblocked	0.87	0.87	0.87			
vC, conflicting volume	2454	608	1805			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2153	37	1410			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	37	901	427			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	668	668	706	706	393
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	40
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.39	0.39	0.42	0.42	0.23
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					
Approach Delay (s)	0.0		0.0		
Approach LOS					

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.4

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	120	17	9	162	36	3
Future Vol, veh/h	120	17	9	162	36	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	126	18	9	171	38	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	144	0	324	135
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	189	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1451	-	674	919
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	848	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1451	-	669	919
Mov Cap-2 Maneuver	-	-	-	-	669	-
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	842	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.4	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	683	1451	-	-	-
HCM Lane V/C Ratio	0.06	0.007	-	-	-
HCM Control Delay (s)	10.6	7.5	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-	-

Intersection	
Int Delay, s/veh	7.1

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	90	33	319	149	22	249
Future Vol, veh/h	90	33	319	149	22	249
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	1	0	0	1
Mvmt Flow	95	35	336	157	23	262

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	130	0	942	113
Stage 1	-	-	-	-	113	-
Stage 2	-	-	-	-	829	-
Critical Hdwy	-	-	4.11	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	1462	-	294	943
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	432	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1462	-	220	943
Mov Cap-2 Maneuver	-	-	-	-	220	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	323	-

Approach	SE	NW	NE
HCM Control Delay, s	0	5.6	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	744	1462	-	-	-
HCM Lane V/C Ratio	0.383	0.23	-	-	-
HCM Control Delay (s)	12.8	8.2	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	1.8	0.9	-	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	264	0	1310	1505	132
Future Vol, veh/h	0	264	0	1310	1505	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	2	0	6	6	11
Mvmt Flow	0	269	0	1337	1536	135

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	836	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	*631	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %		1		-	-	-
Mov Cap-1 Maneuver	-	*631	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	631	-	-
HCM Lane V/C Ratio	-	0.427	-	-
HCM Control Delay (s)	-	14.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	2.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	1471	1406	47
Future Volume (Veh/h)	0	0	0	1471	1406	47
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	0	0	0	1486	1420	47
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					465	
pX, platoon unblocked	0.95	0.95	0.95			
vC, conflicting volume	2186	497	1467			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2075	303	1320			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	45	666	506			

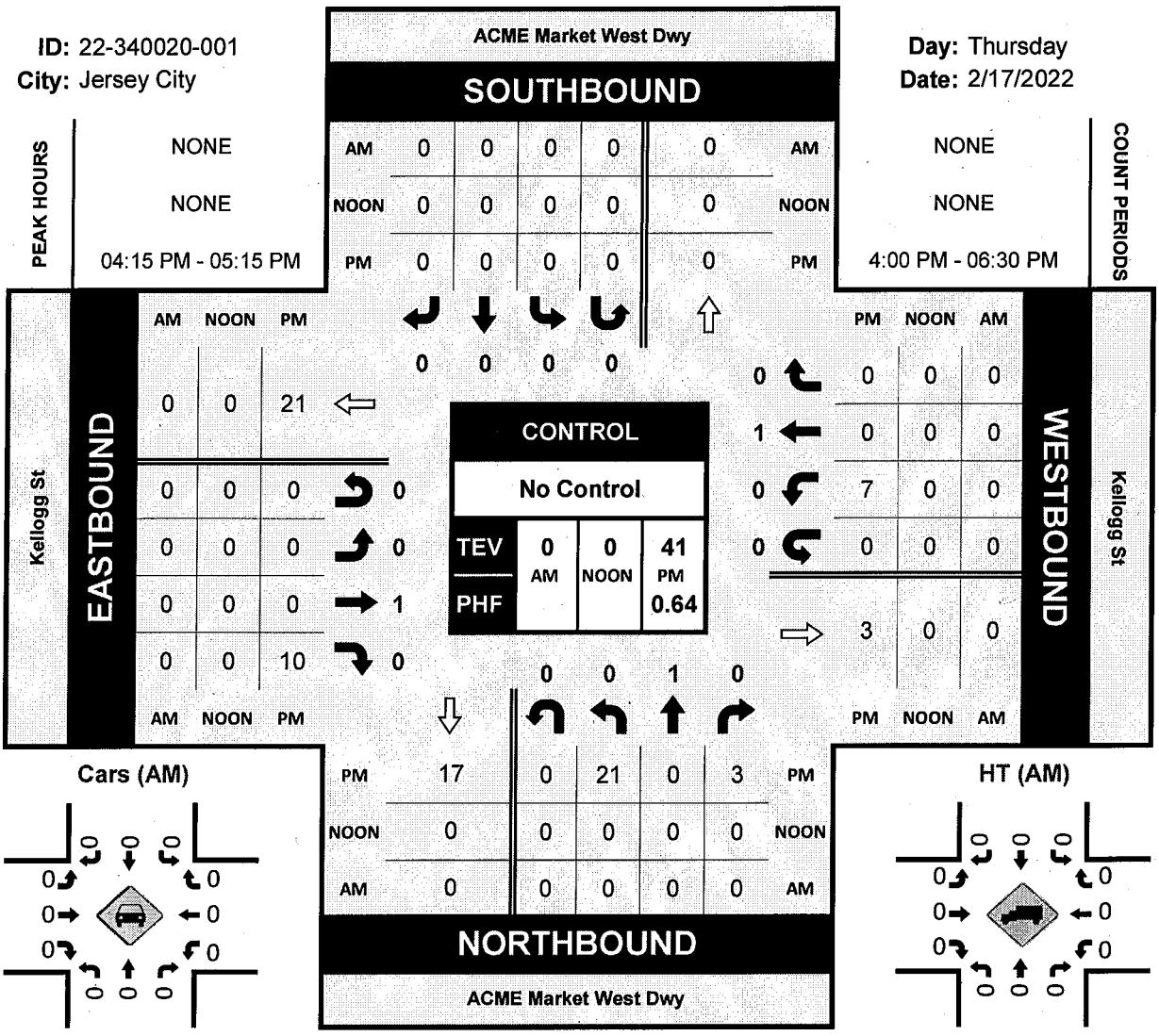
Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	743	743	568	568	331
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	47
cSH	1700	1700	1700	1700	1700
Volume to Capacity	0.44	0.44	0.33	0.33	0.19
Queue Length 95th (ft)	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS					
Approach Delay (s)	0.0		0.0		
Approach LOS					

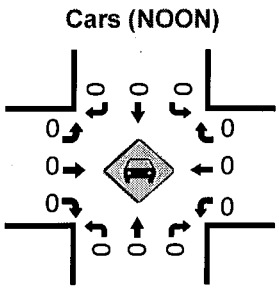
Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	42.0%	ICU Level of Service		A
Analysis Period (min)	15			

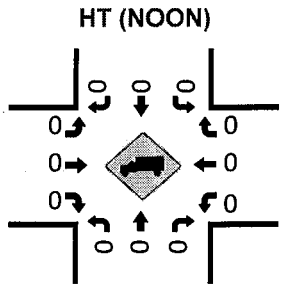
Prepared by National Data & Surveying Services

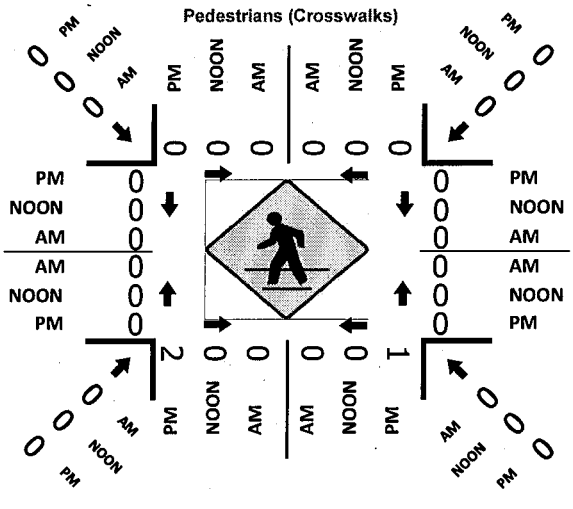
ACME Market West Dwy & Kellogg St

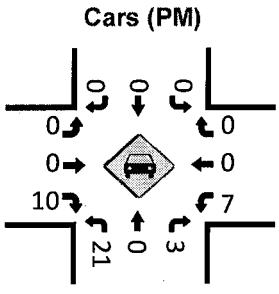
Peak Hour Turning Movement Count

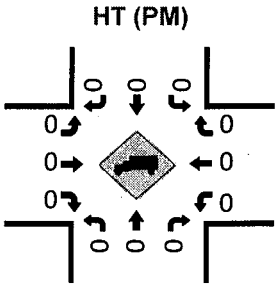












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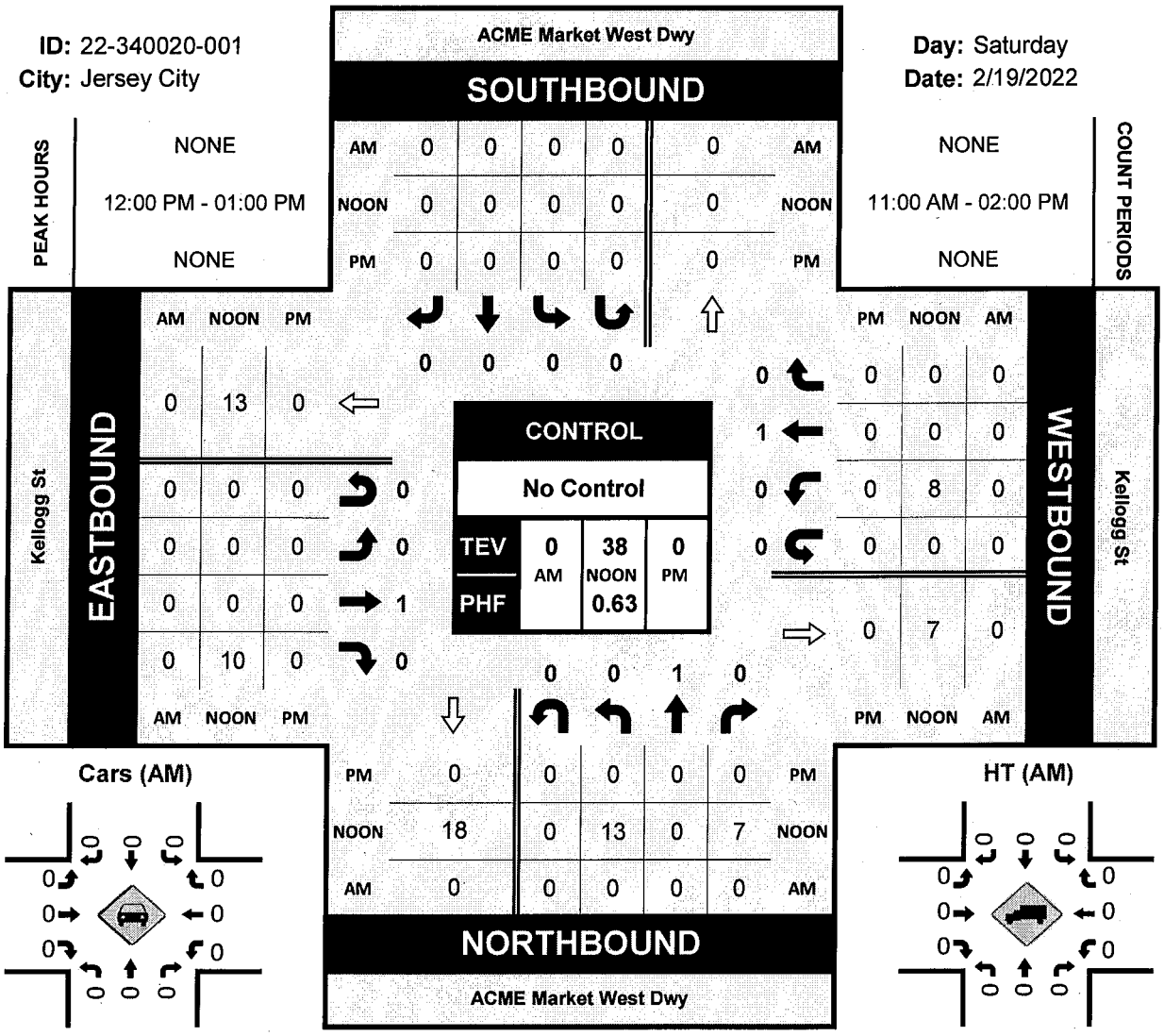
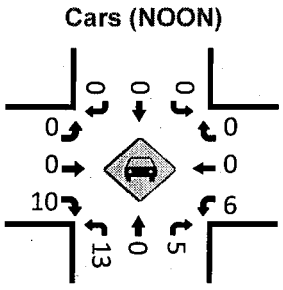
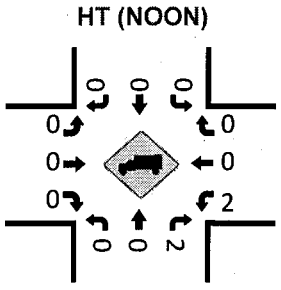
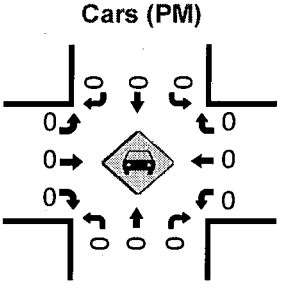
ACME Market West Dwy & Kellogg St

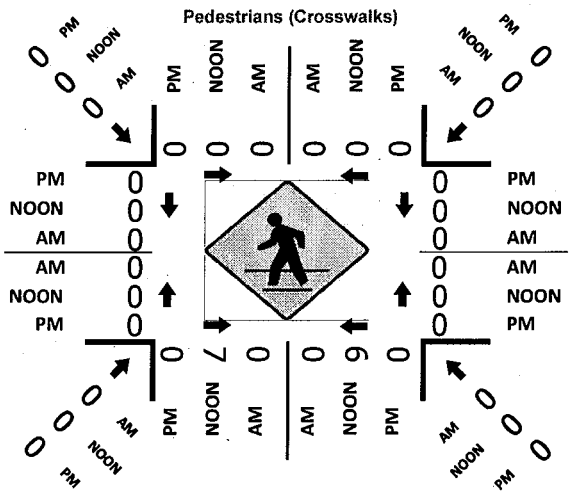
Peak Hour Turning Movement Count

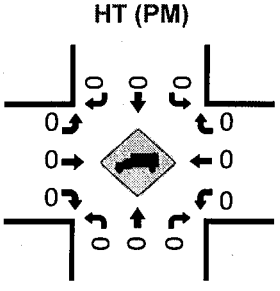












Prepared by National Data & Surveying Services

ACME Market East Dwy & Kellogg St

Peak Hour Turning Movement Count

ID: 22-340020-002
City: Jersey City

Day: Thursday
Date: 2/17/2022

PEAK HOURS		COUNT PERIODS
AM	NONE	NONE
NOON	NONE	NONE
PM	04:45 PM - 05:45 PM	4:00 PM - 06:30 PM

SOUTHBOUND (ACME Market East Dwy)

	Right	Through	Left	U-Turn	Departure
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0
HT	0	0	0	0	

EASTBOUND (Kellogg St)

	AM	NOON	PM	HT
Departure	0	0	156	
U-Turn	0	0	0	0
Left	0	0	0	0
Through	0	0	87	1
Right	0	0	19	0

WESTBOUND (Kellogg St)

	HT	PM	NOON	AM
Right	0	0	0	0
Through	1	142	0	0
Left	0	258	0	0
U-Turn	0	1	0	0
Departure		269	0	0

NORTHBOUND (ACME Market East Dwy)

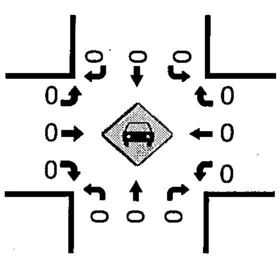
	Departure	U-Turn	Left	Through	Right
HT		0	0	1	0
PM	277	0	14	0	181
NOON	0	0	0	0	0
AM	0	0	0	0	0

CONTROL

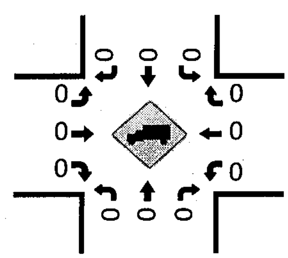
No Control

	AM	NOON	PM
TEV	0	0	702
PHF			0.95

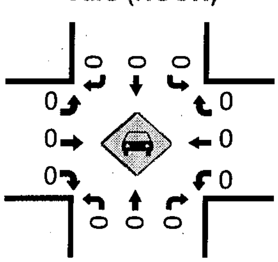
Cars (AM)



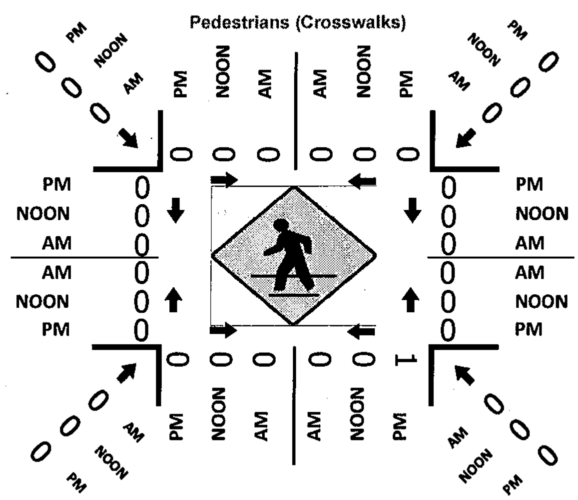
HT (AM)



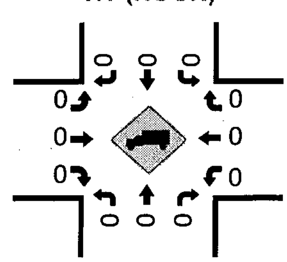
Cars (NOON)



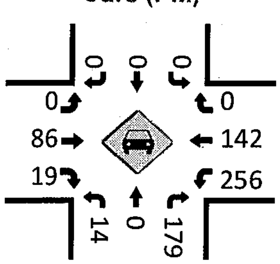
Pedestrians (Crosswalks)



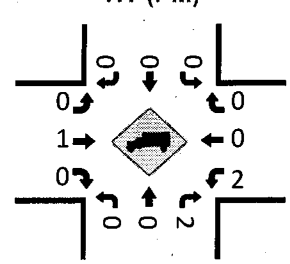
HT (NOON)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

ACME Market East Dwy & Kellogg St

Peak Hour Turning Movement Count

ID: 22-340020-002
City: Jersey City

Day: Saturday
Date: 2/19/2022

PEAK HOURS

AM	NONE
NOON	01:00 PM - 02:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 02:00 PM
PM	NONE

SOUTHBOUND — ACME Market East Dwy

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Kellogg St

AM	NOON	PM	
0	94	0	
0	0	0	0
0	0	0	0
0	96	0	1
0	11	0	0
AM	NOON	PM	

WESTBOUND — Kellogg St

PM	NOON	AM	
0	0	0	0
0	74	0	1
0	325	0	0
0	2	0	0
0	336	0	
PM	NOON	AM	

CONTROL

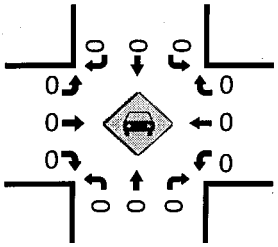
No Control

TEV	0 AM	766 NOON	0 PM
PHF		0.98	

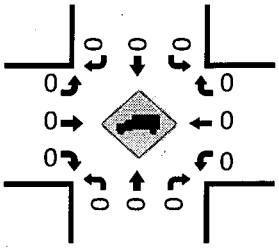
NORTHBOUND — ACME Market East Dwy

PM	0	0	0	0	0	PM
NOON	336	0	20	0	238	NOON
AM	0	0	0	0	0	AM

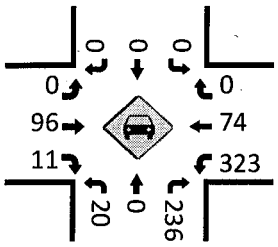
Cars (AM)



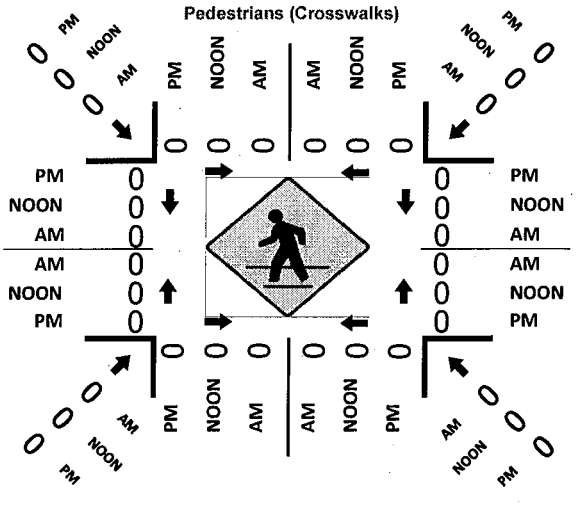
HT (AM)



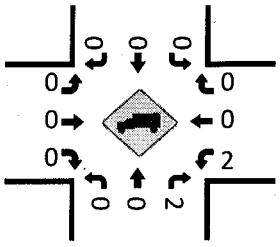
Cars (NOON)



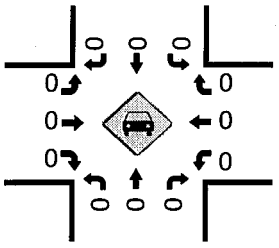
Pedestrians (Crosswalks)



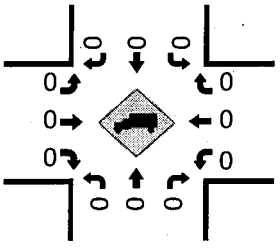
HT (NOON)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Rte 440 & Wendy's Dwy

Peak Hour Turning Movement Count

ID: 22-340020-003
City: Jersey City

Day: Thursday
Date: 2/17/2022

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 4:00 PM - 06:30 PM

SOUTHBOUND (Rte 440)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	28	1437	0	0	1270	PM

EASTBOUND (Wendy's Dwy)

AM	NOON	PM	
0	0	28	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	128	1

WESTBOUND (Wendy's Dwy)

	PM	NOON	AM
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
	0	0	0

CONTROL

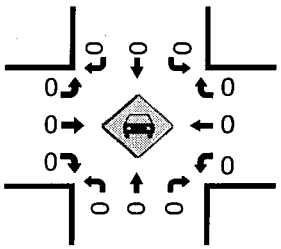
1-Way Stop(EB)

	AM	NOON	PM
TEV	0	0	2863
PHF			0.98

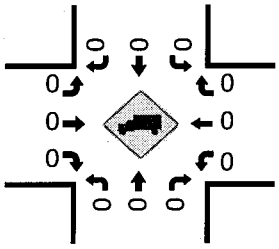
NORTHBOUND (Rte 440)

PM	1565	0	0	1270	0
NOON	0	0	0	0	0
AM	0	0	0	0	0

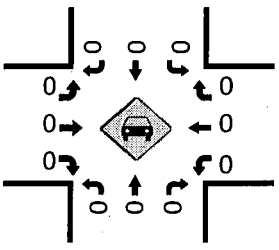
Cars (AM)



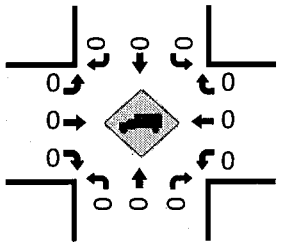
HT (AM)



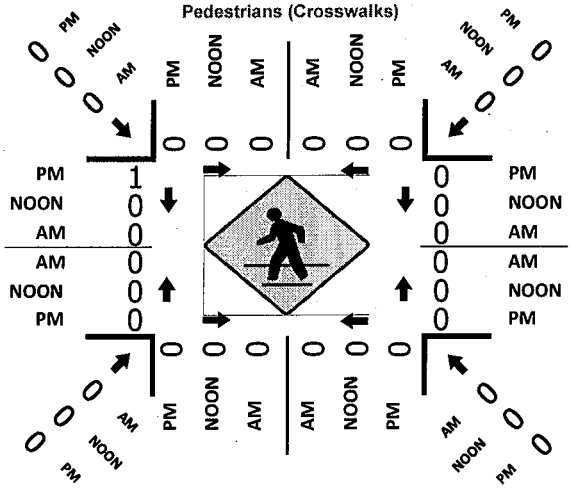
Cars (NOON)



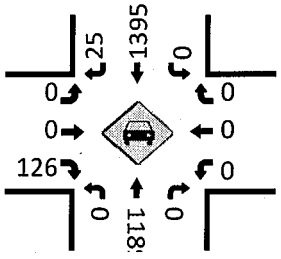
HT (NOON)



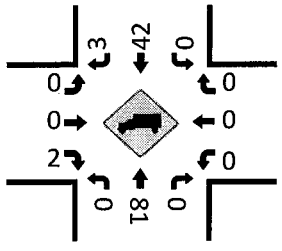
Pedestrians (Crosswalks)



Cars (PM)



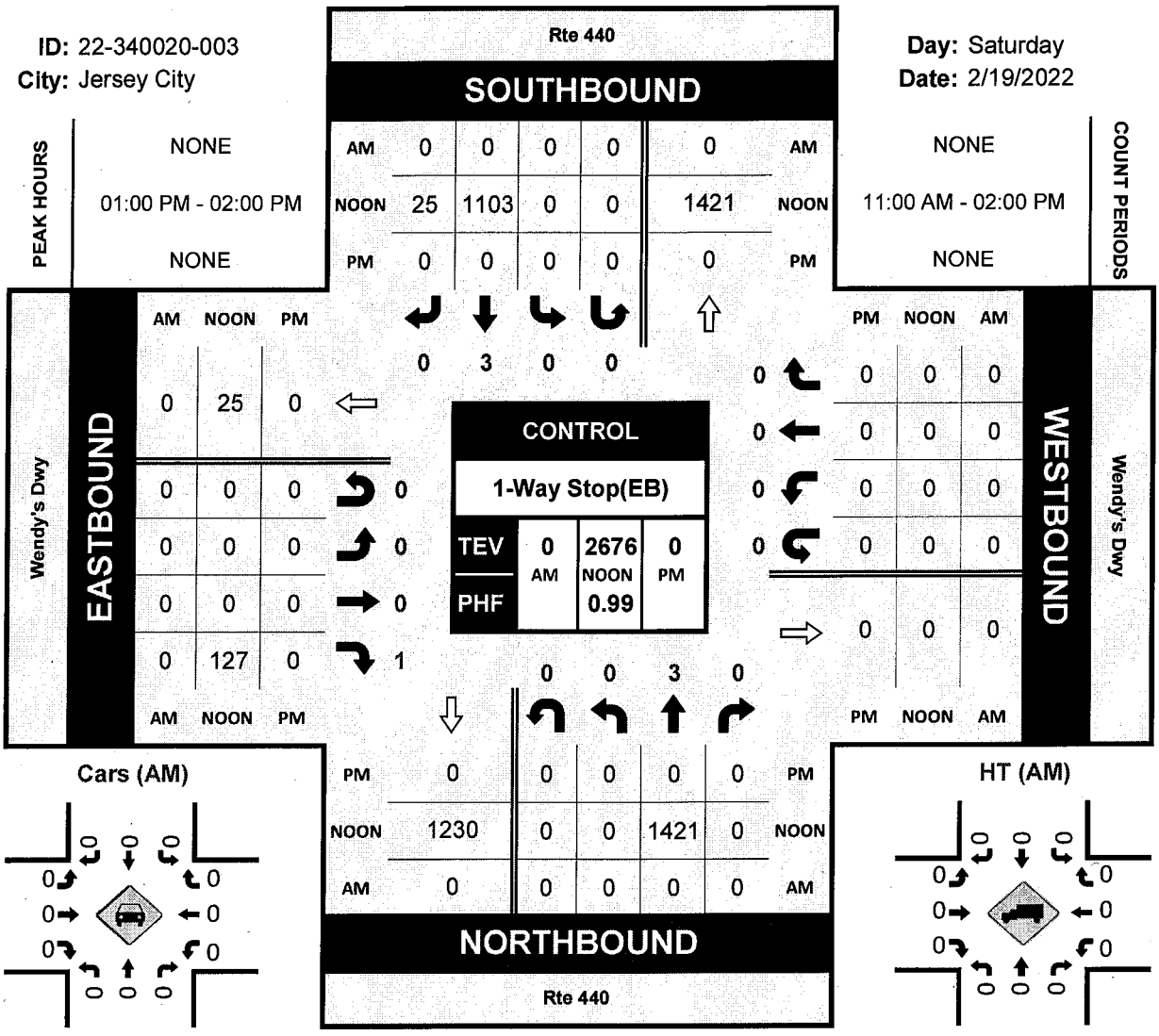
HT (PM)



Prepared by National Data & Surveying Services

Rte 440 & Wendy's Dwy

Peak Hour Turning Movement Count



Prepared by National Data & Surveying Services

Rte 440 & Capital One Bank Dwy

Peak Hour Turning Movement Count

ID: 22-340020-004
City: Jersey City

Day: Thursday
Date: 2/17/2022

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 4:00 PM - 06:30 PM

Rte 440

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	18	0	0	0	0	PM

EASTBOUND (Capital One Bank Dwy)

AM	NOON	PM	
0	0	18	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	2	0
AM	NOON	PM	

WESTBOUND (Capital One Bank Dwy)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

	0	3	0	0
	0	0	2	0

CONTROL: No Control

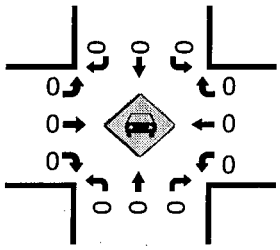
	AM	NOON	PM
TEV	0	0	20
PHF			0.71

NORTHBOUND

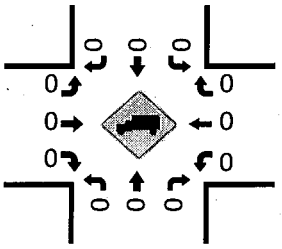
PM	2	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

Rte 440

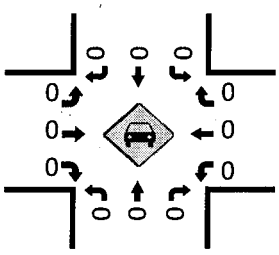
Cars (AM)



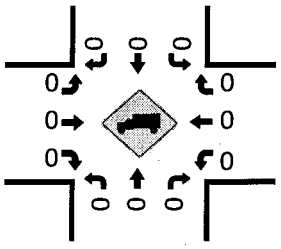
HT (AM)



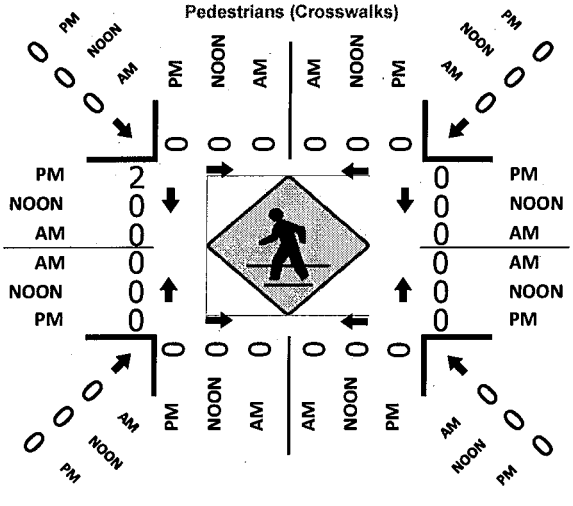
Cars (NOON)



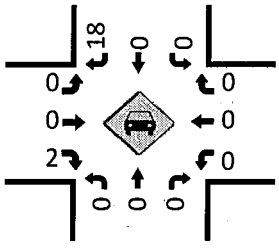
HT (NOON)



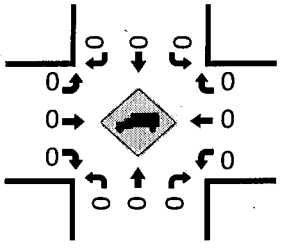
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Rte 440 & Capital One Bank Dwy

Peak Hour Turning Movement Count

ID: 22-340020-004
City: Jersey City

Day: Saturday
Date: 2/19/2022

PEAK HOURS

AM	NONE
NOON	01:00 PM - 02:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 02:00 PM
PM	NONE

SOUTHBOUND (Rte 440)

AM	0	0	0	0	0	AM
NOON	19	0	0	0	0	NOON
PM	0	0	0	0	0	PM

EASTBOUND (Capital One Bank Dwy)

AM	NOON	PM	
0	19	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	2	0	0

WESTBOUND (Capital One Bank Dwy)

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

NORTHBOUND (Rte 440)

PM	0	0	0	0	0	PM
NOON	2	0	0	0	0	NOON
AM	0	0	0	0	0	AM

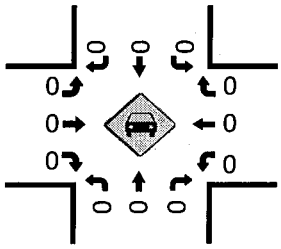
0	3	0	0

0	0	2	0

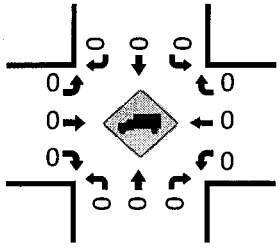
CONTROL: No Control

	AM	NOON	PM
TEV	0	21	0
PHF		0.75	

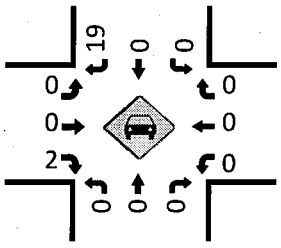
Cars (AM)



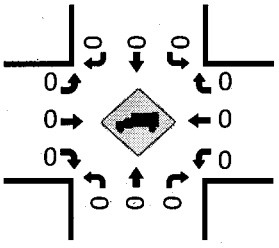
HT (AM)



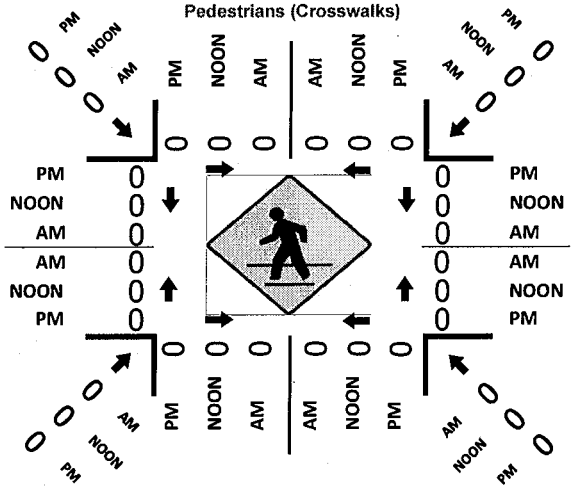
Cars (NOON)



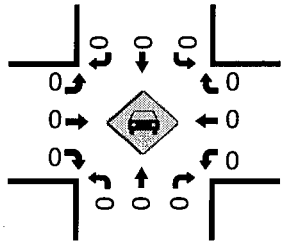
HT (NOON)



Pedestrians (Crosswalks)



Cars (PM)



HT (PM)