Traffic Impact Study

for the proposed

Dandy Mini Mart
NY-34B/NY-34

Town of Lansing
Tompkins County, New York

October 2022

Project No. 20224282.0001

Prepared For:

Town of Lansing Planning Board

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2. Trip Generation, 11th Edition. Institute of Transportation Engineers (ITE). Washington, DC. 2021.
3. New York State Department of Transportation (NYSDOT) Traffic Data Viewer. 2022. Retrieved from https://www.dot.ny.gov/tdv.
4. OnTheMap. U.S. Census Bureau. 2022.
5. NCHRP Report 279, Intersection Channelization Design Guide. TRB. 1985.
6. A Trip Generation Study of Coffee/Donut Shops in Western New York. SRF Associates. 2010.

EXECUTIVE SUMMARY

OVERVIEW

The purpose of this report is to evaluate the potential traffic impacts related to the proposed Dandy Mini Mart project in the Town of Lansing, NY. Within this report, the operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified and mitigating measures (if needed) are provided to minimize operational concerns.

To define traffic impact, this analysis establishes existing baseline traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the proposed project.

The proposed project will be located at the southwest corner of the intersection of NY-34B/NY-34 in the Town of Lansing, Tompkins County, NY. The project site is bounded by NY-34B to the north, NY-34 to the east, residential to the south, and commercial to the west. Land uses in the vicinity of the proposed project generally include residential, service, recreation, and civic. Project scoping with the Town of Lansing and the New York State Department of Transportation (NYSDOT) resulted in the following existing study area intersections:

- NY-34B/Conlon Road (unsignalized)
- NY-34B/NY-34 (signalized)

The proposed project consists of constructing a ±6,100 square foot (SF) convenience store with drive-thru and 12 vehicle fueling positions. Access is provided via two full access driveways: one along NY-34B and one along NY-34. **Figure 5** illustrates the proposed site plan.

Construction of the proposed project is anticipated to reach full build-out within approximately two years. Widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but not yet approved are not included in a traffic analysis. Local municipality personnel were contacted to discuss any other specific projects that are currently approved or under construction that would generate additional traffic in the study area. Three projects were identified for inclusion in this study: Cayuga National Bank, 3091 N. Triphammer Commercial development, and Cayuga Vista apartments. The site trips generated by these developments were added to the study area intersections.

A review of historical NYSDOT traffic volume data on the study roadways in the vicinity of the site indicates that traffic has increased slightly between 2010 and 2019. To account for normal increases in background traffic growth, including any unforeseen developments in the study area in addition to the projects identified, and considering the projected timeframe for full build-out of the project, a growth rate of 1.0% was applied to the existing traffic volumes in the study area for the build-out period during the AM and PM peak hours.

Improvements were noted in the 2021 Lansing Town Center TIS prepared by SRF Associates (now Passero Associates) at this intersection. A new access road is conceptually proposed opposite NY-34 to provide access to the lands to the north. The noted improvements were to construct eastbound left-turn lane, eastbound right-turn lane, northbound left-turn lane, northbound thru/right-turn lane, southbound left-turn lane, southbound thru/right-turn lane, and accompanying signal modifications (e.g., phasing, timing, and pedestrian accommodations). In a future phase, a two-way left-turn lane (TWLTL) was recommended between this intersection and NY-34B/Conlon Road.

Based upon the projected impacts resulting from the Dandy Mini Mart project and based upon the unknown timeframe of the Lansing Town Center project, the noted improvements are not required at this time. However, the proposed site design should anticipate the construction of these future improvements in the way of considerations related to setbacks from future turn lanes and sidewalk connections.

CONCLUSIONS & RECOMMENDATIONS

This Traffic Impact Study identified and evaluated the potential traffic impacts that can be expected from the proposed Dandy Mini Mart project in the Town of Lansing, NY. The results of this study determined that the existing transportation network can adequately accommodate the projected traffic volumes and resulting minor impacts to study area intersections with the following improvements in place. The following sets forth the conclusions and recommendations based upon the results of the analyses:

Conclusions

1. The proposed development is expected to generate approximately 91 entering/92 exiting vehicle trips during the AM peak hour and 76 entering/76 exiting vehicle trips during the PM peak hour. Not all these driveway volumes are new, but instead a portion of the proposed volume is reduced considering pass-by adjustments.

2. Thus, the proposed site is expected to generate approximately 45 entering/46 exiting new vehicle trips during the AM peak hour and 38 entering/38 exiting new vehicle trips during the PM peak hour.

3. All study area movements operate at LOS “D” or better during both peak hours under existing, projected background, and projected full development conditions.

4. The volume warrants for left-turn lanes at the proposed access locations are not fully satisfied during either peak hour.

5. Based on an analysis of the current site plan, the drive-thru provides storage for approximately four passenger vehicles. The analyses indicate that there is sufficient stacking space on-site to accommodate the projected drive-thru demands.

Recommendations

6. Minor signal timing adjustments are recommended at the intersection of NY-34B/NY-34 during the AM peak hour under background conditions.

7. Future improvements were noted in the 2021 Lansing Town Center TIS prepared by SRF Associates (now Passero Associates) at NY-34B/NY-34 intersection. Based upon the projected impacts resulting from the Dandy Mini Mart project and based upon the unknown timeframe of the Lansing Town Center project, the noted improvements are not required at this time. However, the proposed site design should anticipate the construction of these future improvements in the way of considerations related to setbacks from future turn lanes and sidewalk connections.

I. INTRODUCTION

The purpose of this report is to evaluate the potential traffic impacts related to the proposed Dandy Mini Mart project in the Town of Lansing, NY. Within this report, the operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified and mitigating measures (if needed) are provided to minimize operational concerns.

To define traffic impact, this analysis establishes existing baseline traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the proposed project.

II. LOCATION

The proposed project will be located at the southwest corner of the intersection of NY-34B/NY-34 in the Town of Lansing, Tompkins County, NY. The project site is bounded by NY-34B to the north, NY-34 to the east, residential to the south, and commercial to the west. Land uses in the vicinity of the proposed project generally include residential, service, recreation, and civic. Project scoping with the Town of Lansing and the New York State Department of Transportation (NYSDOT) resulted in the following existing study area intersections:

- NY-34B/Conlon Road (unsignalized)
- NY-34B/NY-34 (signalized)

The site location and study area are illustrated in **Figure 1** (all figures are included at the end of this report).

III. EXISTING HIGHWAY SYSTEM

A. Vehicular Network Description

The following information outlined in **Table I** provides a description of the existing roadway network within project study area. **Figure 2** illustrates the lane geometry at each of the study intersections and the Annual Average Daily Traffic (AADT) volumes on the study roadways. The AADTs reflect the most recently collected data obtained from the New York State Department of Transportation (NYSDOT). Where data from the NYSDOT is not available, an extrapolation of turning movement counts performed by Passero Associates shows the estimated ADTs.

Functional classification of highways within the study area is determined by the NYSDOT and the Federal Highway Administration (FHWA). Definitions of the functional classifications shown in **Table I** are provided hereafter.

Rural Major Collector (Class 7)

A rural major collector provides service to the larger towns not directly served by the higher systems and link these places with nearby larger towns and cities. They also serve the most important intra-county travel corridors.

Rural Local (Class 9)

A rural local road provides access to adjacent lands with service oriented towards travel over short distances as compared to higher classification routes. These roads typically constitute the largest percentage of all roadways and includes all facilities not in one of the higher

systems. Local roadways do not typically serve as bus routes, are often designed to discourage through traffic, and have the lowest degree of mobility.

Urban Minor Arterial (Class 16)

An urban minor arterial provides service for trips of moderate length, serve geographic areas that are smaller than higher arterial roadways, and offer connectivity to higher arterial systems. These roadways distribute traffic to smaller geographic areas, provide more land access without disrupting neighborhood access, and provide urban connections for rural collectors.

TABLE I: EXISTING HIGHWAY SYSTEM

ROADWAY	CLASS[1]	AGENCY[2]	SPEED LIMIT[3]	TRAVEL LANES[4]	TRAVEL PATTERN/ DIRECTION	EST. AADT & SOURCE[5]
NY-34B	7	NYSDOT	45	2	Two-way/ East-West	7,343 NYSDOT (2015)
NY-34 *(South of NY-34/34B Overlap)*	16	NYSDOT	45	2	Two-way/ North-South	7,160 NYSDOT (2016)
Conlon Road (CR-186)	9	County	Not Posted	2	Two-way/ North-South	400 Passero (2019)

Notes:
1. State Functional Classification of Roadway.
2. Jurisdictional Agency of Roadway.
3. Posted or Statewide Limit in Miles per Hour (mph).
4. Number of travel lanes. Excludes turning/auxiliary lanes developed at intersections.
5. Estimated AADT in Vehicles per Day (vpd). AADT Source (Year).

B. Multi-Modal Network Description

This evaluation reviewed the study area's pedestrian, bicycle, and transit network via field and aerial reconnaissance. A description of the multi-modal infrastructure is described hereafter.

Pedestrian & Bicycle Facilities

There are no sidewalks along the study area corridors, except for a new sidewalk on the frontage of Salt Point Brewing Company along NY-34.

There are no dedicated on-road bicycle facilities, although cyclists are permitted to share the road with motorists on all roadways within the study area.

Transit Facilities

Tompkins Consolidated Area Transit (TCAT) offers bus service within the study area via Routes 36, 37, and 77. Bus stops can be found at the intersection of N. Triphammer Road/Peruville Road, Lansing Municipal Offices, at the intersection of NY-34/NY-34B overlap, and the intersection of NY-34B/Conlon Road.

IV. EXISTING TRAFFIC CONDITIONS

A. Peak Intervals for Analysis

Given the functional characteristics of the study corridors, adjacent land uses, and the proposed land use for the project site (gas station with convenience store), the peak hours selected for analysis are the weekday commuter AM and PM peak periods. The combination of site traffic and adjacent through traffic produces the greatest demand during these time periods.

B. Existing Traffic Volume Data

Turning movement traffic counts were collected by SRF/Passero Associates at the study intersections described in Section II on Wednesday, November 6, 2019, and Wednesday, November 13, 2019. Traffic counts were conducted on a typical weekday while local schools were in session from 7:00-9:00 AM and 4:00-6:00 PM. The unadjusted weekday AM and PM peak hour volumes are reflected in **Figure 3A**.

The 2019 collected traffic volumes were adjusted upward by 1.5% per year (to 2022 conditions) based upon a review of historical traffic volumes obtained from the NYSDOT within the study area between 2010 and 2019. Additionally, the developments of Milton Meadows and Salt Point Brewing Company were not fully developed at the time of data collection. Therefore, the projected trip generation estimates from these two projects were included in this adjustment. **Figure 3B** illustrates the representative 2022 existing base volumes used for analysis purposes in this study.

C. Field Observations

The study intersections were observed during both peak intervals to assess current traffic operations. Signal timing and phasing information was obtained by the NYSDOT to determine peak hour phasing plans and phase durations during each interval. This information was used to support and/or calibrate capacity analysis models described in detail later in this report.

V. FUTURE AREA DEVELOPMENT AND LOCAL GROWTH

Construction of the proposed project is anticipated to reach full build-out within approximately two years. Widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but not yet approved are not included in a traffic analysis. Local municipality personnel were contacted to discuss any other specific projects that are currently approved or under construction that would generate additional traffic in the study area. Three projects were identified for inclusion in this study: Cayuga National Bank, 3091 N. Triphammer Commercial development, and Cayuga Vista apartments. The site trips generated by these developments were added to the study area intersections.

A review of historical NYSDOT traffic volume data on the study roadways in the vicinity of the site indicates that traffic has increased slightly between 2010 and 2019. To account for normal increases in background traffic growth, including any unforeseen developments in the study area in addition to the projects identified, and considering the projected timeframe for full build-out of the project, a growth rate of 1.0% was applied to the existing traffic volumes in

the study area for the build-out period during the AM and PM peak hours. The background traffic volumes are depicted in **Figure 4**.

VI. PROPOSED DEVELOPMENT

A. Project Description

The proposed project consists of constructing a ±6,100 square foot (SF) convenience store with drive-thru and 12 vehicle fueling positions. Access is provided via two full access driveways: one along NY-34B and one along NY-34. **Figure 5** illustrates the proposed site plan.

B. Site Generated Traffic and Adjustments

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation is an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of traffic entering and exiting the development. Trip Generation Manual (11th Edition) published by the Institute of Transportation Engineers (ITE) is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of the adjacent street traffic and proposed land use, in this case, the weekday commuter AM and PM peaks, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis.

Additionally, for certain types of developments, the total number of trips generated is different from the amount of new traffic added to the adjacent highway network by the generator. Service-oriented developments (such as convenience stores, gas stations, shopping centers, discount stores, restaurants, service stations, retail storefronts, and supermarkets) often locate adjacent to busy streets to attract the motorists already passing the site on the adjacent street. The "pass-by" traffic refers to the amount of existing traffic already on the roadway adjacent to the site that, as it "passes by" the site, will enter the site driveways to patronize the project site. The quantifying of "pass-by" trips has the net result of reducing the volume of new traffic that is added to the site driveways and/or adjacent roadways.

ITE data indicates that pass-by rates for gas stations and convenience store uses can vary from 60% to 65% during both the AM and PM peak hours. Given the nature of the surrounding area and considering the location of the site along NY-34B/NY-34, pass-by rates of 50% were used during the AM and PM peak hours. **Table II** shows the total site generated trips, pass-by trips, and resulting primary (new) trips that are added to the existing highway system for full development of the project. Pass-by trip calculations are included in the Appendices.

TABLE II: SITE GENERATED TRIPS AND ADJUSTMENTS

DESCRIPTION	ITE LUC[1]	SIZE	AM PEAK HOUR		PM PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT
Gas Station/Convenience Store	845	12 vfp	91	92	76	76
Pass-by Trips			*-46*	*-46*	*-38*	*-38*
Total Primary (New) Trips			**45**	**46**	**38**	**38**

Note:
1. LUC = Land Use Code.
2. vfp = Vehicle Fueling Positions.

The proposed development is expected to generate approximately 91 entering/92 exiting vehicle trips during the AM peak hour and 76 entering/76 exiting vehicle trips during the PM peak hour. Not all these driveway volumes are new, but instead a portion of the proposed volume is reduced considering pass-by adjustments.

Thus, the proposed site is expected to generate approximately 45 entering/46 exiting new vehicle trips during the AM peak hour and 38 entering/38 exiting new vehicle trips during the PM peak hour.

C. Site Traffic Distribution

The cumulative effect of site-generated traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drives serving the site. The proposed arrival/departure distribution of traffic generated by the proposed project is considered a function of several parameters, including:

- Residential centers and employment centers using U.S. Census Data
- Proposed access locations
- Existing traffic patterns
- Existing traffic conditions and controls

Figure 6 shows the anticipated trip distribution pattern percentages for the traffic from the proposed project. **Figures 7A-7C** illustrate the primary trips, pass-by trips, and total peak hour site-generated traffic based on those percentages.

VII. FULL DEVELOPMENT VOLUMES

Proposed design hour traffic volumes are developed for the AM and PM peak hours by combining the background traffic conditions (**Figure 4**) and the new site generated traffic volumes (**Figure 7C**) to yield the traffic volumes under full development conditions. The resulting design hour volumes for the proposed project are illustrated in **Figure 8** under full build-out conditions.

VIII. CAPACITY ANALYSIS

A. Description of Capacity Analysis

Capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, capacity analysis focuses on intersections, as opposed to highway segments.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing the conditions with little to no delay, and LOS "F" conditions with very long delays. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Appendices. LOS “C” or better is generally desirable, but LOS “D” for signalized locations and LOS “E” for unsignalized are generally acceptable during peak periods so long as the volume to capacity ratio (v/c) is below 1.0.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the Highway Capacity Manual (HCM 2016) published by the Transportation Research Board (TRB). Traffic analysis software, Synchro 11, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service based on the HCM as an indicator of how well intersections operate.

B. Capacity Analysis Results

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The future traffic conditions generated by the proposed project were analyzed to assess the operation of the study area intersections. Capacity results for existing, background and full development conditions are listed in **Table III**. The discussion following the table summarizes capacity conditions.

TABLE III: CAPACITY ANALYSIS RESULTS

INTERSECTION	2022 EXISTING BASE CONDITIONS				2024 BACKGROUND CONDITIONS				2024 FULL BUILD CONDITIONS			
	AM		PM		AM		PM		AM		PM	
1. NY-34B/Conlon Road (U)												
EB - NY-34B	A	8.4	A	8.8	A	8.4	A	8.9	A	8.5	A	9.0
SB - Conlon Road	C	23.8	C	18.7	C	24.9	C	19.5	D	26.6	C	20.4
2. NY-34/NY-34B (S)												
EB Thru - NY-34B	D	48.6	C	25.6	D	42.4	C	26.0	D	44.3	C	26.2
EB Right - NY-34B	C	24.0	B	13.4	C	21.1	B	13.9	C	21.3	B	14.3
WB Left - NY-34/34B	B	10.8	A	7.2	B	10.6	A	7.3	B	11.9	A	7.4
WB Thru - NY-34/34B	A	6.6	A	7.6	A	6.3	A	7.8	A	6.5	A	7.8
NB Left - NY-34	C	30.2	C	28.8	C	33.3	C	29.0	C	34.1	C	29.7
NB Right - NY-34	B	10.7	B	15.8	B	12.3	B	16.0	B	12.6	B	15.6
Overall LOS	**C**	**24.0**	**B**	**17.9**	**C**	**22.4**	**B**	**18.2**	**C**	**23.3**	**B**	**18.4**
Volume-to-Capacity (v/c) Ratio	**0.88**		**0.70**		**0.85**		**0.71**		**0.87**		**0.72**	
3. NY-34B/Proposed Access (U)												
WB - NY-34B	NA		NA		NA		NA		A	9.1	A	8.5
NB - Proposed Access									C	20.0	C	20.4
4. NY-34/Proposed Access (U)												
EB - Proposed Access	NA		NA		NA		NA		C	16.1	C	20.0
NB - NY-34									A	8.9	A	8.1

Notes:

1. A (0.0) = Level of Service (Delay in seconds per vehicle)
2. EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound
3. (S) = Signalized; (U) = Unsignalized
4. N/A = Approach does not exist and/or was not analyzed during this condition
5. Green shaded cells indicate low delays, yellow shaded cells indicate moderate delays, red shaded cells indicate long delays.
6. The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available and vehicles are not expected to experience significant queues and delays. A v/c ratio between 0.85 and 0.95 generally indicates an intersection is nearing capacity. Intersections with a v/c ratio of 1.0 or greater generally indicate conditions at or above capacity.

1. NY-34B/Conlon Road

All movements generally operate at LOS "C" or better under existing and projected background conditions during both peak hours. Between background and full development conditions, the southbound approach is projected to change from LOS "C" to "D" during the AM peak hour. However, this change is borderline as the threshold occurs at 25.0 seconds of delay per vehicle for unsignalized intersections. The intersection can accommodate the projected new traffic volumes resulting from the project; thus, no capacity improvements are warranted nor recommended.

2. NY-34B/NY-34

All movements generally operate at LOS "D" or better under existing conditions during both peak hours with moderate to intermittent longer delays. In suburban contexts, LOS "D" is considered an acceptable condition. Under projected background conditions during the PM peak hour, a three second increase in the green time given to the eastbound and westbound approaches is recommended to reduce the projected eastbound delays and queues. These signal timing changes may be implemented automatically by the existing controller since the signal is fully actuated. No changes in LOS are projected between background and full development conditions resulting from the proposed project. The intersection can accommodate the projected new traffic volumes resulting from the project; thus, no capacity improvements are warranted nor recommended.

Improvements were noted in the 2021 Lansing Town Center TIS prepared by SRF Associates (now Passero Associates) at this intersection. A new access road is conceptually proposed opposite NY-34 to provide access to the lands to the north. The noted improvements were to construct eastbound left-turn lane, eastbound right-turn lane, northbound left-turn lane, northbound thru/right-turn lane, southbound left-turn lane, southbound thru/right-turn lane, and accompanying signal modifications (e.g., phasing, timing, and pedestrian accommodations). In a future phase, a two-way left-turn lane (TWLTL) was recommended between this intersection and NY-34B/Conlon Road.

Based upon the projected impacts resulting from the Dandy Mini Mart project and based upon the unknown timeframe of the Lansing Town Center project, the noted improvements are not required at this time. However, the proposed site design should anticipate the construction of these future improvements in the way of considerations related to setbacks from future turn lanes and sidewalk connections.

3. NY-34B/Proposed Access

All movements operate at LOS "C" or better under full development conditions during both peak hours studied. It is noted that eastbound queues from the traffic signal will block the proposed access at times throughout the AM peak hour. In general, service-oriented land uses exhibit travel behavior that is elastic to localized traffic conditions and other variables. Motorists will become more accustomed to traffic operations in the immediate area and site driveways. Those exiting the site will learn to use the driveway that affords the least delay in exiting the site or they will visit the site at times when prevailing traffic is not a peak operation condition.

The intersection can accommodate the projected new traffic volumes resulting from the project; thus, no capacity improvements are warranted nor recommended.

4. NY-34/Proposed Access

All movements operate at LOS "C" or better under full development conditions during both peak hours studied. The intersection can accommodate the projected new traffic volumes resulting from the project; thus, no capacity improvements are warranted nor recommended.

IX. LEFT-TURN TREATMENT WARRANT INVESTIGATION

Volume warrants for left turn treatments along NY-34B and NY-34 at the proposed access locations were investigated using NCHRP Report 279: Intersection Channelization Design Guide (1985) published by the Transportation Research Board (TRB). Provisions for left turn lane facilities should be established where traffic volumes are high enough and safety considerations are sufficient to warrant the additional lane. This investigation analyzes warrants during the peak hours studied.

Based upon this review, the warrants for left-turn lanes were not fully satisfied during either peak hour at either access location; therefore, no treatments are recommended.

X. DRIVE-THRU QUEUE EVALUATION

This study evaluated the drive-thru operations at the proposed drive-thru lane during the peak weekday AM peak hour to determine the anticipated queue length and adequacy of the proposed on-site stacking space using the drive-thru. The evaluation used a formula described in A Trip Generation Study of Coffee/Donut Shops in Western New York (2010) published by SRF Associates. The formula was developed based upon the average service rates and observed queuing to estimate queue lengths at coffee/donut shops given the projected arrival rate at the drive-thru. This formula assumes that both arrival and service rates are random. This is based on observations that vehicle arrivals are random, and that service times in the drive-thru vary based on type and number of items ordered. For example, service time for ordering a coffee is less than that of a customer who orders coffee and a breakfast sandwich or donuts.

The peak projected arrival rate at the drive-thru is based on a drive-thru and site trip generation study at the Quicklee's Travel Center in Avon, NY during the AM peak hour. Since both the arrival and service times at the proposed drive-thru are randomly distributed, stochastic queuing equations were used for this analysis. It is noted that some patronage will occur by visitors already on-site for other reasons, such as fueling their vehicle.

Based on the data from the Avon, NY site, it was determined that 41% of site traffic used the drive-thru for the coffee/donut shop on that site during the AM peak. Based on that percentage it was determined that approximately 37 vehicles will use the drive-thru during the AM peak hour.

Using a service rate of approximately 35 seconds (excluding the waiting time in a storage area immediately in advance of the service positions after placing an order at the order window) during the AM peak hour, the average service rate in the drive-thru is 103 vehicles per hour. This service rate in the drive-thru is based on service by two persons. Based on service rates collected at similar single-order drive-thru facilities in the Western New York/Finger Lakes Region, there is variability in service times ranging from 25 to 35 seconds.

Table VI summarizes the results of the proposed drive-thru queue assessment.

TABLE VI: AM PEAK HOUR DRIVE-THRU QUEUING RESULTS

PARAMETER	RESULTS
Arrival Rate	37 vph
Service Rate	103 vph
95% Confidence Queue Length	2 vehicles

Notes:
1. vph = Vehicles per Hour.

The results of the drive-thru queuing analysis indicate 95th percentile queue lengths of two vehicles during the AM peak hour. Between two and five vehicles are projected as a worst-case scenario.

Based on an analysis of the current site plan, the drive-thru provides storage for approximately four passenger vehicles. The analyses indicate that there is sufficient stacking space on-site to accommodate the projected drive-thru demands.

XI. CONCLUSIONS & RECOMMENDATIONS

This Traffic Impact Study identified and evaluated the potential traffic impacts that can be expected from the proposed Dandy Mini Mart project in the Town of Lansing, NY. The results of this study determined that the existing transportation network can adequately accommodate the projected traffic volumes and resulting minor impacts to study area intersections with the following improvements in place. The following sets forth the conclusions and recommendations based upon the results of the analyses:

Conclusions

1. The proposed development is expected to generate approximately 91 entering/92 exiting vehicle trips during the AM peak hour and 76 entering/76 exiting vehicle trips during the PM peak hour. Not all these driveway volumes are new, but instead a portion of the proposed volume is reduced considering pass-by adjustments.

2. Thus, the proposed site is expected to generate approximately 45 entering/46 exiting new vehicle trips during the AM peak hour and 38 entering/38 exiting new vehicle trips during the PM peak hour.

3. All study area movements operate at LOS “D” or better during both peak hours under existing, projected background, and projected full development conditions.

4. The volume warrants for left-turn lanes at the proposed access locations are not fully satisfied during either peak hour.

5. Based on an analysis of the current site plan, the drive-thru provides storage for approximately four passenger vehicles. The analyses indicate that there is sufficient stacking space on-site to accommodate the projected drive-thru demands.

Recommendations

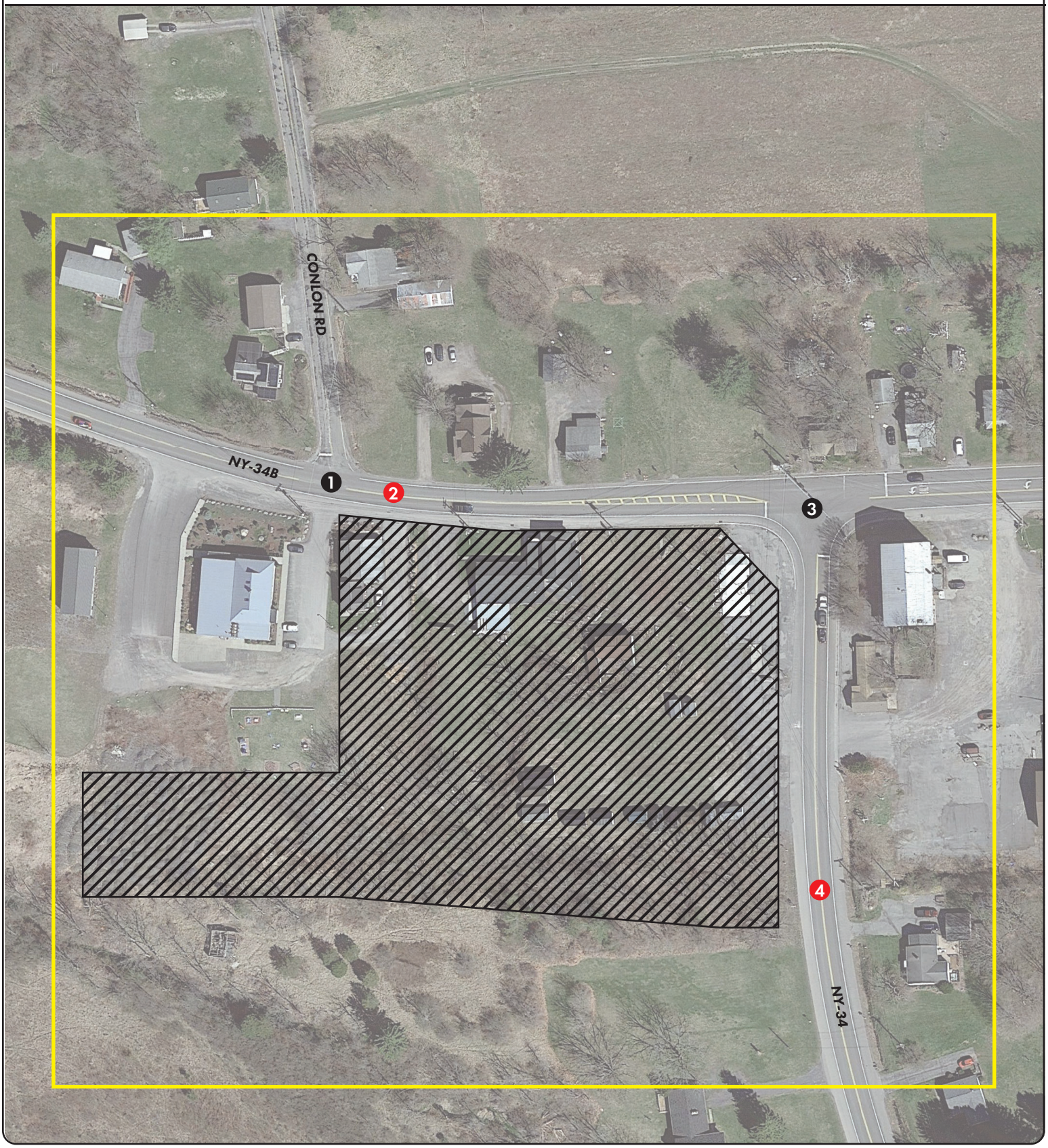
6. Minor signal timing adjustments are recommended at the intersection of NY-34B/NY-34 during the AM peak hour under background conditions.

7. Future improvements were noted in the 2021 Lansing Town Center TIS prepared by SRF Associates (now Passero Associates) at NY-34B/NY-34 intersection. Based upon the projected impacts resulting from the Dandy Mini Mart project and based upon the unknown timeframe of the Lansing Town Center project, the noted improvements are not required at this time. However, the proposed site design should anticipate the construction of these future improvements in the way of considerations related to setbacks from future turn lanes and sidewalk connections.

XII. FIGURES

Figures 1 through 8 are included on the following pages.

FIGURE 1: SITE LOCATION AND STUDY AREA



Key

- 1 Study Intersection
- 1 Proposed Intersection
- Study Area
- Site Location

PROPOSED DANDY MINI MART

TOWN OF LANSING, TOMPKINS COUNTY, NEW YORK

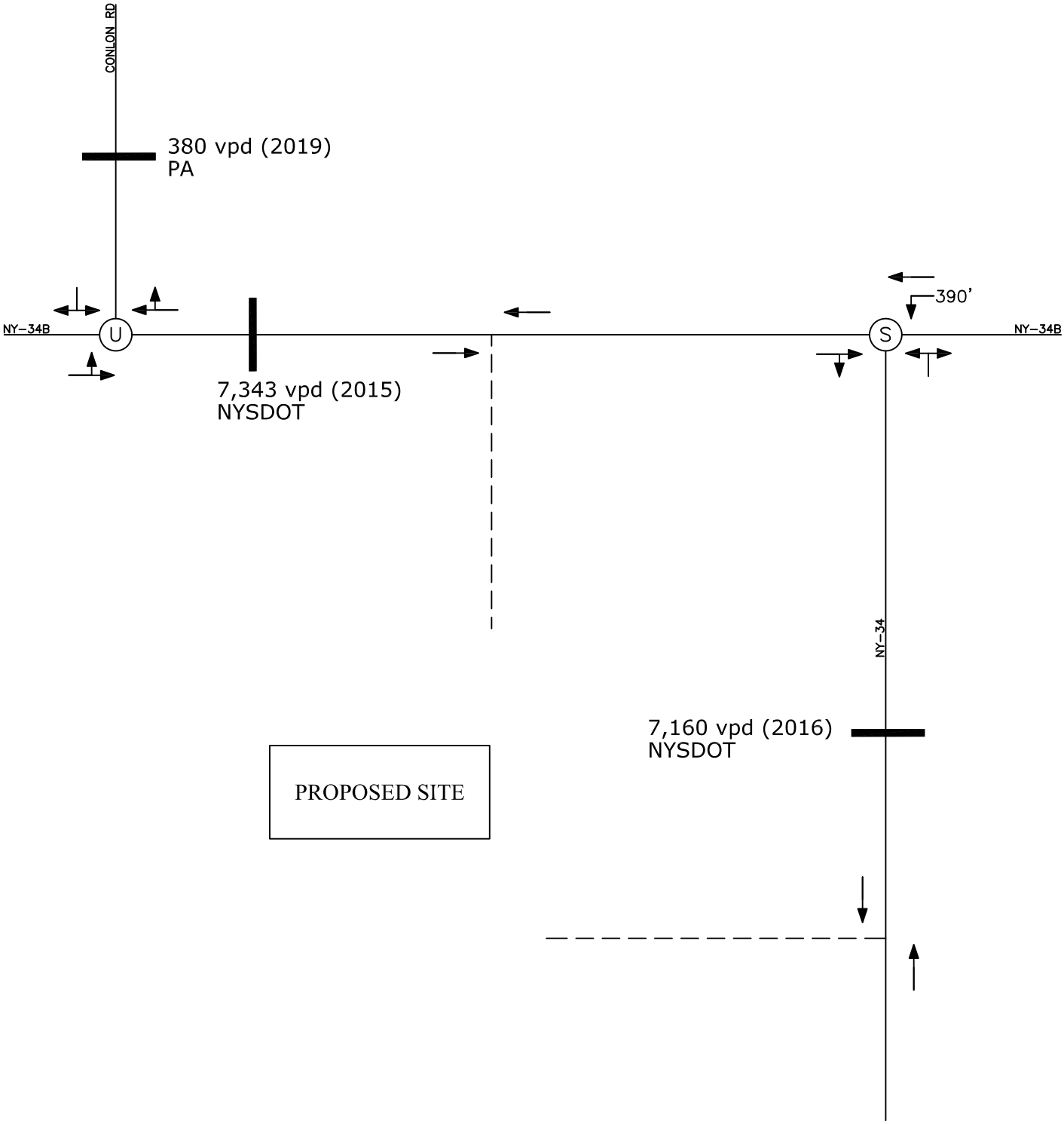
N

0 100 200 300 400

FEET

SRF ASSOCIATES PA

Project No: 42082



Notes:
1. All AADT volumes by those noted:
   1.1. NYSDOT = New York State Department of Transportation
   1.2. PA = Passero Associates
2. vpd = Vehicles per Day
3. Turn lane lengths shown, including taper

N
NOT TO SCALE

KEY

----- PROPOSED DWY

TRAFFIC CONTROL

U = Unsignalized

S = Signalized

FIGURE 2

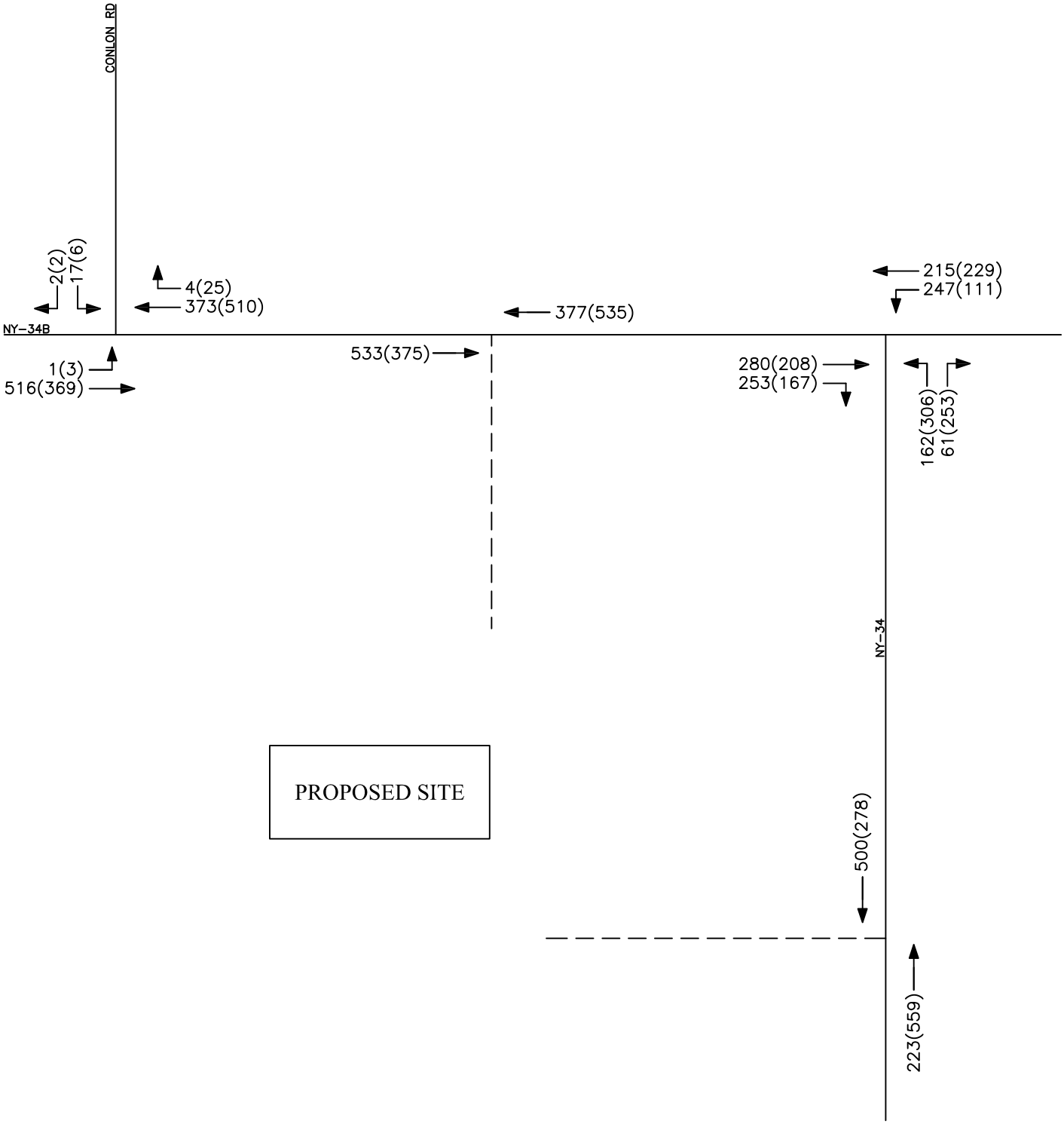
LANE GEOMETRY &
AVERAGE DAILY TRAFFIC

PROPOSED DANDY MINI MART
TOWN OF LANSING, NY

SRF ASSOCIATES

PA

PROJECT NO: 42082

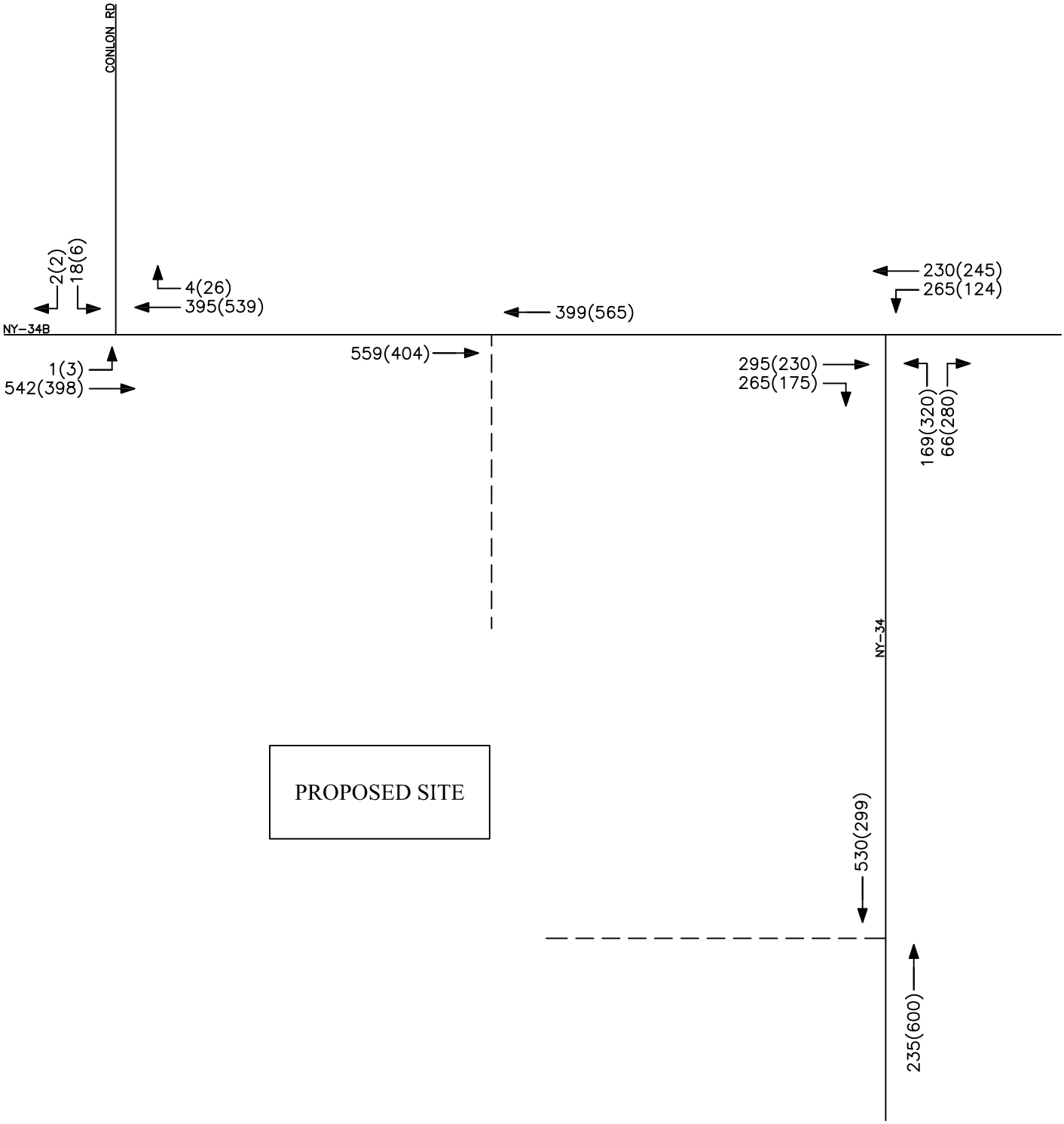


KEY	FIGURE 3A
----- PROPOSED DWY 00(00) = AM(PM)	PEAK HOUR VOLUMES COLLECTED TRAFFIC DATA
	PROPOSED DANDY MINI MART TOWN OF LANSING, NY

SRF ASSOCIATES

PA

PROJECT NO: 42082

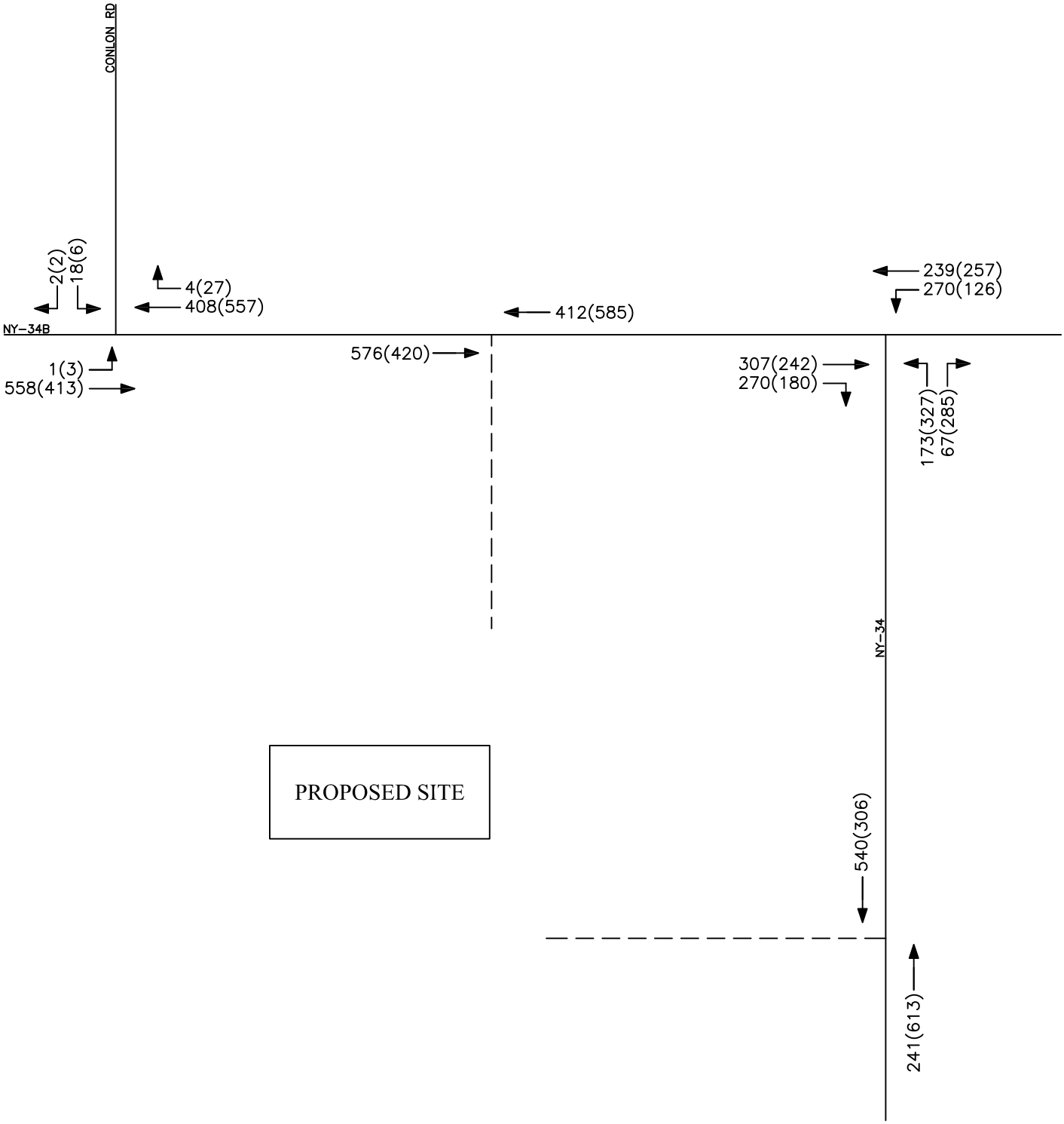


KEY	FIGURE 3B
----- PROPOSED DWY 00(00) = AM(PM)	PEAK HOUR VOLUMES 2022 EXISTING BASE CONDITIONS
	PROPOSED DANDY MINI MART TOWN OF LANSING, NY

SRF ASSOCIATES

PA

PROJECT NO: 42082



KEY	FIGURE 4
----- PROPOSED DWY 00(00) = AM(PM)	PEAK HOUR VOLUMES 2024 BACKGROUND CONDITIONS
	PROPOSED DANDY MINI MART TOWN OF LANSING, NY

SRF ASSOCIATES

PA

PROJECT NO: 42082

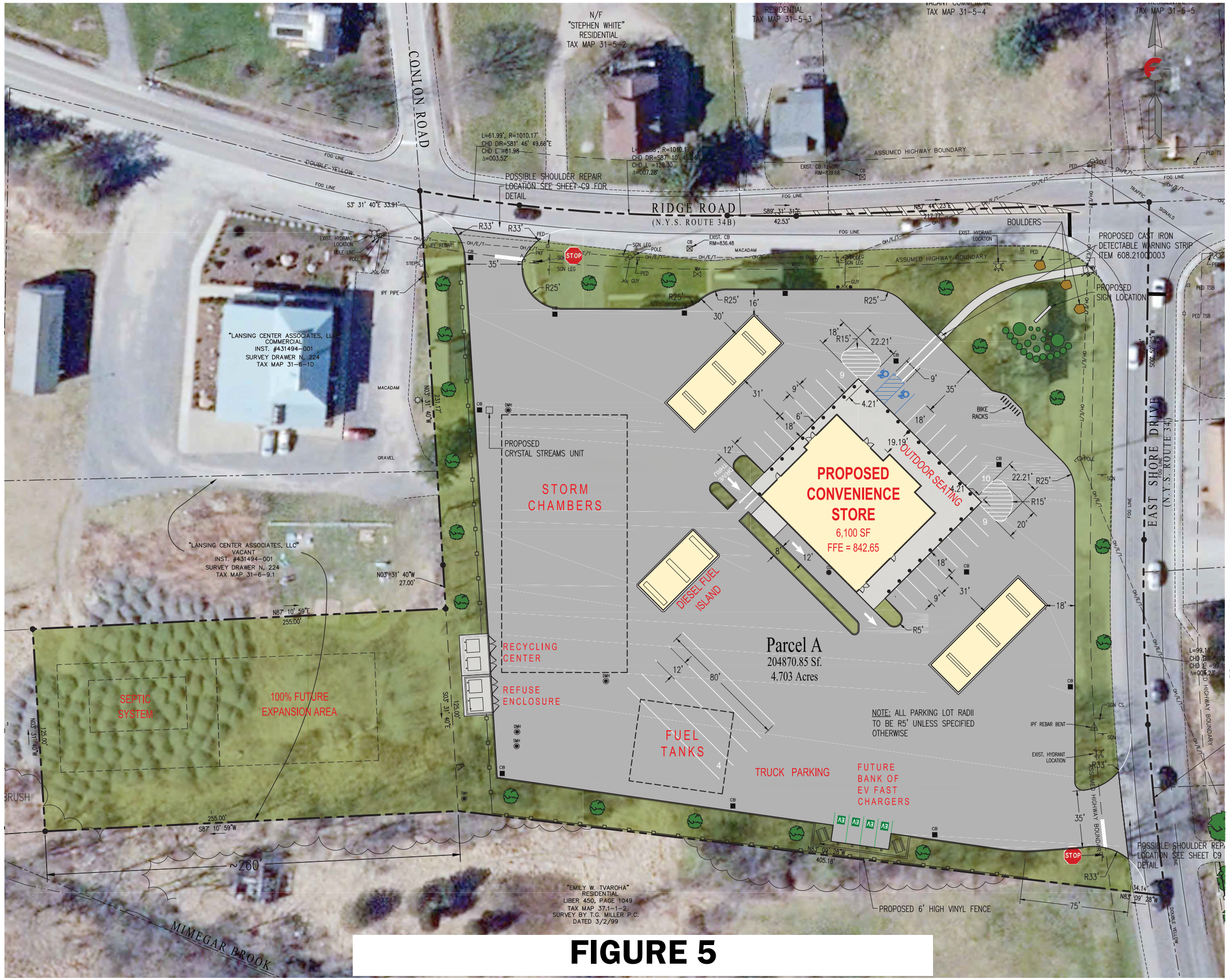


FIGURE 5

LEGEND

- PROPERTY LINE
- EXISTING EASEMENT
- EXISTING EDGE OF ROADWAY
- EXISTING CURB LINE
- SAN — EXISTING SANITARY SEWER
- G — EXISTING GAS MAIN
- UG/E/T/C — EXISTING UTILITY LINE (UG-UNDERGROUND, OH-OVERHEAD, T-TELEPHONE, E-ELECTRIC, C-CABLE)
- x — x — EXISTING FENCE LINE
- W — EXISTING WATER LINE
- 932 — EXISTING CONTOUR LINE
- LOD — PROPOSED LIMIT OF DISTURBANCE
- 99 — PROPOSED CONTOUR LINE
- PROPOSED EASEMENT
- ST — PROPOSED STORM SEWER
- PROPOSED EDGE OF ROADWAY
- PROPOSED CURB LINE
- SAN — PROPOSED SANITARY SEWER
- G — PROPOSED GAS LINE
- UG/E/T/C — PROPOSED UTILITY LINE (UG-UNDERGROUND, OH-OVERHEAD, T-TELEPHONE, E-ELECTRIC, C-CABLE)
- W — PROPOSED WATER LINE
- SF — PROPOSED SILT FENCE
- CS — PROPOSED COMPOST SOCK
- SMH — EXISTING SANITARY MANHOLE
- EXISTING FIRE HYDRANT ASSEMBLY
- CO — EXISTING CLEANOUT
- 99.50 x — EXISTING SPOT ELEVATION
- SMH — PROPOSED SANITARY MANHOLE
- WV — PROPOSED WATER VALVE
- TB — PROPOSED THRUST BLOCK
- PROPOSED FIRE HYDRANT ASSEMBLY
- CO — PROPOSED CLEANOUT
- PROPOSED LIGHTING FIXTURE
- x 99.42 — PROPOSED SPOT ELEVATION
- DW — PROPOSED DRYWELL
- CB — PROPOSED CATCH BASIN
- PROPOSED INLET PROTECTION
- TC=100.50 BC=100.00 — PROPOSED TOP/BOTTOM CURB

ZONING INFORMATION

B-1 & B-2 ZONING DISTRICTS

	REQUIRED	PROPOSED
PARCEL SIZE	NONE	4.7 Acres
MIN. ROAD FRONTAGE	100'	785'
BUILDING SETBACK		
FRONT YARD	60'*	117'
REAR YARD	10'*	145'
SIDE YARD	10'*	186'
MAX. BUILDING HEIGHT		
MAX HEIGHT	35'	?'
MAX. LOT COVERAGE	80%	63%
MIN. PARKING SPACES	23 SPACES**	36 SPACES

*LESS WITH SITE PLAN APPROVAL

**1 PARKING STALL FOR EACH 250 SF OF GROSS FLOOR AREA
5,685 SF / 250 SF = 23 PARKING STALLS

0 30' 60'

Note:
Utility information has been plotted from available sources and their locations and size should be considered approximate only. The contractor is responsible for determining exact utility locations, sizes, and elevations prior to commencing construction. If uncharted or misplotted utilities are encountered, the contractor is required to notify the owner immediately.

New York State law requires excavators to contact the one-call notification system prior to digging to prevent damage to buried facilities.
IT'S THE LAW!
Call three days before you dig!
1-800-962-7962
Dig Safely New York
(non-members must be contacted separately)

PRELIMINARY PRINT
NOT FOR CONSTRUCTION

Rev.	Date	Revision Description
5.	06/16/22	Per NYSDOT Comments
4.	05/23/22	Revised Landscaping Plan
3.	05/03/22	Per NYSDOT Comments
2.	03/21/22	Preliminary Site Plan Submission
1.	07/29/21	Added Southern Fenceline

SEAL

PROPOSED DANDY MINI-MART

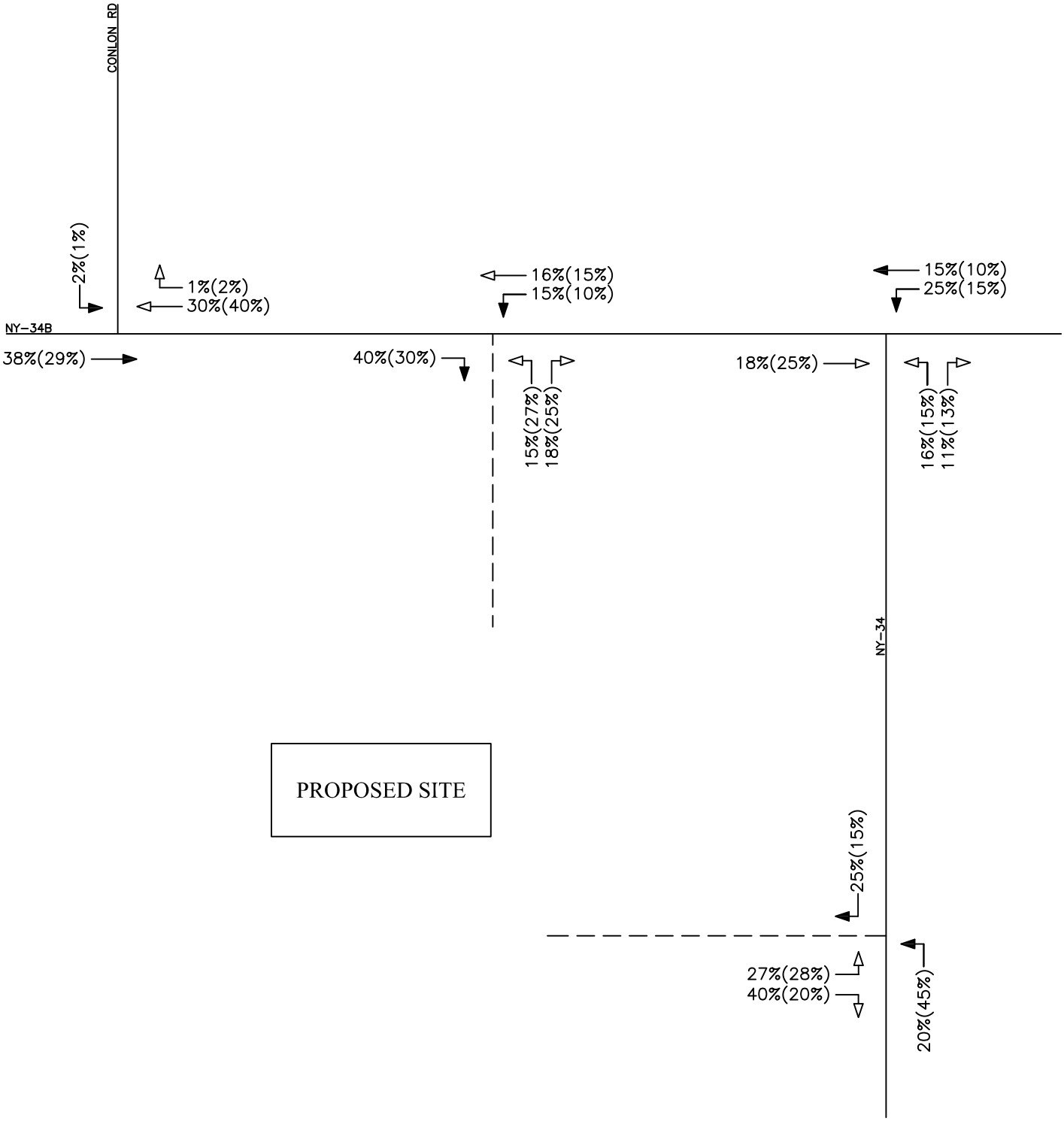
LANSING (T), TOMPKINS (Co.), NEW YORK

FAGAN ENGINEERS
& LAND SURVEYORS PC
113 East Chemung Place
Elmira N.Y. 14904
Phone (607) 734-2165
Fax (607) 734-2169
www.FaganEngineers.com

Scale:	1" = 30' 11x17 Prints are 1/2 Size
Date:	November 30, 2020
Design By:	JBG, RSN
Drawn By:	RSN
Checked By:	JBG
Project No.:	2020.062
Drawing Name:	20062.dwg

SITE PLAN

C3



N

NOT TO SCALE

KEY

----- PROPOSED DWY

00(00) = AM(PM)

ENTERING TRIPS →

EXITING TRIPS →

FIGURE 6

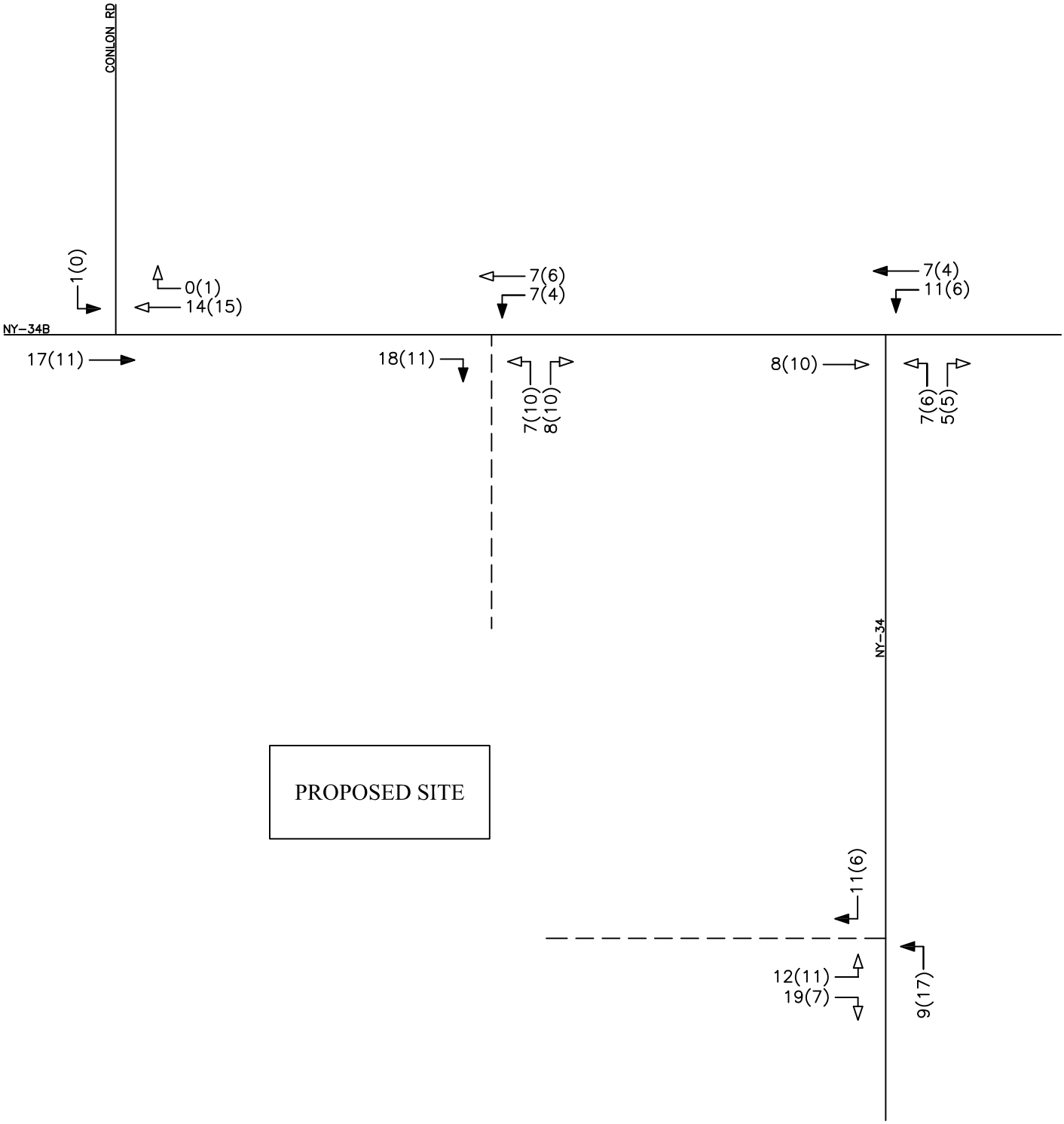
TRIP DISTRIBUTION

PROPOSED DANDY MINI MART
TOWN OF LANSING, NY

SRF ASSOCIATES

PA

PROJECT NO: 42082



N

NOT TO SCALE

KEY

----- PROPOSED DWY

00(00) = AM(PM)

ENTERING TRIPS →

EXITING TRIPS →

FIGURE 7A

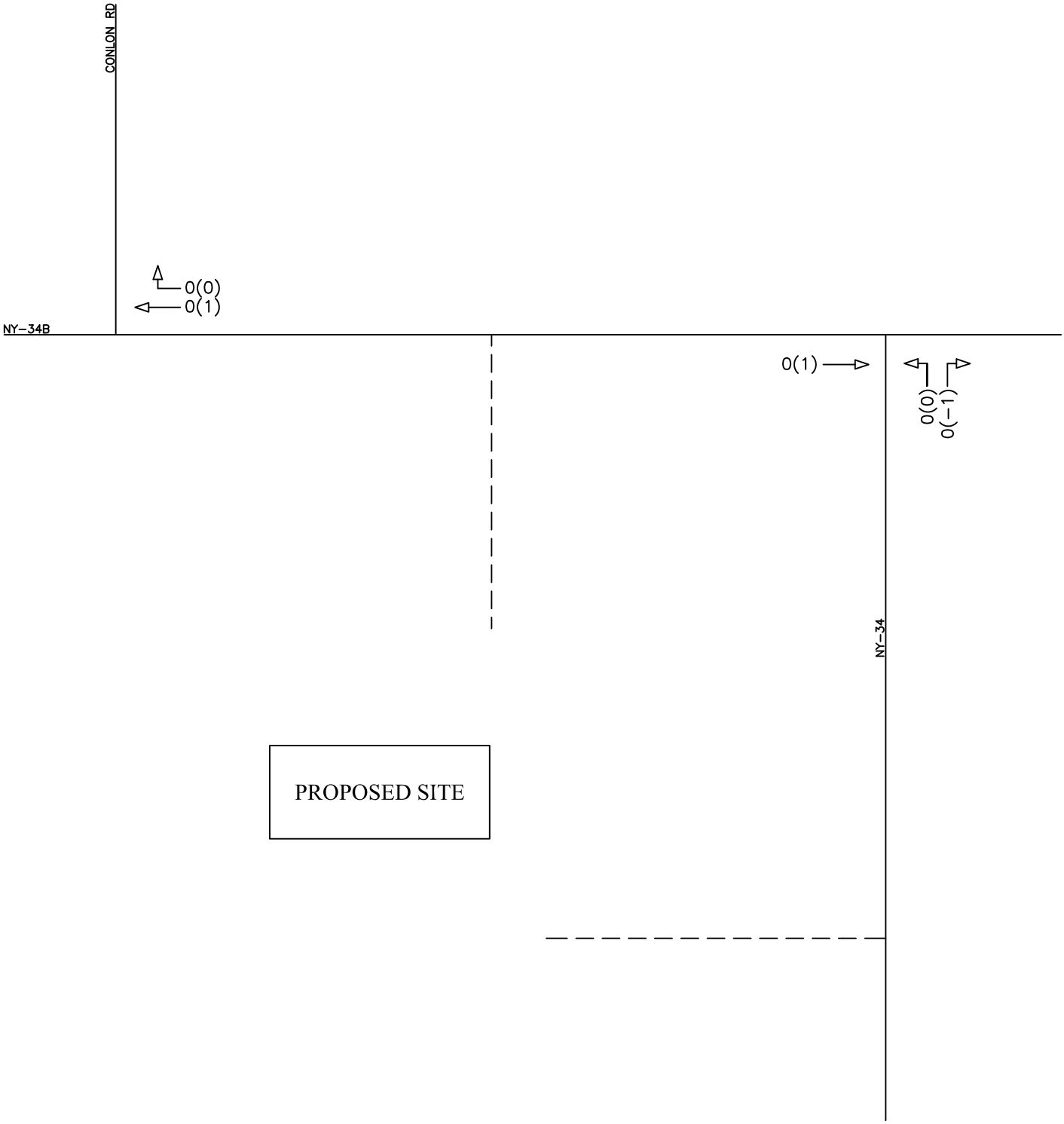
SITE GENERATED TRIPS
PRIMARY TRIPS

PROPOSED DANDY MINI MART
TOWN OF LANSING, NY

SRF ASSOCIATES

PA

PROJECT NO: 42082



N

NOT TO SCALE

KEY

----- PROPOSED DWY

00(00) = AM(PM)

ENTERING TRIPS

EXITING TRIPS

FIGURE 7B

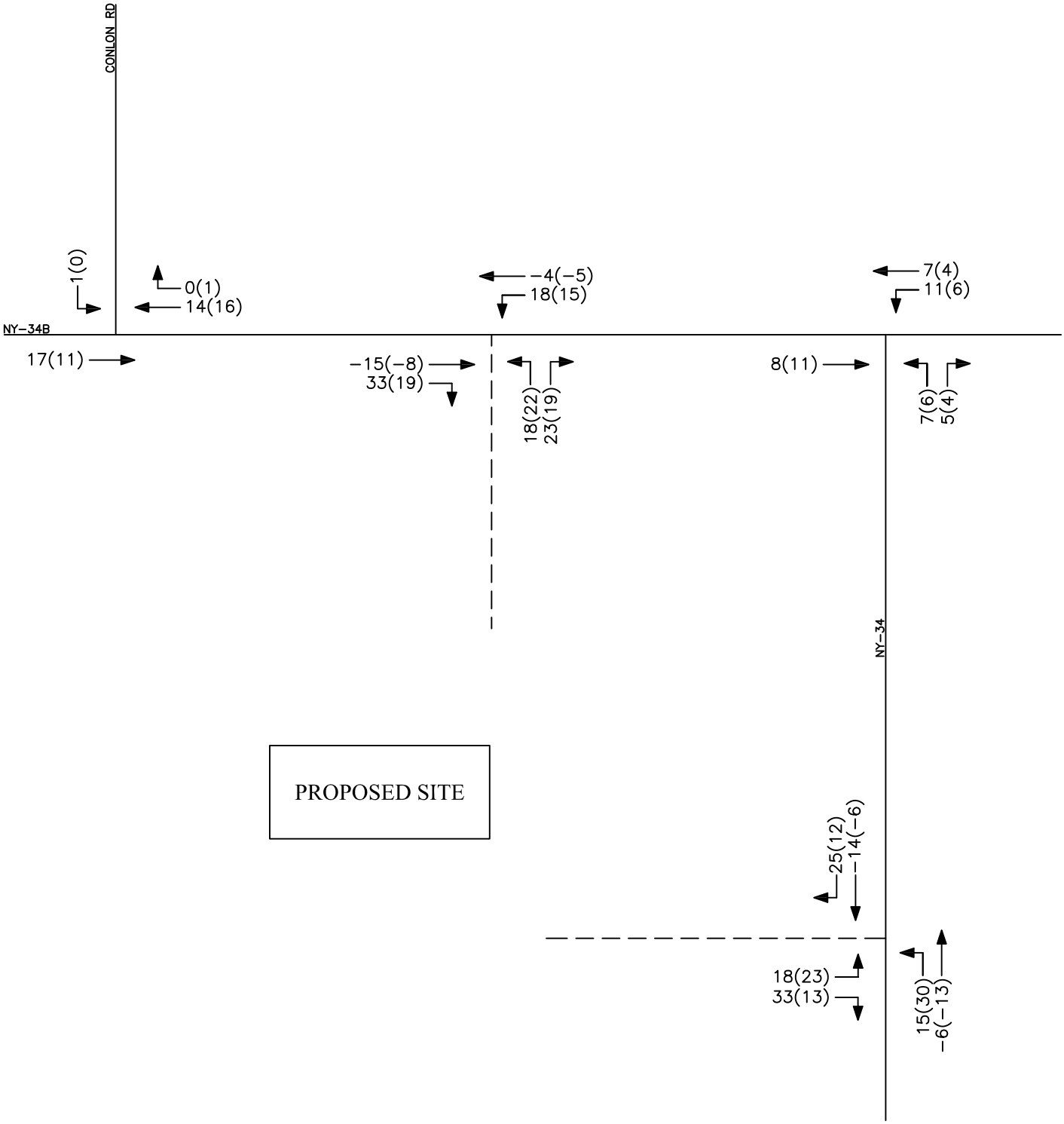
SITE GENERATED TRIPS
PASS-BY TRIPS

PROPOSED DANDY MINI MART
TOWN OF LANSING, NY

SRF ASSOCIATES

PA

PROJECT NO: 42082

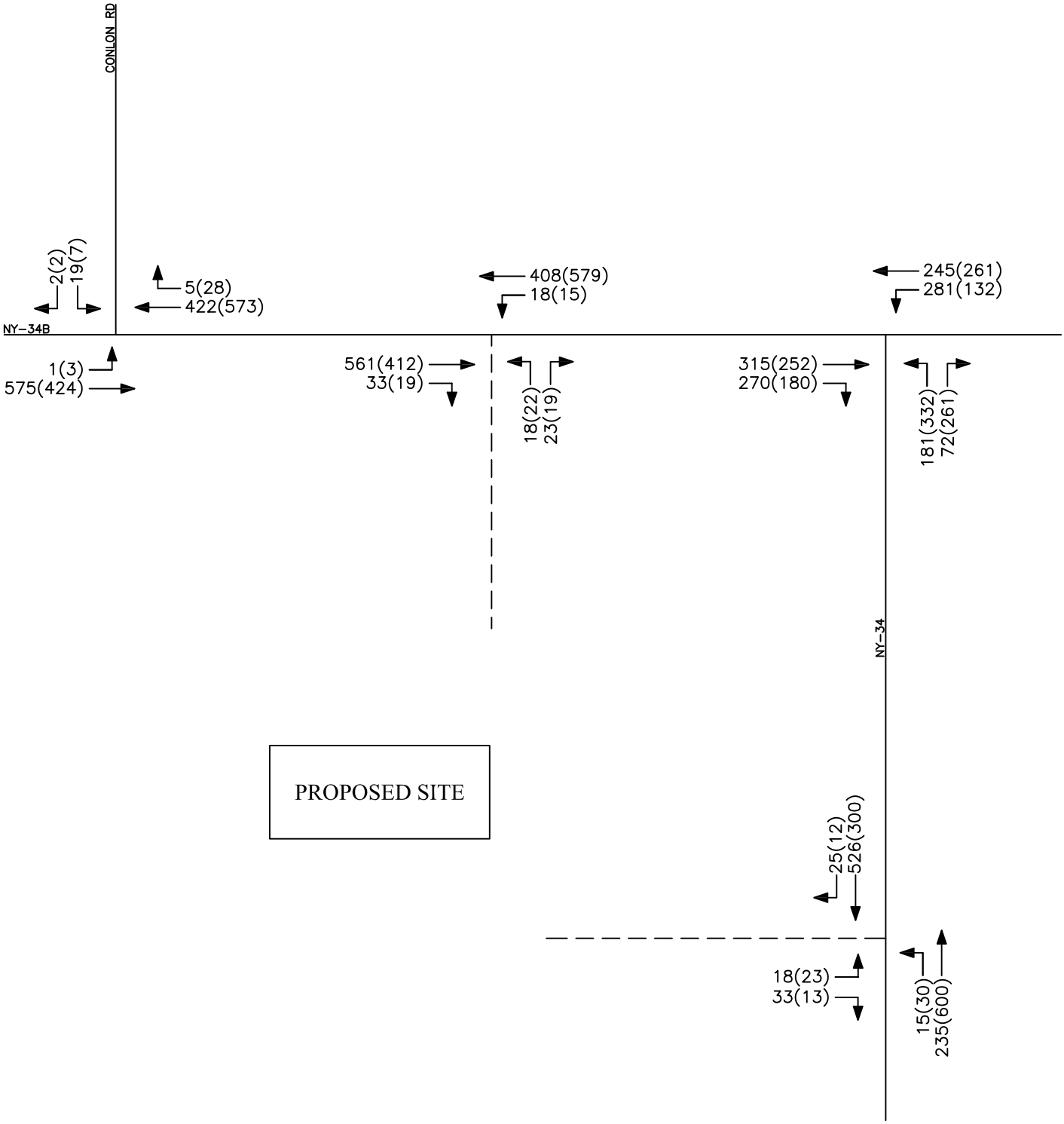


KEY	FIGURE 7C
----- PROPOSED DWY 00(00) = AM(PM)	SITE GENERATED TRIPS TOTAL
	PROPOSED DANDY MINI MART TOWN OF LANSING, NY

SRF ASSOCIATES

PA

PROJECT NO: 42082



KEY	FIGURE 8
----- PROPOSED DWY 00(00) = AM(PM)	PEAK HOUR VOLUMES FULL DEVELOPMENT CONDITIONS
	PROPOSED DANDY MINI MART TOWN OF LANSING, NY

SRF ASSOCIATES

PA

PROJECT NO: 42082

APPENDICES

A1

Collected Traffic Volume Data

Proposed Dandy Mini Mart, Town of Lansing, Tompkins County, NY

Documentation of Ambient Traffic Volume Growth

Roadway	Segment starts at	Segment end at	2010	2011	2013	2014	2015	2016	2017	2018	2019	Annual Growth
NY-34	NY-34B	NY-34B				8,748				9,365		1.72%
NY-34	NY-34B	Tomp/Cayuga Co Line			2,547			2,660				1.46%
NY-34B	NY-34	Lansingville Road	7,106				7,343					0.66%
NY-34B	NY-34	Benson Road			5,036			4,558			5,397	1.16%
Asbury Road	NY-34	Warren Road						1,282			1,434	3.81%
North Triphammer	Waterwagon Road	NY-34B		6,931					7,765			1.91%
											AVERAGE	**1.79%**

OnTheMap

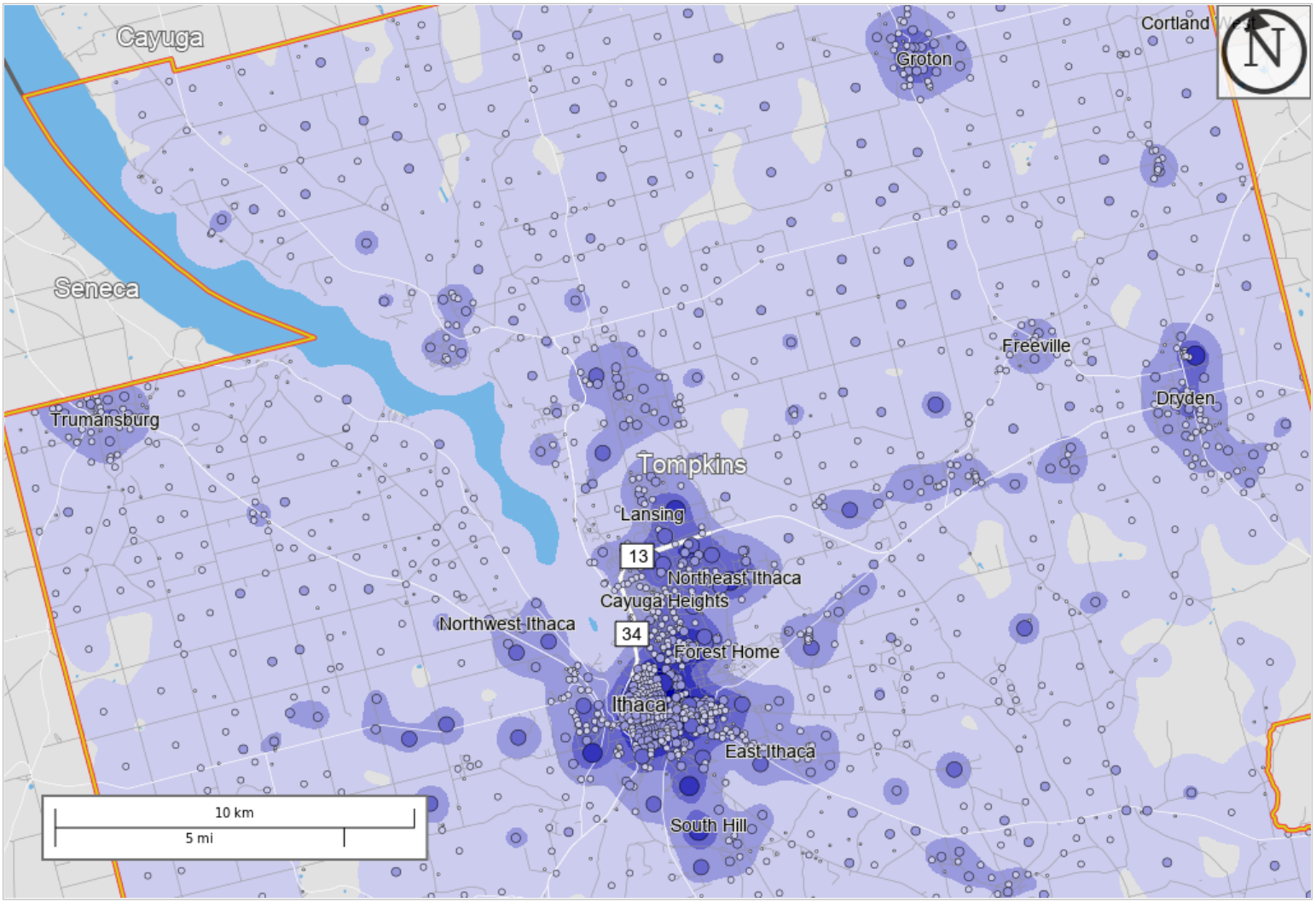
Home Area Profile Report

All Jobs for All Workers in 2017

Created by the U.S. Census Bureau's OnTheMap `https://onthemap.ces.census.gov` on 03/12/2020

Counts and Density of All Jobs in Home Selection Area in 2017

All Workers



Map Legend

Job Density [Jobs/Sq. Mile]

- 5 - 160
- 161 - 625
- 626 - 1,400
- 1,401 - 2,486
- 2,487 - 3,882

Job Count [Jobs/Census Block]

- 1 - 4
- 5 - 28
- 29 - 94
- 95 - 222
- 223 - 434

Selection Areas

- Analysis Selection

OnTheMap

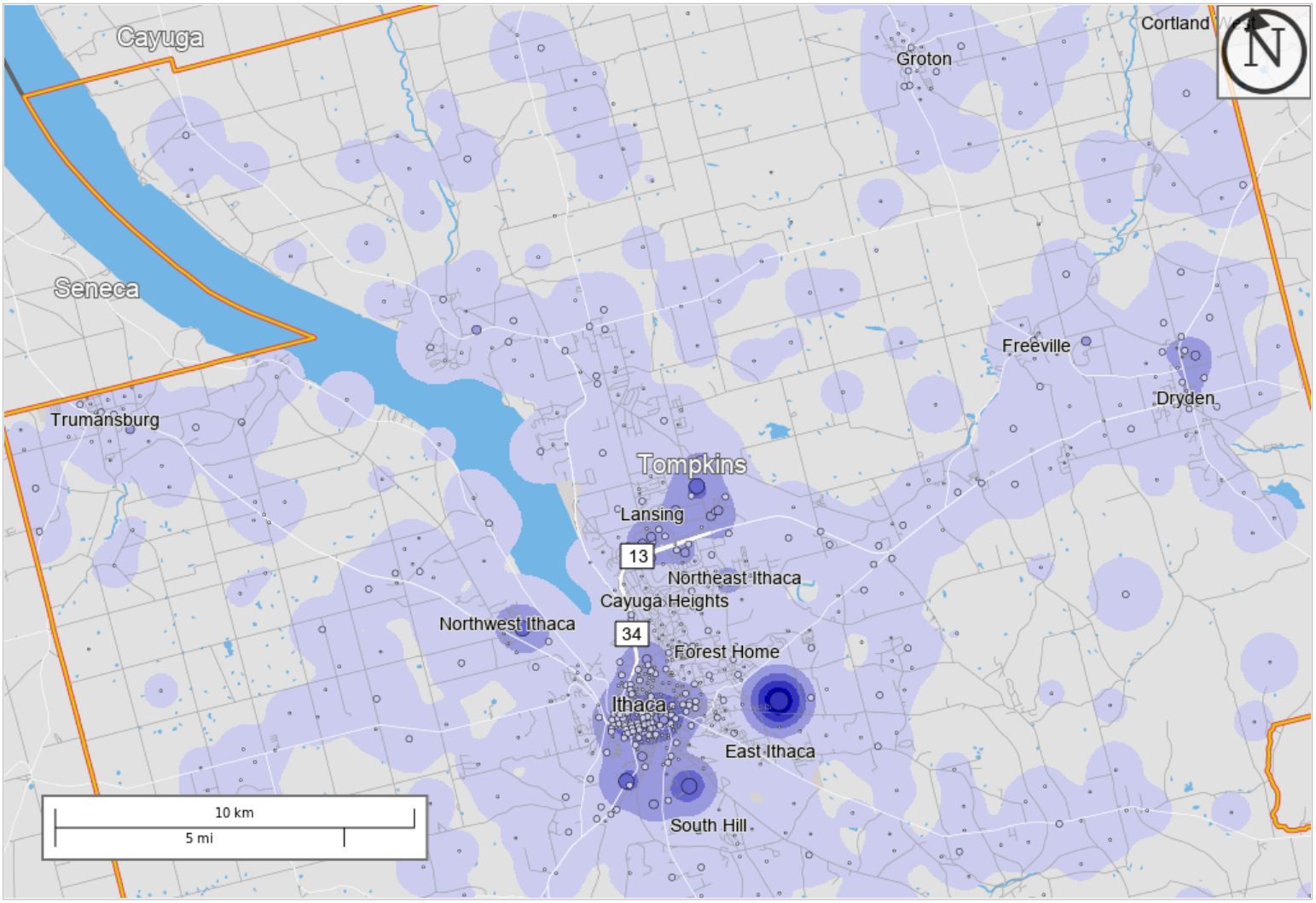
Work Area Profile Report

All Jobs for All Workers in 2017

Created by the U.S. Census Bureau's OnTheMap `https://onthemap.ces.census.gov` on 03/12/2020

Counts and Density of All Jobs in Work Selection Area in 2017

All Workers



Map Legend

Job Density [Jobs/Sq. Mile]

- 5 - 1,091
- 1,092 - 4,351
- 4,352 - 9,784
- 9,785 - 17,390
- 17,391 - 27,170

Job Count [Jobs/Census Block]

- 1 - 18
- 19 - 277
- 278 - 1,401
- 1,402 - 4,427
- 4,428 - 10,808

Selection Areas

- Analysis Selection

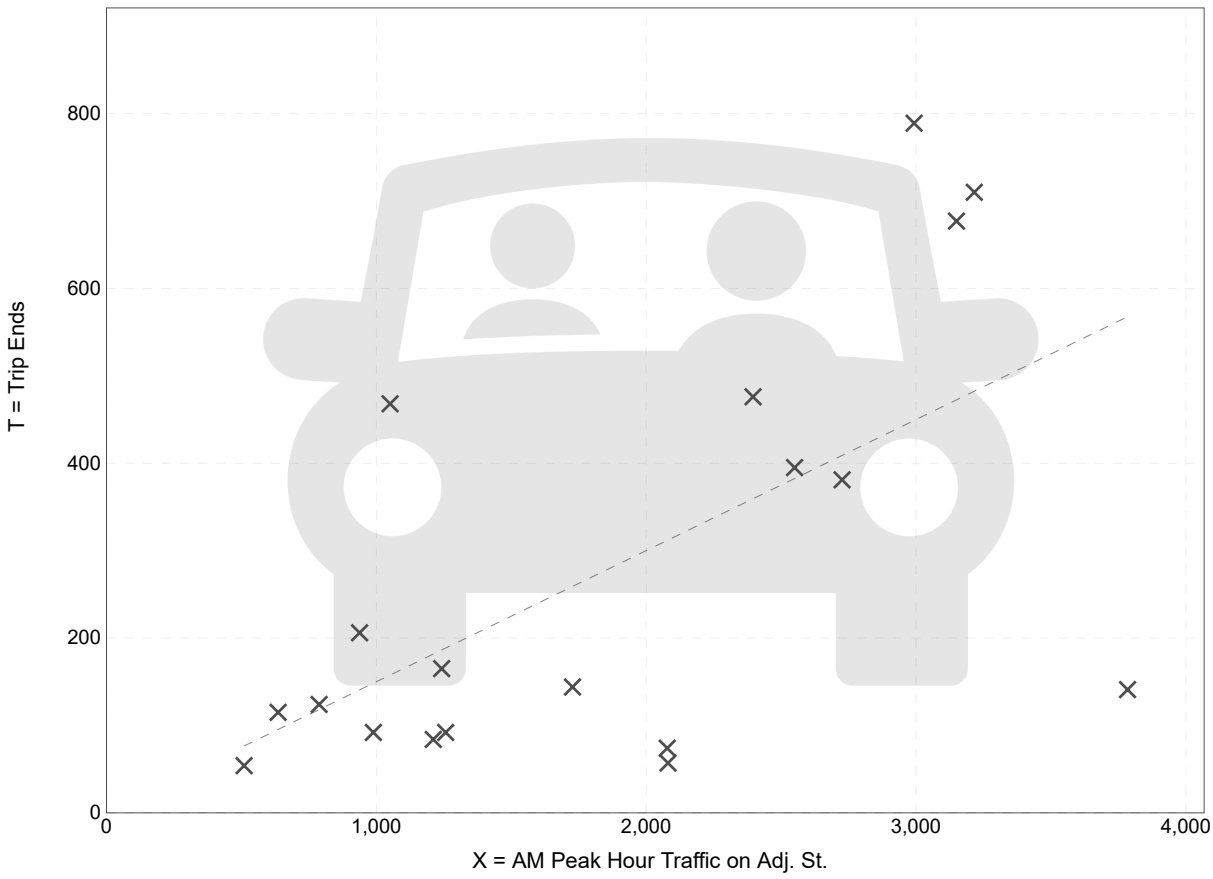
Convenience Store/Gas Station - None
(945)

Vehicle Trip Ends vs: **AM Peak Hour Traffic on Adj. St.**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 19
Avg. AM Peak Hour Traffic on Adj. St.: 1859
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per AM Peak Hour Traffic on Adj. St.

Average Rate	Range of Rates	Standard Deviation
0.15	0.03 - 0.45	0.10

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= **

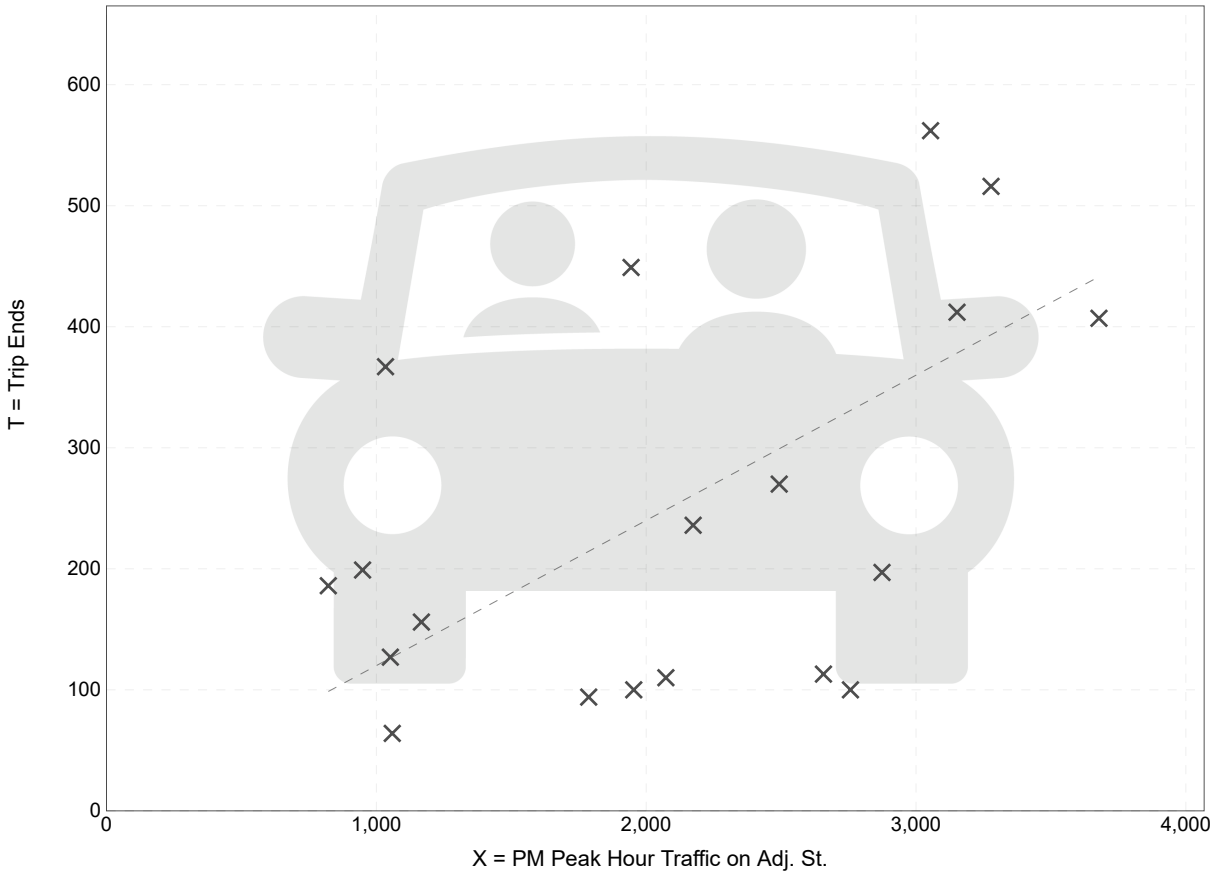
Convenience Store/Gas Station - None
(945)

Vehicle Trip Ends vs:	**PM Peak Hour Traffic on Adj. St.**
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:	19
Avg. PM Peak Hour Traffic on Adj. St.:	2103
Directional Distribution:	50% entering, 50% exiting

Vehicle Trip Generation per PM Peak Hour Traffic on Adj. St.

Average Rate	Range of Rates	Standard Deviation
0.12	0.04 - 0.35	0.07

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= ****

PROJECT: Dandy Mini Mart
LOCATION: Town of Lansing, NY
PEAK HOUR: AM Peak

Figure Number: 3A 3B 4 6 7a 7b 7c 8

LOCATION NUMBER	INTERSECTION DESCRIPTION	Collected Volumes	Num of yrs 3 Adjusted Vol 1.50%	Milton Meadows Enter Dist. %	Milton Meadows Exit Dist. %	Milton Meadows Trips IN 8	Milton Meadows Trips OUT 27	Salt Point Brewing Company Enter Dist. %	Salt Point Brewing Company Exit Dist. %	Salt Point Brewing Company Trips IN 0	Salt Point Brewing Company Trips OUT 0	2022 Base Volume	Num of yrs 2 2024 Bkgd Vol 1.00%	Cayuga National Bank Enter Dist. %	Cayuga National Bank Exit Dist. %	Cayuga National Bank Trips IN 12	Cayuga National Bank Trips OUT 9	3091 N Triphammer Commercial Enter Dist. %	3091 N Triphammer Commercial Exit Dist. %	3091 N Triphammer Commercial Trips IN 6	3091 N Triphammer Commercial Trips OUT 3	Cayuga Vista Apartments Enter Dist. %	Cayuga Vista Apartments Exit Dist. %	Cayuga Vista Apartments Trips IN 1	Cayuga Vista Apartments Trips OUT 6	Nearby Project Trips	Total Bkgd Volume	Proposed Project Enter Dist. %	Proposed Project Exit Dist. %	Proposed Project Trips IN 45	Proposed Project Trips OUT 46	Pass-by Trips	Total Site Trips	Full Build Volumes
1	NY-34B Conlon Road	11/13/19 7:30 AM																																	
	SR ST SL	2 17	2 18					 1%				2 18	2 18	 1%		 0		 1%		 0						0	2 18	 2%		 1				2 19
	WR WT WL	4 373	4 390		 20%		 5		1% 20%			4 395	4 403		1% 30%		0 3		1% 30%		0 1		 20%		 1	0 5	4 408		1% 30%		0 14		0 14	5 422
	NR NT NL																																		
	ER ET EL	516 1	540 1	20%		2		20%				542 1	552 1	30%		4		30%		2		20%		0		6	558 1	38%		17			17	575 1
1	NY-34B Proposed Access																																		
	SR ST SL																																		
	WR WT WL	377	394		20%		5		21%			399	407		31%		3		31%		1		20%		1	5	412	 15%	16%	 7	7 11	-11 11	-4 18	408 18
	NR NT NL																												18% 15%	 7	8 7	15 11	23 18	23 18
	ER ET EL	533	557	20%		2		21%				559	570	31%		4		31%		2		20%		0		6	576	40%		18		15 -15	33 -15	33 561
2	NY-34B NY-34B	11/6/19 7:15 AM																																	
	SR ST SL																																		
	WR WT WL	215 247	225 258		20% 25%		5 7		21% 25%			230 265	235 270		31%		3		31%		1						4	239 270	15% 25%		7 11			7 11	245 281
	NR NT NL	61 162	64 169	25%		2		25%				66 169	67 172										20%		1	1	67 173		11% 16%		5 7		5 7	72 181
	ER ET EL	253 280	265 293	20%		2		21%				265 295	270 301	31%		4		31%		2		20%		0		0 6	270 307		18%		8		8	270 315
3	NY-34 Proposed Access																																		
	SR ST SL	500	523		25%		7		25%			530	540									20%		0		0	540	25% 		11 		14 -14	25 -14	25 526
	WR WT WL																																		
	NR NT NL	223	233	25%		2		25%				235	240										20%		1	1	241	 20%		 9		-6 6	-6 15	235 15
	ER ET EL																												40% 27%	 	19 12	14 6	33 18	33 18

PROJECT: Dandy Mini Mart
LOCATION: Town of Lansing, NY
PEAK HOUR: PM Peak

Figure Number: 3A 3B 4 6 7a 7b 7c 8

LOCATION NUMBER	INTERSECTION DESCRIPTION	Collected Volumes	Num of yrs 3 Adjusted Vol 1.50%	Milton Meadows Enter Dist. %	Milton Meadows Exit Dist. %	Milton Meadows Trips IN 28	Milton Meadows Trips OUT 16	Salt Point Brewing Company Enter Dist. %	Salt Point Brewing Company Exit Dist. %	Salt Point Brewing Company Trips IN 30	Salt Point Brewing Company Trips OUT 15	2022 Base Volume	Num of yrs 2 2024 Bkgd Vol 1.00%	Cayuga National Bank Enter Dist. %	Cayuga National Bank Exit Dist. %	Cayuga National Bank Trips IN 13	Cayuga National Bank Trips OUT 13	3091 N Triphammer Commercial Enter Dist. %	3091 N Triphammer Commercial Exit Dist. %	3091 N Triphammer Commercial Trips IN 18	3091 N Triphammer Commercial Trips OUT 20	Cayuga Vista Apartments Enter Dist. %	Cayuga Vista Apartments Exit Dist. %	Cayuga Vista Apartments Trips IN 6	Cayuga Vista Apartments Trips OUT 3	Nearby Project Trips	Total Bkgd Volume	Proposed Project Enter Dist. %	Proposed Project Exit Dist. %	Proposed Project Trips IN 38	Proposed Project Trips OUT 38	Pass-by Trips	Total Site Trips	Full Build Volumes
1	NY-34B Conlon Road	11/13/19 4:30 PM																																
	SR	2	2									2	2														2							2
	ST																																	
	SL	6	6					1%		0		6	6	1%		0		1%		0						0	6	1%		0		0	7
	WR	25	26						1%		0	26	27		1%		0		1%		0					0	27		2%		1	1	28
	WT	510	533		20%		3		20%		3	539	550		20%		3		20%		4		20%		1	7	557		40%		15	16	573
	WL																																	
	NR																																	
	NT																																	
	NL																																	
	ER																																	
	ET	369	386	20%		6		20%		6		398	406	20%		3		20%		4		20%		1		7	413	29%		11		11	424
	EL	3	3									3	3														3						3
1	NY-34B Proposed Access																																	
	SR																																	
	ST																																	
	SL																																	
	WR																																	
	WT	535	559		20%		3		21%		3	565	577		21%		3		21%		4		20%		1	8	585		15%		6	-11	-5	579
	WL																											10%		4		11	15	15
	NR																												25%		10	9	19	19
	NT																												27%		10	12	22	22
	NL																																	
	ER																											30%		11		8	19	19
	ET	375	392	20%		6		21%		6		404	412	21%		3		21%		4		20%		1		8	420					-8	-8	412
	EL																																	
2	NY-34B NY-34B	11/6/19 4:30 PM																																
	SR																																	
	ST																																	
	SL																																	
	WR																																	
	WT	229	239		20%		3		21%		3	245	250		21%		3		21%		4					7	257	10%		4		4	261
	WL	111	116		25%		4		25%		4	124	126														126	15%		6		6	132
	NR	253	265	25%		7		25%		8		280	285														285		13%		5	-1	4	289
	NT																																	
	NL	306	320									320	326										20%		1	1	327		15%		6		6	332
	ER	167	175									175	179									20%		1		1	180							180
	ET	208	218	20%		6		21%		6		230	235	21%		3		21%		4						7	242		25%		10	1	11	252
	EL																																	
3	NY-34 Proposed Access																																	
	SR																											15%		6		6	12	12
	ST	278	291		25%		4		25%		4	299	305									20%		1		1	306					-6	-6	300
	SL																																	
	WR																																	
	WT																																	
	WL																																	
	NR																																	
	NT	559	585	25%		7		25%		8		600	612										20%		1	1	613					-13	-13	600
	NL																											45%		17		13	30	30
	ER																												20%		7	6	13	13
	ET																																	
	EL																												28%		11	12	23	23

Queue Theory
Dandy Mini Mart
AM Peak Hour - 35 Second Service Rate

The formula assumes both arrival and service distributions are random

Arrivate Rate (Per Hour)	37	ALWAYS ARRIVAL RATE > SERVICE RATE UNDER THIS SCENARIO
Service Rate (Per Hour)	103	

Average queue in the system =	0.6	Veh	(waiting and service)
Average Time in System =	54.7	Sec	
Average Waiting Time only =	19.7	Sec	

95% confident that there will be fewer than	**2**	vehicles in the queue
98% confident that there will be fewer than	**3**	vehicles in the queue
100% confident that there will be fewer than	**5**	vehicles in the queue

Guideline for determining left-turn Lane at a two-way stop-controlled intersection

TWO LANE ROADWAY

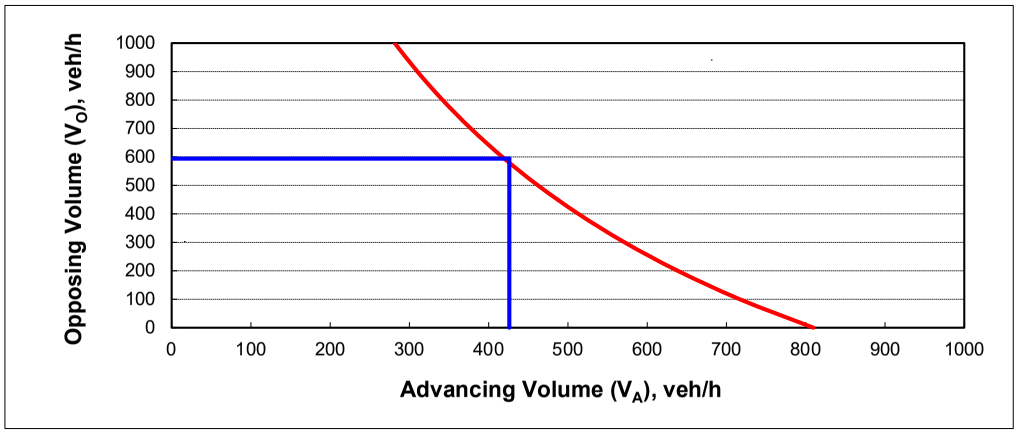
INPUT

Variable	Value
Major Approach	NY-34B @ Proposed Access
Approach	Westbound (AM Peak)
Design Speed Limit - MPH	45
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	426
Opposing volume (V_O), veh/h:	594

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	594	426	0
426	594	426	594



OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	420
Guidance for determining the need for a major-road left-turn bay:	
Westbound (AM Peak) Left-turn treatment warranted at NY-34B @ Proposed Access Intersections	

ρ	0.0175	
f =	0.79	
Wait Time	2.769	s
Service Rate	793	veh/h
Arrival Rate	420	veh/h

Vo	Time_tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

Vo	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

% LT veh.	4%	10%	15%	20%	40%
Vo	V_A	V_A	V_A	V_A	V_A
0	810	543	456	407	332
100	717	481	404	360	294
200	638	428	360	321	262
300	571	383	322	287	235
400	513	344	289	258	211
500	462	310	260	232	190
600	417	280	235	210	171
700	377	253	213	190	155
800	342	229	193	172	140
900	310	208	175	156	127
1000	281	189	159	142	116

Guideline for determining left-turn Lane at a two-way stop-controlled intersection

TWO LANE ROADWAY

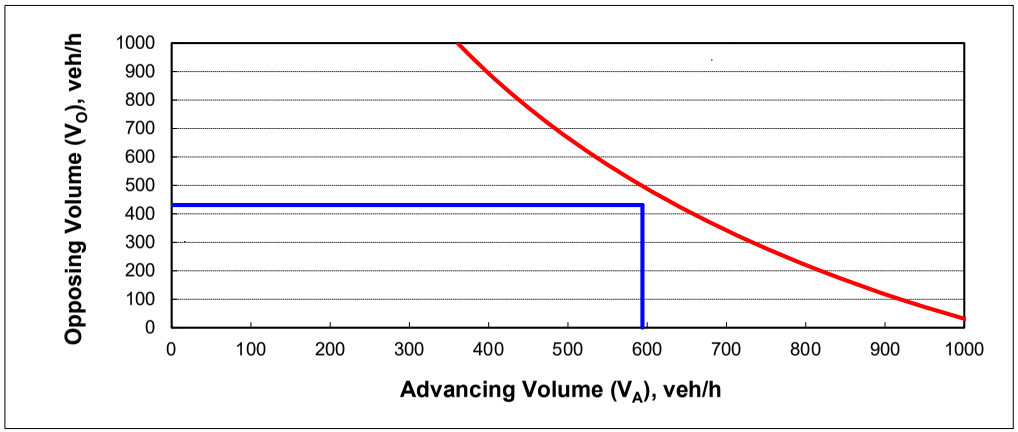
INPUT

Variable	Value
Major Approach	NY-34B @ Proposed Access
Approach	Westbound (PM Peak)
Design Speed Limit - MPH	45
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	594
Opposing volume (V_O), veh/h:	431

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	431	594	0
594	431	594	431



OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	637
Guidance for determining the need for a major-road left-turn bay:	
Westbound (PM Peak) Left-turn treatment NOT warranted at NY-34B @ Proposed Access Intersections	

ρ	0.0175	
f =	0.79	
Wait Time	1.846	s
Service Rate	890	veh/h
Arrival Rate	637	veh/h

Vo	Time_tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

Vo	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

% LT veh.	3%	10%	15%	20%	40%
Vo	V_A	V_A	V_A	V_A	V_A
0	1038	543	456	407	332
100	919	481	404	360	294
200	819	428	360	321	262
300	733	383	322	287	235
400	658	344	289	258	211
500	593	310	260	232	190
600	535	280	235	210	171
700	484	253	213	190	155
800	438	229	193	172	140
900	398	208	175	156	127
1000	361	189	159	142	116

Guideline for determining left-turn Lane at a two-way stop-controlled intersection

TWO LANE ROADWAY

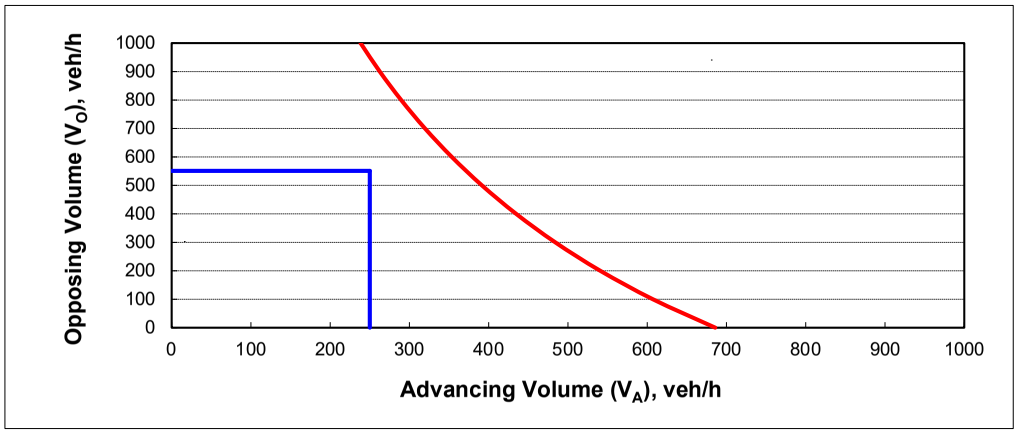
INPUT

Variable	Value
Major Approach	NY-34 @ Proposed Access
Approach	Northbound (AM Peak)
Design Speed Limit - MPH	45
Percent of left-turns in advancing volume (V_A), %:	6%
Advancing volume (V_A), veh/h:	250
Opposing volume (V_O), veh/h:	551

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	551	250	0
250	551	250	551



OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	372
Guidance for determining the need for a major-road left-turn bay:	
Northbound (AM Peak) Left-turn treatment NOT warranted at NY-34 @ Proposed Access Intersections	

ρ	0.0175	
f =	0.79	
Wait Time	2.511	s
Service Rate	818	veh/h
Arrival Rate	372	veh/h

Vo	Time_tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

Vo	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

% LT veh.	6%	10%	15%	20%	40%
Vo	V_A	V_A	V_A	V_A	V_A
0	686	543	456	407	332
100	607	481	404	360	294
200	541	428	360	321	262
300	484	383	322	287	235
400	435	344	289	258	211
500	392	310	260	232	190
600	353	280	235	210	171
700	320	253	213	190	155
800	290	229	193	172	140
900	263	208	175	156	127
1000	238	189	159	142	116

Guideline for determining left-turn Lane at a two-way stop-controlled intersection

TWO LANE ROADWAY

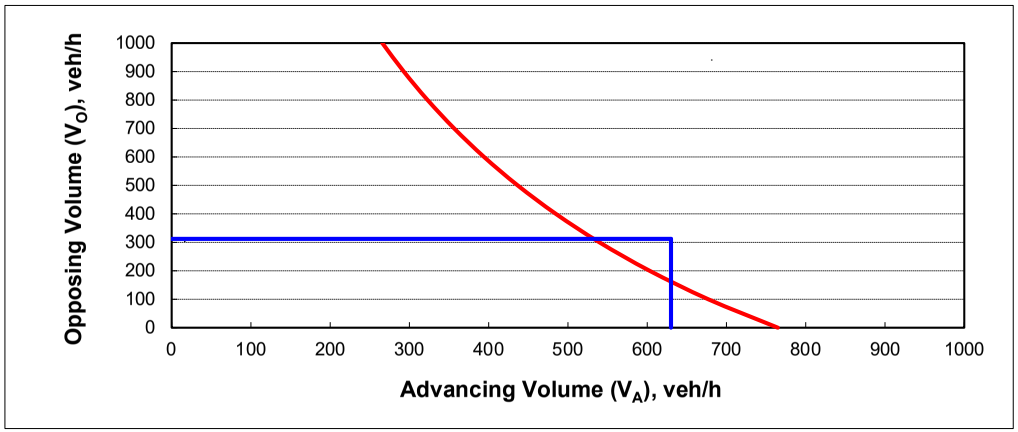
INPUT

Variable	Value
Major Approach	NY-34 @ Proposed Access
Approach	Northbound (PM Peak)
Design Speed Limit - MPH	45
Percent of left-turns in advancing volume (V_A), %:	5%
Advancing volume (V_A), veh/h:	630
Opposing volume (V_O), veh/h:	312

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	312	630	0
630	312	630	312



OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	533
Guidance for determining the need for a major-road left-turn bay:	
Northbound (PM Peak) Left-turn treatment warranted at NY-34 @ Proposed Access Intersections	

ρ	0.0175	
f =	0.79	
Wait Time	1.258	s
Service Rate	968	veh/h
Arrival Rate	533	veh/h

Vo	Time_tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

Vo	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

% LT veh.	5%	10%	15%	20%	40%
Vo	V_A	V_A	V_A	V_A	V_A
0	765	543	456	407	332
100	677	481	404	360	294
200	603	428	360	321	262
300	540	383	322	287	235
400	485	344	289	258	211
500	437	310	260	232	190
600	394	280	235	210	171
700	357	253	213	190	155
800	323	229	193	172	140
900	293	208	175	156	127
1000	266	189	159	142	116

A2

Miscellaneous Traffic Data and Calculations

A3

Level of Service:
Criteria and Definitions

Level of Service Criteria

Highway Capacity Manual 2016

SIGNALIZED INTERSECTIONS

Level of Service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Level of Service for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15-minute analysis period. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 20
C	20 – 35
D	35 – 55
E	55 – 80
F	>80

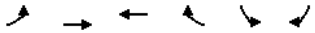
UNSIGNALIZED INTERSECTIONS

Level of Service for unsignalized intersections is also defined in terms of delay. However, the delay criteria are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. The total delay threshold for any given Level of Service is less for an unsignalized intersection than for a signalized intersection. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 15
C	15 – 25
D	25 – 35
E	35 - 50
F	>50

A4

Level of Service Calculations: Existing Conditions



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	542	395	4	18	2
Future Volume (vph)	1	542	395	4	18	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.999		0.984	
Flt Protected					0.958	
Satd. Flow (prot)	0	1667	1697	0	1619	0
Flt Permitted					0.958	
Satd. Flow (perm)	0	1667	1697	0	1619	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		1351	446		1287	
Travel Time (s)		20.5	6.8		29.3	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	14%	12%	0%	12%	0%
Adj. Flow (vph)	1	678	494	5	23	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	679	499	0	26	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	542	395	4	18	2
Future Vol, veh/h	1	542	395	4	18	2
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	80	80	80	80	80	80
Heavy Vehicles, %	0	14	12	0	12	0
Mvmt Flow	1	678	494	5	23	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	499	0	-	0	1177	497
Stage 1	-	-	-	-	497	-
Stage 2	-	-	-	-	680	-
Critical Hdwy	4.1	-	-	-	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	2.2	-	-	-	3.608	3.3
Pot Cap-1 Maneuver	1075	-	-	-	202	577
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	485	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1075	-	-	-	202	577
Mov Cap-2 Maneuver	-	-	-	-	202	-
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	485	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	23.8
HCM LOS			C

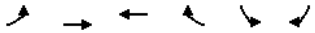
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1075	-	-	-	216
HCM Lane V/C Ratio	0.001	-	-	-	0.116
HCM Control Delay (s)	8.4	0	-	-	23.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	295	265	265	230	169	66
Future Volume (vph)	295	265	265	230	169	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		25	275		0	25
Storage Lanes		1	1		1	1
Taper Length (ft)			115		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1681	1553	1736	1681	1641	1538
Flt Permitted			0.201		0.950	
Satd. Flow (perm)	1681	1553	367	1681	1641	1538
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		119				57
Link Speed (mph)	45			45	45	
Link Distance (ft)	446			895	1239	
Travel Time (s)	6.8			13.6	18.8	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	13%	4%	4%	13%	10%	5%
Adj. Flow (vph)	378	340	340	295	217	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	378	340	340	295	217	85
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	18.0	18.0	8.0	8.0
Minimum Split (s)	8.5	8.5	23.0	23.0	12.5	12.5
Total Split (s)	20.0	20.0	25.0	45.0	25.0	25.0
Total Split (%)	28.6%	28.6%	35.7%	64.3%	35.7%	35.7%
Maximum Green (s)	15.5	15.5	20.0	40.0	20.5	20.5
Yellow Time (s)	3.0	3.0	3.5	3.5	3.0	3.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	5.0	5.0	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	2.0	2.0	4.8	4.8	2.5	2.5
Minimum Gap (s)	2.0	2.0	4.8	4.8	2.5	2.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Time Before Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	15.6	15.6	38.6	38.6	12.9	12.9
Actuated g/C Ratio	0.26	0.26	0.63	0.63	0.21	0.21
v/c Ratio	0.88	0.70	0.53	0.28	0.63	0.23
Control Delay	48.6	24.0	10.8	6.6	30.2	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	24.0	10.8	6.6	30.2	10.7
LOS	D	C	B	A	C	B
Approach Delay	37.0			8.9	24.7	
Approach LOS	D			A	C	
Queue Length 50th (ft)	131	70	48	41	72	8
Queue Length 95th (ft)	#257	138	105	80	114	31
Internal Link Dist (ft)	366			815	1159	
Turn Bay Length (ft)		25	275			25
Base Capacity (vph)	429	485	683	1108	554	557
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.70	0.50	0.27	0.39	0.15

Intersection Summary		
Area Type:	Other	
Cycle Length: 70		
Actuated Cycle Length: 61		
Natural Cycle: 60		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.88		
Intersection Signal Delay: 24.0		Intersection LOS: C
Intersection Capacity Utilization 51.6%		ICU Level of Service A
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Splits and Phases: 2: NY-34 & NY-34B/NY-34/34B



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	398	539	26	6	2
Future Volume (vph)	3	398	539	26	6	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.970	
Flt Protected					0.963	
Satd. Flow (prot)	0	1863	1853	0	1775	0
Flt Permitted					0.963	
Satd. Flow (perm)	0	1863	1853	0	1775	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		1351	446		1287	
Travel Time (s)		20.5	6.8		29.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	2%	2%	0%	0%	0%
Adj. Flow (vph)	3	457	620	30	7	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	460	650	0	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	398	539	26	6	2
Future Vol, veh/h	3	398	539	26	6	2
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	87	87	87	87	87	87
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	3	457	620	30	7	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	650	0	-	0	1098	635
Stage 1	-	-	-	-	635	-
Stage 2	-	-	-	-	463	-
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	946	-	-	-	238	482
Stage 1	-	-	-	-	532	-
Stage 2	-	-	-	-	638	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	946	-	-	-	237	482
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	638	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	18.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	946	-	-	-	272
HCM Lane V/C Ratio	0.004	-	-	-	0.034
HCM Control Delay (s)	8.8	0	-	-	18.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	230	175	124	245	320	280
Future Volume (vph)	230	175	124	245	320	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		25	275		0	25
Storage Lanes		1	1		1	1
Taper Length (ft)			115		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1881	1583	1752	1863	1787	1583
Flt Permitted			0.398		0.950	
Satd. Flow (perm)	1881	1583	734	1863	1787	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		100				127
Link Speed (mph)	45			45	45	
Link Distance (ft)	446			895	1239	
Travel Time (s)	6.8			13.6	18.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	2%	3%	2%	1%	2%
Adj. Flow (vph)	237	180	128	253	330	289
Shared Lane Traffic (%)						
Lane Group Flow (vph)	237	180	128	253	330	289
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	18.0	18.0	8.0	8.0
Minimum Split (s)	8.5	8.5	23.0	23.0	12.5	12.5
Total Split (s)	20.0	20.0	25.0	45.0	25.0	25.0
Total Split (%)	28.6%	28.6%	35.7%	64.3%	35.7%	35.7%
Maximum Green (s)	15.5	15.5	20.0	40.0	20.5	20.5
Yellow Time (s)	3.0	3.0	3.5	3.5	3.0	3.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	5.0	5.0	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	2.0	2.0	4.8	4.8	2.5	2.5
Minimum Gap (s)	2.0	2.0	4.8	4.8	2.5	2.5

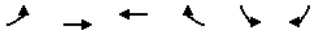
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Time Before Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	15.3	15.3	31.8	31.8	15.0	15.0
Actuated g/C Ratio	0.27	0.27	0.56	0.56	0.26	0.26
v/c Ratio	0.47	0.36	0.17	0.24	0.70	0.57
Control Delay	25.6	13.4	7.2	7.6	28.8	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	13.4	7.2	7.6	28.8	15.8
LOS	C	B	A	A	C	B
Approach Delay	20.3			7.4	22.7	
Approach LOS	C			A	C	
Queue Length 50th (ft)	79	25	19	39	107	48
Queue Length 95th (ft)	153	78	46	85	196	119
Internal Link Dist (ft)	366			815	1159	
Turn Bay Length (ft)		25	275			25
Base Capacity (vph)	574	552	797	1340	681	682
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.33	0.16	0.19	0.48	0.42

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 56.8			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 17.9		Intersection LOS: B	
Intersection Capacity Utilization 56.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: NY-34 & NY-34B/NY-34/34B

A5

Level of Service Calculations: Background Conditions



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	558	408	4	18	2
Future Volume (vph)	1	558	408	4	18	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.999		0.984	
Flt Protected					0.958	
Satd. Flow (prot)	0	1667	1696	0	1619	0
Flt Permitted					0.958	
Satd. Flow (perm)	0	1667	1696	0	1619	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		1351	446		1287	
Travel Time (s)		20.5	6.8		29.3	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	14%	12%	0%	12%	0%
Adj. Flow (vph)	1	698	510	5	23	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	699	515	0	26	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	558	408	4	18	2
Future Vol, veh/h	1	558	408	4	18	2
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	80	80	80	80	80	80
Heavy Vehicles, %	0	14	12	0	12	0
Mvmt Flow	1	698	510	5	23	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	515	0	-	0	1213	513
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	700	-
Critical Hdwy	4.1	-	-	-	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	2.2	-	-	-	3.608	3.3
Pot Cap-1 Maneuver	1061	-	-	-	192	565
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	475	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1061	-	-	-	192	565
Mov Cap-2 Maneuver	-	-	-	-	192	-
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	475	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	24.9
HCM LOS			C

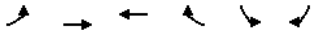
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1061	-	-	-	206
HCM Lane V/C Ratio	0.001	-	-	-	0.121
HCM Control Delay (s)	8.4	0	-	-	24.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	307	270	270	239	173	67
Future Volume (vph)	307	270	270	239	173	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		25	275		0	25
Storage Lanes		1	1		1	1
Taper Length (ft)			115		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1681	1553	1736	1681	1641	1538
Flt Permitted			0.210		0.950	
Satd. Flow (perm)	1681	1553	384	1681	1641	1538
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		123				53
Link Speed (mph)	45			45	45	
Link Distance (ft)	446			895	1239	
Travel Time (s)	6.8			13.6	18.8	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	13%	4%	4%	13%	10%	5%
Adj. Flow (vph)	394	346	346	306	222	86
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	346	346	306	222	86
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	18.0	18.0	8.0	8.0
Minimum Split (s)	8.5	8.5	23.0	23.0	12.5	12.5
Total Split (s)	23.0	23.0	25.0	48.0	22.0	22.0
Total Split (%)	32.9%	32.9%	35.7%	68.6%	31.4%	31.4%
Maximum Green (s)	18.5	18.5	20.0	43.0	17.5	17.5
Yellow Time (s)	3.0	3.0	3.5	3.5	3.0	3.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	5.0	5.0	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	2.0	2.0	4.8	4.8	2.5	2.5
Minimum Gap (s)	2.0	2.0	4.8	4.8	2.5	2.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Time Before Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	17.3	17.3	40.4	40.4	12.9	12.9
Actuated g/C Ratio	0.28	0.28	0.64	0.64	0.21	0.21
v/c Ratio	0.85	0.67	0.54	0.28	0.66	0.24
Control Delay	42.4	21.1	10.6	6.3	33.3	12.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	21.1	10.6	6.3	33.3	12.3
LOS	D	C	B	A	C	B
Approach Delay	32.4			8.6	27.4	
Approach LOS	C			A	C	
Queue Length 50th (ft)	141	72	50	44	79	10
Queue Length 95th (ft)	#246	134	99	77	124	34
Internal Link Dist (ft)	366			815	1159	
Turn Bay Length (ft)		25	275			25
Base Capacity (vph)	498	547	680	1159	460	470
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.63	0.51	0.26	0.48	0.18

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 62.9			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 52.4%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 2: NY-34 & NY-34B/NY-34/34B



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	413	557	27	6	2
Future Volume (vph)	3	413	557	27	6	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.970	
Flt Protected					0.963	
Satd. Flow (prot)	0	1863	1853	0	1775	0
Flt Permitted					0.963	
Satd. Flow (perm)	0	1863	1853	0	1775	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		1351	446		1287	
Travel Time (s)		20.5	6.8		29.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	2%	2%	0%	0%	0%
Adj. Flow (vph)	3	475	640	31	7	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	478	671	0	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	413	557	27	6	2
Future Vol, veh/h	3	413	557	27	6	2
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	87	87	87	87	87	87
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	3	475	640	31	7	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	671	0	-	0	1137	656
Stage 1	-	-	-	-	656	-
Stage 2	-	-	-	-	481	-
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	929	-	-	-	225	469
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	626	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	929	-	-	-	224	469
Mov Cap-2 Maneuver	-	-	-	-	224	-
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	626	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	19.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	929	-	-	-	258
HCM Lane V/C Ratio	0.004	-	-	-	0.036
HCM Control Delay (s)	8.9	0	-	-	19.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	242	180	126	257	327	285
Future Volume (vph)	242	180	126	257	327	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		25	275		0	25
Storage Lanes		1	1		1	1
Taper Length (ft)			115		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1881	1583	1752	1863	1787	1583
Flt Permitted			0.383		0.950	
Satd. Flow (perm)	1881	1583	707	1863	1787	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		99				127
Link Speed (mph)	45			45	45	
Link Distance (ft)	446			895	1239	
Travel Time (s)	6.8			13.6	18.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	2%	3%	2%	1%	2%
Adj. Flow (vph)	249	186	130	265	337	294
Shared Lane Traffic (%)						
Lane Group Flow (vph)	249	186	130	265	337	294
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	18.0	18.0	8.0	8.0
Minimum Split (s)	8.5	8.5	23.0	23.0	12.5	12.5
Total Split (s)	20.0	20.0	25.0	45.0	25.0	25.0
Total Split (%)	28.6%	28.6%	35.7%	64.3%	35.7%	35.7%
Maximum Green (s)	15.5	15.5	20.0	40.0	20.5	20.5
Yellow Time (s)	3.0	3.0	3.5	3.5	3.0	3.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	5.0	5.0	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	2.0	2.0	4.8	4.8	2.5	2.5
Minimum Gap (s)	2.0	2.0	4.8	4.8	2.5	2.5

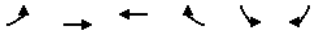
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Time Before Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	15.6	15.6	32.0	32.0	15.4	15.4
Actuated g/C Ratio	0.27	0.27	0.56	0.56	0.27	0.27
v/c Ratio	0.49	0.37	0.18	0.26	0.71	0.57
Control Delay	26.0	13.9	7.3	7.8	29.0	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	13.9	7.3	7.8	29.0	16.0
LOS	C	B	A	A	C	B
Approach Delay	20.9			7.6	23.0	
Approach LOS	C			A	C	
Queue Length 50th (ft)	84	27	19	42	111	50
Queue Length 95th (ft)	161	82	46	89	201	122
Internal Link Dist (ft)	366			815	1159	
Turn Bay Length (ft)		25	275			25
Base Capacity (vph)	568	548	787	1328	675	677
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.34	0.17	0.20	0.50	0.43

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 57.4			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 18.2		Intersection LOS: B	
Intersection Capacity Utilization 57.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: NY-34 & NY-34B/NY-34/34B

A6

Level of Service Calculations: Full Development Conditions



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	575	422	5	19	2
Future Volume (vph)	1	575	422	5	19	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.985	
Flt Protected					0.957	
Satd. Flow (prot)	0	1667	1695	0	1618	0
Flt Permitted					0.957	
Satd. Flow (perm)	0	1667	1695	0	1618	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		1351	65		1287	
Travel Time (s)		20.5	1.0		29.3	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	14%	12%	0%	12%	0%
Adj. Flow (vph)	1	719	528	6	24	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	720	534	0	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	575	422	5	19	2
Future Vol, veh/h	1	575	422	5	19	2
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	80	80	80	80	80	80
Heavy Vehicles, %	0	14	12	0	12	0
Mvmt Flow	1	719	528	6	24	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	534	0	-	0	1252	531
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	721	-
Critical Hdwy	4.1	-	-	-	6.52	6.2
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	2.2	-	-	-	3.608	3.3
Pot Cap-1 Maneuver	1044	-	-	-	181	552
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	464	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1044	-	-	-	181	552
Mov Cap-2 Maneuver	-	-	-	-	181	-
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	464	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	26.6
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1044	-	-	-	193
HCM Lane V/C Ratio	0.001	-	-	-	0.136
HCM Control Delay (s)	8.5	0	-	-	26.6
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	315	270	281	245	181	72
Future Volume (vph)	315	270	281	245	181	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		25	275		0	25
Storage Lanes		1	1		1	1
Taper Length (ft)			115		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1681	1553	1736	1681	1641	1538
Flt Permitted			0.200		0.950	
Satd. Flow (perm)	1681	1553	365	1681	1641	1538
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		120				54
Link Speed (mph)	45			45	45	
Link Distance (ft)	382			895	406	
Travel Time (s)	5.8			13.6	6.2	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	13%	4%	4%	13%	10%	5%
Adj. Flow (vph)	404	346	360	314	232	92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	404	346	360	314	232	92
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	18.0	18.0	8.0	8.0
Minimum Split (s)	8.5	8.5	23.0	23.0	12.5	12.5
Total Split (s)	23.0	23.0	25.0	48.0	22.0	22.0
Total Split (%)	32.9%	32.9%	35.7%	68.6%	31.4%	31.4%
Maximum Green (s)	18.5	18.5	20.0	43.0	17.5	17.5
Yellow Time (s)	3.0	3.0	3.5	3.5	3.0	3.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	5.0	5.0	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	2.0	2.0	4.8	4.8	2.5	2.5
Minimum Gap (s)	2.0	2.0	4.8	4.8	2.5	2.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Time Before Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	17.6	17.6	40.7	40.7	13.2	13.2
Actuated g/C Ratio	0.28	0.28	0.64	0.64	0.21	0.21
v/c Ratio	0.87	0.67	0.57	0.29	0.68	0.25
Control Delay	44.3	21.3	11.9	6.5	34.1	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	21.3	11.9	6.5	34.1	12.6
LOS	D	C	B	A	C	B
Approach Delay	33.7			9.4	28.0	
Approach LOS	C			A	C	
Queue Length 50th (ft)	147	74	55	46	84	12
Queue Length 95th (ft)	#255	135	110	79	129	37
Internal Link Dist (ft)	302			815	326	
Turn Bay Length (ft)		25	275			25
Base Capacity (vph)	493	540	668	1146	455	465
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.64	0.54	0.27	0.51	0.20

Intersection Summary		
Area Type:	Other	
Cycle Length: 70		
Actuated Cycle Length: 63.5		
Natural Cycle: 60		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.87		
Intersection Signal Delay: 23.3		Intersection LOS: C
Intersection Capacity Utilization 53.8%		ICU Level of Service A
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Splits and Phases: 2: NY-34 & NY-34B/NY-34/34B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	561	33	18	408	18	23
Future Volume (vph)	561	33	18	408	18	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.992				0.924	
Flt Protected				0.998	0.979	
Satd. Flow (prot)	1663	0	0	1699	1685	0
Flt Permitted				0.998	0.979	
Satd. Flow (perm)	1663	0	0	1699	1685	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	65			382	323	
Travel Time (s)	1.5			8.7	7.3	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	14%	2%	2%	12%	2%	2%
Adj. Flow (vph)	660	39	21	480	21	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	699	0	0	501	48	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		

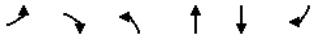
Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	561	33	18	408	18	23
Future Vol, veh/h	561	33	18	408	18	23
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	85	85	85	85	85	85
Heavy Vehicles, %	14	2	2	12	2	2
Mvmt Flow	660	39	21	480	21	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	699	0	1202	680
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	522	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	898	-	204	451
Stage 1	-	-	-	-	503	-
Stage 2	-	-	-	-	595	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	898	-	197	451
Mov Cap-2 Maneuver	-	-	-	-	197	-
Stage 1	-	-	-	-	503	-
Stage 2	-	-	-	-	576	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	20
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	288	-	-	898	-
HCM Lane V/C Ratio	0.167	-	-	0.024	-
HCM Control Delay (s)	20	-	-	9.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	18	33	15	235	526	25
Future Volume (vph)	18	33	15	235	526	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.912				0.994	
Flt Protected	0.983			0.997		
Satd. Flow (prot)	1670	0	0	1745	1818	0
Flt Permitted	0.983			0.997		
Satd. Flow (perm)	1670	0	0	1745	1818	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	390			642	406	
Travel Time (s)	8.9			14.6	9.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	2%	2%	2%	9%	4%	2%
Adj. Flow (vph)	21	39	18	276	619	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	0	0	294	648	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

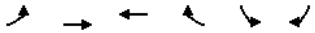
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	33	15	235	526	25
Future Vol, veh/h	18	33	15	235	526	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	9	4	2
Mvmt Flow	21	39	18	276	619	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	946	634	648	0	-	0
Stage 1	634	-	-	-	-	-
Stage 2	312	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	290	479	938	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	283	479	938	-	-	-
Mov Cap-2 Maneuver	283	-	-	-	-	-
Stage 1	517	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.1	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	938	-	385	-	-
HCM Lane V/C Ratio	0.019	-	0.156	-	-
HCM Control Delay (s)	8.9	0	16.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	3	424	573	28	7	2
Future Volume (vph)	3	424	573	28	7	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.973	
Flt Protected					0.962	
Satd. Flow (prot)	0	1863	1853	0	1778	0
Flt Permitted					0.962	
Satd. Flow (perm)	0	1863	1853	0	1778	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		1351	65		1287	
Travel Time (s)		20.5	1.0		29.3	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	2%	2%	0%	0%	0%
Adj. Flow (vph)	3	487	659	32	8	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	490	691	0	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	424	573	28	7	2
Future Vol, veh/h	3	424	573	28	7	2
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	87	87	87	87	87	87
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	3	487	659	32	8	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	691	0	-	0	1168	675
Stage 1	-	-	-	-	675	-
Stage 2	-	-	-	-	493	-
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	913	-	-	-	216	457
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	618	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	913	-	-	-	215	457
Mov Cap-2 Maneuver	-	-	-	-	215	-
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	618	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	20.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	913	-	-	-	244
HCM Lane V/C Ratio	0.004	-	-	-	0.042
HCM Control Delay (s)	9	0	-	-	20.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	252	180	132	261	332	261
Future Volume (vph)	252	180	132	261	332	261
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		25	275		0	25
Storage Lanes		1	1		1	1
Taper Length (ft)			115		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1881	1583	1752	1863	1787	1583
Flt Permitted			0.372		0.950	
Satd. Flow (perm)	1881	1583	686	1863	1787	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		95				114
Link Speed (mph)	45			45	45	
Link Distance (ft)	382			895	406	
Travel Time (s)	5.8			13.6	6.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	2%	3%	2%	1%	2%
Adj. Flow (vph)	260	186	136	269	342	269
Shared Lane Traffic (%)						
Lane Group Flow (vph)	260	186	136	269	342	269
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	18.0	18.0	8.0	8.0
Minimum Split (s)	8.5	8.5	23.0	23.0	12.5	12.5
Total Split (s)	20.0	20.0	25.0	45.0	25.0	25.0
Total Split (%)	28.6%	28.6%	35.7%	64.3%	35.7%	35.7%
Maximum Green (s)	15.5	15.5	20.0	40.0	20.5	20.5
Yellow Time (s)	3.0	3.0	3.5	3.5	3.0	3.0
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	5.0	5.0	4.5	4.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	2.0	2.0	4.8	4.8	2.5	2.5
Minimum Gap (s)	2.0	2.0	4.8	4.8	2.5	2.5

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Time Before Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	15.0	15.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	15.8	15.8	32.2	32.2	15.4	15.4
Actuated g/C Ratio	0.27	0.27	0.56	0.56	0.27	0.27
v/c Ratio	0.50	0.37	0.19	0.26	0.72	0.53
Control Delay	26.2	14.3	7.4	7.8	29.7	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	14.3	7.4	7.8	29.7	15.6
LOS	C	B	A	A	C	B
Approach Delay	21.3			7.6	23.5	
Approach LOS	C			A	C	
Queue Length 50th (ft)	89	29	20	44	114	47
Queue Length 95th (ft)	168	83	48	90	204	113
Internal Link Dist (ft)	302			815	326	
Turn Bay Length (ft)		25	275			25
Base Capacity (vph)	566	543	782	1323	672	666
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.34	0.17	0.20	0.51	0.40

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 57.6			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 18.4		Intersection LOS: B	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: NY-34 & NY-34B/NY-34/34B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	412	19	15	579	22	19
Future Volume (vph)	412	19	15	579	22	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994				0.938	
Flt Protected				0.999	0.974	
Satd. Flow (prot)	1852	0	0	1861	1702	0
Flt Permitted				0.999	0.974	
Satd. Flow (perm)	1852	0	0	1861	1702	0
Link Speed (mph)	45			45	10	
Link Distance (ft)	65			382	323	
Travel Time (s)	1.0			5.8	22.0	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	485	22	18	681	26	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	507	0	0	699	48	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	412	19	15	579	22	19
Future Vol, veh/h	412	19	15	579	22	19
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	485	22	18	681	26	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	507	0	1213	496
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	717	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1058	-	201	574
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	484	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1058	-	196	574
Mov Cap-2 Maneuver	-	-	-	-	196	-
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	471	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	20.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	282	-	-	1058	-
HCM Lane V/C Ratio	0.171	-	-	0.017	-
HCM Control Delay (s)	20.4	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	23	13	30	600	300	12
Future Volume (vph)	23	13	30	600	300	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.952				0.995	
Flt Protected	0.969			0.998		
Satd. Flow (prot)	1718	0	0	1859	1853	0
Flt Permitted	0.969			0.998		
Satd. Flow (perm)	1718	0	0	1859	1853	0
Link Speed (mph)	10			45	45	
Link Distance (ft)	390			642	406	
Travel Time (s)	26.6			9.7	6.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	27	15	35	706	353	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	42	0	0	741	367	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	13	30	600	300	12
Future Vol, veh/h	23	13	30	600	300	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	15	35	706	353	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1136	360	367	0	-	0
Stage 1	360	-	-	-	-	-
Stage 2	776	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	223	684	1192	-	-	-
Stage 1	706	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	212	684	1192	-	-	-
Mov Cap-2 Maneuver	212	-	-	-	-	-
Stage 1	672	-	-	-	-	-
Stage 2	454	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1192	-	282	-	-
HCM Lane V/C Ratio	0.03	-	0.15	-	-
HCM Control Delay (s)	8.1	0	20	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-