Prepared For:
SRD Holding Company LLC
47 Southern Lane
Warwick, NY 10990
Attn: John Joseph

Prepared by:
LaBella Associates DPC
21 Fox Street
Poughkeepsie, NY 12601

Starke W. Hipp, PE, PTOE
Senior Traffic Engineer

Jonathan D. Moya, EIT
Traffic Engineer

LaBella
Powered by partnership.

Proposed Commercial Redevelopment

3580 US Route 9W, Town of Lloyd, Ulster County, NY

Traffic Impact Study

APRIL 13, 2026
PROJECT NUMBER: 2261855

Table of Contents

List of Exhibits

List of Tables

List of Appendices

General Glossary of Acronyms

AADT: Annual Average Daily Traffic
AASHTO: Americal Association of State Highway Transportation Officials
ADA: Americal with Disabilities Act
ADT: Average Daily Traffic
DHV: Design Hourly Volume
EB / WB / NB / SB: Eastbound, Westbound, Northbound, Southbound
FC: Functional Classification
FHWA: Federal Highway Administration
HCM: Highway Capacity Manual
HDM: Highway Design Manual
HSM: Highway Safety Manual
ISD: Intersection Sight Distance
ITE: Institute of Transportation Engineers
LOS: Level of Service (A–F grading of intersection performance)
MPH: Miles per Hour
MUTCD: Manual on Uniform Traffic Control Devices (Including the NYS Supplement to the MUTCD)
NCHRP: National Cooperative Highway Research Program
NYSDOT: New York State Department of Transportation
PHF: Peak Hour Factor
PSI: Potential for Safety Improvement
SEQRA: State Environmental Quality Review Act
SF: Square Foot/Feet
SPF: Safety Performance Function
SSD: Stopping Sight Distance
TRB: Transportation Research Board
TWLTL: Two-Way Left-Turn Lane
V/C: Volume-to-Capacity Ratio
VPD: Vehicles per Day

Chapter 1 Executive Summary

LaBella Associates DPC (LaBella) has completed a Traffic Impact Study (TIS) for the proposed commercial redevelopment to be located at 3580 US Route 9W, in the Hamlet of Highland, Town of Lloyd, New York. This analysis is based on industry-standard engineering guidelines and the Site Plan prepared by Medenbach Eggers & Carr Civil Engineering & Land Surveying, P.C. (MEC), dated February 25, 2026.

1.1. Project Description

The subject site is located on the east side of US Route 9W. The proposed project consists of redeveloping the existing +/- 4,478-square-foot building that was previously occupied by Trustco Bank into a multi-tenant commercial building consisting of a 2,478-square-foot quick serve restaurant, which is assumed to be a coffee shop with walk-in and drive-through service, with the remaining 2,000 square feet assumed to be tenanted by a fast-casual restaurant with walk-in service. The drive-through component will be supported by two ordering points, one pick-up point, a drive-through capacity of 18 vehicles, and a full bypass lane. The development will be supported by 27 parking spaces inclusive of two ADA accessible parking spaces. There are no proposed changes to the existing vehicular access plan along US Route 9W, which consists of one ingress-only driveway and one egress-only driveway. In the vicinity of the subject site, US Route 9W is supported by a sidewalk network that connects the subject site to the Hudson Valley Rail Trail, approximately 1,500-ft south of the site (distance inclusive of crossing at the US Route 9W/Haviland road signalized intersection). The site location is shown below in Exhibit 1.

Exhibit 1 – Site Location

Chapter 2 Existing Conditions

2.1. Study Roadways

US Route 9W is classified as an Urban Principal Arterial – Other roadway under the jurisdiction of the New York State Department of Transportation (NYSDOT). The roadway runs primarily north-south through New York parallel to the Hudson River between Albany and New Jersey, providing connections to the Mid-Hudson Bridge, Newburgh-Beacon Bridge/Interstate 84, the Mario Cuomo Bridge/Interstate 287, and the Palisades Interstate Parkway. In the vicinity of the subject site, the roadway generally provides two 11-foot-wide travel lanes in each direction with a 12-foot-wide two-way left-turn lane. The roadway provides exclusive turn lanes at key intersections. Sidewalks are provided along both sides of the roadway. The posted speed limit is 40-mph.

2.2. Study Intersections

The following study intersections were considered for the analysis herein and are shown in **Figure 1**.

US Route 9W and Milton Avenue/Dayschool Driveway/Motel Driveway is a five-leg signalized intersection. The eastbound Milton Avenue approach provides an exclusive left-turn lane and an exclusive right-turn lane. The westbound Dayschool Driveway approach provides a shared left-turn/through/right-turn lane. The southwest-bound Motel Driveway approach provides a shared left-turn/right-turn lane. The northbound US Route 9W approach provides an exclusive left-turn lane, an exclusive through lane, and a shared through/right-turn lane. The southbound US Route 9W approach provides an exclusive left-turn lane, two exclusive through lanes, and a channelized right-turn lane onto Milton Avenue. Pedestrian accommodations at the intersection include curb ramps, a marked crosswalk, pedestrian signals and countdown timers across the southern leg of the intersection. The study herein utilized the signal timing information provided by the NYSDOT, which is included under Appendix B. Exhibit 2 depicts an aerial image of the study intersection.

Exhibit 2 – US Route 9W and Milton Avenue/Dayschool Driveway/Motel Driveway

US Route 9W and Haviland Road is a four-leg signalized intersection. The eastbound and westbound Haviland Road approaches provide a shared left-turn/through lane and an exclusive right-turn lane. The northbound and southbound US Route 9W approaches provide an exclusive left-turn lane, an exclusive through lane, and a shared through/right-turn lane. Pedestrian accommodations at the intersection include curb ramps, a marked crosswalk, pedestrian signals and countdown timers across the eastern and northern legs of the intersection. The study herein utilized the signal timing information provided by the NYSDOT, which is included under Appendix B. Exhibit 3 depicts an aerial image of the study intersection.

Exhibit 3 – US Route 9W and Haviland Road

2.3. Transit

Ulster County Area Transit (UCAT) serves Ulster County with the Kingston-Highland-Poughkeepsie Train Station (KPL) Route running along US Route 9W. In the vicinity of the site, there is one bus stop located south of the subject site, at the intersection of US Route 9W and Haviland Road (approximately 1,000-ft from the subject site). The KPL Route connects Kingston to Highland and Poughkeepsie via US Route 9w and operates Monday through Friday between 5:30 a.m. to 9:30 p.m. with 2-hour headways during Monday-Friday peak hours and 3-hour headways during off-peak hours. Route KPL also operates on Saturdays between 8:00 a.m. to 6:00 p.m. with 2-hour headways as well as Sundays between 7:30 a.m. to 6:30 p.m. with 3-hour headways. The most recent UCAT timetable for the KPL route is included under Appendix C.

The subject site is also in close proximity to the Hudson Valley Rail Trail and can be accessed via the existing sidewalk network along US Route 9W. The trailhead is located approximately 1,500-ft south of the site inclusive of the distance needed to cross US Route 9W at the US Route 9W/Haviland Road signalized intersection. Exhibit 4 shows the Hudson Valley Rail Trail and KPL Route Bus Stops with their respective distance and walk-time from the proposed site.

Exhibit 4 – Transit Walk-times and Distances from Proposed Site

2.4. Traffic Volumes

LaBella collected Turning Movement Counts (TMCs) at the study intersections on Tuesday, March 10, 2026, and Saturday, March 14, 2026. The counts were conducted during the typical weekday AM and PM commuter periods (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.) and Saturday midday (11:00 a.m. to 2:00 p.m.). The weekday counts were collected while schools were in regular session. Table 1 provides a summary of TMCs based on count location and observed peak hours.

Table 1 – Summary of Turning Movement Count Data

Intersection	Observed Peak Hours		
	Weekday AM	Weekday PM	Saturday MD
US Route 9W and Milton Avenue/Dayschool Driveway	7:30 a.m. to 8:30 a.m.	4:30 p.m. to 5:30 p.m.	11:45 a.m. to 12:45 p.m.
US Route 9W and Haviland Road	7:30 a.m. to 8:30 a.m.	4:45 p.m. to 5:45 p.m.	12:15 p.m. to 1:15 p.m.

As shown in Table 1, the intersections have similar peak hours during both study periods. The study herein used the individual peak hour volumes for each intersection and then balanced the network to provide a conservative analysis. These 2026 Existing traffic volumes formed the basis of the traffic analysis herein and are shown in **Figures 2, 3, and 4**. The raw TMC data is included under Appendix D.

LaBella reviewed traffic volume data for US Route 9W published on the NYSDOT *Traffic Data Viewer.* Table 2 summarizes the most recently collected data for the roadway. The data printouts are included under Appendix E.

Table 2 – Summary of NYSDOT ATR Data for US Route 9W

Traffic Volumes			
Time Period	**Northbound**	**Southbound**	**Combined**
Average Weekday AM Peak Hour (7:45 a.m. to 8:45 a.m.)	1067 vph	1170 vph	2238 vph
Average Weekday PM Peak Hour (5:00 p.m. to 6:00 p.m.)	1452 vph	1265 vph	2717 vph
Average Weekday	15,951 vpd	15,947	31,898 vpd

2.5. Motor Vehicle Collisions

Records of the motor vehicle collisions (MVCs) on US Route 9W along the subject site's frontage were obtained from the NYSDOT via a Freedom of Information Law (FOIL) request. The Trustco Bank closed on November 18, 2025; therefore, the data obtained included the most recent full three-year period plus a portion of 2025. Table 3 summarizes the collisions located within the vicinity of the existing site driveways.

Table 3 – Summary of MVC on US Route 9W Along Site Frontage

Collision Type	Number of Collisions				Number of Collisions Resulting in Injury				Number of Collisions Resulting in Fatalities			
	2022	2023	2024	2025	2022	2023	2024	2025	2022	2023	2024	2025
Rear End	0	0	2	0	0	0	2	0	0	0	0	0
Overtaking/ Sideswipe	0	1	0	1	0	0	0	0	0	0	0	0
Left-Turn	0	0	1	0	0	0	0	0	0	0	0	0
Right-Turn	0	0	0	1	0	0	0	0	0	0	0	0
Right Angle	1	0	1	0	0	0	1	0	0	0	0	0
Collision w/ Animal	0	0	1	1	0	0	0	0	0	0	0	0
Total	**1**	**1**	**5**	**3**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**
Study Period Total	**10**				**3**				**0**			

During the 47-month study period (January 2022 – November 2025), there were 10 collisions that occurred on US Route 9W along the subject site's frontage. Three of the collisions resulted in an injury, and there were zero collisions that resulted in a fatality. There were no collisions involving a pedestrian or bicyclist. LaBella reviewed the Police Accident Reports (MV-104s) for all collisions and notes that there were no collisions associated with the driveways supporting the subject site. Therefore, there are no patterns of collisions associated with the subject site that should be addressed.

Chapter 3 No-Build Conditions

3.1. Traffic Forecasting

To evaluate the impact of the proposed project, traffic projections were prepared for the design year of 2030. Based on traffic volume data for US Route 9W obtained from the NYSDOT *Traffic Data Viewer*, which is included under Appendix E, traffic volumes along the study area roadways have increased annually by +0.34% per year. To provide a conservative analysis, a +0.34% annual growth rate was applied to the Existing 2026 traffic volumes and compounded annually for four years.

LaBella also reviewed the Town of Lloyd's Planning Board webpage to find other proposed developments that should be considered in the traffic forecasts. Upon review, there was one other development identified, 3555 Route 9W. 3555 Route 9W is a proposed mixed-use development consisting of four residential buildings with ground floor commercial space and a club house. This study includes the traffic generated by this project provided in the Traffic Impact Study prepared by Creighton Manning, dated February 11, 2025.

The 2030 No-Build traffic volumes, which represent the forecasted traffic volumes for 2030 *without* the proposed project, are shown in **Figures 5, 6, and 7**.

Chapter 4 Build Conditions

4.1. Trip Generation

Trip generation determines the quantity of traffic expected to travel to/from a given site. The Institute of Transportation Engineers' (ITE) *Trip Generation Manual,* 12th Edition, is the industry-standard resource used for estimating trip generation for proposed land uses based on data collected at similar uses. The proposed project consists of redeveloping the existing +/- 4,478-square-foot building that was previously occupied by Trustco Bank into a multi-tenant commercial building consisting of a 2,478-square-foot quick serve restaurant, which is assumed to be a coffee shop with walk-in and drive-through service, with the remaining 2,000 square feet assumed to be tenanted by a fast-casual restaurant with walk-in service. Upon review of the *Trip Generation Manual*, Land Use Code (LUC) 937 "Coffee/Donut Shop with Drive-through Window" and Land Use Code 930 "Fast Casual Restaurant" most closely represent the proposed uses. Table 4 summarizes the peak hour trip generation for the proposed project based on the respective gross floor area (GFA) of each use.

Table 4 – Summary of Peak Hour Trip Generation for Proposed Project

Land Use Code	Independent Variable	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday MD Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
LUC 937	2.48 KSF	108	104	212	48	49	97	90	94	184
LUC 930	2 KSF	2	1	3	15	14	29	36	29	65
Total		**110**	**105**	**215**	**63**	**63**	**126**	**126**	**123**	**249**

As shown in Table 3, the proposed project is expected to generate 215 total trips during the weekday AM peak hour, 126 total trips during the weekday PM peak hour, and 249 total trips during the Saturday MD peak hour.

It can be expected that some of these trips will originate from traffic that is already passing the site on US Route 9W. **Pass-By Trips** are made by drivers who stop at the site en route to their primary destination. For example, a driver traveling northbound on US Route 9W heading to work in the morning may stop at the proposed coffee shop for coffee and then continue northbound on US Route 9W. Since pass-by trips are sourced from traffic that is already on the study roadways, they are not considered new or primary trips, which are instead created by the development project in question. Therefore, pass-by trips do not increase the overall traffic levels on a roadway but are represented in the turning movements at the site driveways. Based on ITE data for LUC 937, pass-by trips make up 83%, 81%, and 66% of trips during the weekday AM, weekday PM, and Saturday midday peak hours, respectively. It is important to note that there was no pass-by data available for Saturday, therefore it was assumed that the weekday midday pass-by percentage would be applicable for Saturday. Furthermore, there was no pass-by data available for LUC 930. While it can be assumed that there will be some pass-by trips associated with the fast-casual component, no pass-by credit was taken to provide a conservative analysis. Table 5 summarizes the peak hour "pass-by" and "new trips" for the proposed project.

Table 5 – Summary of Peak Hour Pass-By & New Trips

Trip Type	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday MD Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Total Trips – See Table 4	110	105	215	63	63	126	126	123	249
Pass-By Trips	*-86*	*-86*	*-172*	*-39*	*-39*	*-78*	*-59*	*-59*	*-118*
Total New Trips	**24**	**19**	**43**	**24**	**24**	**48**	**67**	**64**	**131**

Accounting for pass-by trips, the proposed development is expected to generate 43 new vehicle trips in the weekday AM peak hour, 48 new vehicle trips in the weekday PM peak hour, and 131 new vehicle trips in the Saturday midday peak hour.

The proposed site previously operated as a Trustco Bank. According to ITE *Trip Generation Manual* LUC 912 "Drive-through Bank" and the site's total GFA (4.48 KSF), the previous site generated 45 total trips in the weekday AM peak hour, 94 total trips in the weekday PM peak hour, and 118 total trips in the Saturday midday peak hour. As the Trustco Bank has been closed since November 18, 2025, no credit for bank removal trips was taken; however, it should be noted that the roadway network previously supported traffic volumes commensurate to the site-generated trips of the proposed project.

4.2. Trip Distribution and Trip Assignment

Traffic generated by the project was distributed on the adjacent roadways based on existing observed travel patterns in the project area. It is assumed that the vehicular trips will be split evenly along US Route 9W. 50% of vehicular trips will be drawn to/from the north via US Route 9W, which provides access to key points and roadways, including US Route 44, NYS Route 299 and New Paltz. The remaining 50% of trips would be drawn to/from the south via US Route 9W, which provides access to key points and roadways, including US Route 44 and the Mid-Hudson Bridge, Poughkeepsie, and Newburgh.

These trip distributions are shown in **Figure 8**. The resulting Trip Assignments for each proposed land use are shown in **Figures 9, 10, 11, 12, 13, and 14**. The pass-by trip distribution is shown in **Figure 15** and the pass-by trip assignments are shown in **Figures 16, 17, and 18**. The new trips were added to the 2030 No-Build traffic volumes resulting in the 2030 Build traffic volumes shown in **Figures 19, 20, and 21** for the weekday AM, weekday PM, and Saturday Midday peak hours, respectively.

4.3. Capacity Analysis Results

The capacity analysis relates traffic volumes to the physical characteristics of an intersection. Intersection evaluations were made using Synchro Version 12. Tables 6-8 summarizes the results of the level of service calculations for the Existing, No-Build and Build conditions during weekday AM, weekday PM, and Saturday Midday peak hours, respectively. The Level of Service reports are included under Appendix F.

Table 6 – LOS Summary Table: Weekday AM Peak Hour

Intersection		Weekday AM Peak Hour			
Approach	**Lane Group**	**2026 Existing**	**2030 No-Build**	**2030 Build**	**Δ No-Build vs Build**
US Route 9W/Milton Ave/Dayschool Dwy		Analysis Methodology – HCM 2000			
Milton Ave, EB	LT	C/32.4	C/33.7	C/33.8	+0.1
	R	C/26.5	C/27.9	C/28.0	+0.1
Day School Dwy, WB	LTR	D/41.0	D/43.1	D/43.3	+0.2
US Route 9W, NB	L	C/34.3	D/36.7	D/37.1	+0.4
	TR	A/7.0	A/7.1	A/7.2	+0.1
US Route 9W, SB	L	A/0.0	A/0.0	A/0.0	+0.0
	TR	B/19.8	C/20.1	C/20.3	+0.2
Motel Dwy, SWB	LR	A/0.0	A/0.0	A/0.0	+0.0
	Overall	**B/15.1**	**B/15.6**	**B/15.8**	**+0.2**
US Route 9W/Haviland Rd		Analysis Methodology – HCM 7th			
Haviland Rd, EB	LT	B/17.9	B/18.4	B/18.6	+0.2
	R	B/17.0	B/17.6	B/17.6	+0.0
Haviland Rd, WB	LT	B/19.0	B/19.6	B/19.7	+0.1
	R	B/16.3	B/16.7	B/16.9	+0.2
US Route 9W, NB	L	B/17.1	B/17.8	B/18.0	+0.2
	TR	B/11.4	B/11.5	B/11.6	+0.1
US Route 9W, SB	L	B/18.8	B/19.4	B/19.6	+0.2
	TR	B/12.0	B/12.1	B/12.2	+0.1
	Overall	**B/12.8**	**B/12.9**	**B/13.0**	**+0.1**
US Route 9W/North Site Dwy		Analysis Methodology – HCM 7th			
N Site Dwy, WB	LR	--	--	C/24.5	--
US Route 9W/South Site Dwy		Analysis Methodology – HCM 7th			
US Route 9W, SB	L	--	--	B/12.0	--

X / X.X = Level of service / Average delay in seconds per vehicle
EB, WB, NB, SB = Eastbound, Westbound, Northbound, and Southbound intersection approaches
L, T, R = Left-turn, Through, and/or Right-turn movements

Table 7 – LOS Summary Table: Weekday PM Peak Hour

Intersection		Weekday PM Peak Hour			
Approach	**Lane Group**	**2026 Existing**	**2030 No-Build**	**2030 Build**	**Δ No-Build vs Build**
US Route 9W/Milton Ave/Dayschool Dwy		Analysis Methodology – HCM 2000			
Milton Ave, EB	LT	D/35.8	D/36.7	D/36.7	+0.0
	R	C/29.5	C/30.9	C/31.0	+0.1
Day School Dwy, WB	LTR	D/47.3	D/49.5	D/49.5	+0.0
US Route 9W, NB	L	D/54.4	E/69.8	E/71.9	+2.1
	TR	B/10.0	B/10.4	B/10.5	+0.1
US Route 9W, SB	L	A/0.0	A/0.0	A/0.0	+0.0
	TR	C/25.4	C/25.6	C/26.0	+0.4
Motel Dwy, SWB	LR	D/44.0	D/45.7	D/45.7	+0.0
	Overall	**C/20.2**	**C/21.5**	**C/21.9**	**+0.4**
US Route 9W/Haviland Rd		Analysis Methodology – HCM 7th			
Haviland Rd, EB	LT	C/22.9	C/24.0	C/24.2	+0.2
	R	B/17.3	B/18.1	B/18.2	+0.1
Haviland Rd, WB	LT	C/24.2	C/25.4	C/25.7	+0.3
	R	C/20.9	C/22.0	C/22.2	+0.2
US Route 9W, NB	L	C/21.0	C/22.2	C/22.4	+0.2
	TR	B/12.0	B/12.4	B/12.6	+0.2
US Route 9W, SB	L	C/26.1	C/27.5	C/27.8	+0.3
	TR	B/15.0	B/15.4	B/15.5	+0.1
	Overall	**B/14.9**	**B/15.3**	**B/15.5**	**+0.2**
US Route 9W/North Site Dwy		Analysis Methodology – HCM 7th			
N Site Dwy, WB	LR	--	--	D/31.4	--
US Route 9W/South Site Dwy		Analysis Methodology – HCM 7th			
US Route 9W, SB	L	--	--	B/14.2	--

X / X.X = Level of service / Average delay in seconds per vehicle
EB, WB, NB, SB = Eastbound, Westbound, Northbound, and Southbound intersection approaches
L, T, R = Left-turn, Through, and/or Right-turn movements

Table 8 – LOS Summary Table: Saturday Midday Peak Hour

Intersection		Saturday MD Peak Hour			
Approach	**Lane Group**	**2026 Existing**	**2030 No-Build**	**2030 Build**	**Δ No-Build vs Build**
US Route 9W/Milton Ave/Dayschool Dwy		Analysis Methodology – HCM 7th			
Milton Ave, EB	LT	C/31.2	C/31.8	C/32.1	+0.3
	R	C/24.7	C/25.7	C/26.2	+0.5
Day School Dwy, WB	LTR	D/39.4	D/40.5	D/41.2	+0.7
US Route 9W, NB	L	D/35.2	D/38.8	D/42.3	+0.5
	TR	A/9.0	A/9.2	A/9.4	+0.2
US Route 9W, SB	L	A/0.0	A/0.0	A/0.0	+0.0
	TR	C/26.0	C/26.0	C/26.6	+0.6
Motel Dwy, SWB	LR	D/39.4	D/40.4	D/41.2	+0.8
Overall		**B/19.9**	**C/20.3**	**C/21.0**	**+0.7**
US Route 9W/Haviland Rd		Analysis Methodology – HCM 7th			
Haviland Rd, EB	LT	B/15.9	B/16.3	B/16.6	+0.3
	R	B/15.0	B/15.5	B/15.7	+0.2
Haviland Rd, WB	LT	B/16.6	B/17.0	B/17.3	+0.3
	R	B/13.1	B/13.4	B/13.7	+0.3
US Route 9W, NB	L	B/16.3	B/16.7	B/17.0	+0.3
	TR	B/11.5	B/11.6	B/11.6	+0.0
US Route 9W, SB	L	B/13.5	B/13.8	B/14.1	+0.3
	TR	B/11.3	B/11.3	B/11.4	+0.1
Overall		**B/12.2**	**B/12.3**	**B/12.4**	**+0.1**
US Route 9W/North Site Dwy		Analysis Methodology – HCM 7th			
N Site Dwy, WB	LR	--	--	C/21.2	--
US Route 9W/South Site Dwy		Analysis Methodology – HCM 7th			
US Route 9W, SB	L	--	--	B/10.8	--

X / X.X = Level of service / Average delay in seconds per vehicle
EB, WB, NB, SB = Eastbound, Westbound, Northbound, and Southbound intersection approaches
L, T, R = Left-turn, Through, and/or Right-turn movements

The impact of the project can be described by comparing the analysis of the No-Build and Build operating conditions. The following observations are evident from the analysis:

US Route 9W and Milton Avenue/Dayschool Driveway: The level of service analysis indicates that the intersection currently operates at an overall LOS C or better study peak hours and will continue to do so in the No-Build and Build conditions. The maximum increase in overall delay between the No-Build and Build conditions is +0.7 seconds, which occurs during the Saturday midday peak hour. The maximum increase in delay for an individual movement between the No-Build and Build conditions is +2.1 seconds during the weekday PM peak hour for the northbound left-turn movement. Based on the analysis, the proposed project will not have a significant adverse impact on the operations of the intersection.

US Route 9W and Haviland Road: The level of service analysis indicates that the intersection currently operates at an overall LOS B during all peak hours and it will continue to do so in the No-Build and Build conditions. The maximum increase in overall delay between the No-Build and Build conditions is +0.2 seconds, which occurs during the weekday PM peak hour. The maximum increase in delay for an individual movement between the No-Build and Build conditions is +0.3 seconds during the weekday PM peak hour for the westbound and southbound left-turn movements as well as Saturday midday peak hour for the westbound right-turn movement and all left-turn movements. Based on the analysis,

the proposed project will not have a significant adverse impact on the operations of the intersection.

US Route 9W and North Site Driveway: The level of service analysis indicates that under the Build condition, the westbound North Site Driveway approach is expected to operate at LOS C, LOS D, and LOS C in the weekday AM, weekday PM, and Saturday midday peak hours, respectively. The 95th percentile queue for the westbound North Site Driveway approach is 1.8 vehicles (approximatley 50-ft), which can be accomodated within the site without obstructing site circulation. Due to the site currently being vacant it is important to note that it is not taken into account in the Existing or No-Build conditions.

US Route 9W and South Site Driveway: The level of service analysis indicates that under the Build condition, the southbound US Route 9W approach is expected to operate at LOS B during all study peak hours. The 95th percentile queue for the southbound US Route 9w approach is less than one vehicle (appoximately 25-ft), which indicates that the queuing for the approach will not obstruct the North Site Driveway. Due to the site currently being vacant it is important to note that it is not taken into account in the Existing or No-Build conditions.

Chapter 5 Site Access, Circulation, and Parking

5.1. Site Access, Circulation & Drive-Through, and Parking

The proposed project will maintain the existing vehicular access plan along US Route 9W that currently consists of one ingress-only driveway and one egress-only driveway separated by a 100-ft island, which exceeds the NYSDOT minimum separation distance of 30-ft per Appendix 5A of the NYSDOT *Highway Design Manual*. The proposed project will maintain the existing back-to-back One-Way (MUTCD R6-2) signs located at the site driveways indicating the ingress and egress configurations.

5.2. Circulation & Drive-Through

Traffic onsite will circulate in a counterclockwise direction. This direction of flow is reinforced by the location of the driveways and their respective configurations, the angled orientation of the parking, and the proposed drive-through. A 14- to 17-foot-wide driveway aisle is provided through the entire site and allows for drivers to bypass the drive-through lane.

The drive-through component will provide two lanes with separate ordering points where drivers can place orders before merging into a single drive-through lane leading to the pick-up window. This drive-through system is popular among other coffee and quick-serve franchises for its ability to increase efficiency at the ordering point, which is the most time-consuming element of the drive-through component, thus decreasing stacking. The drive-through lane will have a capacity of 18 vehicles and a full bypass lane. Queuing data of two coffee shops with drive-throughs located in Ulster County indicate a maximum queue of 14 vehicles.[1] For context, the maximum queue was observed at the Dunkin Donuts located at 1285 Ulster Avenue in Kingston, NY. Ulster Avenue experiences an AADT of 27,111 vpd. Assuming the drive-through queueing is related to the AADT of the roadway adjacent to the subject site, the maximum anticipated queue for the proposed drive-through is 16 vehicles. Therefore, the proposed capacity of 18 vehicles is sufficient.

5.3. Parking

The proposed development will be supported by 27 parking spaces inclusive of two ADA accessible parking spaces, which exceeds the Town's parking requirements. A loading zone and garbage enclosure are provided in the northeast corner of the site.

[1] Technical Memorandum prepared by Creighton Manning Engineering, dated August 30, 2021, which is included under Appendix G.

Chapter 6 Conclusions and Recommendations

The proposed project consists of redeveloping the existing +/- 4,478-square-foot building that was previously occupied by Trustco Bank into a multi-tenant commercial building consisting of a 2,478-square-foot quick serve restaurant, which is assumed to be a coffee shop with walk-in and drive-through service, with the remaining 2,000 square feet assumed to be tenanted by a fast-casual restaurant with walk-in service. Based on the results of the traffic impact study completed for the proposed project, the following conclusions are presented:

- Traffic volume data for the study intersections was collected on Tuesday, March 10, 2026, and Saturday, March 14, 2026. The counts were conducted during the typical weekday AM and PM commuter periods (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.) and Saturday midday (11:00 a.m. to 2:00 p.m.). School was in regular session.

- A motor vehicle collision analysis was conducted at the existing driveway intersections. Over the three-year period, there were a total of 10 collisions that occurred in the vicinity of the site driveways. Upon review of the data obtained none of these collisions were a result of or involved users of the subject site's driveways.

- Traffic volumes were forecasted to a design year of 2030. Forecasts account for a conservative growth rate of +0.34% for four years. Town of Lloyd's Planning Board webpage was reviewed to identify other potential developments. One was identified and included within the analysis.

- A level of service analysis indicates that the proposed project would not have a significant adverse impact on the operations of the roadway network.

- The proposed project will maintain the existing vehicular access plan along US Route 9W that consists of one ingress-only driveway and one egress-only driveway separated by a 100-ft island, which exceeds the NYSDOT minimum separation distance of 30-ft per Appendix 5A of the NYSDOT *Highway Design Manual*.

- The site's drive-through component will be supported by two ordering points, one pick-up point, a drive-through capacity of 18 vehicles, and a full bypass lane. The drive-through capacity is sufficient based on an analysis using observed queuing data of a similar use.

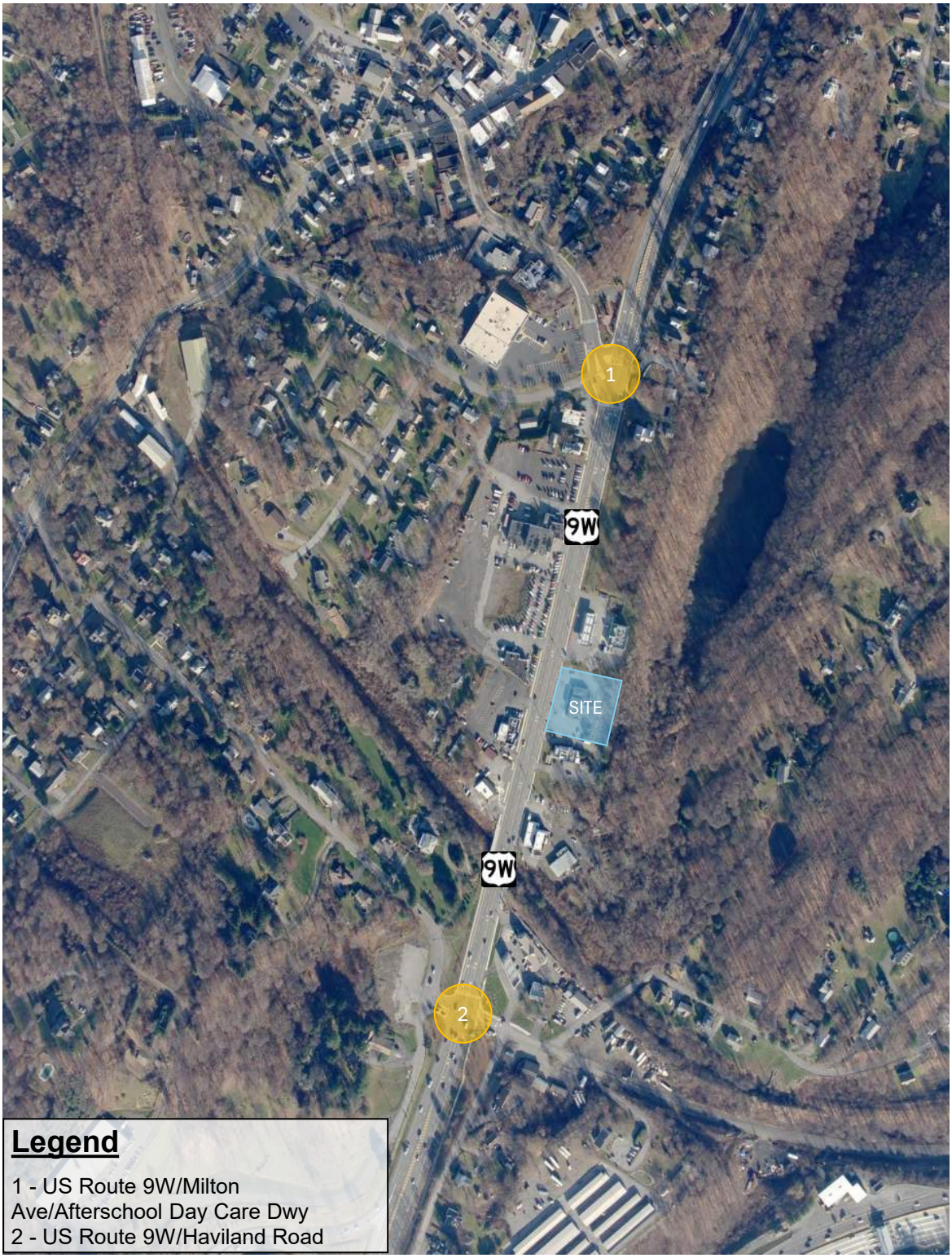
- The proposed project will be supported by 27 spaces inclusive of two ADA accessible parking spaces, which exceeds the Town's requirement.

Please contact Starke Hipp at shipp@labellapc.com or at (914) 269-5604 if you have questions on this traffic analysis.

APPENDIX A

FIGURES

Not to Scale



Legend

1 - US Route 9W/Milton Ave/Afterschool Day Care Dwy
2 - US Route 9W/Haviland Road

LaBella
Powered by partnership.

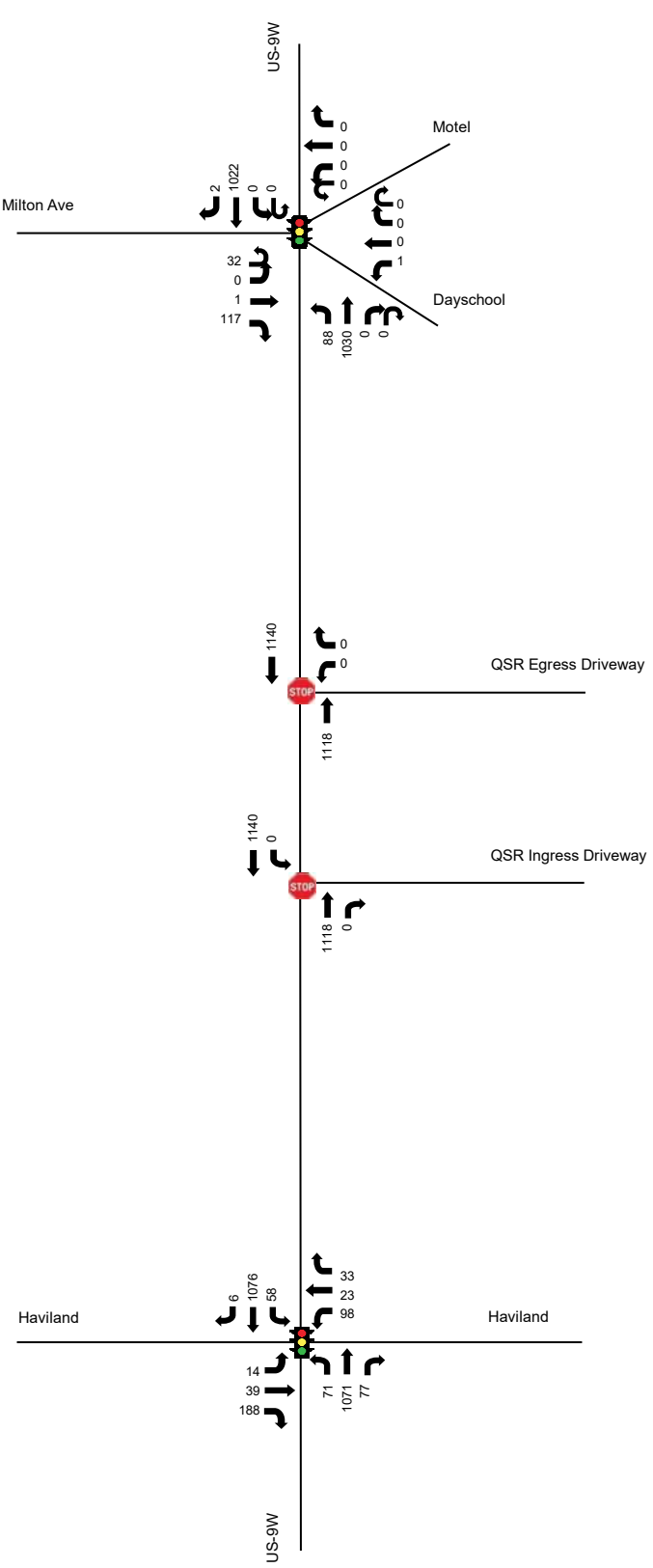
STUDY INTERSECTIONS - AERIAL VIEW

FIGURE - 1

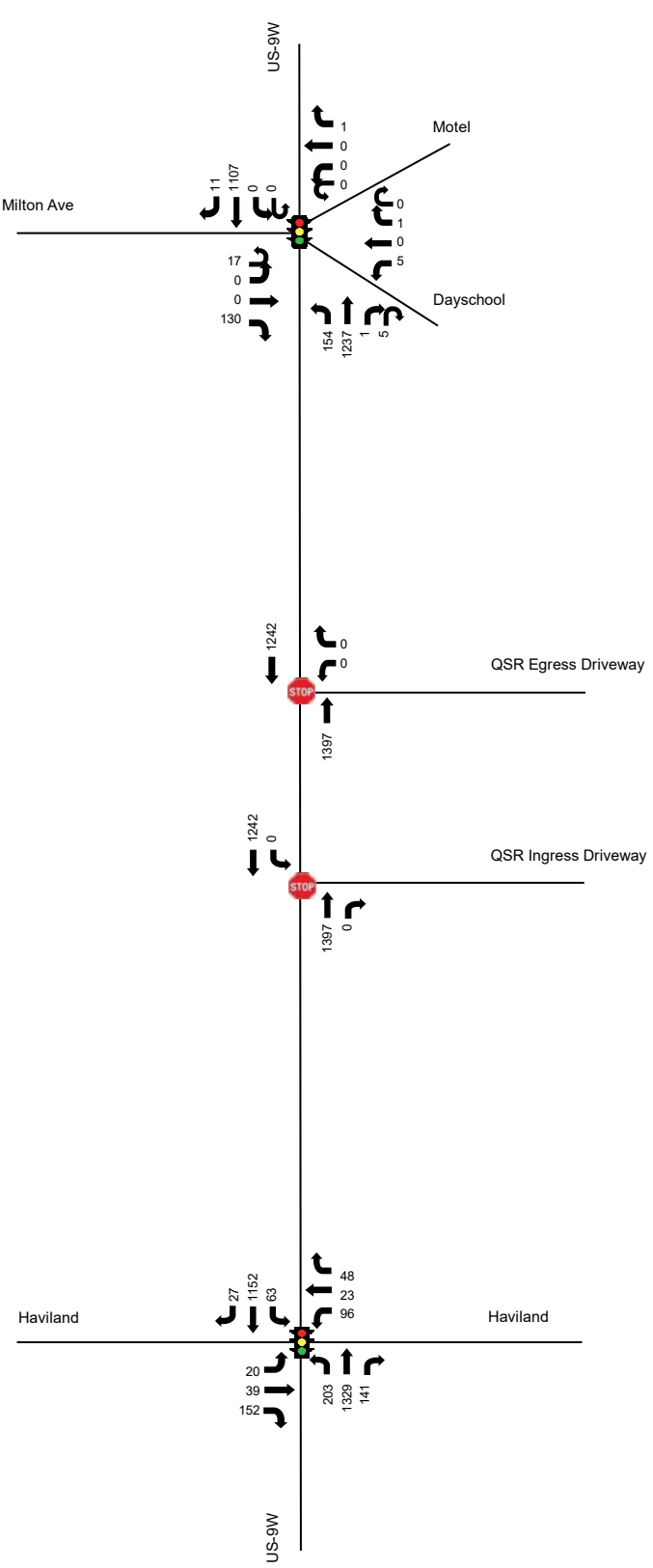
APRIL 2026

US 9W QUICK SERVE RESTAURANT TIS

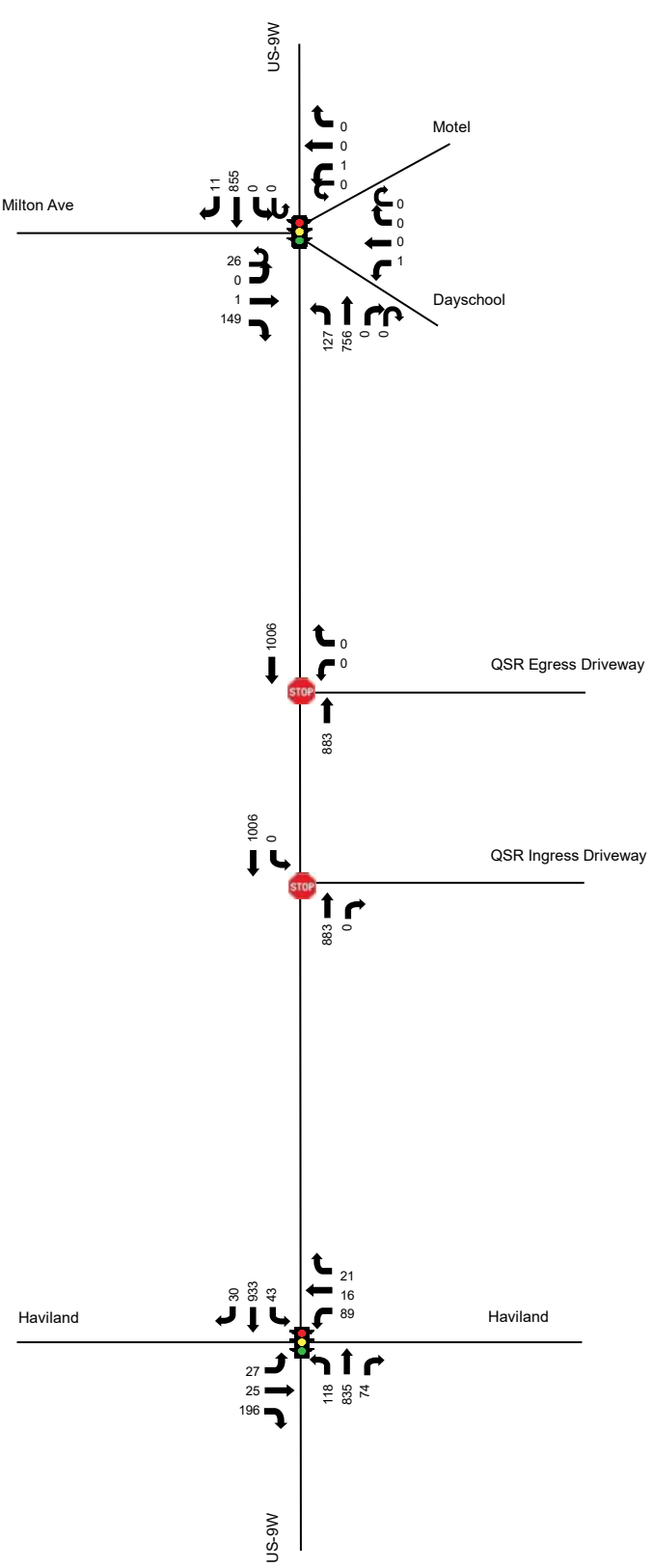
TOWN OF LLOYD
ULSTER COUNTY
NEW YORK



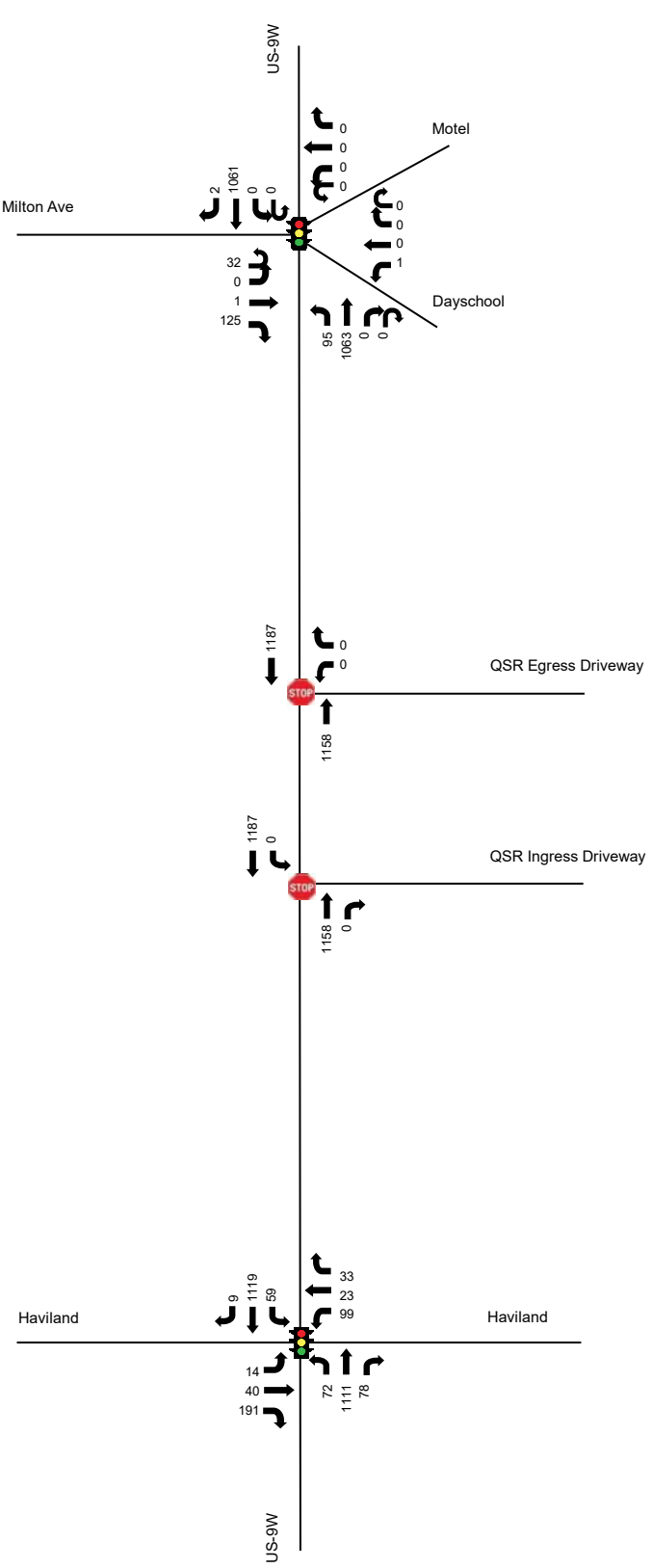
LaBella Powered by partnership.	2026 Existing AM Peak Hour Traffic Volumes		US ROUTE 9W QUICK SERVE RESTAURANT TIS
	FIGURE - 2	APRIL 2026	TOWN OF LLOYD ULSTER COUNTY NEW YORK



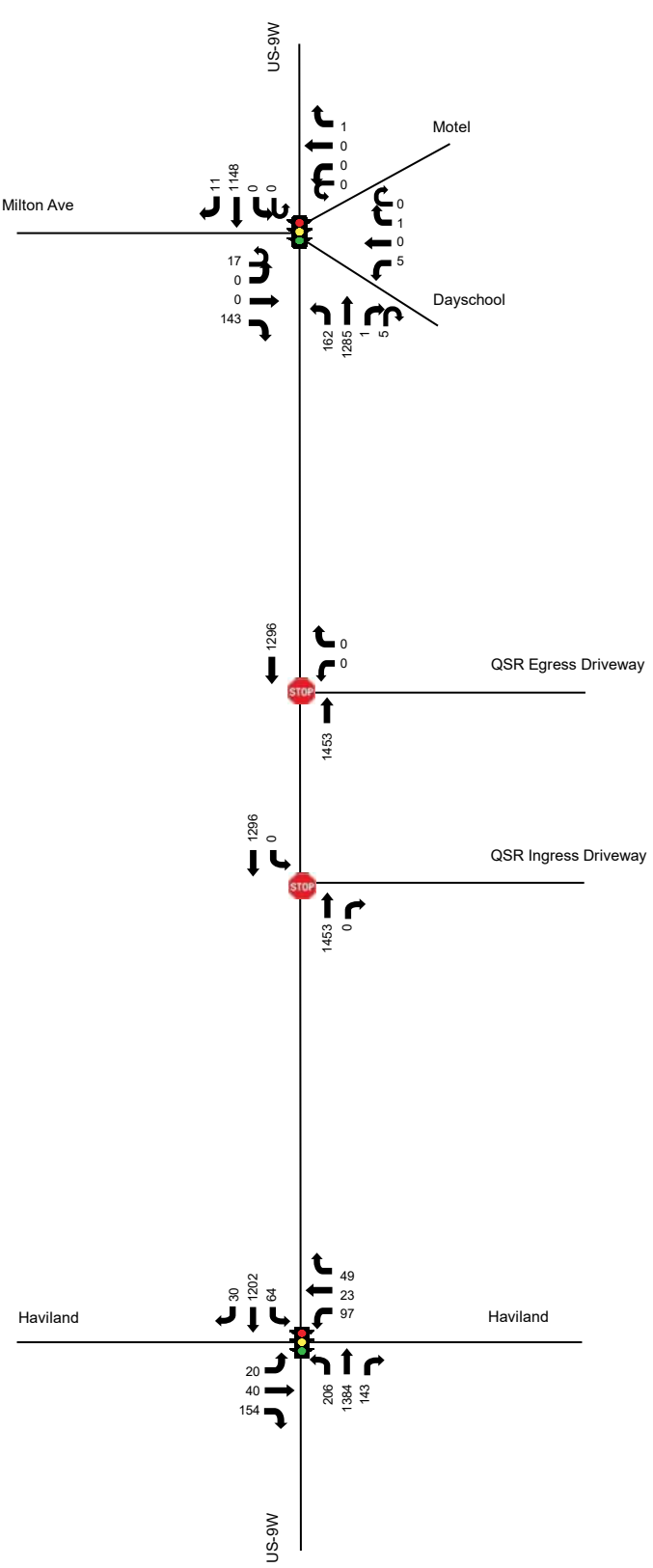
LaBella Powered by partnership.	2026 Existing PM Peak Hour Traffic Volumes	US ROUTE 9W QUICK SERVE RESTAURANT TIS
	FIGURE - 3 / APRIL 2026	TOWN OF LLOYD ULSTER COUNTY NEW YORK



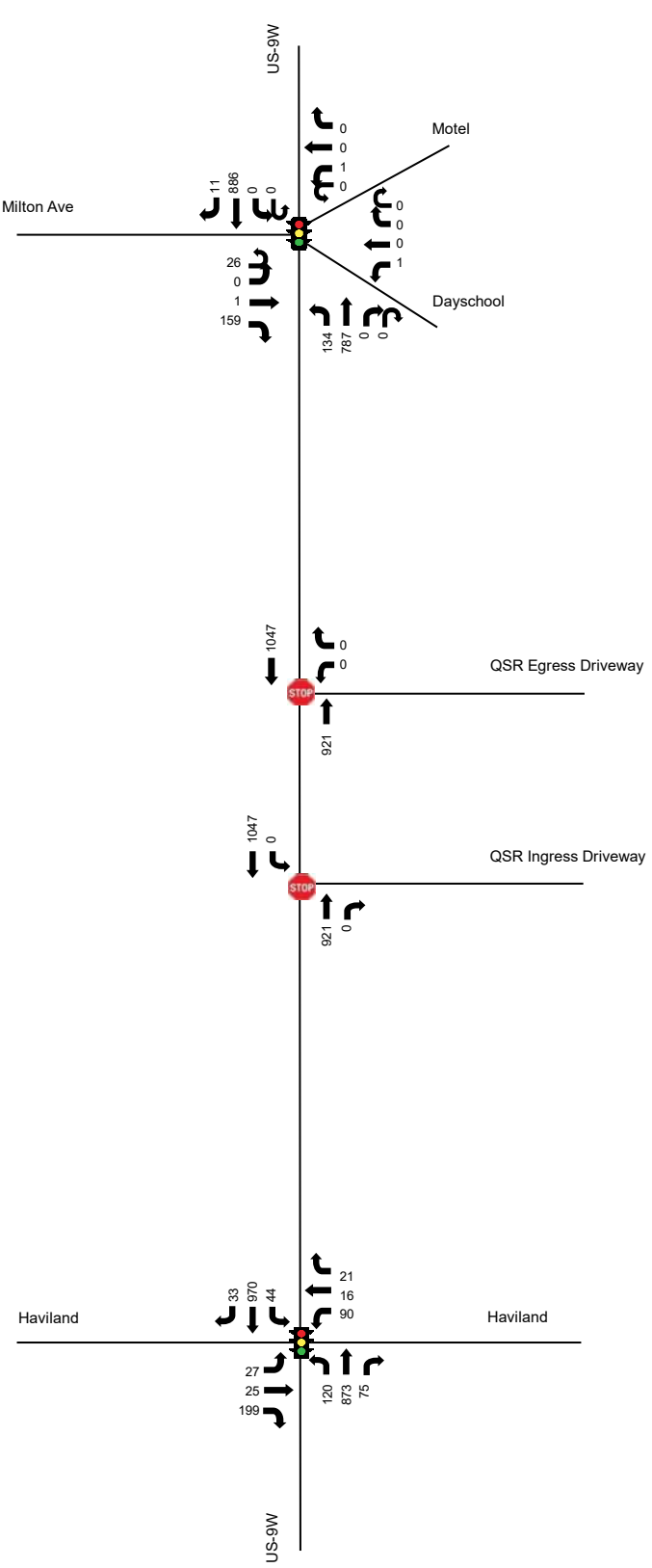
LaBella Powered by partnership.	2026 Existing SAT Peak Hour Traffic Volumes		US ROUTE 9W QUICK SERVE RESTAURANT TIS
	FIGURE - 4	APRIL 2026	TOWN OF LLOYD ULSTER COUNTY NEW YORK



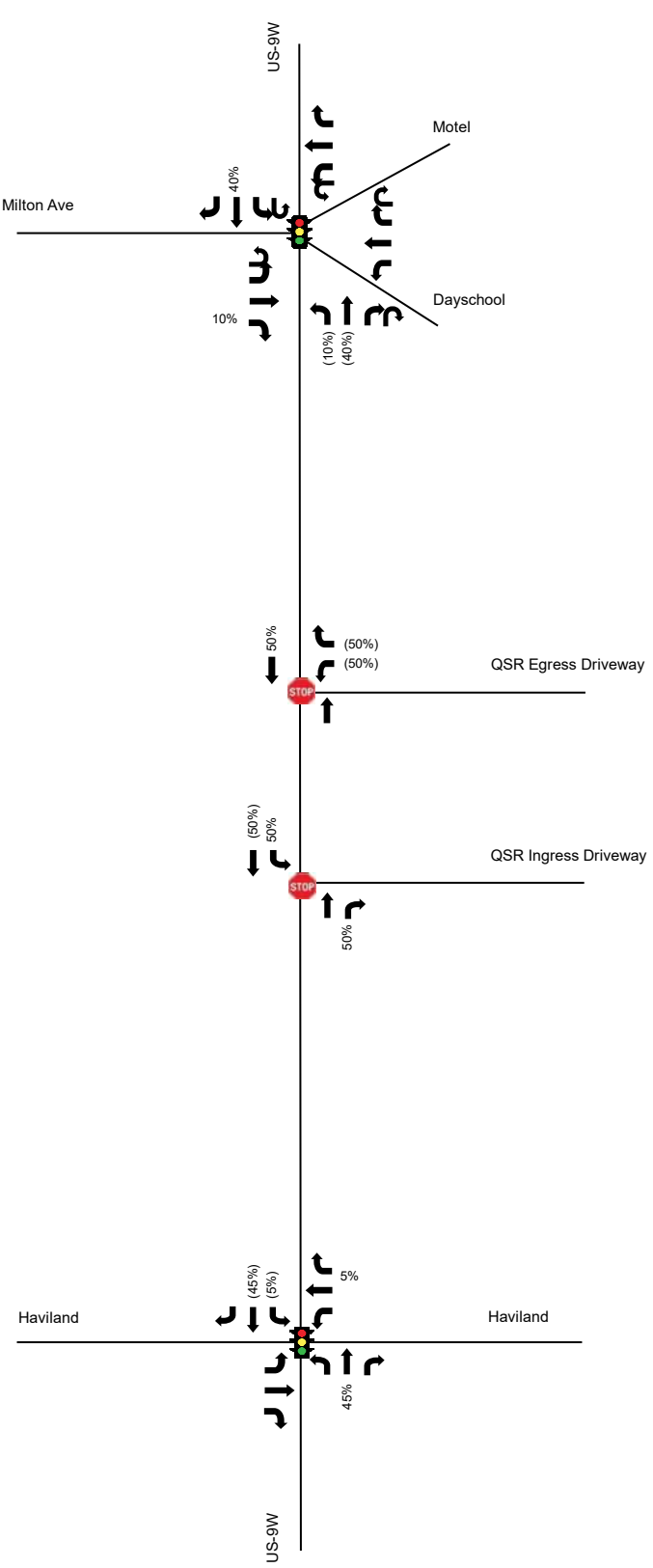
LaBella Powered by partnership.	**2030 No-Build AM Peak Hour Traffic Volumes**	**US ROUTE 9W QUICK SERVE RESTAURANT TIS**
	FIGURE - 5 / **APRIL 2026**	TOWN OF LLOYD ULSTER COUNTY NEW YORK



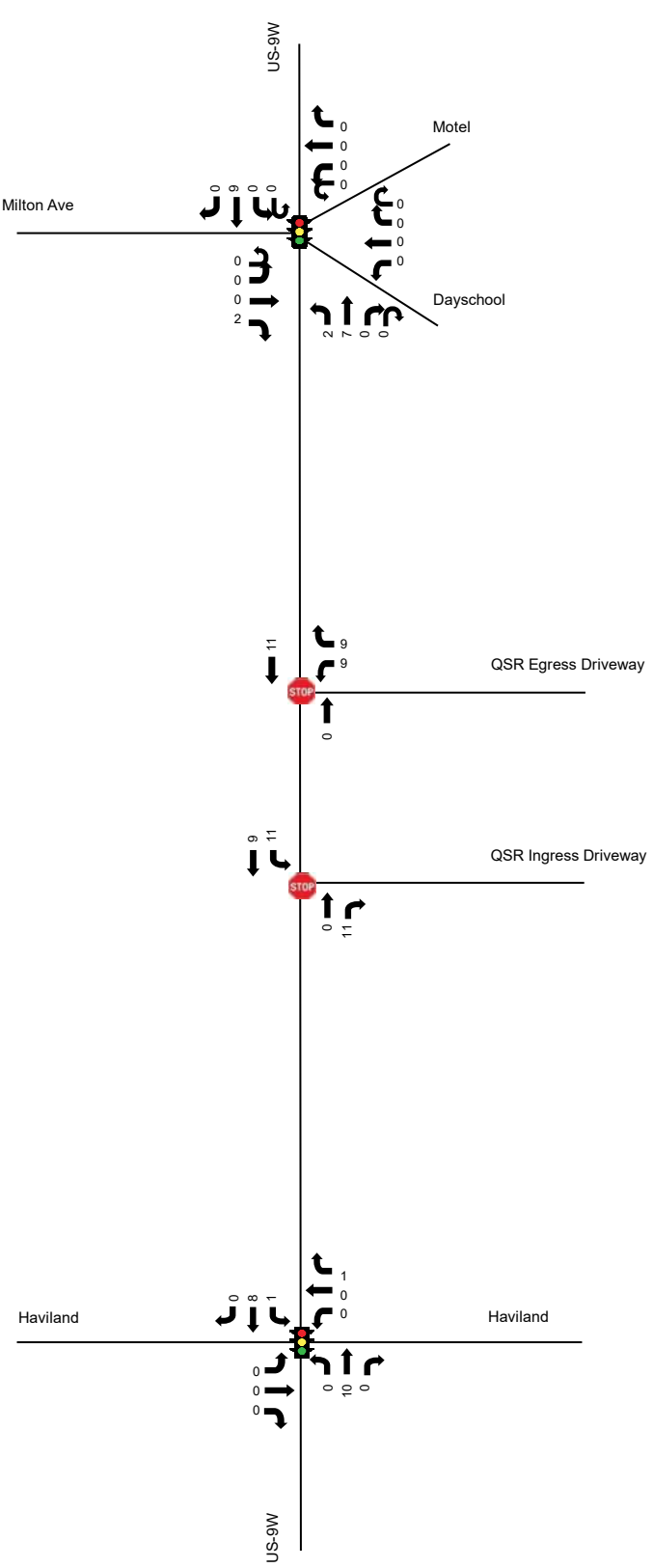
LaBella Powered by partnership.	2030 No-Build PM Peak Hour Traffic Volumes		US ROUTE 9W QUICK SERVE RESTAURANT TIS
	FIGURE - 6	APRIL 2026	TOWN OF LLOYD ULSTER COUNTY NEW YORK



LaBella Powered by partnership.	2030 No-Build SAT Peak Hour Traffic Volumes		US ROUTE 9W QUICK SERVE RESTAURANT TIS
	FIGURE - 7	APRIL 2026	TOWN OF LLOYD ULSTER COUNTY NEW YORK



LaBella Powered by partnership.	**Primary Trip Distribution**	**US ROUTE 9W QUICK SERVE RESTAURANT TIS**
	FIGURE - 8 / **APRIL 2026**	TOWN OF LLOYD ULSTER COUNTY NEW YORK



LaBella
Powered by partnership.

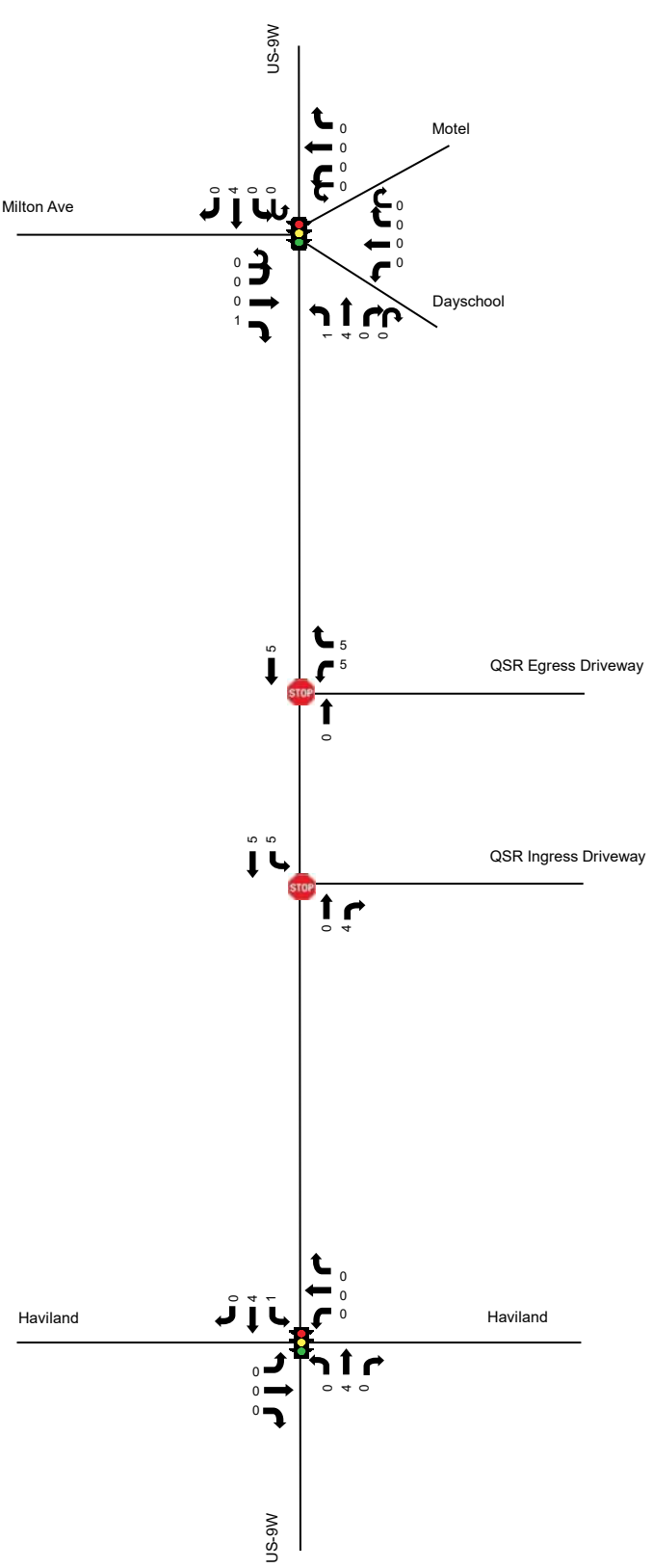
Coffee Shop AM Peak Hour
Trip Assignment

FIGURE - 9

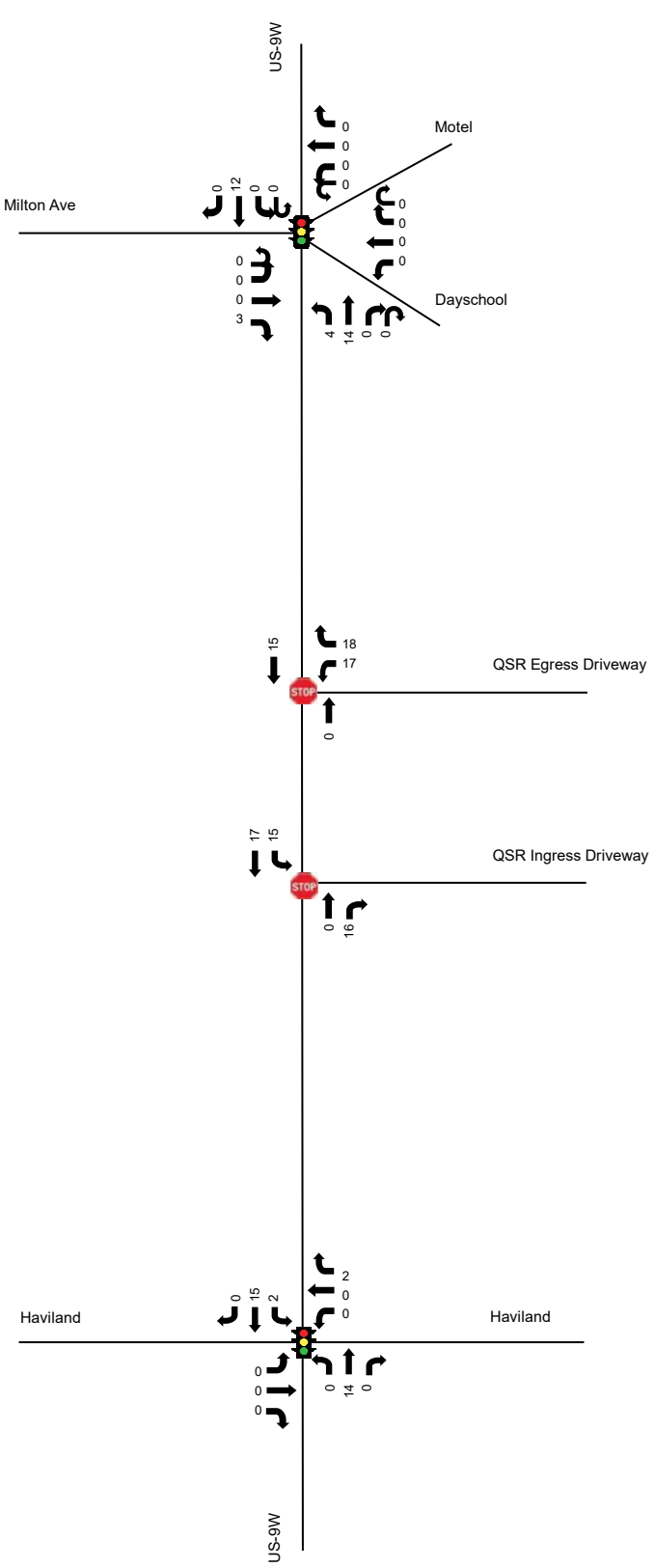
APRIL 2026

US ROUTE 9W QUICK SERVE RESTAURANT TIS

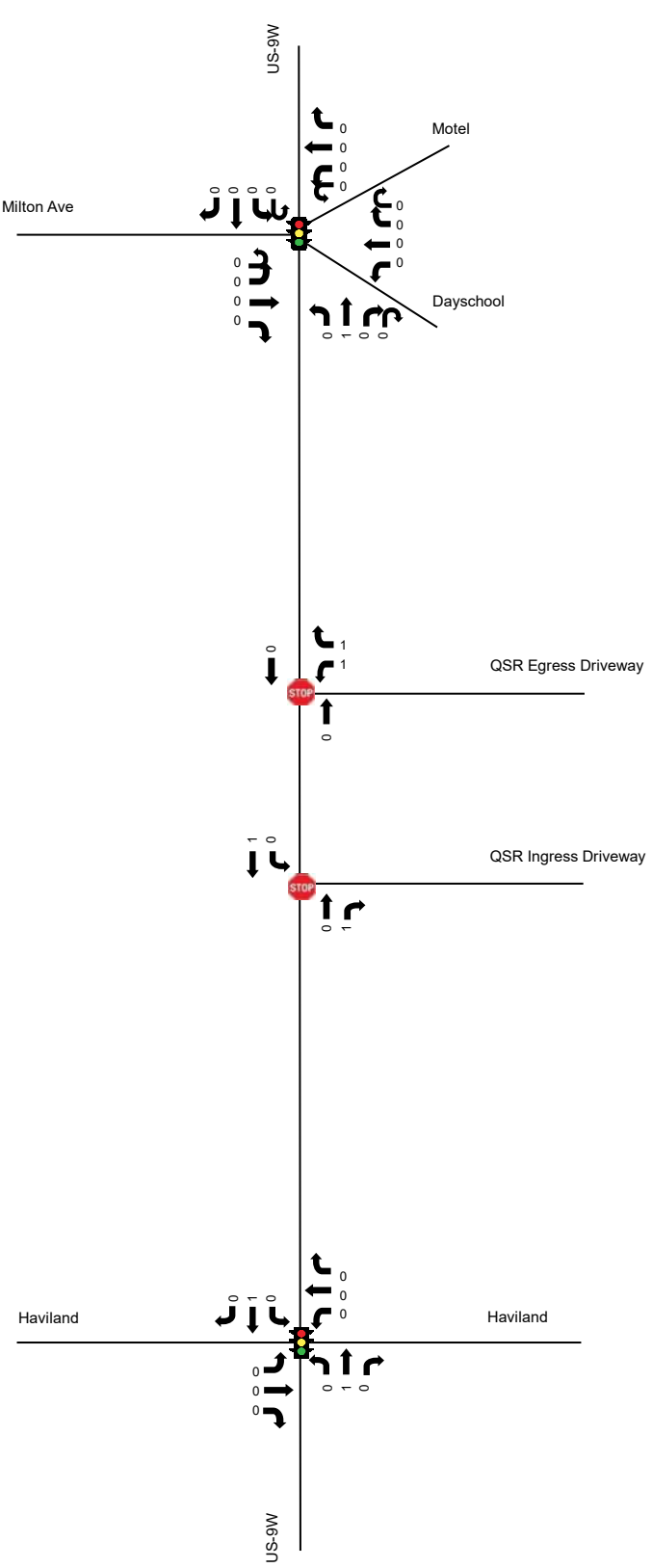
TOWN OF LLOYD
ULSTER COUNTY
NEW YORK



LaBella Powered by partnership.	**Coffee Shop PM Peak Hour Trip Assignment**	**US ROUTE 9W QUICK SERVE RESTAURANT TIS**
	FIGURE - 10 / **APRIL 2026**	TOWN OF LLOYD ULSTER COUNTY NEW YORK



LaBella Powered by partnership.	**Coffee Shop SAT Peak Hour Trip Assignment**		**US ROUTE 9W QUICK SERVE RESTAURANT TIS**
	FIGURE - 11	**APRIL 2026**	TOWN OF LLOYD ULSTER COUNTY NEW YORK



LaBella
Powered by partnership.

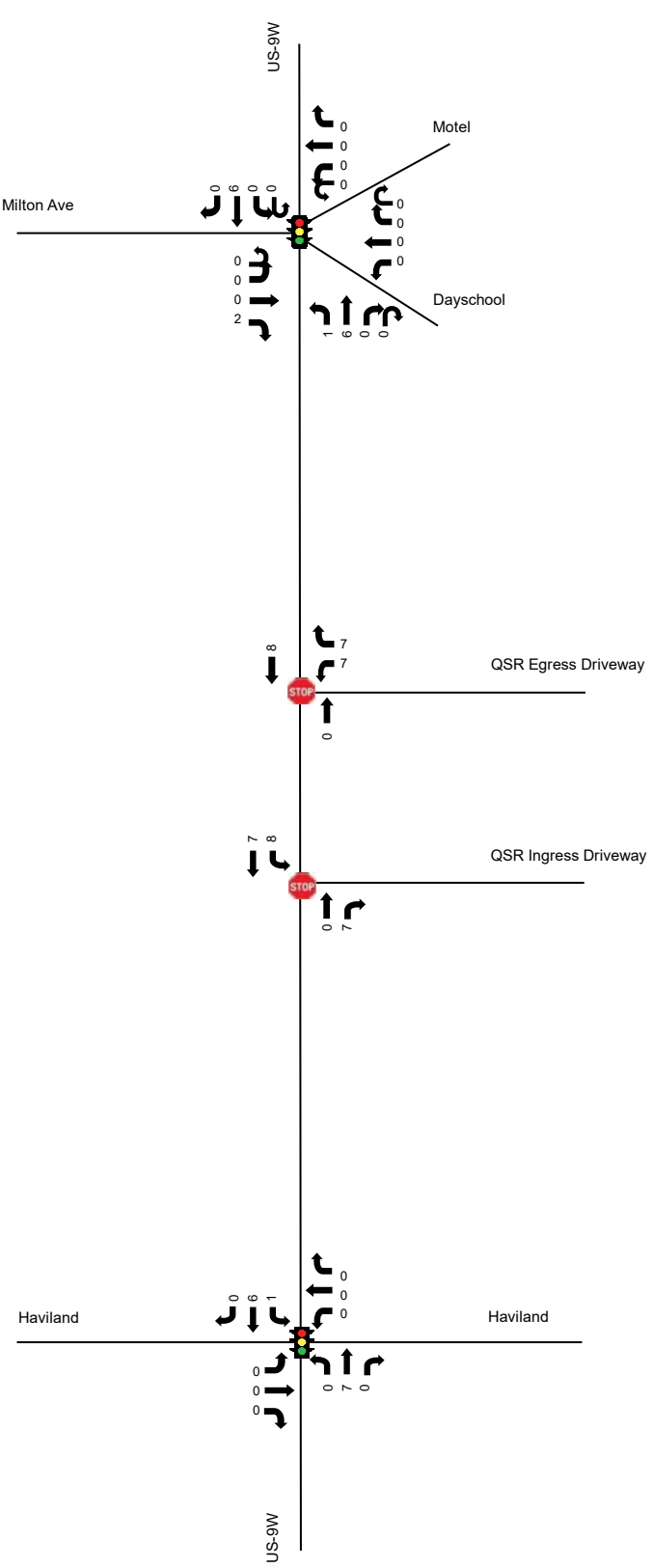
Fast-Casual Restaurant AM Peak Hour Trip Assignment

FIGURE - 12

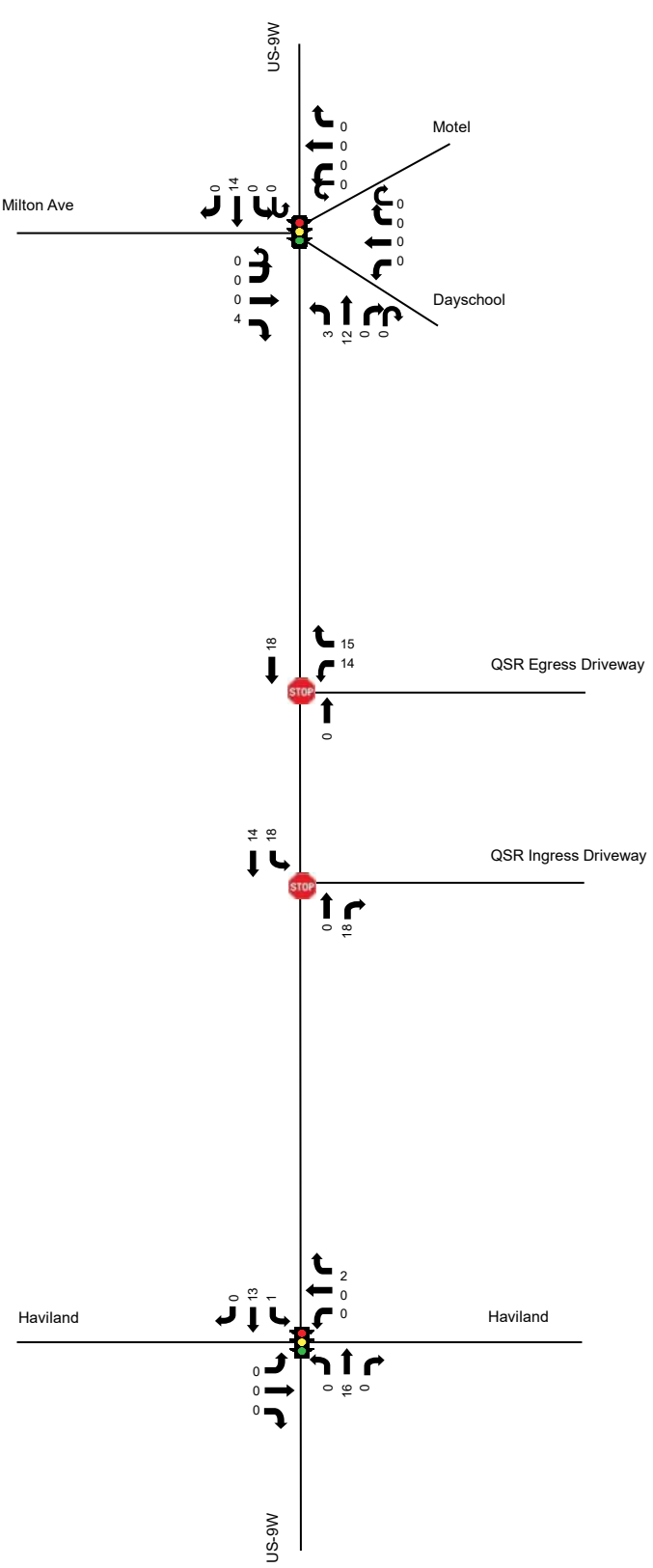
APRIL 2026

US ROUTE 9W QUICK SERVE RESTAURANT TIS

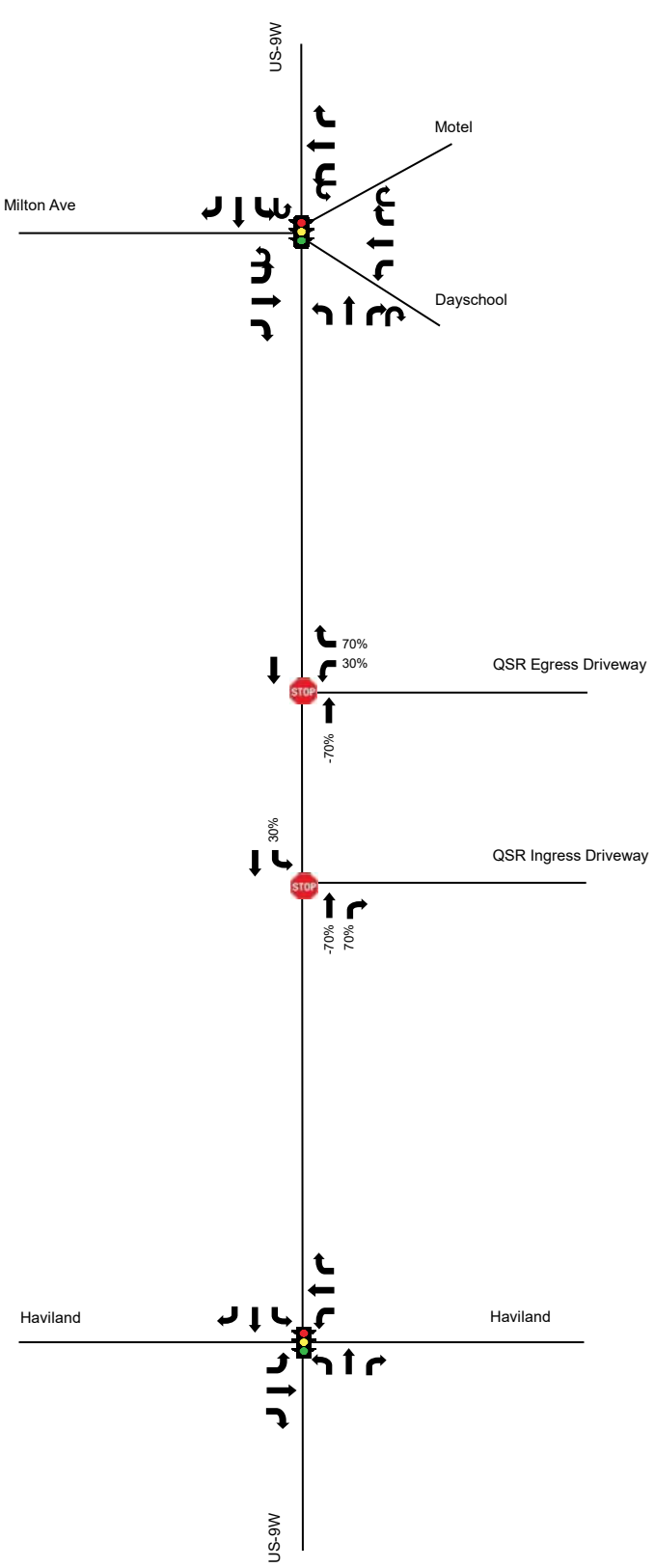
TOWN OF LLOYD
ULSTER COUNTY
NEW YORK



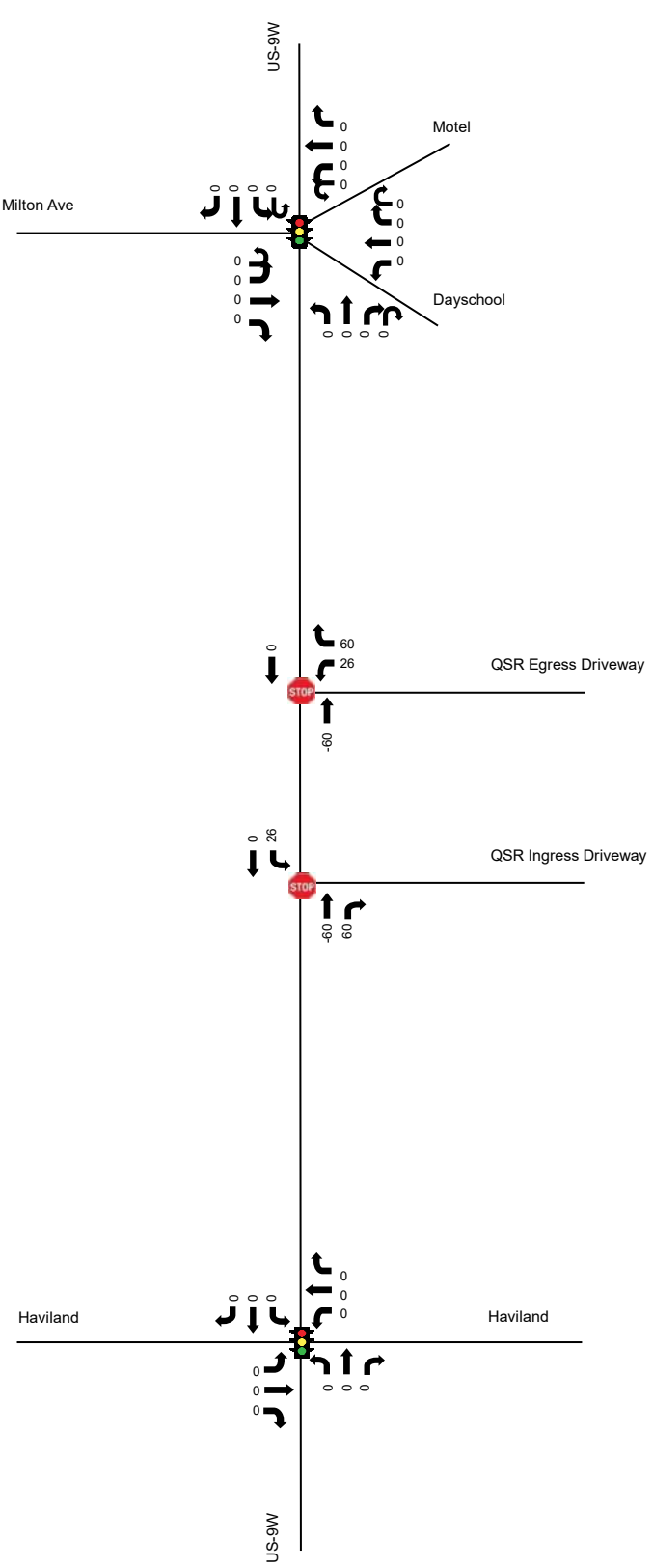
LaBella Powered by partnership.	**Fast-Casual Restaurant PM Peak Hour Trip Assignment**		**US ROUTE 9W QUICK SERVE RESTAURANT TIS**
	FIGURE - 13	**APRIL 2026**	TOWN OF LLOYD ULSTER COUNTY NEW YORK



LaBella Powered by partnership.	**Fast-Casual Restaurant SAT Peak Hour Trip Assignment**		**US ROUTE 9W QUICK SERVE RESTAURANT TIS**
	FIGURE - 14	**APRIL 2026**	TOWN OF LLOYD ULSTER COUNTY NEW YORK



LaBella Powered by partnership.	**Pass-By Trip Distribution**	**US ROUTE 9W QUICK SERVE RESTAURANT TIS**
	FIGURE - 15 / **APRIL 2026**	TOWN OF LLOYD ULSTER COUNTY NEW YORK



LaBella
Powered by partnership.

Pass-By AM Peak Hour

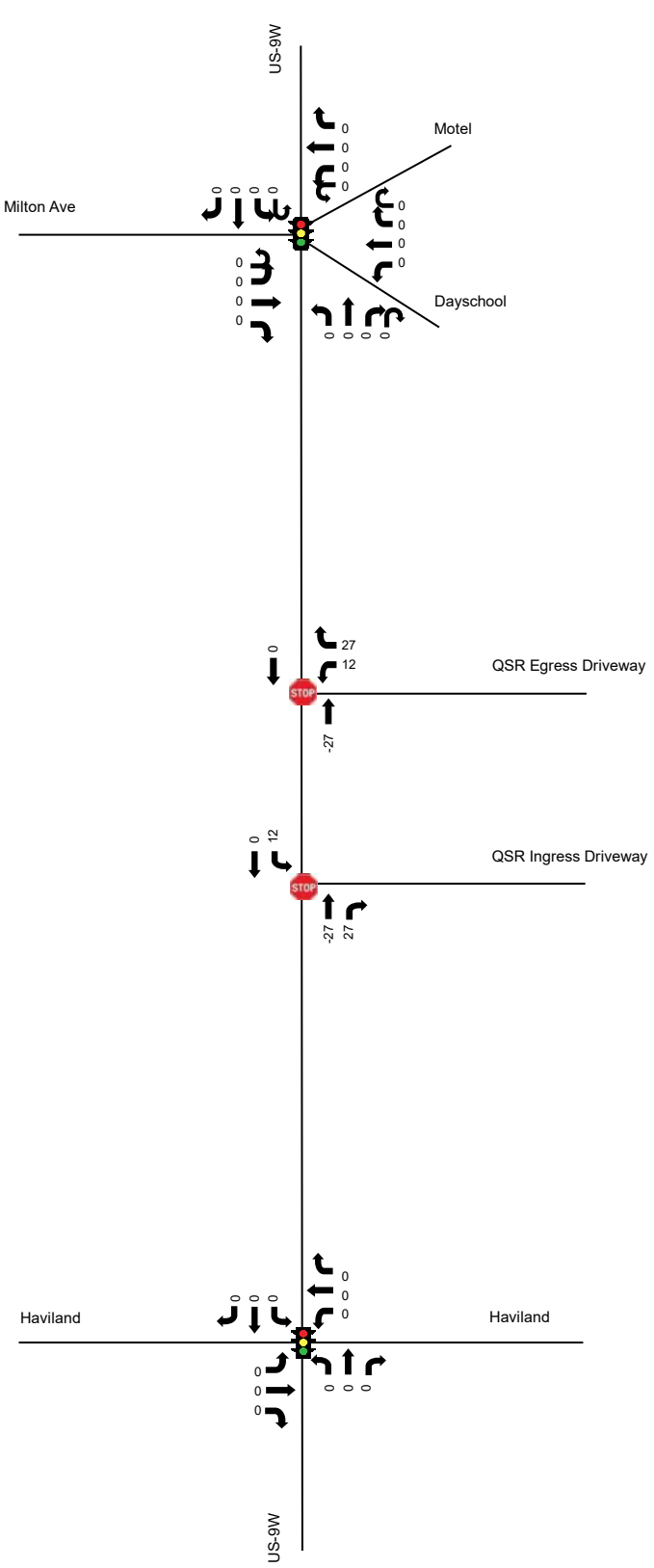
Trip Assignment

FIGURE - 16

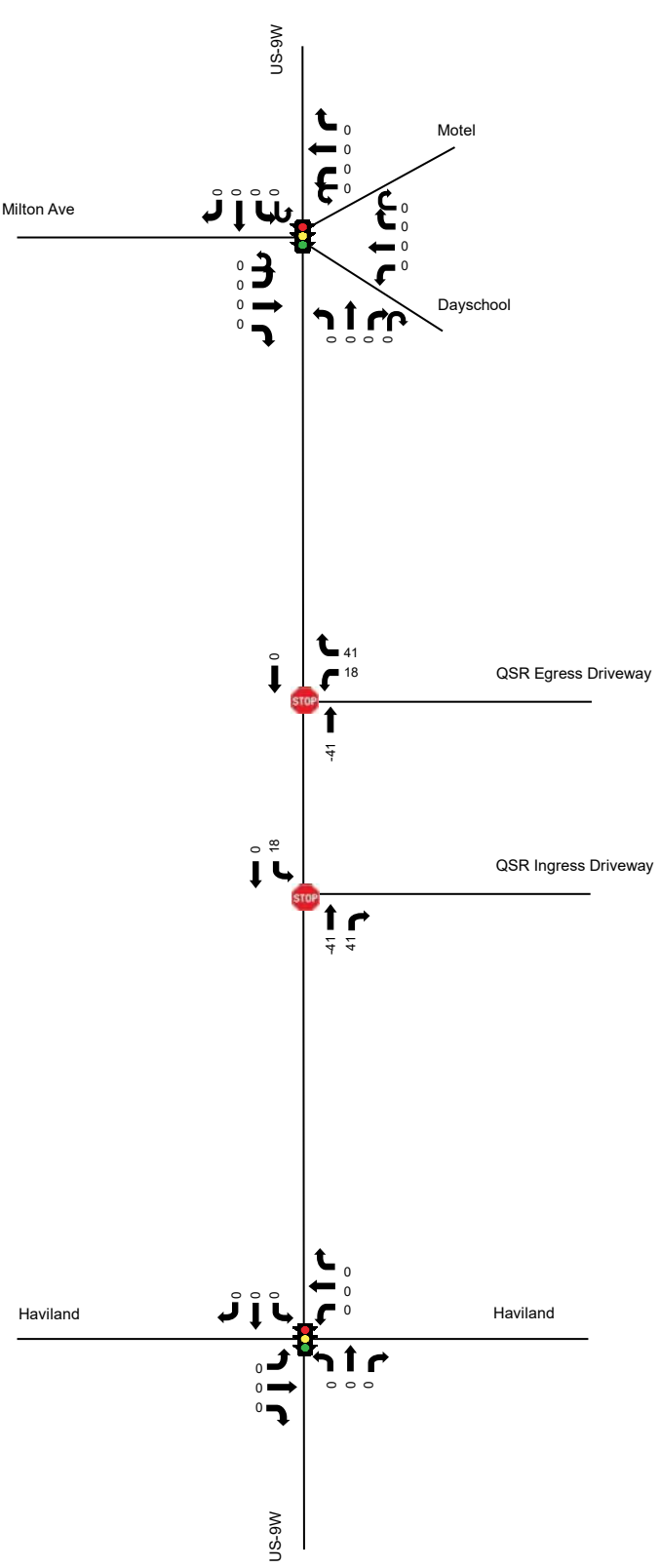
APRIL 2026

US ROUTE 9W QUICK SERVE RESTAURANT TIS

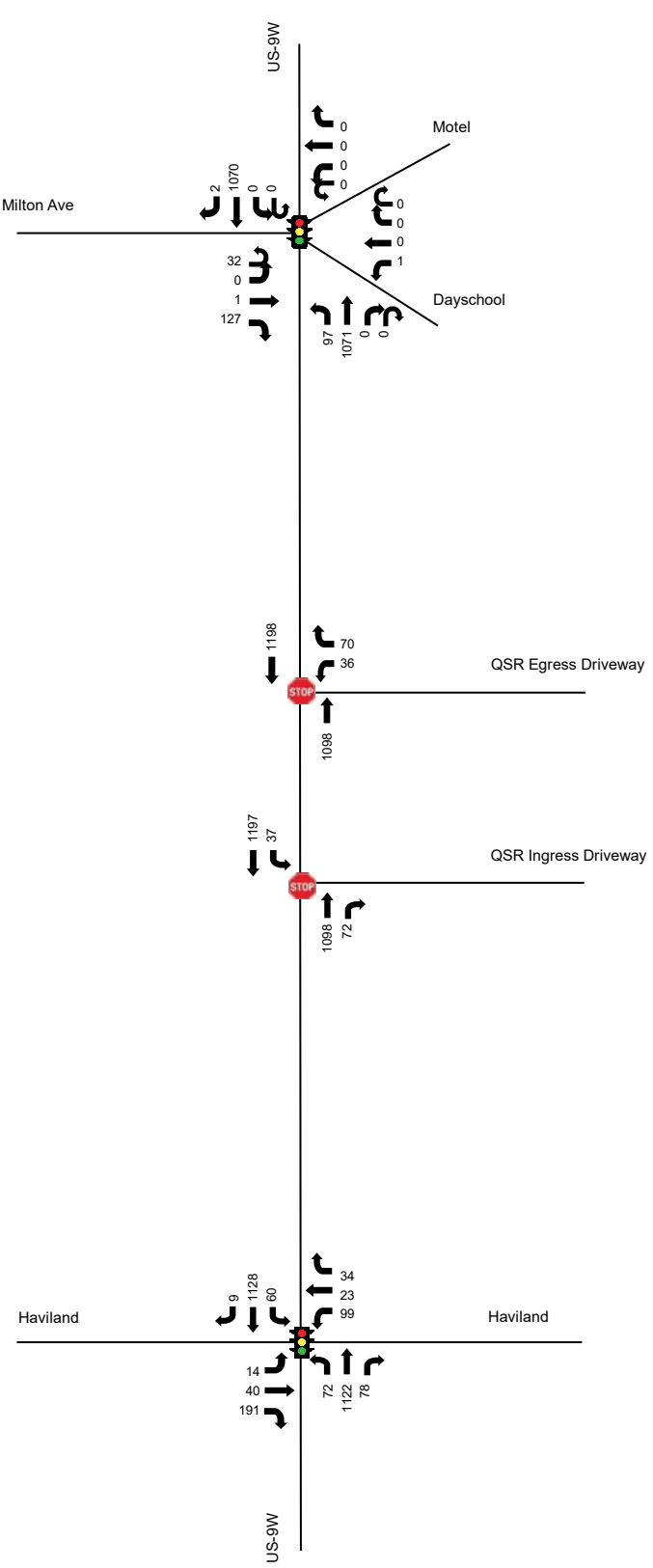
TOWN OF LLOYD
ULSTER COUNTY
NEW YORK



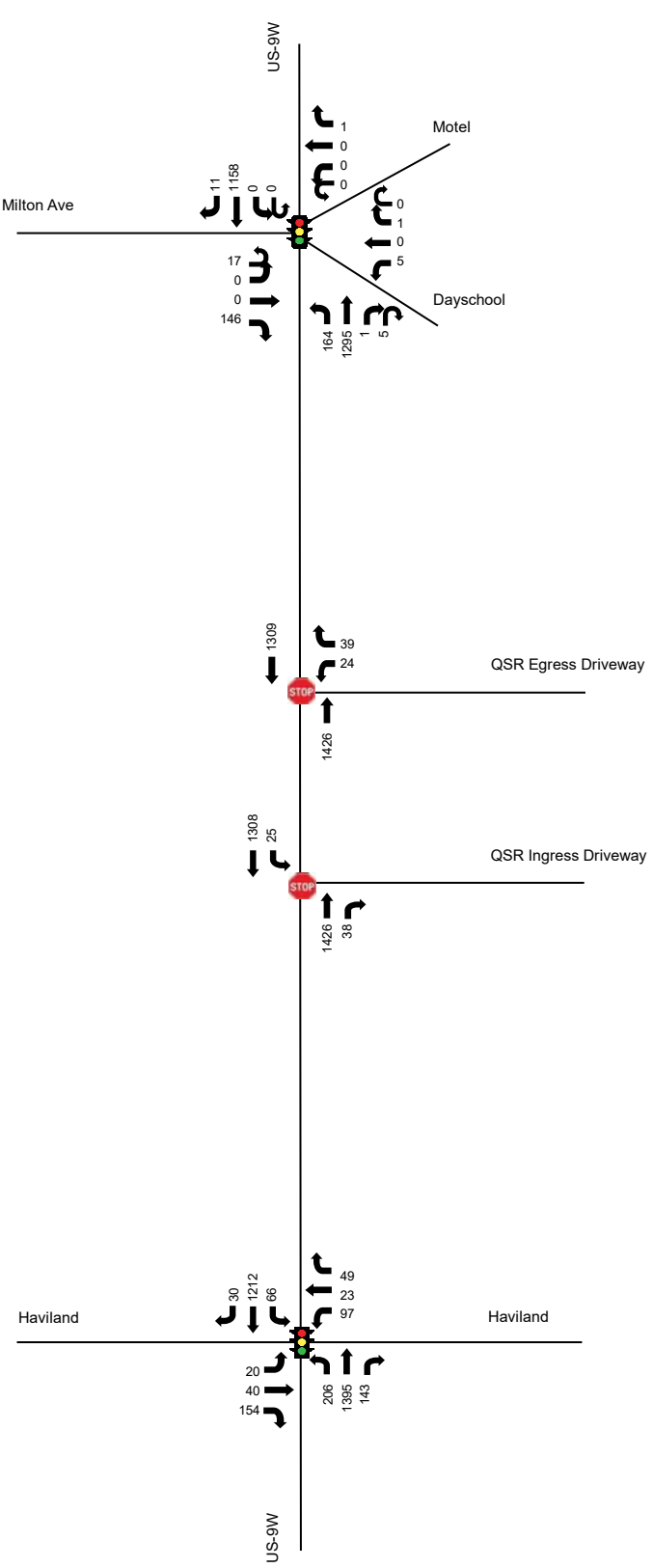
LaBella Powered by partnership.	**Pass-By PM Peak Hour Trip Assignment**		**US ROUTE 9W QUICK SERVE RESTAURANT TIS**
	FIGURE - 17	**APRIL 2026**	TOWN OF LLOYD ULSTER COUNTY NEW YORK



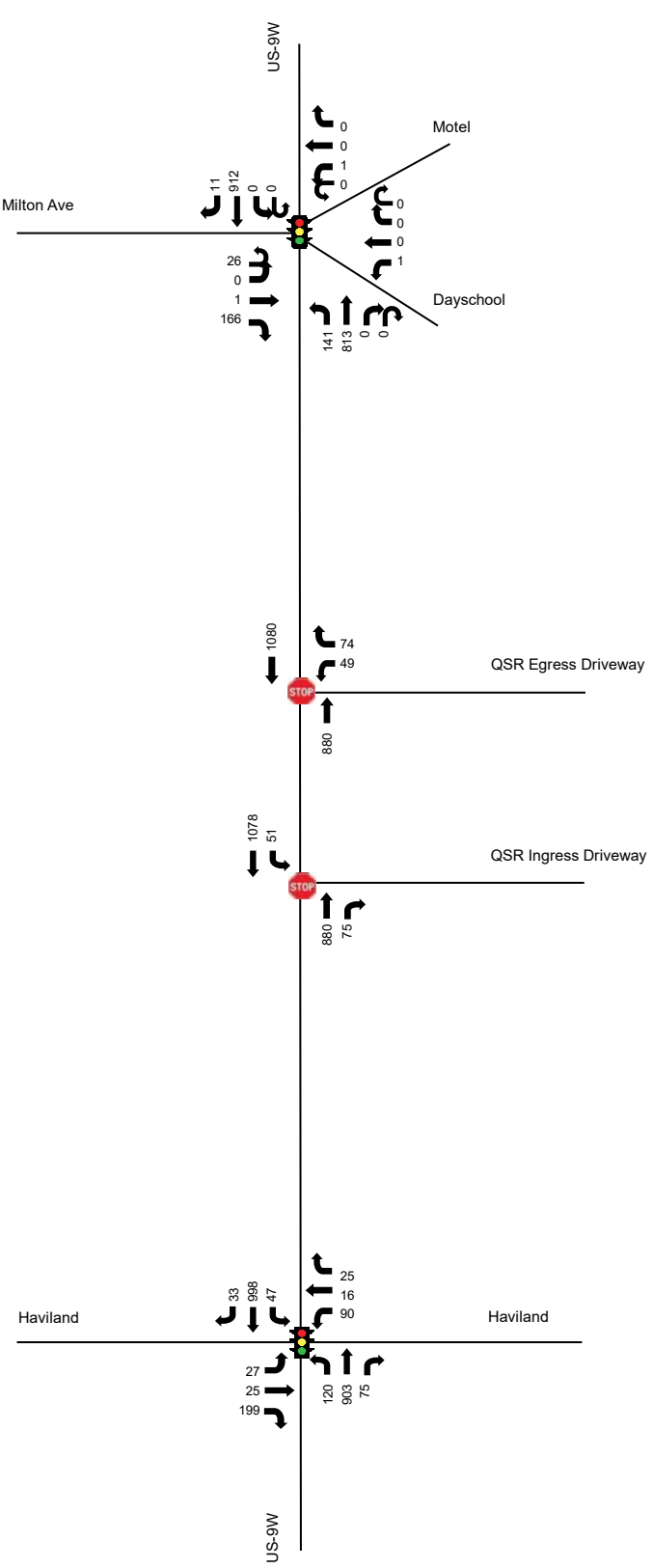
LaBella Powered by partnership.	**Pass-By SAT Peak Hour Trip Assignment**	**US ROUTE 9W QUICK SERVE RESTAURANT TIS**
	FIGURE - 18 / **APRIL 2026**	TOWN OF LLOYD ULSTER COUNTY NEW YORK



LaBella Powered by partnership.	2030 Build AM Peak Hour Traffic Volumes		US ROUTE 9W QUICK SERVE RESTAURANT TIS
	FIGURE - 19	APRIL 2026	TOWN OF LLOYD ULSTER COUNTY NEW YORK



LaBella Powered by partnership.	2030 Build PM Peak Hour Traffic Volumes		US ROUTE 9W QUICK SERVE RESTAURANT TIS
	FIGURE - 20	APRIL 2026	TOWN OF LLOYD ULSTER COUNTY NEW YORK



LaBella Powered by partnership.	2030 Build SAT Peak Hour Traffic Volumes		US ROUTE 9W QUICK SERVE RESTAURANT TIS
	FIGURE - 21	APRIL 2026	TOWN OF LLOYD ULSTER COUNTY NEW YORK

APPENDIX B

NYSDOT
SIGNAL PLAN AND TIMINGS

TE - 26X

STATE OF NEW YORK - DEPARTMENT FO TRANSPORTATION
TRAFFIC ENGINEERING & SAFETY DIVISION
TRAFFIC CONTROL SPECIFICATIONS

Study : xyz
Contract : 1234
Pin : 3456
File : 09876

U-64 — SIGNAL NO# (S)
Ulster — COUNTY
INTERSECTION : Route 9W at Route 44/55 & Milton Avenue
MUNICIPAL : Lloyd

Department Order Filed 2/9/04 as Section 2033.4 Subdivision b

Prior Specifications hereby superseded ☐ None ☒ x

Purpose : Change Traffic controller from a 170 to a 179 Micro
Change signal heads 1-4 to 12" indications

These specifications will be effective upon the ☐ Installation ☐ Modification of the necessary Traffic Control Device's) requires by and conforming to the State Manual of Uniform Traffic Control Device.

1. This Signal Shall :
   A: Operate in accordance with the Table of Operations and / of Change interval as shown on page's) "2" as a :
   - ☐ Pretimed Signal
   - ☐ Semi-Traffic actuated Signal
   - ☒ Full-Traffic actuated Signal
   - ☐ Pedestrian actuated Signal
   - ☐ Other

   B.
   - ☒ Display Vehicular Indications
   - ☐ Display Pedestrian Indications
   - ☒ Be equipped with Vehicle Detectors
   - ☒ Be equipped with Pedestrian Push-Buttons

   As shown in the : ☒ schematic ☐ scaled drawing on page 3

   Be equipped with : ☐ pre-emption ☐ Interconnection and/or Coordination

   Which are described as follows :

cc : (1) ☒ Main Office
(1) ☐ Region 8 Traffic Engineer
(2) ☒ Signal Shop
(3) ☒ D. Costello

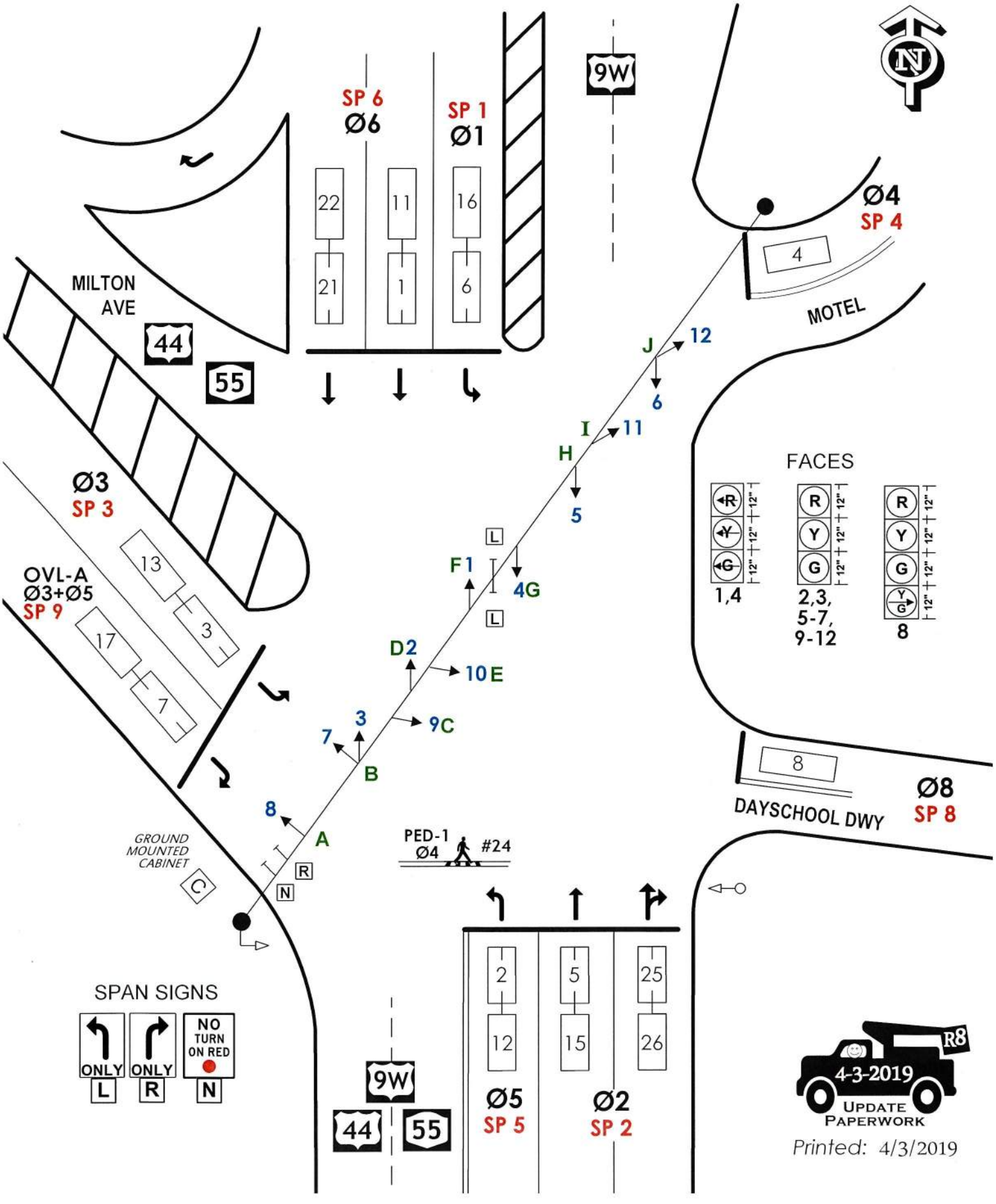
7-22-92 — Date
Signature
RTE — Title

Installation Date : 00000
Modification Date : 05/23/01

U-64
Signal #

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
in the Town of ***LLOYD***

Signal: **U-64**
File: 51.13-9W



R8
4-3-2019
UPDATE PAPERWORK

Printed: 4/3/2019

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	3	10	5	2	5	10		2
Gap, Ext	2	2	2	2	2	4		2
Max 1	20	40	30	10	10	40		10
Max 2								
Yel Clearance	5	5	4	4	5	5		4
Red Clearance	2	2	1	1	2	2		1
Walk				8				
Ped Clearance				20				
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	On	On	On	On	On	On		On
Min Recall		On				On		
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 6064 RTE 9W @ RTE 44-55

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	0	0	0	0	0	0	0	0	13	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	0	0	0	0	0	0	0	0	14	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

QSeq

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	On
2	1	GREEN	On
3	1	RED	On
4	1	RED	On
5	2	RED	On
6	2	GREEN	On
7	1	RED	Off
8	1	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	QSeq
IO Mode	USER
Loc Flsh Start	ON
Start Flash(s)	0
Start AllRed(s)	0
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

04/01/19 Page 1

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF	Overlap Lock Inhibit	OFF	Parent Ph Clearance	ON	Extra Included Ph	OFF

	Included Ø	3	5							NORMAL	
1	Modifier Ø									Grn	
	Conflict Ø									Yel	5
A	Conflict Olap									Red	2
	Conflict Ped									LG	
	Included Ø									NORMAL	
2	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
B	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
3	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
C	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
4	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
D	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
5	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
E	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
6	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
F	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
7	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
G	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
8	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
H	Conflict Olap									Red	1.5
	Conflict Ped									LG	

	Included Ø									NORMAL	
9	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
I	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
10	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
J	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
11	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
K	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
12	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
L	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
13	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
M	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
14	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
N	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
15	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
O	Conflict Olap									Red	1.5
	Conflict Ped									LG	
	Included Ø									NORMAL	
16	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5
P	Conflict Olap									Red	1.5
	Conflict Ped									LG	

Channel Settings [1.8.1]

......Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2	3	4	5	6		8	1	4														
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	DRK	RED	RED	RED	DRK	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

......Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø	E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22				EndGRN				
2	12	22				EndGRN				
3	12	22				EndGRN				
4	12	22				EndGRN				
5	12	22				EndGRN				
6	12	22				EndGRN				
7	12	22				EndGRN				
8	12	22				EndGRN				
9	12	22				EndGRN				
10	12	22				EndGRN				
11	12	22				EndGRN				
12	12	22				EndGRN				
13	12	22				EndGRN				
14	12	22				EndGRN				
15	12	22				EndGRN				
16	12	22				EndGRN				
17	12	22				EndGRN				
18	12	22				EndGRN				
19	12	22				EndGRN				
20	12	22				EndGRN				
21	12	22				EndGRN				
22	12	22				EndGRN				
23	12	22				EndGRN				
24	12	22				EndGRN				
25						BegGRN				
26						BegGRN				
27						BegGRN				
28						BegGRN				
29						BegGRN				
30						BegGRN				
31						BegGRN				
32						BegGRN				
33						BegGRN				
34						BegGRN				
35						BegGRN				
36						BegGRN				
37						BegGRN				
38						BegGRN				
39						BegGRN				
40						BegGRN				
41						BegGRN				
42						BegGRN				
43						BegGRN				
44						BegGRN				
45						BegGRN				
46						BegGRN				
47						BegGRN				
48						BegGRN				

Channel Params[1.8.3]

C1 IO Mode USER ‚ BIU Map SINGLE Invert Rail Input OFF

Ven Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	6						45	50	5
2	5		3				45	50	40
3	3		6				45	50	25
4	4		5				45	50	5
5	2						45	50	15
6	1		3				45	50	40
7	5						45	50	25
8	8		5				45	50	5
9							45	50	
10							45	50	
11	6						45	50	40
12	5		2				45	50	15
13	3						45	50	25
14							45	50	
15	2						45	50	40
16	1		3				45	50	5
17	5		2				45	50	25
18							45	50	
19							45	50	
20							45	50	
21	6						45	50	40
22	6						45	50	40
23							45	50	
24							45	50	
25	2						45	50	40
26	2						45	50	40
27							45	50	
28							45	50	
29							45	50	
30							45	50	
31							45	50	
32							45	50	

Ven Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35							45	50	
36							45	50	
37							45	50	
38							45	50	
39							45	50	
40							45	50	
41							45	50	
42							45	50	
43							45	50	
44							45	50	
45							45	50	
46							45	50	
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	On	On		On				
2	On	On		On				
3	On	On		On				
4	On	On		On				
5	On	On		On				
6	On	On		On				
7	On	On		On				
8	On	On		On				
9	On	On		On				
10	On	On		On				
11	On	On		On				
12	On	On		On				
13	On	On		On				
14	On	On		On				
15	On	On		On				
16	On	On		On				
17	On	On		On				
18	On	On		On				
19	On	On		On				
20	On	On		On				
21	On	On		On				
22	On	On		On				
23	On	On		On				
24	On	On		On				
25	On	On		On				
26	On	On		On				
27	On	On		On				
28	On	On		On				
29	On	On		On				
30	On	On		On				
31	On	On		On				
32	On	On		On				

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add AddIn	Red Lock	Yell Lock	occ	vol
33	On	On		On				
34	On	On		On				
35	On	On		On				
36	On	On		On				
37	On	On		On				
38	On	On		On				
39	On	On		On				
40	On	On		On				
41	On	On		On				
42	On	On		On				
43	On	On		On				
44	On	On		On				
45	On	On		On				
46	On	On		On				
47	On	On		On				
48	On	On		On				
49	On	On		On				
50	On	On		On				
51	On	On		On				
52	On	On		On				
53	On	On		On				
54	On	On		On				
55	On	On		On				
56	On	On		On				
57	On	On		On				
58	On	On		On				
59	On	On		On				
60	On	On		On				
61	On	On		On				
62	On	On		On				
63	On	On		On				
64	On	On		On				

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1	4		15	
2			15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	15
Vol/Occ Period Minutes	0

ID: 6064 RTE 9W @ RTE 44-55

Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	DWELL		
2	ON	RAIL	DWELL		
3	ON	EMERG	DWELL		
4	ON	EMERG	DWELL		
5	ON	EMERG	DWELL		
6	ON	EMERG	DWELL		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr+	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max		
7	OFF				
8	OFF				
9	OFF				
10	OFF				

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	NONE
Pre Invert Rail Input	OFF

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases				Track Overlaps											
1																
2																
3																
4																
5																
6																

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #													
1	Phases												
	Overlaps												
	Peds												
2	Phases												
	Overlaps												
	Peds												
3	Phases												
	Overlaps												
	Peds												
4	Phases												
	Overlaps												
	Peds												
5	Phases												
	Overlaps												
	Peds												
6	Phases												
	Overlaps												
	Peds												

Exit Phases [3.2]

Pre #	Exit Phase			
1				
2				
3				
4				
5				
6				

Preemption Options+ [3.6]

Pre #	Lock	Override Auto Flsh		Override Higher		Flsh Dwel	Link
1	ON	ON		ON		OFF	
2	ON	ON		ON		OFF	
3	ON	ON		ON		OFF	
4	ON	ON		ON		OFF	
5	ON	ON		ON		OFF	
6	ON	ON		ON		OFF	

Alt# 1 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1.3]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2.1]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Enrty								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 1 Veh Parameters [5.5.1.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 1 Veh Options [5.5.1.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 1 Veh Parameters+ [5.5.1.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 1 Ped Parameters+ [5.5.1.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Alt# 2 Options Table [1.1.6.2.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Enrty								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 3 Options Table [1.1.6.2.3]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Enrty								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 4 Options Table [1.1.6.2.4]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Enrty								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 2 Veh Parameters [5.5.2.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 2 Veh Options [5.5.2.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 2 Veh Parameters+ [5.5.2.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 2 Ped Parameters+ [5.5.2.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Annual Schedule [4.3]	Month of Year	Day of Week	Date	DayLink Plan	To
1	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
2	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
3	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
4	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
5	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
6	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
7	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
8	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
9	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
10	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
11	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
12	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
13	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
14	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
15	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
16	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
17	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
18	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
19	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
20	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
21	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
22	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
23	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
24	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	

Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

Pat#	ØOpt	ØTime	DetG	Call Inh	CIC	CNA1	Overlap Off 1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

C1-USER IO Map [1.8.9.1 In]

I1-1	1	Veh Call 1
I1-2	2	Veh Call 2
I1-3	3	Veh Call 3
I1-4	4	Veh Call 4
I1-5	5	Veh Call 5
I1-6	6	Veh Call 6
I1-7	7	Veh Call 7
I1-8	8	Veh Call 8
I2-1	189	Unused
I2-2	189	Unused
I2-3	11	Veh Call 11
I2-4	12	Veh Call 12
I2-5	13	Veh Call 13
I2-6	189	Unused
I2-7	15	Veh Call 15
I2-8	16	Veh Call 16
I3-1	17	Veh Call 17
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	21	Veh Call 21
I3-6	22	Veh Call 22
I3-7	189	Unused
I3-8	129	Ped Call 1
I4-1	C11S Connector	
I4-2		
I4-3		
I4-4		
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	25	Veh Call 25
I5-2	26	Veh Call 26
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	115	Not Used
O5-6	115	Not Used
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	115	Not Used
O7-2	115	Not Used
O7-3	115	Not Used
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	115	Not Used

C11S-USER IO Map [1.8.9.1 In]

I4-1	189	Unused
I4-2	189	Unused
I4-3	189	Unused
I4-4	189	Unused
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

	Result			Fcn	Oper		Fcn	Oper		Fcn Timer		
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY

Security Access Levels [8.2]

1	SWLOAD			43	NONE
2	SECURE	22	NONE	44	NONE
3	NONE	23	NONE	45	NONE
4	NONE	24	NONE	46	NONE
5	NONE	25	NONE	47	NONE
6	NONE	26	NONE	48	NONE
7	NONE	27	NONE	49	NONE
8	NONE	28	NONE	50	NONE
9	NONE	29	NONE	51	NONE
10	NONE	30	NONE	52	NONE
11	NONE	31	NONE	53	NONE
12	NONE	32	NONE	54	NONE
13	NONE	33	NONE	55	NONE
14	NONE	34	NONE	56	NONE
15	NONE	35	NONE	57	NONE
16	NONE	36	NONE	58	NONE
17	NONE	37	NONE	59	NONE
18	NONE	38	NONE	60	NONE
19	NONE	39	NONE	61	NONE
20	NONE	40	NONE	62	NONE
21	NONE	41	NONE	63	NONE
		42	NONE	64	NONE

Com Parameters [6.1]

Station ID	6064
Group ID	
Master ID	0
Backup Time	0

SysUp Modem [6.1]

Enable Modem	OFF
Idle Time	0
Dial Time	0
Tel:	#N/A
Alt:	#N/A

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	MODE 6
SP2	9600	MODE 6
SP3	19200	MODE 6
SP4	38400	MODE 6
SP5	1200	AUTO
SP6	1200	AUTO
SP7	1200	AUTO
SP8	1200	AUTO

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	0	0	0	0
Mask	0	0	0	0
Brdcst	0	0	0	0
GtWay	0	0	0	0
Port	0			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	0	0	0	0
Mask	0	0	0	0
Brdcst	0	0	0	0
GtWay	0	0	0	0
Port	0			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	OFF	0
ASYNC2	SP2	OFF	0
ASYNC3	SP3	OFF	0
ASYNC4	SP4	OFF	0
SYNC1	SP5S	SYNC3	OFF
SYNC2	OFF	SYNC4	OFF

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVM	NONE	SYSUp	ASYNC2
CMU/MMU	NONE	SYSDown	ASYNC1
Opticom	NONE	Shell	NONE
Loop Det.	NONE		
GPS	NONE		

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	On	On
2	Stop Timing	On	On
3	TS1 Cabinet Door		
4	Coordination Failure	On	On
5	External Alarm # 1	On	On
6	External Alarm # 2	On	On
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled		On
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	On	On
13	Coord Free Input		
14	Local Flash Input	On	On
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault		On
18	Cycle Failure		On
19	Coordination Fault		On
20	Controller Fault	On	On
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	On	On
26	Detector Diagnostic Failur		
27	BIU Detector Failure	On	On
28	Queue detector alarm		On
29	Ped Detector Fault		On
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active		On
49	Preempt 1 Input		On
50	Preempt 2 Input		On
51	Preempt 3 Input		On
52	Preempt 4 Input		On
53	Preempt 5 Input		On
54	Preempt 6 Input		On
55	Preempt 7 Input		On
56	Preempt 8 Input		On
57	Preempt 9 Input		On
58	Preempt 10 Input		On
61	In Transition		On
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Phases Called By Ø
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø
1		
2		
3		
4		
5		
6		
7		
8		

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø
1		
2		
3		
4		
5		
6		
7		
8		

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Coord, CIC Plans [2.3]

CIC	CoØ	Grow	1	2	3	4	5	6	7	8
1	OFF									
2	OFF									
3	OFF									
4	OFF									

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	ALARM
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	ALARM		
Enable Run Timer	ON		

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **U-64**

TABLE OF SWITCH PACKS

Date: 4/4/2019

SWITCH PACK	FUNCTION	INDICATIONS	FACE	TERMINAL	WIRE COLOR CODE	FACE	TERMINAL	WIRE COLOR CODE
1	Ø1		1	SP 1 R	14 / 5C - F - R		SP 1 R	
				SP 1 Y	- O		SP 1 Y	
				SP 1 G	- G		SP 1 G	
		Ground Wire		Grnd Bus	- W		Grnd Bus	
2	Ø2	Red	5	SP 2 R	14 / 5C - H - R	6	SP 2 R	14 / 10C - J - R
		Yellow		SP 2 Y	- O		SP 2 Y	- O
		Green		SP 2 G	- G		SP 2 G	- G
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W
3	Ø3	Red	7	SP 3 R	14 / 10C - B - R/B	8	SP 3 R	14 / 10C - A - R
		Yellow		SP 3 Y	- O/B		SP 3 Y	- O
		Green		SP 3 G	- G/B		SP 3 G	- G
		Ground Wire		Grnd Bus	- W/B		Grnd Bus	- W
4.	Ø4	Red	11	SP 4 R	14 / 5C - I - R	12	SP 4 R	14 / 10C - J - R/B
		Yellow		SP 4 Y	- O		SP 4 Y	- O/B
		Green		SP 4 G	- G		SP 4 G	- G/B
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W/B
5.	Ø5		4	SP 5 R	14 / 10C - G - R		SP 5 R	
				SP 5 Y	- O		SP 5 Y	
				SP 5 G	- G		SP 5 G	
		Ground Wire		Grnd Bus	- W		Grnd Bus	
6.	Ø6	Red	2	SP 6 R	14 / 10C - D - R	3	SP 6 R	14 / 10C - B - R
		Yellow		SP 6 Y	- O		SP 6 Y	- O
		Green		SP 6 G	- G		SP 6 G	- G
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W
7.				SP 7 R			SP 7 R	
				SP 7 Y			SP 7 Y	
				SP 7 G			SP 7 G	
		Ground Wire		Grnd Bus			Grnd Bus	
8	Ø8	Red	9	SP 8 R	14 / 5C - C - R	10	SP 8 R	14 / 5C - E - R
		Yellow		SP 8 Y	- O		SP 8 Y	- O
		Green		SP 8 G	- G		SP 8 G	- G
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W
9	OVL A Ø3+Ø5	- - - - -	8	SP 9 R	- - - - -		SP 9 R	
				SP 9 Y	14 / 10C - A - O/B		SP 9 Y	
				SP 9 G	- G/B		SP 9 G	
		Ground Wire		Grnd Bus	- W/B		Grnd Bus	
10	PED-1 Ø4	HAND	24	SP 10 R	14 / 05C - 1P - R		SP 10 R	
		- - - - - - -		SP 10 Y	- - - - -		SP 10 Y	
		MAN		SP 10 G	- G		SP 10 G	
		Ground Wire		Grnd Bus	- W		Grnd Bus	
11.				SP 11 R			SP 11 R	
				SP 11 Y			SP 11 Y	
				SP 11 G			SP 11 G	
		Ground Wire		Grnd Bus			Grnd Bus	
12.				SP 12 R			SP 12 R	
				SP 12 Y			SP 12 Y	
				SP 12 G			SP 12 G	
		Ground Wire		Grnd Bus			Grnd Bus	
13				SP 13 R			SP 13 R	
				SP 13 Y			SP 13 Y	
				SP 13 G			SP 13 G	
		Ground Wire		Grnd Bus			Grnd Bus	
14.				SP 14 R			SP 14 R	
				SP 14 Y			SP 14 Y	
				SP 14 G			SP 14 G	
		Ground Wire		Grnd Bus			Grnd Bus	
15				SP 15 R			SP 15 R	
				SP 15 Y			SP 15 Y	
				SP 15 G			SP 15 G	
		Ground Wire		Grnd Bus			Grnd Bus	
16				SP 16 R			SP 16 R	
				SP 16 Y			SP 16 Y	
				SP 16 G			SP 16 G	
		Ground Wire		Grnd Bus			Grnd Bus	

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **U-64**

Date: 4/4/2019

TABLE OF INPUT WIRING

TERM. NUMBER	FUNCTION	DET. NO.	DET. TYPE	DET. AN OVER	REMARKS
1A, 1B	**Ø 6**	1 A	QUADRAPOLE		PRESENCE LOOP
2A, 2B	**Ø 5**	2 A	QUADRAPOLE		PRESENCE LOOP
3A, 3B	**Ø 3**	3 A	QUADRAPOLE		PRESENCE LOOP
4A, 4B	**Ø 4**	4 A	NORMAL		PRESENCE LOOP
5A, 5B	**Ø 2**	5 A	QUADRAPOLE		PRESENCE LOOP
6A, 6B	**Ø 1**	6 A	QUADRAPOLE		PRESENCE LOOP
7A, 7B	**Ø 5**	7 A	QUADRAPOLE		PRESENCE LOOP
8A, 8B	**Ø 8**	8 A	NORMAL		PRESENCE LOOP
9A, 9B					
10A, 10B					
11A, 11B	**Ø 6**	11A	NORMAL		PRESENCE LOOP
12A, 12B	**Ø 5**	12 A	NORMAL		PRESENCE LOOP
13A, 13B	**Ø 3**	13 A	NORMAL		PRESENCE LOOP
14A, 14B					
15A, 15B	**Ø 2**	15 A	NORMAL		PRESENCE LOOP
16A, 16B	**Ø 1**	16 A	NORMAL		PRESENCE LOOP
17A, 17B	**Ø 5**	17 A	NORMAL		PRESENCE LOOP
18A, 18B					
19A, 19B					
20A, 20B					
21A, 21B	**Ø 6**	21 A	QUADRAPOLE		PRESENCE LOOP
22A, 22B	**Ø 6**	22 A	NORMAL		PRESENCE LOOP
23A, 23B					
24A, 24B	**PED-1 Ø 4**	24	BUTTON		PEDESTRIAN
25A, 25B	**Ø 2**	25 A	QUADRAPOLE		PRESENCE LOOP
26A, 26B	**Ø 2**	26 A	NORMAL		PRESENCE LOOP
27A, 27B					
28A, 28B					

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **U-64**

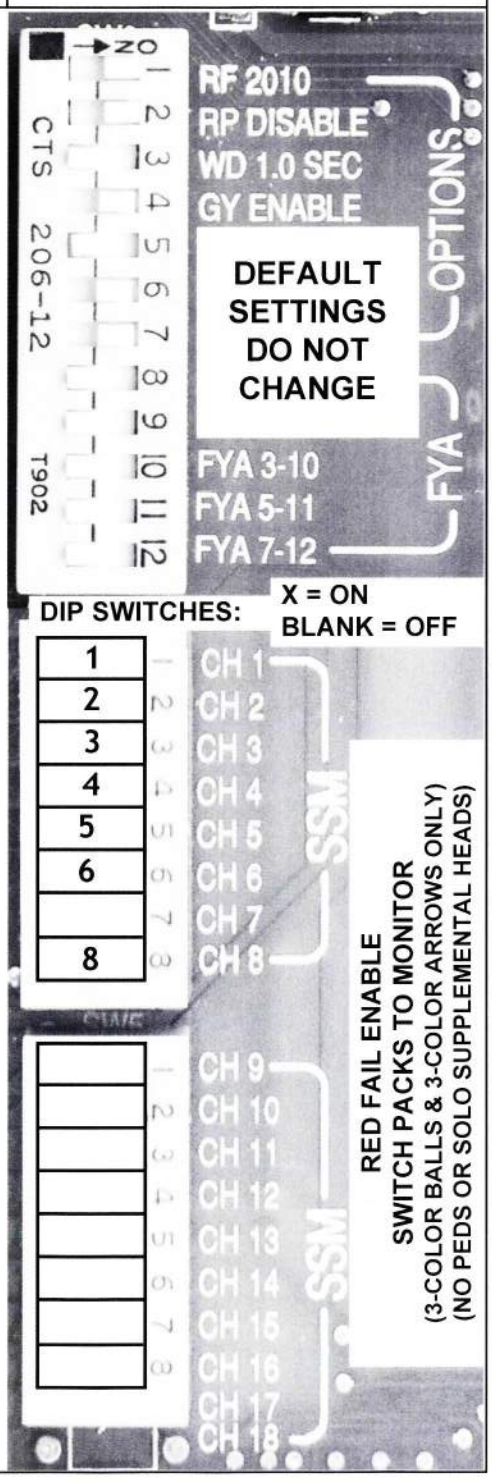
Date: 4/4/2019

TRAFFIC SIGNAL MONITOR PROGRAMMING

CONFLICT MONITOR DIODES TO BE CUT (SWITCH PACKS TO RUN TOGETHER)		
1 - 5		
1 - 6		
1 - 9		
2 - 5		
2 - 6		
2 - 9		
3 - 9		
4 - 10		
5 - 9		

YELLOW DISABLE: WIRE JUMPERS TO BE INSTALLED FOR PEDS	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	10
11	
12	
13	
14	
15	
16	

210NYR MONITOR BOARD
(SWITCH PACKS TO MONITOR)



CURRENT MONITOR BOARD (IF USED)

CURRENT MONITOR DIODES TO BE CUT (SWITCH PACKS TO *NOT* MONITOR)
7, 9 - 16

Notes:

- RUN 6 PHASE SEQUENTIAL 2212 = 01
- LOW OCCUPANCY OVERRIDE Ø4+8 224C = 05

- NUMBER OF FACES FROM 12 TO 10
- 5 SECTION W/ LEFT ARROW NOW #1 + 3
- 4 SECTION W/ RT ARROW NOW #6
- SIGNS K+L BACK TO BACK. TYPE A
- TABLE OF OPERATIONS
- TABLE OF HEADS + CABLE

FACES

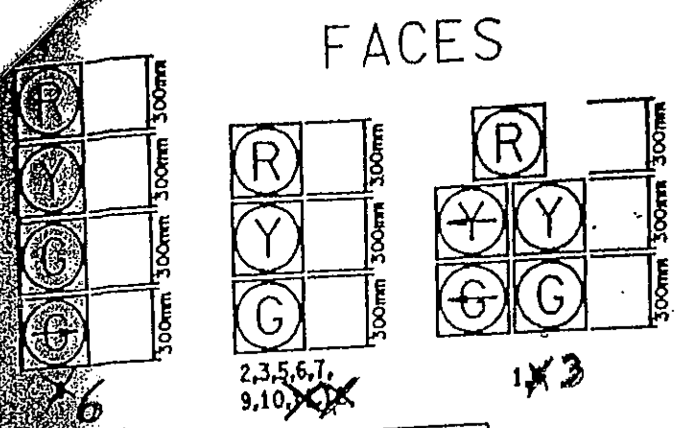


TABLE OF SIGNS			
HEAD	ITEM	MUTCD	TEXT
Ⓚ Ⓛ	680.8201	R3-22C	ONLY
Ⓙ	680.8201	R3-24C	ONLY
Ⓘ	680.8201	R3-7C	NO TURN ON RED

BACK TO BACK. *

POLE	STATION, OFFSET, SIDE	ELEV.
1	3+674.566, 14.806, LT	86.120
2	3+723.000, 16.000, RT	85.211

TABLE OF CLEARANCES

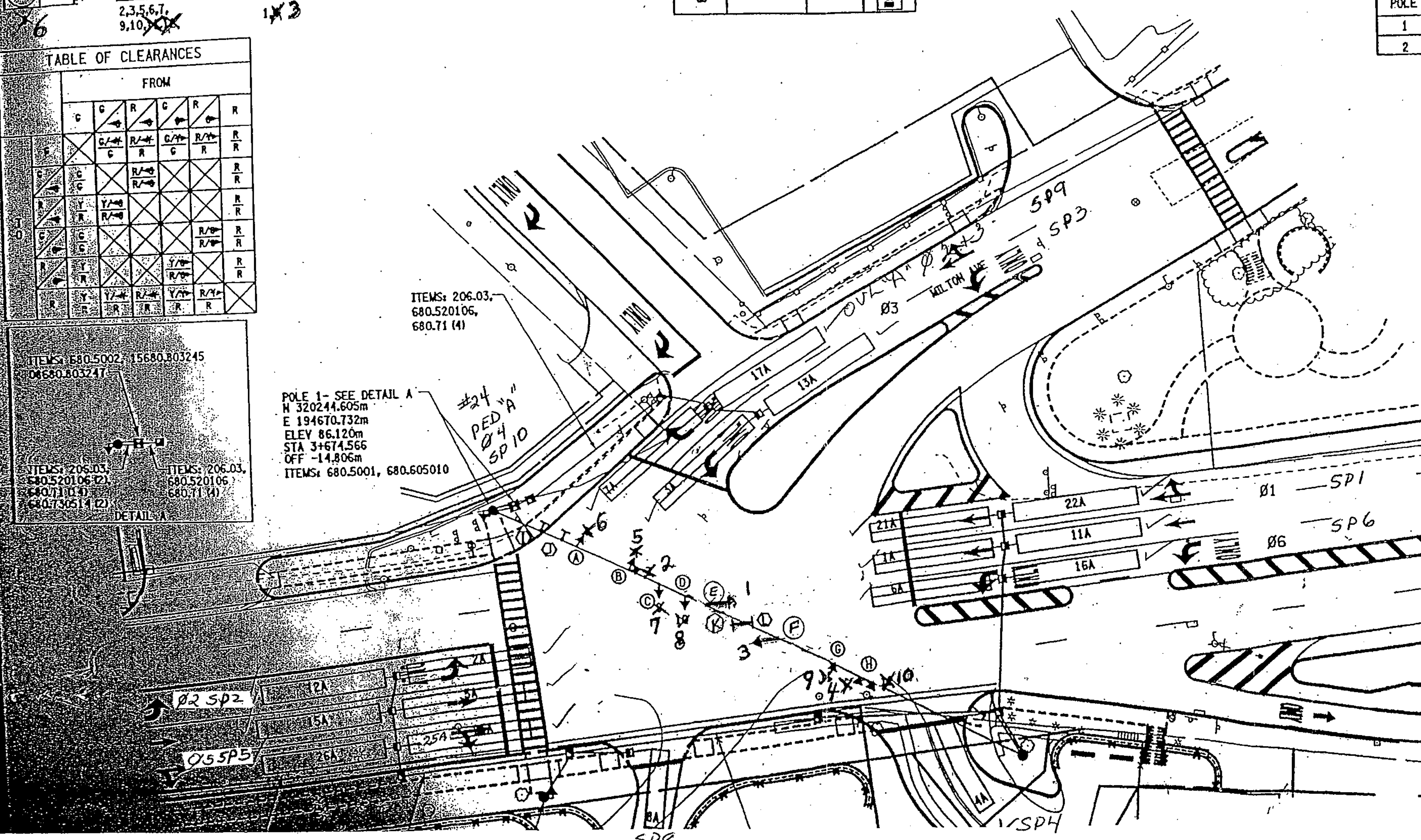
TO \ FROM	G	G/←	R/←	G/→	R/→	R
G	X	G/← / G	R/← / R	G/→ / G	R/→ / R	R / R
G/←	G / G	X	R/← / R/←	X	X	R / R
R/←	Y / R	Y/← / R/←	X	X	X	R / R
G/→	G / G	X	X	X	R/→ / R/→	R / R
R/→	Y / R	X	X	Y/→ / R/→	X	R / R
R	Y / R	Y/← / R	R/← / R	Y/→ / R	R/→ / R	X

TABLE OF OPE

PHASE	1	2
Ø1	G (R struck)	G
Ø5	R	R
Ø2	R	R
Ø6	R/←	R
Ø1 + Ø5	R	G
Ø2 + Ø5	R	R
Ø1 + Ø6	G/←	G
Ø2 + Ø6	R/←	R
Ø3	R	R
Ø4	R	R
Ø8	R	R
FLASHING OPERATION	FL. Y	FL. Y

• THIS INDICATION SHALL BE A
FOLLOWED BY A FLASHING UPR
WHEN AN ASSOCIATED PEDESTRI

U-64
REVISED
8/19/04



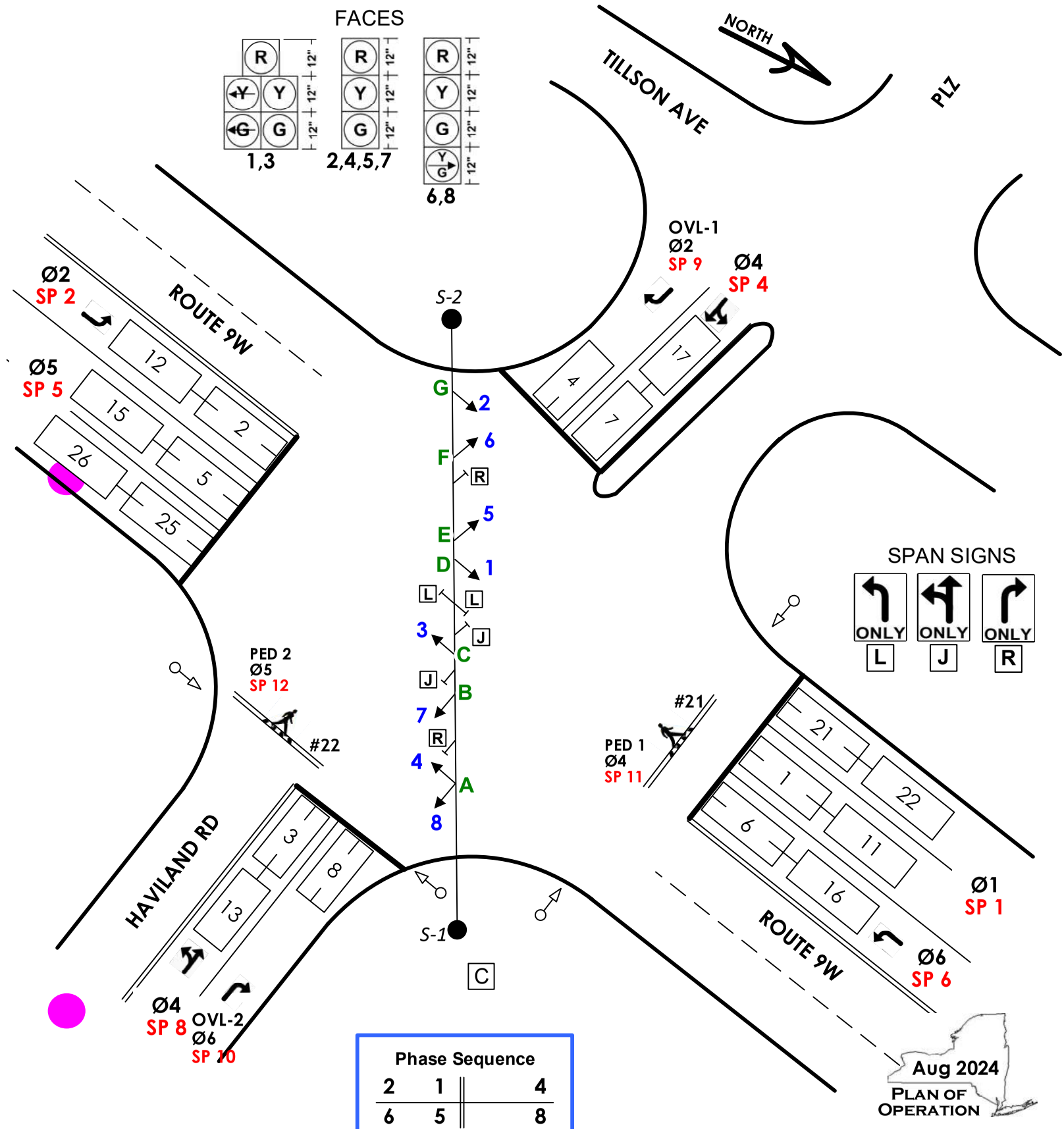
U-93
Signal #

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION

in the Town of **LLOYD**

Signal: **U-93**
File: 51.13-9W
D/HWP: xxx
PIN: xxx

Date: 9/5/2024



Phase Sequence

2	1	4
6	5	8

Aug 2024
PLAN OF OPERATION

Printed: 9/5/2024

NEMA SEQUENCE: 6 5 4 2 1 8

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	10	3		5	10	3	5	5
Gap, Ext	4	2		2	4	2	2	2
Max 1	40	20		30	40	20	10	30
Max 2								
Yel Clearance	5	5	3.5	5	5	5	5	5
Red Clearance	1	1	1.5	1	1	1	1	1
Walk				8	8			
Ped Clearance				20	21			
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	ON	ON		ON	ON	ON		
Min Recall	ON				ON			
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry	ON				ON			
Enable Simul Gap	ON	ON	ON	ON	ON	ON	ON	ON
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay				12				

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	4	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	4	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	6	5	1	4	2	1	24	8	36	0	0	0	1	48	0	0	0	1
Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	45	20	0	30	45	20	0	0	13	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	60	20	0	30	60	20	0	0	14	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

6093

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	Green	ON
2	1	Red	ON
3	1	Red	OFF
4	1	Red	ON
5	2	Green	ON
6	2	Red	ON
7	2	Red	OFF
8	2	Red	OFF

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	Float
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH_OVLP
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	User
Loc Flsh Start	ON
Start Flash(s)	0
Start AllRed(s)	3
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF		Overlap Lock Inhibit	OFF	Parent Ph Clearance	ON	Extra Included Ph	OFF

1	Included Ø	2	4							Type	NORMAL	9	Included Ø									Type	NORMAL
	Modifier Ø	4								Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	5		Conflict Ø									Yel	3.5
A	Conflict Olap									Red	1	I	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
2	Included Ø	6	4							Type	NORMAL	10	Included Ø									Type	NORMAL
	Modifier Ø	4								Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	5		Conflict Ø									Yel	3.5
B	Conflict Olap									Red	1	J	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
3	Included Ø									Type	NORMAL	11	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
C	Conflict Olap									Red	1.5	K	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
4	Included Ø									Type	NORMAL	12	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
D	Conflict Olap									Red	1.5	L	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
5	Included Ø									Type	NORMAL	13	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conf o0l									Yel	3.5		Conflict Ø									Yel	3.5
E	Conflict Olap									Red	1.5	M	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
6	Included Ø									Type	NORMAL	14	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
F	Conflict Olap									Red	1.5	N	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
7	Included Ø									Type	NORMAL	15	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
G	Conflict Olap									Red	1.5	O	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
8	Included Ø									Type	NORMAL	16	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
H	Conflict Olap									Red	1.5	P	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	

Channel Settings [1.8.1]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2		4	5	6		4	1	2	4	5												
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	PED	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	YEL	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22							EndGRN				
2	12	22							EndGRN				
3	12	22							EndGRN				
4	12	22							EndGRN				
5	12	22							EndGRN				
6	12	22							EndGRN				
7	12	22							EndGRN				
8	12	22							EndGRN				
9	12	22							EndGRN				
10	12	22							EndGRN				
11	12	22							EndGRN				
12	12	22							EndGRN				
13	12	22							EndGRN				
14	12	22							EndGRN				
15	12	22							EndGRN				
16	12	22							EndGRN				
17	12	22							EndGRN				
18	12	22							EndGRN				
19	12	22							EndGRN				
20	12	22							EndGRN				
21	12	22							EndGRN				
22	12	22							EndGRN				
23	12	22							EndGRN				
24	12	22							EndGRN				
25									BegGRN				
26									BegGRN				
27									BegGRN				
28									BegGRN				
29									BegGRN				
30									BegGRN				
31									BegGRN				
32									BegGRN				
33									BegGRN				
34									BegGRN				
35									BegGRN				
36									BegGRN				
37									BegGRN				
38									BegGRN				
39									BegGRN				
40									BegGRN				
41									BegGRN				
42									BegGRN				
43									BegGRN				
44									BegGRN				
45									BegGRN				
46									BegGRN				
47									BegGRN				
48									BegGRN				

Channel Params[1.8.3]

C1 IO Mode	User	Single BIU Map	DEFAULT	Invert Rail Input	OFF

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	1						45	50	40
2	2	5	2				45	50	10
3	4		3				45	50	25
4	4		3				45	50	25
5	5						45	50	40
6	6	1	2				45	50	10
7	4		10				45	50	25
8	4		10				45	50	25
9							45	50	2
10							45	50	2
11	1						45	50	40
12	2	5	2				45	50	10
13	4		2				45	50	25
14							45	50	2
15	5						45	50	40
16	6	1	2				45	50	10
17	4		2				45	50	25
18							45	50	2
19							45	50	
20							45	50	
21	1						45	50	40
22	1						45	50	40
23							45	50	
24							45	50	
25	5						45	50	40
26	5						45	50	40
27							45	50	
28							45	50	
29							45	50	
30							45	50	
31							45	50	
32							45	50	

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35							45	50	
36							45	50	
37							45	50	
38							45	50	
39							45	50	
40							45	50	
41							45	50	
42							45	50	
43							45	50	
44							45	50	
45							45	50	
46							45	50	
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	ON	ON		ON				
2	ON	ON		ON				
3	ON	ON		ON				
4	ON	ON		ON				
5	ON	ON		ON				
6	ON	ON		ON				
7	ON	ON		ON				
8	ON	ON		ON				
9	ON	ON		ON				
10	ON	ON		ON				
11	ON	ON		ON				
12	ON	ON		ON				
13	ON	ON		ON				
14	ON	ON		ON				
15	ON	ON		ON				
16	ON	ON		ON				
17	ON	ON		ON				
18	ON	ON		ON				
19	ON	ON		ON				
20	ON	ON		ON				
21	ON	ON		ON				
22	ON	ON		ON				
23	ON	ON		ON				
24	ON	ON		ON				
25	ON	ON		ON				
26	ON	ON		ON				
27	ON	ON		ON				
28	ON	ON		ON				
29	ON	ON		ON				
30	ON	ON		ON				
31	ON	ON		ON				
32	ON	ON		ON				

Vehicle Options 1-64 [5.2]

Det #	vol	occ	Yell Lock	Red Lock	Ext	Add Init	Que	Call
33					ON	ON		ON
34					ON	ON		ON
35					ON	ON		ON
36					ON	ON		ON
37					ON	ON		ON
38					ON	ON		ON
39					ON	ON		ON
40					ON	ON		ON
41					ON	ON		ON
42					ON	ON		ON
43					ON	ON		ON
44					ON	ON		ON
45					ON	ON		ON
46					ON	ON		ON
47					ON	ON		ON
48					ON	ON		ON
49					ON	ON		ON
50					ON	ON		ON
51					ON	ON		ON
52					ON	ON		ON
53					ON	ON		ON
54					ON	ON		ON
55					ON	ON		ON
56					ON	ON		ON
57					ON	ON		ON
58					ON	ON		ON
59					ON	ON		ON
60					ON	ON		ON
61					ON	ON		ON
62					ON	ON		ON
63					ON	ON		ON
64					ON	ON		ON

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	2
30						NORM	6
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1	4		15	
2	5		15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	Dwell		
2	ON	RAIL	Dwell		
3	ON	EMERG	Dwell		
4	ON	EMERG	Dwell		
5	ON	EMERG	Dwell		
6	ON	EMERG	Dwell		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr+	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	OFF
Pre Invert Rail Input	None

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases	Track Overlaps
1		
2		
3		
4		
5		
6		

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #		
1	Phases	
	Overlaps	
	Peds	
2	Phases	
	Overlaps	
	Peds	
3	Phases	
	Overlaps	
	Peds	
4	Phases	
	Overlaps	
	Peds	
5	Phases	
	Overlaps	
	Peds	
6	Phases	
	Overlaps	
	Peds	

Exit Phases [3.2]

Pre #	Exit Phase
1	
2	
3	
4	
5	
6	

Preemption 1, Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwell	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Alt# 1 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Annual Schedule [4.3] — **Month of Year** — **Day of Week** — **Date**

	Month of Year												Day of Week							Date																												Day Plan	Link To
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
1	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	1	
2	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON						ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	2	
3	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
4	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
5	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
6	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
7	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
8	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
9	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
10	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
11	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
12	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
13	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
14	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
15	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
16	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
17	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
18	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
19	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
20	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
21	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
22	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
23	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
24	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	

Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	1	9	0	0	0
2	15	0	2	10	0	0	0
3	18	30	1	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1	0	0	1	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

Pat#	ØOpt	ØTime	DetG	Call Inh	CIC	CNA1	Overlap Off 1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	ON	ON
2	Stop Timing	ON	ON
3	TS1 Cabinet Door		
4	Coordination Failure	ON	ON
5	External Alarm # 1	ON	ON
6	External Alarm # 2	ON	ON
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled	ON	
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	ON	ON
13	Coord Free Input		
14	Local Flash Input	ON	ON
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault	ON	
18	Cycle Failure	ON	
19	Coordination Fault	ON	
20	Controller Fault	ON	ON
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	ON	ON
26	Detector Diagnostic Failure		
27	BIU Detector Failure	ON	ON
28	Queue detector alarm	ON	
29	Ped Detector Fault	ON	
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active	ON	
49	Preempt 1 Input	ON	
50	Preempt 2 Input	ON	
51	Preempt 3 Input	ON	
52	Preempt 4 Input	ON	
53	Preempt 5 Input	ON	
54	Preempt 6 Input	ON	
55	Preempt 7 Input	ON	
56	Preempt 8 Input	ON	
57	Preempt 9 Input	ON	
58	Preempt 10 Input	ON	
61	In Transition	ON	
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Phases Called By Ø			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	Alarm
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	Alarm		
Enable Run Timer	ON		

C1-USER IO Map [1.8.9.1 In]

I1-1	1	Veh Call 1
I1-2	2	Veh Call 2
I1-3	3	Veh Call 3
I1-4	4	Veh Call 4
I1-5	5	Veh Call 5
I1-6	6	Veh Call 6
I1-7	7	Veh Call 7
I1-8	8	Veh Call 8
I2-1	189	Unused
I2-2	189	Unused
I2-3	11	Veh Call 11
I2-4	12	Veh Call 12
I2-5	13	Veh Call 13
I2-6	189	Unused
I2-7	15	Veh Call 15
I2-8	16	Veh Call 16
I3-1	17	Veh Call 17
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	21	Veh Call 21
I3-6	22	Veh Call 22
I3-7	129	Ped Call 1
I3-8	130	Ped Call 2
I4-1	189	
I4-2		
I4-3		
I4-4		
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	25	Veh Call 25
I5-2	26	Veh Call 26
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	115	Not Used
O5-6	115	Not Used
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	115	Not Used
O7-2	115	Not Used
O7-3	115	Not Used
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	115	Not Used

C11S-USER IO Map [1.8.9.1 In]

I4-1		
I4-2		
I4-3		
I4-4		
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Op1	Result		O1Fcn	Inv1	Src1	IO1	Fun1	O2Fcn	Inv2	Src2	IO2	Fun2	O3Fcn	Inv3	Src3	IO3	Fun3	Dly	Sec
I	0	=	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	=	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	=	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	=	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	=	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	=	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	=	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	=	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	=	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	=	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0

Security Access Levels [8.2]

1	SWLOAD	22	None	43	None
2	SECURE	23	None	44	None
3	None	24	None	45	None
4	None	25	None	46	None
5	None	26	None	47	None
6	None	27	None	48	None
7	None	28	None	49	None
8	None	29	None	50	None
9	None	30	None	51	None
10	None	31	None	52	None
11	None	32	None	53	None
12	None	33	None	54	None
13	None	34	None	55	None
14	None	35	None	56	None
15	None	36	None	57	None
16	None	37	None	58	None
17	None	38	None	59	None
18	None	39	None	60	None
19	None	40	None	61	None
20	None	41	None	62	None
21	None	42	None	63	None
				64	None

Com Parameters [6.1]

Station ID	6093
Group ID	0
Master ID	0
Backup Time	900

SysUp Modem [6.1]

Enable Modem	None
Idle Time	0
Dial Time	0
Tel:	
Alt:	

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	6
SP2	9600	6
SP3	19200	6
SP4	38400	6
SP5	1200	0
SP6	1200	0
SP7	1200	0
SP8	1200	0

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	###			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	5001			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	None	0
ASYNC2	SP2	None	0
ASYNC3	SP3	None	0
ASYNC4	SP4	None	0
SYNC1	SP5S	SYNC3	OFF
SYNC2	OFF	SYNC4	OFF

2070 Port Binding Functions [6.6]

Functio	Channel	Function	Channel
TS2/CVI	None	SYSUp	ASYNC2
CMU/MM	None	SYSDow	ASYNC1
Opticom	None	Shell	None
Loop De	None		
GPS	None		

U-93
Signal #

Date: 9/5/2024

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

TABLE OF SWITCH PACKS

Signal: **U-93**
File: 51.13-9W
D/HWP: xxx
PIN: xxx

SWITCH PACK	FUNCTION	INDICATIONS	FACE	TERMINAL	WIRE COLOR CODE	FACE	TERMINAL	WIRE COLOR CODE
1 (1 ← Flash Pack Flash Plug → Y)	Ø1	Red ●	1	SP 1 R	14 / 10C – D – R	2	SP 1 R	14 / 05C – G – R
		Yellow ●		SP 1 Y	– O		SP 1 Y	– O
		Green ●		SP 1 G	– G		SP 1 G	– G
		Neutral Wire		Neutral Bus	– W		Neutral Bus	– W
2 (1 W)	Ø2	- - - - -	3	SP 2 R	- - - - -		SP 2 R	
		Yellow ←		SP 2 Y	14 / 10C – C – O/B		SP 2 Y	
		Green ←		SP 2 G	– G/B		SP 2 G	
		Neutral Wire		Neutral Bus	– W/B		Neutral Bus	
3 (1 -)				SP 3 R			SP 3 R	
				SP 3 Y			SP 3 Y	
				SP 3 G			SP 3 G	
		Neutral Wire		Neutral Bus			Neutral Bus	
4 (2 R)	Ø4	Red ●	5	SP 4 R	14 / 19C – C – B/R	6	SP 4 R	14 / 10C – F – R
		Yellow ●		SP 4 Y	– O/R		SP 4 Y	– O
		Green ●		SP 4 G	– BL/R		SP 4 G	– G
		Neutral Wire		Neutral Bus	– W/R		Neutral Bus	– W
5 (2 Y)	Ø5	Red ●	3	SP 5 R	14 / 10C – C – R	4	SP 5 R	14 / 15C – A – R
		Yellow ●		SP 5 Y	– O		SP 5 Y	– O
		Green ●		SP 5 G	– G		SP 5 G	– G
		Neutral Wire		Neutral Bus	– W		Neutral Bus	– W
6 (2 W)	Ø6	- - - - -	1	SP 6 R	- - - - -		SP 6 R	
		Yellow ←		SP 6 Y	14 / 10C – D – O/B		SP 6 Y	
		Green ←		SP 6 G	– G/B		SP 6 G	
		Neutral Wire		Neutral Bus	– W/B		Neutral Bus	
7 (2 -)				SP 7 R			SP 7 R	
				SP 7 Y			SP 7 Y	
				SP 7 G			SP 7 G	
		Neutral Wire		Neutral Bus			Neutral Bus	
8 (1 R)	Ø4	Red ●	7	SP 8 R	14 / 05C – B – R	8	SP 8 R	14 / 15C – A – R/B
		Yellow ●		SP 8 Y	– O		SP 8 Y	– O/B
		Green ●		SP 8 G	– G		SP 8 G	– G/B
		Neutral Wire		Neutral Bus	– W		Neutral Bus	– W/B
9 (1 W)	OVL 1 Ø2 + Ø4	- - - - -	6	SP 9 R	- - - - -		SP 9 R	
		Yellow →		SP 9 Y	14 / 10C – F – O/B		SP 9 Y	
		Green →		SP 9 G	– G/B		SP 9 G	
		Neutral Wire		Neutral Bus	– W/B		Neutral Bus	
10 (1 W)	OVL 3 Ø4 + Ø6	- - - - -	8	SP 10 R	- - - - -		SP 10 R	
		Yellow →		SP 10 Y	14 / 15C – A – BL/W		SP 10 Y	
		Green →		SP 10 G	– G/W		SP 10 G	
		Neutral Wire		Neutral Bus	– B/W		Neutral Bus	
11 (2 W)	PED-1 Ø4	Hand ✋	21	SP 11 R	14 / 05C – 1P – R		SP 11 R	
		- - - - -		SP 11 Y	– O		SP 11 Y	
		Man 🚶		SP 11 G	– G		SP 11 G	
		Neutral Wire		Neutral Bus	– W		Neutral Bus	
12 (2 W)	PED-2 Ø5	Hand ✋	22	SP 12 R	14 / 05C – 2P – R		SP 12 R	
		- - - - -		SP 12 Y	- - - - -		SP 12 Y	
		Man 🚶		SP 12 G	– G		SP 12 G	
		Neutral Wire		Neutral Bus	– W		Neutral Bus	
13 (1 -)				SP 13 R			SP 13 R	
				SP 13 Y			SP 13 Y	
				SP 13 G			SP 13 G	
		Neutral Wire		Neutral Bus			Neutral Bus	
14 (2 -)				SP 14 R			SP 14 R	
				SP 14 Y			SP 14 Y	
				SP 14 G			SP 14 G	
		Neutral Wire		Neutral Bus			Neutral Bus	
15 (- -)				SP 15 R			SP 15 R	
				SP 15 Y			SP 15 Y	
				SP 15 G			SP 15 G	
		Neutral Wire		Neutral Bus			Neutral Bus	
16 (- -)				SP 16 R			SP 16 R	
				SP 16 Y			SP 16 Y	
				SP 16 G			SP 16 G	
		Neutral Wire		Neutral Bus			Neutral Bus	

U-93
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **U-93**
File: 51.13-9W
D/HWP: xxx
PIN: xxx

TRAFFIC SIGNAL MONITOR PROGRAMMING

Date: 9/5/2024

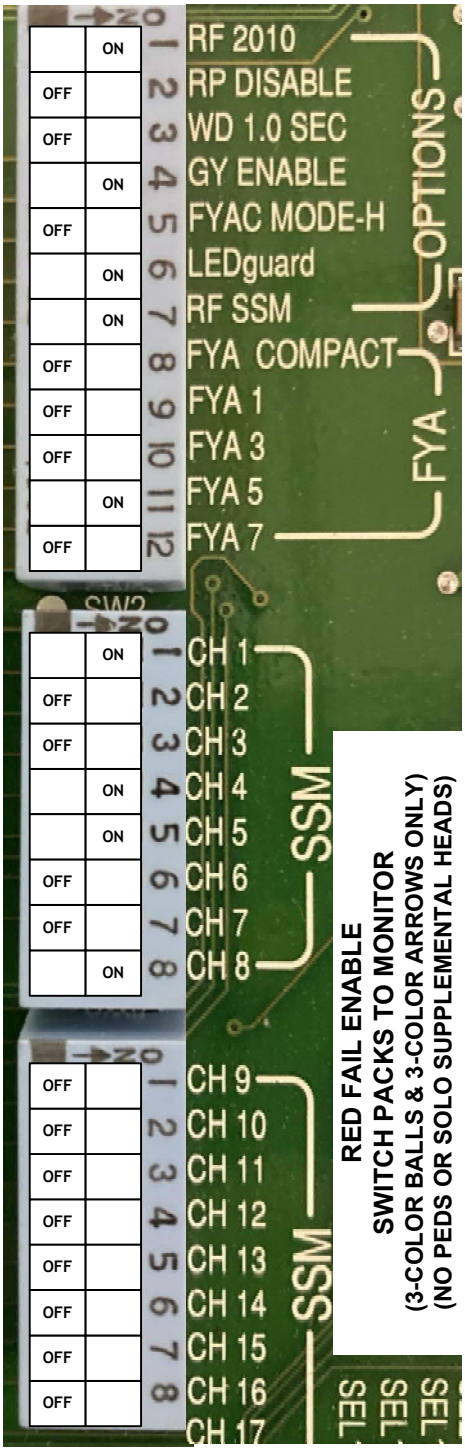
CONFLICT MONITOR DIODES TO BE CUT (SWITCH PACKS TO RUN TOGETHER)			YELLOW DISABLE: WIRE JUMPERS TO BE INSTALLED FOR PEDS WITHOUT FYA	
1-5	6-10		1	
1-6			2	
1-12	8-10		3	
	8-11		4	
2-5			5	
2-6			6	
2-9			7	
			8	
4-8			9	
4-9			10	
4-10			11	X
4-11			12	X
			13	
5-12			14	
			15	
			16	

CURRENT MONITOR BOARD (IF USED)
CURRENT MONITOR DIODES TO BE CUT (SWITCH PACKS TO *NOT* MONITOR)
2-3, 6-7, 9-16

FYA MODE H PAIRINGS

Notes:

210NYR MONITOR BOARD
(CONFLICT MONITOR DIP SWITCHES)



U-93
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **U-93**
File: 51.13-9W
D/HWP: xxx
PIN: xxx

Date: 9/5/2024

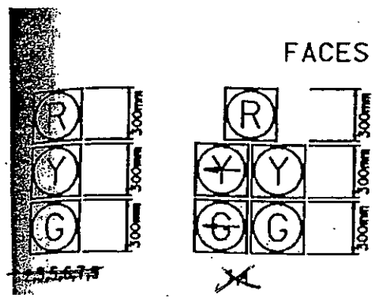
TABLE OF INPUT WIRING

TERMINAL NUMBER	FUNCTION	DET. NO.	DETECTOR TYPE	REMARKS
1A, 1B	**Ø1**	1	QUADRAPOLE	PRESENCE LOOP
2A, 2B	**Ø2**	2	QUADRAPOLE	PRESENCE LOOP
3A, 3B	**Ø4**	3	QUADRAPOLE	PRESENCE LOOP
4A, 4B	**Ø4**	4	QUADRAPOLE	PRESENCE LOOP
5A, 5B	**Ø5**	5	QUADRAPOLE	PRESENCE LOOP
6A, 6B	**Ø6**	6	QUADRAPOLE	PRESENCE LOOP
7A, 7B	**Ø4**	7	QUADRAPOLE	PRESENCE LOOP
8A, 8B	**Ø4**	8	QUADRAPOLE	PRESENCE LOOP
9A, 9B		9		
10A, 10B		10		
11A, 11B	**Ø1**	11	NORMAL	PRESENCE LOOP
12A, 12B	**Ø2**	12	NORMAL	PRESENCE LOOP
13A, 13B	**Ø4**	13	NORMAL	PRESENCE LOOP
14A, 14B		14		
15A, 15B	**Ø5**	15	NORMAL	PRESENCE LOOP
16A, 16B	**Ø6**	16	NORMAL	PRESENCE LOOP
17A, 17B	**Ø4**	17	NORMAL	PRESENCE LOOP
18A, 18B		18		
19A, 19B		19		
20A, 20B		20		
21A, 21B	**Ø1**	21	QUADRAPOLE	PRESENCE LOOP
22A, 22B	**Ø1**	22	NORMAL	PRESENCE LOOP
23A, 23B	**PED 1 – Ø4**	23	BUTTON	PEDESTRIAN
24A, 24B	**PED 2 – Ø5**	24	BUTTON	PEDESTRIAN
25A, 25B	**Ø5**	25	QUADRAPOLE	PRESENCE LOOP
26A, 26B	**Ø5**	26	NORMAL	PRESENCE LOOP
27A, 27B		27		
28A, 28B		28		

U-93

REVISIONS 8/19/04

- NUMBER OF FACES FROM 10 TO 8
- 5 SECTION W/ LEFT ARROW NOW #1+3
- 4 SECION W/ RT. ARROW NOW #6+8
- SIGNS I, J+K NOW TYPE B ASSEMBLY
- TABLE OF OPERATIONS REVISED
- TABLE OF HEADS + CABLE RIVISED



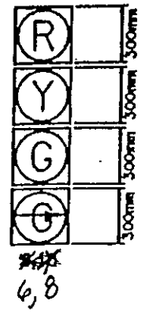
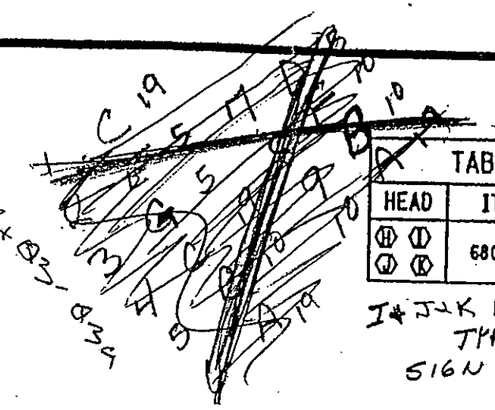
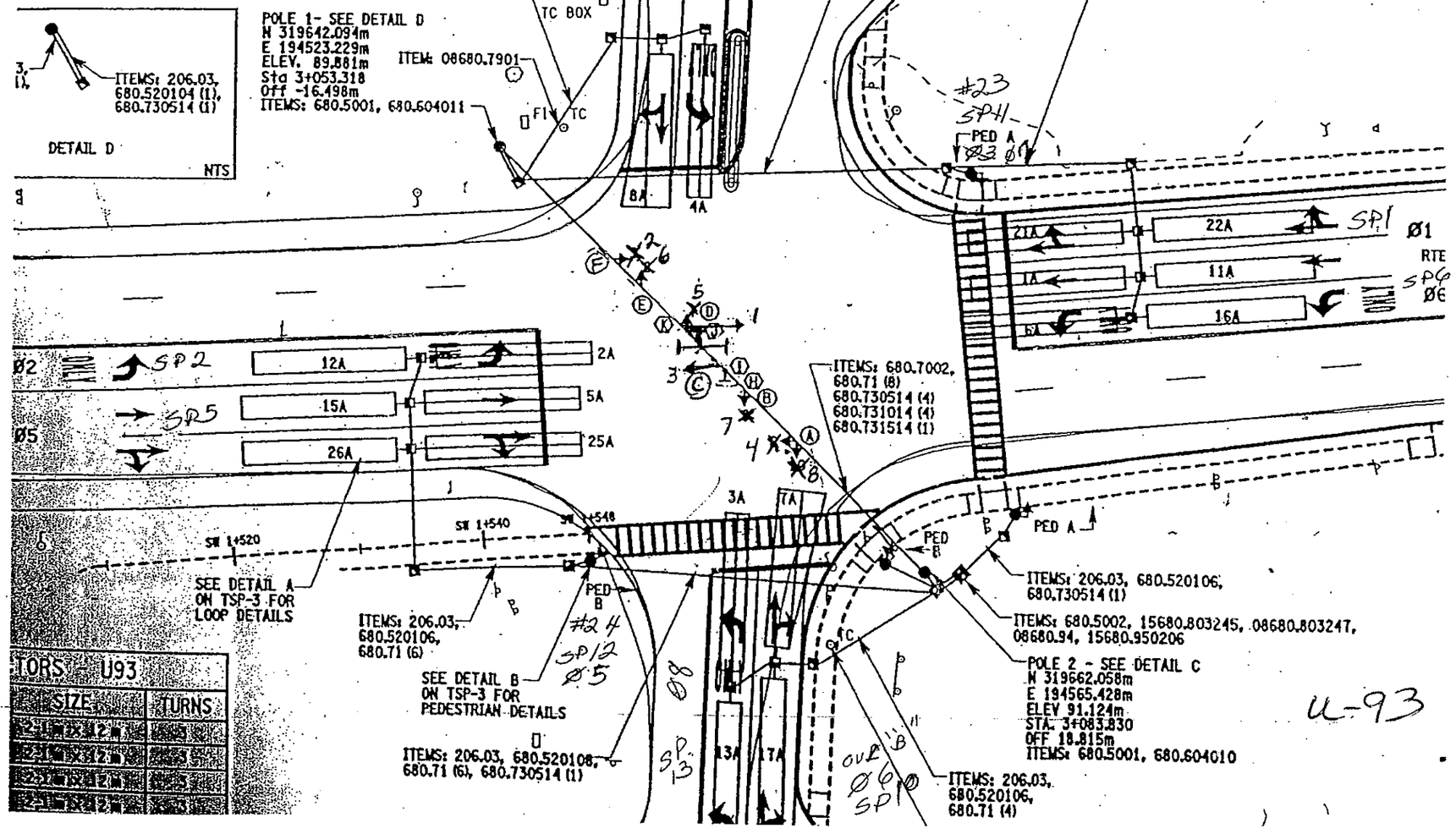


TABLE OF CLEARANCES

TO \ FROM	G	G	R	G	R	R
G	X	G/R / G	R/R / R	G/R / G	R/R / R	R / R
G	G / G	X	R/R / R/R	X	X	R / R
R	Y / R	Y/R / R/R	X	X	X	R / R
G	G / G	X	X	X	R/R / R/R	R / R
R	Y / R	X	X	Y/R / R/R	X	R / R
R	Y / R	Y/R / R	R/R / R	Y/R / R	R/R / R	X



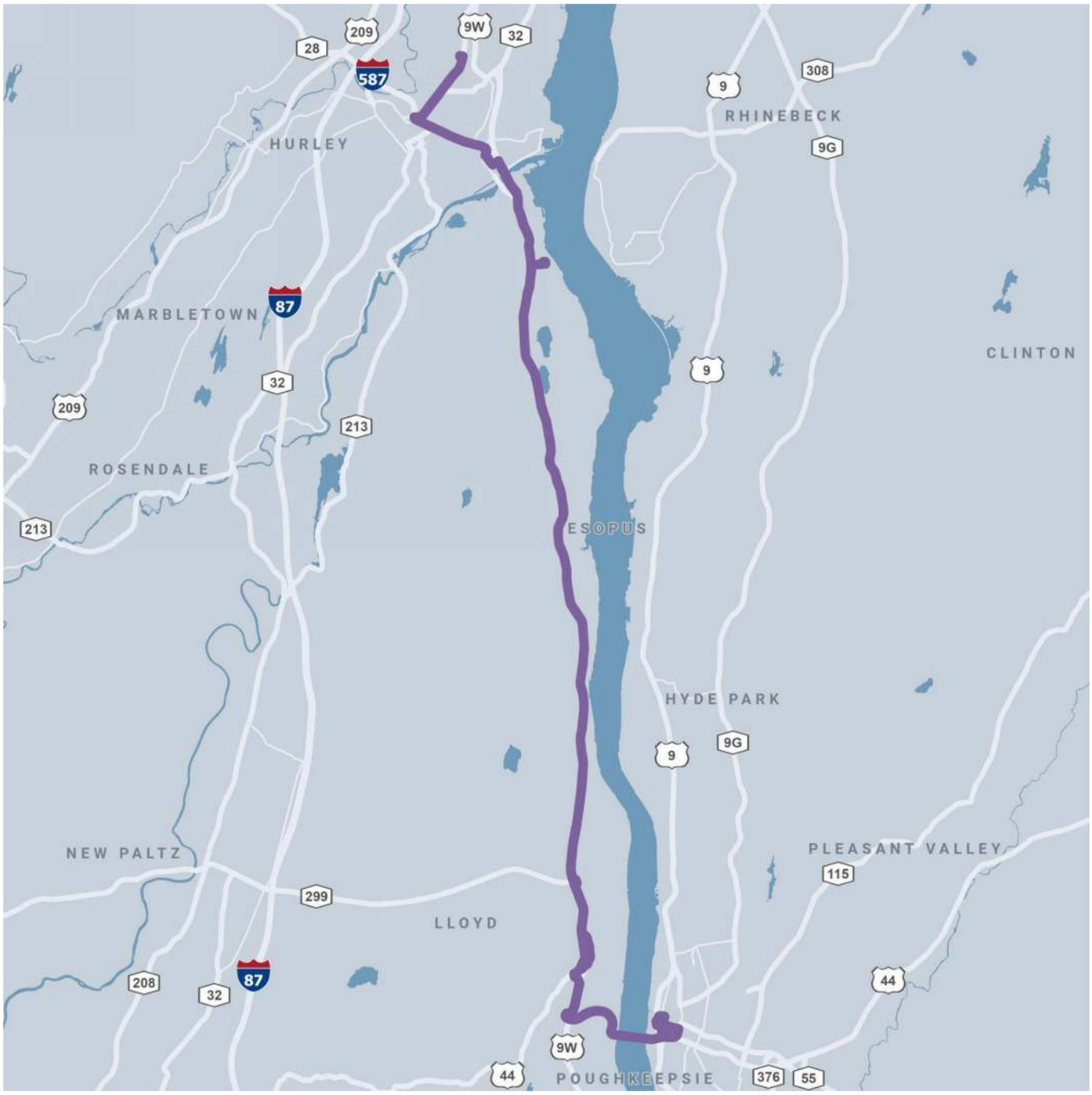


U-93

APPENDIX C

TRANSIT TIMETABLE

KPL Route



UPDATED 1/16/2026

KPL : KINGSTON – HIGHLAND – POUGHKEEPSIE TRAIN STATION						
Golden Hill	5:20	–	–	1:20	–	–
Kingston Plaza @ Hannaford	5:30	7:35	10:35	1:35	3:35	6:35
Broadway @ Kingston City Hall	5:35	7:40	10:40	1:40	3:40	6:40
Garraghan Dr. @ Police Station	5:40	7:45	10:45	1:45	3:45	6:45

Port Ewen: 9W @ BOCES	5:45	7:50	10:50	1:50	3:50	6:50
Birches Port Ewen	*	*	*	*	*	*
Highland Park & Ride	6:05	8:10	11:10	2:10	4:00	7:00
Milton Ave. @ Vineyard Ave.	6:07	8:12	11:12	2:12	4:02	7:02
Route 9W @ Haviland-Tillson Ave.	6:08	8:13	11:13	2:13	4:03	7:03
Poughkeepsie Train Station	6:20	8:30	11:30	2:30	4:20	7:20

KPL : POUGHKEEPSIE TRAIN STATION – HIGHLAND – KINGSTON						
Poughkeepsie Train Station	6:25	9:15	12:15	2:35	5:15	8:15
Route 9W @ Haviland-Tillson Ave.	6:35	9:25	12:25	2:45	5:25	8:25
Milton Ave. @ Vineyard Ave.	6:37	9:27	12:27	–	5:27	8:27
Highland Park & Ride	6:42**	9:32**	12:32**	*	5:32**	8:32**
Birches Port Ewen	*	*	*	*	*	*
Port Ewen: 9W @ BOCES	6:55	9:55	12:55	3:00	5:55	8:55
Garraghan Dr. @ Police Station	7:00	10:00	1:00	3:05	6:00	9:00
Broadway @ Kingston City Hall	7:02	10:02	1:02	3:07	6:02	9:02
Development Court	7:15**	10:15**	1:15	3:15	6:15**	9:15
Golden Hill	–	–	1:20	–	–	–

* On Request

** Connections Available

UPDATED 10/16/2025

SATURDAY KPL ROUTE: KINGSTON — HIGHLAND — POUGHKEEPSIE TRAIN STATION					
Golden Hill	7:50	–	–	–	–
Kingston Plaza	8:00	10:00	12:00	2:00	4:00
Broadway @ Kingston Hospital	8:05	10:05	12:05	2:05	4:05
Garraghan Dr @ Police Station	8:09	10:09	12:09	2:09	4:09
Port Ewen: 9W @ BOCES	8:12	10:12	12:12	2:12	4:12
Highland Park & Ride	8:25	10:25	12:25	2:25	4:25
Poughkeepsie Train Station	8:40	10:40	12:40	2:40	4:40

SATURDAY KPL ROUTE: POUGHKEEPSIE TRAIN STATION — HIGHLAND — KINGSTON					
Poughkeepsie Train Station	9:00	11:00	1:00	3:00	5:00
Highland Park & Ride	9:10	11:10	1:10	3:10	5:10
Port Ewen: 9W @ BOCES	9:25	11:25	1:25	3:25	5:25
Garraghan Dr @ Police Station	9:29	11:29	1:29	3:29	5:29
Broadway @ Kingston Hospital	9:31	11:31	1:31	3:31	5:31
Kingston Plaza	9:40	11:40	1:40	3:40	5:40
Golden Hill	–	–	–	–	5:50

UPDATED 10/16/2025

SUNDAY K/UPL: KINGSTON — NEW PALTZ — TRAIN STATION				
Golden Hill	7:40	–	–	–
Rosendale Park & Ride	7:55	–	1:20	–
NP Stewarts Rt 32 Southbound	8:05	–	1:40	–
SUNY New Paltz: Campus Tran Hub	8:10	–	1:45	–
Kingston Plaza @ Hannaford	–	10:30	–	4:10
Broadway @ Kingston Hospital	–	10:35	–	4:15
Garraghan Dr @ Police Station	–	10:40	–	4:20
Port Ewen: 9W @ BOCES	–	10:50	–	4:30
Highland Park & Ride	8:25	11:05	2:00	4:45
Poughkeepsie Train Station	8:45	11:20	2:15	5:00
Main & Market	8:50	11:25	2:20	–

SUNDAY K/UPL: TRAIN STATION — NEW PALTZ — KINGSTON				
Poughkeepsie Train Station	9:00	12:00	3:00	5:00
Main St @ Market St (Bus Depot)	9:05	–	3:05	–
Highland Park & Ride	9:15	12:15	3:15	5:15
SUNY New Paltz: Campus Tran Hub	9:30	–	3:30	–
NP Stewarts Rt 32 Southbound	9:35	–	3:35	–

Rosendale Park & Ride	9:45	–	3:45	–
Port Ewen: 9W @ BOCES	–	12:30	–	5:30
Garraghan Dr @ Police Station	–	12:35	–	5:35
Broadway @ Kingston Hospital	–	12:37	–	5:37
Kingston Plaza @ Hannaford	10:00	1:00	4:00	6:00
Golden Hill	–	–	–	6:30

Title VI Complaint Form

Customer Satisfaction Survey

Toll Free: 888-827-8228
TTY: 800-662-1220
Fax: 845-340-3336
Email: ucat@co.ulster.ny.us
Twitter: @UCAreaTransit
Facebook: link

UCAT Smartphone App

Find your stop, get alerts, and locate your bus in real-time with the Bus Tracker!

APPENDIX D

TURNING MOVEMENT COUNT DATA

National Data & Surveying Services

Intersection Turning Movement Count

Location: US 9W/US 44/SR 55/N Rte 9W & SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy
City: Highland
Control: Signalized

Project ID: 26-380010-002
Date: 3/10/2026

Data - Total

EW/NS Streets:	SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy					SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy										US 9W/US 44/SR 55/N Rte 9W					US 9W/US 44/SR 55/N Rte 9W					
AM	EASTBOUND					WESTBOUND					WESTBOUND2					NORTHBOUND					SOUTHBOUND					
	1	0	1	0	0	0	1	0	0	0						1	1.5	0.5	0	0	1	2	1	0	0	
	EL	ET	ER	EU	ET2	WL	WT	WR	WU	WU2	W2U	W2L2	W2T2	W2R2	W2U2	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	TOTAL
6:00 AM	1	0	12	0	0	0	0	0	0	0	0	0	0	0	0	3	84	0	0	0	0	111	2	0	0	213
6:15 AM	2	0	20	0	0	0	0	0	0	0	0	0	0	0	0	7	152	0	0	0	0	137	0	0	0	318
6:30 AM	3	0	18	0	0	0	0	0	0	0	0	0	0	0	0	12	160	0	0	0	0	197	1	0	0	391
6:45 AM	2	1	18	0	0	0	0	0	0	0	0	0	0	0	0	20	173	0	0	0	0	196	1	0	0	411
7:00 AM	2	0	20	0	0	1	0	0	0	0	0	0	0	0	0	20	184	1	0	0	0	173	1	0	0	402
7:15 AM	7	0	36	0	0	1	0	0	0	0	0	0	0	0	0	41	217	1	0	0	0	259	0	0	0	562
7:30 AM	9	0	43	0	0	0	0	0	0	0	0	0	0	0	0	29	273	0	0	0	0	290	0	0	0	644
7:45 AM	7	0	24	0	0	0	0	0	0	0	0	0	0	0	0	16	246	0	0	0	0	249	0	0	0	542
8:00 AM	7	0	26	0	0	0	0	0	0	0	0	0	0	0	0	24	245	0	0	0	0	241	1	1	0	545
8:15 AM	9	1	24	0	0	1	0	0	0	0	0	0	0	0	0	19	266	0	0	0	0	242	1	0	0	563
8:30 AM	8	0	28	0	0	0	0	0	0	0	0	0	0	0	0	17	250	3	0	0	0	253	3	0	0	562
8:45 AM	3	0	21	0	0	0	0	0	0	0	0	0	0	0	0	23	262	0	0	0	0	278	5	2	0	594
	EL	ET	ER	EU	ET2	WL	WT	WR	WU	WU2	W2U	W2L2	W2T2	W2R2	W2U2	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	TOTAL
TOTAL VOLUMES :	60	2	290	0	0	3	0	0	0	0	0	0	0	0	0	231	2512	5	0	0	0	2626	15	3	0	5747
APPROACH %'s :	17.05%	0.57%	82.39%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%						8.41%	91.41%	0.18%	0.00%	0.00%	0.00%	99.32%	0.57%	0.11%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																									TOTAL
PEAK HR VOL :	32	1	117	0	0	1	0	0	0	0	0	0	0	0	0	88	1030	0	0	0	0	1022	2	1	0	2294
PEAK HR FACTOR :	0.889	0.250	0.680	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.759	0.943	0.000	0.000	0.000	0.000	0.881	0.500	0.250	0.000	0.891
			0.721							0.250								0.925					0.884			

PM	EASTBOUND					WESTBOUND										NORTHBOUND					SOUTHBOUND					
	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1.5	0.5	0	0	1	2	1	0	0	
	EL	ET	ER	EU	ET2	WL	WT	WR	WU	WU2	W2U	W2L2	W2T2	W2R2	W2U2	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	TOTAL
4:00 PM	6	1	50	0	0	0	1	0	0	0	0	0	0	0	0	44	296	0	0	0	1	274	2	0	0	675
4:15 PM	8	0	28	0	0	2	0	0	0	0	0	1	0	0	0	42	280	1	0	0	0	209	1	0	1	573
4:30 PM	9	0	28	0	0	0	0	0	0	0	0	0	0	1	0	43	291	0	0	1	0	305	3	0	0	681
4:45 PM	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	39	341	3	0	0	0	282	2	0	0	704
5:00 PM	4	0	37	0	0	2	0	1	0	0	0	0	0	0	0	34	270	1	0	0	0	244	1	1	0	595
5:15 PM	4	0	28	0	0	3	0	0	0	0	0	0	0	0	0	38	335	1	0	0	0	276	5	1	0	691
5:30 PM	3	0	28	0	0	1	0	1	0	0	0	0	0	0	0	34	293	1	0	0	0	259	2	0	0	622
5:45 PM	4	0	27	0	0	1	0	0	0	0	0	0	0	0	0	32	231	1	0	0	0	207	3	0	0	506
6:00 PM	3	0	21	0	0	0	0	2	0	0	0	0	0	0	0	30	159	1	0	0	0	165	1	2	0	384
6:15 PM	3	0	30	0	0	0	0	0	0	0	0	0	0	0	0	26	201	0	0	0	1	207	3	0	0	471
6:30 PM	3	0	24	0	0	0	0	0	0	0	0	0	0	0	0	29	204	0	0	0	0	166	4	0	0	430
6:45 PM	2	0	28	0	0	1	0	0	0	0	0	0	0	0	0	25	181	0	0	0	0	123	10	0	0	370
	EL	ET	ER	EU	ET2	WL	WT	WR	WU	WU2	W2U	W2L2	W2T2	W2R2	W2U2	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	TOTAL
TOTAL VOLUMES :	49	1	366	0	0	10	1	4	0	0	0	1	0	1	0	416	3082	9	0	1	2	2717	37	4	1	6702
APPROACH %'s :	11.78%	0.24%	87.98%	0.00%	0.00%	66.67%	6.67%	26.67%	0.00%	0.00%	0.00%	50.00%	0.00%	50.00%	0.00%	11.86%	87.86%	0.26%	0.00%	0.03%	0.07%	98.41%	1.34%	0.14%	0.04%	
PEAK HR :	04:30 PM - 05:30 PM																									TOTAL
PEAK HR VOL :	17	0	130	0	0	5	0	1	0	0	0	0	0	1	0	154	1237	5	0	1	0	1107	11	2	0	2671
PEAK HR FACTOR :	0.472	0.000	0.878	0.000	0.000	0.417	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.895	0.907	0.417	0.000	0.250	0.000	0.907	0.550	0.500	0.000	0.949
			0.896							0.583								0.912					0.909			

Prepared by National Data & Surveying Services

US 9W/US 44/SR 55/N Rte 9W & SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy

Peak Hour Turning Movement Count

ID: 26-380010-002
City: Highland

Day: Tuesday
Date: 3/10/2026

PEAK HOURS		COUNT PERIODS
AM	07:30 AM - 08:30 AM	6:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	4:00 PM - 07:00 PM

SOUTHBOUND – US 9W/US 44/SR 55/N Rte 9W

	Right	Thru	Left	U-Turn	Exit
AM	2	1022	0	1	1063
NOON	0	0	0	0	0
PM	11	1107	0	2	1257
Lanes	1	2	1	0	

EASTBOUND – SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy

	AM	NOON	PM	Lanes
Exit	90	0	165	
U-Turn	0	0	0	0
Left	32	0	17	1
Thru	1	0	0	0
Right	117	0	130	1

WESTBOUND – SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy

	Lanes	PM	NOON	AM
Right	0	1	0	0
Thru	1	0	0	0
Left	0	5	0	1
U-Turn	0	0	0	0
Exit		5	0	1

NORTHBOUND – US 9W/US 44/SR 55/N Rte 9W

	Exit	U-Turn	Left	Thru	Right
Lanes		0	1	1.5	0.5
PM	1242	0	154	1237	5
NOON	0	0	0	0	0
AM	1140	0	88	1030	0

CONTROL

Signalized

	AM	NOON	PM
TEV	2294	0	2669
PHF	0.89	0.00	0.95

Cars / HT

Movement	Cars (AM)	Cars (NOON)	Cars (PM)	HT (AM)	HT (NOON)	HT (PM)
SB Right	2	0	11	0	0	0
SB Thru	972	0	1078	50	0	29
SB Left	0	0	0	0	0	0
EB Left	30	0	17	2	0	0
EB Thru	0	0	0	1	0	0
EB Right	110	0	129	7	0	1
WB Right	0	0	1	0	0	0
WB Thru	0	0	0	0	0	0
WB Left	0	0	5	1	0	0
NB Left	88	0	153	0	0	1
NB Thru	959	0	121	71	0	21
NB Right	0	0	5	0	0	0

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North (westward)	0	0	0
North (eastward)	0	0	0
West (southward)	0	0	0
West (northward)	0	0	0
East (southward)	1	0	1
East (northward)	0	0	1
South (eastward)	1	0	1
South (westward)	2	0	1
NW corner	0	0	0
NE corner	0	0	0
SW corner	0	0	0
SE corner	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: US 9W/US 44/SR 55/N Rte 9W & Haviland Rd
City: Highland
Control: Signalized

Project ID: 26-380010-001
Date: 3/10/2026

Data - Total

EW/NS Streets:	Haviland Rd				Haviland Rd				US 9W/US 44/SR 55/N Rte 9W				US 9W/US 44/SR 55/N Rte 9W				
AM	EASTBOUND				WESTBOUND				NORTHBOUND				SOUTHBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	1.5	0.5	0	1	1.5	0.5	0	
	EL	ET	ER	EU	WL	WT	WR	WU	NL	NT	NR	NU	SL	ST	SR	SU	TOTAL
6:00 AM	1	7	18	0	9	2	1	0	2	90	12	0	4	114	0	0	260
6:15 AM	3	9	24	0	9	2	4	0	4	142	12	0	9	146	1	0	365
6:30 AM	5	4	29	0	24	0	2	0	4	153	11	0	7	193	0	0	432
6:45 AM	2	4	32	0	14	1	5	0	8	170	19	0	8	207	2	0	472
7:00 AM	1	12	32	0	20	3	8	0	17	197	11	1	11	181	3	0	497
7:15 AM	7	11	38	0	19	3	8	0	13	243	11	0	10	266	2	0	631
7:30 AM	8	10	55	0	25	4	6	0	10	285	14	0	18	262	0	0	697
7:45 AM	3	10	49	0	33	7	6	0	25	258	17	0	16	308	0	0	732
8:00 AM	2	11	42	0	23	8	9	0	15	234	18	0	16	239	5	0	622
8:15 AM	1	8	42	0	17	4	11	0	21	270	28	0	8	261	1	0	672
8:30 AM	7	9	58	0	15	8	11	0	17	235	25	0	16	254	1	0	656
8:45 AM	5	10	53	0	18	7	9	0	22	251	25	0	17	284	4	0	705
	EL	ET	ER	EU	WL	WT	WR	WU	NL	NT	NR	NU	SL	ST	SR	SU	TOTAL
TOTAL VOLUMES :	45	105	472	0	226	49	80	0	158	2528	203	1	140	2715	19	0	6741
APPROACH %'s :	7.23%	16.88%	75.88%	0.00%	63.66%	13.80%	22.54%	0.00%	5.47%	87.47%	7.02%	0.03%	4.87%	94.47%	0.66%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	14	39	188	0	98	23	32	0	71	1047	77	0	58	1070	6	0	2723
PEAK HR FACTOR :	0.438	0.886	0.855	0.000	0.742	0.719	0.727	0.000	0.710	0.918	0.688	0.000	0.806	0.869	0.300	0.000	0.930
	0.825				0.832				0.937				0.875				

PM	EASTBOUND				WESTBOUND				NORTHBOUND				SOUTHBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	1.5	0.5	0	1	1.5	0.5	0	
	EL	ET	ER	EU	WL	WT	WR	WU	NL	NT	NR	NU	SL	ST	SR	SU	TOTAL
4:00 PM	9	3	46	0	24	9	14	0	59	323	30	0	17	287	8	0	829
4:15 PM	4	8	47	0	21	10	8	0	55	310	27	0	11	242	9	0	752
4:30 PM	8	8	35	0	22	10	7	0	58	297	25	0	12	290	4	0	776
4:45 PM	4	7	40	0	14	5	3	0	57	383	43	0	11	326	6	0	899
5:00 PM	1	11	42	0	37	5	20	0	49	278	31	0	16	250	6	0	746
5:15 PM	6	10	30	0	17	8	11	0	59	343	27	0	16	283	7	0	817
5:30 PM	9	11	40	0	28	5	13	0	38	304	40	0	20	286	8	0	802
5:45 PM	2	6	33	0	33	5	12	0	47	256	25	0	15	214	7	0	655
6:00 PM	8	4	34	0	30	9	9	0	49	167	32	0	15	181	4	0	542
6:15 PM	6	4	27	0	25	3	5	0	37	225	18	0	13	220	6	0	589
6:30 PM	5	2	38	0	31	3	11	0	43	210	13	1	4	187	2	0	550
6:45 PM	2	9	29	0	21	6	7	0	31	197	7	0	7	145	4	0	465
	EL	ET	ER	EU	WL	WT	WR	WU	NL	NT	NR	NU	SL	ST	SR	SU	TOTAL
TOTAL VOLUMES :	64	83	441	0	303	78	120	0	582	3293	318	1	157	2911	71	0	8422
APPROACH %'s :	10.88%	14.12%	75.00%	0.00%	60.48%	15.57%	23.95%	0.00%	13.88%	78.52%	7.58%	0.02%	5.00%	92.74%	2.26%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	20	39	152	0	96	23	47	0	203	1308	141	0	63	1145	27	0	3264
PEAK HR FACTOR :	0.556	0.886	0.905	0.000	0.649	0.719	0.588	0.000	0.860	0.854	0.820	0.000	0.788	0.878	0.844	0.000	0.908
	0.879				0.669				0.855				0.900				

Prepared by National Data & Surveying Services

US 9W/US 44/SR 55/N Rte 9W & Haviland Rd

Peak Hour Turning Movement Count

ID: 26-380010-001
City: Highland

Day: Tuesday
Date: 3/10/2026

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	6:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 07:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	2723	0	3264
PHF	0.93	0.00	0.91

SOUTHBOUND — US 9W/US 44/SR 55/N Rte 9W

	Left	Thru	Right	U-Turn	Total	
AM	6	1070	58	0	1093	AM
NOON	0	0	0	0	0	NOON
PM	27	1145	63	0	1375	PM
	0.5	1.5	1	0		

EASTBOUND — Haviland Rd

	AM	NOON	PM
	100	0	253
0	0	0	0
0.5	14	0	20
0.5	39	0	39
1	188	0	152
	AM	NOON	PM

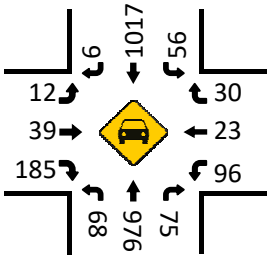
WESTBOUND — Haviland Rd

	PM	NOON	AM
1	47	0	32
0.5	23	0	23
0.5	96	0	98
0	0	0	0
	243	0	174
	PM	NOON	AM

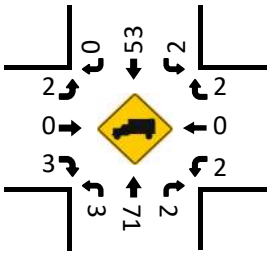
NORTHBOUND — US 9W/US 44/SR 55/N Rte 9W

	Left	U-Turn	Thru	Right	Total	
PM	1393	0	203	1308	141	PM
NOON	0	0	0	0	0	NOON
AM	1356	0	71	1047	77	AM
	0	1	1.5	0.5		

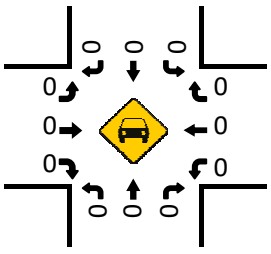
Cars (AM)



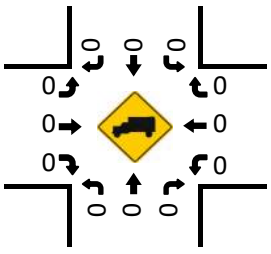
HT (AM)



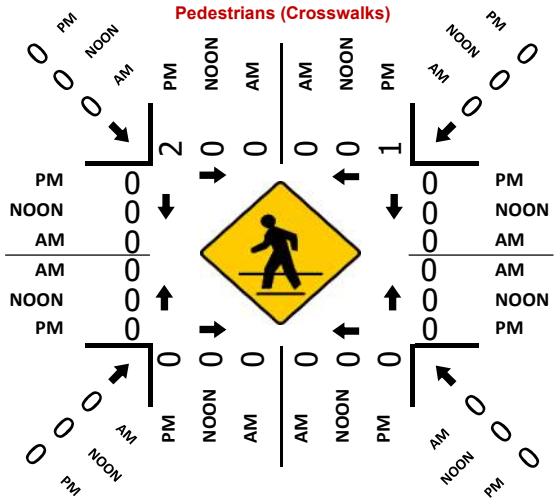
Cars (NOON)



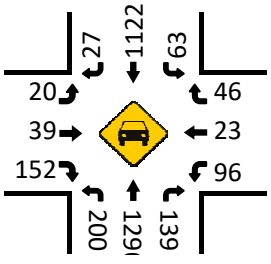
HT (NOON)



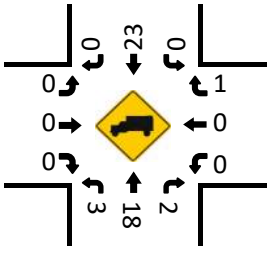
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: US 9W/US 44/SR 55/N Rte 9W & SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy
City: Highland
Control: Signalized

Project ID: 26-380010-002
Date: 3/14/2026

Data - Total

EW/NS Streets:	SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy				SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy						US 9W/US 44/SR 55/N Rte 9W					US 9W/US 44/SR 55/N Rte 9W					
NOON	EASTBOUND				WESTBOUND						NORTHBOUND					SOUTHBOUND					
	1	0	1	0	0	1	0	0	0	0	1	1.5	0.5	0	0	1	2	1	0	0	
	EL	ET	ER	EU	WL	WT	WR	WU	W2L2	W2R2	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	TOTAL
11:00 AM	1	0	28	0	0	0	0	0	0	0	30	168	0	0	0	0	183	5	0	0	415
11:15 AM	6	0	34	0	0	0	0	0	0	0	30	174	0	0	0	0	182	3	0	0	429
11:30 AM	6	0	38	0	0	0	0	0	1	0	21	149	0	0	1	0	178	3	0	0	397
11:45 AM	6	1	41	0	1	0	0	0	1	0	37	198	0	0	0	0	218	2	0	0	505
12:00 PM	8	0	31	0	0	0	0	0	0	0	31	172	0	0	0	0	208	1	0	0	451
12:15 PM	8	0	43	0	0	0	0	0	0	0	32	220	0	0	0	0	190	3	0	0	496
12:30 PM	4	0	34	0	0	0	0	0	0	0	27	166	0	0	0	0	239	5	1	0	476
12:45 PM	3	0	35	0	0	0	0	0	0	0	26	179	0	0	0	0	178	3	2	0	426
1:00 PM	7	0	35	0	0	1	0	0	0	0	28	202	0	0	0	0	207	2	0	0	482
1:15 PM	7	0	33	0	0	0	0	0	0	0	28	201	0	0	0	0	185	4	1	0	459
1:30 PM	1	0	26	0	0	0	0	0	0	0	24	172	0	0	0	0	198	3	0	0	424
1:45 PM	5	0	35	0	0	0	0	0	0	0	29	184	0	0	1	0	175	4	1	0	434
	EL	ET	ER	EU	WL	WT	WR	WU	W2L2	W2R2	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	TOTAL
TOTAL VOLUMES :	62	1	413	0	1	1	0	0	2	0	343	2185	0	0	2	0	2341	38	5	0	5394
APPROACH %'s :	13.03%	0.21%	86.76%	0.00%	50.00%	50.00%	0.00%	0.00%	100.00%	0.00%	13.56%	86.36%	0.00%	0.00%	0.08%	0.00%	98.20%	1.59%	0.21%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																				TOTAL
PEAK HR VOL :	26	1	149	0	1	0	0	0	1	0	127	756	0	0	0	0	855	11	1	0	1928
PEAK HR FACTOR :	0.813	0.250	0.866	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.858	0.859	0.000	0.000	0.000	0.000	0.894	0.550	0.250	0.000	0.954
	0.863				0.250						0.876					0.885					

Prepared by National Data & Surveying Services

US 9W/US 44/SR 55/N Rte 9W & SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy

Peak Hour Turning Movement Count

ID: 26-380010-002
City: Highland

Day: Saturday
Date: 3/14/2026

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

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

SOUTHBOUND — US 9W/US 44/SR 55/N Rte 9W

AM	0	0	0	0	0	AM
NOON	11	855	0	1	783	NOON
PM	0	0	0	0	0	PM

1 2 1 0

EASTBOUND — SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy

AM	NOON	PM	
0	138	0	
0	0	0	0
0	26	0	1
0	1	0	0
0	149	0	1
AM	NOON	PM	

WESTBOUND — SR 55/Milton Ave/Blurred lines hair studio/Highland Motel Dwy

PM	NOON	AM	
0	0	0	0
0	0	0	1
0	1	0	0
0	0	0	0
0	1	0	
PM	NOON	AM	

CONTROL

Signalized

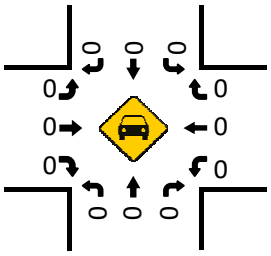
TEV	0 AM	1927 NOON	0 PM
PHF	0.00	0.95	0.00

0 1 1.5 0.5

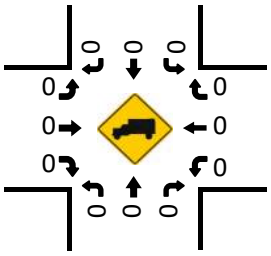
NORTHBOUND — US 9W/US 44/SR 55/N Rte 9W

PM	0	0	0	0	0	PM
NOON	1005	0	127	756	0	NOON
AM	0	0	0	0	0	AM

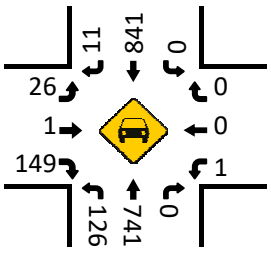
Cars (AM)



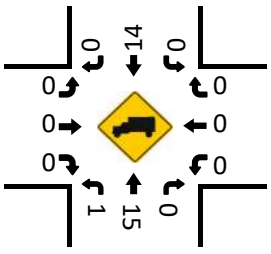
HT (AM)



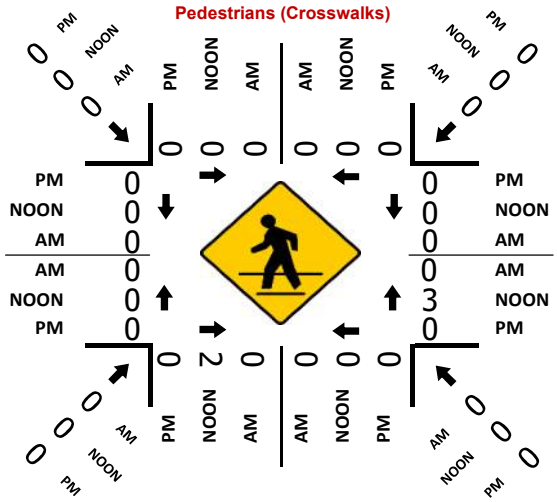
Cars (NOON)



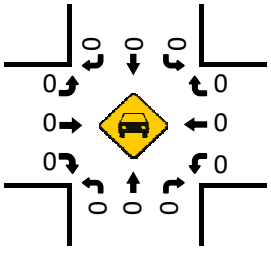
HT (NOON)



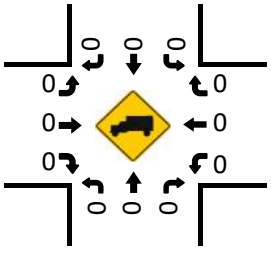
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: US 9W/US 44/SR 55/N Rte 9W & Haviland Rd
City: Highland
Control: Signalized

Project ID: 26-380010-001
Date: 3/14/2026

Data - Total

EW/NS Streets:	Haviland Rd				Haviland Rd				US 9W/US 44/SR 55/N Rte 9W				US 9W/US 44/SR 55/N Rte 9W				
NOON	EASTBOUND				WESTBOUND				NORTHBOUND				SOUTHBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	1.5	0.5	0	1	1.5	0.5	0	
	EL	ET	ER	EU	WL	WT	WR	WU	NL	NT	NR	NU	SL	ST	SR	SU	TOTAL
11:00 AM	5	7	45	0	12	5	4	0	30	173	19	0	11	197	8	0	516
11:15 AM	10	7	43	0	11	7	4	0	29	189	25	0	12	205	10	0	552
11:30 AM	9	5	42	0	16	3	3	0	33	174	18	0	7	223	6	0	539
11:45 AM	11	3	51	0	13	3	4	0	32	207	17	0	9	222	11	0	583
12:00 PM	7	6	39	0	20	3	2	0	23	204	19	0	6	240	7	0	576
12:15 PM	5	4	48	0	29	2	10	0	33	233	13	1	8	226	8	0	620
12:30 PM	7	4	63	0	22	2	4	0	32	179	21	0	14	244	8	0	600
12:45 PM	9	10	43	0	23	6	1	0	34	195	18	0	12	211	5	0	567
1:00 PM	6	7	42	0	15	6	6	0	19	226	22	0	8	232	8	0	597
1:15 PM	5	4	34	0	11	6	3	0	31	210	12	1	10	211	9	0	547
1:30 PM	4	7	34	0	11	8	8	0	32	193	25	0	9	214	3	0	548
1:45 PM	8	5	34	0	19	6	9	0	41	203	25	0	7	205	12	0	574
	EL	ET	ER	EU	WL	WT	WR	WU	NL	NT	NR	NU	SL	ST	SR	SU	TOTAL
TOTAL VOLUMES :	86	69	518	0	202	57	58	0	369	2386	234	2	113	2630	95	0	6819
APPROACH %'s :	12.78%	10.25%	76.97%	0.00%	63.72%	17.98%	18.30%	0.00%	12.34%	79.77%	7.82%	0.07%	3.98%	92.67%	3.35%	0.00%	
PEAK HR :	12:15 PM - 01:15 PM																TOTAL
PEAK HR VOL :	27	25	196	0	89	16	21	0	118	833	74	1	42	913	29	0	2384
PEAK HR FACTOR :	0.750	0.625	0.778	0.000	0.767	0.667	0.525	0.000	0.868	0.894	0.841	0.250	0.750	0.935	0.906	0.000	0.961
	0.838				0.768				0.916				0.925				

Prepared by National Data & Surveying Services

US 9W/US 44/SR 55/N Rte 9W & Haviland Rd

Peak Hour Turning Movement Count

ID: 26-380010-001
City: Highland

Day: Saturday
Date: 3/14/2026

PEAK HOURS

AM: NONE
NOON: 12:15 PM - 01:15 PM
PM: NONE

COUNT PERIODS

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

CONTROL: Signalized

	AM	NOON	PM
TEV	0	2384	0
PHF	0.00	0.96	0.00

SOUTHBOUND — US 9W/US 44/SR 55/N Rte 9W

	Left	Thru	Thru	Right	Total	
AM	0	0	0	0	0	AM
NOON	29	913	42	0	881	NOON
PM	0	0	0	0	0	PM
	0.5	1.5	1	0		

EASTBOUND — Haviland Rd

	AM	NOON	PM	
	0	163	0	
	0	0	0	0
	0	27	0	0.5
	0	25	0	0.5
	0	196	0	1
	AM	NOON	PM	

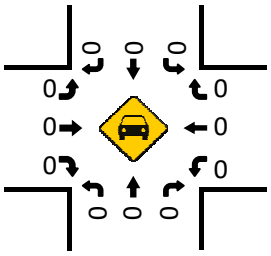
WESTBOUND — Haviland Rd

	PM	NOON	AM	
	0	21	0	1
	0	16	0	0.5
	0	89	0	0.5
	0	0	0	0
	0	141	0	
	PM	NOON	AM	

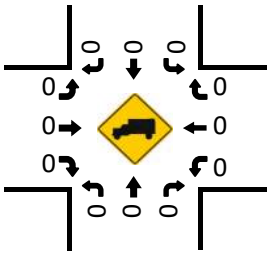
NORTHBOUND — US 9W/US 44/SR 55/N Rte 9W

	Left	Thru	Thru	Right	Total	
PM	0	0	0	0	0	PM
NOON	1199	1	118	833	74	NOON
AM	0	0	0	0	0	AM
	0	1	1.5	0.5		

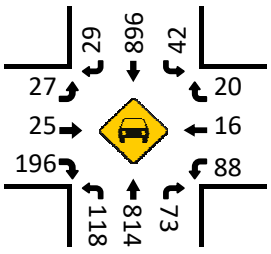
Cars (AM)



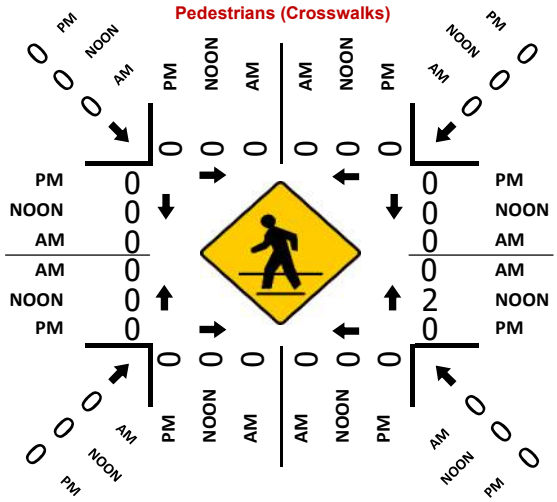
HT (AM)



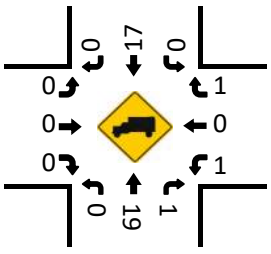
Cars (NOON)



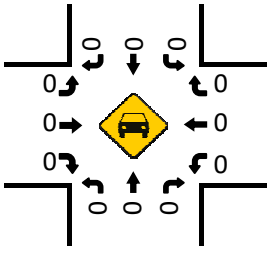
Pedestrians (Crosswalks)



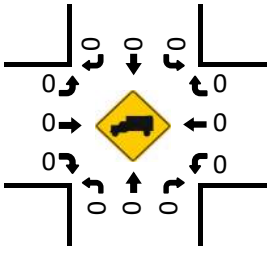
HT (NOON)



Cars (PM)



HT (PM)



APPENDIX E

NYSDOT TRAFFIC DATA VIEWER REPORT

860276000000 / 860276 / US9W from START 9W/44/55 OLAP to MILTON AVE Summary

	AADT	SU AADT	CU AADT	K-Factor	D-Factor	Stat Type
2024	28446	866	230	0.1	0.5	Estimated
2023	29129	887	236	0.1	0.5	Actual
2022	27770	1114	201	0.08666	0.59107	Estimated
2021	28287	1098	236	0.08666	0.59107	Estimated
2020	24872	1179	280	0.08666	0.59107	Estimated
2019	30225	1164	237	0.08666	0.59107	Estimated
2018	30358	1162	237	0.08666	0.59107	Estimated
2017	30444	1154	241	0.08666	0.591069	Actual
2016	29253	1106	257	0.0837	0.60561	Estimated
2015	29271	1095	263	0.0837	0.60561	Estimated
2014	29289	1057	247	0.0837	0.60561	Estimated
2013	29307	1115	267	0.0837	0.60561	Estimated
2012	29325	1105	273	0.0837	0.60561	Estimated
2011	29343	1120	257	0.0837	0.60561	Estimated
2010	27971	1015	245	0.0837	0.605612	Actual
2009	-	-	-	-	-	-
2008	-	-	-	-	-	-
2007	26957	-	-	-	-	Actual
2006	-	-	-	-	-	-
2005	-	-	-	-	-	-
2004	32108	-	-	-	-	Actual
2003	-	-	-	-	-	-
2002	-	-	-	-	-	-
2001	28263	-	-	-	-	Actual
2000	-	-	-	-	-	-
1999	-	-	-	-	-	-
1998	25640	-	-	-	-	Actual
1997	-	-	-	-	-	-
1996	-	-	-	-	-	-
1995	30970	-	-	-	-	Actual
1994	-	-	-	-	-	-
1993	-	-	-	-	-	-
1992	-	-	-	-	-	-
1991	26150	-	-	-	-	Actual
1990	-	-	-	-	-	-
1989	-	-	-	-	-	-
1988	24180	-	-	-	-	Actual
1987	-	-	-	-	-	-
1986	-	-	-	-	-	-

	AADT	SU AADT	CU AADT	K-Factor	D-Factor	Stat Type
1985	-	-	-	-	-	-
1984	-	-	-	-	-	-
1983	-	-	-	-	-	-
1982	-	-	-	-	-	-
1981	-	-	-	-	-	-
1980	14490	-	-	-	-	Actual
1979	-	-	-	-	-	-
1978	-	-	-	-	-	-
1977	14940	-	-	-	-	Actual

Multi-Day Volume Report NYSDOT_SC 860276000000

Monday, August 21, 2023 to Thursday, August 24, 2023

Site Name 860276 **Site ID** 860276000000
Description US9W from START 9W/44/55 OLAP to MILTON AVE **Region** 8 **County** Ulster
DOTID 100513 **County Order** 03

All Lanes Bins: Total Time Period: 15 minutes Exclude data: None

	Mon Aug 21	Tue Aug 22	Wed Aug 23	Thu Aug 24	Average Workday	Average 7 Day	Total Count
12:00 am	-	44	57	62	54	-	163
12:15 am	-	42	33	41	39	-	116
12:30 am	-	41	34	43	39	-	118
12:45 am	-	20	38	39	32	-	97
01:00 am	-	31	30	23	28	-	84
01:15 am	-	30	21	24	25	-	75
01:30 am	-	12	13	25	17	-	50
01:45 am	-	21	26	23	23	-	70
02:00 am	-	24	15	14	18	-	53
02:15 am	-	17	17	16	17	-	50
02:30 am	-	7	14	22	14	-	43
02:45 am	-	19	16	11	15	-	46
03:00 am	-	16	23	19	19	-	58
03:15 am	-	17	18	18	18	-	53
03:30 am	-	23	32	26	27	-	81
03:45 am	-	29	28	32	30	-	89
04:00 am	-	32	22	26	27	-	80
04:15 am	-	40	38	41	40	-	119
04:30 am	-	52	53	54	53	-	159
04:45 am	-	64	60	59	61	-	183
05:00 am	-	91	81	85	86	-	257
05:15 am	-	128	121	116	122	-	365
05:30 am	-	167	158	166	164	-	491
05:45 am	-	206	198	201	202	-	605
06:00 am	-	207	214	197	206	-	618
06:15 am	-	291	283	279	284	-	853
06:30 am	-	310	385	389	361	-	1084
06:45 am	-	424	437	420	427	-	1281
07:00 am	214	410	421	386	358	-	1431
07:15 am	466	528	484	477	489	-	1955
07:30 am	512	611	577	549	562	-	2249
07:45 am	484	602	577	571	558	-	2234
08:00 am	529	556	561	512	540	-	2158
08:15 am	545	589	549	561	561	-	2244
08:30 am	531	584	577	624	579	-	2316
08:45 am	469	545	575	610	550	-	2199
09:00 am	452	486	475	533	486	-	1946
09:15 am	499	442	497	496	484	-	1934
09:30 am	443	481	496	509	482	-	1929
09:45 am	425	447	478	469	455	-	1819
10:00 am	479	473	415	509	469	-	1876
10:15 am	460	459	500	422	460	-	1841
10:30 am	477	484	461	497	480	-	1919
10:45 am	455	486	459	489	472	-	1889
11:00 am	460	443	477	455	459	-	1835
11:15 am	436	455	494	491	469	-	1876
11:30 am	414	418	496	494	456	-	1822
11:45 am	488	481	523	481	493	-	1973
12:00 pm	515	507	527	502	513	-	2051
12:15 pm	470	474	549	543	509	-	2036
12:30 pm	508	511	484	464	492	-	1967
12:45 pm	425	511	506	491	483	-	1933
01:00 pm	463	477	497	530	492	-	1967
01:15 pm	450	538	484	496	492	-	1968
01:30 pm	480	494	528	497	500	-	1999
01:45 pm	510	499	520	523	513	-	2052
02:00 pm	493	479	481	498	488	-	1951
02:15 pm	521	503	496	517	509	-	2037
02:30 pm	509	513	557	497	519	-	2076
02:45 pm	557	578	546	517	550	-	2198
03:00 pm	511	575	534	601	555	-	2221
03:15 pm	590	640	658	631	630	-	2519
03:30 pm	566	645	620	610	610	-	2441
03:45 pm	611	645	689	673	654	-	2618
04:00 pm	631	649	671	675	656	-	2626
04:15 pm	640	692	743	716	698	-	2791
04:30 pm	693	731	750	296	618	-	2470
04:45 pm	647	641	698	0	496	-	1986
05:00 pm	700	620	707	-	676	-	2027
05:15 pm	729	617	697	-	681	-	2043
05:30 pm	644	710	776	-	710	-	2130
05:45 pm	583	733	634	-	650	-	1950
06:00 pm	463	474	525	-	487	-	1462
06:15 pm	487	530	561	-	526	-	1578

06:30 pm	400	421	477	-	433	-	1298
06:45 pm	420	447	383	-	417	-	1250
07:00 pm	321	439	381	-	380	-	1141
07:15 pm	350	380	329	-	353	-	1059
07:30 pm	313	331	351	-	332	-	995
07:45 pm	264	338	374	-	325	-	976
08:00 pm	270	309	295	-	291	-	874
08:15 pm	297	303	296	-	299	-	896
08:30 pm	251	270	274	-	265	-	795
08:45 pm	217	262	247	-	242	-	726
09:00 pm	179	243	213	-	212	-	635
09:15 pm	175	195	212	-	194	-	582
09:30 pm	153	195	171	-	173	-	519
09:45 pm	120	167	148	-	145	-	435
10:00 pm	130	151	152	-	144	-	433
10:15 pm	112	134	139	-	128	-	385
10:30 pm	104	128	125	-	119	-	357
10:45 pm	69	104	97	-	90	-	270
11:00 pm	100	119	114	-	111	-	333
11:15 pm	68	69	104	-	80	-	241
11:30 pm	68	75	90	-	78	-	233
11:45 pm	62	82	72	-	72	-	216
7am-7pm	24454	25834	26390	-	25417	-	97090
6am-10pm	-	30498	31000	-	29907	-	110559
6am-12am	-	31360	31893	-	30730	-	113027
12am-12am	-	32533	33039	-	31898	-	116532
am Peak	-	07:30 am	07:30 am	08:15 am	07:45 am	-	
Peak Volume	-	2358	2264	2328	2238	-	
pm Peak	04:30 pm	03:45 pm	04:15 pm	-	05:00 pm	-	
Peak Volume	2769	2717	2898	-	2717	-	

Event key: QC Failure, QC Outlier, QC Atypical, Events, Special, Holiday, Offline, Weekends and defined holidays, Holiday-affected days

Notes on data:
Weekly (7-day) averages are calculated as the average of workday values (minimum 2 different days of week) and weekend values, weighted in the proportion 5:2.
Working day (5-day) calculations are based on the working week (Monday 06:00 am to Friday 12:00 pm).

Holidays & Events:

Start	End	Type	Lanes	Included	Description
08/21/2023 12:00 am	08/21/2023 06:59 am	Volume Bad	-	No	
08/24/2023 05:00 pm	08/24/2023 11:59 pm	Volume Bad	-	No	

Multi-Day Volume Report NYSDOT_SC 860276000000

Monday, August 21, 2023 to Thursday, August 24, 2023

Site Name 860276 **Site ID** 860276000000
Description US9W from START 9W/44/55 OLAP to MILTON AVE **Region** 8 **County** Ulster
DOTID 100513 **County Order** 03

Each Direction Bins: Total Time Period: 15 minutes Exclude data: None

All Northbound

	Mon Aug 21	Tue Aug 22	Wed Aug 23	Thu Aug 24	Average Workday	7 Day	Total Count
12:00 am	-	21	29	37	29	-	87
12:15 am	-	19	17	21	19	-	57
12:30 am	-	14	14	14	14	-	42
12:45 am	-	13	21	17	17	-	51
01:00 am	-	21	15	11	16	-	47
01:15 am	-	17	13	15	15	-	45
01:30 am	-	7	4	14	8	-	25
01:45 am	-	14	12	15	14	-	41
02:00 am	-	15	8	6	10	-	29
02:15 am	-	12	4	6	7	-	22
02:30 am	-	4	6	14	8	-	24
02:45 am	-	13	9	7	10	-	29
03:00 am	-	12	14	13	13	-	39
03:15 am	-	6	6	8	7	-	20
03:30 am	-	10	11	11	11	-	32
03:45 am	-	13	7	11	10	-	31
04:00 am	-	15	12	14	14	-	41
04:15 am	-	20	15	22	19	-	57
04:30 am	-	22	24	24	23	-	70
04:45 am	-	34	31	28	31	-	93
05:00 am	-	44	40	37	40	-	121
05:15 am	-	51	50	50	50	-	151
05:30 am	-	73	79	86	79	-	238
05:45 am	-	97	102	95	98	-	294
06:00 am	-	95	91	81	89	-	267
06:15 am	-	110	126	120	119	-	356
06:30 am	-	179	159	168	169	-	506
06:45 am	-	182	193	202	192	-	577
07:00 am	112	187	225	205	182	-	729
07:15 am	220	264	222	216	230	-	922
07:30 am	212	278	281	287	264	-	1058
07:45 am	205	287	273	267	258	-	1032
08:00 am	298	284	268	236	272	-	1086
08:15 am	298	245	274	273	272	-	1090
08:30 am	243	256	282	278	265	-	1059
08:45 am	213	239	237	279	242	-	968
09:00 am	192	192	210	227	205	-	821
09:15 am	213	181	233	226	213	-	853
09:30 am	208	191	242	256	224	-	897
09:45 am	204	198	230	228	215	-	860
10:00 am	199	210	185	221	204	-	815
10:15 am	228	213	238	202	220	-	881
10:30 am	214	176	240	231	215	-	861
10:45 am	226	225	227	229	227	-	907
11:00 am	204	222	227	245	224	-	898
11:15 am	211	211	239	251	228	-	912
11:30 am	207	203	265	243	230	-	918
11:45 am	247	242	265	251	251	-	1005
12:00 pm	253	248	277	253	258	-	1031
12:15 pm	233	237	274	274	254	-	1018
12:30 pm	232	252	239	241	241	-	964
12:45 pm	215	270	251	229	241	-	965
01:00 pm	217	238	246	270	243	-	971
01:15 pm	228	254	251	240	243	-	973
01:30 pm	230	255	274	232	248	-	991
01:45 pm	277	257	259	260	263	-	1053
02:00 pm	245	235	247	235	240	-	962
02:15 pm	276	255	265	246	260	-	1042
02:30 pm	269	275	280	273	274	-	1097
02:45 pm	306	321	286	269	296	-	1182
03:00 pm	275	320	275	335	301	-	1205
03:15 pm	313	327	366	337	336	-	1343
03:30 pm	293	350	349	308	325	-	1300
03:45 pm	333	361	386	388	367	-	1468
04:00 pm	326	338	346	356	342	-	1366
04:15 pm	362	375	400	383	380	-	1520
04:30 pm	336	356	340	118	288	-	1150
04:45 pm	337	325	351	0	253	-	1013
05:00 pm	393	272	392	-	352	-	1057
05:15 pm	399	294	361	-	351	-	1054
05:30 pm	336	385	453	-	391	-	1174
05:45 pm	311	418	341	-	357	-	1070
06:00 pm	237	245	267	-	250	-	749

06:15 pm	246	279	276	-	267	-	801
06:30 pm	186	210	239	-	212	-	635
06:45 pm	227	255	207	-	230	-	689
07:00 pm	154	245	189	-	196	-	588
07:15 pm	176	187	163	-	175	-	526
07:30 pm	164	168	199	-	177	-	531
07:45 pm	134	174	193	-	167	-	501
08:00 pm	143	180	152	-	158	-	475
08:15 pm	147	154	137	-	146	-	438
08:30 pm	121	138	152	-	137	-	411
08:45 pm	99	138	114	-	117	-	351
09:00 pm	83	140	94	-	106	-	317
09:15 pm	101	118	101	-	107	-	320
09:30 pm	82	106	88	-	92	-	276
09:45 pm	65	98	80	-	81	-	243
10:00 pm	69	87	82	-	79	-	238
10:15 pm	74	81	90	-	82	-	245
10:30 pm	57	71	63	-	64	-	191
10:45 pm	40	55	48	-	48	-	143
11:00 pm	55	70	57	-	61	-	182
11:15 pm	35	36	46	-	39	-	117
11:30 pm	36	42	43	-	40	-	121
11:45 pm	34	54	41	-	43	-	129
7am-7pm	12245	12711	13361	-	12706	-	48415
6am-10pm	-	15123	15592	-	14934	-	55098
6am-12am	-	15619	16062	-	15389	-	56464
12am-12am	-	16186	16605	-	15951	-	58150
am Peak	-	07:15 am	07:45 am	08:00 am	07:45 am	-	
Peak Volume	-	1113	1097	1066	1067	-	
pm Peak	04:30 pm	03:45 pm	04:45 pm	-	05:00 pm	-	
Peak Volume	1465	1430	1557	-	1452	-	

All Southbound

	Mon Aug 21	Tue Aug 22	Wed Aug 23	Thu Aug 24	Average Workday	7 Day	Total Count
12:00 am	-	23	28	25	25	-	76
12:15 am	-	23	16	20	20	-	59
12:30 am	-	27	20	29	25	-	76
12:45 am	-	7	17	22	15	-	46
01:00 am	-	10	15	12	12	-	37
01:15 am	-	13	8	9	10	-	30
01:30 am	-	5	9	11	8	-	25
01:45 am	-	7	14	8	10	-	29
02:00 am	-	9	7	8	8	-	24
02:15 am	-	5	13	10	9	-	28
02:30 am	-	3	8	8	6	-	19
02:45 am	-	6	7	4	6	-	17
03:00 am	-	4	9	6	6	-	19
03:15 am	-	11	12	10	11	-	33
03:30 am	-	13	21	15	16	-	49
03:45 am	-	16	21	21	19	-	58
04:00 am	-	17	10	12	13	-	39
04:15 am	-	20	23	19	21	-	62
04:30 am	-	30	29	30	30	-	89
04:45 am	-	30	29	31	30	-	90
05:00 am	-	47	41	48	45	-	136
05:15 am	-	77	71	66	71	-	214
05:30 am	-	94	79	80	84	-	253
05:45 am	-	109	96	106	104	-	311
06:00 am	-	112	123	116	117	-	351
06:15 am	-	181	157	159	166	-	497
06:30 am	-	131	226	221	193	-	578
06:45 am	-	242	244	218	235	-	704
07:00 am	102	223	196	181	176	-	702
07:15 am	246	264	262	261	258	-	1033
07:30 am	300	333	296	262	298	-	1191
07:45 am	279	315	304	304	300	-	1202
08:00 am	231	272	293	276	268	-	1072
08:15 am	247	344	275	288	288	-	1154
08:30 am	288	328	295	346	314	-	1257
08:45 am	256	306	338	331	308	-	1231
09:00 am	260	294	265	306	281	-	1125
09:15 am	286	261	264	270	270	-	1081
09:30 am	235	290	254	253	258	-	1032
09:45 am	221	249	248	241	240	-	959
10:00 am	280	263	230	288	265	-	1061
10:15 am	232	246	262	220	240	-	960
10:30 am	263	308	221	266	264	-	1058
10:45 am	229	261	232	260	246	-	982
11:00 am	256	221	250	210	234	-	937
11:15 am	225	244	255	240	241	-	964
11:30 am	207	215	231	251	226	-	904
11:45 am	241	239	258	230	242	-	968
12:00 pm	262	259	250	249	255	-	1020
12:15 pm	237	237	275	269	254	-	1018
12:30 pm	276	259	245	223	251	-	1003
12:45 pm	210	241	255	262	242	-	968
01:00 pm	246	239	251	260	249	-	996
01:15 pm	222	284	233	256	249	-	995
01:30 pm	250	239	254	265	252	-	1008
01:45 pm	233	242	261	263	250	-	999
02:00 pm	248	244	234	263	247	-	989
02:15 pm	245	248	231	271	249	-	995

02:30 pm	240	238	277	224	245	-	979
02:45 pm	251	257	260	248	254	-	1016
03:00 pm	236	255	259	266	254	-	1016
03:15 pm	277	313	292	294	294	-	1176
03:30 pm	273	295	271	302	285	-	1141
03:45 pm	278	284	303	285	288	-	1150
04:00 pm	305	311	325	319	315	-	1260
04:15 pm	278	317	343	333	318	-	1271
04:30 pm	357	375	410	178	330	-	1320
04:45 pm	310	316	347	0	243	-	973
05:00 pm	307	348	315	-	323	-	970
05:15 pm	330	323	336	-	330	-	989
05:30 pm	308	325	323	-	319	-	956
05:45 pm	272	315	293	-	293	-	880
06:00 pm	226	229	258	-	238	-	713
06:15 pm	241	251	285	-	259	-	777
06:30 pm	214	211	238	-	221	-	663
06:45 pm	193	192	176	-	187	-	561
07:00 pm	167	194	192	-	184	-	553
07:15 pm	174	193	166	-	178	-	533
07:30 pm	149	163	152	-	155	-	464
07:45 pm	130	164	181	-	158	-	475
08:00 pm	127	129	143	-	133	-	399
08:15 pm	150	149	159	-	153	-	458
08:30 pm	130	132	122	-	128	-	384
08:45 pm	118	124	133	-	125	-	375
09:00 pm	96	103	119	-	106	-	318
09:15 pm	74	77	111	-	87	-	262
09:30 pm	71	89	83	-	81	-	243
09:45 pm	55	69	68	-	64	-	192
10:00 pm	61	64	70	-	65	-	195
10:15 pm	38	53	49	-	47	-	140
10:30 pm	47	57	62	-	55	-	166
10:45 pm	29	49	49	-	42	-	127
11:00 pm	45	49	57	-	50	-	151
11:15 pm	33	33	58	-	41	-	124
11:30 pm	32	33	47	-	37	-	112
11:45 pm	28	28	31	-	29	-	87
7am-7pm	12209	13123	13029	-	12711	-	48675
6am-10pm	-	15375	15408	-	14973	-	55461
6am-12am	-	15741	15831	-	15341	-	56563
12am-12am	-	16347	16434	-	15947	-	58382
am Peak	-	08:15 am	08:00 am	08:15 am	08:15 am	-	
Peak Volume	-	1272	1201	1271	1192	-	
pm Peak	04:30 pm	04:30 pm	04:00 pm	-	05:00 pm	-	
Peak Volume	1304	1362	1425	-	1265	-	

Event key: QC Failure QC Outlier QC Atypical Events Special Holiday Offline
Weekends and defined holidays Holiday-affected days

Notes on data:
Weekly (7-day) averages are calculated as the average of workday values (minimum 2 different days of week) and weekend values, weighted in the proportion 5:2.
Working day (5-day) calculations are based on the working week (Monday 06:00 am to Friday 12:00 pm).

Holidays & Events:

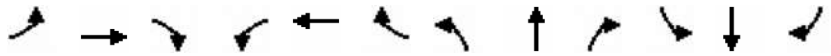
Start	End	Type	Lanes	Included	Description
08/21/2023 12:00 am	08/21/2023 06:59 am	Volume Bad	-	No	
08/24/2023 05:00 pm	08/24/2023 11:59 pm	Volume Bad	-	No	

APPENDIX F

LEVEL OF SERVICE REPORTS

Movement	EBL2	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	SWL
Lane Configurations											
Traffic Volume (vph)	32	1	117	1	0	88	1030	0	1022	2	0
Future Volume (vph)	32	1	117	1	0	88	1030	0	1022	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	12	14	12	12	10	11	11	13
Total Lost time (s)		5.0	5.0		5.0	7.0	7.0		7.0		
Lane Util. Factor		1.00	1.00		1.00	1.00	0.95		0.95		
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00		
Flpb, ped/bikes		1.00	1.00		0.93	1.00	1.00		1.00		
Frt		1.00	0.85		1.00	1.00	1.00		1.00		
Flt Protected		0.95	1.00		0.95	0.95	1.00		1.00		
Satd. Flow (prot)		1764	1574		900	1805	3374		3323		
Flt Permitted		0.95	1.00		0.95	0.95	1.00		1.00		
Satd. Flow (perm)		1764	1574		900	1805	3374		3323		
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	36	1	131	1	0	99	1157	0	1148	2	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	37	131	0	1	99	1157	0	1150	0	0
Confl. Peds. (#/hr)			3	3				1			3
Heavy Vehicles (%)	0%	100%	6%	100%	0%	0%	7%	0%	5%	0%	0%
Turn Type	Split	NA	pt+ov	Split	NA	Prot	NA	Prot	NA		Prot
Protected Phases	3	3	3 5	8	8	5	2	1	6		4
Permitted Phases											
Actuated Green, G (s)		9.2	18.2		0.9	9.0	53.4		37.4		
Effective Green, g (s)		9.2	18.2		0.9	9.0	53.4		37.4		
Actuated g/C Ratio		0.11	0.23		0.01	0.11	0.66		0.46		
Clearance Time (s)		5.0			5.0	7.0	7.0		7.0		
Vehicle Extension (s)		2.0			2.0	2.0	2.0		4.0		
Lane Grp Cap (vph)		201	355		10	201	2238		1543		
v/s Ratio Prot		0.02	c0.08		c0.00	0.05	c0.34		c0.35		
v/s Ratio Perm											
v/c Ratio		0.18	0.37		0.10	0.49	0.52		0.75		
Uniform Delay, d1		32.3	26.3		39.4	33.6	6.9		17.6		
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00		
Incremental Delay, d2		0.2	0.2		1.6	0.7	0.1		2.1		
Delay (s)		32.4	26.5		41.0	34.3	7.0		19.8		
Level of Service		C	C		D	C	A		B		
Approach Delay (s/veh)		27.8			41.0		9.2		19.8		0.0
Approach LOS		C			D		A		B		A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	80.5	Sum of lost time (s)	29.0
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	39	188	98	23	33	71	1071	77	58	1076	6
Future Volume (veh/h)	14	39	188	98	23	33	71	1071	77	58	1076	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1900	1870	1870	1900	1811	1841	1796	1930	1856	1826	1900
Adj Flow Rate, veh/h	15	42	149	105	25	27	76	1152	73	62	1157	5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	0	2	2	0	6	4	7	3	3	5	0
Cap, veh/h	137	176	283	290	34	230	338	1437	91	276	1461	6
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.06	0.44	0.44	0.04	0.41	0.41
Sat Flow, veh/h	299	1544	1585	1252	298	1535	1753	3259	206	1767	3542	15
Grp Volume(v), veh/h	57	0	149	130	0	27	76	603	622	62	567	595
Grp Sat Flow(s),veh/h/ln	1843	0	1585	1550	0	1535	1753	1706	1759	1767	1735	1823
Q Serve(g_s), s	0.0	0.0	0.9	2.3	0.0	0.0	0.0	13.4	13.5	0.0	12.5	12.5
Cycle Q Clear(g_c), s	1.2	0.0	0.9	3.5	0.0	0.0	0.0	13.4	13.5	0.0	12.5	12.5
Prop In Lane	0.26		1.00	0.81		1.00	1.00		0.12	1.00		0.01
Lane Grp Cap(c), veh/h	313	0	283	324	0	230	338	752	776	276	715	752
V/C Ratio(X)	0.18	0.00	0.53	0.40	0.00	0.12	0.23	0.80	0.80	0.22	0.79	0.79
Avail Cap(c_a), veh/h	1064	0	967	955	0	893	782	1512	1559	774	1537	1616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	16.4	18.7	0.0	16.2	17.0	10.6	10.6	18.6	11.3	11.3
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.3	0.0	0.1	0.1	0.8	0.7	0.2	0.8	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.0	2.2	2.1	0.0	0.4	1.0	5.8	6.0	0.9	5.7	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.9	0.0	17.0	19.0	0.0	16.3	17.1	11.4	11.4	18.8	12.0	12.0
LnGrp LOS	B		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h		206			157			1301			1224	
Approach Delay, s/veh		17.2			18.6			11.7			12.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	25.4		11.0	8.8	24.1		11.0
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	14.0	39.0		24.0	14.0	39.0		24.0
Max Q Clear Time (g_c+I1), s	2.0	15.5		3.2	2.0	14.5		5.5
Green Ext Time (p_c), s	0.1	3.9		0.4	0.1	3.6		0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	12.8
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

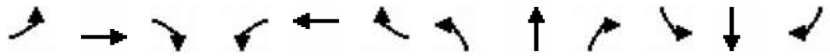
Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	17	0	130	5	0	1	154	1237	5	1	0	1107
Future Volume (vph)	17	0	130	5	0	1	154	1237	5	1	0	1107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	12	14	12	12	12	12	12	10	11
Total Lost time (s)		5.0	5.0		5.0		7.0	7.0				7.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95				0.95
Frpb, ped/bikes		1.00	1.00		1.00		1.00	1.00				1.00
Flpb, ped/bikes		1.00	1.00		0.96		1.00	1.00				1.00
Frt		1.00	0.85		0.98		1.00	1.00				1.00
Flt Protected		0.95	1.00		0.96		0.95	1.00				1.00
Satd. Flow (prot)		1805	1652		1824		1787	3537				3384
Flt Permitted		0.95	1.00		0.96		0.95	1.00				1.00
Satd. Flow (perm)		1805	1652		1824		1787	3537				3384
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	18	0	137	5	0	1	162	1302	5	1	0	1165
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	1
Lane Group Flow (vph)	0	18	137	0	6	0	162	1308	0	0	0	1176
Confl. Peds. (#/hr)			2	2					2	4	2	
Confl. Bikes (#/hr)							1	1				
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	2%	0%	0%	0%	3%
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA			Prot	NA
Protected Phases	3	3	3 5	8	8		5	2			1	6
Permitted Phases												
Actuated Green, G (s)		9.2	19.4		0.9		10.2	55.2				38.0
Effective Green, g (s)		9.2	19.4		0.9		10.2	55.2				38.0
Actuated g/C Ratio		0.10	0.22		0.01		0.12	0.63				0.43
Clearance Time (s)		5.0			5.0		7.0	7.0				7.0
Vehicle Extension (s)		2.0			2.0		2.0	2.0				4.0
Lane Grp Cap (vph)		188	363		18		206	2216				1459
v/s Ratio Prot		0.01	c0.08		c0.00		0.09	c0.37				c0.35
v/s Ratio Perm												
v/c Ratio		0.10	0.38		0.33		0.79	0.59				0.81
Uniform Delay, d1		35.7	29.2		43.3		37.9	9.7				21.8
Progression Factor		1.00	1.00		1.00		1.00	1.00				1.00
Incremental Delay, d2		0.1	0.2		3.9		16.5	0.3				3.6
Delay (s)		35.8	29.5		47.3		54.4	10.0				25.4
Level of Service		D	C		D		D	B				C
Approach Delay (s/veh)		30.2			47.3			14.9				25.4
Approach LOS		C			D			B				C

Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	88.1	Sum of lost time (s)	29.0
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR	SWL	SWR2
Lane Configurations			
Traffic Volume (vph)	11	0	1
Future Volume (vph)	11	0	1
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	11	13	12
Total Lost time (s)		5.0	
Lane Util. Factor		1.00	
Frpb, ped/bikes		1.00	
Flpb, ped/bikes		1.00	
Frt		0.87	
Flt Protected		1.00	
Satd. Flow (prot)		1698	
Flt Permitted		1.00	
Satd. Flow (perm)		1698	
Peak-hour factor, PHF	0.95	0.95	0.95
Adj. Flow (vph)	12	0	1
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	0	1	0
Confl. Peds. (#/hr)		2	
Confl. Bikes (#/hr)			
Heavy Vehicles (%)	0%	0%	0%
Turn Type		Prot	
Protected Phases		4	
Permitted Phases			
Actuated Green, G (s)		0.8	
Effective Green, g (s)		0.8	
Actuated g/C Ratio		0.01	
Clearance Time (s)		5.0	
Vehicle Extension (s)		2.0	
Lane Grp Cap (vph)		15	
v/s Ratio Prot		c0.00	
v/s Ratio Perm			
v/c Ratio		0.07	
Uniform Delay, d1		43.3	
Progression Factor		1.00	
Incremental Delay, d2		0.7	
Delay (s)		44.0	
Level of Service		D	
Approach Delay (s/veh)		44.0	
Approach LOS		D	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	39	152	96	23	48	203	1329	141	63	1152	27
Future Volume (veh/h)	20	39	152	96	23	48	203	1329	141	63	1152	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1870	1885	1885	1961	1900	1870	1900
Adj Flow Rate, veh/h	22	43	124	105	25	41	223	1460	144	69	1266	29
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	2	1	1	1	0	2	0
Cap, veh/h	131	163	399	259	34	232	407	1739	170	208	1525	35
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.13	0.53	0.53	0.04	0.43	0.43
Sat Flow, veh/h	393	1432	1597	1255	299	1551	1795	3287	322	1810	3551	81
Grp Volume(v), veh/h	65	0	124	130	0	41	223	790	814	69	633	662
Grp Sat Flow(s),veh/h/ln	1825	0	1597	1554	0	1551	1795	1791	1818	1810	1777	1856
Q Serve(g_s), s	0.0	0.0	0.0	2.6	0.0	0.0	1.0	20.8	21.3	0.0	17.7	17.7
Cycle Q Clear(g_c), s	1.8	0.0	0.0	4.4	0.0	0.0	1.0	20.8	21.3	0.0	17.7	17.7
Prop In Lane	0.34		1.00	0.81		1.00	1.00		0.18	1.00		0.04
Lane Grp Cap(c), veh/h	294	0	399	293	0	232	407	947	962	208	763	797
V/C Ratio(X)	0.22	0.00	0.31	0.44	0.00	0.18	0.55	0.83	0.85	0.33	0.83	0.83
Avail Cap(c_a), veh/h	829	0	903	752	0	722	615	1730	1756	597	1717	1793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	0.0	17.1	23.8	0.0	20.8	20.6	11.1	11.2	25.7	14.1	14.1
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.4	0.0	0.1	0.4	0.8	0.8	0.3	0.9	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	2.2	2.8	0.0	0.8	4.1	9.4	9.7	1.5	9.2	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.9	0.0	17.3	24.2	0.0	20.9	21.0	11.8	12.0	26.1	15.0	15.0
LnGrp LOS	C		B	C		C	C	B	B	C	B	B
Approach Vol, veh/h		189			171			1827			1364	
Approach Delay, s/veh		19.2			23.4			13.1			15.6	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	35.6		12.3	13.5	30.0		12.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	14.0	54.0		24.0	14.0	54.0		24.0				
Max Q Clear Time (g_c+I1), s	2.0	23.3		3.8	3.0	19.7		6.4				
Green Ext Time (p_c), s	0.1	6.2		0.4	0.4	4.3		0.4				

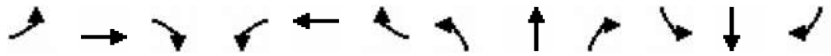
Intersection Summary	
HCM 7th Control Delay, s/veh	14.9
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved changes to right turn type.

Movement	EBL2	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	SWL
Lane Configurations											
Traffic Volume (vph)	26	1	149	1	0	127	756	0	855	11	1
Future Volume (vph)	26	1	149	1	0	127	756	0	855	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	12	14	12	12	10	11	11	13
Total Lost time (s)		5.0	5.0		5.0	7.0	7.0		7.0		5.0
Lane Util. Factor		1.00	1.00		1.00	1.00	0.95		0.95		1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00		1.00
Flpb, ped/bikes		1.00	1.00		0.96	1.00	1.00		1.00		1.00
Frt		1.00	0.85		1.00	1.00	1.00		1.00		1.00
Flt Protected		0.95	1.00		0.95	0.95	1.00		1.00		0.95
Satd. Flow (prot)		1812	1669		1843	1787	3539		3416		1862
Flt Permitted		0.95	1.00		0.95	0.95	1.00		1.00		0.95
Satd. Flow (perm)		1812	1669		1843	1787	3539		3416		1862
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	29	1	167	1	0	143	849	0	961	12	1
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	1	0	0
Lane Group Flow (vph)	0	30	167	0	1	143	849	0	972	0	1
Confl. Peds. (#/hr)			2	2				3			2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	2%	0%	2%	0%	0%
Turn Type	Split	NA	pt+ov	Split	NA	Prot	NA	Prot	NA		Prot
Protected Phases	3	3	3 5	8	8	5	2	1	6		4
Permitted Phases											
Actuated Green, G (s)		9.4	19.9		0.7	10.5	46.1		28.6		0.7
Effective Green, g (s)		9.4	19.9		0.7	10.5	46.1		28.6		0.7
Actuated g/C Ratio		0.12	0.25		0.01	0.13	0.58		0.36		0.01
Clearance Time (s)		5.0			5.0	7.0	7.0		7.0		5.0
Vehicle Extension (s)		2.0			2.0	2.0	2.0		4.0		2.0
Lane Grp Cap (vph)		215	420		16	237	2067		1238		16
v/s Ratio Prot		0.02	c0.10		c0.00	c0.08	0.24		c0.28		c0.00
v/s Ratio Perm											
v/c Ratio		0.14	0.40		0.06	0.60	0.41		0.79		0.06
Uniform Delay, d1		31.1	24.5		38.8	32.2	9.0		22.4		38.8
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00		1.00
Incremental Delay, d2		0.1	0.2		0.6	3.0	0.0		3.6		0.6
Delay (s)		31.2	24.7		39.4	35.2	9.0		26.0		39.4
Level of Service		C	C		D	D	A		C		D
Approach Delay (s/veh)		25.7			39.4		12.8		26.0		39.4
Approach LOS		C			D		B		C		D

Intersection Summary			
HCM 2000 Control Delay (s/veh)	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	78.9	Sum of lost time (s)	29.0
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	25	196	89	16	21	118	835	74	43	933	30
Future Volume (veh/h)	27	25	196	89	16	21	118	835	74	43	933	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1900	1826	1900	1870	1961	1900	1870	1900
Adj Flow Rate, veh/h	28	26	123	93	17	8	123	870	70	45	972	30
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	1	0	5	0	2	1	0	2	0
Cap, veh/h	218	117	268	315	26	279	354	1183	95	391	1299	40
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.06	0.36	0.36	0.07	0.37	0.37
Sat Flow, veh/h	701	1066	1610	1311	240	1547	1810	3330	268	1810	3516	109
Grp Volume(v), veh/h	54	0	123	110	0	8	123	464	476	45	491	511
Grp Sat Flow(s),veh/h/ln	1767	0	1610	1550	0	1547	1810	1777	1821	1810	1777	1848
Q Serve(g_s), s	0.0	0.0	0.5	1.5	0.0	0.0	0.0	8.8	8.8	0.0	9.3	9.3
Cycle Q Clear(g_c), s	1.0	0.0	0.5	2.5	0.0	0.0	0.0	8.8	8.8	0.0	9.3	9.3
Prop In Lane	0.52		1.00	0.85		1.00	1.00		0.15	1.00		0.06
Lane Grp Cap(c), veh/h	335	0	268	341	0	279	354	631	647	391	656	682
V/C Ratio(X)	0.16	0.00	0.46	0.32	0.00	0.03	0.35	0.74	0.74	0.12	0.75	0.75
Avail Cap(c_a), veh/h	1157	0	1088	1087	0	1067	904	1787	1831	916	1787	1858
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	14.6	16.4	0.0	13.1	16.1	10.9	10.9	13.5	10.7	10.7
Incr Delay (d2), s/veh	0.1	0.0	0.5	0.2	0.0	0.0	0.2	0.6	0.6	0.0	0.7	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.0	1.5	1.5	0.0	0.1	1.5	4.0	4.1	0.5	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.9	0.0	15.0	16.6	0.0	13.1	16.3	11.5	11.5	13.5	11.3	11.3
LnGrp LOS	B		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h		177			118			1063			1047	
Approach Delay, s/veh		15.3			16.4			12.1			11.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.7	19.8		10.3	8.2	20.3		10.3
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	14.0	39.0		24.0	14.0	39.0		24.0
Max Q Clear Time (g_c+I1), s	2.0	10.8		3.0	2.0	11.3		4.5
Green Ext Time (p_c), s	0.0	2.8		0.4	0.2	3.0		0.3

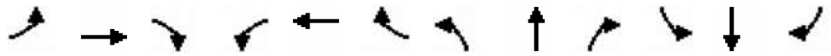
Intersection Summary	
HCM 7th Control Delay, s/veh	12.2
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL2	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	SWL
Lane Configurations											
Traffic Volume (vph)	32	1	125	1	0	95	1063	0	1061	2	0
Future Volume (vph)	32	1	125	1	0	95	1063	0	1061	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	12	14	12	12	10	11	11	13
Total Lost time (s)		5.0	5.0		5.0	7.0	7.0		7.0		
Lane Util. Factor		1.00	1.00		1.00	1.00	0.95		0.95		
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00		
Flpb, ped/bikes		1.00	1.00		0.93	1.00	1.00		1.00		
Frt		1.00	0.85		1.00	1.00	1.00		1.00		
Flt Protected		0.95	1.00		0.95	0.95	1.00		1.00		
Satd. Flow (prot)		1764	1574		897	1805	3374		3323		
Flt Permitted		0.95	1.00		0.95	0.95	1.00		1.00		
Satd. Flow (perm)		1764	1574		897	1805	3374		3323		
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	36	1	140	1	0	107	1194	0	1192	2	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	37	140	0	1	107	1194	0	1194	0	0
Confl. Peds. (#/hr)			3	3				1			3
Heavy Vehicles (%)	0%	100%	6%	100%	0%	0%	7%	0%	5%	0%	0%
Turn Type	Split	NA	pt+ov	Split	NA	Prot	NA	Prot	NA		Prot
Protected Phases	3	3	3 5	8	8	5	2	1	6		4
Permitted Phases											
Actuated Green, G (s)		9.7	19.0		0.9	9.3	56.4		40.1		
Effective Green, g (s)		9.7	19.0		0.9	9.3	56.4		40.1		
Actuated g/C Ratio		0.12	0.23		0.01	0.11	0.67		0.48		
Clearance Time (s)		5.0			5.0	7.0	7.0		7.0		
Vehicle Extension (s)		2.0			2.0	2.0	2.0		4.0		
Lane Grp Cap (vph)		203	356		9	199	2265		1586		
v/s Ratio Prot		0.02	c0.09		c0.00	0.06	c0.35		c0.36		
v/s Ratio Perm											
v/c Ratio		0.18	0.39		0.11	0.54	0.53		0.75		
Uniform Delay, d1		33.6	27.6		41.2	35.3	7.0		17.9		
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00		
Incremental Delay, d2		0.2	0.3		2.0	1.4	0.1		2.2		
Delay (s)		33.7	27.9		43.1	36.7	7.1		20.1		
Level of Service		C	C		D	D	A		C		
Approach Delay (s/veh)		29.1			43.1		9.6		20.1		0.0
Approach LOS		C			D		A		C		A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	84.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	40	191	99	23	33	72	1111	78	59	1119	9
Future Volume (veh/h)	14	40	191	99	23	33	72	1111	78	59	1119	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1900	1870	1870	1900	1811	1841	1796	1930	1856	1826	1900
Adj Flow Rate, veh/h	15	43	152	106	25	27	77	1195	74	63	1203	9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	0	2	2	0	6	4	7	3	3	5	0
Cap, veh/h	133	178	281	287	34	231	327	1475	91	270	1501	11
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.06	0.45	0.45	0.04	0.43	0.43
Sat Flow, veh/h	290	1554	1585	1254	296	1535	1753	3264	202	1767	3529	26
Grp Volume(v), veh/h	58	0	152	131	0	27	77	624	645	63	591	621
Grp Sat Flow(s),veh/h/ln	1844	0	1585	1550	0	1535	1753	1706	1760	1767	1735	1821
Q Serve(g_s), s	0.0	0.0	1.1	2.3	0.0	0.0	0.0	14.3	14.4	0.0	13.5	13.5
Cycle Q Clear(g_c), s	1.3	0.0	1.1	3.6	0.0	0.0	0.0	14.3	14.4	0.0	13.5	13.5
Prop In Lane	0.26		1.00	0.81		1.00	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	311	0	281	321	0	231	327	771	795	270	738	775
V/C Ratio(X)	0.19	0.00	0.54	0.41	0.00	0.12	0.24	0.81	0.81	0.23	0.80	0.80
Avail Cap(c_a), veh/h	1035	0	939	928	0	869	759	1469	1515	752	1493	1568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	17.0	19.3	0.0	16.6	17.7	10.7	10.7	19.2	11.3	11.3
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.3	0.0	0.1	0.1	0.8	0.8	0.2	0.8	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.0	2.3	2.2	0.0	0.4	1.1	6.2	6.4	1.0	6.2	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.4	0.0	17.6	19.6	0.0	16.7	17.8	11.5	11.5	19.4	12.1	12.1
LnGrp LOS	B		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h		210			158			1346			1275	
Approach Delay, s/veh		17.8			19.1			11.9			12.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	26.5		11.2	8.8	25.3		11.2				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	14.0	39.0		24.0	14.0	39.0		24.0				
Max Q Clear Time (g_c+I1), s	2.0	16.4		3.3	2.0	15.5		5.6				
Green Ext Time (p_c), s	0.1	4.1		0.4	0.1	3.8		0.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	12.9
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

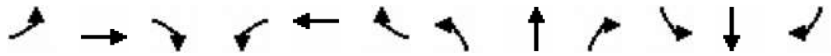
Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	17	0	143	5	0	1	162	1285	5	1	0	1148
Future Volume (vph)	17	0	143	5	0	1	162	1285	5	1	0	1148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	12	14	12	12	12	12	12	10	11
Total Lost time (s)		5.0	5.0		5.0		7.0	7.0				7.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95				0.95
Frpb, ped/bikes		1.00	1.00		1.00		1.00	1.00				1.00
Flpb, ped/bikes		1.00	1.00		0.96		1.00	1.00				1.00
Frt		1.00	0.85		0.98		1.00	1.00				1.00
Flt Protected		0.95	1.00		0.96		0.95	1.00				1.00
Satd. Flow (prot)		1805	1652		1821		1787	3537				3384
Flt Permitted		0.95	1.00		0.96		0.95	1.00				1.00
Satd. Flow (perm)		1805	1652		1821		1787	3537				3384
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	18	0	151	5	0	1	171	1353	5	1	0	1208
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	1
Lane Group Flow (vph)	0	18	151	0	6	0	171	1359	0	0	0	1219
Confl. Peds. (#/hr)			2	2					2	4	2	
Confl. Bikes (#/hr)							1	1				
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	2%	0%	0%	0%	3%
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA			Prot	NA
Protected Phases	3	3	3 5	8	8		5	2			1	6
Permitted Phases												
Actuated Green, G (s)		9.9	20.0		0.9		10.1	57.7				40.6
Effective Green, g (s)		9.9	20.0		0.9		10.1	57.7				40.6
Actuated g/C Ratio		0.11	0.22		0.01		0.11	0.63				0.44
Clearance Time (s)		5.0			5.0		7.0	7.0				7.0
Vehicle Extension (s)		2.0			2.0		2.0	2.0				4.0
Lane Grp Cap (vph)		195	361		17		197	2235				1504
v/s Ratio Prot		0.01	c0.09		c0.00		0.10	c0.38				c0.36
v/s Ratio Perm												
v/c Ratio		0.09	0.42		0.35		0.87	0.61				0.81
Uniform Delay, d1		36.7	30.6		44.9		39.9	10.0				22.0
Progression Factor		1.00	1.00		1.00		1.00	1.00				1.00
Incremental Delay, d2		0.1	0.3		4.5		29.9	0.3				3.6
Delay (s)		36.7	30.9		49.5		69.8	10.4				25.6
Level of Service		D	C		D		E	B				C
Approach Delay (s/veh)		31.6			49.5			17.0				25.6
Approach LOS		C			D			B				C

Intersection Summary			
HCM 2000 Control Delay (s/veh)	21.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	91.3	Sum of lost time (s)	29.0
Intersection Capacity Utilization	68.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR	SWL	SWR2
Lane Configurations			
Traffic Volume (vph)	11	0	1
Future Volume (vph)	11	0	1
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	11	13	12
Total Lost time (s)		5.0	
Lane Util. Factor		1.00	
Frpb, ped/bikes		1.00	
Flpb, ped/bikes		1.00	
Frt		0.87	
Flt Protected		1.00	
Satd. Flow (prot)		1698	
Flt Permitted		1.00	
Satd. Flow (perm)		1698	
Peak-hour factor, PHF	0.95	0.95	0.95
Adj. Flow (vph)	12	0	1
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	0	1	0
Confl. Peds. (#/hr)		2	
Confl. Bikes (#/hr)			
Heavy Vehicles (%)	0%	0%	0%
Turn Type		Prot	
Protected Phases		4	
Permitted Phases			
Actuated Green, G (s)		0.8	
Effective Green, g (s)		0.8	
Actuated g/C Ratio		0.01	
Clearance Time (s)		5.0	
Vehicle Extension (s)		2.0	
Lane Grp Cap (vph)		14	
v/s Ratio Prot		c0.00	
v/s Ratio Perm			
v/c Ratio		0.07	
Uniform Delay, d1		44.9	
Progression Factor		1.00	
Incremental Delay, d2		0.8	
Delay (s)		45.7	
Level of Service		D	
Approach Delay (s/veh)		45.7	
Approach LOS		D	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	40	154	97	23	49	206	1384	143	64	1202	30
Future Volume (veh/h)	20	40	154	97	23	49	206	1384	143	64	1202	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1870	1885	1885	1961	1900	1870	1900
Adj Flow Rate, veh/h	22	44	126	107	25	42	226	1521	146	70	1321	32
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	2	1	1	1	0	2	0
Cap, veh/h	126	165	401	255	34	233	398	1794	171	200	1573	38
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.14	0.54	0.54	0.03	0.44	0.44
Sat Flow, veh/h	383	1445	1598	1259	294	1551	1795	3297	313	1810	3546	86
Grp Volume(v), veh/h	66	0	126	132	0	42	226	819	848	70	662	691
Grp Sat Flow(s),veh/h/ln	1827	0	1598	1553	0	1551	1795	1791	1819	1810	1777	1855
Q Serve(g_s), s	0.0	0.0	0.0	2.8	0.0	0.0	1.5	22.6	23.3	0.0	19.4	19.4
Cycle Q Clear(g_c), s	1.9	0.0	0.0	4.7	0.0	0.0	1.5	22.6	23.3	0.0	19.4	19.4
Prop In Lane	0.33		1.00	0.81		1.00	1.00		0.17	1.00		0.05
Lane Grp Cap(c), veh/h	291	0	401	289	0	233	398	974	990	200	788	823
V/C Ratio(X)	0.23	0.00	0.31	0.46	0.00	0.18	0.57	0.84	0.86	0.35	0.84	0.84
Avail Cap(c_a), veh/h	791	0	871	716	0	689	584	1648	1674	568	1635	1707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	17.9	25.0	0.0	21.8	21.7	11.2	11.4	27.1	14.5	14.5
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.4	0.0	0.1	0.5	0.8	1.0	0.4	0.9	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	0.0	2.3	3.0	0.0	0.9	4.4	10.1	10.6	1.6	10.1	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.0	0.0	18.1	25.4	0.0	22.0	22.2	12.0	12.4	27.5	15.4	15.4
LnGrp LOS	C		B	C		C	C	B	B	C	B	B
Approach Vol, veh/h		192			174			1893			1423	
Approach Delay, s/veh		20.1			24.6			13.4			16.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.0	37.9		12.7	13.9	32.0		12.7
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	14.0	54.0		24.0	14.0	54.0		24.0
Max Q Clear Time (g_c+I1), s	2.0	25.3		3.9	3.5	21.4		6.7
Green Ext Time (p_c), s	0.1	6.6		0.4	0.4	4.6		0.5

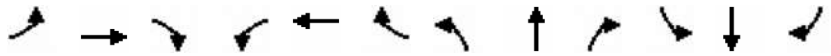
Intersection Summary	
HCM 7th Control Delay, s/veh	15.3
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved changes to right turn type.

Movement	EBL2	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	SWL
Lane Configurations											
Traffic Volume (vph)	26	1	159	1	0	134	787	0	886	11	1
Future Volume (vph)	26	1	159	1	0	134	787	0	886	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	12	14	12	12	10	11	11	13
Total Lost time (s)		5.0	5.0		5.0	7.0	7.0		7.0		5.0
Lane Util. Factor		1.00	1.00		1.00	1.00	0.95		0.95		1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00		1.00
Flpb, ped/bikes		1.00	1.00		0.96	1.00	1.00		1.00		1.00
Frt		1.00	0.85		1.00	1.00	1.00		1.00		1.00
Flt Protected		0.95	1.00		0.95	0.95	1.00		1.00		0.95
Satd. Flow (prot)		1812	1669		1840	1787	3539		3416		1862
Flt Permitted		0.95	1.00		0.95	0.95	1.00		1.00		0.95
Satd. Flow (perm)		1812	1669		1840	1787	3539		3416		1862
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	29	1	179	1	0	151	884	0	996	12	1
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	1	0	0
Lane Group Flow (vph)	0	30	179	0	1	151	884	0	1007	0	1
Confl. Peds. (#/hr)			2	2				3			2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	2%	0%	2%	0%	0%
Turn Type	Split	NA	pt+ov	Split	NA	Prot	NA	Prot	NA		Prot
Protected Phases	3	3	3 5	8	8	5	2	1	6		4
Permitted Phases											
Actuated Green, G (s)		9.9	20.3		0.7	10.4	47.7		30.3		0.7
Effective Green, g (s)		9.9	20.3		0.7	10.4	47.7		30.3		0.7
Actuated g/C Ratio		0.12	0.25		0.01	0.13	0.59		0.37		0.01
Clearance Time (s)		5.0			5.0	7.0	7.0		7.0		5.0
Vehicle Extension (s)		2.0			2.0	2.0	2.0		4.0		2.0
Lane Grp Cap (vph)		221	418		15	229	2084		1277		16
v/s Ratio Prot		0.02	c0.11		c0.00	c0.08	0.25		c0.29		c0.00
v/s Ratio Perm											
v/c Ratio		0.14	0.43		0.07	0.66	0.42		0.79		0.06
Uniform Delay, d1		31.7	25.5		39.8	33.6	9.1		22.5		39.8
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00		1.00
Incremental Delay, d2		0.1	0.3		0.7	5.2	0.1		3.5		0.6
Delay (s)		31.8	25.7		40.5	38.8	9.2		26.0		40.4
Level of Service		C	C		D	D	A		C		D
Approach Delay (s/veh)		26.6			40.5		13.5		26.0		40.4
Approach LOS		C			D		B		C		D

Intersection Summary			
HCM 2000 Control Delay (s/veh)	20.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	29.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	25	199	90	16	21	120	873	75	44	970	33
Future Volume (veh/h)	27	25	199	90	16	21	120	873	75	44	970	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1900	1826	1900	1870	1961	1900	1870	1900
Adj Flow Rate, veh/h	28	26	126	94	17	8	125	909	71	46	1010	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	1	0	5	0	2	1	0	2	0
Cap, veh/h	214	116	266	311	26	279	347	1221	95	385	1334	44
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.06	0.37	0.37	0.07	0.38	0.38
Sat Flow, veh/h	701	1069	1610	1313	238	1547	1810	3339	261	1810	3509	115
Grp Volume(v), veh/h	54	0	126	111	0	8	125	484	496	46	511	532
Grp Sat Flow(s),veh/h/ln	1770	0	1610	1551	0	1547	1810	1777	1823	1810	1777	1846
Q Serve(g_s), s	0.0	0.0	0.6	1.6	0.0	0.0	0.0	9.4	9.4	0.0	9.9	9.9
Cycle Q Clear(g_c), s	1.0	0.0	0.6	2.6	0.0	0.0	0.0	9.4	9.4	0.0	9.9	9.9
Prop In Lane	0.52		1.00	0.85		1.00	1.00		0.14	1.00		0.06
Lane Grp Cap(c), veh/h	331	0	266	337	0	279	347	650	667	385	676	702
V/C Ratio(X)	0.16	0.00	0.47	0.33	0.00	0.03	0.36	0.74	0.74	0.12	0.76	0.76
Avail Cap(c_a), veh/h	1133	0	1067	1065	0	1048	884	1749	1794	896	1749	1817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	0.0	15.0	16.8	0.0	13.4	16.5	11.0	11.0	13.8	10.7	10.7
Incr Delay (d2), s/veh	0.1	0.0	0.5	0.2	0.0	0.0	0.2	0.6	0.6	0.1	0.7	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.0	1.6	1.5	0.0	0.1	1.6	4.3	4.4	0.5	4.4	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.3	0.0	15.5	17.0	0.0	13.4	16.7	11.6	11.6	13.8	11.3	11.3
LnGrp LOS	B		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h		180			119			1105			1089	
Approach Delay, s/veh		15.7			16.8			12.2			11.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.8	20.5		10.3	8.2	21.1		10.3
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s	14.0	39.0		24.0	14.0	39.0		24.0
Max Q Clear Time (g_c+I1), s	2.0	11.4		3.0	2.0	11.9		4.6
Green Ext Time (p_c), s	0.0	2.9		0.4	0.2	3.1		0.3

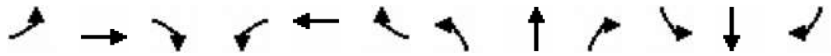
Intersection Summary	
HCM 7th Control Delay, s/veh	12.3
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL2	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	SWL
Lane Configurations											
Traffic Volume (vph)	32	1	127	1	0	97	1071	0	1070	2	0
Future Volume (vph)	32	1	127	1	0	97	1071	0	1070	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	12	14	12	12	10	11	11	13
Total Lost time (s)		5.0	5.0		5.0	7.0	7.0		7.0		
Lane Util. Factor		1.00	1.00		1.00	1.00	0.95		0.95		
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00		
Flpb, ped/bikes		1.00	1.00		0.93	1.00	1.00		1.00		
Frt		1.00	0.85		1.00	1.00	1.00		1.00		
Flt Protected		0.95	1.00		0.95	0.95	1.00		1.00		
Satd. Flow (prot)		1764	1574		897	1805	3374		3323		
Flt Permitted		0.95	1.00		0.95	0.95	1.00		1.00		
Satd. Flow (perm)		1764	1574		897	1805	3374		3323		
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	36	1	143	1	0	109	1203	0	1202	2	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	37	143	0	1	109	1203	0	1204	0	0
Confl. Peds. (#/hr)			3	3				1			3
Heavy Vehicles (%)	0%	100%	6%	100%	0%	0%	7%	0%	5%	0%	0%
Turn Type	Split	NA	pt+ov	Split	NA	Prot	NA	Prot	NA		Prot
Protected Phases	3	3	3 5	8	8	5	2	1	6		4
Permitted Phases											
Actuated Green, G (s)		9.8	19.2		0.9	9.4	56.7		40.3		
Effective Green, g (s)		9.8	19.2		0.9	9.4	56.7		40.3		
Actuated g/C Ratio		0.12	0.23		0.01	0.11	0.67		0.48		
Clearance Time (s)		5.0			5.0	7.0	7.0		7.0		
Vehicle Extension (s)		2.0			2.0	2.0	2.0		4.0		
Lane Grp Cap (vph)		204	358		9	201	2266		1586		
v/s Ratio Prot		0.02	c0.09		c0.00	0.06	c0.36		c0.36		
v/s Ratio Perm											
v/c Ratio		0.18	0.40		0.11	0.54	0.53		0.76		
Uniform Delay, d1		33.7	27.7		41.4	35.5	7.1		18.1		
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00		
Incremental Delay, d2		0.2	0.3		2.0	1.6	0.1		2.3		
Delay (s)		33.8	28.0		43.3	37.1	7.2		20.3		
Level of Service		C	C		D	D	A		C		
Approach Delay (s/veh)		29.2			43.3		9.7		20.3		0.0
Approach LOS		C			D		A		C		A

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	84.4	Sum of lost time (s)	29.0
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	40	191	99	23	34	72	1122	78	60	1128	9
Future Volume (veh/h)	14	40	191	99	23	34	72	1122	78	60	1128	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1900	1870	1870	1900	1811	1841	1796	1930	1856	1826	1900
Adj Flow Rate, veh/h	15	43	152	106	25	29	77	1206	74	65	1213	9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	14	0	2	2	0	6	4	7	3	3	5	0
Cap, veh/h	132	179	283	287	34	233	327	1485	91	269	1509	11
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.06	0.45	0.45	0.04	0.43	0.43
Sat Flow, veh/h	288	1556	1585	1254	296	1535	1753	3266	200	1767	3530	26
Grp Volume(v), veh/h	58	0	152	131	0	29	77	629	651	65	596	626
Grp Sat Flow(s),veh/h/ln	1844	0	1585	1549	0	1535	1753	1706	1760	1767	1735	1821
Q Serve(g_s), s	0.0	0.0	1.1	2.4	0.0	0.0	0.0	14.6	14.6	0.0	13.7	13.7
Cycle Q Clear(g_c), s	1.3	0.0	1.1	3.6	0.0	0.0	0.0	14.6	14.6	0.0	13.7	13.7
Prop In Lane	0.26		1.00	0.81		1.00	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	311	0	283	320	0	233	327	776	800	269	742	779
V/C Ratio(X)	0.19	0.00	0.54	0.41	0.00	0.12	0.24	0.81	0.81	0.24	0.80	0.80
Avail Cap(c_a), veh/h	1025	0	933	919	0	862	752	1456	1502	745	1480	1554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	17.1	19.4	0.0	16.8	17.9	10.8	10.8	19.5	11.4	11.4
Incr Delay (d2), s/veh	0.1	0.0	0.6	0.3	0.0	0.1	0.1	0.8	0.8	0.2	0.8	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.0	2.4	2.2	0.0	0.4	1.1	6.4	6.6	1.0	6.3	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.6	0.0	17.6	19.7	0.0	16.9	18.0	11.6	11.6	19.6	12.2	12.2
LnGrp LOS	B		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h		210			160			1357			1287	
Approach Delay, s/veh		17.9			19.2			11.9			12.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	26.8		11.3	8.9	25.6		11.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	14.0	39.0		24.0	14.0	39.0		24.0				
Max Q Clear Time (g_c+I1), s	2.0	16.6		3.3	2.0	15.7		5.6				
Green Ext Time (p_c), s	0.1	4.2		0.4	0.1	3.8		0.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	13.0
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	70	1098	0	0	1198
Future Vol, veh/h	36	70	1098	0	0	1198
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, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	7	0	0	5
Mvmt Flow	39	76	1193	0	0	1302

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1845	597	0	-	-	-
Stage 1	1193	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	68	451	-	0	0	-
Stage 1	254	-	-	0	0	-
Stage 2	486	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	68	451	-	-	-	-
Mov Cap-2 Maneuver	180	-	-	-	-	-
Stage 1	254	-	-	-	-	-
Stage 2	486	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	24.48	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	298	-
HCM Lane V/C Ratio	-	0.386	-
HCM Ctrl Dly (s/v)	-	24.5	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	1.8	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1098	72	37	1197
Future Vol, veh/h	0	0	1098	72	37	1197
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	-	-	-	25	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	7	0	0	5
Mvmt Flow	0	0	1193	78	40	1301

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1964	636	0	0	1272	0
Stage 1	1233	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	56	426	-	-	553	-
Stage 1	242	-	-	-	-	-
Stage 2	443	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	52	426	-	-	553	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	242	-	-	-	-	-
Stage 2	410	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0.36
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	553	-
HCM Lane V/C Ratio	-	-	-	0.073	-
HCM Ctrl Dly (s/v)	-	-	0	12	-
HCM Lane LOS	-	-	A	B	-
HCM 95th %tile Q(veh)	-	-	-	0.2	-

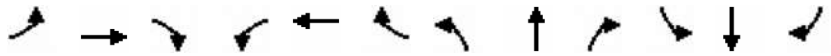
Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	17	0	146	5	0	1	164	1295	5	1	0	1158
Future Volume (vph)	17	0	146	5	0	1	164	1295	5	1	0	1158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	12	14	12	12	12	12	12	10	11
Total Lost time (s)		5.0	5.0		5.0		7.0	7.0				7.0
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95				0.95
Frpb, ped/bikes		1.00	1.00		1.00		1.00	1.00				1.00
Flpb, ped/bikes		1.00	1.00		0.96		1.00	1.00				1.00
Frt		1.00	0.85		0.98		1.00	1.00				1.00
Flt Protected		0.95	1.00		0.96		0.95	1.00				1.00
Satd. Flow (prot)		1805	1652		1821		1787	3537				3384
Flt Permitted		0.95	1.00		0.96		0.95	1.00				1.00
Satd. Flow (perm)		1805	1652		1821		1787	3537				3384
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	18	0	154	5	0	1	173	1363	5	1	0	1219
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	1
Lane Group Flow (vph)	0	18	154	0	6	0	173	1369	0	0	0	1230
Confl. Peds. (#/hr)			2	2					2	4	2	
Confl. Bikes (#/hr)							1	1				
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	1%	2%	0%	0%	0%	3%
Turn Type	Split	NA	pt+ov	Split	NA		Prot	NA			Prot	NA
Protected Phases	3	3	3 5	8	8		5	2			1	6
Permitted Phases												
Actuated Green, G (s)		10.0	20.1		0.9		10.1	57.7				40.6
Effective Green, g (s)		10.0	20.1		0.9		10.1	57.7				40.6
Actuated g/C Ratio		0.11	0.22		0.01		0.11	0.63				0.44
Clearance Time (s)		5.0			5.0		7.0	7.0				7.0
Vehicle Extension (s)		2.0			2.0		2.0	2.0				4.0
Lane Grp Cap (vph)		197	363		17		197	2232				1503
v/s Ratio Prot		0.01	c0.09		c0.00		0.10	c0.39				c0.36
v/s Ratio Perm												
v/c Ratio		0.09	0.42		0.35		0.88	0.61				0.82
Uniform Delay, d1		36.6	30.7		45.0		40.0	10.1				22.2
Progression Factor		1.00	1.00		1.00		1.00	1.00				1.00
Incremental Delay, d2		0.1	0.3		4.5		31.9	0.4				3.8
Delay (s)		36.7	31.0		49.5		71.9	10.5				26.0
Level of Service		D	C		D		E	B				C
Approach Delay (s/veh)		31.6			49.5			17.4				26.0
Approach LOS		C			D			B				C

Intersection Summary			
HCM 2000 Control Delay (s/veh)	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	91.4	Sum of lost time (s)	29.0
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR	SWL	SWR2
Lane Configurations			
Traffic Volume (vph)	11	0	1
Future Volume (vph)	11	0	1
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	11	13	12
Total Lost time (s)		5.0	
Lane Util. Factor		1.00	
Frpb, ped/bikes		1.00	
Flpb, ped/bikes		1.00	
Frt		0.87	
Flt Protected		1.00	
Satd. Flow (prot)		1698	
Flt Permitted		1.00	
Satd. Flow (perm)		1698	
Peak-hour factor, PHF	0.95	0.95	0.95
Adj. Flow (vph)	12	0	1
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	0	1	0
Confl. Peds. (#/hr)		2	
Confl. Bikes (#/hr)			
Heavy Vehicles (%)	0%	0%	0%
Turn Type		Prot	
Protected Phases		4	
Permitted Phases			
Actuated Green, G (s)		0.8	
Effective Green, g (s)		0.8	
Actuated g/C Ratio		0.01	
Clearance Time (s)		5.0	
Vehicle Extension (s)		2.0	
Lane Grp Cap (vph)		14	
v/s Ratio Prot		c0.00	
v/s Ratio Perm			
v/c Ratio		0.07	
Uniform Delay, d1		44.9	
Progression Factor		1.00	
Incremental Delay, d2		0.8	
Delay (s)		45.7	
Level of Service		D	
Approach Delay (s/veh)		45.7	
Approach LOS		D	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	40	154	97	23	49	206	1395	143	66	1212	30
Future Volume (veh/h)	20	40	154	97	23	49	206	1395	143	66	1212	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.98	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1870	1885	1885	1961	1900	1870	1900
Adj Flow Rate, veh/h	22	44	126	107	25	42	226	1533	146	73	1332	32
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	2	1	1	1	0	2	0
Cap, veh/h	125	165	402	254	34	233	398	1804	170	199	1582	38
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.14	0.55	0.55	0.04	0.45	0.45
Sat Flow, veh/h	382	1445	1597	1259	294	1551	1795	3300	311	1810	3547	85
Grp Volume(v), veh/h	66	0	126	132	0	42	226	825	854	73	667	697
Grp Sat Flow(s),veh/h/ln	1827	0	1597	1553	0	1551	1795	1791	1820	1810	1777	1855
Q Serve(g_s), s	0.0	0.0	0.0	2.8	0.0	0.0	1.6	23.0	23.8	0.0	19.7	19.8
Cycle Q Clear(g_c), s	1.9	0.0	0.0	4.7	0.0	0.0	1.6	23.0	23.8	0.0	19.7	19.8
Prop In Lane	0.33		1.00	0.81		1.00	1.00		0.17	1.00		0.05
Lane Grp Cap(c), veh/h	290	0	402	287	0	233	398	979	995	199	793	828
V/C Ratio(X)	0.23	0.00	0.31	0.46	0.00	0.18	0.57	0.84	0.86	0.37	0.84	0.84
Avail Cap(c_a), veh/h	783	0	866	709	0	684	577	1631	1658	562	1618	1690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	0.0	18.1	25.2	0.0	22.0	21.9	11.3	11.5	27.3	14.6	14.6
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.4	0.0	0.1	0.5	0.9	1.2	0.4	1.0	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	2.4	3.1	0.0	0.9	4.4	10.3	10.8	1.7	10.2	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.2	0.0	18.2	25.7	0.0	22.2	22.4	12.2	12.6	27.8	15.5	15.5
LnGrp LOS	C		B	C		C	C	B	B	C	B	B
Approach Vol, veh/h		192			174			1905			1437	
Approach Delay, s/veh		20.3			24.8			13.6			16.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	38.4		12.8	14.1	32.4		12.8				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	14.0	54.0		24.0	14.0	54.0		24.0				
Max Q Clear Time (g_c+I1), s	2.0	25.8		3.9	3.6	21.8		6.7				
Green Ext Time (p_c), s	0.1	6.7		0.4	0.4	4.7		0.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	15.5
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved changes to right turn type.

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	39	1426	0	0	1309
Future Vol, veh/h	24	39	1426	0	0	1309
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, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	2
Mvmt Flow	26	42	1550	0	0	1423

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2261	775	0	-	-	-
Stage 1	1550	-	-	-	-	-
Stage 2	711	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	36	345	-	0	0	-
Stage 1	164	-	-	0	0	-
Stage 2	453	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	36	345	-	-	-	-
Mov Cap-2 Maneuver	122	-	-	-	-	-
Stage 1	164	-	-	-	-	-
Stage 2	453	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	31.42	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	203	-
HCM Lane V/C Ratio	-	0.337	-
HCM Ctrl Dly (s/v)	-	31.4	-
HCM Lane LOS	-	D	-
HCM 95th %tile Q(veh)	-	1.4	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	1426	38	25	1308
Future Vol, veh/h	0	0	1426	38	25	1308
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	-	-	-	25	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	2
Mvmt Flow	0	0	1550	41	27	1422

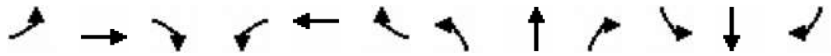
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2336	796	0	0	1591	0
Stage 1	1571	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	32	334	-	-	418	-
Stage 1	160	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	30	334	-	-	418	-
Mov Cap-2 Maneuver	115	-	-	-	-	-
Stage 1	160	-	-	-	-	-
Stage 2	397	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0.27
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	418	-
HCM Lane V/C Ratio	-	-	-	0.065	-
HCM Ctrl Dly (s/v)	-	-	0	14.2	-
HCM Lane LOS	-	-	A	B	-
HCM 95th %tile Q(veh)	-	-	-	0.2	-

Movement	EBL2	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	SWL
Lane Configurations											
Traffic Volume (vph)	26	1	166	1	0	141	813	0	912	11	1
Future Volume (vph)	26	1	166	1	0	141	813	0	912	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	13	12	14	12	12	10	11	11	13
Total Lost time (s)		5.0	5.0		5.0	7.0	7.0		7.0		5.0
Lane Util. Factor		1.00	1.00		1.00	1.00	0.95		0.95		1.00
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00		1.00
Flpb, ped/bikes		1.00	1.00		0.96	1.00	1.00		1.00		1.00
Frt		1.00	0.85		1.00	1.00	1.00		1.00		1.00
Flt Protected		0.95	1.00		0.95	0.95	1.00		1.00		0.95
Satd. Flow (prot)		1812	1669		1839	1787	3539		3416		1862
Flt Permitted		0.95	1.00		0.95	0.95	1.00		1.00		0.95
Satd. Flow (perm)		1812	1669		1839	1787	3539		3416		1862
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	29	1	187	1	0	158	913	0	1025	12	1
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	1	0	0
Lane Group Flow (vph)	0	30	187	0	1	158	913	0	1036	0	1
Confl. Peds. (#/hr)			2	2				3			2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	2%	0%	2%	0%	0%
Turn Type	Split	NA	pt+ov	Split	NA	Prot	NA	Prot	NA		Prot
Protected Phases	3	3	3 5	8	8	5	2	1	6		4
Permitted Phases											
Actuated Green, G (s)		10.3	20.7		0.7	10.4	48.6		31.2		0.7
Effective Green, g (s)		10.3	20.7		0.7	10.4	48.6		31.2		0.7
Actuated g/C Ratio		0.13	0.25		0.01	0.13	0.59		0.38		0.01
Clearance Time (s)		5.0			5.0	7.0	7.0		7.0		5.0
Vehicle Extension (s)		2.0			2.0	2.0	2.0		4.0		2.0
Lane Grp Cap (vph)		226	419		15	225	2089		1295		15
v/s Ratio Prot		0.02	c0.11		c0.00	c0.09	0.26		c0.30		c0.00
v/s Ratio Perm											
v/c Ratio		0.13	0.45		0.07	0.70	0.44		0.80		0.07
Uniform Delay, d1		32.0	26.0		40.5	34.5	9.3		22.8		40.5
Progression Factor		1.00	1.00		1.00	1.00	1.00		1.00		1.00
Incremental Delay, d2		0.1	0.3		0.7	7.8	0.1		3.8		0.7
Delay (s)		32.1	26.2		41.2	42.3	9.4		26.6		41.2
Level of Service		C	C		D	D	A		C		D
Approach Delay (s/veh)		27.1			41.2		14.2		26.6		41.2
Approach LOS		C			D		B		C		D

Intersection Summary			
HCM 2000 Control Delay (s/veh)	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	82.3	Sum of lost time (s)	29.0
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	25	199	90	16	25	120	903	75	47	998	33
Future Volume (veh/h)	27	25	199	90	16	25	120	903	75	47	998	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1900	1826	1900	1870	1961	1900	1870	1900
Adj Flow Rate, veh/h	28	26	126	94	17	12	125	941	71	49	1040	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	1	0	5	0	2	1	0	2	0
Cap, veh/h	212	115	264	307	26	275	343	1253	95	380	1364	43
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.06	0.37	0.37	0.07	0.39	0.39
Sat Flow, veh/h	702	1069	1610	1314	238	1547	1810	3348	253	1810	3512	111
Grp Volume(v), veh/h	54	0	126	111	0	12	125	499	513	49	526	547
Grp Sat Flow(s),veh/h/ln	1771	0	1610	1552	0	1547	1810	1777	1824	1810	1777	1847
Q Serve(g_s), s	0.0	0.0	0.6	1.6	0.0	0.0	0.0	9.8	9.8	0.0	10.3	10.3
Cycle Q Clear(g_c), s	1.1	0.0	0.6	2.7	0.0	0.0	0.0	9.8	9.8	0.0	10.3	10.3
Prop In Lane	0.52		1.00	0.85		1.00	1.00		0.14	1.00		0.06
Lane Grp Cap(c), veh/h	327	0	264	333	0	275	343	665	682	380	690	717
V/C Ratio(X)	0.17	0.00	0.48	0.33	0.00	0.04	0.36	0.75	0.75	0.13	0.76	0.76
Avail Cap(c_a), veh/h	1117	0	1052	1050	0	1033	872	1724	1770	883	1724	1792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	0.0	15.2	17.1	0.0	13.7	16.7	10.9	10.9	14.1	10.7	10.7
Incr Delay (d2), s/veh	0.1	0.0	0.5	0.2	0.0	0.0	0.2	0.7	0.6	0.1	0.7	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.0	1.6	1.6	0.0	0.1	1.6	4.5	4.6	0.5	4.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.6	0.0	15.7	17.3	0.0	13.7	17.0	11.6	11.6	14.1	11.4	11.3
LnGrp LOS	B		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h		180			123			1137			1122	
Approach Delay, s/veh		16.0			17.0			12.2			11.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	21.0		10.3	8.3	21.6		10.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	14.0	39.0		24.0	14.0	39.0		24.0				
Max Q Clear Time (g_c+I1), s	2.0	11.8		3.1	2.0	12.3		4.7				
Green Ext Time (p_c), s	0.1	3.0		0.4	0.2	3.3		0.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	12.4
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	49	74	880	0	0	1080
Future Vol, veh/h	49	74	880	0	0	1080
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, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	53	80	957	0	0	1174

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1543	478	0	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	108	539	-	0	0	-
Stage 1	338	-	-	0	0	-
Stage 2	524	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	108	539	-	-	-	-
Mov Cap-2 Maneuver	234	-	-	-	-	-
Stage 1	338	-	-	-	-	-
Stage 2	524	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	21.17	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	355	-
HCM Lane V/C Ratio	-	0.377	-
HCM Ctrl Dly (s/v)	-	21.2	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	1.7	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	880	75	51	1078
Future Vol, veh/h	0	0	880	75	51	1078
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	-	-	-	25	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	957	82	55	1172

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1694	519	0	0	1038	0
Stage 1	997	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	86	507	-	-	678	-
Stage 1	322	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	79	507	-	-	678	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	322	-	-	-	-	-
Stage 2	423	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0.49
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	678	-
HCM Lane V/C Ratio	-	-	-	0.082	-
HCM Ctrl Dly (s/v)	-	-	0	10.8	-
HCM Lane LOS	-	-	A	B	-
HCM 95th %tile Q(veh)	-	-	-	0.3	-

APPENDIX G

TECHNICAL MEMORANDUM OF QUEUEING OF DUNKIN DONUTS

MEMORANDUM

Creighton Manning
ENGINEERS
PLANNERS
SURVEYORS

Date: August 30, 2021

To: Mitch Cohen | Town of Hurley Planning Board Chair
From: Starke Hipp, PE | Creighton Manning Engineering, LLP
cc: John Joseph | Southern Realty & Development

RE: SEQR 19-159; Proposed Dunkin' Donuts; NYS Route 28/NYS Route 375, Town of Hurley, Ulster County, New York; CM Project No. 120-218

1. Purpose

The purpose of this memo is to report the findings of the queuing observations in regards to NYS Route 375 at its intersection with NYS Route 28 per the request of Nelson Pope Voorhis' Traffic Engineer and the drive-thru queuing analysis of the following two operational Dunkin' Donuts in Ulster County per the request of Ulster County Planning Board in a comment letter dated August 4, 2021:

- 138 Ulster Ave, Saugerties, NY | AADT = 11,988[1]
- 1285 Ulster Ave, Kingston, NY | AADT = 27,111[1]

2. NYS Route 375 Queue Observations

Creighton Manning Engineering, LLP (CM) installed a camera to record video capturing the southbound queue on the NYS Route 375 approach to its intersection with NYS Route 28 during the following periods:

- 8AM – 9AM | Friday, August 27, 2021[2]
- 4:45PM – 5:45PM | Friday, August 27, 2021[2]
- 8AM – 9AM | Saturday, August 28, 2021

These times reflect the peak hours of the intersection as determined in the Weekday and Weekend Day analyses previously submitted on August 16, 2021 and August 2, 2021, respectively. Below is the findings upon review of the video:

- 8AM – 9AM | Friday, August 27, 2021 | Longest Queue: 8 vehicles
- 4:45PM – 5:45PM | Friday, August 27, 2021 | Longest Queue: 10 vehicles
- 8AM – 9AM | Saturday, August 28, 2021 | Longest Queue: 5 vehicles

The longest observed queue was 10 vehicles. This queue did extend past the proposed driveway location on NYS Route 375. However, the queue was fully serviced within the cycle which would then allow a driver to enter the site. Additionally, it is common for drivers to provide a courtesy gap when approaching the rear of the queue for vehicles to conduct a left-turn

3. Drive Thru Queuing Studies

Technicians observed the drive-thru queues of the following two Dunkin' Donuts from 7:30AM-9:00AM on Friday, August 27, 2021, and from 7:30AM-9:00AM on Saturday, August 28, 2021:

- 138 Ulster Ave, Saugerties, NY | AADT = 11,988
    - Friday | Longest Drive-Thru Queue: 7
    - Saturday | Longest Drive-Thru Queue: 10
- 1285 Ulster Ave, Kingston, NY | AADT = 27,111
    - Friday | Longest Drive-Thru Queue: 14
    - Saturday | Longest Drive-Thru Queue: 10

As the drive-thru queuing studies indicate, the longest observed queue was 14 vehicles at the Kingston, NY location. It should be noted that the adjacent roadway has an AADT of 27,111 and NYS Route 28 has an AADT of 16,808. Furthermore, the Kingston, NY location shares a driveway with CVS, Hampton Inn, and Taco Bell. Based on these observations the proposed Dunkin' Donuts provides an adequate stacking capacity of 18 vehicles.

[1] Data obtained from the NYSDOT Traffic Data Viewer

[2] CM notes that the AADT on NYS Route 28 on Friday was 14% higher than Thursday (20,172 vs 17,351), and the AADT on NYS Route 375 was 5% lower on Friday than Thursday (7,097 vs 7,431). The NYS Route 28 data was obtained as part of the Weekday analysis and was submitted as part of the deliverable on August 16, 2021. The NYS Route 375 data was obtained from the NYSDOT Traffic Data Viewer.