October 7, 2026

20265177.0001

6700 TRANSIT RD AUTOMOTIVE DEALERSHIP DEVELOPMENT

TOWN OF CHEEKTOWAGA, NY

PREPARED FOR:
Christopher Wood, P.E. | President
Carmina Wood Design
80 Silo City Row Ste 100
Buffalo, NY 14203

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY 2
2.0 INTRODUCTION 4
2.1 Study Purpose and Objectives 4
2.2 Project Location 4
2.3 Study Area 4
3.0 TRANSPORTATION SETTING 4
3.1 Description of Study Area Roadways 4
Table 1: *Existing Highway System* 5
3.2 Description of Multimodal Network 5
Table 2: *Multimodal Network* 5
3.3 Planned/Programmed Highway Improvements 6
4.0 EXISTING CONDITIONS ANALYSIS 6
4.1 Peak Intervals for Analysis 6
4.2 Existing Traffic Volume Data 6
4.3 Field Observations 6
5.0 BACKGROUND (NO BUILD) CONDITIONS 7
6.0 PROPOSED DEVELOPMENT CONDITIONS 7
6.1 Project Description 7
6.2 Proposed Traffic Generation 7
Table 3: *Site Generated Trips* 8
6.3 Trip Distribution 8
6.4 Full Development Volumes 8
7.0 TRAFFIC OPERATIONS AND ANALYSIS 9
7.1 Description of Capacity Analysis 9
Table 4: *Level of Service Criteria* 9
7.2 Capacity Analysis Results 10
Table 5: *Capacity Analysis Results* 11
8.0 CONCLUSIONS AND RECOMMENDATIONS 12
9.0 REFERENCES 13
10.0 FIGURES 13

APPENDICES

APPENDIX A: EXISTING TRAFFIC COUNT DATA
APPENDIX B: MISCELLANEOUS CALCULATIONS
APPENDIX C: LOS CALCULATIONS – EXISTING CONDITIONS
APPENDIX D: LOS CALCULATIONS – BACKGROUND CONDITIONS
APPENDIX E: LOS CALCULATIONS – FULL BUILD CONDITIONS

1.0 EXECUTIVE SUMMARY

The purpose of this report is to evaluate the potential traffic impacts related to the proposed automobile dealership development located on Transit Rd in the Town of Cheektowaga, NY. Within this report, the operating characteristics of the proposed access points and impacts to the adjacent roadway network are evaluated. Mitigating measures are identified, if needed, to minimize operational concerns.

The Project site is an assemblage of contiguous parcels including 6700, 6704 and 00 Transit Road in the Town of Cheektowaga, New York. (00 Transit Road is located at the rear of 6700 Transit Road and has no Transit Road frontage). The Project site is bounded by commercial and residential development to the north, Transit Road to the east, and the NYS Thruway to south and west. Transit Road is a major north-south commercial corridor extending through Erie and Niagara Counties. Land uses within the study area generally consist of commercial and residential uses. The Project site was formerly occupied by the Clarion Hotel and Jerry Gradl Motors used car dealership, both of which have ceased operations.

The study area includes the two existing intersections of Transit Road/Freeman Road and Freeman Road/McKinley Avenue. This intersection was improved by NYSDOT approximately a decade ago as part of the Transit Road Highway Reconstruction project. Improvements at this intersection included extension of McKinley Road to the Project site for the specific purpose of providing access to the signalized intersection.

To define traffic impact, this analysis establishes existing baseline traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the proposed project. All figures and supporting calculations are included at the end of this report.

Project Location and Description

The project site is located along the west side of Transit Rd just north of the NY State Thruway on and off ramps in the Town of Cheektowaga, NY. The project comprises the following aspects:

- **Site Status:** Currently, the property is undeveloped with remnants of a parking lot. Formerly Clarion Hotel and Jerry Gradl Motors.
- **Site Boundary:**
  - **North:** Freeman Rd, Commercial and Residential Developments
  - **East:** Transit Rd
  - **South:** NY State Thruway
  - **West:** NY State Thruway and McKinley Ave
- **Vicinity Land Uses:** There is a mix of land uses, including commercial and residential.

The proposed development consists of constructing two new automobile dealership buildings, reconstructing and expanding the existing parking lot, and constructing a stormwater detention pond. The northern dealership building is planned to be 18,000 square-feet and the southern dealership building is planned to be 28,000 square-feet.

Access to and from the Project site will be provided via existing driveways on Transit Road and McKinley Avenue which provides access to the traffic signal at Transit Road/Freeman Road. The Project site currently has 3 driveways along Transit Road. The middle, northerly and southerly driveways are proposed to remain. An additional new entrance is proposed at the northerly part of the site off Freeman Road. As Transit Road is divided with a raised median in the vicinity of the Project site, the Transit Rd driveways will facilitate right-in/right-out access only to and from the Project site.

Study Area

To ensure a comprehensive analysis of potential traffic impacts, a study area was selected consisting of the following intersections.

1. Transit Rd (NY-78)/Freeman Road
2. Freeman Road/McKinley Avenue
3. McKinley Avenue/Stiles Court

Existing and Background Conditions

Turning movement traffic counts were collected on Thursday, August 20, and Saturday, August 22, 2026, by Passero Associates at the study area intersections listed in Section 2.3 to determine peak hour traffic volumes. Traffic counts were conducted between 4:00-6:00 PM for the weekday PM peak period and 11:00 AM-1 PM for the Saturday midday peak period. The peak hour traffic periods generally occurred between 4:30-5:30 PM for the PM peak hour, and 11:30 AM-12:30 PM for the SAT peak hour at the study intersections; these time periods were used for analysis purposes in this study.

Construction of the proposed project is anticipated to reach full completion in approximately one year. The widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but not yet approved are not included in a traffic analysis.

Historical traffic counts were collected from the NYSDOT Traffic Volume Report (2025) and indicate that traffic volumes have not fluctuated very much in this segment of Transit Road since 2009. Growth is negative to small in this area of Transit Road. To account for normal increases in background traffic growth, including any unforeseen developments in the Project study area, a growth rate of 0.5% per year has been applied to the base traffic volumes in the study area for the two-year build-out period.

Conclusions and Recommendations

The purpose of this report is to evaluate the potential traffic impacts that can be expected from the proposed Project as described herein. The results of this comprehensive study determined that the existing transportation network can adequately accommodate the projected traffic volumes and resulting minor impacts to study area intersections. The following sets forth the conclusions and recommendations based upon the results of the analyses:

1. The proposed project is expected to generate approximately 42 entering/64 exiting vehicle trips during the weekday PM peak hour and 61 entering/52 exiting vehicle trips during the Saturday midday peak hour.

2. All approaches to the study intersections operate at LOS “E” or better during both peak hours under existing, background, and full development conditions. No changes in levels of service are expected as a result of the proposed Project.

3. No mitigation is warranted or recommended at any of the study intersections or proposed site driveways as a result of the proposed Project.

4. It is our firm’s professional opinion that the proposed Project will not result in any potentially significant adverse traffic impacts to the study area intersections.

2.0 INTRODUCTION

2.1 Study Purpose and Objectives

The purpose of this Traffic Impact Study ("TIS") is to identify and evaluate the potential traffic impacts associated with the proposed Transit Road Development Project (the "Project").

This TIS has been prepared by our company to assist the Town of Cheektowaga as well as involved and interested agencies in connection with their environmental review of the proposed Project pursuant to the State Environmental Quality Review Act ("SEQRA").

It is anticipated that this TIS will be provided to the Cheektowaga Traffic Safety Commission and the New York State Department of Transportation for its review as well as the Town's municipal boards that will participate in the review of the proposed project.

2.2 Project Location

The project site is located along the west side of Transit Rd just north of the NY State Thruway on and off ramps in the Town of Cheektowaga, NY. The project comprises the following aspects:

- **Site Status:** Currently, the property is undeveloped with remnants of a parking lot. Formerly Clarion Hotel and Jerry Gradl Motors.
- **Site Boundary:**
  - **North:** Freeman Rd, Commercial and Residential Developments
  - **East:** Transit Rd
  - **South:** NY State Thruway
  - **West:** NY State Thruway and McKinley Ave
- **Vicinity Land Uses:** There is a mix of land uses, including commercial and residential.

2.3 Study Area

To ensure a comprehensive analysis of potential traffic impacts, a study area was selected consisting of the following intersections.

1. Transit Rd (NY-78)/Freeman Road
2. Freeman Road/McKinley Avenue
3. McKinley Avenue/Stiles Court

3.0 TRANSPORTATION SETTING

3.1 Description of Study Area Roadways

The information outlined in **Table 1** provides a description of the existing roadway network within the study area. **Figure 2** illustrates the lane geometry and traffic controls at each of the study intersections and the Annual Average Daily Traffic (AADT) volumes on the study roadways. The AADTs, in vehicles per day (vpd), reflect the most recently collected data obtained from the NYSDOT.

Table 1: *Existing Highway System*

Roadway	Class[1]	Agency[2]	Speed	Typical Cross Section[3]	AADT
Transit Road (NY-78)	14	NYSDOT	45 mph	6-lane divided	37,524 (NYSDOT 2025)
Freeman Road	19	Town of Amherst	30 mph	2-lane undivided	N/A
McKinley Avenue	19	Town of Amherst	30 mph	2-lane undivided	N/A
Stiles Court	19	Town of Amherst	30 mph	2-lane undivided	N/A

1. Functional Classification.
2. Roadway ownership.
3. Excludes turning lanes at intersections.

Functional classification of roadways is determined by the NYSDOT and the Federal Highway Administration (FHWA). Both the NYSDOT and FHWA groups roads, streets, and highways into different classes based on how they are used. This is called functional classification. Roads and streets do not work alone to move traffic. Instead, they form a network. Functional classification defines how each road or street fits into this network, how it provides access to nearby properties, and whether it is in an urban or rural area. In the study area, all the roadways are classified as urban.

The primary functional classification within the study area:

- Principal Arterial (Class 14)
- Local (Class 19)

3.2 Description of Multimodal Network

Table 2 summarizes the traffic controls, pedestrian, bicycle, and transit accommodations within the study area.

Table 2: *Multimodal Network*

Intersection	Traffic Control	Pedestrian			Bicycle		Transit
		Sidewalk	Crosswalk	Ped Signal	Lane	Other	
Transit Rd/Freeman Rd	Signal	Fully present	Yes	Yes	No	In lane	Bus Route 47
Freeman Rd/McKinley Ave	Sign	Some presence	No	No	No	In lane	No
McKinley Ave/Stiles Ct	Sign	Some presence	No	No	No	In lane	No

3.3 Planned/Programmed Highway Improvements

The NYSDOT *Projects in Your Neighborhood* web portal was reviewed and it was determined that there are no planned or ongoing projects within the study area.



4.0 EXISTING CONDITIONS ANALYSIS

4.1 Peak Intervals for Analysis

Given the functional characteristics of the corridors, adjacent land uses, and the proposed land use for the project site, the peak hours selected for analysis are the weekday afternoon (PM), and Saturday midday (SAT) peak periods. The combination of site traffic and adjacent street traffic produces the greatest demand during these time periods.

4.2 Existing Traffic Volume Data

Turning movement traffic counts were collected on Thursday, August 20, and Saturday, August 22, 2026, by Passero Associates at the study area intersections listed in Section 2.3 to determine peak hour traffic volumes. Traffic counts were conducted between 4:00-6:00 PM for the weekday PM peak period and 11:00 AM-1 PM for the Saturday midday peak period. The peak hour traffic periods generally occurred between 4:30-5:30 PM for the PM peak hour, and 11:30 AM-12:30 PM for the SAT peak hour at the study intersections; these time periods were used for analysis purposes in this study.

The weekday turning movement count data was collected on a typical weekday. No adverse weather conditions impacted the traffic counts. The traffic volumes were reviewed to confirm accuracy, seasonality, and relative balance between intersections. Upon review of historical data in the area, it was determined that no seasonality adjustment was required. The actual differences in traffic volumes can be attributed to temporal variations in traffic volumes as well as activity related to driveways located in the segments between the study intersections. **Figures 3a-3b** illustrate the 2026 existing conditions for the PM, and SAT peak hours, respectively.

4.3 Field Observations

The study intersections were observed during peak intervals to assess current traffic operations. Signal timing and phasing information was previously obtained from the NYSDOT (in 2018) to determine peak hour phasing plans and phase durations during each interval at the signalized intersections. This information was used to support and/or calibrate capacity analysis models described in detail later in this report. A recent FOIL request for updated signal information has not been fulfilled at this time.

5.0 BACKGROUND (NO BUILD) CONDITIONS

Construction of the proposed project is anticipated to reach full completion in approximately one year. The widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but not yet approved are not included in a traffic analysis.

A review of available historical NYSDOT traffic volume data in the vicinity of the site indicates that traffic has decreased between 2015 and 2025. To account for normal increases in background traffic growth as well as any unforeseen developments in the study area, a growth rate of 0.5% was applied to the existing traffic volumes for the one-year build out period. **Figures 4a-4b** depict the peak hour background traffic volumes for the PM, and SAT peak hours, respectively.

6.0 PROPOSED DEVELOPMENT CONDITIONS

6.1 Project Description

The proposed development consists of constructing two new automobile dealership buildings, reconstructing and expanding the existing parking lot, and constructing a stormwater detention pond. The northern dealership building is planned to be 18,000 square-feet and the southern dealership building is planned to be 28,000 square-feet.

Access to and from the Project site will be provided via existing driveways on Transit Road and McKinley Avenue which provides access to the traffic signal at Transit Road/Freeman Road. The Project site currently has 3 driveways along Transit Road. The middle, northerly and southerly driveways are proposed to remain. An additional new entrance is proposed at the northerly part of the site off Freeman Road. As Transit Road is divided with a raised median in the vicinity of the Project site, the Transit Rd driveways will facilitate right-in/right-out access only to and from the Project site.

6.2 Proposed Traffic Generation

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation is an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of traffic entering and exiting the development. *Trip Generation Manual* (12th Edition) published by the Institute of Transportation Engineers (ITE) is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of the adjacent street traffic and proposed land uses, in this case, the weekday commuter PM and SAT peak hours, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis. Currently, there is no traffic entering or exiting the existing site, therefore the estimated trips generated are counted as the additional traffic volume generated by the site's development.

Table 3: *Site Generated Trips*

Description	ITE Land Use Code	Size	PM Peak Hour		SAT Peak Hour	
			Enter	Exit	Enter	Exit
Dealership 1						
Automobile Sales (New)	840	±28,000 SF	25	38	37	32
Dealership 2						
Automobile Sales (New)	840	±18,000 SF	17	26	24	20
Total Site Generated Trips			**42**	**64**	**61**	**52**

The proposed project is expected to generate approximately 42 entering/64 exiting vehicle trips during the weekday PM peak hour and 61 entering/52 exiting vehicle trips during the Saturday midday peak hour.

6.3 Trip Distribution

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

- Residential and employment centers using US Census data.
- Commercial centers in the greater area.
- Surrounding roadway network.
- Site layout and access locations.
- Existing traffic patterns.
- Existing traffic conditions and controls.

Figure 5 shows the anticipated trip distribution pattern percentage for the project site for the proposed development. **Figures 6a-6b** illustrate the peak hour project site-generated traffic during the PM, and SAT peak hours, respectively, based on the percentages in **Figure 5.**

6.4 Full Development Volumes

The proposed design hour traffic volumes are developed for the peak hours by combining the background traffic conditions (**Figures 4a-4b**) and the new site-generated traffic volumes (**Figures 6a-6b**) to yield the traffic volumes under full development conditions. **Figures 7a-7b** illustrate total anticipated full build peak hour volumes for the PM, and SAT peak hours, respectively.

7.0 TRAFFIC OPERATIONS AND ANALYSIS

7.1 Description of Capacity Analysis

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

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the *Highway Capacity Manual (HCM) 7th Edition* published by the Transportation Research Board (TRB). Traffic analysis software, Synchro 12, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a level of service based on the HCM as an indicator of how well intersections operate.

Six levels of service are defined for analysis purposes. They are assigned letter designations, from A to F, with LOS A representing the conditions with little to no delay, and LOS F conditions with very long delays. Suggested ranges of service capacity and an explanation of levels of service are included in the Appendices. LOS C or better is desirable, but LOS D for signalized locations and LOS E for unsignalized locations are generally thresholds of acceptable operation during peak periods so long as the volume to capacity ratio (v/c) is below 1.0. **Table 4** depicts level of service criteria for both signalized and unsignalized intersections and associated delays per vehicle in seconds.

Table 4: *Level of Service Criteria*

LOS	SIGNALIZED CONTROL	UNSIGNALIZED CONTROL
A	< 10	< 10
B	10 – 20	10 – 15
C	20 – 35	15 – 25
D	35 – 55	25 – 35
E	55 – 80	35 – 50
F	> 80	> 50

Level of service for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15-minute analysis period. Level of service for unsignalized intersections, however, are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable than they are at signals.

The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available, and vehicles are not expected to experience significant queues and delays. As the v/c ratio approaches 1.0, traffic flow may become unstable, and delay and queuing conditions may occur. This did not occur as part of analysis for this site.

7.2 Capacity Analysis Results

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The future traffic conditions generated by the project were analyzed to assess the operation of the study area intersections. Capacity results for existing, background, and full build conditions are listed in **Table 5**. The discussion following the table summarizes capacity conditions. The detailed Synchro capacity analysis worksheets are provided after this report.

Table 5: *Capacity Analysis Results*

INTERSECTION	2026 EXISTING CONDITIONS						2027 BACKGROUND CONDITIONS						2027 FULL BUILD CONDITIONS					
	PM			SAT			PM			SAT			PM			SAT		
	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c
1. Transit Rd/Freeman Rd (S)																		
EB Left - Freeman Rd	D	44.3	0.11	D	48.2	0.21	D	44.2	0.11	D	48.0	0.21	D	48.0	0.26	D	51.7	0.35
EB Thru/Right - Freeman Rd	B	19.4	0.09	B	15.6	0.19	B	19.4	0.09	B	15.6	0.19	B	19.4	0.09	B	15.5	0.19
WB Left - Freeman Rd	E	66.0	0.68	E	66.3	0.66	E	65.9	0.69	E	66.3	0.66	E	65.9	0.69	E	66.3	0.66
WB Thru - Freeman Rd	D	40.0	0.00	D	42.0	0.02	D	40.0	0.00	D	42.0	0.02	D	40.0	0.00	D	41.8	0.02
WB Right - Freeman Rd	A	1.1	0.17	A	0.8	0.13	A	1.0	0.17	A	0.8	0.13	A	1.0	0.17	A	0.8	0.13
NB U-turn/Left - Transit Rd	D	37.1	0.07	D	38.9	0.13	D	37.2	0.07	D	39.0	0.13	D	37.8	0.12	D	40.5	0.21
NB Thru - Transit Rd	B	19.3	0.56	B	14.9	0.39	B	19.4	0.56	B	15.0	0.39	B	19.4	0.56	B	15.4	0.40
NB Right - Transit Rd	A	3.1	0.13	A	1.2	0.06	A	3.1	0.13	A	1.2	0.06	A	3.1	0.13	A	1.3	0.06
SB U-turn/Left - Transit Rd	D	47.6	0.27	D	51.2	0.37	D	47.6	0.27	D	51.2	0.37	D	47.6	0.27	D	50.8	0.36
SB Thru/Right - Transit Rd	C	31.9	0.81	C	20.9	0.48	C	32.2	0.82	C	21.0	0.49	C	32.6	0.83	C	21.6	0.51
Overall LOS	**C**	**27.0**	**0.81**	**C**	**21.1**	**0.66**	**C**	**27.2**	**0.82**	**C**	**21.2**	**0.66**	**C**	**27.6**	**0.83**	**C**	**22.1**	**0.66**
2. Freeman Rd/McKinley Ave (U)																		
WB Left/Right - Freeman Rd	A	8.6	0.03	A	8.5	0.02	A	8.6	0.03	A	8.5	0.02	A	8.7	0.03	A	8.6	0.02
NB Thru/Right - McKinley Ave	A	0.0	0.03	A	0.0	0.00	A	0.0	0.03	A	0.0	0.00	A	0.0	0.03	A	0.0	0.00
SB Thru/Left - McKinley Ave	A	7.2	0.00	A	7.2	0.00	A	7.2	0.00	A	7.2	0.01	A	7.3	0.00	A	7.3	0.01
3. McKinley Ave/Stiles Ct (U)																		
EB Right/Left - Stiles Ct	A	8.6	0.01	A	8.5	0.01	A	8.6	0.01	A	8.5	0.01	A	8.8	0.01	A	8.6	0.01
WB Right/Left - Thru Driveway		N/A			N/A			N/A			N/A		A	8.4	0.00	A	0.0	0.00
NB Thru/Left - McKinley Ave	A	0.0		A	0.0		A	0.0		A	0.0		A	0.0	0.00	A	0.0	0.00
SB Thru/Right - McKinley Ave	A	0.0		A	0.0		A	0.0		A	0.0		A	0.0	0.00	A	0.0	0.00
4. Transit Rd/Southerly Driveway (U)																		
EB Right - Southerly Driveway		N/A			N/A			N/A			N/A		D	34.9	0.14	C	20.2	0.07
5. Transit Rd/Center Driveway (U)																		
EB Right - Center Driveway		N/A			N/A			N/A			N/A		D	34.7	0.13	C	20.3	0.06
6. Transit Rd/Thru Driveway (U)																		
EB Right - Thru Driveway		N/A			N/A			N/A			N/A		D	31.7	0.03	C	19.8	0.01
7. Freeman Rd/Northerly Driveway (U)																		
NB Thru/Left - McKinley Ave		N/A			N/A			N/A			N/A		A	8.5	0.01	A	8.6	0.01

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound

N/A = Approach does not exist and/or was not analyzed during this condition

1. Transit Rd at Freeman Road (Signalized)
All approaches operate at an acceptable LOS D or better existing and background conditions during all peak hours with the following exception:

- The westbound left approach is projected to operate at LOS E during the PM and SAT peak hours

No changes in LOS are anticipated, and no capacity improvements are warranted nor recommended at this location.

2. Freeman Road at McKinley Avenue (Unsignalized)
All approaches operate at an acceptable LOS A under all conditions during all peak hours. No changes in LOS are anticipated between background and full build conditions. No capacity improvements are warranted nor recommended at this location.

3. McKinley Avenue at Stiles Court (Unsignalized)
All approaches operate at an acceptable LOS A under all conditions during all peak hours. No changes in LOS are anticipated between background and full build conditions. No capacity improvements are warranted nor recommended at this location.

The three right-in/right-out entrances are expected to operate LOS D during PM peak hours, and LOS C during Saturday peak hours. All other proposed driveways are expected to operate at LOS A during all peak hours. No capacity improvements are warranted nor recommended at these locations.

8.0 CONCLUSIONS AND RECOMMENDATIONS

The purpose of this report is to evaluate the potential traffic impacts that can be expected from the proposed Project as described herein. The results of this comprehensive study determined that the existing transportation network can adequately accommodate the projected traffic volumes and resulting minor impacts to study area intersections. The following sets forth the conclusions and recommendations based upon the results of the analyses:

1. The proposed project is expected to generate approximately 42 entering/64 exiting vehicle trips during the weekday PM peak hour and 61 entering/52 exiting vehicle trips during the Saturday midday peak hour.

2. All approaches to the study intersections operate at LOS "E" or better during both peak hours under existing, background, and full development conditions. No changes in levels of service are expected as a result of the proposed Project.

3. No mitigation is warranted or recommended at any of the study intersections or proposed site driveways as a result of the proposed Project.

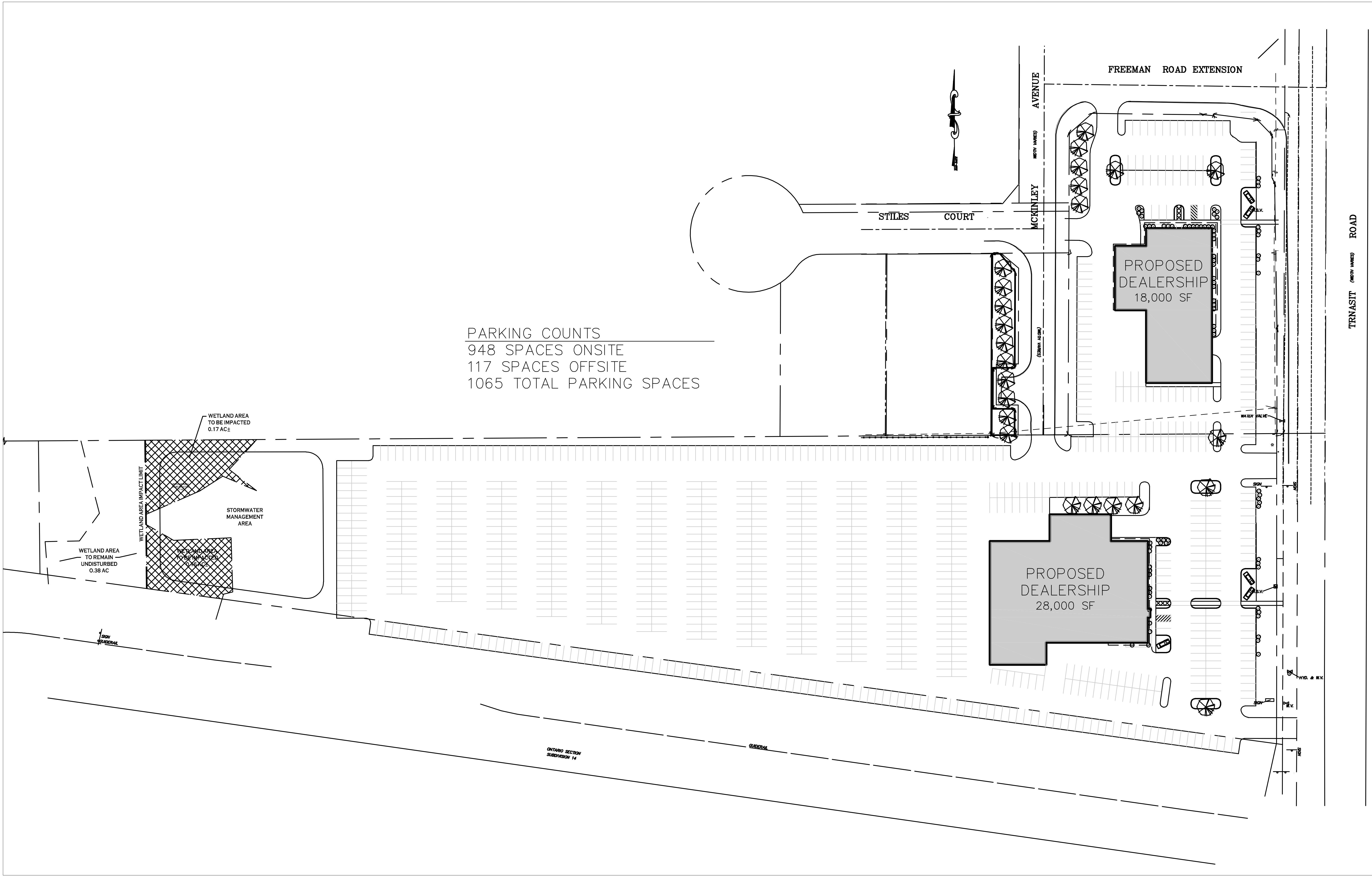
4. It is our firm's professional opinion that the proposed Project will not result in any potentially significant adverse traffic impacts to the study area intersections.

9.0 REFERENCES

- Synchro 12 Software. Cubic ITS.
- Highway Capacity Manual (7th Edition). Transportation Research Board (TRB). Washington, DC. 2022.
- Trip Generation Manual (12th Edition). Institute of Transportation Engineers (ITE). Washington, DC. 2025.
- Trip Generation Handbook (3rd Edition). Institute of Transportation Engineers (ITE). Washington, DC. 2017.
- OnTheMap. United States Census Bureau. 2024.
- Traffic Data Viewer. New York State Department of Transportation (NYSDOT). 2024.
- Highway Functional Classification Concepts, Criteria, and Procedures. Federal Highway Administration (FHWA). 2023.
- Manual on Uniform Traffic Control Devices (11th Edition). Federal Highway Administration. 2023

10.0 FIGURES

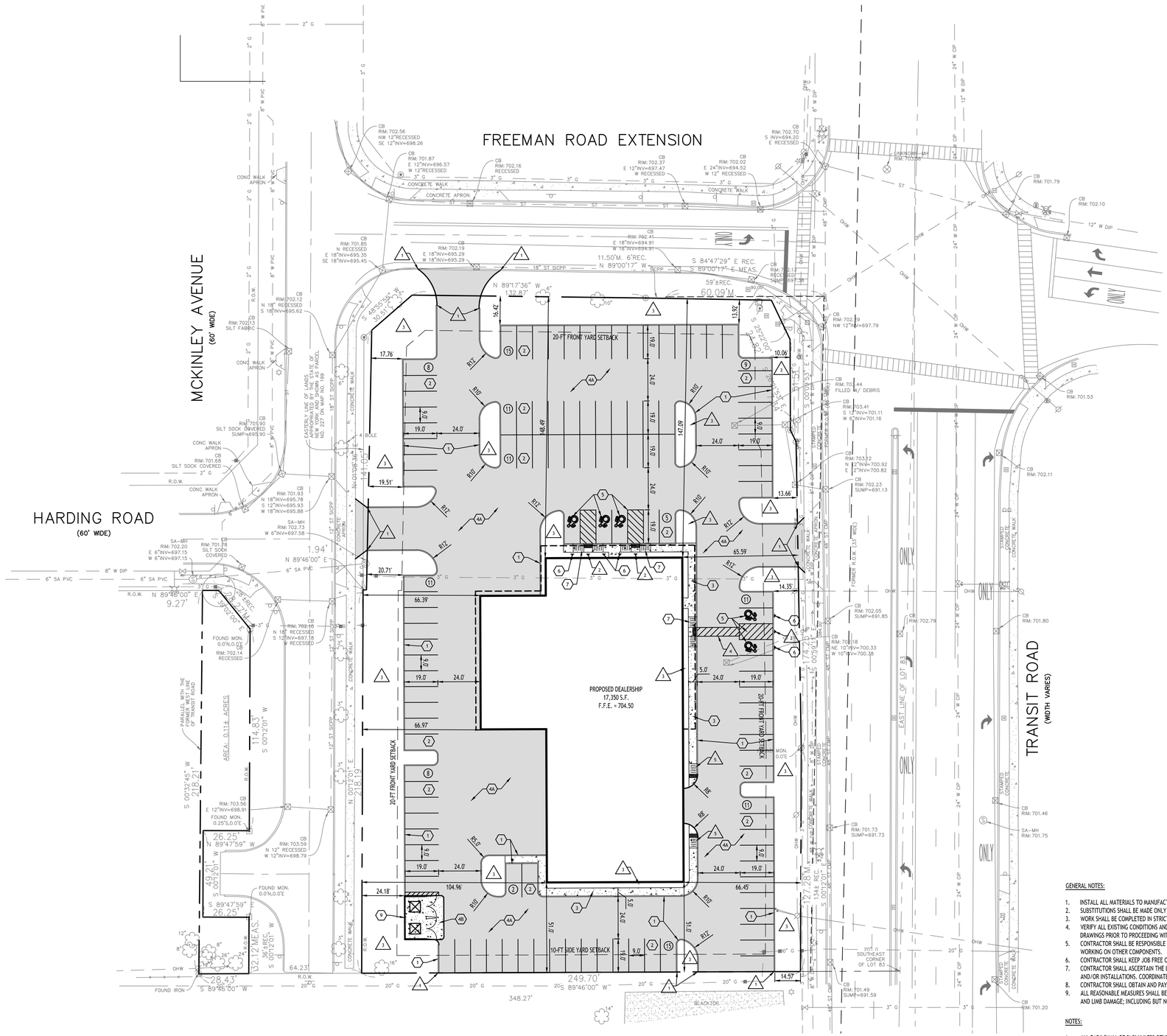
Figures 1 through 7b are included on the following pages.



FREEMAN ROAD EXTENSION
MCKINLEY AVENUE
STILES COURT
TRNASIT ROAD
PROPOSED DEALERSHIP 18,000 SF
PROPOSED DEALERSHIP 28,000 SF
PARKING COUNTS
948 SPACES ONSITE
117 SPACES OFFSITE
1065 TOTAL PARKING SPACES
WETLAND AREA TO BE IMPACTED 0.17 AC±
WETLAND AREA IMPACT LIMIT
STORMWATER MANAGEMENT AREA
WETLAND AREA TO REMAIN UNDISTURBED 0.38 AC
WATER VALVE
ONTARIO SECTION SUBDIVISION 14
GUIDERAIL

© CARMINA WOOD DESIGN

All Rights Reserved. Reuse of these documents without the expressed written permission of CARMINAWOOD DESIGN is prohibited. WARNING it is a violation of article 145 section 7209 and 7210 of the New York State Education Law for any person, unless acting under the direction of a licensed professional engineer or licensed landscape architect, to alter this drawing. If altered such R.A., P.E. or L.L.S. shall affix his or her seal, signature, the date,the notation 'Altered By' and a specific description of the alteration.



Site Plan
SCALE: 1"=30'

SITE DATA		
SITE AREA = 2.16 AC		
ZONED: GB - GENERAL BUSINESS DISTRICT		
BUILDING: 17,350 SF CAR DEALERSHIP		
SETBACKS - BUILDING	REQUIRED	PROVIDED
FRONT (BLDG. HT. < 35-FT)	20 FT	65.59 FT MIN.
SIDE (BLDG. HT. < 30-FT ABUTTING NON-RESIDENTIAL)	10 FT	51.0 FT
REAR (BLDG. HT. < 30-FT ABUTTING NON-RESIDENTIAL)	15 FT	N/A
SETBACKS - PARKING		
FRONT (BLDG. HT. < 35-FT)	10 FT	10.06 FT MIN.
SIDE (BLDG. HT. < 30-FT ABUTTING NON-RESIDENTIAL)	5 FT	0 FT *
REAR (BLDG. HT. < 30-FT ABUTTING NON-RESIDENTIAL)	5 FT	N/A
PARKING		
# OF SPACES - SEE CALCULATION BELOW	117	117
PARKING SPACE SIZE	9' x 19'	9' x 19'
MAX. BUILDING HEIGHT	65 FT	< 65 FT
LANDSCAPING		
INTERIOR PARKING AREA	2,494 SF (10%)	3,334 SF (13.4%)
*VARIANCE REQUIRED		

PARKING CALCULATION:

VEHICLE SALES:
REQD = 1 SPACE PER 200 SF + 1 SPACE PER EMPLOYEE

17,350 SF / 200 + 30 EMPLOYEES = 117 SPACES REQD

DETAIL LEGEND
SEE SITE DETAIL SHEET

1. TYPE 'A' CONCRETE CURB
2. 90° PARKING STALL
3. CONCRETE SIDEWALK
4A. STANDARD DUTY ASPHALT
4B. EXTERIOR CONCRETE SLAB ON GRADE
5. HANDICAPPED PAVEMENT MARKINGS
6. HANDICAPPED PARKING SIGN
7. HANDICAPPED PAVEMENT RAMP
8. LIGHT POLE FOUNDATION
9. DUMPSTER ENCLOSURE

NOTE LEGEND

1. RUNOUT CURB IN 2' OR MATCH EXISTING CURB
2. INSTALL 'NO PARKING' SIGN, M.U.T.C.D. SIGN NO. P1-1C
3. LANDSCAPED AREA - SEE LANDSCAPE PLAN, IF NO PLANTINGS, INSTALL TOPSOIL & SEED
4. 1' WIDE WHITE PAVEMENT STRIPES @ 1' SPACING BETWEEN 4' WIDE WHITE CROSSWALK LINES
5. RAMP SIDEWALK @ 1:12 MAX. W/ DETECTABLE WARNING MAT

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNERS APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. ALL REASONABLE MEASURES SHALL BE TAKEN TO PROTECT EXISTING TREES WHICH ARE TO BE PRESERVED FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE; INCLUDING BUT NOT LIMITED TO, RETAINING WALLS WHICH PREVENT FILLING ON TOP OF ROOTS OR EXCAVATING TREE ROOTS.

NOTES:

1. ALL RADII SHALL BE 3'-0" UNLESS OTHERWISE NOTED.
2. ALL DISTURBED AREAS: SHALL HAVE 4" MIN. OF TOPSOIL & SEED.
3. ALL DIMENSIONS FROM PROPERTY LINES SHALL BE MEASURED PERPENDICULAR TO THE PROPERTY LINE.
4. CENTER ENTRANCE SIDEWALKS ON DOOR OPENINGS.
5. BUILDING DIMENSIONS ARE APPROXIMATE, REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.

SITE LEGEND

- PROPERTY LINE
- PROPOSED CONCRETE CURB
- PROPOSED SIDEWALK / CONCRETE PAD
- NUMBER OF PARKING SPACES (27)
- PROPOSED SIGN
- PROPOSED STANDARD DUTY ASPHALT PAVEMENT
- PROPOSED LIGHT POLE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60Ft.

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Car Dealership
6766 Transit Road
Amherst, New York

REVISIONS:

No.	Description	Date

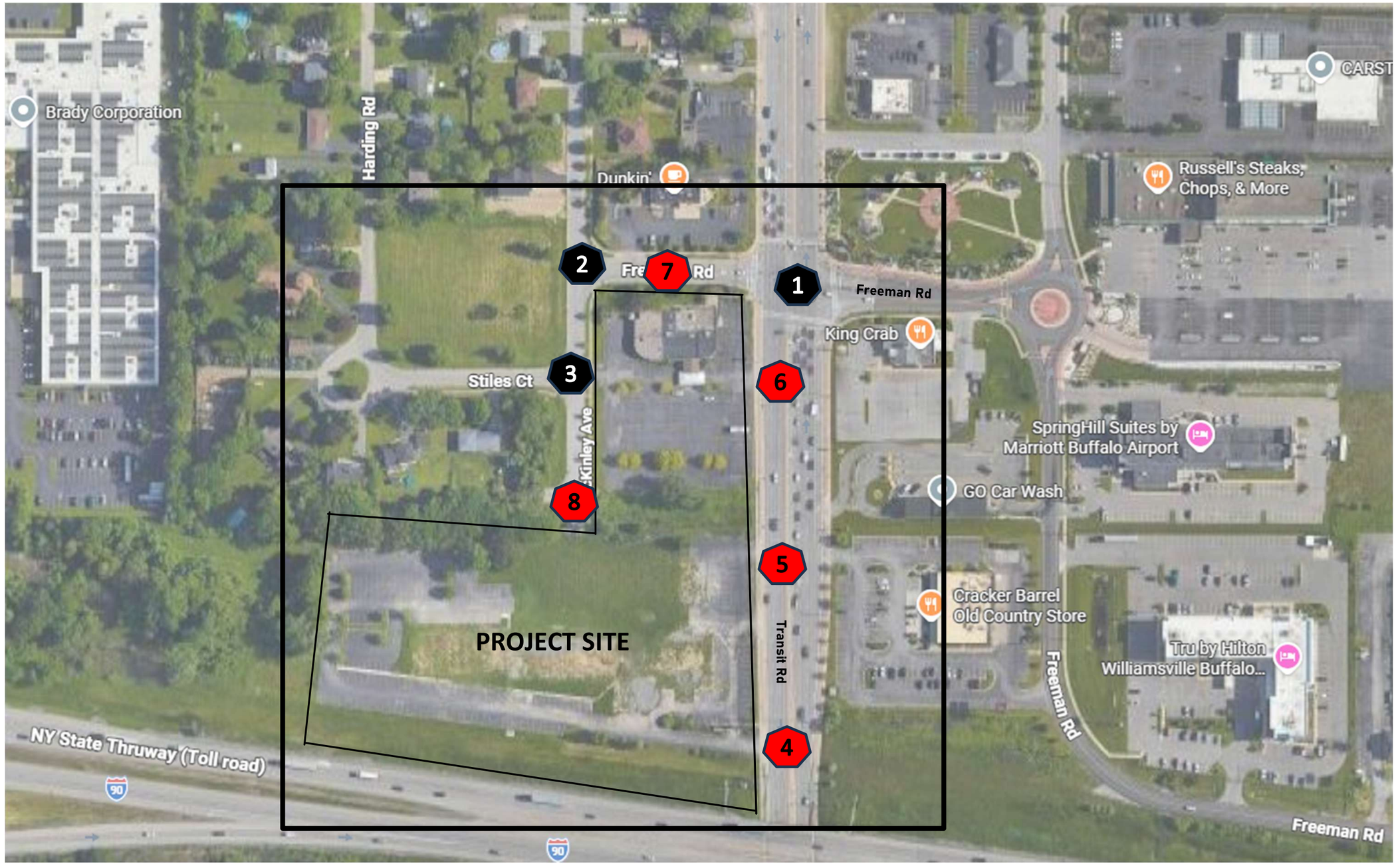
STATE OF NEW YORK * CHRISTOPHER WOOD * LICENSED PROFESSIONAL ENGINEER * 076394

DRAWING NAME:
Site Plan

Date: 8/27/26
Drawn By: A. Pandolfe
Scale: As Noted

DRAWING NO.
C-100

Project No: 26-4120



PASSERO engineering architecture

242 West Main Street, Suite 100
Rochester, NY 14614

Site Location & Study Area

6700 Transit Rd

Buffalo, NY

Key:

1 Study Intersection

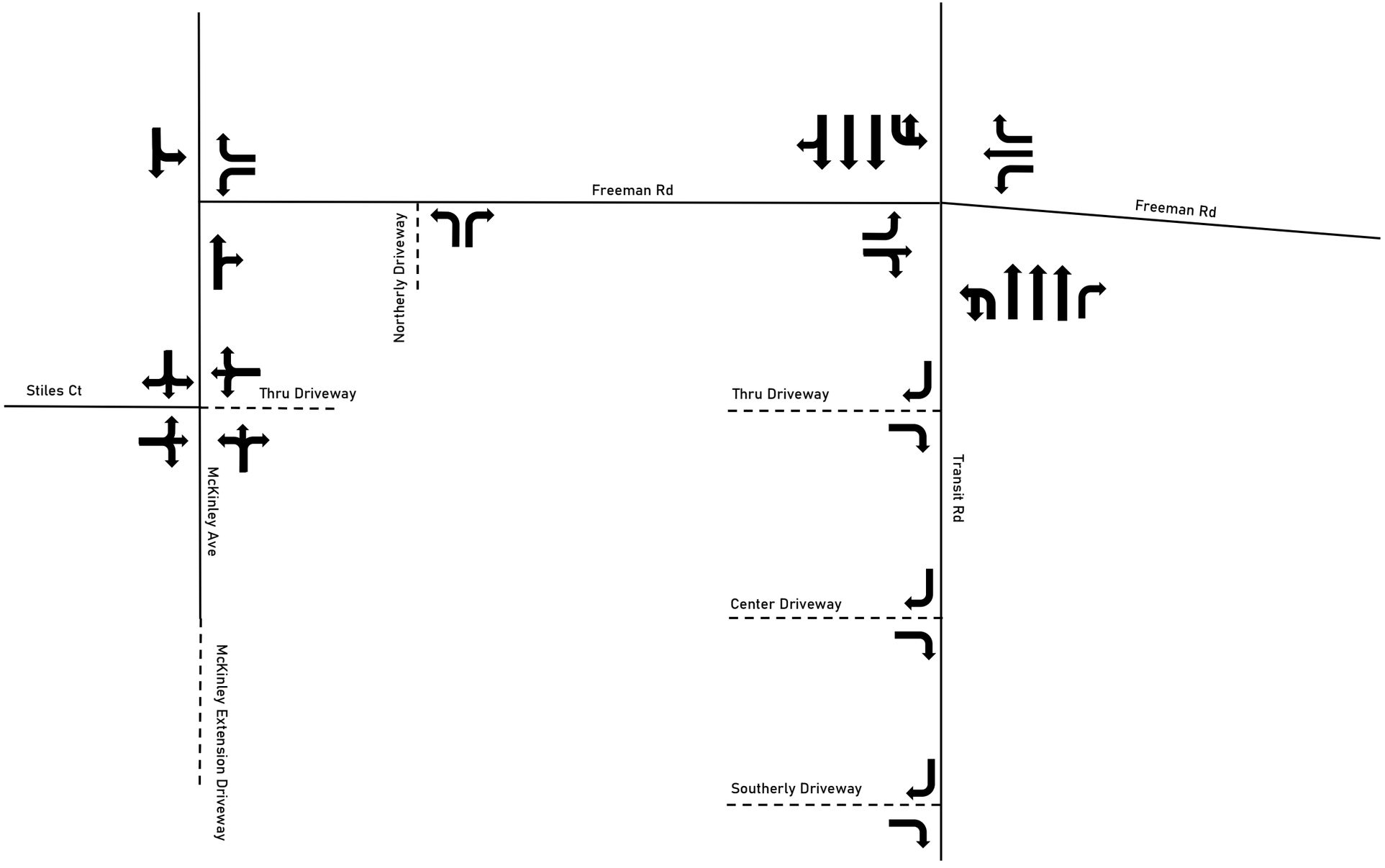
2 Site Driveway

Study Area

N

Figure 1

PN: 202651777.0001



PASSERO engineering architecture

242 West Main Street, Suite 100
Rochester, NY 14614

Lane Geometry and Average Daily Traffic

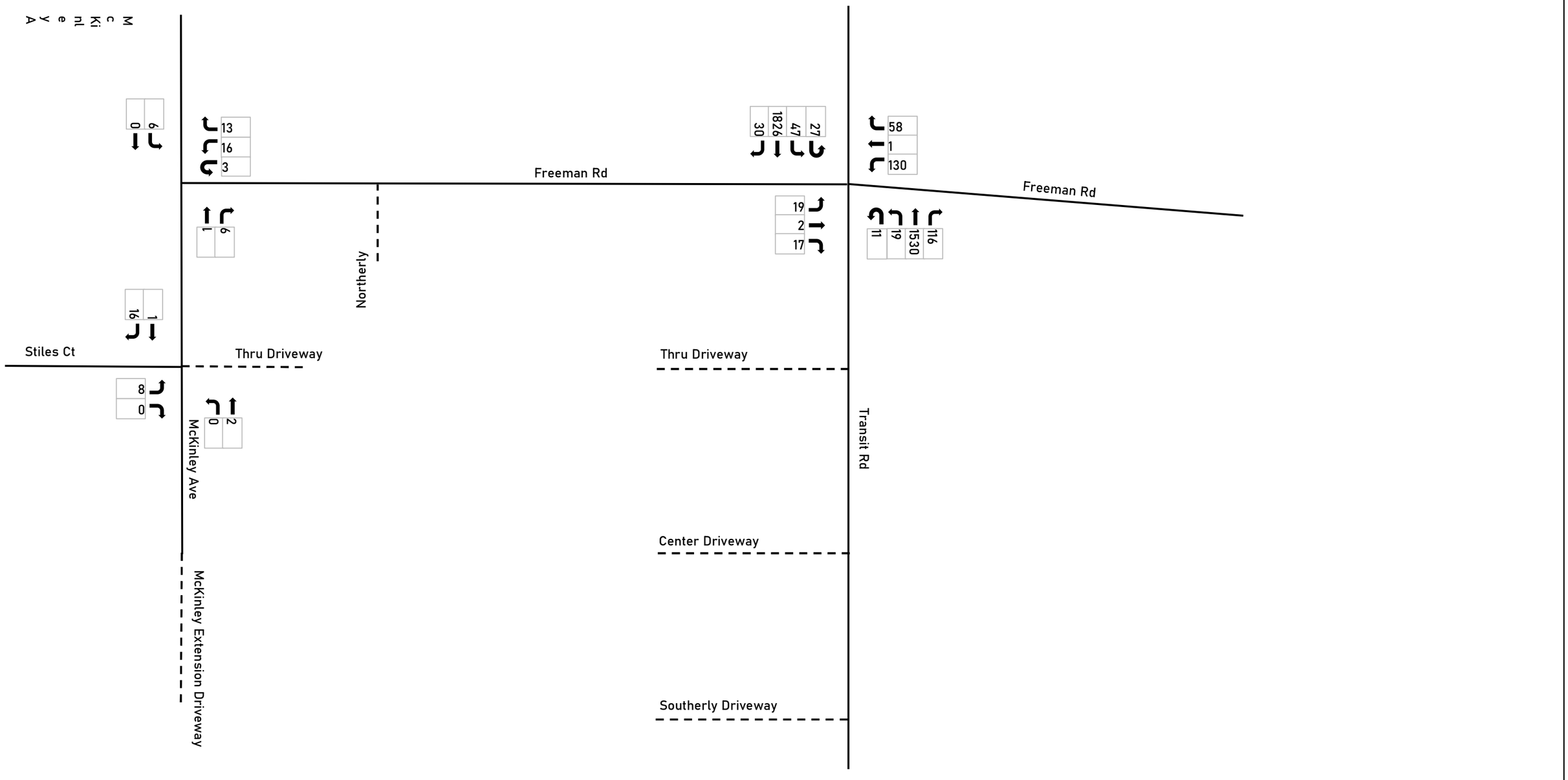
6700 Transit Rd

Buffalo, NY

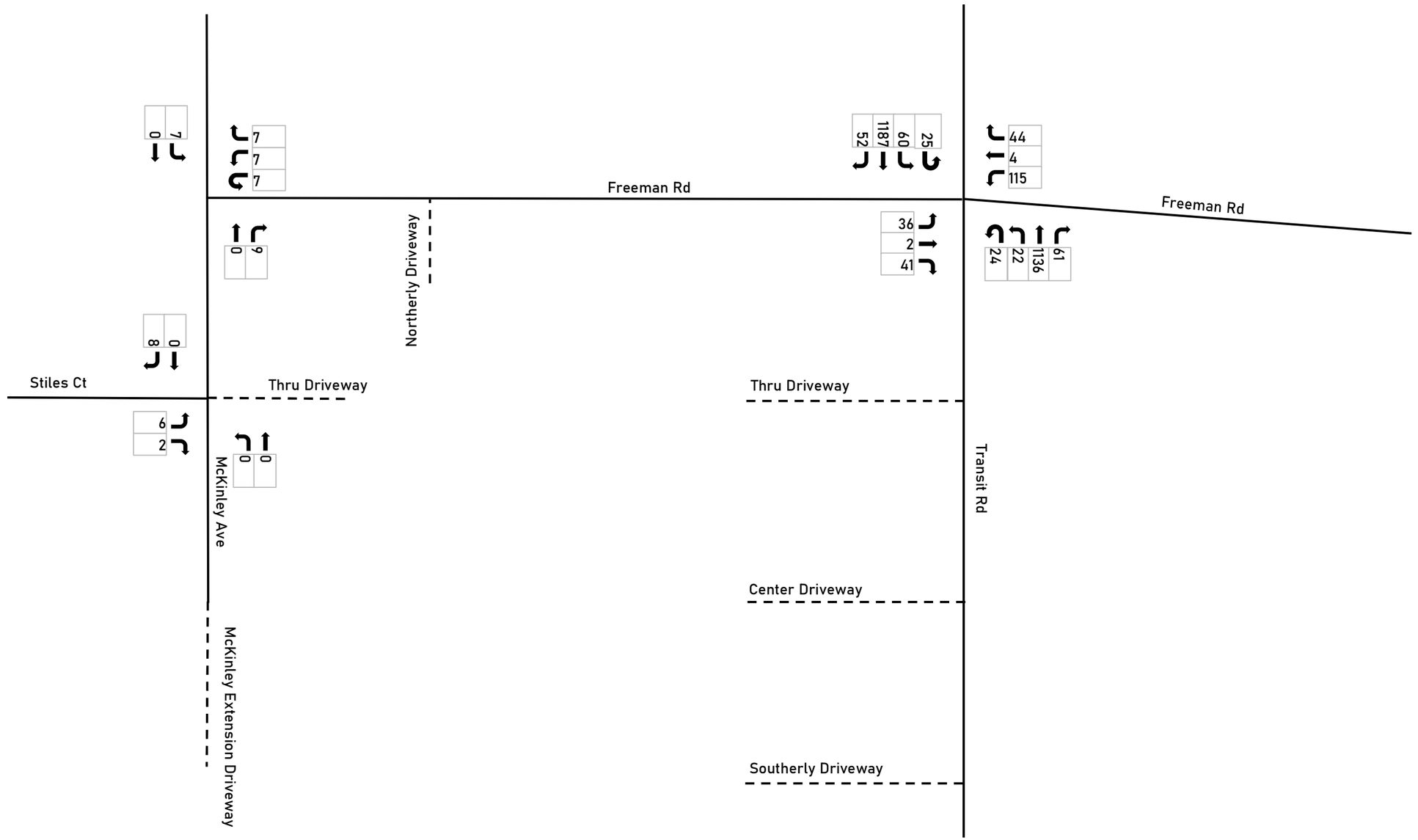
Notes:

Figure 2

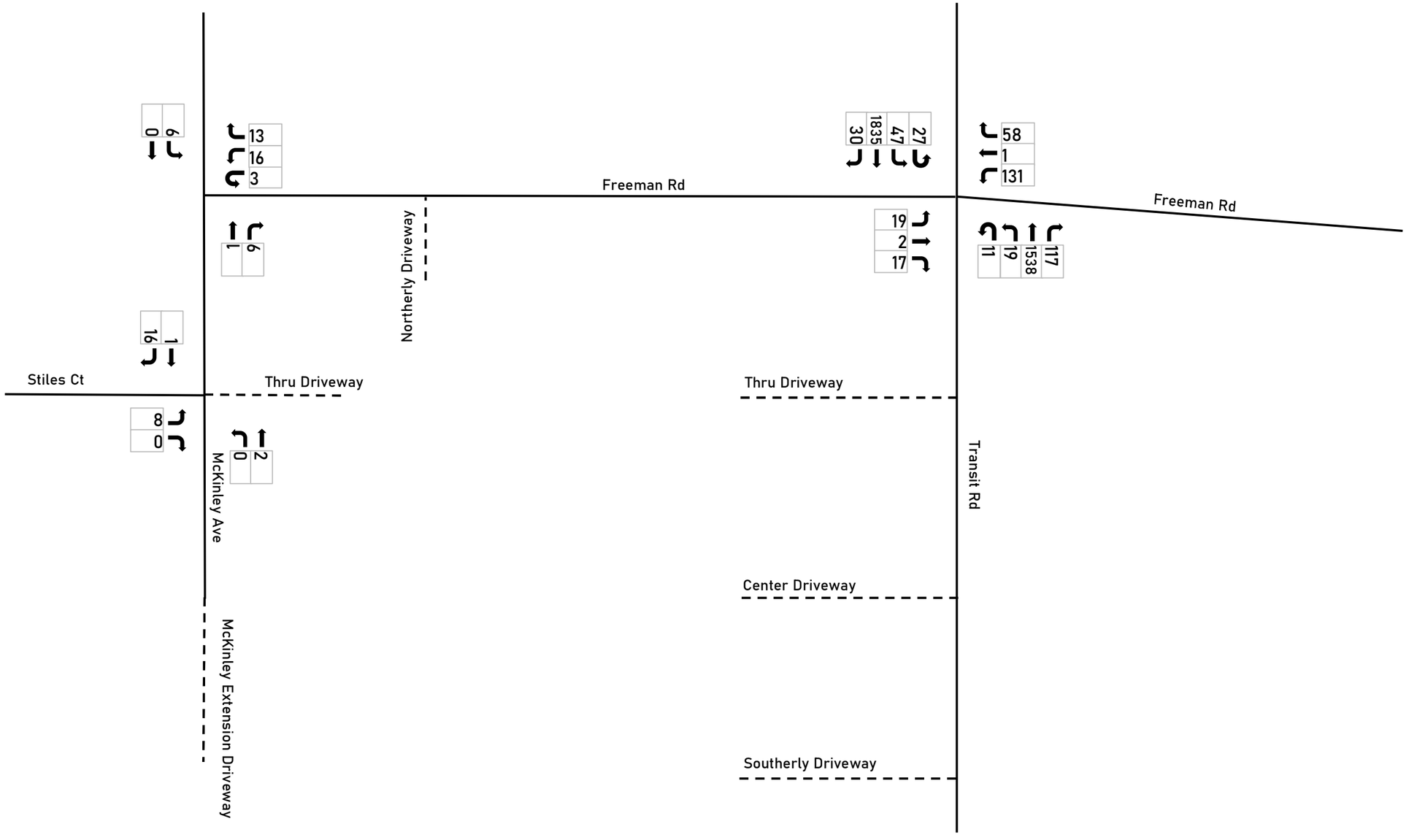
PN: 202651777.0001



PASSERO engineering architecture 242 West Main Street, Suite 100 Rochester, NY 14614	**2026 Existing Conditions - Weekday PM Peak Hour** **6700 Transit Rd** Buffalo, NY	Notes:
		N **Figure 3a** PN: 202651777.0001



PASSERO engineering architecture 242 West Main Street, Suite 100 Rochester, NY 14614	**2026 Existing Conditions - Saturday Peak Hour** **6700 Transit Rd** Buffalo, NY	Notes:	N **Figure 3b** PN: 202651777.0001



2027 Background Conditions - Weekday PM Peak Hour

6700 Transit Rd

Buffalo, NY

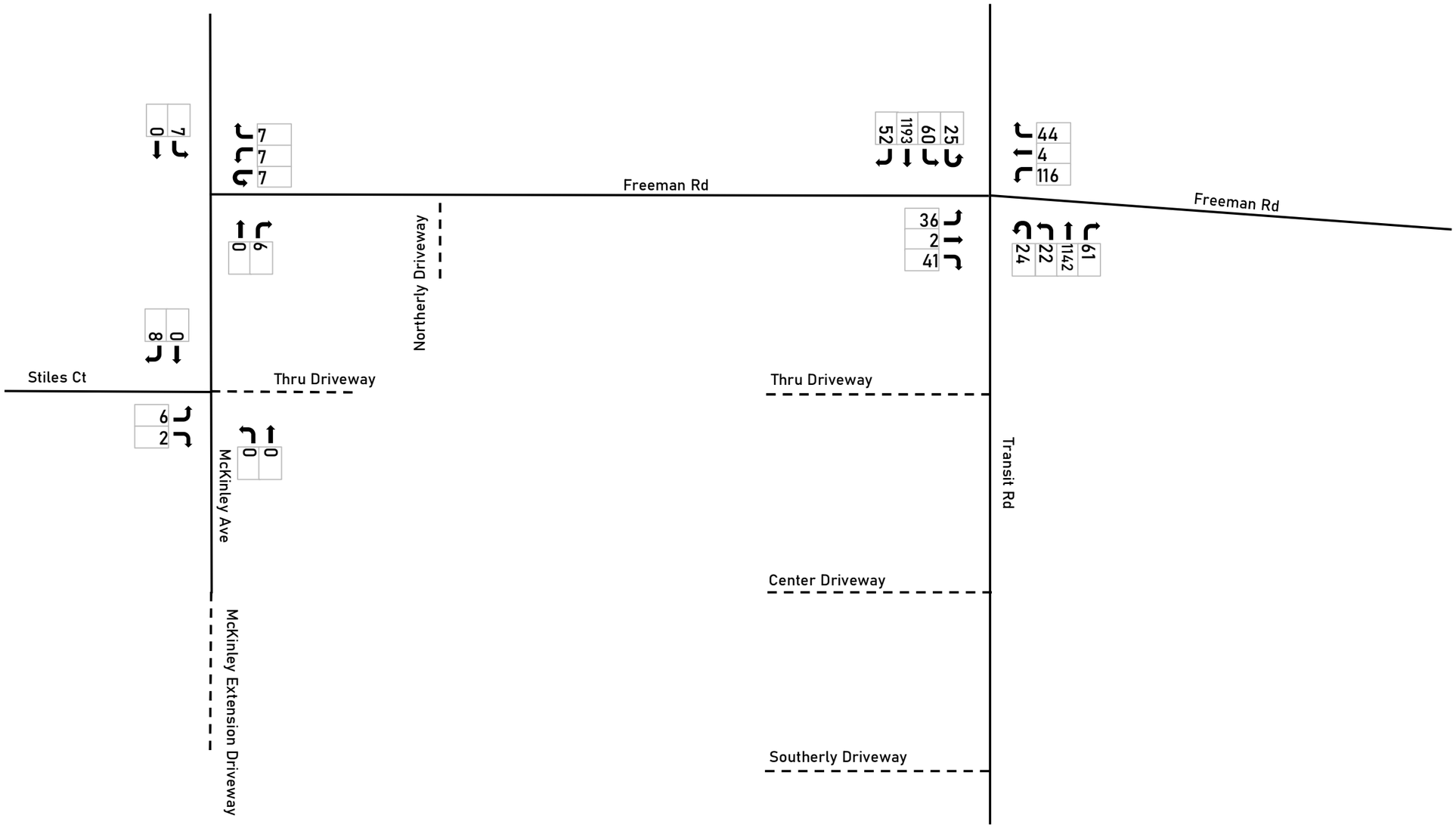
Notes:

Figure 4a

PN: 202651777.0001

PASSERO engineering architecture

242 West Main Street, Suite 100
Rochester, NY 14614



PASSERO engineering architecture

242 West Main Street, Suite 100
Rochester, NY 14614

2027 Background Conditions - Saturday Peak Hour

6700 Transit Rd

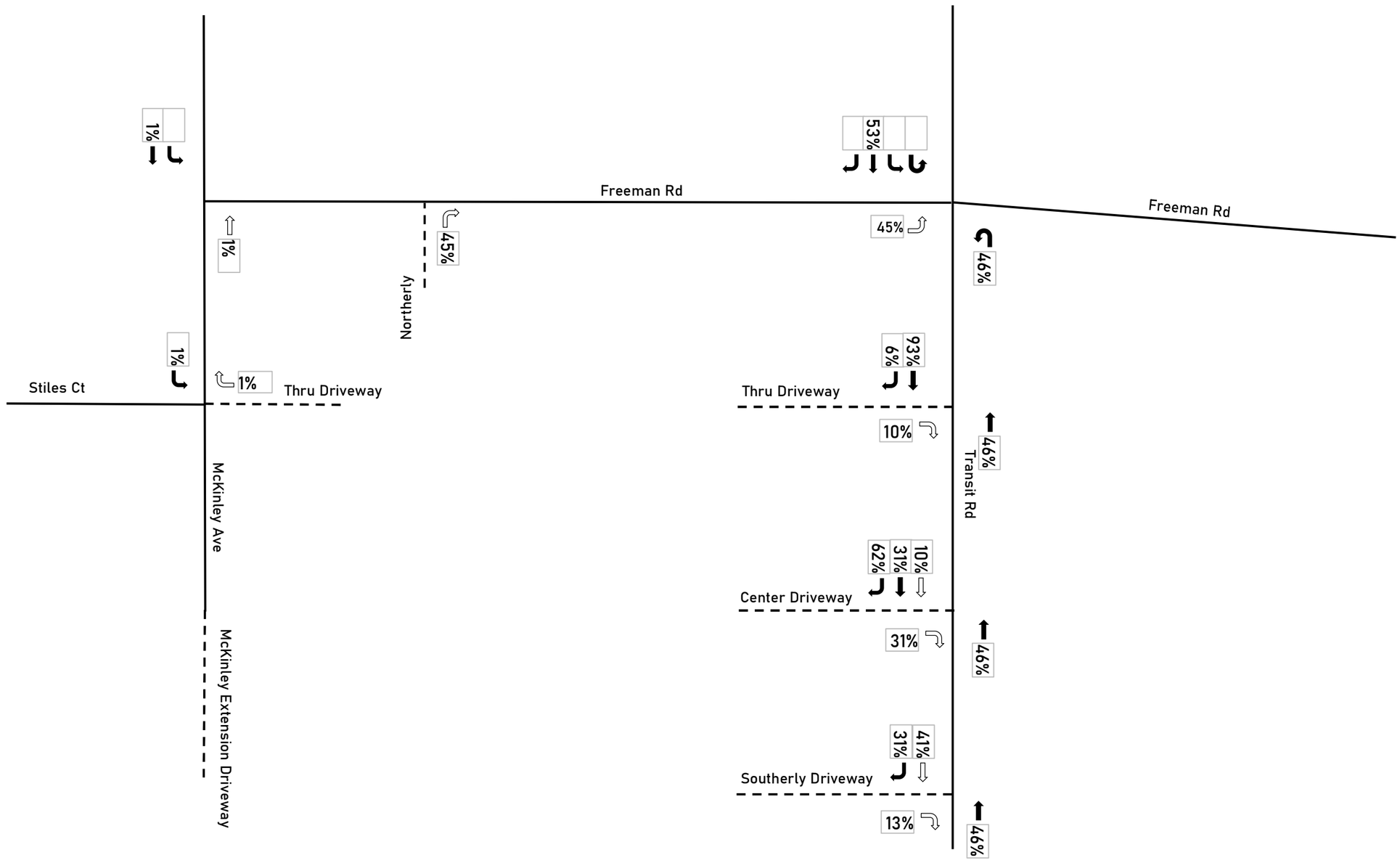
Buffalo, NY

Notes:

N

Figure 4b

PN: 202651777.0001

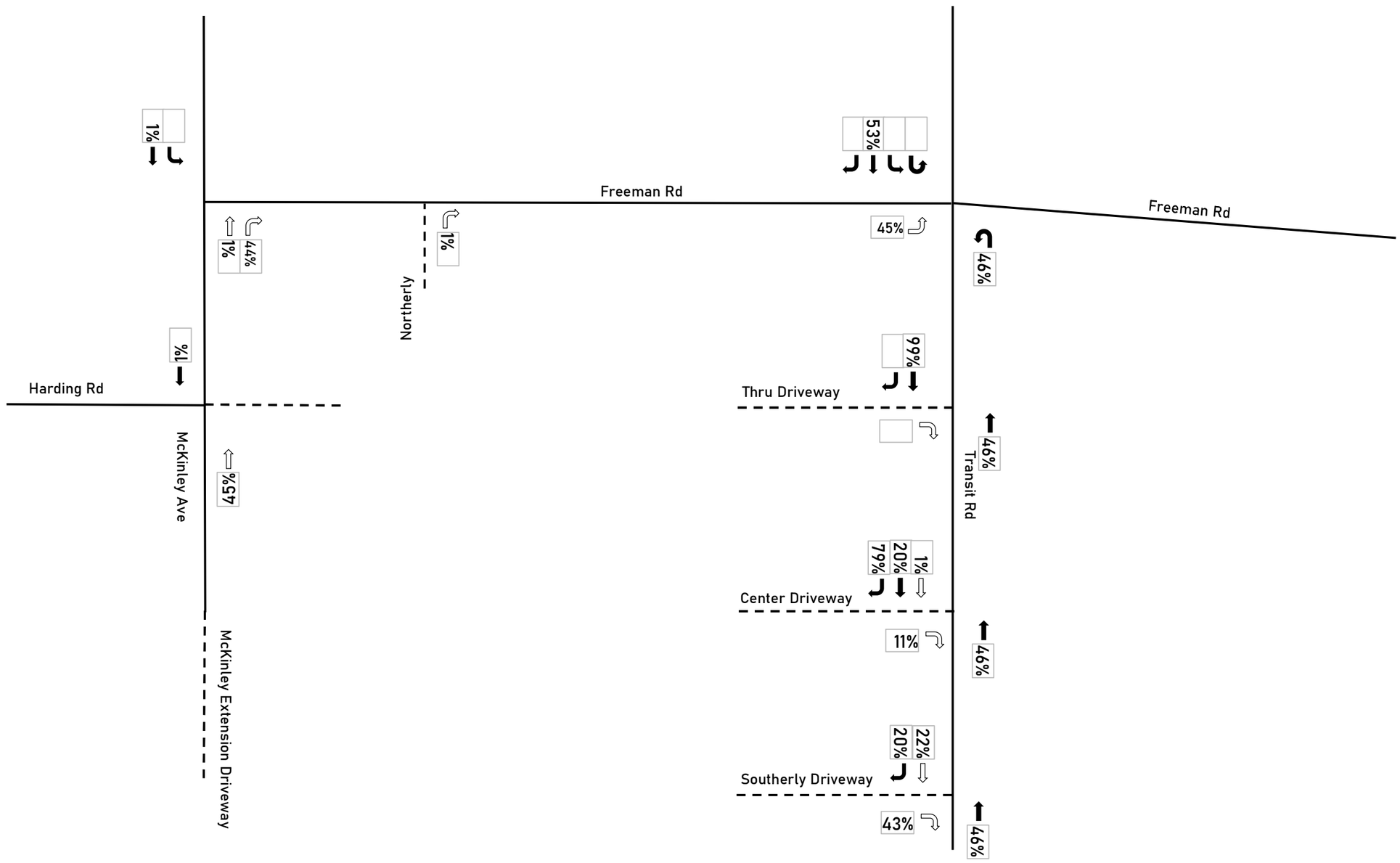


PASSERO engineering architecture 242 West Main Street, Suite 100 Rochester, NY 14614	**Trip Distribution - Weekday PM/Sat Peak Hour** **6700 Transit Rd** Buffalo, NY	Notes:

N

Figure 5

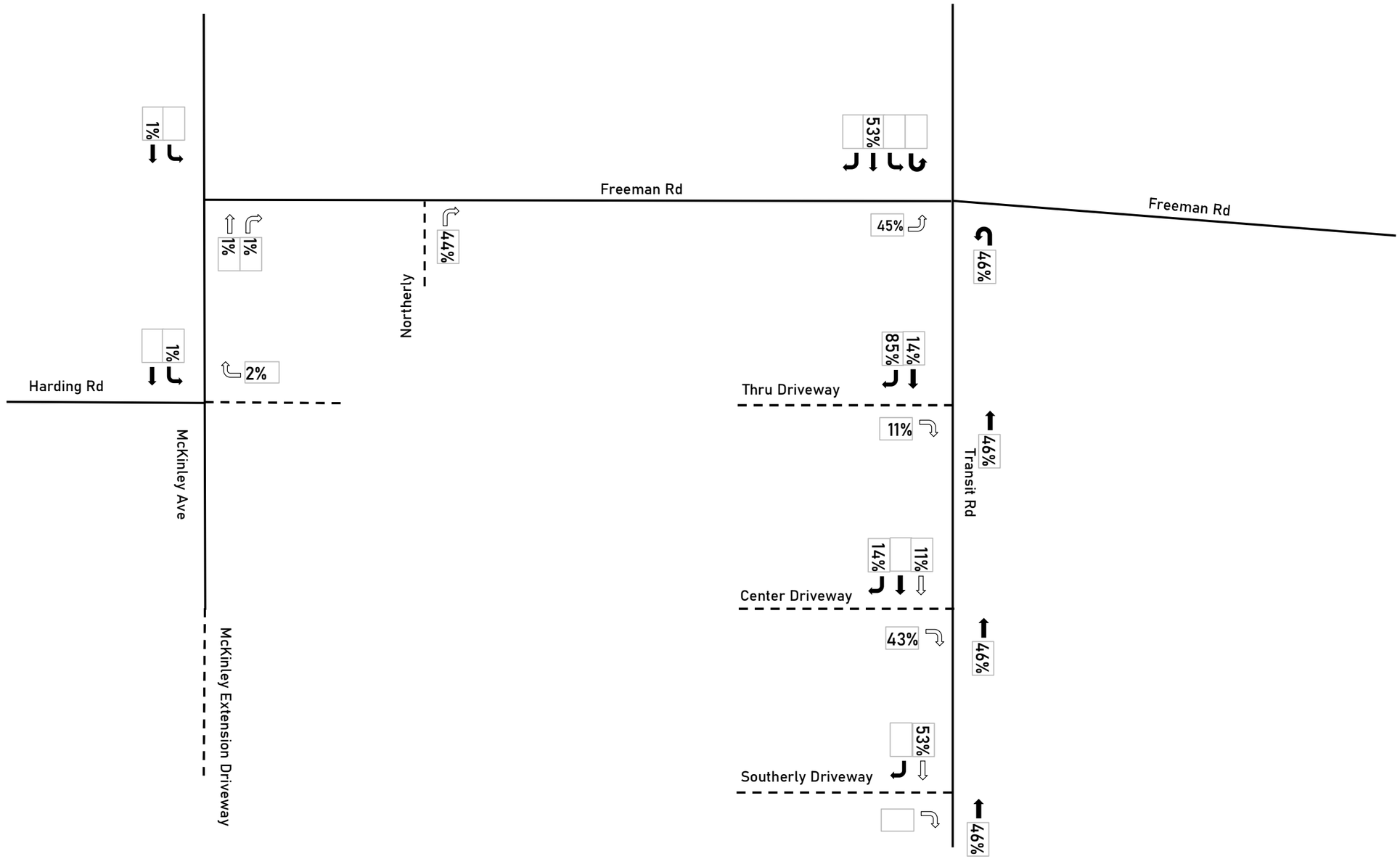
PN: 202651777.0001



PASSERO engineering architecture 242 West Main Street, Suite 100 Rochester, NY 14614	**Trip Distribution - Weekday PM/Sat Peak Hour - Dealership 1** **6700 Transit Rd** Cheektowaga, NY	Notes:

Figure 5a

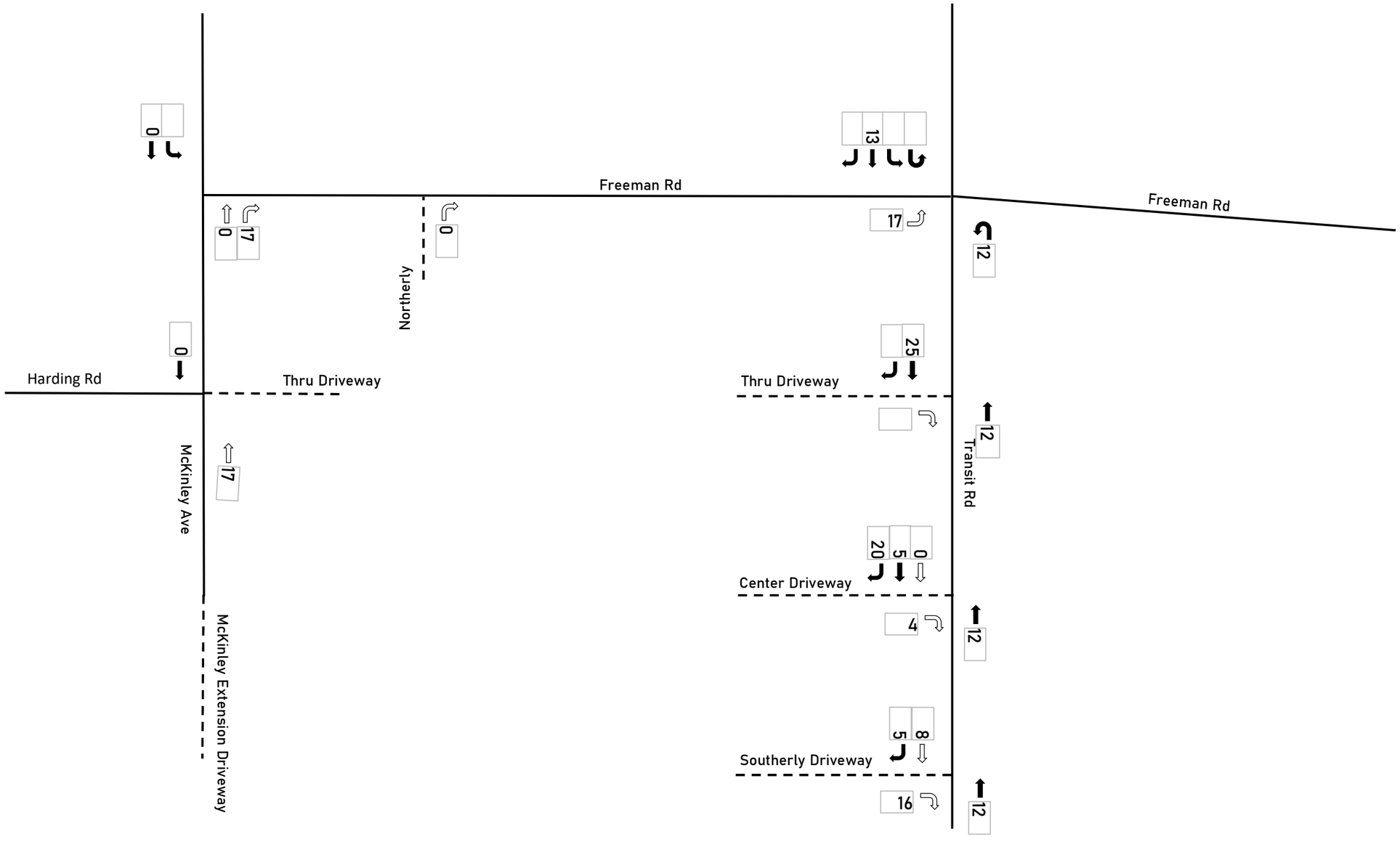
PN: 202651777.0001



PASSERO engineering architecture 242 West Main Street, Suite 100 Rochester, NY 14614	**Trip Distribution - Weekday PM/Sat Peak Hour - Dealership 2** **6700 Transit Rd** Cheektowaga, NY	Notes:

Figure 5b

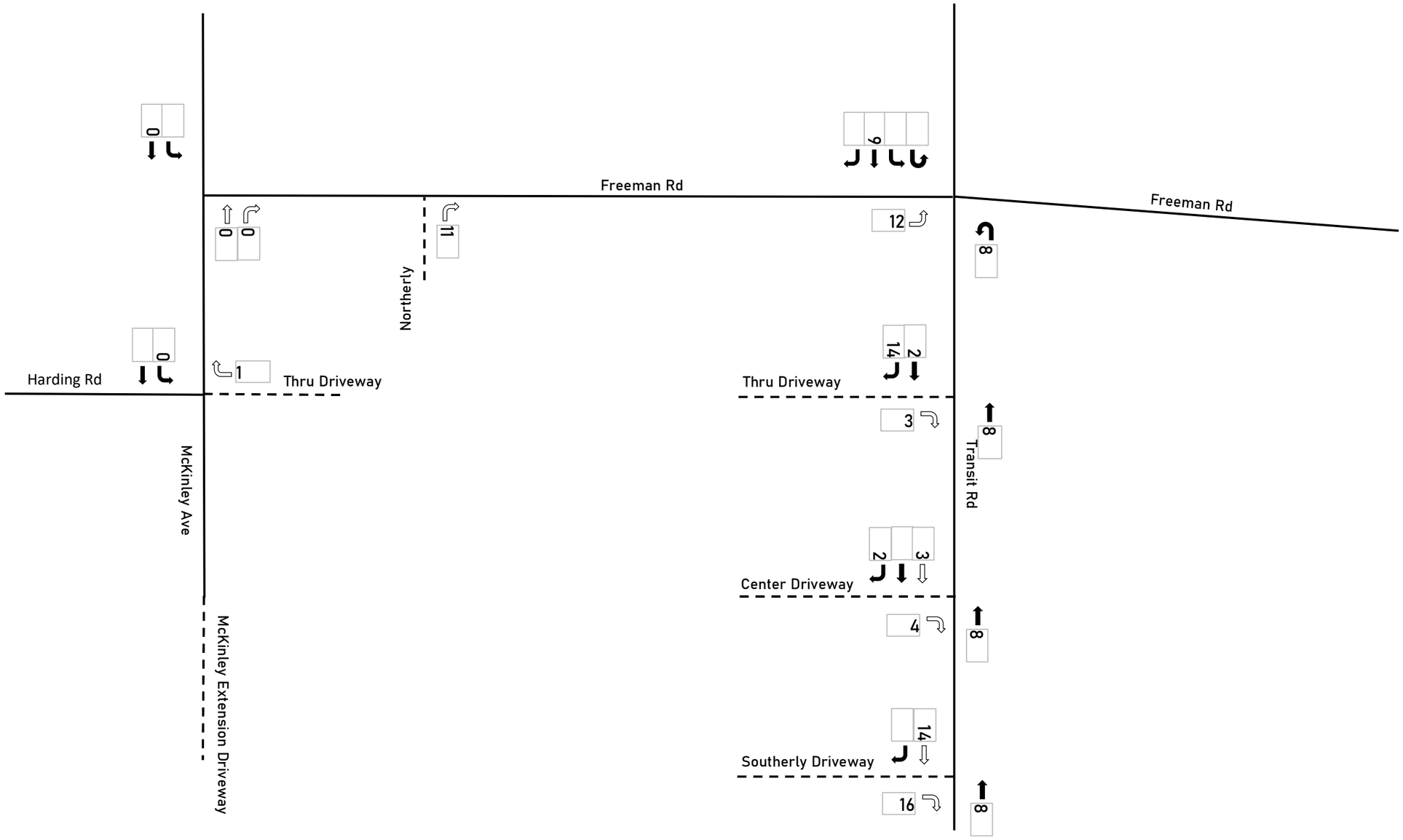
PN: 202651777.0001



PASSERO engineering architecture 242 West Main Street, Suite 100 Rochester, NY 14614	**Total Site Trip Assignment - Weekday PM Peak Hour - Dealership 1** **6700 Transit Rd** Cheektowaga, NY	Notes:

Figure 6a

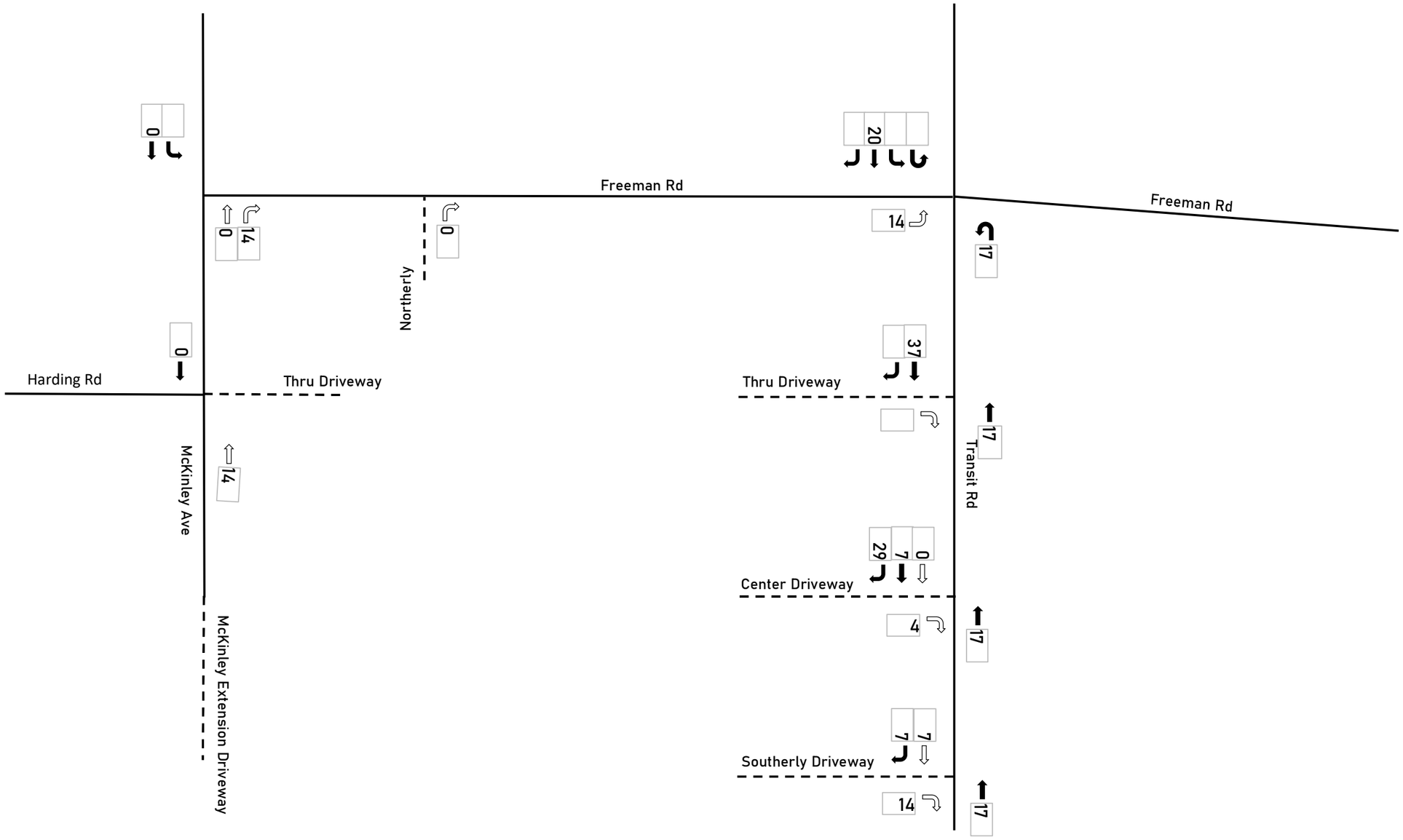
PN: 202651777.0001



PASSERO engineering architecture 242 West Main Street, Suite 100 Rochester, NY 14614	**Total Site Trip Assignment - Weekday PM Peak Hour - Dealership 2** **6700 Transit Rd** Cheektowaga, NY	Notes:

Figure 6b

PN: 202651777.0001



PASSERO engineering architecture

242 West Main Street, Suite 100
Rochester, NY 14614

Total Site Trip Assignment - Saturday Peak Hour - Dealership 1

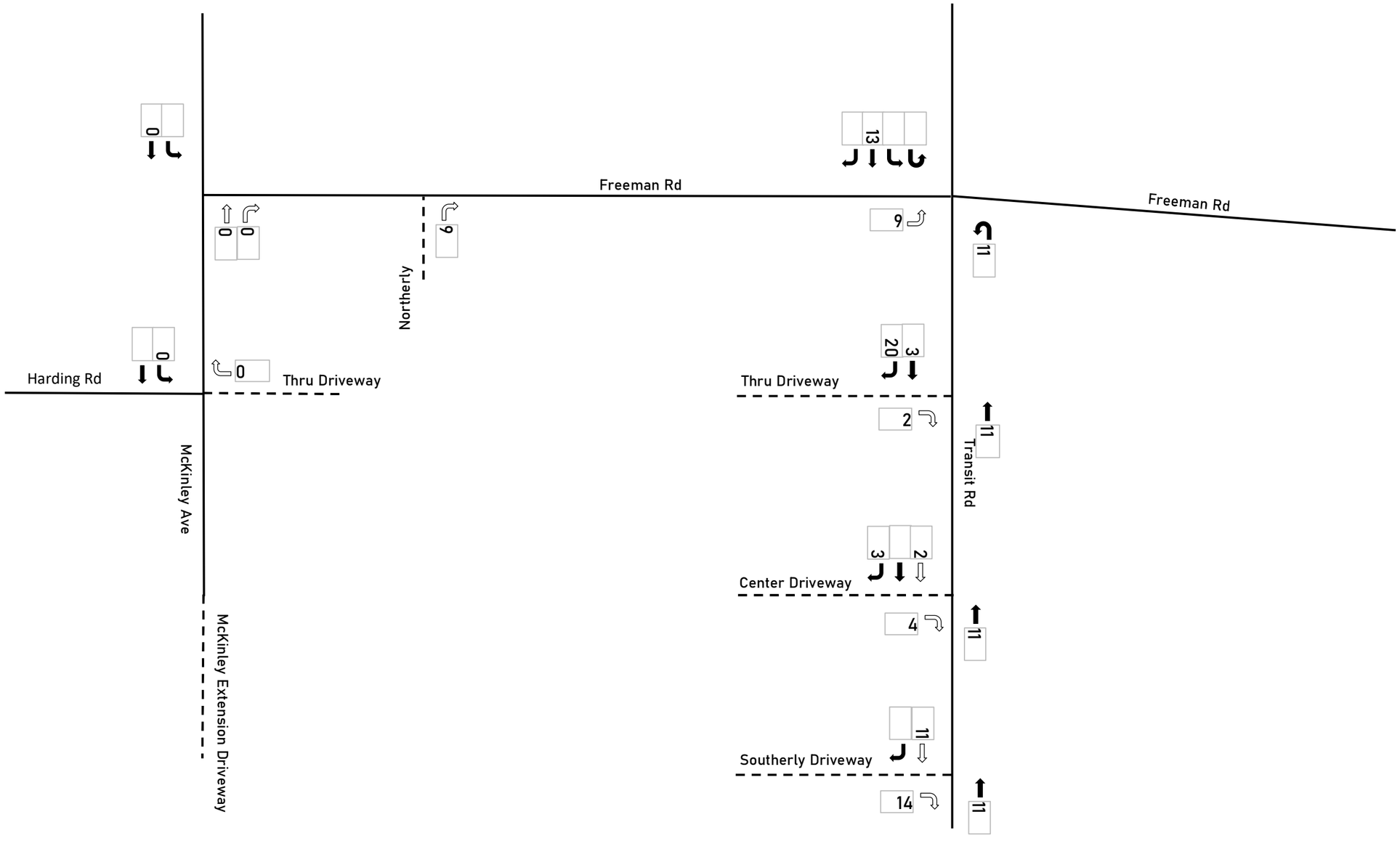
6700 Transit Rd

Cheektowaga, NY

Notes:

Figure 6c

PN: 202651777.0001



PASSERO engineering architecture

242 West Main Street, Suite 100
Rochester, NY 14614

Total Site Trip Assignment - Saturday Peak Hour - Dealership 2

6700 Transit Rd

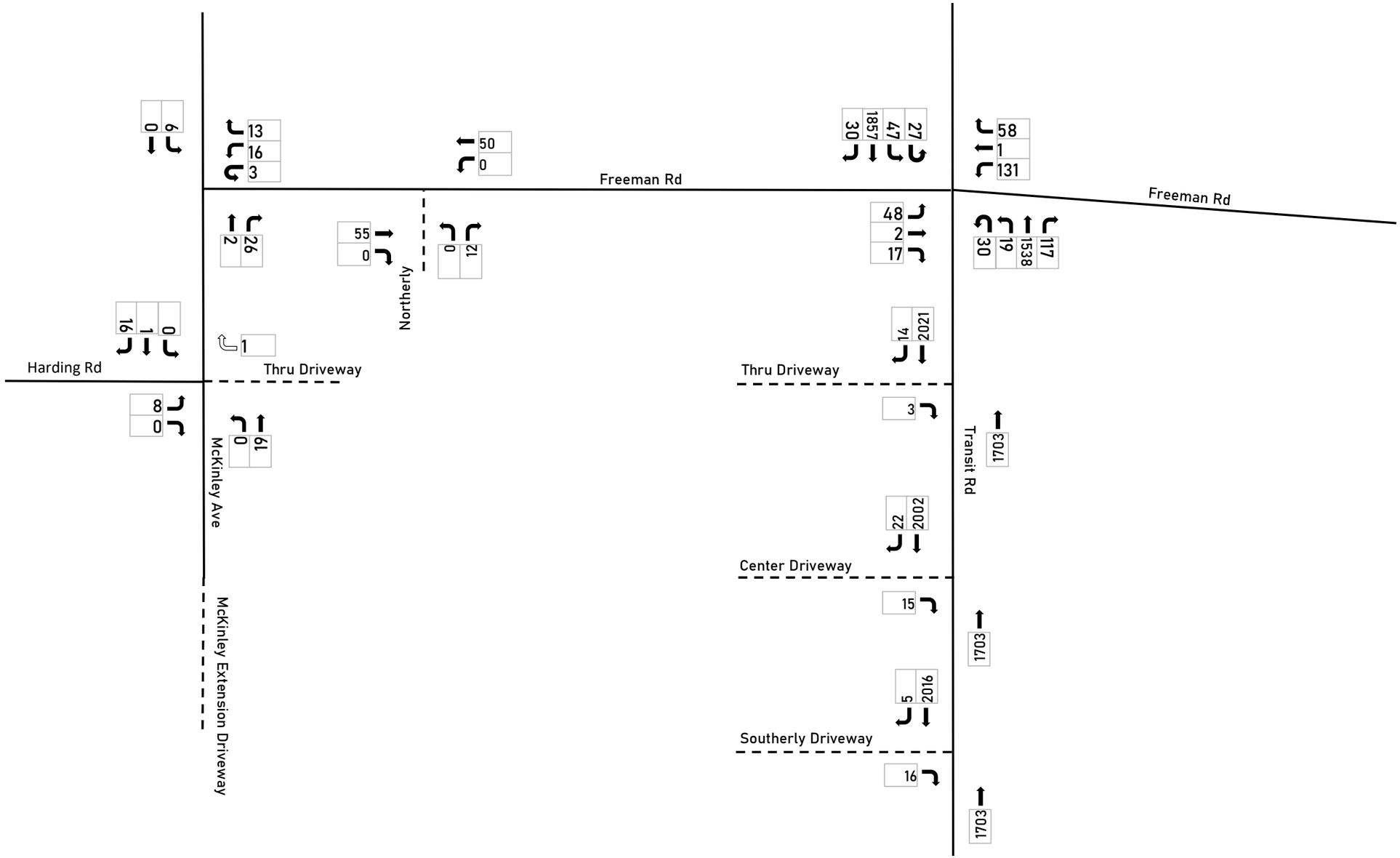
Cheektowaga, NY

Notes:

N

Figure 6d

PN: 202651777.0001



PASSERO engineering architecture

242 West Main Street, Suite 100
Rochester, NY 14614

2027 Full Build Conditions - Weekday PM Peak Hour

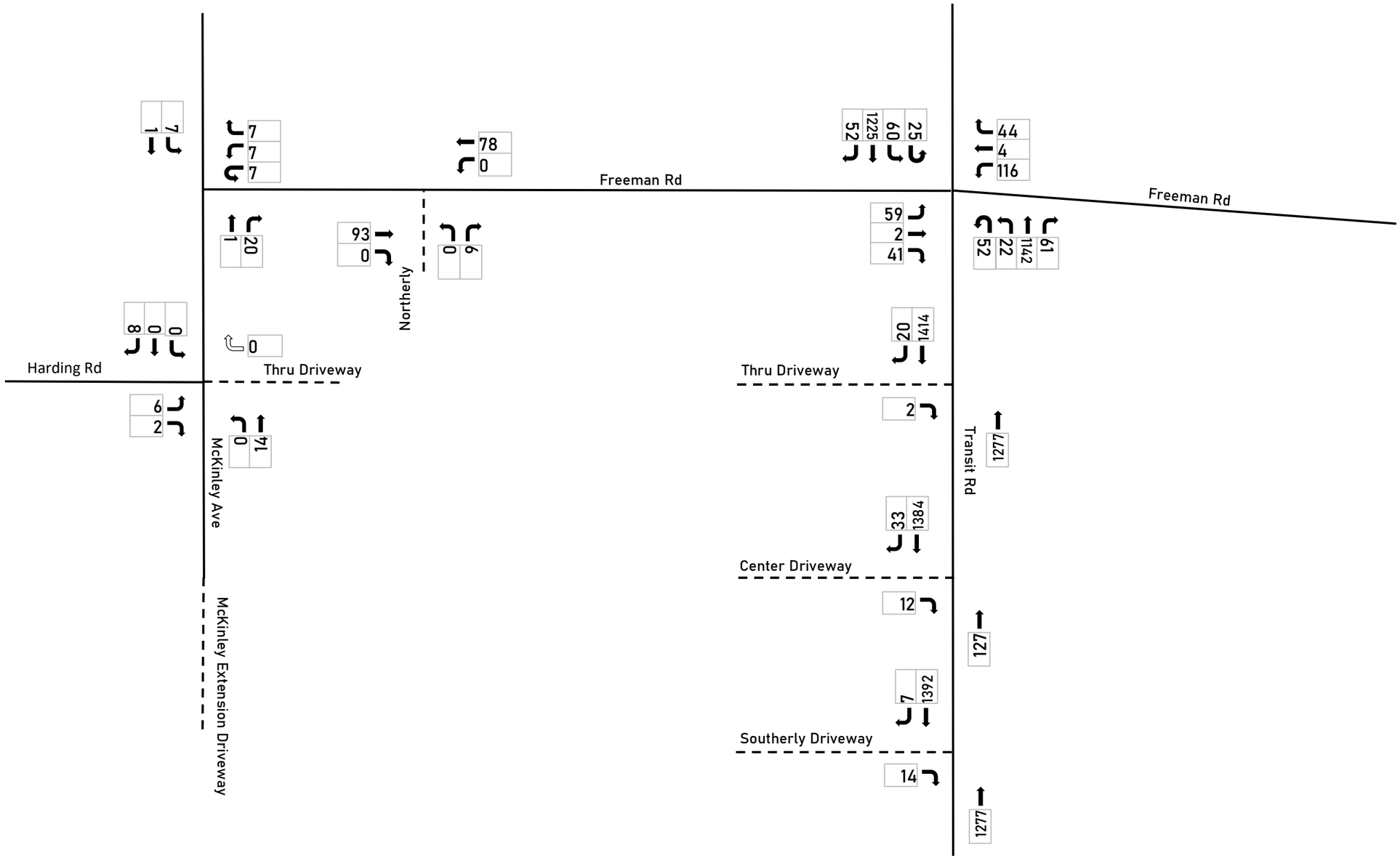
6700 Transit Rd

Cheektowaga, NY

Notes:

Figure 7a

PN: 202651777.0001



PASSERO engineering architecture

242 West Main Street, Suite 100
Rochester, NY 14614

2027 Full Build Conditions - Saturday Peak Hour

6700 Transit Rd

Cheektowaga, NY

Notes:

Figure 7b

PN: 202651777.0001

APPENDICES

APPENDIX A: EXISTING TRAFFIC COUNT DATA

Project Name	6700 Transit Rd
Location Name	Transit & Freeman
Classification	2 Class & NVC
Project Date(s)	8/20 & 8/22/2026



		Transit North				Freeman Rd East				Transit South				Freeman Rd West				
Date	**Start Time**	**Left**	**Thru**	**Right**	**U-Turn**	**Left**	**Thru**	**Right**	**U-Turn**	**Left**	**Thru**	**Right**	**U-Turn**	**Left**	**Thru**	**Right**	**U-Turn**	**Intersection Total**
08/20/2026	4:00 PM	12	452	7	10	27	2	12	0	5	353	18	2	7	1	7	0	915
08/20/2026	4:15 PM	18	461	6	8	24	0	10	0	3	369	20	3	3	0	1	0	926
08/20/2026	4:30 PM	8	438	12	5	38	1	15	0	4	365	13	2	5	1	7	0	914
08/20/2026	4:45 PM	13	456	8	13	30	0	13	0	5	404	34	4	3	0	4	0	987
08/20/2026	4 PM Hourly Total	51	1807	33	36	119	3	50	0	17	1491	85	11	18	2	19	0	3742
08/20/2026	5:00 PM	9	503	5	5	28	0	11	0	5	374	38	1	5	1	3	0	988
08/20/2026	5:15 PM	17	429	5	4	34	0	19	0	5	387	31	4	6	0	3	0	944
08/20/2026	5:30 PM	20	389	6	10	26	1	11	0	1	389	23	4	4	0	2	0	886
08/20/2026	5:45 PM	24	355	1	4	33	2	12	0	6	321	30	2	4	1	5	0	800
08/20/2026	5 PM Hourly Total	70	1676	17	23	121	3	53	0	17	1471	122	11	19	2	13	0	3618
08/20/2026	6:00 PM	10	352	2	8	18	0	9	0	2	314	27	6	7	1	1	0	757
08/20/2026	6:15 PM	12	281	3	7	25	0	11	0	1	252	25	4	6	0	2	0	629
08/20/2026	6:30 PM	14	264	5	6	18	0	7	1	2	246	16	3	2	0	3	0	587
08/20/2026	6:45 PM	16	257	7	6	17	1	15	0	2	248	19	2	4	1	7	0	602
08/20/2026	6 PM Hourly Total	52	1154	17	27	78	1	42	1	7	1060	87	15	19	2	13	0	2575
08/20/2026	Project Total	173	4637	67	86	318	7	145	1	41	4022	294	37	56	6	45	0	9935

08/20/2026	4:30 PM	8	438	12	5	38	1	15	0	4	365	13	2	5	1	7	0	914
08/20/2026	4:45 PM	13	456	8	13	30	0	13	0	5	404	34	4	3	0	4	0	987
08/20/2026	5:00 PM	9	503	5	5	28	0	11	0	5	374	38	1	5	1	3	0	988
08/20/2026	5:15 PM	17	429	5	4	34	0	19	0	5	387	31	4	6	0	3	0	944
08/20/2026	**PM PEAK HOUR**	**47**	**1826**	**30**	**27**	**130**	**1**	**58**	**0**	**19**	**1530**	**116**	**11**	**19**	**2**	**17**	**0**	**3833**
PM PHF%	0.970																	
	HV%	0%	1%	0%	0%	0%	0%	0%	#DIV/0!	0%	1%	0%	0%	0%	0%	0%	#DIV/0!	

08/22/2026	11:00 AM	11	272	9	3	29	1	11	0	6	258	13	7	8	1	15	0	644
08/22/2026	11:15 AM	10	254	11	7	22	1	9	0	9	246	14	2	6	0	11	1	603
08/22/2026	11:30 AM	13	318	14	6	26	2	11	0	5	292	9	1	4	0	15	0	716
08/22/2026	11:45 AM	17	284	14	5	31	2	11	0	8	304	14	3	16	0	11	0	720
08/22/2026	11 AM Hourly Total	51	1128	48	21	108	6	42	0	28	1100	50	13	34	1	52	1	2683
08/22/2026	12:00 PM	12	294	13	7	29	0	9	0	6	260	19	16	12	1	11	0	689
08/22/2026	12:15 PM	18	291	11	7	29	0	13	0	3	280	19	4	4	1	4	0	684
08/22/2026	12:30 PM	5	295	7	8	26	2	6	0	5	298	16	3	3	0	11	0	685
08/22/2026	12:45 PM	17	307	8	4	29	0	12	0	4	278	14	1	11	0	5	0	690
08/22/2026	12 PM Hourly Total	52	1187	39	26	113	2	40	0	18	1116	68	24	30	2	31	0	2748
08/22/2026	1:00 PM	8	249	7	7	24	1	5	0	6	253	19	8	8	0	3	0	598
08/22/2026	1:15 PM	10	278	5	3	33	2	9	0	4	277	15	2	7	1	4	0	650
08/22/2026	1:30 PM	11	254	11	3	23	1	6	0	2	238	17	5	6	0	8	0	585
08/22/2026	1:45 PM	7	295	7	7	21	1	14	0	2	243	11	5	8	0	5	0	626
08/22/2026	1 PM Hourly Total	36	1076	30	20	101	5	34	0	14	1011	62	20	29	1	20	0	2459
08/22/2026	Project Total	139	3391	117	67	322	13	116	0	60	3227	180	57	93	4	103	1	7890

08/22/2026	11:30 AM	13	318	14	6	26	2	11	0	5	292	9	1	4	0	15	0	716
08/22/2026	11:45 AM	17	284	14	5	31	2	11	0	8	304	14	3	16	0	11	0	720
08/22/2026	12:00 PM	12	294	13	7	29	0	9	0	6	260	19	16	12	1	11	0	689
08/22/2026	12:15 PM	18	291	11	7	29	0	13	0	3	280	19	4	4	1	4	0	684
08/22/2026	**PEAK HOUR**	**60**	**1187**	**52**	**25**	**115**	**4**	**44**	**0**	**22**	**1136**	**61**	**24**	**36**	**2**	**41**	**0**	**2809**
PHF%	0.975																	
	HV%	0.00%	0.42%	0.00%	0.00%	0.00%	0.00%	0.00%	#DIV/0!	0.00%	0.79%	0.00%	0.00%	0.00%	0.00%	0.00%	#DIV/0!	

Project Name	6700 Transit Rd
Location Name	Freeman & McKinley
Classification	2 Class & NVC
Project Date(s)	8/20 and 8/22/2026

		Mckinley Ave North			Mckinley Ave South			Freeman Rd West			
Date	**Start Time**	**Left**	**Thru**	**U-Turn**	**Thru**	**Right**	**U-Turn**	**Left**	**Right**	**U-Turn**	**Intersection Total**
08/20/2026	4:00 PM	3	0	0	0	1	0	3	3	0	10
08/20/2026	4:15 PM	0	0	0	0	1	0	1	4	0	6
08/20/2026	4:30 PM	3	0	0	0	1	0	2	6	0	12
08/20/2026	4:45 PM	0	0	0	0	4	0	6	2	1	13
08/20/2026	4 PM Hourly Total	6	0	0	0	7	0	12	15	1	41
08/20/2026	5:00 PM	0	0	0	0	2	0	5	1	1	9
08/20/2026	5:15 PM	3	0	0	1	2	0	3	4	1	14
08/20/2026	5:30 PM	2	0	0	0	0	0	1	2	1	6
08/20/2026	5:45 PM	3	0	0	0	2	0	1	5	0	11
08/20/2026	5 PM Hourly Total	8	0	0	1	6	0	10	12	3	40
08/20/2026	6:00 PM	1	0	0	0	6	0	2	1	0	10
08/20/2026	6:15 PM	2	0	0	0	3	0	1	0	0	6
08/20/2026	6:30 PM	0	0	0	0	2	0	3	0	2	7
08/20/2026	6:45 PM	2	0	0	0	2	0	1	1	2	8
08/20/2026	6 PM Hourly Total	5	0	0	0	13	0	7	2	4	31
08/20/2026	Project Total	19	0	0	1	26	0	29	29	8	112



08/20/2026	4:30 PM	3	0	0	0	1	0	2	6	0	12
08/20/2026	4:45 PM	0	0	0	0	4	0	6	2	1	13
08/20/2026	5:00 PM	0	0	0	0	2	0	5	1	1	9
08/20/2026	5:15 PM	3	0	0	1	2	0	3	4	1	14
08/20/2026	**PM PEAK HOUR**	**6**	**0**	**0**	**1**	**9**	**0**	**16**	**13**	**3**	**48**
PM PHF%	0.857										

08/22/2026	11:00 AM	1	0	0	0	3	0	2	2	0	8
08/22/2026	11:15 AM	2	0	0	0	1	0	1	0	1	5
08/22/2026	11:30 AM	1	0	0	0	1	0	2	3	1	8
08/22/2026	11:45 AM	3	0	0	0	2	0	3	1	0	9
08/22/2026	11 AM Hourly Total	7	0	0	0	7	0	8	6	2	30
08/22/2026	12:00 PM	1	0	0	0	0	0	3	2	0	6
08/22/2026	12:15 PM	2	0	0	0	1	0	1	2	1	7
08/22/2026	12:30 PM	2	0	0	0	3	0	1	2	0	8
08/22/2026	12:45 PM	2	0	0	0	0	0	1	3	1	7
08/22/2026	12 PM Hourly Total	7	0	0	0	4	0	6	9	2	28
08/22/2026	1:00 PM	0	0	0	0	1	0	4	1	1	7
08/22/2026	1:15 PM	0	0	0	0	4	0	1	2	1	8
08/22/2026	1:30 PM	3	0	0	0	0	0	0	3	2	8
08/22/2026	1:45 PM	4	0	0	0	1	0	3	1	3	12
08/22/2026	1 PM Hourly Total	7	0	0	0	6	0	8	7	7	35
08/22/2026	Project Total	21	0	0	0	17	0	22	22	11	93

08/22/2026	1:00 PM	0	0	0	0	1	0	4	1	1	7
08/22/2026	1:15 PM	0	0	0	0	4	0	1	2	1	8
08/22/2026	1:30 PM	3	0	0	0	0	0	0	3	2	8
08/22/2026	1:45 PM	4	0	0	0	1	0	2	1	3	11
08/22/2026	**PEAK HOUR**	**7**	**0**	**0**	**0**	**6**	**0**	**7**	**7**	**7**	**34**
PHF%	0.773										

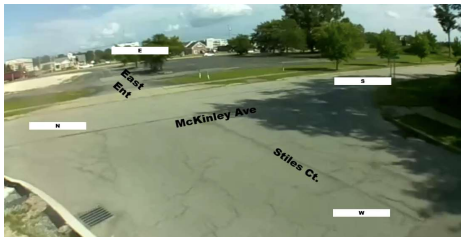
Project Name	6700 Transit Rd
Location Name	McKinley & Stiles
Classification	2 Class & NVC
Project Date(s)	8/20 & 8/22/2026

		Mckinley Ave North				East Ent East				Mckinley Ave South				Stiles Ct West				
Date	**Start Time**	**Left**	**Thru**	**Right**	**U-Turn**	**Left**	**Thru**	**Right**	**U-Turn**	**Left**	**Thru**	**Right**	**U-Turn**	**Left**	**Thru**	**Right**	**U-Turn**	**Intersection Total**
08/20/2026	4:00 PM	0	1	2	0	0	0	0	0	0	0	0	0	1	0	0	0	4
08/20/2026	4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2
08/20/2026	4:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	3
08/20/2026	4:45 PM	0	1	5	0	0	0	0	0	0	1	0	0	3	1	0	0	11
08/20/2026	4 PM Hourly Total	0	2	10	0	0	0	0	0	0	1	0	0	6	1	0	0	20
08/20/2026	5:00 PM	0	0	5	0	0	0	0	0	0	0	0	0	2	0	0	0	7
08/20/2026	5:15 PM	0	0	4	0	0	0	0	0	0	1	0	0	2	0	0	0	7
08/20/2026	5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08/20/2026	5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	3
08/20/2026	5 PM Hourly Total	0	0	11	0	0	0	0	0	0	1	0	0	6	0	0	0	18
08/20/2026	6:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	6	0	0	0	8
08/20/2026	6:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	3	1	0	0	5
08/20/2026	6:30 PM	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	5
08/20/2026	6:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	2	0	0	0	4
08/20/2026	6 PM Hourly Total	0	0	7	1	0	0	0	0	0	0	0	0	13	1	0	0	22
08/20/2026	Project Total	0	2	28	1	0	0	0	0	0	2	0	0	25	2	0	0	60

08/20/2026	4:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	3
08/20/2026	4:45 PM	0	1	5	0	0	0	0	0	0	1	0	0	3	1	0	0	11
08/20/2026	5:00 PM	0	0	5	0	0	0	0	0	0	0	0	0	2	0	0	0	7
08/20/2026	5:15 PM	0	0	4	0	0	0	0	0	0	1	0	0	2	0	0	0	7
08/20/2026	**PM PEAK HOUR**	**0**	**1**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**8**	**1**	**0**	**0**	**28**
PM PHF%	0.636																	

08/22/2026	11:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	2	1	0	0	5
08/22/2026	11:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	3
08/22/2026	11:30 AM	0	0	2	0	0	1	0	0	0	0	0	0	1	0	0	0	4
08/22/2026	11:45 AM	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	5
08/22/2026	11 AM Hourly Total	0	0	8	0	0	1	0	0	0	0	0	0	6	2	0	0	17
08/22/2026	12:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
08/22/2026	12:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	3
08/22/2026	12:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	3	0	0	0	4
08/22/2026	12:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08/22/2026	12 PM Hourly Total	0	0	6	1	0	0	0	0	0	0	0	0	4	0	0	0	11
08/22/2026	1:00 PM	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0	0	5
08/22/2026	1:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	3	1	0	0	6
08/22/2026	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08/22/2026	1:45 PM	1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	4
08/22/2026	1 PM Hourly Total	1	1	6	0	0	0	0	0	0	1	0	0	5	1	0	0	15
08/22/2026	Project Total	1	1	20	1	0	1	0	0	0	1	0	0	15	3	0	0	43

08/22/2026	11:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	2	1	0	0	5
08/22/2026	11:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	3
08/22/2026	11:30 AM	0	0	2	0	0	1	0	0	0	0	0	0	1	0	0	0	4
08/22/2026	11:45 AM	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	5
08/22/2026	**PEAK HOUR**	**0**	**0**	**8**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**2**	**0**	**0**	**17**
PHF%	0.850																	



APPENDIX B: MISCELLANEOUS CALCULATIONS

Project: **6700 Transit Rd**
Location: **Cheektowaga, NY**
Peak Hour: **Weekday PM**
Condition: **Proposed Action**

Figure:

Location Number	Intersection	2026 Collected Volumes	# of Years: 1 No-Build Volumes 0.50%	2027 No Build Volumes	Trip Generation and Distribution Dealership 1 Enter Dist. %	Exit Dist. %	Trips IN 25	Trips OUT 38	Total Site Trips	Trip Generation and Distribution Dealership 2 Enter Dist. %	Exit Dist. %	Trips IN 17	Trips OUT 26	Total Site Trips	Full Build Volumes
1	Transit Rd/ Freeman Rd														
	SR	30	30	30					0					0	30
	ST	1826	1835	1835	53%		13		13	53%		9		9	1857
	SU	27	27	27					0					0	27
	SL	47	47	47					0					0	47
	WR	58	58	58					0					0	58
	WT	1	1	1					0					0	1
	WL	130	131	131					0					0	131
	NR	116	117	117					0					0	117
	NT	1530	1538	1538					0					0	1538
	NU	11	11	11	46%		12		12	46%		8		8	30
	NL	19	19	19					0					0	19
	ER	17	17	17					0					0	17
	ET	2	2	2					0					0	2
	EL	19	19	19		45%		17	17		45%		12	12	48
2	Freeman Rd/ McKinley Ave														
	SR	0	0	0					0					0	0
	ST	0	0	0	1%		0		0	1%		0		0	0
	SL	6	6	6					0					0	6
	WR	13	13	13					0					0	13
	WU	3	3	3					0					0	3
	WL	16	16	16					0					0	16
	NR	9	9	9		44%		17	17		1%		0	0	26
	NT	1	1	1		1%		0	0		1%		0	0	2
3	McKinley Ave/ Harding Rd														
	SR	16	16	16					0					0	16
	ST	1	1	1	1%		0		0					0	1
	SL	0	0	0					0					0	0
	NR	0	0	0					0					0	0
	NT	2	2	2		45%		17	17					0	19
	NL	0	0	0					0					0	0
	ER	0	0	0					0					0	0
	ET	0	0	0					0					0	0
	EL	8	8	8					0					0	8
4	Transit Rd/ Southerly D'Way														
	SR		0	0	20%		5		5					0	5
	ST	1984	1994	1994		22%		8	8		53%		14	14	2016
	SL		0	0					0					0	0
	WR		0	0					0					0	0
	WT		0	0					0					0	0
	WL		0	0					0					0	0
	NR		0	0					0					0	0
	NT	1676	1684	1684	46%		12		12	46%		8		8	1703
	NL		0	0					0					0	0
	ER		0	0		43%		16	16					0	16
	ET		0	0					0					0	0
	EL		0	0					0					0	0
5	Transit Rd/ Center D'Way														
	SR		0	0	79%		20		20	14%		2		2	22
	ST	1984	1994	1994	20%	1%	5	0	5		11%		3	3	2002
	SL		0	0					0					0	0
	WR		0	0					0					0	0
	WT		0	0					0					0	0
	WL		0	0					0					0	0
	NR		0	0					0					0	0
	NT	1676	1684	1684	46%		12		12	46%		8		8	1703
	NL		0	0					0					0	0
	ER		0	0		11%		4	4		43%		11	11	15
	ET		0	0					0					0	0
	EL		0	0					0					0	0

Project: **6700 Transit Rd**
Location: **Cheektowaga, NY**
Peak Hour: **Weekday PM**
Condition: **Proposed Action**

Figure:

Location Number	Intersection	2026 Collected Volumes	# of Years: 1 No-Build Volumes 0.50%	2027 No Build Volumes	Trip Generation and Distribution Dealership 1 Enter Dist. %	Exit Dist. %	Trips IN 25	Trips OUT 38	Total Site Trips	Trip Generation and Distribution Dealership 2 Enter Dist. %	Exit Dist. %	Trips IN 17	Trips OUT 26	Total Site Trips	Full Build Volumes
6	Transit Rd/ Thru D'Way														
	SR		0	0					0	85%		14		14	14
	ST	1984	1994	1994	99%		25		25	14%		2		2	2021
	SL		0	0					0					0	0
	WR		0	0					0					0	0
	WT		0	0					0					0	0
	WL		0	0					0					0	0
	NR		0	0					0					0	0
	NT	1676	1684	1684	46%		12		12	46%		8		8	1703
	NL		0	0					0					0	0
	ER		0	0					0		11%		3	3	3
	ET		0	0					0					0	0
	EL		0	0					0					0	0
7	Freeman Ave/ Northerly D'Way														
	SR		0	0					0					0	0
	ST		0	0					0					0	0
	SL		0	0					0					0	0
	WR		0	0					0					0	0
	WT	50	50	50					0					0	50
	WL		0	0					0					0	0
	NR		0	0		1%		0	0		44%		11	11	12
	NT		0	0					0					0	0
	NL		0	0					0					0	0
	ER		0	0					0					0	0
	ET	38	38	38		44%		17	17		1%		0	0	55
	EL		0	0					0					0	0
8	McKinley Ave/ Thru D'Way														
	SR		0	0					0					0	0
	ST		0	0	1%		0		0					0	0
	SL		0	0					0	1%		0		0	0
	WR		0	0					0		2%		1	1	1
	WT		0	0					0					0	0
	WL		0	0					0					0	0
	NR		0	0					0					0	0
	NT		0	0		45%		17	17					0	17
	NL		0	0					0					0	0
	ER		0	0					0					0	0
	ET		0	0					0					0	0
	EL		0	0					0					0	0
9	McKinley Ave/ McKinley Extension D'Way														
	SR		0	0					0					0	0
	ST		0	0					0					0	0
	SL		0	0					0					0	0
	WR		0	0					0					0	0
	WT		0	0					0					0	0
	WL		0	0					0					0	0
	NR		0	0					0					0	0
	NT		0	0		45%		17	17					0	17
	NL		0	0					0					0	0
	ER		0	0					0					0	0
	ET		0	0					0					0	0
	EL		0	0					0					0	0

Project: **6700 Transit Rd**
Location: **Cheektowaga, NY**
Peak Hour: **Saturday**
Condition: **Proposed Action**

Figure:

			# of Years 1													
Location Number	**Intersection**	**2026 Collected Volumes**	**No-Build Volumes** 0.50%	**2027 No Build Volumes**	**Trip Generation and Distribution Dealership 1** Enter Dist. %	Exit Dist. %	Trips IN 37	Trips OUT 32	**Total Site Trips**	**Trip Generation and Distribution Dealership 2** Enter Dist. %	Exit Dist. %	Trips IN 24	Trips OUT 20	**Total Site Trips**	**Full Build Volumes**
1	Transit Rd/ Freeman Rd														
	SR	52	52	52					0					0	52
	ST	1187	1193	1193	53%		20		20	53%		13		13	1225
	SU	25	25	25					0					0	25
	SL	60	60	60					0					0	60
	WR	44	44	44					0					0	44
	WT	4	4	4					0					0	4
	WL	115	116	116					0					0	116
	NR	61	61	61					0					0	61
	NT	1136	1142	1142					0					0	1142
	NU	24	24	24	46%		17		17	46%		11		11	52
	NL	22	22	22					0					0	22
	ER	41	41	41					0					0	41
	ET	2	2	2					0					0	2
	EL	36	36	36		45%		14	14		45%		9	9	59
2	Freeman Rd/ McKinley Ave														
	SR	0	0	0					0					0	0
	ST	0	0	0	1%		0		0	1%		0		0	1
	SL	7	7	7					0					0	7
	WR	7	7	7					0					0	7
	WU	7	7	7					0					0	7
	WL	7	7	7					0					0	7
	NR	6	6	6		44%		14	14		1%		0	0	20
	NT	0	0	0		1%		0	0		1%		0	0	1
3	McKinley Ave/ Harding Rd														
	SR	8	8	8					0					0	8
	ST	0	0	0	1%		0		0					0	0
	SL	0	0	0					0					0	0
	NR	0	0	0					0					0	0
	NT	0	0	0		45%		14	14					0	14
	NL	0	0	0					0					0	0
	ER	2	2	2					0					0	2
	ET	0	0	0					0					0	0
	EL	6	6	6					0					0	6
4	Transit Rd/ Southerly D'Way														
	SR		0	0	20%		7		7					0	7
	ST	1367	1374	1374		22%		7	7		54%		11	11	1392
	SL		0	0					0					0	0
	WR		0	0					0					0	0
	WT		0	0					0					0	0
	WL		0	0					0					0	0
	NR		0	0					0					0	0
	NT	1243	1249	1249	46%		17		17	46%		11		11	1277
	NL		0	0					0					0	0
	ER		0	0		43%		14	14					0	14
	ET		0	0					0					0	0
	EL		0	0					0					0	0
5	Transit Rd/ Center D'Way														
	SR		0	0	79%		29		29	14%		3		3	33
	ST	1367	1374	1374	20%	1%	7	0	8		11%		2	2	1384
	SL		0	0					0					0	0
	WR		0	0					0					0	0
	WT		0	0					0					0	0
	WL		0	0					0					0	0
	NR		0	0					0					0	0
	NT	1243	1249	1249	46%		17		17	46%		11		11	1277
	NL		0	0					0					0	0
	ER		0	0		11%		4	4		43%		9	9	12
	ET		0	0					0					0	0
	EL		0	0					0					0	0

Project: **6700 Transit Rd**
Location: **Cheektowaga, NY**
Peak Hour: **Saturday**
Condition: **Proposed Action**

Figure:

Location Number	Intersection	2026 Collected Volumes	# of Years: 1 No-Build Volumes 0.50%	2027 No Build Volumes	Trip Generation and Distribution Dealership 1 Enter Dist. %	Exit Dist. %	Trips IN 37	Trips OUT 32	Total Site Trips	Trip Generation and Distribution Dealership 2 Enter Dist. %	Exit Dist. %	Trips IN 24	Trips OUT 20	Total Site Trips	Full Build Volumes
6	Transit Rd/ Thru D'Way														
	SR		0	0					0	85%		20		20	20
	ST	1367	1374	1374	99%		37		37	14%		3		3	1414
	SL		0	0					0					0	0
	WR		0	0					0					0	0
	WT		0	0					0					0	0
	WL		0	0					0					0	0
	NR		0	0					0					0	0
	NT	1243	1249	1249	46%		17		17	46%		11		11	1277
	NL		0	0					0					0	0
	ER		0	0					0		11%		2	2	2
	ET		0	0					0					0	0
	EL		0	0					0					0	0
7	Freeman Ave/ Northerly D'Way														
	SR		0	0					0					0	0
	ST		0	0					0					0	0
	SL		0	0					0					0	0
	WR		0	0					0					0	0
	WT	78	78	78					0					0	78
	WL		0	0					0					0	0
	NR		0	0		1%		0	0		44%		9	9	9
	NT		0	0					0					0	0
	NL		0	0					0					0	0
	ER		0	0					0					0	0
	ET	79	79	79		44%		14	14		1%		0	0	93
	EL		0	0					0					0	0
8	McKinley Ave/ Thru D'Way														
	SR		0	0					0					0	0
	ST		0	0	1%		0		0					0	0
	SL		0	0					0	1%		0		0	0
	WR		0	0					0		2%		0	0	0
	WT		0	0					0					0	0
	WL		0	0					0					0	0
	NR		0	0					0					0	0
	NT		0	0		45%		14	14					0	14
	NL		0	0					0					0	0
	ER		0	0					0					0	0
	ET		0	0					0					0	0
	EL		0	0					0					0	0
9	McKinley Ave/ McKinley Extension D'Way														
	SR		0	0					0					0	0
	ST		0	0					0					0	0
	SL		0	0					0					0	0
	WR		0	0					0					0	0
	WT		0	0					0					0	0
	WL		0	0					0					0	0
	NR		0	0					0					0	0
	NT		0	0		45%		14	14					0	14
	NL		0	0					0					0	0
	ER		0	0					0					0	0
	ET		0	0					0					0	0
	EL		0	0					0					0	0

PROJECT DETAILS

Project Name:	6700 Transit Rd - Bldg 1	Type of Project:	
Project No:		City:	
Country:		Built-up Area(Sq.ft):	
Analyst Name:	Amy Dake	Clients Name:	
Date:	9/26/2026	ZIP/Postal Code:	
State/Province:		No. of Scenarios:	2
Analysis Region:			

SCENARIO SUMMARY

Scenarios	Name	No. of Land Uses	Phases of Development	No. of Years to Project Traffic	User Group	Estimated New Vehicle Trips		
						Entry	Exit	Total
Scenario - 1	PM Peak	1	1	0		25	38	63
Scenario - 2	SAT Peak	1	1	0		37	32	69

Scenario - 1

Scenario Name: PM Peak
User Group:
Dev. phase: 1
No. of Years to Project Traffic : 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
840 - Automobile Sales (New)	General	1000 Sq. Ft. GFA	28	Weekday, Peak Hour of	Best Fit (LOG)	25	38	63
Data Source: Trip Generation Manual, 12th Ed	Urban/Suburban			Adjacent Street Traffic,	Ln(T) =0.84Ln(X) + 1.34	40%	60%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
840 - Automobile Sales (New)	100	100	1	1	40	60

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
840 - Automobile Sales (New)	25	38	0	0	25	38
	63		0		63	

Scenario - 2

Scenario Name: SAT Peak
User Group:
Dev. phase: 1
No. of Years to Project Traffic : 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
840 - Automobile Sales (New)	**General**	**1000 Sq. Ft. GFA**	**28**	**Saturday, Peak Hour of**	**Average**	**37**	**32**	**69**
Data Source: Trip Generation Manual, 12th Ed	**Urban/Suburban**			**Generator**	2.47	54%	46%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
840 - Automobile Sales (New)	100	100	1	1	54	46

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
840 - Automobile Sales (New)	37	32	0	0	37	32
	69		0		69	

PROJECT DETAILS

Project Name:	6700 Transit Rd - Bldg 2	Type of Project:	
Project No:		City:	
Country:		Built-up Area(Sq.ft):	
Analyst Name:	Amy Dake	Clients Name:	
Date:	9/26/2026	ZIP/Postal Code:	
State/Province:		No. of Scenarios:	2
Analysis Region:			

SCENARIO SUMMARY

Scenarios	Name	No. of Land Uses	Phases of Development	No. of Years to Project Traffic	User Group	Estimated New Vehicle Trips		
						Entry	Exit	Total
Scenario - 1	PM Peak	1	1	0		17	26	43
Scenario - 2	SAT Peak	1	1	0		24	20	44

Scenario - 1

Scenario Name: PM Peak
User Group:
Dev. phase: 1
No. of Years to Project Traffic : 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
840 - Automobile Sales (New)	General	1000 Sq. Ft. GFA	18	Weekday, Peak Hour of	Best Fit (LOG)	17	26	43
Data Source: Trip Generation Manual, 12th Ed	Urban/Suburban			Adjacent Street Traffic,	Ln(T) =0.84Ln(X) + 1.34	40%	60%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
840 - Automobile Sales (New)	100	100	1	1	40	60

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
840 - Automobile Sales (New)	17	26	0	0	17	26
	43		0		43	

Scenario - 2

Scenario Name: SAT Peak
User Group:
Dev. phase: 1
No. of Years to Project Traffic : 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
840 - Automobile Sales (New)	**General**	**1000 Sq. Ft. GFA**	**18**	**Saturday, Peak Hour of Generator**	**Average**	**24**	**20**	**44**
Data Source: Trip Generation Manual, 12th Ed	**Urban/Suburban**				2.47	54%	46%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
840 - Automobile Sales (New)	100	100	1	1	54	46

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
840 - Automobile Sales (New)	24	20	0	0	24	20
	44		0		44	

APPENDIX C: LOS CALCULATIONS – EXISTING CONDITIONS



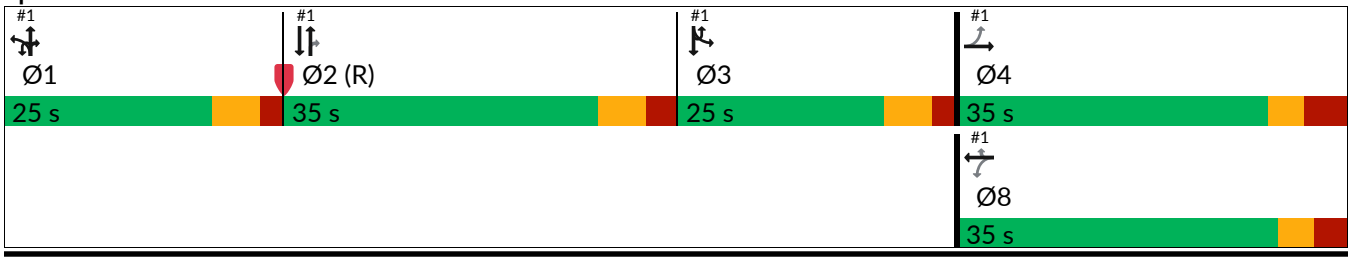
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	19	2	17	130	1	58	11	19	1530	116	27	47
Future Volume (vph)	19	2	17	130	1	58	11	19	1530	116	27	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	180		130		380		450		500
Storage Lanes	1		0	1		1		1		1		1
Taper Length (ft)	25		25	25		25		25		25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.91	1.00	0.91	1.00
Frt		0.865				0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	1805	1644	0	1805	1900	1615	0	1805	5136	1615	0	1805
Flt Permitted	0.757			0.744				0.950				0.950
Satd. Flow (perm)	1438	1644	0	1414	1900	1615	0	1805	5136	1615	0	1805
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		18				150				120		
Link Speed (mph)		30			30				45			
Link Distance (ft)		340			294				947			
Travel Time (s)		7.7			6.7				14.3			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	20	2	18	134	1	60	11	20	1577	120	28	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	20	0	134	1	60	0	31	1577	120	0	76
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				12			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2		1	2	1		1	2	1		1
Detector Template	Left	Thru		Left	Thru	Right		Left	Thru	Right		Left
Leading Detector (ft)	20	100		20	100	20		20	100	20		20
Trailing Detector (ft)	0	0		0	0	0		0	0	0		0
Detector 1 Position(ft)	0	0		0	0	0		0	0	0		0
Detector 1 Size(ft)	20	6		20	6	20		20	6	20		20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 2 Position(ft)		94			94				94			
Detector 2 Size(ft)		6			6				6			
Detector 2 Type		Cl+Ex			Cl+Ex				Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0				0.0			
Turn Type	Perm	NA		Perm	NA	Perm	Prot	Prot	NA	custom	Prot	Prot
Protected Phases		4			8		1	1	1 2	1	3	3

Lane Group	SBT	SBR	Ø2
Lane Configurations			
Traffic Volume (vph)	1826	30	
Future Volume (vph)	1826	30	
Ideal Flow (vphpl)	1900	1900	
Storage Length (ft)		0	
Storage Lanes		0	
Taper Length (ft)		25	
Lane Util. Factor	0.91	0.91	
Frt	0.998		
Flt Protected			
Satd. Flow (prot)	5126	0	
Flt Permitted			
Satd. Flow (perm)	5126	0	
Right Turn on Red		Yes	
Satd. Flow (RTOR)	2		
Link Speed (mph)	45		
Link Distance (ft)	363		
Travel Time (s)	5.5		
Peak Hour Factor	0.97	0.97	
Heavy Vehicles (%)	1%	0%	
Adj. Flow (vph)	1882	31	
Shared Lane Traffic (%)			
Lane Group Flow (vph)	1913	0	
Enter Blocked Intersection	No	No	
Lane Alignment	Left	Right	
Median Width(ft)	12		
Link Offset(ft)	0		
Crosswalk Width(ft)	16		
Two way Left Turn Lane			
Headway Factor	1.00	1.00	
Turning Speed (mph)		9	
Number of Detectors	2		
Detector Template	Thru		
Leading Detector (ft)	100		
Trailing Detector (ft)	0		
Detector 1 Position(ft)	0		
Detector 1 Size(ft)	6		
Detector 1 Type	Cl+Ex		
Detector 1 Channel			
Detector 1 Extend (s)	0.0		
Detector 1 Queue (s)	0.0		
Detector 1 Delay (s)	0.0		
Detector 2 Position(ft)	94		
Detector 2 Size(ft)	6		
Detector 2 Type	Cl+Ex		
Detector 2 Channel			
Detector 2 Extend (s)	0.0		
Turn Type	NA		
Protected Phases	2 3		2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Permitted Phases	4			8		8				1 2		
Detector Phase	4	4		8	8	8	1	1	1 2	1	3	3
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	48.1	48.1		45.2	45.2	45.2	11.3	11.3		11.3	11.3	11.3
Total Split (s)	35.0	35.0		35.0	35.0	35.0	25.0	25.0		25.0	25.0	25.0
Total Split (%)	29.2%	29.2%		29.2%	29.2%	29.2%	20.8%	20.8%		20.8%	20.8%	20.8%
Maximum Green (s)	27.9	27.9		28.8	28.8	28.8	18.7	18.7		18.7	18.7	18.7
Yellow Time (s)	3.2	3.2		3.2	3.2	3.2	4.3	4.3		4.3	4.3	4.3
All-Red Time (s)	3.9	3.9		3.0	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	7.1	7.1		6.2	6.2	6.2		6.3		6.3		6.3
Lead/Lag							Lead	Lead		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	None		None	None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0						
Flash Don't Walk (s)	34.0	34.0		32.0	32.0	32.0						
Pedestrian Calls (#/hr)	0	0		0	0	0						
Act Effct Green (s)	15.8	15.8		16.7	16.7	16.7		28.8	65.8	65.8		18.7
Actuated g/C Ratio	0.13	0.13		0.14	0.14	0.14		0.24	0.55	0.55		0.16
v/c Ratio	0.11	0.09		0.68	0.00	0.17		0.07	0.56	0.13		0.27
Control Delay (s/veh)	44.3	19.4		66.0	40.0	1.1		37.1	19.3	3.1		47.6
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay (s/veh)	44.3	19.4		66.0	40.0	1.1		37.1	19.3	3.1		47.6
LOS	D	B		E	D	A		D	B	A		D
Approach Delay (s/veh)		31.9			45.9				18.5			
Approach LOS		C			D				B			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 62 (52%), Referenced to phase 2:NBSB, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay (s/veh): 27.0		Intersection LOS: C	
Intersection Capacity Utilization 70.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Transit Rd & Freeman Rd



Lane Group	SBT	SBR	Ø2
Permitted Phases			
Detector Phase	2 3		
Switch Phase			
Minimum Initial (s)			5.0
Minimum Split (s)			39.9
Total Split (s)			35.0
Total Split (%)			29%
Maximum Green (s)			28.1
Yellow Time (s)			4.3
All-Red Time (s)			2.6
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			Lag
Lead-Lag Optimize?			Yes
Vehicle Extension (s)			3.0
Recall Mode			C-Min
Walk Time (s)			7.0
Flash Don't Walk (s)			26.0
Pedestrian Calls (#/hr)			0
Act Effct Green (s)	55.1		
Actuated g/C Ratio	0.46		
v/c Ratio	0.81		
Control Delay (s/veh)	31.9		
Queue Delay	0.0		
Total Delay (s/veh)	31.9		
LOS	C		
Approach Delay (s/veh)	32.5		
Approach LOS	C		

Intersection Summary



Lane Group	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	3	16	13	1	9	6	0
Future Volume (vph)	3	16	13	1	9	6	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.945		0.877			
Flt Protected		0.971					0.950
Satd. Flow (prot)	0	1743	0	1666	0	0	1805
Flt Permitted		0.971					0.950
Satd. Flow (perm)	0	1743	0	1666	0	0	1805
Link Speed (mph)		30		30			30
Link Distance (ft)		340		167			169
Travel Time (s)		7.7		3.8			3.8
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	3	19	15	1	10	7	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	37	0	11	0	0	7
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Right	Left	Left
Median Width(ft)		12		0			0
Link Offset(ft)		0		0			0
Crosswalk Width(ft)		16		16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9		9	15	
Sign Control		Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 15.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.6

Movement	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	3	16	13	1	9	6	0
Future Vol, veh/h	3	16	13	1	9	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	0	-	-	0
Grade, %	-	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	3	19	15	1	10	7	0

Major/Minor	Minor1			Major1		Major2	
Conflicting Flow All	0	20	6	0	0	12	0
Stage 1	0	6	-	-	-	-	-
Stage 2	0	14	-	-	-	-	-
Critical Hdwy	-	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	-	5.4	-	-	-	-	-
Critical Hdwy Stg 2	-	5.4	-	-	-	-	-
Follow-up Hdwy	-	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	0	1002	1082	-	-	1621	-
Stage 1	0	1022	-	-	-	-	-
Stage 2	0	1014	-	-	-	-	-
Platoon blocked, %	-			-	-		-
Mov Cap-1 Maneuver	0	998	1082	-	-	1621	-
Mov Cap-2 Maneuver	0	998	-	-	-	-	-
Stage 1	0	1018	-	-	-	-	-
Stage 2	0	1014	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.6	0	7.23
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1034	1621	-
HCM Lane V/C Ratio	-	-	0.033	0.004	-
HCM Ctrl Dly (s/v)	-	-	8.6	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	8	0	0	2	1	16
Future Volume (vph)	8	0	0	2	1	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.875	
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	0	1900	1662	0
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	0	1900	1662	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	298			232	167	
Travel Time (s)	6.8			5.3	3.8	
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	13	0	0	3	2	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	0	3	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	0	0	2	1	16
Future Vol, veh/h	8	0	0	2	1	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	64	64	64	64	64	64
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	13	0	0	3	2	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	17	14	27	0	-	0
Stage 1	14	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1006	1072	1601	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	1025	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1006	1072	1601	-	-	-
Mov Cap-2 Maneuver	1006	-	-	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	1025	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.62	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1601	-	1006	-	-
HCM Lane V/C Ratio	-	-	0.012	-	-
HCM Ctrl Dly (s/v)	0	-	8.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



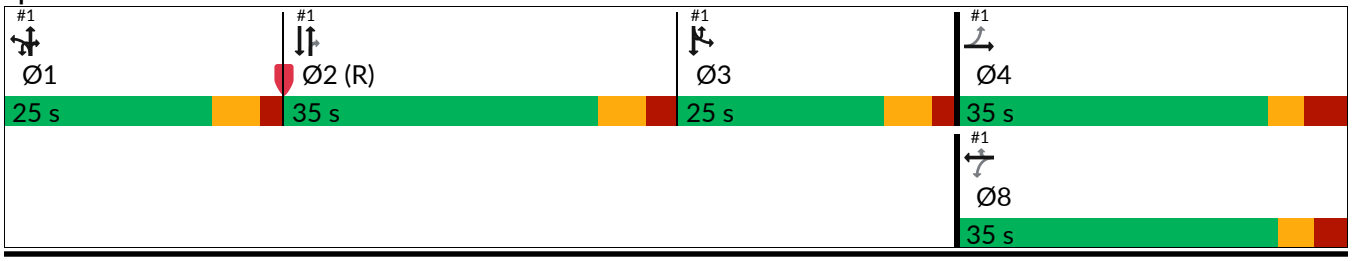
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	36	2	41	115	4	44	24	22	1136	61	25	60
Future Volume (vph)	36	2	41	115	4	44	24	22	1136	61	25	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	180		130		380		450		500
Storage Lanes	1		0	1		1		1		1		1
Taper Length (ft)	25		25	25		25		25		25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.91	1.00	0.91	1.00
Frt		0.857				0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	1805	1628	0	1805	1900	1615	0	1805	5136	1615	0	1805
Flt Permitted	0.755			0.728				0.950				0.950
Satd. Flow (perm)	1434	1628	0	1383	1900	1615	0	1805	5136	1615	0	1805
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		42				150				95		
Link Speed (mph)		30			30				45			
Link Distance (ft)		340			294				947			
Travel Time (s)		7.7			6.7				14.3			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	37	2	42	117	4	45	24	22	1159	62	26	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	44	0	117	4	45	0	46	1159	62	0	87
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				12			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2		1	2	1		1	2	1		1
Detector Template	Left	Thru		Left	Thru	Right		Left	Thru	Right		Left
Leading Detector (ft)	20	100		20	100	20		20	100	20		20
Trailing Detector (ft)	0	0		0	0	0		0	0	0		0
Detector 1 Position(ft)	0	0		0	0	0		0	0	0		0
Detector 1 Size(ft)	20	6		20	6	20		20	6	20		20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 2 Position(ft)		94			94				94			
Detector 2 Size(ft)		6			6				6			
Detector 2 Type		Cl+Ex			Cl+Ex				Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0				0.0			
Turn Type	Perm	NA		Perm	NA	Perm	Prot	Prot	NA	custom	Prot	Prot
Protected Phases		4			8		1	1	1 2	1	3	3

Lane Group	SBT	SBR	Ø2
Lane Configurations			
Traffic Volume (vph)	1187	52	
Future Volume (vph)	1187	52	
Ideal Flow (vphpl)	1900	1900	
Storage Length (ft)		0	
Storage Lanes		0	
Taper Length (ft)		25	
Lane Util. Factor	0.91	0.91	
Frt	0.994		
Flt Protected			
Satd. Flow (prot)	5107	0	
Flt Permitted			
Satd. Flow (perm)	5107	0	
Right Turn on Red		Yes	
Satd. Flow (RTOR)	7		
Link Speed (mph)	45		
Link Distance (ft)	363		
Travel Time (s)	5.5		
Peak Hour Factor	0.98	0.98	
Heavy Vehicles (%)	1%	0%	
Adj. Flow (vph)	1211	53	
Shared Lane Traffic (%)			
Lane Group Flow (vph)	1264	0	
Enter Blocked Intersection	No	No	
Lane Alignment	Left	Right	
Median Width(ft)	12		
Link Offset(ft)	0		
Crosswalk Width(ft)	16		
Two way Left Turn Lane			
Headway Factor	1.00	1.00	
Turning Speed (mph)		9	
Number of Detectors	2		
Detector Template	Thru		
Leading Detector (ft)	100		
Trailing Detector (ft)	0		
Detector 1 Position(ft)	0		
Detector 1 Size(ft)	6		
Detector 1 Type	Cl+Ex		
Detector 1 Channel			
Detector 1 Extend (s)	0.0		
Detector 1 Queue (s)	0.0		
Detector 1 Delay (s)	0.0		
Detector 2 Position(ft)	94		
Detector 2 Size(ft)	6		
Detector 2 Type	Cl+Ex		
Detector 2 Channel			
Detector 2 Extend (s)	0.0		
Turn Type	NA		
Protected Phases	2 3		2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Permitted Phases	4			8		8				1 2		
Detector Phase	4	4		8	8	8	1	1	1 2	1	3	3
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	48.1	48.1		45.2	45.2	45.2	11.3	11.3		11.3	11.3	11.3
Total Split (s)	35.0	35.0		35.0	35.0	35.0	25.0	25.0		25.0	25.0	25.0
Total Split (%)	29.2%	29.2%		29.2%	29.2%	29.2%	20.8%	20.8%		20.8%	20.8%	20.8%
Maximum Green (s)	27.9	27.9		28.8	28.8	28.8	18.7	18.7		18.7	18.7	18.7
Yellow Time (s)	3.2	3.2		3.2	3.2	3.2	4.3	4.3		4.3	4.3	4.3
All-Red Time (s)	3.9	3.9		3.0	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	7.1	7.1		6.2	6.2	6.2		6.3		6.3		6.3
Lead/Lag							Lead	Lead		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	None		None	None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0						
Flash Don't Walk (s)	34.0	34.0		32.0	32.0	32.0						
Pedestrian Calls (#/hr)	0	0		0	0	0						
Act Effct Green (s)	14.6	14.6		15.5	15.5	15.5		23.7	70.0	70.0		15.7
Actuated g/C Ratio	0.12	0.12		0.13	0.13	0.13		0.20	0.58	0.58		0.13
v/c Ratio	0.21	0.19		0.66	0.02	0.13		0.13	0.39	0.06		0.37
Control Delay (s/veh)	48.2	15.6		66.3	42.0	0.8		38.9	14.9	1.2		51.2
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay (s/veh)	48.2	15.6		66.3	42.0	0.8		38.9	14.9	1.2		51.2
LOS	D	B		E	D	A		D	B	A		D
Approach Delay (s/veh)		30.5			48.0				15.1			
Approach LOS		C			D				B			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 62 (52%), Referenced to phase 2:NBSB, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay (s/veh): 21.1		Intersection LOS: C	
Intersection Capacity Utilization 57.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Transit Rd & Freeman Rd



Lane Group	SBT	SBR	Ø2
Permitted Phases			
Detector Phase	2 3		
Switch Phase			
Minimum Initial (s)			5.0
Minimum Split (s)			39.9
Total Split (s)			35.0
Total Split (%)			29%
Maximum Green (s)			28.1
Yellow Time (s)			4.3
All-Red Time (s)			2.6
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			Lag
Lead-Lag Optimize?			Yes
Vehicle Extension (s)			3.0
Recall Mode			C-Min
Walk Time (s)			7.0
Flash Don't Walk (s)			26.0
Pedestrian Calls (#/hr)			0
Act Effct Green (s)	61.5		
Actuated g/C Ratio	0.51		
v/c Ratio	0.48		
Control Delay (s/veh)	20.9		
Queue Delay	0.0		
Total Delay (s/veh)	20.9		
LOS	C		
Approach Delay (s/veh)	22.8		
Approach LOS	C		

Intersection Summary



Lane Group	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	7	7	7	0	6	7	0
Future Volume (vph)	7	7	7	0	6	7	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.955		0.865			
Flt Protected		0.968					0.950
Satd. Flow (prot)	0	1756	0	1644	0	0	1805
Flt Permitted		0.968					0.950
Satd. Flow (perm)	0	1756	0	1644	0	0	1805
Link Speed (mph)		30		30			30
Link Distance (ft)		340		167			169
Travel Time (s)		7.7		3.8			3.8
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	9	9	9	0	8	9	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	27	0	8	0	0	9
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Right	Left	Left
Median Width(ft)		12		0			0
Link Offset(ft)		0		0			0
Crosswalk Width(ft)		16		16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9		9	15	
Sign Control		Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 15.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.8

Movement	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	7	7	7	0	6	7	0
Future Vol, veh/h	7	7	7	0	6	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	0	-	-	0
Grade, %	-	0	-	0	-	-	0
Peak Hour Factor	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	9	9	9	0	8	9	0

Major/Minor	Minor1			Major1		Major2	
Conflicting Flow All	0	22	4	0	0	8	0
Stage 1	0	4	-	-	-	-	-
Stage 2	0	18	-	-	-	-	-
Critical Hdwy	-	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	-	5.4	-	-	-	-	-
Critical Hdwy Stg 2	-	5.4	-	-	-	-	-
Follow-up Hdwy	-	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	0	1000	1086	-	-	1626	-
Stage 1	0	1025	-	-	-	-	-
Stage 2	0	1010	-	-	-	-	-
Platoon blocked, %	-			-	-		-
Mov Cap-1 Maneuver	0	994	1086	-	-	1626	-
Mov Cap-2 Maneuver	0	994	-	-	-	-	-
Stage 1	0	1019	-	-	-	-	-
Stage 2	0	1010	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.53	0	7.23
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1038	1626	-
HCM Lane V/C Ratio	-	-	0.018	0.006	-
HCM Ctrl Dly (s/v)	-	-	8.5	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	6	2	0	0	0	8
Future Volume (vph)	6	2	0	0	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.970				0.865	
Flt Protected	0.963					
Satd. Flow (prot)	1775	0	0	1900	1644	0
Flt Permitted	0.963					
Satd. Flow (perm)	1775	0	0	1900	1644	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	298			232	167	
Travel Time (s)	6.8			5.3	3.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	7	2	0	0	0	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	9	0	0	0	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	2	0	0	0	8
Future Vol, veh/h	6	2	0	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	2	0	0	0	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	5	5	9	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1022	1084	1624	-	-	-
Stage 1	1024	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1624	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1024	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1624	-	1037	-	-
HCM Lane V/C Ratio	-	-	0.009	-	-
HCM Ctrl Dly (s/v)	0	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

APPENDIX D: LOS CALCULATIONS – BACKGROUND CONDITIONS

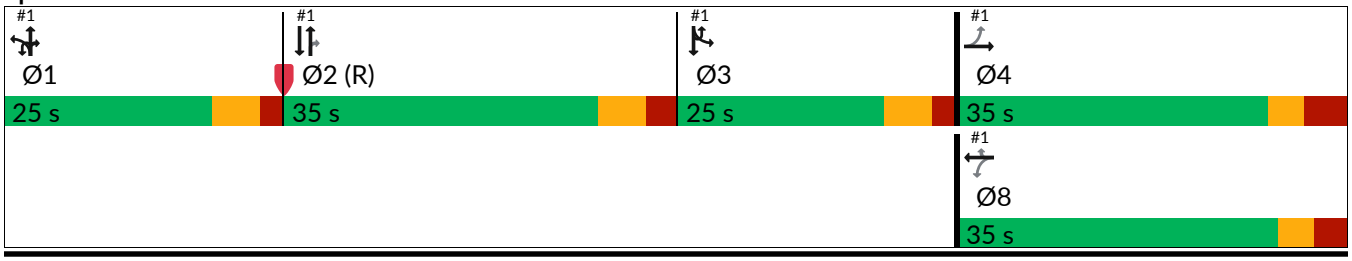
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	19	2	17	131	1	58	11	19	1538	117	27	47
Future Volume (vph)	19	2	17	131	1	58	11	19	1538	117	27	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	180		130		380		450		500
Storage Lanes	1		0	1		1		1		1		1
Taper Length (ft)	25		25	25		25		25		25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.91	1.00	0.91	1.00
Frt		0.865				0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	1805	1644	0	1805	1900	1615	0	1805	5136	1615	0	1805
Flt Permitted	0.757			0.744				0.950				0.950
Satd. Flow (perm)	1438	1644	0	1414	1900	1615	0	1805	5136	1615	0	1805
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		18				150				121		
Link Speed (mph)		30			30				45			
Link Distance (ft)		340			294				947			
Travel Time (s)		7.7			6.7				14.3			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	20	2	18	135	1	60	11	20	1586	121	28	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	20	0	135	1	60	0	31	1586	121	0	76
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				12			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2		1	2	1		1	2	1		1
Detector Template	Left	Thru		Left	Thru	Right		Left	Thru	Right		Left
Leading Detector (ft)	20	100		20	100	20		20	100	20		20
Trailing Detector (ft)	0	0		0	0	0		0	0	0		0
Detector 1 Position(ft)	0	0		0	0	0		0	0	0		0
Detector 1 Size(ft)	20	6		20	6	20		20	6	20		20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 2 Position(ft)		94			94				94			
Detector 2 Size(ft)		6			6				6			
Detector 2 Type		Cl+Ex			Cl+Ex				Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0				0.0			
Turn Type	Perm	NA		Perm	NA	Perm	Prot	Prot	NA	custom	Prot	Prot
Protected Phases		4			8		1	1	1 2	1	3	3

Lane Group	SBT	SBR	Ø2
Lane Configurations			
Traffic Volume (vph)	1835	30	
Future Volume (vph)	1835	30	
Ideal Flow (vphpl)	1900	1900	
Storage Length (ft)		0	
Storage Lanes		0	
Taper Length (ft)		25	
Lane Util. Factor	0.91	0.91	
Frt	0.998		
Flt Protected			
Satd. Flow (prot)	5126	0	
Flt Permitted			
Satd. Flow (perm)	5126	0	
Right Turn on Red		Yes	
Satd. Flow (RTOR)	2		
Link Speed (mph)	45		
Link Distance (ft)	363		
Travel Time (s)	5.5		
Peak Hour Factor	0.97	0.97	
Heavy Vehicles (%)	1%	0%	
Adj. Flow (vph)	1892	31	
Shared Lane Traffic (%)			
Lane Group Flow (vph)	1923	0	
Enter Blocked Intersection	No	No	
Lane Alignment	Left	Right	
Median Width(ft)	12		
Link Offset(ft)	0		
Crosswalk Width(ft)	16		
Two way Left Turn Lane			
Headway Factor	1.00	1.00	
Turning Speed (mph)		9	
Number of Detectors	2		
Detector Template	Thru		
Leading Detector (ft)	100		
Trailing Detector (ft)	0		
Detector 1 Position(ft)	0		
Detector 1 Size(ft)	6		
Detector 1 Type	Cl+Ex		
Detector 1 Channel			
Detector 1 Extend (s)	0.0		
Detector 1 Queue (s)	0.0		
Detector 1 Delay (s)	0.0		
Detector 2 Position(ft)	94		
Detector 2 Size(ft)	6		
Detector 2 Type	Cl+Ex		
Detector 2 Channel			
Detector 2 Extend (s)	0.0		
Turn Type	NA		
Protected Phases	2 3		2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Permitted Phases	4			8		8				1 2		
Detector Phase	4	4		8	8	8	1	1	1 2	1	3	3
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	48.1	48.1		45.2	45.2	45.2	11.3	11.3		11.3	11.3	11.3
Total Split (s)	35.0	35.0		35.0	35.0	35.0	25.0	25.0		25.0	25.0	25.0
Total Split (%)	29.2%	29.2%		29.2%	29.2%	29.2%	20.8%	20.8%		20.8%	20.8%	20.8%
Maximum Green (s)	27.9	27.9		28.8	28.8	28.8	18.7	18.7		18.7	18.7	18.7
Yellow Time (s)	3.2	3.2		3.2	3.2	3.2	4.3	4.3		4.3	4.3	4.3
All-Red Time (s)	3.9	3.9		3.0	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	7.1	7.1		6.2	6.2	6.2		6.3		6.3		6.3
Lead/Lag							Lead	Lead		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	None		None	None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0						
Flash Don't Walk (s)	34.0	34.0		32.0	32.0	32.0						
Pedestrian Calls (#/hr)	0	0		0	0	0						
Act Effct Green (s)	15.9	15.9		16.8	16.8	16.8		28.7	65.7	65.7		18.7
Actuated g/C Ratio	0.13	0.13		0.14	0.14	0.14		0.24	0.55	0.55		0.16
v/c Ratio	0.11	0.09		0.69	0.00	0.17		0.07	0.56	0.13		0.27
Control Delay (s/veh)	44.2	19.4		65.9	40.0	1.0		37.2	19.4	3.1		47.6
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay (s/veh)	44.2	19.4		65.9	40.0	1.0		37.2	19.4	3.1		47.6
LOS	D	B		E	D	A		D	B	A		D
Approach Delay (s/veh)		31.8			45.9				18.6			
Approach LOS		C			D				B			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 62 (52%), Referenced to phase 2:NBSB, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 27.2		Intersection LOS: C	
Intersection Capacity Utilization 70.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Transit Rd & Freeman Rd





Lane Group	SBT	SBR	Ø2
Permitted Phases			
Detector Phase	2 3		
Switch Phase			
Minimum Initial (s)			5.0
Minimum Split (s)			39.9
Total Split (s)			35.0
Total Split (%)			29%
Maximum Green (s)			28.1
Yellow Time (s)			4.3
All-Red Time (s)			2.6
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			Lag
Lead-Lag Optimize?			Yes
Vehicle Extension (s)			3.0
Recall Mode			C-Min
Walk Time (s)			7.0
Flash Don't Walk (s)			26.0
Pedestrian Calls (#/hr)			0
Act Effct Green (s)	55.1		
Actuated g/C Ratio	0.46		
v/c Ratio	0.82		
Control Delay (s/veh)	32.2		
Queue Delay	0.0		
Total Delay (s/veh)	32.2		
LOS	C		
Approach Delay (s/veh)	32.7		
Approach LOS	C		

Intersection Summary



Lane Group	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	3	16	13	1	9	6	0
Future Volume (vph)	3	16	13	1	9	6	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.945		0.877			
Flt Protected		0.971					0.950
Satd. Flow (prot)	0	1743	0	1666	0	0	1805
Flt Permitted		0.971					0.950
Satd. Flow (perm)	0	1743	0	1666	0	0	1805
Link Speed (mph)		30		30			30
Link Distance (ft)		340		167			169
Travel Time (s)		7.7		3.8			3.8
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	3	19	15	1	10	7	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	37	0	11	0	0	7
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Right	Left	Left
Median Width(ft)		12		0			0
Link Offset(ft)		0		0			0
Crosswalk Width(ft)		16		16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9		9	15	
Sign Control		Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 15.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.6

Movement	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	3	16	13	1	9	6	0
Future Vol, veh/h	3	16	13	1	9	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	0	-	-	0
Grade, %	-	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	3	19	15	1	10	7	0

Major/Minor	Minor1			Major1		Major2	
Conflicting Flow All	0	20	6	0	0	12	0
Stage 1	0	6	-	-	-	-	-
Stage 2	0	14	-	-	-	-	-
Critical Hdwy	-	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	-	5.4	-	-	-	-	-
Critical Hdwy Stg 2	-	5.4	-	-	-	-	-
Follow-up Hdwy	-	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	0	1002	1082	-	-	1621	-
Stage 1	0	1022	-	-	-	-	-
Stage 2	0	1014	-	-	-	-	-
Platoon blocked, %	-			-	-		-
Mov Cap-1 Maneuver	0	998	1082	-	-	1621	-
Mov Cap-2 Maneuver	0	998	-	-	-	-	-
Stage 1	0	1018	-	-	-	-	-
Stage 2	0	1014	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.6	0	7.23
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1034	1621	-
HCM Lane V/C Ratio	-	-	0.033	0.004	-
HCM Ctrl Dly (s/v)	-	-	8.6	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	8	0	0	2	1	16
Future Volume (vph)	8	0	0	2	1	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.875	
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	0	1900	1662	0
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	0	1900	1662	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	298			232	167	
Travel Time (s)	6.8			5.3	3.8	
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	13	0	0	3	2	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	0	3	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	0	0	2	1	16
Future Vol, veh/h	8	0	0	2	1	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	64	64	64	64	64	64
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	13	0	0	3	2	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	17	14	27	0	-	0
Stage 1	14	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1006	1072	1601	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	1025	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1006	1072	1601	-	-	-
Mov Cap-2 Maneuver	1006	-	-	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	1025	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.62	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1601	-	1006	-	-
HCM Lane V/C Ratio	-	-	0.012	-	-
HCM Ctrl Dly (s/v)	0	-	8.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

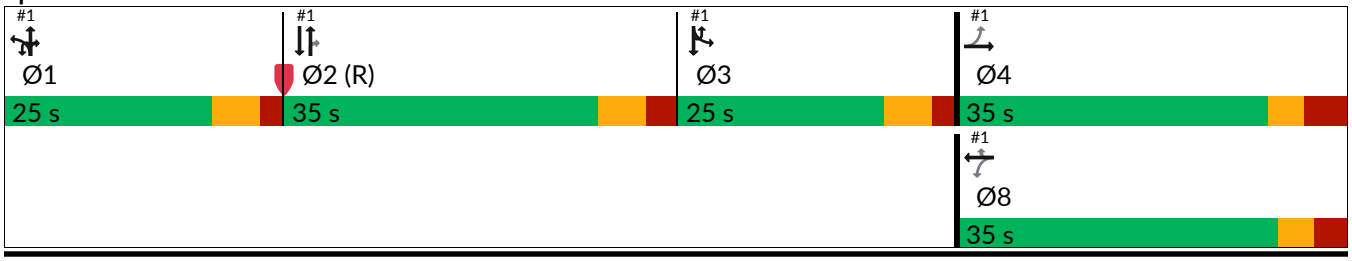
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	36	2	41	116	4	44	24	22	1142	61	25	60
Future Volume (vph)	36	2	41	116	4	44	24	22	1142	61	25	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	180		130		380		450		500
Storage Lanes	1		0	1		1		1		1		1
Taper Length (ft)	25		25	25		25		25		25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.91	1.00	0.91	1.00
Frt		0.857				0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	1805	1628	0	1805	1900	1615	0	1805	5136	1615	0	1805
Flt Permitted	0.755			0.728				0.950				0.950
Satd. Flow (perm)	1434	1628	0	1383	1900	1615	0	1805	5136	1615	0	1805
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		42				150				95		
Link Speed (mph)		30			30				45			
Link Distance (ft)		340			294				947			
Travel Time (s)		7.7			6.7				14.3			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	37	2	42	118	4	45	24	22	1165	62	26	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	44	0	118	4	45	0	46	1165	62	0	87
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				12			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2		1	2	1		1	2	1		1
Detector Template	Left	Thru		Left	Thru	Right		Left	Thru	Right		Left
Leading Detector (ft)	20	100		20	100	20		20	100	20		20
Trailing Detector (ft)	0	0		0	0	0		0	0	0		0
Detector 1 Position(ft)	0	0		0	0	0		0	0	0		0
Detector 1 Size(ft)	20	6		20	6	20		20	6	20		20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 2 Position(ft)		94			94				94			
Detector 2 Size(ft)		6			6				6			
Detector 2 Type		Cl+Ex			Cl+Ex				Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0				0.0			
Turn Type	Perm	NA		Perm	NA	Perm	Prot	Prot	NA	custom	Prot	Prot
Protected Phases		4			8		1	1	1 2	1	3	3

Lane Group	SBT	SBR	Ø2
Lane Configurations			
Traffic Volume (vph)	1193	52	
Future Volume (vph)	1193	52	
Ideal Flow (vphpl)	1900	1900	
Storage Length (ft)		0	
Storage Lanes		0	
Taper Length (ft)		25	
Lane Util. Factor	0.91	0.91	
Frt	0.994		
Flt Protected			
Satd. Flow (prot)	5107	0	
Flt Permitted			
Satd. Flow (perm)	5107	0	
Right Turn on Red		Yes	
Satd. Flow (RTOR)	7		
Link Speed (mph)	45		
Link Distance (ft)	363		
Travel Time (s)	5.5		
Peak Hour Factor	0.98	0.98	
Heavy Vehicles (%)	1%	0%	
Adj. Flow (vph)	1217	53	
Shared Lane Traffic (%)			
Lane Group Flow (vph)	1270	0	
Enter Blocked Intersection	No	No	
Lane Alignment	Left	Right	
Median Width(ft)	12		
Link Offset(ft)	0		
Crosswalk Width(ft)	16		
Two way Left Turn Lane			
Headway Factor	1.00	1.00	
Turning Speed (mph)		9	
Number of Detectors	2		
Detector Template	Thru		
Leading Detector (ft)	100		
Trailing Detector (ft)	0		
Detector 1 Position(ft)	0		
Detector 1 Size(ft)	6		
Detector 1 Type	Cl+Ex		
Detector 1 Channel			
Detector 1 Extend (s)	0.0		
Detector 1 Queue (s)	0.0		
Detector 1 Delay (s)	0.0		
Detector 2 Position(ft)	94		
Detector 2 Size(ft)	6		
Detector 2 Type	Cl+Ex		
Detector 2 Channel			
Detector 2 Extend (s)	0.0		
Turn Type	NA		
Protected Phases	2 3		2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Permitted Phases	4			8		8				1 2		
Detector Phase	4	4		8	8	8	1	1	1 2	1	3	3
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	48.1	48.1		45.2	45.2	45.2	11.3	11.3		11.3	11.3	11.3
Total Split (s)	35.0	35.0		35.0	35.0	35.0	25.0	25.0		25.0	25.0	25.0
Total Split (%)	29.2%	29.2%		29.2%	29.2%	29.2%	20.8%	20.8%		20.8%	20.8%	20.8%
Maximum Green (s)	27.9	27.9		28.8	28.8	28.8	18.7	18.7		18.7	18.7	18.7
Yellow Time (s)	3.2	3.2		3.2	3.2	3.2	4.3	4.3		4.3	4.3	4.3
All-Red Time (s)	3.9	3.9		3.0	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	7.1	7.1		6.2	6.2	6.2		6.3		6.3		6.3
Lead/Lag							Lead	Lead		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	None		None	None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0						
Flash Don't Walk (s)	34.0	34.0		32.0	32.0	32.0						
Pedestrian Calls (#/hr)	0	0		0	0	0						
Act Effct Green (s)	14.7	14.7		15.6	15.6	15.6		23.7	69.9	69.9		15.7
Actuated g/C Ratio	0.12	0.12		0.13	0.13	0.13		0.20	0.58	0.58		0.13
v/c Ratio	0.21	0.19		0.66	0.02	0.13		0.13	0.39	0.06		0.37
Control Delay (s/veh)	48.0	15.6		66.3	42.0	0.8		39.0	15.0	1.2		51.2
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay (s/veh)	48.0	15.6		66.3	42.0	0.8		39.0	15.0	1.2		51.2
LOS	D	B		E	D	A		D	B	A		D
Approach Delay (s/veh)		30.4			48.1				15.2			
Approach LOS		C			D				B			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 62 (52%), Referenced to phase 2:NBSB, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay (s/veh): 21.2		Intersection LOS: C	
Intersection Capacity Utilization 57.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Transit Rd & Freeman Rd





Lane Group	SBT	SBR	Ø2
Permitted Phases			
Detector Phase	2 3		
Switch Phase			
Minimum Initial (s)			5.0
Minimum Split (s)			39.9
Total Split (s)			35.0
Total Split (%)			29%
Maximum Green (s)			28.1
Yellow Time (s)			4.3
All-Red Time (s)			2.6
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			Lag
Lead-Lag Optimize?			Yes
Vehicle Extension (s)			3.0
Recall Mode			C-Min
Walk Time (s)			7.0
Flash Don't Walk (s)			26.0
Pedestrian Calls (#/hr)			0
Act Effct Green (s)	61.3		
Actuated g/C Ratio	0.51		
v/c Ratio	0.49		
Control Delay (s/veh)	21.0		
Queue Delay	0.0		
Total Delay (s/veh)	21.0		
LOS	C		
Approach Delay (s/veh)	22.9		
Approach LOS	C		

Intersection Summary



Lane Group	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	7	7	7	0	6	7	0
Future Volume (vph)	7	7	7	0	6	7	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.955		0.865			
Flt Protected		0.968					0.950
Satd. Flow (prot)	0	1756	0	1644	0	0	1805
Flt Permitted		0.968					0.950
Satd. Flow (perm)	0	1756	0	1644	0	0	1805
Link Speed (mph)		30		30			30
Link Distance (ft)		340		167			169
Travel Time (s)		7.7		3.8			3.8
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	9	9	9	0	8	9	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	27	0	8	0	0	9
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Right	Left	Left
Median Width(ft)		12		0			0
Link Offset(ft)		0		0			0
Crosswalk Width(ft)		16		16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9		9	15	
Sign Control		Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 15.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.8

Movement	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	7	7	7	0	6	7	0
Future Vol, veh/h	7	7	7	0	6	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	0	-	-	0
Grade, %	-	0	-	0	-	-	0
Peak Hour Factor	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	9	9	9	0	8	9	0

Major/Minor	Minor1			Major1		Major2	
Conflicting Flow All	0	22	4	0	0	8	0
Stage 1	0	4	-	-	-	-	-
Stage 2	0	18	-	-	-	-	-
Critical Hdwy	-	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	-	5.4	-	-	-	-	-
Critical Hdwy Stg 2	-	5.4	-	-	-	-	-
Follow-up Hdwy	-	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	0	1000	1086	-	-	1626	-
Stage 1	0	1025	-	-	-	-	-
Stage 2	0	1010	-	-	-	-	-
Platoon blocked, %	-			-	-		-
Mov Cap-1 Maneuver	0	994	1086	-	-	1626	-
Mov Cap-2 Maneuver	0	994	-	-	-	-	-
Stage 1	0	1019	-	-	-	-	-
Stage 2	0	1010	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.53	0	7.23
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1038	1626	-
HCM Lane V/C Ratio	-	-	0.018	0.006	-
HCM Ctrl Dly (s/v)	-	-	8.5	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	6	2	0	0	0	8
Future Volume (vph)	6	2	0	0	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.970				0.865	
Flt Protected	0.963					
Satd. Flow (prot)	1775	0	0	1900	1644	0
Flt Permitted	0.963					
Satd. Flow (perm)	1775	0	0	1900	1644	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	298			232	167	
Travel Time (s)	6.8			5.3	3.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	7	2	0	0	0	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	9	0	0	0	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	2	0	0	0	8
Future Vol, veh/h	6	2	0	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	2	0	0	0	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	5	5	9	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1022	1084	1624	-	-	-
Stage 1	1024	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1022	1084	1624	-	-	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	1024	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1624	-	1037	-	-
HCM Lane V/C Ratio	-	-	0.009	-	-
HCM Ctrl Dly (s/v)	0	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

APPENDIX E: LOS CALCULATIONS – FULL BUILD CONDITIONS

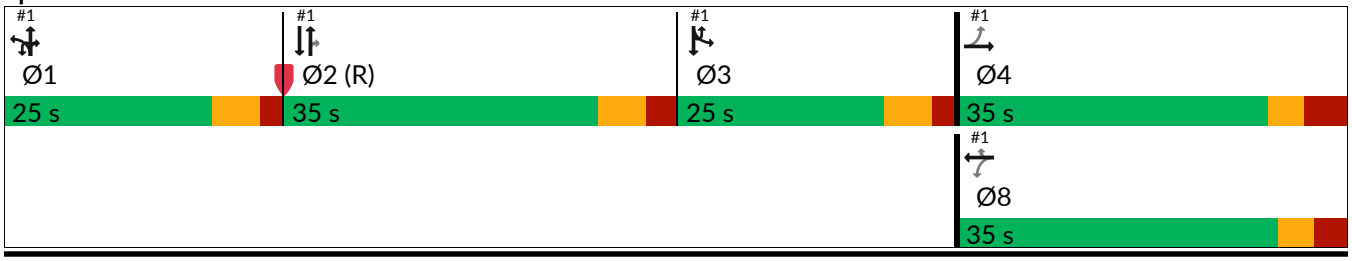
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	48	2	17	131	1	58	30	19	1538	117	27	47
Future Volume (vph)	48	2	17	131	1	58	30	19	1538	117	27	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	180		130		380		450		500
Storage Lanes	1		0	1		1		1		1		1
Taper Length (ft)	25		25	25		25		25		25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.91	1.00	0.91	1.00
Frt		0.865				0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	1805	1644	0	1805	1900	1615	0	1805	5136	1615	0	1805
Flt Permitted	0.757			0.744				0.950				0.950
Satd. Flow (perm)	1438	1644	0	1414	1900	1615	0	1805	5136	1615	0	1805
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		18				150				121		
Link Speed (mph)		30			30				45			
Link Distance (ft)		221			294				137			
Travel Time (s)		5.0			6.7				2.1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	49	2	18	135	1	60	31	20	1586	121	28	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	20	0	135	1	60	0	51	1586	121	0	76
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				12			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2		1	2	1		1	2	1		1
Detector Template	Left	Thru		Left	Thru	Right		Left	Thru	Right		Left
Leading Detector (ft)	20	100		20	100	20		20	100	20		20
Trailing Detector (ft)	0	0		0	0	0		0	0	0		0
Detector 1 Position(ft)	0	0		0	0	0		0	0	0		0
Detector 1 Size(ft)	20	6		20	6	20		20	6	20		20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 2 Position(ft)		94			94				94			
Detector 2 Size(ft)		6			6				6			
Detector 2 Type		Cl+Ex			Cl+Ex				Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0				0.0			
Turn Type	Perm	NA		Perm	NA	Perm	Prot	Prot	NA	custom	Prot	Prot
Protected Phases		4			8		1	1	1 2	1	3	3

Lane Group	SBT	SBR	Ø2
Lane Configurations			
Traffic Volume (vph)	1857	30	
Future Volume (vph)	1857	30	
Ideal Flow (vphpl)	1900	1900	
Storage Length (ft)		0	
Storage Lanes		0	
Taper Length (ft)		25	
Lane Util. Factor	0.91	0.91	
Frt	0.998		
Flt Protected			
Satd. Flow (prot)	5126	0	
Flt Permitted			
Satd. Flow (perm)	5126	0	
Right Turn on Red		Yes	
Satd. Flow (RTOR)	2		
Link Speed (mph)	45		
Link Distance (ft)	363		
Travel Time (s)	5.5		
Peak Hour Factor	0.97	0.97	
Heavy Vehicles (%)	1%	0%	
Adj. Flow (vph)	1914	31	
Shared Lane Traffic (%)			
Lane Group Flow (vph)	1945	0	
Enter Blocked Intersection	No	No	
Lane Alignment	Left	Right	
Median Width(ft)	12		
Link Offset(ft)	0		
Crosswalk Width(ft)	16		
Two way Left Turn Lane			
Headway Factor	1.00	1.00	
Turning Speed (mph)		9	
Number of Detectors	2		
Detector Template	Thru		
Leading Detector (ft)	100		
Trailing Detector (ft)	0		
Detector 1 Position(ft)	0		
Detector 1 Size(ft)	6		
Detector 1 Type	Cl+Ex		
Detector 1 Channel			
Detector 1 Extend (s)	0.0		
Detector 1 Queue (s)	0.0		
Detector 1 Delay (s)	0.0		
Detector 2 Position(ft)	94		
Detector 2 Size(ft)	6		
Detector 2 Type	Cl+Ex		
Detector 2 Channel			
Detector 2 Extend (s)	0.0		
Turn Type	NA		
Protected Phases	2 3		2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Permitted Phases	4			8		8				1 2		
Detector Phase	4	4		8	8	8	1	1	1 2	1	3	3
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	48.1	48.1		45.2	45.2	45.2	11.3	11.3		11.3	11.3	11.3
Total Split (s)	35.0	35.0		35.0	35.0	35.0	25.0	25.0		25.0	25.0	25.0
Total Split (%)	29.2%	29.2%		29.2%	29.2%	29.2%	20.8%	20.8%		20.8%	20.8%	20.8%
Maximum Green (s)	27.9	27.9		28.8	28.8	28.8	18.7	18.7		18.7	18.7	18.7
Yellow Time (s)	3.2	3.2		3.2	3.2	3.2	4.3	4.3		4.3	4.3	4.3
All-Red Time (s)	3.9	3.9		3.0	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	7.1	7.1		6.2	6.2	6.2		6.3		6.3		6.3
Lead/Lag							Lead	Lead		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	None		None	None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0						
Flash Don't Walk (s)	34.0	34.0		32.0	32.0	32.0						
Pedestrian Calls (#/hr)	0	0		0	0	0						
Act Effct Green (s)	15.9	15.9		16.8	16.8	16.8		28.7	65.7	65.7		18.7
Actuated g/C Ratio	0.13	0.13		0.14	0.14	0.14		0.24	0.55	0.55		0.16
v/c Ratio	0.26	0.09		0.69	0.00	0.17		0.12	0.56	0.13		0.27
Control Delay (s/veh)	48.0	19.4		65.9	40.0	1.0		37.8	19.4	3.1		47.6
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay (s/veh)	48.0	19.4		65.9	40.0	1.0		37.8	19.4	3.1		47.6
LOS	D	B		E	D	A		D	B	A		D
Approach Delay (s/veh)		39.7			45.9				18.8			
Approach LOS		D			D				B			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 62 (52%), Referenced to phase 2:NBSB, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay (s/veh): 27.6		Intersection LOS: C	
Intersection Capacity Utilization 70.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Transit Rd & Freeman Rd





Lane Group	SBT	SBR	Ø2
Permitted Phases			
Detector Phase	2 3		
Switch Phase			
Minimum Initial (s)			5.0
Minimum Split (s)			39.9
Total Split (s)			35.0
Total Split (%)			29%
Maximum Green (s)			28.1
Yellow Time (s)			4.3
All-Red Time (s)			2.6
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			Lag
Lead-Lag Optimize?			Yes
Vehicle Extension (s)			3.0
Recall Mode			C-Min
Walk Time (s)			7.0
Flash Don't Walk (s)			26.0
Pedestrian Calls (#/hr)			0
Act Effct Green (s)	55.1		
Actuated g/C Ratio	0.46		
v/c Ratio	0.83		
Control Delay (s/veh)	32.6		
Queue Delay	0.0		
Total Delay (s/veh)	32.6		
LOS	C		
Approach Delay (s/veh)	33.1		
Approach LOS	C		

Intersection Summary



Lane Group	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	3	16	13	2	26	9	0
Future Volume (vph)	3	16	13	2	26	9	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.945		0.873			
Flt Protected		0.971					0.950
Satd. Flow (prot)	0	1743	0	1659	0	0	1805
Flt Permitted		0.971					0.950
Satd. Flow (perm)	0	1743	0	1659	0	0	1805
Link Speed (mph)		30		30			30
Link Distance (ft)		119		167			169
Travel Time (s)		2.7		3.8			3.8
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	3	19	15	2	30	10	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	37	0	32	0	0	10
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Right	Left	Left
Median Width(ft)		12		0			0
Link Offset(ft)		0		0			0
Crosswalk Width(ft)		16		16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9		9	15	
Sign Control		Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 17.2%		ICU Level of Service A	
Analysis Period (min) 15			

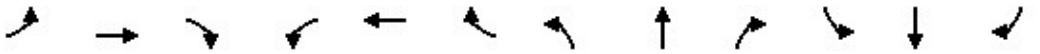
Intersection	
Int Delay, s/veh	5

Movement	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	3	16	13	2	26	9	0
Future Vol, veh/h	3	16	13	2	26	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	0	-	-	0
Grade, %	-	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	3	19	15	2	30	10	0

Major/Minor	Minor1			Major1		Major2	
Conflicting Flow All	0	38	17	0	0	33	0
Stage 1	0	17	-	-	-	-	-
Stage 2	0	21	-	-	-	-	-
Critical Hdwy	-	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	-	5.4	-	-	-	-	-
Critical Hdwy Stg 2	-	5.4	-	-	-	-	-
Follow-up Hdwy	-	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	0	979	1067	-	-	1593	-
Stage 1	0	1011	-	-	-	-	-
Stage 2	0	1007	-	-	-	-	-
Platoon blocked, %	-			-	-		-
Mov Cap-1 Maneuver	0	972	1067	-	-	1593	-
Mov Cap-2 Maneuver	0	972	-	-	-	-	-
Stage 1	0	1004	-	-	-	-	-
Stage 2	0	1007	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.68	0	7.28
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1013	1593	-
HCM Lane V/C Ratio	-	-	0.033	0.007	-
HCM Ctrl Dly (s/v)	-	-	8.7	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	0	0	0	0	1	0	19	0	0	1	16
Future Volume (vph)	8	0	0	0	0	1	0	19	0	0	1	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865						0.875	
Flt Protected		0.950										
Satd. Flow (prot)	0	1805	0	0	1611	0	0	1900	0	0	1662	0
Flt Permitted		0.950										
Satd. Flow (perm)	0	1805	0	0	1611	0	0	1900	0	0	1662	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		298			115			232			167	
Travel Time (s)		6.8			2.6			5.3			3.8	
Peak Hour Factor	0.64	0.92	0.64	0.80	0.80	0.80	0.64	0.64	0.92	0.92	0.64	0.64
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	0%	0%	2%	2%	0%	0%
Adj. Flow (vph)	13	0	0	0	0	1	0	30	0	0	2	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	1	0	0	30	0	0	27	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	0	0	0	0	1	0	19	0	0	1	16
Future Vol, veh/h	8	0	0	0	0	1	0	19	0	0	1	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	92	64	80	80	80	64	64	92	92	64	64
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	0	0
Mvmt Flow	13	0	0	0	0	1	0	30	0	0	2	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	44	44	14	31	56	30	27	0	0	30	0	0
Stage 1	14	14	-	30	30	-	-	-	-	-	-	-
Stage 2	30	30	-	2	27	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.52	6.2	7.12	6.52	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.018	3.3	3.518	4.018	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	964	848	1072	977	835	1045	1601	-	-	1583	-	-
Stage 1	1011	884	-	987	870	-	-	-	-	-	-	-
Stage 2	992	870	-	1021	873	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	963	848	1072	977	835	1045	1601	-	-	1583	-	-
Mov Cap-2 Maneuver	963	848	-	977	835	-	-	-	-	-	-	-
Stage 1	1011	884	-	987	870	-	-	-	-	-	-	-
Stage 2	991	870	-	1021	873	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	8.79	8.45	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1601	-	-	963	1045	1583	-	-
HCM Lane V/C Ratio	-	-	-	0.013	0.001	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	8.8	8.4	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	16	0	1703	2016	5
Future Volume (vph)	0	16	0	1703	2016	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1644	0	5136	5136	0
Flt Permitted						
Satd. Flow (perm)	0	1644	0	5136	5136	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	221			254	305	
Travel Time (s)	5.0			3.8	4.6	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Adj. Flow (vph)	0	20	0	2129	2520	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	20	0	2129	2526	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	16	0	1703	2016	5
Future Vol, veh/h	0	16	0	1703	2016	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	20	0	2129	2520	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1263	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	140	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	140	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	34.87	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	140	-	-
HCM Lane V/C Ratio	-	0.143	-	-
HCM Ctrl Dly (s/v)	-	34.9	-	-
HCM Lane LOS	-	D	-	-
HCM 95th %tile Q(veh)	-	0.5	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	15	0	1703	2002	22
Future Volume (vph)	0	15	0	1703	2002	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1644	0	5136	5126	0
Flt Permitted						
Satd. Flow (perm)	0	1644	0	5136	5126	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	200			305	289	
Travel Time (s)	4.5			4.6	4.4	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Adj. Flow (vph)	0	19	0	2129	2503	28
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	19	0	2129	2531	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	15	0	1703	2002	22
Future Vol, veh/h	0	15	0	1703	2002	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	19	0	2129	2503	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1265	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	140	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	140	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	34.67	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	140	-	-
HCM Lane V/C Ratio	-	0.134	-	-
HCM Ctrl Dly (s/v)	-	34.7	-	-
HCM Lane LOS	-	D	-	-
HCM 95th %tile Q(veh)	-	0.5	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	3	0	1703	2021	14
Future Volume (vph)	0	3	0	1703	2021	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1644	0	5136	5131	0
Flt Permitted						
Satd. Flow (perm)	0	1644	0	5136	5131	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	166			289	137	
Travel Time (s)	3.8			4.4	2.1	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Adj. Flow (vph)	0	4	0	2129	2526	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	0	2129	2544	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	1703	2021	14
Future Vol, veh/h	0	3	0	1703	2021	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	4	0	2129	2526	18

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1272	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	138	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	138	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	31.73	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	138	-	-
HCM Lane V/C Ratio	-	0.027	-	-
HCM Ctrl Dly (s/v)	-	31.7	-	-
HCM Lane LOS	-	D	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	55	0	0	50	0	12
Future Volume (vph)	55	0	0	50	0	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	3610	0	0	1900	1644	0
Flt Permitted						
Satd. Flow (perm)	3610	0	0	1900	1644	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	119			221	61	
Travel Time (s)	2.7			5.0	1.4	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	69	0	0	63	0	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	69	0	0	63	15	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	0	0	50	0	12
Future Vol, veh/h	55	0	0	50	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	69	0	0	63	0	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	69	0	131	34
Stage 1	-	-	-	-	69	-
Stage 2	-	-	-	-	63	-
Critical Hdwy	-	-	4.1	-	6.6	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1545	-	861	1038
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	965	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1545	-	861	1038
Mov Cap-2 Maneuver	-	-	-	-	861	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	965	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	8.52
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1038	-	-	1545	-
HCM Lane V/C Ratio	0.014	-	-	-	-
HCM Ctrl Dly (s/v)	8.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

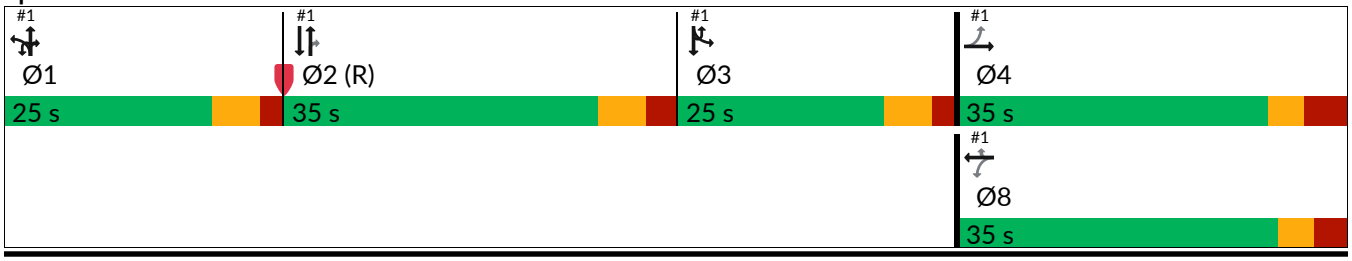
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	59	2	41	116	4	44	52	22	1142	61	25	60
Future Volume (vph)	59	2	41	116	4	44	52	22	1142	61	25	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	180		130		380		450		500
Storage Lanes	1		0	1		1		1		1		1
Taper Length (ft)	25		25	25		25		25		25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	0.91	1.00	0.91	1.00
Frt		0.857				0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	1805	1628	0	1805	1900	1615	0	1805	5136	1615	0	1805
Flt Permitted	0.755			0.728				0.950				0.950
Satd. Flow (perm)	1434	1628	0	1383	1900	1615	0	1805	5136	1615	0	1805
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		42				150				95		
Link Speed (mph)		30			30				45			
Link Distance (ft)		221			294				137			
Travel Time (s)		5.0			6.7				2.1			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	61	2	42	120	4	45	54	23	1177	63	26	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	44	0	120	4	45	0	77	1177	63	0	88
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				12			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2		1	2	1		1	2	1		1
Detector Template	Left	Thru		Left	Thru	Right		Left	Thru	Right		Left
Leading Detector (ft)	20	100		20	100	20		20	100	20		20
Trailing Detector (ft)	0	0		0	0	0		0	0	0		0
Detector 1 Position(ft)	0	0		0	0	0		0	0	0		0
Detector 1 Size(ft)	20	6		20	6	20		20	6	20		20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Detector 2 Position(ft)		94			94				94			
Detector 2 Size(ft)		6			6				6			
Detector 2 Type		Cl+Ex			Cl+Ex				Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0				0.0			
Turn Type	Perm	NA		Perm	NA	Perm	Prot	Prot	NA	custom	Prot	Prot
Protected Phases		4			8		1	1	1 2	1	3	3

Lane Group	SBT	SBR	Ø2
Lane Configurations			
Traffic Volume (vph)	1225	52	
Future Volume (vph)	1225	52	
Ideal Flow (vphpl)	1900	1900	
Storage Length (ft)		0	
Storage Lanes		0	
Taper Length (ft)		25	
Lane Util. Factor	0.91	0.91	
Frt	0.994		
Flt Protected			
Satd. Flow (prot)	5107	0	
Flt Permitted			
Satd. Flow (perm)	5107	0	
Right Turn on Red		Yes	
Satd. Flow (RTOR)	7		
Link Speed (mph)	45		
Link Distance (ft)	363		
Travel Time (s)	5.5		
Peak Hour Factor	0.97	0.97	
Heavy Vehicles (%)	1%	0%	
Adj. Flow (vph)	1263	54	
Shared Lane Traffic (%)			
Lane Group Flow (vph)	1317	0	
Enter Blocked Intersection	No	No	
Lane Alignment	Left	Right	
Median Width(ft)	12		
Link Offset(ft)	0		
Crosswalk Width(ft)	16		
Two way Left Turn Lane			
Headway Factor	1.00	1.00	
Turning Speed (mph)		9	
Number of Detectors	2		
Detector Template	Thru		
Leading Detector (ft)	100		
Trailing Detector (ft)	0		
Detector 1 Position(ft)	0		
Detector 1 Size(ft)	6		
Detector 1 Type	Cl+Ex		
Detector 1 Channel			
Detector 1 Extend (s)	0.0		
Detector 1 Queue (s)	0.0		
Detector 1 Delay (s)	0.0		
Detector 2 Position(ft)	94		
Detector 2 Size(ft)	6		
Detector 2 Type	Cl+Ex		
Detector 2 Channel			
Detector 2 Extend (s)	0.0		
Turn Type	NA		
Protected Phases	2 3		2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Permitted Phases	4			8		8				1 2		
Detector Phase	4	4		8	8	8	1	1	1 2	1	3	3
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	48.1	48.1		45.2	45.2	45.2	11.3	11.3		11.3	11.3	11.3
Total Split (s)	35.0	35.0		35.0	35.0	35.0	25.0	25.0		25.0	25.0	25.0
Total Split (%)	29.2%	29.2%		29.2%	29.2%	29.2%	20.8%	20.8%		20.8%	20.8%	20.8%
Maximum Green (s)	27.9	27.9		28.8	28.8	28.8	18.7	18.7		18.7	18.7	18.7
Yellow Time (s)	3.2	3.2		3.2	3.2	3.2	4.3	4.3		4.3	4.3	4.3
All-Red Time (s)	3.9	3.9		3.0	3.0	3.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0		0.0
Total Lost Time (s)	7.1	7.1		6.2	6.2	6.2		6.3		6.3		6.3
Lead/Lag							Lead	Lead		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None	None	None	None		None	None	None
Walk Time (s)	7.0	7.0		7.0	7.0	7.0						
Flash Don't Walk (s)	34.0	34.0		32.0	32.0	32.0						
Pedestrian Calls (#/hr)	0	0		0	0	0						
Act Effct Green (s)	14.8	14.8		15.7	15.7	15.7		24.0	69.4	69.4		16.1
Actuated g/C Ratio	0.12	0.12		0.13	0.13	0.13		0.20	0.58	0.58		0.13
v/c Ratio	0.35	0.19		0.66	0.02	0.13		0.21	0.40	0.06		0.36
Control Delay (s/veh)	51.7	15.5		66.3	41.8	0.8		40.5	15.4	1.3		50.8
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay (s/veh)	51.7	15.5		66.3	41.8	0.8		40.5	15.4	1.3		50.8
LOS	D	B		E	D	A		D	B	A		D
Approach Delay (s/veh)		36.5			48.3				16.2			
Approach LOS		D			D				B			

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 62 (52%), Referenced to phase 2:NBSB, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay (s/veh): 22.1		Intersection LOS: C	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Transit Rd & Freeman Rd





Lane Group	SBT	SBR	Ø2
Permitted Phases			
Detector Phase	2 3		
Switch Phase			
Minimum Initial (s)			5.0
Minimum Split (s)			39.9
Total Split (s)			35.0
Total Split (%)			29%
Maximum Green (s)			28.1
Yellow Time (s)			4.3
All-Red Time (s)			2.6
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			Lag
Lead-Lag Optimize?			Yes
Vehicle Extension (s)			3.0
Recall Mode			C-Min
Walk Time (s)			7.0
Flash Don't Walk (s)			26.0
Pedestrian Calls (#/hr)			0
Act Effct Green (s)	60.8		
Actuated g/C Ratio	0.51		
v/c Ratio	0.51		
Control Delay (s/veh)	21.6		
Queue Delay	0.0		
Total Delay (s/veh)	21.6		
LOS	C		
Approach Delay (s/veh)	23.5		
Approach LOS	C		

Intersection Summary



Lane Group	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	7	7	7	1	20	7	1
Future Volume (vph)	7	7	7	1	20	7	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.955		0.871			
Flt Protected		0.968					0.957
Satd. Flow (prot)	0	1756	0	1655	0	0	1818
Flt Permitted		0.968					0.957
Satd. Flow (perm)	0	1756	0	1655	0	0	1818
Link Speed (mph)		30		30			30
Link Distance (ft)		119		167			169
Travel Time (s)		2.7		3.8			3.8
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	8	8	8	1	23	8	1
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	24	0	24	0	0	9
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Right	Left	Right	Left	Left
Median Width(ft)		12		0			0
Link Offset(ft)		0		0			0
Crosswalk Width(ft)		16		16			16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	9		9	15	
Sign Control		Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.0%		ICU Level of Service A	
Analysis Period (min) 15			

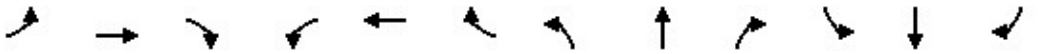
Intersection	
Int Delay, s/veh	4.6

Movement	WBU	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	7	7	7	1	20	7	1
Future Vol, veh/h	7	7	7	1	20	7	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	0	-	-	0
Grade, %	-	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	8	8	8	1	23	8	1

Major/Minor	Minor1			Major1		Major2	
Conflicting Flow All	0	30	13	0	0	24	0
Stage 1	0	13	-	-	-	-	-
Stage 2	0	17	-	-	-	-	-
Critical Hdwy	-	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	-	5.4	-	-	-	-	-
Critical Hdwy Stg 2	-	5.4	-	-	-	-	-
Follow-up Hdwy	-	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	0	989	1073	-	-	1603	-
Stage 1	0	1015	-	-	-	-	-
Stage 2	0	1011	-	-	-	-	-
Platoon blocked, %	-			-	-		-
Mov Cap-1 Maneuver	0	984	1073	-	-	1603	-
Mov Cap-2 Maneuver	0	984	-	-	-	-	-
Stage 1	0	1010	-	-	-	-	-
Stage 2	0	1011	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.56	0	6.35
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1027	1575	-
HCM Lane V/C Ratio	-	-	0.016	0.005	-
HCM Ctrl Dly (s/v)	-	-	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	0	2	0	0	0	0	14	0	0	0	8
Future Volume (vph)	6	0	2	0	0	0	0	14	0	0	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966									0.865	
Flt Protected		0.964										
Satd. Flow (prot)	0	1769	0	0	1863	0	0	1900	0	0	1644	0
Flt Permitted		0.964										
Satd. Flow (perm)	0	1769	0	0	1863	0	0	1900	0	0	1644	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		298			115			232			167	
Travel Time (s)		6.8			2.6			5.3			3.8	
Peak Hour Factor	0.64	0.92	0.64	0.80	0.80	0.80	0.64	0.64	0.92	0.92	0.64	0.64
Heavy Vehicles (%)	0%	2%	0%	2%	2%	2%	0%	0%	2%	2%	0%	0%
Adj. Flow (vph)	9	0	3	0	0	0	0	22	0	0	0	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	0	0	0	22	0	0	13	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	2	0	0	0	0	14	0	0	0	8
Future Vol, veh/h	6	0	2	0	0	0	0	14	0	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	92	64	80	80	80	64	64	92	92	64	64
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	0	0
Mvmt Flow	9	0	3	0	0	0	0	22	0	0	0	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	28	28	6	22	34	22	13	0	0	22	0	0
Stage 1	6	6	-	22	22	-	-	-	-	-	-	-
Stage 2	22	22	-	0	13	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.52	6.2	7.12	6.52	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.018	3.3	3.518	4.018	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	986	865	1082	990	858	1055	1619	-	-	1594	-	-
Stage 1	1021	891	-	997	877	-	-	-	-	-	-	-
Stage 2	1002	877	-	-	885	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	986	865	1082	988	858	1055	1619	-	-	1594	-	-
Mov Cap-2 Maneuver	986	865	-	988	858	-	-	-	-	-	-	-
Stage 1	1021	891	-	997	877	-	-	-	-	-	-	-
Stage 2	1002	877	-	-	885	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	8.61	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1619	-	-	1009	-	1594	-	-
HCM Lane V/C Ratio	-	-	-	0.012	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	8.6	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	14	0	1277	1392	7
Future Volume (vph)	0	14	0	1277	1392	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1644	0	5136	5131	0
Flt Permitted						
Satd. Flow (perm)	0	1644	0	5136	5131	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	221			254	305	
Travel Time (s)	5.0			3.8	4.6	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Adj. Flow (vph)	0	18	0	1596	1740	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	18	0	1596	1749	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	14	0	1277	1392	7
Future Vol, veh/h	0	14	0	1277	1392	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	18	0	1596	1740	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	874	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	255	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	255	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	20.18	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	255	-	-
HCM Lane V/C Ratio	-	0.069	-	-
HCM Ctrl Dly (s/v)	-	20.2	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	12	0	1277	1384	33
Future Volume (vph)	0	12	0	1277	1384	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865			0.997	
Flt Protected						
Satd. Flow (prot)	0	1644	0	5136	5121	0
Flt Permitted						
Satd. Flow (perm)	0	1644	0	5136	5121	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	200			305	289	
Travel Time (s)	4.5			4.6	4.4	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Adj. Flow (vph)	0	15	0	1596	1730	41
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	15	0	1596	1771	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	12	0	1277	1384	33
Future Vol, veh/h	0	12	0	1277	1384	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	15	0	1596	1730	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	886	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	250	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	250	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	20.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	250	-	-
HCM Lane V/C Ratio	-	0.06	-	-
HCM Ctrl Dly (s/v)	-	20.3	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	2	0	1277	1414	20
Future Volume (vph)	0	2	0	1277	1414	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1644	0	5136	5126	0
Flt Permitted						
Satd. Flow (perm)	0	1644	0	5136	5126	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	166			289	137	
Travel Time (s)	3.8			4.4	2.1	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Adj. Flow (vph)	0	3	0	1596	1768	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	3	0	1596	1793	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	0	1277	1414	20
Future Vol, veh/h	0	2	0	1277	1414	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	3	0	1596	1768	25

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	896	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.1	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.9	-	-	-	-
Pot Cap-1 Maneuver	0	246	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	246	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	19.77	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	246	-	-
HCM Lane V/C Ratio	-	0.01	-	-
HCM Ctrl Dly (s/v)	-	19.8	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	93	0	0	78	0	9
Future Volume (vph)	93	0	0	78	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	3610	0	0	1900	1644	0
Flt Permitted						
Satd. Flow (perm)	3610	0	0	1900	1644	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	119			221	61	
Travel Time (s)	2.7			5.0	1.4	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	116	0	0	98	0	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	116	0	0	98	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 14.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	93	0	0	78	0	9
Future Vol, veh/h	93	0	0	78	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	116	0	0	98	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	116	0	214	58
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	98	-
Critical Hdwy	-	-	4.1	-	6.6	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1485	-	770	1002
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	931	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1485	-	770	1002
Mov Cap-2 Maneuver	-	-	-	-	770	-
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	931	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	8.63
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1002	-	-	1485	-
HCM Lane V/C Ratio	0.011	-	-	-	-
HCM Ctrl Dly (s/v)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-