NYS Route 20A
Comprehensive Access Management Plan

Prepared For:

The Village and Town of Geneseo

JULY 2007

Prepared By:

SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants

3495 Winton Place
Building E, Suite 110
Rochester, New York 14623

In conjunction with:

New York State
Department of Transportation

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

I. INTRODUCTION

1.1 Background

One of the greatest threats to safe and efficient travel in a community is the cumulative effect of growth and development. Generally, applications for development are reviewed on an individual basis as they are submitted. Planning boards are confronted with the task of reviewing a proposal in the context of the existing conditions without insight into the best overall plan for the area in the future. This segmented approach to planning, which is commonplace, leads to the proliferation of uncoordinated driveway access. This is often the result of insufficient information and coordination between the transportation agency and land use/zoning decision makers.

This project initiates coordination between (NYSDOT), the Village, and the Town of Geneseo to work as true partners to protect and preserve the investment, capacity, and safety on NYS Route 20A corridor for future generations by making each aware of the impacts of its decisions on the other agencies and on the roadway.

This coordination will take the form of an access management plan, which will include establishment of a corridor-wide framework within which to review, discuss, evaluate, and mitigate proposed development along the corridor. The framework will be designed in a way that it will continue to operate long after the study is complete.

With all stakeholders as partners working together, the Village and Town of Geneseo accomplished the following objectives:

A. Cooperatively prepared an access management plan;

B. Reviewed and improved cooperation on permit and zoning practices within the study area, using regulatory land use, access design/traffic management techniques and strategies developed through this study (using the Access Management Manual as a resource);

C. Worked with local officials to identify zoning ordinance language that needs to be updated to carry out the access management plan;

The expected outcome is a plan which, through its implementation, will preserve the functionality of the Route 20A corridor, while supporting the economic vitality of the corridor. This outcome can only be obtained by the cooperative efforts of the local governments, NYSDOT, and all other stakeholders.

1.2 Study Area

The study corridor begins at the Route 20A/Main Street intersection, and extends east to the North Road intersection. The study corridor also includes Volunteer Road, in its entirety, and Main Street, between Route 20A and Park Street. **Figure 1.1** shows the study area boundary for the study corridor.

The entire study corridor on Route 20A is approximately 3.8 miles long. Thirteen existing intersections are studied in detail as follows:

1. Route 20A/Main Street (signalized)
2. Route 20A/Crossett Road/Temple Hill Road (unsignalized)
3. Route 20A/Groveland Road (unsignalized)
4. Route 20A/Center Street (unsignalized)
5. Route 20A/Megan Drive/Reservior Road (signalized)
6. Route 20A/Millennium Dr (unsignalized)
7. Route 20A/Volunteer Road/Wegmans drive (signalized)
8. Route 20A/Mobil driveway (unsignalized)
9. Route 20A/Morgan View Road (unsignalized)
10. Route 20A/Country Club Road (unsignalized)
11. Route 20A/North Road (unsignalized)
12. Main Street/Park Street (unsignalized)
13. Volunteer Road/Lima Road (unsignalized)

The existing lane geometry at each of the study intersections on the Route 20A study corridor are depicted in **Figure 1.2.**

1.3 Previous Studies

Previously, in May 2002 a Land Use and Access Management Plan (LUAMP) was prepared by Clark Patterson Associates for the Route 20A corridor. This study focused primarily on the segment of Route 20A from Center Street to Morgan View Road. Prior to the LUAMP report in 2002, a report was prepared in April 1999 by Fisher Associates for the Gateway Industrial Park. The report analyzed the traffic impacts resulting from the construction of Volunteer Road and subsequent land development.

1.4 Project Coordination

Public outreach and project coordination was a significant element of the study. At the onset of the project, a partnering session between NYSDOT and the Route 20A Access Management Steering Committee was held to guide the Consultant's effort to establish a common vision for the corridor, with supporting goals and objectives to guide the development and focus of the

access management plan. The main purpose of the partnering session was to clearly articulate the purpose of the plan and the problems that need to be solved. At this workshop, the basic function of the corridor and its relative importance in the overall transportation system was clearly defined. Also, general access characteristics and areas with existing access concerns were identified. Future access concerns based on planned development was discussed. Also all land use changes that are proposed for official revision was identified. The dates of the various meetings held to date are listed below in **Table 1.1.**

TABLE 1.1 – MEETING SCHEDULE

MEETING	DATE
Meeting # 1: Kick-off/Partnering Session	May 10, 2005
Meeting # 2: Inventory Evaluation	August 23, 2005
Meeting # 3: Public #1	September 29, 2005
Meeting # 4: Evaluation	March 22, 2006
Meeting # 5: Education	April 03, 2006
Meeting # 6: Concept Plan	May 31, 2006
Meeting # 7: Public #2	October 17, 2006
Meeting # 8: Public #3	July 11, 2007

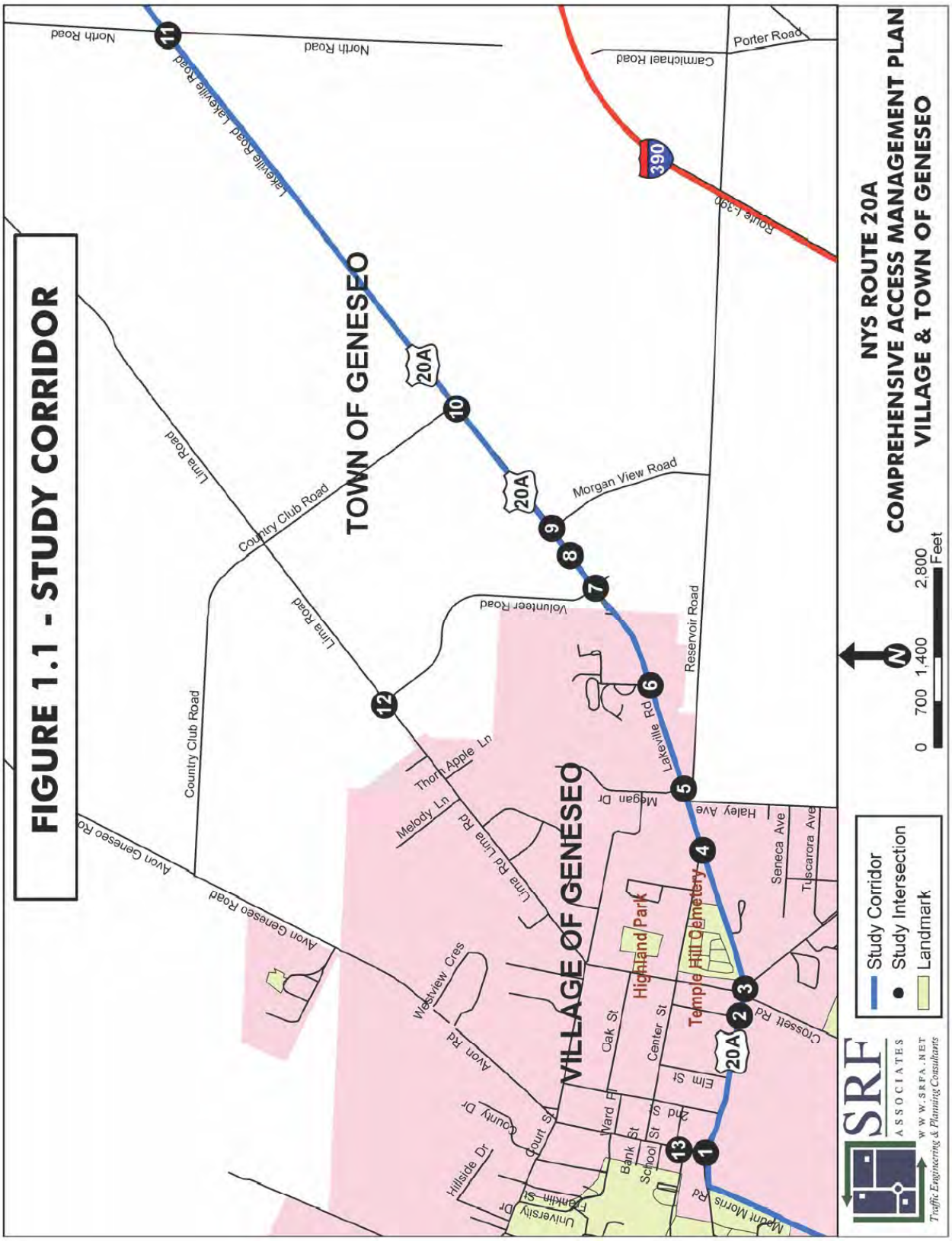


FIGURE 1.1 - STUDY CORRIDOR
NYS ROUTE 20A
COMPREHENSIVE ACCESS MANAGEMENT PLAN
VILLAGE & TOWN OF GENESEO
TOWN OF GENESEO
VILLAGE OF GENESEO
North Road
Lakeville Road
Porter Road
Carmichael Road
Route I-390
Morgan View Road
Volunteer Road
Reservoir Road
Lima Road
Country Club Road
Avon Geneseo Road
Thorn Apple Ln
Melody Ln
Lima Rd
Lakeville Rd
Megan Dr
Haley Ave
Seneca Ave
Tuscarora Ave
Crossett Rd
Highland Park
Temple Hill Cemetery
Elm St
Center St
Oak St
Ward Pl
2nd St
School St
Bank St
Court St
Avon Rd
Westview Cres
County Dr
Hillside Dr
Franklin St
University Dr
Mount Morris Rd
20A
390
0 700 1,400 2,800 Feet
Study Corridor
Study Intersection
Landmark
SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants

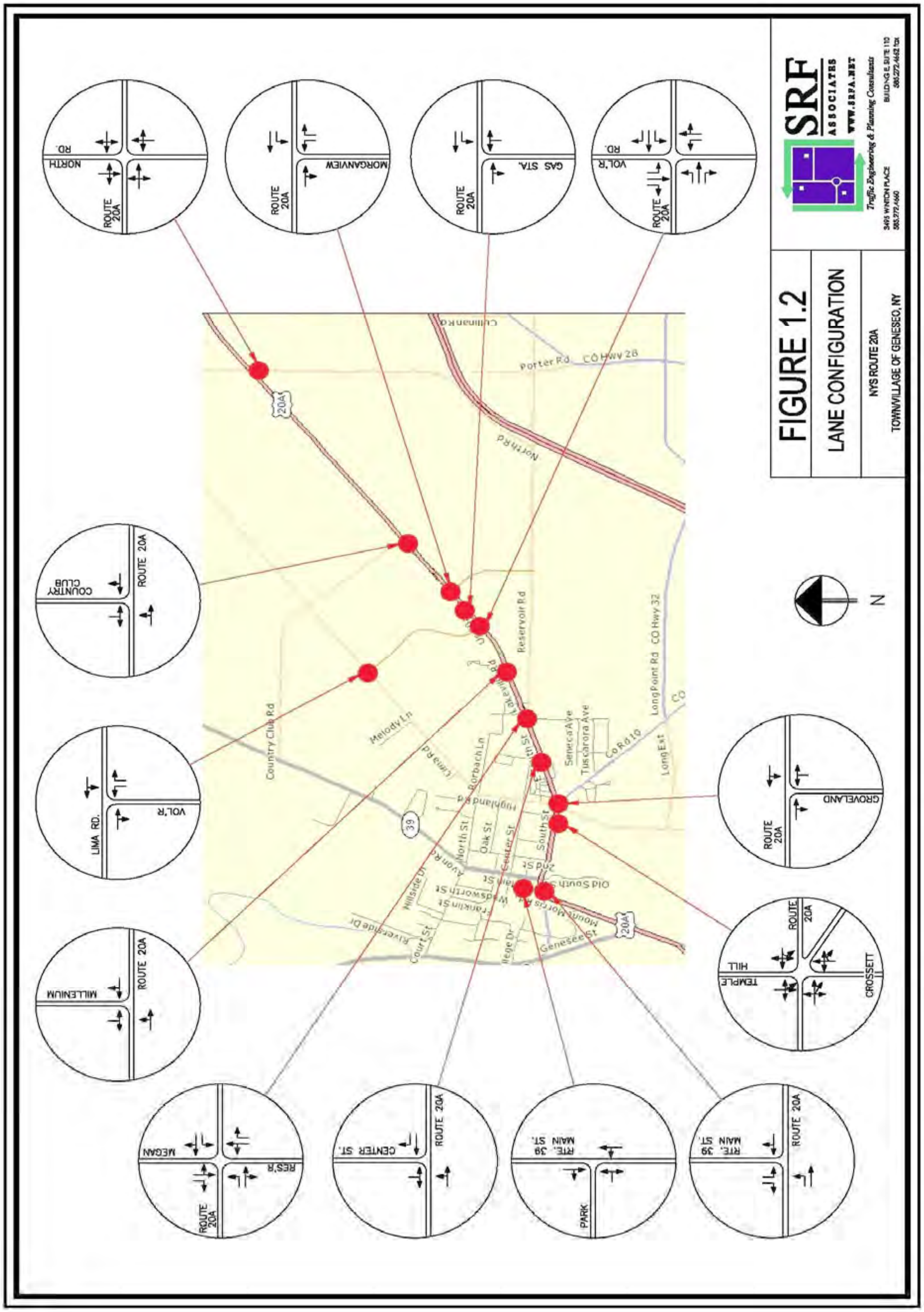


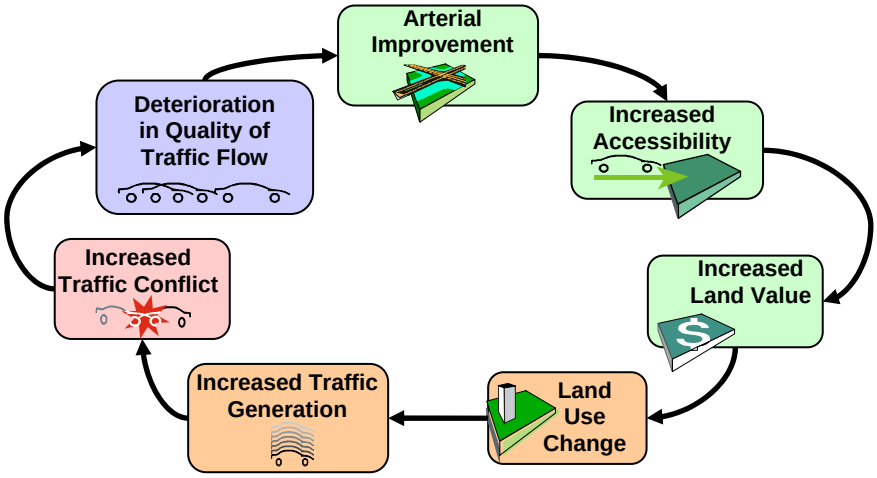
FIGURE 1.2
LANE CONFIGURATION
NYS ROUTE 20A
TOWN/VILLAGE OF GENESEO, NY

1.5 Goals and Objectives

Workshop sessions were held with the NYSDOT and the Route 20A Access Management Steering Committee to define the goals and objectives to be accomplished by the study. The following goals were defined by the committee as relevant to this study.

The principal goal of the Route 20A Access Management Study is to develop a plan that the local jurisdictions and NYSDOT can implement to make NYS Route 20A a safer and more efficient transportation facility for all users over the next 20 years. This plan shall respect the character of the Village and Town while preserving the quality of life for residents, merchants, and visitors of the community.

In order to achieve this goal, it is important to understand the connection between the transportation network and the adjacent land use that it serves. The national Access Management Manual[1] refers to this relationship as the *Transportation – Land Use Cycle*, as shown in the following graphic.



Access management strategies delay or even halt this cycle by maintaining a balance between the Land Use Change stage and the Increased Traffic Conflict stage. As illustrated in the diagram, increased traffic generation is a direct result of Land Use change. Local municipalities have in place official planning documents such as Comprehensive Plans, Master Plans, Zoning Ordinances, and Subdivision Regulations that govern how and where land should (or should not) be developed. To effectively manage the transportation and land use cycle, both NYSDOT and the local agencies must address both the transportation system and the adjacent land development.

The intent of the Access Management Plan is to provide a framework for assisting NYSDOT, the Village and Town Planning Boards, and the Town Board

[1] Transportation Research Board, National Academies of Science, 2003.

with decision-making regarding access, circulation, and safety for future development along the corridor.

Specific objectives include:

- Minimize number of access locations
- Increase access spacing
- Reduce through traffic conflicts
- Provide greater accessibility for all users
- Manage traffic signal and intersection control
- Provide language in local codes that supports implementation of access management techniques and strategies along the corridor

2. EXISTING CONDITIONS – TRANSPORTATION

2.1 Roadway Functional Classification and Roadway Attributes

Route 20A is functionally classified as an urban minor arterial within the Village of Geneseo and a rural minor arterial type highway in the Town of Geneseo under the jurisdiction of NYSDOT. The posted speed limit is 30 mph inside the village, 45 mph from the east village boundary to Country Club Road and 55 mph to the east of Country Club Road to North Road.

Volunteer Road, a two-lane roadway under the jurisdiction of the Town of Geneseo, provides a connection between Route 20A to the south and Lima Road to the north with a posted speed limit of 45 mph. Volunteer Road widens on the approach to the signalized Route 20A intersection to provide one exclusive left, one thru, and one right turn lane. On the approach to Lima Road, the pavement widens to provide one exclusive left and one right turn lane.

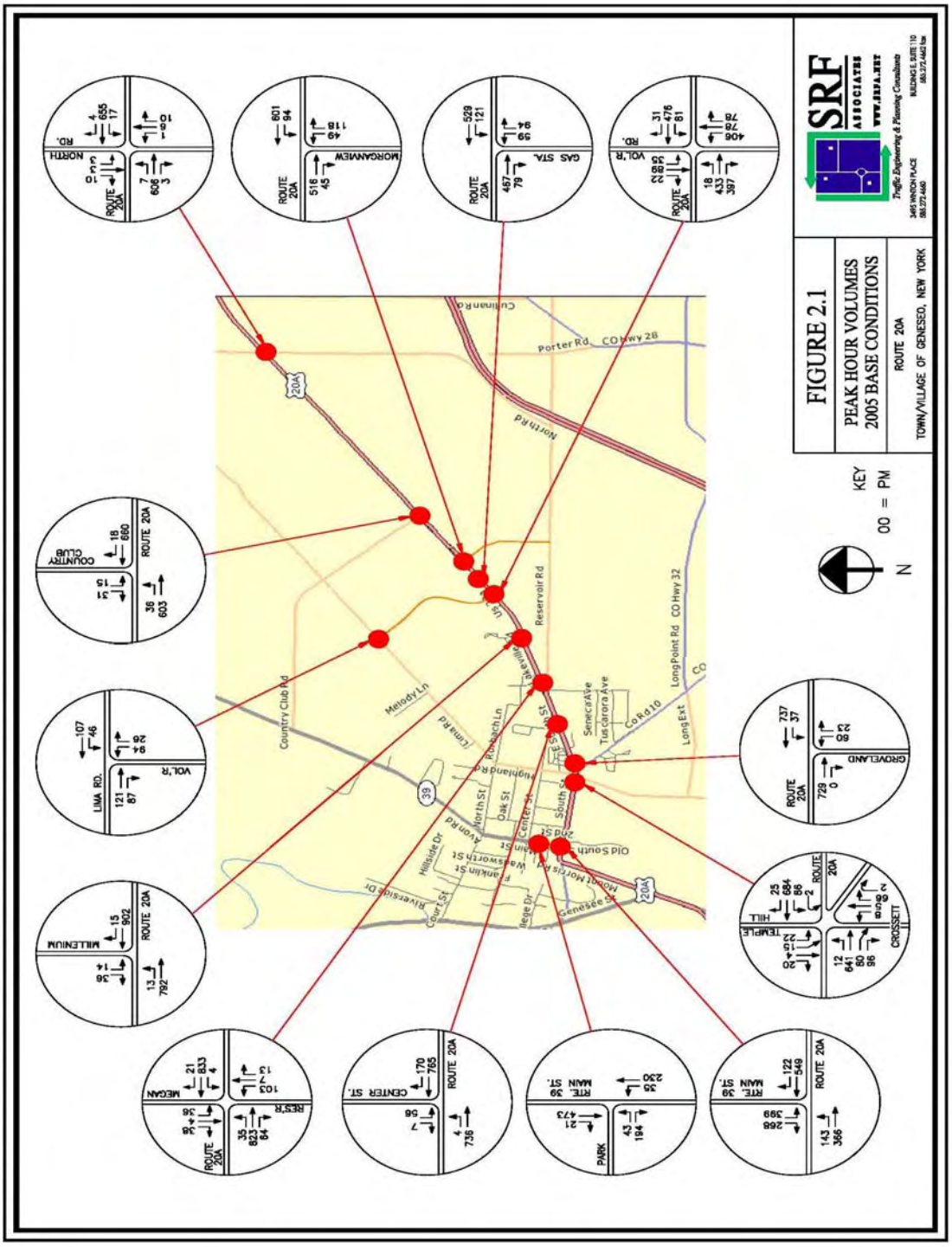
Morgan View Road, a two-lane roadway under the jurisdiction of the Town of Geneseo, provides a connection between Route 20A to the north and Reservoir Road to the south with a posted speed limit of 40 mph. Morgan View Road widens on the approach to the unsignalized Route 20A intersection to provide one left and one right turn lane.

2.2 Data Collection Program

Weekday PM (4-6pm) peak traffic counts were obtained by SRF & Associates (SRF) at the study area intersections listed in section 1.2.

PM Peak hour volumes at all of the study area intersections were collected on April 14, 15, 26, May 12, 13, and June 27, 2005. All traffic volumes were reviewed to confirm the accuracy and relative balance of the collective traffic

counts, due to the differences in days the data was collected. All traffic volumes were found to balance within the network within reasonable and expected variations. The actual differences in traffic volumes can be attributed to activity related to driveways and intersections located in the segments between the intersections along NYS Route 20A between the study intersections. The existing PM peak hour volumes are depicted in **Figure 2.1**.



2.3 Access Density

Access density is the number of access points, such as driveways and intersections, per mile. **Table 2.1** shows the existing access density for the three sections along Route 20A in the Village and Town of Geneseo. **Table 2.2** compares the accident rate on the three sections.

TABLE 2.1: ACCESS DENSITY

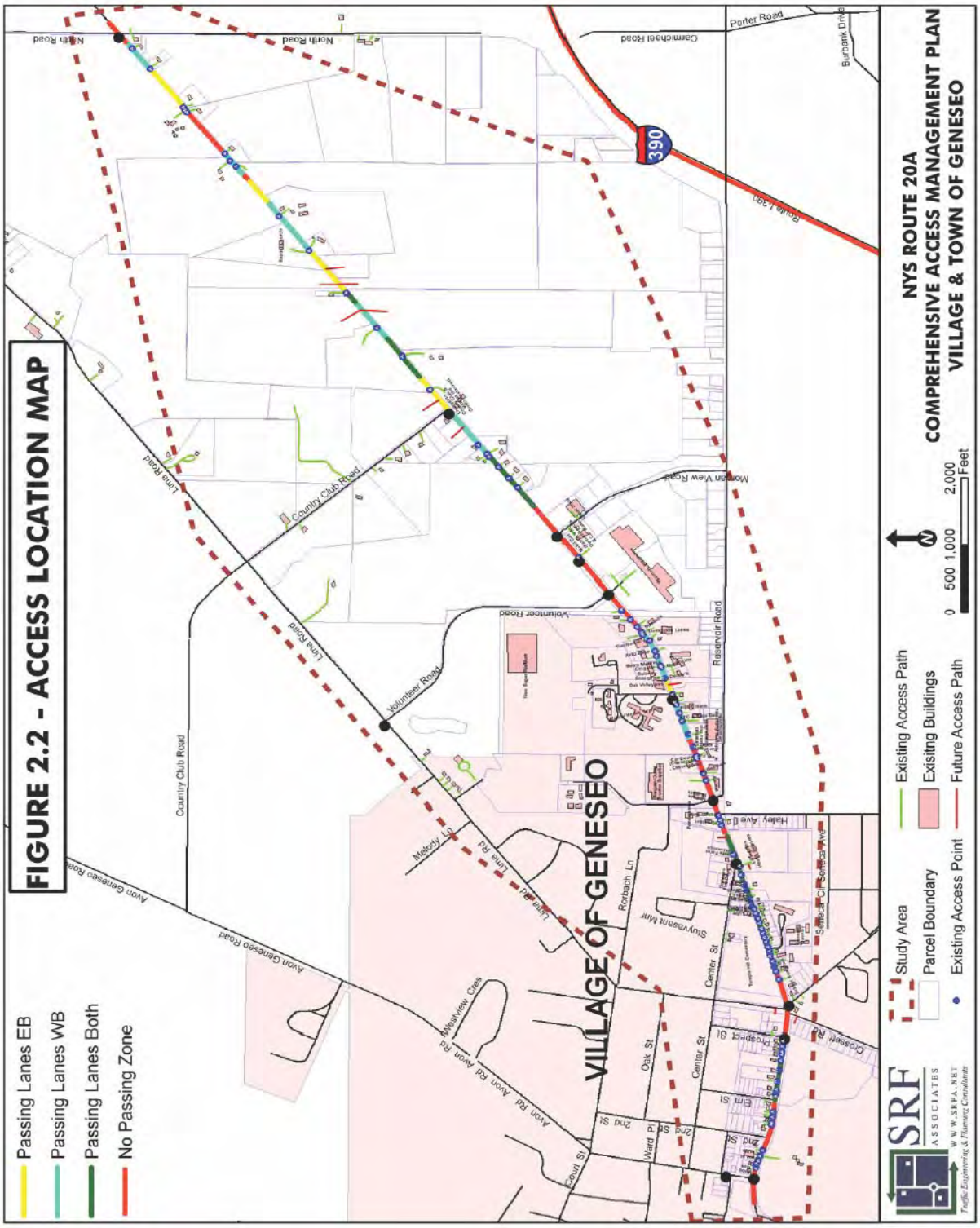
LOCATIONS	Dist. (miles)	AADT	Dir.	Number of Access Points	Access Density (Access/mile)
Between Main St and Center St	1.0	16,959	EB	25	25.5
			WB	28	28.6
Between Center St and Volunteer	0.8	19,967	EB	19	22.5
			WB	15	17.8
Between Volunteer and North Rd	2.0	13,780	EB	17	8.3
			WB	10	4.9
All	***3.9***	***16,589***	***EB***	***82***	***21.1***
			WB	***31***	***8.0***

TABLE 2.2: ACCESS DENSITY VERSUS ACCIDENT RATES

LOCATIONS	Dist. (miles)	AADT	Accidents		
			Freq	Rates	NYSDOT Rates
Between Main St and Center St	1.0	16,959	41	2.02	2.19
Between Center Street and Volunteer	0.8	19,967	78	3.82	2.19
Between Volunteer and North Rd	2.1	13,780	48	1.39	2.22
All	***3.9***	***16,589***	***167***	***2.13***	***2.22***

The accidents rate in the segment between Center Street and Volunteer Road is more than the statewide average. This is can be attributed to the land use in the segment and the increased access density. Accidents are discussed further in section 2.6

Figure 2.2 shows the existing access location on the entire Route 20A study corridor. The figure also shows the passing and no passing zones in the study corridor.



2.4 ***Average Daily Traffic***

Existing Average Daily Traffic (ADT) information was obtained from the NYSDOT 2004 Traffic Volume Report. **Figure 2.3** illustrates the ADT volumes on the study roadways.

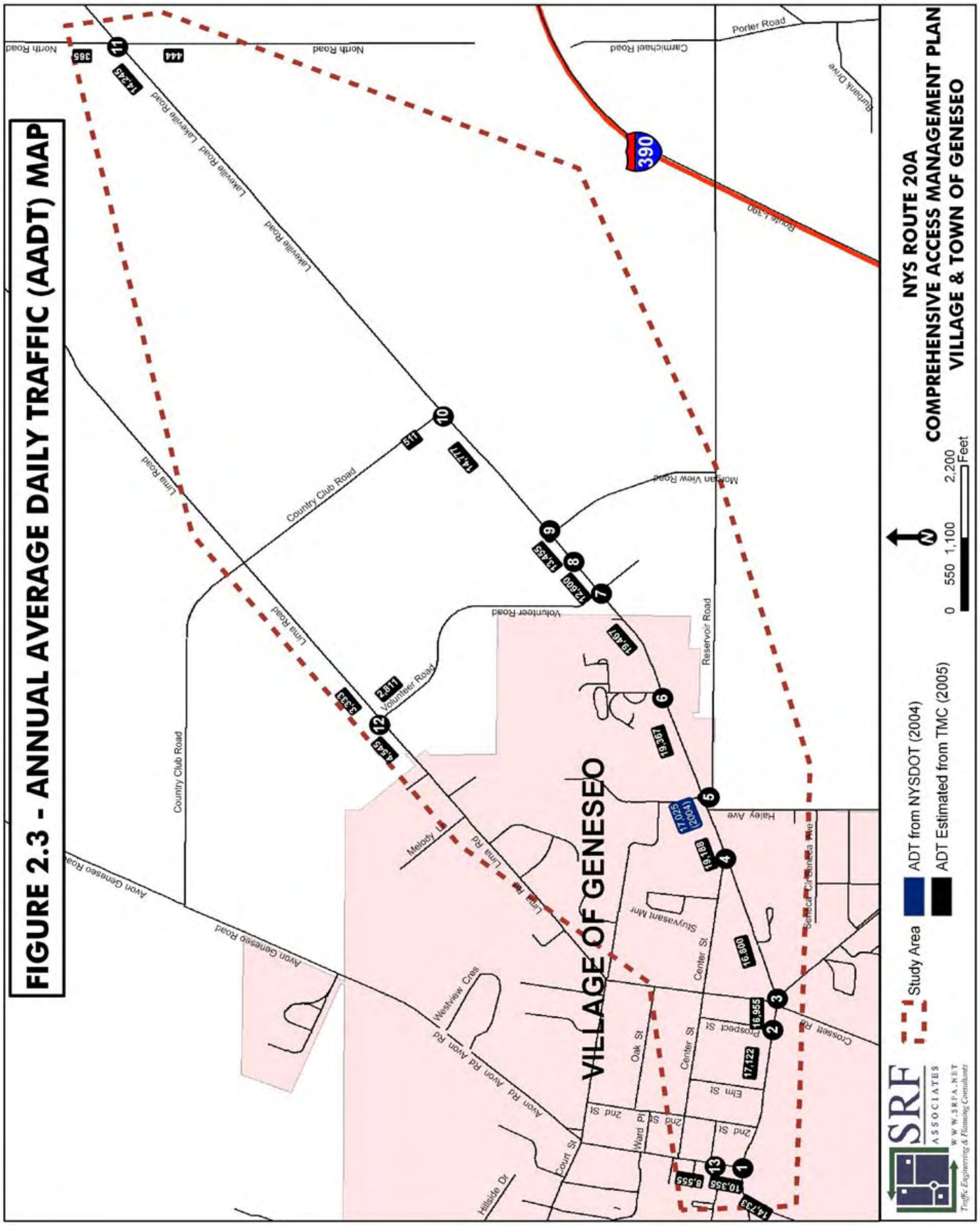


FIGURE 2.3 - ANNUAL AVERAGE DAILY TRAFFIC (AADT) MAP

2.5 Level of Service 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, the capacity analysis specifically focuses on intersections.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing operating conditions with the least time delay. LOS "F" is the least desirable operating condition where longer delays are experienced by motorists. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Appendix.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the 2000 Highway Capacity Manual (HCM 2000) published by the Transportation Research Board Traffic analysis software, Synchro 6.0 (Build 614), which is based on procedures and methodologies contained in the HCM 2000, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service (LOS) based on the HCM 2000 as an indicator of how well intersections operate.

Existing operating conditions are documented in the field and modeled using traffic analysis software. The traffic analysis models are calibrated based on the actual field observations.

Roadway segment and intersection analyses were performed on the critical elements that comprise the adjacent street network. Link/arterial analyses are provided for the Route 20A arterial section within the study area. The following tables (**Table 2.3 & 2.4**) depict the results of both link and intersection analysis. All capacity analysis calculations are included in the Appendices.

TABLE 2.3:
NYS ROUTE 20A ARTERIAL ANALYSIS RESULTS – EXISTING CONDITIONS

Arterial Segment	Existing PM
Main Street to Reservoir Road	B
Reservoir Road to Volunteer Road	C
Eastbound Route 20A- Overall	*C*
Volunteer Road to Reservoir Road	C
Reservoir Road to Main Street	C
Westbound Route 20A – Overall	*B*

As shown in the table above, the critical roadway segments analyzed currently operate at overall average conditions along NYS Route 20A. This analysis is supported by field observations.

TABLE 2.4: CAPACITY ANALYSIS RESULTS

INTERSECTION	EXISTING PM
NYS Route 20A/Main Street (S)	
Eastbound - NYS Route 20A	B
Westbound - NYS Route 20A	D
Southbound - Main Street	D
Overall LOS/Delay in sec/veh	**D (37.6)**
Route 20A/Crossett Road/Temple Hill Road (U)*	
Eastbound - NYS Route 20A	B
Westbound - NYS Route 20A	B
Northbound - Crossett Road	F (**)
Southbound - Highland Road	F (**)
Route 20A/Groveland Road (U)*	
Westbound Left - NYS Route 20A	E
Northbound - Main Street	F (**)
Route 20A/Center Street (U)	
Eastbound - NYS Route 20A	A
Westbound - NYS Route 20A	A
Northbound - Livingston Health Services Drive	A
Southbound - Center Street	F (**)
Route 20A/Megan Drive/Reservoir Road (S)	
Eastbound - NYS Route 20A	C
Westbound - NYS Route 20A	C
Northbound - Reservoir Road	B
Southbound - Megan Drive	B
Overall LOS/Delay in sec/veh	**C (24.2)**

Route 20A/Millennium Dr (U)	
Eastbound Left - NYS Route 20A	A
Southbound - Millennium Drive	E
Route 20A/Volunteer Road/Wegmans drive (S)	
Eastbound - NYS Route 20A	B
Westbound - NYS Route 20A	C
Northbound - Wegmans Drive	B
Southbound - Volunteer Road	A
Overall LOS/Delay in sec/veh	**B (16.7)**
Route 20A/Mobil driveway (U)	
Westbound Left - NYS Route 20A	B
Northbound - Wegmans drive	F (168.2)
Route 20A/ Morgan View Road (U)	
Westbound Left - NYS Route 20A	A
Northbound - Wegmans drive	E
Route 20A/ Country Club Road (U)	
Eastbound Left - NYS Route 20A	A
Southbound - Country Club Road	D
Route 20A/North Road (U)	
Eastbound - NYS Route 20A	A
Westbound - NYS Route 20A	A
Northbound - North Road	D
Southbound - North Road	D
Volunteer Road/Lima Road (U)	
Westbound Left - Lima Road	A
Northbound - Volunteer Road	B
Main Street/Park Street (U)	
Eastbound - Park Street	C
Northbound Left - Main Street	A

* Intersection results from SimTraffic

** Calculated delay exceeds three minutes per vehicle. Drivers are likely to accept shorter gaps in traffic to make left turns when this occurs.

NYS Route 20A/Main Street

Under existing conditions, the analysis indicates that the westbound and southbound approaches operate at LOS "D" during the PM peak period. The eastbound approach operates at LOS "B" during the PM peak hour.

NYS Route 20A/Groveland Road

The westbound left and northbound approaches currently operate at LOS "E" and "F", respectively during the PM peak period.

NYS Route 20A @ Crossett Road, Center Street, Millennium Drive, Mobil driveway, Morgan View, Country Club Road, North Road

During the PM peak commuter period, side street approaches at all these intersections experience longer delays indicative of LOS F conditions. Through motorists on Route 20A at most of these intersections experience little delays during the PM peak hour period.

All other study intersections operate at an average LOS "C" or better on all approaches during PM peak period under existing conditions.

2.6 *Safety Considerations, Accident History, and Analysis*

Accident reports for the roadways within the limits of this project were investigated to assess the safety history. The accidents included in the current review occurred during a three year, three months time period from January 2002 through April 2005.

During this period, 206 accidents were documented at the intersections and roadway sections included in the project. The project accident history was further investigated to identify high incident areas and possible trends/causes of the accidents. This analysis documented number, location, type, and cause of accidents within the project limits. **Table 2.5** lists the combined results of the type of accidents that occurred mid-block and/or at intersections. **Table 2.6** further separates different types of accidents occurring at each intersection.

TABLE 2.5: ACCIDENT INVESTIGATION RESULTS

ACCIDENT TYPE	TOTAL	%	ACCIDENT TYPE	TOTAL	%
Sideswipe	6	2.9	Head On	8	3.9
Rear End	72	35.0	Right Turn	3	1.5
Right Angle	23	11.0	Deer Strike	40	19.0
Left-turn	19	9.2	Backing	4	1.9
Pedestrian	0	0.0	Overtaking	4	1.9
Fixed Object	22	11.0	Unknown	5	2.4
			TOTALS	**206**	**100**

TABLE 2.6: ACCIDENT INVESTIGATION RESULTS – INTERSECTIONS

INTERSECTION	DESCRIPTION OF ACCIDENT													%
	REAR END	OVER-TAKING	LEFT TURN	SIDE- SWIPE	LANE CHANGE	RIGHT ANGLE	FIXED OBJECT	ANIMAL	PEDES. OR BICYCLE	RIGHT TURN	BACKING	UNKNOWN	TOTAL	
MAIN ST/ROUTE 20A	3	0	2	0	0	3	0	0	0	0	0	0	8	**7.7**
TEMPLE HILL ST/ ROUTE 20 A	4	0	0	1	0	5	0	1	0	0	0	0	11	**10.6**
CENTER ST/ ROUTE 20A	2	0	1	1	0	2	1	1	0	0	0	0	8	**7.7**
MEGAN DR/ ROUTE 20A	10	0	1	1	0	0	0	0	0	1	1	0	14	**13.5**
MILLENNIUM DR/ ROUTE 20A	6	0	1	0	0	0	1	0	0	0	0	0	8	**7.7**
VOLUNTEER RD/ ROUTE 20A	10	0	7	0	0	5	0	1	0	0	0	0	23	**22.1**
MORGAN VIEW RD/ ROUTE 20A	1	0	0	0	0	0	0	2	0	0	0	0	3	**2.8**
COUNTRY CLUB RD/ ROUTE 20A	5	0	1	0	0	0	1	9	0	0	0	0	16	**15.4**
NORTH RD/ ROUTE 20A	3	1	0	0	0	3	5	0	0	0	1	0	13	**12.5**
TOTAL	**44**	**1**	**13**	**3**	**0**	**18**	**8**	**14**	**0**	**1**	**2**	**0**	**104**	

Based on the number of accidents within each segment and at each intersection, accident rates were calculated for the segments and intersections and compared to the statewide average for similar facilities. The calculated rates and comparison to statewide averages are illustrated in **Table 2.7**. Accident rate calculations are included in Appendix. Segmental rates are listed as accidents per million vehicle miles (ACC/MVM). Intersection rates are listed as accidents per million entering vehicles (ACC/MEV). The shaded cells represent locations with accident rates exceeding the statewide average.

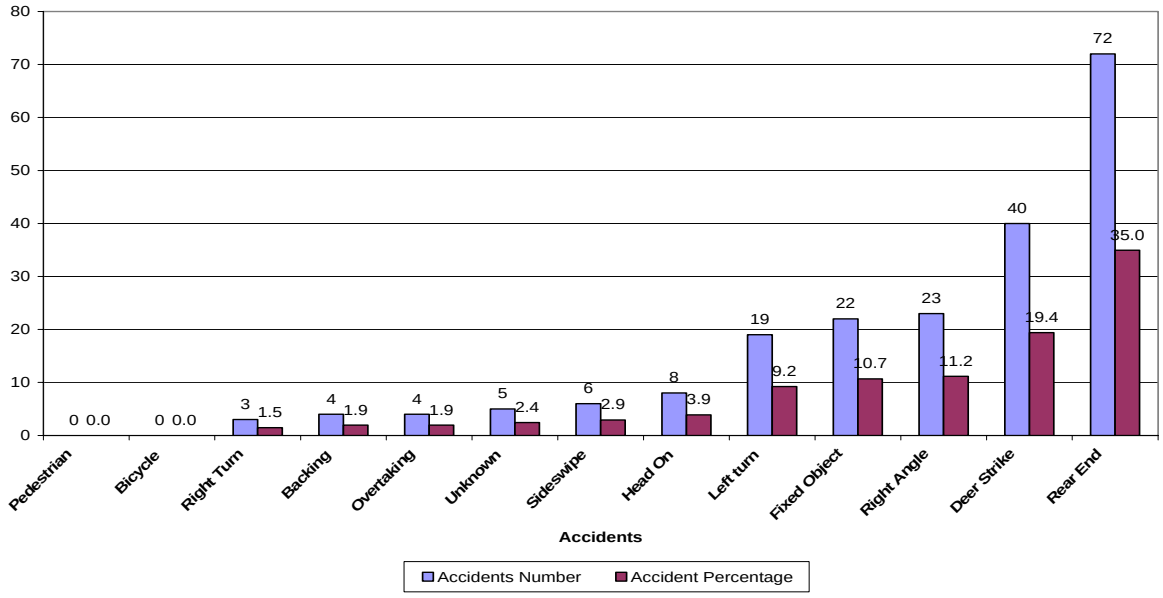
TABLE 2.7: ACTUAL VERSUS STATEWIDE AVERAGE ACCIDENT RATES

SEGMENT OF ROUTE 20A	TOTAL NO. OF ACCIDENTS	ACTUAL PROJECT RATE	STATEWIDE AVERAGE RATE
Main St to Temple Hill St	10	1.02	2.19
Temple Hill St to Center St	6	0.69	2.19
Center St to Megan Dr	11	2.59	2.19
Megan Dr to Millennium Dr	10	1.37	2.19
Millennium Dr to Volunteer Rd	**19**	**2.39**	**2.19**
Volunteer Rd to Morgan View Rd	0	0.00	2.22
Morgan View Rd to Country Club Rd	13	1.64	2.22
Country Club Rd to North Rd	27	1.15	2.22
North Rd to Pole Bridge Rd	8	0.47	2.22
INTERSECTIONS WITH ROUTE 20A	**TOTAL NO. OF ACCIDENTS**	**ACTUAL PROJECT RATE**	**STATEWIDE AVERAGE RATE**
Main St	8	0.33	0.35
Temple Hill St	**11**	**0.50**	**0.27**
Center St	**8**	**0.35**	**0.27**
Megan Dr	14	0.54	0.60
Millennium Dr	**8**	**0.34**	**0.16**
Volunteer Rd	**23**	**0.84**	**0.60**
Morgan View Rd	**3**	**0.17**	**0.16**
Country Club Rd	**16**	**0.88**	**0.16**
North Rd	**13**	**0.74**	**0.35**

The segments that have rates higher than statewide averages are located in the section primarily from Center Street to Volunteer Road; this area has the highest access density in the entire corridor.

Seven intersections experienced accident rates exceeding the statewide averages for similar type intersections (Temple Hill St, Center St, Millennium Dr, Volunteer Rd, Morgan View Rd, Country Club Rd, and North Rd). **Figure 2.4** illustrates the total number of accidents and percentages type that occurred on the Route 20A corridor.

Figure 2.4: Accident Totals by Type



3. EXISTING CONDITIONS – LAND USE & ZONING

3.1 Zoning – Village of Geneseo

The land along Route 20A in the Village is zoned as Commercial (C-1), Residential (R-1A), Residential, Prof Service, offices (RPSO), Limited Industrial (M-1), Mixed Use (MU), Multi-Family Residential (R-2) between Main Street and Reservoir Road. The land along Route 20A between Reservoir Road and Volunteer Road is zoned Residential (R-1A) and Commercial (C-2). A significant portion of the land in the Village is zoned as Residential (R-1A) and Commercial (C-2). All the other zones are only a small portion of the land.

3.2 Zoning – Town of Geneseo

The land along Route 20A is zoned as a Gateway Overlay District (GO), Business (B), Low Intensity Office (OFF) and Highway Residential (H). Most of the lands adjacent to the zones are zoned as Agricultural (A). ***Figure 3.1*** shows the parcel and zoning boundaries along Route 20A.

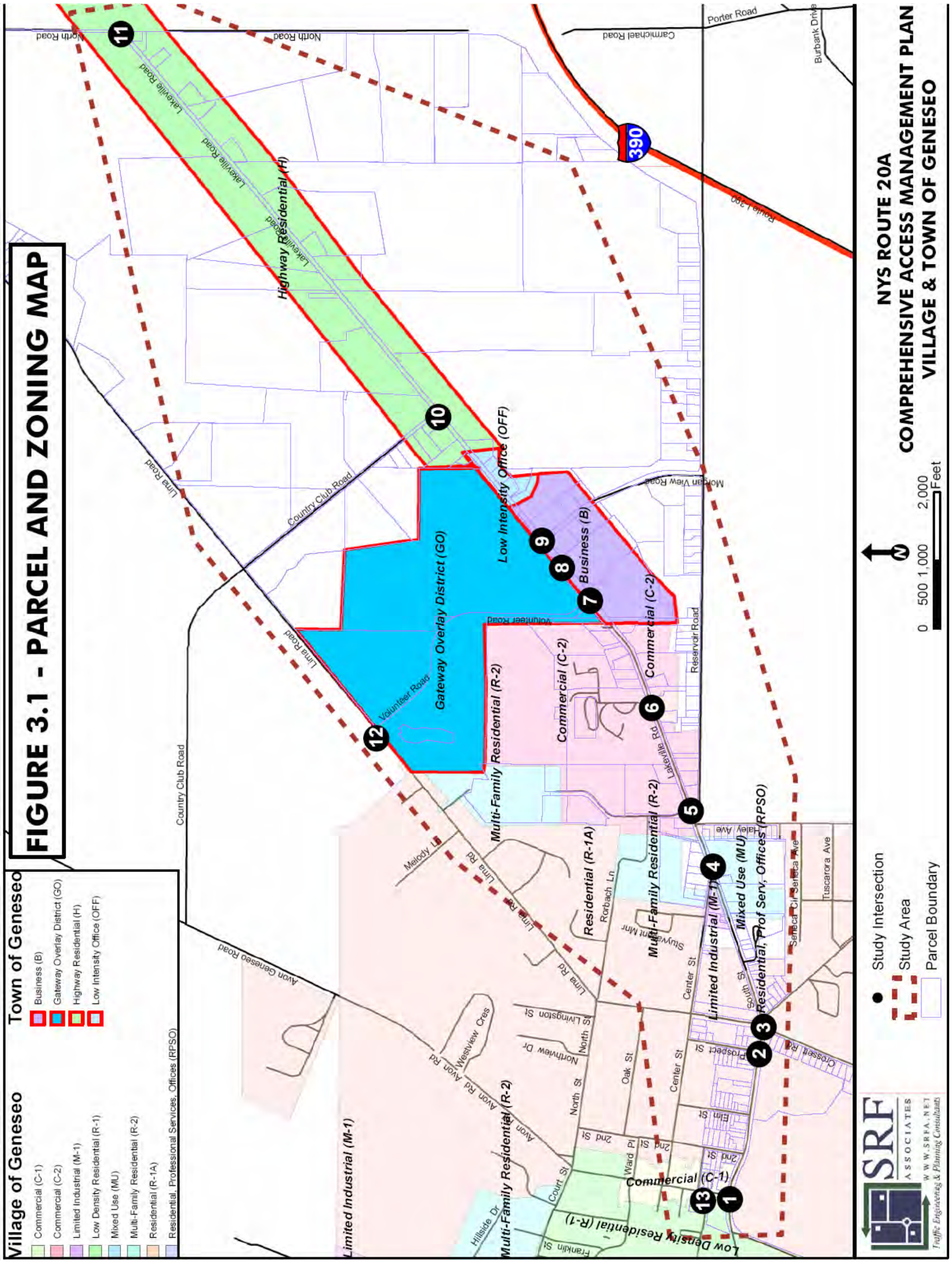


FIGURE 3.1 - PARCEL AND ZONING MAP
Village of Geneseo
Commercial (C-1)
Commercial (C-2)
Limited Industrial (M-1)
Low Density Residential (R-1)
Mixed Use (MU)
Multi-Family Residential (R-2)
Residential (R-1A)
Residential, Professional Services, Offices (RPSO)
Town of Geneseo
Business (B)
Gateway Overlay District (GO)
Highway Residential (H)
Low Intensity Office (OFF)
Study Intersection
Study Area
Parcel Boundary
NYS ROUTE 20A
COMPREHENSIVE ACCESS MANAGEMENT PLAN
VILLAGE & TOWN OF GENESEO
0 500 1,000 2,000 Feet
390

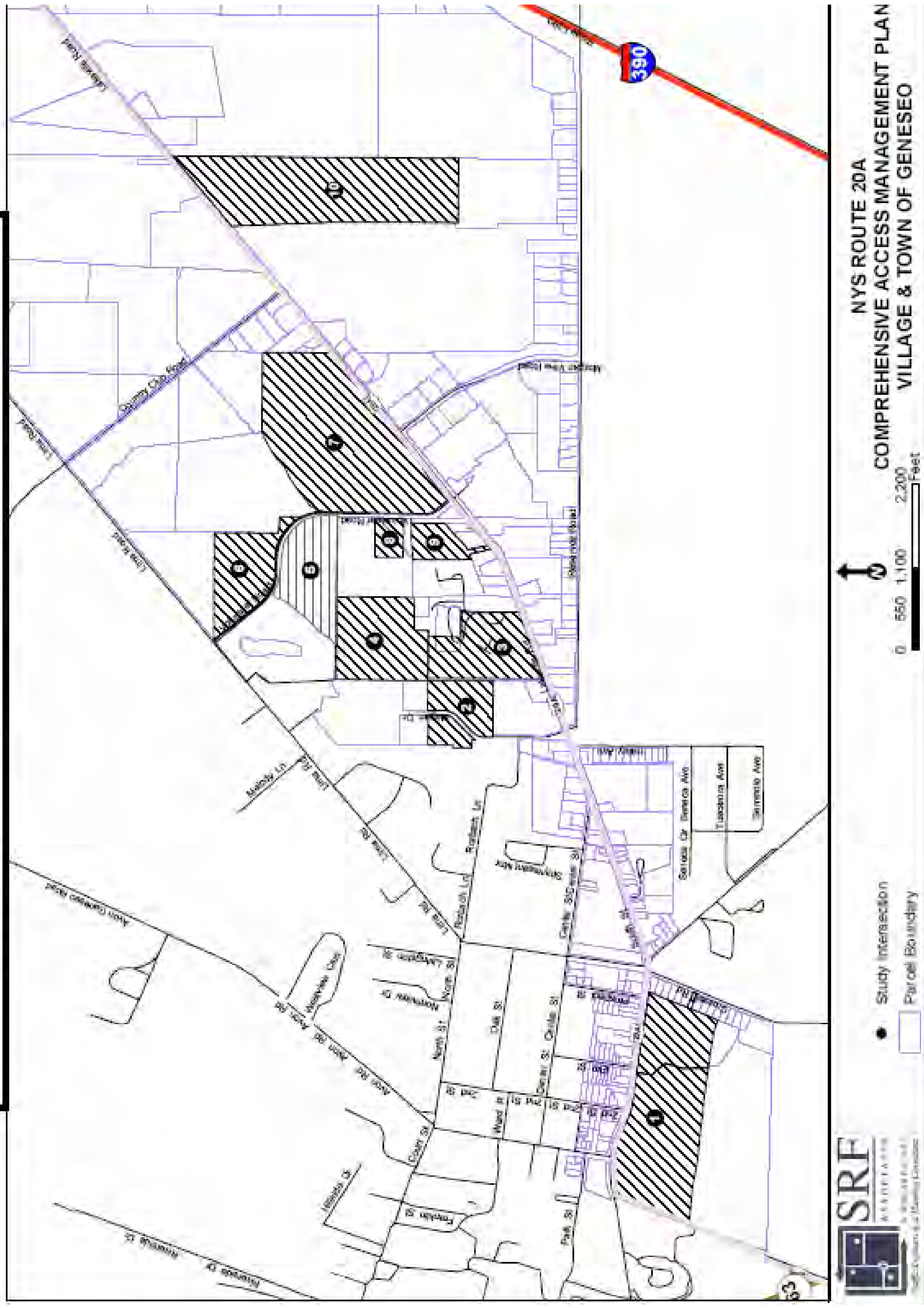
4. EVALUATION PHASE – PRELIMINARY PLANNED BUILD-OUT ANALYSIS

4.1 Existing and Future Traffic Generator

Existing traffic generators along the Route 20A corridor are made up of a multitude of varying land uses. The State University of New York (SUNY) College at Geneseo is likely one of the largest contributors of traffic on the Route 20A corridor. The section of Route 20A from Main Street to Crossett and Groveland Roads consist primarily of residential type land uses. Groveland to the Megan/Reservoir intersection is a mix of retail, office and some residential land uses. Reservoir to Morgan View Road is primarily retail type land uses with some office and residential. The section from Morgan View to North Road is a mix of residential, office, and limited retail. Within the corridor, two of the larger retail type traffic generators are the Wal★Mart Supercenter and the Wegman's grocery store plaza.

In order to determine the potential future traffic demands on the Route 20A corridor, a future planning horizon of 2025 was selected for analysis purposes. This was derived by using existing data (2005) and using a window of 20 years in the future. A 20 year design window was selected because it is consistent with standards and practices set forth by New York State Department of Transportation (NYSDOT). The future traffic generators along the corridor will consist of existing uses that get redeveloped and brand new uses that are constructed on vacant parcels within the study area. Redeveloped parcels generally have less traffic impact as compared to new development. Therefore, this planning analysis level analysis focuses largely on existing parcels within the study area that are "likely to be developed" within the year 2025. **Figure 4.1** illustrates the parcels within the study area that are likely to be developed by the year 2025.

FIGURE 4.1 - LIKELY FUTURE DEVELOPMENT



The current zoning maps and future land use master plans in the Town and Village of Geneseo were reviewed to determine the type of allowable uses for each zoning area. The following factors were used to arrive at the assumed land use for each of the targeted development parcels, as shown in **Figure 4.1**:

- Existing zoning map/future land use master plans,
- Allowable land uses in zoning codes,
- Gateway (Build Now) allowable uses,
- Expected land uses,
- Examination of recent land use development types/trends

Table 4.1 below illustrates the assumed land uses and future trip projections associated with each of the likely development parcels and areas.

TABLE 4.1: FUTURE TRIP GENERATION PROJECTIONS

Parcel	Land use	Approx. Size (acres)	PM peak hour rates per acre		PM peak hour trips		Adjusted trips	
			enter	exit	enter	exit	enter	exit
1	Residential	61	1.5	0.7	92	43	64	30
2	Retail	16	8	10	125	156	63	78
3	Retail	35	8	10	281	351	141	176
4	Retail	29	8	10	232	290	116	145
5	Light industrial	25	1.5	7	38	175	27	123
6	Light industrial	25	1.5	7	38	175	27	123
7	Light industrial	25	1.5	7	38	175	27	123
7	Retail	25	8	10	200	250	100	125
8	Retail	3	8	10	24	30	12	15
9	Retail	10	8	10	80	100	40	50
10	Residential	82	1.5	0.7	123	57	86	40
NA	Residential	50	1.5	0.7	75	35	53	25

The last entry in the table without a parcel number represents 50 acres of miscellaneous residential development that could occur within the area between Morgan View Road and North Road. The PM peak hour trip generation rates were derived based on local trip generation data, as well as information contained in the Institute of Transportation Engineers (ITE) Trip Generation, 7th Edition manual. The size of the parcel was multiplied by the trip generation rates to determine the PM peak hour trips. The data was then adjusted to account for various factors that affect trip generation, such as:

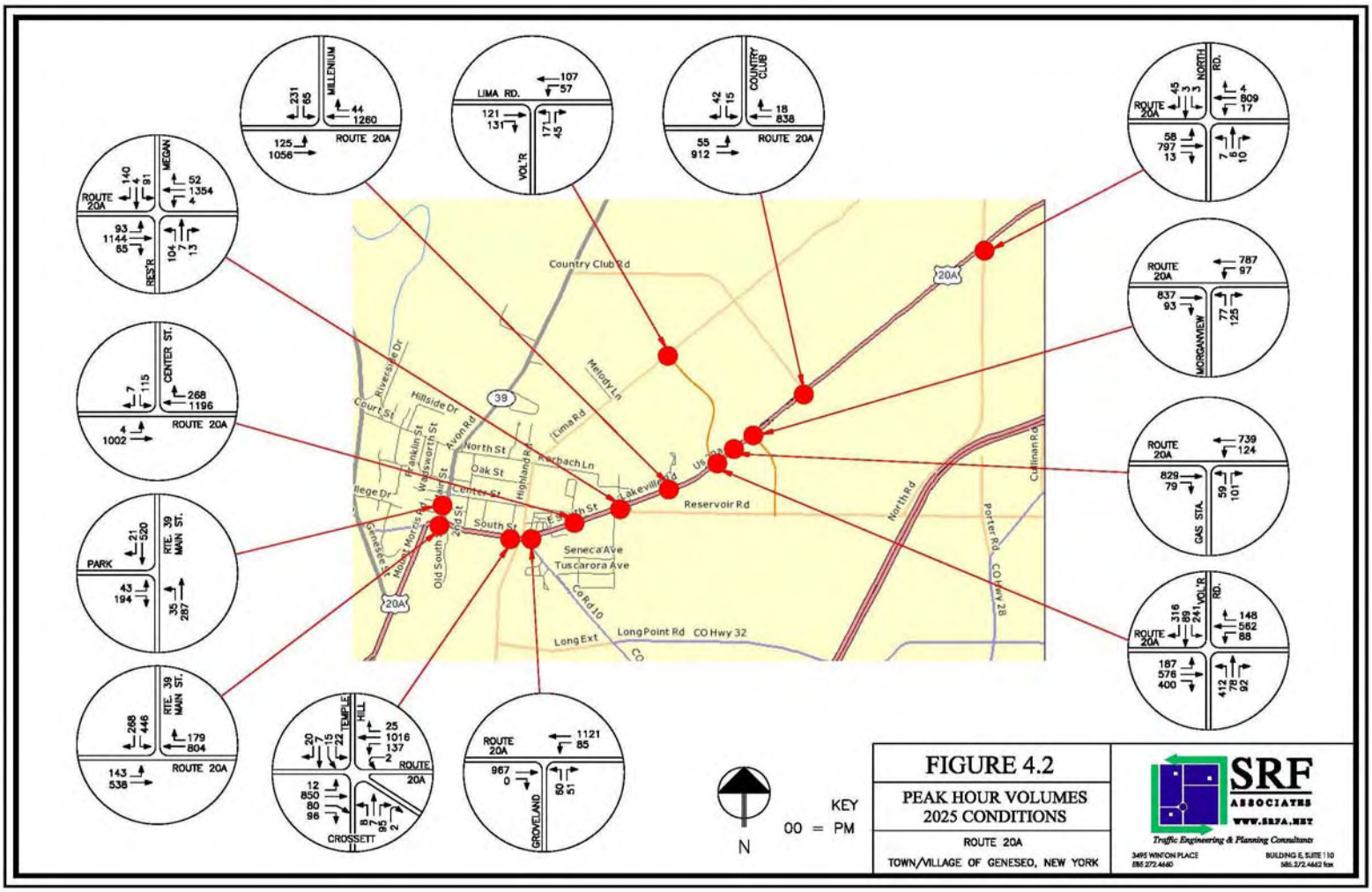
- Trip chaining
- Multi-use trips
- Pass-by trips

- Buildable area (decreases due to wetlands, setbacks, green space, etc.)

All of the above factors effectively decrease the number of new trips that are on the study roadways.

The adjusted trip generation volumes were then distributed through the network based on location and land use, and added to existing conditions data to arrive at the future 2025 conditions. The planning level analysis results are shown and discussed in the following section(s).

Figures 4.2 and **4.3** indicate the Peak Hour Volumes under 2025 forecasted conditions, and the Future 2025 Annual Average Daily Traffic (AADT) volumes.



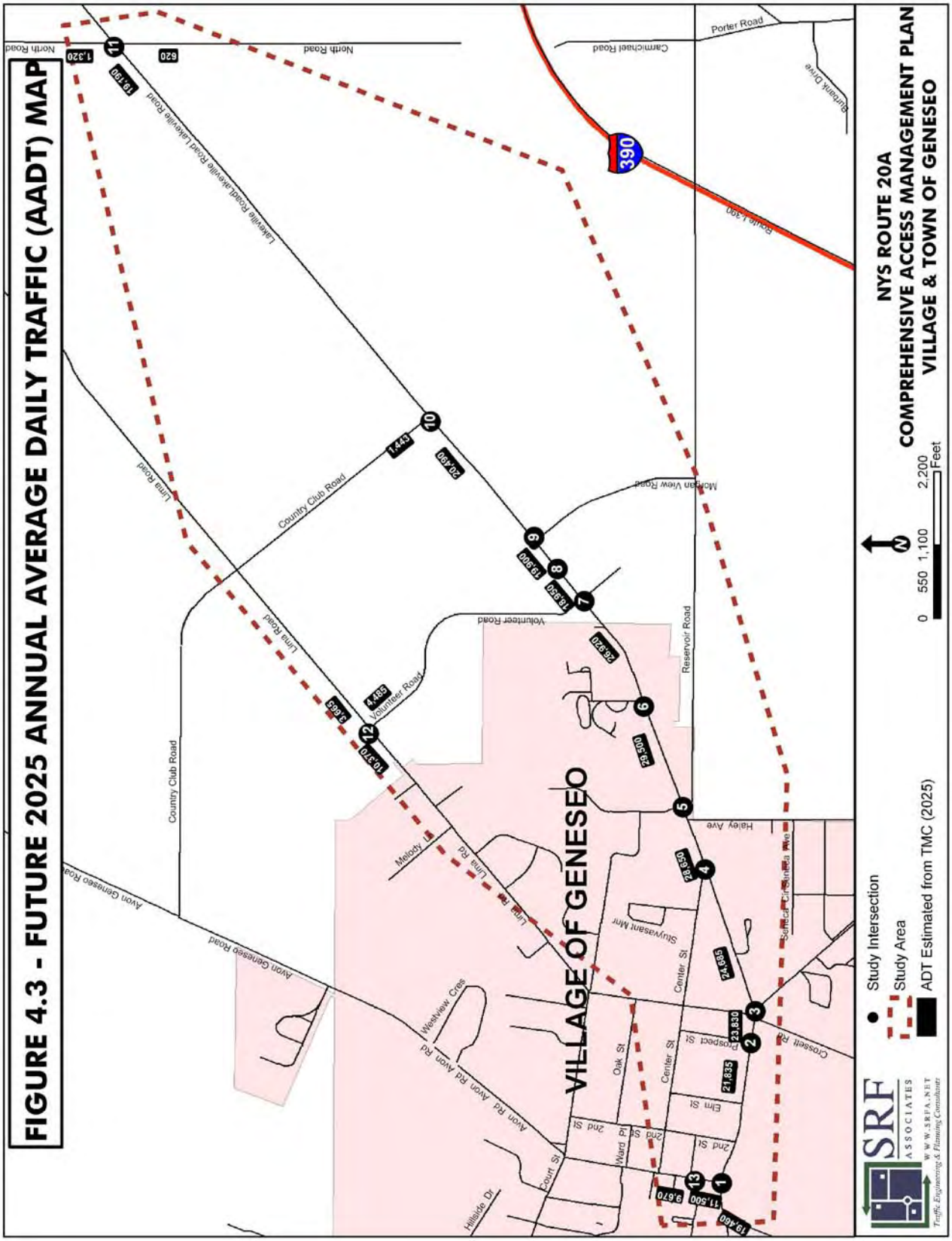


FIGURE 4.3 - FUTURE 2025 ANNUAL AVERAGE DAILY TRAFFIC (AADT) MAP
NYS ROUTE 20A
COMPREHENSIVE ACCESS MANAGEMENT PLAN
VILLAGE & TOWN OF GENESEO
VILLAGE OF GENESEO
Study Intersection
Study Area
ADT Estimated from TMC (2025)
0 550 1,100 2,200 Feet
N
SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants
North Road
Porter Road
Carmichael Road
Burbank Drive
Route I-390
Lakeville Road
Lakeville Road
Country Club Road
Morgan View Road
Volunteer Road
Reservoir Road
Little Road
Country Club Road
Avon Geneseo Road
Avon Geneseo Road
Melody Ln
Little Rd
Little Rd
Haley Ave
Seneca Circle
Seneca Pl
Seneca Ave
Sunnyvesant Mnr
Center St
Prospect St
Crossett Rd
Webview Cres
Avon Rd
Avon Rd
Avon Rd
Oak St
Center St
Elm St
2nd St
2nd St
2nd St
Ward Pl
Court St
Hillside Dr
1,320
18,190
620
1445
20,490
19,900
18,920
26,920
23,500
20,850
24,895
23,830
21,835
5,665
10,370
4,485
11,500
9,670
19,460

4.2 Level of Service Analysis - Intersections

The following table, **Table 4.2**, illustrates the future 2025 design year intersection level of service results. The table is broken down into two sections: 2025 No Build and 2025 Build Option. The 2025 No Build column represents existing (2005) lane configuration and intersection controls. The 2025 Build Option indicates results with possible intersection and roadway improvements that *could* occur within the 20-year design period and would enhance operations and safety.

TABLE 4.2: FUTURE INTERSECTION CAPACITY ANALYSIS RESULTS

INTERSECTION	2025 No Build	2025 Build Option
NYS Route 20A/Main Street (S)		(add WB RT lane)
Eastbound - NYS Route 20A	B	B
Westbound - NYS Route 20A	F (134.8)	D
Southbound - Main Street	F (89.7)	D
Overall LOS/Delay in sec/veh	**F (86.3)**	**C (31.8)**
Route 20A/Crossett Road/Temple Hill Road (U)*		(roundabout)
Eastbound - NYS Route 20A	B	D
Westbound - NYS Route 20A	B	B
Northbound - Crossett Road	F(**)	A
Southbound - Highland Road	F(**)	A
North Westbound – Groveland Road		A
Route 20A/Groveland Road (U)		
Westbound Left - NYS Route 20A	A	(see above)
Northbound - Main Street	F (**)	
Route 20A/Center Street (U)		(roundabout)
Eastbound - NYS Route 20A	A	C
Westbound - NYS Route 20A	A	A
Northbound - Livingston Health Services drive	F (**)	A
Southbound - Center Street	F (**)	A
Route 20A/Megan Drive/Reservoir Road (S)		(add thru lanes)
Eastbound - NYS Route 20A	F (99.9)	A
Westbound - NYS Route 20A	F (204.3)	C
Northbound - Reservoir Road	C	C
Southbound - Megan Drive	B	B
Overall LOS/Delay in sec/veh	**F (138.9)**	**B (18.5)**
Route 20A/Millennium Drive (U)		(add signal + thru lanes)
Eastbound Left - NYS Route 20A	B	A
Westbound – NYS Route 20A	na	B
Southbound - Millennium Drive	F (**)	B
Overall LOS/Delay in sec/veh	na	**A (9.8)**

Route 20A/Volunteer Road/Wegmans drive (S)		
Eastbound - NYS Route 20A	D	C
Westbound - NYS Route 20A	C	D
Northbound - Wegmans drive	C	D
Southbound - Volunteer Road	B	B
Overall LOS/Delay in sec/veh	**C (30.6)**	**C (28.9)**
Route 20A/Mobil driveway (U)		
Westbound Left - NYS Route 20A	C	C
Northbound - Wegmans drive	F (**)	F (**)
Route 20A/ Morgan View Road (U)		
Westbound Left - NYS Route 20A	A	C
Northbound - Wegmans drive	F (**)	F (**)
Route 20A/ Country Club Road (U)		
Eastbound Left - NYS Route 20A	A	A
Southbound - Country Club Road	F (57.5)	F (57.5)
Route 20A/North Road (U)		
Eastbound - NYS Route 20A	A	A
Westbound - NYS Route 20A	A	A
Northbound - North Road	F (199.6)	F (199.6)
Southbound - North Road	E	E
Volunteer Road/Lima Road (U)		
Westbound Left - Lima Road	A	A
Northbound - Volunteer Road	B	B
Main Street/Park Street (U)		
Eastbound - Park Street	C	C
Northbound Left - Main Street	A	A

* Intersection results from SimTraffic

** Calculated delay exceeds three minutes per vehicle. Drivers are likely to accept shorter gaps in traffic to make left turns when this occurs.

The 2025 No Build results indicate multiple intersections with have long delays on various approaches. These results are indicative of future operations without improvements made that are commensurate with future growth, anticipated over the next 20 years.

Possible intersection improvements could involve the addition of an exclusive turn lane (Main Street), a roundabout (Center Street), a traffic signal (Millennium Drive), and the extension or addition of a center-turn lane and/or thru lane on Route 20A. Various improvements are shown in the 2025 Build Option.

It should be noted that the intersection improvements used for analysis purposes are not necessarily specific recommendations; simply available

techniques for improving operations and safety along Route 20A to accommodate forecasted traffic volumes.

4.3 Level of Service Analysis - Roadway Segments

The following table illustrates the planning level arterial analysis results for the future 2025 No Build conditions.

TABLE 4.3: NYS ROUTE 20A ARTERIAL ANALYSIS RESULTS – 2025 NO BUILD CONDITIONS

ARTERIAL SEGMENT	2025 No Build PM peak
Main Street to Reservoir Road	D
Reservoir Road to Volunteer Road	C
Eastbound Route 20A- Overall	*C*
Volunteer Road to Reservoir Road	F
Reservoir Road to Main Street	D
Westbound Route 20A – Overall	*D*

As shown in the table above, the critical roadway segments analyzed will operate with longer delays to motorists than the existing conditions without any improvements to Route 20A for the 2025 conditions.

The table below indicates future arterial planning level capacity analysis results for the 2025 Build scenario.

TABLE 4.4: NYS ROUTE 20A ARTERIAL ANALYSIS RESULTS – 2025 BUILD CONDITIONS

ARTERIAL SEGMENT	2025 Build PM peak
Main Street to Reservoir Road	C
Reservoir to Millennium Road	B
Millennium Road to Volunteer Road	D
Eastbound Route 20A - Overall	*C*
Volunteer Road to Reservoir Road	C
Reservoir to Millennium Road	D
Millennium Road to Main Street	D
Westbound Route 20A - Overall	*C*

The LOS results in the 2025 Build scenario improve, as compared to the 2025 No Build conditions, due to intersection modifications and extension or addition of center-turn lane and/or thru lanes on Route 20A between Reservoir and Volunteer Road.

Improvements used for these analysis purposes are not necessarily specific recommendations but represent available techniques for improving operations and safety along Route 20A to accommodate forecasted traffic volumes.

4.4 Multi-modal Considerations

The public transportation system not only provides motorists with a safe and efficient route to a destination but also those traveling on foot, wheelchair, or bicycle. Especially considering the proximity of the Village and SUNY Geneseo to the Route 20A corridor, pedestrian/bicyclist issues need to be evaluated.

Pedestrian accommodations include features such as sidewalks and crosswalks; crosswalks can be located at signalized intersections, unsignalized intersections, and mid-block. Existing pedestrian accommodations include:

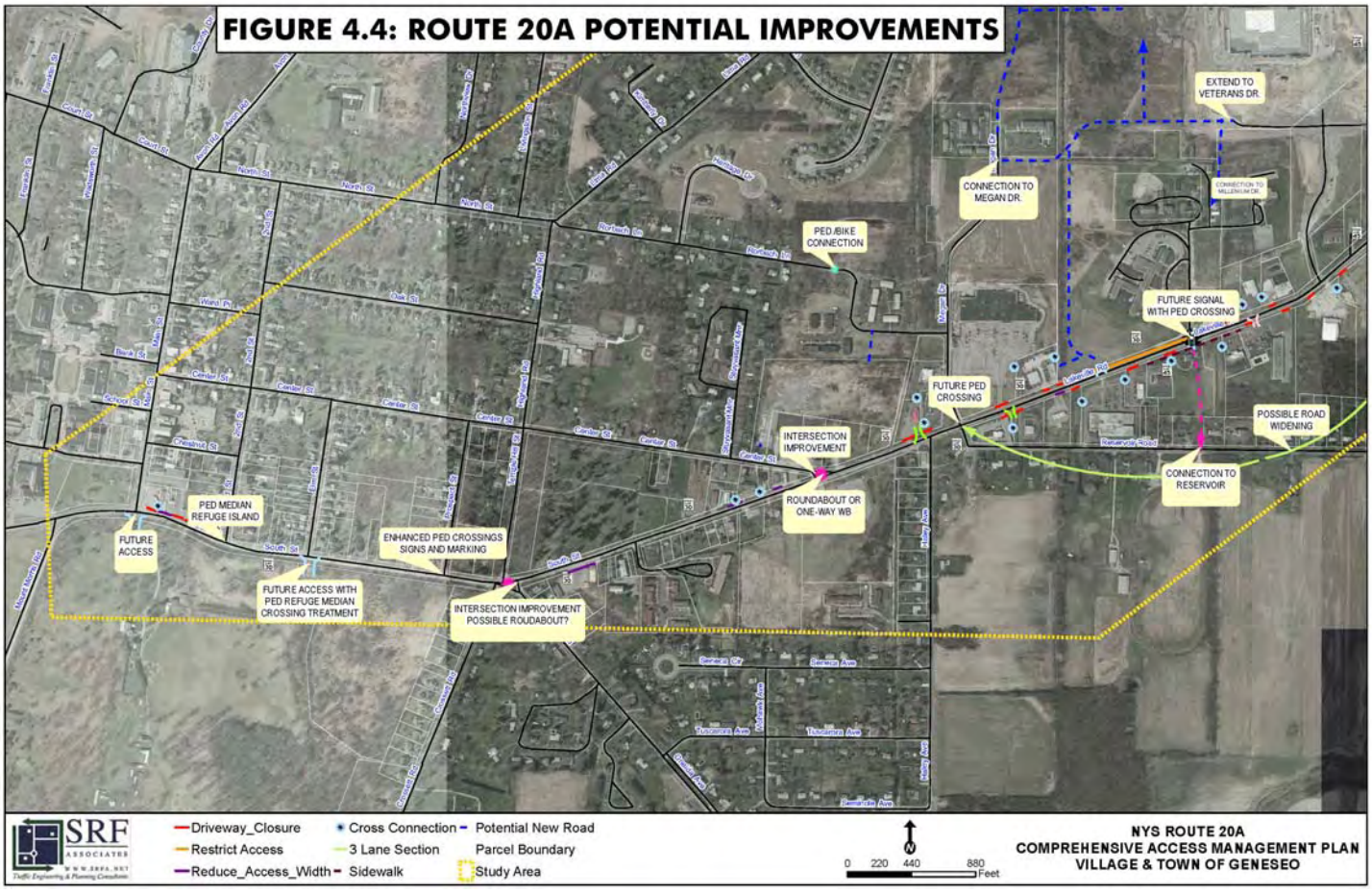
1. Sidewalk on the north side of Route 20A from Main St (NYS Route 39) to Temple Hill St
2. A crosswalk at the intersection of Route 20A with Prospect St on the eastern side.
3. A sidewalk originates on the south side of Route 20A at the crosswalk with Prospect and continues down Crossett and Groveland; it does not continue eastward.
4. A sidewalk on the north side of Route 20A between Center St. and Ryan Drive.

Locations for non-motorist travel improvements were identified and potential enhancements were explored. Target areas and potential treatments can be found on **Figure 4.5** and in the following table:

TABLE 4.5: POTENTIAL MULTI-MODAL IMPROVEMENTS

	LOCATION	TREATMENT
1	Intersection of Route 20A (South St) and Second St (unsignalized)	Pedestrian refuge island (mini-median)
2	Intersection of Route 20A and Elm St (unsignalized)	Pedestrian refuge island (mini-median)
3	Intersection of Route 20A and Prospect St (unsignalized)	Enhance existing crossing with markings and warning signs, possible ped refuge island
4	Intersection of Route 20A and Reservoir Rd/Megan Dr (unsignalized)	Marked, enhanced crosswalk
5	Intersection of Route 20A and Millenium Dr (unsignalized)	Marked crosswalk with pedestrian signal with future traffic signal installation
6	Intersection of Route 20A and Volunteer Rd (signalized)	Marked, enhanced crosswalk

FIGURE 4.4: ROUTE 20A POTENTIAL IMPROVEMENTS



All potential improvements are supported by The New York State Highway Design Manual (NYS HDM) as well as AASHTO[2]'s *Guide for the Planning, Design, and Operation of Pedestrian Facilities*. Five out of the six target areas identified are at unsignalized or uncontrolled intersections. The HDM offers recommendations for installing marked crosswalks and other needed pedestrian improvements at controlled and uncontrolled locations based on roadway characteristics such as number of lanes, vehicular Average Annual Daily Traffic (AADT), speed limit, and the presence or absence of a median. Route 20A, has an approximate AADT of 19,000 vehicles, the speed limit is 30mph within the village and transitions to 45 mph just beyond Millennium Dr at the Village/Town boundary. The roadway within the study area varies from a 2-lane road to a 4-lane road. Based on these criteria, locations 1-4 are candidate sites for marked crosswalks. Adding a pedestrian signal to a future traffic signal at Millennium Dr is a natural accommodation. Location 6 is characterized by a 4-lane roadway without a median which indicates that marked crosswalks alone are insufficient and ought to be accompanied by traffic calming features and/or other substantial improvements.

[2] American Association of State Highway Officials

NYS Route 20a
Comprehensive Access Management Plan
APPENDIX

Prepared For:

The Village and Town of Geneseo

Prepared By:

SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants

3495 Winton Place
Building E, Suite 110
Rochester, New York 14623

In conjunction with:

New York State Department of Transportation

AI
EXISTING TRAFFIC COUNT DATA

SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : Route39.ParkSt.PM
Site Code : 00025015
Start Date : 6/27/2005
Page No : 1

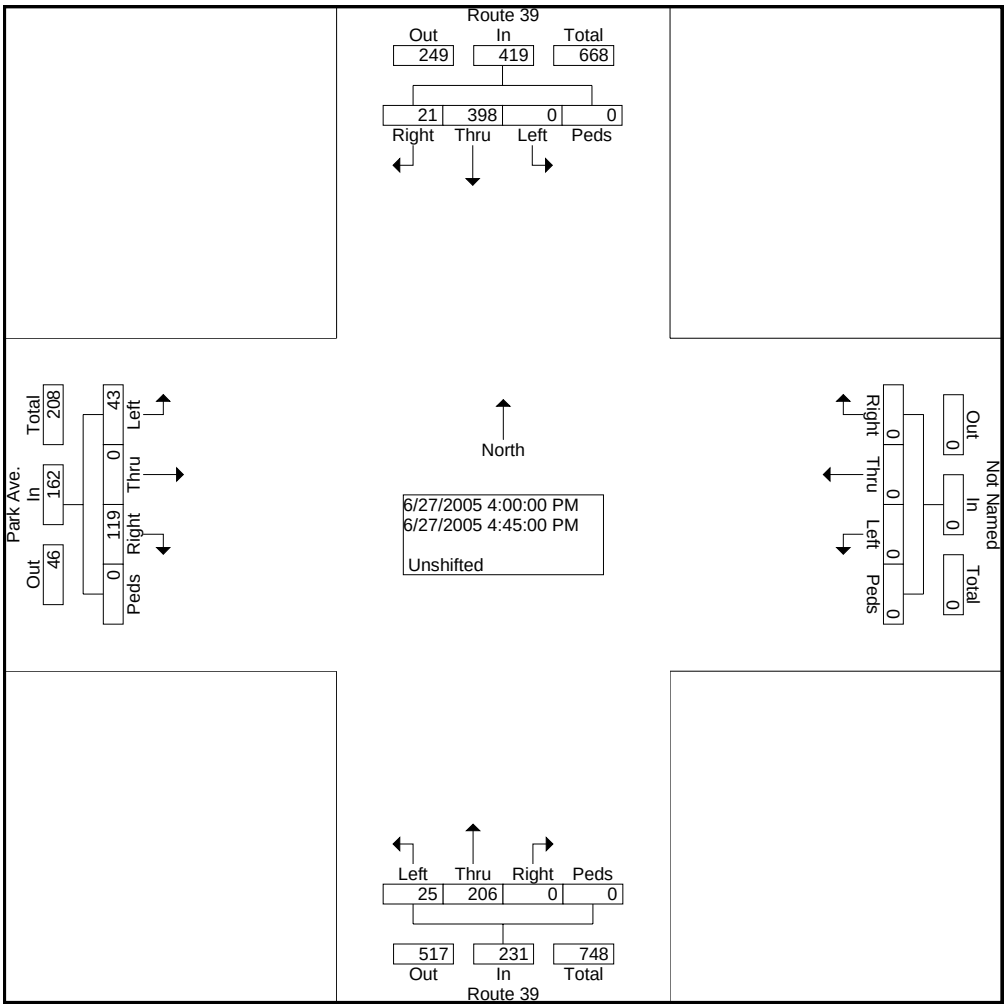
Groups Printed- Unshifted

	Route 39 Southbound				Westbound				Route 39 Northbound				Park Ave. Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	8	140	0	0	0	0	0	0	0	62	9	0	62	0	12	0	293
04:15 PM	7	92	0	0	0	0	0	0	0	49	7	0	31	0	9	0	195
04:30 PM	3	94	0	0	0	0	0	0	0	46	3	0	16	0	11	0	173
04:45 PM	3	72	0	0	0	0	0	0	0	49	6	0	10	0	11	0	151
Total	21	398	0	0	0	0	0	0	0	206	25	0	119	0	43	0	812
05:00 PM	7	64	0	0	0	0	0	0	0	48	4	0	13	0	13	0	149
05:15 PM	5	60	0	0	0	0	0	0	0	43	9	0	11	0	13	0	141
05:30 PM	6	52	0	0	0	0	0	0	0	51	12	0	7	0	3	0	131
05:45 PM	4	41	0	0	0	0	0	0	0	37	6	0	7	0	4	0	99
Total	22	217	0	0	0	0	0	0	0	179	31	0	38	0	33	0	520
Grand Total	43	615	0	0	0	0	0	0	0	385	56	0	157	0	76	0	1332
Apprch %	6.5	93.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.3	12.7	0.0	67.4	0.0	32.6	0.0	
Total %	3.2	46.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.9	4.2	0.0	11.8	0.0	5.7	0.0	

SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : Route39.ParkSt.PM
Site Code : 00025015
Start Date : 6/27/2005
Page No : 2

	Route 39 Southbound					Westbound					Route 39 Northbound					Park Ave. Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	21	398	0	0	419	0	0	0	0	0	0	206	25	0	231	119	0	43	0	162	812
Percent	5.0	95.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	89.2	10.8	0.0		73.5	0.0	26.5	0.0		
04:00 Volume	8	140	0	0	148	0	0	0	0	0	0	62	9	0	71	62	0	12	0	74	293
Peak Factor																					0.693
High Int.	04:00 PM					3:45:00 PM					04:00 PM					04:00 PM					
Volume	8	140	0	0	148	0	0	0	0	0	0	62	9	0	71	62	0	12	0	74	
Peak Factor					0.708										0.813					0.547	



SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : 20A.39PM
Site Code : 00025015
Start Date : 4/15/2005
Page No : 1

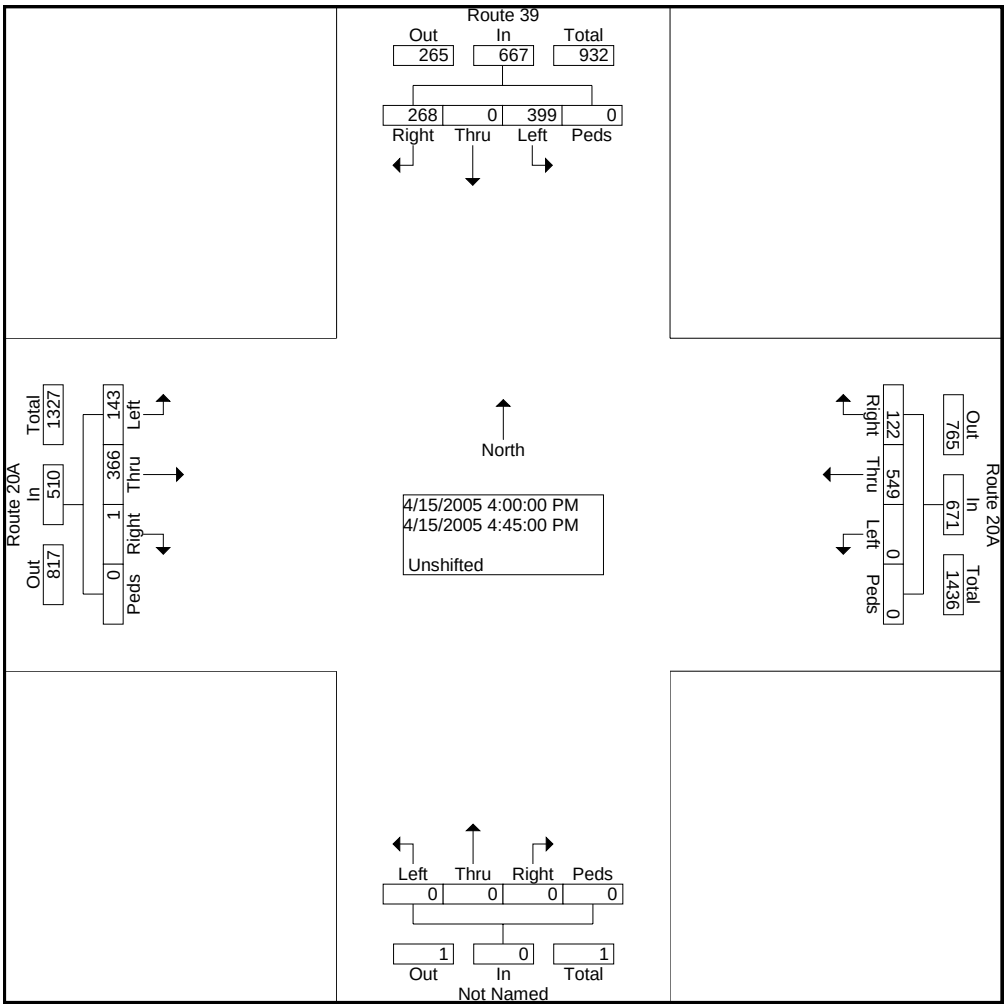
Groups Printed- Unshifted

	Route 39 Southbound				Route 20A Westbound				Northbound				Route 20A Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	60	0	90	0	29	147	0	0	0	0	0	0	0	107	43	0	476
04:15 PM	67	0	108	0	37	162	0	0	0	0	0	0	0	80	32	0	486
04:30 PM	76	0	105	0	33	126	0	0	0	0	0	0	0	96	40	0	476
04:45 PM	65	0	96	0	23	114	0	0	0	0	0	0	1	83	28	0	410
Total	268	0	399	0	122	549	0	0	0	0	0	0	1	366	143	0	1848
05:00 PM	65	0	77	0	34	113	0	0	0	0	0	0	0	85	34	0	408
05:15 PM	42	0	83	0	38	149	0	0	0	0	0	0	0	101	24	0	437
05:30 PM	39	0	98	0	33	115	0	0	0	0	0	0	0	106	39	0	430
05:45 PM	37	0	85	0	46	131	0	0	0	0	0	0	0	91	24	0	414
Total	183	0	343	0	151	508	0	0	0	0	0	0	0	383	121	0	1689
Grand Total	451	0	742	0	273	1057	0	0	0	0	0	0	1	749	264	0	3537
Apprch %	37.8	0.0	62.2	0.0	20.5	79.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	73.9	26.0	0.0	
Total %	12.8	0.0	21.0	0.0	7.7	29.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.2	7.5	0.0	

SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : 20A.39PM
Site Code : 00025015
Start Date : 4/15/2005
Page No : 2

	Route 39 Southbound					Route 20A Westbound					Northbound					Route 20A Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	268	0	399	0	667	122	549	0	0	671	0	0	0	0	0	1	366	143	0	510	1848
Percent	40.2	0.0	59.8	0.0		18.2	81.8	0.0	0.0		0.0	0.0	0.0	0.0		0.2	71.8	28.0	0.0		
04:15 Volume	67	0	108	0	175	37	162	0	0	199	0	0	0	0	0	0	80	32	0	112	486
Peak Factor																					0.951
High Int.	04:30 PM					04:15 PM					3:45:00 PM					04:00 PM					
Volume	76	0	105	0	181	37	162	0	0	199	0	0	0	0	0	0	107	43	0	150	
Peak Factor					0.921					0.843										0.850	



SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : 20A.CenterPM
Site Code : 25015333
Start Date : 4/14/2005
Page No : 1

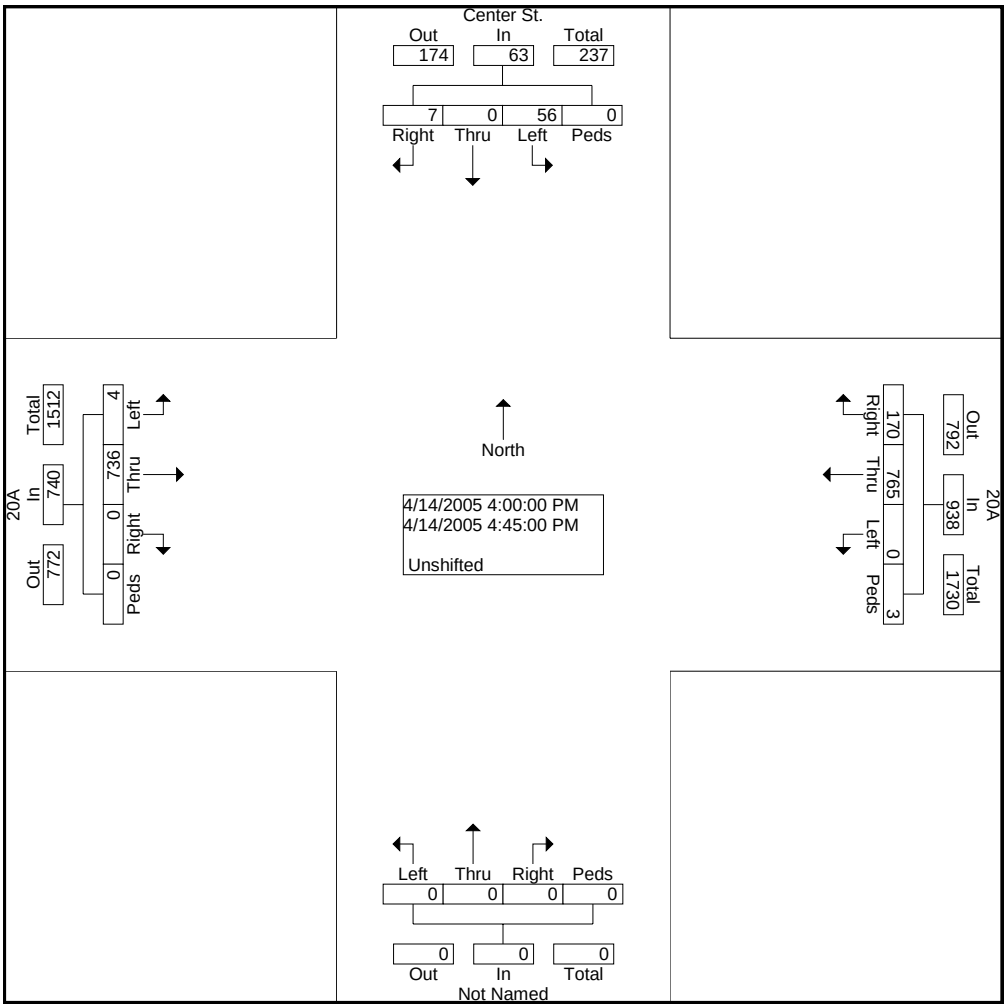
Groups Printed- Unshifted

	Center St. Southbound				20A Westbound				Northbound				20A Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	2	0	14	0	45	214	0	0	0	0	0	0	0	172	2	0	449
04:15 PM	2	0	15	0	47	173	0	0	0	0	0	0	0	192	0	0	429
04:30 PM	3	0	14	0	37	193	0	2	0	0	0	0	0	196	2	0	447
04:45 PM	0	0	13	0	41	185	0	1	0	0	0	0	0	176	0	0	416
Total	7	0	56	0	170	765	0	3	0	0	0	0	0	736	4	0	1741
05:00 PM	2	0	19	0	49	169	0	0	0	0	0	0	0	161	0	0	400
05:15 PM	2	0	18	0	50	183	0	0	0	0	0	0	0	175	2	0	430
05:30 PM	1	0	23	0	32	195	0	0	0	0	0	0	0	177	1	0	429
05:45 PM	0	0	11	0	48	164	0	0	0	0	0	0	0	173	2	0	398
Total	5	0	71	0	179	711	0	0	0	0	0	0	0	686	5	0	1657
Grand Total	12	0	127	0	349	1476	0	3	0	0	0	0	0	1422	9	0	3398
Apprch %	8.6	0.0	91.4	0.0	19.1	80.7	0.0	0.2	0.0	0.0	0.0	0.0	0.0	99.4	0.6	0.0	
Total %	0.4	0.0	3.7	0.0	10.3	43.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	41.8	0.3	0.0	

SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : 20A.CenterPM
Site Code : 25015333
Start Date : 4/14/2005

	Center St. Southbound					20A Westbound					Northbound					20A Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection 04:00 PM																					
Volume	7	0	56	0	63	170	765	0	3	938	0	0	0	0	0	0	736	4	0	740	1741
Percent	11.1	0.0	88.9	0.0		18.1	81.6	0.0	0.3		0.0	0.0	0.0	0.0		0.0	99.5	0.5	0.0		
04:00 Volume	2	0	14	0	16	45	214	0	0	259	0	0	0	0	0	0	172	2	0	174	449
Peak Factor																					0.969
High Int.	04:15 PM					04:00 PM					3:45:00 PM					04:30 PM					
Volume	2	0	15	0	17	45	214	0	0	259	0	0	0	0	0	0	196	2	0	198	
Peak Factor					0.926					0.905										0.934	



SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : 20A.Crossett.Highland
Site Code : 00025015
Start Date : 4/14/2005
Page No : 1

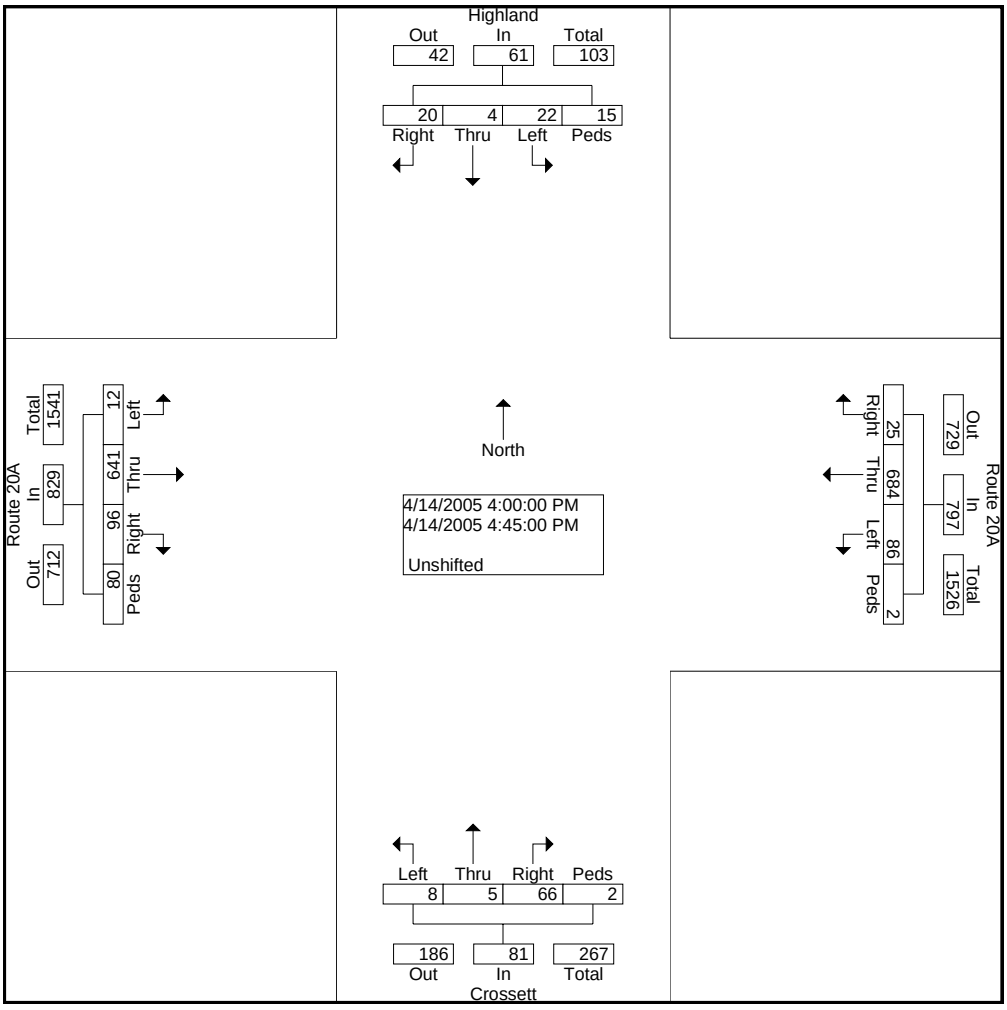
Groups Printed- Unshifted

	Highland Southbound				Route 20A Westbound				Crossett Northbound				Route 20A Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	4	0	6	3	5	167	27	1	14	0	3	0	19	155	1	18	423
04:15 PM	2	1	10	7	3	162	12	0	18	2	2	1	33	161	4	26	444
04:30 PM	5	1	5	4	10	174	17	0	13	1	1	0	26	167	6	22	452
04:45 PM	9	2	1	1	7	181	30	1	21	2	2	1	18	158	1	14	449
Total	20	4	22	15	25	684	86	2	66	5	8	2	96	641	12	80	1768
05:00 PM	7	3	2	1	9	146	19	0	14	1	2	2	26	140	7	20	399
05:15 PM	7	0	1	0	7	175	16	0	14	0	1	1	22	158	5	20	427
05:30 PM	2	0	1	1	6	140	25	0	12	3	3	1	27	154	1	25	401
05:45 PM	6	2	4	2	7	155	12	0	17	2	2	0	16	138	5	14	382
Total	22	5	8	4	29	616	72	0	57	6	8	4	91	590	18	79	1609
Grand Total	42	9	30	19	54	1300	158	2	123	11	16	6	187	1231	30	159	3377
Apprch %	42.0	9.0	30.0	19.0	3.6	85.9	10.4	0.1	78.8	7.1	10.3	3.8	11.6	76.6	1.9	9.9	
Total %	1.2	0.3	0.9	0.6	1.6	38.5	4.7	0.1	3.6	0.3	0.5	0.2	5.5	36.5	0.9	4.7	

SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : 20A.Crossett.Highland
Site Code : 00025015
Start Date : 4/14/2005
Page No : 2

	Highland Southbound					Route 20A Westbound					Crossett Northbound					Route 20A Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection 04:00 PM																					
Volume	20	4	22	15	61	25	684	86	2	797	66	5	8	2	81	96	641	12	80	829	1768
Percent	32.8	6.6	36.1	24.6		3.1	85.8	10.8	0.3		81.5	6.2	9.9	2.5		11.6	77.3	1.4	9.7		
04:30 Volume	5	1	5	4	15	10	174	17	0	201	13	1	1	0	15	26	167	6	22	221	452
Peak Factor																					0.978
High Int.	04:15 PM					04:45 PM					04:45 PM					04:15 PM					
Volume	2	1	10	7	20	7	181	30	1	219	21	2	2	1	26	33	161	4	26	224	
Peak Factor					0.763					0.910					0.779					0.925	



SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : 20A.Crossett.PM
Site Code : 02501546
Start Date : 6/27/2005
Page No : 1

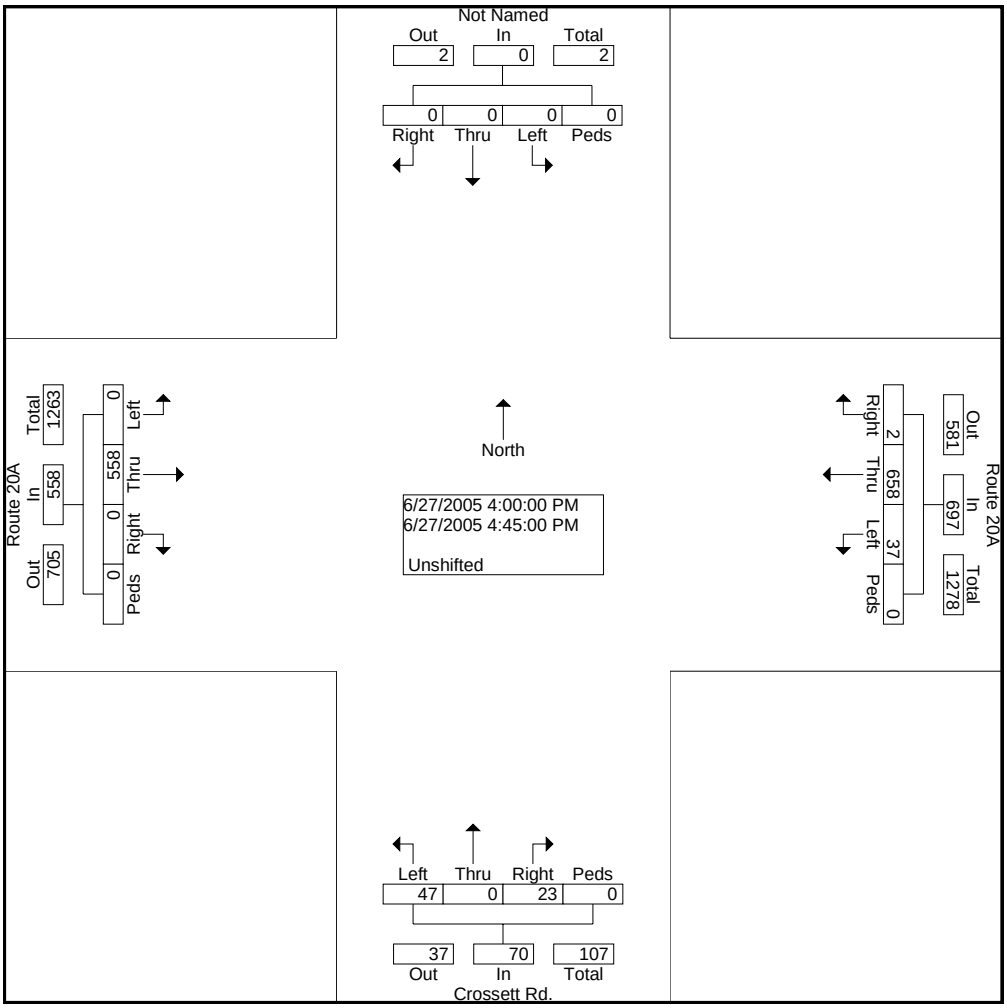
Groups Printed- Unshifted

	Southbound				Route 20A Westbound				Crossett Rd. Northbound				Route 20A Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	0	191	8	0	8	0	15	0	0	162	0	0	384
04:15 PM	0	0	0	0	0	171	4	0	2	0	13	0	0	149	0	0	339
04:30 PM	0	0	0	0	1	156	15	0	5	0	8	0	0	137	0	0	322
04:45 PM	0	0	0	0	1	140	10	0	8	0	11	0	0	110	0	0	280
Total	0	0	0	0	2	658	37	0	23	0	47	0	0	558	0	0	1325
05:00 PM	0	0	0	0	0	159	13	0	13	0	10	0	0	110	0	0	305
05:15 PM	0	0	0	0	0	143	8	0	9	0	12	0	0	114	0	0	286
05:30 PM	0	0	0	0	0	141	7	0	3	0	14	0	0	115	0	0	280
05:45 PM	0	0	0	0	0	112	8	0	8	0	5	0	0	121	0	0	254
Total	0	0	0	0	0	555	36	0	33	0	41	0	0	460	0	0	1125
Grand Total	0	0	0	0	2	1213	73	0	56	0	88	0	0	1018	0	0	2450
Apprch %	0.0	0.0	0.0	0.0	0.2	94.2	5.7	0.0	38.9	0.0	61.1	0.0	0.0	100.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.1	49.5	3.0	0.0	2.3	0.0	3.6	0.0	0.0	41.6	0.0	0.0	

SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : 20A.Crossett.PM
Site Code : 02501546
Start Date : 6/27/2005
Page No : 2

	Southbound					Route 20A Westbound					Crossett Rd. Northbound					Route 20A Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection 04:00 PM																					
Volume	0	0	0	0	0	2	658	37	0	697	23	0	47	0	70	0	558	0	0	558	1325
Percent	0.0	0.0	0.0	0.0		0.3	94.4	5.3	0.0		32.9	0.0	67.1	0.0		0.0	100.0	0.0	0.0		
04:00 Volume	0	0	0	0	0	0	191	8	0	199	8	0	15	0	23	0	162	0	0	162	384
Peak Factor																					0.863
High Int. 3:45:00 PM						04:00 PM					04:00 PM					04:00 PM					
Volume	0	0	0	0	0	0	191	8	0	199	8	0	15	0	23	0	162	0	0	162	
Peak Factor										0.876					0.761					0.861	



SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : 20A.MeadowviewPM
Site Code : 25015444
Start Date : 4/15/2005
Page No : 1

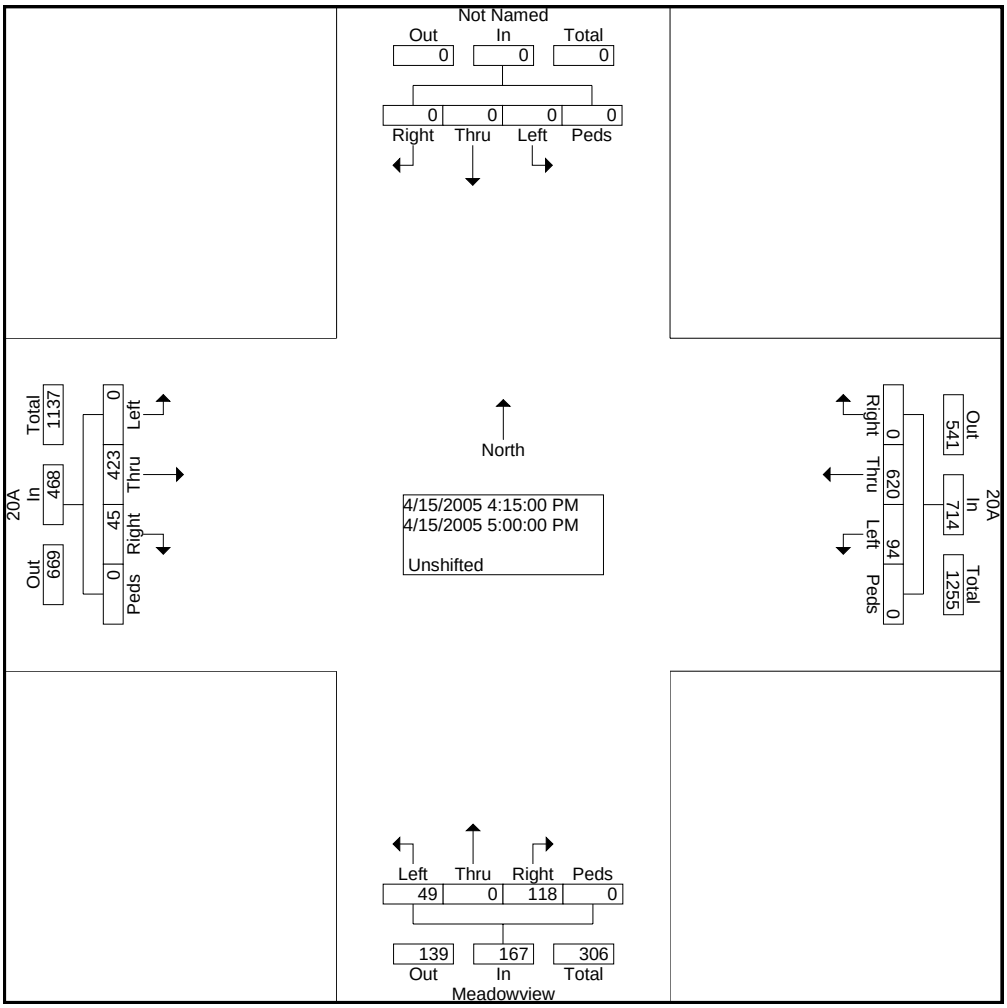
Groups Printed- Unshifted

	Southbound				20A Westbound				Meadowview Northbound				20A Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	0	167	13	0	26	0	12	0	19	133	0	0	370
04:15 PM	0	0	0	0	0	163	14	0	23	0	10	0	15	126	0	0	351
04:30 PM	0	0	0	0	0	171	19	0	21	0	17	0	11	99	0	0	338
04:45 PM	0	0	0	0	0	127	31	0	37	0	12	0	11	71	0	0	289
Total	0	0	0	0	0	628	77	0	107	0	51	0	56	429	0	0	1348
05:00 PM	0	0	0	0	0	159	30	0	37	0	10	0	8	127	0	0	371
05:15 PM	0	0	0	0	0	133	12	0	22	0	12	0	13	128	0	0	320
05:30 PM	0	0	0	0	0	154	15	0	15	0	7	0	12	130	0	0	333
05:45 PM	0	0	0	0	0	155	11	0	15	0	6	0	8	108	0	0	303
Total	0	0	0	0	0	601	68	0	89	0	35	0	41	493	0	0	1327
Grand Total	0	0	0	0	0	1229	145	0	196	0	86	0	97	922	0	0	2675
Apprch %	0.0	0.0	0.0	0.0	0.0	89.4	10.6	0.0	69.5	0.0	30.5	0.0	9.5	90.5	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	45.9	5.4	0.0	7.3	0.0	3.2	0.0	3.6	34.5	0.0	0.0	

SRF & Associates
3495 Winton Place, Bldg E, Suite 110
Rochester, New York 14623
Phone: 585.272.4660

File Name : 20A.MeadowviewPM
Site Code : 25015444
Start Date : 4/15/2005
Page No : 2

	Southbound					20A Westbound					Meadowview Northbound					20A Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:15 PM																				
Volume	0	0	0	0	0	0	620	94	0	714	118	0	49	0	167	45	423	0	0	468	1349
Percent	0.0	0.0	0.0	0.0		0.0	86.8	13.2	0.0		70.7	0.0	29.3	0.0		9.6	90.4	0.0	0.0		
05:00 Volume	0	0	0	0	0	0	159	30	0	189	37	0	10	0	47	8	127	0	0	135	371
Peak Factor																					0.909
High Int.	3:45:00 PM					04:30 PM					04:45 PM					04:15 PM					
Volume	0	0	0	0	0	0	171	19	0	190	37	0	12	0	49	15	126	0	0	141	
Peak Factor										0.939					0.852					0.830	



SRF & Associates
3495 Winton Place, E-110
Rochester, New York 14623
www.SRFA.net

File Name : Center_Temple.Highland PM
Site Code : 00000000
Start Date : 4/26/2006

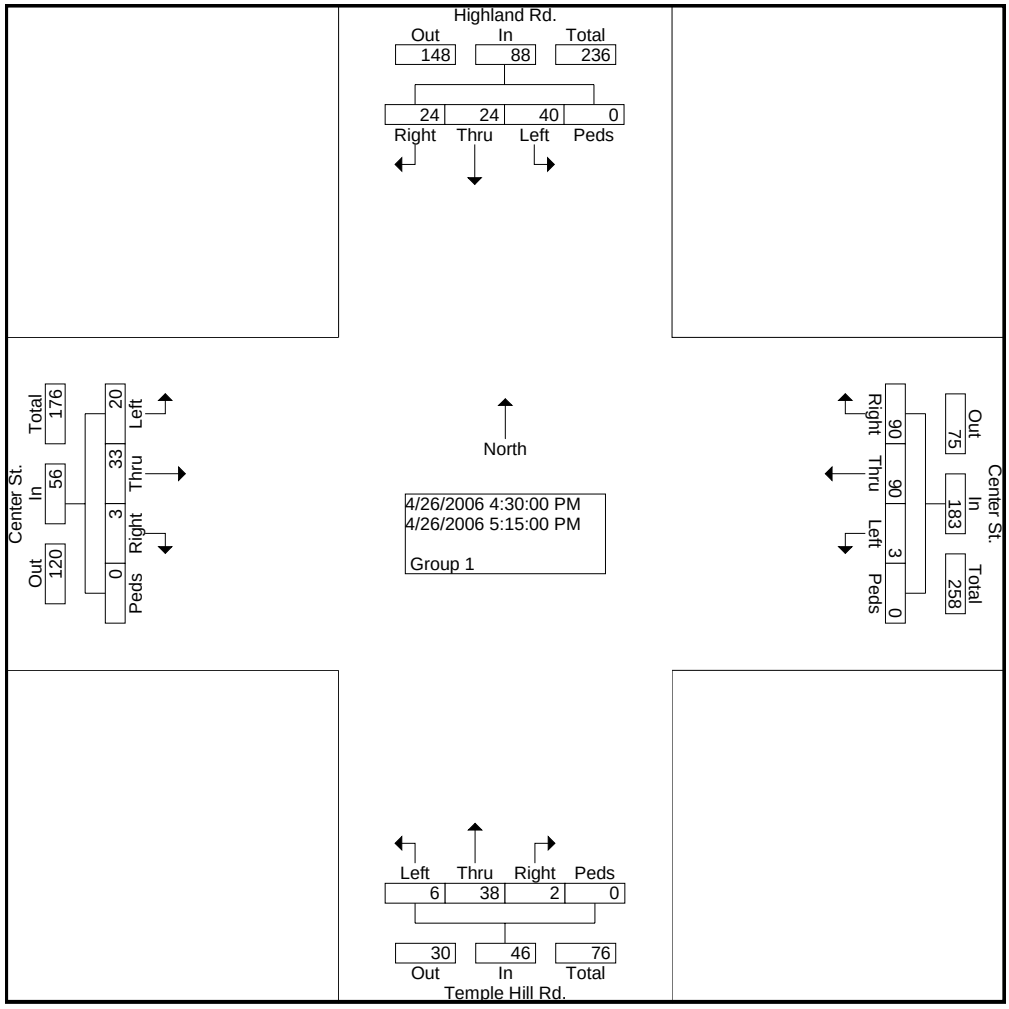
Groups Printed- Group 1

	Highland Rd. Southbound				Center St. Westbound				Temple Hill Rd. Northbound				Center St. Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	8	5	12	0	20	19	0	0	0	4	1	0	1	13	7	0	90
04:15 PM	4	2	6	0	18	17	1	0	1	6	1	0	4	4	4	0	68
04:30 PM	3	5	7	0	15	26	0	0	2	3	1	0	2	11	6	0	81
04:45 PM	8	5	10	0	17	16	1	0	0	1	2	0	1	6	3	0	70
Total	23	17	35	0	70	78	2	0	3	14	5	0	8	34	20	0	309
05:00 PM	7	8	10	0	26	30	0	0	0	14	1	0	0	12	6	0	114
05:15 PM	6	6	13	0	32	18	2	0	0	20	2	0	0	4	5	0	108
Grand Total	36	31	58	0	128	126	4	0	3	48	8	0	8	50	31	0	531
Apprch %	28.8	24.8	46.4	0.0	49.6	48.8	1.6	0.0	5.1	81.4	13.6	0.0	9.0	56.2	34.8	0.0	
Total %	6.8	5.8	10.9	0.0	24.1	23.7	0.8	0.0	0.6	9.0	1.5	0.0	1.5	9.4	5.8	0.0	

SRF & Associates
3495 Winton Place, E-110
Rochester, New York 14623
www.SRFA.net

File Name : Center_Temple.Highland PM
Site Code : 00000000
Start Date : 4/26/2006
Page No : 2

	Highland Rd. Southbound					Center St. Westbound					Temple Hill Rd. Northbound					Center St. Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:15 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	24	24	40	0	88	90	90	3	0	183	2	38	6	0	46	3	33	20	0	56	373
Percent	27.3	27.3	45.5	0.0		49.2	49.2	1.6	0.0		4.3	82.6	13.0	0.0		5.4	58.9	35.7	0.0		
05:00 Volume	7	8	10	0	25	26	30	0	0	56	0	14	1	0	15	0	12	6	0	18	114
Peak Factor																					0.818
High Int.	05:00 PM					05:00 PM					05:15 PM					04:30 PM					
Volume	7	8	10	0	25	26	30	0	0	56	0	20	2	0	22	2	11	6	0	19	
Peak Factor					0.880					0.817					0.523					0.737	



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : COUNTR~1
Site Code : 50150000
Start Date : 5/13/2005
Page No : 1

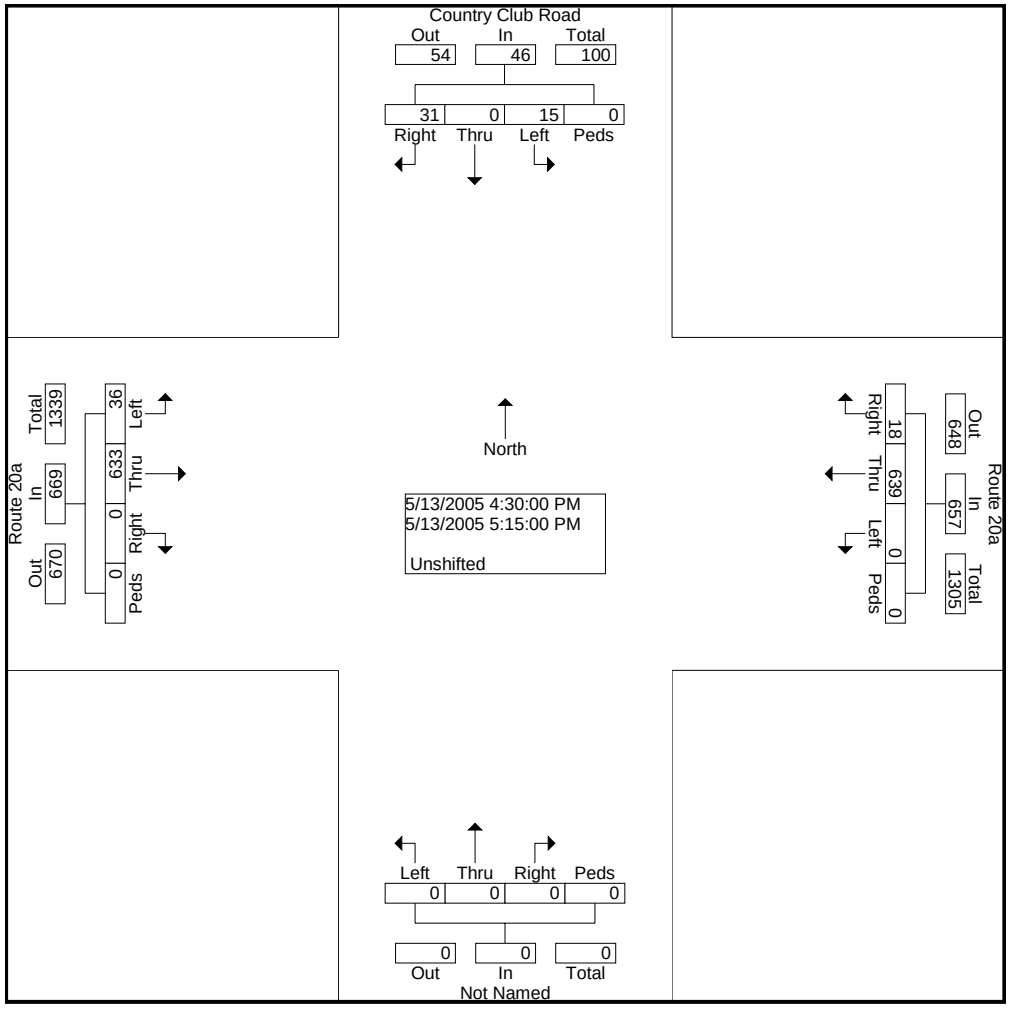
Groups Printed- Unshifted

	Country Club Road Southbound				Route 20a Westbound				Northbound				Route 20a Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	13	0	0	0	1	135	0	0	0	0	0	0	0	124	6	0	279
04:15 PM	13	0	7	0	2	174	0	0	0	0	0	0	0	150	6	0	352
04:30 PM	5	0	4	0	6	182	0	0	0	0	0	0	0	152	8	0	357
04:45 PM	8	0	6	0	2	148	0	0	0	0	0	0	0	156	9	0	329
Total	39	0	17	0	11	639	0	0	0	0	0	0	0	582	29	0	1317
05:00 PM	10	0	0	0	3	153	0	0	0	0	0	0	0	150	11	0	327
05:15 PM	8	0	5	0	7	156	0	0	0	0	0	0	0	175	8	0	359
05:30 PM	13	0	0	0	7	178	0	0	0	0	0	0	0	107	8	0	313
05:45 PM	11	0	9	0	3	163	0	0	0	0	0	0	2	119	4	0	311
Total	42	0	14	0	20	650	0	0	0	0	0	0	2	551	31	0	1310
Grand Total	81	0	31	0	31	1289	0	0	0	0	0	0	2	1133	60	0	2627
Apprch %	72.3	0.0	27.7	0.0	2.3	97.7	0.0	0.0	0.0	0.0	0.0	0.0	0.2	94.8	5.0	0.0	
Total %	3.1	0.0	1.2	0.0	1.2	49.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	43.1	2.3	0.0	

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : COUNTR~1
Site Code : 50150000
Start Date : 5/13/2005

	Country Club Road Southbound					Route 20a Westbound					Northbound					Route 20a Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	31	0	15	0	46	18	639	0	0	657	0	0	0	0	0	0	633	36	0	669	1372
Percent	67.4	0.0	32.6	0.0		2.7	97.3	0.0	0.0		0.0	0.0	0.0	0.0		0.0	94.6	5.4	0.0		
05:15 Volume	8	0	5	0	13	7	156	0	0	163	0	0	0	0	0	0	175	8	0	183	359
Peak Factor																					0.955
High Int.	04:45 PM					04:30 PM					3:45:00 PM					05:15 PM					
Volume	8	0	6	0	14	6	182	0	0	188	0	0	0	0	0	0	175	8	0	183	
Peak Factor					0.821					0.874										0.914	



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : HESSDR~1
Site Code : 00025015
Start Date : 5/12/2005
Page No : 1

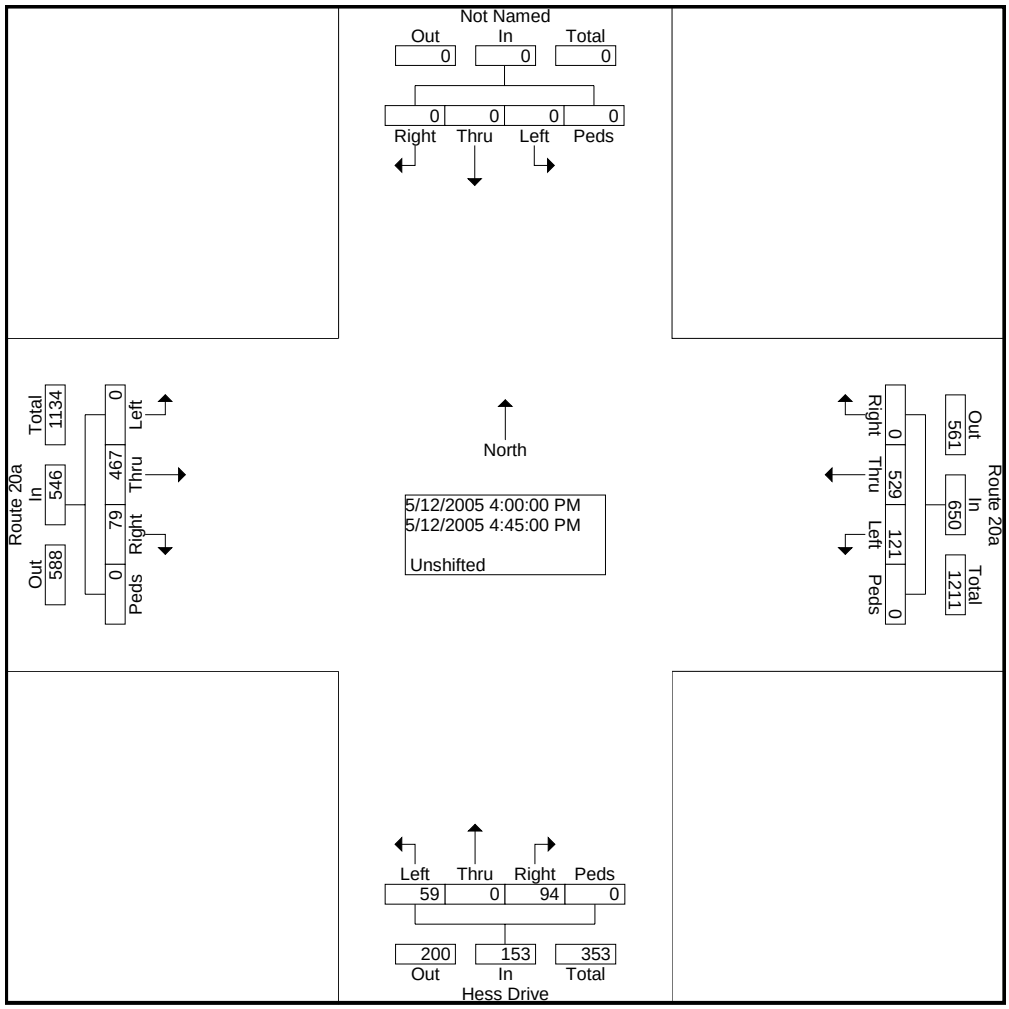
Groups Printed- Unshifted

	Southbound				Route 20a Westbound				Hess Drive Northbound				Route 20a Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	0	138	20	0	25	0	18	0	21	118	0	0	340
04:15 PM	0	0	0	0	0	139	41	0	22	0	16	0	20	114	0	0	352
04:30 PM	0	0	0	0	0	127	40	0	26	0	13	0	22	136	0	0	364
04:45 PM	0	0	0	0	0	125	20	0	21	0	12	0	16	99	0	0	293
Total	0	0	0	0	0	529	121	0	94	0	59	0	79	467	0	0	1349
05:00 PM	0	0	0	0	0	132	22	0	22	0	14	0	15	87	0	0	292
05:15 PM	0	0	0	0	0	120	34	0	17	0	10	0	9	79	0	0	269
05:30 PM	0	0	0	0	0	139	16	0	12	0	14	0	12	91	0	0	284
05:45 PM	0	0	0	0	0	103	20	0	17	0	11	0	13	93	0	0	257
Total	0	0	0	0	0	494	92	0	68	0	49	0	49	350	0	0	1102
Grand Total	0	0	0	0	0	1023	213	0	162	0	108	0	128	817	0	0	2451
Apprch %	0.0	0.0	0.0	0.0	0.0	82.8	17.2	0.0	60.0	0.0	40.0	0.0	13.5	86.5	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	41.7	8.7	0.0	6.6	0.0	4.4	0.0	5.2	33.3	0.0	0.0	

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : HESSDR~1
Site Code : 00025015
Start Date : 5/12/2005
Page No : 2

	Southbound					Route 20a Westbound					Hess Drive Northbound					Route 20a Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	0	0	0	0	0	0	529	121	0	650	94	0	59	0	153	79	467	0	0	546	1349
Percent	0.0	0.0	0.0	0.0		0.0	81.4	18.6	0.0		61.4	0.0	38.6	0.0		14.5	85.5	0.0	0.0		
04:30 Volume	0	0	0	0	0	0	127	40	0	167	26	0	13	0	39	22	136	0	0	158	364
Peak Factor																					0.927
High Int.	3:45:00 PM					04:15 PM					04:00 PM					04:30 PM					
Volume	0	0	0	0	0	0	139	41	0	180	25	0	18	0	43	22	136	0	0	158	
Peak Factor										0.903					0.890					0.864	



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : PMVolntr
Site Code : 00004242
Start Date : 4/24/2003
Page No : 1

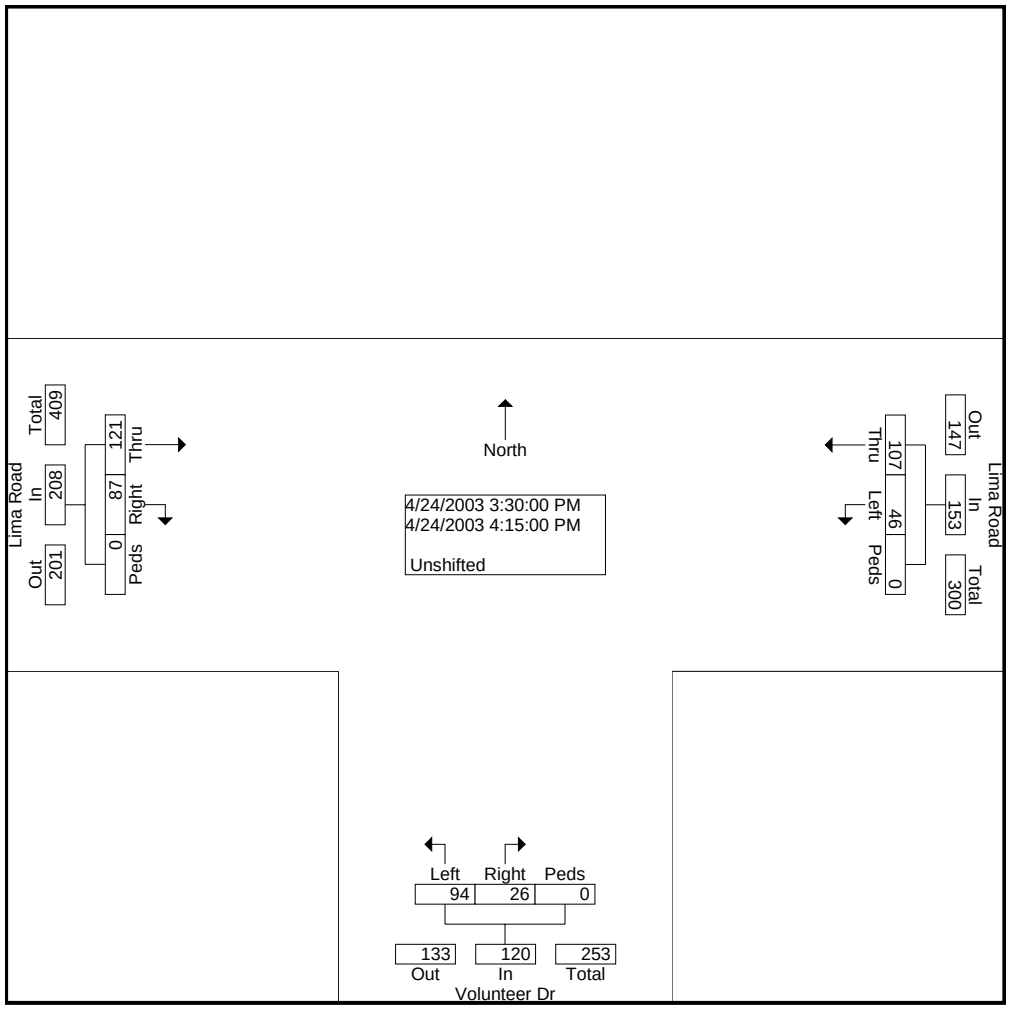
Groups Printed- Unshifted

	Volunteer Dr Southbound				Lima Road Westbound				Volunteer Dr Northbound				Lima Road Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
03:00 PM	0	0	0	0	0	29	5	0	7	0	20	0	26	25	0	0	112
03:15 PM	0	0	0	0	0	30	8	0	5	0	11	0	22	26	0	0	102
03:30 PM	0	0	0	0	0	22	6	0	7	0	21	0	24	25	0	0	105
03:45 PM	0	0	0	0	0	31	13	0	8	0	27	0	22	33	0	0	134
Total	0	0	0	0	0	112	32	0	27	0	79	0	94	109	0	0	453
04:00 PM	0	0	0	0	0	28	14	0	4	0	21	0	24	27	0	0	118
04:15 PM	0	0	0	0	0	26	13	0	7	0	25	0	17	36	0	0	124
04:30 PM	0	0	0	0	0	21	9	0	7	0	18	0	23	19	0	0	97
04:45 PM	0	0	0	0	2	41	6	0	4	0	19	0	28	29	0	0	129
Total	0	0	0	0	2	116	42	0	22	0	83	0	92	111	0	0	468
Grand Total	0	0	0	0	2	228	74	0	49	0	162	0	186	220	0	0	921
Apprch %	0.0	0.0	0.0	0.0	0.7	75.0	24.3	0.0	23.2	0.0	76.8	0.0	45.8	54.2	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.2	24.8	8.0	0.0	5.3	0.0	17.6	0.0	20.2	23.9	0.0	0.0	

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : PMVolntr
Site Code : 00004242
Start Date : 4/24/2003
Page No : 2

	Volunteer Dr Southbound					Lima Road Westbound					Volunteer Dr Northbound					Lima Road Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 03:00 PM to 04:45 PM - Peak 1 of 1																					
Intersection	03:30 PM																				
Volume	0	0	0	0	0	0	107	46	0	153	26	0	94	0	120	87	121	0	0	208	481
Percent	0.0	0.0	0.0	0.0		0.0	69.9	30.1	0.0		21.7	0.0	78.3	0.0		41.8	58.2	0.0	0.0		
03:45 Volume	0	0	0	0	0	0	31	13	0	44	8	0	27	0	35	22	33	0	0	55	134
Peak Factor																					0.897
High Int.	2:45:00 PM					03:45 PM					03:45 PM					03:45 PM					
Volume	0	0	0	0	0	0	31	13	0	44	8	0	27	0	35	22	33	0	0	55	
Peak Factor										0.869					0.857					0.945	



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : MILLEN~1
Site Code : 00025012
Start Date : 5/12/2005
Page No : 1

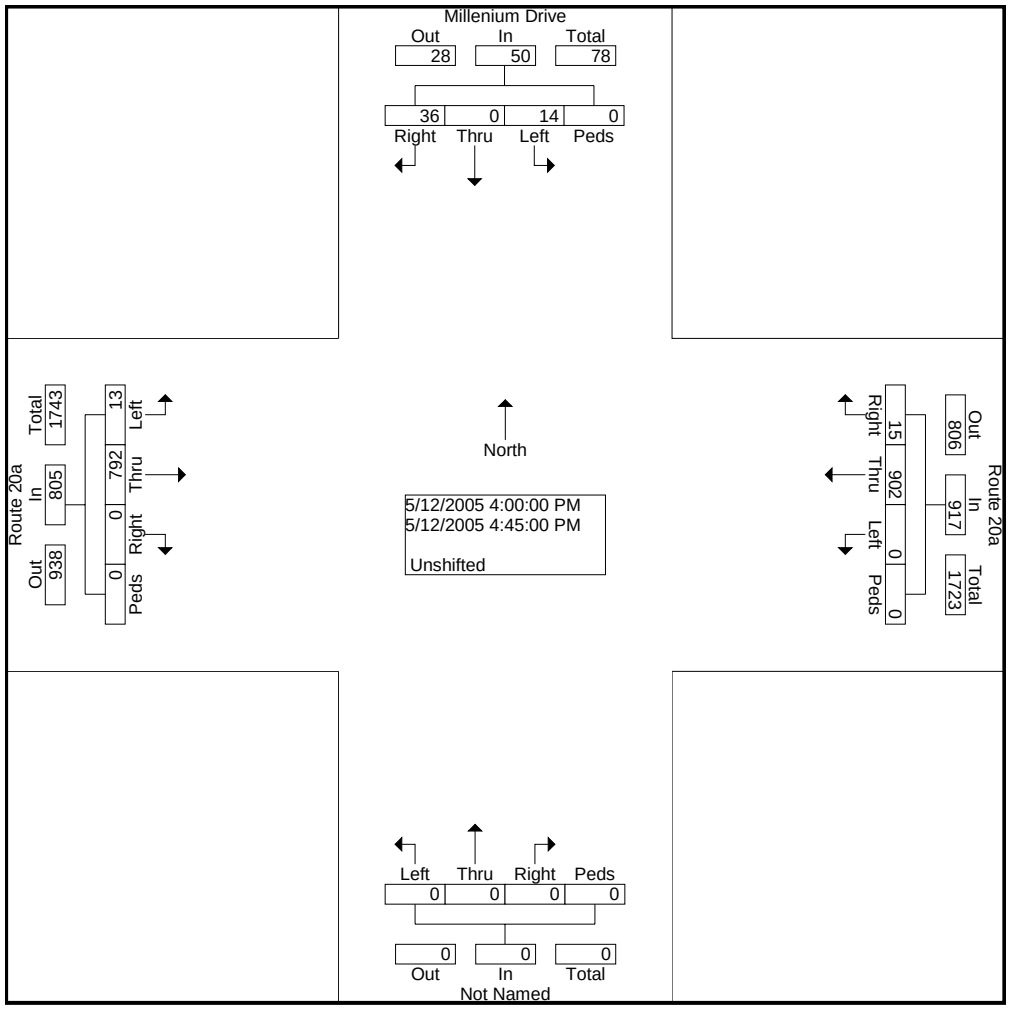
Groups Printed- Unshifted

	Millenium Drive Southbound				Route 20a Westbound				Northbound				Route 20a Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	6	0	2	0	2	227	0	0	0	0	0	0	0	205	3	0	445
04:15 PM	13	0	4	0	6	228	0	0	0	0	0	0	0	187	1	0	439
04:30 PM	10	0	6	0	4	213	0	0	0	0	0	0	0	215	4	0	452
04:45 PM	7	0	2	0	3	234	0	0	0	0	0	0	0	185	5	0	436
Total	36	0	14	0	15	902	0	0	0	0	0	0	0	792	13	0	1772
05:00 PM	3	0	6	0	2	220	0	0	0	0	0	0	0	120	1	0	352
05:15 PM	2	0	4	0	5	202	0	0	0	0	0	0	0	98	7	0	318
05:30 PM	3	0	0	0	4	208	0	0	0	0	0	0	1	85	6	0	307
05:45 PM	2	0	5	0	6	169	0	0	0	0	0	0	0	127	7	0	316
Total	10	0	15	0	17	799	0	0	0	0	0	0	1	430	21	0	1293
Grand Total	46	0	29	0	32	1701	0	0	0	0	0	0	1	1222	34	0	3065
Apprch %	61.3	0.0	38.7	0.0	1.8	98.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	97.2	2.7	0.0	
Total %	1.5	0.0	0.9	0.0	1.0	55.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.9	1.1	0.0	

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : MILLEN~1
Site Code : 00025012
Start Date : 5/12/2005
Page No : 2

	Millenium Drive Southbound					Route 20a Westbound					Northbound					Route 20a Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	36	0	14	0	50	15	902	0	0	917	0	0	0	0	0	0	792	13	0	805	1772
Percent	72.0	0.0	28.0	0.0		1.6	98.4	0.0	0.0		0.0	0.0	0.0	0.0		0.0	98.4	1.6	0.0		
04:30 Volume	10	0	6	0	16	4	213	0	0	217	0	0	0	0	0	0	215	4	0	219	452
Peak Factor																					0.980
High Int.	04:15 PM					04:45 PM					3:45:00 PM					04:30 PM					
Volume	13	0	4	0	17	3	234	0	0	237	0	0	0	0	0	0	215	4	0	219	
Peak Factor					0.735					0.967										0.919	



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : NORTHR~1
Site Code : 25015222
Start Date : 5/13/2005
Page No : 1

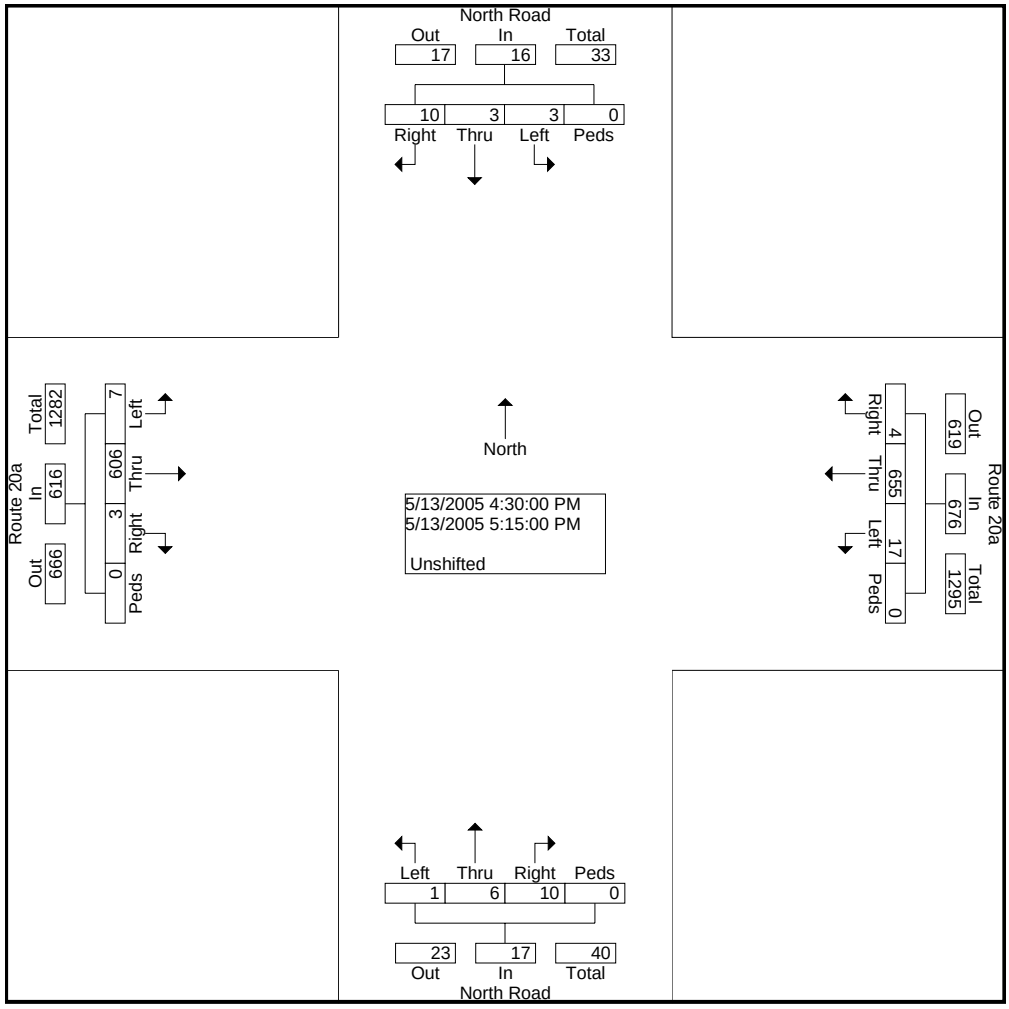
Groups Printed- Unshifted

	North Road Southbound				Route 20a Westbound				North Road Northbound				Route 20a Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	1	1	0	0	0	142	4	0	4	3	0	0	5	111	2	0	273
04:15 PM	0	0	0	0	0	169	3	0	1	3	1	0	1	158	3	0	339
04:30 PM	1	0	0	0	2	187	6	0	2	0	0	0	0	141	2	0	341
04:45 PM	4	0	2	0	1	142	7	0	1	2	0	0	1	162	0	0	322
Total	6	1	2	0	3	640	20	0	8	8	1	0	7	572	7	0	1275
05:00 PM	1	2	0	0	1	157	3	0	5	3	1	0	1	137	2	0	313
05:15 PM	4	1	1	0	0	169	1	0	2	1	0	0	1	166	3	0	349
05:30 PM	1	2	0	0	0	182	3	0	3	1	1	0	2	118	2	0	315
05:45 PM	2	1	2	0	2	154	2	0	1	0	0	0	1	110	2	0	277
Total	8	6	3	0	3	662	9	0	11	5	2	0	5	531	9	0	1254
Grand Total	14	7	5	0	6	1302	29	0	19	13	3	0	12	1103	16	0	2529
Apprch %	53.8	26.9	19.2	0.0	0.4	97.4	2.2	0.0	54.3	37.1	8.6	0.0	1.1	97.5	1.4	0.0	
Total %	0.6	0.3	0.2	0.0	0.2	51.5	1.1	0.0	0.8	0.5	0.1	0.0	0.5	43.6	0.6	0.0	

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : NORTHR~1
Site Code : 25015222
Start Date : 5/13/2005
Page No : 2

	North Road Southbound					Route 20a Westbound					North Road Northbound					Route 20a Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	10	3	3	0	16	4	655	17	0	676	10	6	1	0	17	3	606	7	0	616	1325
Percent	62.5	18.8	18.8	0.0		0.6	96.9	2.5	0.0		58.8	35.3	5.9	0.0		0.5	98.4	1.1	0.0		
05:15 Volume	4	1	1	0	6	0	169	1	0	170	2	1	0	0	3	1	166	3	0	170	349
Peak Factor																					0.949
High Int.	04:45 PM					04:30 PM					05:00 PM					05:15 PM					
Volume	4	0	2	0	6	2	187	6	0	195	5	3	1	0	9	1	166	3	0	170	
Peak Factor					0.667					0.867					0.472					0.906	



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : PMWendys
Site Code : 00401003
Start Date : 4/11/2003
Page No : 1

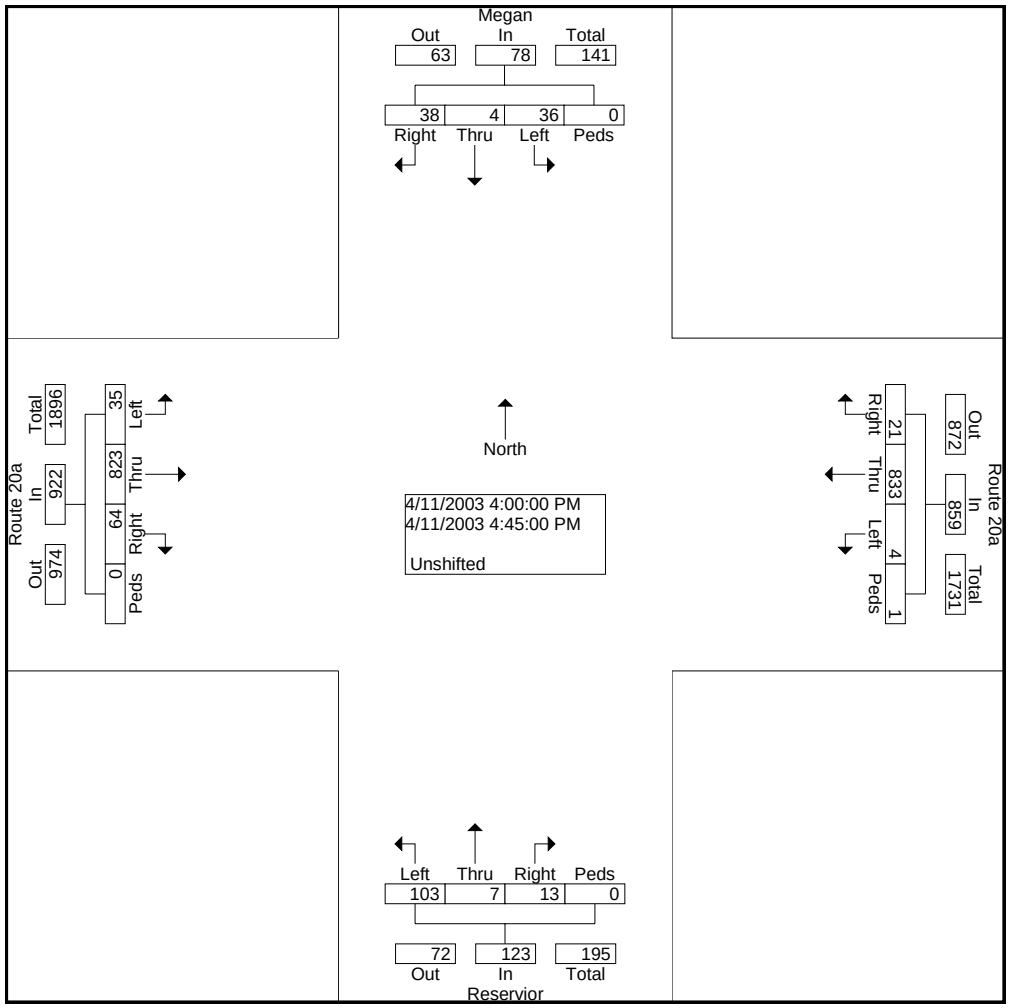
Groups Printed- Unshifted

	Megan Southbound				Route 20a Westbound				Reservior Northbound				Route 20a Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	9	1	11	0	4	228	1	0	2	0	25	0	21	202	5	0	509
04:15 PM	16	1	7	0	4	173	3	0	4	1	21	0	13	193	13	0	449
04:30 PM	7	2	8	0	8	207	0	0	2	1	28	0	19	226	8	0	516
04:45 PM	6	0	10	0	5	225	0	1	5	5	29	0	11	202	9	0	508
Total	38	4	36	0	21	833	4	1	13	7	103	0	64	823	35	0	1982
05:00 PM	7	2	9	0	20	198	0	2	3	1	30	0	16	190	12	0	490
05:15 PM	19	0	10	0	12	185	0	0	6	2	37	0	15	166	10	0	462
05:30 PM	9	0	14	0	9	204	4	0	2	0	24	0	10	183	11	0	470
05:45 PM	8	1	10	0	13	209	0	0	3	0	28	0	9	178	16	0	475
Total	43	3	43	0	54	796	4	2	14	3	119	0	50	717	49	0	1897
Grand Total	81	7	79	0	75	1629	8	3	27	10	222	0	114	1540	84	0	3879
Apprch %	48.5	4.2	47.3	0.0	4.4	95.0	0.5	0.2	10.4	3.9	85.7	0.0	6.6	88.6	4.8	0.0	
Total %	2.1	0.2	2.0	0.0	1.9	42.0	0.2	0.1	0.7	0.3	5.7	0.0	2.9	39.7	2.2	0.0	

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : PMWendys
Site Code : 00401003
Start Date : 4/11/2003

	Megan Southbound					Route 20a Westbound					Reservior Northbound					Route 20a Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	38	4	36	0	78	21	833	4	1	859	13	7	103	0	123	64	823	35	0	922	1982
Percent	48.7	5.1	46.2	0.0		2.4	97.0	0.5	0.1		10.6	5.7	83.7	0.0		6.9	89.3	3.8	0.0		
04:30 Volume	7	2	8	0	17	8	207	0	0	215	2	1	28	0	31	19	226	8	0	253	516
Peak Factor																					0.960
High Int.	04:15 PM					04:00 PM					04:45 PM					04:30 PM					
Volume	16	1	7	0	24	4	228	1	0	233	5	5	29	0	39	19	226	8	0	253	
Peak Factor					0.813					0.922					0.788					0.911	



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : 20AWAL~1
Site Code : 00000000
Start Date : 4/11/2003
Page No : 1

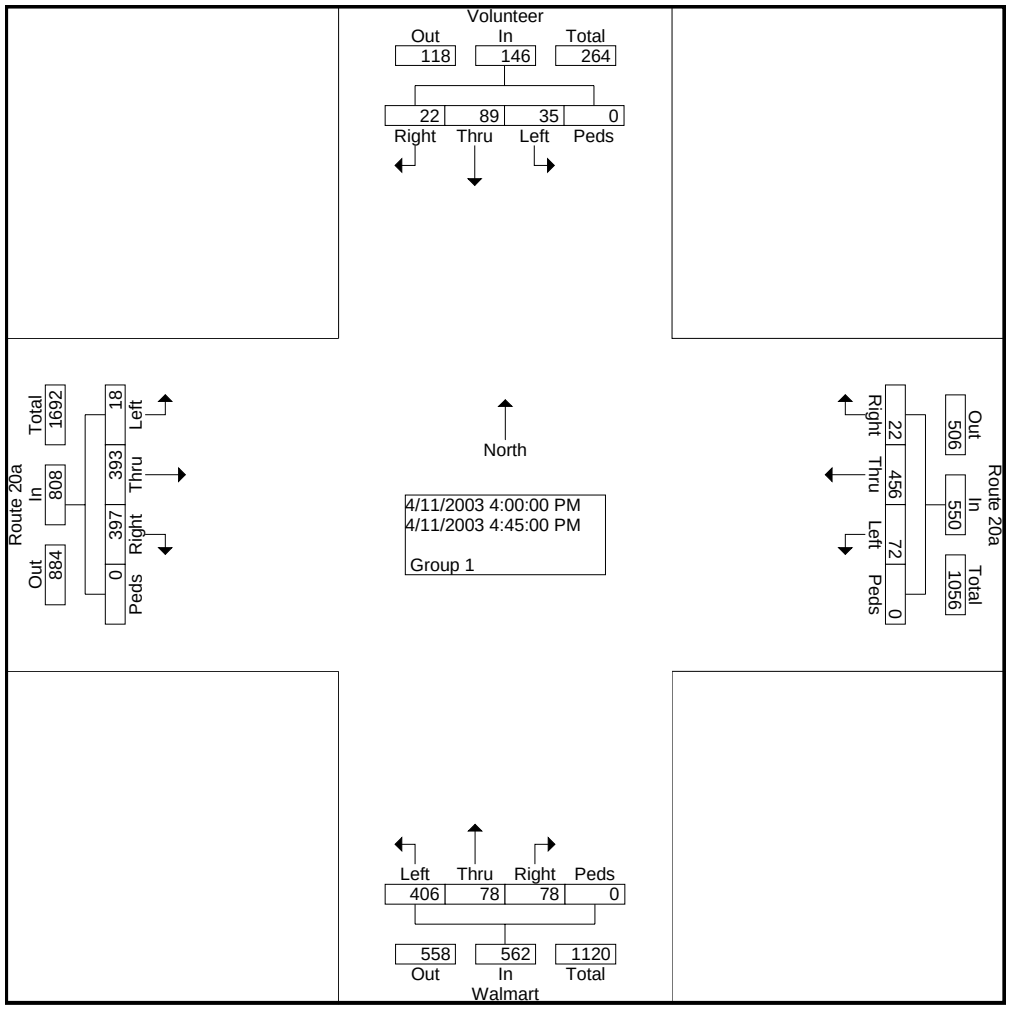
Groups Printed- Group 1

	Volunteer Southbound				Route 20a Westbound				Walmart Northbound				Route 20a Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	9	25	5	0	13	106	25	0	20	22	111	0	93	103	1	0	533
04:15 PM	3	24	10	0	3	105	20	0	20	17	86	0	118	79	4	0	489
04:30 PM	8	21	3	0	3	114	14	0	15	16	99	0	99	111	3	0	506
04:45 PM	2	19	17	0	3	131	13	0	23	23	110	0	87	100	10	0	538
Total	22	89	35	0	22	456	72	0	78	78	406	0	397	393	18	0	2066
05:00 PM	8	15	9	0	4	124	30	0	13	13	96	0	84	103	0	0	499
05:15 PM	10	24	7	0	4	137	22	0	20	16	86	0	102	71	3	0	502
05:30 PM	6	18	4	0	3	108	16	0	29	15	109	0	83	108	6	0	505
05:45 PM	6	20	7	0	4	157	22	0	8	17	116	0	88	75	7	0	527
Total	30	77	27	0	15	526	90	0	70	61	407	0	357	357	16	0	2033
*** BREAK ***																	
Grand Total	52	166	62	0	37	982	162	0	148	139	813	0	754	750	34	0	4099
Apprch %	18.6	59.3	22.1	0.0	3.1	83.1	13.7	0.0	13.5	12.6	73.9	0.0	49.0	48.8	2.2	0.0	
Total %	1.3	4.0	1.5	0.0	0.9	24.0	4.0	0.0	3.6	3.4	19.8	0.0	18.4	18.3	0.8	0.0	

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
www.SRFA.net

File Name : 20AWAL~1
Site Code : 00000000
Start Date : 4/11/2003
Page No : 2

	Volunteer Southbound					Route 20a Westbound					Walmart Northbound					Route 20a Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 06:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	22	89	35	0	146	22	456	72	0	550	78	78	406	0	562	397	393	18	0	808	2066
Percent	15.1	61.0	24.0	0.0		4.0	82.9	13.1	0.0		13.9	13.9	72.2	0.0		49.1	48.6	2.2	0.0		
04:45 Volume	2	19	17	0	38	3	131	13	0	147	23	23	110	0	156	87	100	10	0	197	538
Peak Factor																					0.960
High Int.	04:00 PM					04:45 PM					04:45 PM					04:30 PM					
Volume	9	25	5	0	39	3	131	13	0	147	23	23	110	0	156	99	111	3	0	213	
Peak Factor					0.936					0.935					0.901					0.948	



A2
HISTORIC TRAFFIC VOLUME DATA

Documentation of Ambient Traffic Volume Growth

ROUTE 20A ACCESS MANAGEMENT

Roadway	Segment ends @	1994	1995	1996	1997	1999	2000	2001	2002	2004	Annual Growth
NYS Route 20A	SOUTH ST CONNECTION			7,950		9,650			13,200		8.82%
NYS Route 20A	END 39 OLAP GENESEO	11,100			10,300		12,100			10,900	-0.18%
NYS Route 20A	GENESEO E VIL LN		11,100				16,300	18,900		17,000	1.06%
NYS Route 20A	RT 390I EXIT 8 IS UNDER WI		9,250			10,900			10,100	10,100	0.98%
										AVG=	3.56%

Roadway	Segment ends @		1984				2000	2001	2002	2006	Annual Growth
NYS Route 20A	SOUTH ST CONNECTION										
NYS Route 20A	END 39 OLAP GENESEO										
NYS Route 20A	GENESEO E VIL LN		8,000				16,300	18,900		19,400	4.11%
NYS Route 20A	RT 390I EXIT 8 IS UNDER WI										
										AVG=	

A3
ACCIDENT INVESTIGATION

INTERSECTION ACCIDENT RATE CALCULATIONS

Rate per MEV = $\frac{\text{\# of Accidents x 1,000,000}}{\text{Total No. of Entering Vehicles}}$ =

Rate = $\frac{\text{\# of Accidents x 1,000,000}}{\text{Veh./Day x Duration of Study}}$ =

Accidents per million entering vehicles (Acc / MEV)

---

1. Main St. / Route 20A

ADT = Peak hour entering volume / k factor

ADT = 1847 VPH / 0.09 = 20522 VPD

Rate = $\frac{8 \text{ Acc.} \times 1{,}000{,}000}{20522 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}}$ = **0.33** **Acc / MEV**

2. Temple Hill St. / Route 20A

ADT = Peak hour entering volume / k factor

ADT = 1669 VPH / 0.09 = 18544 VPD

Rate = $\frac{11 \text{ Acc.} \times 1{,}000{,}000}{18544 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}}$ = **0.50** **Acc / MEV**

3. Center St. / Route 20A

ADT = Peak hour entering volume / k factor

ADT = 1738 VPH / 0.09 = 19311 VPD

Rate = $\frac{8 \text{ Acc.} \times 1{,}000{,}000}{19311 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}}$ = **0.35** **Acc / MEV**

4. Megan Dr./Reservoir Rd. / Route 20A

ADT = Peak hour entering volume / k factor

ADT = 1981 VPH / 0.09 = 22011 VPD

Rate = $\frac{14 \text{ Acc.} \times 1{,}000{,}000}{22011 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}}$ = **0.54** **Acc / MEV**

INTERSECTION ACCIDENT RATE CALCULATIONS

5. Millenium Dr. / Route 20A

ADT = Peak hour entering volume / k factor

ADT = 1772 VPH / 0.09 = 19689 VPD

$$\text{Rate} = \frac{8 \text{ Acc.} \times 1{,}000{,}000}{19689 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{0.34 \text{ Acc / MEV}}$$

6. Volunteer Rd. / Route 20A

ADT = Peak hour entering volume / k factor

ADT = 2066 VPH / 0.09 = 22956 VPD

$$\text{Rate} = \frac{23 \text{ Acc.} \times 1{,}000{,}000}{22956 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{0.84 \text{ Acc / MEV}}$$

7. Morgan View Rd. / Route 20A

ADT = Peak hour entering volume / k factor

ADT = 1349 VPH / 0.09 = 14989 VPD

$$\text{Rate} = \frac{3 \text{ Acc.} \times 1{,}000{,}000}{14989 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{0.17 \text{ Acc / MEV}}$$

8. Country Club Rd. / Route 20A

ADT = Peak hour entering volume / k factor

ADT = 1372 VPH / 0.09 = 15244 VPD

$$\text{Rate} = \frac{16 \text{ Acc.} \times 1{,}000{,}000}{15244 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{0.88 \text{ Acc / MEV}}$$

9. North Rd. / Route 20A

ADT = Peak hour entering volume / k factor

ADT = 1325 VPH / 0.09 = 14722 VPD

$$\text{Rate} = \frac{13 \text{ Acc.} \times 1{,}000{,}000}{14722 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{0.74 \text{ Acc / MEV}}$$

ROADWAY SEGMENT (MID-BLOCK) ACCIDENT RATE CALCULATIONS

$$\text{Rate per MVM} = \frac{\text{\# of Accidents} \times 1{,}000{,}000}{\text{Total Vehicle Miles of Travel}}$$

$$\text{Rate} = \frac{\text{\# of Accidents} \times 1{,}000{,}000}{\text{Sectional Length} \times \text{AADT} \times \text{Duration of Study}}$$

Accidents per million vehicle miles (Acc / MVM)

---

1. Main St. to Temple Hill St.

Section length = 0.483 mi
2 - way ADT = 17122

$$\text{Rate} = \frac{10 \text{ Acc.} \times 1{,}000{,}000}{0.483 \text{ mi} \times 17122 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{1.02} \text{ Acc / MVM}$$

2. Temple Hill St. to Center St.

Section length = 0.436 mi
2 - way ADT = 16800

$$\text{Rate} = \frac{6 \text{ Acc.} \times 1{,}000{,}000}{0.436 \text{ mi} \times 16800 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{0.69} \text{ Acc / MVM}$$

3. Center St. to Megan Dr.

Section length = 0.170 mi
2 - way ADT = 21067

$$\text{Rate} = \frac{11 \text{ Acc.} \times 1{,}000{,}000}{0.170 \text{ mi} \times 21067 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{2.59} \text{ Acc / MVM}$$

4. Megan Dr. to Millenium Dr.

Section length = 0.317 mi
2 - way ADT = 19367

$$\text{Rate} = \frac{10 \text{ Acc.} \times 1{,}000{,}000}{0.317 \text{ mi} \times 19367 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{1.37} \text{ Acc / MVM}$$

ROADWAY SEGMENT (MID-BLOCK) ACCIDENT RATE CALCULATIONS

5. Millenium Dr. to Volunteer Rd.

Section length = 0.344 mi
2 - way ADT = 19467

$$\text{Rate} = \frac{19 \text{ Acc.} \times 1{,}000{,}000}{0.344 \text{ mi} \times 19467 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{2.39} \text{ Acc / MVM}$$

6. Volunteer Rd. to Morgan View Rd.

Section length = 0.217 mi
2 - way ADT = 13455

$$\text{Rate} = \frac{0 \text{ Acc.} \times 1{,}000{,}000}{0.217 \text{ mi} \times 13455 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{0.00} \text{ Acc / MVM}$$

7. Morgan View Rd. to Country Club Rd.

Section length = 0.452 mi
2 - way ADT = 14777

$$\text{Rate} = \frac{13 \text{ Acc.} \times 1{,}000{,}000}{0.452 \text{ mi} \times 14777 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{1.64} \text{ Acc / MVM}$$

8. Country Club Rd. to North Rd.

Section length = 1.393 mi
2 - way ADT = 14245

$$\text{Rate} = \frac{27 \text{ Acc.} \times 1{,}000{,}000}{1.393 \text{ mi} \times 14245 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{1.15} \text{ Acc / MVM}$$

9. North Rd. to Pole Bridge Rd.

Section length = 1.000 mi
2 - way ADT = 14245

$$\text{Rate} = \frac{8 \text{ Acc.} \times 1{,}000{,}000}{1.000 \text{ mi} \times 14245 \text{ VPD} \times 365 \text{ Days} \times 3.25 \text{ Yrs.}} = \mathbf{0.47} \text{ Acc / MVM}$$

FIGURE XX

ACCIDENT DIAGRAM

ACCESS MANAGEMENT STUDY
VILLAGE OF GENESEO

SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants
3495 WINTON PLACE
585.272.4660
BUILDING E, SUITE 110
585.272.4662 fax

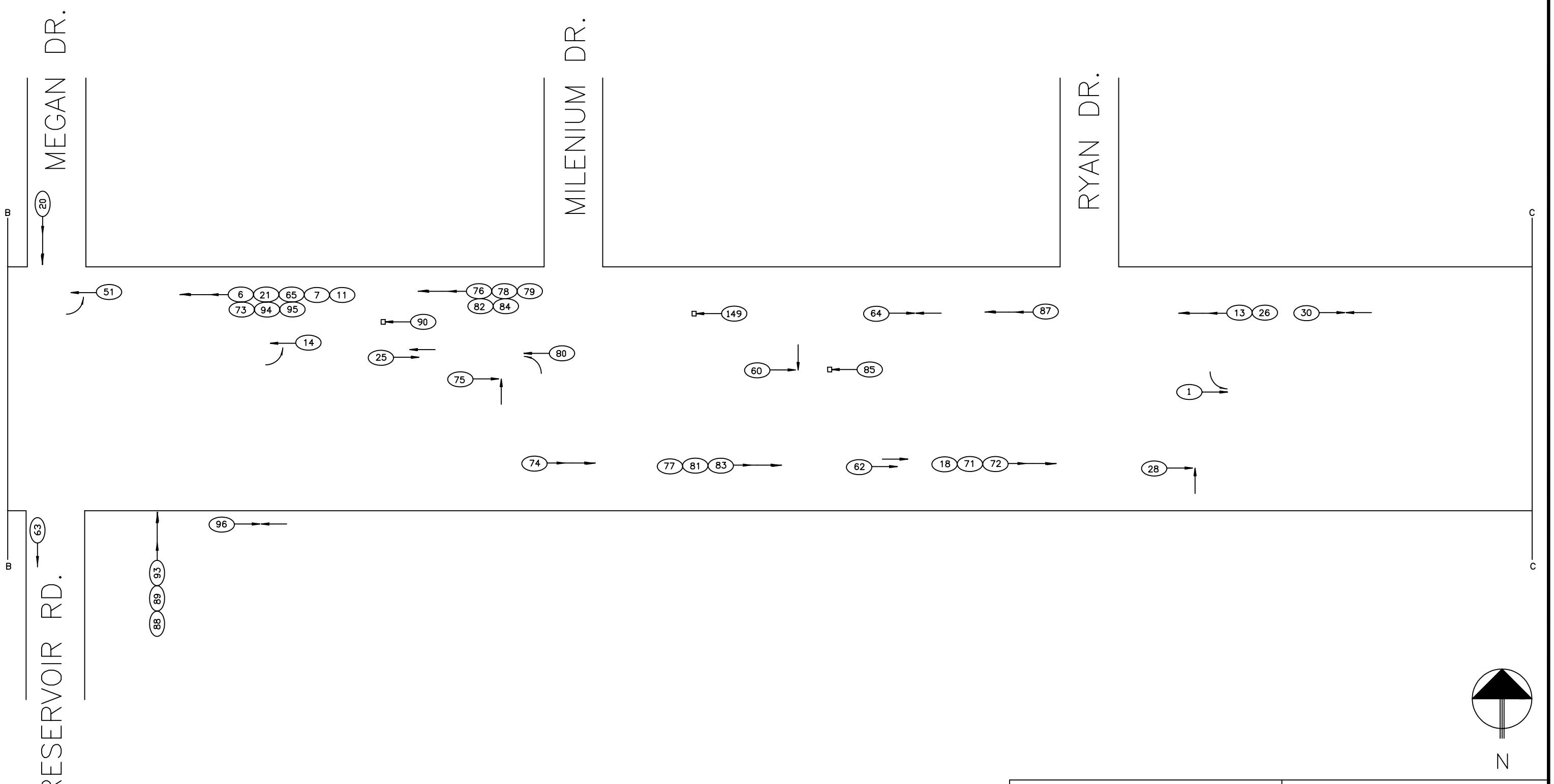


FIGURE XX

ACCIDENT DIAGRAM

ACCESS MANAGEMENT STUDY
VILLAGE OF GENESEO

SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants
3495 WINTON PLACE
585.272.4660
BUILDING E, SUITE 110
585.272.4662 fax

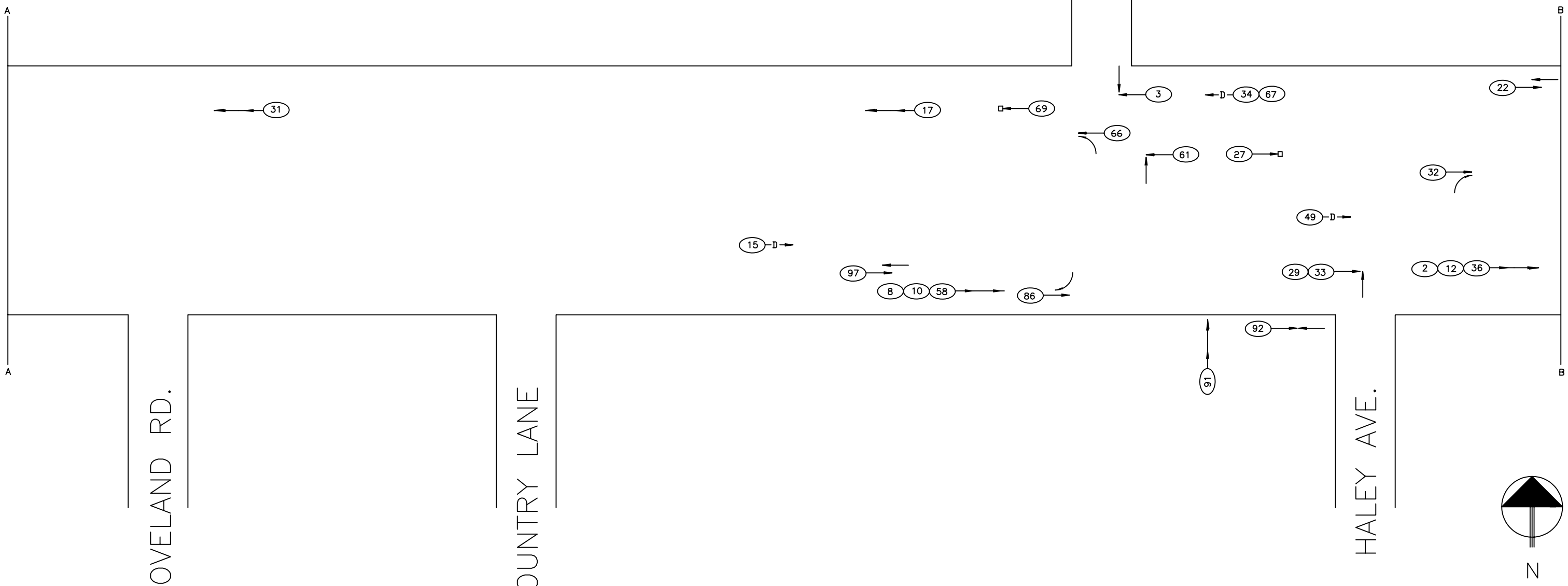
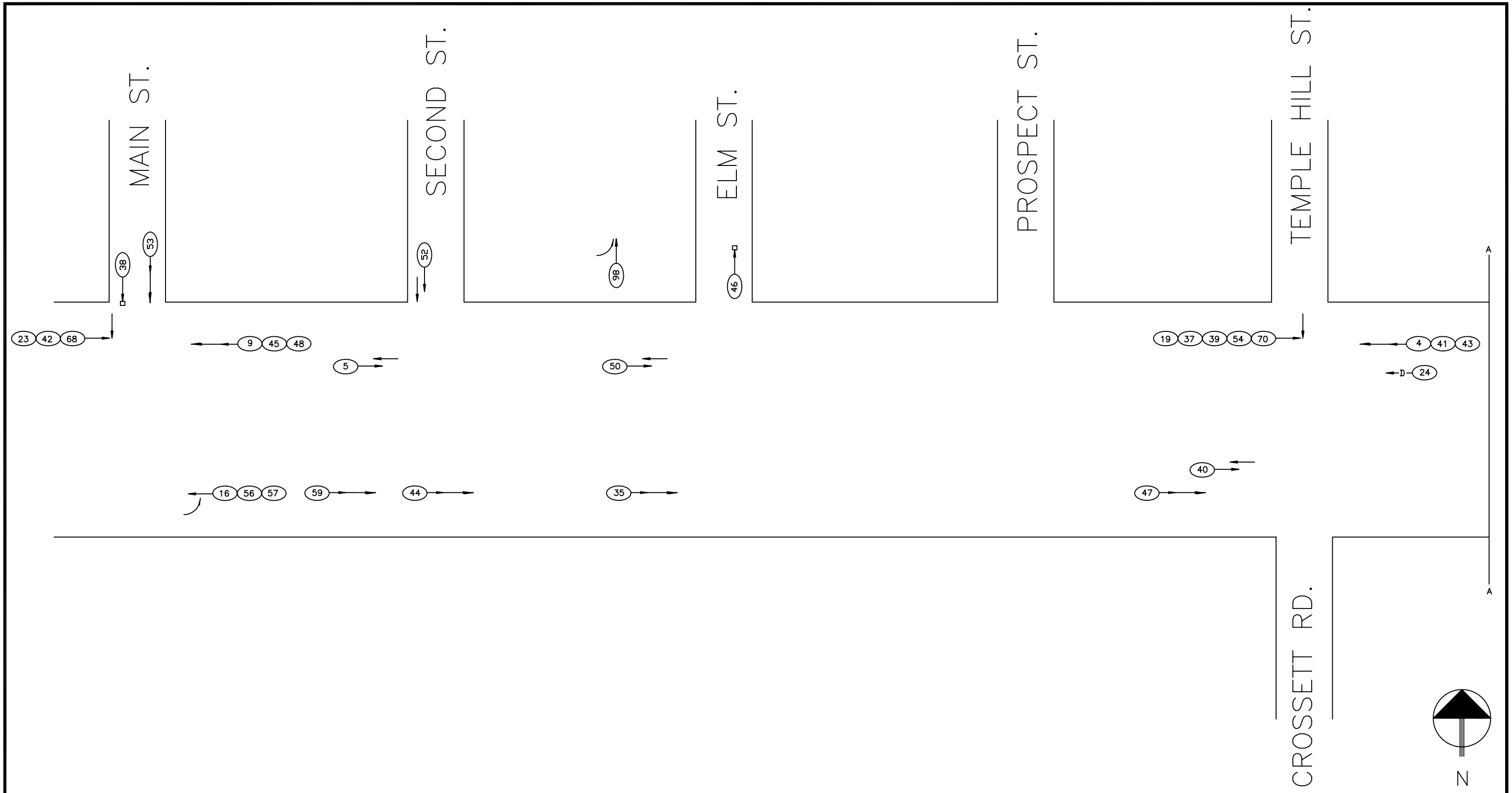


FIGURE XX

ACCIDENT DIAGRAM

ACCESS MANAGEMENT STUDY
VILLAGE OF GENESEO

SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants
3495 WINTON PLACE
585.272.4660
BUILDING E, SUITE 110
585.272.4662 fax



NOTE:

RECORD #55 WAS DELETED FROM THE DIAGRAM AND FROM THE ACCIDENT ANALYSIS DUE TO ERRONEOUS DATA.

FIGURE XX

ACCIDENT DIAGRAM

ACCESS MANAGEMENT STUDY
VILLAGE OF GENESEO

SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants
3495 WINTON PLACE
585.272.4660
BUILDING E, SUITE 110
585.272.4662 fax

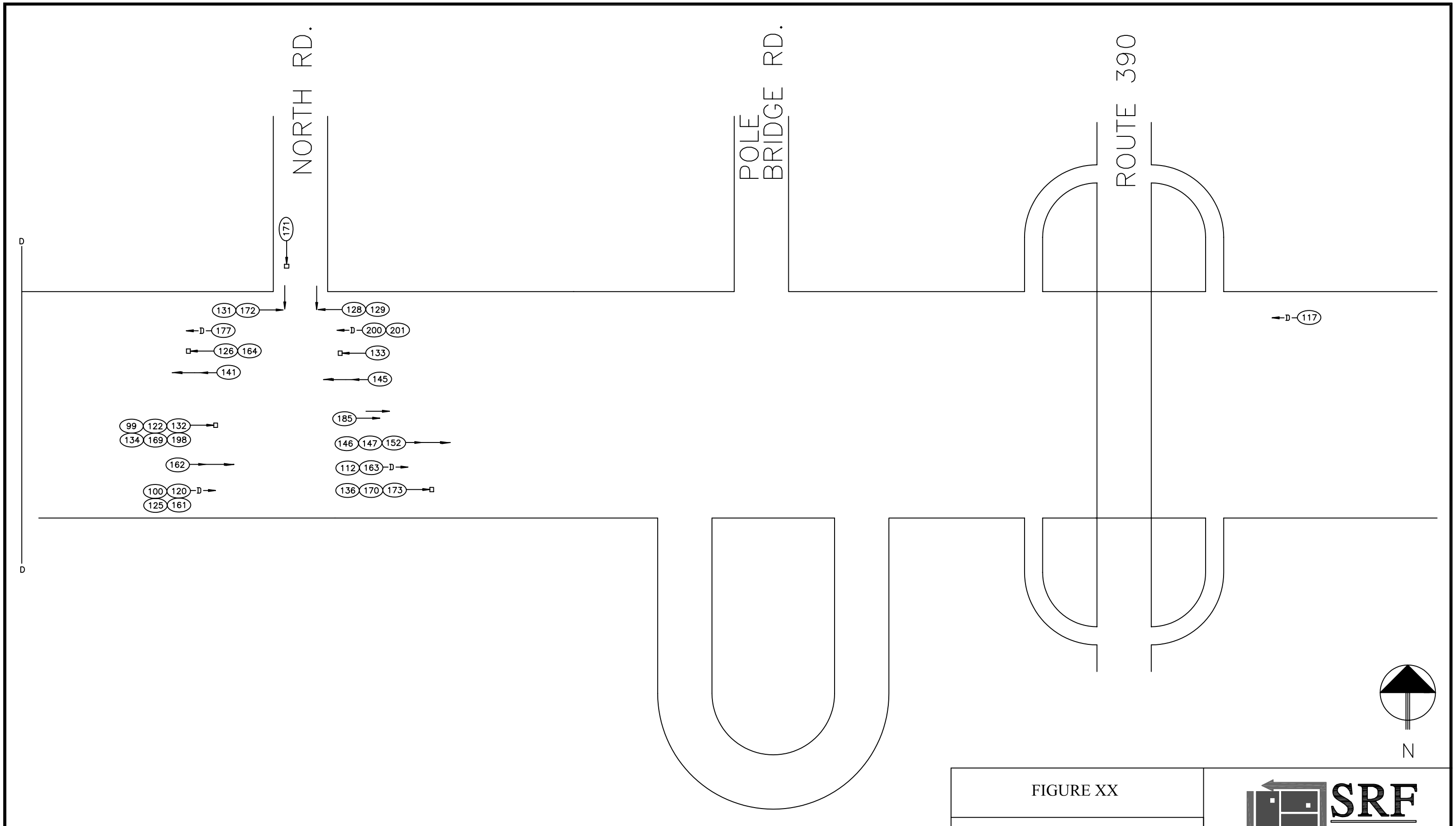


FIGURE XX

ACCIDENT DIAGRAM

ACCESS MANAGEMENT STUDY
VILLAGE OF GENESEO

SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants
3495 WINTON PLACE
585.272.4660
BUILDING E, SUITE 110
585.272.4662 fax

A4
CAPACITY ANALYSIS

Level of Service Criteria

Highway Capacity Manual 2000

SIGNALIZED INTERSECTIONS

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

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

UNSIGNALIZED INTERSECTIONS

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

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

Arterial Level of Service: EB Route 20a

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	15.8	6.6	22.4	0.11	18.0	D
Reservior Road	III	30	132.7	25.8	158.5	1.11	25.1	B
Wegmans Drive	III	30	78.4	23.4	101.8	0.65	23.1	C
Total	III		226.9	55.8	282.7	1.87	23.8	C

Arterial Level of Service: WB Route 20a

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Volunteer Road	III	30	275.5	25.0	300.5	2.30	27.5	B
Megan Drive	III	30	78.4	24.9	103.3	0.65	22.8	C
Main Street	III	30	132.7	38.3	171.0	1.11	23.3	C
Total	III		486.6	88.2	574.8	4.05	25.4	B

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	270			0	0	250
Storage Lanes	1			0	1	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.976			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1818	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1818	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			19			291
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		591	658		335	
Travel Time (s)		13.4	15.0		7.6	
Volume (vph)	143	366	549	122	399	268
Peak Hour Factor	0.85	0.85	0.84	0.84	0.92	0.92
Adj. Flow (vph)	168	431	654	145	434	291
Lane Group Flow (vph)	168	431	799	0	434	291
Turn Type	Prot					Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Detector Phases	7	4	8		6	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	21.0
Total Split (s)	16.0	58.0	42.0	0.0	22.0	22.0
Total Split (%)	20.0%	72.5%	52.5%	0.0%	27.5%	27.5%
Maximum Green (s)	13.0	53.0	37.0		17.0	17.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	0.0	2.0	2.0		2.0	2.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None		Max	Max
Walk Time (s)		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0
Act Effct Green (s)	10.2	49.7	35.4		18.2	18.2
Actuated g/C Ratio	0.13	0.65	0.47		0.24	0.24
v/c Ratio	0.71	0.35	0.93		1.02	0.48
Control Delay	49.2	6.6	38.3		83.3	6.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	49.2	6.6	38.3		83.3	6.6
LOS	D	A	D		F	A

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach Delay		18.6	38.3		52.5	
Approach LOS		B	D		D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 75.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 37.6 Intersection LOS: D
Intersection Capacity Utilization 76.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Route 20a & Main Street

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
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		0.971					0.996			0.886		
Flt Protected		0.999					0.994			0.995		
Satd. Flow (prot)	0	1807	0	0	0	0	1844	0	0	1642	0	0
Flt Permitted		0.999					0.994			0.995		
Satd. Flow (perm)	0	1807	0	0	0	0	1844	0	0	1642	0	0
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
Link Speed (mph)		30					30			30		
Link Distance (ft)		1804					141			980		
Travel Time (s)		41.0					3.2			22.3		
Volume (vph)	12	641	80	96	2	86	684	25	8	5	66	2
Peak Hour Factor	0.93	0.93	0.92	0.93	0.92	0.90	0.90	0.90	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	689	87	103	2	96	760	28	9	5	72	2
Lane Group Flow (vph)	0	892	0	0	0	0	886	0	0	88	0	0
Sign Control		Free					Free			Stop		

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 107.6% ICU Level of Service G
Analysis Period (min) 15

Lane Group	SBL2	SBL	SBT	SBR
Lane Configurations				
Ideal Flow (vphpl)	1900	1900	1900	1900
Turning Speed (mph)	15	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00
Frt			0.955	
Flt Protected			0.971	
Satd. Flow (prot)	0	0	1727	0
Flt Permitted			0.971	
Satd. Flow (perm)	0	0	1727	0
Headway Factor	1.00	1.00	1.00	1.00
Link Speed (mph)			30	
Link Distance (ft)			475	
Travel Time (s)			10.8	
Volume (vph)	22	15	4	20
Peak Hour Factor	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	16	4	22
Lane Group Flow (vph)	0	0	66	0
Sign Control			Stop	

Intersection Summary

Intersection has too many legs for HCM analysis.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.962	
Flt Protected				0.998	0.965	
Satd. Flow (prot)	1863	0	0	1859	1729	0
Flt Permitted				0.998	0.965	
Satd. Flow (perm)	1863	0	0	1859	1729	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	141			2006	171	
Travel Time (s)	3.2			45.6	3.9	
Volume (vph)	729	0	37	737	60	23
Peak Hour Factor	0.93	0.93	0.90	0.90	0.92	0.92
Adj. Flow (vph)	784	0	41	819	65	25
Lane Group Flow (vph)	784	0	0	860	90	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 80.3% ICU Level of Service D
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	729	0	37	737	60	23
Peak Hour Factor	0.93	0.93	0.90	0.90	0.92	0.92
Hourly flow rate (vph)	784	0	41	819	65	25
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			784		1685	784
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			784		1685	784
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		34	94
cM capacity (veh/h)			834		98	393

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	784	860	90
Volume Left	0	41	65
Volume Right	0	0	25
cSH	1700	834	124
Volume to Capacity	0.46	0.05	0.73
Queue Length 95th (ft)	0	4	102
Control Delay (s)	0.0	1.3	87.7
Lane LOS		A	F
Approach Delay (s)	0.0	1.3	87.7
Approach LOS			F

Intersection Summary

Average Delay 5.2
Intersection Capacity Utilization 80.3% ICU Level of Service D
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
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					0.975						0.984	
Flt Protected											0.958	
Satd. Flow (prot)	0	1863	0	0	1816	0	0	1863	1863	0	1756	0
Flt Permitted											0.958	
Satd. Flow (perm)	0	1863	0	0	1816	0	0	1863	1863	0	1756	0
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2006			1226			355			1485	
Travel Time (s)		45.6			27.9			8.1			33.8	
Volume (vph)	4	736	0	0	765	170	0	0	0	56	0	7
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	791	0	0	850	189	0	0	0	61	0	8
Lane Group Flow (vph)	0	795	0	0	1039	0	0	0	0	0	69	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 60.8% ICU Level of Service B
Analysis Period (min) 15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	4	736	0	0	765	170	0	0	0	56	0	7
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	791	0	0	850	189	0	0	0	61	0	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					1226							
pX, platoon unblocked	0.55						0.55	0.55		0.55	0.55	0.55
vC, conflicting volume	850			791			1752	1650	791	1744	1744	944
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	727			791			2369	2183	791	2355	2355	899
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	0	100	96
cM capacity (veh/h)	481			829			13	25	389	14	19	186

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	796	1039	0	0	68
Volume Left	4	0	0	0	61
Volume Right	0	189	0	0	8
cSH	481	829	1700	1700	15
Volume to Capacity	0.01	0.00	0.00	0.00	4.53
Queue Length 95th (ft)	1	0	0	0	Err
Control Delay (s)	0.3	0.0	0.0	0.0	Err
Lane LOS	A		A	A	F
Approach Delay (s)	0.3	0.0	0.0		Err
Approach LOS			A		F

Intersection Summary

Average Delay 359.9
Intersection Capacity Utilization 60.8% ICU Level of Service B
Analysis Period (min) 15

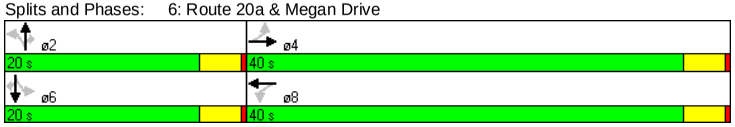
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	143		0	263		0	0		60	0		70
Storage Lanes	1		0	1		0	0		1	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
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		0.989			0.996				0.850			0.850
Flt Protected	0.950			0.950				0.955			0.957	
Satd. Flow (prot)	1770	1842	0	1770	1855	0	0	1779	1583	0	1783	1583
Flt Permitted	0.116			0.113				0.715			0.750	
Satd. Flow (perm)	216	1842	0	210	1855	0	0	1332	1583	0	1397	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4				14			42
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1226			1684			159			207	
Travel Time (s)		27.9			38.3			3.6			4.7	
Volume (vph)	35	823	64	4	833	21	103	7	13	36	4	38
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	38	885	69	4	926	23	114	8	14	40	4	42
Lane Group Flow (vph)	38	954	0	4	949	0	0	122	14	0	44	42
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phases	4	4		8	8		2	2	2	6	6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%
Maximum Green (s)	36.0	36.0		36.0	36.0		16.0	16.0	16.0	16.0	16.0	16.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
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		Max	Max	Max	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)	31.4	31.4		31.4	31.4			16.2	16.2		16.2	16.2
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.29	0.29		0.29	0.29
v/c Ratio	0.31	0.92		0.03	0.91			0.31	0.03		0.11	0.09
Control Delay	14.0	25.8		5.8	24.9			20.3	9.2		17.5	6.9
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	14.0	25.8		5.8	24.9			20.3	9.2		17.5	6.9
LOS	B	C		A	C			C	A		B	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		25.4			24.8			19.2			12.3	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 55.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 24.2 Intersection LOS: C
Intersection Capacity Utilization 66.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Route 20a & Megan Drive



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.998		0.903	
Flt Protected		0.999			0.986	
Satd. Flow (prot)	0	1861	1859	0	1659	0
Flt Permitted		0.999			0.986	
Satd. Flow (perm)	0	1861	1859	0	1659	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		1684	1765		634	
Travel Time (s)		38.3	40.1		14.4	
Volume (vph)	13	792	902	15	14	36
Peak Hour Factor	0.91	0.91	0.96	0.96	0.73	0.73
Adj. Flow (vph)	14	870	940	16	19	49
Lane Group Flow (vph)	0	884	956	0	68	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 62.1% ICU Level of Service B
Analysis Period (min) 15

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	13	792	902	15	14	36
Peak Hour Factor	0.91	0.91	0.96	0.96	0.73	0.73
Hourly flow rate (vph)	14	870	940	16	19	49
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	955				1846	947
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	955				1846	947
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				76	84
cM capacity (veh/h)	720				80	317

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	885	955	68
Volume Left	14	0	19
Volume Right	0	16	49
cSH	720	1700	174
Volume to Capacity	0.02	0.56	0.39
Queue Length 95th (ft)	2	0	43
Control Delay (s)	0.6	0.0	38.6
Lane LOS	A		E
Approach Delay (s)	0.6	0.0	38.6
Approach LOS			E

Intersection Summary

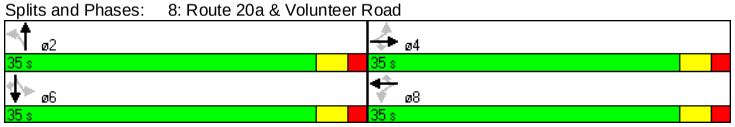
Average Delay 1.6
Intersection Capacity Utilization 62.1% ICU Level of Service B
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	357		357	530		380	85		0	234		234
Storage Lanes	1		1	1		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
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			0.850			0.850		0.925				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1723	0	1770	1863	1583
Flt Permitted	0.283			0.307			0.693			0.644		
Satd. Flow (perm)	527	1863	1583	572	1863	1583	1291	1723	0	1200	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			462			90		87				24
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1765			662			215			357	
Travel Time (s)		40.1			15.0			4.9			8.1	
Volume (vph)	18	433	397	31	476	81	406	78	78	35	89	22
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	21	503	462	34	529	90	451	87	87	39	99	24
Lane Group Flow (vph)	21	503	462	34	529	90	451	174	0	39	99	24
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0		20.0	20.0	20.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	0.0	35.0	35.0	35.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%	50.0%	50.0%
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0		30.0	30.0	30.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	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	Max	Max		Max	Max	Max
Act Effct Green (s)	23.2	23.2	23.2	23.2	23.2	23.2	31.3	31.3		31.3	31.3	31.3
Actuated g/C Ratio	0.37	0.37	0.37	0.37	0.37	0.37	0.50	0.50		0.50	0.50	0.50
v/c Ratio	0.11	0.73	0.53	0.16	0.77	0.14	0.70	0.19		0.06	0.11	0.03
Control Delay	13.4	23.4	3.8	14.3	25.0	3.6	22.0	6.4		10.7	10.6	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	13.4	23.4	3.8	14.3	25.0	3.6	22.0	6.4		10.7	10.6	5.0
LOS	B	C	A	B	C	A	C	A		B	B	A
Approach Delay		14.0			21.5			17.6			9.8	
Approach LOS		B			C			B			A	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 62.6
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 16.7 Intersection LOS: B
Intersection Capacity Utilization 61.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 8: Route 20a & Volunteer Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	400		0	0
Storage Lanes		0	1		1	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980				0.917	
Flt Protected			0.950		0.981	
Satd. Flow (prot)	1825	0	1770	1863	1676	0
Flt Permitted			0.950		0.981	
Satd. Flow (perm)	1825	0	1770	1863	1676	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	662			433	478	
Travel Time (s)	15.0			9.8	10.9	
Volume (vph)	467	79	121	529	59	94
Peak Hour Factor	0.86	0.86	0.90	0.90	0.89	0.89
Adj. Flow (vph)	543	92	134	588	66	106
Lane Group Flow (vph)	635	0	134	588	172	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 55.1% ICU Level of Service B
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	467	79	121	529	59	94
Peak Hour Factor	0.86	0.86	0.90	0.90	0.89	0.89
Hourly flow rate (vph)	543	92	134	588	66	106
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	662					
pX, platoon unblocked			0.76		0.76	0.76
vC, conflicting volume			635		1446	589
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			517		1589	457
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			83		11	77
cM capacity (veh/h)			793		74	457

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	635	134	588	172
Volume Left	0	134	0	66
Volume Right	92	0	0	106
cSH	1700	793	1700	153
Volume to Capacity	0.37	0.17	0.35	1.12
Queue Length 95th (ft)	0	15	0	232
Control Delay (s)	0.0	10.5	0.0	168.2
Lane LOS		B		F
Approach Delay (s)	0.0	1.9		168.2
Approach LOS				F

Intersection Summary

Average Delay 19.8
Intersection Capacity Utilization 55.1% ICU Level of Service B
Analysis Period (min) 15

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	265		0	100
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.989					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1842	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1842	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	433			2430	996	
Travel Time (s)	9.8			55.2	22.6	
Volume (vph)	516	45	94	601	49	118
Peak Hour Factor	0.83	0.83	0.93	0.93	0.85	0.85
Adj. Flow (vph)	622	54	101	646	58	139
Lane Group Flow (vph)	676	0	101	646	58	139
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 48.4% ICU Level of Service A
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	516	45	94	601	49	118
Peak Hour Factor	0.83	0.83	0.93	0.93	0.85	0.85
Hourly flow rate (vph)	622	54	101	646	58	139
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						4
Median type					None	
Median storage veh)						
Upstream signal (ft)	1095					
pX, platoon unblocked			0.86		0.86	0.86
vC, conflicting volume			676		1497	649
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			622		1579	591
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			88		36	68
cM capacity (veh/h)			823		90	435

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	676	101	646	196
Volume Left	0	101	0	58
Volume Right	54	0	0	139
cSH	1700	823	1700	308
Volume to Capacity	0.40	0.12	0.38	0.64
Queue Length 95th (ft)	0	10	0	102
Control Delay (s)	0.0	10.0	0.0	40.7
Lane LOS		A		E
Approach Delay (s)	0.0	1.4		40.7
Approach LOS				E

Intersection Summary

Average Delay 5.6
Intersection Capacity Utilization 48.4% ICU Level of Service A
Analysis Period (min) 15

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.996		0.908	
Flt Protected		0.997			0.984	
Satd. Flow (prot)	0	1857	1855	0	1664	0
Flt Permitted		0.997			0.984	
Satd. Flow (perm)	0	1857	1855	0	1664	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		2430	7291		1254	
Travel Time (s)		55.2	165.7		28.5	
Volume (vph)	36	603	660	18	15	31
Peak Hour Factor	0.91	0.91	0.87	0.87	0.82	0.82
Adj. Flow (vph)	40	663	759	21	18	38
Lane Group Flow (vph)	0	703	780	0	56	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 71.2% ICU Level of Service C
Analysis Period (min) 15

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	36	603	660	18	15	31
Peak Hour Factor	0.91	0.91	0.87	0.87	0.82	0.82
Hourly flow rate (vph)	40	663	759	21	18	38
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	779				1511	769
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	779				1511	769
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				85	91
cM capacity (veh/h)	838				126	401

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	702	779	56
Volume Left	40	0	18
Volume Right	0	21	38
cSH	838	1700	234
Volume to Capacity	0.05	0.46	0.24
Queue Length 95th (ft)	4	0	23
Control Delay (s)	1.2	0.0	25.1
Lane LOS	A		D
Approach Delay (s)	1.2	0.0	25.1
Approach LOS			D

Intersection Summary

Average Delay 1.5
Intersection Capacity Utilization 71.2% ICU Level of Service C
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
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		0.999			0.999			0.921			0.919	
Flt Protected		0.999			0.999			0.997			0.990	
Satd. Flow (prot)	0	1859	0	0	1859	0	0	1710	0	0	1695	0
Flt Permitted		0.999			0.999			0.997			0.990	
Satd. Flow (perm)	0	1859	0	0	1859	0	0	1710	0	0	1695	0
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		7291			1310			2214			1882	
Travel Time (s)		165.7			29.8			50.3			42.8	
Volume (vph)	7	606	3	17	655	4	1	6	10	3	3	10
Peak Hour Factor	0.90	0.90	0.90	0.86	0.86	0.86	0.47	0.47	0.47	0.66	0.66	0.66
Adj. Flow (vph)	8	673	3	20	762	5	2	13	21	5	5	15
Lane Group Flow (vph)	0	684	0	0	787	0	0	36	0	0	25	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 55.0% ICU Level of Service A
Analysis Period (min) 15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	7	606	3	17	655	4	1	6	10	3	3	10
Peak Hour Factor	0.90	0.90	0.90	0.86	0.86	0.86	0.47	0.47	0.47	0.66	0.66	0.66
Hourly flow rate (vph)	8	673	3	20	762	5	2	13	21	5	5	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	766			677			1511	1496	675	1522	1496	764
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	766			677			1511	1496	675	1522	1496	764
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			98	89	95	95	96	96
cM capacity (veh/h)	847			915			90	119	454	83	119	404

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	684	786	36	24
Volume Left	8	20	2	5
Volume Right	3	5	21	15
cSH	847	915	203	186
Volume to Capacity	0.01	0.02	0.18	0.13
Queue Length 95th (ft)	1	2	16	11
Control Delay (s)	0.2	0.6	26.5	27.3
Lane LOS	A	A	D	D
Approach Delay (s)	0.2	0.6	26.5	27.3
Approach LOS			D	D

Intersection Summary

Average Delay 1.5
Intersection Capacity Utilization 55.0% ICU Level of Service A
Analysis Period (min) 15

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	80
Storage Lanes		0	0		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.943					0.850
Flt Protected				0.985	0.950	
Satd. Flow (prot)	1757	0	0	1835	1770	1583
Flt Permitted				0.985	0.950	
Satd. Flow (perm)	1757	0	0	1835	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	1713			2428	1020	
Travel Time (s)	38.9			55.2	23.2	
Volume (vph)	121	87	46	107	94	26
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	134	97	51	119	104	29
Lane Group Flow (vph)	231	0	0	170	104	29
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 35.1% ICU Level of Service A
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	121	87	46	107	94	26
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	134	97	51	119	104	29
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						3
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			231		404	183
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			231		404	183
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		82	97
cM capacity (veh/h)			1337		580	860

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	231	170	133
Volume Left	0	51	104
Volume Right	97	0	29
cSH	1700	1337	740
Volume to Capacity	0.14	0.04	0.18
Queue Length 95th (ft)	0	3	16
Control Delay (s)	0.0	2.6	11.9
Lane LOS		A	B
Approach Delay (s)	0.0	2.6	11.9
Approach LOS			B

Intersection Summary

Average Delay 3.8
Intersection Capacity Utilization 35.1% ICU Level of Service A
Analysis Period (min) 15

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.890				0.994	
Flt Protected	0.991			0.993		
Satd. Flow (prot)	1643	0	0	1850	1852	0
Flt Permitted	0.991			0.993		
Satd. Flow (perm)	1643	0	0	1850	1852	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	411			335	1406	
Travel Time (s)	9.3			7.6	32.0	
Volume (vph)	43	194	35	230	473	21
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	216	38	250	514	23
Lane Group Flow (vph)	264	0	0	288	537	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 62.7% ICU Level of Service B
Analysis Period (min) 15

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	43	194	35	230	473	21
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	48	216	38	250	514	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				335		
pX, platoon unblocked						
vC, conflicting volume	852	526	537			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	852	526	537			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	85	61	96			
cM capacity (veh/h)	318	552	1031			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	263	288	537
Volume Left	48	38	0
Volume Right	216	0	23
cSH	487	1031	1700
Volume to Capacity	0.54	0.04	0.32
Queue Length 95th (ft)	79	3	0
Control Delay (s)	20.8	1.5	0.0
Lane LOS	C	A	
Approach Delay (s)	20.8	1.5	0.0
Approach LOS	C		

Intersection Summary

Average Delay 5.4
Intersection Capacity Utilization 62.7% ICU Level of Service B
Analysis Period (min) 15

Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	1863
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30		30			30
Link Distance (ft)	289		171			982
Travel Time (s)	6.6		3.9			22.3
Volume (vph)	0	99	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	108	0	0	0	0
Lane Group Flow (vph)	0	108	0	0	0	0
Sign Control	Yield		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 9.5% ICU Level of Service A
Analysis Period (min) 15

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Sign Control	Yield		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	99	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	108	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0	0			0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0	0			0	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	90			100	
cM capacity (veh/h)	1023	1085			1623	

Direction, Lane #	EB 1	SE 1	NW 1
Volume Total	108	0	0
Volume Left	0	0	0
Volume Right	108	0	0
cSH	1085	1700	1700
Volume to Capacity	0.10	0.00	0.00
Queue Length 95th (ft)	8	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

Intersection Summary

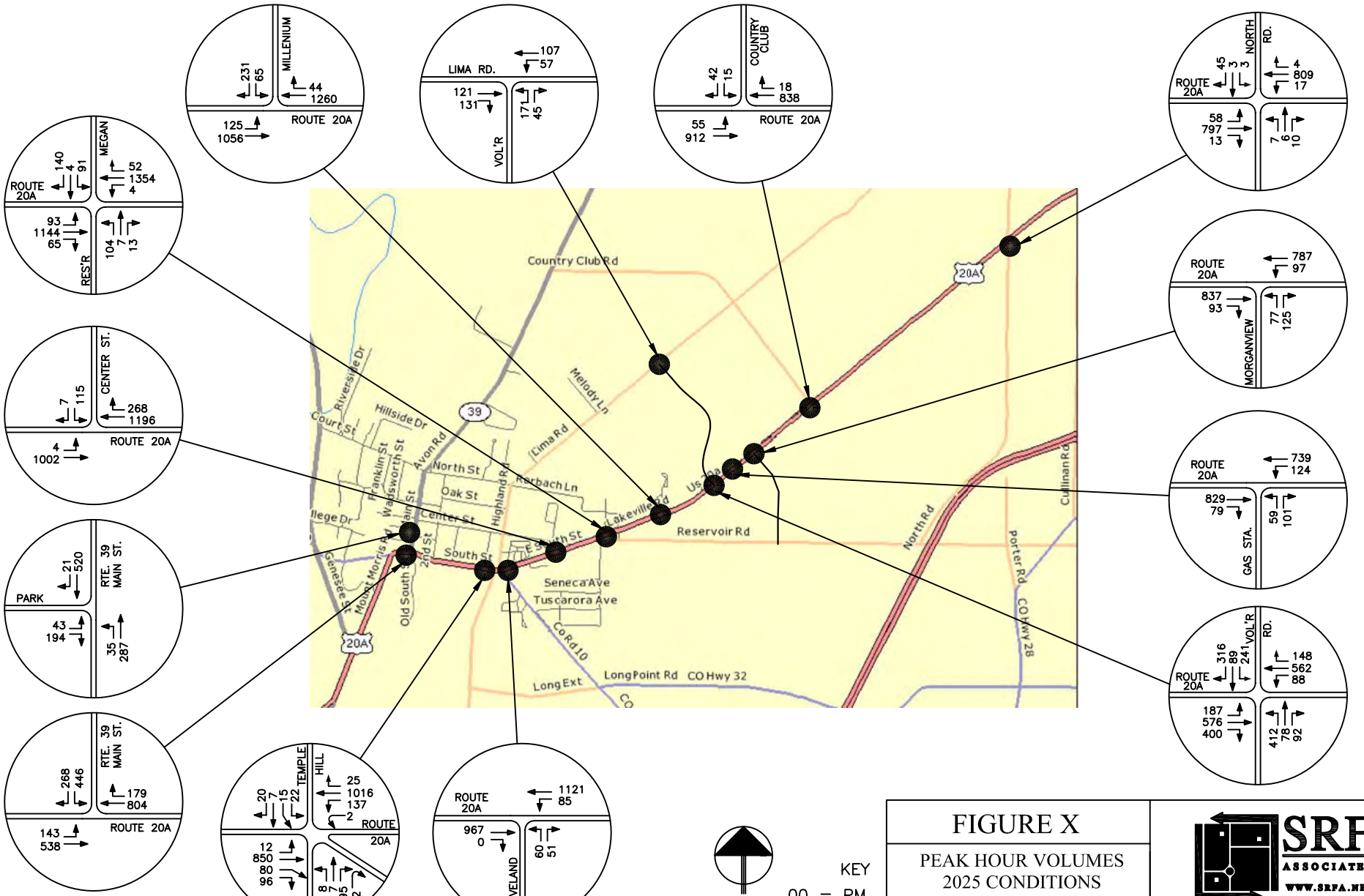
Average Delay 8.7
Intersection Capacity Utilization 9.5% ICU Level of Service A
Analysis Period (min) 15

GENESEO ACCESS MANAGEMENT PLAN
PM PEAK

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Parcels 2,3,4,5,6,7,8,9,10,11,12				Parcel 1				Parcels 13+14				Total trips	2025 volumes
			Dist. %		Enter	Exit	Dist. %		Enter	Exit	Dist. %		Enter	Exit		
			Enter	Exit	553	958	Enter	Exit	64	30	Enter	Exit	139	65		
1	North Road / Route 20a															
	SR	10	5%		28						5%		7		35	45
	ST	3														3
	SL	3														3
	WR	4														4
	WT	655	17%		94		18%		12		35%		49		154	809
	WL	17														17
	NR	10														10
	NT	6														6
	NL	1	1%		6										6	7
	ER	3		1%		10									10	13
	ET	606		17%		163		18%		5		35%		23	191	797
	EL	7		5%		48						5%		3	51	58
2	Country Club Road / Route 20a															
	SR	31	2%		11										11	42
	ST															
	SL	15														15
	WR	18														18
	WT	660	23%		127		18%		12			60%		39	178	838
	WL															
	NR															
	NT															
	NL															
	ER															
	ET	603		23%		220		18%		5	60%		83		309	912
	EL	36		2%		19									19	55
3	Morganview Road / Route 20a															
	SR															
	ST															
	SL															
	WR															
	WT	601	25%		138		18%		12			55%		36	186	787
	WL	94										5%		3	3	97
	NR	118									5%		7		7	125
	NT															
	NL	49	5%		28										28	77
	ER	45		5%		48									48	93
	ET	516		25%		240		18%		5	55%		76		321	837
	EL															
4	Gas Station-Plaza / Route 20a															
	SR															
	ST															
	SL															
	WR															
	WT	529	30%		166		18%		12			50%		33	210	739
	WL	121										5%		3	3	124
	NR	94									5%		7		7	101
	NT															
	NL	59														59
	ER	79														79
	ET	467		30%		287		18%		5	50%		70		362	829
	EL															
5	Volunteer Road / Route 20a															
	SR	22		30%		287	10%		6						294	316
	ST	89														89
	SL	35		20%		192					10%		14		206	241
	WR	31	20%		111							10%		7	117	148
	WT	476	10%		55		18%		12			30%		20	86	562
	WL	81										10%		7	7	88
	NR	78									10%		14		14	92
	NT	78														78
	NL	406					10%		6						6	412
	ER	397						10%		3					3	400
	ET	433		10%		96		18%		5	30%		42		143	576
	EL	18	30%		166			10%		3					169	187

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Parcels 2,3,4,5,6,7,8,9,10,11,12				Parcel 1				Parcels 13+14				Total trips	2025 volumes
			Dist. %		Enter	Exit	Dist. %		Enter	Exit	Dist. %		Enter	Exit		
			Enter	Exit	553	958	Enter	Exit	64	30	Enter	Exit	139	65		
6	Lima Road / Volunteer Road															
	SR															
	ST															
	SL															
	WR															
	WT	107														107
	WL	46	2%		11										11	57
	NR	26		2%		19									19	45
	NT															
	NL	94		8%		77									77	171
	ER	87	8%		44										44	131
	ET	121														121
	EL															
7	Millenium Drive / Route 20a															
	SR	36		20%		192	5%		3						195	231
	ST															
	SL	14		5%		48					2%		3		51	65
	WR	15	5%		28							2%		1	29	44
	WT	902	5%	30%	28	287	38%		24			28%		18	358	1260
	WL															
	NR															
	NT															
	NL															
	ER															
	ET	792	30%	5%	166	48		38%		11	28%		39		264	1056
	EL	13	20%		111			5%		2					112	125
8	Megan-Reservior Rd/ Route 20a															
	SR	38		10%		96	10%		6						102	140
	ST	4														4
	SL	36		5%		48					5%		7		55	91
	WR	21	5%		28							5%		3	31	52
	WT	833		50%		479	43%		28			23%		15	521	1354
	WL	4														4
	NR	13														13
	NT	7														7
	NL	103					2%		1						1	104
	ER	64						2%		1					1	65
	ET	823	50%		277			43%		13	23%		32		321	1144
	EL	35	10%		55			10%		3					58	93
9	Center Street / Route 20a															
	SR	7														7
	ST															
	SL	56	10%		55						3%		4		59	115
	WR	170		10%		96						3%		2	98	268
	WT	765		40%		383	55%		35			20%		13	431	1196
	WL															
	NR															
	NT															
	NL															
	ER															
	ET	736	40%		221			55%		17	20%		28		266	1002
	EL	4														4
10	Groveland / Route 20a															
	SR															
	ST															
	SL															
	WR															
	WT	737		35%		335	55%		35			20%		13	384	1121
	WL	37		5%		48									48	85
	NR	23	5%		28										28	51
	NT															
	NL	60														60
	ER															
	ET	729	35%		194			55%		17	20%		28		238	967
	EL															

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Parcels 2,3,4,5,6,7,8,9,10,11,12				Parcel 1				Parcels 13+14				Total trips	2025 volumes
			Dist. %		Enter	Exit	Dist. %		Enter	Exit	Dist. %		Enter	Exit		
			Enter	Exit	553	958	Enter	Exit	64	30	Enter	Exit	139	65		
11	Crossett / Route 20a															
	SR	20														20
	ST	4					5%		3						3	7
	SL	15														15
	SL2	22														22
	WR	25														25
	WT	684		30%		287	50%		32			20%		13	332	1016
	WL	86		5%		48	5%		3						51	137
	WL2	2														2
	NR2	2														2
	NR	66	5%		28			5%		2					29	95
	NT	5						5%		2					2	7
	NL	8														8
	ER2	96														96
	ER	80														80
	ET	641	30%		166			50%		15	20%		28		209	850
	EL	12														12
12	Main Street / Route 20a															
	SR	268														268
	ST															
	SL	399	5%		28		20%		13		5%		7		47	446
	WR	122		5%		48		20%		6		5%		3	57	179
	WT	549		25%		240		20%		6		15%		10	255	804
	WL															
	NR															
	NT															
	NL															
	ER															
	ET	366	25%		138		20%		13		15%		21		172	538
	EL	143														143
13	Park / Main Street															
	SR	21														21
	ST	473	5%		28		20%		13		5%		7		47	520
	SL															
	WR															
	WT															
	WL															
	NR															
	NT	230		5%		48		20%		6		5%		3	57	287
	NL	35														35
	ER	194														194
	ET															
	EL	43														43


MILLENIUM
231
65
44
1260
125
1056
ROUTE 20A
LIMA RD.
107
57
121
131
VOL'R
171
45
COUNTRY CLUB
42
15
18
838
55
912
ROUTE 20A
NORTH RD.
ROUTE 20A
45
3
3
4
809
17
58
797
13
7
6
10
MEGAN
ROUTE 20A
140
4
91
52
1354
4
93
1144
65
RES'R
104
7
13
ROUTE 20A
787
97
837
93
MORGANVIEW
77
125
CENTER ST.
7
115
268
1196
4
1002
ROUTE 20A
ROUTE 20A
739
124
829
79
GAS STA.
59
101
PARK
21
520
RTE. 39
MAIN ST.
43
194
35
287
ROUTE 20A
316
89
241
VOL'R
RD.
148
562
88
RTE. 39
MAIN ST.
268
446
179
804
143
538
ROUTE 20A
187
576
400
412
78
92
TEMPLE HILL
20
7
15
22
25
1016
137
2
ROUTE 20A
12
850
80
96
CROSSETT
8
7
95
2
ROUTE 20A
1121
85
967
0
GROVELAND
60
51
Country Club Rd
Riverside Dr
Hillside Dr
Court St
39
Melody Ln
Lima Rd
Avon Rd
North St
Franklin St
Wadsworth St
Oak St
Center St
Highland Rd
Rerbach Ln
Lakeville Rd
Reservoir Rd
South St
Seneca Ave
Tuscarora Ave
Old South 2nd St
Genesee St
Mount Morris Rd
20A
CoRd 10
Long Ext
Long Point Rd
CO Hwy 32
North Rd
Porter Rd
CO Hwy 28
Cullinan Rd
N
KEY
00 = PM
FIGURE X
PEAK HOUR VOLUMES
2025 CONDITIONS
ROUTE 20A
TOWN/VILLAGE OF GENESEO, NEW YORK
SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants
3495 WINTON PLACE
585.272.4660
BUILDING E, SUITE 110
585.272.4662 fax

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	270			0	0	250
Storage Lanes	1			0	1	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.975			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1816	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1816	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			19			291
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		591	658		335	
Travel Time (s)		13.4	15.0		7.6	
Volume (vph)	143	538	804	179	446	268
Peak Hour Factor	0.85	0.85	0.90	0.90	0.92	0.92
Adj. Flow (vph)	168	633	893	199	485	291
Lane Group Flow (vph)	168	633	1092	0	485	291
Turn Type	Prot					Perm
Protected Phases	7	4	8		6	
Permitted Phases						6
Detector Phases	7	4	8		6	6
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	9.0	21.0	21.0		21.0	21.0
Total Split (s)	16.0	58.0	42.0	0.0	22.0	22.0
Total Split (%)	20.0%	72.5%	52.5%	0.0%	27.5%	27.5%
Maximum Green (s)	13.0	53.0	37.0		17.0	17.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	0.0	2.0	2.0		2.0	2.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None		Max	Max
Walk Time (s)		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0
Act Effct Green (s)	10.4	52.5	38.0		18.0	18.0
Actuated g/C Ratio	0.13	0.67	0.48		0.23	0.23
v/c Ratio	0.71	0.51	1.23		1.19	0.49
Control Delay	50.1	8.2	134.8		139.4	6.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	50.1	8.2	134.8		139.4	6.8
LOS	D	A	F		F	A

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach Delay		17.0	134.8		89.7	
Approach LOS		B	F		F	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 78.5
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.23
Intersection Signal Delay: 86.3 Intersection LOS: F
Intersection Capacity Utilization 95.8% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 1: Route 20a & Main Street

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
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		0.977					0.997			0.884		
Flt Protected		0.999					0.994			0.996		
Satd. Flow (prot)	0	1818	0	0	0	0	1846	0	0	1640	0	0
Flt Permitted		0.999					0.994			0.996		
Satd. Flow (perm)	0	1818	0	0	0	0	1846	0	0	1640	0	0
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
Link Speed (mph)		30					30			30		
Link Distance (ft)		1804					141			980		
Travel Time (s)		41.0					3.2			22.3		
Volume (vph)	12	850	80	96	2	137	1016	25	8	7	95	2
Peak Hour Factor	0.93	0.93	0.92	0.93	0.92	0.90	0.90	0.90	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	914	87	103	2	152	1129	28	9	8	103	2
Lane Group Flow (vph)	0	1117	0	0	0	0	1311	0	0	122	0	0
Sign Control		Free					Free			Stop		

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 139.1% ICU Level of Service H
Analysis Period (min) 15

Lane Group	SBL2	SBL	SBT	SBR
Lane Configurations				
Ideal Flow (vphpl)	1900	1900	1900	1900
Turning Speed (mph)	15	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00
Frt			0.958	
Flt Protected			0.972	
Satd. Flow (prot)	0	0	1735	0
Flt Permitted			0.972	
Satd. Flow (perm)	0	0	1735	0
Headway Factor	1.00	1.00	1.00	1.00
Link Speed (mph)			30	
Link Distance (ft)			475	
Travel Time (s)			10.8	
Volume (vph)	22	15	7	20
Peak Hour Factor	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	16	8	22
Lane Group Flow (vph)	0	0	70	0
Sign Control			Stop	

Intersection Summary

Intersection has too many legs for HCM analysis.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.938	
Flt Protected				0.997	0.974	
Satd. Flow (prot)	1863	0	0	1857	1702	0
Flt Permitted				0.997	0.974	
Satd. Flow (perm)	1863	0	0	1857	1702	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	141			2006	171	
Travel Time (s)	3.2			45.6	3.9	
Volume (vph)	967	0	85	1121	60	51
Peak Hour Factor	0.93	0.93	0.90	0.90	0.92	0.92
Adj. Flow (vph)	1040	0	94	1246	65	55
Lane Group Flow (vph)	1040	0	0	1340	120	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 131.0% ICU Level of Service H
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	967	0	85	1121	60	51
Peak Hour Factor	0.93	0.93	0.90	0.90	0.92	0.92
Hourly flow rate (vph)	1040	0	94	1246	65	55
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1040		2474	1040
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1040		2474	1040
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			86		0	80
cM capacity (veh/h)			669		28	280

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	1040	1340	121
Volume Left	0	94	65
Volume Right	0	0	55
cSH	1700	669	48
Volume to Capacity	0.61	0.14	2.50
Queue Length 95th (ft)	0	12	316
Control Delay (s)	0.0	6.3	863.7
Lane LOS		A	F
Approach Delay (s)	0.0	6.3	863.7
Approach LOS			F

Intersection Summary

Average Delay 45.1
Intersection Capacity Utilization 131.0% ICU Level of Service H
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
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					0.975			0.955			0.992	
Flt Protected								0.984			0.955	
Satd. Flow (prot)	0	1863	0	0	1816	0	0	1750	0	0	1765	0
Flt Permitted								0.984			0.955	
Satd. Flow (perm)	0	1863	0	0	1816	0	0	1750	0	0	1765	0
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2006			1226			355			1485	
Travel Time (s)		45.6			27.9			8.1			33.8	
Volume (vph)	4	1002	0	0	1196	268	10	10	10	115	0	7
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	1077	0	0	1329	298	11	11	11	125	0	8
Lane Group Flow (vph)	0	1081	0	0	1627	0	0	33	0	0	133	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 99.4% ICU Level of Service F
Analysis Period (min) 15

Geneseo Access Management
5: Route 20a & Center Street
Future 2025 PM no build
10/17/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	4	1002	0	0	1196	268	10	10	10	115	0	7
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	1077	0	0	1329	298	11	11	11	125	0	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					1226							
pX, platoon unblocked	0.43						0.43	0.43		0.43	0.43	0.43
vC, conflicting volume	1329			1077			2571	2415	1077	2580	2564	1478
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1759			1077			4627	4266	1077	4647	4609	2103
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			0	0	96	0	100	73
cM capacity (veh/h)	154			647			0	1	266	0	0	28

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	1082	1627	33	133
Volume Left	4	0	11	125
Volume Right	0	298	11	8
cSH	154	647	0	0
Volume to Capacity	0.03	0.00	84.44	Err
Queue Length 95th (ft)	2	0	Err	Err
Control Delay (s)	2.3	0.0	Err	Err
Lane LOS	A		F	F
Approach Delay (s)	2.3	0.0	Err	Err
Approach LOS			F	F

Intersection Summary

Average Delay		Err		
Intersection Capacity Utilization	99.4%	ICU Level of Service	F	
Analysis Period (min)	15			

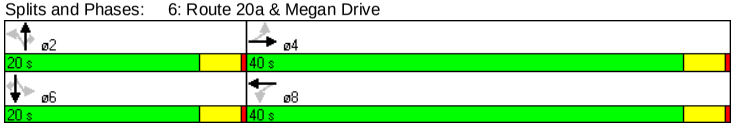
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	143		0	263		0	0		60	0		70
Storage Lanes	1		0	1		0	0		1	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
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		0.992			0.994				0.850			0.850
Flt Protected	0.950			0.950				0.955			0.954	
Satd. Flow (prot)	1770	1848	0	1770	1852	0	0	1779	1583	0	1777	1583
Flt Permitted	0.111			0.111				0.673			0.665	
Satd. Flow (perm)	207	1848	0	207	1852	0	0	1254	1583	0	1239	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			6				14			37
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1226			1684			159			207	
Travel Time (s)		27.9			38.3			3.6			4.7	
Volume (vph)	93	1144	65	4	1354	52	104	7	13	91	4	140
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	100	1230	70	4	1504	58	116	8	14	101	4	156
Lane Group Flow (vph)	100	1300	0	4	1562	0	0	124	14	0	105	156
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phases	4	4		8	8		2	2	2	6	6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%
Maximum Green (s)	36.0	36.0		36.0	36.0		16.0	16.0	16.0	16.0	16.0	16.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
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		Max	Max	Max	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)	36.0	36.0		36.0	36.0			16.0	16.0		16.0	16.0
Actuated g/C Ratio	0.60	0.60		0.60	0.60			0.27	0.27		0.27	0.27
v/c Ratio	0.81	1.17		0.03	1.40			0.37	0.03		0.32	0.35
Control Delay	60.7	102.9		5.8	204.8			21.9	9.2		20.9	16.2
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	60.7	102.9		5.8	204.8			21.9	9.2		20.9	16.2
LOS	E	F		A	F			C	A		C	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		99.9			204.3			20.6			18.1	
Approach LOS		F			F			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.40
Intersection Signal Delay: 138.9 Intersection LOS: F
Intersection Capacity Utilization 99.2% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 6: Route 20a & Megan Drive



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.895	
Flt Protected		0.995			0.989	
Satd. Flow (prot)	0	1853	1853	0	1649	0
Flt Permitted		0.995			0.989	
Satd. Flow (perm)	0	1853	1853	0	1649	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		1684	1765		634	
Travel Time (s)		38.3	40.1		14.4	
Volume (vph)	125	1056	1260	44	65	231
Peak Hour Factor	0.91	0.91	0.96	0.96	0.90	0.90
Adj. Flow (vph)	137	1160	1313	46	72	257
Lane Group Flow (vph)	0	1297	1358	0	329	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 159.3% ICU Level of Service H
Analysis Period (min) 15

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	125	1056	1260	44	65	231
Peak Hour Factor	0.91	0.91	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	137	1160	1312	46	72	257
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1358				2771	1335
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1358				2771	1335
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	73				0	0
cM capacity (veh/h)	506				15	188

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	1298	1358	329
Volume Left	137	0	72
Volume Right	0	46	257
cSH	506	1700	54
Volume to Capacity	0.27	0.80	6.04
Queue Length 95th (ft)	27	0	Err
Control Delay (s)	12.8	0.0	Err
Lane LOS	B		F
Approach Delay (s)	12.8	0.0	Err
Approach LOS			F

Intersection Summary

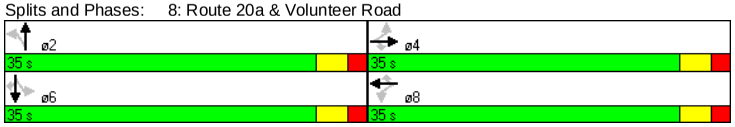
Average Delay 1107.3
Intersection Capacity Utilization 159.3% ICU Level of Service H
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	357		357	530		380	85		0	234		234
Storage Lanes	1		1	1		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
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			0.850			0.850		0.919				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1712	0	1770	1863	1583
Flt Permitted	0.198			0.157			0.693			0.627		
Satd. Flow (perm)	369	1863	1583	292	1863	1583	1291	1712	0	1168	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			465			164		102				172
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1765			662			215			357	
Travel Time (s)		40.1			15.0			4.9			8.1	
Volume (vph)	187	576	400	88	562	148	412	78	92	241	89	316
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	217	670	465	98	624	164	458	87	102	268	99	351
Lane Group Flow (vph)	217	670	465	98	624	164	458	189	0	268	99	351
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	4	4	4	8	8	8	2	2		6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0		20.0	20.0	20.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	0.0	35.0	35.0	35.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%	50.0%	50.0%
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0		30.0	30.0	30.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	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	Max	Max		Max	Max	Max
Act Effct Green (s)	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0		31.0	31.0	31.0
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44		0.44	0.44	0.44
v/c Ratio	1.33	0.81	0.48	0.76	0.76	0.21	0.80	0.23		0.52	0.12	0.44
Control Delay	209.0	27.0	3.3	57.1	23.8	3.0	30.1	6.7		18.6	12.0	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	209.0	27.0	3.3	57.1	23.8	3.0	30.1	6.7		18.6	12.0	8.6
LOS	F	C	A	E	C	A	C	A		B	B	A
Approach Delay		48.0			23.6			23.3			12.8	
Approach LOS		D			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.33
Intersection Signal Delay: 30.6 Intersection LOS: C
Intersection Capacity Utilization 82.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 8: Route 20a & Volunteer Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	400		0	0
Storage Lanes		0	1		1	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.988				0.915	
Flt Protected			0.950		0.982	
Satd. Flow (prot)	1840	0	1770	1863	1674	0
Flt Permitted			0.950		0.982	
Satd. Flow (perm)	1840	0	1770	1863	1674	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	662			433	478	
Travel Time (s)	15.0			9.8	10.9	
Volume (vph)	829	79	124	739	59	101
Peak Hour Factor	0.86	0.86	0.90	0.90	0.89	0.89
Adj. Flow (vph)	964	92	138	821	66	113
Lane Group Flow (vph)	1056	0	138	821	179	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 74.8% ICU Level of Service D
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	829	79	124	739	59	101
Peak Hour Factor	0.86	0.86	0.90	0.90	0.89	0.89
Hourly flow rate (vph)	964	92	138	821	66	113
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	662					
pX, platoon unblocked			0.59		0.59	0.59
vC, conflicting volume			1056		2107	1010
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1094		2863	1017
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			64		0	34
cM capacity (veh/h)			379		7	171

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1056	138	821	180
Volume Left	0	138	0	66
Volume Right	92	0	0	113
cSH	1700	379	1700	18
Volume to Capacity	0.62	0.36	0.48	10.16
Queue Length 95th (ft)	0	41	0	Err
Control Delay (s)	0.0	19.8	0.0	Err
Lane LOS		C		F
Approach Delay (s)	0.0	2.8		Err
Approach LOS				F

Intersection Summary

Average Delay 820.4
Intersection Capacity Utilization 74.8% ICU Level of Service D
Analysis Period (min) 15

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	265		0	100
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.986					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1837	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1837	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	433			2430	996	
Travel Time (s)	9.8			55.2	22.6	
Volume (vph)	837	93	97	787	77	125
Peak Hour Factor	0.83	0.83	0.93	0.93	0.85	0.85
Adj. Flow (vph)	1008	112	104	846	91	147
Lane Group Flow (vph)	1120	0	104	846	91	147
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 69.3% ICU Level of Service C
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	837	93	97	787	77	125
Peak Hour Factor	0.83	0.83	0.93	0.93	0.85	0.85
Hourly flow rate (vph)	1008	112	104	846	91	147
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						4
Median type					None	
Median storage veh)						
Upstream signal (ft)	1095					
pX, platoon unblocked			0.69		0.69	0.69
vC, conflicting volume			1120		2119	1064
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1175		2624	1094
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			75		0	18
cM capacity (veh/h)			410		14	179

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1120	104	846	238
Volume Left	0	104	0	91
Volume Right	112	0	0	147
cSH	1700	410	1700	32
Volume to Capacity	0.66	0.25	0.50	7.46
Queue Length 95th (ft)	0	25	0	Err
Control Delay (s)	0.0	16.8	0.0	Err
Lane LOS		C		F
Approach Delay (s)	0.0	1.8		Err
Approach LOS				F

Intersection Summary

Average Delay 1030.0
Intersection Capacity Utilization 69.3% ICU Level of Service C
Analysis Period (min) 15

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.997		0.900	
Flt Protected		0.997			0.987	
Satd. Flow (prot)	0	1857	1857	0	1655	0
Flt Permitted		0.997			0.987	
Satd. Flow (perm)	0	1857	1857	0	1655	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		2430	7291		1254	
Travel Time (s)		55.2	165.7		28.5	
Volume (vph)	55	912	838	18	15	42
Peak Hour Factor	0.91	0.91	0.87	0.87	0.82	0.82
Adj. Flow (vph)	60	1002	963	21	18	51
Lane Group Flow (vph)	0	1062	984	0	69	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 103.1% ICU Level of Service G
Analysis Period (min) 15

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	55	912	838	18	15	42
Peak Hour Factor	0.91	0.91	0.87	0.87	0.82	0.82
Hourly flow rate (vph)	60	1002	963	21	18	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	984				2097	974
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	984				2097	974
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				65	83
cM capacity (veh/h)	702				52	306

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	1063	984	70
Volume Left	60	0	18
Volume Right	0	21	51
cSH	702	1700	134
Volume to Capacity	0.09	0.58	0.52
Queue Length 95th (ft)	7	0	62
Control Delay (s)	2.7	0.0	57.5
Lane LOS	A		F
Approach Delay (s)	2.7	0.0	57.5
Approach LOS			F

Intersection Summary

Average Delay 3.2
Intersection Capacity Utilization 103.1% ICU Level of Service G
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
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		0.998			0.999			0.942			0.882	
Flt Protected		0.997			0.999			0.985			0.997	
Satd. Flow (prot)	0	1853	0	0	1859	0	0	1728	0	0	1638	0
Flt Permitted		0.997			0.999			0.985			0.997	
Satd. Flow (perm)	0	1853	0	0	1859	0	0	1728	0	0	1638	0
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		7291			1310			2214			1882	
Travel Time (s)		165.7			29.8			50.3			42.8	
Volume (vph)	58	797	13	17	809	4	7	6	10	3	3	45
Peak Hour Factor	0.90	0.90	0.90	0.86	0.86	0.86	0.47	0.47	0.47	0.66	0.66	0.66
Adj. Flow (vph)	64	886	14	20	941	5	15	13	21	5	5	68
Lane Group Flow (vph)	0	964	0	0	966	0	0	49	0	0	78	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	58	797	13	17	809	4	7	6	10	3	3	45
Peak Hour Factor	0.90	0.90	0.90	0.86	0.86	0.86	0.47	0.47	0.47	0.66	0.66	0.66
Hourly flow rate (vph)	64	886	14	20	941	5	15	13	21	5	5	68
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	945			900			2075	2007	893	2032	2011	943
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	945			900			2075	2007	893	2032	2011	943
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			97			44	76	94	85	91	79
cM capacity (veh/h)	726			755			26	53	340	30	52	318

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	964	965	49	77
Volume Left	64	20	15	5
Volume Right	14	5	21	68
cSH	726	755	56	170
Volume to Capacity	0.09	0.03	0.87	0.45
Queue Length 95th (ft)	7	2	96	53
Control Delay (s)	2.5	0.8	199.6	42.7
Lane LOS	A	A	F	E
Approach Delay (s)	2.5	0.8	199.6	42.7
Approach LOS			F	E

Intersection Summary

Average Delay 7.9
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	80
Storage Lanes		0	0		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.930					0.850
Flt Protected				0.983	0.950	
Satd. Flow (prot)	1732	0	0	1831	1770	1583
Flt Permitted				0.983	0.950	
Satd. Flow (perm)	1732	0	0	1831	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	1713			2428	1020	
Travel Time (s)	38.9			55.2	23.2	
Volume (vph)	121	131	57	107	171	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	134	146	63	119	190	50
Lane Group Flow (vph)	280	0	0	182	190	50
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 42.6% ICU Level of Service A
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	121	131	57	107	171	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	134	146	63	119	190	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						3
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			280		453	207
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			280		453	207
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		65	94
cM capacity (veh/h)			1283		537	833

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	280	182	240
Volume Left	0	63	190
Volume Right	146	0	50
cSH	1700	1283	678
Volume to Capacity	0.16	0.05	0.35
Queue Length 95th (ft)	0	4	40
Control Delay (s)	0.0	3.0	14.1
Lane LOS		A	B
Approach Delay (s)	0.0	3.0	14.1
Approach LOS			B

Intersection Summary

Average Delay 5.6
Intersection Capacity Utilization 42.6% ICU Level of Service A
Analysis Period (min) 15

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.890				0.995	
Flt Protected	0.991			0.995		
Satd. Flow (prot)	1643	0	0	1853	1853	0
Flt Permitted	0.991			0.995		
Satd. Flow (perm)	1643	0	0	1853	1853	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	411			335	1406	
Travel Time (s)	9.3			7.6	32.0	
Volume (vph)	43	194	35	287	520	21
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	216	38	312	565	23
Lane Group Flow (vph)	264	0	0	350	588	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 65.4% ICU Level of Service C
Analysis Period (min) 15

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	43	194	35	287	520	21
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	48	216	38	312	565	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				335		
pX, platoon unblocked						
vC, conflicting volume	965	577	588			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	965	577	588			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	82	58	96			
cM capacity (veh/h)	272	516	987			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	263	350	588
Volume Left	48	38	0
Volume Right	216	0	23
cSH	444	987	1700
Volume to Capacity	0.59	0.04	0.35
Queue Length 95th (ft)	94	3	0
Control Delay (s)	24.2	1.3	0.0
Lane LOS	C	A	
Approach Delay (s)	24.2	1.3	0.0
Approach LOS	C		

Intersection Summary

Average Delay	5.7		
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	1863
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30		30			30
Link Distance (ft)	289		171			982
Travel Time (s)	6.6		3.9			22.3
Volume (vph)	0	99	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	108	0	0	0	0
Lane Group Flow (vph)	0	108	0	0	0	0
Sign Control	Yield		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 9.5% ICU Level of Service A
Analysis Period (min) 15

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Sign Control	Yield		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	99	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	108	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0	0			0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0	0			0	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	90			100	
cM capacity (veh/h)	1023	1085			1623	

Direction, Lane #	EB 1	SE 1	NW 1
Volume Total	108	0	0
Volume Left	0	0	0
Volume Right	108	0	0
cSH	1085	1700	1700
Volume to Capacity	0.10	0.00	0.00
Queue Length 95th (ft)	8	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

Intersection Summary

Average Delay 8.7
Intersection Capacity Utilization 9.5% ICU Level of Service A
Analysis Period (min) 15

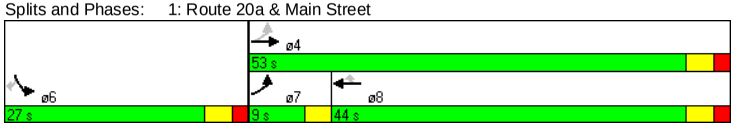
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	270			0	0	250
Storage Lanes	1			1	1	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.091				0.950	
Satd. Flow (perm)	170	1863	1863	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				199		234
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		591	658		335	
Travel Time (s)		13.4	15.0		7.6	
Volume (vph)	143	538	804	179	446	268
Peak Hour Factor	0.85	0.85	0.90	0.90	0.92	0.92
Adj. Flow (vph)	168	633	893	199	485	291
Lane Group Flow (vph)	168	633	893	199	485	291
Turn Type	pm+pt			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases	4			8		6
Detector Phases	7	4	8	8	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	9.0	53.0	44.0	44.0	27.0	27.0
Total Split (%)	11.3%	66.3%	55.0%	55.0%	33.8%	33.8%
Maximum Green (s)	6.0	48.0	39.0	39.0	22.0	22.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	Max	Max
Walk Time (s)		5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0
Act Effct Green (s)	48.6	48.6	39.6	39.6	23.0	23.0
Actuated g/C Ratio	0.61	0.61	0.50	0.50	0.29	0.29
v/c Ratio	0.82	0.56	0.96	0.22	0.95	0.47
Control Delay	44.4	11.5	43.3	2.4	58.9	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	11.5	43.3	2.4	58.9	8.5
LOS	D	B	D	A	E	A

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach Delay		18.4	35.8		40.0	
Approach LOS		B	D		D	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 79.6
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 31.8 Intersection LOS: C
Intersection Capacity Utilization 84.9% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 1: Route 20a & Main Street



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
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		0.977					0.997			0.884		
Flt Protected		0.999					0.994			0.996		
Satd. Flow (prot)	0	1818	0	0	0	0	1846	0	0	1640	0	0
Flt Permitted		0.999					0.994			0.996		
Satd. Flow (perm)	0	1818	0	0	0	0	1846	0	0	1640	0	0
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
Link Speed (mph)		30					30			30		
Link Distance (ft)		1804					141			980		
Travel Time (s)		41.0					3.2			22.3		
Volume (vph)	12	850	80	96	2	137	1016	25	8	7	95	2
Peak Hour Factor	0.93	0.93	0.92	0.93	0.92	0.90	0.90	0.90	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	914	87	103	2	152	1129	28	9	8	103	2
Lane Group Flow (vph)	0	1117	0	0	0	0	1311	0	0	122	0	0
Sign Control		Free					Free			Stop		

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 139.1% ICU Level of Service H
Analysis Period (min) 15

Lane Group	SBL2	SBL	SBT	SBR
Lane Configurations				
Ideal Flow (vphpl)	1900	1900	1900	1900
Turning Speed (mph)	15	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00
Frt			0.958	
Flt Protected			0.972	
Satd. Flow (prot)	0	0	1735	0
Flt Permitted			0.972	
Satd. Flow (perm)	0	0	1735	0
Headway Factor	1.00	1.00	1.00	1.00
Link Speed (mph)			30	
Link Distance (ft)			475	
Travel Time (s)			10.8	
Volume (vph)	22	15	7	20
Peak Hour Factor	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	16	8	22
Lane Group Flow (vph)	0	0	70	0
Sign Control			Stop	

Intersection Summary

Intersection has too many legs for HCM analysis.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.938	
Flt Protected				0.997	0.974	
Satd. Flow (prot)	1863	0	0	1857	1702	0
Flt Permitted				0.997	0.974	
Satd. Flow (perm)	1863	0	0	1857	1702	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	141			2171	171	
Travel Time (s)	3.2			49.3	3.9	
Volume (vph)	967	0	85	1121	60	51
Peak Hour Factor	0.93	0.93	0.90	0.90	0.92	0.92
Adj. Flow (vph)	1040	0	94	1246	65	55
Lane Group Flow (vph)	1040	0	0	1340	120	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 131.0% ICU Level of Service H
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	967	0	85	1121	60	51
Peak Hour Factor	0.93	0.93	0.90	0.90	0.92	0.92
Hourly flow rate (vph)	1040	0	94	1246	65	55
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1040		2474	1040
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1040		2474	1040
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			86		0	80
cM capacity (veh/h)			669		28	280

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	1040	1340	121
Volume Left	0	94	65
Volume Right	0	0	55
cSH	1700	669	48
Volume to Capacity	0.61	0.14	2.50
Queue Length 95th (ft)	0	12	316
Control Delay (s)	0.0	6.3	863.7
Lane LOS		A	F
Approach Delay (s)	0.0	6.3	863.7
Approach LOS			F

Intersection Summary

Average Delay 45.1
Intersection Capacity Utilization 131.0% ICU Level of Service H
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
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					0.975						0.992	
Flt Protected											0.955	
Satd. Flow (prot)	0	1863	0	0	1816	0	0	1863	1863	0	1765	0
Flt Permitted											0.955	
Satd. Flow (perm)	0	1863	0	0	1816	0	0	1863	1863	0	1765	0
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2171			605			355			1485	
Travel Time (s)		49.3			13.8			8.1			33.8	
Volume (vph)	4	1002	0	0	1196	268	0	0	0	115	0	7
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	1077	0	0	1329	298	0	0	0	125	0	8
Lane Group Flow (vph)	0	1081	0	0	1627	0	0	0	0	0	133	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 92.7% ICU Level of Service F
Analysis Period (min) 15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	4	1002	0	0	1196	268	0	0	0	115	0	7
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	1077	0	0	1329	298	0	0	0	125	0	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					1059							
pX, platoon unblocked	0.45						0.45	0.45		0.45	0.45	0.45
vC, conflicting volume	1329			1077			2571	2415	1077	2564	2564	1478
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1733			1077			4502	4153	1077	4485	4485	2065
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			100	100	100	0	100	75
cM capacity (veh/h)	163			647			0	1	266	0	1	31

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	1082	1627	0	0	133
Volume Left	4	0	0	0	125
Volume Right	0	298	0	0	8
cSH	163	647	1700	1700	0
Volume to Capacity	0.03	0.00	0.00	0.00	445.98
Queue Length 95th (ft)	2	0	0	0	Err
Control Delay (s)	2.1	0.0	0.0	0.0	Err
Lane LOS	A		A	A	F
Approach Delay (s)	2.1	0.0	0.0		Err
Approach LOS			A		F

Intersection Summary

Average Delay		467.5			
Intersection Capacity Utilization		92.7%	ICU Level of Service		F
Analysis Period (min)		15			

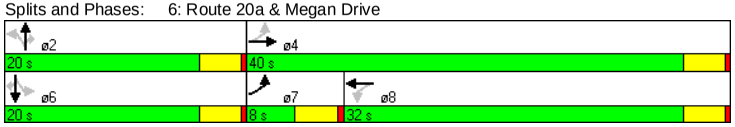
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	143		0	263		0	0		60	0		70
Storage Lanes	1		0	1		0	0		1	0		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	50
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.994				0.850			0.850
Flt Protected	0.950			0.950				0.955			0.954	
Satd. Flow (prot)	1770	3511	0	1770	3518	0	0	1779	1583	0	1777	1583
Flt Permitted	0.125			0.192				0.673			0.665	
Satd. Flow (perm)	233	3511	0	358	3518	0	0	1254	1583	0	1239	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			9				14			148
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		454			1684			159			207	
Travel Time (s)		10.3			38.3			3.6			4.7	
Volume (vph)	93	1144	65	4	1354	52	104	7	13	91	4	140
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	100	1230	70	4	1504	58	116	8	14	101	4	156
Lane Group Flow (vph)	100	1300	0	4	1562	0	0	124	14	0	105	156
Turn Type	pm+pt			Perm			Perm		Perm	Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phases	7	4		8	8		2	2	2	6	6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		20.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	40.0	0.0	32.0	32.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	13.3%	66.7%	0.0%	53.3%	53.3%	0.0%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%
Maximum Green (s)	4.0	36.0		28.0	28.0		16.0	16.0	16.0	16.0	16.0	16.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead			Lag	Lag							
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		Max	Max	Max	Max	Max	Max
Walk Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)		11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0		0	0	0	0	0	0
Act Effct Green (s)	33.6	33.5		27.4	27.4			16.1	16.1		16.1	16.1
Actuated g/C Ratio	0.57	0.58		0.47	0.47			0.28	0.28		0.28	0.28
v/c Ratio	0.42	0.63		0.02	0.93			0.35	0.03		0.30	0.28
Control Delay	10.7	9.4		9.2	27.5			21.5	9.2		20.7	5.8
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	10.7	9.4		9.2	27.5			21.5	9.2		20.7	5.8
LOS	B	A		A	C			C	A		C	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		9.5			27.5			20.3			11.8	
Approach LOS		A			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 57.7
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 18.5 Intersection LOS: B
Intersection Capacity Utilization 67.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Route 20a & Megan Drive



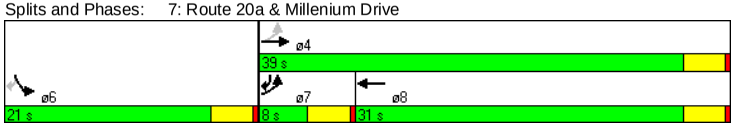
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150			0	0	0
Storage Lanes	1			0	1	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50		50	50
Trailing Detector (ft)	0	0	0		0	0
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.995			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3522	0	1770	1583
Flt Permitted	0.129				0.950	
Satd. Flow (perm)	240	3539	3522	0	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			8			21
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		1684	1370		634	
Travel Time (s)		38.3	31.1		14.4	
Volume (vph)	125	1056	1260	44	65	231
Peak Hour Factor	0.91	0.91	0.96	0.96	0.90	0.90
Adj. Flow (vph)	137	1160	1312	46	72	257
Lane Group Flow (vph)	137	1160	1358	0	72	257
Turn Type	pm+pt					pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases	4					6
Detector Phases	7	4	8		6	7
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	20.0	20.0		20.0	8.0
Total Split (s)	8.0	39.0	31.0	0.0	21.0	8.0
Total Split (%)	13.3%	65.0%	51.7%	0.0%	35.0%	13.3%
Maximum Green (s)	4.0	35.0	27.0		17.0	4.0
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	0.5	0.5	0.5		0.5	0.5
Lead/Lag	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None		Min	None
Walk Time (s)		5.0	5.0		5.0	
Flash Dont Walk (s)		11.0	11.0		11.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)	29.2	29.3	23.5		7.6	15.6
Actuated g/C Ratio	0.62	0.65	0.52		0.17	0.33
v/c Ratio	0.49	0.51	0.74		0.24	0.48
Control Delay	9.6	5.0	12.2		20.9	16.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	9.6	5.0	12.2		20.9	16.1
LOS	A	A	B		C	B

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Approach Delay		5.5	12.2		17.1	
Approach LOS		A	B		B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 45.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 9.8 Intersection LOS: A
Intersection Capacity Utilization 57.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 7: Route 20a & Millenium Drive

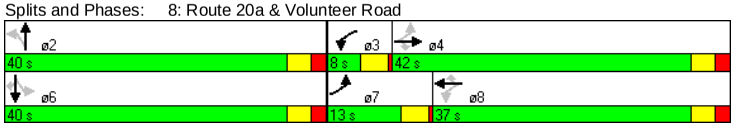


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	357		357	530		380	85		0	234		234
Storage Lanes	1		1	1		1	1		0	1		1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
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			0.850			0.850		0.919				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1712	0	1770	1863	1583
Flt Permitted	0.108			0.139			0.693			0.597		
Satd. Flow (perm)	201	1863	1583	259	1863	1583	1291	1712	0	1112	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			465			164		78				247
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		404			662			215			357	
Travel Time (s)		9.2			15.0			4.9			8.1	
Volume (vph)	187	576	400	88	562	148	412	78	92	241	89	316
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	217	670	465	98	624	164	458	87	102	268	99	351
Lane Group Flow (vph)	217	670	465	98	624	164	458	189	0	268	99	351
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm			Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phases	7	4	4	3	8	8	2	2		6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	20.0		20.0	20.0	20.0
Total Split (s)	13.0	42.0	42.0	8.0	37.0	37.0	40.0	40.0	0.0	40.0	40.0	40.0
Total Split (%)	14.4%	46.7%	46.7%	8.9%	41.1%	41.1%	44.4%	44.4%	0.0%	44.4%	44.4%	44.4%
Maximum Green (s)	9.0	37.0	37.0	4.0	32.0	32.0	35.0	35.0		35.0	35.0	35.0
Yellow Time (s)	3.5	3.0	3.0	3.5	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	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	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Act Effct Green (s)	44.9	38.5	38.5	35.9	31.8	31.8	36.0	36.0		36.0	36.0	36.0
Actuated g/C Ratio	0.51	0.43	0.43	0.40	0.36	0.36	0.40	0.40		0.40	0.40	0.40
v/c Ratio	0.83	0.83	0.49	0.58	0.94	0.24	0.88	0.26		0.59	0.13	0.45
Control Delay	45.1	33.7	3.6	27.6	51.1	4.3	44.9	11.4		27.8	17.7	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	45.1	33.7	3.6	27.6	51.1	4.3	44.9	11.4		27.8	17.7	7.9
LOS	D	C	A	C	D	A	D	B		C	B	A
Approach Delay		25.2			39.8			35.2			16.7	
Approach LOS		C			D			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 88.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 28.9 Intersection LOS: C
Intersection Capacity Utilization 82.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 8: Route 20a & Volunteer Road



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	400		0	0
Storage Lanes		0	1		1	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.988				0.915	
Flt Protected			0.950		0.982	
Satd. Flow (prot)	1840	0	1770	1863	1674	0
Flt Permitted			0.950		0.982	
Satd. Flow (perm)	1840	0	1770	1863	1674	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	662			433	478	
Travel Time (s)	15.0			9.8	10.9	
Volume (vph)	829	79	124	739	59	101
Peak Hour Factor	0.86	0.86	0.90	0.90	0.89	0.89
Adj. Flow (vph)	964	92	138	821	66	113
Lane Group Flow (vph)	1056	0	138	821	179	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 74.8% ICU Level of Service D
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	829	79	124	739	59	101
Peak Hour Factor	0.86	0.86	0.90	0.90	0.89	0.89
Hourly flow rate (vph)	964	92	138	821	66	113
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	662					
pX, platoon unblocked			0.56		0.56	0.56
vC, conflicting volume			1056		2107	1010
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1099		2962	1018
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			62		0	30
cM capacity (veh/h)			358		6	163

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1056	138	821	180
Volume Left	0	138	0	66
Volume Right	92	0	0	113
cSH	1700	358	1700	14
Volume to Capacity	0.62	0.38	0.48	12.69
Queue Length 95th (ft)	0	44	0	Err
Control Delay (s)	0.0	21.2	0.0	Err
Lane LOS		C		F
Approach Delay (s)	0.0	3.0		Err
Approach LOS				F

Intersection Summary

Average Delay 820.5
Intersection Capacity Utilization 74.8% ICU Level of Service D
Analysis Period (min) 15

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	265		0	100
Storage Lanes		0	1		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.986					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1837	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1837	0	1770	1863	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	433			2430	996	
Travel Time (s)	9.8			55.2	22.6	
Volume (vph)	837	93	97	787	77	125
Peak Hour Factor	0.83	0.83	0.93	0.93	0.85	0.85
Adj. Flow (vph)	1008	112	104	846	91	147
Lane Group Flow (vph)	1120	0	104	846	91	147
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 69.3% ICU Level of Service C
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	837	93	97	787	77	125
Peak Hour Factor	0.83	0.83	0.93	0.93	0.85	0.85
Hourly flow rate (vph)	1008	112	104	846	91	147
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						4
Median type					None	
Median storage veh)						
Upstream signal (ft)	1095					
pX, platoon unblocked			0.66		0.66	0.66
vC, conflicting volume			1120		2119	1064
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1183		2696	1098
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			73		0	14
cM capacity (veh/h)			390		11	171

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1120	104	846	238
Volume Left	0	104	0	91
Volume Right	112	0	0	147
cSH	1700	390	1700	27
Volume to Capacity	0.66	0.27	0.50	8.73
Queue Length 95th (ft)	0	27	0	Err
Control Delay (s)	0.0	17.6	0.0	Err
Lane LOS		C		F
Approach Delay (s)	0.0	1.9		Err
Approach LOS				F

Intersection Summary

Average Delay 1030.1
Intersection Capacity Utilization 69.3% ICU Level of Service C
Analysis Period (min) 15

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15			9	15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.997		0.900	
Flt Protected		0.997			0.987	
Satd. Flow (prot)	0	1857	1857	0	1655	0
Flt Permitted		0.997			0.987	
Satd. Flow (perm)	0	1857	1857	0	1655	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30	30		30	
Link Distance (ft)		2430	7291		1254	
Travel Time (s)		55.2	165.7		28.5	
Volume (vph)	55	912	838	18	15	42
Peak Hour Factor	0.91	0.91	0.87	0.87	0.82	0.82
Adj. Flow (vph)	60	1002	963	21	18	51
Lane Group Flow (vph)	0	1062	984	0	69	0
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 103.1% ICU Level of Service G
Analysis Period (min) 15

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	55	912	838	18	15	42
Peak Hour Factor	0.91	0.91	0.87	0.87	0.82	0.82
Hourly flow rate (vph)	60	1002	963	21	18	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	984				2097	974
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	984				2097	974
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				65	83
cM capacity (veh/h)	702				52	306

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	1063	984	70
Volume Left	60	0	18
Volume Right	0	21	51
cSH	702	1700	134
Volume to Capacity	0.09	0.58	0.52
Queue Length 95th (ft)	7	0	62
Control Delay (s)	2.7	0.0	57.5
Lane LOS	A		F
Approach Delay (s)	2.7	0.0	57.5
Approach LOS			F

Intersection Summary

Average Delay 3.2
Intersection Capacity Utilization 103.1% ICU Level of Service G
Analysis Period (min) 15

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15		9	15		9	15		9	15		9
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		0.998			0.999			0.942			0.882	
Flt Protected		0.997			0.999			0.985			0.997	
Satd. Flow (prot)	0	1853	0	0	1859	0	0	1728	0	0	1638	0
Flt Permitted		0.997			0.999			0.985			0.997	
Satd. Flow (perm)	0	1853	0	0	1859	0	0	1728	0	0	1638	0
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
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		7291			1310			2214			1882	
Travel Time (s)		165.7			29.8			50.3			42.8	
Volume (vph)	58	797	13	17	809	4	7	6	10	3	3	45
Peak Hour Factor	0.90	0.90	0.90	0.86	0.86	0.86	0.47	0.47	0.47	0.66	0.66	0.66
Adj. Flow (vph)	64	886	14	20	941	5	15	13	21	5	5	68
Lane Group Flow (vph)	0	964	0	0	966	0	0	49	0	0	78	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	58	797	13	17	809	4	7	6	10	3	3	45
Peak Hour Factor	0.90	0.90	0.90	0.86	0.86	0.86	0.47	0.47	0.47	0.66	0.66	0.66
Hourly flow rate (vph)	64	886	14	20	941	5	15	13	21	5	5	68
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	945			900			2075	2007	893	2032	2011	943
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	945			900			2075	2007	893	2032	2011	943
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			97			44	76	94	85	91	79
cM capacity (veh/h)	726			755			26	53	340	30	52	318

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	964	965	49	77
Volume Left	64	20	15	5
Volume Right	14	5	21	68
cSH	726	755	56	170
Volume to Capacity	0.09	0.03	0.87	0.45
Queue Length 95th (ft)	7	2	96	53
Control Delay (s)	2.5	0.8	199.6	42.7
Lane LOS	A	A	F	E
Approach Delay (s)	2.5	0.8	199.6	42.7
Approach LOS			F	E

Intersection Summary

Average Delay 7.9
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0		0	80
Storage Lanes		0	0		1	1
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.930					0.850
Flt Protected				0.983	0.950	
Satd. Flow (prot)	1732	0	0	1831	1770	1583
Flt Permitted				0.983	0.950	
Satd. Flow (perm)	1732	0	0	1831	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	1713			2428	1020	
Travel Time (s)	38.9			55.2	23.2	
Volume (vph)	121	131	57	107	171	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	134	146	63	119	190	50
Lane Group Flow (vph)	280	0	0	182	190	50
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 42.6% ICU Level of Service A
Analysis Period (min) 15

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	121	131	57	107	171	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	134	146	63	119	190	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						3
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			280		453	207
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			280		453	207
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		65	94
cM capacity (veh/h)			1283		537	833

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	280	182	240
Volume Left	0	63	190
Volume Right	146	0	50
cSH	1700	1283	678
Volume to Capacity	0.16	0.05	0.35
Queue Length 95th (ft)	0	4	40
Control Delay (s)	0.0	3.0	14.1
Lane LOS		A	B
Approach Delay (s)	0.0	3.0	14.1
Approach LOS			B

Intersection Summary

Average Delay 5.6
Intersection Capacity Utilization 42.6% ICU Level of Service A
Analysis Period (min) 15

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.890				0.995	
Flt Protected	0.991			0.995		
Satd. Flow (prot)	1643	0	0	1853	1853	0
Flt Permitted	0.991			0.995		
Satd. Flow (perm)	1643	0	0	1853	1853	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	411			335	1406	
Travel Time (s)	9.3			7.6	32.0	
Volume (vph)	43	194	35	287	520	21
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	216	38	312	565	23
Lane Group Flow (vph)	264	0	0	350	588	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 65.4% ICU Level of Service C
Analysis Period (min) 15

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	43	194	35	287	520	21
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	48	216	38	312	565	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				335		
pX, platoon unblocked						
vC, conflicting volume	965	577	588			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	965	577	588			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	82	58	96			
cM capacity (veh/h)	272	516	987			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	263	350	588
Volume Left	48	38	0
Volume Right	216	0	23
cSH	444	987	1700
Volume to Capacity	0.59	0.04	0.35
Queue Length 95th (ft)	94	3	0
Control Delay (s)	24.2	1.3	0.0
Lane LOS	C	A	
Approach Delay (s)	24.2	1.3	0.0
Approach LOS	C		

Intersection Summary

Average Delay	5.7		
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	1863
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30		30			30
Link Distance (ft)	289		171			982
Travel Time (s)	6.6		3.9			22.3
Volume (vph)	0	99	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	108	0	0	0	0
Lane Group Flow (vph)	0	108	0	0	0	0
Sign Control	Yield		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 9.5% ICU Level of Service A
Analysis Period (min) 15

Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Sign Control	Yield		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	99	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	108	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0	0			0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0	0			0	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	90			100	
cM capacity (veh/h)	1023	1085			1623	

Direction, Lane #	EB 1	SE 1	NW 1
Volume Total	108	0	0
Volume Left	0	0	0
Volume Right	108	0	0
cSH	1085	1700	1700
Volume to Capacity	0.10	0.00	0.00
Queue Length 95th (ft)	8	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

Intersection Summary

Average Delay 8.7
Intersection Capacity Utilization 9.5% ICU Level of Service A
Analysis Period (min) 15

Arterial Level of Service: EB Route 20a

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	15.8	8.2	24.0	0.11	16.8	D
Reservior Road	III	30	132.7	102.9	235.6	1.11	16.9	D
Wegmans Drive	III	30	78.4	27.0	105.4	0.65	22.3	C
Total	III		226.9	138.1	365.0	1.87	18.4	C

Arterial Level of Service: WB Route 20a

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Volunteer Road	III	30	275.5	23.8	299.3	2.30	27.6	B
Megan Drive	III	30	78.4	204.8	283.2	0.65	8.3	F
Main Street	III	30	132.7	134.8	267.5	1.11	14.9	D
Total	III		486.6	363.4	850.0	4.05	17.2	D

Arterial Level of Service: EB Route 20a

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	15.8	11.5	27.3	0.11	14.8	D
Reservior Road	III	30	25.5	9.4	34.9	0.20	20.7	C
Millenium Drive	III	30	40.5	5.0	45.5	0.32	25.2	B
Wegmans Drive	III	30	42.7	33.7	76.4	0.34	15.8	D
Total	III		124.5	59.6	184.1	0.97	18.9	C

Arterial Level of Service: WB Route 20a

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Volunteer Road	III	30	275.5	51.1	326.6	2.30	25.3	B
Millenium Drive	III	30	42.7	12.2	54.9	0.34	22.0	C
Megan Drive	III	30	40.5	27.5	68.0	0.32	16.9	D
Main Street	III	30	59.3	43.3	102.6	0.47	16.4	D
Total	III		418.0	134.1	552.1	3.42	22.3	C