Traffic Study

For
Proposed Development

1310 North Main Street PRD

in

Town of Blacksburg, Virginia

Date: July 1, 2019
Revised: July 23, 2019
Revised: September 27, 2019

~Job No. 24180101.00~

COMMONWEALTH OF VIRGINIA
CHRISTOPHER P. BURNS
Lic. No.047338
9/27/19
PROFESSIONAL ENGINEER

BALZER
& ASSOCIATES

448 Peppers Ferry Rd NW
Christiansburg, VA 24073
540.381.4290
Fax:540.381.4291

Table of Contents

Page

1. Introduction……1
2. Analysis of Existing Conditions…….....3
3. Analysis of Future Conditions without Development…….……... 8
4. Trip Generation……11
5. Site Traffic Distribution and Assignment……..…… 13
6. Analysis of Future Conditions with Development……..... 15

Turn Lane Requirements.....……...18

7. Conclusions…… 20

Appendix A – Vicinity Map……... 21

Appendix B – Concept Plan……... 23

Appendix C – Existing & Background Traffic Data…… 25

Appendix D – Signal Timing Data……...68

Appendix E – VDOT Turn Lane Worksheets…… 71

Appendix F – Synchro 10 & SimTraffic 10 Intersection Analysis Data…….…… 77

2019 Existing AM Peak Hour Analysis…… 78

2019 Existing PM Peak Hour Analysis…… 84

2021 Background AM Peak Hour Analysis……90

2021 Background PM Peak Hour Analysis……96

2021 Buildout AM Peak Hour Analysis……102

2021 Buildout PM Peak Hour Analysis……108

List of Figures

Fig. 1 – 2019 Existing Turning Movements……5
Fig. 2 – Heavy Vehicle Percentages ……6
Fig. 3 – 2021 Background Turning Movements……9
Fig. 4 – Site-Generated Traffic……14
Fig. 5 – 2021 Buildout Turning Movements…… 16

List of Tables

Table 1 – LOS Criteria for Signalized Intersections (HCM)……2
Table 2 – 2019 Existing LOS & Queuing Analysis…… 7
Table 3 – 2021 Background LOS & Queuing Analysis……10
Table 4 – Site-Generated Traffic…… 11
Table 5 – Site-Generated Traffic with Bus Reduction…… 12
Table 6 – 2021 Buildout LOS & Queuing Analysis……17

1. Introduction

The developer for this project is proposing to develop the existing parcel located at 1310 North Main Street in the Town of Blacksburg as new mixed-use residential and commercial development (see Appendix A for vicinity map and Appendix B for concept plan). The existing site consists of two single-family residences with existing driveways; one from North Main Street and one from Giles Road. The proposed development is anticipated to be completed in two years, or in the year 2021. This year will be used for the Background and Buildout conditions.

The proposed development will have a full access entrance from North Main Street and a full access entrance from Giles Road. The proposed development has been assumed to consist of the following uses:

- 7,846 s.f. shopping center
- 2,800 s.f. high-turnover sit-down restaurant
- 100 off-campus student apartment units with a total of 311 bedrooms
- 29 townhomes with a total of 75 bedrooms

The site is located on the south side of North Main Street between Patrick Henry Drive and Northview Drive and is identified as Town of Blacksburg Tax Parcel #196-A23. The property is currently zoned GC, General Commercial District.

North Main Street is a four-lane, undivided roadway that provides east/west access between Toms Creek Road and Harding Avenue. Progress Street is a two-lane undivided roadway that provides north/south access from Givens Lane to North Main Street. The posted speed on both of these local roads is 25 mph. The existing intersection of Patrick Henry Drive and Progress Street is signalized.

North Main Street is a four-lane, undivided roadway that provides north/south access through Blacksburg and adjacent areas. The posted speed on this section of North Main Street is 35 mph.

Giles Road is a two-lane local roadway that provides north/south access parallel to North Main Street. The speed limit on this road is assumed to be 25 mph.

Patrick Henry Drive is an undivided roadway that provides east/west access between Toms Creek Road and Harding Avenue. It is four lanes to the west of North Main Street and two lanes to the east of North Main Street. The posted speed on this section of Patrick Henry Drive is 25 mph. The existing intersection of North Main Street and Patrick Henry Drive is signalized.

Progress Street is a two-lane undivided roadway that provides north/south access between North Main Street and Jackson Street. The speed limit on this road is assumed to be 25 mph. The existing intersection of North Main Street and Progress Street is signalized. This intersection also has a fifth leg where McDonald Street intersects with North Main Street and Progress Street.

Level of service and queue lengths will be analyzed for the North Main Street/Patrick Henry Drive and North Main Street/Progress Street intersections. Three different scenarios will be considered: Existing Condition 2019, Background Condition 2021, and Buildout Condition 2021 to determine the effects of the background traffic growth and the proposed development on this intersection. Turn lane requirements will be analyzed at both proposed entrances to determine if right or left turn lanes are warranted.

Level of service (LOS) for signalized intersections is evaluated based on control delay per vehicle and the driver's perception of those conditions. Control delay is the portion of the total delay attributed to the control at the intersection. Table 1 depicts the LOS scale with corresponding control delay per vehicle, with LOS "A" representing the best operating conditions and LOS "F" representing the worst.

Level of Service Criteria for Signalized Intersections	
Level Of Service	**Avg. Control Delay (Sec./Veh)**
A	**≤ 10**
B	**> 10 – 20**
C	**> 20 – 35**
D	**> 35 – 55**
E	**> 55 – 80**
F	**≥ 80**

Table 1: LOS Criteria for Signalized Intersections (HCM)

This study was undertaken by Balzer and Associates, Inc. to:

- determine the total number of vehicle trips generated by the potential development to be added to the adjacent street network;
- determine the impacts to level of service and queue lengths at the existing signalized intersection as a result of the background traffic growth and from the proposed development;
- determine turn lane requirements for the project.

2. Analysis of Existing Conditions

The site currently contains two single-family residential houses that will be demolished to allow for the proposed development. The existing intersections of North Main Street and Patrick Henry Drive and North Main Street and Progress Street are signalized. Signal timing information for these intersections was provided by the Town of Blacksburg and is included in Appendix D. VDOT traffic count data was available for the existing roadways and is listed below and included in Appendix C.

2017 VDOT Traffic Count Data:
Progress Street:
AADT = 3,800 vpd
Directional Factor = 0.529
K Factor = 0.09

Patrick Henry Drive:
AADT = 3,800 vpd
Directional Factor = 0.527
K Factor = 0.117

North Main Street (south of Progress Street):
AADT = 17,000 vpd
Directional Factor = 0.513
K Factor = 0.081

North Main Street (Progress Street to Broce Drive):
AADT = 16,000 vpd
Directional Factor = 0.534
K Factor = 0.082

North Main Street (Broce Drive to Patrick Henry Drive):
AADT = 15,000 vpd
Directional Factor = 0.562
K Factor = 0.081

North Main Street (north of Patrick Henry Drive):
AADT = 7,500 vpd
Directional Factor = 0.636
K Factor = 0.098

In addition to the VDOT published traffic count data, manual tube counts were performed in several locations by the developer in cooperation with the Town of Blacksburg to determine the appropriate peak hour windows. These tube counts were supplemented by turning movement counts at the existing signalized intersections. Turning movement counts were performed for the intersections on Wednesday, March 6, 2019 and Tuesday, April 23 from 7:00 AM – 7:00 PM. In addition, tube counts were performed on Giles Road on these same days to determine

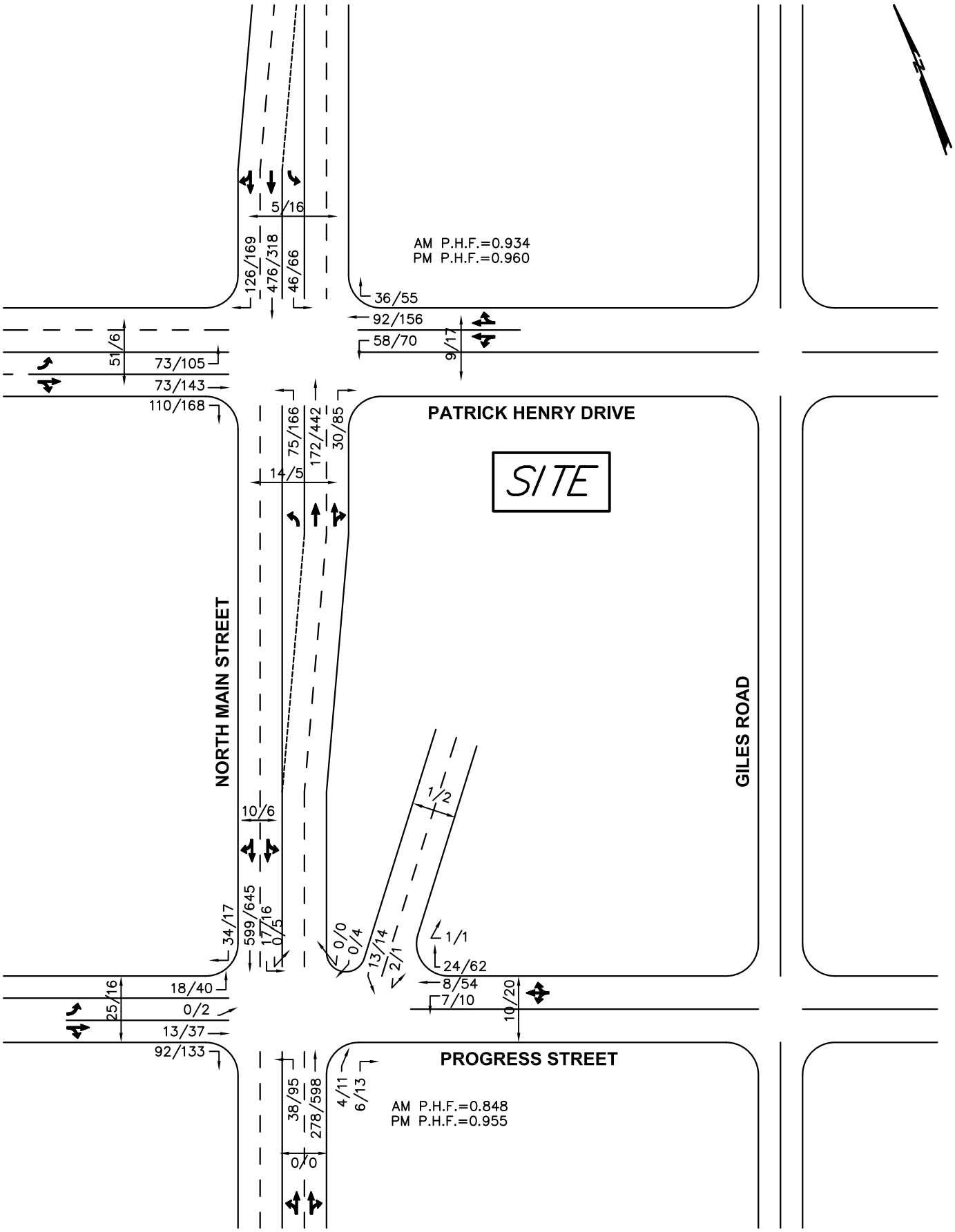
through volumes. These days and hours were chosen to capture the MWF and TT class schedules, and to capture the AM and PM peak hours on each day. This manual traffic count data is provided in Appendix C. Figure 1 graphically depicts the existing peak hour traffic volumes and Figure 2 shows the heavy vehicle percentages obtained from the counts.

Utilizing the data collected, the peak hour for AM analysis for the network was determined to be 8:30 AM – 9:30 AM on Tuesday. The peak hour for PM analysis for the network was determined to be 4:45 PM – 5:45 PM on Tuesday. The peak hours were determined by comparing the total vehicle volume at the two signalized intersections for each 15-minute period of each day. Giles Road was determined to have different peak hours and these were utilized for the turn lane analysis on this roadway. The AM peak hour for Giles Road was determined to be 8:00 AM – 9:00 AM and the PM peak hour was determined to be 5:15 PM – 6:15 PM on Wednesday.

The *Synchro 10* software was used to analyze the level of service and delays and the *SimTraffic 10* software was used to analyze the queue lengths for existing weekday AM and PM peak hours. It should be noted that the HCM 2010 methodology could not be used due to the 5-leg intersection that is being analyzed. Therefore, the HCM 2000 methodology was used for both intersections. The existing conditions levels of service, delays, and queue lengths are shown in Table 2. The *Synchro 10* and *SimTraffic 10* results are included in Appendix F.

As shown in Table 2, the North Main Street/Patrick Henry Drive intersection currently functions at an overall LOS 'C' in both the AM and PM peak hours and the North Main Street/Progress Street intersection currently functions at an overall LOS 'B' in both the AM and PM peak hours.

FIGURE 1: 2019 EXISTING TURNING MOVEMENTS

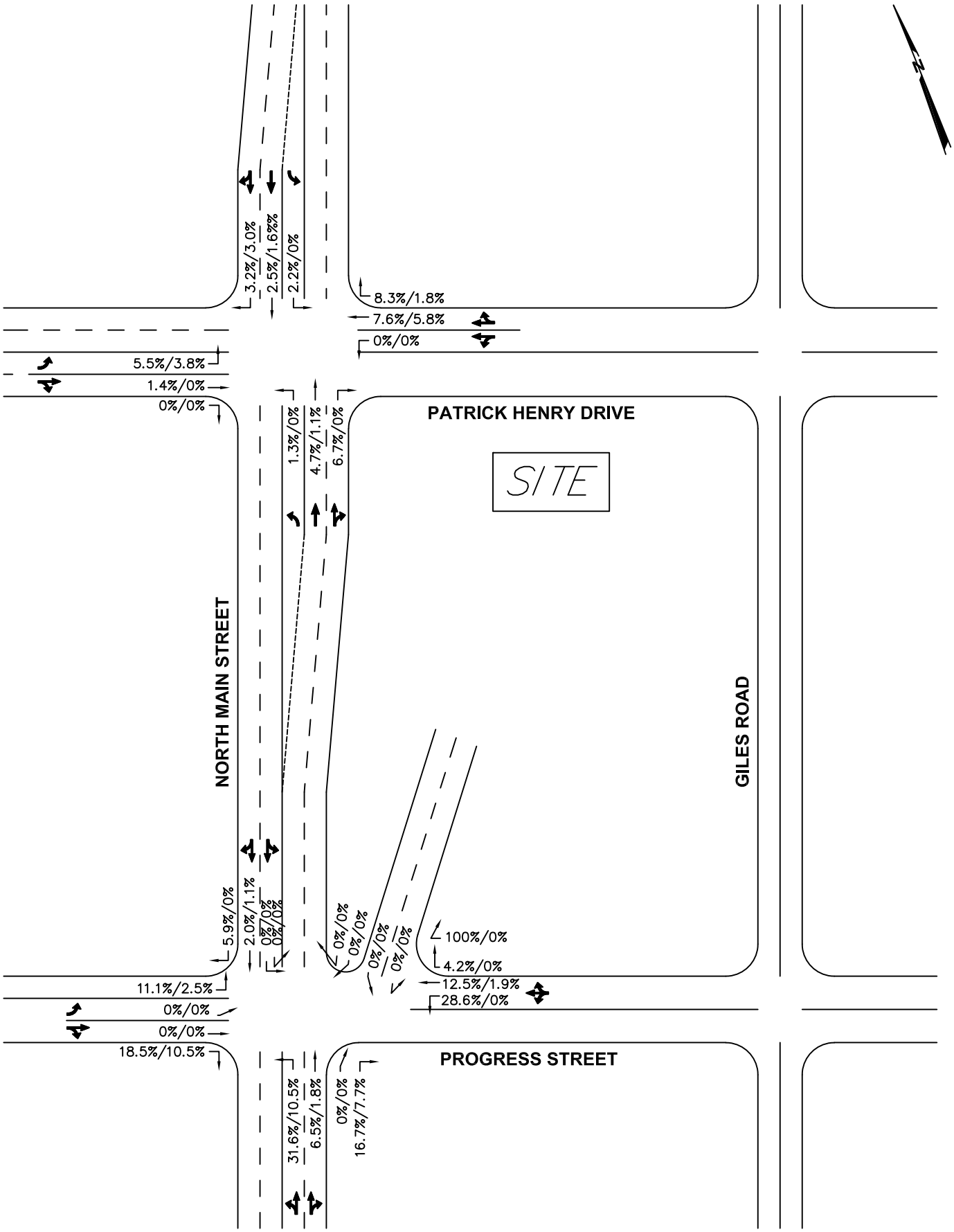


LEGEND

xx/xx: AM/PM Peak Hour Traffic

xx/xx: AM/PM Peak Hour Pedestrians

FIGURE 2: 2019 HEAVY VEHICLE PERCENTAGES



LEGEND

xx/xx: AM/PM Peak Hour Traffic

Table 2 - 2019 Existing Condition
1310 North Main Street PRD - Blacksburg, VA
Intersection Level of Service and Queuing Analysis

Intersection	Control	Approach	Available Storage (ft)	Levels of Service		Average Queues (ft)		Max Queues (ft)	
				AM	PM	AM	PM	AM	PM
1. North Main Street & Patrick Henry Drive	Signal								
		EBL	--	C (27.3)	C (27.3)	48	70	120	155
		EBTR	--	C (29.5)	D (35.4)	89	177	190	356
		WBLTR	--	C (28.7)	C (33.0)	85	114	170	199
		NBL	100	C (21.4)	C (29.7)	49	105	114	150
		NBTR	--	C (23.3)	C (30.0)	65	160	136	296
		SBL	100	B (19.8)	C (24.1)	33	46	118	125
		SBTR	--	C (29.1)	C (30.2)	181	136	299	237
		Overall		**C (27.4)**	**C (31.0)**				
2. North Main Street & Progress Street & McDonald Street	Signal								
		EBL	75	B (19.0)	C (24.5)	11	22	63	74
		EBTR	--	B (19.1)	C (25.8)	37	61	126	194
		WBLTR	--	B (19.6)	C (27.1)	21	66	88	168
		NBLTR	--	B (11.9)	B (17.0)	89	265	197	474
		SBLTR	--	B (12.6)	B (12.5)	111	121	252	232
		SWBLTR	--	C (34.6)	D (37.8)	10	14	42	46
		Overall		**B (13.6)**	**B (17.2)**				

Notes:
(1) Numbers in parentheses represent control delay in seconds per vehicle as reported by Synchro.
(2) Queues are average and maximum queues as reported by SimTraffic with 10 recording intervals of 60 minutes.

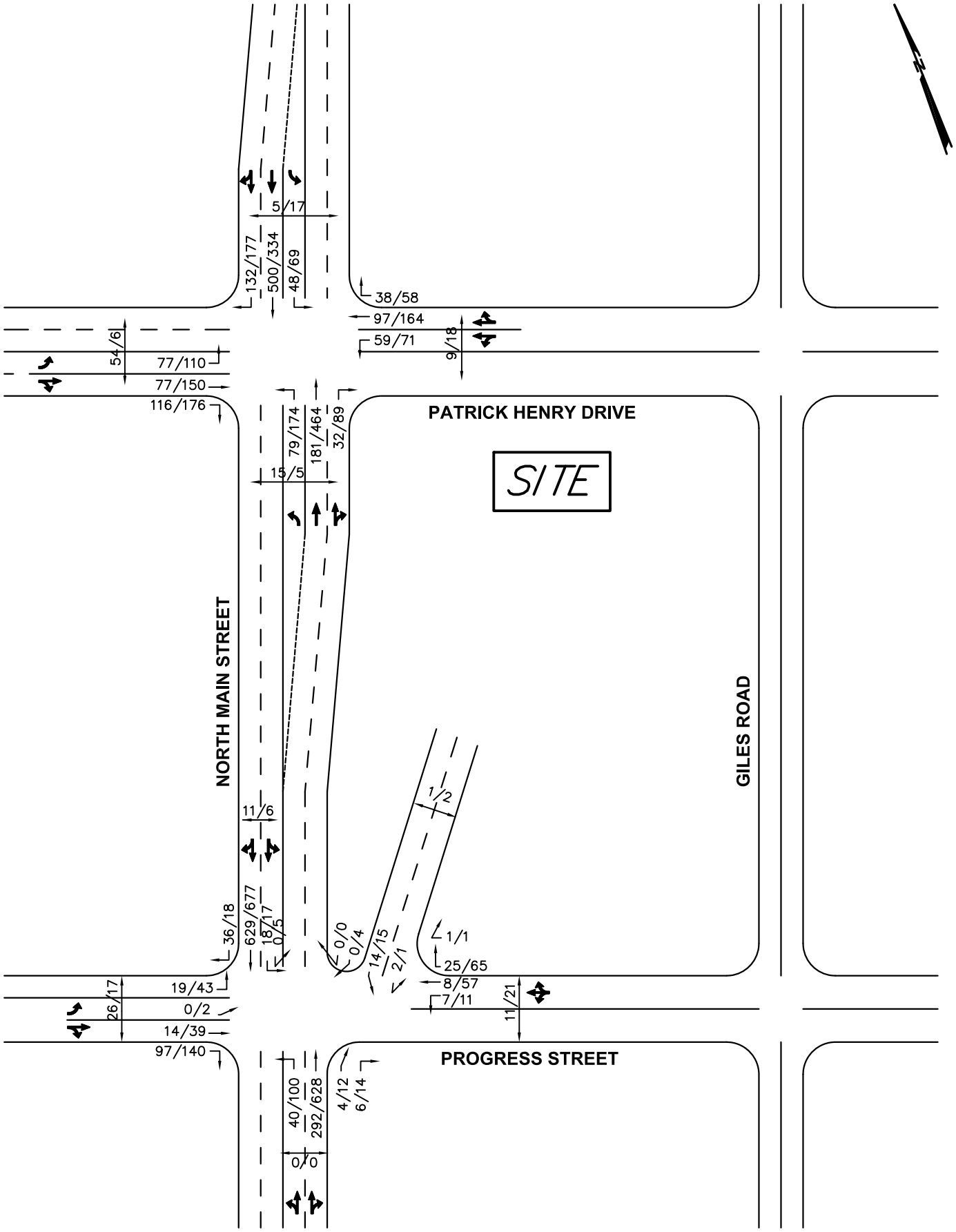
3. Analysis of Future Conditions Without Development

It is anticipated that the proposed development will be constructed and in use within 2 years, or in the year 2021. To analyze the future conditions and obtain the projected background traffic volumes, an annual growth factor was applied to the existing traffic volumes. VDOT traffic data was analyzed from the years 2001 through 2018 to determine an appropriate growth rate. Through this analysis, the average growth rate was calculated to be 2.5%. Using only more recent data would suggest a smaller growth rate, so 2.5% should provide a conservative analysis. This growth rate was applied to the traffic counts to determine the projected background traffic volumes in the year 2021. Figure 3 graphically depicts the projected traffic in 2021 with the growth rate applied.

Table 3 provides a summary of the levels of service, delays, and queue lengths for the 2019 background condition. It should be noted that the HCM 2010 methodology could not be used due to the 5-leg intersection that is being analyzed. Therefore, the HCM 2000 methodology was used for both intersections. The *Synchro 10* and *SimTraffic 10* output can be found in Appendix F.

As shown in Table 3, the North Main Street/Patrick Henry Drive intersection functions at an overall LOS 'C' in both the AM and PM peak hours and the North Main Street/Progress Street intersection functions at an overall LOS 'B' in both the AM and PM peak hours.

FIGURE 3: 2021 BACKGROUND TURNING MOVEMENTS



LEGEND

xx/xx: AM/PM Peak Hour Traffic

Table 3 - 2021 Background Condition
1310 North Main Street PRD - Blacksburg, VA
Intersection Level of Service and Queuing Analysis

Intersection	Control	Approach	Available Storage (ft)	Levels of Service		Average Queues (ft)		Max Queues (ft)	
				AM	PM	AM	PM	AM	PM
1. North Main Street & Patrick Henry Drive	Signal								
		EBL	--	C (28.2)	C (27.7)	56	71	151	156
		EBTR	--	C (30.6)	D (36.4)	100	190	201	359
		WBLTR	--	C (29.9)	C (34.6)	86	126	181	215
		NBL	100	C (21.7)	C (34.3)	55	112	126	150
		NBTR	--	C (23.3)	C (31.0)	66	165	141	311
		SBL	100	B (19.7)	C (24.9)	41	48	200	107
		SBTR	--	C (29.3)	C (31.2)	198	144	323	256
		Overall		**C (27.9)**	**C (32.3)**				
2. North Main Street & Progress Street & McDonald Street	Signal								
		EBL	75	B (19.4)	C (26.0)	11	28	59	75
		EBTR	--	B (19.6)	C (27.5)	35	81	114	232
		WBLTR	--	C (20.0)	C (29.3)	19	78	70	171
		NBLTR	--	B (11.9)	B (17.6)	98	337	206	556
		SBLTR	--	B (12.8)	B (12.4)	113	137	260	259
		SWBLTR	--	D (36.9)	D (39.7)	9	16	34	62
		Overall		**B (13.8)**	**B (17.8)**				

Notes:
(1) Numbers in parentheses represent control delay in seconds per vehicle as reported by Synchro.
(2) Queues are average and maximum queues as reported by SimTraffic with 10 recording intervals of 60 minutes.

4. Trip Generation

Time Period:	Equation / Average Rate:	% Entering / % Exiting:
Multi-Family Housing (Low-Rise)		
Weekday	T = 7.56(X) - 40.86	50% Enter / 50% Exit
AM Peak Hr of Adj. Traffic	Ln(T) = 0.95 Ln(X) – 0.51	23% Enter / 77% Exit
PM Peak Hr of Adj. Traffic	Ln(T) = 0.89 Ln(X) – 0.02	63% Enter / 37% Exit
Off-Campus Student Apartments		
Weekday	Average Rate = 3.97	50% Enter / 50% Exit
AM Peak Hr of Adj. Traffic	Average Rate = 0.16	28% Enter / 72% Exit
PM Peak Hr of Adj. Traffic	Average Rate = 0.30	52% Enter / 48% Exit
Shopping Center		
Weekday	Ln(T) = 0.68 Ln(X) + 5.57	50% Enter / 50% Exit
AM Peak Hr of Adj. Traffic	Average Rate = 0.94	62% Enter / 38% Exit
PM Peak Hr of Adj. Traffic	Ln(T) = 0.74 Ln(X) + 2.89	48% Enter / 52% Exit
High-Turnover (Sit-Down) Restaurant		
Weekday	Average Rate = 112.18	50% Enter / 50% Exit
AM Peak Hr of Adj. Traffic	Average Rate = 9.94	55% Enter / 45% Exit
PM Peak Hr of Adj. Traffic	Average Rate = 9.77	62% Enter / 38% Exit

			Trip Generation						
Land Use			AM Peak Hour			PM Peak Hour			Weekday
Proposed Development	ITE Code	Independent Variable	Enter	Exit	Total	Enter	Exit	Total	Total
Multi-Family Housing (Low-Rise)	220	29 Dwelling Units	3	12	15	13	7	20	178
Off-Campus Student Apartments	225	311 Bedrooms	14	36	50	48	45	93	1,235
Shopping Center	820	7,846 s.f.	4	3	7	40	43	83	1,065
High Turnover Restaurant	932	2,800 s.f.	15	13	28	17	10	27	314
		Totals	36	64	118	118	105	223	2,792

Table 4: Site-Generated Traffic

Internal capture reductions consider site trips “captured” within a mixed-use development, recognizing that trips from one land use can access another land use within a development without having to access the adjacent street system. Based on discussions with the Town of Blacksburg, an internal capture reduction has not been taken for this site to provide a conservative analysis.

Based on knowledge of the area, it is anticipated that there will be significant usage of alternate means of transportation by residents of this development, including walking, bicycling, and bus via the Blacksburg Transit (BT). The BT is a particularly heavily used form of transportation, especially for trips to and from the Virginia Tech campus.

Based on discussions with the Town of Blacksburg, a 10% reduction has been applied to the residential traffic only to account for bus, pedestrian, and bicycle trips. Table 5 shows the site-generated trips with the 10% reduction.

			Trip Generation						
Land Use			AM Peak Hour			PM Peak Hour			Weekday
Proposed Development	ITE Code	Independent Variable	Enter	Exit	Total	Enter	Exit	Total	Total
Multi-Family Housing (Low-Rise)	220	29 Dwelling Units	3	11	14	12	6	18	160
Off-Campus Student Apartments	225	311 Bedrooms	13	32	45	43	41	84	1,112
Shopping Center	820	7,846 s.f.	4	3	7	40	43	83	1,065
High Turnover Restaurant	932	2,800 s.f.	15	13	28	17	10	27	314
		Totals	35	59	94	112	100	212	2,651

Table 5: Site-Generated Traffic w/ Bus Reduction

Pass-by trip reductions consider site trips drawn from the existing traffic flow on an adjacent street, recognizing that trips drawn to a site would otherwise already traverse the adjacent street regardless of existence of the site. Based on the type of development proposed, pass-by trip reductions could be applied to the commercial uses in accordance with the ITE manual and engineering judgement. It should be noted that no pass-by reductions were taken as part of this traffic study, which is a conservative approach.

5. Site Traffic Distribution and Assignment

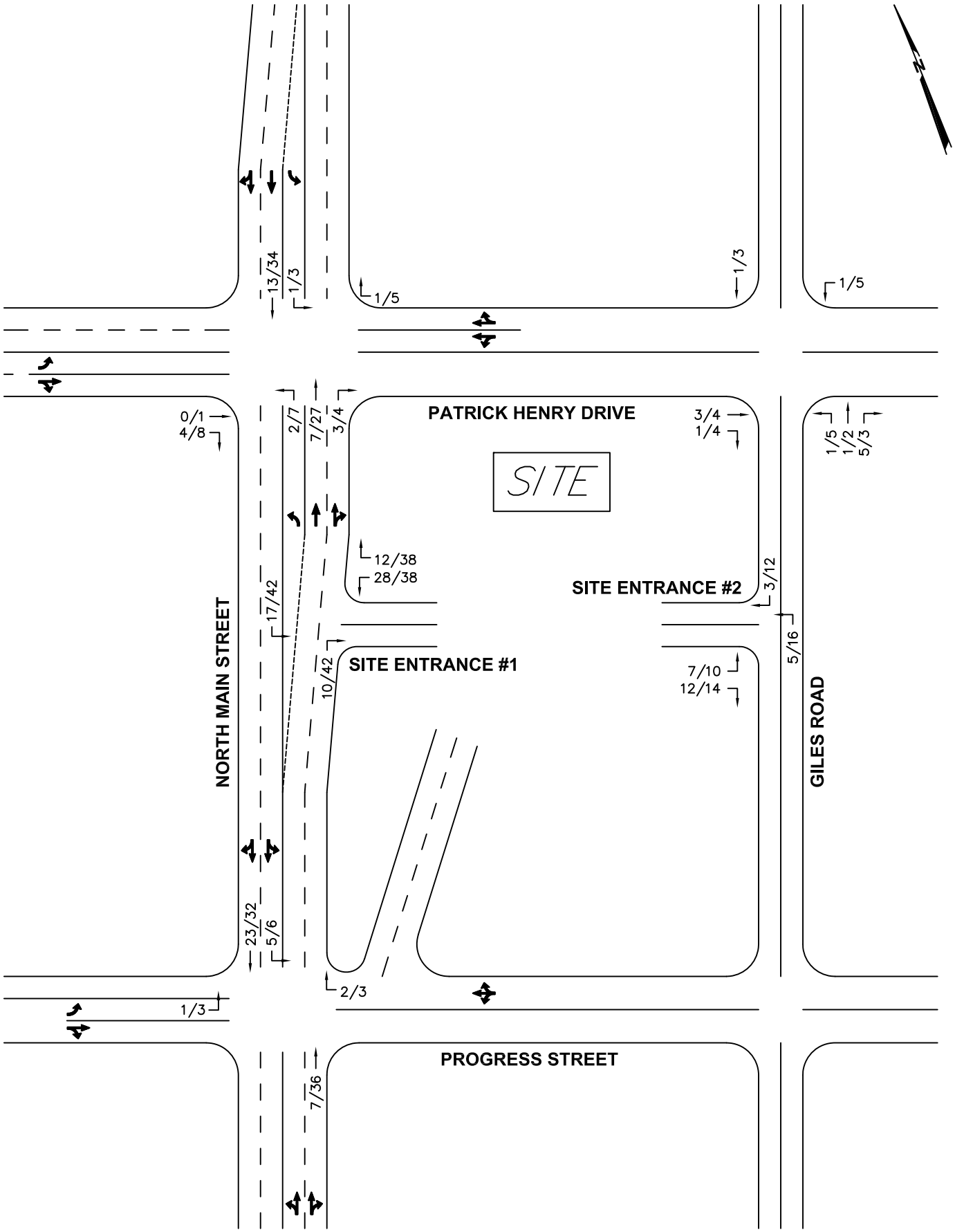
The distribution of potential site generated traffic was completed by observing the directional splits from the traffic counts and by applying engineering judgment based on knowledge of the proposed uses, as well as the surrounding area. The directional percentages were then applied to the site generated traffic to determine the ingress/egress movements for each direction.

For the purposes of the analysis, the following assumptions were made for entering and exiting traffic from the site:

Commercial Uses:	90% to/from North Main Street 10% to/from Giles Road
Residential Uses:	60% to/from North Main Street 40% to/from Giles Road

Trips were further distributed utilizing engineering judgement and assumptions regarding traffic patterns in this area. Traffic assignment for the site-generated traffic is shown graphically in Figure 4.

FIGURE 4: SITE GENERATED TRAFFIC



LEGEND

xx/xx: AM/PM Peak Hour Traffic

6. Analysis of Future Conditions With Development

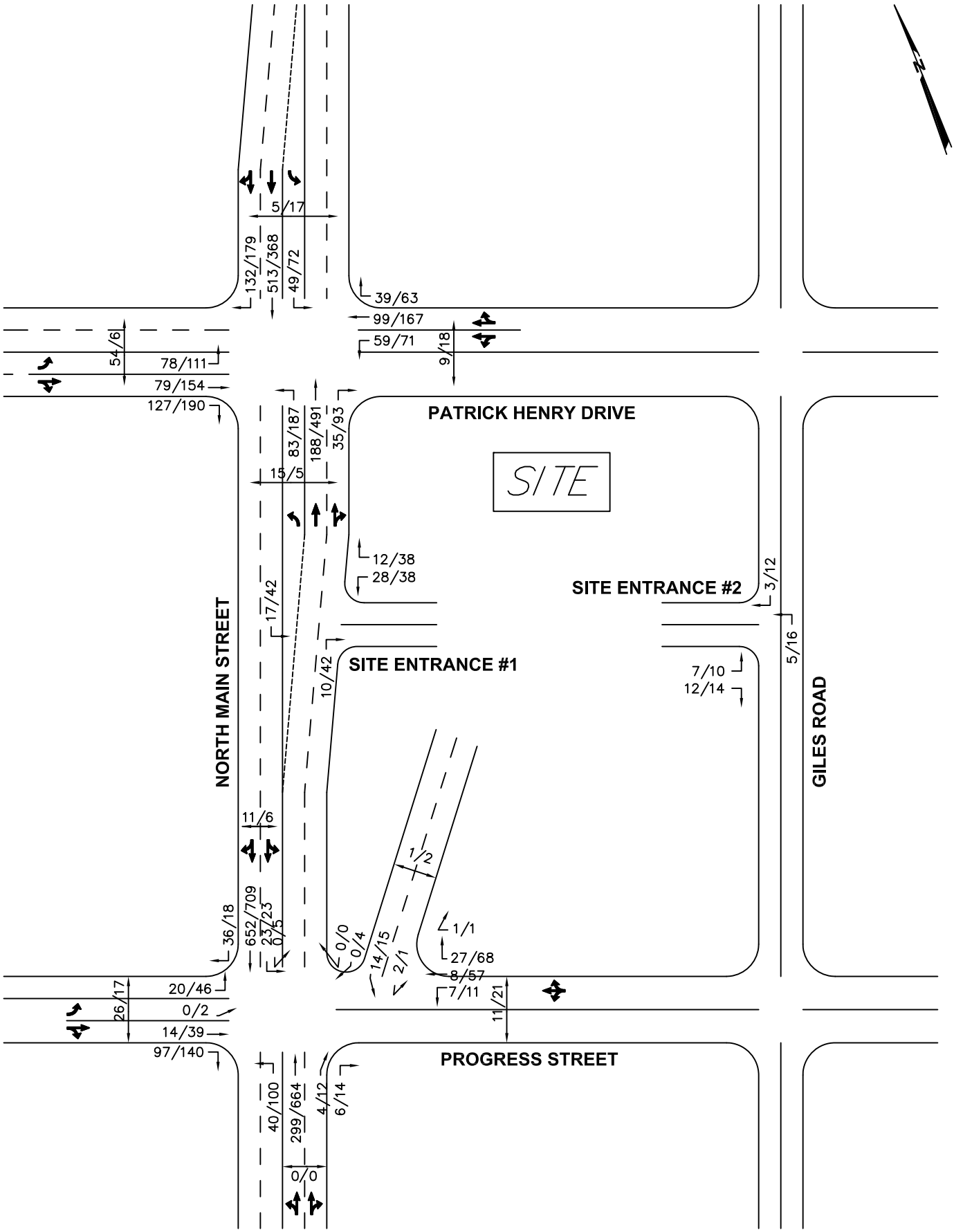
The buildout traffic was calculated by adding the 2021 background traffic (Figure 3) to the projected traffic from the proposed development (Figure 4). In addition to the site-generated traffic, it should be noted that there is a development planned for the property at 1222 Patrick Henry Drive located to the west. The rezoning of this property has been approved and a traffic study was provided during the zoning process that analyzed the intersection of North Main Street and Patrick Henry Drive. A copy of the Site-Generated Traffic diagram is included in Appendix C and this traffic has been included in the 2021 buildout condition for this intersection.

The 2021 buildout traffic for the signalized intersections is shown in Figure 5. The intersections were then modeled and evaluated using the *Synchro* and *SimTraffic* software. Table 7 provides a summary of the levels of service, delays, and queue lengths for the 2021 buildout condition. It should be noted that the HCM 2010 methodology could not be used due to the 5-leg intersection that is being analyzed. Therefore, the HCM 2000 methodology was used for both intersections. The *Synchro 10* and *SimTraffic 10* output can be found in Appendix F.

As shown in Table 3, the North Main Street/Patrick Henry Drive intersection is anticipated to remain at an overall LOS 'C' in both the AM and PM peak hours and the North Main Street/Progress Street intersection is anticipated to remain at an overall LOS 'B' in both the AM and PM peak hours.

As shown in Table 7, the intersections will continue to function at an acceptable level of service with the projected background volumes and the site-generated traffic. There will be minimal increases in overall control delay as a result of the proposed development and no signal improvements are recommended as a result of this development.

FIGURE 5: 2021 BUILDOUT TURNING MOVEMENTS



LEGEND

xx/xx: AM/PM Peak Hour Traffic

xx/xx: AM/PM Peak Hour Pedestrians

Table 6 - 2019 Buildout Condition
1310 North Main Street PRD - Blacksburg, VA
Intersection Level of Service and Queuing Analysis

Intersection	Control	Approach	Available Storage (ft)	Levels of Service		Average Queues (ft)		Max Queues (ft)	
				AM	PM	AM	PM	AM	PM
1. North Main Street & Patrick Henry Drive	Signal								
		EBL	--	C (28.4)	C (28.1)	54	71	135	152
		EBTR	--	C (31.4)	D (38.2)	102	203	231	414
		WBLTR	--	C (30.6)	D (36.0)	88	125	168	222
		NBL	100	C (21.9)	D (44.5)	52	123	123	150
		NBTR	--	C (23.4)	C (32.1)	72	193	146	335
		SBL	100	B (19.8)	C (25.6)	41	52	214	138
		SBTR	--	C (29.5)	C (32.5)	202	164	325	275
		Overall		**C (28.2)**	**C (34.4)**				
2. North Main Street & Progress Street & McDonald Street	Signal								
		EBL	75	B (19.8)	C (27.6)	11	30	54	74
		EBTR	--	B (19.9)	C (29.0)	35	81	125	235
		WBLTR	--	C (20.4)	C (31.5)	22	79	77	182
		NBLTR	--	B (11.8)	B (17.9)	104	466	227	832
		SBLTR	--	B (12.9)	B (12.4)	127	164	275	300
		SWBLTR	--	D (37.2)	D (41.2)	10	16	47	63
		Overall		**B (13.9)**	**B (18.2)**				

Notes:
(1) Numbers in parentheses represent control delay in seconds per vehicle as reported by Synchro.
(2) Queues are average and maximum queues as reported by SimTraffic with 10 recording intervals of 60 minutes.

Turn Lane Requirements

Turn lane requirements were analyzed at the proposed entrances onto Patrick Henry Drive. Turn lane requirements were evaluated by following the procedures and methodologies found in the *VDOT Road Design Manual, Volume I, Appendix F*.

Turning volumes were obtained from Figure 4. The approach volumes and opposing volumes for North Main Street were derived from the background traffic volumes shown in Figure 3. The approach volumes and opposing volumes for Giles Road were derived from the peak hour of the tube count data.

North Main Street - Right-Turn Lane Warrant at Site Entrance

AM Peak Hour Analysis:

- 10 Vehicles per Hour Turning Right from North Main Street
- Approach Volume = 292 VPH + 10 VPH = 302 VPH
-- Right Turn Lane Requirement, as per *VDOT Road Design Manual, Appendix F:* ***None Warranted*** (please see Appendix E).

PM Peak Hour Analysis:

- 42 Vehicles per Hour Turning Right from North Main Street
- Approach Volume = 727 VPH + 42 VPH = 769 VPH
-- Right Turn Lane Requirement, as per *VDOT Road Design Manual, Appendix F*: ***Taper Warranted*** (please see Appendix E).

North Main Street - Left-Turn Lane Warrant at Site Entrance

AM Peak Hour Analysis:

- 17 Vehicles per Hour Turning Left from North Main Street
- Opposing Volume = 302 VPH
-- Right Turn Lane Requirement, as per *VDOT Road Design Manual, Appendix F:* ***None Warranted*** (please see Appendix E).

PM Peak Hour Analysis:

- 42 Vehicles per Hour Turning Left from North Main Street
- Opposing Volume = 769 VPH
-- Right Turn Lane Requirement, as per *VDOT Road Design Manual, Appendix F*: ***75' Left Turn Lane Warranted*** (please see Appendix E).

Giles Road - Right-Turn Lane Warrant at Site Entrance

AM Peak Hour Analysis:

- 3 Vehicles per Hour Turning Right from Giles Road
- Approach Volume = 56 VPH + 3 VPH = 59 VPH
-- Right Turn Lane Requirement, as per *VDOT Road Design Manual, Appendix F:* ***None Warranted*** (please see Appendix E).

PM Peak Hour Analysis:

- 12 Vehicles per Hour Turning Right from Giles Road
- Approach Volume = 74 VPH + 12 VPH = 86 VPH
-- Right Turn Lane Requirement, as per *VDOT Road Design Manual, Appendix F*: ***None Warranted*** (please see Appendix E).

Giles Road - Left-Turn Lane Warrant at Site Entrance

AM Peak Hour Analysis:

- 5 (13.9%) Vehicles per Hour Turning Left from Giles Road
- Advancing Volume = 31 VPH + 5 VPH = 36 VPH
- Opposing Volume = 59 VPH
-- Right Turn Lane Requirement, as per *VDOT Road Design Manual, Appendix F:* ***None Warranted*** (please see Appendix E).

PM Peak Hour Analysis:

- 16 (21.9%) Vehicles per Hour Turning Left from Giles Road
- Advancing Volume = 57 VPH + 16 VPH = 73 VPH
- Opposing Volume = 86 VPH
-- Right Turn Lane Requirement, as per *VDOT Road Design Manual, Appendix F*: ***None Warranted*** (please see Appendix E).

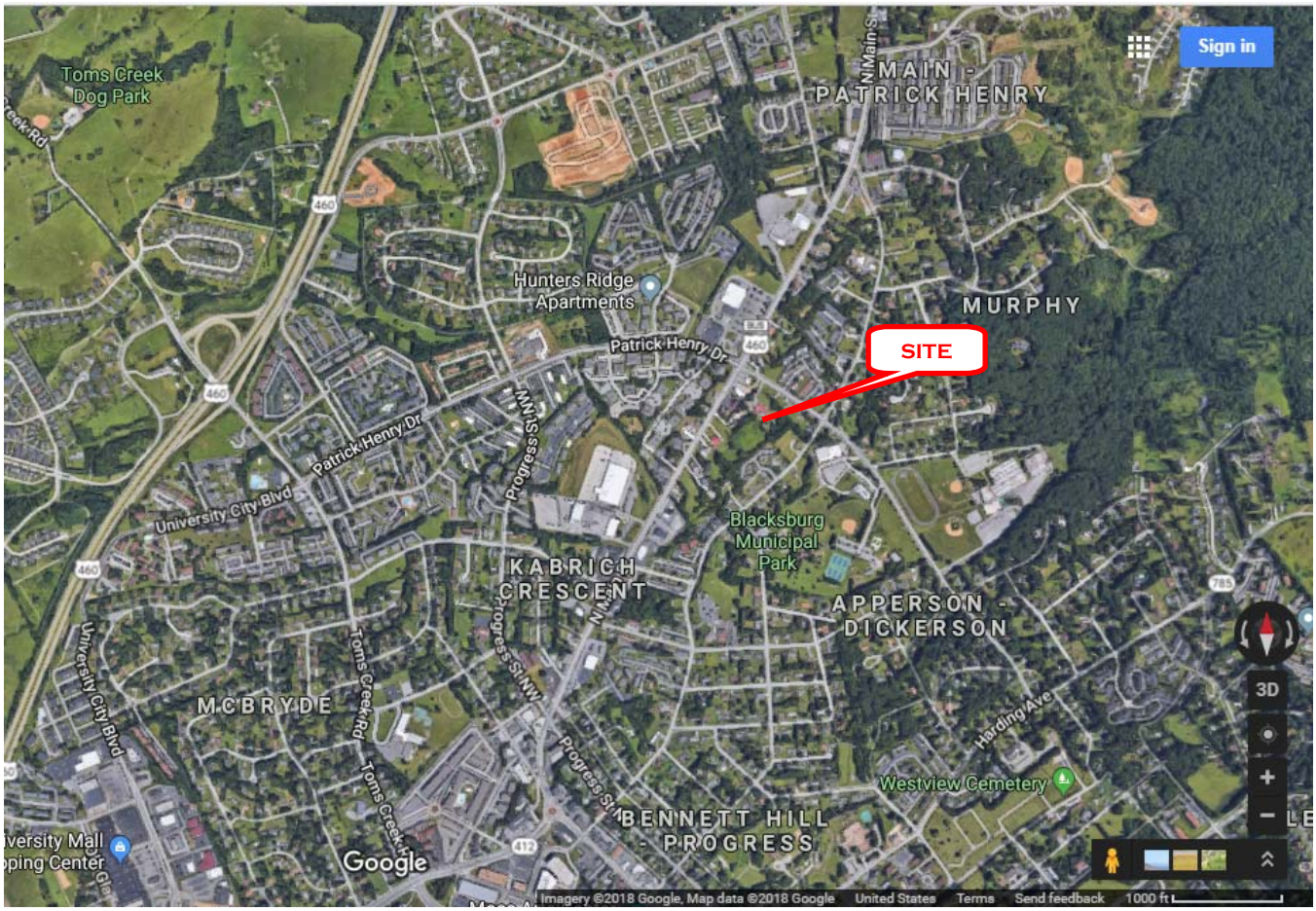
7. Conclusions

Based on the data collected, the assumptions made, and the potential site generated traffic, the results of the analysis are:

- the proposed project will increase traffic at the existing intersections and on the surrounding road network;
- traffic volume increases at the existing intersections will be minor and are not anticipated to significantly impact level of service or delay at the existing intersections;
- the existing intersections operates at an acceptable LOS with the projected background traffic volumes and will continue to do so with the site-generated traffic volumes included;
- no signal timing modifications are recommended at the existing intersections;
- A right turn taper is warranted at the entrance into the development on North Main Street. However, due to the location of the proposed bus stop directly before the entrance, it is not recommended that this right turn taper be constructed. This would create additional conflict points between buses and standard vehicles. The proposed entrance without the right turn taper will be consistent with the existing pattern of development along this corridor.
- A 75' left turn lane is warranted at the entrance into the development on North Main Street. However, due to right-of-way limitations and to maintain consistency along this corridor, a left turn lane is not feasible in this location. The left turning volume into the site is relatively low and there are anticipated to be sufficient gaps in northbound traffic to accommodate left turning traffic with minimal stacking. The proposed entrance without the left turn lane will be consistent with the existing pattern of development along this corridor.

Appendix A

Vicinity Map


Sign in
Toms Creek Dog Park
MAIN - PATRICK HENRY
N Main St
Hunters Ridge Apartments
Patrick Henry Dr
MURPHY
SITE
Patrick Henry Dr
University City Blvd
Progress St NW
Blacksburg Municipal Park
KABRICH CRESCENT
APPERSON - DICKERSON
MCBRYDE
Toms Creek Rd
Harding Ave
Westview Cemetery
BENNETT HILL - PROGRESS
Google
Imagery ©2018 Google, Map data ©2018 Google
United States
Terms
Send feedback
1000 ft

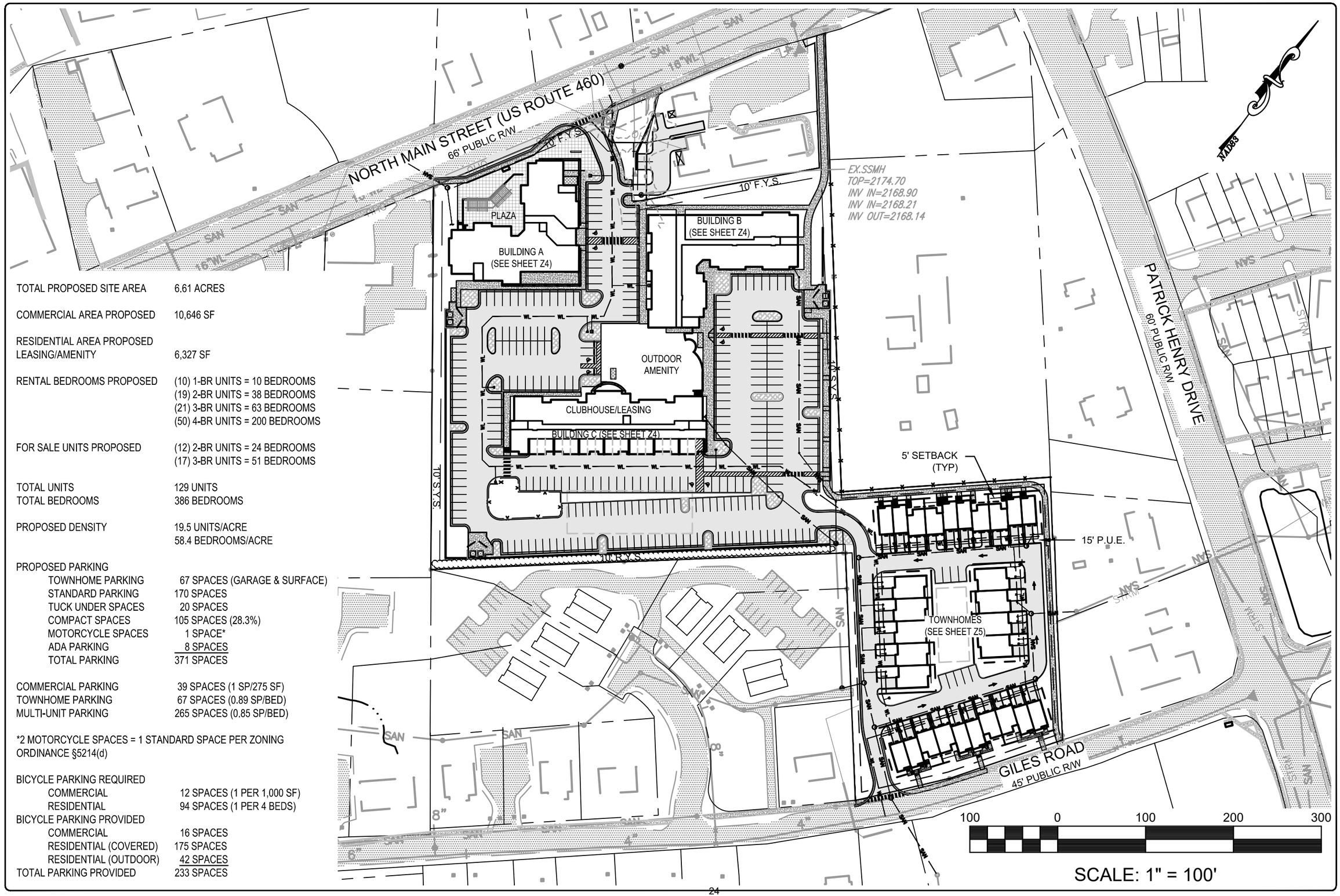
Appendix B

Concept Plan

TOTAL PROPOSED SITE AREA	6.61 ACRES
COMMERCIAL AREA PROPOSED	10,646 SF
RESIDENTIAL AREA PROPOSED LEASING/AMENITY	6,327 SF
RENTAL BEDROOMS PROPOSED	(10) 1-BR UNITS = 10 BEDROOMS (19) 2-BR UNITS = 38 BEDROOMS (21) 3-BR UNITS = 63 BEDROOMS (50) 4-BR UNITS = 200 BEDROOMS
FOR SALE UNITS PROPOSED	(12) 2-BR UNITS = 24 BEDROOMS (17) 3-BR UNITS = 51 BEDROOMS
TOTAL UNITS	129 UNITS
TOTAL BEDROOMS	386 BEDROOMS
PROPOSED DENSITY	19.5 UNITS/ACRE 58.4 BEDROOMS/ACRE
PROPOSED PARKING	
TOWNHOME PARKING	67 SPACES (GARAGE & SURFACE)
STANDARD PARKING	170 SPACES
TUCK UNDER SPACES	20 SPACES
COMPACT SPACES	105 SPACES (28.3%)
MOTORCYCLE SPACES	1 SPACE*
ADA PARKING	8 SPACES
TOTAL PARKING	371 SPACES
COMMERCIAL PARKING	39 SPACES (1 SP/275 SF)
TOWNHOME PARKING	67 SPACES (0.89 SP/BED)
MULTI-UNIT PARKING	265 SPACES (0.85 SP/BED)

*2 MOTORCYCLE SPACES = 1 STANDARD SPACE PER ZONING ORDINANCE §5214(d)

BICYCLE PARKING REQUIRED	
COMMERCIAL	12 SPACES (1 PER 1,000 SF)
RESIDENTIAL	94 SPACES (1 PER 4 BEDS)
BICYCLE PARKING PROVIDED	
COMMERCIAL	16 SPACES
RESIDENTIAL (COVERED)	175 SPACES
RESIDENTIAL (OUTDOOR)	42 SPACES
TOTAL PARKING PROVIDED	233 SPACES



BALZER & ASSOCIATES
PLANNERS / ARCHITECTS
ENGINEERS / SURVEYORS
Roanoke / Richmond
New River Valley / Staunton
Harrisonburg / Lynchburg
www.balzer.cc
80 College Street
Suite H
Christiansburg, VA 24073
540.381.4290

1310 N. MAIN STREET PRD

OVERALL MASTER PLAN

MOUNT TABOR MAGISTERIAL DISTRICT
TOWN OF BLACKSBURG, VIRGINIA

DRAWN BY	GLM
DESIGNED BY	GLM
CHECKED BY	SMS
DATE	7/1/19
SCALE	1" = 100'
REVISIONS	

1. 9/27/19

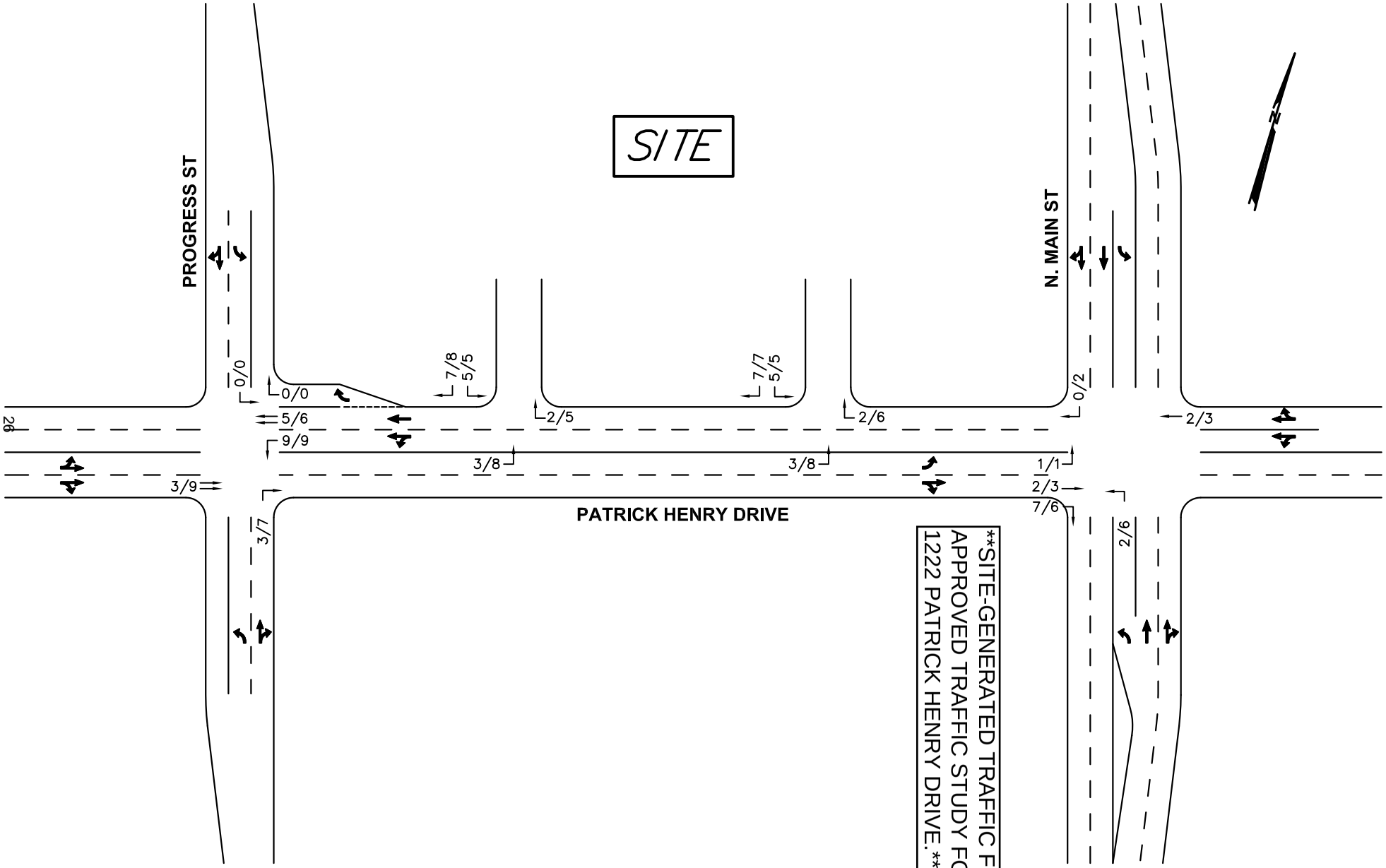
PROJECT NO 24180101.00

Z3

Appendix C

Existing & Background Traffic Data

FIGURE 4: SITE-GENERATED TRAFFIC



SITE-GENERATED TRAFFIC FROM APPROVED TRAFFIC STUDY FOR 1222 PATRICK HENRY DRIVE.

LEGEND

xx/xx: AM/PM Peak Hour Traffic

xx/xx: AM/PM Peak Hour Pedestrians

Virginia Department of Transportation
Traffic Engineering Division
2017
Annual Average Daily Traffic Volume Estimates By Section of Route
Town of Blacksburg

Route	Length	AADT	QA	4Tire	Bus	Truck 2Axle	Truck 3+Axle	Truck 1Trail	Truck 2Trail	QC	K Factor	QK	Dir Factor	AAWDT	QW	Year
Town of Blacksburg																
(F618) Holiday Lane	0.03	40	R								NA			NA		05/08/2013
From: End State Maintenance																
To: SCL Blacksburg																
(F618) Holiday Lane	0.09	120	R								NA			NA		05/08/2013
From: SCL Blacksburg																
To: Yellow Sulphur Rd																
(2) University City Blvd	1.11	8800	G	98%	2%	0%	0%	0%	0%	C	0.106		0.555	9300	G	2017
From: Prices Fork Rd																
To: Toms Creek Rd																
(3) Givens Lane	1.57	1300	G	98%	1%	0%	0%	0%	0%	C	0.104		0.5	1300	G	2017
From: 150-3159 Chickahominy Dr																
To: Bus US 460 North Main St																
(4) Progress St	0.64	3800	G	98%	0%	1%	0%	0%	0%	F	0.09		0.529	4000	G	2017
From: Bus US 460, N Main St																
To: 150-3165 Patrick Henry Dr																
(4) Progress St	0.51	1100	G	98%	0%	1%	0%	0%	0%	C	0.109		0.759	1200	G	2017
From: 150-3165 Patrick Henry Dr																
To: Cherokee Dr																
(4) Progress St	0.01	250	G	98%	0%	1%	0%	0%	0%	F	0.153		0.507	270	G	2017
From: Northside Dr																
To: Dead End																
(5) Clay St	0.92	2700	G	99%	0%	0%	0%	0%	0%	C	0.101		0.63	2900	G	2017
From: Bus US 460																
To: ECL Blacksburg; 60-1235, Floyd St																
(3150) Airport Rd	0.23	5500	G	99%	0%	0%	0%	0%	0%	F	0.119		0.620	5800	G	2017
From: Southgate Dr																
To: Country Club Dr																
(3150) Country Club Dr	0.40	4300	G	99%	0%	0%	0%	0%	0%	C	0.119		0.620	4500	G	2017
From: Airport Rd																
To: Main St																
(3151) Ellett Rd	0.71	5500	G	98%	1%	0%	0%	0%	0%	C	0.096		0.595	5800	G	2017
From: SCL Blacksburg																
To: S Main St																
(3152) Prices Fork Rd	0.75	14000	G	98%	1%	1%	0%	0%	0%	C	0.133		0.509	15000	G	2017
From: WCL Blacksburg																
To: Hethwood Blvd																
(3152) Prices Fork Rd	0.36	17000	G	98%	1%	1%	0%	0%	0%	F	0.114		0.524	18000	G	2017
From: Hethwood Blvd																
To: Heather Dr																
(3152) Prices Fork Rd	0.58	24000	G	98%	1%	1%	0%	0%	0%	F	0.1		0.558	26000	G	2017
From: Heather Dr																
To: US 460																
(3153) Airport Rd	0.37	2000	G	98%	1%	1%	0%	0%	0%	C	0.129		0.629	2100	G	2017
From: Southgate Dr																
To: Main Street																
(3154) Glade Rd	1.55	1100	G	98%	1%	1%	0%	0%	0%	C	0.111		0.61	1100	G	2017
From: WCL Blacksburg																
To: Boxwood Dr																
(3154) Glade Rd	0.46	1500	G	99%	0%	1%	0%	0%	0%	C	0.103		0.584	1600	G	2017
From: Boxwood Dr																
To: Oriole Dr																
(3154) Glade Rd	0.33	4500	G	99%	0%	1%	0%	0%	0%	F	0.104		0.65	4800	G	2017
From: Oriole Dr																
To: University City Blvd																
(3156) Roanoke St	0.49	5100	G	98%	0%	2%	0%	0%	0%	C	0.1		0.568	5500	G	2017
From: Main St																
To: Owen St																
(3156) Owen St	0.11	4400	G	98%	0%	2%	0%	0%	0%	C	0.104		0.567	4700	G	2017
From: Roanoke St																
To: Harding Ave																
(3156) Harding Ave	0.11	4600	G	97%	0%	2%	0%	0%	0%	C	0.105		0.587	4900	G	2017
From: Owen St																
To: Cork Dr																

Virginia Department of Transportation
Traffic Engineering Division
2017
Annual Average Daily Traffic Volume Estimates By Section of Route
Town of Blacksburg

	Route	Length	AADT	QA	4Tire	Bus	Truck 2Axle	Truck 3+Axle	Truck 1Trail	Truck 2Trail	QC	K Factor	QK	Dir Factor	AAWDT	QW	Year
Town of Blacksburg																	
3156	Harding Ave	0.66	**3800**	**G**	97%	0%	2%	0%	0%	0%	F	0.096		0.589	4000	G	2017
	From: Cork Dr																
	To: ECL Blacksburg																
3159	Tom's Creek Rd	1.08	**9400**	**G**	98%	1%	0%	0%	1%	0%	C	0.093		0.502	10000	G	2017
	From: Prices Fork Rd																
	To: US 460																
3164	Mt Tabor Rd	0.92	**2900**	**G**	98%	1%	0%	0%	0%	0%	C	0.101		0.569	3100	G	2017
	From: US 460 Bus																
	To: NCL Blacksburg																
3165	Patrick Henry Dr	0.79	**3800**	**G**	99%	0%	0%	0%	0%	0%	C	0.117		0.527	4100	G	2017
	From: Harding Ave																
	To: Bus US 460																
3165	Patrick Henry Dr	0.83	**8900**	**G**	99%	0%	0%	0%	0%	0%	F	0.098		0.522	9500	G	2017
	From: Toms Creek Rd																
	To: Progress St NW																
	Alumni Mall		**2800**	**G**	88%	8%	3%	1%	1%	0%	C	0.106		0.512	2800	G	2017
	From: Drillfield Dr																
	To: Main St																
	Apperson Dr		**150**	**G**								0.137		0.591	150	G	2017
	From: Mason Drive																
	To: Harding Avenue																
	College Ave		**NA**									NA			NA		
	From: Otey St																
	To: Draper Rd																
	Commuter Lot Entrance		**4100**	**G**	99%	0%	1%	0%	0%	0%	C	0.119		0.82	4100	G	2017
	From: Prices Fork Rd																
	To: Commuter Lot																
	Country Club Dr		**640**	**G**	98%	0%	2%	0%	0%	0%	C	0.151		0.51	640	G	2017
	From: Dead End																
	To: Airport Rd																
	County Club Dr		**4200**	**G**	100%	0%	0%	0%	0%	0%	C	0.126		0.6	4200	G	2017
	From: Draper Rd																
	To: US 460 Main St																
	Draper Rd		**240**	**G**								0.172			260	G	2017
	From: Country Club Dr																
	To: Airport Rd																
	Drillfield Dr - In front of Price Hall		**2300**	**G**	95%	2%	2%	0%	0%	0%	C	0.114		0.921	2300	G	2017
	From: West Campus Dr																
	To: Kent St																
	Drillfield Dr - In front of Williams Ha		**NA**									NA			NA		
	From: Stanger St																
	To: West Campus Dr																
	Duckpond Dr		**6600**	**G**	99%	0%	0%	1%	0%	0%	C	0.126		0.752	6600	G	2017
	From: Southgate Dr																
	To: Washington St																
	Duckpond Dr		**4700**	**G**	99%	0%	0%	1%	0%	0%	C	0.098		0.517	4700	G	2017
	From: Oak Ln																
	To: West Campus Dr																
	E Clay St		**3200**	**G**	99%	0%	0%	0%	0%	0%	F	0.084		0.589	3500	G	2017
	From: C8US 460																
	To: Dead End																
	Edgewood Lane		**290**	**G**								0.102		0.607	290	G	2017
	From: Preston Ave																
	To: S Draper Rd																
	Entrance to VT Inn & VT Visitor Cente		**1600**	**G**	97%	0%	1%	3%	0%	0%	C	0.129		0.781	1600	G	2017
	From: Prices Fork Rd																
	To: Entrance Split																

Virginia Department of Transportation
Traffic Engineering Division
2016
Annual Average Daily Traffic Volume Estimates By Section of Route
Town of Blacksburg

Route	Jurisdiction	Length	AADT	QA	4Tire	Bus	Truck 2Axle	Truck 3+Axle	Truck 1Trail	Truck 2Trail	QC	K Factor	QK	Dir Factor	AAWDT	QW
314 Southgate Dr	Town of Blacksburg (Maint: 60)	0.15	**10000**	**G**	98%	0%	0%	1%	0%	0%	C	0.120		0.769	11000	G
From: US 460																
To: 0.15 Mile E US 460																
412 Prices Fork Rd	Town of Blacksburg	1.07	**28000**	**F**	97%	2%	0%	0%	1%	0%	C	0.088		0.573	30000	F
From: US 460																
To: Toms Creek Rd																
412 Prices Fork Rd	Town of Blacksburg	0.28	**21000**	**F**	97%	2%	0%	0%	1%	0%	F	0.084		0.549	22000	F
From: Toms Creek Rd																
To: Main St																
460	Town of Blacksburg (Maint: 60)	0.40	**14000**	**F**	91%	1%	1%	1%	7%	0%	C	0.095		0.657	15000	F
From: NCL Blacksburg																
To: Bus US 460																
460	Town of Blacksburg (Maint: 60)	3.30	**16000**	**F**	90%	1%	1%	1%	7%	0%	C	0.101		0.706	17000	F
From: Bus US 460, N Main St																
To: SR 412 Prices Fork Rd																
460	Town of Blacksburg (Maint: 60)	2.97	**36000**	**F**	95%	0%	1%	1%	3%	0%	C	0.103		0.547	38000	F
From: SR 412 Prices Fork Rd																
To: Southgate Dr																
460	Town of Blacksburg (Maint: 60)	0.72	**41000**	**F**	95%	0%	1%	1%	3%	0%	F	0.103		0.653	44000	F
From: BUS US 460																
To: SCL Blacksburg																
Bus 460 Main St	Town of Blacksburg	0.29	**17000**	**N**	98%	0%	1%	0%	0%	0%	N	0.091		0.593	18000	N
From: US 460; SCL Blacksburg																
To: SCL Blacksburg																
Bus 460 Main St	Town of Blacksburg	1.01	**5000**	**F**	98%	0%	1%	1%	0%	0%	C	0.1		0.57	5400	F
From: US 460																
To: Mount Tabor Rd																
Bus 460 Main St	Town of Blacksburg	0.87	**7500**	**F**	98%	1%	0%	0%	0%	0%	C	0.098		0.636	8000	F
From: Mount Tabor Rd																
To: Patrick Henry Dr																
Bus 460 Main St	Town of Blacksburg	0.44	**15000**	**F**	98%	1%	0%	0%	0%	0%	F	0.081		0.562	16000	F
From: Patrick Henry Dr																
To: Broce Dr																
Bus 460 Main St	Town of Blacksburg	0.26	**16000**	**F**	98%	1%	0%	0%	0%	0%	F	0.082		0.534	17000	F
From: Broce Dr																
To: Progress St																
Bus 460 Main St	Town of Blacksburg	0.17	**17000**	**F**	98%	1%	0%	0%	0%	0%	F	0.081		0.513	18000	F
From: Progress St																
To: Prices Fork Rd																
Bus 460 Main St	Town of Blacksburg	0.53	**18000**	**F**	98%	1%	0%	0%	0%	0%	F	0.076		0.521	20000	F
From: Prices Fork Rd																
To: Roanoke St																
Bus 460 Main St	Town of Blacksburg	0.19	**17000**	**F**	98%	1%	1%	0%	0%	0%	F	0.077		0.508	18000	F
From: Roanoke St																
To: Clay St																

Peggy Malone & Associates
(888) 247-8602

File Name : 1-N Main St and Patrick Henry Dr
Site Code :
Start Date : 4/23/2019
Page No : 1

Groups Printed- Car

	N. Main St Southbound					Patrick Henry Dr Westbound					N Main St Northbound					Patrick Henry Dr 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
07:00 AM	18	54	3	3	78	5	11	4	0	20	9	13	9	3	34	6	5	10	2	23	155
07:15 AM	21	83	5	1	110	5	20	8	0	33	1	18	16	7	42	11	4	17	3	35	220
07:30 AM	35	174	11	0	220	6	19	23	0	48	6	20	6	9	41	32	9	14	5	60	369
07:45 AM	33	139	7	1	180	7	22	18	0	47	8	21	5	2	36	33	8	11	0	52	315
Total	107	450	26	5	588	23	72	53	0	148	24	72	36	21	153	82	26	52	10	170	1059
08:00 AM	21	75	13	1	110	8	15	12	0	35	4	28	8	2	42	19	22	15	0	56	243
08:15 AM	24	106	13	0	143	6	17	9	1	33	8	26	7	2	43	15	10	12	3	40	259
08:30 AM	29	106	17	0	152	9	25	13	2	49	10	29	9	1	49	29	16	15	7	67	317
08:45 AM	41	116	11	2	170	8	18	15	2	43	6	37	16	7	66	27	22	21	4	74	353
Total	115	403	54	3	575	31	75	49	5	160	28	120	40	12	200	90	70	63	14	237	1172
09:00 AM	35	142	9	3	189	9	14	17	4	44	2	44	9	5	60	33	22	22	2	79	372
09:15 AM	17	100	8	0	125	7	28	13	1	49	10	54	40	1	105	21	12	11	38	82	361
09:30 AM	14	76	7	0	97	4	7	7	0	18	6	40	22	6	74	15	8	20	0	43	232
09:45 AM	18	80	11	0	109	4	18	4	2	28	7	42	13	4	66	17	11	8	2	38	241
Total	84	398	35	3	520	24	67	41	7	139	25	180	84	16	305	86	53	61	42	242	1206
10:00 AM	19	51	9	1	80	7	13	6	0	26	6	35	13	3	57	15	18	9	2	44	207
10:15 AM	21	69	8	0	98	7	17	7	0	31	4	39	16	4	63	17	10	16	1	44	236
10:30 AM	20	87	8	3	118	9	20	15	0	44	3	42	18	9	72	26	16	10	11	63	297
10:45 AM	20	75	9	0	104	6	19	15	0	40	12	50	31	3	96	52	18	16	8	94	334
Total	80	282	34	4	400	29	69	43	0	141	25	166	78	19	288	110	62	51	22	245	1074
11:00 AM	27	54	12	1	94	5	10	8	1	24	17	49	29	5	100	21	20	15	2	58	276
11:15 AM	19	65	15	1	100	14	22	5	3	44	5	44	28	3	80	16	15	24	1	56	280
11:30 AM	21	85	10	0	116	3	21	11	4	39	11	54	21	3	89	25	18	8	0	51	295
11:45 AM	25	89	15	2	131	10	17	8	0	35	13	53	14	3	83	21	19	18	0	58	307
Total	92	293	52	4	441	32	70	32	8	142	46	200	92	14	352	83	72	65	3	223	1158
12:00 PM	19	88	10	3	120	5	23	18	0	46	13	57	29	8	107	44	31	21	0	96	369
12:15 PM	18	68	11	1	98	10	34	14	2	60	8	71	36	0	115	27	19	24	0	70	343
12:30 PM	21	45	11	1	78	11	15	11	2	39	13	75	29	2	119	26	19	21	0	66	302
12:45 PM	16	75	12	2	105	8	19	14	2	43	8	57	38	0	103	32	21	24	5	82	333
Total	74	276	44	7	401	34	91	57	6	188	42	260	132	10	444	129	90	90	5	314	1347
01:00 PM	25	64	9	3	101	8	31	14	2	55	11	56	21	2	90	29	21	16	1	67	313
01:15 PM	23	76	11	1	111	8	16	8	2	34	11	49	22	4	86	24	15	15	0	54	285
01:30 PM	14	76	11	1	102	7	12	14	0	33	12	53	21	7	93	27	11	15	0	53	281
01:45 PM	10	60	8	4	82	5	22	11	0	38	8	79	30	4	121	33	24	13	1	71	312
Total	72	276	39	9	396	28	81	47	4	160	42	237	94	17	390	113	71	59	2	245	1191
02:00 PM	24	57	9	0	90	8	28	6	0	42	13	75	32	5	125	18	14	23	7	62	319
02:15 PM	26	52	8	0	86	6	26	8	1	41	15	59	32	1	107	26	17	18	3	64	298
02:30 PM	21	64	12	1	98	10	19	5	0	34	10	45	29	4	88	30	22	13	11	76	296
02:45 PM	14	59	8	2	83	6	18	13	0	37	12	62	31	4	109	17	16	16	2	51	280
Total	85	232	37	3	357	30	91	32	1	154	50	241	124	14	429	91	69	70	23	253	1193
03:00 PM	29	70	10	0	109	9	32	16	1	58	10	58	27	2	97	30	19	16	4	69	333
03:15 PM	21	85	7	1	114	12	22	7	2	43	18	76	45	2	141	34	24	22	5	85	383
03:30 PM	35	71	20	3	129	16	21	16	2	55	19	121	45	2	187	22	22	16	0	60	431
03:45 PM	28	65	18	2	113	7	37	13	2	59	15	69	34	3	121	25	26	26	0	77	370
Total	113	291	55	6	465	44	112	52	7	215	62	324	151	9	546	111	91	80	9	291	1517
04:00 PM	34	68	21	1	124	7	30	9	2	48	14	89	32	1	136	22	20	30	0	72	380
04:15 PM	21	75	10	1	107	8	31	9	0	48	9	69	40	1	119	28	24	19	0	71	345
04:30 PM	39	81	20	2	142	9	16	19	0	44	17	77	44	5	143	50	24	11	3	88	417
04:45 PM	39	113	18	2	172	14	26	17	0	57	10	87	41	0	138	59	31	19	1	110	477
Total	133	337	69	6	545	38	103	54	2	197	50	322	157	7	536	159	99	79	4	341	1619
05:00 PM	59	61	19	11	150	17	41	15	10	83	25	127	43	2	197	32	40	19	1	92	522
05:15 PM	36	57	14	2	109	13	37	11	3	64	24	119	46	3	192	42	38	29	0	109	474
05:30 PM	30	82	15	1	128	10	43	27	4	84	26	104	36	0	166	35	34	34	4	107	485
05:45 PM	30	90	16	1	137	13	42	19	1	75	21	80	26	1	128	36	41	23	0	100	440
Total	155	290	64	15	524	53	163	72	18	306	96	430	151	6	683	145	153	105	5	408	1921
06:00 PM	33	56	10	2	101	15	32	17	2	66	10	85	38	2	135	38	32	21	1	92	394
06:15 PM	21	57	14	1	93	11	28	13	1	53	18	72	40	3	133	39	35	24	0	98	377
06:30 PM	19	75	10	1	105	8	36	20	0	64	20	74	38	1	133	54	39	22	1	116	418
06:45 PM	15	78	6	1	100	1	33	20	1	55	17	82	38	4	141	47	32	21	0	100	396
Total	88	266	40	5	399	35	129	70	4	238	65	313	154	10	542	178	138	88	2	406	1585
Grand Total	1198	3794	549	70	5611	401	1123	602	62	2188	555	2865	1293	155	4868	1377	994	863	141	3375	16042
Apprch %	21.4	67.6	9.8	1.2		18.3	51.3	27.5	2.8		11.4	58.9	26.6	3.2		40.8	29.5	25.6	4.2		
Total %	7.5	23.7	3.4	0.4	35	2.5	7	3.8	0.4	13.6	3.5	17.9	8.1	1	30.3	8.6	6.2	5.4	0.9	21	

Peggy Malone & Associates
(888) 247-8602

File Name : 1-N Main St and Patrick Henry Dr
Site Code :
Start Date : 4/23/2019
Page No : 2

	N. Main St Southbound				Patrick Henry Dr Westbound				N Main St Northbound				Patrick Henry Dr Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:30 AM																	
08:30 AM	29	106	**17**	152	**9**	25	13	47	**10**	29	9	48	29	16	15	60	307
08:45 AM	**41**	116	11	168	8	18	15	41	6	37	16	59	27	**22**	21	70	338
09:00 AM	35	**142**	9	**186**	9	14	**17**	40	2	44	9	55	**33**	22	**22**	**77**	**358**
09:15 AM	17	100	8	125	7	**28**	13	**48**	10	**54**	**40**	**104**	21	12	11	44	321
Total Volume	122	464	45	631	33	85	58	176	28	164	74	266	110	72	69	251	1324
% App. Total	19.3	73.5	7.1		18.8	48.3	33		10.5	61.7	27.8		43.8	28.7	27.5		
PHF	.744	.817	.662	.848	.917	.759	.853	.917	.700	.759	.463	.639	.833	.818	.784	.815	.925
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	39	**113**	18	**170**	14	26	17	57	10	87	41	138	**59**	31	19	**109**	474
05:00 PM	**59**	61	**19**	139	**17**	41	15	73	25	**127**	43	**195**	32	**40**	19	91	**498**
05:15 PM	36	57	14	107	13	37	11	61	24	119	**46**	189	42	38	29	109	466
05:30 PM	30	82	15	127	10	**43**	**27**	**80**	**26**	104	36	166	35	34	**34**	103	476
Total Volume	164	313	66	543	54	147	70	271	85	437	166	688	168	143	101	412	1914
% App. Total	30.2	57.6	12.2		19.9	54.2	25.8		12.4	63.5	24.1		40.8	34.7	24.5		
PHF	.695	.692	.868	.799	.794	.855	.648	.847	.817	.860	.902	.882	.712	.894	.743	.945	.961

Peggy Malone & Associates
(888) 247-8602

File Name : 1-N Main St and Patrick Henry Dr
Site Code :
Start Date : 4/23/2019
Page No : 1

Groups Printed- Truck

	N. Main St Southbound					Patrick Henry Dr Westbound					N Main St Northbound					Patrick Henry Dr 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
07:00 AM	1	2	0	0	3	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	6
07:15 AM	2	4	0	0	6	0	1	0	0	1	0	1	1	0	2	1	1	1	0	3	12
07:30 AM	0	3	0	0	3	0	3	3	0	6	0	1	0	0	1	0	0	0	0	0	10
07:45 AM	1	2	0	0	3	0	2	0	0	2	1	1	0	0	2	0	1	1	0	2	9
Total	4	11	0	0	15	0	6	3	0	9	1	4	3	0	8	1	2	2	0	5	37
08:00 AM	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	5
08:15 AM	1	1	0	0	2	0	1	0	0	1	0	3	0	0	3	0	1	3	0	4	10
08:30 AM	1	2	0	0	3	0	2	0	0	2	1	3	0	0	4	0	0	0	0	0	9
08:45 AM	2	4	1	0	7	1	2	0	0	3	1	1	0	0	2	0	0	2	0	2	14
Total	4	8	1	0	13	1	7	0	0	8	2	9	0	0	11	0	1	5	0	6	38
09:00 AM	0	2	0	0	2	2	1	0	0	3	0	2	0	0	2	0	1	0	0	1	8
09:15 AM	1	4	0	0	5	0	2	0	0	2	0	2	1	0	3	0	0	2	0	2	12
09:30 AM	1	2	1	0	4	1	2	1	0	4	0	1	0	0	1	1	0	1	0	2	11
09:45 AM	2	3	0	0	5	0	2	0	0	2	0	3	0	0	3	0	0	1	0	1	11
Total	4	11	1	0	16	3	7	1	0	11	0	8	1	0	9	1	1	4	0	6	42
10:00 AM	1	0	0	0	1	0	4	0	0	4	0	2	1	0	3	0	1	0	0	1	9
10:15 AM	0	4	0	0	4	0	2	0	0	2	0	3	1	0	4	0	0	1	0	1	11
10:30 AM	1	1	0	0	2	0	2	0	0	2	0	3	1	0	4	1	1	2	0	4	12
10:45 AM	1	2	0	0	3	0	2	0	0	2	0	2	1	0	3	1	1	0	0	2	10
Total	3	7	0	0	10	0	10	0	0	10	0	10	4	0	14	2	3	3	0	8	42
11:00 AM	0	5	0	0	5	0	3	0	0	3	1	3	0	0	4	0	0	0	0	0	12
11:15 AM	2	1	0	0	3	0	1	1	0	2	0	2	0	0	2	0	0	1	0	1	8
11:30 AM	0	0	1	0	1	0	2	0	0	2	1	2	2	0	5	0	1	0	0	1	9
11:45 AM	2	3	0	0	5	0	2	0	0	2	1	5	0	0	6	2	0	1	0	3	16
Total	4	9	1	0	14	0	8	1	0	9	3	12	2	0	17	2	1	2	0	5	45
12:00 PM	1	0	0	0	1	0	2	1	0	3	0	1	0	0	1	0	1	0	0	1	6
12:15 PM	1	1	0	0	2	1	2	0	0	3	0	2	0	0	2	1	0	1	0	2	9
12:30 PM	0	2	0	0	2	0	3	0	0	3	0	2	1	0	3	1	0	1	0	2	10
12:45 PM	1	4	0	0	5	0	2	0	0	2	1	1	0	0	2	0	0	1	0	1	10
Total	3	7	0	0	10	1	9	1	0	11	1	6	1	0	8	2	1	3	0	6	35
01:00 PM	0	2	0	0	2	0	2	0	0	2	0	2	0	0	2	1	0	0	0	1	7
01:15 PM	1	1	0	0	2	0	2	1	0	3	0	3	0	0	3	0	1	1	0	2	10
01:30 PM	1	1	0	0	2	1	1	0	0	2	1	2	1	0	4	1	1	0	0	2	10
01:45 PM	2	2	1	0	5	0	3	0	0	3	0	4	0	0	4	0	1	2	0	3	15
Total	4	6	1	0	11	1	8	1	0	10	1	11	1	0	13	2	3	3	0	8	42
02:00 PM	1	6	0	0	7	1	1	0	0	2	2	1	0	0	3	1	0	0	0	1	13
02:15 PM	2	2	0	0	4	0	2	1	0	3	0	2	0	0	2	0	0	1	0	1	10
02:30 PM	0	1	0	0	1	0	3	0	0	3	0	2	0	0	2	0	0	0	0	0	6
02:45 PM	2	3	0	0	5	0	3	0	0	3	1	1	0	0	2	0	1	1	0	2	12
Total	5	12	0	0	17	1	9	1	0	11	3	6	0	0	9	1	1	2	0	4	41
03:00 PM	0	1	0	0	1	0	1	0	0	1	2	2	1	0	5	0	1	0	0	1	8
03:15 PM	3	1	2	0	6	0	4	0	0	4	0	2	0	0	2	0	0	2	0	2	14
03:30 PM	1	2	0	0	3	0	2	0	0	2	0	2	0	0	2	1	1	1	0	3	10
03:45 PM	1	1	2	0	4	0	2	0	0	2	0	3	0	0	3	0	0	3	0	3	12
Total	5	5	4	0	14	0	9	0	0	9	2	9	1	0	12	1	2	6	0	9	44
04:00 PM	0	2	0	0	2	0	2	0	0	2	0	3	0	0	3	0	0	0	0	0	7
04:15 PM	1	3	0	0	4	0	1	0	0	1	1	1	0	0	2	0	0	2	0	2	9
04:30 PM	1	1	1	0	3	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	6
04:45 PM	2	2	0	0	4	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	7
Total	4	8	1	0	13	0	5	0	0	5	1	7	0	0	8	0	0	3	0	3	29
05:00 PM	1	2	0	0	3	0	3	0	0	3	0	2	0	0	2	0	0	0	0	0	8
05:15 PM	1	0	0	0	1	1	2	0	0	3	0	1	0	0	1	0	0	2	0	2	7
05:30 PM	1	1	0	0	2	0	3	0	0	3	0	1	0	0	1	0	0	1	0	1	7
05:45 PM	1	2	0	0	3	1	1	0	0	2	0	0	0	0	0	1	0	1	0	2	7
Total	4	5	0	0	9	2	9	0	0	11	0	4	0	0	4	1	0	4	0	5	29
06:00 PM	1	2	0	0	3	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	6
06:15 PM	1	1	0	0	2	0	1	0	0	1	0	2	0	0	2	0	0	1	0	1	6
06:30 PM	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	4
06:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	2	5	0	0	7	0	4	0	0	4	0	4	1	0	5	0	0	2	0	2	18
Grand Total	46	94	9	0	149	9	91	8	0	108	14	90	14	0	118	13	15	39	0	67	442
Apprch %	30.9	63.1	6	0		8.3	84.3	7.4	0		11.9	76.3	11.9	0		19.4	22.4	58.2	0		
Total %	10.4	21.3	2	0	33.7	2	20.6	1.8	0	24.4	3.2	20.4	3.2	0	26.7	2.9	3.4	8.8	0	15.2	

Peggy Malone & Associates

(888) 247-8602

File Name : 1-N Main St and Patrick Henry Dr
Site Code :
Start Date : 4/23/2019
Page No : 2

	N. Main St Southbound				Patrick Henry Dr Westbound				N Main St Northbound				Patrick Henry Dr Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:45 AM																	
08:45 AM	**2**	**4**	**1**	**7**	1	**2**	0	3	**1**	1	0	2	0	0	**2**	**2**	**14**
09:00 AM	0	2	0	2	**2**	1	0	3	0	**2**	0	2	0	**1**	0	1	8
09:15 AM	1	4	0	5	0	2	0	2	0	2	**1**	**3**	0	0	2	2	12
09:30 AM	1	2	1	4	1	2	**1**	**4**	0	1	0	1	**1**	0	1	2	11
Total Volume	4	12	2	18	4	7	1	12	1	6	1	8	1	1	5	7	45
% App. Total	22.2	66.7	11.1		33.3	58.3	8.3		12.5	75	12.5		14.3	14.3	71.4		
PHF	.500	.750	.500	.643	.500	.875	.250	.750	.250	.750	.250	.667	.250	.250	.625	.875	.804
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:15 PM																	
01:15 PM	1	1	0	2	0	2	**1**	**3**	0	3	0	3	0	**1**	1	2	10
01:30 PM	1	1	0	2	**1**	1	0	2	1	2	**1**	**4**	**1**	1	0	2	10
01:45 PM	**2**	2	**1**	5	0	**3**	0	3	0	**4**	0	4	0	1	**2**	**3**	**15**
02:00 PM	1	**6**	0	**7**	1	1	0	2	**2**	1	0	3	1	0	0	1	13
Total Volume	5	10	1	16	2	7	1	10	3	10	1	14	2	3	3	8	48
% App. Total	31.2	62.5	6.2		20	70	10		21.4	71.4	7.1		25	37.5	37.5		
PHF	.625	.417	.250	.571	.500	.583	.250	.833	.375	.625	.250	.875	.500	.750	.375	.667	.800

Peggy Malone & Associates
(888) 247-8602

File Name : 1-N Main St and Patrick Henry Dr
Site Code :
Start Date : 4/23/2019
Page No : 1

Groups Printed- Combined

	N. Main St Southbound					Patrick Henry Dr Westbound					N Main St Northbound					Patrick Henry Dr 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
07:00 AM	19	56	3	3	81	5	11	4	0	20	9	14	11	3	37	6	5	10	2	23	161
07:15 AM	23	87	5	1	116	5	21	8	0	34	1	19	17	7	44	12	5	18	3	38	232
07:30 AM	35	177	11	0	223	6	22	26	0	54	6	21	6	9	42	32	9	14	5	60	379
07:45 AM	34	141	7	1	183	7	24	18	0	49	9	22	5	2	38	33	9	12	0	54	324
Total	111	461	26	5	603	23	78	56	0	157	25	76	39	21	161	83	28	54	10	175	1096
08:00 AM	21	76	13	1	111	8	17	12	0	37	4	30	8	2	44	19	22	15	0	56	248
08:15 AM	25	107	13	0	145	6	18	9	1	34	8	29	7	2	46	15	11	15	3	44	269
08:30 AM	30	108	17	0	155	9	27	13	2	51	11	32	9	1	53	29	16	15	7	67	326
08:45 AM	43	120	12	2	177	9	20	15	2	46	7	38	16	7	68	27	22	23	4	76	367
Total	119	411	55	3	588	32	82	49	5	168	30	129	40	12	211	90	71	68	14	243	1210
09:00 AM	35	144	9	3	191	11	15	17	4	47	2	46	9	5	62	33	23	22	2	80	380
09:15 AM	18	104	8	0	130	7	30	13	1	51	10	56	41	1	108	21	12	13	38	84	373
09:30 AM	15	78	8	0	101	5	9	8	0	22	6	41	22	6	75	16	8	21	0	45	243
09:45 AM	20	83	11	0	114	4	20	4	2	30	7	45	13	4	69	17	11	9	2	39	252
Total	88	409	36	3	536	27	74	42	7	150	25	188	85	16	314	87	54	65	42	248	1248
10:00 AM	20	51	9	1	81	7	17	6	0	30	6	37	14	3	60	15	19	9	2	45	216
10:15 AM	21	73	8	0	102	7	19	7	0	33	4	42	17	4	67	17	10	17	1	45	247
10:30 AM	21	88	8	3	120	9	22	15	0	46	3	45	19	9	76	27	17	12	11	67	309
10:45 AM	21	77	9	0	107	6	21	15	0	42	12	52	32	3	99	53	19	16	8	96	344
Total	83	289	34	4	410	29	79	43	0	151	25	176	82	19	302	112	65	54	22	253	1116
11:00 AM	27	59	12	1	99	5	13	8	1	27	18	52	29	5	104	21	20	15	2	58	288
11:15 AM	21	66	15	1	103	14	23	6	3	46	5	46	28	3	82	16	15	25	1	57	288
11:30 AM	21	85	11	0	117	3	23	11	4	41	12	56	23	3	94	25	19	8	0	52	304
11:45 AM	27	92	15	2	136	10	19	8	0	37	14	58	14	3	89	23	19	19	0	61	323
Total	96	302	53	4	455	32	78	33	8	151	49	212	94	14	369	85	73	67	3	228	1203
12:00 PM	20	88	10	3	121	5	25	19	0	49	13	58	29	8	108	44	32	21	0	97	375
12:15 PM	19	69	11	1	100	11	36	14	2	63	8	73	36	0	117	28	19	25	0	72	352
12:30 PM	21	47	11	1	80	11	18	11	2	42	13	77	30	2	122	27	19	22	0	68	312
12:45 PM	17	79	12	2	110	8	21	14	2	45	9	58	38	0	105	32	21	25	5	83	343
Total	77	283	44	7	411	35	100	58	6	199	43	266	133	10	452	131	91	93	5	320	1382
01:00 PM	25	66	9	3	103	8	33	14	2	57	11	58	21	2	92	30	21	16	1	68	320
01:15 PM	24	77	11	1	113	8	18	9	2	37	11	52	22	4	89	24	16	16	0	56	295
01:30 PM	15	77	11	1	104	8	13	14	0	35	13	55	22	7	97	28	12	15	0	55	291
01:45 PM	12	62	9	4	87	5	25	11	0	41	8	83	30	4	125	33	25	15	1	74	327
Total	76	282	40	9	407	29	89	48	4	170	43	248	95	17	403	115	74	62	2	253	1233
02:00 PM	25	63	9	0	97	9	29	6	0	44	15	76	32	5	128	19	14	23	7	63	332
02:15 PM	28	54	8	0	90	6	28	9	1	44	15	61	32	1	109	26	17	19	3	65	308
02:30 PM	21	65	12	1	99	10	22	5	0	37	10	47	29	4	90	30	22	13	11	76	302
02:45 PM	16	62	8	2	88	6	21	13	0	40	13	63	31	4	111	17	17	17	2	53	292
Total	90	244	37	3	374	31	100	33	1	165	53	247	124	14	438	92	70	72	23	257	1234
03:00 PM	29	71	10	0	110	9	33	16	1	59	12	60	28	2	102	30	20	16	4	70	341
03:15 PM	24	86	9	1	120	12	26	7	2	47	18	78	45	2	143	34	24	24	5	87	397
03:30 PM	36	73	20	3	132	16	23	16	2	57	19	123	45	2	189	23	23	17	0	63	441
03:45 PM	29	66	20	2	117	7	39	13	2	61	15	72	34	3	124	25	26	29	0	80	382
Total	118	296	59	6	479	44	121	52	7	224	64	333	152	9	558	112	93	86	9	300	1561
04:00 PM	34	70	21	1	126	7	32	9	2	50	14	92	32	1	139	22	20	30	0	72	387
04:15 PM	22	78	10	1	111	8	32	9	0	49	10	70	40	1	121	28	24	21	0	73	354
04:30 PM	40	82	21	2	145	9	17	19	0	45	17	79	44	5	145	50	24	11	3	88	423
04:45 PM	41	115	18	2	176	14	27	17	0	58	10	88	41	0	139	59	31	20	1	111	484
Total	137	345	70	6	558	38	108	54	2	202	51	329	157	7	544	159	99	82	4	344	1648
05:00 PM	60	63	19	11	153	17	44	15	10	86	25	129	43	2	199	32	40	19	1	92	530
05:15 PM	37	57	14	2	110	14	39	11	3	67	24	120	46	3	193	42	38	31	0	111	481
05:30 PM	31	83	15	1	130	10	46	27	4	87	26	105	36	0	167	35	34	35	4	108	492
05:45 PM	31	92	16	1	140	14	43	19	1	77	21	80	26	1	128	37	41	24	0	102	447
Total	159	295	64	15	533	55	172	72	18	317	96	434	151	6	687	146	153	109	5	413	1950
06:00 PM	34	58	10	2	104	15	33	17	2	67	10	87	38	2	137	38	32	21	1	92	400
06:15 PM	22	58	14	1	95	11	29	13	1	54	18	74	40	3	135	39	35	25	0	99	383
06:30 PM	19	77	10	1	107	8	36	20	0	64	20	74	39	1	134	54	39	23	1	117	422
06:45 PM	15	78	6	1	100	1	35	20	1	57	17	82	38	4	141	47	32	21	0	100	398
Total	90	271	40	5	406	35	133	70	4	242	65	317	155	10	547	178	138	90	2	408	1603
Grand Total	1244	3888	558	70	5760	410	1214	610	62	2296	569	2955	1307	155	4986	1390	1009	902	141	3442	16484
Apprch %	21.6	67.5	9.7	1.2		17.9	52.9	26.6	2.7		11.4	59.3	26.2	3.1		40.4	29.3	26.2	4.1		
Total %	7.5	23.6	3.4	0.4	34.9	2.5	7.4	3.7	0.4	13.9	3.5	17.9	7.9	0.9	30.2	8.4	6.1	5.5	0.9	20.9	

Peggy Malone & Associates

(888) 247-8602

File Name : 1-N Main St and Patrick Henry Dr
Site Code :
Start Date : 4/23/2019
Page No : 2

	N. Main St Southbound				Patrick Henry Dr Westbound				N Main St Northbound				Patrick Henry Dr Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:30 AM																	
08:30 AM	30	108	**17**	155	9	27	13	49	**11**	32	9	52	29	16	15	60	316
08:45 AM	**43**	120	12	175	9	20	15	44	7	38	16	61	27	22	**23**	72	352
09:00 AM	35	**144**	9	**188**	**11**	15	**17**	43	2	46	9	57	**33**	**23**	22	**78**	**366**
09:15 AM	18	104	8	130	7	**30**	13	**50**	10	**56**	**41**	**107**	21	12	13	46	333
Total Volume	126	476	46	648	36	92	58	186	30	172	75	277	110	73	73	256	1367
% App. Total	19.4	73.5	7.1		19.4	49.5	31.2		10.8	62.1	27.1		43	28.5	28.5		
PHF	.733	.826	.676	.862	.818	.767	.853	.930	.682	.768	.457	.647	.833	.793	.793	.821	.934
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	41	**115**	18	**174**	14	27	17	58	10	88	41	139	**59**	31	20	110	481
05:00 PM	**60**	63	**19**	142	**17**	44	15	76	25	**129**	43	**197**	32	**40**	19	91	**506**
05:15 PM	37	57	14	108	14	39	11	64	24	120	**46**	190	42	38	31	**111**	473
05:30 PM	31	83	15	129	10	**46**	**27**	**83**	**26**	105	36	167	35	34	**35**	104	483
Total Volume	169	318	66	553	55	156	70	281	85	442	166	693	168	143	105	416	1943
% App. Total	30.6	57.5	11.9		19.6	55.5	24.9		12.3	63.8	24		40.4	34.4	25.2		
PHF	.704	.691	.868	.795	.809	.848	.648	.846	.817	.857	.902	.879	.712	.894	.750	.937	.960

Peggy Malone & Associates
(888) 247-8602

File Name : 1-Main St and Patrick Henry Dr
Site Code :
Start Date : 3/6/2019
Page No : 1

Groups Printed- Car

	Main St Southbound					Patrick Henry Dr Westbound					Main St Northbound					Patrick Henry Dr 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
07:00 AM	22	62	6	0	90	2	11	7	0	20	3	7	4	1	15	5	7	12	0	24	149
07:15 AM	25	90	5	0	120	2	13	9	0	24	2	18	1	7	28	16	3	19	0	38	210
07:30 AM	36	134	5	0	175	2	13	23	0	38	1	17	8	7	33	18	8	8	0	34	280
07:45 AM	20	121	11	0	152	5	26	7	0	38	4	22	10	0	36	18	9	13	0	40	266
Total	103	407	27	0	537	11	63	46	0	120	10	64	23	15	112	57	27	52	0	136	905
08:00 AM	25	86	13	0	124	3	16	11	0	30	7	28	1	1	37	12	11	8	0	31	222
08:15 AM	23	83	12	0	118	9	11	10	0	30	6	37	8	3	54	21	17	13	0	51	253
08:30 AM	32	129	14	0	175	4	28	23	0	55	7	26	13	4	50	27	14	12	1	54	334
08:45 AM	24	144	10	1	179	12	12	13	0	37	2	36	9	2	49	32	15	17	0	64	329
Total	104	442	49	1	596	28	67	57	0	152	22	127	31	10	190	92	57	50	1	200	1138
09:00 AM	26	84	8	1	119	7	12	4	1	24	10	50	16	1	77	15	13	22	0	50	270
09:15 AM	32	76	9	0	117	6	25	4	0	35	2	26	10	4	42	16	13	13	0	42	236
09:30 AM	27	67	0	4	98	6	17	9	2	34	7	33	11	9	60	26	20	13	0	59	251
09:45 AM	14	82	15	2	113	5	18	8	0	31	5	26	17	0	48	28	14	13	1	56	248
Total	99	309	32	7	447	24	72	25	3	124	24	135	54	14	227	85	60	61	1	207	1005
10:00 AM	18	81	9	0	108	2	11	15	1	29	9	52	23	2	86	24	16	12	0	52	275
10:15 AM	29	66	10	0	105	3	19	6	1	29	3	39	16	2	60	10	18	15	0	43	237
10:30 AM	24	56	11	1	92	1	12	14	0	27	8	38	15	7	68	23	12	13	2	50	237
10:45 AM	15	73	7	0	95	7	21	14	0	42	7	52	14	7	80	27	13	14	0	54	271
Total	86	276	37	1	400	13	63	49	2	127	27	181	68	18	294	84	59	54	2	199	1020
11:00 AM	22	59	5	0	86	5	19	11	0	35	8	43	27	1	79	29	8	15	0	52	252
11:15 AM	34	76	15	0	125	12	30	8	0	50	9	53	22	1	85	16	15	14	1	46	306
11:30 AM	31	86	9	0	126	13	24	9	2	48	7	51	25	6	89	16	13	17	0	46	309
11:45 AM	17	68	10	0	95	8	26	12	0	46	9	46	20	1	76	30	18	18	2	68	285
Total	104	289	39	0	432	38	99	40	2	179	33	193	94	9	329	91	54	64	3	212	1152
12:00 PM	14	77	14	1	106	4	11	13	1	29	16	50	22	6	94	33	23	15	0	71	300
12:15 PM	20	57	15	0	92	10	21	20	2	53	18	80	33	4	135	14	23	17	0	54	334
12:30 PM	21	64	13	2	100	6	17	11	2	36	6	55	23	1	85	27	20	12	0	59	280
12:45 PM	19	82	13	1	115	8	26	7	0	41	15	53	15	4	87	31	20	18	3	72	315
Total	74	280	55	4	413	28	75	51	5	159	55	238	93	15	401	105	86	62	3	256	1229
01:00 PM	18	89	11	0	118	4	25	12	0	41	9	52	24	4	89	27	24	18	0	69	317
01:15 PM	14	71	8	2	95	3	19	15	0	37	15	62	27	2	106	8	16	14	2	40	278
01:30 PM	11	59	9	0	79	4	13	6	0	23	4	56	26	1	87	18	14	15	0	47	236
01:45 PM	18	79	13	1	111	3	16	4	1	24	9	48	18	7	82	19	16	13	1	49	266
Total	61	298	41	3	403	14	73	37	1	125	37	218	95	14	364	72	70	60	3	205	1097
02:00 PM	17	65	11	2	95	7	17	13	0	37	8	49	19	3	79	22	11	15	0	48	259
02:15 PM	17	59	9	0	85	5	22	8	0	35	7	53	32	2	94	29	12	24	0	65	279
02:30 PM	22	55	4	1	82	8	18	12	1	39	8	59	27	2	96	10	13	20	0	43	260
02:45 PM	20	55	7	0	82	6	27	6	0	39	16	60	23	2	101	19	15	11	1	46	268
Total	76	234	31	3	344	26	84	39	1	150	39	221	101	9	370	80	51	70	1	202	1066
03:00 PM	24	50	10	1	85	6	24	9	0	39	10	62	27	1	100	13	18	19	0	50	274
03:15 PM	20	68	11	1	100	3	30	15	1	49	18	65	32	3	118	26	23	23	1	73	340
03:30 PM	32	88	16	0	136	4	19	11	0	34	13	97	29	3	142	22	27	28	0	77	389
03:45 PM	31	75	9	1	116	10	20	11	0	41	11	93	35	2	141	35	24	14	0	73	371
Total	107	281	46	3	437	23	93	46	1	163	52	317	123	9	501	96	92	84	1	273	1374
04:00 PM	33	44	13	4	94	7	35	12	2	56	19	106	28	1	154	26	22	14	3	65	369
04:15 PM	19	63	14	0	96	4	22	6	1	33	12	89	25	3	129	17	32	30	0	79	337
04:30 PM	37	76	8	2	123	9	20	10	0	39	12	91	35	1	139	33	24	20	1	78	379
04:45 PM	31	75	12	0	118	5	15	14	0	34	18	85	28	0	131	37	21	23	1	82	365
Total	120	258	47	6	431	25	92	42	3	162	61	371	116	5	553	113	99	87	5	304	1450
05:00 PM	42	89	11	0	142	13	51	21	0	85	21	93	40	2	156	37	36	19	1	93	476
05:15 PM	32	73	14	1	120	12	35	16	1	64	23	121	37	3	184	33	28	26	1	88	456
05:30 PM	29	73	14	6	122	9	25	17	0	51	17	91	42	2	152	40	34	20	0	94	419
05:45 PM	25	74	13	2	114	13	33	16	0	62	15	115	35	0	165	34	37	32	1	104	445
Total	128	309	52	9	498	47	144	70	1	262	76	420	154	7	657	144	135	97	3	379	1796
06:00 PM	21	74	16	1	112	11	32	16	0	59	13	81	39	0	133	36	24	18	0	78	382
06:15 PM	22	63	11	1	97	8	30	9	0	47	18	84	40	1	143	35	28	26	0	89	376
06:30 PM	22	84	15	1	122	12	25	14	1	52	21	73	51	0	145	38	28	25	0	91	410
06:45 PM	12	83	11	20	126	7	26	15	0	48	11	71	35	1	118	47	22	20	2	91	383
Total	77	304	53	23	457	38	113	54	1	206	63	309	165	2	539	156	102	89	2	349	1551
Grand Total	1139	3687	509	60	5395	315	1038	556	20	1929	499	2794	1117	127	4537	1175	892	830	25	2922	14783
Apprch %	21.1	68.3	9.4	1.1		16.3	53.8	28.8	1		11	61.6	24.6	2.8		40.2	30.5	28.4	0.9		
Total %	7.7	24.9	3.4	0.4	36.5	2.1	7	3.8	0.1	13	3.4	18.9	7.6	0.9	30.7	7.9	6	5.6	0.2	19.8	

Peggy Malone & Associates
(888) 247-8602

File Name : 1-Main St and Patrick Henry Dr
Site Code :
Start Date : 3/6/2019
Page No : 2

	Main St Southbound				Patrick Henry Dr Westbound				Main St Northbound				Patrick Henry Dr Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:15 AM																	
08:15 AM	23	83	12	118	9	11	10	30	6	37	8	51	21	**17**	13	51	250
08:30 AM	**32**	129	**14**	175	4	**28**	**23**	**55**	7	26	13	46	27	14	12	53	**329**
08:45 AM	24	**144**	10	**178**	**12**	12	13	37	2	36	9	47	**32**	15	17	**64**	326
09:00 AM	26	84	8	118	7	12	4	23	**10**	**50**	**16**	**76**	15	13	**22**	50	267
Total Volume	105	440	44	589	32	63	50	145	25	149	46	220	95	59	64	218	1172
% App. Total	17.8	74.7	7.5		22.1	43.4	34.5		11.4	67.7	20.9		43.6	27.1	29.4		
PHF	.820	.764	.786	.827	.667	.563	.543	.659	.625	.745	.719	.724	.742	.868	.727	.852	.891
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**42**	**89**	11	**142**	**13**	**51**	**21**	**85**	21	93	40	154	37	36	19	92	**473**
05:15 PM	32	73	**14**	119	12	35	16	63	**23**	**121**	37	**181**	33	28	26	87	450
05:30 PM	29	73	14	116	9	25	17	51	17	91	**42**	150	**40**	34	20	94	411
05:45 PM	25	74	13	112	13	33	16	62	15	115	35	165	34	**37**	**32**	**103**	442
Total Volume	128	309	52	489	47	144	70	261	76	420	154	650	144	135	97	376	1776
% App. Total	26.2	63.2	10.6		18	55.2	26.8		11.7	64.6	23.7		38.3	35.9	25.8		
PHF	.762	.868	.929	.861	.904	.706	.833	.768	.826	.868	.917	.898	.900	.912	.758	.913	.939

Peggy Malone & Associates
(888) 247-8602

File Name : 1-Main St and Patrick Henry Dr
Site Code :
Start Date : 3/6/2019
Page No : 1

Groups Printed- Truck

	Main St Southbound					Patrick Henry Dr Westbound					Main St Northbound					Patrick Henry Dr 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
07:00 AM	1	3	0	0	4	0	2	0	0	2	0	1	2	0	3	0	0	0	0	0	9
07:15 AM	3	4	0	0	7	0	1	2	0	3	1	1	1	0	3	0	0	1	0	1	14
07:30 AM	0	4	0	0	4	0	3	2	0	5	0	3	0	0	3	1	1	0	0	2	14
07:45 AM	1	2	0	0	3	0	1	0	0	1	0	2	0	0	2	0	1	1	0	2	8
Total	5	13	0	0	18	0	7	4	0	11	1	7	3	0	11	1	2	2	0	5	45
08:00 AM	0	1	0	0	1	0	2	0	0	2	0	1	1	0	2	0	1	0	0	1	6
08:15 AM	2	1	0	0	3	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	6
08:30 AM	1	0	0	0	1	0	2	0	0	2	1	2	0	0	3	0	0	0	0	0	6
08:45 AM	1	3	1	0	5	0	1	0	0	1	0	2	0	0	2	1	0	1	0	2	10
Total	4	5	1	0	10	0	6	0	0	6	1	6	1	0	8	1	1	2	0	4	28
09:00 AM	1	2	0	0	3	0	5	0	0	5	0	2	0	0	2	0	0	0	0	0	10
09:15 AM	1	1	0	0	2	0	1	0	0	1	0	1	1	0	2	0	1	3	0	4	9
09:30 AM	1	1	0	0	2	0	2	0	0	2	0	1	0	0	1	0	0	1	0	1	6
09:45 AM	1	2	0	0	3	0	1	0	0	1	0	2	1	0	3	1	3	2	0	6	13
Total	4	6	0	0	10	0	9	0	0	9	0	6	2	0	8	1	4	6	0	11	38
10:00 AM	0	2	0	0	2	0	2	0	0	2	1	1	1	0	3	0	1	0	0	1	8
10:15 AM	1	1	0	0	2	0	4	1	0	5	0	1	0	0	1	0	1	1	0	2	10
10:30 AM	0	2	1	0	3	0	3	0	0	3	0	4	1	0	5	0	0	0	0	0	11
10:45 AM	1	1	0	0	2	0	2	0	0	2	0	2	0	0	2	0	0	1	0	1	7
Total	2	6	1	0	9	0	11	1	0	12	1	8	2	0	11	0	2	2	0	4	36
11:00 AM	0	1	0	0	1	0	2	0	0	2	0	3	0	0	3	0	0	0	0	0	6
11:15 AM	0	3	0	0	3	1	2	1	0	4	0	2	1	0	3	0	0	1	0	1	11
11:30 AM	1	2	0	0	3	0	3	0	0	3	1	1	1	0	3	0	0	0	0	0	9
11:45 AM	1	1	0	0	2	0	2	0	0	2	0	1	0	0	1	0	0	1	0	1	6
Total	2	7	0	0	9	1	9	1	0	11	1	7	2	0	10	0	0	2	0	2	32
12:00 PM	0	3	0	0	3	1	1	0	0	2	1	1	0	0	2	1	0	0	0	1	8
12:15 PM	1	2	0	0	3	0	2	0	0	2	0	5	0	0	5	2	0	2	0	4	14
12:30 PM	0	1	0	0	1	1	2	0	0	3	0	1	0	0	1	0	1	0	0	1	6
12:45 PM	0	0	0	0	0	0	1	0	0	1	0	4	0	0	4	0	0	1	0	1	6
Total	1	6	0	0	7	2	6	0	0	8	1	11	0	0	12	3	1	3	0	7	34
01:00 PM	1	2	0	0	3	0	4	0	0	4	0	2	0	0	2	1	2	0	0	3	12
01:15 PM	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	0	0	2	0	2	7
01:30 PM	1	2	0	0	3	0	2	0	0	2	1	1	0	0	2	0	0	0	0	0	7
01:45 PM	2	1	2	0	5	0	1	0	0	1	0	3	0	0	3	0	0	1	0	1	10
Total	4	7	2	0	13	0	8	0	0	8	1	8	0	0	9	1	2	3	0	6	36
02:00 PM	1	3	1	0	5	0	1	0	0	1	0	2	1	0	3	1	1	0	0	2	11
02:15 PM	1	2	0	0	3	1	1	0	0	2	1	3	0	0	4	1	0	1	0	2	11
02:30 PM	0	3	1	0	4	0	3	0	0	3	0	2	1	0	3	0	0	0	0	0	10
02:45 PM	2	0	0	0	2	0	1	0	0	1	0	2	1	0	3	1	0	2	0	3	9
Total	4	8	2	0	14	1	6	0	0	7	1	9	3	0	13	3	1	3	0	7	41
03:00 PM	0	3	0	0	3	0	2	0	0	2	3	2	0	0	5	0	1	0	0	1	11
03:15 PM	2	2	0	0	4	0	1	0	0	1	0	2	0	0	2	0	0	3	0	3	10
03:30 PM	0	2	1	0	3	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	6
03:45 PM	2	1	1	0	4	0	3	0	0	3	0	4	0	0	4	0	1	3	0	4	15
Total	4	8	2	0	14	0	7	0	0	7	3	10	0	0	13	0	2	6	0	8	42
04:00 PM	0	1	0	0	1	0	3	0	0	3	0	8	0	0	8	0	0	0	0	0	12
04:15 PM	1	3	0	0	4	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	7
04:30 PM	1	1	0	0	2	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	5
04:45 PM	1	0	0	0	1	0	2	1	0	3	0	2	0	0	2	0	1	1	0	2	8
Total	3	5	0	0	8	0	7	1	0	8	0	13	0	0	13	0	1	2	0	3	32
05:00 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
05:15 PM	1	3	0	0	4	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	7
05:30 PM	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	5
05:45 PM	1	0	0	0	1	0	2	1	0	3	0	1	0	0	1	0	0	1	0	1	6
Total	2	6	0	0	8	0	5	1	0	6	0	5	0	0	5	0	0	2	0	2	21
06:00 PM	1	2	0	0	3	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	6
06:15 PM	1	1	0	0	2	0	1	0	0	1	0	2	0	0	2	0	0	1	0	1	6
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total	2	3	0	0	5	1	2	1	0	4	0	3	0	0	3	0	1	1	0	2	14
Grand Total	37	80	8	0	125	5	83	9	0	97	10	93	13	0	116	10	17	34	0	61	399
Apprch %	29.6	64	6.4	0		5.2	85.6	9.3	0		8.6	80.2	11.2	0		16.4	27.9	55.7	0		
Total %	9.3	20.1	2	0	31.3	1.3	20.8	2.3	0	24.3	2.5	23.3	3.3	0	29.1	2.5	4.3	8.5	0	15.3	

Peggy Malone & Associates
(888) 247-8602

File Name : 1-Main St and Patrick Henry Dr
Site Code :
Start Date : 3/6/2019
Page No : 2

	Main St Southbound				Patrick Henry Dr Westbound				Main St Northbound				Patrick Henry Dr Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	3	0	4	0	2	0	2	0	1	**2**	**3**	0	0	0	0	9
07:15 AM	**3**	**4**	0	**7**	0	1	**2**	3	**1**	1	1	3	0	0	**1**	1	**14**
07:30 AM	0	4	0	4	0	**3**	2	**5**	0	**3**	0	3	**1**	**1**	0	**2**	14
07:45 AM	1	2	0	3	0	1	0	1	0	2	0	2	0	1	1	2	8
Total Volume	5	13	0	18	0	7	4	11	1	7	3	11	1	2	2	5	45
% App. Total	27.8	72.2	0		0	63.6	36.4		9.1	63.6	27.3		20	40	40		
PHF	.417	.813	.000	.643	.000	.583	.500	.550	.250	.583	.375	.917	.250	.500	.500	.625	.804
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	**2**	**2**	0	**4**	0	1	0	1	0	2	0	2	0	0	**3**	3	10
03:30 PM	0	2	**1**	3	0	1	0	1	0	2	0	2	0	0	0	0	6
03:45 PM	2	1	1	4	0	**3**	0	**3**	0	4	0	4	0	**1**	3	**4**	**15**
04:00 PM	0	1	0	1	0	3	0	3	0	**8**	0	**8**	0	0	0	0	12
Total Volume	4	6	2	12	0	8	0	8	0	16	0	16	0	1	6	7	43
% App. Total	33.3	50	16.7		0	100	0		0	100	0		0	14.3	85.7		
PHF	.500	.750	.500	.750	.000	.667	.000	.667	.000	.500	.000	.500	.000	.250	.500	.438	.717

Peggy Malone & Associates
(888) 247-8602

File Name : 1-Main St and Patrick Henry Dr
Site Code :
Start Date : 3/6/2019
Page No : 1

Groups Printed- Combined

	Main St Southbound					Patrick Henry Dr Westbound					Main St Northbound					Patrick Henry Dr 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
07:00 AM	23	65	6	0	94	2	13	7	0	22	3	8	6	1	18	5	7	12	0	24	158
07:15 AM	28	94	5	0	127	2	14	11	0	27	3	19	2	7	31	16	3	20	0	39	224
07:30 AM	36	138	5	0	179	2	16	25	0	43	1	20	8	7	36	19	9	8	0	36	294
07:45 AM	21	123	11	0	155	5	27	7	0	39	4	24	10	0	38	18	10	14	0	42	274
Total	108	420	27	0	555	11	70	50	0	131	11	71	26	15	123	58	29	54	0	141	950
08:00 AM	25	87	13	0	125	3	18	11	0	32	7	29	2	1	39	12	12	8	0	32	228
08:15 AM	25	84	12	0	121	9	12	10	0	31	6	38	8	3	55	21	17	14	0	52	259
08:30 AM	33	129	14	0	176	4	30	23	0	57	8	28	13	4	53	27	14	12	1	54	340
08:45 AM	25	147	11	1	184	12	13	13	0	38	2	38	9	2	51	33	15	18	0	66	339
Total	108	447	50	1	606	28	73	57	0	158	23	133	32	10	198	93	58	52	1	204	1166
09:00 AM	27	86	8	1	122	7	17	4	1	29	10	52	16	1	79	15	13	22	0	50	280
09:15 AM	33	77	9	0	119	6	26	4	0	36	2	27	11	4	44	16	14	16	0	46	245
09:30 AM	28	68	0	4	100	6	19	9	2	36	7	34	11	9	61	26	20	14	0	60	257
09:45 AM	15	84	15	2	116	5	19	8	0	32	5	28	18	0	51	29	17	15	1	62	261
Total	103	315	32	7	457	24	81	25	3	133	24	141	56	14	235	86	64	67	1	218	1043
10:00 AM	18	83	9	0	110	2	13	15	1	31	10	53	24	2	89	24	17	12	0	53	283
10:15 AM	30	67	10	0	107	3	23	7	1	34	3	40	16	2	61	10	19	16	0	45	247
10:30 AM	24	58	12	1	95	1	15	14	0	30	8	42	16	7	73	23	12	13	2	50	248
10:45 AM	16	74	7	0	97	7	23	14	0	44	7	54	14	7	82	27	13	15	0	55	278
Total	88	282	38	1	409	13	74	50	2	139	28	189	70	18	305	84	61	56	2	203	1056
11:00 AM	22	60	5	0	87	5	21	11	0	37	8	46	27	1	82	29	8	15	0	52	258
11:15 AM	34	79	15	0	128	13	32	9	0	54	9	55	23	1	88	16	15	15	1	47	317
11:30 AM	32	88	9	0	129	13	27	9	2	51	8	52	26	6	92	16	13	17	0	46	318
11:45 AM	18	69	10	0	97	8	28	12	0	48	9	47	20	1	77	30	18	19	2	69	291
Total	106	296	39	0	441	39	108	41	2	190	34	200	96	9	339	91	54	66	3	214	1184
12:00 PM	14	80	14	1	109	5	12	13	1	31	17	51	22	6	96	34	23	15	0	72	308
12:15 PM	21	59	15	0	95	10	23	20	2	55	18	85	33	4	140	16	23	19	0	58	348
12:30 PM	21	65	13	2	101	7	19	11	2	39	6	56	23	1	86	27	21	12	0	60	286
12:45 PM	19	82	13	1	115	8	27	7	0	42	15	57	15	4	91	31	20	19	3	73	321
Total	75	286	55	4	420	30	81	51	5	167	56	249	93	15	413	108	87	65	3	263	1263
01:00 PM	19	91	11	0	121	4	29	12	0	45	9	54	24	4	91	28	26	18	0	72	329
01:15 PM	14	73	8	2	97	3	20	15	0	38	15	64	27	2	108	8	16	16	2	42	285
01:30 PM	12	61	9	0	82	4	15	6	0	25	5	57	26	1	89	18	14	15	0	47	243
01:45 PM	20	80	15	1	116	3	17	4	1	25	9	51	18	7	85	19	16	14	1	50	276
Total	65	305	43	3	416	14	81	37	1	133	38	226	95	14	373	73	72	63	3	211	1133
02:00 PM	18	68	12	2	100	7	18	13	0	38	8	51	20	3	82	23	12	15	0	50	270
02:15 PM	18	61	9	0	88	6	23	8	0	37	8	56	32	2	98	30	12	25	0	67	290
02:30 PM	22	58	5	1	86	8	21	12	1	42	8	61	28	2	99	10	13	20	0	43	270
02:45 PM	22	55	7	0	84	6	28	6	0	40	16	62	24	2	104	20	15	13	1	49	277
Total	80	242	33	3	358	27	90	39	1	157	40	230	104	9	383	83	52	73	1	209	1107
03:00 PM	24	53	10	1	88	6	26	9	0	41	13	64	27	1	105	13	19	19	0	51	285
03:15 PM	22	70	11	1	104	3	31	15	1	50	18	67	32	3	120	26	23	26	1	76	350
03:30 PM	32	90	17	0	139	4	20	11	0	35	13	99	29	3	144	22	27	28	0	77	395
03:45 PM	33	76	10	1	120	10	23	11	0	44	11	97	35	2	145	35	25	17	0	77	386
Total	111	289	48	3	451	23	100	46	1	170	55	327	123	9	514	96	94	90	1	281	1416
04:00 PM	33	45	13	4	95	7	38	12	2	59	19	114	28	1	162	26	22	14	3	65	381
04:15 PM	20	66	14	0	100	4	23	6	1	34	12	90	25	3	130	17	32	31	0	80	344
04:30 PM	38	77	8	2	125	9	21	10	0	40	12	93	35	1	141	33	24	20	1	78	384
04:45 PM	32	75	12	0	119	5	17	15	0	37	18	87	28	0	133	37	22	24	1	84	373
Total	123	263	47	6	439	25	99	43	3	170	61	384	116	5	566	113	100	89	5	307	1482
05:00 PM	42	91	11	0	144	13	51	21	0	85	21	94	40	2	157	37	36	19	1	93	479
05:15 PM	33	76	14	1	124	12	36	16	1	65	23	122	37	3	185	33	28	27	1	89	463
05:30 PM	29	74	14	6	123	9	27	17	0	53	17	93	42	2	154	40	34	20	0	94	424
05:45 PM	26	74	13	2	115	13	35	17	0	65	15	116	35	0	166	34	37	33	1	105	451
Total	130	315	52	9	506	47	149	71	1	268	76	425	154	7	662	144	135	99	3	381	1817
06:00 PM	22	76	16	1	115	11	33	17	0	61	13	82	39	0	134	36	24	18	0	78	388
06:15 PM	23	64	11	1	99	8	31	9	0	48	18	86	40	1	145	35	28	27	0	90	382
06:30 PM	22	84	15	1	122	12	25	14	1	52	21	73	51	0	145	38	28	25	0	91	410
06:45 PM	12	83	11	20	126	8	26	15	0	49	11	71	35	1	118	47	23	20	2	92	385
Total	79	307	53	23	462	39	115	55	1	210	63	312	165	2	542	156	103	90	2	351	1565
Grand Total	1176	3767	517	60	5520	320	1121	565	20	2026	509	2887	1130	127	4653	1185	909	864	25	2983	15182
Apprch %	21.3	68.2	9.4	1.1		15.8	55.3	27.9	1		10.9	62	24.3	2.7		39.7	30.5	29	0.8		
Total %	7.7	24.8	3.4	0.4	36.4	2.1	7.4	3.7	0.1	13.3	3.4	19	7.4	0.8	30.6	7.8	6	5.7	0.2	19.6	

Peggy Malone & Associates
(888) 247-8602

File Name : 1-Main St and Patrick Henry Dr
Site Code :
Start Date : 3/6/2019
Page No : 2

	Main St Southbound				Patrick Henry Dr Westbound				Main St Northbound				Patrick Henry Dr Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:15 AM																	
08:15 AM	25	84	12	121	9	12	10	31	6	38	8	52	21	**17**	14	52	256
08:30 AM	**33**	129	**14**	176	4	**30**	**23**	**57**	8	28	13	49	27	14	12	53	335
08:45 AM	25	**147**	11	**183**	**12**	13	13	38	2	38	9	49	**33**	15	18	**66**	**336**
09:00 AM	27	86	8	121	7	17	4	28	**10**	**52**	**16**	**78**	15	13	**22**	50	277
Total Volume	110	446	45	601	32	72	50	154	26	156	46	228	96	59	66	221	1204
% App. Total	18.3	74.2	7.5		20.8	46.8	32.5		11.4	68.4	20.2		43.4	26.7	29.9		
PHF	.833	.759	.804	.821	.667	.600	.543	.675	.650	.750	.719	.731	.727	.868	.750	.837	.896
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**42**	**91**	11	**144**	**13**	**51**	**21**	**85**	21	94	40	155	37	36	19	92	**476**
05:15 PM	33	76	**14**	123	12	36	16	64	**23**	**122**	37	**182**	33	28	27	88	457
05:30 PM	29	74	14	117	9	27	17	53	17	93	**42**	152	**40**	34	20	94	416
05:45 PM	26	74	13	113	13	35	17	65	15	116	35	166	34	**37**	**33**	**104**	448
Total Volume	130	315	52	497	47	149	71	267	76	425	154	655	144	135	99	378	1797
% App. Total	26.2	63.4	10.5		17.6	55.8	26.6		11.6	64.9	23.5		38.1	35.7	26.2		
PHF	.774	.865	.929	.863	.904	.730	.845	.785	.826	.871	.917	.900	.900	.912	.750	.909	.944

Peggy Malone & Associates
(888) 247-8602

File Name : 2-N Main St and Progress St_McDonald St TUE
Site Code :
Start Date : 4/23/2019
Page No : 1

Groups Printed- Car

	N Main St Southbound						McDonald St Southwestbound						Progress St Westbound						N Main St Northbound						Progress St Eastbound						
Start Time	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Int. Total
07:00 AM	0	65	0	0	0	65	0	0	0	0	0	0	0	0	1	1	0	2	0	0	40	4	0	44	5	0	0	1	0	6	117
07:15 AM	0	87	0	0	0	87	0	0	1	0	0	1	0	0	1	0	0	1	0	0	40	4	0	44	11	4	0	0	0	15	148
07:30 AM	3	171	1	0	1	176	1	0	1	0	1	3	0	3	0	3	2	8	3	0	42	3	0	48	26	3	0	2	2	33	268
07:45 AM	1	186	3	0	0	190	0	0	5	0	0	5	0	0	0	2	3	5	0	2	51	3	0	56	10	5	0	1	3	19	275
Total	4	509	4	0	1	518	1	0	7	0	1	9	0	3	2	6	5	16	3	2	173	14	0	192	52	12	0	4	5	73	808
08:00 AM	3	111	5	0	0	119	0	0	1	0	2	3	0	2	1	3	0	6	0	2	53	2	0	57	13	9	0	0	1	23	208
08:15 AM	2	115	2	0	2	121	1	0	4	0	1	6	0	0	3	1	0	4	0	1	45	5	0	51	10	3	0	3	3	19	201
08:30 AM	7	121	3	0	0	131	0	0	2	0	0	2	0	4	1	1	1	7	0	0	50	3	0	53	12	0	0	2	4	18	211
08:45 AM	7	139	5	0	4	155	0	0	2	0	1	3	0	7	1	1	1	10	3	0	59	4	0	66	15	6	0	3	5	29	263
Total	19	486	15	0	6	526	1	0	9	0	4	14	0	13	6	6	2	27	3	3	207	14	0	227	50	18	0	8	13	89	883
09:00 AM	13	185	3	0	5	206	0	0	3	1	0	4	0	8	4	3	2	17	2	3	64	7	0	76	22	7	0	7	9	45	348
09:15 AM	5	142	6	0	1	154	0	0	6	1	0	7	0	4	1	0	6	11	0	1	87	12	0	100	26	0	0	4	7	37	309
09:30 AM	3	106	3	0	0	112	1	0	1	0	0	2	1	5	1	1	1	9	2	1	77	10	0	90	17	4	0	6	2	29	242
09:45 AM	1	102	5	0	1	109	0	0	1	0	1	2	0	5	5	2	2	14	2	0	64	16	0	82	15	1	1	4	1	22	229
Total	22	535	17	0	7	581	1	0	11	2	1	15	1	22	11	6	11	51	6	5	292	45	0	348	80	12	1	21	19	133	1128
10:00 AM	3	82	4	0	1	90	1	1	1	0	1	4	0	3	1	0	0	4	2	0	62	8	0	72	12	0	0	5	3	20	190
10:15 AM	4	95	4	0	2	105	0	0	1	0	1	2	0	1	3	0	4	8	1	2	64	9	0	76	10	8	1	4	0	23	214
10:30 AM	9	117	1	0	2	129	0	0	2	0	1	3	0	4	5	0	1	10	2	3	69	4	0	78	8	3	0	3	7	21	241
10:45 AM	4	133	1	0	2	140	1	1	4	0	1	7	0	1	3	0	4	8	0	3	106	11	0	120	24	8	0	3	4	39	314
Total	20	427	10	0	7	464	2	2	8	0	4	16	0	9	12	0	9	30	5	8	301	32	0	346	54	19	1	15	14	103	959
11:00 AM	1	90	3	0	0	94	1	0	1	0	3	5	1	2	2	4	6	15	2	1	111	19	0	133	16	2	0	11	0	29	276
11:15 AM	3	102	6	0	1	112	1	0	3	1	1	6	0	8	4	1	6	19	1	2	72	16	0	91	13	7	0	3	4	27	255
11:30 AM	7	118	1	3	1	130	3	0	3	0	2	8	0	4	5	3	4	16	2	3	81	10	0	96	8	1	0	0	4	13	263
11:45 AM	2	137	8	2	2	151	0	0	4	1	1	6	0	1	7	0	4	12	2	1	89	9	0	101	23	2	0	2	3	30	300
Total	13	447	18	5	4	487	5	0	11	2	7	25	1	15	18	8	20	62	7	7	353	54	0	421	60	12	0	16	11	99	1094
12:00 PM	5	151	5	2	5	168	0	0	5	0	2	7	0	9	8	2	0	19	1	2	106	12	0	121	23	4	2	5	4	38	353
12:15 PM	2	146	1	1	5	155	1	3	6	0	1	11	0	2	4	4	6	16	0	4	126	16	0	146	22	8	0	5	6	41	369
12:30 PM	5	108	3	0	2	118	0	0	1	0	0	1	0	4	3	2	6	15	1	3	119	14	0	137	11	6	2	5	2	26	297
12:45 PM	3	99	4	1	0	107	1	0	3	1	1	6	2	8	7	4	0	21	1	3	95	11	0	110	7	5	0	5	4	21	265
Total	15	504	13	4	12	548	2	3	15	1	4	25	2	23	22	12	12	71	3	12	446	53	0	514	63	23	4	20	16	126	1284
01:00 PM	4	112	2	1	2	121	0	0	1	1	2	4	0	7	5	2	0	14	1	2	85	11	0	99	11	2	0	1	0	14	252
01:15 PM	3	117	0	0	1	121	1	0	5	0	0	6	1	5	5	2	2	15	2	1	103	8	0	114	16	2	0	6	0	24	280
01:30 PM	2	128	3	0	2	135	0	0	3	0	1	4	0	6	10	1	3	20	2	0	94	17	0	113	14	3	1	2	4	24	296
01:45 PM	1	124	2	0	1	128	1	0	5	0	0	6	0	8	4	1	2	15	5	3	119	16	0	143	21	3	0	6	1	31	323
Total	10	481	7	1	6	505	2	0	14	1	3	20	1	26	24	6	7	64	10	6	401	52	0	469	62	10	1	15	5	93	1151
02:00 PM	5	84	1	0	3	93	0	0	2	0	1	3	1	3	3	2	2	11	1	2	124	20	1	148	15	1	0	3	9	28	283
02:15 PM	5	88	5	0	1	99	4	0	1	0	1	6	0	9	7	0	1	17	0	1	104	9	0	114	18	4	0	3	1	26	262
02:30 PM	6	103	3	1	3	116	0	0	2	0	0	2	0	4	6	1	3	14	1	1	86	15	0	103	15	4	0	2	0	21	256
02:45 PM	3	84	5	0	1	93	0	0	0	0	1	1	0	7	5	3	2	17	0	1	116	11	0	128	20	4	1	5	2	32	271
Total	19	359	14	1	8	401	4	0	5	0	3	12	1	23	21	6	8	59	2	5	430	55	1	493	68	13	1	13	12	107	1072
03:00 PM	4	120	6	0	2	132	2	0	2	0	3	7	0	11	2	5	6	24	2	1	108	9	0	120	18	6	0	1	3	28	311
03:15 PM	3	137	2	0	2	144	0	0	3	0	3	6	0	6	5	2	4	17	0	1	145	14	0	160	23	5	0	7	2	37	364
03:30 PM	3	148	4	1	1	157	2	0	1	0	3	6	1	3	10	1	3	18	1	2	142	24	0	169	14	5	0	6	2	27	377
03:45 PM	6	95	6	0	0	107	1	0	4	0	1	6	0	9	4	4	2	19	3	3	101	13	0	120	23	7	0	6	0	36	288
Total	16	500	18	1	5	540	5	0	10	0	10	25	1	29	21	12	15	78	6	7	496	60	0	569	78	23	0	20	7	128	1340
04:00 PM	1	142	3	1	2	149	0	0	2	0	0	2	0	4	4	1	1	10	1	1	108	13	1	124	9	3	0	3	2	17	302
04:15 PM	5	109	1	2	1	118	2	0	0	0	0	2	0	7	5	4	8	24	2	4	132	19	0	157	24	6	0	2	5	37	338
04:30 PM	4	156	4	0	2	166	0	0	3	0	1	4	0	7	6	3	0	16	3	2	108	15	0	128	19	8	0	3	5	35	349
04:45 PM	5	202	7	1	3	218	0	2	5	0	0	7	0	11	10	3	6	30	1	3	111	18	0	133	34	11	0	9	5	59	447
Total	15	609	15	4	8	651	2	2	10	0	1	15	0	29	25	11	15	80	7	10	459	65	1	542	86	28	0	17	17	148	1436
05:00 PM	5	151	3	1	2	162	0	0	2	0	1	3	1	17	14	1	2	35	6	4	163	24	0	197	37	8	0	11	7	63	460
05:15 PM	4	126	1	0	1	132	0	2	3	0	1	6	0	21	20	3	5	49	4	3	153	22	0	182	21	7	0	17	3	48	417
05:30 PM	3	159	5	3	0	170	0	0	4	1	0	5	0	13	9	3	7	32	1	1	160	21	0	183	27	11	2	2	1	43	433
05:45 PM	6	139	2	1	1	149	1	0	1	0	0	2	0	9	8	5	2	24	2	3	113	24	0	142	22	8	1	7	4	42	359
Total	18	575	11	5	4	613	1	2	10	1	2	16	1	60	51	12	16	140	13	11	589	91	0	704	107	34	3	37	15	196	1669
06:00 PM	5	138	5	2	0	150	2	0	2	0	0	4	1	14	12	5	3	35	3	0	132	17	0	152	23	8	0	3	1	35	376
06:15 PM	2	124	0	1	0	127	0	0	2	0	1	3	0	9	10	4	4	27	2	1	149	21	0	173	26	9	0	3	1	39	369
06:30 PM	8	144	3	1	2	158	1	0	2	0	4	7	1	10	13	0	3	27	2	4	138	15	0	159	27	10	1	1	2	41	392
06:45 PM	0	147	6	1	0	154	0	0	6	0	0	6	0	9	10	2	2	23	3	4	135	13	0	155	25	9	0	0	2	36	374
Total	15	553	14	5	2	589	3	0	12	0	5	20	2	42	45	11	12	112	10	9	554	66	0	639	101	36	1	7	6	151	1511
Grand Total	186	5985	156	26	70	6423	29	9	122	7	45	212	10	294	258	96	132	790	75	85	4701	601	2	5464	861	240	12	193	140	1446	14335
Apprch %	2.9	93.2	2.4	0.4	1.1		13.7	4.2	57.5	3.3	21.2		1.3	37.2	32.7	12.2	16.7		1.4	1.6	86	11	0		59.5	16.6	0.8	13.3	9.7		
Total %	1.3	41.8	1.1	0.2	0.5	44.8	0.2	0.1	0.9	0	0.3	1.5	0.1	2.1	1.8	0.7	0.9	5.5	0.5	0.6	32.8	4.2	0	38.1	6	1.7	0.1	1.3	1	10.1	

Peggy Malone & Associates
(888) 247-8602

File Name : 2-N Main St and Progress St_McDonald St TUE
Site Code :
Start Date : 4/23/2019
Page No : 2

	N Main St Southbound					McDonald St Southwestbound					Progress St Westbound					N Main St Northbound					Progress St Eastbound					
Start Time	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 08:45 AM																										
08:45 AM	7	139	5	0	151	0	0	2	0	2	0	7	1	1	9	**3**	0	59	4	66	15	6	0	3	24	252
09:00 AM	**13**	**185**	3	0	**201**	0	0	3	**1**	4	0	**8**	**4**	**3**	**15**	2	**3**	64	7	76	22	**7**	0	**7**	**36**	**332**
09:15 AM	5	142	**6**	0	153	0	0	**6**	1	**7**	0	4	1	0	5	0	1	**87**	**12**	**100**	**26**	0	0	4	30	295
09:30 AM	3	106	3	0	112	**1**	0	1	0	2	**1**	5	1	1	8	2	1	77	10	90	17	4	0	6	27	239
Total Volume	28	572	17	0	617	1	0	12	2	15	1	24	7	5	37	7	5	287	33	332	80	17	0	20	117	1118
% App. Total	4.5	92.7	2.8	0		6.7	0	80	13.3		2.7	64.9	18.9	13.5		2.1	1.5	86.4	9.9		68.4	14.5	0	17.1		
PHF	.538	.773	.708	.000	.767	.250	.000	.500	.500	.536	.250	.750	.438	.417	.617	.583	.417	.825	.688	.830	.769	.607	.000	.714	.813	.842
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:45 PM																										
04:45 PM	**5**	**202**	**7**	1	**215**	0	**2**	**5**	0	**7**	0	11	10	**3**	24	1	3	111	18	133	34	**11**	0	9	54	433
05:00 PM	5	151	3	1	160	0	0	2	0	2	**1**	17	14	1	33	**6**	**4**	**163**	**24**	**197**	**37**	8	0	11	**56**	**448**
05:15 PM	4	126	1	0	131	0	2	3	0	5	0	**21**	**20**	3	**44**	4	3	153	22	182	21	7	0	**17**	45	407
05:30 PM	3	159	5	**3**	170	0	0	4	**1**	5	0	13	9	3	25	1	1	160	21	183	27	11	**2**	2	42	425
Total Volume	17	638	16	5	676	0	4	14	1	19	1	62	53	10	126	12	11	587	85	695	119	37	2	39	197	1713
% App. Total	2.5	94.4	2.4	0.7		0	21.1	73.7	5.3		0.8	49.2	42.1	7.9		1.7	1.6	84.5	12.2		60.4	18.8	1	19.8		
PHF	.850	.790	.571	.417	.786	.000	.500	.700	.250	.679	.250	.738	.663	.833	.716	.500	.688	.900	.885	.882	.804	.841	.250	.574	.879	.956

Peggy Malone & Associates

(888) 247-8602

File Name : 2-N Main St and Progress St_McDonald St TUE
Site Code :
Start Date : 4/23/2019
Page No : 1

Groups Printed- Truck

	N Main St Southbound						McDonald St Southwestbound						Progress St Westbound						N Main St Northbound						Progress St Eastbound						
Start Time	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Int. Total
07:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6	3	0	0	0	0	3	10
07:15 AM	1	5	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	8	4	0	0	0	0	4	18
07:30 AM	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5	2	0	0	0	0	2	14
07:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	6	4	0	0	1	0	5	13
Total	1	15	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	9	0	25	13	0	0	1	0	14	55
08:00 AM	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5	4	0	0	0	0	4	11
08:15 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	8	3	0	0	0	0	3	14
08:30 AM	0	2	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	1	0	4	4	0	9	3	0	0	0	0	3	15
08:45 AM	1	2	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	1	0	0	4	4	0	8	5	0	0	1	0	6	18
Total	1	8	1	0	0	10	0	0	0	0	0	0	1	1	0	0	0	2	1	0	16	13	0	30	15	0	0	1	0	16	58
09:00 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	8	5	0	0	1	0	6	18
09:15 AM	1	4	0	0	0	5	0	0	0	0	0	0	0	0	1	2	0	3	0	0	4	2	0	6	4	0	0	0	0	4	18
09:30 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	8	3	0	0	0	0	3	15
09:45 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6	4	0	0	1	0	5	14
Total	1	15	0	0	0	16	0	0	0	0	0	0	0	0	1	2	0	3	0	0	20	8	0	28	16	0	0	2	0	18	65
10:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	3	0	0	0	0	3	8
10:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	8	4	0	0	0	0	4	13
10:30 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	1	0	0	0	1	2	0	7	2	0	11	3	0	0	0	0	3	20
10:45 AM	1	3	0	0	0	4	0	0	0	0	0	0	1	0	0	1	0	2	0	0	3	2	0	5	4	0	0	0	0	4	15
Total	1	10	0	0	0	11	0	0	0	0	0	0	1	1	0	1	0	3	2	0	18	8	0	28	14	0	0	0	0	14	56
11:00 AM	0	3	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	6	4	0	0	1	0	5	15
11:15 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6	4	0	0	0	0	4	14
11:30 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	9	4	0	0	0	0	4	15
11:45 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6	3	0	0	0	0	3	12
Total	0	12	0	1	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	8	0	27	15	0	0	1	0	16	56
12:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	1	0	0	4	3	0	7	3	0	0	0	0	3	14
12:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	2	0	5	4	0	0	0	0	4	11
12:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	7	3	0	0	0	0	3	12
12:45 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5	4	0	0	0	0	4	12
Total	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	2	0	2	0	0	15	9	0	24	14	0	0	0	0	14	49
01:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	7	3	0	0	0	0	3	14
01:15 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	8	4	0	0	0	0	4	15
01:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	8	3	0	0	0	0	3	12
01:45 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	6	4	0	0	0	0	4	13
Total	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	9	0	29	14	0	0	0	0	14	54
02:00 PM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	4	0	10	3	0	0	0	0	3	19
02:15 PM	1	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6	4	0	0	0	0	4	14
02:30 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6	3	0	0	0	0	3	12
02:45 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	4	0	0	0	0	4	11
Total	1	15	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	1	0	15	10	0	26	14	0	0	0	0	14	56
03:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2	0	10	3	1	0	1	0	5	16
03:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5	5	0	0	0	0	5	12
03:30 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5	3	0	0	0	0	3	12
03:45 PM	1	2	0	0	0	3	1	0	0	0	0	1	0	0	1	0	0	1	0	0	4	3	0	7	5	0	0	1	0	6	18
Total	1	9	0	0	0	10	1	0	0	0	0	1	0	0	1	0	0	1	0	0	18	9	0	27	16	1	0	2	0	19	58
04:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	7	3	0	0	1	0	4	15
04:15 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	4	0	0	0	0	4	11
04:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5	3	0	0	0	0	3	9
04:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0	5	4	0	0	1	0	5	12
Total	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	1	0	12	8	0	21	14	0	0	2	0	16	47
05:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6	4	0	0	0	0	4	12
05:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	3	2	0	5	2	0	0	0	0	2	9
05:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	6	4	0	0	0	0	4	12
05:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	4	0	0	0	0	4	8
Total	0	7	0	0	0	7	0	0	0	0	0	0	0	0	1	0	0	1	0	0	11	8	0	19	14	0	0	0	0	14	41
06:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5	3	0	0	0	0	3	10
06:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	2	0	0	0	0	2	7
06:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	6
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	3
Total	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4	0	12	9	0	0	0	0	9	26
Grand Total	6	126	1	1	0	134	1	0	0	0	0	1	2	2	3	5	0	12	5	0	188	103	0	296	168	1	0	9	0	178	621
Apprch %	4.5	94	0.7	0.7	0		100	0	0	0	0		16.7	16.7	25	41.7	0		1.7	0	63.5	34.8	0		94.4	0.6	0	5.1	0		
Total %	1	20.3	0.2	0.2	0	21.6	0.2	0	0	0	0	0.2	0.3	0.3	0.5	0.8	0	1.9	0.8	0	30.3	16.6	0	47.7	27.1	0.2	0	1.4	0	28.7	

Peggy Malone & Associates
(888) 247-8602

File Name : 2-N Main St and Progress St_McDonald St TUE
Site Code :
Start Date : 4/23/2019
Page No : 2

	N Main St Southbound					McDonald St Southwestbound					Progress St Westbound					N Main St Northbound					Progress St Eastbound					
Start Time	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 08:30 AM																										
08:30 AM	0	2	0	0	2	0	0	0	0	0	**1**	0	0	0	1	**1**	0	4	**4**	**9**	3	0	0	0	3	15
08:45 AM	**1**	2	0	0	3	0	0	0	0	0	0	**1**	0	0	1	0	0	4	4	8	**5**	0	0	**1**	**6**	**18**
09:00 AM	0	**4**	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	**6**	2	8	5	0	0	1	6	18
09:15 AM	1	4	0	0	**5**	0	0	0	0	0	0	0	**1**	**2**	**3**	0	0	4	2	6	4	0	0	0	4	18
Total Volume	2	12	0	0	14	0	0	0	0	0	1	1	1	2	5	1	0	18	12	31	17	0	0	2	19	69
% App. Total	14.3	85.7	0	0		0	0	0	0		20	20	20	40		3.2	0	58.1	38.7		89.5	0	0	10.5		
PHF	.500	.750	.000	.000	.700	.000	.000	.000	.000	.000	.250	.250	.250	.250	.417	.250	.000	.750	.750	.861	.850	.000	.000	.500	.792	.958
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 01:15 PM																										
01:15 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	**5**	3	8	**4**	0	0	0	**4**	15
01:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	3	8	3	0	0	0	3	12
01:45 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	5	1	6	4	0	0	0	4	13
02:00 PM	0	**6**	0	0	**6**	0	0	0	0	0	0	0	0	0	0	**1**	0	5	**4**	**10**	3	0	0	0	3	**19**
Total Volume	0	13	0	0	13	0	0	0	0	0	0	0	0	0	0	1	0	20	11	32	14	0	0	0	14	59
% App. Total	0	100	0	0		0	0	0	0		0	0	0	0		3.1	0	62.5	34.4		100	0	0	0		
PHF	.000	.542	.000	.000	.542	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	1.00	.688	.800	.875	.000	.000	.000	.875	.776

Peggy Malone & Associates
(888) 247-8602

File Name : 2-N Main St and Progress St_McDonald St TUE
Site Code :
Start Date : 4/23/2019
Page No : 1

Groups Printed- Combined

	N Main St Southbound						McDonald St Southwestbound						Progress St Westbound						N Main St Northbound						Progress St Eastbound						
Start Time	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Int. Total
07:00 AM	0	66	0	0	0	66	0	0	0	0	0	0	0	0	1	1	0	2	0	0	44	6	0	50	8	0	0	1	0	9	127
07:15 AM	1	92	0	0	0	93	0	0	1	0	0	1	0	0	1	0	0	1	0	0	44	8	0	52	15	4	0	0	0	19	166
07:30 AM	3	178	1	0	1	183	1	0	1	0	1	3	0	3	0	3	2	8	3	0	45	5	0	53	28	3	0	2	2	35	282
07:45 AM	1	188	3	0	0	192	0	0	5	0	0	5	0	0	0	2	3	5	0	2	56	4	0	62	14	5	0	2	3	24	288
Total	5	524	4	0	1	534	1	0	7	0	1	9	0	3	2	6	5	16	3	2	189	23	0	217	65	12	0	5	5	87	863
08:00 AM	3	112	6	0	0	121	0	0	1	0	2	3	0	2	1	3	0	6	0	2	55	5	0	62	17	9	0	0	1	27	219
08:15 AM	2	118	2	0	2	124	1	0	4	0	1	6	0	0	3	1	0	4	0	1	51	7	0	59	13	3	0	3	3	22	215
08:30 AM	7	123	3	0	0	133	0	0	2	0	0	2	1	4	1	1	1	8	1	0	54	7	0	62	15	0	0	2	4	21	226
08:45 AM	8	141	5	0	4	158	0	0	2	0	1	3	0	8	1	1	1	11	3	0	63	8	0	74	20	6	0	4	5	35	281
Total	20	494	16	0	6	536	1	0	9	0	4	14	1	14	6	6	2	29	4	3	223	27	0	257	65	18	0	9	13	105	941
09:00 AM	13	189	3	0	5	210	0	0	3	1	0	4	0	8	4	3	2	17	2	3	70	9	0	84	27	7	0	8	9	51	366
09:15 AM	6	146	6	0	1	159	0	0	6	1	0	7	0	4	2	2	6	14	0	1	91	14	0	106	30	0	0	4	7	41	327
09:30 AM	3	110	3	0	0	116	1	0	1	0	0	2	1	5	1	1	1	9	2	1	83	12	0	98	20	4	0	6	2	32	257
09:45 AM	1	105	5	0	1	112	0	0	1	0	1	2	0	5	5	2	2	14	2	0	68	18	0	88	19	1	1	5	1	27	243
Total	23	550	17	0	7	597	1	0	11	2	1	15	1	22	12	8	11	54	6	5	312	53	0	376	96	12	1	23	19	151	1193
10:00 AM	3	83	4	0	1	91	1	1	1	0	1	4	0	3	1	0	0	4	2	0	64	10	0	76	15	0	0	5	3	23	198
10:15 AM	4	96	4	0	2	106	0	0	1	0	1	2	0	1	3	0	4	8	1	2	70	11	0	84	14	8	1	4	0	27	227
10:30 AM	9	122	1	0	2	134	0	0	2	0	1	3	0	5	5	0	1	11	4	3	76	6	0	89	11	3	0	3	7	24	261
10:45 AM	5	136	1	0	2	144	1	1	4	0	1	7	1	1	3	1	4	10	0	3	109	13	0	125	28	8	0	3	4	43	329
Total	21	437	10	0	7	475	2	2	8	0	4	16	1	10	12	1	9	33	7	8	319	40	0	374	68	19	1	15	14	117	1015
11:00 AM	1	93	3	1	0	98	1	0	1	0	3	5	1	2	2	4	6	15	2	1	114	22	0	139	20	2	0	12	0	34	291
11:15 AM	3	106	6	0	1	116	1	0	3	1	1	6	0	8	4	1	6	19	1	2	76	18	0	97	17	7	0	3	4	31	269
11:30 AM	7	120	1	3	1	132	3	0	3	0	2	8	0	4	5	3	4	16	2	3	89	11	0	105	12	1	0	0	4	17	278
11:45 AM	2	140	8	2	2	154	0	0	4	1	1	6	0	1	7	0	4	12	2	1	93	11	0	107	26	2	0	2	3	33	312
Total	13	459	18	6	4	500	5	0	11	2	7	25	1	15	18	8	20	62	7	7	372	62	0	448	75	12	0	17	11	115	1150
12:00 PM	5	154	5	2	5	171	0	0	5	0	2	7	0	9	8	3	0	20	1	2	110	15	0	128	26	4	2	5	4	41	367
12:15 PM	2	147	1	1	5	156	1	3	6	0	1	11	0	2	4	5	6	17	0	4	129	18	0	151	26	8	0	5	6	45	380
12:30 PM	5	110	3	0	2	120	0	0	1	0	0	1	0	4	3	2	6	15	1	3	124	16	0	144	14	6	2	5	2	29	309
12:45 PM	3	102	4	1	0	110	1	0	3	1	1	6	2	8	7	4	0	21	1	3	98	13	0	115	11	5	0	5	4	25	277
Total	15	513	13	4	12	557	2	3	15	1	4	25	2	23	22	14	12	73	3	12	461	62	0	538	77	23	4	20	16	140	1333
01:00 PM	4	116	2	1	2	125	0	0	1	1	2	4	0	7	5	2	0	14	1	2	90	13	0	106	14	2	0	1	0	17	266
01:15 PM	3	120	0	0	1	124	1	0	5	0	0	6	1	5	5	2	2	15	2	1	108	11	0	122	20	2	0	6	0	28	295
01:30 PM	2	129	3	0	2	136	0	0	3	0	1	4	0	6	10	1	3	20	2	0	99	20	0	121	17	3	1	2	4	27	308
01:45 PM	1	127	2	0	1	131	1	0	5	0	0	6	0	8	4	1	2	15	5	3	124	17	0	149	25	3	0	6	1	35	336
Total	10	492	7	1	6	516	2	0	14	1	3	20	1	26	24	6	7	64	10	6	421	61	0	498	76	10	1	15	5	107	1205
02:00 PM	5	90	1	0	3	99	0	0	2	0	1	3	1	3	3	2	2	11	2	2	129	24	1	158	18	1	0	3	9	31	302
02:15 PM	6	91	5	0	1	103	4	0	1	0	1	6	0	9	7	0	1	17	0	1	108	11	0	120	22	4	0	3	1	30	276
02:30 PM	6	106	3	1	3	119	0	0	2	0	0	2	0	4	6	1	3	14	1	1	90	17	0	109	18	4	0	2	0	24	268
02:45 PM	3	87	5	0	1	96	0	0	0	0	1	1	0	7	5	3	2	17	0	1	118	13	0	132	24	4	1	5	2	36	282
Total	20	374	14	1	8	417	4	0	5	0	3	12	1	23	21	6	8	59	3	5	445	65	1	519	82	13	1	13	12	121	1128
03:00 PM	4	121	6	0	2	133	2	0	2	0	3	7	0	11	2	5	6	24	2	1	116	11	0	130	21	7	0	2	3	33	327
03:15 PM	3	139	2	0	2	146	0	0	3	0	3	6	0	6	5	2	4	17	0	1	147	17	0	165	28	5	0	7	2	42	376
03:30 PM	3	152	4	1	1	161	2	0	1	0	3	6	1	3	10	1	3	18	1	2	146	25	0	174	17	5	0	6	2	30	389
03:45 PM	7	97	6	0	0	110	2	0	4	0	1	7	0	9	5	4	2	20	3	3	105	16	0	127	28	7	0	7	0	42	306
Total	17	509	18	1	5	550	6	0	10	0	10	26	1	29	22	12	15	79	6	7	514	69	0	596	94	24	0	22	7	147	1398
04:00 PM	1	146	3	1	2	153	0	0	2	0	0	2	0	4	4	1	1	10	1	1	113	15	1	131	12	3	0	4	2	21	317
04:15 PM	5	112	1	2	1	121	2	0	0	0	0	2	0	7	5	4	8	24	2	4	134	21	0	161	28	6	0	2	5	41	349
04:30 PM	4	157	4	0	2	167	0	0	3	0	1	4	0	7	6	3	0	16	3	2	112	16	0	133	22	8	0	3	5	38	358
04:45 PM	5	204	7	1	3	220	0	2	5	0	0	7	0	11	10	3	6	30	2	3	112	21	0	138	38	11	0	10	5	64	459
Total	15	619	15	4	8	661	2	2	10	0	1	15	0	29	25	11	15	80	8	10	471	73	1	563	100	28	0	19	17	164	1483
05:00 PM	5	153	3	1	2	164	0	0	2	0	1	3	1	17	14	1	2	35	6	4	167	26	0	203	41	8	0	11	7	67	472
05:15 PM	4	127	1	0	1	133	0	2	3	0	1	6	0	21	21	3	5	50	4	3	156	24	0	187	23	7	0	17	3	50	426
05:30 PM	3	161	5	3	0	172	0	0	4	1	0	5	0	13	9	3	7	32	1	1	163	24	0	189	31	11	2	2	1	47	445
05:45 PM	6	141	2	1	1	151	1	0	1	0	0	2	0	9	8	5	2	24	2	3	114	25	0	144	26	8	1	7	4	46	367
Total	18	582	11	5	4	620	1	2	10	1	2	16	1	60	52	12	16	141	13	11	600	99	0	723	121	34	3	37	15	210	1710
06:00 PM	5	140	5	2	0	152	2	0	2	0	0	4	1	14	12	5	3	35	3	0	135	19	0	157	26	8	0	3	1	38	386
06:15 PM	2	125	0	1	0	128	0	0	2	0	1	3	0	9	10	4	4	27	2	1	152	22	0	177	28	9	0	3	1	41	376
06:30 PM	8	146	3	1	2	160	1	0	2	0	4	7	1	10	13	0	3	27	2	4	138	15	0	159	31	10	1	1	2	45	398
06:45 PM	0	147	6	1	0	154	0	0	6	0	0	6	0	9	10	2	2	23	3	4	137	14	0	158	25	9	0	0	2	36	377
Total	15	558	14	5	2	594	3	0	12	0	5	20	2	42	45	11	12	112	10	9	562	70	0	651	110	36	1	7	6	160	1537
Grand Total	192	6111	157	27	70	6557	30	9	122	7	45	213	12	296	261	101	132	802	80	85	4889	704	2	5760	1029	241	12	202	140	1624	14956
Apprch %	2.9	93.2	2.4	0.4	1.1		14.1	4.2	57.3	3.3	21.1		1.5	36.9	32.5	12.6	16.5		1.4	1.5	84.9	12.2	0		63.4	14.8	0.7	12.4	8.6		
Total %	1.3	40.9	1	0.2	0.5	43.8	0.2	0.1	0.8	0	0.3	1.4	0.1	2	1.7	0.7	0.9	5.4	0.5	0.6	32.7	4.7	0	38.5	6.9	1.6	0.1	1.4	0.9	10.9	

Peggy Malone & Associates
(888) 247-8602

File Name : 2-N Main St and Progress St_McDonald St TUE
Site Code :
Start Date : 4/23/2019
Page No : 2

	N Main St Southbound					McDonald St Southwestbound					Progress St Westbound					N Main St Northbound					Progress St Eastbound					
Start Time	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 08:45 AM																										
08:45 AM	8	141	5	0	154	0	0	2	0	2	0	**8**	1	1	10	**3**	0	63	8	74	20	6	0	4	30	270
09:00 AM	**13**	**189**	3	0	**205**	0	0	3	**1**	4	0	8	**4**	**3**	**15**	2	**3**	70	9	84	27	**7**	0	**8**	**42**	**350**
09:15 AM	6	146	**6**	0	158	0	0	**6**	1	**7**	0	4	2	2	8	0	1	**91**	**14**	**106**	**30**	0	0	4	34	313
09:30 AM	3	110	3	0	116	**1**	0	1	0	2	**1**	5	1	1	8	2	1	83	12	98	20	4	0	6	30	254
Total Volume	30	586	17	0	633	1	0	12	2	15	1	25	8	7	41	7	5	307	43	362	97	17	0	22	136	1187
% App. Total	4.7	92.6	2.7	0		6.7	0	80	13.3		2.4	61	19.5	17.1		1.9	1.4	84.8	11.9		71.3	12.5	0	16.2		
PHF	.577	.775	.708	.000	.772	.250	.000	.500	.500	.536	.250	.781	.500	.583	.683	.583	.417	.843	.768	.854	.808	.607	.000	.688	.810	.848

	N Main St Southbound					McDonald St Southwestbound					Progress St Westbound					N Main St Northbound					Progress St Eastbound					
Start Time	Right	Thru	Left	Hard Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:45 PM																										
04:45 PM	**5**	**204**	**7**	1	**217**	0	**2**	**5**	0	**7**	0	11	10	**3**	24	2	3	112	21	138	38	**11**	0	10	59	445
05:00 PM	5	153	3	1	162	0	0	2	0	2	**1**	17	14	1	33	**6**	**4**	**167**	**26**	**203**	**41**	8	0	11	**60**	**460**
05:15 PM	4	127	1	0	132	0	2	3	0	5	0	**21**	**21**	3	**45**	4	3	156	24	187	23	7	0	**17**	47	416
05:30 PM	3	161	5	**3**	172	0	0	4	**1**	5	0	13	9	3	25	1	1	163	24	189	31	11	**2**	2	46	437
Total Volume	17	645	16	5	683	0	4	14	1	19	1	62	54	10	127	13	11	598	95	717	133	37	2	40	212	1758
% App. Total	2.5	94.4	2.3	0.7		0	21.1	73.7	5.3		0.8	48.8	42.5	7.9		1.8	1.5	83.4	13.2		62.7	17.5	0.9	18.9		
PHF	.850	.790	.571	.417	.787	.000	.500	.700	.250	.679	.250	.738	.643	.833	.706	.542	.688	.895	.913	.883	.811	.841	.250	.588	.883	.955

Peggy Malone & Associates
(888) 247-8602

File Name : 2-Main St and Progress_McDonald St
Site Code :
Start Date : 3/6/2019
Page No : 1

Groups Printed- Car

	Main St Southbound						Progress St Westbound						Main St Northbound						Progress St Eastbound						McDonald St Southwestbound						
Start Time	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
07:00 AM	1	73	1	0	0	75	0	2	1	1	0	4	0	0	28	4	0	32	2	2	0	0	1	5	0	0	1	0	0	1	117
07:15 AM	4	95	0	0	0	99	0	0	0	3	1	4	0	0	42	1	0	43	7	2	0	1	0	10	1	0	0	0	0	1	157
07:30 AM	2	163	0	0	0	165	0	1	3	1	0	5	0	0	43	1	0	44	14	3	0	0	1	18	0	0	1	0	0	1	233
07:45 AM	2	157	2	0	0	161	0	3	2	0	1	6	1	3	57	3	0	64	14	7	0	0	2	23	0	0	5	0	0	5	259
Total	9	488	3	0	0	500	0	6	6	5	2	19	1	3	170	9	0	183	37	14	0	1	4	56	1	0	7	0	0	8	766
08:00 AM	0	115	1	0	1	117	0	1	1	1	1	4	0	0	42	3	0	45	7	4	0	4	4	19	0	0	3	0	1	4	189
08:15 AM	3	119	3	0	0	125	0	1	3	1	0	5	1	0	60	3	0	64	19	5	0	1	0	25	2	0	2	0	0	4	223
08:30 AM	5	162	2	0	0	169	0	1	2	1	2	6	1	0	51	4	0	56	19	6	0	1	3	29	3	0	1	0	0	4	264
08:45 AM	13	193	6	1	5	218	0	2	4	4	1	11	1	0	58	4	0	63	20	4	0	6	2	32	0	0	2	0	0	2	326
Total	21	589	12	1	6	629	0	5	10	7	4	26	3	0	211	14	0	228	65	19	0	12	9	105	5	0	8	0	1	14	1002
09:00 AM	3	113	1	0	0	117	0	8	0	1	2	11	1	1	72	7	0	81	13	5	1	4	1	24	0	0	3	0	0	3	236
09:15 AM	2	110	7	0	2	121	1	3	4	2	0	10	0	2	54	6	0	62	17	5	0	3	1	26	0	0	1	1	0	2	221
09:30 AM	2	89	3	0	3	97	0	3	2	1	0	6	1	2	64	6	0	73	11	0	0	6	0	17	0	0	3	1	0	4	197
09:45 AM	0	129	5	0	0	134	1	2	3	1	1	8	1	6	54	2	0	63	16	1	0	1	9	27	1	0	5	0	0	6	238
Total	7	441	16	0	5	469	2	16	9	5	3	35	3	11	244	21	0	279	57	11	1	14	11	94	1	0	12	2	0	15	892
10:00 AM	1	115	2	0	3	121	0	2	2	2	0	6	2	0	98	9	0	109	18	2	0	3	3	26	0	0	0	0	0	0	262
10:15 AM	1	92	2	0	2	97	1	1	2	2	3	9	1	1	60	4	0	66	16	4	0	4	0	24	0	0	1	0	0	1	197
10:30 AM	3	86	5	0	4	98	0	3	5	1	1	10	2	1	71	6	0	80	13	3	0	5	0	21	0	1	0	0	0	1	210
10:45 AM	1	122	4	0	3	130	0	2	1	0	4	7	3	0	77	15	0	95	19	3	0	5	2	29	0	0	3	0	1	4	265
Total	6	415	13	0	12	446	1	8	10	5	8	32	8	2	306	34	0	350	66	12	0	17	5	100	0	1	4	0	1	6	934
11:00 AM	2	103	1	0	0	106	0	5	3	0	0	8	2	4	83	6	0	95	11	2	1	4	1	19	1	0	1	0	0	2	230
11:15 AM	0	122	4	0	1	127	0	5	3	2	5	15	1	1	80	10	0	92	19	3	0	2	1	25	0	0	0	0	1	1	260
11:30 AM	5	123	2	0	0	130	0	6	2	1	1	10	0	0	86	8	0	94	9	1	1	2	0	13	0	0	1	0	2	3	250
11:45 AM	2	131	2	1	0	136	1	6	5	0	3	15	2	0	89	10	0	101	12	5	0	1	2	20	1	1	4	0	0	6	278
Total	9	479	9	1	1	499	1	22	13	3	9	48	5	5	338	34	0	382	51	11	2	9	4	77	2	1	6	0	3	12	1018
12:00 PM	5	137	2	1	1	146	0	4	8	2	0	14	3	5	112	10	0	130	17	4	1	2	0	24	0	0	3	0	0	3	317
12:15 PM	4	123	3	0	0	130	0	8	3	4	1	16	1	1	125	15	0	142	10	1	0	3	3	17	0	1	3	0	0	4	309
12:30 PM	1	96	7	1	0	105	0	11	6	3	0	20	1	0	100	17	0	118	11	4	0	3	1	19	0	0	2	0	0	2	264
12:45 PM	5	121	3	0	0	129	0	8	4	0	1	13	1	1	94	9	0	105	18	7	1	6	2	34	0	0	1	0	0	1	282
Total	15	477	15	2	1	510	0	31	21	9	2	63	6	7	431	51	0	495	56	16	2	14	6	94	0	1	9	0	0	10	1172
01:00 PM	6	142	2	1	2	153	0	5	3	0	0	8	1	4	103	11	0	119	11	3	1	2	0	17	0	0	4	0	0	4	301
01:15 PM	3	100	1	0	1	105	0	4	4	3	1	12	1	2	119	23	0	145	14	4	1	6	2	27	0	0	2	1	0	3	292
01:30 PM	2	86	3	0	1	92	0	5	2	0	1	8	0	2	89	10	0	101	12	3	1	9	3	28	0	0	0	0	0	0	229
01:45 PM	2	104	4	1	0	111	0	2	2	2	2	8	1	0	80	13	0	94	11	3	0	3	2	19	0	0	5	0	0	5	237
Total	13	432	10	2	4	461	0	16	11	5	4	36	3	8	391	57	0	459	48	13	3	20	7	91	0	0	11	1	0	12	1059
02:00 PM	4	111	0	0	0	115	0	2	4	2	2	10	4	2	76	13	0	95	28	5	1	3	0	37	1	0	2	0	0	3	260
02:15 PM	1	115	1	0	2	119	0	5	5	0	1	11	1	7	107	16	0	131	20	3	1	1	2	27	0	0	4	0	0	4	292
02:30 PM	4	79	3	0	1	87	2	7	2	0	2	13	2	2	87	12	0	103	16	1	0	5	0	22	1	0	2	0	0	3	228
02:45 PM	0	84	5	0	0	89	1	6	2	3	0	12	1	1	86	13	0	101	14	2	0	5	1	22	0	0	4	0	0	4	228
Total	9	389	9	0	3	410	3	20	13	5	5	46	8	12	356	54	0	430	78	11	2	14	3	108	2	0	12	0	0	14	1008
03:00 PM	2	86	0	2	0	90	1	7	5	1	4	18	1	2	113	13	0	129	9	8	1	6	1	25	0	0	0	0	0	0	262
03:15 PM	4	97	5	0	0	106	0	6	4	2	0	12	1	1	109	18	0	129	13	4	0	4	1	22	2	0	2	0	0	4	273
03:30 PM	4	159	5	0	2	170	0	3	3	2	0	8	2	4	112	10	0	128	17	8	0	2	0	27	1	0	3	0	1	5	338
03:45 PM	6	144	3	0	0	153	1	8	5	1	4	19	2	4	148	7	0	161	30	10	0	10	0	50	2	0	1	0	1	4	387
Total	16	486	13	2	2	519	2	24	17	6	8	57	6	11	482	48	0	547	69	30	1	22	2	124	5	0	6	0	2	13	1260
04:00 PM	2	111	1	1	1	116	0	8	2	3	2	15	3	1	135	18	0	157	15	6	0	8	1	30	0	1	1	0	0	2	320
04:15 PM	4	122	4	0	0	130	1	11	4	2	2	20	0	6	129	12	0	147	14	2	0	6	3	25	1	0	2	0	1	4	326
04:30 PM	6	124	8	1	1	140	0	6	3	2	1	12	1	3	115	13	0	132	24	6	0	2	1	33	1	0	3	0	0	4	321
04:45 PM	6	153	4	0	0	163	1	7	5	1	1	15	1	2	128	12	0	143	20	7	0	9	2	38	0	1	4	1	0	6	365
Total	18	510	17	2	2	549	2	32	14	8	6	62	5	12	507	55	0	579	73	21	0	25	7	126	2	2	10	1	1	16	1332
05:00 PM	5	165	6	0	0	176	1	6	13	1	2	23	4	2	118	16	0	140	30	4	0	7	2	43	0	2	2	0	1	5	387
05:15 PM	2	144	3	0	2	151	0	21	24	0	2	47	5	3	151	25	0	184	43	2	0	6	5	56	0	0	3	0	0	3	441
05:30 PM	10	123	3	1	3	140	2	16	17	0	0	35	5	3	147	18	0	173	29	6	0	3	0	38	0	0	4	0	0	4	390
05:45 PM	10	153	4	1	0	168	0	12	11	4	5	32	2	1	152	18	0	173	29	6	0	9	2	46	0	0	6	0	0	6	425
Total	27	585	16	2	5	635	3	55	65	5	9	137	16	9	568	77	0	670	131	18	0	25	9	183	0	2	15	0	1	18	1643
06:00 PM	7	142	7	1	1	158	0	14	12	5	4	35	1	3	133	17	0	154	17	11	0	2	0	30	0	1	3	0	0	4	381
06:15 PM	4	117	3	0	0	124	0	11	5	0	4	20	1	4	133	19	0	157	33	10	0	1	1	45	3	1	2	3	0	9	355
06:30 PM	7	141	3	0	0	151	0	10	8	0	0	18	2	1	136	22	0	161	41	7	0	5	3	56	2	0	2	0	2	6	392
06:45 PM	5	168	6	1	1	181	0	9	8	3	1	21	3	3	127	19	0	152	36	7	0	3	0	46	1	0	4	0	0	5	405
Total	23	568	19	2	2	614	0	44	33	8	9	94	7	11	529	77	0	624	127	35	0	11	4	177	6	2	11	3	2	24	1533
Grand Total	173	5859	152	14	43	6241	14	279	222	71	69	655	71	91	4533	531	0	5226	858	211	11	184	71	1335	24	9	111	7	11	162	13619
Apprch %	2.8	93.9	2.4	0.2	0.7		2.1	42.6	33.9	10.8	10.5		1.4	1.7	86.7	10.2	0		64.3	15.8	0.8	13.8	5.3		14.8	5.6	68.5	4.3	6.8		
Total %	1.3	43	1.1	0.1	0.3	45.8	0.1	2	1.6	0.5	0.5	4.8	0.5	0.7	33.3	3.9	0	38.4	6.3	1.5	0.1	1.4	0.5	9.8	0.2	0.1	0.8	0.1	0.1	1.2	

Peggy Malone & Associates
(888) 247-8602

File Name : 2-Main St and Progress_McDonald St
Site Code :
Start Date : 3/6/2019
Page No : 2

	Main St Southbound					Progress St Westbound					Main St Northbound					Progress St Eastbound					McDonald St Southwestbound					
Start Time	Right	Thru	Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 08:15 AM																										
08:15 AM	3	119	3	0	125	0	1	3	1	5	**1**	0	60	3	64	19	5	0	1	25	2	0	2	0	**4**	223
08:30 AM	5	162	2	0	169	0	1	2	1	4	1	0	51	4	56	19	**6**	0	1	26	**3**	0	1	0	4	259
08:45 AM	**13**	**193**	**6**	**1**	**213**	0	2	**4**	**4**	**10**	1	0	58	4	63	**20**	4	0	**6**	**30**	0	0	2	0	2	**318**
09:00 AM	3	113	1	0	117	0	**8**	0	1	9	1	**1**	**72**	**7**	**81**	13	5	**1**	4	23	0	0	**3**	0	3	233
Total Volume	24	587	12	1	624	0	12	9	7	28	4	1	241	18	264	71	20	1	12	104	5	0	8	0	13	1033
% App. Total	3.8	94.1	1.9	0.2		0	42.9	32.1	25		1.5	0.4	91.3	6.8		68.3	19.2	1	11.5		38.5	0	61.5	0		
PHF	.462	.760	.500	.250	.732	.000	.375	.563	.438	.700	1.00	.250	.837	.643	.815	.888	.833	.250	.500	.867	.417	.000	.667	.000	.813	.812
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 05:00 PM																										
05:00 PM	5	**165**	**6**	0	**176**	1	6	13	1	21	4	2	118	16	140	30	4	0	7	41	0	**2**	2	0	4	382
05:15 PM	2	144	3	0	149	0	**21**	**24**	0	**45**	**5**	**3**	151	**25**	**184**	**43**	2	0	6	**51**	0	0	3	0	3	**432**
05:30 PM	**10**	123	3	**1**	137	**2**	16	17	0	35	5	3	147	18	173	29	**6**	0	3	38	0	0	4	0	4	387
05:45 PM	10	153	4	1	168	0	12	11	**4**	27	2	1	**152**	18	173	29	6	0	**9**	44	0	0	**6**	0	**6**	418
Total Volume	27	585	16	2	630	3	55	65	5	128	16	9	568	77	670	131	18	0	25	174	0	2	15	0	17	1619
% App. Total	4.3	92.9	2.5	0.3		2.3	43	50.8	3.9		2.4	1.3	84.8	11.5		75.3	10.3	0	14.4		0	11.8	88.2	0		
PHF	.675	.886	.667	.500	.895	.375	.655	.677	.313	.711	.800	.750	.934	.770	.910	.762	.750	.000	.694	.853	.000	.250	.625	.000	.708	.937

Peggy Malone & Associates
(888) 247-8602

File Name : 2-Main St and Progress_McDonald St
Site Code :
Start Date : 3/6/2019
Page No : 1

Groups Printed- Truck

	Main St Southbound						Progress St Westbound						Main St Northbound						Progress St Eastbound						McDonald St Southwestbound						
Start Time	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
07:00 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	5	3	0	8	3	0	0	0	0	3	0	0	0	0	0	0	13
07:15 AM	1	5	0	0	0	6	0	0	0	0	0	0	0	0	4	3	0	7	3	0	0	0	0	3	0	0	0	0	0	0	16
07:30 AM	0	7	0	0	0	7	0	0	0	0	0	0	0	0	4	1	0	5	3	0	0	0	0	3	0	0	0	0	0	0	15
07:45 AM	0	2	0	0	0	2	0	1	0	0	0	1	0	0	3	3	0	6	4	0	0	0	0	4	0	0	0	0	0	0	13
Total	1	16	0	0	0	17	0	1	0	0	0	1	0	0	16	10	0	26	13	0	0	0	0	13	0	0	0	0	0	0	57
08:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	4	1	0	5	5	0	0	0	0	5	0	0	0	0	0	0	11
08:15 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	4	5	0	9	3	0	0	0	0	3	0	0	0	0	0	0	16
08:30 AM	0	2	0	0	0	2	1	0	0	0	0	1	0	0	4	3	0	7	3	0	0	0	0	3	0	0	0	0	0	0	13
08:45 AM	1	2	0	0	0	3	0	0	0	0	0	0	0	0	5	2	0	7	4	0	0	0	0	4	0	0	0	0	0	0	14
Total	1	9	0	0	0	10	1	0	0	0	0	1	0	0	17	11	0	28	15	0	0	0	0	15	0	0	0	0	0	0	54
09:00 AM	0	3	0	0	0	3	0	1	0	0	0	1	0	0	4	2	0	6	4	0	0	0	0	4	0	0	0	0	0	0	14
09:15 AM	1	2	0	0	0	3	0	0	0	0	0	0	0	0	4	2	0	6	5	0	0	0	0	5	0	0	0	0	0	0	14
09:30 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4	1	0	5	3	0	0	0	0	3	0	0	0	0	0	0	10
09:45 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	4	3	0	7	4	0	0	0	0	4	0	0	0	0	0	0	15
Total	1	11	0	0	0	12	0	1	0	0	0	1	0	0	16	8	0	24	16	0	0	0	0	16	0	0	0	0	0	0	53
10:00 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	6	1	0	7	3	0	0	0	0	3	0	0	0	0	0	0	14
10:15 AM	1	3	0	0	0	4	0	0	0	0	0	0	0	0	4	2	0	6	4	0	0	0	0	4	0	0	0	0	0	0	14
10:30 AM	0	5	0	0	0	5	0	1	0	0	0	1	0	0	4	3	0	7	3	0	0	0	0	3	0	0	0	0	0	0	16
10:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	7	3	0	10	4	0	0	1	0	5	0	0	0	0	0	0	17
Total	1	14	0	0	0	15	0	1	0	0	0	1	0	0	21	9	0	30	14	0	0	1	0	15	0	0	0	0	0	0	61
11:00 AM	0	5	0	0	0	5	0	0	0	1	0	1	0	0	5	1	0	6	4	0	0	0	0	4	0	0	0	0	0	0	16
11:15 AM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	2	3	0	5	4	0	0	0	0	4	1	0	0	0	0	1	16
11:30 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	3	1	0	4	3	0	0	0	0	3	0	0	0	0	0	0	9
11:45 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	8	3	0	11	4	0	0	0	0	4	0	0	0	0	0	0	18
Total	0	16	0	0	0	16	0	0	0	1	0	1	0	0	18	8	0	26	15	0	0	0	0	15	1	0	0	0	0	1	59
12:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	4	2	0	6	3	0	0	0	0	3	0	0	0	0	0	0	12
12:15 PM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	6	2	0	8	5	0	0	0	0	5	0	0	0	0	0	0	18
12:30 PM	1	1	0	0	0	2	0	0	0	1	0	1	0	0	2	1	0	3	3	0	0	0	0	3	0	0	0	0	0	0	9
12:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	7	3	0	10	5	0	0	0	0	5	0	0	0	0	0	0	16
Total	1	10	0	0	0	11	0	0	0	1	0	1	0	0	19	8	0	27	16	0	0	0	0	16	0	0	0	0	0	0	55
01:00 PM	0	7	0	0	0	7	0	0	0	0	0	0	0	0	5	1	0	6	3	0	0	0	0	3	0	0	0	0	0	0	16
01:15 PM	0	3	0	0	0	3	0	1	0	0	0	1	0	0	4	3	0	7	4	0	0	0	0	4	0	0	0	0	0	0	15
01:30 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	1	3	4	0	8	6	0	0	0	0	6	0	0	0	0	0	0	18
01:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	5	2	0	7	2	0	0	0	0	2	0	0	0	0	0	0	11
Total	0	16	0	0	0	16	0	1	0	0	0	1	0	1	17	10	0	28	15	0	0	0	0	15	0	0	0	0	0	0	60
02:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	5	1	0	6	3	0	0	0	0	3	0	0	0	0	0	0	10
02:15 PM	1	4	0	0	0	5	0	0	0	0	0	0	0	0	5	3	0	8	4	0	0	0	0	4	0	0	0	0	0	0	17
02:30 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	3	2	0	5	4	0	0	0	0	4	0	0	0	0	0	0	13
02:45 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	3	4	0	7	3	0	0	0	0	3	0	0	0	0	0	0	13
Total	1	12	0	0	0	13	0	0	0	0	0	0	0	0	16	10	0	26	14	0	0	0	0	14	0	0	0	0	0	0	53
03:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	8	1	0	9	4	0	0	0	0	4	0	0	0	0	0	0	15
03:15 PM	0	3	0	0	0	3	0	1	0	0	0	1	0	0	2	3	0	5	4	0	0	0	0	4	1	0	0	0	0	1	14
03:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4	2	0	6	3	0	0	0	0	3	0	0	0	0	0	0	11
03:45 PM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	4	1	0	5	3	0	0	1	0	4	1	0	0	0	0	1	12
Total	1	8	0	0	0	9	0	1	0	0	0	1	0	0	18	7	0	25	14	0	0	1	0	15	2	0	0	0	0	2	52
04:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	8	1	0	9	3	0	0	0	0	3	0	0	0	0	0	0	14
04:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	5	3	0	8	4	0	0	0	0	4	0	0	0	0	0	0	14
04:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	3	2	0	5	4	0	0	0	0	4	0	0	0	0	0	0	10
04:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	3	1	0	4	3	0	0	0	0	3	0	0	0	0	0	0	9
Total	0	7	0	0	0	7	0	0	0	0	0	0	0	0	19	7	0	26	14	0	0	0	0	14	0	0	0	0	0	0	47
05:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	2	3	0	5	3	0	0	0	0	3	0	0	0	0	0	0	10
05:15 PM	0	2	0	0	0	2	0	0	1	0	0	1	0	0	4	2	0	6	4	0	0	0	0	4	0	0	0	0	0	0	13
05:30 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	4	2	0	6	3	0	0	0	0	3	0	0	0	0	0	0	12
05:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	2	1	0	3	4	0	0	0	0	4	0	0	0	0	0	0	9
Total	0	9	0	0	0	9	0	0	1	0	0	1	0	0	12	8	0	20	14	0	0	0	0	14	0	0	0	0	0	0	44
06:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	3	2	0	5	3	0	0	0	0	3	0	0	0	0	0	0	9
06:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	3	1	0	4	1	0	0	0	0	1	0	0	0	0	0	0	7
06:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	4
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	4	0	0	0	4	0	0	0	0	0	0	0	0	7	3	0	10	7	0	0	0	0	7	0	0	0	0	0	0	21
Grand Total	7	132	0	0	0	139	1	5	1	2	0	9	0	1	196	99	0	296	167	0	0	2	0	169	3	0	0	0	0	3	616
Apprch %	5	95	0	0	0		11.1	55.6	11.1	22.2	0		0	0.3	66.2	33.4	0		98.8	0	0	1.2	0		100	0	0	0	0		
Total %	1.1	21.4	0	0	0	22.6	0.2	0.8	0.2	0.3	0	1.5	0	0.2	31.8	16.1	0	48.1	27.1	0	0	0.3	0	27.4	0.5	0	0	0	0	0.5	

Peggy Malone & Associates
(888) 247-8602

File Name : 2-Main St and Progress_McDonald St
Site Code :
Start Date : 3/6/2019
Page No : 2

	Main St Southbound					Progress St Westbound					Main St Northbound					Progress St Eastbound					McDonald St Southwestbound					
Start Time	Right	Thru	Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 10:30 AM																										
10:30 AM	0	5	0	0	5	0	**1**	0	0	**1**	0	0	4	**3**	7	3	0	0	0	3	0	0	0	0	0	16
10:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	**7**	3	**10**	**4**	0	0	**1**	**5**	0	0	0	0	0	**17**
11:00 AM	0	5	0	0	5	0	0	0	**1**	1	0	0	5	1	6	4	0	0	0	4	0	0	0	0	0	16
11:15 AM	0	**6**	0	0	**6**	0	0	0	0	0	0	0	2	3	5	4	0	0	0	4	**1**	0	0	0	**1**	16
Total Volume	0	18	0	0	18	0	1	0	1	2	0	0	18	10	28	15	0	0	1	16	1	0	0	0	1	65
% App. Total	0	100	0	0		0	50	0	50		0	0	64.3	35.7		93.8	0	0	6.2		100	0	0	0		
PHF	.000	.750	.000	.000	.750	.000	.250	.000	.250	.500	.000	.000	.643	.833	.700	.938	.000	.000	.250	.800	.250	.000	.000	.000	.250	.956
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 12:45 PM																										
12:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	**7**	3	**10**	5	0	0	0	5	0	0	0	0	0	16
01:00 PM	0	**7**	0	0	**7**	0	0	0	0	0	0	0	5	1	6	3	0	0	0	3	0	0	0	0	0	16
01:15 PM	0	3	0	0	3	0	**1**	0	0	**1**	0	0	4	3	7	4	0	0	0	4	0	0	0	0	0	15
01:30 PM	0	4	0	0	4	0	0	0	0	0	0	**1**	3	**4**	8	**6**	0	0	0	**6**	0	0	0	0	0	**18**
Total Volume	0	15	0	0	15	0	1	0	0	1	0	1	19	11	31	18	0	0	0	18	0	0	0	0	0	65
% App. Total	0	100	0	0		0	100	0	0		0	3.2	61.3	35.5		100	0	0	0		0	0	0	0		
PHF	.000	.536	.000	.000	.536	.000	.250	.000	.000	.250	.000	.250	.679	.688	.775	.750	.000	.000	.000	.750	.000	.000	.000	.000	.000	.903

Peggy Malone & Associates
(888) 247-8602

File Name : 2-Main St and Progress_McDonald St
Site Code :
Start Date : 3/6/2019
Page No : 1

Groups Printed- Combined

	Main St Southbound						Progress St Westbound						Main St Northbound						Progress St Eastbound						McDonald St Southwestbound						
Start Time	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
07:00 AM	1	75	1	0	0	77	0	2	1	1	0	4	0	0	33	7	0	40	5	2	0	0	1	8	0	0	1	0	0	1	130
07:15 AM	5	100	0	0	0	105	0	0	0	3	1	4	0	0	46	4	0	50	10	2	0	1	0	13	1	0	0	0	0	1	173
07:30 AM	2	170	0	0	0	172	0	1	3	1	0	5	0	0	47	2	0	49	17	3	0	0	1	21	0	0	1	0	0	1	248
07:45 AM	2	159	2	0	0	163	0	4	2	0	1	7	1	3	60	6	0	70	18	7	0	0	2	27	0	0	5	0	0	5	272
Total	10	504	3	0	0	517	0	7	6	5	2	20	1	3	186	19	0	209	50	14	0	1	4	69	1	0	7	0	0	8	823
08:00 AM	0	116	1	0	1	118	0	1	1	1	1	4	0	0	46	4	0	50	12	4	0	4	4	24	0	0	3	0	1	4	200
08:15 AM	3	123	3	0	0	129	0	1	3	1	0	5	1	0	64	8	0	73	22	5	0	1	0	28	2	0	2	0	0	4	239
08:30 AM	5	164	2	0	0	171	1	1	2	1	2	7	1	0	55	7	0	63	22	6	0	1	3	32	3	0	1	0	0	4	277
08:45 AM	14	195	6	1	5	221	0	2	4	4	1	11	1	0	63	6	0	70	24	4	0	6	2	36	0	0	2	0	0	2	340
Total	22	598	12	1	6	639	1	5	10	7	4	27	3	0	228	25	0	256	80	19	0	12	9	120	5	0	8	0	1	14	1056
09:00 AM	3	116	1	0	0	120	0	9	0	1	2	12	1	1	76	9	0	87	17	5	1	4	1	28	0	0	3	0	0	3	250
09:15 AM	3	112	7	0	2	124	1	3	4	2	0	10	0	2	58	8	0	68	22	5	0	3	1	31	0	0	1	1	0	2	235
09:30 AM	2	91	3	0	3	99	0	3	2	1	0	6	1	2	68	7	0	78	14	0	0	6	0	20	0	0	3	1	0	4	207
09:45 AM	0	133	5	0	0	138	1	2	3	1	1	8	1	6	58	5	0	70	20	1	0	1	9	31	1	0	5	0	0	6	253
Total	8	452	16	0	5	481	2	17	9	5	3	36	3	11	260	29	0	303	73	11	1	14	11	110	1	0	12	2	0	15	945
10:00 AM	1	119	2	0	3	125	0	2	2	2	0	6	2	0	104	10	0	116	21	2	0	3	3	29	0	0	0	0	0	0	276
10:15 AM	2	95	2	0	2	101	1	1	2	2	3	9	1	1	64	6	0	72	20	4	0	4	0	28	0	0	1	0	0	1	211
10:30 AM	3	91	5	0	4	103	0	4	5	1	1	11	2	1	75	9	0	87	16	3	0	5	0	24	0	1	0	0	0	1	226
10:45 AM	1	124	4	0	3	132	0	2	1	0	4	7	3	0	84	18	0	105	23	3	0	6	2	34	0	0	3	0	1	4	282
Total	7	429	13	0	12	461	1	9	10	5	8	33	8	2	327	43	0	380	80	12	0	18	5	115	0	1	4	0	1	6	995
11:00 AM	2	108	1	0	0	111	0	5	3	1	0	9	2	4	88	7	0	101	15	2	1	4	1	23	1	0	1	0	0	2	246
11:15 AM	0	128	4	0	1	133	0	5	3	2	5	15	1	1	82	13	0	97	23	3	0	2	1	29	1	0	0	0	1	2	276
11:30 AM	5	125	2	0	0	132	0	6	2	1	1	10	0	0	89	9	0	98	12	1	1	2	0	16	0	0	1	0	2	3	259
11:45 AM	2	134	2	1	0	139	1	6	5	0	3	15	2	0	97	13	0	112	16	5	0	1	2	24	1	1	4	0	0	6	296
Total	9	495	9	1	1	515	1	22	13	4	9	49	5	5	356	42	0	408	66	11	2	9	4	92	3	1	6	0	3	13	1077
12:00 PM	5	140	2	1	1	149	0	4	8	2	0	14	3	5	116	12	0	136	20	4	1	2	0	27	0	0	3	0	0	3	329
12:15 PM	4	128	3	0	0	135	0	8	3	4	1	16	1	1	131	17	0	150	15	1	0	3	3	22	0	1	3	0	0	4	327
12:30 PM	2	97	7	1	0	107	0	11	6	4	0	21	1	0	102	18	0	121	14	4	0	3	1	22	0	0	2	0	0	2	273
12:45 PM	5	122	3	0	0	130	0	8	4	0	1	13	1	1	101	12	0	115	23	7	1	6	2	39	0	0	1	0	0	1	298
Total	16	487	15	2	1	521	0	31	21	10	2	64	6	7	450	59	0	522	72	16	2	14	6	110	0	1	9	0	0	10	1227
01:00 PM	6	149	2	1	2	160	0	5	3	0	0	8	1	4	108	12	0	125	14	3	1	2	0	20	0	0	4	0	0	4	317
01:15 PM	3	103	1	0	1	108	0	5	4	3	1	13	1	2	123	26	0	152	18	4	1	6	2	31	0	0	2	1	0	3	307
01:30 PM	2	90	3	0	1	96	0	5	2	0	1	8	0	3	92	14	0	109	18	3	1	9	3	34	0	0	0	0	0	0	247
01:45 PM	2	106	4	1	0	113	0	2	2	2	2	8	1	0	85	15	0	101	13	3	0	3	2	21	0	0	5	0	0	5	248
Total	13	448	10	2	4	477	0	17	11	5	4	37	3	9	408	67	0	487	63	13	3	20	7	106	0	0	11	1	0	12	1119
02:00 PM	4	112	0	0	0	116	0	2	4	2	2	10	4	2	81	14	0	101	31	5	1	3	0	40	1	0	2	0	0	3	270
02:15 PM	2	119	1	0	2	124	0	5	5	0	1	11	1	7	112	19	0	139	24	3	1	1	2	31	0	0	4	0	0	4	309
02:30 PM	4	83	3	0	1	91	2	7	2	0	2	13	2	2	90	14	0	108	20	1	0	5	0	26	1	0	2	0	0	3	241
02:45 PM	0	87	5	0	0	92	1	6	2	3	0	12	1	1	89	17	0	108	17	2	0	5	1	25	0	0	4	0	0	4	241
Total	10	401	9	0	3	423	3	20	13	5	5	46	8	12	372	64	0	456	92	11	2	14	3	122	2	0	12	0	0	14	1061
03:00 PM	2	88	0	2	0	92	1	7	5	1	4	18	1	2	121	14	0	138	13	8	1	6	1	29	0	0	0	0	0	0	277
03:15 PM	4	100	5	0	0	109	0	7	4	2	0	13	1	1	111	21	0	134	17	4	0	4	1	26	3	0	2	0	0	5	287
03:30 PM	4	161	5	0	2	172	0	3	3	2	0	8	2	4	116	12	0	134	20	8	0	2	0	30	1	0	3	0	1	5	349
03:45 PM	7	145	3	0	0	155	1	8	5	1	4	19	2	4	152	8	0	166	33	10	0	11	0	54	3	0	1	0	1	5	399
Total	17	494	13	2	2	528	2	25	17	6	8	58	6	11	500	55	0	572	83	30	1	23	2	139	7	0	6	0	2	15	1312
04:00 PM	2	113	1	1	1	118	0	8	2	3	2	15	3	1	143	19	0	166	18	6	0	8	1	33	0	1	1	0	0	2	334
04:15 PM	4	124	4	0	0	132	1	11	4	2	2	20	0	6	134	15	0	155	18	2	0	6	3	29	1	0	2	0	1	4	340
04:30 PM	6	125	8	1	1	141	0	6	3	2	1	12	1	3	118	15	0	137	28	6	0	2	1	37	1	0	3	0	0	4	331
04:45 PM	6	155	4	0	0	165	1	7	5	1	1	15	1	2	131	13	0	147	23	7	0	9	2	41	0	1	4	1	0	6	374
Total	18	517	17	2	2	556	2	32	14	8	6	62	5	12	526	62	0	605	87	21	0	25	7	140	2	2	10	1	1	16	1379
05:00 PM	5	167	6	0	0	178	1	6	13	1	2	23	4	2	120	19	0	145	33	4	0	7	2	46	0	2	2	0	1	5	397
05:15 PM	2	146	3	0	2	153	0	21	25	0	2	48	5	3	155	27	0	190	47	2	0	6	5	60	0	0	3	0	0	3	454
05:30 PM	10	126	3	1	3	143	2	16	17	0	0	35	5	3	151	20	0	179	32	6	0	3	0	41	0	0	4	0	0	4	402
05:45 PM	10	155	4	1	0	170	0	12	11	4	5	32	2	1	154	19	0	176	33	6	0	9	2	50	0	0	6	0	0	6	434
Total	27	594	16	2	5	644	3	55	66	5	9	138	16	9	580	85	0	690	145	18	0	25	9	197	0	2	15	0	1	18	1687
06:00 PM	7	143	7	1	1	159	0	14	12	5	4	35	1	3	136	19	0	159	20	11	0	2	0	33	0	1	3	0	0	4	390
06:15 PM	4	119	3	0	0	126	0	11	5	0	4	20	1	4	136	20	0	161	34	10	0	1	1	46	3	1	2	3	0	9	362
06:30 PM	7	142	3	0	0	152	0	10	8	0	0	18	2	1	136	22	0	161	44	7	0	5	3	59	2	0	2	0	2	6	396
06:45 PM	5	168	6	1	1	181	0	9	8	3	1	21	3	3	128	19	0	153	36	7	0	3	0	46	1	0	4	0	0	5	406
Total	23	572	19	2	2	618	0	44	33	8	9	94	7	11	536	80	0	634	134	35	0	11	4	184	6	2	11	3	2	24	1554
Grand Total	180	5991	152	14	43	6380	15	284	223	73	69	664	71	92	4729	630	0	5522	1025	211	11	186	71	1504	27	9	111	7	11	165	14235
Apprch %	2.8	93.9	2.4	0.2	0.7		2.3	42.8	33.6	11	10.4		1.3	1.7	85.6	11.4	0		68.2	14	0.7	12.4	4.7		16.4	5.5	67.3	4.2	6.7		
Total %	1.3	42.1	1.1	0.1	0.3	44.8	0.1	2	1.6	0.5	0.5	4.7	0.5	0.6	33.2	4.4	0	38.8	7.2	1.5	0.1	1.3	0.5	10.6	0.2	0.1	0.8	0	0.1	1.2	

Peggy Malone & Associates
(888) 247-8602

File Name : 2-Main St and Progress_McDonald St
Site Code :
Start Date : 3/6/2019
Page No : 2

	Main St Southbound					Progress St Westbound					Main St Northbound					Progress St Eastbound					McDonald St Southwestbound					
Start Time	Right	Thru	Left	Hard Left	App. Total	Hard Right	Right	Thru	Left	App. Total	Right	Bear Right	Thru	Left	App. Total	Right	Thru	Bear Left	Left	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 08:15 AM																										
08:15 AM	3	123	3	0	129	0	1	3	1	5	**1**	0	64	8	73	22	5	0	1	28	2	0	2	0	**4**	239
08:30 AM	5	164	2	0	171	**1**	1	2	1	5	1	0	55	7	63	22	**6**	0	1	29	**3**	0	1	0	4	272
08:45 AM	**14**	**195**	**6**	**1**	**216**	0	2	**4**	**4**	**10**	1	0	63	6	70	**24**	4	0	**6**	**34**	0	0	2	0	2	**332**
09:00 AM	3	116	1	0	120	0	**9**	0	1	10	1	**1**	**76**	**9**	**87**	17	5	**1**	4	27	0	0	**3**	0	3	247
Total Volume	25	598	12	1	636	1	13	9	7	30	4	1	258	30	293	85	20	1	12	118	5	0	8	0	13	1090
% App. Total	3.9	94	1.9	0.2		3.3	43.3	30	23.3		1.4	0.3	88.1	10.2		72	16.9	0.8	10.2		38.5	0	61.5	0		
PHF	.446	.767	.500	.250	.736	.250	.361	.563	.438	.750	1.00	.250	.849	.833	.842	.885	.833	.250	.500	.868	.417	.000	.667	.000	.813	.821
Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 05:00 PM																										
05:00 PM	5	**167**	**6**	0	**178**	1	6	13	1	21	4	2	120	19	145	33	4	0	7	44	0	**2**	2	0	4	392
05:15 PM	2	146	3	0	151	0	**21**	**25**	0	**46**	**5**	**3**	**155**	**27**	**190**	**47**	2	0	6	**55**	0	0	3	0	3	**445**
05:30 PM	**10**	126	3	**1**	140	**2**	16	17	0	35	5	3	151	20	179	32	**6**	0	3	41	0	0	4	0	4	399
05:45 PM	10	155	4	1	170	0	12	11	**4**	27	2	1	154	19	176	33	6	0	**9**	48	0	0	**6**	0	**6**	427
Total Volume	27	594	16	2	639	3	55	66	5	129	16	9	580	85	690	145	18	0	25	188	0	2	15	0	17	1663
% App. Total	4.2	93	2.5	0.3		2.3	42.6	51.2	3.9		2.3	1.3	84.1	12.3		77.1	9.6	0	13.3		0	11.8	88.2	0		
PHF	.675	.889	.667	.500	.897	.375	.655	.660	.313	.701	.800	.750	.935	.787	.908	.771	.750	.000	.694	.855	.000	.250	.625	.000	.708	.934

Peggy Malone and Associates

CLASSIFICATION SUMMARY
Tue 4/23/2019

Station #: Site A
Site ID: 000000020178
Loc: Giles Rd, N of Heights Lane
Direction: NORTH
Lane: 1

File: Giles Rd, N of Heights Ln.PRN
Info: 19-168 RS Min
GPS: 37.24407, -80.41307

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
00:15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
00:30	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
00:45	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hour Total	0	10	1	0	0	0	0	0	0	0	0	0	0	0	0	11
01:15	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
01:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hour Total	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
02:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hour Total	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
06:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:30	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
06:45	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
07:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Hour Total	0	7	2	0	0	0	0	0	0	0	0	0	0	0	0	9
07:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
07:30	0	1	0	1	0	0	0	2	0	0	0	0	0	0	0	4
07:45	0	3	0	1	1	0	0	0	0	0	0	0	0	0	0	5
08:00	0	3	0	0	0	0	0	2	0	0	0	0	0	0	0	5
Hour Total	0	8	1	2	1	0	0	4	0	0	0	0	0	0	0	16
08:15	0	3	1	2	0	0	0	0	0	0	0	0	0	0	0	6
08:30	0	5	0	0	0	0	0	1	0	0	0	0	0	0	0	6
08:45	0	7	2	1	0	0	0	1	0	0	0	0	0	0	0	11
09:00	0	6	0	0	0	0	0	2	0	0	0	0	0	0	0	8
Hour Total	0	21	3	3	0	0	0	4	0	0	0	0	0	0	0	31

Peggy Malone and Associates

CLASSIFICATION SUMMARY
Tue 4/23/2019

Station #: Site A
Site ID: 000000020178
Loc: Giles Rd, N of Heights Lane
Direction: NORTH
Lane: 1

File: Giles Rd, N of Heights Ln.PRN
Info: 19-168 RS Min
GPS: 37.24407, -80.41307

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
09:15	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	8
09:30	0	6	1	0	0	0	0	1	0	0	0	0	0	0	0	8
09:45	0	7	4	1	0	0	0	1	0	0	0	0	0	0	0	13
10:00	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	4
Hour Total	0	23	5	2	0	0	0	3	0	0	0	0	0	0	0	33
10:15	0	5	2	1	1	0	0	1	0	0	0	0	0	0	0	10
10:30	0	9	1	0	0	0	0	1	0	0	0	0	0	0	0	11
10:45	0	4	1	1	0	0	0	2	0	0	0	0	0	0	0	8
11:00	0	7	0	0	0	0	0	1	0	0	0	0	0	0	0	8
Hour Total	0	25	4	2	1	0	0	5	0	0	0	0	0	0	0	37
11:15	0	5	0	1	0	0	0	1	0	0	0	0	0	0	0	7
11:30	0	7	1	0	1	0	0	1	0	0	0	0	0	0	0	10
11:45	1	8	1	1	0	0	0	1	0	0	0	0	0	0	0	12
12:00	0	7	4	0	1	0	0	1	0	0	0	0	0	0	0	13
Hour Total	1	27	6	2	2	0	0	4	0	0	0	0	0	0	0	42
12:15	0	2	3	1	0	0	0	1	0	0	0	0	0	0	0	7
12:30	0	11	2	0	1	0	0	1	0	0	0	0	0	0	0	15
12:45	0	14	3	1	0	0	0	1	0	0	0	0	0	0	0	19
13:00	0	7	3	0	0	0	0	1	0	0	0	0	0	0	0	11
Hour Total	0	34	11	2	1	0	0	4	0	0	0	0	0	0	0	52
13:15	0	5	1	1	1	0	0	0	0	0	1	0	0	0	0	9
13:30	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	4
13:45	1	9	1	1	0	0	0	1	0	0	0	0	0	0	0	13
14:00	0	14	4	0	0	0	0	1	0	0	0	0	0	0	0	19
Hour Total	1	31	6	2	1	0	0	3	0	0	1	0	0	0	0	45
14:15	0	14	2	1	0	0	0	1	0	0	0	0	0	0	0	18
14:30	1	10	4	0	0	0	0	1	0	0	0	0	0	0	0	16
14:45	0	5	1	1	1	0	0	1	0	0	0	0	0	0	0	9
15:00	0	10	1	0	0	0	0	1	0	0	0	0	0	0	0	12
Hour Total	1	39	8	2	1	0	0	4	0	0	0	0	0	0	0	55
15:15	2	9	1	0	0	0	0	1	0	0	0	0	0	0	0	13
15:30	2	15	2	1	1	0	0	1	0	0	1	0	0	0	0	23
15:45	1	12	5	0	0	0	0	1	0	0	0	0	0	0	0	19
16:00	0	10	4	0	0	0	0	1	0	0	0	0	0	0	0	15
Hour Total	5	46	12	1	1	0	0	4	0	0	1	0	0	0	0	70
16:15	0	13	0	1	0	0	0	1	0	0	0	0	0	0	0	15
16:30	0	11	1	0	0	0	0	1	0	0	0	0	0	0	0	13
16:45	0	14	1	1	0	0	0	1	0	0	0	0	0	0	0	17
17:00	1	22	0	0	2	0	0	0	0	0	0	0	0	0	0	25
Hour Total	1	60	2	2	2	0	0	3	0	0	0	0	0	0	0	70
17:15	2	21	3	1	0	0	0	2	0	0	0	0	0	0	0	29
17:30	0	21	3	0	0	0	0	1	0	0	0	0	0	0	0	25
17:45	1	13	3	1	0	0	0	1	0	0	0	0	0	0	0	19
18:00	0	18	1	0	0	0	0	1	0	0	0	0	0	0	0	20
Hour Total	3	73	10	2	0	0	0	5	0	0	0	0	0	0	0	93

Peggy Malone and Associates

CLASSIFICATION SUMMARY
Tue 4/23/2019

Station #: Site A
Site ID: 000000020178
Loc: Giles Rd, N of Heights Lane
Direction: NORTH
Lane: 1

File: Giles Rd, N of Heights Ln.PRN
Info: 19-168 RS Min
GPS: 37.24407, -80.41307

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
18:15	0	9	1	1	0	0	0	0	0	0	0	0	0	0	0	11
18:30	1	21	0	0	0	0	0	1	0	0	0	0	0	0	0	23
18:45	1	21	2	0	0	0	0	0	0	0	0	0	0	0	0	24
19:00	0	5	2	1	0	0	0	0	0	0	0	0	0	0	0	8
Hour Total	2	56	5	2	0	0	0	1	0	0	0	0	0	0	0	66
19:15	0	19	1	0	0	0	0	0	0	0	0	0	0	0	0	20
19:30	0	17	0	1	0	0	0	0	0	0	0	0	0	0	0	18
19:45	0	17	3	0	0	1	1	0	0	0	0	0	0	0	0	22
20:00	0	12	1	1	0	0	0	0	0	0	0	0	0	0	0	14
Hour Total	0	65	5	2	0	1	1	0	0	0	0	0	0	0	0	74
20:15	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
20:30	0	16	0	1	0	0	0	0	0	0	0	0	0	0	0	17
20:45	2	12	0	0	0	0	0	1	0	0	0	0	0	0	0	15
21:00	0	11	2	1	0	0	0	0	0	0	0	0	0	0	0	14
Hour Total	2	46	2	2	0	0	0	1	0	0	0	0	0	0	0	53
21:15	0	13	2	0	0	0	0	0	0	0	0	0	0	0	0	15
21:30	0	10	1	1	0	0	0	0	0	0	0	0	0	0	0	12
21:45	0	7	2	0	0	0	0	0	0	0	0	0	0	0	0	9
22:00	0	9	0	1	0	0	0	0	0	0	0	0	0	0	0	10
Hour Total	0	39	5	2	0	0	0	0	0	0	0	0	0	0	0	46
22:15	0	14	2	0	0	0	0	0	0	0	0	0	0	0	0	16
22:30	0	5	1	0	1	0	0	0	0	0	0	0	0	0	0	7
22:45	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
23:00	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	6
Hour Total	1	27	4	1	1	0	0	0	0	0	0	0	0	0	0	34
23:15	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
23:30	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
23:45	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
24:00	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	5
Hour Total	0	20	0	1	0	0	0	0	0	0	0	0	0	0	0	21
DAY TOTAL	17	673	92	32	11	1	1	45	0	0	2	0	0	0	0	874
PERCENTS	1.9%	77.0%	10.5%	3.7%	1.3%	0.1%	0.1%	5.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	100.0%

Passenger Vehicles 89.5% Trucks & Buses 10.5%

AM Times	11:00	11:00	09:30	07:30	11:15			10:00								11:15
AM Peaks	1	27	7	4	2			5								42
PM Times	15:00	16:45	12:00	11:30	11:30	19:00	19:00	17:15			12:30					17:00
PM Peaks	5	78	12	2	2	1	1	5			1					98

Peggy Malone and Associates

CLASSIFICATION SUMMARY
Tue 4/23/2019

Station #: Site A
Site ID: 000000020178
Loc: Giles Rd, N of Heights Lane
Direction: NORTH
Lane: 1

File: Giles Rd, N of Heights Ln.PRN
Info: 19-168 RS Min
GPS: 37.24407, -80.41307

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
GRAND TOTAL	17	673	92	32	11	1	1	45	0	0	2	0	0	0	0	874
PERCENTS	1.9%	77.0%	10.5%	3.7%	1.3%	0.1%	0.1%	5.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	100.0%

CLASSIFICATION SUMMARY
Tue 4/23/2019

Station #: Site A
Site ID: 000000020178
Loc: Giles Rd, N of Heights Lane
Direction: SOUTH
Lane: 2

File: Giles Rd, N of Heights Ln.PRN
Info: 19-168 RS Min
GPS: 37.24407, -80.41307

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
00:45	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
01:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
03:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour Total	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
04:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour Total	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
06:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
Hour Total	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	6
07:15	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
07:30	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
07:45	0	15	2	0	0	0	0	0	0	0	0	0	0	0	0	17
08:00	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Hour Total	0	39	3	0	0	0	0	0	0	0	0	0	0	0	0	42
08:15	1	6	1	0	0	0	0	0	0	0	0	0	0	0	0	8
08:30	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
08:45	0	10	0	0	2	0	0	0	0	0	0	0	0	0	0	12
09:00	0	10	4	0	0	0	0	0	0	0	0	0	0	0	0	14
Hour Total	1	35	5	0	2	0	0	0	0	0	0	0	0	0	0	43

CLASSIFICATION SUMMARY
Tue 4/23/2019

Station #: Site A
Site ID: 000000020178
Loc: Giles Rd, N of Heights Lane
Direction: SOUTH
Lane: 2

File: Giles Rd, N of Heights Ln.PRN
Info: 19-168 RS Min
GPS: 37.24407, -80.41307

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
09:15	1	12	4	0	0	0	0	0	0	0	0	0	0	0	0	17
09:30	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
09:45	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	7
10:00	0	13	2	0	0	0	0	0	0	0	0	0	0	0	0	15
Hour Total	1	38	8	0	0	0	0	0	0	0	0	0	0	0	0	47
10:15	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
10:30	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	7
10:45	0	10	2	0	0	1	0	0	0	0	0	0	0	0	0	13
11:00	0	12	1	0	0	0	0	0	0	0	0	0	0	0	0	13
Hour Total	0	32	5	0	0	1	0	0	0	0	0	0	0	0	0	38
11:15	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	10
11:30	0	6	6	0	0	1	0	0	0	0	0	0	0	0	0	13
11:45	0	9	2	0	0	1	0	0	0	0	0	0	0	0	0	12
12:00	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Hour Total	0	37	10	0	0	2	0	0	0	0	0	0	0	0	0	49
12:15	0	11	1	0	0	0	0	1	0	0	0	0	0	0	0	13
12:30	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8
12:45	0	8	3	0	0	0	0	0	0	0	0	0	0	0	0	11
13:00	0	7	2	0	0	0	0	0	0	0	0	0	0	0	0	9
Hour Total	0	33	7	0	0	0	0	1	0	0	0	0	0	0	0	41
13:15	1	9	1	0	1	0	0	0	0	0	0	0	0	0	0	12
13:30	0	10	3	0	0	0	0	0	0	0	0	0	0	0	0	13
13:45	3	9	1	0	0	0	0	0	0	0	0	0	0	0	0	13
14:00	0	7	1	0	0	1	0	0	0	0	0	0	0	0	0	9
Hour Total	4	35	6	0	1	1	0	0	0	0	0	0	0	0	0	47
14:15	1	6	1	0	0	0	0	0	0	0	0	0	0	0	0	8
14:30	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	6
14:45	0	12	1	0	0	0	0	0	0	0	0	0	0	0	0	13
15:00	0	4	1	0	0	1	0	0	0	0	0	0	0	0	0	6
Hour Total	1	27	4	0	0	1	0	0	0	0	0	0	0	0	0	33
15:15	0	12	0	0	1	0	0	0	0	0	0	0	0	0	0	13
15:30	0	14	1	0	0	0	0	0	0	0	0	0	0	0	0	15
15:45	1	11	3	0	0	0	0	1	0	0	0	0	0	0	0	16
16:00	1	8	2	0	0	0	0	0	0	0	0	0	0	0	0	11
Hour Total	2	45	6	0	1	0	0	1	0	0	0	0	0	0	0	55
16:15	1	9	1	0	0	0	0	0	0	0	0	0	0	0	0	11
16:30	0	7	1	0	1	0	0	0	0	0	0	0	0	0	0	9
16:45	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7
17:00	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Hour Total	1	36	3	0	1	0	0	0	0	0	0	0	0	0	0	41
17:15	0	14	4	0	0	0	0	1	0	0	0	0	0	0	0	19
17:30	0	14	3	0	0	0	0	0	0	0	0	0	0	0	0	17
17:45	0	9	3	0	0	0	0	0	0	0	0	0	0	0	0	12
18:00	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Hour Total	0	53	10	0	0	0	0	1	0	0	0	0	0	0	0	64

CLASSIFICATION SUMMARY
Tue 4/23/2019

Station #: Site A
Site ID: 000000020178
Loc: Giles Rd, N of Heights Lane
Direction: SOUTH
Lane: 2

File: Giles Rd, N of Heights Ln.PRN
Info: 19-168 RS Min
GPS: 37.24407, -80.41307

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
18:15	0	10	1	0	0	0	0	0	0	0	0	0	0	0	0	11
18:30	0	11	1	0	0	0	0	0	0	0	0	0	0	0	0	12
18:45	0	10	4	0	0	0	0	0	0	0	0	0	0	0	0	14
19:00	0	10	4	0	0	0	0	0	0	0	0	0	0	0	0	14
Hour Total	0	41	10	0	0	0	0	0	0	0	0	0	0	0	0	51
19:15	0	15	2	0	0	0	0	0	0	0	0	0	0	0	0	17
19:30	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
19:45	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
20:00	0	12	2	0	0	0	0	0	0	0	0	0	0	0	0	14
Hour Total	0	52	4	0	0	0	0	0	0	0	0	0	0	0	0	56
20:15	1	14	3	0	0	0	0	0	0	0	0	0	0	0	0	18
20:30	1	8	1	0	0	0	0	0	0	0	0	0	0	0	0	10
20:45	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
21:00	0	16	1	0	0	0	0	0	0	0	0	0	0	0	0	17
Hour Total	2	45	5	0	0	0	0	0	0	0	0	0	0	0	0	52
21:15	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	9
21:30	0	11	3	0	0	0	0	0	0	0	0	0	0	0	0	14
21:45	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
22:00	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8
Hour Total	0	34	5	0	0	0	0	0	0	0	0	0	0	0	0	39
22:15	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	6
22:30	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7
22:45	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7
23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hour Total	0	20	3	0	0	0	0	0	0	0	0	0	0	0	0	23
23:15	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
23:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
23:45	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
24:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Hour Total	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
DAY TOTAL	12	645	96	0	5	5	0	3	0	0	0	0	0	0	0	766
PERCENTS	1.6%	84.2%	12.5%	0.0%	0.7%	0.7%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Passenger Vehicles 98.3% Trucks & Buses 1.7%

AM Times	07:30	07:45	10:45	08:00	10:45		08:30
AM Peaks	1	45	11	2	2		52
PM Times	13:00	17:15	18:30	12:30	11:30	11:30	17:15
PM Peaks	4	53	11	1	2	1	64

Peggy Malone and Associates

CLASSIFICATION SUMMARY
Tue 4/23/2019

Station #: Site A
Site ID: 000000020178
Loc: Giles Rd, N of Heights Lane
Direction: SOUTH
Lane: 2

File: Giles Rd, N of Heights Ln.PRN
Info: 19-168 RS Min
GPS: 37.24407, -80.41307

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
GRAND TOTAL	12	645	96	0	5	5	0	3	0	0	0	0	0	0	0	766
PERCENTS	1.6%	84.2%	12.5%	0.0%	0.7%	0.7%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Peggy Malone and Associates

CLASSIFICATION SUMMARY
Wed 3/6/2019

Station #: 000000003729
Site ID: 000000003729
Loc: Giles Rd, N of Heights Ln
Direction: NORTH
Lane: 1

File: Giles Rd, N of Heights Ln_NB.prn
Info: 19-089 TS Max
GPS: 37.24386, -80.41315

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
00:15	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
00:30	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
00:45	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hour Total	0	11	2	0	0	0	0	0	0	0	0	0	0	0	0	13
01:15	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
01:30	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
01:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	10
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
03:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hour Total	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
06:15	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
06:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
06:45	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
07:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hour Total	0	11	1	0	0	0	0	0	0	0	0	0	0	0	0	12
07:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
07:30	0	5	0	0	0	0	0	1	0	0	0	0	0	0	0	6
07:45	0	4	0	2	0	0	0	1	0	0	0	0	0	0	0	7
08:00	0	5	1	0	0	0	0	1	0	0	0	0	0	0	0	7
Hour Total	0	14	1	2	0	1	0	3	0	0	0	0	0	0	0	21
08:15	0	3	0	1	0	0	0	1	0	0	0	0	0	0	0	5
08:30	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2
08:45	0	10	1	1	0	0	0	1	0	0	0	0	0	0	0	13
09:00	0	9	1	0	0	0	0	1	0	0	0	0	0	0	0	11
Hour Total	0	23	2	2	0	0	0	4	0	0	0	0	0	0	0	31

Peggy Malone and Associates

CLASSIFICATION SUMMARY
Wed 3/6/2019

Station #: 000000003729
Site ID: 000000003729
Loc: Giles Rd, N of Heights Ln
Direction: NORTH
Lane: 1

File: Giles Rd, N of Heights Ln_NB.prn
Info: 19-089 TS Max
GPS: 37.24386, -80.41315

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
09:15	0	5	0	1	0	0	0	1	0	0	0	0	0	0	0	7
09:30	0	6	0	0	0	0	0	1	0	0	0	0	0	0	0	7
09:45	0	3	1	1	0	0	0	1	0	0	0	0	0	0	0	6
10:00	0	6	1	0	0	0	0	1	0	0	0	0	0	0	0	8
Hour Total	0	20	2	2	0	0	0	4	0	0	0	0	0	0	0	28
10:15	0	4	2	1	0	0	0	1	0	0	0	0	0	0	0	8
10:30	0	5	0	0	0	0	0	1	0	0	0	0	0	0	0	6
10:45	0	4	0	1	0	0	0	1	0	0	0	0	0	0	0	6
11:00	0	5	2	0	0	0	0	1	0	0	0	0	0	0	0	8
Hour Total	0	18	4	2	0	0	0	4	0	0	0	0	0	0	0	28
11:15	0	5	3	1	1	0	0	1	0	0	0	0	0	0	0	11
11:30	0	7	1	0	0	0	0	1	0	0	0	0	0	0	0	9
11:45	0	4	0	1	1	0	0	1	0	0	0	0	0	0	0	7
12:00	0	9	1	0	0	1	0	1	0	0	0	0	0	0	0	12
Hour Total	0	25	5	2	2	1	0	4	0	0	0	0	0	0	0	39
12:15	0	10	1	1	1	0	0	0	0	0	0	0	0	0	0	13
12:30	0	9	1	0	0	0	0	2	0	0	0	0	0	0	0	12
12:45	0	12	3	1	0	0	0	1	0	0	0	0	0	0	0	17
13:00	0	8	1	0	0	0	0	1	0	0	0	0	0	0	0	10
Hour Total	0	39	6	2	1	0	0	4	0	0	0	0	0	0	0	52
13:15	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	4
13:30	0	16	1	0	0	0	0	1	0	0	0	0	0	0	0	18
13:45	0	4	1	1	0	0	0	1	0	0	0	0	0	0	0	7
14:00	0	4	1	0	0	0	0	1	0	0	0	0	0	0	0	6
Hour Total	0	25	4	2	0	0	0	4	0	0	0	0	0	0	0	35
14:15	0	4	1	1	0	0	0	1	0	0	0	0	0	0	0	7
14:30	1	11	0	0	0	0	0	1	0	0	0	0	0	0	0	13
14:45	0	11	1	1	0	0	0	1	0	0	0	0	0	0	0	14
15:00	0	5	2	0	0	0	0	1	0	0	0	0	0	0	0	8
Hour Total	1	31	4	2	0	0	0	4	0	0	0	0	0	0	0	42
15:15	0	11	0	1	0	0	0	1	0	0	0	0	0	0	0	13
15:30	0	7	0	0	0	0	0	1	0	0	0	0	0	0	0	8
15:45	0	10	2	1	0	0	0	1	0	0	0	0	0	0	0	14
16:00	0	13	4	0	0	0	0	1	0	0	0	0	0	0	0	18
Hour Total	0	41	6	2	0	0	0	4	0	0	0	0	0	0	0	53
16:15	0	15	3	1	0	0	0	1	0	0	0	0	0	0	0	20
16:30	0	11	2	0	0	0	0	1	0	0	0	0	0	0	0	14
16:45	0	14	1	1	0	0	0	1	0	0	0	0	0	0	0	17
17:00	0	8	1	0	1	0	0	1	0	0	0	0	0	0	0	11
Hour Total	0	48	7	2	1	0	0	4	0	0	0	0	0	0	0	62
17:15	0	15	3	1	0	0	0	0	0	0	0	0	0	0	0	19
17:30	0	24	1	0	0	0	0	2	0	0	0	0	0	0	0	27
17:45	0	25	1	1	0	0	0	1	0	0	0	0	0	0	0	28
18:00	0	16	3	0	0	0	0	1	0	0	0	0	0	0	0	20
Hour Total	0	80	8	2	0	0	0	4	0	0	0	0	0	0	0	94

Peggy Malone and Associates

CLASSIFICATION SUMMARY
Wed 3/6/2019

Station #: 000000003729
Site ID: 000000003729
Loc: Giles Rd, N of Heights Ln
Direction: NORTH
Lane: 1

File: Giles Rd, N of Heights Ln_NB.prn
Info: 19-089 TS Max
GPS: 37.24386, -80.41315

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
18:15	0	16	1	0	0	0	0	1	0	0	0	0	0	0	0	18
18:30	0	11	1	0	0	0	0	1	0	0	0	0	0	0	0	13
18:45	0	10	1	0	0	0	0	0	0	0	0	0	0	0	0	11
19:00	0	13	1	1	0	0	0	0	0	0	0	0	0	0	0	15
Hour Total	0	50	4	1	0	0	0	2	0	0	0	0	0	0	0	57
19:15	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
19:30	0	14	1	1	0	0	0	0	0	0	0	0	0	0	0	16
19:45	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8
20:00	0	16	1	1	0	0	0	0	0	0	0	0	0	0	0	18
Hour Total	0	47	3	2	0	0	0	0	0	0	0	0	0	0	0	52
20:15	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
20:30	0	10	2	0	0	0	0	0	0	0	0	0	0	0	0	12
20:45	0	9	0	0	0	1	0	0	0	0	0	0	0	0	0	10
21:00	0	4	1	1	0	0	0	0	0	0	0	0	0	0	0	6
Hour Total	0	33	3	1	0	1	0	0	0	0	0	0	0	0	0	38
21:15	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
21:30	0	10	0	1	0	0	0	0	0	0	0	0	0	0	0	11
21:45	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
22:00	0	14	0	1	0	0	0	0	0	0	0	0	0	0	0	15
Hour Total	0	35	0	2	0	0	0	0	0	0	0	0	0	0	0	37
22:15	0	23	1	0	0	0	0	0	0	0	0	0	0	0	0	24
22:30	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
22:45	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
23:00	0	6	1	1	0	0	0	0	0	0	0	0	0	0	0	8
Hour Total	0	44	2	1	0	0	0	0	0	0	0	0	0	0	0	47
23:15	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8
23:30	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
23:45	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
24:00	0	3	1	1	0	0	0	0	0	0	0	0	0	0	0	5
Hour Total	0	24	2	1	0	0	0	0	0	0	0	0	0	0	0	27
DAY TOTAL	1	638	68	30	4	3	0	45	0	0	0	0	0	0	0	789
PERCENTS	0.1%	80.9%	8.6%	3.8%	0.5%	0.4%	0.0%	5.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Passenger Vehicles 89.6% Trucks & Buses 10.4%

AM Times	08:45	10:45	07:30	11:00	06:30	07:30	11:15
AM Peaks	30	6	3	2	1	4	39
PM Times	13:45	17:30	15:45	11:30	11:30	11:30	12:30	17:15
PM Peaks	1	81	11	2	2	1	5	94

Peggy Malone and Associates

CLASSIFICATION SUMMARY
Wed 3/6/2019

Station #: 000000009347
Site ID: 000000009347
Loc: Giles Rd, N of Heights Ln
Direction: SOUTH
Lane: 1

File: Giles Rd, N of heights Ln_SB.prn
Info: 19-089 TS Max
GPS: 37.24386, -80.41315

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
00:15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
00:30	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7
01:15	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
01:30	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
03:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
04:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
05:15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour Total	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
06:15	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
06:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
06:45	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
07:00	0	8	3	0	0	0	0	0	0	0	0	0	0	0	0	11
Hour Total	0	17	4	0	0	0	0	0	0	0	0	0	0	0	0	21
07:15	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	6
07:30	0	4	0	0	0	0	0	1	0	0	0	0	0	0	0	5
07:45	0	10	2	0	0	0	0	0	0	0	0	0	0	0	0	12
08:00	0	10	4	0	0	0	0	0	0	0	0	0	0	0	0	14
Hour Total	0	29	6	0	0	1	0	1	0	0	0	0	0	0	0	37
08:15	0	9	3	0	0	0	0	0	0	0	0	0	0	0	0	12
08:30	0	10	1	0	1	0	0	0	0	0	0	0	0	0	0	12
08:45	0	8	2	1	1	0	0	0	0	0	0	0	0	0	0	12
09:00	0	22	5	0	0	0	0	1	0	0	0	0	0	0	0	28
Hour Total	0	49	11	1	2	0	0	1	0	0	0	0	0	0	0	64

Peggy Malone and Associates

CLASSIFICATION SUMMARY
Wed 3/6/2019

Station #: 000000009347
Site ID: 000000009347
Loc: Giles Rd, N of Heights Ln
Direction: SOUTH
Lane: 1

File: Giles Rd, N of heights Ln_SB.prn
Info: 19-089 TS Max
GPS: 37.24386, -80.41315

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
09:15	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	9
09:30	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8
09:45	0	9	2	0	0	0	0	0	0	0	0	0	0	0	0	11
10:00	0	13	2	0	0	0	0	0	0	0	0	0	0	0	0	15
Hour Total	0	37	6	0	0	0	0	0	0	0	0	0	0	0	0	43
10:15	0	14	2	0	1	0	0	0	0	0	0	0	0	0	0	17
10:30	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8
10:45	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8
11:00	0	7	2	0	0	0	0	0	0	0	0	0	0	0	0	9
Hour Total	0	35	6	0	1	0	0	0	0	0	0	0	0	0	0	42
11:15	0	8	2	0	1	0	0	0	0	0	0	0	0	0	0	11
11:30	0	12	3	0	0	0	0	1	0	0	0	0	0	0	0	16
11:45	0	10	2	0	1	0	0	0	0	0	0	0	0	0	0	13
12:00	1	14	1	0	0	0	0	0	0	0	0	0	0	0	0	16
Hour Total	1	44	8	0	2	0	0	1	0	0	0	0	0	0	0	56
12:15	0	9	4	0	0	0	0	0	0	0	0	0	0	0	0	13
12:30	0	12	3	0	0	0	0	2	0	0	0	0	0	0	0	17
12:45	0	9	3	0	1	0	0	0	0	0	0	0	0	0	0	13
13:00	0	15	4	0	0	0	0	1	0	0	0	0	0	0	0	20
Hour Total	0	45	14	0	1	0	0	3	0	0	0	0	0	0	0	63
13:15	0	8	2	0	0	0	0	1	0	0	0	0	0	0	0	11
13:30	0	10	0	0	0	0	0	1	0	0	0	0	0	0	0	11
13:45	0	5	1	0	1	0	0	1	0	0	0	0	0	0	0	8
14:00	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	7
Hour Total	0	27	6	0	1	0	0	3	0	0	0	0	0	0	0	37
14:15	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7
14:30	0	10	4	0	0	0	0	1	0	0	0	0	0	0	0	15
14:45	0	10	2	0	0	0	0	1	0	0	0	0	0	0	0	13
15:00	0	7	5	0	0	0	0	1	0	0	0	0	0	0	0	13
Hour Total	0	33	12	0	0	0	0	3	0	0	0	0	0	0	0	48
15:15	0	11	0	0	2	0	0	0	0	0	0	0	0	0	0	13
15:30	0	12	1	0	0	0	0	1	0	0	0	0	0	0	0	14
15:45	1	13	1	0	0	0	0	0	0	0	0	0	0	0	0	15
16:00	0	10	3	0	0	0	0	0	0	0	0	0	0	0	0	13
Hour Total	1	46	5	0	2	0	0	1	0	0	0	0	0	0	0	55
16:15	0	17	4	0	0	0	0	0	0	0	0	0	0	0	0	21
16:30	0	14	2	0	0	0	0	1	0	0	0	0	0	0	0	17
16:45	0	15	1	0	0	0	0	0	0	0	0	0	0	0	0	16
17:00	0	17	1	0	1	0	0	0	0	0	0	0	0	0	0	19
Hour Total	0	63	8	0	1	0	0	1	0	0	0	0	0	0	0	73
17:15	0	17	4	0	0	0	0	0	0	0	0	0	0	0	0	21
17:30	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	26
17:45	0	15	2	0	0	0	0	0	0	0	0	0	0	0	0	17
18:00	0	17	4	0	0	0	0	0	0	0	0	0	0	0	0	21
Hour Total	0	75	10	0	0	0	0	0	0	0	0	0	0	0	0	85

Peggy Malone and Associates

CLASSIFICATION SUMMARY
Wed 3/6/2019

Station #: 000000009347
Site ID: 000000009347
Loc: Giles Rd, N of Heights Ln
Direction: SOUTH
Lane: 1

File: Giles Rd, N of heights Ln_SB.prn
Info: 19-089 TS Max
GPS: 37.24386, -80.41315

TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
18:15	0	22	1	0	0	0	0	0	0	0	0	0	0	0	0	23
18:30	0	17	3	0	0	0	0	0	0	0	0	0	0	0	0	20
18:45	0	16	2	0	0	0	0	0	0	0	0	0	0	0	0	18
19:00	0	12	0	1	0	0	0	0	0	0	0	0	0	0	0	13
Hour Total	0	67	6	1	0	0	0	0	0	0	0	0	0	0	0	74
19:15	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20
19:30	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
19:45	0	10	2	0	0	0	0	0	0	0	0	0	0	0	0	12
20:00	0	12	0	1	0	0	0	0	0	0	0	0	0	0	0	13
Hour Total	0	59	2	1	0	0	0	0	0	0	0	0	0	0	0	62
20:15	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
20:30	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7
20:45	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
21:00	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	9
Hour Total	0	35	1	1	0	0	0	0	0	0	0	0	0	0	0	37
21:15	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
21:30	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
21:45	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
22:00	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8
Hour Total	0	26	1	0	0	0	0	0	0	0	0	0	0	0	0	27
22:15	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
22:30	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
22:45	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
23:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
Hour Total	0	27	1	0	0	0	0	0	0	0	0	0	0	0	0	28
23:15	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	6
23:30	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
23:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
24:00	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	6
Hour Total	0	16	4	0	0	0	0	0	0	0	0	0	0	0	0	20
DAY TOTAL	2	755	114	4	10	1	0	14	0	0	0	0	0	0	0	900
PERCENTS	0.2%	83.9%	12.7%	0.4%	1.1%	0.1%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Passenger Vehicles 96.8% Trucks & Buses 3.2%

AM Times	11:15	08:15	08:15	08:00	08:00	06:30	06:45	08:15
AM Peaks	1	49	11	1	2	1	1	64
PM Times	11:30	17:30	12:15	18:15	14:30		12:30	17:30
PM Peaks	1	80	14	1	2		4	87

Appendix D

Signal Timing Data

North Main & Patrick Henry

Check/reset time clock
Check/verify standard Ring Structure
Input Traffic Events
Input Equate Data
Vehicle Recalls - Min for Phases 2 & 6
Lock/Non-Lock - Check settings
Check Dual Entry settings - 2, 6
Switch Phase: None
Detector Delay - 10 sec Phases 1,3,4,5

Coordination Settings							
OPER	MODE	MAX	CORR	OFST	FRCE	MX DWLL	YIELD
0 - FREE	0	0	0	0	0	0	0

	Clearance Intervals							
Phase	1 - NBL	2 - SBT	3 - EB	4 - WB	5 - SBL	6 - NBT	7 -	8 -
Min Green	5	15	8	8	5	15	X	X
Max1	25	45	35	35	25	45	X	X
Passage	3.0	3.0	3.0	3.0	3.0	3.0	X	X
Yellow	3.5	4.5	3.0	3.0	3.5	4.5	X	X
Red	2.5	2.0	3.0	3.0	2.5	2.0	X	X

	Pedestrian Clearance Intervals							
Phase	1 - NBL	2 - SBT	3 - EB	4 - WB	5 - SBL	6 - NBT	7 -	8 -
Walk	X	7	7	7	X	7	X	X
Flash D/W	X	20	22	21	X	20	X	X

North Main & Progress

Check/reset time clock
Check/verify standard Ring Structure
Input Traffic Events
Input Equate Data
Vehicle Recalls - Min for Phases 2 & 6
Lock/Non-Lock - Check settings
Check Dual Entry settings - 2, 6
Switch Phase: None
Detector Delay - 10 sec Phase 5

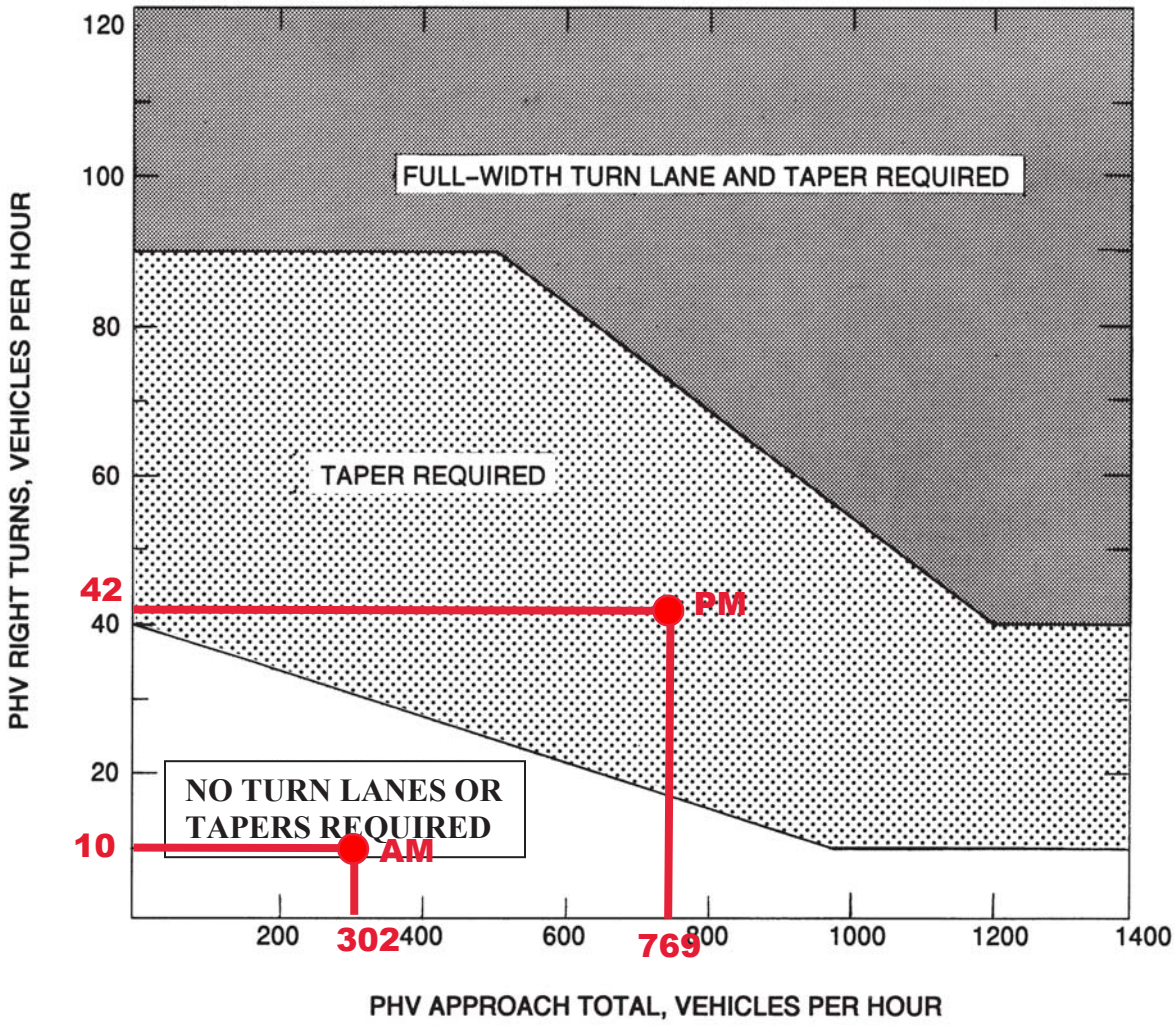
Coordination Settings							
OPER	MODE	MAX	CORR	OFST	FRCE	MX DWLL	YIELD
0 - FREE	0	0	0	0	0	0	0

	Clearance Intervals							
Phase	1 -	2 - NBT	3 - EB/WB	4 - SWB	5 - NBL	6 - SBT	7 -	8 -
Min Green	X	15	8	5	5	15	X	X
Max1	X	45	25	30	15	45	X	X
Yellow	X	3.4	3.9	3.4	3.4	3.4	X	X
Red	X	5.0	3.1	3.9	5.0	5.0	X	X

	Pedestrian Clearance Intervals							
Phase	1 -	2 - NBT	3 - EB/WB	4 - SWB	5 - NBL	6 - SBT	7 -	8 -
Walk	X	5	X	5	X	5	X	X
Flash D/W	X	20	X	12	X	20	X	X

Appendix E

VDOT Turn Lane Worksheets



Appropriate Radius required at all Intersections and Entrances (Commercial or Private).

LEGEND

PHV- - Peak Hour Volume (also Design Hourly Volume equivalent)

Adjustment for Right Turns

If PHV is not known use formula: PHV = ADT x K x D

K = the percent of AADT occurring in the peak hour
D = the percent of traffic in the peak direction of flow

Note: An average of 11% for K x D will suffice.

When right turn facilities are warranted, see Figure 3-1 for design criteria.*

FIGURE 3-27 WARRANTS FOR RIGHT TURN TREATMENT (4-LANE HIGHWAY)

* Rev. 1/15

Warrants for Left Turn Storage Lanes on Four-Lane Highways

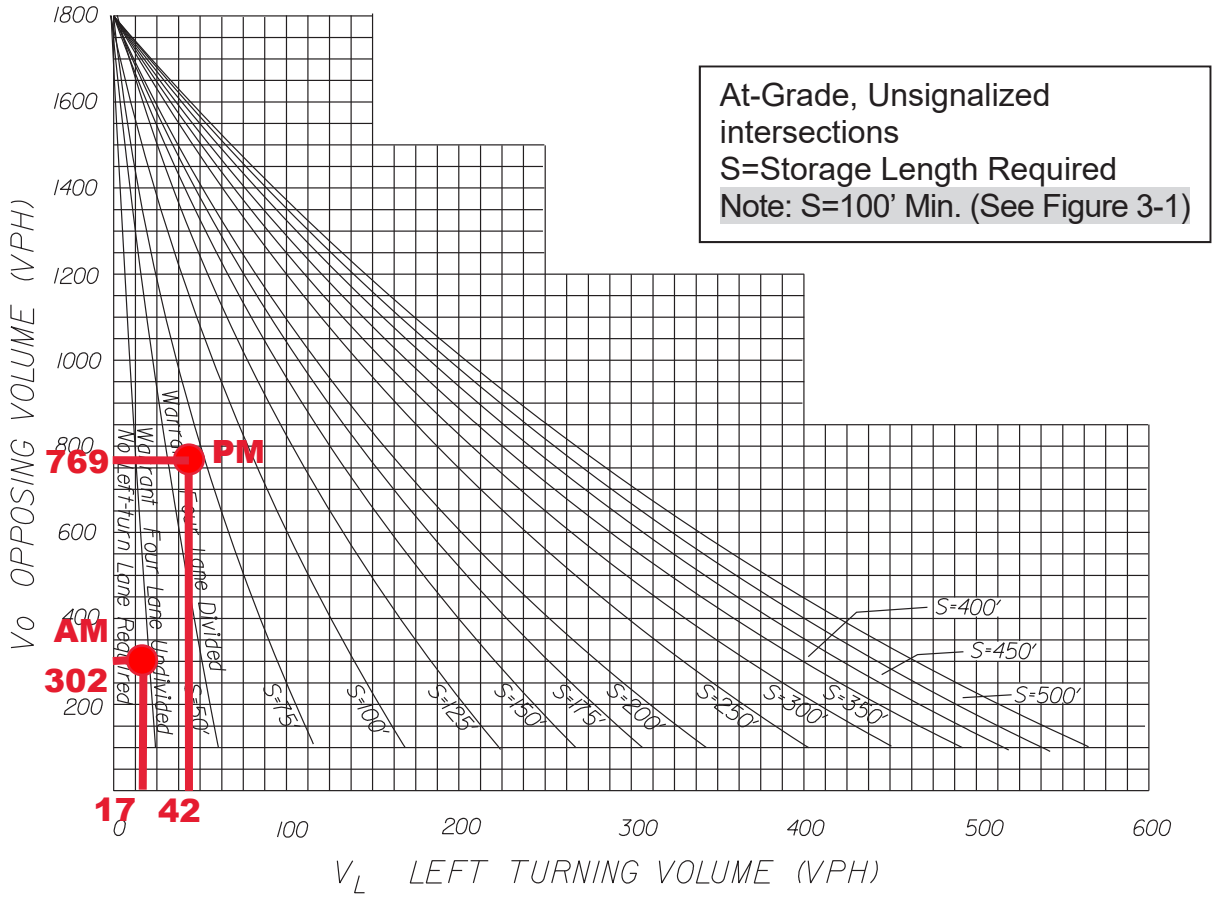


FIGURE 3-3 WARRANTS FOR LEFT TURN STORAGE LANES ON FOUR-LANE HIGHWAYS*

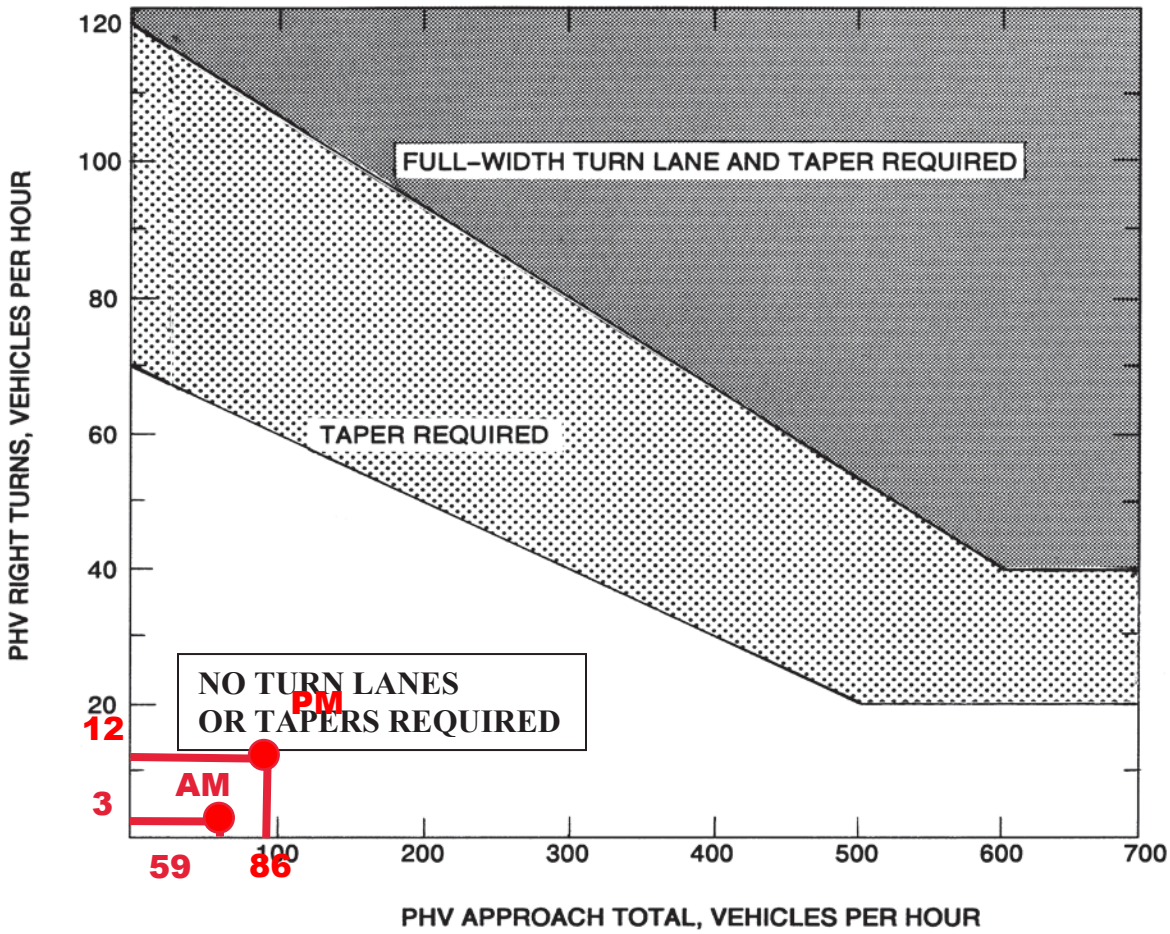
Figure 3-3 was derived from *Highway Research Report No. 211*.

Opposing volume and left turning volume in vehicles per hour (VPH) are used for left turn storage lane warrants on four-lane highways.

For plan detail requirements when curb and/or gutter are used, see VDOT's *Road Design Manual*, Section 2E-3 on the VDOT web site: *http://www.virginiadot.org/business/locdes/rdmanual-index.asp*.

Left-turn lanes shall also be established on two-lane highways where traffic volumes are high enough to warrant them.

* Rev. 1/18



Appropriate Radius required at all Intersections and Entrances (Commercial or Private).

LEGEND

PHV - Peak Hour Volume (also Design Hourly Volume equivalent)

Adjustment for Right Turns

For posted speeds at or under 45 mph, PHV right turns > 40, and PHV total < 300.
Adjusted right turns = PHV Right Turns - 20
If PHV is not known use formula: PHV = ADT x K x D

K = the percent of AADT occurring in the peak hour
D = the percent of traffic in the peak direction of flow

Note: An average of 11% for K x D will suffice.

When right turn facilities are warranted, see Figure 3-1 for design criteria.*

FIGURE 3-26 WARRANTS FOR RIGHT TURN TREATMENT (2-LANE HIGHWAY)

* Rev. 1/15

WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAY

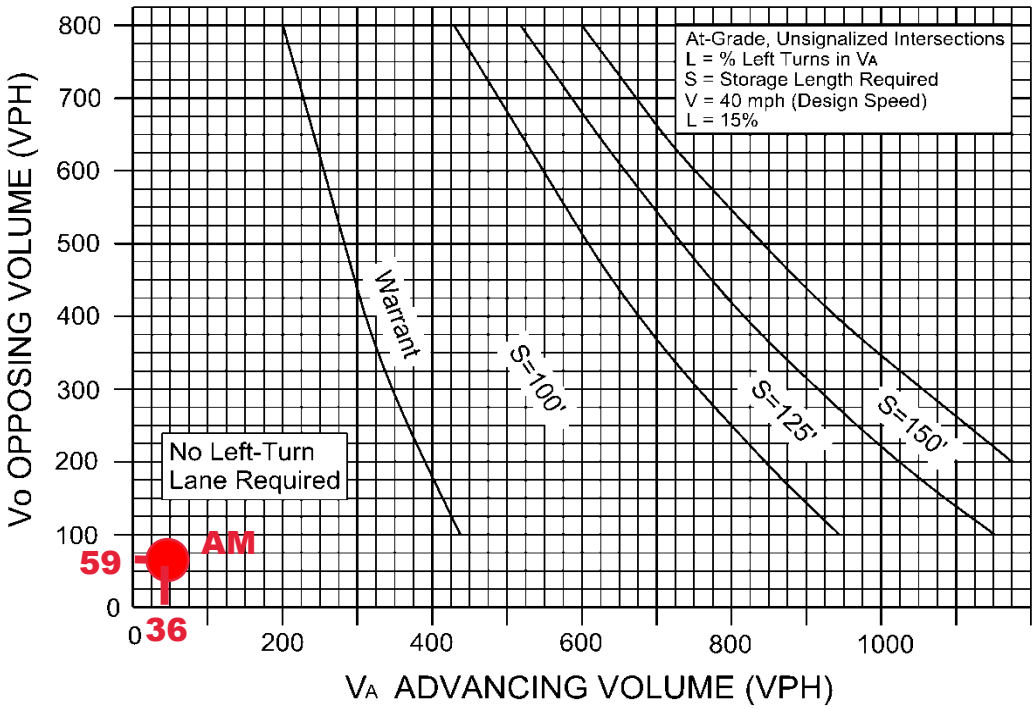


FIGURE 3-7

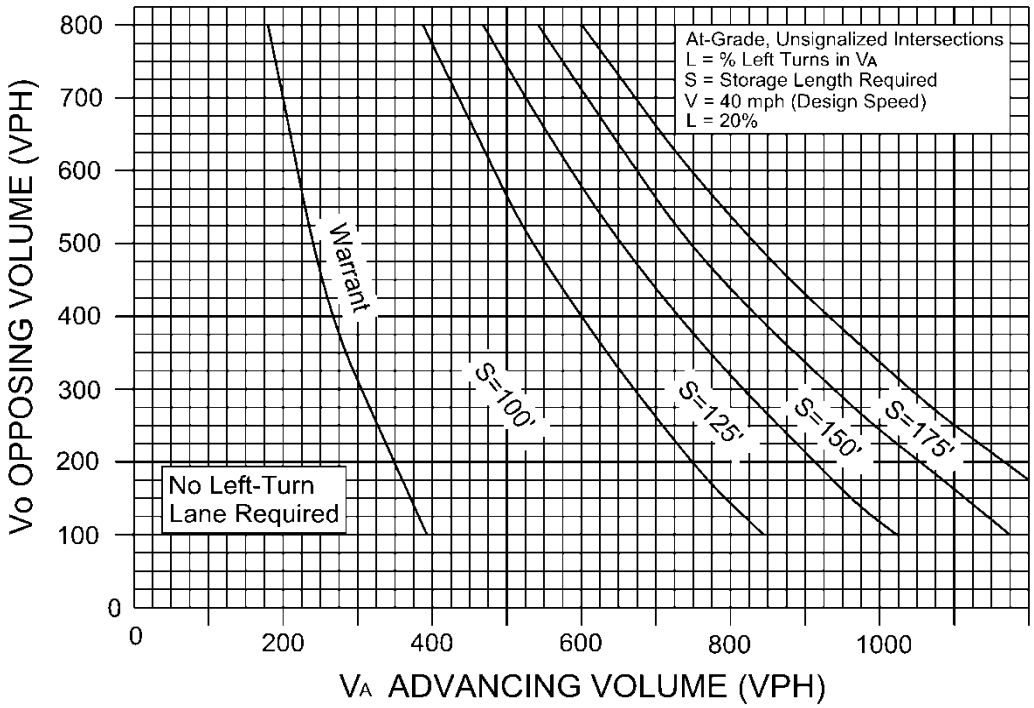


FIGURE 3-8

WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAY

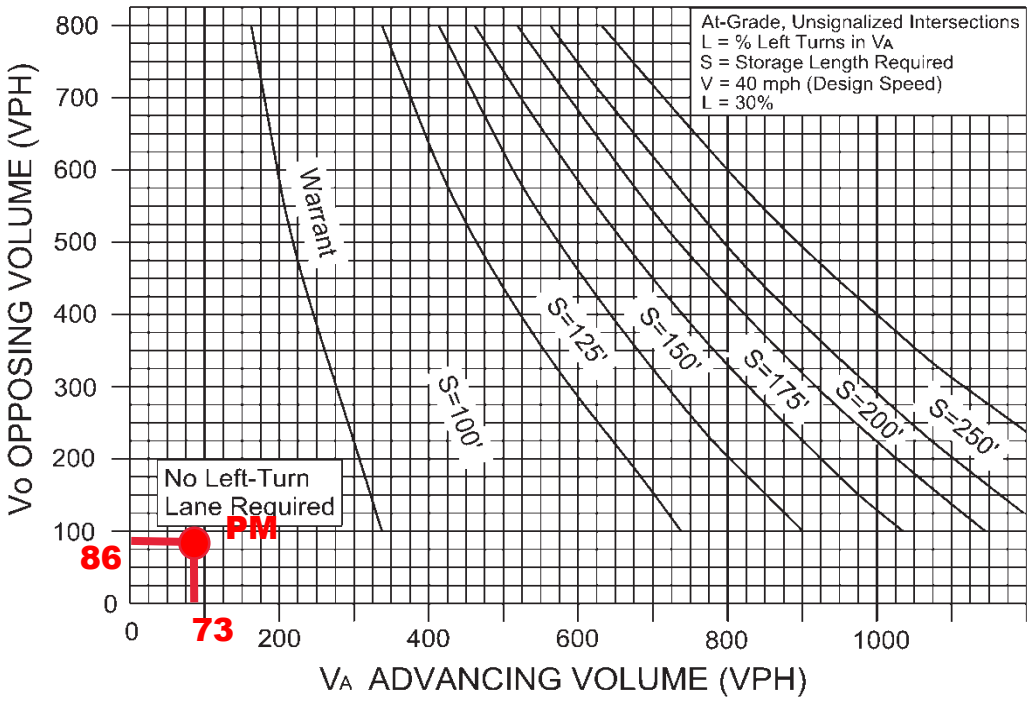


FIGURE 3-9

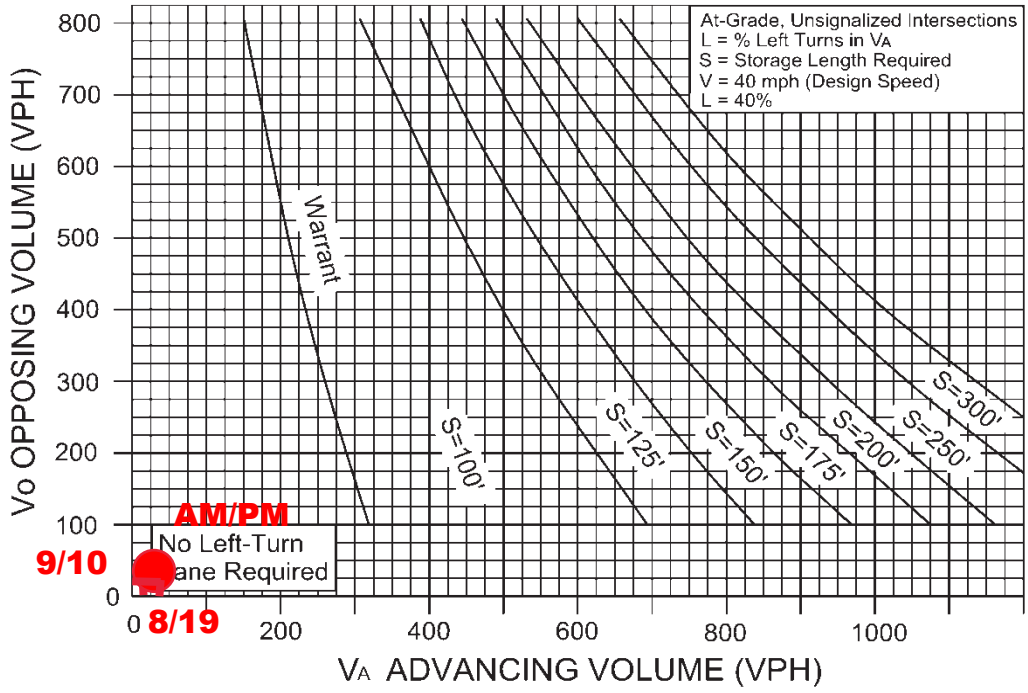


FIGURE 3-10

Appendix F

Synchro 10 & SimTraffic 10 Intersection Analysis Data

HCM Signalized Intersection Capacity Analysis
1: N Main St & Patrick Henry Dr

06/28/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	73	110	58	92	36	75	172	30	46	476	126
Future Volume (vph)	73	73	110	58	92	36	75	172	30	46	476	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Lane Util. Factor	1.00	1.00			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.96			1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00		0.99	1.00	
Frt	1.00	0.91			0.97		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1660			3255		1779	3326		1753	3378	
Flt Permitted	0.95	1.00			0.98		0.27	1.00		0.62	1.00	
Satd. Flow (perm)	1736	1660			3255		502	3326		1137	3378	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	78	78	118	62	99	39	81	185	32	49	512	135
RTOR Reduction (vph)	0	41	0	0	16	0	0	10	0	0	16	0
Lane Group Flow (vph)	78	155	0	0	184	0	81	207	0	49	631	0
Confl. Peds. (#/hr)	56		65	23		14	65		23	14		56
Heavy Vehicles (%)	4%	0%	0%	0%	8%	8%	1%	5%	7%	2%	2%	3%
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	2	2		6	6		7	4		3	8	
Permitted Phases							4			8		
Actuated Green, G (s)	16.4	16.4			15.2		25.5	21.7		25.5	21.7	
Effective Green, g (s)	16.4	16.4			15.2		25.5	21.7		25.5	21.7	
Actuated g/C Ratio	0.20	0.20			0.19		0.31	0.27		0.31	0.27	
Clearance Time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	351	335			610		217	889		386	903	
v/s Ratio Prot	0.04	c0.09			c0.06		c0.02	0.06		0.01	c0.19	
v/s Ratio Perm							0.10			0.03		
v/c Ratio	0.22	0.46			0.30		0.37	0.23		0.13	0.70	
Uniform Delay, d1	27.0	28.5			28.4		20.3	23.2		19.6	26.8	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	1.0			0.3		1.1	0.1		0.1	2.4	
Delay (s)	27.3	29.5			28.7		21.4	23.3		19.8	29.1	
Level of Service	C	C			C		C	C		B	C	
Approach Delay (s)		28.9			28.7			22.8			28.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	81.1	Sum of lost time (s)	24.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2	SBL
Lane Configurations												
Traffic Volume (vph)	18	13	92	7	8	24	1	38	278	4	6	17
Future Volume (vph)	18	13	92	7	8	24	1	38	278	4	6	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0			7.0				8.4			
Lane Util. Factor	1.00	1.00			1.00				0.95			
Frpb, ped/bikes	1.00	0.97			0.93				1.00			
Flpb, ped/bikes	0.94	1.00			1.00				1.00			
Frt	1.00	0.87			0.91				1.00			
Flt Protected	0.95	1.00			0.99				0.99			
Satd. Flow (prot)	1531	1388			1428				3265			
Flt Permitted	0.73	1.00			0.91				0.78			
Satd. Flow (perm)	1172	1388			1314				2562			
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	21	15	108	8	9	28	1	45	327	5	7	20
RTOR Reduction (vph)	0	90	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	21	33	0	0	46	0	0	0	384	0	0	0
Confl. Peds. (#/hr)	35		10	10		11	20	25		1	10	20
Heavy Vehicles (%)	11%	0%	18%	29%	12%	4%	100%	32%	6%	0%	17%	0%
Turn Type	Perm	NA		Perm	NA			pm+pt	NA			Perm
Protected Phases		3			3			5	2			
Permitted Phases	3			3				2				6
Actuated Green, G (s)	9.0	9.0			9.0				20.8			
Effective Green, g (s)	9.0	9.0			9.0				20.8			
Actuated g/C Ratio	0.17	0.17			0.17				0.39			
Clearance Time (s)	7.0	7.0			7.0				8.4			
Vehicle Extension (s)	3.0	3.0			3.0				3.0			
Lane Grp Cap (vph)	197	234			221				999			
v/s Ratio Prot		0.02										
v/s Ratio Perm	0.02				c0.04				0.15			
v/c Ratio	0.11	0.14			0.21				0.38			
Uniform Delay, d1	18.7	18.9			19.1				11.7			
Progression Factor	1.00	1.00			1.00				1.00			
Incremental Delay, d2	0.2	0.3			0.5				0.2			
Delay (s)	19.0	19.1			19.6				11.9			
Level of Service	B	B			B				B			
Approach Delay (s)		19.1			19.6				11.9			
Approach LOS		B			B				B			

Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	53.3	Sum of lost time (s)	25.8
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	SWL2	SWL
Lane Configurations				
Traffic Volume (vph)	599	34	2	13
Future Volume (vph)	599	34	2	13
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)	7.3			7.0
Lane Util. Factor	0.95			1.00
Frpb, ped/bikes	1.00			1.00
Flpb, ped/bikes	1.00			1.00
Frt	0.99			1.00
Flt Protected	1.00			0.95
Satd. Flow (prot)	3490			1805
Flt Permitted	0.94			0.95
Satd. Flow (perm)	3272			1805
Peak-hour factor, PHF	0.85	0.85	0.85	0.85
Adj. Flow (vph)	705	40	2	15
RTOR Reduction (vph)	2	0	0	0
Lane Group Flow (vph)	763	0	0	17
Confl. Peds. (#/hr)		35	11	1
Heavy Vehicles (%)	2%	6%	0%	0%
Turn Type	NA		Prot	Prot
Protected Phases	6		4	4
Permitted Phases				
Actuated Green, G (s)	21.9			1.1
Effective Green, g (s)	21.9			1.1
Actuated g/C Ratio	0.41			0.02
Clearance Time (s)	7.3			7.0
Vehicle Extension (s)	3.0			3.0
Lane Grp Cap (vph)	1344			37
v/s Ratio Prot				c0.01
v/s Ratio Perm	c0.23			
v/c Ratio	0.57			0.46
Uniform Delay, d1	12.1			25.8
Progression Factor	1.00			1.00
Incremental Delay, d2	0.6			8.8
Delay (s)	12.6			34.6
Level of Service	B			C
Approach Delay (s)	12.6			34.6
Approach LOS	B			C

Intersection Summary

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	8:15	8:15	8:15	8:15	8:15	8:15	8:15
End Time	9:30	9:30	9:30	9:30	9:30	9:30	9:30
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	1568	1652	1567	1623	1611	1580	1597
Vehs Exited	1581	1670	1564	1631	1635	1583	1572
Starting Vehs	61	68	68	60	77	53	42
Ending Vehs	48	50	71	52	53	50	67
Travel Distance (mi)	1143	1228	1149	1200	1190	1160	1163
Travel Time (hr)	54.2	59.5	56.4	59.5	58.2	54.6	56.1
Total Delay (hr)	17.0	19.7	18.9	20.4	19.5	17.0	18.4
Total Stops	1533	1755	1687	1766	1764	1597	1682
Fuel Used (gal)	40.9	44.7	42.2	43.5	43.0	41.6	42.1

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	8:15	8:15	8:15	8:15
End Time	9:30	9:30	9:30	9:30
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	1605	1620	1559	1597
Vehs Exited	1621	1571	1552	1599
Starting Vehs	69	43	57	58
Ending Vehs	53	92	64	59
Travel Distance (mi)	1160	1170	1127	1169
Travel Time (hr)	56.3	56.2	54.0	56.5
Total Delay (hr)	18.6	18.2	17.3	18.5
Total Stops	1693	1739	1659	1689
Fuel Used (gal)	42.0	41.7	40.8	42.3

Interval #0 Information Seeding

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:30
End Time	9:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1568	1652	1567	1623	1611	1580	1597
Vehs Exited	1581	1670	1564	1631	1635	1583	1572
Starting Vehs	61	68	68	60	77	53	42
Ending Vehs	48	50	71	52	53	50	67
Travel Distance (mi)	1143	1228	1149	1200	1190	1160	1163
Travel Time (hr)	54.2	59.5	56.4	59.5	58.2	54.6	56.1
Total Delay (hr)	17.0	19.7	18.9	20.4	19.5	17.0	18.4
Total Stops	1533	1755	1687	1766	1764	1597	1682
Fuel Used (gal)	40.9	44.7	42.2	43.5	43.0	41.6	42.1

Interval #1 Information Recording

Start Time	8:30
End Time	9:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1605	1620	1559	1597
Vehs Exited	1621	1571	1552	1599
Starting Vehs	69	43	57	58
Ending Vehs	53	92	64	59
Travel Distance (mi)	1160	1170	1127	1169
Travel Time (hr)	56.3	56.2	54.0	56.5
Total Delay (hr)	18.6	18.2	17.3	18.5
Total Stops	1693	1739	1659	1689
Fuel Used (gal)	42.0	41.7	40.8	42.3

Intersection: 1: N Main St & Patrick Henry Dr

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	LT	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	120	190	170	128	114	115	136	118	299	265
Average Queue (ft)	48	89	85	39	49	47	65	33	181	156
95th Queue (ft)	97	160	146	91	96	94	115	81	267	248
Link Distance (ft)	954	954	943	943		3600	3600		454	454
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)					150			250		
Storage Blk Time (%)						0		0	2	
Queuing Penalty (veh)						0		0	1	

Intersection: 6: N Main St & Progress St & McDonald St

Movement	EB	EB	WB	NB	NB	SB	SB	SW
Directions Served	<	TR	LTR>	LT	TR>	LT	TR	<LR
Maximum Queue (ft)	63	126	88	197	156	247	252	42
Average Queue (ft)	11	37	21	89	42	102	111	10
95th Queue (ft)	37	88	61	167	116	203	213	33
Link Distance (ft)		1020	1092	940	940	3600	3600	887
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	75							
Storage Blk Time (%)	0	2						
Queuing Penalty (veh)	0	0						

Network Summary

Network wide Queuing Penalty: 1

HCM Signalized Intersection Capacity Analysis
1: N Main St & Patrick Henry Dr

06/28/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	143	168	70	156	55	166	442	85	66	318	169
Future Volume (vph)	105	143	168	70	156	55	166	442	85	66	318	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Lane Util. Factor	1.00	1.00			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00		0.99	1.00	
Frt	1.00	0.92			0.97		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1725			3309		1802	3462		1792	3305	
Flt Permitted	0.95	1.00			0.99		0.34	1.00		0.35	1.00	
Satd. Flow (perm)	1736	1725			3309		639	3462		654	3305	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	109	149	175	73	162	57	173	460	89	69	331	176
RTOR Reduction (vph)	0	30	0	0	16	0	0	11	0	0	50	0
Lane Group Flow (vph)	109	294	0	0	277	0	173	538	0	69	457	0
Confl. Peds. (#/hr)	22		11	31		33	11		22	33		22
Heavy Vehicles (%)	4%	0%	0%	0%	6%	2%	0%	1%	0%	0%	2%	3%
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	2	2		6	6		7	4		3	8	
Permitted Phases							4			8		
Actuated Green, G (s)	21.8	21.8			16.1		28.1	23.0		25.7	21.8	
Effective Green, g (s)	21.8	21.8			16.1		28.1	23.0		25.7	21.8	
Actuated g/C Ratio	0.25	0.25			0.18		0.32	0.26		0.29	0.25	
Clearance Time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	426	423			599		269	896		239	811	
v/s Ratio Prot	0.06	c0.17			c0.08		c0.04	0.16		0.01	0.14	
v/s Ratio Perm							c0.17			0.07		
v/c Ratio	0.26	0.69			0.46		0.64	0.60		0.29	0.56	
Uniform Delay, d1	27.0	30.5			32.5		24.5	28.9		23.5	29.3	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	4.9			0.6		5.2	1.1		0.7	0.9	
Delay (s)	27.3	35.4			33.0		29.7	30.0		24.1	30.2	
Level of Service	C	D			C		C	C		C	C	
Approach Delay (s)		33.3			33.0			29.9			29.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	88.8	Sum of lost time (s)	24.0
Intersection Capacity Utilization	88.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	40	2	37	133	10	54	62	1	95	598	11	13
Future Volume (vph)	40	2	37	133	10	54	62	1	95	598	11	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0			7.0				8.4		
Lane Util. Factor	1.00		1.00			1.00				0.95		
Frpb, ped/bikes	1.00		0.97			0.93				1.00		
Flpb, ped/bikes	0.97		1.00			1.00				1.00		
Frt	1.00		0.88			0.93				0.99		
Flt Protected	0.95		1.00			1.00				0.99		
Satd. Flow (prot)	1581		1431			1485				3248		
Flt Permitted	0.76		1.00			0.96				0.71		
Satd. Flow (perm)	1265		1426			1434				2315		
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	42	2	39	139	10	56	65	1	99	623	11	14
RTOR Reduction (vph)	0	0	85	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	42	0	95	0	0	132	0	0	0	747	0	0
Confl. Peds. (#/hr)	22	18		16	20		26	22	16		2	20
Heavy Vehicles (%)	11%	0%	0%	18%	29%	12%	4%	100%	32%	6%	0%	17%
Turn Type	Perm	Perm	NA		Perm	NA			pm+pt	NA		
Protected Phases			3			3			5	2		
Permitted Phases	3	3			3				2			
Actuated Green, G (s)	13.3		13.3			13.3				32.8		
Effective Green, g (s)	13.3		13.3			13.3				32.8		
Actuated g/C Ratio	0.19		0.19			0.19				0.46		
Clearance Time (s)	7.0		7.0			7.0				8.4		
Vehicle Extension (s)	3.0		3.0			3.0				3.0		
Lane Grp Cap (vph)	237		268			269				1074		
v/s Ratio Prot												
v/s Ratio Perm	0.03		0.07			c0.09				c0.32		
v/c Ratio	0.18		0.35			0.49				0.70		
Uniform Delay, d1	24.1		25.0			25.7				15.0		
Progression Factor	1.00		1.00			1.00				1.00		
Incremental Delay, d2	0.4		0.8			1.4				2.0		
Delay (s)	24.5		25.8			27.1				17.0		
Level of Service	C		C			C				B		
Approach Delay (s)			25.5			27.1				17.0		
Approach LOS			C			C				B		

Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	70.7	Sum of lost time (s)	25.8
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations							
Traffic Volume (vph)	5	16	645	17	1	14	4
Future Volume (vph)	5	16	645	17	1	14	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			7.3			7.0	
Lane Util. Factor			0.95			1.00	
Frpb, ped/bikes			1.00			0.99	
Flpb, ped/bikes			1.00			1.00	
Frt			1.00			0.97	
Flt Protected			1.00			0.96	
Satd. Flow (prot)			3513			1757	
Flt Permitted			0.92			0.96	
Satd. Flow (perm)			3222			1757	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	5	17	672	18	1	15	4
RTOR Reduction (vph)	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	0	711	0	0	20	0
Confl. Peds. (#/hr)	8	26		22	22	2	18
Heavy Vehicles (%)	0%	0%	2%	6%	0%	0%	0%
Turn Type	Perm	Perm	NA		Prot	Prot	
Protected Phases			6		4	4	
Permitted Phases	6	6					
Actuated Green, G (s)			33.9			2.2	
Effective Green, g (s)			33.9			2.2	
Actuated g/C Ratio			0.48			0.03	
Clearance Time (s)			7.3			7.0	
Vehicle Extension (s)			3.0			3.0	
Lane Grp Cap (vph)			1544			54	
v/s Ratio Prot						c0.01	
v/s Ratio Perm			0.22				
v/c Ratio			0.46			0.37	
Uniform Delay, d1			12.3			33.6	
Progression Factor			1.00			1.00	
Incremental Delay, d2			0.2			4.2	
Delay (s)			12.5			37.8	
Level of Service			B			D	
Approach Delay (s)			12.5			37.8	
Approach LOS			B			D	

Intersection Summary

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:30	4:30	4:30	4:30	4:30	4:30	4:30
End Time	5:45	5:45	5:45	5:45	5:45	5:45	5:45
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	2472	2589	2456	2371	2465	2439	2485
Vehs Exited	2486	2589	2467	2431	2453	2450	2481
Starting Vehs	120	105	95	123	87	87	76
Ending Vehs	106	105	84	63	99	76	80
Travel Distance (mi)	1703	1770	1730	1652	1714	1674	1731
Travel Time (hr)	92.4	97.7	91.4	87.6	90.8	88.1	89.4
Total Delay (hr)	36.1	39.2	34.6	33.3	34.6	33.0	32.4
Total Stops	2831	3016	2822	2736	2806	2741	2738
Fuel Used (gal)	63.7	67.1	64.6	61.1	64.0	62.1	63.9

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:30	4:30	4:30	4:30
End Time	5:45	5:45	5:45	5:45
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2503	2470	2514	2476
Vehs Exited	2508	2501	2458	2482
Starting Vehs	99	102	82	96
Ending Vehs	94	71	138	91
Travel Distance (mi)	1739	1724	1716	1715
Travel Time (hr)	94.8	89.5	102.4	92.4
Total Delay (hr)	37.4	32.9	46.0	35.9
Total Stops	2870	2849	3024	2841
Fuel Used (gal)	65.6	63.5	66.3	64.2

Interval #0 Information Seeding

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:45
End Time	5:45
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2472	2589	2456	2371	2465	2439	2485
Vehs Exited	2486	2589	2467	2431	2453	2450	2481
Starting Vehs	120	105	95	123	87	87	76
Ending Vehs	106	105	84	63	99	76	80
Travel Distance (mi)	1703	1770	1730	1652	1714	1674	1731
Travel Time (hr)	92.4	97.7	91.4	87.6	90.8	88.1	89.4
Total Delay (hr)	36.1	39.2	34.6	33.3	34.6	33.0	32.4
Total Stops	2831	3016	2822	2736	2806	2741	2738
Fuel Used (gal)	63.7	67.1	64.6	61.1	64.0	62.1	63.9

Interval #1 Information Recording

Start Time	4:45
End Time	5:45
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2503	2470	2514	2476
Vehs Exited	2508	2501	2458	2482
Starting Vehs	99	102	82	96
Ending Vehs	94	71	138	91
Travel Distance (mi)	1739	1724	1716	1715
Travel Time (hr)	94.8	89.5	102.4	92.4
Total Delay (hr)	37.4	32.9	46.0	35.9
Total Stops	2870	2849	3024	2841
Fuel Used (gal)	65.6	63.5	66.3	64.2

Intersection: 1: N Main St & Patrick Henry Dr

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	LT	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	155	356	199	173	150	296	292	125	237	232
Average Queue (ft)	70	177	114	70	105	146	160	46	136	121
95th Queue (ft)	128	298	179	146	172	256	256	91	214	211
Link Distance (ft)	954	954	943	943		3600	3600		454	454
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)					150			250		
Storage Blk Time (%)					3	7		0	0	
Queuing Penalty (veh)					7	12		0	0	

Intersection: 6: N Main St & Progress St & McDonald St

Movement	EB	EB	WB	NB	NB	SB	SB	SW
Directions Served	<	LTR	LTR>	LT	TR>	<LT	TR	<LR
Maximum Queue (ft)	74	194	168	474	435	232	230	46
Average Queue (ft)	22	61	66	265	220	117	121	14
95th Queue (ft)	58	140	130	461	420	199	206	39
Link Distance (ft)		1020	1092	940	940	3600	3600	887
Upstream Blk Time (%)				0	0			
Queuing Penalty (veh)				0	0			
Storage Bay Dist (ft)	75							
Storage Blk Time (%)	1	7						
Queuing Penalty (veh)	1	3						

Network Summary

Network wide Queuing Penalty: 22

HCM Signalized Intersection Capacity Analysis
1: N Main St & Patrick Henry Dr

06/28/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	77	116	61	97	38	79	181	32	48	500	132
Future Volume (vph)	77	77	116	61	97	38	79	181	32	48	500	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Lane Util. Factor	1.00	1.00			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.96			1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00		0.99	1.00	
Frt	1.00	0.91			0.97		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1656			3255		1779	3324		1752	3374	
Flt Permitted	0.95	1.00			0.98		0.25	1.00		0.61	1.00	
Satd. Flow (perm)	1736	1656			3255		471	3324		1123	3374	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	83	83	125	66	104	41	85	195	34	52	538	142
RTOR Reduction (vph)	0	41	0	0	16	0	0	9	0	0	16	0
Lane Group Flow (vph)	83	167	0	0	195	0	85	220	0	52	664	0
Confl. Peds. (#/hr)	59		68	24		15	68		24	15		59
Heavy Vehicles (%)	4%	0%	0%	0%	8%	8%	1%	5%	7%	2%	2%	3%
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	2	2		6	6		7	4		3	8	
Permitted Phases							4			8		
Actuated Green, G (s)	17.0	17.0			15.3		27.2	23.4		27.2	23.4	
Effective Green, g (s)	17.0	17.0			15.3		27.2	23.4		27.2	23.4	
Actuated g/C Ratio	0.20	0.20			0.18		0.33	0.28		0.33	0.28	
Clearance Time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	353	337			596		212	931		394	945	
v/s Ratio Prot	0.05	c0.10			c0.06		c0.02	0.07		0.01	c0.20	
v/s Ratio Perm							0.11			0.04		
v/c Ratio	0.24	0.50			0.33		0.40	0.24		0.13	0.70	
Uniform Delay, d1	27.8	29.5			29.6		20.4	23.2		19.6	26.9	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	1.2			0.3		1.2	0.1		0.2	2.4	
Delay (s)	28.2	30.6			29.9		21.7	23.3		19.7	29.3	
Level of Service	C	C			C		C	C		B	C	
Approach Delay (s)		29.9			29.9			22.8			28.6	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	83.5	Sum of lost time (s)	24.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2	SBL
Lane Configurations												
Traffic Volume (vph)	19	14	97	7	8	25	1	40	292	4	6	18
Future Volume (vph)	19	14	97	7	8	25	1	40	292	4	6	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0			7.0				8.4			
Lane Util. Factor	1.00	1.00			1.00				0.95			
Frpb, ped/bikes	1.00	0.97			0.93				1.00			
Flpb, ped/bikes	0.94	1.00			1.00				1.00			
Frt	1.00	0.87			0.91				1.00			
Flt Protected	0.95	1.00			0.99				0.99			
Satd. Flow (prot)	1526	1386			1422				3267			
Flt Permitted	0.73	1.00			0.91				0.77			
Satd. Flow (perm)	1167	1386			1310				2539			
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	22	16	114	8	9	29	1	47	344	5	7	21
RTOR Reduction (vph)	0	95	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	22	35	0	0	47	0	0	0	403	0	0	0
Confl. Peds. (#/hr)	37		11	11		12	21	26		1	11	21
Heavy Vehicles (%)	11%	0%	18%	29%	12%	4%	100%	32%	6%	0%	17%	0%
Turn Type	Perm	NA		Perm	NA			pm+pt	NA			Perm
Protected Phases		3			3			5	2			
Permitted Phases	3			3				2				6
Actuated Green, G (s)	9.2	9.2			9.2				21.8			
Effective Green, g (s)	9.2	9.2			9.2				21.8			
Actuated g/C Ratio	0.17	0.17			0.17				0.40			
Clearance Time (s)	7.0	7.0			7.0				8.4			
Vehicle Extension (s)	3.0	3.0			3.0				3.0			
Lane Grp Cap (vph)	196	233			221				1015			
v/s Ratio Prot		0.03										
v/s Ratio Perm	0.02				c0.04				0.16			
v/c Ratio	0.11	0.15			0.21				0.40			
Uniform Delay, d1	19.2	19.3			19.5				11.7			
Progression Factor	1.00	1.00			1.00				1.00			
Incremental Delay, d2	0.3	0.3			0.5				0.3			
Delay (s)	19.4	19.6			20.0				11.9			
Level of Service	B	B			C				B			
Approach Delay (s)		19.6			20.0				11.9			
Approach LOS		B			C				B			

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	54.5	Sum of lost time (s)	25.8
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	SWL2	SWL
Lane Configurations				
Traffic Volume (vph)	629	36	2	14
Future Volume (vph)	629	36	2	14
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)	7.3			7.0
Lane Util. Factor	0.95			1.00
Frpb, ped/bikes	1.00			1.00
Flpb, ped/bikes	1.00			1.00
Frt	0.99			1.00
Flt Protected	1.00			0.95
Satd. Flow (prot)	3489			1805
Flt Permitted	0.94			0.95
Satd. Flow (perm)	3269			1805
Peak-hour factor, PHF	0.85	0.85	0.85	0.85
Adj. Flow (vph)	740	42	2	16
RTOR Reduction (vph)	2	0	0	0
Lane Group Flow (vph)	801	0	0	18
Confl. Peds. (#/hr)		37	12	1
Heavy Vehicles (%)	2%	6%	0%	0%
Turn Type	NA		Prot	Prot
Protected Phases	6		4	4
Permitted Phases				
Actuated Green, G (s)	22.9			1.1
Effective Green, g (s)	22.9			1.1
Actuated g/C Ratio	0.42			0.02
Clearance Time (s)	7.3			7.0
Vehicle Extension (s)	3.0			3.0
Lane Grp Cap (vph)	1373			36
v/s Ratio Prot				c0.01
v/s Ratio Perm	c0.24			
v/c Ratio	0.58			0.50
Uniform Delay, d1	12.1			26.4
Progression Factor	1.00			1.00
Incremental Delay, d2	0.6			10.5
Delay (s)	12.8			36.9
Level of Service	B			D
Approach Delay (s)	12.8			36.9
Approach LOS	B			D

Intersection Summary

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	8:15	8:15	8:15	8:15	8:15	8:15	8:15
End Time	9:30	9:30	9:30	9:30	9:30	9:30	9:30
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	1662	1688	1713	1708	1619	1676	1667
Vehs Exited	1673	1690	1708	1718	1641	1668	1660
Starting Vehs	70	56	55	72	64	50	61
Ending Vehs	59	54	60	62	42	58	68
Travel Distance (mi)	1240	1228	1233	1278	1162	1225	1191
Travel Time (hr)	61.3	59.4	60.8	62.4	56.1	59.0	58.7
Total Delay (hr)	21.1	19.5	20.7	20.8	18.1	19.0	19.8
Total Stops	1817	1833	1799	1849	1610	1714	1751
Fuel Used (gal)	45.3	44.6	45.1	46.4	41.8	43.7	42.9

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	8:15	8:15	8:15	8:15
End Time	9:30	9:30	9:30	9:30
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	1724	1707	1704	1688
Vehs Exited	1708	1701	1705	1687
Starting Vehs	59	65	58	59
Ending Vehs	75	71	57	58
Travel Distance (mi)	1254	1250	1238	1230
Travel Time (hr)	62.2	62.0	59.8	60.2
Total Delay (hr)	21.2	21.3	19.5	20.1
Total Stops	1856	1812	1749	1778
Fuel Used (gal)	45.6	45.5	44.7	44.6

Interval #0 Information Seeding

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:30
End Time	9:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1662	1688	1713	1708	1619	1676	1667
Vehs Exited	1673	1690	1708	1718	1641	1668	1660
Starting Vehs	70	56	55	72	64	50	61
Ending Vehs	59	54	60	62	42	58	68
Travel Distance (mi)	1240	1228	1233	1278	1162	1225	1191
Travel Time (hr)	61.3	59.4	60.8	62.4	56.1	59.0	58.7
Total Delay (hr)	21.1	19.5	20.7	20.8	18.1	19.0	19.8
Total Stops	1817	1833	1799	1849	1610	1714	1751
Fuel Used (gal)	45.3	44.6	45.1	46.4	41.8	43.7	42.9

Interval #1 Information Recording

Start Time	8:30
End Time	9:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1724	1707	1704	1688
Vehs Exited	1708	1701	1705	1687
Starting Vehs	59	65	58	59
Ending Vehs	75	71	57	58
Travel Distance (mi)	1254	1250	1238	1230
Travel Time (hr)	62.2	62.0	59.8	60.2
Total Delay (hr)	21.2	21.3	19.5	20.1
Total Stops	1856	1812	1749	1778
Fuel Used (gal)	45.6	45.5	44.7	44.6

Intersection: 1: N Main St & Patrick Henry Dr

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	LT	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	151	201	181	147	126	126	141	200	323	282
Average Queue (ft)	56	100	86	45	55	50	66	41	198	169
95th Queue (ft)	114	177	154	102	103	100	118	116	289	268
Link Distance (ft)	954	954	943	943		3600	3600		454	454
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)					150			250		
Storage Blk Time (%)					0	0		0	2	
Queuing Penalty (veh)					0	0		0	1	

Intersection: 6: N Main St & Progress St & McDonald St

Movement	EB	EB	WB	NB	NB	SB	SB	SW
Directions Served	<	TR	LTR>	LT	TR>	LT	TR	<LR
Maximum Queue (ft)	59	114	70	206	170	250	260	34
Average Queue (ft)	11	35	19	98	46	100	113	9
95th Queue (ft)	38	85	50	178	127	208	218	30
Link Distance (ft)		1020	1092	940	940	3600	3600	887
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	75							
Storage Blk Time (%)	0	2						
Queuing Penalty (veh)	0	0						

Network Summary

Network wide Queuing Penalty: 2

HCM Signalized Intersection Capacity Analysis
1: N Main St & Patrick Henry Dr

06/28/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	150	176	71	164	58	174	464	89	69	334	177
Future Volume (vph)	110	150	176	71	164	58	174	464	89	69	334	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Lane Util. Factor	1.00	1.00			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00		0.99	1.00	
Frt	1.00	0.92			0.97		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1724			3306		1802	3460		1793	3304	
Flt Permitted	0.95	1.00			0.99		0.32	1.00		0.32	1.00	
Satd. Flow (perm)	1736	1724			3306		600	3460		608	3304	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	115	156	183	74	171	60	181	483	93	72	348	184
RTOR Reduction (vph)	0	30	0	0	16	0	0	11	0	0	49	0
Lane Group Flow (vph)	115	309	0	0	289	0	181	565	0	72	483	0
Confl. Peds. (#/hr)	23		12	33		35	12		23	35		23
Heavy Vehicles (%)	4%	0%	0%	0%	6%	2%	0%	1%	0%	0%	2%	3%
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	2	2		6	6		7	4		3	8	
Permitted Phases							4			8		
Actuated Green, G (s)	23.3	23.3			16.4		29.4	24.3		27.0	23.1	
Effective Green, g (s)	23.3	23.3			16.4		29.4	24.3		27.0	23.1	
Actuated g/C Ratio	0.25	0.25			0.18		0.32	0.26		0.29	0.25	
Clearance Time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	440	437			589		258	914		228	830	
v/s Ratio Prot	0.07	c0.18			c0.09		c0.04	0.16		0.01	0.15	
v/s Ratio Perm							c0.18			0.08		
v/c Ratio	0.26	0.71			0.49		0.70	0.62		0.32	0.58	
Uniform Delay, d1	27.4	31.2			34.0		25.9	29.7		24.1	30.2	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	5.2			0.6		8.3	1.3		0.8	1.0	
Delay (s)	27.7	36.4			34.6		34.3	31.0		24.9	31.2	
Level of Service	C	D			C		C	C		C	C	
Approach Delay (s)		34.2			34.6			31.8			30.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	32.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	91.9	Sum of lost time (s)	24.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	43	2	39	140	11	57	65	1	100	628	12	14
Future Volume (vph)	43	2	39	140	11	57	65	1	100	628	12	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0			7.0				8.4		
Lane Util. Factor	1.00		1.00			1.00				0.95		
Frpb, ped/bikes	1.00		0.97			0.92				1.00		
Flpb, ped/bikes	0.97		1.00			1.00				1.00		
Frt	1.00		0.88			0.93				0.99		
Flt Protected	0.95		1.00			1.00				0.99		
Satd. Flow (prot)	1579		1429			1479				3246		
Flt Permitted	0.72		1.00			0.96				0.69		
Satd. Flow (perm)	1203		1424			1424				2266		
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	45	2	41	146	11	59	68	1	104	654	12	15
RTOR Reduction (vph)	0	0	86	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	45	0	103	0	0	139	0	0	0	786	0	0
Confl. Peds. (#/hr)	23	19		17	21		27	23	17		2	21
Heavy Vehicles (%)	11%	0%	0%	18%	29%	12%	4%	100%	32%	6%	0%	17%
Turn Type	Perm	Perm	NA		Perm	NA			pm+pt	NA		
Protected Phases			3			3			5	2		
Permitted Phases	3	3			3				2			
Actuated Green, G (s)	13.6		13.6			13.6				35.6		
Effective Green, g (s)	13.6		13.6			13.6				35.6		
Actuated g/C Ratio	0.18		0.18			0.18				0.48		
Clearance Time (s)	7.0		7.0			7.0				8.4		
Vehicle Extension (s)	3.0		3.0			3.0				3.0		
Lane Grp Cap (vph)	221		262			262				1091		
v/s Ratio Prot												
v/s Ratio Perm	0.04		0.07			c0.10				c0.35		
v/c Ratio	0.20		0.39			0.53				0.72		
Uniform Delay, d1	25.6		26.5			27.3				15.2		
Progression Factor	1.00		1.00			1.00				1.00		
Incremental Delay, d2	0.5		1.0			2.1				2.4		
Delay (s)	26.0		27.5			29.3				17.6		
Level of Service	C		C			C				B		
Approach Delay (s)			27.2			29.3				17.6		
Approach LOS			C			C				B		

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	73.9	Sum of lost time (s)	25.8
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations							
Traffic Volume (vph)	5	17	677	18	1	15	4
Future Volume (vph)	5	17	677	18	1	15	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			7.3			7.0	
Lane Util. Factor			0.95			1.00	
Frpb, ped/bikes			1.00			0.99	
Flpb, ped/bikes			1.00			1.00	
Frt			1.00			0.97	
Flt Protected			1.00			0.96	
Satd. Flow (prot)			3512			1759	
Flt Permitted			0.91			0.96	
Satd. Flow (perm)			3213			1759	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	5	18	705	19	1	16	4
RTOR Reduction (vph)	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	0	746	0	0	21	0
Confl. Peds. (#/hr)	8	27		23	23	2	19
Heavy Vehicles (%)	0%	0%	2%	6%	0%	0%	0%
Turn Type	Perm	Perm	NA		Prot	Prot	
Protected Phases			6		4	4	
Permitted Phases	6	6					
Actuated Green, G (s)			36.7			2.3	
Effective Green, g (s)			36.7			2.3	
Actuated g/C Ratio			0.50			0.03	
Clearance Time (s)			7.3			7.0	
Vehicle Extension (s)			3.0			3.0	
Lane Grp Cap (vph)			1595			54	
v/s Ratio Prot						c0.01	
v/s Ratio Perm			0.23				
v/c Ratio			0.47			0.39	
Uniform Delay, d1			12.2			35.1	
Progression Factor			1.00			1.00	
Incremental Delay, d2			0.2			4.6	
Delay (s)			12.4			39.7	
Level of Service			B			D	
Approach Delay (s)			12.4			39.7	
Approach LOS			B			D	

Intersection Summary

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:30	4:30	4:30	4:30	4:30	4:30	4:30
End Time	5:45	5:45	5:45	5:45	5:45	5:45	5:45
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	2572	2535	2526	2637	2593	2575	2601
Vehs Exited	2564	2506	2502	2644	2601	2567	2598
Starting Vehs	110	101	93	107	117	90	88
Ending Vehs	118	130	117	100	109	98	91
Travel Distance (mi)	1745	1735	1738	1779	1804	1782	1782
Travel Time (hr)	97.4	94.7	103.8	112.3	102.7	105.8	96.2
Total Delay (hr)	39.7	37.5	46.5	53.3	43.1	47.1	37.3
Total Stops	3076	2947	3169	3472	3200	3221	2964
Fuel Used (gal)	66.6	65.1	67.9	70.7	69.2	69.5	67.3

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:30	4:30	4:30	4:30
End Time	5:45	5:45	5:45	5:45
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2683	2581	2536	2587
Vehs Exited	2666	2603	2528	2577
Starting Vehs	105	105	101	100
Ending Vehs	122	83	109	105
Travel Distance (mi)	1829	1801	1759	1775
Travel Time (hr)	106.8	101.5	94.2	101.5
Total Delay (hr)	46.4	41.9	36.4	42.9
Total Stops	3203	3176	2945	3139
Fuel Used (gal)	70.5	69.0	65.6	68.1

Interval #0 Information Seeding

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:45
End Time	5:45
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2572	2535	2526	2637	2593	2575	2601
Vehs Exited	2564	2506	2502	2644	2601	2567	2598
Starting Vehs	110	101	93	107	117	90	88
Ending Vehs	118	130	117	100	109	98	91
Travel Distance (mi)	1745	1735	1738	1779	1804	1782	1782
Travel Time (hr)	97.4	94.7	103.8	112.3	102.7	105.8	96.2
Total Delay (hr)	39.7	37.5	46.5	53.3	43.1	47.1	37.3
Total Stops	3076	2947	3169	3472	3200	3221	2964
Fuel Used (gal)	66.6	65.1	67.9	70.7	69.2	69.5	67.3

Interval #1 Information Recording

Start Time	4:45
End Time	5:45
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2683	2581	2536	2587
Vehs Exited	2666	2603	2528	2577
Starting Vehs	105	105	101	100
Ending Vehs	122	83	109	105
Travel Distance (mi)	1829	1801	1759	1775
Travel Time (hr)	106.8	101.5	94.2	101.5
Total Delay (hr)	46.4	41.9	36.4	42.9
Total Stops	3203	3176	2945	3139
Fuel Used (gal)	70.5	69.0	65.6	68.1

Intersection: 1: N Main St & Patrick Henry Dr

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	LT	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	156	359	215	194	150	311	292	107	240	256
Average Queue (ft)	71	190	126	80	112	156	165	48	144	131
95th Queue (ft)	131	319	196	163	179	270	261	88	217	223
Link Distance (ft)	954	954	943	943		3600	3600		454	454
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)					150			250		
Storage Blk Time (%)					5	8			0	
Queuing Penalty (veh)					12	13			0	

Intersection: 6: N Main St & Progress St & McDonald St

Movement	EB	EB	WB	NB	NB	SB	SB	SW
Directions Served	<	LTR	LTR>	LT	TR>	<LT	TR	<LR
Maximum Queue (ft)	75	232	171	556	518	257	259	62
Average Queue (ft)	28	81	78	337	286	134	137	16
95th Queue (ft)	70	181	153	565	514	223	227	44
Link Distance (ft)		1020	1092	940	940	3600	3600	887
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	75							
Storage Blk Time (%)	1	10						
Queuing Penalty (veh)	2	4						

Network Summary

Network wide Queuing Penalty: 32

HCM Signalized Intersection Capacity Analysis
1: N Main St & Patrick Henry Dr

09/24/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	79	127	59	99	39	83	188	35	49	513	132
Future Volume (vph)	78	79	127	59	99	39	83	188	35	49	513	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Lane Util. Factor	1.00	1.00			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.96			0.99		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00		0.99	1.00	
Frt	1.00	0.91			0.97		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1649			3251		1780	3316		1752	3377	
Flt Permitted	0.95	1.00			0.99		0.24	1.00		0.60	1.00	
Satd. Flow (perm)	1736	1649			3251		458	3316		1111	3377	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	84	85	137	63	106	42	89	202	38	53	552	142
RTOR Reduction (vph)	0	44	0	0	17	0	0	11	0	0	16	0
Lane Group Flow (vph)	84	178	0	0	194	0	89	229	0	53	678	0
Confl. Peds. (#/hr)	59		68	24		15	68		24	15		59
Heavy Vehicles (%)	4%	0%	0%	0%	8%	8%	1%	5%	7%	2%	2%	3%
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	2	2		6	6		7	4		3	8	
Permitted Phases							4			8		
Actuated Green, G (s)	17.5	17.5			15.3		28.0	24.2		28.0	24.2	
Effective Green, g (s)	17.5	17.5			15.3		28.0	24.2		28.0	24.2	
Actuated g/C Ratio	0.21	0.21			0.18		0.33	0.29		0.33	0.29	
Clearance Time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	358	340			586		210	946		395	963	
v/s Ratio Prot	0.05	c0.11			c0.06		c0.02	0.07		0.01	c0.20	
v/s Ratio Perm							0.12			0.04		
v/c Ratio	0.23	0.52			0.33		0.42	0.24		0.13	0.70	
Uniform Delay, d1	28.1	29.9			30.3		20.6	23.3		19.6	27.1	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	1.5			0.3		1.4	0.1		0.2	2.4	
Delay (s)	28.4	31.4			30.6		21.9	23.4		19.8	29.5	
Level of Service	C	C			C		C	C		B	C	
Approach Delay (s)		30.6			30.6			23.0			28.8	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	84.8	Sum of lost time (s)	24.0
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2	SBL
Lane Configurations												
Traffic Volume (vph)	20	14	97	7	8	27	1	40	299	4	6	23
Future Volume (vph)	20	14	97	7	8	27	1	40	299	4	6	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0			7.0				8.4			
Lane Util. Factor	1.00	1.00			1.00				0.95			
Frpb, ped/bikes	1.00	0.97			0.92				1.00			
Flpb, ped/bikes	0.94	1.00			1.00				1.00			
Frt	1.00	0.87			0.91				1.00			
Flt Protected	0.95	1.00			0.99				0.99			
Satd. Flow (prot)	1525	1386			1419				3270			
Flt Permitted	0.72	1.00			0.92				0.77			
Satd. Flow (perm)	1163	1386			1313				2526			
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	24	16	114	8	9	32	1	47	352	5	7	27
RTOR Reduction (vph)	0	95	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	24	35	0	0	50	0	0	0	411	0	0	0
Confl. Peds. (#/hr)	37		11	11		12	21	26		1	11	21
Heavy Vehicles (%)	11%	0%	18%	29%	12%	4%	100%	32%	6%	0%	17%	0%
Turn Type	Perm	NA		Perm	NA			pm+pt	NA			Perm
Protected Phases		3			3			5	2			
Permitted Phases	3			3				2				6
Actuated Green, G (s)	9.2	9.2			9.2				22.4			
Effective Green, g (s)	9.2	9.2			9.2				22.4			
Actuated g/C Ratio	0.17	0.17			0.17				0.41			
Clearance Time (s)	7.0	7.0			7.0				8.4			
Vehicle Extension (s)	3.0	3.0			3.0				3.0			
Lane Grp Cap (vph)	194	231			219				1026			
v/s Ratio Prot		0.03										
v/s Ratio Perm	0.02				c0.04				0.16			
v/c Ratio	0.12	0.15			0.23				0.40			
Uniform Delay, d1	19.5	19.6			19.9				11.6			
Progression Factor	1.00	1.00			1.00				1.00			
Incremental Delay, d2	0.3	0.3			0.5				0.3			
Delay (s)	19.8	19.9			20.4				11.8			
Level of Service	B	B			C				B			
Approach Delay (s)		19.9			20.4				11.8			
Approach LOS		B			C				B			

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	55.1	Sum of lost time (s)	25.8
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	SWL2	SWL
Lane Configurations				
Traffic Volume (vph)	652	36	2	14
Future Volume (vph)	652	36	2	14
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)	7.3			7.0
Lane Util. Factor	0.95			1.00
Frpb, ped/bikes	1.00			1.00
Flpb, ped/bikes	1.00			1.00
Frt	0.99			1.00
Flt Protected	1.00			0.95
Satd. Flow (prot)	3490			1805
Flt Permitted	0.93			0.95
Satd. Flow (perm)	3247			1805
Peak-hour factor, PHF	0.85	0.85	0.85	0.85
Adj. Flow (vph)	767	42	2	16
RTOR Reduction (vph)	2	0	0	0
Lane Group Flow (vph)	834	0	0	18
Confl. Peds. (#/hr)		37	12	1
Heavy Vehicles (%)	2%	6%	0%	0%
Turn Type	NA		Prot	Prot
Protected Phases	6		4	4
Permitted Phases				
Actuated Green, G (s)	23.5			1.1
Effective Green, g (s)	23.5			1.1
Actuated g/C Ratio	0.43			0.02
Clearance Time (s)	7.3			7.0
Vehicle Extension (s)	3.0			3.0
Lane Grp Cap (vph)	1384			36
v/s Ratio Prot				c0.01
v/s Ratio Perm	c0.26			
v/c Ratio	0.60			0.50
Uniform Delay, d1	12.2			26.7
Progression Factor	1.00			1.00
Incremental Delay, d2	0.7			10.5
Delay (s)	12.9			37.2
Level of Service	B			D
Approach Delay (s)	12.9			37.2
Approach LOS	B			D

Intersection Summary

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	8:15	8:15	8:15	8:15	8:15	8:15	8:15
End Time	9:30	9:30	9:30	9:30	9:30	9:30	9:30
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	1756	1742	1723	1685	1735	1745	1747
Vehs Exited	1759	1765	1742	1692	1742	1747	1741
Starting Vehs	63	81	72	52	63	62	67
Ending Vehs	60	58	53	45	56	60	73
Travel Distance (mi)	1284	1308	1276	1232	1255	1279	1269
Travel Time (hr)	63.1	64.4	63.1	60.3	61.1	63.8	63.8
Total Delay (hr)	21.3	22.1	21.5	20.0	20.1	22.1	22.4
Total Stops	1863	1896	1869	1831	1842	1905	1930
Fuel Used (gal)	45.9	47.9	46.8	44.6	45.6	46.5	46.8

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	8:15	8:15	8:15	8:15
End Time	9:30	9:30	9:30	9:30
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	1692	1718	1771	1733
Vehs Exited	1687	1699	1776	1735
Starting Vehs	77	56	65	62
Ending Vehs	82	75	60	61
Travel Distance (mi)	1263	1248	1306	1272
Travel Time (hr)	62.3	60.7	65.6	62.8
Total Delay (hr)	21.3	20.1	23.2	21.4
Total Stops	1921	1815	1994	1886
Fuel Used (gal)	46.1	45.0	48.5	46.4

Interval #0 Information Seeding

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:30
End Time	9:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1756	1742	1723	1685	1735	1745	1747
Vehs Exited	1759	1765	1742	1692	1742	1747	1741
Starting Vehs	63	81	72	52	63	62	67
Ending Vehs	60	58	53	45	56	60	73
Travel Distance (mi)	1284	1308	1276	1232	1255	1279	1269
Travel Time (hr)	63.1	64.4	63.1	60.3	61.1	63.8	63.8
Total Delay (hr)	21.3	22.1	21.5	20.0	20.1	22.1	22.4
Total Stops	1863	1896	1869	1831	1842	1905	1930
Fuel Used (gal)	45.9	47.9	46.8	44.6	45.6	46.5	46.8

Interval #1 Information Recording

Start Time	8:30
End Time	9:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1692	1718	1771	1733
Vehs Exited	1687	1699	1776	1735
Starting Vehs	77	56	65	62
Ending Vehs	82	75	60	61
Travel Distance (mi)	1263	1248	1306	1272
Travel Time (hr)	62.3	60.7	65.6	62.8
Total Delay (hr)	21.3	20.1	23.2	21.4
Total Stops	1921	1815	1994	1886
Fuel Used (gal)	46.1	45.0	48.5	46.4

Intersection: 1: N Main St & Patrick Henry Dr

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	LT	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	135	231	168	124	113	123	146	214	325	296
Average Queue (ft)	54	102	88	45	52	52	72	41	202	177
95th Queue (ft)	107	184	149	98	96	103	124	124	297	271
Link Distance (ft)	954	954	943	943		3600	3600		454	454
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)					150			250		
Storage Blk Time (%)					0	0		0	3	
Queuing Penalty (veh)					0	0		0	1	

Intersection: 6: N Main St & Progress St & McDonald St

Movement	EB	EB	WB	NB	NB	SB	SB	SW
Directions Served	<	TR	LTR>	LT	TR>	LT	TR	<LR
Maximum Queue (ft)	54	125	77	227	197	253	275	47
Average Queue (ft)	11	35	22	104	52	112	127	10
95th Queue (ft)	35	87	59	190	146	220	239	33
Link Distance (ft)		1020	1092	940	940	3600	3600	887
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	75							
Storage Blk Time (%)	0	2						
Queuing Penalty (veh)	0	0						

Network Summary

Network wide Queuing Penalty: 2

HCM Signalized Intersection Capacity Analysis
1: N Main St & Patrick Henry Dr

09/24/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	154	190	71	167	63	187	491	93	72	368	179
Future Volume (vph)	111	154	190	71	167	63	187	491	93	72	368	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Lane Util. Factor	1.00	1.00			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00		0.99	1.00	
Frt	1.00	0.92			0.97		1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1720			3298		1803	3461		1794	3316	
Flt Permitted	0.95	1.00			0.99		0.29	1.00		0.30	1.00	
Satd. Flow (perm)	1736	1720			3298		546	3461		559	3316	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	116	160	198	74	174	66	195	511	97	75	383	186
RTOR Reduction (vph)	0	31	0	0	19	0	0	11	0	0	42	0
Lane Group Flow (vph)	116	327	0	0	295	0	195	597	0	75	527	0
Confl. Peds. (#/hr)	23		12	33		35	12		23	35		23
Heavy Vehicles (%)	4%	0%	0%	0%	6%	2%	0%	1%	0%	0%	2%	3%
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	2	2		6	6		7	4		3	8	
Permitted Phases							4			8		
Actuated Green, G (s)	24.6	24.6			16.7		30.6	25.5		28.2	24.3	
Effective Green, g (s)	24.6	24.6			16.7		30.6	25.5		28.2	24.3	
Actuated g/C Ratio	0.26	0.26			0.18		0.32	0.27		0.30	0.26	
Clearance Time (s)	6.5	6.5			6.5		4.5	6.5		4.5	6.5	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	450	446			581		244	931		217	850	
v/s Ratio Prot	0.07	c0.19			c0.09		c0.04	0.17		0.01	0.16	
v/s Ratio Perm							c0.22			0.09		
v/c Ratio	0.26	0.73			0.51		0.80	0.64		0.35	0.62	
Uniform Delay, d1	27.8	32.0			35.3		28.0	30.6		24.7	31.1	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	6.1			0.7		16.5	1.5		1.0	1.4	
Delay (s)	28.1	38.2			36.0		44.5	32.1		25.6	32.5	
Level of Service	C	D			D		D	C		C	C	
Approach Delay (s)		35.7			36.0			35.1			31.7	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	34.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	94.7	Sum of lost time (s)	24.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	46	2	39	140	11	57	68	1	100	664	12	14
Future Volume (vph)	46	2	39	140	11	57	68	1	100	664	12	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0		7.0			7.0				8.4		
Lane Util. Factor	1.00		1.00			1.00				0.95		
Frpb, ped/bikes	1.00		0.97			0.92				1.00		
Flpb, ped/bikes	0.97		1.00			1.00				1.00		
Frt	1.00		0.88			0.93				0.99		
Flt Protected	0.95		1.00			1.00				0.99		
Satd. Flow (prot)	1579		1428			1473				3253		
Flt Permitted	0.70		1.00			0.96				0.68		
Satd. Flow (perm)	1162		1423			1420				2237		
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	48	2	41	146	11	59	71	1	104	692	12	15
RTOR Reduction (vph)	0	0	87	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	48	0	102	0	0	142	0	0	0	824	0	0
Confl. Peds. (#/hr)	23	19		17	21		27	23	17		2	21
Heavy Vehicles (%)	11%	0%	0%	18%	29%	12%	4%	100%	32%	6%	0%	17%
Turn Type	Perm	Perm	NA		Perm	NA			pm+pt	NA		
Protected Phases			3			3			5	2		
Permitted Phases	3	3			3				2			
Actuated Green, G (s)	13.8		13.8			13.8				38.4		
Effective Green, g (s)	13.8		13.8			13.8				38.4		
Actuated g/C Ratio	0.18		0.18			0.18				0.50		
Clearance Time (s)	7.0		7.0			7.0				8.4		
Vehicle Extension (s)	3.0		3.0			3.0				3.0		
Lane Grp Cap (vph)	208		255			254				1115		
v/s Ratio Prot												
v/s Ratio Perm	0.04		0.07			c0.10				c0.37		
v/c Ratio	0.23		0.40			0.56				0.74		
Uniform Delay, d1	27.1		27.9			28.8				15.3		
Progression Factor	1.00		1.00			1.00				1.00		
Incremental Delay, d2	0.6		1.0			2.7				2.6		
Delay (s)	27.6		29.0			31.5				17.9		
Level of Service	C		C			C				B		
Approach Delay (s)			28.7			31.5				17.9		
Approach LOS			C			C				B		

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	77.0	Sum of lost time (s)	25.8
Intersection Capacity Utilization	95.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR
Lane Configurations							
Traffic Volume (vph)	5	23	709	18	1	15	4
Future Volume (vph)	5	23	709	18	1	15	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			7.3			7.0	
Lane Util. Factor			0.95			1.00	
Frpb, ped/bikes			1.00			0.99	
Flpb, ped/bikes			1.00			1.00	
Frt			1.00			0.97	
Flt Protected			1.00			0.96	
Satd. Flow (prot)			3512			1758	
Flt Permitted			0.90			0.96	
Satd. Flow (perm)			3160			1758	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	5	24	739	19	1	16	4
RTOR Reduction (vph)	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	0	786	0	0	21	0
Confl. Peds. (#/hr)	8	27		23	23	2	19
Heavy Vehicles (%)	0%	0%	2%	6%	0%	0%	0%
Turn Type	Perm	Perm	NA		Prot	Prot	
Protected Phases			6		4	4	
Permitted Phases	6	6					
Actuated Green, G (s)			39.5			2.4	
Effective Green, g (s)			39.5			2.4	
Actuated g/C Ratio			0.51			0.03	
Clearance Time (s)			7.3			7.0	
Vehicle Extension (s)			3.0			3.0	
Lane Grp Cap (vph)			1621			54	
v/s Ratio Prot						c0.01	
v/s Ratio Perm			0.25				
v/c Ratio			0.48			0.39	
Uniform Delay, d1			12.2			36.6	
Progression Factor			1.00			1.00	
Incremental Delay, d2			0.2			4.6	
Delay (s)			12.4			41.2	
Level of Service			B			D	
Approach Delay (s)			12.4			41.2	
Approach LOS			B			D	

Intersection Summary

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:30	4:30	4:30	4:30	4:30	4:30	4:30
End Time	5:45	5:45	5:45	5:45	5:45	5:45	5:45
Total Time (min)	75	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	2834	2740	2697	2647	2695	2610	2761
Vehs Exited	2776	2743	2688	2656	2706	2603	2731
Starting Vehs	96	121	112	118	129	103	93
Ending Vehs	154	118	121	109	118	110	123
Travel Distance (mi)	1943	1908	1904	1871	1899	1828	1883
Travel Time (hr)	126.2	106.7	117.7	106.0	126.4	112.1	127.0
Total Delay (hr)	62.3	44.1	55.2	44.7	63.9	51.9	64.9
Total Stops	3893	3218	3584	3262	3631	3481	3823
Fuel Used (gal)	78.3	72.6	75.4	70.9	77.1	71.9	77.1

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:30	4:30	4:30	4:30
End Time	5:45	5:45	5:45	5:45
Total Time (min)	75	75	75	75
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2764	2758	2697	2722
Vehs Exited	2744	2726	2653	2702
Starting Vehs	121	120	103	109
Ending Vehs	141	152	147	127
Travel Distance (mi)	1912	1919	1851	1892
Travel Time (hr)	113.1	124.5	125.4	118.5
Total Delay (hr)	50.1	61.2	64.5	56.3
Total Stops	3440	3782	3600	3569
Fuel Used (gal)	74.5	76.9	75.8	75.0

Interval #0 Information Seeding

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:45
End Time	5:45
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2834	2740	2697	2647	2695	2610	2761
Vehs Exited	2776	2743	2688	2656	2706	2603	2731
Starting Vehs	96	121	112	118	129	103	93
Ending Vehs	154	118	121	109	118	110	123
Travel Distance (mi)	1943	1908	1904	1871	1899	1828	1883
Travel Time (hr)	126.2	106.7	117.7	106.0	126.4	112.1	127.0
Total Delay (hr)	62.3	44.1	55.2	44.7	63.9	51.9	64.9
Total Stops	3893	3218	3584	3262	3631	3481	3823
Fuel Used (gal)	78.3	72.6	75.4	70.9	77.1	71.9	77.1

Interval #1 Information Recording

Start Time	4:45
End Time	5:45
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2764	2758	2697	2722
Vehs Exited	2744	2726	2653	2702
Starting Vehs	121	120	103	109
Ending Vehs	141	152	147	127
Travel Distance (mi)	1912	1919	1851	1892
Travel Time (hr)	113.1	124.5	125.4	118.5
Total Delay (hr)	50.1	61.2	64.5	56.3
Total Stops	3440	3782	3600	3569
Fuel Used (gal)	74.5	76.9	75.8	75.0

Intersection: 1: N Main St & Patrick Henry Dr

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	LT	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	152	414	222	184	150	335	325	138	269	275
Average Queue (ft)	71	203	125	78	123	193	193	52	164	153
95th Queue (ft)	131	344	197	155	181	327	305	114	241	249
Link Distance (ft)	954	954	943	943		3600	3600		454	454
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)					150			250		
Storage Blk Time (%)					13	14		0	0	
Queuing Penalty (veh)					31	26		0	0	

Intersection: 6: N Main St & Progress St & McDonald St

Movement	EB	EB	WB	NB	NB	SB	SB	SW
Directions Served	<	LTR	LTR>	LT	TR>	<LT	TR	<LR
Maximum Queue (ft)	74	235	182	832	797	300	298	63
Average Queue (ft)	30	81	79	466	416	158	164	16
95th Queue (ft)	71	178	153	824	775	264	271	46
Link Distance (ft)		1020	1092	940	940	3600	3600	887
Upstream Blk Time (%)				2	1			
Queuing Penalty (veh)				0	0			
Storage Bay Dist (ft)	75							
Storage Blk Time (%)	1	12						
Queuing Penalty (veh)	2	6						

Network Summary

Network wide Queuing Penalty: 65