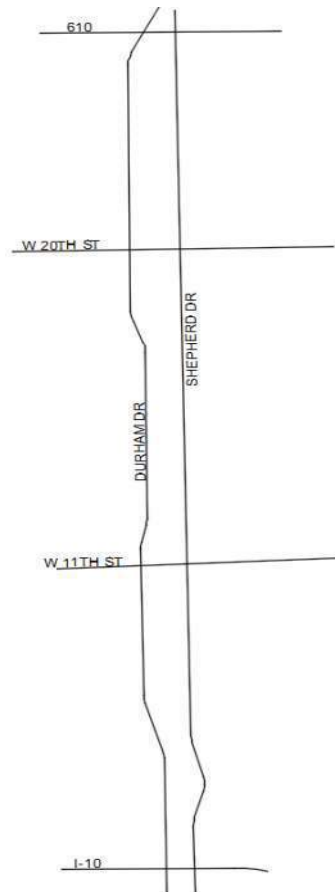


Shepherd Drive and Durham Drive

Traffic Analysis

December 2017



Prepared for:

Memorial Heights Redevelopment Authority

Prepared by:



JONES | CARTER

Texas Board of Professional Engineers Registration No. F-439
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Colby W. Wright
P.E. P.T.O.E.
12/11/2017

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Table of Contents

Existing Conditions.....	1
Traffic Projections.....	4
Roadway Capacity Analysis.....	6
Intersection Capacity Analysis.....	7
Recommendations.....	15

List of Tables

Table 1 – Annual Growth Percentage Calculations.....	4
Table 2 – 2016 Existing Roadway Capacity.....	6
Table 3 – 2040 Projected Roadway Capacity.....	6
Table 4 – Level of Service Measurement and Qualitative Descriptions.....	7
Table 5 – Capacity Analysis – 2016 Existing Conditions.....	10
Table 6 – Capacity Analysis – 2040 Projected Conditions - Scenario 1.....	11
Table 7 – Capacity Analysis – 2040 Projected Conditions - Scenario 2.....	12
Table 8 – Capacity Analysis – 2040 Projected Conditions - Scenario 3.....	13
Table 9 – Capacity Analysis – 2040 Projected Conditions - Scenario 4.....	14

List of Figures

Figure 1 – Existing Lane Assignments and Traffic Control.....	2
Figure 2 – Existing Traffic Volumes – Shepherd Dr and Durham Dr.....	3
Figure 3 – 2040 Projected Traffic Volumes.....	5
Figure 4 – 2040 Projected Intersection Scenarios.....	9

Existing Conditions

A site visit was conducted to document the existing conditions of the study area roadways and site. **Figure 1** shows existing lane assignments and traffic control at the study area intersections.

Roadways

Shepherd Drive is a one-way northbound roadway that is classified as a major thoroughfare. It is a concrete roadway and 46' wide with four lanes in the northbound direction, and a posted speed limit of 35 mph.

Durham Drive is a one-way southbound roadway that is classified as a major thoroughfare. It is a concrete roadway and 44' wide with four lanes in the southbound direction, and a posted speed limit of 35 mph.

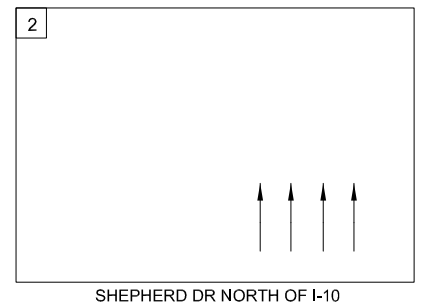
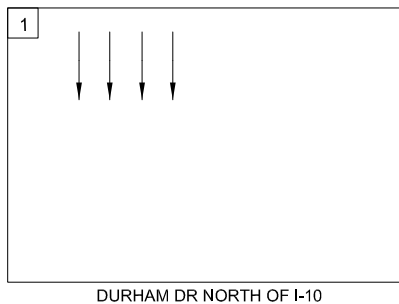
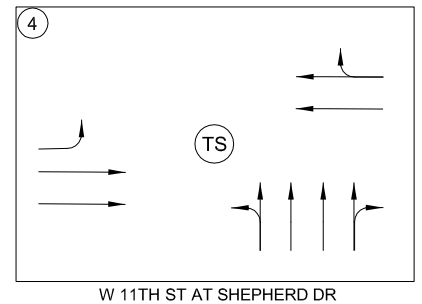
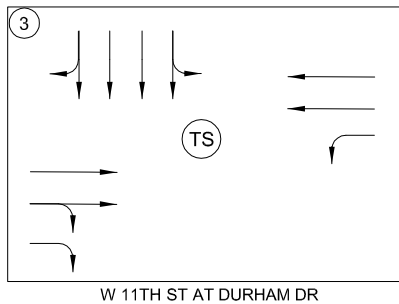
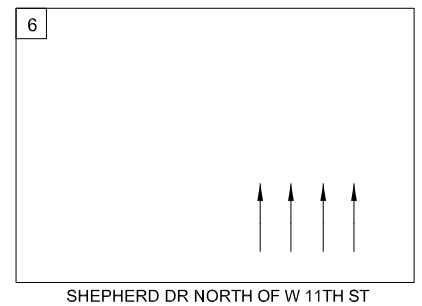
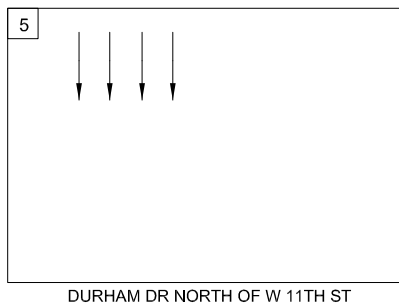
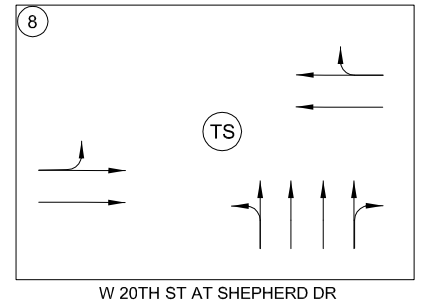
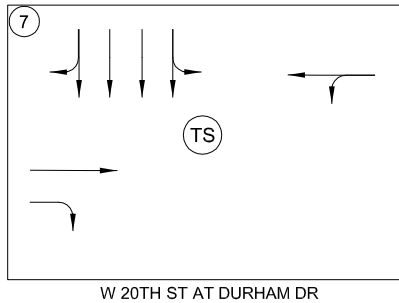
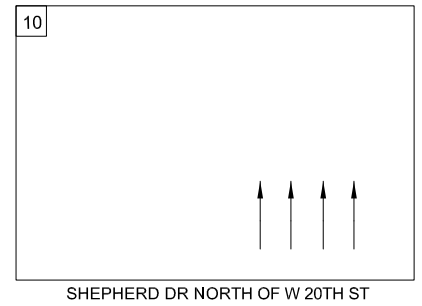
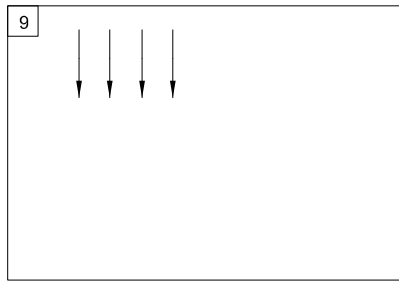
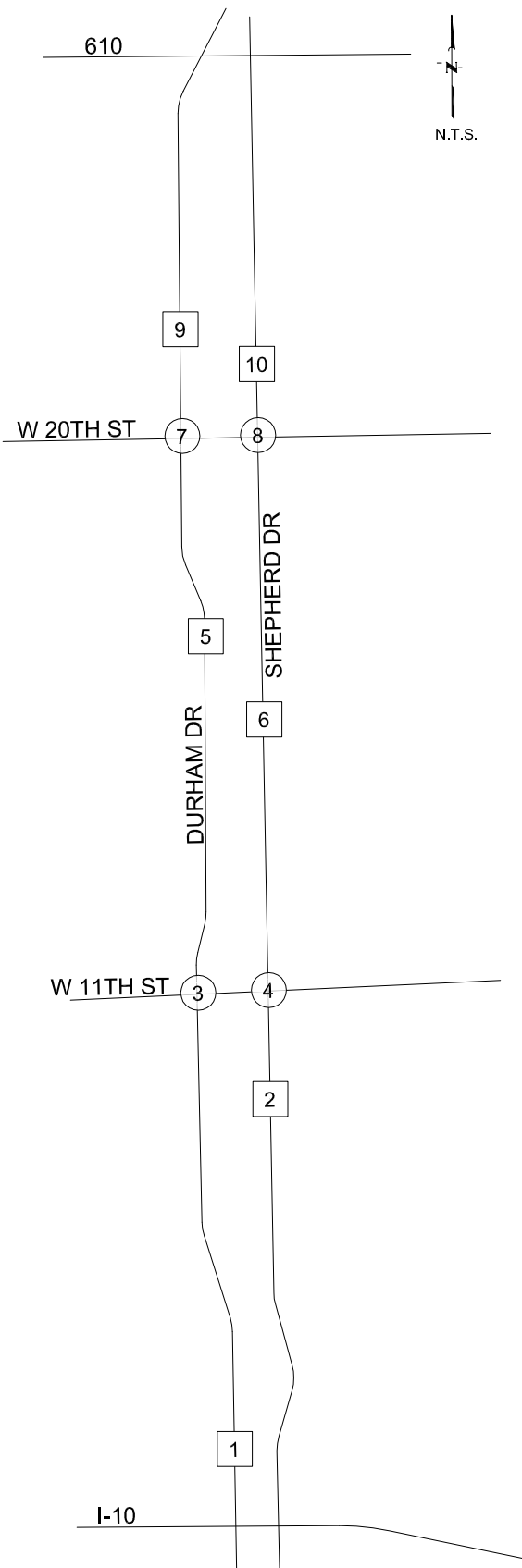
Intersections

The intersections included in the study area are:

- W 11th Street at Shepherd Drive
- W 11th Street at Durham Drive
- W 20th Street at Shepherd Drive
- W 20th Street at Durham Drive

Traffic Data

Peak hour turning movement counts and 24-hour counts were taken by CJ Hensch & Associates, Inc. on Thursday, October 6, 2016. Peak hours were reached between 7:30-8:30 AM for the AM peak hour, and 5:00-6:00 PM for the PM peak hour. The existing traffic volumes are shown in **Figure 2** and the raw traffic count data can be found in the **Appendix**.

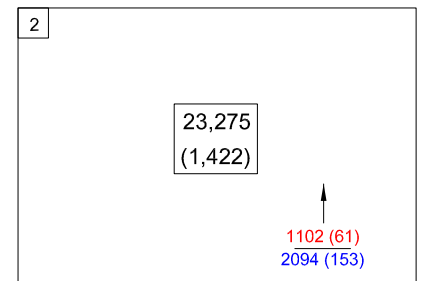
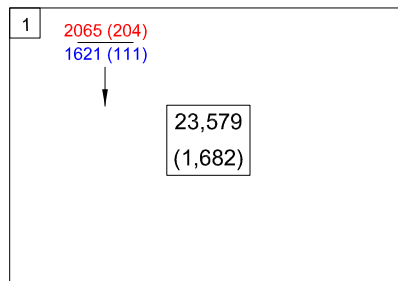
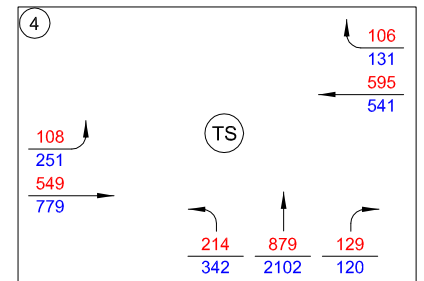
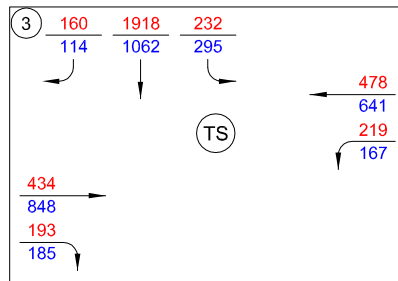
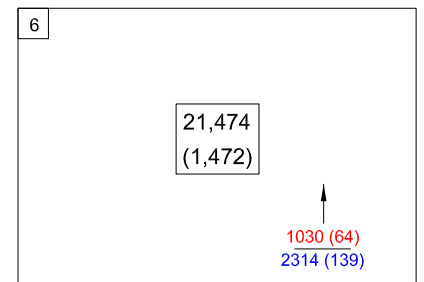
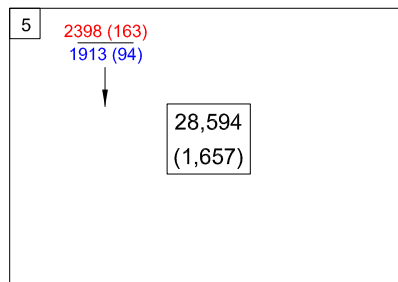
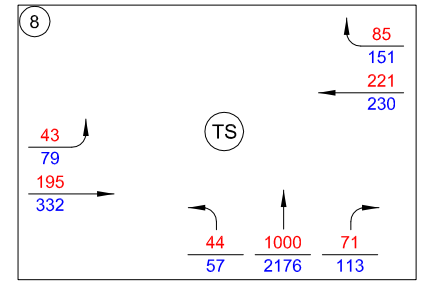
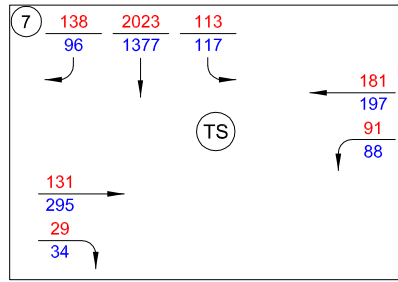
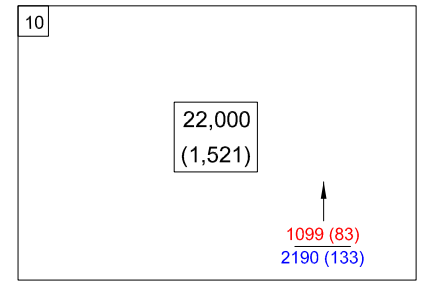
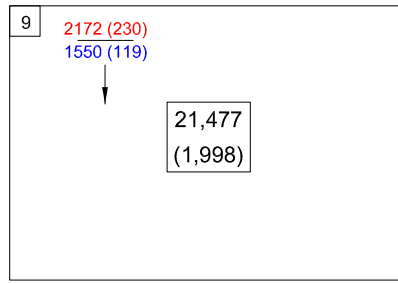
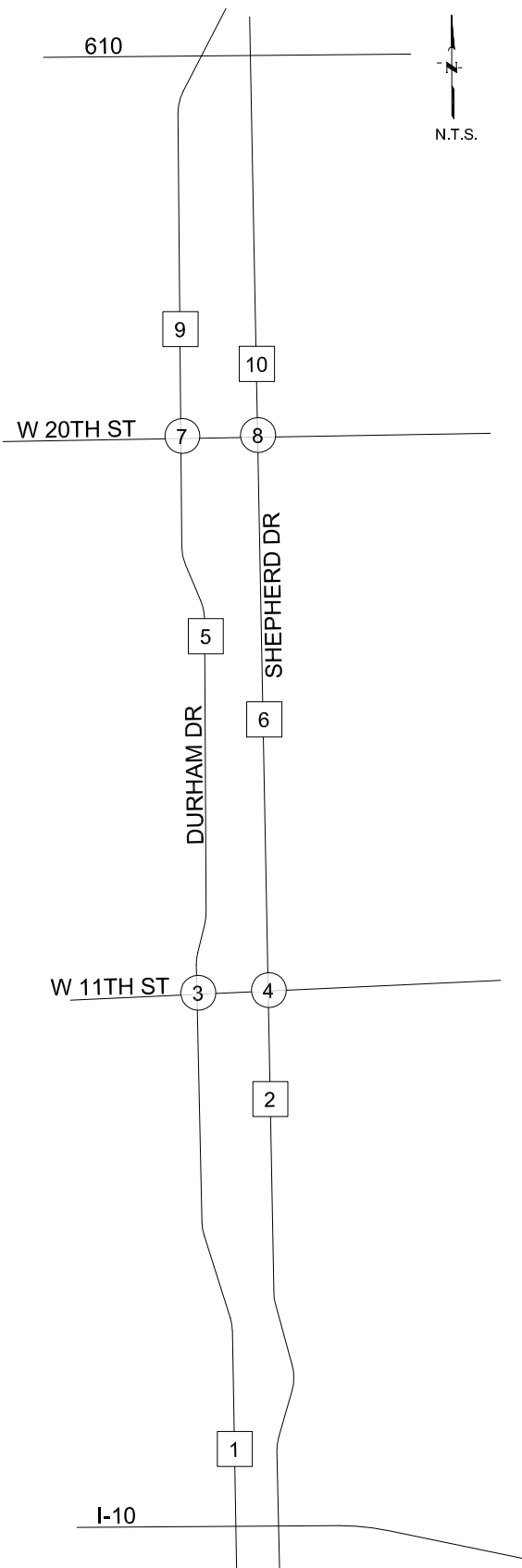


LEGEND

LANE ASSIGNMENT

TS TRAFFIC SIGNAL SS STOP SIGN

FIGURE 1
EXISTING LANE ASSIGNMENTS
AND TRAFFIC CONTROL



LEGEND

- XXXX AM PEAK HOUR TOTAL VOLUME (XXXX) AM PEAK HOUR TRUCK VOLUME
- XXXX PM PEAK HOUR TOTAL VOLUME (XXXX) PM PEAK HOUR TRUCK VOLUME
- XXXX 24 HOUR TOTAL VOLUME
- (XXXX) 24 HOUR TRUCK VOLUME
- (TS) TRAFFIC SIGNAL (SS) STOP SIGN

FIGURE 2
2016 EXISTING TRAFFIC VOLUMES
SHEPHERD DR AND DURHAM DR

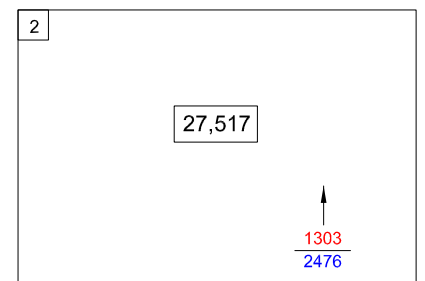
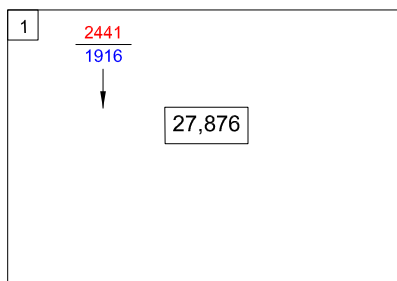
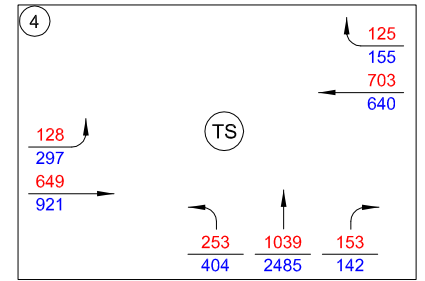
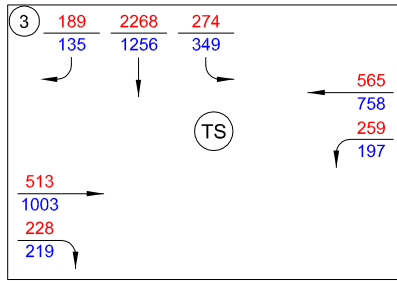
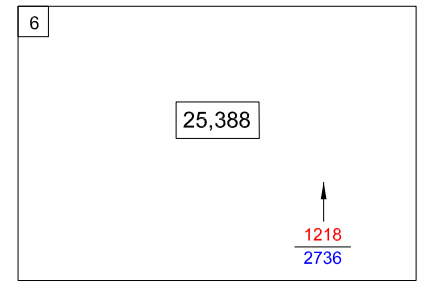
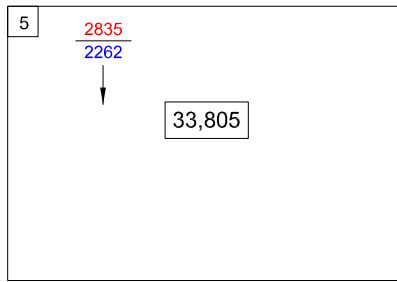
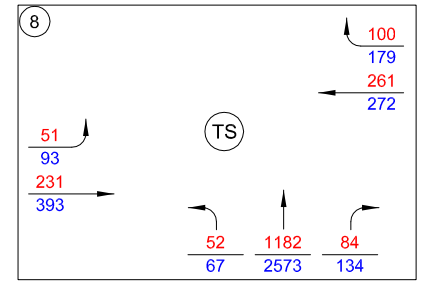
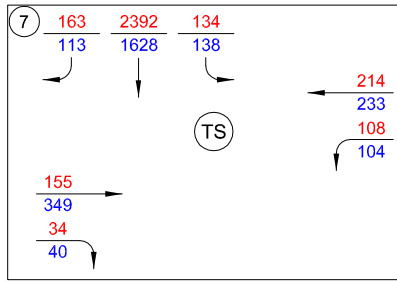
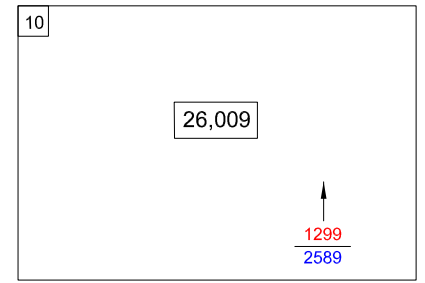
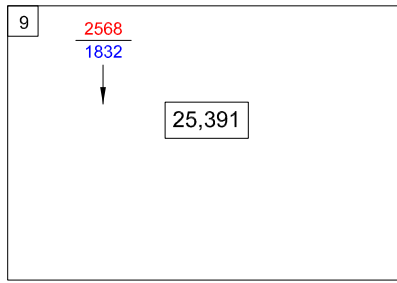
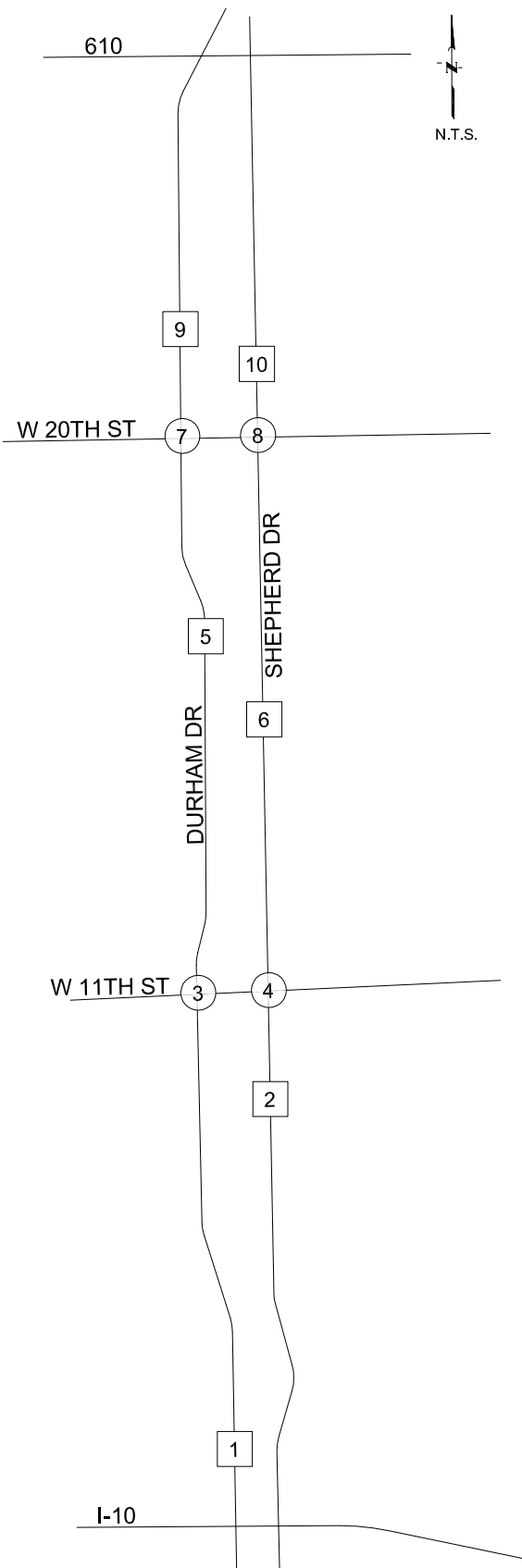
Traffic Projections

Traffic projections were developed at the study area intersections and roadways for 2040 Projected Conditions based on the data collected and data provided by H-GAC.

Projected traffic volume data for the area roadways was received from the Houston Galveston Area Council (H-GAC) for 2018, 2035, and 2040. Annual growth rates for the roadway segments were calculated based on the percentage growth from the 2018 H-GAC traffic volumes to the 2035 H-GAC traffic volumes, as well as 2018 H-GAC traffic volumes to the 2040 H-GAC traffic volumes. The calculated annual growth rates were then applied to the 2016 Existing volumes to determine the projected 2040 traffic volumes. A growth rate of 0.7% per year for over 24 years was applied and projected volumes are shown in **Figure 3**. Annual Growth percentage calculations and H-GAC 2018 traffic volumes, H-GAC 2035 traffic volumes, and H-GAC 2040 traffic volumes are shown in **Table 1**.

Table 1 – Annual Growth Percentage Calculations

Roadway	Segment	ADT VOLUMES					% GROWTH PER YEAR (2018 TO 2040)
		2013 COH COUNTS	2016 COUNTS	2018 H-GAC PROJECTION	2035 H-GAC PROJECTION	2040 H-GAC PROJECTION	
Shepherd Drive	I-10 to 11 th	19,181	23,275	21,273	22,867	24,274	0.60%
	11 th to 20 th	19,575	21,474	16,713	17,655	18,005	0.34%
	20 th to 610	18,915	22,000	18,023	19,462	20,136	0.51%
Durham Drive	I-10 to 11 th	18,123	23,579	17,459	20,343	21,221	0.89%
	11 th to 20 th	22,196	28,594	11,599	13,389	14,222	0.93%
	20 th to 610	20,086	21,477	12,680	15,371	16,037	1.07%
AVERAGE GROWTH %						0.7%	



LEGEND

- XXXX AM PEAK HOUR TOTAL VOLUME
- XXXX PM PEAK HOUR TOTAL VOLUME
- XXXX 24 HOUR TOTAL VOLUME
- TS TRAFFIC SIGNAL
- SS STOP SIGN

FIGURE 3
2040 PROJECTED TRAFFIC VOLUMES
SHEPHERD DR AND DURHAM DR

Roadway Capacity Analysis

Capacity Analysis was analyzed in comparing the 24 hour volumes per segment with the H-GAC defined capacity of an urban one-way street. The volumes on Shepherd Drive and Durham Drive and roadway capacities are shown for 2016 Existing Conditions in **Table 2** and shown for 2040 Projected Conditions in **Table 3**.

Table 2 – 2016 Existing Roadway Capacity

Roadway	Segment	24 HOUR VOLUMES	3-LANE ROADWAY CAPACITY	4-LANE ROADWAY CAPACITY
Shepherd Drive	IH-10 to 11 th	23,275	25,400	33,000
	11 th to 20 th	21,474	25,400	33,000
	20 th to IH 610	22,000	25,400	33,000
Durham Drive	IH-10 to 11 th	23,579	25,400	33,000
	11 th to 20 th	28,594	25,400	33,000
	20 th to IH 610	21,477	25,400	33,000

Table 3 – 2040 Projected Roadway Capacity

Roadway	Segment	24 HOUR VOLUMES	3-LANE ROADWAY CAPACITY	4-LANE ROADWAY CAPACITY
Shepherd Drive	IH-10 to 11 th	27,517	25,400	33,000
	11 th to 20 th	25,388	25,400	33,000
	20 th to IH 610	26,009	25,400	33,000
Durham Drive	IH-10 to 11 th	27,876	25,400	33,000
	11 th to 20 th	33,805	25,400	33,000
	20 th to IH 610	25,391	25,400	33,000

All segments of Shepherd Drive and Durham Drive are projected to be at or near the capacity of a 3-lane Roadway in 2040 with the exception of the segment of Durham Drive between 11th Street and 20th Street which is projected to be at the capacity of a 4-lane Roadway.

Intersection Capacity Analysis

Capacity Analysis was performed using the computer program *Synchro 9.1*, which is based on the procedures in the *Highway Capacity Manual*. Capacity Analysis provides information regarding traffic operations at an intersection and is expressed in terms of the level of service (LOS). The LOS indicates the average seconds of delay experienced by a motorist at a signalized intersection, at stop sign controlled approaches and left turn movements at an unsignalized intersection. Intersection LOS ranges from A to F, with LOS A representing free flow conditions and LOS F representing highly congested conditions. An intersection operating at or above LOS D is typically characterized by acceptable delays. The Level of Service Measurement and Qualitative Descriptions for Signalized and Unsignalized intersections are shown in **Table 4**.

Table 4 – Level of Service Measurement and Qualitative Descriptions

Level Of Service	Unsignalized	Signalized	
	Control Delay Per Vehicle (Sec)	Control Delay Per Vehicle (Sec)	Description
A	≤ 10	≤ 10	Good progression and short cycle lengths
B	> 10 and ≤ 15	> 10 and ≤ 20	Good progression or short cycle lengths, more vehicle stops
C	> 15 and ≤ 25	> 20 and ≤ 35	Fair progression and/or longer cycle lengths, some cycle failures
D	> 25 and ≤ 35	> 35 and ≤ 55	Congestion becomes noticeable, high volume to capacity ratio
E	> 35 and ≤ 50	> 55 and ≤ 80	Limit of acceptable delay, poor progression, long cycles, and/or high volume
F	> 50	> 80	Unacceptable to drivers, volume greater than capacity

Various improvement scenarios were evaluated at the study area intersections for 2040 Projected Conditions and are shown in **Figure 4**. The impact of the Scenario options at the study area intersections was analyzed using Capacity Analysis and the *Synchro 9.1* reports can be found in the **Appendix**.

Scenario 1

- 2040 Projected Traffic Volumes
- Maintain existing lane assignments

Scenario 2

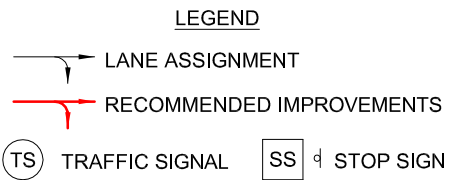
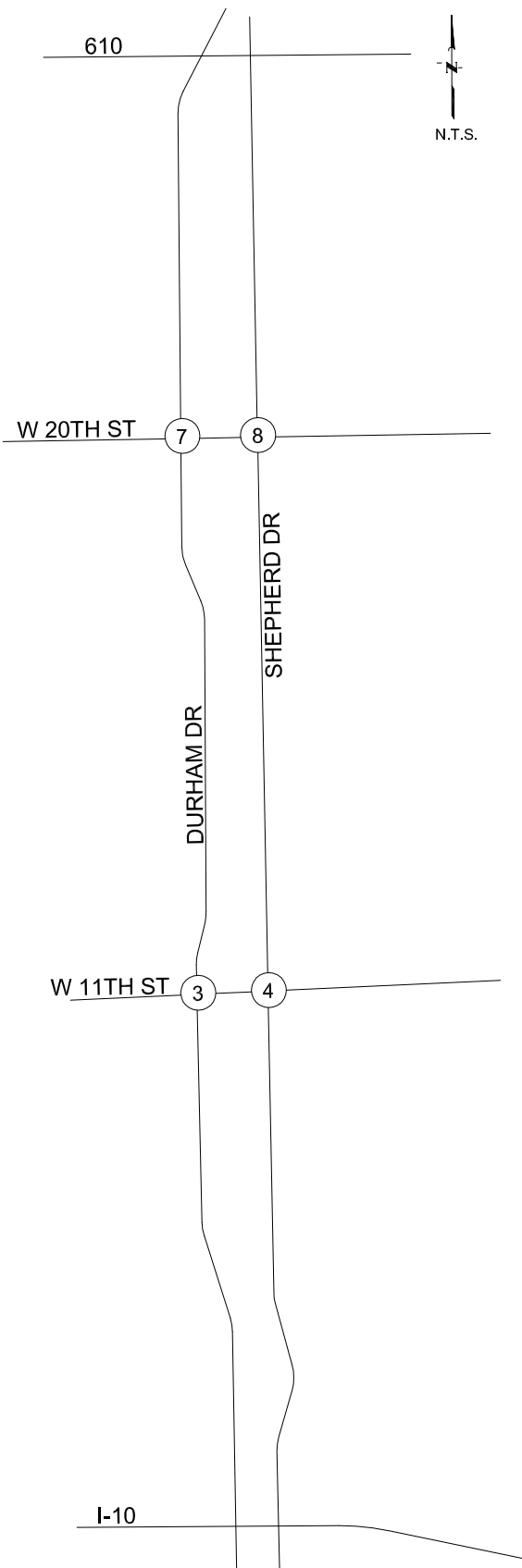
- 2040 Projected Traffic Volumes
- Remove one northbound through lane on Shepherd Drive
- Remove one southbound through lane on Durham Drive

Scenario 3

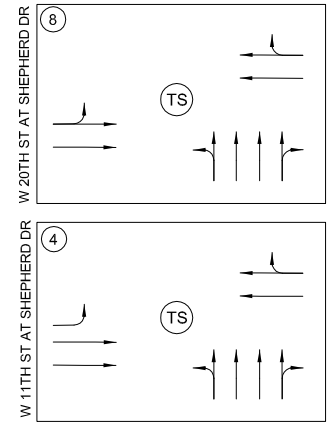
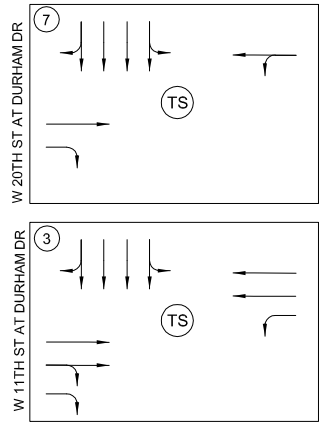
- 2040 Projected Traffic Volumes
- West 20th Street
 - Remove one northbound through lane on Shepherd Drive
 - Remove one southbound through lane on Durham Drive
 - Install a westbound left turn lane at Durham Drive
- West 11th Street
 - Change southbound through/left-turn lane on Durham Drive to left-turn only
 - Install a southbound right turn lane on Durham Drive
 - Change northbound through/left-turn lane on Shepherd Drive to left-turn only
 - Install a westbound right turn lane on W 11th Street at Shepherd Drive
 - Install a northbound right turn lane on Shepherd Drive

Scenario 4

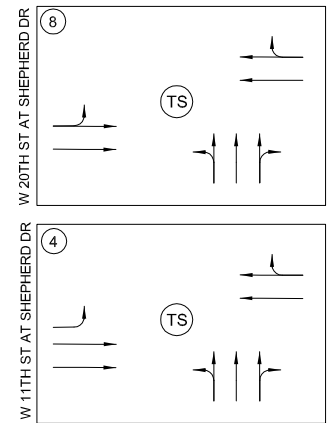
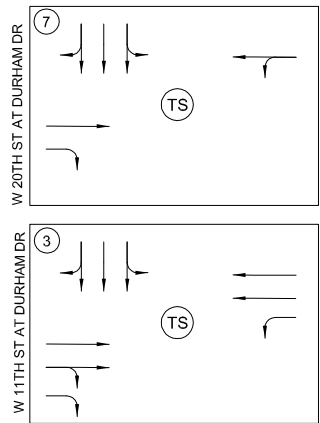
- 2040 Projected Traffic Volumes
- West 20th Street
 - Remove one northbound through lane on Shepherd Drive
 - Remove one southbound through lane on Durham Drive
 - Install a westbound left turn lane at Durham Drive
- West 11th Street
 - Change southbound through/left-turn lane on Durham Drive to left-turn only
 - Install a westbound double left turn lane on West 11th Street at Durham Drive
 - Change northbound through/left-turn lane on Shepherd Drive to left-turn only
 - Install a northbound right turn lane on Shepherd Drive
 - Install an eastbound double left turn lane on West 11th Street at Shepherd Drive



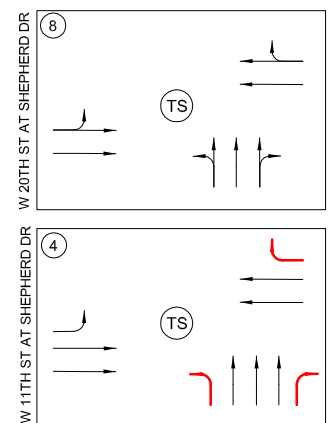
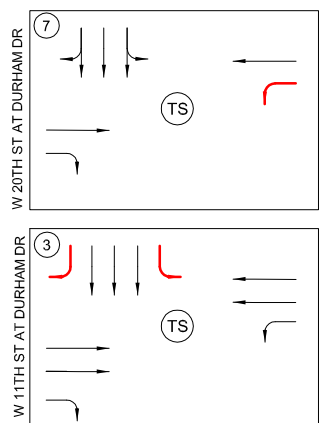
SCENARIO 1



SCENARIO 2



SCENARIO 3



SCENARIO 4

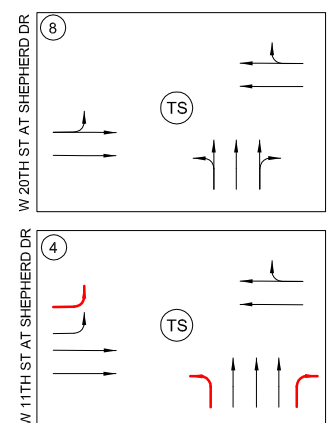
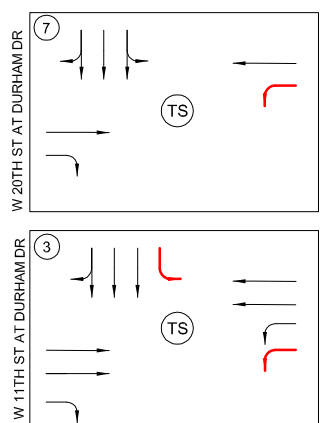


FIGURE 4
2040 PROJECTED INTERSECTION SCENARIOS

2016 Existing Conditions

Capacity analysis was performed for 2016 Existing Conditions for the Peak Hours at the study area intersections and is summarized in **Table 5**. All signalized intersections are projected to operate at an acceptable LOS during the AM and PM Peak hours for 2016 Existing Conditions with the exception of the following:

- Shepherd Drive at W 11th Street
 - LOS E in the AM Peak hour

Table 5 – Capacity Analysis – 2016 Existing Conditions

Intersection	AM Peak Hour (LOS (delay))					PM Peak Hour (LOS (delay))				
	EB	WB	NB	SB	Int	EB	WB	NB	SB	Int
Signalized Intersections										
Shepherd Drive at W 20 th St	C (27.5)	D (35.1)	A (9.3)		B (17.5)	D (39.0)	D (38.2)	A (2.2)		B (12.0)
Durham Drive at W 20 th St	C (32.5)	E (57.2)		B (14.0)	C (20.2)	C (20.3)	E (59.2)		B (10.9)	B (19.0)
Shepherd Drive at W 11 th St	B (15.0)	F (205.3)	B (15.7)		E (72.9)	C (31.4)	E (67.4)	D (35.5)		D (40.0)
Durham Drive at W 11 th St	D (46.3)	C (21.5)		D (36.9)	D (35.4)	D (36.7)	D (35.9)		C (26.9)	C (32.1)

Scenario 1

- 2040 Projected Traffic Volumes
- Maintain existing lane assignments

Capacity analysis was performed for 2040 Projected Conditions – Scenario 1 for the Peak Hours at the study area intersections and is summarized in **Table 6**. All signalized intersections are projected to operate at an acceptable LOS during the AM and PM Peak hours for 2040 Projected Conditions – Scenario 1 with the exception of the following:

- Shepherd Drive at W 11th Street
 - LOS E in the AM and PM Peak hours
- Durham Drive at W 11th Street
 - LOS F in the AM Peak hour

Table 6 – Capacity Analysis – 2040 Projected Conditions - Scenario 1

Intersection	AM Peak Hour (LOS (delay))					PM Peak Hour (LOS (delay))				
	EB	WB	NB	SB	Int	EB	WB	NB	SB	Int
Signalized Intersections*										
Shepherd Drive at W 20 th St	C (29.9)	D (37.3)	A (8.8)		B (18.1)	D (59.1)	D (36.7)	B (12.2)		C (20.9)
Durham Drive at W 20 th St	C (30.1)	E (58.5)			C (20.3)	C (25.3)	C (23.6)	F (97.4)		B (18.9) C (30.2)
Shepherd Drive at W 11 th St	D (36.8)	F (146.4)	C (22.3)		E (63.4)	E (56.0)	F (121.0)	E (77.0)		E (79.7)
Durham Drive at W 11 th St	E (55.6)	D (40.6)			F (111.0)	F (87.3)	D (39.6)	C (29.1)		D (43.9) D (38.9)

*Signal timing cycle lengths and split timings were optimized

Scenario 2

- 2040 Projected Traffic Volumes
- Remove one northbound through lane on Shepherd Drive
- Remove one southbound through lane on Durham Drive

Capacity analysis was performed for 2040 Projected Conditions – Scenario 2 for the Peak Hours at the study area intersections and is summarized in **Table 7**. All signalized intersections are projected to operate at an acceptable LOS during the AM and PM Peak hours for 2040 Projected Conditions – Scenario 2 with the exception of the following:

- Shepherd Drive at W 11th Street
 - LOS E in the AM Peak Hour and LOS F in the PM Peak hour
- Durham Drive at W 11th Street
 - LOS F in the AM Peak hour

Table 7 – Capacity Analysis – 2040 Projected Conditions - Scenario 2

Intersection	AM Peak Hour (LOS (delay))					PM Peak Hour (LOS (delay))				
	EB	WB	NB	SB	Int	EB	WB	NB	SB	Int
Signalized Intersections*										
Shepherd Drive at W 20 th St	D (45.4)	D (37.3)	A (9.8)		C (21.1)	E (62.6)	D (41.3)	C (26.8)		C (33.7)
Durham Drive at W 20 th St	C (34.4)	F (82.2)		D (36.2)	D (41.3)	C (23.3)	F (81.8)		C (23.9)	C (31.5)
Shepherd Drive at W 11 th St	D (36.8)	F (146.4)	C (25.4)		E (64.8)	E (76.0)	F (122.4)	F (164.5)		F (136.3)
Durham Drive at W 11 th St	E (55.7)	D (46.0)		F (209.5)	F (150.3)	D (53.0)	D (40.1)		D (53.3)	D (49.9)

*Signal timing cycle lengths and split timings were optimized

Scenario 3

- 2040 Projected Traffic Volumes
- West 20th Street
 - Remove one northbound through lane on Shepherd Drive
 - Remove one southbound through lane on Durham Drive
 - Install a westbound left turn lane at Durham Drive
- West 11th Street
 - Change southbound through/left-turn lane on Durham Drive to left-turn only
 - Install a southbound right turn lane on Durham Drive
 - Change northbound through/left-turn lane on Shepherd Drive to left-turn only
 - Install a westbound right turn lane on W 11th Street at Shepherd Drive
 - Install a northbound right turn lane on Shepherd Drive

Capacity analysis was performed for 2040 Projected Conditions – Scenario 3 for the Peak Hours at the study area intersections and is summarized in **Table 8**. All signalized intersections are projected to operate at an acceptable LOS during the AM and PM Peak hours for 2040 Projected Conditions – Scenario 3.

Table 8 – Capacity Analysis – 2040 Projected Conditions - Scenario 3

Intersection	AM Peak Hour (LOS (delay))					PM Peak Hour (LOS (delay))				
	EB	WB	NB	SB	Int	EB	WB	NB	SB	Int
Signalized Intersections*										
Shepherd Drive at W 20 th St	D (37.5)	D (42.7)	A (9.2)		C (20.6)	D (35.5)	D (36.7)	C (29.4)		C (31.2)
Durham Drive at W 20 th St	D (46.3)	D (52.7)		C (30.6)	C (34.2)	D (50.5)	D (42.3)		C (23.3)	C (30.5)
Shepherd Drive at W 11 th St	C (33.2)	D (48.7)	C (23.2)		C (33.4)	D (37.8)	D (53.8)	D (52.2)		D (49.0)
Durham Drive at W 11 th St	D (54.5)	D (44.3)		D (38.6)	D (42.5)	D (36.1)	B (16.8)		D (36.9)	C (31.7)

*Signal timing cycle lengths and split timings were optimized

Scenario 4

- 2040 Projected Traffic Volumes
- West 20th Street
 - Remove one northbound through lane on Shepherd Drive
 - Remove one southbound through lane on Durham Drive
 - Install a westbound left turn lane at Durham Drive
- West 11th Street
 - Change southbound through/left-turn lane on Durham Drive to left-turn only
 - Install a westbound double left turn lane on West 11th Street at Durham Drive
 - Change northbound through/left-turn lane on Shepherd Drive to left-turn only
 - Install a northbound right turn lane on Shepherd Drive
 - Install an eastbound double left turn lane on West 11th Street at Shepherd Drive

Capacity analysis was performed for 2040 Projected Conditions – Scenario 4 for the Peak Hours at the study area intersections and is summarized in **Table 9**. All signalized intersections are projected to operate at an acceptable LOS during the AM and PM Peak hours for 2040 Projected Conditions – Scenario 4.

Table 9 – Capacity Analysis – 2040 Projected Conditions - Scenario 4

Intersection	AM Peak Hour (LOS (delay))					PM Peak Hour (LOS (delay))				
	EB	WB	NB	SB	Int	EB	WB	NB	SB	Int
Signalized Intersections*										
Shepherd Drive at W 20 th St	D (45.4)	D (37.3)	A (9.8)		C (21.1)	D (35.5)	D (36.7)	C (29.4)		C (31.2)
Durham Drive at W 20 th St	D (46.3)	D (40.3)		C (30.6)	C (32.8)	D (50.5)	D (42.3)		C (23.3)	C (30.5)
Shepherd Drive at W 11 th St	C (31.5)	D (53.9)	C (23.3)		C (34.6)	D (49.0)	E (60.8)	D (54.6)		D (54.3)
Durham Drive at W 11 th St	D (54.9)	D (48.8)		D (48.3)	D (49.6)	D (54.8)	C (33.4)		C (29.4)	D (37.9)

*Signal timing cycle lengths and split timings were optimized

Recommendations

All segments of Shepherd Drive and Durham Drive are projected to be at or near the capacity of a 3-lane Roadway in 2040 with the exception of the segment of Durham Drive between 11th Street and 20th Street which is projected to be at the capacity of a 4-lane Roadway.

Scenario 4 includes the removal of one through lane on Shepherd Drive and Durham Drive as well as various intersection improvements at 11th Street and 20th Street. The signalized intersections of 11th Street and 20th Street at Shepherd Drive and Durham Drive are projected to operate at an acceptable intersection LOS in the AM and PM Peak hours for 2040 Projected Conditions with the improvements in Scenario 4. At 20th Street there is minimal ROW that can be acquired without impact to existing businesses/homes which limits the scope of potential intersection improvements.

Even though several segments of Shepherd Drive and Durham Drive are projected to be near or over capacity of a 3 lane roadway in Scenario 4 the recommended intersections improvements are projected to provide acceptable intersection LOS for 2040 Projected Conditions. It is recommended Scenario 4 be considered for construction.

Appendix

Contents

Appendix A Traffic Counts

Appendix B Annual Growth Calculations

Appendix C Capacity Analysis – Existing Conditions

Appendix D Capacity Analysis–2040 Projected Conditions–Scenario 1

Appendix E Capacity Analysis–2040 Projected Conditions–Scenario 2

Appendix F Capacity Analysis–2040 Projected Conditions–Scenario 3

Appendix G Capacity Analysis–2040 Projected Conditions–Scenario 4

Appendix A

Traffic Counts

Northbound Shpeherd Dr between W 10th St and W 9th St
 October 6, 2016
 Mechanical Vehicle Classification

NORTHBOUND														
Time	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
0:00	29	0	23	6	0	0	0	0	0	0	0	0	0	0
0:15	34	0	29	5	0	0	0	0	0	0	0	0	0	0
0:30	26	0	24	2	0	0	0	0	0	0	0	0	0	0
0:45	24	0	19	5	0	0	0	0	0	0	0	0	0	0
Hr Total	113	0	95	18	0	0	0	0	0	0	0	0	0	0
1:00	15	0	13	2	0	0	0	0	0	0	0	0	0	0
1:15	17	1	14	1	0	0	1	0	0	0	0	0	0	0
1:30	12	0	10	1	0	1	0	0	0	0	0	0	0	0
1:45	4	0	4	0	0	0	0	0	0	0	0	0	0	0
Hr Total	48	1	41	4	0	1	1	0	0	0	0	0	0	0
2:00	4	0	4	0	0	0	0	0	0	0	0	0	0	0
2:15	16	0	15	0	0	0	1	0	0	0	0	0	0	0
2:30	8	0	7	1	0	0	0	0	0	0	0	0	0	0
2:45	8	0	8	0	0	0	0	0	0	0	0	0	0	0
Hr Total	36	0	34	1	0	0	1	0	0	0	0	0	0	0
3:00	7	0	5	2	0	0	0	0	0	0	0	0	0	0
3:15	12	0	11	1	0	0	0	0	0	0	0	0	0	0
3:30	8	0	5	1	1	0	0	0	0	1	0	0	0	0
3:45	2	1	1	0	0	0	0	0	0	0	0	0	0	0
Hr Total	29	1	22	4	1	0	0	0	0	1	0	0	0	0
4:00	6	0	5	1	0	0	0	0	0	0	0	0	0	0
4:15	8	0	7	1	0	0	0	0	0	0	0	0	0	0
4:30	13	0	9	4	0	0	0	0	0	0	0	0	0	0
4:45	15	2	10	0	0	2	0	0	1	0	0	0	0	0
Hr Total	42	2	31	6	0	2	0	0	1	0	0	0	0	0
5:00	24	0	15	5	0	2	1	0	0	1	0	0	0	0
5:15	16	0	15	0	0	0	1	0	0	0	0	0	0	0
5:30	35	0	22	9	1	2	0	0	0	1	0	0	0	0
5:45	63	4	49	6	1	0	0	0	1	2	0	0	0	0
Hr Total	138	4	101	20	2	4	2	0	1	4	0	0	0	0
6:00	78	0	54	17	1	4	0	0	1	1	0	0	0	0
6:15	92	0	66	18	1	3	0	0	2	2	0	0	0	0
6:30	121	1	80	30	3	6	1	0	0	0	0	0	0	0
6:45	144	0	118	18	3	4	0	0	1	0	0	0	0	0
Hr Total	435	1	318	83	8	17	1	0	4	3	0	0	0	0
7:00	181	4	122	40	2	6	5	0	2	0	0	0	0	0
7:15	216	2	159	39	6	7	0	0	0	2	0	1	0	0
7:30	271	2	194	56	3	11	2	0	3	0	0	0	0	0
7:45	284	1	203	68	2	7	1	0	0	2	0	0	0	0
Hr Total	952	9	678	203	13	31	8	0	5	4	0	1	0	0
8:00	276	1	187	64	8	11	3	0	2	0	0	0	0	0
8:15	271	2	197	46	7	13	3	1	2	0	0	0	0	0
8:30	271	0	199	43	6	17	2	0	3	1	0	0	0	0
8:45	273	8	178	74	8	5	0	0	0	0	0	0	0	0
Hr Total	1091	11	761	227	29	46	8	1	7	1	0	0	0	0
9:00	258	3	181	50	3	17	0	0	2	2	0	0	0	0
9:15	251	1	168	61	1	13	3	0	2	2	0	0	0	0
9:30	260	1	180	57	2	14	3	0	1	2	0	0	0	0
9:45	252	2	164	56	1	18	8	0	2	1	0	0	0	0
Hr Total	1021	7	693	224	7	62	14	0	7	7	0	0	0	0
10:00	265	3	172	67	6	13	0	1	3	0	0	0	0	0
10:15	291	2	193	67	2	17	5	0	4	1	0	0	0	0
10:30	237	0	151	59	3	21	1	0	2	0	0	0	0	0
10:45	263	2	188	47	5	16	1	0	4	0	0	0	0	0
Hr Total	1056	7	704	240	16	67	7	1	13	1	0	0	0	0

Northbound Shpheherd Dr between W 10th St and W 9th St
 October 6, 2016
 Mechanical Vehicle Classification

Time	NORTHBOUND													
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
11:00	289	3	187	66	2	23	2	0	6	0	0	0	0	0
11:15	317	1	214	71	7	15	5	0	2	2	0	0	0	0
11:30	300	1	204	73	3	12	3	0	3	1	0	0	0	0
11:45	344	1	251	67	2	14	5	0	4	0	0	0	0	0
Hr Total	1250	6	856	277	14	64	15	0	15	3	0	0	0	0
12:00	335	1	237	67	1	18	6	2	2	1	0	0	0	0
12:15	368	2	262	82	2	15	2	0	1	2	0	0	0	0
12:30	357	1	259	68	2	17	4	1	4	1	0	0	0	0
12:45	355	3	237	88	3	16	4	0	3	1	0	0	0	0
Hr Total	1415	7	995	305	8	66	16	3	10	5	0	0	0	0
13:00	384	4	279	75	6	15	2	0	2	0	0	1	0	0
13:15	316	3	215	66	2	21	3	1	3	2	0	0	0	0
13:30	409	2	295	81	2	20	4	0	2	2	0	1	0	0
13:45	360	3	249	67	5	18	11	0	7	0	0	0	0	0
Hr Total	1469	12	1038	289	15	74	20	1	14	4	0	2	0	0
14:00	350	2	231	84	4	20	3	1	4	1	0	0	0	0
14:15	383	4	270	70	3	27	6	0	2	1	0	0	0	0
14:30	386	4	280	73	1	20	4	0	2	2	0	0	0	0
14:45	383	5	269	79	4	17	3	0	5	1	0	0	0	0
Hr Total	1502	15	1050	306	12	84	16	1	13	5	0	0	0	0
15:00	418	1	283	94	4	19	9	2	6	0	0	0	0	0
15:15	430	0	312	91	3	13	7	0	3	1	0	0	0	0
15:30	467	4	336	94	7	13	8	0	5	0	0	0	0	0
15:45	536	6	378	117	4	20	5	1	4	1	0	0	0	0
Hr Total	1851	11	1309	396	18	65	29	3	18	2	0	0	0	0
16:00	550	2	398	109	4	20	9	2	6	0	0	0	0	0
16:15	564	5	420	103	7	19	4	0	6	0	0	0	0	0
16:30	570	8	422	94	8	19	5	1	10	1	1	1	0	0
16:45	558	12	416	91	8	12	10	4	5	0	0	0	0	0
Hr Total	2242	27	1656	397	27	70	28	7	27	1	1	1	0	0
17:00	545	18	388	101	7	16	7	2	2	2	1	1	0	0
17:15	501	52	311	60	21	22	24	1	9	0	0	0	0	1
17:30	494	27	348	77	14	11	13	2	1	0	0	1	0	0
17:45	554	30	387	83	17	17	13	0	6	0	0	0	0	1
Hr Total	2094	127	1434	321	59	66	57	5	18	2	1	2	0	2
18:00	504	28	348	66	23	21	10	1	4	1	1	0	0	1
18:15	601	10	455	83	12	24	9	2	4	1	0	0	0	1
18:30	573	21	437	75	7	15	13	3	2	0	0	0	0	0
18:45	530	6	411	90	3	5	10	2	3	0	0	0	0	0
Hr Total	2208	65	1651	314	45	65	42	8	13	2	1	0	0	2
19:00	431	1	372	43	1	8	5	0	1	0	0	0	0	0
19:15	393	4	335	36	4	2	7	0	4	0	0	1	0	0
19:30	392	3	319	50	1	11	6	0	2	0	0	0	0	0
19:45	297	3	242	44	0	7	1	0	0	0	0	0	0	0
Hr Total	1513	11	1268	173	6	28	19	0	7	0	0	1	0	0
20:00	281	2	234	36	3	2	4	0	0	0	0	0	0	0
20:15	303	1	260	36	1	4	1	0	0	0	0	0	0	0
20:30	244	2	212	23	2	4	0	0	1	0	0	0	0	0
20:45	314	2	238	65	0	8	1	0	0	0	0	0	0	0
Hr Total	1142	7	944	160	6	18	6	0	1	0	0	0	0	0
21:00	243	1	181	52	1	5	2	0	1	0	0	0	0	0
21:15	219	0	187	26	1	3	2	0	0	0	0	0	0	0
21:30	204	0	172	28	2	0	1	0	0	1	0	0	0	0
21:45	201	1	154	41	2	3	0	0	0	0	0	0	0	0
Hr Total	867	2	694	147	6	11	5	0	1	1	0	0	0	0

Northbound Shpeherd Dr between W 10th St and W 9th St
 October 6, 2016
 Mechanical Vehicle Classification

NORTHBOUND														
Time	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
22:00	156	1	121	30	1	3	0	0	0	0	0	0	0	0
22:15	121	0	93	22	2	3	1	0	0	0	0	0	0	0
22:30	123	0	106	14	1	2	0	0	0	0	0	0	0	0
22:45	100	0	74	17	3	6	0	0	0	0	0	0	0	0
Hr Total	500	1	394	83	7	14	1	0	0	0	0	0	0	0
23:00	77	0	67	8	1	1	0	0	0	0	0	0	0	0
23:15	72	0	61	11	0	0	0	0	0	0	0	0	0	0
23:30	63	0	51	8	1	3	0	0	0	0	0	0	0	0
23:45	49	0	40	7	0	1	0	0	1	0	0	0	0	0
Hr Total	261	0	219	34	2	5	0	0	1	0	0	0	0	0
Gr. Total	23275	334	16986	4232	301	860	296	30	176	46	3	7	0	4
% of Total	100.0%	1.4%	73.0%	18.2%	1.3%	3.7%	1.3%	0.1%	0.8%	0.2%	0.0%	0.0%	0.0%	0.0%
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
NORTHBOUND														

Northbound Shpeherd Dr between W 15th St and W 14th St
 October 6, 2016
 Mechanical Vehicle Classification

NORTHBOUND														
Time	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
0:00	30	0	27	3	0	0	0	0	0	0	0	0	0	0
0:15	27	0	20	7	0	0	0	0	0	0	0	0	0	0
0:30	19	0	18	1	0	0	0	0	0	0	0	0	0	0
0:45	15	0	12	3	0	0	0	0	0	0	0	0	0	0
Hr Total	91	0	77	14	0	0	0	0	0	0	0	0	0	0
1:00	11	0	11	0	0	0	0	0	0	0	0	0	0	0
1:15	13	0	10	1	0	1	0	0	1	0	0	0	0	0
1:30	9	0	9	0	0	0	0	0	0	0	0	0	0	0
1:45	3	0	3	0	0	0	0	0	0	0	0	0	0	0
Hr Total	36	0	33	1	0	1	0	0	1	0	0	0	0	0
2:00	4	0	4	0	0	0	0	0	0	0	0	0	0	0
2:15	13	0	11	0	0	0	1	0	0	1	0	0	0	0
2:30	11	0	9	1	0	1	0	0	0	0	0	0	0	0
2:45	9	0	5	3	0	0	1	0	0	0	0	0	0	0
Hr Total	37	0	29	4	0	1	2	0	0	1	0	0	0	0
3:00	4	0	3	1	0	0	0	0	0	0	0	0	0	0
3:15	7	0	7	0	0	0	0	0	0	0	0	0	0	0
3:30	2	1	1	0	0	0	0	0	0	0	0	0	0	0
3:45	2	0	2	0	0	0	0	0	0	0	0	0	0	0
Hr Total	15	1	13	1	0	0	0	0	0	0	0	0	0	0
4:00	7	0	6	1	0	0	0	0	0	0	0	0	0	0
4:15	12	0	10	2	0	0	0	0	0	0	0	0	0	0
4:30	11	0	8	2	0	0	0	0	0	1	0	0	0	0
4:45	32	0	23	6	0	2	1	0	0	0	0	0	0	0
Hr Total	62	0	47	11	0	2	1	0	0	1	0	0	0	0
5:00	32	0	22	5	1	2	0	0	1	1	0	0	0	0
5:15	38	1	25	8	1	1	1	0	0	1	0	0	0	0
5:30	48	0	37	5	2	2	1	0	0	1	0	0	0	0
5:45	54	1	42	6	1	3	0	0	0	1	0	0	0	0
Hr Total	172	2	126	24	5	8	2	0	1	4	0	0	0	0
6:00	70	0	51	16	1	1	1	0	0	0	0	0	0	0
6:15	72	0	52	14	2	3	0	0	1	0	0	0	0	0
6:30	122	2	85	27	3	3	1	0	0	1	0	0	0	0
6:45	130	0	97	23	1	5	2	0	2	0	0	0	0	0
Hr Total	394	2	285	80	7	12	4	0	3	1	0	0	0	0
7:00	187	1	135	31	6	8	2	0	3	0	0	0	0	1
7:15	249	3	181	46	5	9	4	0	1	0	0	0	0	0
7:30	271	1	190	58	2	12	2	1	4	1	0	0	0	0
7:45	263	1	191	57	4	8	1	0	0	1	0	0	0	0
Hr Total	970	6	697	192	17	37	9	1	8	2	0	0	0	1
8:00	238	2	166	50	6	8	2	0	4	0	0	0	0	0
8:15	258	3	174	56	5	12	5	1	2	0	0	0	0	0
8:30	247	0	164	58	6	12	4	1	0	2	0	0	0	0
8:45	257	3	170	61	5	8	1	1	6	1	0	1	0	0
Hr Total	1000	8	674	225	22	40	12	3	12	3	0	1	0	0
9:00	243	2	153	62	1	16	4	0	5	0	0	0	0	0
9:15	225	0	144	63	1	12	4	0	0	1	0	0	0	0
9:30	248	4	160	59	3	16	2	1	2	1	0	0	0	0
9:45	250	1	150	60	5	20	9	1	2	1	0	1	0	0
Hr Total	966	7	607	244	10	64	19	2	9	3	0	1	0	0
10:00	235	0	145	69	1	13	3	0	3	1	0	0	0	0
10:15	225	2	142	61	2	13	2	1	2	0	0	0	0	0
10:30	204	2	124	55	2	15	3	0	2	0	1	0	0	0
10:45	251	1	159	71	2	11	2	0	3	2	0	0	0	0
Hr Total	915	5	570	256	7	52	10	1	10	3	1	0	0	0

Northbound Shpeherd Dr between W 15th St and W 14th St
 October 6, 2016
 Mechanical Vehicle Classification

Time	NORTHBOUND													
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
11:00	305	0	193	76	1	25	3	0	6	1	0	0	0	0
11:15	284	1	179	80	4	10	6	1	2	1	0	0	0	0
11:30	280	1	190	60	1	18	2	0	5	2	1	0	0	0
11:45	304	2	211	60	1	25	1	0	3	1	0	0	0	0
Hr Total	1173	4	773	276	7	78	12	1	16	5	1	0	0	0
12:00	322	3	217	72	1	20	4	1	2	1	0	0	1	0
12:15	327	5	205	85	4	16	6	1	4	1	0	0	0	0
12:30	311	3	199	81	3	17	3	0	5	0	0	0	0	0
12:45	315	2	216	77	1	10	4	0	4	0	0	1	0	0
Hr Total	1275	13	837	315	9	63	17	2	15	2	0	1	1	0
13:00	309	3	216	60	2	16	6	0	6	0	0	0	0	0
13:15	290	4	183	70	2	15	8	0	6	2	0	0	0	0
13:30	365	3	232	89	1	24	7	2	6	0	1	0	0	0
13:45	334	3	217	84	3	15	5	0	7	0	0	0	0	0
Hr Total	1298	13	848	303	8	70	26	2	25	2	1	0	0	0
14:00	351	3	235	75	2	20	8	0	5	2	0	1	0	0
14:15	378	3	260	75	4	19	9	1	4	2	0	1	0	0
14:30	332	2	223	78	2	11	9	1	5	1	0	0	0	0
14:45	315	0	210	72	2	19	6	1	5	0	0	0	0	0
Hr Total	1376	8	928	300	10	69	32	3	19	5	0	2	0	0
15:00	407	3	268	95	5	17	6	5	6	1	0	1	0	0
15:15	383	3	267	84	4	9	9	1	4	0	0	2	0	0
15:30	481	2	334	100	4	19	10	0	8	2	1	1	0	0
15:45	483	3	337	108	2	17	12	0	4	0	0	0	0	0
Hr Total	1754	11	1206	387	15	62	37	6	22	3	1	4	0	0
16:00	533	3	368	129	3	15	9	0	4	1	0	1	0	0
16:15	525	6	366	114	4	20	8	0	7	0	0	0	0	0
16:30	541	3	390	112	2	17	6	1	10	0	0	0	0	0
16:45	512	7	360	111	6	10	13	2	2	1	0	0	0	0
Hr Total	2111	19	1484	466	15	62	36	3	23	2	0	1	0	0
17:00	593	3	444	99	9	16	17	0	5	0	0	0	0	0
17:15	587	7	451	92	1	12	13	1	7	2	1	0	0	0
17:30	547	10	407	99	2	11	11	3	4	0	0	0	0	0
17:45	587	5	442	100	4	15	11	2	7	0	0	1	0	0
Hr Total	2314	25	1744	390	16	54	52	6	23	2	1	1	0	0
18:00	535	1	405	99	2	18	7	0	2	1	0	0	0	0
18:15	553	7	398	101	4	20	10	3	9	0	0	1	0	0
18:30	514	1	396	84	3	12	8	0	9	0	0	1	0	0
18:45	444	3	345	71	1	10	8	0	5	1	0	0	0	0
Hr Total	2046	12	1544	355	10	60	33	3	25	2	0	2	0	0
19:00	383	2	296	64	2	11	5	1	1	0	0	0	1	0
19:15	322	2	262	46	0	5	5	0	2	0	0	0	0	0
19:30	306	2	247	43	0	6	5	0	1	0	0	2	0	0
19:45	253	1	210	36	0	1	1	0	4	0	0	0	0	0
Hr Total	1264	7	1015	189	2	23	16	1	8	0	0	2	1	0
20:00	240	1	195	37	1	3	3	0	0	0	0	0	0	0
20:15	220	4	181	25	1	5	3	0	1	0	0	0	0	0
20:30	224	0	173	42	0	7	2	0	0	0	0	0	0	0
20:45	234	0	164	58	4	6	2	0	0	0	0	0	0	0
Hr Total	918	5	713	162	6	21	10	0	1	0	0	0	0	0
21:00	187	0	146	32	2	5	2	0	0	0	0	0	0	0
21:15	163	1	134	23	0	4	1	0	0	0	0	0	0	0
21:30	159	1	131	22	2	1	0	0	2	0	0	0	0	0
21:45	142	1	107	30	1	3	0	0	0	0	0	0	0	0
Hr Total	651	3	518	107	5	13	3	0	2	0	0	0	0	0

Northbound Shpeherd Dr between W 15th St and W 14th St
 October 6, 2016
 Mechanical Vehicle Classification

NORTHBOUND														
Time	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
22:00	111	2	88	16	1	4	0	0	0	0	0	0	0	0
22:15	127	0	93	27	1	5	1	0	0	0	0	0	0	0
22:30	87	0	70	16	0	0	1	0	0	0	0	0	0	0
22:45	89	1	65	16	1	5	0	1	0	0	0	0	0	0
Hr Total	414	3	316	75	3	14	2	1	0	0	0	0	0	0
23:00	76	1	59	15	0	0	0	0	0	1	0	0	0	0
23:15	55	0	44	8	0	2	1	0	0	0	0	0	0	0
23:30	48	0	41	2	1	3	1	0	0	0	0	0	0	0
23:45	43	0	32	10	0	1	0	0	0	0	0	0	0	0
Hr Total	222	1	176	35	1	6	2	0	0	1	0	0	0	0
Gr. Total	21474	155	15260	4412	175	812	337	35	223	42	5	15	2	1
% of Total	100.0%	0.7%	71.1%	20.5%	0.8%	3.8%	1.6%	0.2%	1.0%	0.2%	0.0%	0.1%	0.0%	0.0%
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
NORTHBOUND														

Northbound Shepherd Dr between W 22nd St and W 21st St
 October 6, 2016
 Mechanical Vehicle Classification

NORTHBOUND														
Time	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
0:00	22	0	18	4	0	0	0	0	0	0	0	0	0	0
0:15	31	0	25	6	0	0	0	0	0	0	0	0	0	0
0:30	19	0	16	3	0	0	0	0	0	0	0	0	0	0
0:45	15	0	13	2	0	0	0	0	0	0	0	0	0	0
Hr Total	87	0	72	15	0	0	0	0	0	0	0	0	0	0
1:00	19	0	17	2	0	0	0	0	0	0	0	0	0	0
1:15	17	0	12	5	0	0	0	0	0	0	0	0	0	0
1:30	19	0	13	3	0	2	0	0	1	0	0	0	0	0
1:45	14	0	12	1	1	0	0	0	0	0	0	0	0	0
Hr Total	69	0	54	11	1	2	0	0	1	0	0	0	0	0
2:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0
2:15	16	0	14	0	0	0	0	0	2	0	0	0	0	0
2:30	12	0	9	0	0	1	1	0	0	1	0	0	0	0
2:45	11	0	9	2	0	0	0	0	0	0	0	0	0	0
Hr Total	41	0	34	2	0	1	1	0	2	1	0	0	0	0
3:00	11	0	8	2	0	1	0	0	0	0	0	0	0	0
3:15	7	0	5	1	0	0	1	0	0	0	0	0	0	0
3:30	6	0	5	1	0	0	0	0	0	0	0	0	0	0
3:45	5	0	4	0	0	0	0	0	1	0	0	0	0	0
Hr Total	29	0	22	4	0	1	1	0	1	0	0	0	0	0
4:00	11	0	8	2	0	0	1	0	0	0	0	0	0	0
4:15	8	0	6	2	0	0	0	0	0	0	0	0	0	0
4:30	8	0	6	2	0	0	0	0	0	0	0	0	0	0
4:45	21	0	16	4	0	1	0	0	0	0	0	0	0	0
Hr Total	48	0	36	10	0	1	1	0	0	0	0	0	0	0
5:00	39	0	28	8	0	0	1	0	0	2	0	0	0	0
5:15	57	0	40	14	0	2	0	0	1	0	0	0	0	0
5:30	42	0	31	9	1	1	0	0	0	0	0	0	0	0
5:45	69	0	51	9	1	3	0	0	3	2	0	0	0	0
Hr Total	207	0	150	40	2	6	1	0	4	4	0	0	0	0
6:00	70	0	48	19	1	0	1	0	0	1	0	0	0	0
6:15	95	0	64	23	2	3	0	0	3	0	0	0	0	0
6:30	125	0	91	24	2	4	2	0	1	1	0	0	0	0
6:45	152	1	120	22	4	4	0	0	1	0	0	0	0	0
Hr Total	442	1	323	88	9	11	3	0	5	2	0	0	0	0
7:00	177	0	126	35	3	5	4	0	4	0	0	0	0	0
7:15	251	4	180	43	7	12	0	0	4	1	0	0	0	0
7:30	300	1	211	63	7	9	4	0	5	0	0	0	0	0
7:45	268	0	184	52	6	10	5	0	5	2	0	0	0	4
Hr Total	996	5	701	193	23	36	13	0	18	3	0	0	0	4
8:00	256	0	164	64	9	6	6	1	5	0	0	1	0	0
8:15	275	2	177	72	4	13	2	0	4	0	0	0	1	0
8:30	248	0	170	55	7	12	1	0	2	1	0	0	0	0
8:45	268	1	183	61	4	11	3	0	3	2	0	0	0	0
Hr Total	1047	3	694	252	24	42	12	1	14	3	0	1	1	0
9:00	253	0	171	55	6	13	4	0	3	1	0	0	0	0
9:15	248	1	144	80	2	13	6	0	2	0	0	0	0	0
9:30	230	3	148	57	2	12	3	0	4	1	0	0	0	0
9:45	247	0	128	83	6	19	5	0	4	2	0	0	0	0
Hr Total	978	4	591	275	16	57	18	0	13	4	0	0	0	0
10:00	241	0	149	56	5	17	8	1	5	0	0	0	0	0
10:15	275	2	174	78	2	10	4	0	4	1	0	0	0	0
10:30	222	1	132	69	2	17	1	0	0	0	0	0	0	0
10:45	256	0	165	69	3	11	3	1	4	0	0	0	0	0
Hr Total	994	3	620	272	12	55	16	2	13	1	0	0	0	0

Northbound Shepherd Dr between W 22nd St and W 21st St
 October 6, 2016
 Mechanical Vehicle Classification

Time	NORTHBOUND													
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
11:00	321	1	189	97	1	21	2	0	8	2	0	0	0	0
11:15	307	0	217	71	3	10	6	0	0	0	0	0	0	0
11:30	274	0	168	80	1	19	2	1	2	0	0	1	0	0
11:45	341	0	218	91	2	16	4	1	7	2	0	0	0	0
Hr Total	1243	1	792	339	7	66	14	2	17	4	0	1	0	0
12:00	327	3	215	72	1	24	7	0	4	1	0	0	0	0
12:15	350	3	231	91	2	13	4	0	3	2	0	1	0	0
12:30	359	3	229	96	0	21	3	2	3	2	0	0	0	0
12:45	357	1	239	88	3	23	1	0	2	0	0	0	0	0
Hr Total	1393	10	914	347	6	81	15	2	12	5	0	1	0	0
13:00	348	0	239	83	2	17	3	0	4	0	0	0	0	0
13:15	316	3	205	81	1	15	4	2	5	0	0	0	0	0
13:30	386	1	259	88	1	24	6	1	3	2	1	0	0	0
13:45	343	1	236	76	3	17	5	0	3	2	0	0	0	0
Hr Total	1393	5	939	328	7	73	18	3	15	4	1	0	0	0
14:00	344	0	240	74	2	13	3	1	10	1	0	0	0	0
14:15	381	2	262	87	2	19	3	0	2	4	0	0	0	0
14:30	384	1	259	83	5	20	10	0	5	1	0	0	0	0
14:45	346	1	236	77	1	20	7	0	4	0	0	0	0	0
Hr Total	1455	4	997	321	10	72	23	1	21	6	0	0	0	0
15:00	403	2	262	102	1	22	6	0	5	1	0	1	0	1
15:15	451	1	306	95	5	18	5	1	14	3	0	2	0	1
15:30	415	2	284	93	8	7	5	0	13	1	0	1	0	1
15:45	516	4	333	117	11	26	9	2	10	1	1	1	0	1
Hr Total	1785	9	1185	407	25	73	25	3	42	6	1	5	0	4
16:00	507	4	339	129	3	14	9	2	7	0	0	0	0	0
16:15	559	4	367	138	3	24	17	0	5	0	0	0	0	1
16:30	510	1	368	102	5	20	6	2	5	0	0	0	0	1
16:45	497	4	360	103	2	17	6	0	3	1	1	0	0	0
Hr Total	2073	13	1434	472	13	75	38	4	20	1	1	0	0	2
17:00	544	2	401	108	5	16	7	0	4	0	0	0	1	0
17:15	566	2	422	100	4	13	11	1	11	2	0	0	0	0
17:30	532	2	407	89	2	16	8	1	6	0	0	1	0	0
17:45	548	5	404	101	3	14	9	2	9	1	0	0	0	0
Hr Total	2190	11	1634	398	14	59	35	4	30	3	0	1	1	0
18:00	582	4	413	130	3	19	3	0	8	1	0	1	0	0
18:15	488	2	352	97	5	20	4	2	3	2	0	0	0	1
18:30	491	2	362	96	0	19	7	0	3	1	0	1	0	0
18:45	400	2	303	72	2	9	8	0	3	1	0	0	0	0
Hr Total	1961	10	1430	395	10	67	22	2	17	5	0	2	0	1
19:00	360	1	281	58	2	10	4	0	3	1	0	0	0	0
19:15	316	0	235	58	1	12	5	0	4	1	0	0	0	0
19:30	312	0	243	52	1	9	1	1	4	0	0	0	0	1
19:45	265	0	211	48	0	6	0	0	0	0	0	0	0	0
Hr Total	1253	1	970	216	4	37	10	1	11	2	0	0	0	1
20:00	213	2	168	38	2	2	0	0	1	0	0	0	0	0
20:15	258	3	197	45	0	8	3	1	1	0	0	0	0	0
20:30	244	2	197	36	0	6	2	0	1	0	0	0	0	0
20:45	238	1	164	66	1	3	2	0	1	0	0	0	0	0
Hr Total	953	8	726	185	3	19	7	1	4	0	0	0	0	0
21:00	191	0	147	38	1	5	0	0	0	0	0	0	0	0
21:15	161	0	128	25	0	4	2	0	1	0	0	1	0	0
21:30	163	0	138	19	1	3	0	1	1	0	0	0	0	0
21:45	176	0	139	29	2	4	2	0	0	0	0	0	0	0
Hr Total	691	0	552	111	4	16	4	1	2	0	0	1	0	0

Northbound Shepherd Dr between W 22nd St and W 21st St
 October 6, 2016
 Mechanical Vehicle Classification

NORTHBOUND														
Time	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
22:00	130	2	96	27	1	3	1	0	0	0	0	0	0	0
22:15	119	0	92	25	0	2	0	0	0	0	0	0	0	0
22:30	109	1	87	17	1	2	1	0	0	0	0	0	0	0
22:45	90	0	71	15	0	4	0	0	0	0	0	0	0	0
Hr Total	448	3	346	84	2	11	2	0	0	0	0	0	0	0
23:00	75	0	59	12	1	2	0	0	0	1	0	0	0	0
23:15	65	0	50	15	0	0	0	0	0	0	0	0	0	0
23:30	39	0	32	4	1	2	0	0	0	0	0	0	0	0
23:45	45	0	35	6	0	3	0	0	0	1	0	0	0	0
Hr Total	224	0	176	37	2	7	0	0	0	2	0	0	0	0
Gr. Total	22000	91	15392	4802	194	868	279	27	262	56	3	12	2	12
% of Total	100.0%	0.4%	70.0%	21.8%	0.9%	3.9%	1.3%	0.1%	1.2%	0.3%	0.0%	0.1%	0.0%	0.1%
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
NORTHBOUND														

Southbound Durham Dr between W 15th St and W 16th St

October 6, 2016

Mechanical Vehicle Classification

Time	SOUTHBOUND													
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
0:00	51	1	40	7	0	3	0	0	0	0	0	0	0	0
0:15	42	1	35	5	0	1	0	0	0	0	0	0	0	0
0:30	30	1	21	6	0	1	1	0	0	0	0	0	0	0
0:45	24	0	18	6	0	0	0	0	0	0	0	0	0	0
Hr Total	147	3	114	24	0	5	1	0	0	0	0	0	0	0
1:00	20	0	16	4	0	0	0	0	0	0	0	0	0	0
1:15	11	0	9	2	0	0	0	0	0	0	0	0	0	0
1:30	7	0	6	1	0	0	0	0	0	0	0	0	0	0
1:45	10	0	8	2	0	0	0	0	0	0	0	0	0	0
Hr Total	48	0	39	9	0	0	0	0	0	0	0	0	0	0
2:00	7	0	6	1	0	0	0	0	0	0	0	0	0	0
2:15	19	0	15	3	0	1	0	0	0	0	0	0	0	0
2:30	17	0	13	4	0	0	0	0	0	0	0	0	0	0
2:45	14	0	12	2	0	0	0	0	0	0	0	0	0	0
Hr Total	57	0	46	10	0	1	0	0	0	0	0	0	0	0
3:00	13	0	10	3	0	0	0	0	0	0	0	0	0	0
3:15	10	0	9	1	0	0	0	0	0	0	0	0	0	0
3:30	9	0	7	2	0	0	0	0	0	0	0	0	0	0
3:45	11	0	8	3	0	0	0	0	0	0	0	0	0	0
Hr Total	43	0	34	9	0	0	0	0	0	0	0	0	0	0
4:00	4	0	3	1	0	0	0	0	0	0	0	0	0	0
4:15	28	1	22	3	0	1	0	0	1	0	0	0	0	0
4:30	35	0	29	5	0	0	0	0	1	0	0	0	0	0
4:45	45	1	33	8	0	2	1	0	0	0	0	0	0	0
Hr Total	112	2	87	17	0	3	1	0	2	0	0	0	0	0
5:00	73	2	52	16	1	2	0	0	0	0	0	0	0	0
5:15	89	3	67	15	1	2	0	0	1	0	0	0	0	0
5:30	155	5	109	31	2	6	1	0	1	0	0	0	0	0
5:45	206	5	149	34	4	9	2	0	3	0	0	0	0	0
Hr Total	523	15	377	96	8	19	3	0	5	0	0	0	0	0
6:00	266	8	177	59	3	11	3	0	4	0	0	1	0	0
6:15	304	8	205	70	3	9	4	0	4	1	0	0	0	0
6:30	416	20	280	87	7	11	6	1	3	0	0	0	0	1
6:45	485	32	337	78	7	15	4	1	10	0	0	0	0	1
Hr Total	1471	68	999	294	20	46	17	2	21	1	0	1	0	2
7:00	575	38	399	92	5	23	6	0	10	2	0	0	0	0
7:15	602	43	424	93	8	17	7	1	6	2	0	1	0	0
7:30	649	45	453	99	10	26	7	1	5	1	0	2	0	0
7:45	583	46	402	95	4	22	8	0	6	0	0	0	0	0
Hr Total	2409	172	1678	379	27	88	28	2	27	5	0	3	0	0
8:00	590	32	408	106	5	20	9	0	6	2	1	1	0	0
8:15	576	38	389	98	5	22	10	3	9	1	0	1	0	0
8:30	569	51	378	88	4	24	11	2	8	2	1	0	0	0
8:45	529	32	361	98	4	17	12	0	4	1	0	0	0	0
Hr Total	2264	153	1536	390	18	83	42	5	27	6	2	2	0	0
9:00	584	37	389	109	6	22	10	1	9	1	0	0	0	0
9:15	532	29	361	93	6	30	5	0	8	0	0	0	0	0
9:30	471	23	319	90	5	20	8	0	4	2	0	0	0	0
9:45	477	25	334	81	3	22	8	0	3	1	0	0	0	0
Hr Total	2064	114	1403	373	20	94	31	1	24	4	0	0	0	0
10:00	504	23	355	98	3	15	5	1	2	0	1	0	0	1
10:15	414	14	278	89	4	19	5	0	4	0	1	0	0	0
10:30	454	25	304	93	3	20	4	1	3	1	0	0	0	0
10:45	465	23	306	100	6	21	4	0	4	1	0	0	0	0
Hr Total	1837	85	1243	380	16	75	18	2	13	2	2	0	0	1

Southbound Durham Dr between W 15th St and W 16th St

October 6, 2016

Mechanical Vehicle Classification

Time	SOUTHBOUND													
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
11:00	477	23	330	96	4	16	3	0	4	0	0	1	0	0
11:15	468	23	320	92	5	19	6	0	3	0	0	0	0	0
11:30	445	19	312	82	3	17	5	0	6	1	0	0	0	0
11:45	518	22	361	96	4	22	7	1	5	0	0	0	0	0
Hr Total	1908	87	1323	366	16	74	21	1	18	1	0	1	0	0
12:00	417	18	289	76	6	16	7	0	4	1	0	0	0	0
12:15	489	21	340	81	10	19	9	0	7	2	0	0	0	0
12:30	421	15	291	83	2	21	7	0	2	0	0	0	0	0
12:45	508	23	347	102	5	19	4	0	8	0	0	0	0	0
Hr Total	1835	77	1267	342	23	75	27	0	21	3	0	0	0	0
13:00	411	11	288	78	5	21	2	0	4	1	0	0	1	0
13:15	428	16	297	91	2	14	3	0	5	0	0	0	0	0
13:30	480	18	334	89	4	16	9	0	8	1	1	0	0	0
13:45	423	22	292	70	5	18	6	2	6	2	0	0	0	0
Hr Total	1742	67	1211	328	16	69	20	2	23	4	1	0	1	0
14:00	423	14	296	79	7	18	3	0	5	0	1	0	0	0
14:15	438	13	306	83	3	19	4	0	9	0	1	0	0	0
14:30	424	11	302	84	6	14	4	0	3	0	0	0	0	0
14:45	392	12	286	70	6	6	2	0	8	2	0	0	0	0
Hr Total	1677	50	1190	316	22	57	13	0	25	2	2	0	0	0
15:00	407	21	281	77	5	15	3	0	5	0	0	0	0	0
15:15	439	13	317	75	8	14	7	0	5	0	0	0	0	0
15:30	421	11	298	80	10	13	4	1	4	0	0	0	0	0
15:45	422	19	298	72	6	13	5	0	9	0	0	0	0	0
Hr Total	1689	64	1194	304	29	55	19	1	23	0	0	0	0	0
16:00	424	11	312	74	8	12	3	0	4	0	0	0	0	0
16:15	428	15	297	77	5	18	7	0	8	0	0	0	0	1
16:30	424	14	320	62	4	12	4	1	6	0	0	1	0	0
16:45	446	16	342	65	5	8	5	0	5	0	0	0	0	0
Hr Total	1722	56	1271	278	22	50	19	1	23	0	0	1	0	1
17:00	448	15	329	76	7	12	6	0	3	0	0	0	0	0
17:15	488	19	369	75	7	11	3	0	4	0	0	0	0	0
17:30	507	21	370	85	7	11	7	1	4	0	0	1	0	0
17:45	470	14	343	77	5	18	6	1	6	0	0	0	0	0
Hr Total	1913	69	1411	313	26	52	22	2	17	0	0	1	0	0
18:00	476	22	352	76	5	12	5	0	4	0	0	0	0	0
18:15	435	17	323	66	6	12	6	0	4	0	0	1	0	0
18:30	437	13	341	61	4	11	3	0	4	0	0	0	0	0
18:45	403	10	302	69	6	10	2	0	3	0	1	0	0	0
Hr Total	1751	62	1318	272	21	45	16	0	15	0	1	1	0	0
19:00	355	11	272	61	2	5	1	0	3	0	0	0	0	0
19:15	324	14	246	48	2	7	5	0	2	0	0	0	0	0
19:30	372	16	272	70	1	10	2	0	1	0	0	0	0	0
19:45	269	6	218	35	2	5	2	0	1	0	0	0	0	0
Hr Total	1320	47	1008	214	7	27	10	0	7	0	0	0	0	0
20:00	273	8	202	50	1	7	1	0	3	1	0	0	0	0
20:15	221	5	175	30	2	4	2	0	3	0	0	0	0	0
20:30	184	3	145	29	1	3	2	0	1	0	0	0	0	0
20:45	194	3	151	30	2	6	1	0	1	0	0	0	0	0
Hr Total	872	19	673	139	6	20	6	0	8	1	0	0	0	0
21:00	187	3	149	26	1	6	1	0	1	0	0	0	0	0
21:15	192	5	144	32	3	4	2	0	2	0	0	0	0	0
21:30	181	3	137	33	1	3	1	0	3	0	0	0	0	0
21:45	147	3	121	20	1	1	1	0	0	0	0	0	0	0
Hr Total	707	14	551	111	6	14	5	0	6	0	0	0	0	0

Southbound Durham Dr between W 15th St and W 16th St

October 6, 2016

Mechanical Vehicle Classification

SOUTHBOUND														
Time	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
22:00	79	0	64	13	0	2	0	0	0	0	0	0	0	0
22:15	97	2	77	15	1	2	0	0	0	0	0	0	0	0
22:30	68	0	57	11	0	0	0	0	0	0	0	0	0	0
22:45	62	0	47	12	1	2	0	0	0	0	0	0	0	0
Hr Total	306	2	245	51	2	6	0	0	0	0	0	0	0	0
23:00	64	0	50	13	0	1	0	0	0	0	0	0	0	0
23:15	37	0	29	6	1	1	0	0	0	0	0	0	0	0
23:30	28	0	20	6	0	1	0	0	0	1	0	0	0	0
23:45	48	0	40	8	0	0	0	0	0	0	0	0	0	0
Hr Total	177	0	139	33	1	3	0	0	0	1	0	0	0	0
Gr. Total	28594	1226	20357	5048	306	961	319	19	305	30	8	10	1	4
% of Total	100.0%	4.3%	71.2%	17.7%	1.1%	3.4%	1.1%	0.1%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
SOUTHBOUND														

Southbound Durham Dr between W 25th St and W 24th St

October 6, 2016

Mechanical Vehicle Classification

SOUTHBOUND														
Time	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
0:00	21	0	18	3	0	0	0	0	0	0	0	0	0	0
0:15	26	0	22	2	0	2	0	0	0	0	0	0	0	0
0:30	10	0	7	3	0	0	0	0	0	0	0	0	0	0
0:45	13	0	10	2	0	0	0	0	0	1	0	0	0	0
Hr Total	70	0	57	10	0	2	0	0	0	1	0	0	0	0
1:00	13	0	9	4	0	0	0	0	0	0	0	0	0	0
1:15	7	0	6	0	0	1	0	0	0	0	0	0	0	0
1:30	2	0	1	1	0	0	0	0	0	0	0	0	0	0
1:45	5	0	3	2	0	0	0	0	0	0	0	0	0	0
Hr Total	27	0	19	7	0	1	0	0	0	0	0	0	0	0
2:00	8	0	7	1	0	0	0	0	0	0	0	0	0	0
2:15	7	0	4	2	0	1	0	0	0	0	0	0	0	0
2:30	8	0	7	0	0	1	0	0	0	0	0	0	0	0
2:45	9	0	7	2	0	0	0	0	0	0	0	0	0	0
Hr Total	32	0	25	5	0	2	0	0	0	0	0	0	0	0
3:00	9	0	5	3	0	1	0	0	0	0	0	0	0	0
3:15	11	0	9	1	0	0	0	0	1	0	0	0	0	0
3:30	9	0	8	1	0	0	0	0	0	0	0	0	0	0
3:45	9	0	6	1	0	1	1	0	0	0	0	0	0	0
Hr Total	38	0	28	6	0	2	1	0	1	0	0	0	0	0
4:00	9	0	5	1	1	1	1	0	0	0	0	0	0	0
4:15	18	0	13	4	0	1	0	0	0	0	0	0	0	0
4:30	22	1	13	6	0	2	0	0	0	0	0	0	0	0
4:45	30	0	21	6	0	2	1	0	0	0	0	0	0	0
Hr Total	79	1	52	17	1	6	2	0	0	0	0	0	0	0
5:00	51	0	34	15	0	2	0	0	0	0	0	0	0	0
5:15	58	0	38	12	1	6	0	0	1	0	0	0	0	0
5:30	112	1	74	23	2	10	0	0	2	0	0	0	0	0
5:45	134	0	88	32	2	9	2	0	1	0	0	0	0	0
Hr Total	355	1	234	82	5	27	2	0	4	0	0	0	0	0
6:00	195	4	108	58	1	21	0	0	3	0	0	0	0	0
6:15	219	1	138	56	3	12	3	1	4	1	0	0	0	0
6:30	293	3	183	75	3	23	4	0	1	0	1	0	0	0
6:45	374	9	242	84	4	22	5	0	8	0	0	0	0	0
Hr Total	1081	17	671	273	11	78	12	1	16	1	1	0	0	0
7:00	475	4	326	102	3	28	6	0	3	2	1	0	0	0
7:15	520	10	344	112	5	32	5	1	8	1	1	0	1	0
7:30	518	4	348	112	4	31	5	3	10	1	0	0	0	0
7:45	587	6	394	127	4	35	6	0	12	1	1	0	0	1
Hr Total	2100	24	1412	453	16	126	22	4	33	5	3	0	1	1
8:00	541	8	343	128	4	32	8	2	9	3	3	1	0	0
8:15	526	9	311	136	4	41	12	1	8	1	1	1	1	0
8:30	449	7	279	96	3	39	11	2	9	1	0	2	0	0
8:45	482	9	290	121	9	33	5	2	12	0	0	0	1	0
Hr Total	1998	33	1223	481	20	145	36	7	38	5	4	4	2	0
9:00	431	4	248	108	7	44	5	1	9	2	1	1	0	1
9:15	371	1	213	101	2	38	9	1	5	1	0	0	0	0
9:30	323	6	182	81	5	35	6	0	6	1	1	0	0	0
9:45	327	6	205	73	6	27	4	0	4	1	1	0	0	0
Hr Total	1452	17	848	363	20	144	24	2	24	5	3	1	0	1
10:00	306	1	193	75	1	25	5	0	4	1	1	0	0	0
10:15	277	6	156	81	2	23	1	0	6	1	1	0	0	0
10:30	274	3	169	68	5	17	6	0	5	1	0	0	0	0
10:45	322	2	198	84	4	30	3	0	1	0	0	0	0	0
Hr Total	1179	12	716	308	12	95	15	0	16	3	2	0	0	0

Southbound Durham Dr between W 25th St and W 24th St

October 6, 2016

Mechanical Vehicle Classification

Time	SOUTHBOUND													
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
11:00	316	3	195	85	2	25	1	1	3	0	0	0	0	1
11:15	337	5	198	90	3	31	5	0	4	1	0	0	0	0
11:30	329	5	205	81	0	23	9	0	5	1	0	0	0	0
11:45	336	2	199	99	2	21	3	2	6	1	0	0	1	0
Hr Total	1318	15	797	355	7	100	18	3	18	3	0	0	1	1
12:00	274	2	164	76	3	20	1	1	6	0	1	0	0	0
12:15	373	2	223	100	5	33	5	0	4	1	0	0	0	0
12:30	340	4	222	82	2	20	3	0	6	1	0	0	0	0
12:45	333	4	207	83	2	28	4	0	5	0	0	0	0	0
Hr Total	1320	12	816	341	12	101	13	1	21	2	1	0	0	0
13:00	298	2	184	73	3	27	4	1	3	1	0	0	0	0
13:15	301	3	199	73	1	22	2	1	0	0	0	0	0	0
13:30	325	6	217	69	2	19	5	1	2	1	3	0	0	0
13:45	279	6	182	62	3	18	4	0	3	1	0	0	0	0
Hr Total	1203	17	782	277	9	86	15	3	8	3	3	0	0	0
14:00	257	1	165	59	1	22	4	0	4	1	0	0	0	0
14:15	290	1	167	90	1	24	6	0	1	0	0	0	0	0
14:30	296	1	185	77	4	16	5	0	4	2	2	0	0	0
14:45	289	2	188	78	2	12	1	0	4	2	0	0	0	0
Hr Total	1132	5	705	304	8	74	16	0	13	5	2	0	0	0
15:00	333	6	204	82	7	25	2	0	4	1	1	1	0	0
15:15	339	3	233	77	3	15	3	1	3	0	1	0	0	0
15:30	336	8	226	75	1	19	5	0	2	0	0	0	0	0
15:45	314	4	210	74	3	18	3	0	2	0	0	0	0	0
Hr Total	1322	21	873	308	14	77	13	1	11	1	2	1	0	0
16:00	308	2	196	75	4	21	5	1	4	0	0	0	0	0
16:15	357	1	235	83	2	25	3	0	7	1	0	0	0	0
16:30	375	8	258	74	4	21	3	0	6	0	1	0	0	0
16:45	374	5	269	76	2	14	3	1	4	0	0	0	0	0
Hr Total	1414	16	958	308	12	81	14	2	21	1	1	0	0	0
17:00	381	6	268	71	7	17	5	0	7	0	0	0	0	0
17:15	382	10	270	70	2	23	2	1	3	0	1	0	0	0
17:30	397	5	283	79	3	21	3	0	3	0	0	0	0	0
17:45	390	6	285	64	2	20	3	1	7	1	1	0	0	0
Hr Total	1550	27	1106	284	14	81	13	2	20	1	2	0	0	0
18:00	370	3	273	65	0	21	3	0	4	0	1	0	0	0
18:15	350	5	262	61	1	16	3	1	1	0	0	0	0	0
18:30	340	4	262	55	0	15	3	0	1	0	0	0	0	0
18:45	328	5	237	64	2	16	1	0	3	0	0	0	0	0
Hr Total	1388	17	1034	245	3	68	10	1	9	0	1	0	0	0
19:00	244	1	195	37	1	8	0	0	2	0	0	0	0	0
19:15	253	4	186	53	1	9	0	0	0	0	0	0	0	0
19:30	236	0	171	48	1	13	1	0	2	0	0	0	0	0
19:45	195	1	150	28	1	12	2	0	1	0	0	0	0	0
Hr Total	928	6	702	166	4	42	3	0	5	0	0	0	0	0
20:00	153	0	117	27	0	4	1	1	2	1	0	0	0	0
20:15	153	0	113	32	1	6	0	0	1	0	0	0	0	0
20:30	155	6	117	26	0	6	0	0	0	0	0	0	0	0
20:45	135	6	101	21	0	6	0	0	1	0	0	0	0	0
Hr Total	596	12	448	106	1	22	1	1	4	1	0	0	0	0
21:00	132	0	99	24	0	9	0	0	0	0	0	0	0	0
21:15	139	0	100	31	2	6	0	0	0	0	0	0	0	0
21:30	113	0	85	25	0	1	0	0	1	1	0	0	0	0
21:45	96	2	75	12	1	5	1	0	0	0	0	0	0	0
Hr Total	480	2	359	92	3	21	1	0	1	1	0	0	0	0

Southbound Durham Dr between W 25th St and W 24th St

October 6, 2016

Mechanical Vehicle Classification

SOUTHBOUND														
Time	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
22:00	72	1	55	12	0	4	0	0	0	0	0	0	0	0
22:15	74	0	52	16	1	5	0	0	0	0	0	0	0	0
22:30	63	0	44	18	0	1	0	0	0	0	0	0	0	0
22:45	51	0	39	8	1	3	0	0	0	0	0	0	0	0
Hr Total	260	1	190	54	2	13	0	0	0	0	0	0	0	0
23:00	43	1	30	10	0	1	1	0	0	0	0	0	0	0
23:15	39	0	32	5	1	1	0	0	0	0	0	0	0	0
23:30	30	0	16	12	1	1	0	0	0	0	0	0	0	0
23:45	43	1	32	8	0	1	0	0	1	0	0	0	0	0
Hr Total	155	2	110	35	2	4	1	0	1	0	0	0	0	0
Gr. Total	21477	258	14165	4880	176	1398	232	28	264	38	25	6	4	3
% of Total	100.0%	1.2%	66.0%	22.7%	0.8%	6.5%	1.1%	0.1%	1.2%	0.2%	0.1%	0.0%	0.0%	0.0%
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
SOUTHBOUND														

Southbound Durham Dr near LarkinSt

October 6, 2016

Mechanical Vehicle Classification

SOUTHBOUND														
Time	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
0:00	21	0	18	3	0	0	0	0	0	0	0	0	0	0
0:15	21	0	20	1	0	0	0	0	0	0	0	0	0	0
0:30	18	0	14	2	0	1	0	0	1	0	0	0	0	0
0:45	16	0	11	4	0	1	0	0	0	0	0	0	0	0
Hr Total	76	0	63	10	0	2	0	0	1	0	0	0	0	0
1:00	6	0	4	2	0	0	0	0	0	0	0	0	0	0
1:15	15	0	12	2	0	1	0	0	0	0	0	0	0	0
1:30	4	0	2	2	0	0	0	0	0	0	0	0	0	0
1:45	7	1	4	0	0	0	1	0	0	1	0	0	0	0
Hr Total	32	1	22	6	0	1	1	0	0	1	0	0	0	0
2:00	7	0	6	1	0	0	0	0	0	0	0	0	0	0
2:15	9	0	7	1	0	1	0	0	0	0	0	0	0	0
2:30	8	0	6	1	0	1	0	0	0	0	0	0	0	0
2:45	6	0	3	3	0	0	0	0	0	0	0	0	0	0
Hr Total	30	0	22	6	0	2	0	0	0	0	0	0	0	0
3:00	7	0	5	2	0	0	0	0	0	0	0	0	0	0
3:15	8	0	3	5	0	0	0	0	0	0	0	0	0	0
3:30	10	0	8	2	0	0	0	0	0	0	0	0	0	0
3:45	8	0	5	3	0	0	0	0	0	0	0	0	0	0
Hr Total	33	0	21	12	0	0	0	0	0	0	0	0	0	0
4:00	5	0	3	2	0	0	0	0	0	0	0	0	0	0
4:15	14	0	8	4	0	1	0	0	0	1	0	0	0	0
4:30	19	0	16	2	1	0	0	0	0	0	0	0	0	0
4:45	38	0	31	5	0	2	0	0	0	0	0	0	0	0
Hr Total	76	0	58	13	1	3	0	0	0	1	0	0	0	0
5:00	38	0	22	13	1	0	2	0	0	0	0	0	0	0
5:15	63	0	45	10	1	4	1	0	1	1	0	0	0	0
5:30	101	0	76	22	1	2	0	0	0	0	0	0	0	0
5:45	141	1	101	26	1	8	1	0	2	0	1	0	0	0
Hr Total	343	1	244	71	4	14	4	0	3	1	1	0	0	0
6:00	189	0	142	39	3	4	1	0	0	0	0	0	0	0
6:15	228	2	152	52	0	16	1	1	4	0	0	0	0	0
6:30	341	5	231	79	1	13	3	1	5	3	0	0	0	0
6:45	462	2	342	88	3	12	7	0	6	1	1	0	0	0
Hr Total	1220	9	867	258	7	45	12	2	15	4	1	0	0	0
7:00	525	10	383	89	5	16	8	0	11	1	1	1	0	0
7:15	575	14	426	83	15	24	8	0	5	0	0	0	0	0
7:30	545	19	374	89	12	28	9	5	4	2	1	1	0	1
7:45	517	19	365	82	3	22	16	0	9	1	0	0	0	0
Hr Total	2162	62	1548	343	35	90	41	5	29	4	2	2	0	1
8:00	545	17	363	103	0	29	14	2	11	4	2	0	0	0
8:15	458	24	295	89	7	24	10	0	6	1	1	1	0	0
8:30	459	18	310	78	5	28	11	0	7	2	0	0	0	0
8:45	541	19	376	100	6	20	14	0	3	1	2	0	0	0
Hr Total	2003	78	1344	370	18	101	49	2	27	8	5	1	0	0
9:00	430	7	293	81	7	23	5	1	12	1	0	0	0	0
9:15	396	6	256	95	4	27	3	2	3	0	0	0	0	0
9:30	342	4	227	69	4	21	6	1	6	2	2	0	0	0
9:45	354	2	249	70	1	23	5	1	1	2	0	0	0	0
Hr Total	1522	19	1025	315	16	94	19	5	22	5	2	0	0	0
10:00	285	2	183	66	4	16	4	0	10	0	0	0	0	0
10:15	321	3	215	78	3	16	1	0	4	1	0	0	0	0
10:30	300	1	187	76	2	26	5	0	2	1	0	0	0	0
10:45	322	2	204	79	5	24	4	0	3	0	1	0	0	0
Hr Total	1228	8	789	299	14	82	14	0	19	2	1	0	0	0

Southbound Durham Dr near LarkinSt

October 6, 2016

Mechanical Vehicle Classification

Time	SOUTHBOUND													
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
11:00	325	0	220	74	2	19	3	0	6	1	0	0	0	0
11:15	337	5	222	82	2	17	3	1	5	0	0	0	0	0
11:30	369	1	226	105	3	20	6	1	4	2	1	0	0	0
11:45	362	2	254	76	1	16	6	1	6	0	0	0	0	0
Hr Total	1393	8	922	337	8	72	18	3	21	3	1	0	0	0
12:00	332	7	214	78	4	17	2	0	8	1	0	1	0	0
12:15	368	6	261	71	2	22	3	0	3	0	0	0	0	0
12:30	361	2	243	85	4	22	2	0	3	0	0	0	0	0
12:45	334	3	218	78	2	22	4	1	4	2	0	0	0	0
Hr Total	1395	18	936	312	12	83	11	1	18	3	0	1	0	0
13:00	357	6	224	83	8	30	3	0	1	0	1	0	1	0
13:15	347	3	243	67	1	23	4	0	6	0	0	0	0	0
13:30	321	2	223	77	2	9	1	1	4	1	1	0	0	0
13:45	360	5	239	76	3	25	4	0	5	2	0	1	0	0
Hr Total	1385	16	929	303	14	87	12	1	16	3	2	1	1	0
14:00	274	0	197	55	3	11	2	2	4	0	0	0	0	0
14:15	342	2	242	60	2	25	3	0	6	1	1	0	0	0
14:30	310	3	207	66	1	25	6	0	2	0	0	0	0	0
14:45	321	5	215	81	2	12	3	0	3	0	0	0	0	0
Hr Total	1247	10	861	262	8	73	14	2	15	1	1	0	0	0
15:00	283	2	211	54	3	9	1	0	2	1	0	0	0	0
15:15	353	3	239	79	4	19	2	0	6	0	1	0	0	0
15:30	360	7	252	74	1	16	6	1	3	0	0	0	0	0
15:45	356	2	246	81	3	10	6	0	6	0	1	0	1	0
Hr Total	1352	14	948	288	11	54	15	1	17	1	2	0	1	0
16:00	349	4	245	68	4	21	3	1	2	0	0	0	0	1
16:15	357	3	256	71	3	15	3	1	5	0	0	0	0	0
16:30	338	10	248	61	0	9	5	0	4	1	0	0	0	0
16:45	391	2	301	71	1	8	3	1	3	0	0	1	0	0
Hr Total	1435	19	1050	271	8	53	14	3	14	1	0	1	0	1
17:00	397	5	290	74	3	14	3	1	7	0	0	0	0	0
17:15	417	7	305	69	7	15	6	1	6	0	1	0	0	0
17:30	391	7	284	69	2	20	4	1	2	0	1	0	1	0
17:45	416	8	312	67	1	16	5	0	5	0	1	1	0	0
Hr Total	1621	27	1191	279	13	65	18	3	20	0	3	1	1	0
18:00	408	3	319	65	0	16	2	1	2	0	0	0	0	0
18:15	387	11	303	57	0	5	4	0	6	1	0	0	0	0
18:30	364	3	290	56	1	10	1	1	1	0	0	0	1	0
18:45	391	4	299	73	1	9	3	0	1	0	0	0	1	0
Hr Total	1550	21	1211	251	2	40	10	2	10	1	0	0	2	0
19:00	328	1	263	52	1	7	2	0	2	0	0	0	0	0
19:15	317	1	259	52	1	2	2	0	0	0	0	0	0	0
19:30	290	3	226	44	1	12	2	0	1	0	1	0	0	0
19:45	293	0	235	47	1	6	2	0	1	1	0	0	0	0
Hr Total	1228	5	983	195	4	27	8	0	4	1	1	0	0	0
20:00	245	0	199	40	1	4	1	0	0	0	0	0	0	0
20:15	190	0	140	36	0	11	1	0	1	1	0	0	0	0
20:30	162	0	138	22	0	2	0	0	0	0	0	0	0	0
20:45	274	0	190	70	0	8	5	0	1	0	0	0	0	0
Hr Total	871	0	667	168	1	25	7	0	2	1	0	0	0	0
21:00	224	1	164	48	0	10	1	0	0	0	0	0	0	0
21:15	165	0	130	27	0	6	1	1	0	0	0	0	0	0
21:30	160	0	126	30	3	1	0	0	0	0	0	0	0	0
21:45	228	1	192	31	0	3	0	0	0	1	0	0	0	0
Hr Total	777	2	612	136	3	20	2	1	0	1	0	0	0	0

Southbound Durham Dr near LarkinSt

October 6, 2016

Mechanical Vehicle Classification

SOUTHBOUND														
Time	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
22:00	149	0	119	26	1	3	0	0	0	0	0	0	0	0
22:15	103	0	82	14	1	4	1	0	1	0	0	0	0	0
22:30	101	1	84	13	1	2	0	0	0	0	0	0	0	0
22:45	72	0	57	14	0	1	0	0	0	0	0	0	0	0
Hr Total	425	1	342	67	3	10	1	0	1	0	0	0	0	0
23:00	53	0	44	7	1	1	0	0	0	0	0	0	0	0
23:15	54	0	42	9	1	2	0	0	0	0	0	0	0	0
23:30	28	0	21	4	0	2	0	0	0	1	0	0	0	0
23:45	40	3	34	3	0	0	0	0	0	0	0	0	0	0
Hr Total	175	3	141	23	2	5	0	0	0	1	0	0	0	0
Gr. Total	23579	322	16796	4595	184	1048	270	31	254	43	22	7	5	2
% of Total	100.0%	1.4%	71.2%	19.5%	0.8%	4.4%	1.1%	0.1%	1.1%	0.2%	0.1%	0.0%	0.0%	0.0%
	Total	Bikes	Cars & Trailers	2 Axle, Long	Buses	2 Axle, 6 Tire	3 Axle, Single	4 Axle, Single	<5 Axle, Double	5 Axle, Double	>6 Axle, Double	<6 Axle, Multi	6 Axle, Multi	>6 Axle, Multi
SOUTHBOUND														



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Count Name: N Shepherd Dr at W 11th St
Site Code:
Start Date: 10/11/2016
Page No: 1

Turning Movement Data

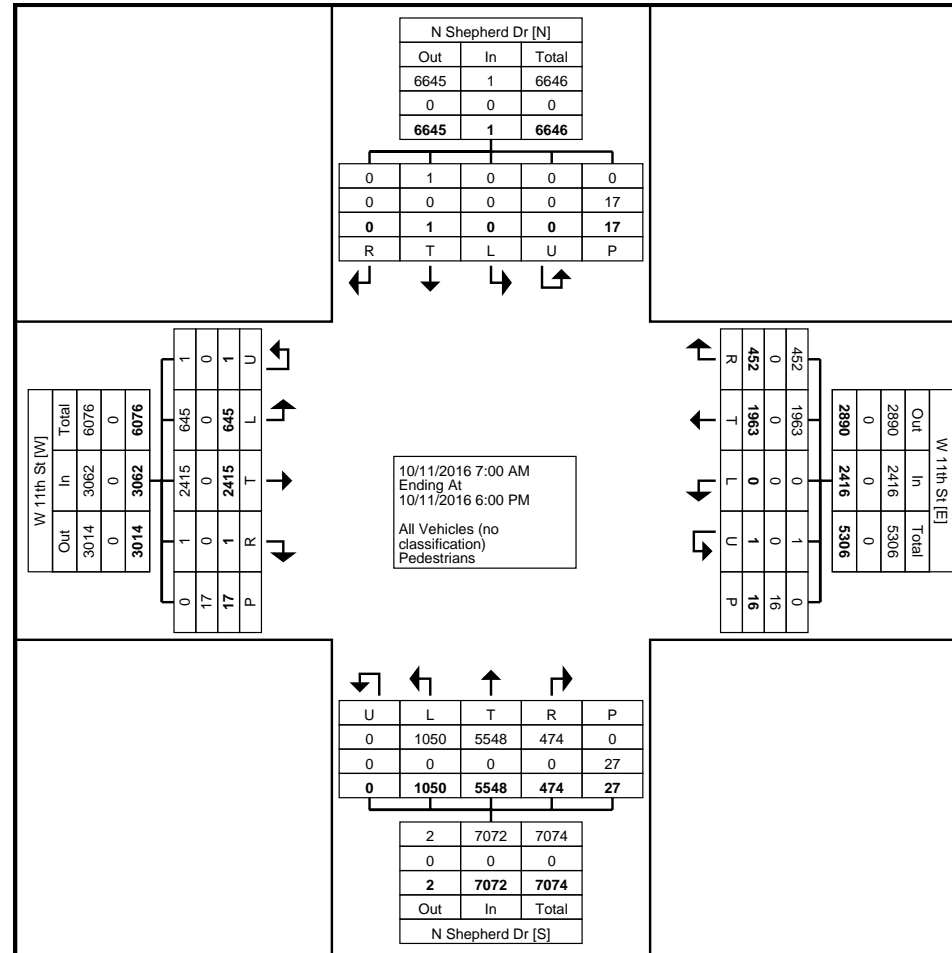
Start Time	N Shepherd Dr Southbound						W 11th St Westbound						N Shepherd Dr Northbound						W 11th St Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	0	0	0	0	0	0	0	72	14	0	1	86	40	147	13	0	0	200	17	80	0	0	0	97	383
7:15 AM	0	0	0	0	0	0	0	138	23	0	0	161	33	154	16	0	2	203	28	120	0	0	2	148	512
7:30 AM	0	0	0	0	1	0	0	137	13	0	2	150	40	228	35	0	0	303	36	136	0	0	2	172	625
7:45 AM	0	0	0	0	1	0	0	188	30	0	1	218	59	217	28	0	1	304	28	148	0	0	1	176	698
Hourly Total	0	0	0	0	2	0	0	535	80	0	4	615	172	746	92	0	3	1010	109	484	0	0	5	593	2218
8:00 AM	0	0	0	0	0	0	0	129	25	0	0	154	56	239	26	0	0	321	19	127	0	0	0	146	621
8:15 AM	0	0	0	0	0	0	0	141	38	0	0	179	59	195	40	0	1	294	25	138	1	0	0	164	637
8:30 AM	0	0	0	0	0	0	0	109	14	0	0	123	41	218	26	0	3	285	17	101	0	0	0	118	526
8:45 AM	0	0	0	0	0	0	0	88	29	0	2	117	37	178	34	0	3	249	22	109	0	0	0	131	497
Hourly Total	0	0	0	0	0	0	0	467	106	0	2	573	193	830	126	0	7	1149	83	475	1	0	0	559	2281
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	0	0	0	0	102	29	0	1	131	78	464	45	0	3	587	45	136	0	0	1	181	899
4:15 PM	0	0	0	0	2	0	0	109	39	0	2	148	90	444	34	0	1	568	54	168	0	0	2	222	938
4:30 PM	0	0	0	0	0	0	0	92	34	0	1	126	100	509	35	0	2	644	46	164	0	0	3	210	980
4:45 PM	0	0	0	0	3	0	0	117	33	0	0	150	75	453	22	0	4	550	57	209	0	0	1	266	966
Hourly Total	0	0	0	0	5	0	0	420	135	0	4	555	343	1870	136	0	10	2349	202	677	0	0	7	879	3783
5:00 PM	0	1	0	0	6	1	0	114	20	1	1	135	81	568	37	0	1	686	64	205	0	0	2	269	1091
5:15 PM	0	0	0	0	0	0	0	162	32	0	2	194	85	468	29	0	2	582	64	211	0	1	2	276	1052
5:30 PM	0	0	0	0	1	0	0	127	42	0	2	169	90	565	30	0	2	685	66	183	0	0	1	249	1103
5:45 PM	0	0	0	0	3	0	0	138	37	0	1	175	86	501	24	0	2	611	57	180	0	0	0	237	1023
Hourly Total	0	1	0	0	10	1	0	541	131	1	6	673	342	2102	120	0	7	2564	251	779	0	1	5	1031	4269
Grand Total	0	1	0	0	17	1	0	1963	452	1	16	2416	1050	5548	474	0	27	7072	645	2415	1	1	17	3062	12551
Approach %	0.0	100.0	0.0	0.0	-	-	0.0	81.3	18.7	0.0	-	-	14.8	78.5	6.7	0.0	-	-	21.1	78.9	0.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	15.6	3.6	0.0	-	19.2	8.4	44.2	3.8	0.0	-	56.3	5.1	19.2	0.0	0.0	-	24.4	-
All Vehicles (no classification)	0	1	0	0	-	1	0	1963	452	1	-	2416	1050	5548	474	0	-	7072	645	2415	1	1	-	3062	12551
% All Vehicles (no classification)	-	100.0	-	-	-	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0
Pedestrians	-	-	-	-	17	-	-	-	-	-	16	-	-	-	-	-	27	-	-	-	-	-	17	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: N Shepherd Dr at W 11th St
Site Code:
Start Date: 10/11/2016
Page No: 2



Turning Movement Data Plot



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Count Name: N Shepherd Dr at W 11th St
Site Code:
Start Date: 10/11/2016
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

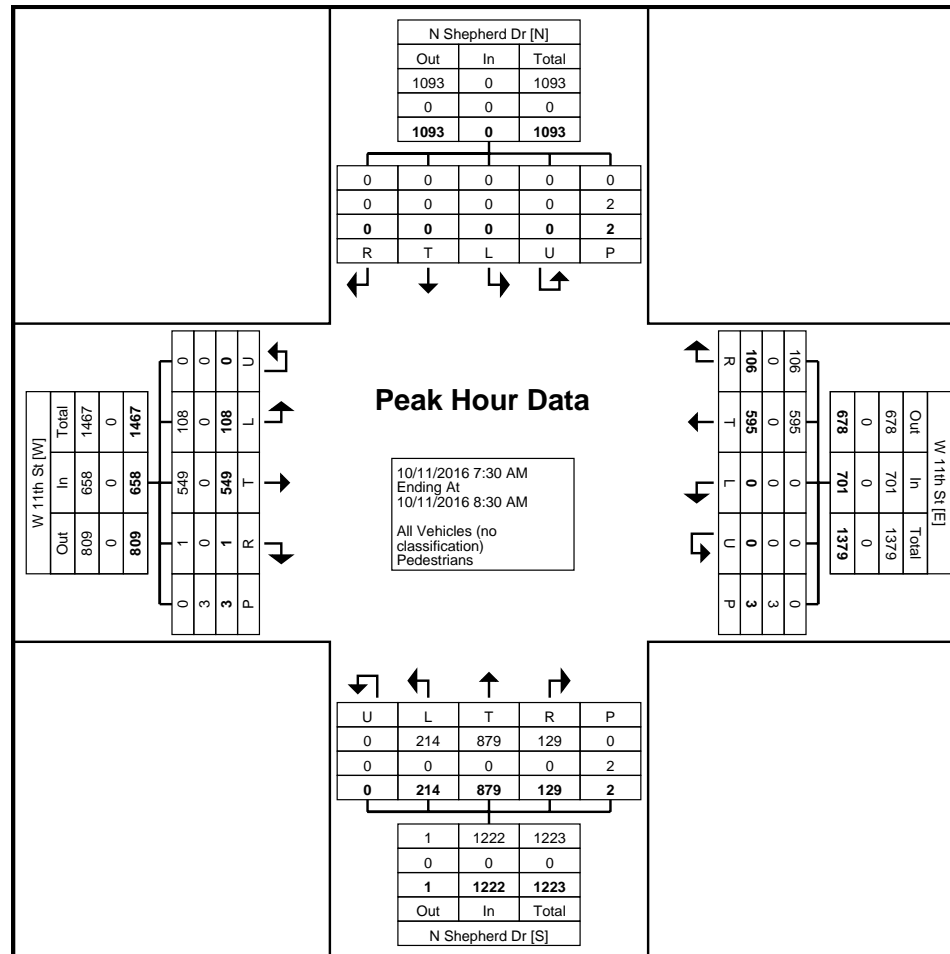
Start Time	N Shepherd Dr Southbound						W 11th St Westbound						N Shepherd Dr Northbound						W 11th St Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:30 AM	0	0	0	0	1	0	0	137	13	0	2	150	40	228	35	0	0	303	36	136	0	0	2	172	625
7:45 AM	0	0	0	0	1	0	0	188	30	0	1	218	59	217	28	0	1	304	28	148	0	0	1	176	698
8:00 AM	0	0	0	0	0	0	0	129	25	0	0	154	56	239	26	0	0	321	19	127	0	0	0	146	621
8:15 AM	0	0	0	0	0	0	0	141	38	0	0	179	59	195	40	0	1	294	25	138	1	0	0	164	637
Total	0	0	0	0	2	0	0	595	106	0	3	701	214	879	129	0	2	1222	108	549	1	0	3	658	2581
Approach %	NaN	NaN	NaN	NaN	-	-	0.0	84.9	15.1	0.0	-	-	17.5	71.9	10.6	0.0	-	-	16.4	83.4	0.2	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	23.1	4.1	0.0	-	27.2	8.3	34.1	5.0	0.0	-	47.3	4.2	21.3	0.0	0.0	-	25.5	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.791	0.697	0.000	-	0.804	0.907	0.919	0.806	0.000	-	0.952	0.750	0.927	0.250	0.000	-	0.935	0.924
All Vehicles (no classification)	0	0	0	0	-	0	0	595	106	0	-	701	214	879	129	0	-	1222	108	549	1	0	-	658	2581
% All Vehicles (no classification)	-	-	-	-	-	-	-	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0
Pedestrians	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: N Shepherd Dr at W 11th St
Site Code:
Start Date: 10/11/2016
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)



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Count Name: N Shepherd Dr at W 11th St
Site Code:
Start Date: 10/11/2016
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

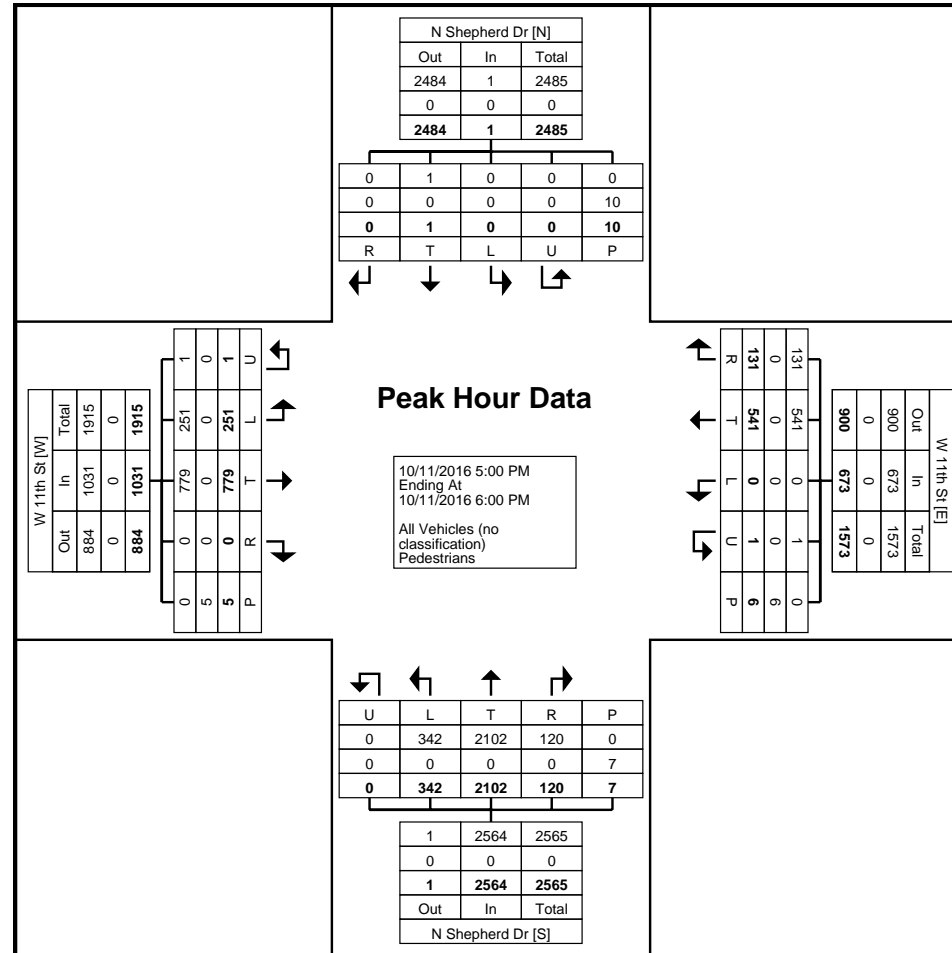
Start Time	N Shepherd Dr Southbound						W 11th St Westbound						N Shepherd Dr Northbound						W 11th St Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
5:00 PM	0	1	0	0	6	1	0	114	20	1	1	135	81	568	37	0	1	686	64	205	0	0	2	269	1091
5:15 PM	0	0	0	0	0	0	0	162	32	0	2	194	85	468	29	0	2	582	64	211	0	1	2	276	1052
5:30 PM	0	0	0	0	1	0	0	127	42	0	2	169	90	565	30	0	2	685	66	183	0	0	1	249	1103
5:45 PM	0	0	0	0	3	0	0	138	37	0	1	175	86	501	24	0	2	611	57	180	0	0	0	237	1023
Total	0	1	0	0	10	1	0	541	131	1	6	673	342	2102	120	0	7	2564	251	779	0	1	5	1031	4269
Approach %	0.0	100.0	0.0	0.0	-	-	0.0	80.4	19.5	0.1	-	-	13.3	82.0	4.7	0.0	-	-	24.3	75.6	0.0	0.1	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	12.7	3.1	0.0	-	15.8	8.0	49.2	2.8	0.0	-	60.1	5.9	18.2	0.0	0.0	-	24.2	-
PHF	0.000	0.250	0.000	0.000	-	0.250	0.000	0.835	0.780	0.250	-	0.867	0.950	0.925	0.811	0.000	-	0.934	0.951	0.923	0.000	0.250	-	0.934	0.968
All Vehicles (no classification)	0	1	0	0	-	1	0	541	131	1	-	673	342	2102	120	0	-	2564	251	779	0	1	-	1031	4269
% All Vehicles (no classification)	-	100.0	-	-	-	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0
Pedestrians	-	-	-	-	10	-	-	-	-	-	6	-	-	-	-	-	7	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: N Shepherd Dr at W 11th St
Site Code:
Start Date: 10/11/2016
Page No: 6



Turning Movement Peak Hour Data Plot (5:00 PM)



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Count Name: Durham Dr at W 11th St
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Start Date: 10/06/2016
Page No: 1

Turning Movement Data

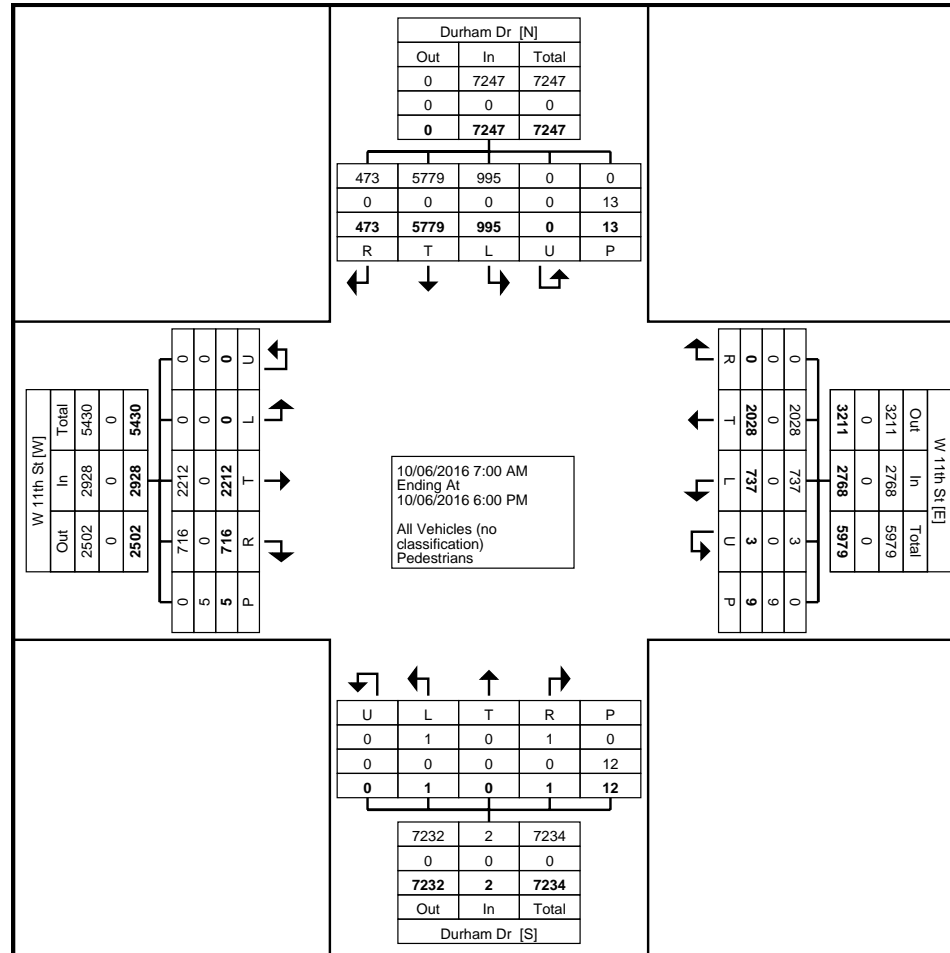
Start Time	Durham Dr Southbound						W 11th St Westbound						Durham Dr Northbound						W 11th St Eastbound						Int. Total	
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total		
7:00 AM	42	421	25	0	0	488	45	71	0	0	0	116	1	0	0	0	0	0	1	0	63	52	0	0	115	720
7:15 AM	53	566	28	0	1	647	42	78	0	0	2	120	0	0	0	0	0	0	0	0	105	61	0	0	166	933
7:30 AM	55	491	37	0	1	583	66	137	0	0	1	203	0	0	0	0	1	0	0	131	63	0	0	194	980	
7:45 AM	58	472	51	0	0	581	48	132	0	0	0	180	0	0	0	0	1	0	0	98	57	0	0	155	916	
Hourly Total	208	1950	141	0	2	2299	201	418	0	0	3	619	1	0	0	0	2	1	0	397	233	0	0	630	3549	
8:00 AM	57	451	27	0	1	535	53	113	0	0	1	166	0	0	0	0	0	0	0	109	46	0	0	155	856	
8:15 AM	62	504	45	0	1	611	52	96	0	0	0	148	0	0	0	0	0	0	0	96	27	0	0	123	882	
8:30 AM	62	373	32	0	1	467	56	90	0	0	0	146	0	0	0	0	0	0	0	84	41	0	0	125	738	
8:45 AM	50	448	22	0	0	520	43	72	0	0	0	115	0	0	0	0	0	0	0	93	27	0	0	120	755	
Hourly Total	231	1776	126	0	3	2133	204	371	0	0	1	575	0	0	0	0	0	0	0	382	141	0	0	523	3231	
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4:00 PM	45	238	16	0	0	299	41	160	0	1	0	202	0	0	0	0	2	0	0	133	34	0	0	167	668	
4:15 PM	73	236	26	0	2	335	44	131	0	0	0	175	0	0	1	0	0	1	0	127	25	0	1	152	663	
4:30 PM	65	227	25	0	1	317	42	163	0	0	0	205	0	0	0	0	1	0	0	168	52	0	1	220	742	
4:45 PM	78	290	25	0	0	393	38	144	0	1	0	183	0	0	0	0	2	0	0	157	46	0	1	203	779	
Hourly Total	261	991	92	0	3	1344	165	598	0	2	0	765	0	0	1	0	5	1	0	585	157	0	3	742	2852	
5:00 PM	71	234	32	0	1	337	45	156	0	1	0	202	0	0	0	0	2	0	0	220	46	0	0	266	805	
5:15 PM	75	299	33	0	1	407	34	142	0	0	2	176	0	0	0	0	0	0	0	218	42	0	0	260	843	
5:30 PM	64	248	25	0	3	337	42	184	0	0	3	226	0	0	0	0	2	0	0	198	43	0	1	241	804	
5:45 PM	85	281	24	0	0	390	46	159	0	0	0	205	0	0	0	0	1	0	0	212	54	0	1	266	861	
Hourly Total	295	1062	114	0	5	1471	167	641	0	1	5	809	0	0	0	0	5	0	0	848	185	0	2	1033	3313	
Grand Total	995	5779	473	0	13	7247	737	2028	0	3	9	2768	1	0	1	0	12	2	0	2212	716	0	5	2928	12945	
Approach %	13.7	79.7	6.5	0.0	-	-	26.6	73.3	0.0	0.1	-	-	50.0	0.0	50.0	0.0	-	-	0.0	75.5	24.5	0.0	-	-	-	
Total %	7.7	44.6	3.7	0.0	-	56.0	5.7	15.7	0.0	0.0	-	21.4	0.0	0.0	0.0	0.0	-	0.0	0.0	17.1	5.5	0.0	-	22.6	-	
All Vehicles (no classification)	995	5779	473	0	-	7247	737	2028	0	3	-	2768	1	0	1	0	-	2	0	2212	716	0	-	2928	12945	
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	-	100.0	-	-	100.0	-	100.0	100.0	-	-	100.0	100.0	
Pedestrians	-	-	-	-	13	-	-	-	-	-	9	-	-	-	-	-	12	-	-	-	-	-	5	-	-	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	



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Count Name: Durham Dr at W 11th St
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Start Date: 10/06/2016
Page No: 2



Turning Movement Data Plot



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Count Name: Durham Dr at W 11th St
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Start Date: 10/06/2016
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

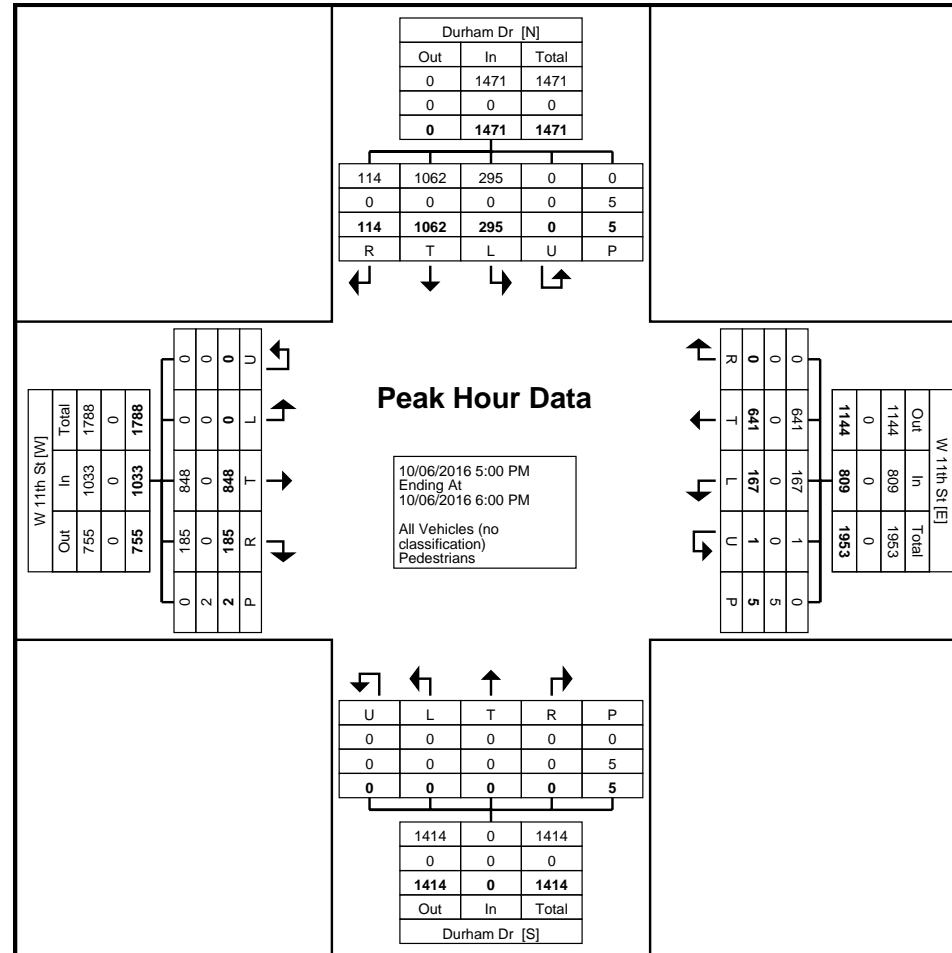
Start Time	Durham Dr Southbound						W 11th St Westbound						Durham Dr Northbound						W 11th St Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
5:00 PM	71	234	32	0	1	337	45	156	0	1	0	202	0	0	0	0	2	0	0	220	46	0	0	266	805
5:15 PM	75	299	33	0	1	407	34	142	0	0	2	176	0	0	0	0	0	0	0	218	42	0	0	260	843
5:30 PM	64	248	25	0	3	337	42	184	0	0	3	226	0	0	0	0	2	0	0	198	43	0	1	241	804
5:45 PM	85	281	24	0	0	390	46	159	0	0	0	205	0	0	0	0	1	0	0	212	54	0	1	266	861
Total	295	1062	114	0	5	1471	167	641	0	1	5	809	0	0	0	0	5	0	0	848	185	0	2	1033	3313
Approach %	20.1	72.2	7.7	0.0	-	-	20.6	79.2	0.0	0.1	-	-	NaN	NaN	NaN	NaN	-	-	0.0	82.1	17.9	0.0	-	-	-
Total %	8.9	32.1	3.4	0.0	-	44.4	5.0	19.3	0.0	0.0	-	24.4	0.0	0.0	0.0	0.0	-	0.0	0.0	25.6	5.6	0.0	-	31.2	-
PHF	0.868	0.888	0.864	0.000	-	0.904	0.908	0.871	0.000	0.250	-	0.895	0.000	0.000	0.000	0.000	-	0.000	0.000	0.964	0.856	0.000	-	0.971	0.962
All Vehicles (no classification)	295	1062	114	0	-	1471	167	641	0	1	-	809	0	0	0	0	-	0	0	848	185	0	-	1033	3313
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	100.0	100.0	-	100.0	-	100.0	-	-	-	-	-	-	-	100.0	100.0	-	-	100.0	100.0
Pedestrians	-	-	-	-	5	-	-	-	-	-	5	-	-	-	-	-	5	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Durham Dr at W 11th St
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Start Date: 10/06/2016
Page No: 6



Turning Movement Peak Hour Data Plot (5:00 PM)



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Count Name: Durham Dr at W 20th St
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Page No: 1

Turning Movement Data

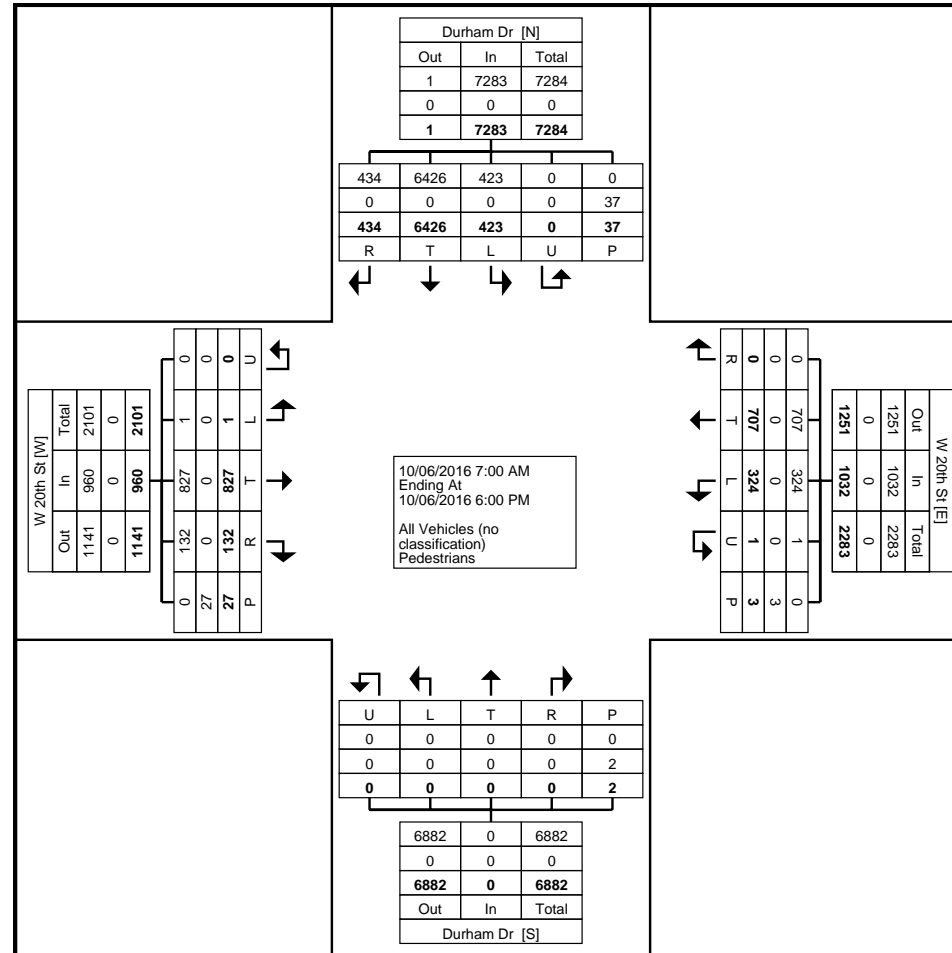
Start Time	Durham Dr Southbound						W 20th St Westbound						Durham Dr Northbound						W 20th St Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	15	449	30	0	6	494	13	23	0	1	0	37	0	0	0	0	0	0	0	19	9	0	0	28	559
7:15 AM	16	522	30	0	3	568	17	42	0	0	0	59	0	0	0	0	0	0	0	24	9	0	4	33	660
7:30 AM	22	494	29	0	4	545	23	59	0	0	0	82	0	0	0	0	0	0	0	35	5	0	2	40	667
7:45 AM	28	538	41	0	5	607	20	46	0	0	1	66	0	0	0	0	1	0	0	44	9	0	3	53	726
Hourly Total	81	2003	130	0	18	2214	73	170	0	1	1	244	0	0	0	0	1	0	0	122	32	0	9	154	2612
8:00 AM	29	493	32	0	1	554	22	31	0	0	1	53	0	0	0	0	0	0	0	28	8	0	1	36	643
8:15 AM	34	498	36	0	1	568	26	45	0	0	0	71	0	0	0	0	0	0	0	24	7	0	3	31	670
8:30 AM	22	429	14	0	0	465	17	44	0	0	0	61	0	0	0	0	0	0	0	28	10	0	1	38	564
8:45 AM	30	418	26	0	2	474	16	39	0	0	0	55	0	0	0	0	0	0	0	46	6	0	2	52	581
Hourly Total	115	1838	108	0	4	2061	81	159	0	0	1	240	0	0	0	0	0	0	0	126	31	0	7	157	2458
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	24	276	26	0	3	326	20	44	0	0	0	64	0	0	0	0	1	0	0	62	9	0	1	71	461
4:15 PM	30	303	16	0	1	349	13	38	0	0	0	51	0	0	0	0	0	0	0	74	9	0	2	83	483
4:30 PM	30	313	27	0	3	370	22	40	0	0	0	62	0	0	0	0	0	0	0	75	7	0	0	82	514
4:45 PM	26	316	31	0	2	373	27	59	0	0	0	86	0	0	0	0	0	0	1	73	10	0	2	84	543
Hourly Total	110	1208	100	0	9	1418	82	181	0	0	0	263	0	0	0	0	1	0	1	284	35	0	5	320	2001
5:00 PM	22	354	22	0	3	398	21	51	0	0	0	72	0	0	0	0	0	0	0	72	8	0	2	80	550
5:15 PM	24	344	25	0	0	393	25	42	0	0	1	67	0	0	0	0	0	0	0	95	9	0	2	104	564
5:30 PM	33	334	20	0	1	387	24	48	0	0	0	72	0	0	0	0	0	0	0	69	9	0	1	78	537
5:45 PM	38	345	29	0	2	412	18	56	0	0	0	74	0	0	0	0	0	0	0	59	8	0	1	67	553
Hourly Total	117	1377	96	0	6	1590	88	197	0	0	1	285	0	0	0	0	0	0	0	295	34	0	6	329	2204
Grand Total	423	6426	434	0	37	7283	324	707	0	1	3	1032	0	0	0	0	2	0	1	827	132	0	27	960	9275
Approach %	5.8	88.2	6.0	0.0	-	-	31.4	68.5	0.0	0.1	-	-	NaN	NaN	NaN	NaN	-	-	0.1	86.1	13.8	0.0	-	-	-
Total %	4.6	69.3	4.7	0.0	-	78.5	3.5	7.6	0.0	0.0	-	11.1	0.0	0.0	0.0	0.0	-	0.0	0.0	8.9	1.4	0.0	-	10.4	-
All Vehicles (no classification)	423	6426	434	0	-	7283	324	707	0	1	-	1032	0	0	0	0	-	0	1	827	132	0	-	960	9275
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	100.0	100.0	-	100.0	-	100.0	-	-	-	-	-	-	100.0	100.0	100.0	-	-	100.0	100.0
Pedestrians	-	-	-	-	37	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	27	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Durham Dr at W 20th St
Site Code:
Start Date: 10/06/2016
Page No: 2



Turning Movement Data Plot



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Count Name: Durham Dr at W 20th St
Site Code:
Start Date: 10/06/2016
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

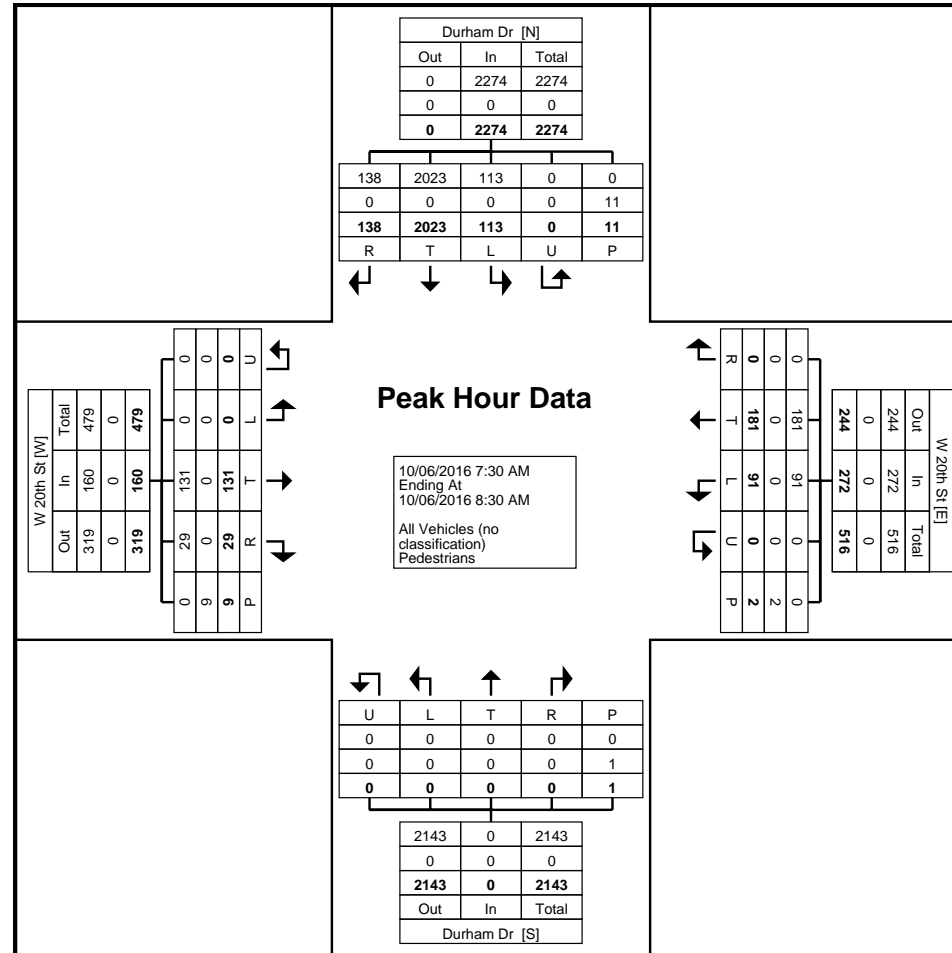
Start Time	Durham Dr Southbound						W 20th St Westbound						Durham Dr Northbound						W 20th St Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:30 AM	22	494	29	0	4	545	23	59	0	0	0	82	0	0	0	0	0	0	0	35	5	0	2	40	667
7:45 AM	28	538	41	0	5	607	20	46	0	0	1	66	0	0	0	0	1	0	0	44	9	0	3	53	726
8:00 AM	29	493	32	0	1	554	22	31	0	0	1	53	0	0	0	0	0	0	0	28	8	0	1	36	643
8:15 AM	34	498	36	0	1	568	26	45	0	0	0	71	0	0	0	0	0	0	0	24	7	0	3	31	670
Total	113	2023	138	0	11	2274	91	181	0	0	2	272	0	0	0	0	1	0	0	131	29	0	9	160	2706
Approach %	5.0	89.0	6.1	0.0	-	-	33.5	66.5	0.0	0.0	-	-	NaN	NaN	NaN	NaN	-	-	0.0	81.9	18.1	0.0	-	-	-
Total %	4.2	74.8	5.1	0.0	-	84.0	3.4	6.7	0.0	0.0	-	10.1	0.0	0.0	0.0	0.0	-	0.0	0.0	4.8	1.1	0.0	-	5.9	-
PHF	0.831	0.940	0.841	0.000	-	0.937	0.875	0.767	0.000	0.000	-	0.829	0.000	0.000	0.000	0.000	-	0.000	0.000	0.744	0.806	0.000	-	0.755	0.932
All Vehicles (no classification)	113	2023	138	0	-	2274	91	181	0	0	-	272	0	0	0	0	-	0	0	131	29	0	-	160	2706
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	100.0	100.0	-	-	-	100.0	-	-	-	-	-	-	-	100.0	100.0	-	-	100.0	100.0
Pedestrians	-	-	-	-	11	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Durham Dr at W 20th St
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Start Date: 10/06/2016
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)



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Count Name: Durham Dr at W 20th St
Site Code:
Start Date: 10/06/2016
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Durham Dr Southbound						W 20th St Westbound						Durham Dr Northbound						W 20th St Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
5:00 PM	22	354	22	0	3	398	21	51	0	0	0	72	0	0	0	0	0	0	0	72	8	0	2	80	550
5:15 PM	24	344	25	0	0	393	25	42	0	0	1	67	0	0	0	0	0	0	0	95	9	0	2	104	564
5:30 PM	33	334	20	0	1	387	24	48	0	0	0	72	0	0	0	0	0	0	0	69	9	0	1	78	537
5:45 PM	38	345	29	0	2	412	18	56	0	0	0	74	0	0	0	0	0	0	0	59	8	0	1	67	553
Total	117	1377	96	0	6	1590	88	197	0	0	1	285	0	0	0	0	0	0	0	295	34	0	6	329	2204
Approach %	7.4	86.6	6.0	0.0	-	-	30.9	69.1	0.0	0.0	-	-	NaN	NaN	NaN	NaN	-	-	0.0	89.7	10.3	0.0	-	-	-
Total %	5.3	62.5	4.4	0.0	-	72.1	4.0	8.9	0.0	0.0	-	12.9	0.0	0.0	0.0	0.0	-	0.0	0.0	13.4	1.5	0.0	-	14.9	-
PHF	0.770	0.972	0.828	0.000	-	0.965	0.880	0.879	0.000	0.000	-	0.963	0.000	0.000	0.000	0.000	-	0.000	0.000	0.776	0.944	0.000	-	0.791	0.977
All Vehicles (no classification)	117	1377	96	0	-	1590	88	197	0	0	-	285	0	0	0	0	-	0	0	295	34	0	-	329	2204
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	100.0	100.0	-	-	-	100.0	-	-	-	-	-	-	-	100.0	100.0	-	-	100.0	100.0
Pedestrians	-	-	-	-	6	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Start Date: 10/06/2016
Page No: 1

Turning Movement Data

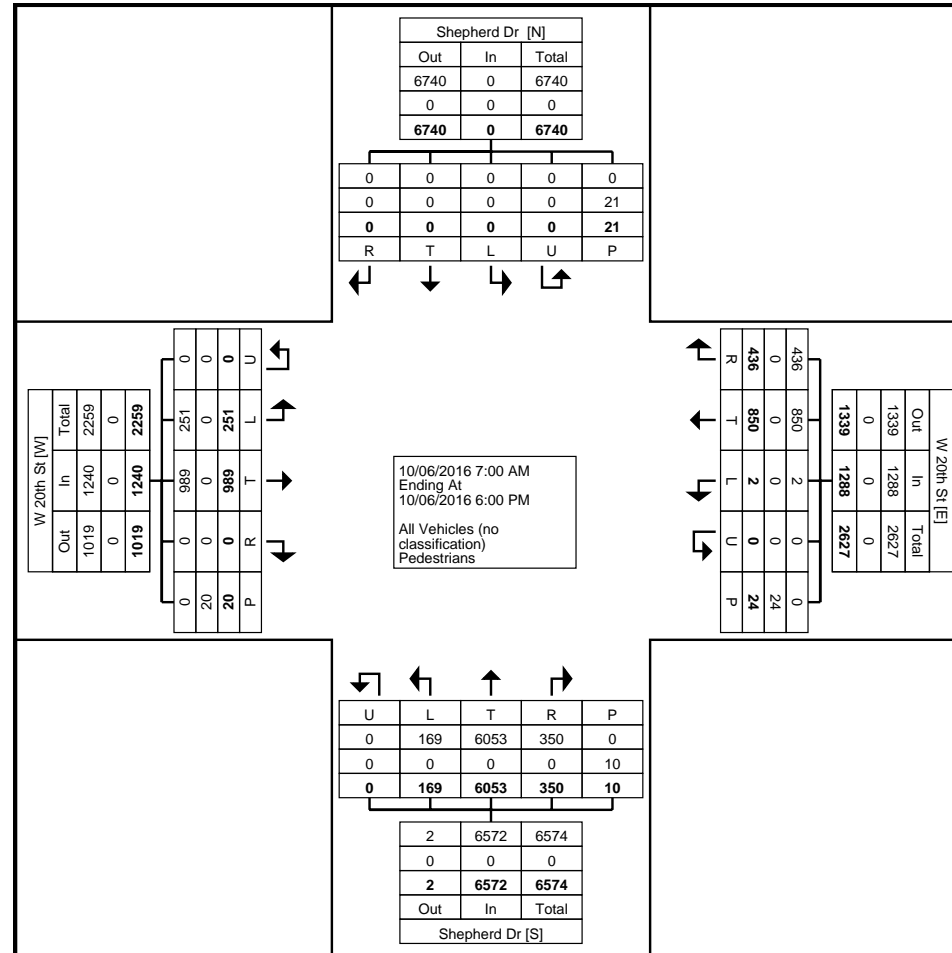
Start Time	Shepherd Dr Southbound						W 20th St Westbound						Shepherd Dr Northbound						W 20th St Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	0	0	0	0	1	0	0	31	13	0	1	44	4	168	10	0	0	182	6	30	0	0	0	36	262
7:15 AM	0	0	0	0	1	0	0	53	4	0	1	57	6	286	20	0	1	312	9	29	0	0	1	38	407
7:30 AM	0	0	0	0	4	0	0	72	18	0	2	90	8	262	15	0	0	285	16	44	0	0	1	60	435
7:45 AM	0	0	0	0	2	0	0	51	18	0	0	69	9	252	22	0	0	283	9	59	0	0	0	68	420
Hourly Total	0	0	0	0	8	0	0	207	53	0	4	260	27	968	67	0	1	1062	40	162	0	0	2	202	1524
8:00 AM	0	0	0	0	1	0	2	46	23	0	0	71	12	223	14	0	1	249	9	49	0	0	1	58	378
8:15 AM	0	0	0	0	0	0	0	52	26	0	0	78	15	263	20	0	0	298	9	43	0	0	2	52	428
8:30 AM	0	0	0	0	1	0	0	57	22	0	4	79	7	211	17	0	0	235	7	46	0	0	4	53	367
8:45 AM	0	0	0	0	0	0	0	46	25	0	2	71	6	253	18	0	2	277	20	56	0	0	3	76	424
Hourly Total	0	0	0	0	2	0	2	201	96	0	6	299	40	950	69	0	3	1059	45	194	0	0	10	239	1597
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	0	2	0	0	52	35	0	3	87	11	513	19	0	3	543	25	64	0	0	3	89	719
4:15 PM	0	0	0	0	2	0	0	43	40	0	3	83	7	500	22	0	0	529	17	80	0	0	0	97	709
4:30 PM	0	0	0	0	1	0	0	50	34	0	1	84	15	489	27	0	0	531	22	82	0	0	3	104	719
4:45 PM	0	0	0	0	2	0	0	67	27	0	3	94	12	457	33	0	0	502	23	75	0	0	0	98	694
Hourly Total	0	0	0	0	7	0	0	212	136	0	10	348	45	1959	101	0	3	2105	87	301	0	0	6	388	2841
5:00 PM	0	0	0	0	4	0	0	66	43	0	1	109	14	535	16	0	1	565	23	73	0	0	0	96	770
5:15 PM	0	0	0	0	0	0	0	57	41	0	1	98	10	559	35	0	0	604	16	98	0	0	0	114	816
5:30 PM	0	0	0	0	0	0	0	54	38	0	0	92	13	516	27	0	1	556	21	84	0	0	1	105	753
5:45 PM	0	0	0	0	0	0	0	53	29	0	2	82	20	566	35	0	1	621	19	77	0	0	1	96	799
Hourly Total	0	0	0	0	4	0	0	230	151	0	4	381	57	2176	113	0	3	2346	79	332	0	0	2	411	3138
Grand Total	0	0	0	0	21	0	2	850	436	0	24	1288	169	6053	350	0	10	6572	251	989	0	0	20	1240	9100
Approach %	NaN	NaN	NaN	NaN	-	-	0.2	66.0	33.9	0.0	-	-	2.6	92.1	5.3	0.0	-	-	20.2	79.8	0.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	9.3	4.8	0.0	-	14.2	1.9	66.5	3.8	0.0	-	72.2	2.8	10.9	0.0	0.0	-	13.6	-
All Vehicles (no classification)	0	0	0	0	-	0	2	850	436	0	-	1288	169	6053	350	0	-	6572	251	989	0	0	-	1240	9100
% All Vehicles (no classification)	-	-	-	-	-	-	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	-	-	-	100.0	100.0
Pedestrians	-	-	-	-	21	-	-	-	-	-	24	-	-	-	-	-	10	-	-	-	-	-	20	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Shepherd Dr at W 20th St
Site Code:
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Page No: 2



Turning Movement Data Plot



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Count Name: Shepherd Dr at W 20th St
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Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

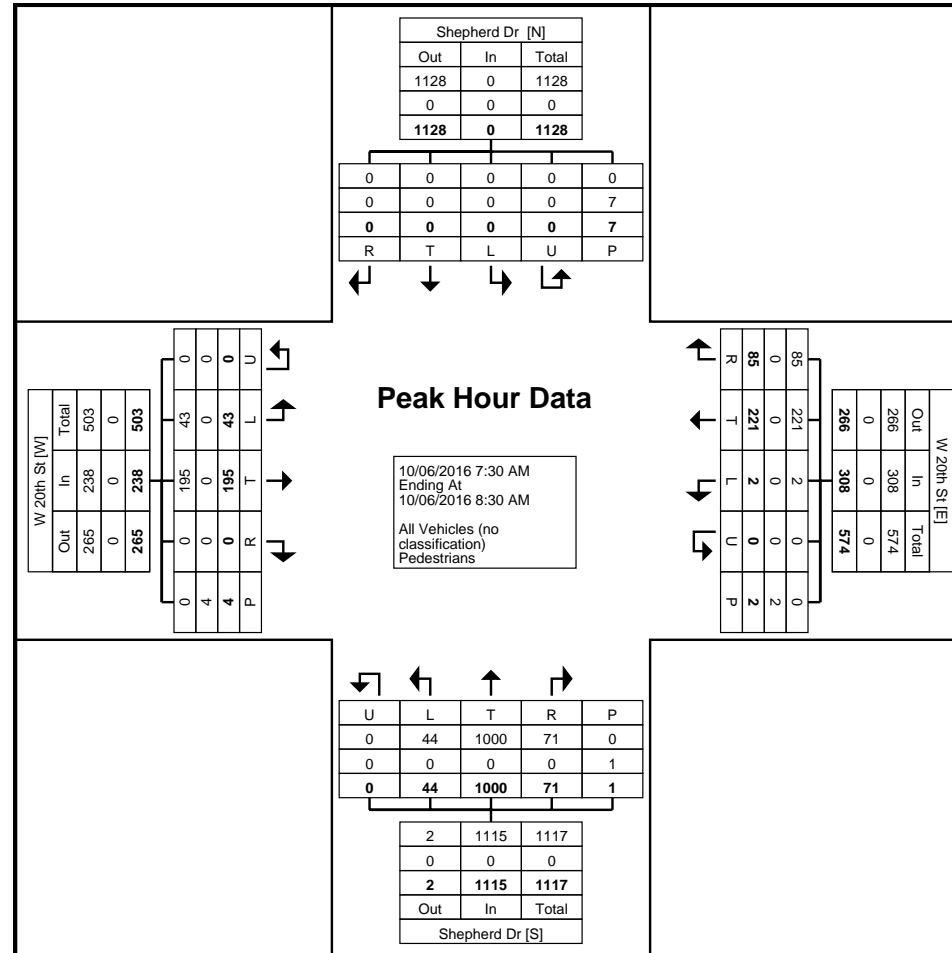
Start Time	Shepherd Dr Southbound						W 20th St Westbound						Shepherd Dr Northbound						W 20th St Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:30 AM	0	0	0	0	4	0	0	72	18	0	2	90	8	262	15	0	0	285	16	44	0	0	1	60	435
7:45 AM	0	0	0	0	2	0	0	51	18	0	0	69	9	252	22	0	0	283	9	59	0	0	0	68	420
8:00 AM	0	0	0	0	1	0	2	46	23	0	0	71	12	223	14	0	1	249	9	49	0	0	1	58	378
8:15 AM	0	0	0	0	0	0	0	52	26	0	0	78	15	263	20	0	0	298	9	43	0	0	2	52	428
Total	0	0	0	0	7	0	2	221	85	0	2	308	44	1000	71	0	1	1115	43	195	0	0	4	238	1661
Approach %	NaN	NaN	NaN	NaN	-	-	0.6	71.8	27.6	0.0	-	-	3.9	89.7	6.4	0.0	-	-	18.1	81.9	0.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.1	13.3	5.1	0.0	-	18.5	2.6	60.2	4.3	0.0	-	67.1	2.6	11.7	0.0	0.0	-	14.3	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.250	0.767	0.817	0.000	-	0.856	0.733	0.951	0.807	0.000	-	0.935	0.672	0.826	0.000	0.000	-	0.875	0.955
All Vehicles (no classification)	0	0	0	0	-	0	2	221	85	0	-	308	44	1000	71	0	-	1115	43	195	0	0	-	238	1661
% All Vehicles (no classification)	-	-	-	-	-	-	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	-	-	-	100.0	100.0
Pedestrians	-	-	-	-	7	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Start Date: 10/06/2016
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)



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Count Name: Shepherd Dr at W 20th St
Site Code:
Start Date: 10/06/2016
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

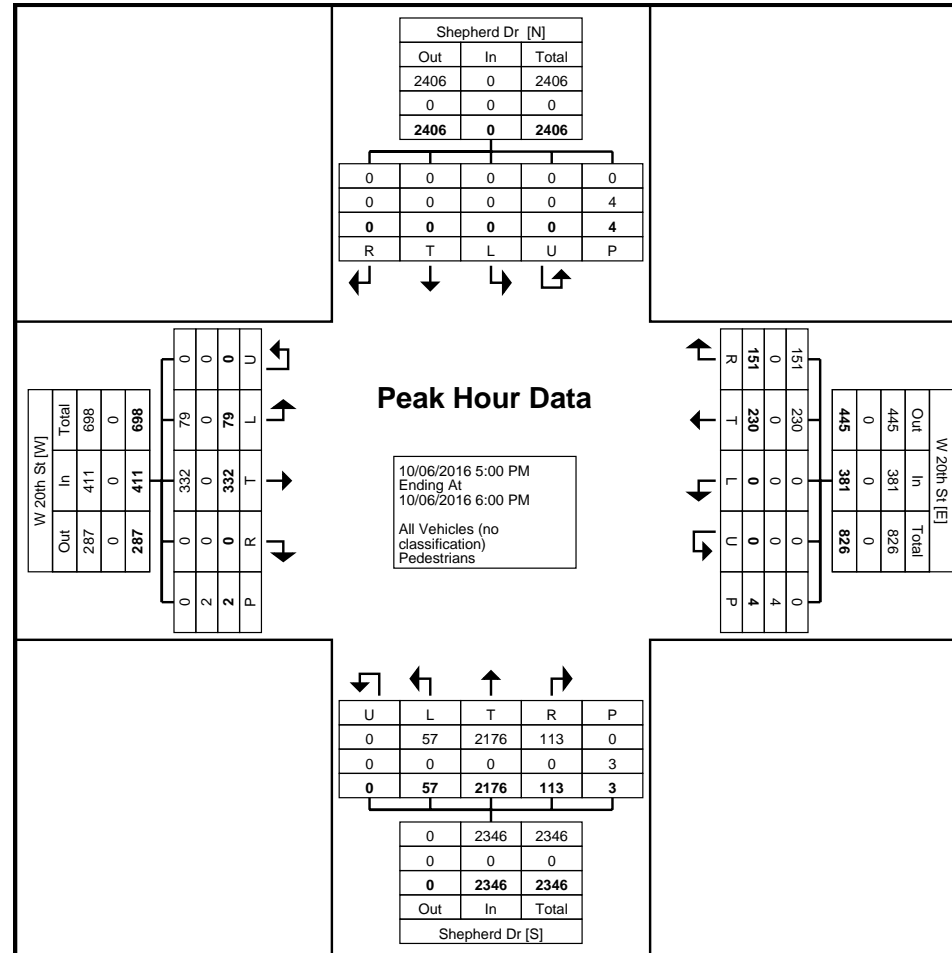
Start Time	Shepherd Dr Southbound						W 20th St Westbound						Shepherd Dr Northbound						W 20th St Eastbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
5:00 PM	0	0	0	0	4	0	0	66	43	0	1	109	14	535	16	0	1	565	23	73	0	0	0	96	770
5:15 PM	0	0	0	0	0	0	0	57	41	0	1	98	10	559	35	0	0	604	16	98	0	0	0	114	816
5:30 PM	0	0	0	0	0	0	0	54	38	0	0	92	13	516	27	0	1	556	21	84	0	0	1	105	753
5:45 PM	0	0	0	0	0	0	0	53	29	0	2	82	20	566	35	0	1	621	19	77	0	0	1	96	799
Total	0	0	0	0	4	0	0	230	151	0	4	381	57	2176	113	0	3	2346	79	332	0	0	2	411	3138
Approach %	NaN	NaN	NaN	NaN	-	-	0.0	60.4	39.6	0.0	-	-	2.4	92.8	4.8	0.0	-	-	19.2	80.8	0.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	7.3	4.8	0.0	-	12.1	1.8	69.3	3.6	0.0	-	74.8	2.5	10.6	0.0	0.0	-	13.1	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.871	0.878	0.000	-	0.874	0.713	0.961	0.807	0.000	-	0.944	0.859	0.847	0.000	0.000	-	0.901	0.961
All Vehicles (no classification)	0	0	0	0	-	0	0	230	151	0	-	381	57	2176	113	0	-	2346	79	332	0	0	-	411	3138
% All Vehicles (no classification)	-	-	-	-	-	-	-	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	-	-	-	100.0	100.0
Pedestrians	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	3	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Site Code:
Start Date: 10/06/2016
Page No: 6



Turning Movement Peak Hour Data Plot (5:00 PM)

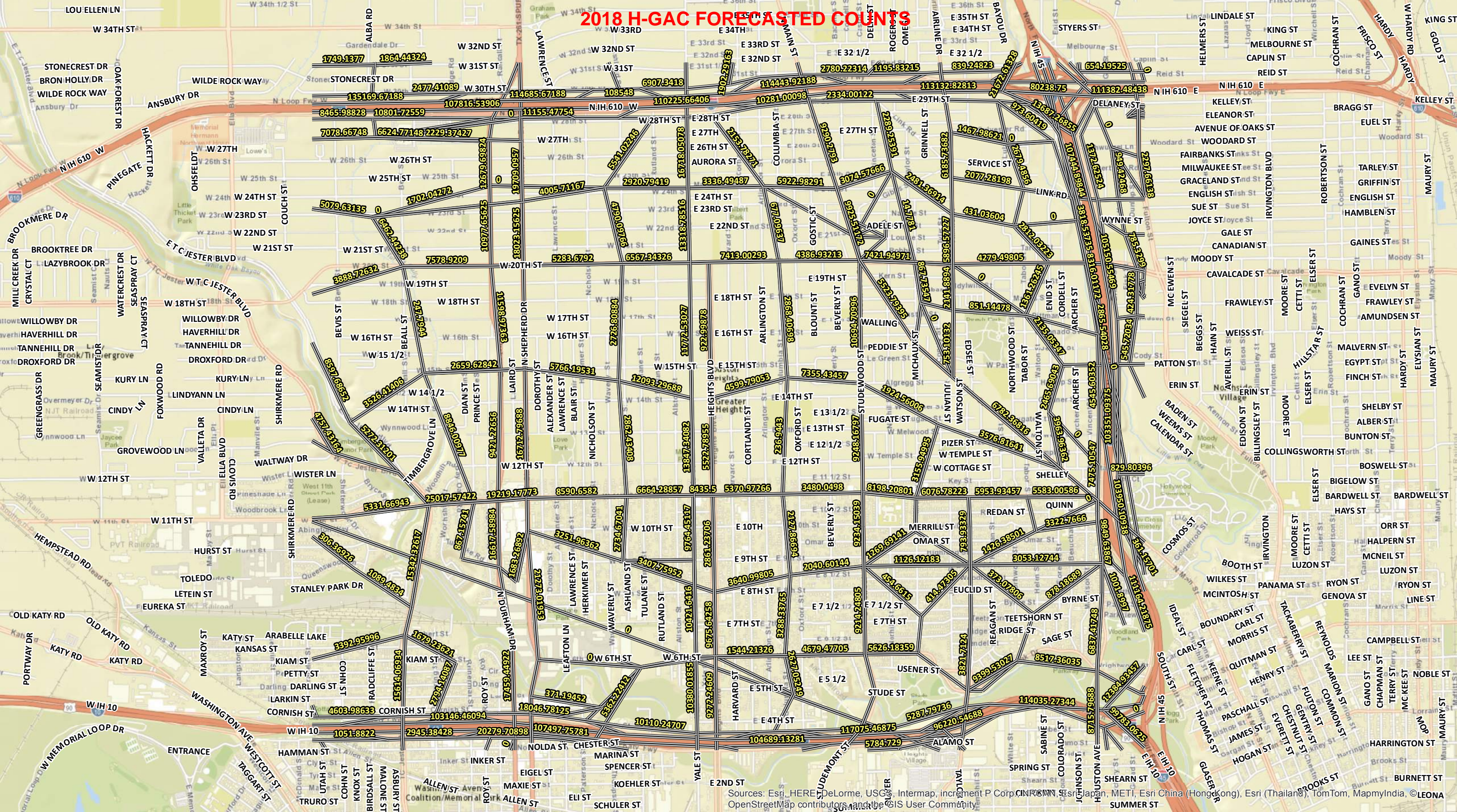
Appendix B
Annual Growth Calculations

TRAFFIC GROWTH CALCULATIONS ON SHEPHERD DR AND DURHAM DR

Locations	ADT Volumes			% Growth	
	2016 CJ HENSCH COUNTS	2018 H-GAC COUNTS	2040 H-GAC COUNTS	2016 to 2018	2016 to 2040
N of 20th Shepherd Dr	22000	18023	20136	-9.5%	-0.4%
N of 20th Durham Dr	21477	12680	16037	-23.2%	-1.2%
N of 11th Shepherd Dr	21474	16713	18005	-11.8%	-0.7%
N of 11th Durham Dr	28594	11599	14222	-36.3%	-2.9%
S of 11th Shepherd Dr	23275	21273	24274	-4.4%	0.2%
S of 11th Durham Dr	23579	17459	21221	-14.0%	-0.4%

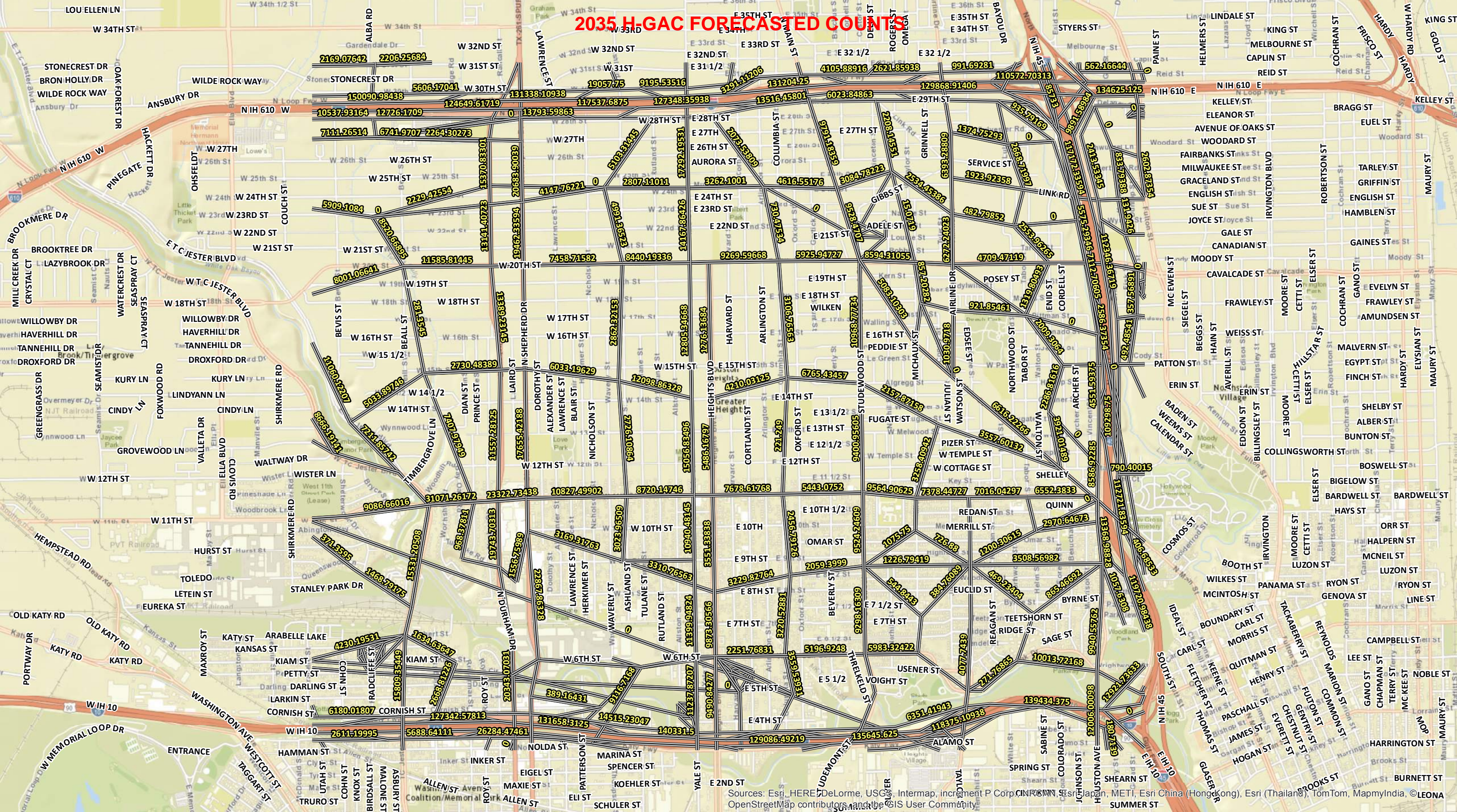
Roadway	Locations	ADT Volumes					% Growth per year
		2013 COH COUNTS	2016 CJHENSCH COUNTS	2018 H-GAC COUNTS	2035 H-GAC COUNTS	2040 H-GAC COUNTS	2018 to 2040 % Growth
Shepherd Dr	Segment 1-S of 11th	19181	23275	21273	22867	24274	0.60%
	Segment 2-N of 11th	19575	21474	16713	17655	18005	0.34%
	Segment 3-N of 20th	18915	22000	18023	19462	20136	0.51%
Durham Dr	Segment 1-S of 11th	18123	23579	17459	20343	21221	0.89%
	Segment 2-N of 11th	22196	28594	11599	13389	14222	0.93%
	Segment 3-N of 20th	20086	21477	12680	15371	16037	1.07%
AVERAGE GROWTH %							0.7%

2018 H-GAC FORECASTED COUNTS



Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., CNRAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, ©LEONA, OpenStreetMap contributors, and the GIS User Community

2035 H-GAC FORECASTED COUNTS



Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., CNRAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, ©LEONA, OpenStreetMap contributors, and the GIS User Community

Appendix C
Capacity Analysis – Existing Conditions

TIRZ 5 TIA
8: Shepherd Dr & W 20th

Existing Conditions
Timing Plan: AM PEAK HOUR

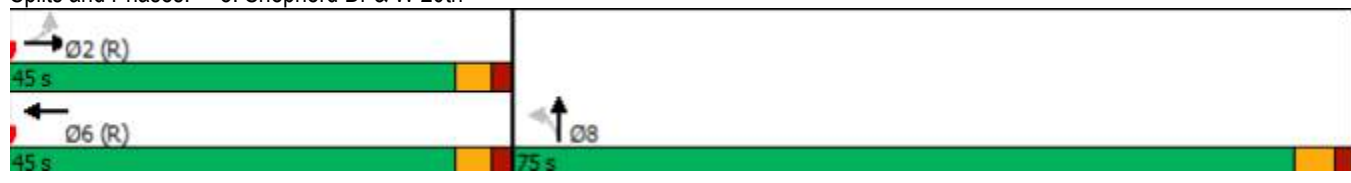


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔↔↔				
Traffic Volume (vph)	43	195	0	0	221	85	44	1000	71	0	0	0
Future Volume (vph)	43	195	0	0	221	85	44	1000	71	0	0	0
Satd. Flow (prot)	0	3500	0	0	3398	0	0	6325	0	0	0	0
Flt Permitted		0.716						0.998				
Satd. Flow (perm)	0	2534	0	0	3398	0	0	6325	0	0	0	0
Satd. Flow (RTOR)					46			24				
Lane Group Flow (vph)	0	299	0	0	391	0	0	1201	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Total Split (s)	45.0	45.0			45.0		75.0	75.0				
Total Lost Time (s)		5.1			5.1			5.3				
Act Effct Green (s)		30.0			30.0			79.6				
Actuated g/C Ratio		0.25			0.25			0.66				
v/c Ratio		0.47			0.44			0.29				
Control Delay		27.5			35.1			9.3				
Queue Delay		0.0			0.0			0.0				
Total Delay		27.5			35.1			9.3				
LOS		C			D			A				
Approach Delay		27.5			35.1			9.3				
Approach LOS		C			D			A				
Queue Length 50th (ft)		63			118			169				
Queue Length 95th (ft)		87			136			m156				
Internal Link Dist (ft)		158			1611			4775			1423	
Turn Bay Length (ft)												
Base Capacity (vph)		842			1160			4203				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.36			0.34			0.29				

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 17.5
 Intersection Capacity Utilization 82.2%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service E
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Shepherd Dr & W 20th



TIRZ 5 TIA
11: Durham Dr & W 20th St

Existing Conditions
Timing Plan: AM PEAK HOUR

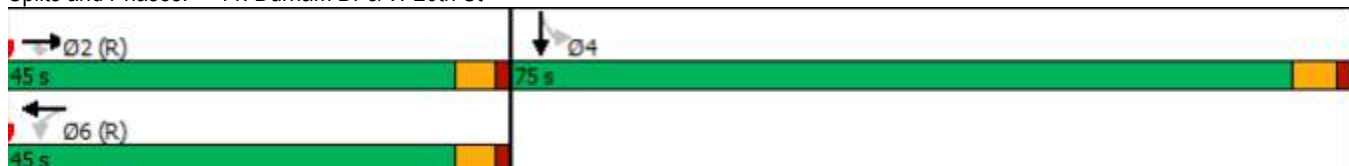


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Traffic Volume (vph)	0	131	29	91	181	0	0	0	0	113	2023	138
Future Volume (vph)	0	131	29	91	181	0	0	0	0	113	2023	138
Satd. Flow (prot)	0	1863	1583	0	1835	0	0	0	0	0	6325	0
Flt Permitted					0.721						0.997	
Satd. Flow (perm)	0	1863	1583	0	1343	0	0	0	0	0	6325	0
Satd. Flow (RTOR)			21								21	
Lane Group Flow (vph)	0	177	36	0	338	0	0	0	0	0	2452	0
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		2			6							4
Permitted Phases			2	6						4		
Total Split (s)		45.0	45.0	45.0	45.0					75.0	75.0	
Total Lost Time (s)		5.0	5.0		5.0						5.3	
Act Effct Green (s)		32.9	32.9		32.9						76.8	
Actuated g/C Ratio		0.27	0.27		0.27						0.64	
v/c Ratio		0.35	0.08		0.92						0.60	
Control Delay		35.7	16.4		57.2						14.0	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		35.7	16.4		57.2						14.0	
LOS		D	B		E						B	
Approach Delay		32.5			57.2						14.0	
Approach LOS		C			E						B	
Queue Length 50th (ft)		110	9		102						300	
Queue Length 95th (ft)		128	28		83						393	
Internal Link Dist (ft)		1523			312			4811			1412	
Turn Bay Length (ft)			10									
Base Capacity (vph)		621	541		447						4056	
Starvation Cap Reductn		0	0		0						0	
Spillback Cap Reductn		0	0		0						0	
Storage Cap Reductn		0	0		0						0	
Reduced v/c Ratio		0.29	0.07		0.76						0.60	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 20.2
 Intersection LOS: C
 Intersection Capacity Utilization 96.1%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 11: Durham Dr & W 20th St



TIRZ 5 TIA
20: Shepherd Dr & 11th St

Existing Conditions
Timing Plan: AM PEAK HOUR

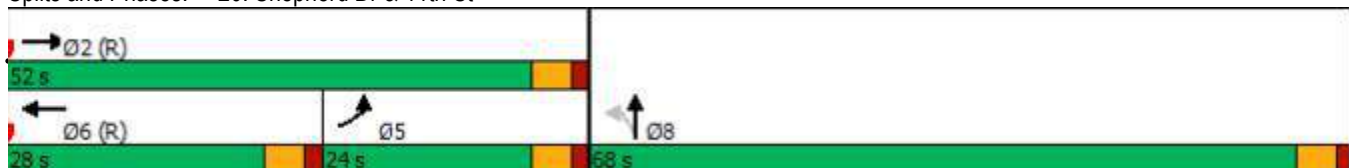


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑↑				
Traffic Volume (vph)	108	549	0	0	595	106	214	879	129	0	0	0
Future Volume (vph)	108	549	0	0	595	106	214	879	129	0	0	0
Satd. Flow (prot)	1770	3539	0	0	3451	0	0	6236	0	0	0	0
Flt Permitted	0.950							0.991				
Satd. Flow (perm)	1770	3539	0	0	3451	0	0	6236	0	0	0	0
Satd. Flow (RTOR)					17			42				
Lane Group Flow (vph)	144	590	0	0	904	0	0	1349	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Total Split (s)	24.0	52.0			28.0		68.0	68.0				
Total Lost Time (s)	5.2	5.2			5.2			5.0				
Act Effct Green (s)	16.2	44.2			22.8			65.6				
Actuated g/C Ratio	0.14	0.37			0.19			0.55				
v/c Ratio	0.60	0.45			1.35			0.39				
Control Delay	33.6	10.5			205.3			15.7				
Queue Delay	0.0	0.0			0.0			0.0				
Total Delay	33.6	10.5			205.3			15.7				
LOS	C	B			F			B				
Approach Delay		15.0			205.3			15.7				
Approach LOS		B			F			B				
Queue Length 50th (ft)	116	82			~480			158				
Queue Length 95th (ft)	m136	m95			#501			199				
Internal Link Dist (ft)		472			1073			2200			4775	
Turn Bay Length (ft)	80											
Base Capacity (vph)	277	1380			669			3426				
Starvation Cap Reductn	0	0			0			0				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.52	0.43			1.35			0.39				

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.35
 Intersection Signal Delay: 72.9
 Intersection LOS: E
 Intersection Capacity Utilization 80.4%
 ICU Level of Service D
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 20: Shepherd Dr & 11th St



TIRZ 5 TIA
22: Durham Dr & 11th St

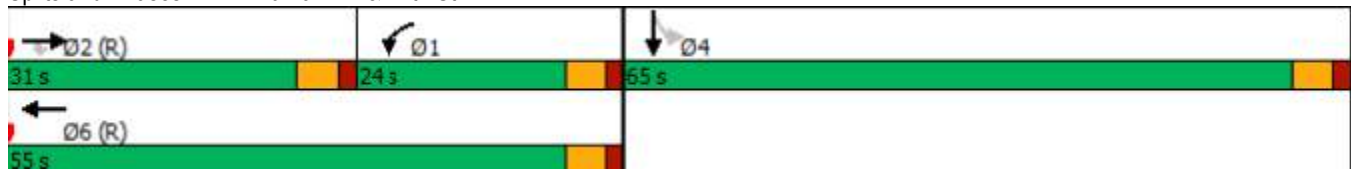
Existing Conditions
Timing Plan: AM PEAK HOUR

	↖	→	↘	↙	←	↖	↙	↑	↘	↙	↓	↘
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑						↑↑↑↑	
Traffic Volume (vph)	0	434	193	219	478	0	0	0	0	232	1918	160
Future Volume (vph)	0	434	193	219	478	0	0	0	0	232	1918	160
Satd. Flow (prot)	0	3370	1441	1770	3539	0	0	0	0	0	6293	0
Flt Permitted				0.950							0.995	
Satd. Flow (perm)	0	3370	1441	1770	3539	0	0	0	0	0	6293	0
Satd. Flow (RTOR)		3	68								25	
Lane Group Flow (vph)	0	532	193	277	569	0	0	0	0	0	2651	0
Turn Type		NA	Perm	Prot	NA					Perm	NA	
Protected Phases		2		1	6							4
Permitted Phases			2							4		
Total Split (s)		31.0	31.0	24.0	55.0					65.0	65.0	
Total Lost Time (s)		5.2	5.2	5.2	5.2						5.3	
Act Effct Green (s)		25.4	25.4	19.2	49.8						59.7	
Actuated g/C Ratio		0.21	0.21	0.16	0.42						0.50	
v/c Ratio		0.74	0.54	0.98	0.39						0.84	
Control Delay		51.2	33.0	45.9	9.7						36.9	
Queue Delay		0.0	0.0	0.0	0.0						0.0	
Total Delay		51.2	33.0	45.9	9.7						36.9	
LOS		D	C	D	A						D	
Approach Delay		46.3			21.5						36.9	
Approach LOS		D			C						D	
Queue Length 50th (ft)		212	93	230	56						613	
Queue Length 95th (ft)		258	179	m196	m47						637	
Internal Link Dist (ft)		797			472			1903			4811	
Turn Bay Length (ft)			125	100								
Base Capacity (vph)		726	363	283	1468						3143	
Starvation Cap Reductn		0	0	0	0						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.73	0.53	0.98	0.39						0.84	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 35.4
 Intersection LOS: D
 Intersection Capacity Utilization 80.4%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Durham Dr & 11th St



TIRZ 5 TIA
20: Shepherd Dr & 11th St

Existing Conditions
Timing Plan: PM Peak Hour

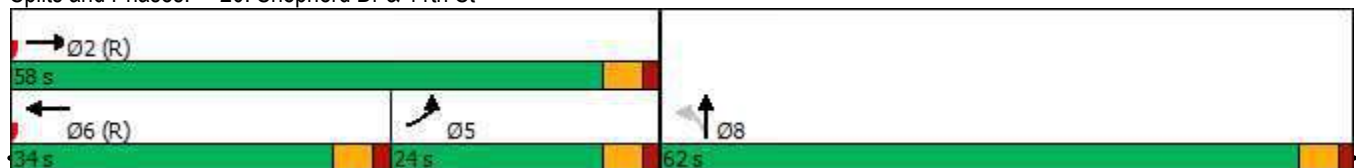


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑			↑↑			↑↑↑↑				
Traffic Volume (vph)	251	779	0	0	541	131	342	2102	120	0	0	0
Future Volume (vph)	251	779	0	0	541	131	342	2102	120	0	0	0
Satd. Flow (prot)	1770	3539	0	0	3429	0	0	6318	0	0	0	0
Flt Permitted	0.950							0.994				
Satd. Flow (perm)	1770	3539	0	0	3429	0	0	6318	0	0	0	0
Satd. Flow (RTOR)					26			13				
Lane Group Flow (vph)	264	847	0	0	812	0	0	2768	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Total Split (s)	24.0	58.0			34.0		62.0	62.0				
Total Lost Time (s)	5.2	5.2			5.2			5.0				
Act Effct Green (s)	18.8	52.8			28.8			57.0				
Actuated g/C Ratio	0.16	0.44			0.24			0.48				
v/c Ratio	0.95	0.54			0.96			0.92				
Control Delay	78.1	16.1			67.4			35.5				
Queue Delay	0.0	0.7			0.0			0.0				
Total Delay	78.1	16.8			67.4			35.5				
LOS	E	B			E			D				
Approach Delay		31.4			67.4			35.5				
Approach LOS		C			E			D				
Queue Length 50th (ft)	204	266			320			564				
Queue Length 95th (ft)	#375	331			#396			621				
Internal Link Dist (ft)		472			1073			2200			4775	
Turn Bay Length (ft)	80											
Base Capacity (vph)	277	1557			842			3007				
Starvation Cap Reductn	0	366			0			0				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.95	0.71			0.96			0.92				

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 24 (20%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 40.0
 Intersection LOS: D
 Intersection Capacity Utilization 84.3%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 20: Shepherd Dr & 11th St



Appendix D
Capacity Analysis – 2040 Projected Conditions –
Scenario 1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔↔↔				
Traffic Volume (vph)	51	231	0	0	261	100	52	1182	84	0	0	0
Future Volume (vph)	51	231	0	0	261	100	52	1182	84	0	0	0
Satd. Flow (prot)	0	3500	0	0	3398	0	0	6325	0	0	0	0
Flt Permitted		0.648						0.998				
Satd. Flow (perm)	0	2293	0	0	3398	0	0	6325	0	0	0	0
Satd. Flow (RTOR)					45			24				
Lane Group Flow (vph)	0	354	0	0	461	0	0	1419	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Total Split (s)	45.0	45.0			45.0		75.0	75.0				
Total Lost Time (s)		5.1			5.1			5.3				
Act Effct Green (s)		30.0			30.0			79.6				
Actuated g/C Ratio		0.25			0.25			0.66				
v/c Ratio		0.62			0.52			0.34				
Control Delay		29.9			37.3			8.8				
Queue Delay		0.0			0.0			0.0				
Total Delay		29.9			37.3			8.8				
LOS		C			D			A				
Approach Delay		29.9			37.3			8.8				
Approach LOS		C			D			A				
Queue Length 50th (ft)		82			146			124				
Queue Length 95th (ft)		104			164			143				
Internal Link Dist (ft)		158			1611			4775			1423	
Turn Bay Length (ft)												
Base Capacity (vph)		762			1159			4203				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.46			0.40			0.34				

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 18.1
 Intersection Capacity Utilization 88.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service E

Splits and Phases: 8: Shepherd Dr & W 20th



TIRZ 5 TIA
20: Shepherd Dr & 11th St

2040 Projected Conditions
Timing Plan: AM Peak Hour

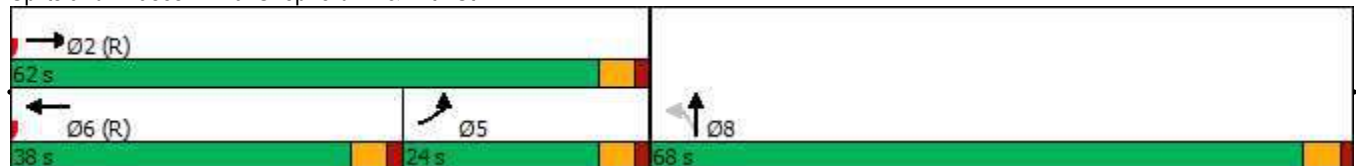


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑↑				
Traffic Volume (vph)	128	649	0	0	703	125	253	1039	153	0	0	0
Future Volume (vph)	128	649	0	0	703	125	253	1039	153	0	0	0
Satd. Flow (prot)	1770	3539	0	0	3451	0	0	6236	0	0	0	0
Flt Permitted	0.950							0.991				
Satd. Flow (perm)	1770	3539	0	0	3451	0	0	6236	0	0	0	0
Satd. Flow (RTOR)					17			36				
Lane Group Flow (vph)	171	698	0	0	1069	0	0	1596	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Total Split (s)	24.0	62.0			38.0		68.0	68.0				
Total Lost Time (s)	5.2	5.2			5.2			5.0				
Act Effct Green (s)	17.1	55.1			32.8			64.7				
Actuated g/C Ratio	0.13	0.42			0.25			0.50				
v/c Ratio	0.74	0.47			1.21			0.51				
Control Delay	73.1	27.9			146.4			22.3				
Queue Delay	0.0	0.0			0.0			0.0				
Total Delay	73.1	27.9			146.4			22.3				
LOS	E	C			F			C				
Approach Delay		36.8			146.4			22.3				
Approach LOS		D			F			C				
Queue Length 50th (ft)	140	216			~574			253				
Queue Length 95th (ft)	177	267			#573			292				
Internal Link Dist (ft)		472			1073			2200			4775	
Turn Bay Length (ft)	80											
Base Capacity (vph)	255	1546			883			3120				
Starvation Cap Reductn	0	0			0			0				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.67	0.45			1.21			0.51				

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.21
 Intersection Signal Delay: 63.4
 Intersection LOS: E
 Intersection Capacity Utilization 88.5%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 20: Shepherd Dr & 11th St



TIRZ 5 TIA
22: Durham Dr & 11th St

2040 Projected Conditions
Timing Plan: AM Peak Hour

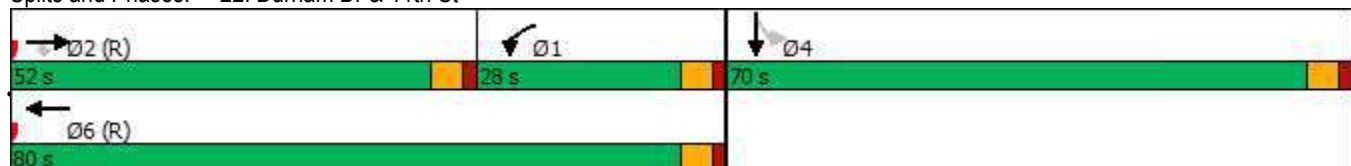


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑						↑↑↑↑	
Traffic Volume (vph)	0	513	228	259	565	0	0	0	0	274	2268	189
Future Volume (vph)	0	513	228	259	565	0	0	0	0	274	2268	189
Satd. Flow (prot)	0	3370	1441	1770	3539	0	0	0	0	0	6293	0
Flt Permitted				0.950							0.995	
Satd. Flow (perm)	0	3370	1441	1770	3539	0	0	0	0	0	6293	0
Satd. Flow (RTOR)		3	55								18	
Lane Group Flow (vph)	0	629	228	328	673	0	0	0	0	0	3132	0
Turn Type		NA	Perm	Prot	NA					Perm	NA	
Protected Phases		2		1	6							4
Permitted Phases			2							4		
Total Split (s)		52.0	52.0	28.0	80.0					70.0	70.0	
Total Lost Time (s)		5.2	5.2	5.2	5.2						5.3	
Act Effct Green (s)		35.8	35.8	33.8	74.8						64.7	
Actuated g/C Ratio		0.24	0.24	0.23	0.50						0.43	
v/c Ratio		0.78	0.59	0.82	0.38						1.15	
Control Delay		60.0	43.5	72.9	24.1						111.0	
Queue Delay		0.0	0.0	0.0	0.7						0.0	
Total Delay		60.0	43.5	72.9	24.8						111.0	
LOS		E	D	E	C						F	
Approach Delay		55.6			40.6						111.0	
Approach LOS		E			D						F	
Queue Length 50th (ft)		317	167	308	210						~1043	
Queue Length 95th (ft)		337	249	#458	237						#1056	
Internal Link Dist (ft)		797			472			1903			4811	
Turn Bay Length (ft)			125	100								
Base Capacity (vph)		1053	487	399	1764						2724	
Starvation Cap Reductn		0	0	0	716						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.60	0.47	0.82	0.64						1.15	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.15
 Intersection Signal Delay: 87.3
 Intersection LOS: F
 Intersection Capacity Utilization 88.5%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 22: Durham Dr & 11th St



TIRZ 5 TIA
8: Shepherd Dr & W 20th

2040 Projected Conditions
Timing Plan: PM Peak Hour



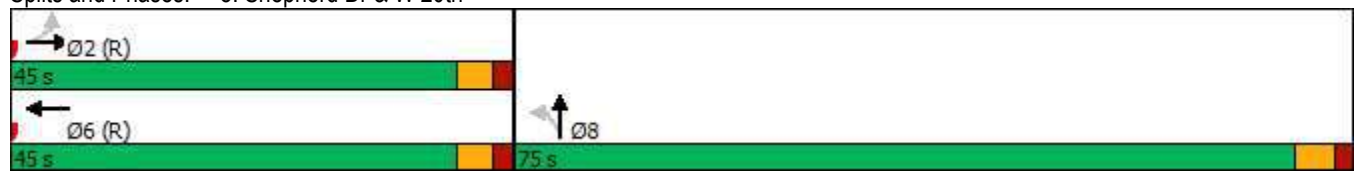
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔↔↔				
Traffic Volume (vph)	93	393	0	0	272	179	67	2573	134	0	0	0
Future Volume (vph)	93	393	0	0	272	179	67	2573	134	0	0	0
Satd. Flow (prot)	0	3507	0	0	3330	0	0	6344	0	0	0	0
Flt Permitted		0.645						0.998				
Satd. Flow (perm)	0	2283	0	0	3330	0	0	6344	0	0	0	0
Satd. Flow (RTOR)					2			17				
Lane Group Flow (vph)	0	570	0	0	516	0	0	2939	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Total Split (s)	45.0	45.0			45.0		75.0	75.0				
Total Lost Time (s)		5.1			5.1			5.3				
Act Effct Green (s)		35.5			35.5			74.1				
Actuated g/C Ratio		0.30			0.30			0.62				
v/c Ratio		0.85			0.52			0.75				
Control Delay		51.9			36.7			12.2				
Queue Delay		0.0			0.0			0.0				
Total Delay		51.9			36.7			12.2				
LOS		D			D			B				
Approach Delay		51.9			36.7			12.2				
Approach LOS		D			D			B				
Queue Length 50th (ft)		216			173			597				
Queue Length 95th (ft)		255			208			m539				
Internal Link Dist (ft)		158			1495			4775			1423	
Turn Bay Length (ft)												
Base Capacity (vph)		759			1108			3925				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.75			0.47			0.75				

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 20.9
 Intersection LOS: C
 Intersection Capacity Utilization 103.5%
 ICU Level of Service G
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Shepherd Dr & W 20th



TIRZ 5 TIA
11: Durham Dr & W 20th St

2040 Projected Conditions
Timing Plan: PM Peak Hour



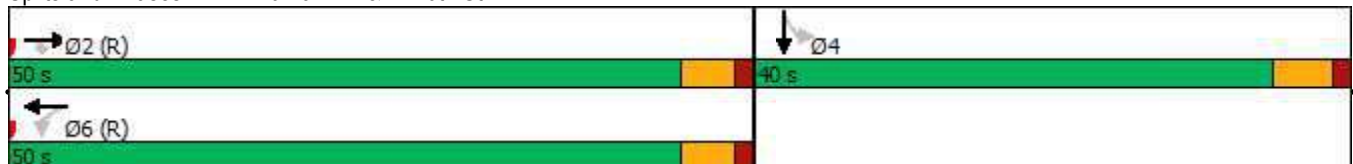
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↖↗	
Traffic Volume (vph)	0	349	40	104	233	0	0	0	0	138	1628	113
Future Volume (vph)	0	349	40	104	233	0	0	0	0	138	1628	113
Satd. Flow (prot)	0	1863	1583	0	1835	0	0	0	0	0	6318	0
Flt Permitted					0.494						0.996	
Satd. Flow (perm)	0	1863	1583	0	920	0	0	0	0	0	6318	0
Satd. Flow (RTOR)			28								20	
Lane Group Flow (vph)	0	447	43	0	383	0	0	0	0	0	1993	0
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		2			6							4
Permitted Phases			2	6						4		
Total Split (s)		50.0	50.0	50.0	50.0					40.0	40.0	
Total Lost Time (s)		5.0	5.0		5.0						5.3	
Act Effct Green (s)		34.8	34.8		34.8						44.9	
Actuated g/C Ratio		0.39	0.39		0.39						0.50	
v/c Ratio		0.62	0.07		1.08						0.63	
Control Delay		25.2	7.2		97.4						18.9	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		25.2	7.2		97.4						18.9	
LOS		C	A		F						B	
Approach Delay		23.6			97.4						18.9	
Approach LOS		C			F						B	
Queue Length 50th (ft)		197	5		~239						232	
Queue Length 95th (ft)		196	21		#344						334	
Internal Link Dist (ft)		1438			312			4811			1412	
Turn Bay Length (ft)			10									
Base Capacity (vph)		931	805		460						3162	
Starvation Cap Reductn		0	0		0						0	
Spillback Cap Reductn		0	0		0						0	
Storage Cap Reductn		0	0		0						0	
Reduced v/c Ratio		0.48	0.05		0.83						0.63	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay: 30.2
 Intersection LOS: C
 Intersection Capacity Utilization 76.7%
 ICU Level of Service D
 Analysis Period (min) 15

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Durham Dr & W 20th St



TIRZ 5 TIA
20: Shepherd Dr & 11th St

2040 Projected Conditions
Timing Plan: PM Peak Hour

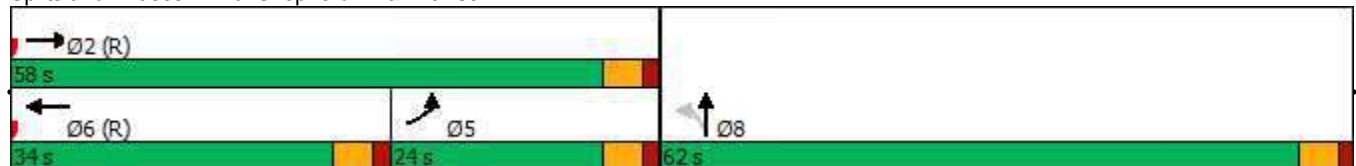


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↗			↖↖			↖↖↖				
Traffic Volume (vph)	297	921	0	0	640	155	404	2485	142	0	0	0
Future Volume (vph)	297	921	0	0	640	155	404	2485	142	0	0	0
Satd. Flow (prot)	1770	3539	0	0	3429	0	0	6318	0	0	0	0
Flt Permitted	0.950							0.994				
Satd. Flow (perm)	1770	3539	0	0	3429	0	0	6318	0	0	0	0
Satd. Flow (RTOR)					19			13				
Lane Group Flow (vph)	313	1001	0	0	961	0	0	3272	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Total Split (s)	24.0	58.0			34.0		62.0	62.0				
Total Lost Time (s)	5.2	5.2			5.2			5.0				
Act Effct Green (s)	18.8	52.8			28.8			57.0				
Actuated g/C Ratio	0.16	0.44			0.24			0.48				
v/c Ratio	1.13	0.64			1.15			1.09				
Control Delay	139.6	28.6			121.0			77.0				
Queue Delay	0.0	1.3			0.0			0.0				
Total Delay	139.6	29.9			121.0			77.0				
LOS	F	C			F			E				
Approach Delay		56.0			121.0			77.0				
Approach LOS		E			F			E				
Queue Length 50th (ft)	~281	312			~455			~828				
Queue Length 95th (ft)	#462	384			#525			#893				
Internal Link Dist (ft)		472			1073			2200			4775	
Turn Bay Length (ft)	80											
Base Capacity (vph)	277	1557			837			3007				
Starvation Cap Reductn	0	332			0			0				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	1.13	0.82			1.15			1.09				

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.15
 Intersection Signal Delay: 79.7
 Intersection LOS: E
 Intersection Capacity Utilization 96.5%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 20: Shepherd Dr & 11th St



Appendix E
Capacity Analysis – 2040 Projected Conditions –
Scenario 2

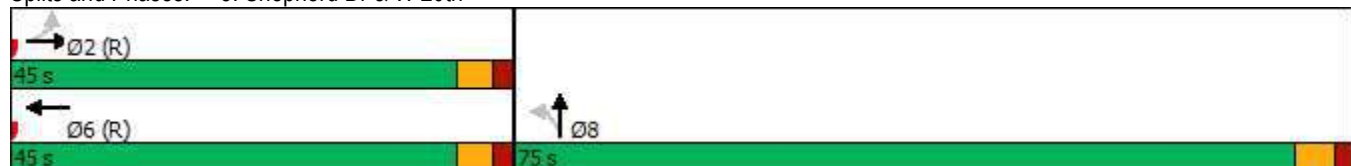


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔↔↔				
Traffic Volume (vph)	51	231	0	0	261	100	52	1182	84	0	0	0
Future Volume (vph)	51	231	0	0	261	100	52	1182	84	0	0	0
Satd. Flow (prot)	0	3500	0	0	3398	0	0	5019	0	0	0	0
Flt Permitted		0.648						0.998				
Satd. Flow (perm)	0	2293	0	0	3398	0	0	5019	0	0	0	0
Satd. Flow (RTOR)					45			18				
Lane Group Flow (vph)	0	354	0	0	461	0	0	1419	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Total Split (s)	45.0	45.0			45.0		75.0	75.0				
Total Lost Time (s)		5.1			5.1			5.3				
Act Effct Green (s)		30.0			30.0			79.6				
Actuated g/C Ratio		0.25			0.25			0.66				
v/c Ratio		0.62			0.52			0.43				
Control Delay		45.4			37.3			9.8				
Queue Delay		0.0			0.0			0.0				
Total Delay		45.4			37.3			9.8				
LOS		D			D			A				
Approach Delay		45.4			37.3			9.8				
Approach LOS		D			D			A				
Queue Length 50th (ft)		128			146			171				
Queue Length 95th (ft)		164			164			199				
Internal Link Dist (ft)		158			1611			4775			1423	
Turn Bay Length (ft)												
Base Capacity (vph)		762			1159			3335				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.46			0.40			0.43				

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 21.1
 Intersection Capacity Utilization 88.8%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service E

Splits and Phases: 8: Shepherd Dr & W 20th



TIRZ 5 TIA
20: Shepherd Dr & 11th St

2040 Projected Conditions - Scenario 2
Timing Plan: AM Peak Hour

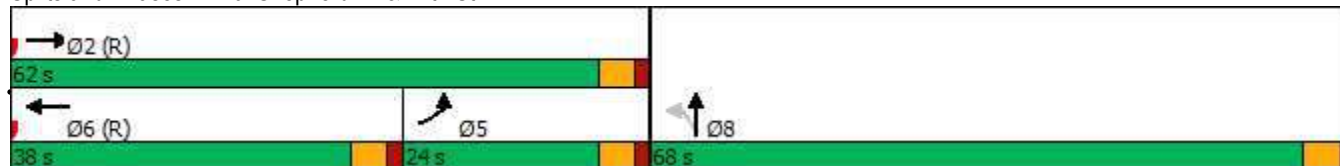


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↙↘↗				
Traffic Volume (vph)	128	649	0	0	703	125	253	1039	153	0	0	0
Future Volume (vph)	128	649	0	0	703	125	253	1039	153	0	0	0
Satd. Flow (prot)	1770	3539	0	0	3451	0	0	4949	0	0	0	0
Flt Permitted	0.950							0.991				
Satd. Flow (perm)	1770	3539	0	0	3451	0	0	4949	0	0	0	0
Satd. Flow (RTOR)					17			26				
Lane Group Flow (vph)	171	698	0	0	1069	0	0	1596	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	2			6			8				
Permitted Phases							8					
Total Split (s)	24.0	62.0			38.0		68.0	68.0				
Total Lost Time (s)	5.2	5.2			5.2			5.0				
Act Effct Green (s)	17.1	55.1			32.8			64.7				
Actuated g/C Ratio	0.13	0.42			0.25			0.50				
v/c Ratio	0.74	0.47			1.21			0.64				
Control Delay	73.1	27.9			146.4			25.4				
Queue Delay	0.0	0.0			0.0			0.0				
Total Delay	73.1	27.9			146.4			25.4				
LOS	E	C			F			C				
Approach Delay		36.8			146.4			25.4				
Approach LOS		D			F			C				
Queue Length 50th (ft)	140	216			~574			353				
Queue Length 95th (ft)	177	267			#573			412				
Internal Link Dist (ft)		472			1073			2200			4775	
Turn Bay Length (ft)	80											
Base Capacity (vph)	255	1546			883			2475				
Starvation Cap Reductn	0	0			0			0				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.67	0.45			1.21			0.64				

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.21
 Intersection Signal Delay: 64.8
 Intersection LOS: E
 Intersection Capacity Utilization 101.9%
 ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 20: Shepherd Dr & 11th St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Traffic Volume (vph)	93	393	0	0	272	179	67	2573	134	0	0	0
Future Volume (vph)	93	393	0	0	272	179	67	2573	134	0	0	0
Satd. Flow (prot)	0	3507	0	0	3330	0	0	5035	0	0	0	0
Flt Permitted		0.634						0.998				
Satd. Flow (perm)	0	2244	0	0	3330	0	0	5035	0	0	0	0
Satd. Flow (RTOR)					2			13				
Lane Group Flow (vph)	0	570	0	0	516	0	0	2939	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Total Split (s)	45.0	45.0			45.0		85.0	85.0				
Total Lost Time (s)		5.1			5.1			5.3				
Act Effct Green (s)		36.8			36.8			82.8				
Actuated g/C Ratio		0.28			0.28			0.64				
v/c Ratio		0.90			0.55			0.92				
Control Delay		62.6			41.3			26.8				
Queue Delay		0.0			0.0			0.0				
Total Delay		62.6			41.3			26.8				
LOS		E			D			C				
Approach Delay		62.6			41.3			26.8				
Approach LOS		E			D			C				
Queue Length 50th (ft)		236			188			779				
Queue Length 95th (ft)		287			233			880				
Internal Link Dist (ft)		158			1495			4775			1423	
Turn Bay Length (ft)												
Base Capacity (vph)		688			1023			3210				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.83			0.50			0.92				

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 33.7
 Intersection Capacity Utilization 117.0%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service H

Splits and Phases: 8: Shepherd Dr & W 20th



Appendix F
Capacity Analysis – 2040 Projected Conditions –
Scenario 3

TIRZ 5 TIA
8: Shepherd Dr & W 20th

2040 Projected Conditions - Scenario 3
Timing Plan: AM Peak Hour

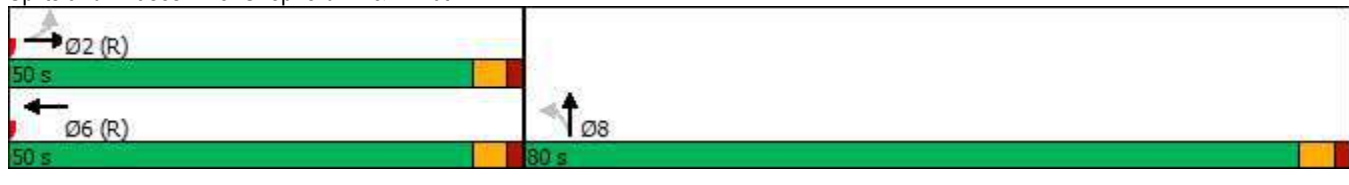


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Traffic Volume (vph)	51	231	0	0	261	100	52	1182	84	0	0	0
Future Volume (vph)	51	231	0	0	261	100	52	1182	84	0	0	0
Satd. Flow (prot)	0	3500	0	0	3398	0	0	5019	0	0	0	0
Flt Permitted		0.627						0.998				
Satd. Flow (perm)	0	2219	0	0	3398	0	0	5019	0	0	0	0
Satd. Flow (RTOR)					43			16				
Lane Group Flow (vph)	0	354	0	0	461	0	0	1419	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Total Split (s)	50.0	50.0			50.0		80.0	80.0				
Total Lost Time (s)		5.1			5.1			5.3				
Act Effct Green (s)		30.2			30.2			89.4				
Actuated g/C Ratio		0.23			0.23			0.69				
v/c Ratio		0.69			0.56			0.41				
Control Delay		37.5			42.7			9.2				
Queue Delay		0.0			0.0			0.0				
Total Delay		37.5			42.7			9.2				
LOS		D			D			A				
Approach Delay		37.5			42.7			9.2				
Approach LOS		D			D			A				
Queue Length 50th (ft)		164			165			171				
Queue Length 95th (ft)		m188			180			203				
Internal Link Dist (ft)		158			1611			4775			1423	
Turn Bay Length (ft)												
Base Capacity (vph)		766			1201			3457				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.46			0.38			0.41				

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 20.6
 Intersection LOS: C
 Intersection Capacity Utilization 88.8%
 ICU Level of Service E
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Shepherd Dr & W 20th



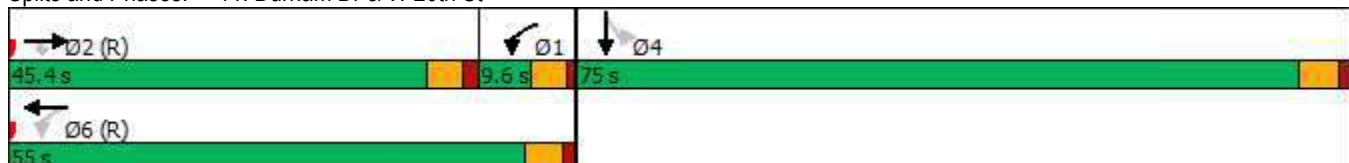


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↑↑↑	
Traffic Volume (vph)	0	155	34	108	214	0	0	0	0	134	2392	163
Future Volume (vph)	0	155	34	108	214	0	0	0	0	134	2392	163
Satd. Flow (prot)	0	1863	1583	1770	1863	0	0	0	0	0	5019	0
Flt Permitted				0.446							0.997	
Satd. Flow (perm)	0	1863	1583	831	1863	0	0	0	0	0	5019	0
Satd. Flow (RTOR)			61								13	
Lane Group Flow (vph)	0	209	42	123	278	0	0	0	0	0	2900	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		2		1	6							4
Permitted Phases			2	6						4		
Total Split (s)		45.4	45.4	9.6	55.0					75.0	75.0	
Total Lost Time (s)		5.0	5.0	4.5	5.0						5.3	
Act Effct Green (s)		25.3	25.3	40.5	40.0						79.7	
Actuated g/C Ratio		0.19	0.19	0.31	0.31						0.61	
v/c Ratio		0.58	0.12	0.37	0.49						0.94	
Control Delay		54.5	5.6	52.4	52.9						30.6	
Queue Delay		0.0	0.0	0.0	0.0						0.0	
Total Delay		54.5	5.6	52.4	52.9						30.6	
LOS		D	A	D	D						C	
Approach Delay		46.3			52.7						30.6	
Approach LOS		D			D						C	
Queue Length 50th (ft)		162	0	68	163						771	
Queue Length 95th (ft)		192	12	122	215						857	
Internal Link Dist (ft)		1523			312			4811			1412	
Turn Bay Length (ft)			10	125								
Base Capacity (vph)		578	533	332	716						3082	
Starvation Cap Reductn		0	0	0	0						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.36	0.08	0.37	0.39						0.94	

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 110.8 (85%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 34.2
 Intersection LOS: C
 Intersection Capacity Utilization 94.5%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 11: Durham Dr & W 20th St

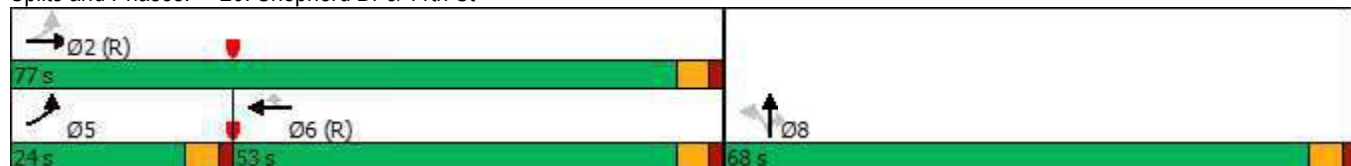


	↖	→	↘	↙	←	↖	↙	↑	↘	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↘	↘	↑↑↑	↘			
Traffic Volume (vph)	128	649	0	0	703	125	253	1039	153	0	0	0
Future Volume (vph)	128	649	0	0	703	125	253	1039	153	0	0	0
Satd. Flow (prot)	1770	3539	0	0	3539	1583	1770	5085	1583	0	0	0
Flt Permitted	0.092						0.950					
Satd. Flow (perm)	171	3539	0	0	3539	1583	1770	5085	1583	0	0	0
Satd. Flow (RTOR)						71			171			
Lane Group Flow (vph)	171	698	0	0	890	179	278	1129	189	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases	2					6	8		8			
Total Split (s)	24.0	77.0			53.0	53.0	68.0	68.0	68.0			
Total Lost Time (s)	5.2	5.2			5.2	5.2	5.0	5.0	5.0			
Act Effct Green (s)	63.9	63.9			44.4	44.4	70.9	70.9	70.9			
Actuated g/C Ratio	0.44	0.44			0.31	0.31	0.49	0.49	0.49			
v/c Ratio	0.74	0.45			0.82	0.34	0.32	0.45	0.22			
Control Delay	41.3	30.8			53.6	24.2	24.9	25.8	5.0			
Queue Delay	0.0	0.4			0.0	0.0	0.0	0.0	0.0			
Total Delay	41.3	31.2			53.6	24.2	24.9	25.8	5.0			
LOS	D	C			D	C	C	C	A			
Approach Delay		33.2			48.7			23.2				
Approach LOS		C			D			C				
Queue Length 50th (ft)	136	333			408	76	157	252	9			
Queue Length 95th (ft)	145	366			401	92	250	325	41			
Internal Link Dist (ft)		472			1073			2200			4775	
Turn Bay Length (ft)	200					100	200		200			
Base Capacity (vph)	282	1752			1166	569	865	2487	861			
Starvation Cap Reductn	0	558			0	0	0	0	0			
Spillback Cap Reductn	0	0			0	0	0	0	0			
Storage Cap Reductn	0	0			0	0	0	0	0			
Reduced v/c Ratio	0.61	0.58			0.76	0.31	0.32	0.45	0.22			

Intersection Summary

Cycle Length: 145
 Actuated Cycle Length: 145
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 33.4
 Intersection LOS: C
 Intersection Capacity Utilization 87.9%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 20: Shepherd Dr & 11th St



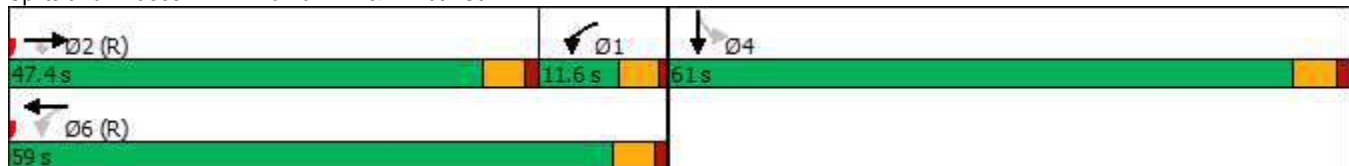


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↑↑↑	
Traffic Volume (vph)	0	349	40	104	233	0	0	0	0	138	1628	113
Future Volume (vph)	0	349	40	104	233	0	0	0	0	138	1628	113
Satd. Flow (prot)	0	1863	1583	1770	1863	0	0	0	0	0	5014	0
Flt Permitted				0.203							0.996	
Satd. Flow (perm)	0	1863	1583	378	1863	0	0	0	0	0	5014	0
Satd. Flow (RTOR)			66								13	
Lane Group Flow (vph)	0	447	43	118	265	0	0	0	0	0	1993	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		2		1	6							4
Permitted Phases			2	6						4		
Total Split (s)		47.4	47.4	11.6	59.0					61.0	61.0	
Total Lost Time (s)		5.0	5.0	4.5	5.0						5.3	
Act Effct Green (s)		34.1	34.1	44.6	44.1						65.6	
Actuated g/C Ratio		0.28	0.28	0.37	0.37						0.55	
v/c Ratio		0.84	0.09	0.58	0.39						0.73	
Control Delay		55.1	3.0	48.6	39.4						23.3	
Queue Delay		0.0	0.0	0.0	0.0						0.0	
Total Delay		55.1	3.0	48.6	39.4						23.3	
LOS		E	A	D	D						C	
Approach Delay		50.5			42.3						23.3	
Approach LOS		D			D						C	
Queue Length 50th (ft)		325	0	60	144						406	
Queue Length 95th (ft)		337	13	m60	m128						542	
Internal Link Dist (ft)		1438			312			4811			1412	
Turn Bay Length (ft)			10	125								
Base Capacity (vph)		658	602	227	838						2747	
Starvation Cap Reductn		0	0	0	0						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.68	0.07	0.52	0.32						0.73	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 96.4 (80%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 30.5
 Intersection LOS: C
 Intersection Capacity Utilization 73.2%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Durham Dr & W 20th St



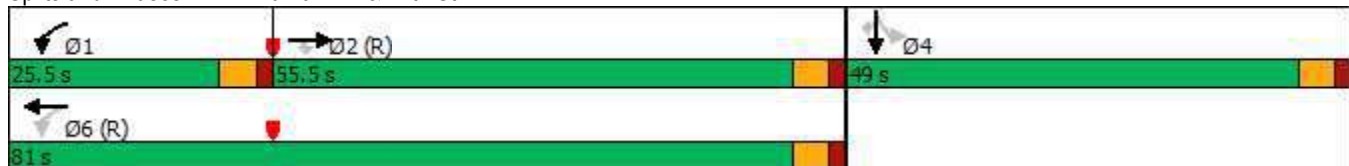


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘	↑↑↑	↗
Traffic Volume (vph)	0	1003	219	197	758	0	0	0	0	349	1256	135
Future Volume (vph)	0	1003	219	197	758	0	0	0	0	349	1256	135
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	5085	1583
Flt Permitted				0.096						0.950		
Satd. Flow (perm)	0	3539	1583	179	3539	0	0	0	0	1770	5085	1583
Satd. Flow (RTOR)			86									114
Lane Group Flow (vph)	0	1045	255	216	871	0	0	0	0	401	1411	157
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2	6						4		4
Total Split (s)		55.5	55.5	25.5	81.0					49.0	49.0	49.0
Total Lost Time (s)		5.2	5.2	5.2	5.2					5.3	5.3	5.3
Act Effct Green (s)		49.4	49.4	71.1	71.1					48.4	48.4	48.4
Actuated g/C Ratio		0.38	0.38	0.55	0.55					0.37	0.37	0.37
v/c Ratio		0.78	0.39	0.72	0.45					0.61	0.75	0.24
Control Delay		40.0	20.4	53.7	7.5					39.1	39.2	10.7
Queue Delay		0.0	0.0	0.0	0.1					0.0	0.0	0.0
Total Delay		40.0	20.4	53.7	7.7					39.1	39.2	10.7
LOS		D	C	D	A					D	D	B
Approach Delay		36.1			16.8						36.9	
Approach LOS		D			B						D	
Queue Length 50th (ft)		390	97	138	113					276	380	24
Queue Length 95th (ft)		485	160	m184	130					388	453	69
Internal Link Dist (ft)		797			472			1903			4811	
Turn Bay Length (ft)			125	200						200		200
Base Capacity (vph)		1394	675	346	2063					658	1893	660
Starvation Cap Reductn		0	0	0	349					0	0	0
Spillback Cap Reductn		0	0	0	0					0	0	0
Storage Cap Reductn		0	0	0	0					0	0	0
Reduced v/c Ratio		0.75	0.38	0.62	0.51					0.61	0.75	0.24

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 31.7
 Intersection LOS: C
 Intersection Capacity Utilization 95.0%
 ICU Level of Service F
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Durham Dr & 11th St



Appendix G
Capacity Analysis – 2040 Projected Conditions –
Scenario 4

TIRZ 5 TIA
8: Shepherd Dr & W 20th

2040 Projected Conditions - Scenario 4
Timing Plan: AM Peak Hour

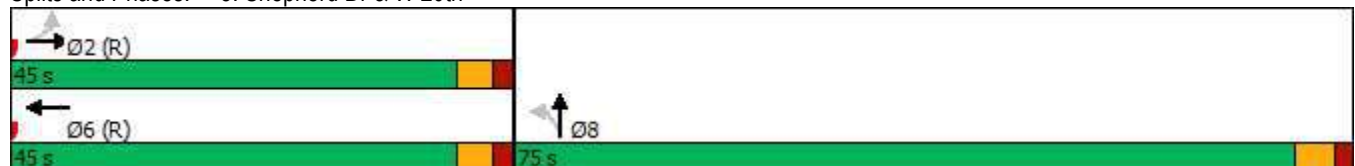


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Traffic Volume (vph)	51	231	0	0	261	100	52	1182	84	0	0	0
Future Volume (vph)	51	231	0	0	261	100	52	1182	84	0	0	0
Satd. Flow (prot)	0	3500	0	0	3398	0	0	5019	0	0	0	0
Flt Permitted		0.648						0.998				
Satd. Flow (perm)	0	2293	0	0	3398	0	0	5019	0	0	0	0
Satd. Flow (RTOR)					45			18				
Lane Group Flow (vph)	0	354	0	0	461	0	0	1419	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Total Split (s)	45.0	45.0			45.0		75.0	75.0				
Total Lost Time (s)		5.1			5.1			5.3				
Act Effct Green (s)		30.0			30.0			79.6				
Actuated g/C Ratio		0.25			0.25			0.66				
v/c Ratio		0.62			0.52			0.43				
Control Delay		45.4			37.3			9.8				
Queue Delay		0.0			0.0			0.0				
Total Delay		45.4			37.3			9.8				
LOS		D			D			A				
Approach Delay		45.4			37.3			9.8				
Approach LOS		D			D			A				
Queue Length 50th (ft)		128			146			171				
Queue Length 95th (ft)		164			164			199				
Internal Link Dist (ft)		158			1611			4775			1423	
Turn Bay Length (ft)												
Base Capacity (vph)		762			1159			3335				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.46			0.40			0.43				

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 21.1
 Intersection Capacity Utilization 88.8%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service E

Splits and Phases: 8: Shepherd Dr & W 20th



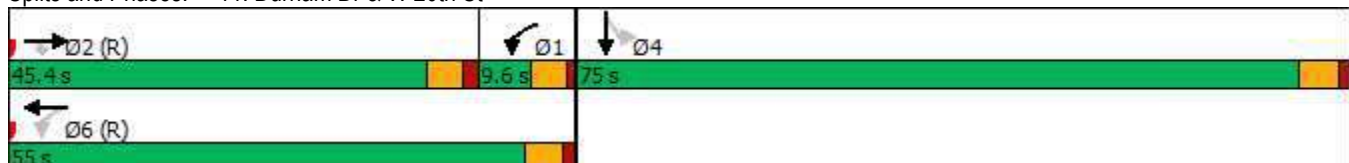


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↑↑↑	
Traffic Volume (vph)	0	155	34	108	214	0	0	0	0	134	2392	163
Future Volume (vph)	0	155	34	108	214	0	0	0	0	134	2392	163
Satd. Flow (prot)	0	1863	1583	1770	1863	0	0	0	0	0	5019	0
Flt Permitted				0.446							0.997	
Satd. Flow (perm)	0	1863	1583	831	1863	0	0	0	0	0	5019	0
Satd. Flow (RTOR)			61								13	
Lane Group Flow (vph)	0	209	42	123	278	0	0	0	0	0	2900	0
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	
Protected Phases		2		1	6							4
Permitted Phases			2	6						4		
Total Split (s)		45.4	45.4	9.6	55.0					75.0	75.0	
Total Lost Time (s)		5.0	5.0	4.5	5.0						5.3	
Act Effct Green (s)		25.3	25.3	40.5	40.0						79.7	
Actuated g/C Ratio		0.19	0.19	0.31	0.31						0.61	
v/c Ratio		0.58	0.12	0.37	0.49						0.94	
Control Delay		54.5	5.6	40.6	40.1						30.6	
Queue Delay		0.0	0.0	0.0	0.0						0.0	
Total Delay		54.5	5.6	40.6	40.1						30.6	
LOS		D	A	D	D						C	
Approach Delay		46.3			40.3						30.6	
Approach LOS		D			D						C	
Queue Length 50th (ft)		162	0	77	191						771	
Queue Length 95th (ft)		192	12	126	230						857	
Internal Link Dist (ft)		1523			312			4811			1412	
Turn Bay Length (ft)			10	125								
Base Capacity (vph)		578	533	332	716						3082	
Starvation Cap Reductn		0	0	0	0						0	
Spillback Cap Reductn		0	0	0	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.36	0.08	0.37	0.39						0.94	

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 110.8 (85%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 32.8
 Intersection LOS: C
 Intersection Capacity Utilization 94.5%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 11: Durham Dr & W 20th St



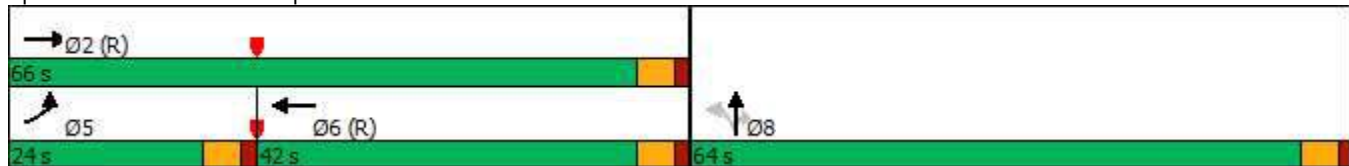


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑			↑↑		↖	↑↑↑	↗			
Traffic Volume (vph)	128	649	0	0	703	125	253	1039	153	0	0	0
Future Volume (vph)	128	649	0	0	703	125	253	1039	153	0	0	0
Satd. Flow (prot)	3433	3539	0	0	3451	0	1770	5085	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	3451	0	1770	5085	1583	0	0	0
Satd. Flow (RTOR)					18				153			
Lane Group Flow (vph)	171	698	0	0	1069	0	278	1129	189	0	0	0
Turn Type	Prot	NA			NA		Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases							8		8			
Total Split (s)	24.0	66.0			42.0		64.0	64.0	64.0			
Total Lost Time (s)	5.2	5.2			5.2		5.0	5.0	5.0			
Act Effct Green (s)	12.1	60.8			43.5		59.0	59.0	59.0			
Actuated g/C Ratio	0.09	0.47			0.33		0.45	0.45	0.45			
v/c Ratio	0.54	0.42			0.92		0.35	0.49	0.24			
Control Delay	62.3	23.9			53.9		24.6	25.8	6.0			
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0			
Total Delay	62.3	23.9			53.9		24.6	25.8	6.0			
LOS	E	C			D		C	C	A			
Approach Delay		31.5			53.9			23.3				
Approach LOS		C			D			C				
Queue Length 50th (ft)	72	201			445		149	239	17			
Queue Length 95th (ft)	88	252			463		219	282	46			
Internal Link Dist (ft)		472			1073			2200			4775	
Turn Bay Length (ft)	200						200		200			
Base Capacity (vph)	496	1655			1166		803	2307	802			
Starvation Cap Reductn	0	0			0		0	0	0			
Spillback Cap Reductn	0	0			0		0	0	0			
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.34	0.42			0.92		0.35	0.49	0.24			

Intersection Summary

Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 34.6
 Intersection LOS: C
 Intersection Capacity Utilization 87.8%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 20: Shepherd Dr & 11th St



TIRZ 5 TIA
22: Durham Dr & 11th St

2040 Projected Conditions - Scenario 4
Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘↗	↑↑					↘	↑↑↑	
Traffic Volume (vph)	0	513	228	259	565	0	0	0	0	274	2268	189
Future Volume (vph)	0	513	228	259	565	0	0	0	0	274	2268	189
Satd. Flow (prot)	0	3539	1583	3433	3539	0	0	0	0	1770	5014	0
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3539	1583	3433	3539	0	0	0	0	1770	5014	0
Satd. Flow (RTOR)			61								20	
Lane Group Flow (vph)	0	604	253	328	673	0	0	0	0	285	2847	0
Turn Type		NA	Perm	Prot	NA					Perm	NA	
Protected Phases		2		1	6							4
Permitted Phases			2							4		
Total Split (s)		36.0	36.0	21.0	57.0					78.0	78.0	
Total Lost Time (s)		5.2	5.2	5.2	5.2					5.3	5.3	
Act Effct Green (s)		28.8	28.8	15.4	49.4					75.1	75.1	
Actuated g/C Ratio		0.21	0.21	0.11	0.37					0.56	0.56	
v/c Ratio		0.80	0.66	0.84	0.52					0.29	1.02	
Control Delay		59.1	45.0	77.5	34.9					17.3	51.4	
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	
Total Delay		59.1	45.0	77.5	34.9					17.3	51.4	
LOS		E	D	E	C					B	D	
Approach Delay		54.9			48.8						48.3	
Approach LOS		D			D						D	
Queue Length 50th (ft)		262	153	146	235					132	~989	
Queue Length 95th (ft)		308	249	173	268					193	#1031	
Internal Link Dist (ft)		797			472			1903			4811	
Turn Bay Length (ft)			125	200						200		
Base Capacity (vph)		807	408	401	1357					984	2798	
Starvation Cap Reductn		0	0	0	0					0	0	
Spillback Cap Reductn		0	0	0	0					0	0	
Storage Cap Reductn		0	0	0	0					0	0	
Reduced v/c Ratio		0.75	0.62	0.82	0.50					0.29	1.02	

Intersection Summary

Cycle Length: 135

Actuated Cycle Length: 135

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 49.6

Intersection LOS: D

Intersection Capacity Utilization 87.8%

ICU Level of Service E

Analysis Period (min) 15

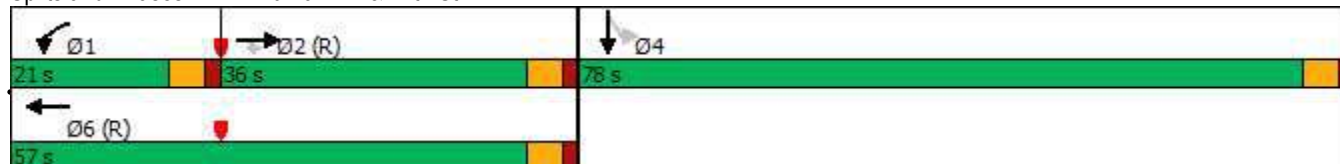
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 22: Durham Dr & 11th St



TIRZ 5 TIA
8: Shepherd Dr & W 20th

2040 Projected Conditions - Scenario 4
Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔↔↔				
Traffic Volume (vph)	93	393	0	0	272	179	67	2573	134	0	0	0
Future Volume (vph)	93	393	0	0	272	179	67	2573	134	0	0	0
Satd. Flow (prot)	0	3507	0	0	3330	0	0	5035	0	0	0	0
Flt Permitted		0.645						0.998				
Satd. Flow (perm)	0	2283	0	0	3330	0	0	5035	0	0	0	0
Satd. Flow (RTOR)					2			13				
Lane Group Flow (vph)	0	570	0	0	516	0	0	2939	0	0	0	0
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Total Split (s)	45.0	45.0			45.0		75.0	75.0				
Total Lost Time (s)		5.1			5.1			5.3				
Act Effct Green (s)		35.5			35.5			74.1				
Actuated g/C Ratio		0.30			0.30			0.62				
v/c Ratio		0.85			0.52			0.94				
Control Delay		35.5			36.7			29.4				
Queue Delay		0.0			0.0			0.0				
Total Delay		35.5			36.7			29.4				
LOS		D			D			C				
Approach Delay		35.5			36.7			29.4				
Approach LOS		D			D			C				
Queue Length 50th (ft)		248			173			722				
Queue Length 95th (ft)		283			208			#955				
Internal Link Dist (ft)		158			1495			4775			1423	
Turn Bay Length (ft)												
Base Capacity (vph)		759			1108			3115				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.75			0.47			0.94				

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 31.2
 Intersection LOS: C
 Intersection Capacity Utilization 117.0%
 ICU Level of Service H
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 8: Shepherd Dr & W 20th

