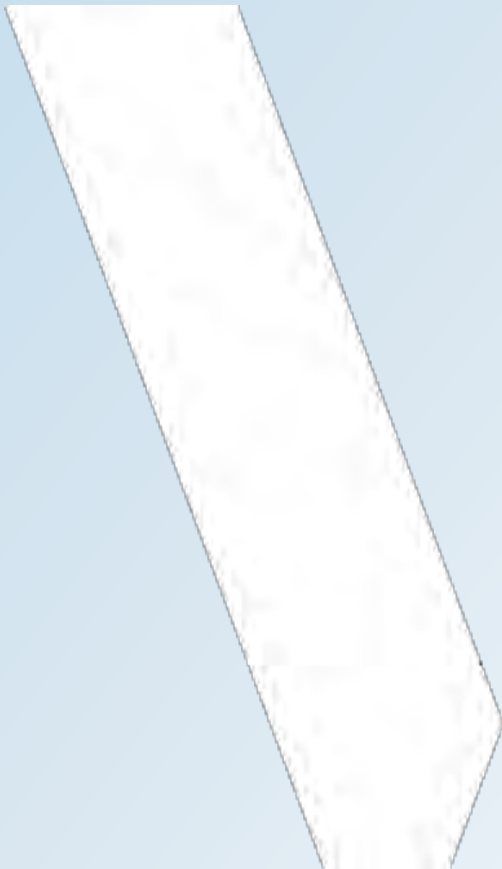


# APPENDIX

# D TRANSPORTATION AND TRAFFIC ANALYSIS





# TECHNICAL MEMORANDUM



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Date: December 9, 2016  
To: Janelle Trant - Project Manger, Transportation Management - City of Hamilton  
From: Mehemed Delibasic and Juan P. Perez  
Project No.: 161-09178-00  
Subject: King Street West (Dundas) Bridge 248 Municipal Class Environmental Assessment  
Transportation and Traffic Analysis

---

We are pleased to provide the following memorandum detailing the Transportation and Traffic Analysis components as part of the Municipal Class Environmental Assessment for the King Street (Dundas) Bridge 248, in the City of Hamilton. This Traffic Study is associated with the subject EA.

## 1. Introduction

The City of Hamilton has initiated a Municipal Class Environmental Assessment (EA) process to facilitate the bridge rehabilitation works on the 'King Street West Bridge (Bridge #248). The King Street West Bridge is located at the crossing of King Street West/Highway 8 and Spencer Creek, just north of the intersection with Bond Street North.

The study will examine various options such as rehabilitate the existing bridge, confirm the need to replace the bridge and construct a new bridge downstream with a re-alignment of King Street West. The study will also identify the environmental impacts, social impacts, cultural impacts, economic impacts and costs for each of the alternative designs, and determine the preferred alternative.

The King Street West Bridge (Bridge #248) provides a connection between the communities of Dundas and Greensville, over Spencer Creek. The bridge consists of two vehicular traffic lanes located over the river, and has an operational status of being open and in use. There is a sidewalk along the east side of the bridge. This Traffic Study includes a traffic operations analysis, roadway capacity analysis, collision analysis, active transportation review, and transit review. The horizon years are existing (2016) and 2026, while the time periods contained in the analysis include roadway AM and PM peak hours.

Figure 1-1 describes the study area along King Street West/Highway 8.

Figure 1-1 Study Area



## 2. Existing Traffic Conditions

### 2.1 Existing Road Network

King Street West/Highway 8 is a 2-lane highway under the jurisdiction of the City of Hamilton. Highway 8 runs east-west within the study area and connects the communities of Greensville and Dundas. There is a grade-separated rail crossing approximately 330m west of the bridge with a vertical clearance of 4.0m. There are no signalized intersections along Highway 8 within the study area. The posted speed limit on Highway 8 is 50 km/h and there are advisory speed limit signs before the bridge (30 km/h).

The Spencer Creek Bridge carries two lanes of north-south traffic and has a width of 7.32 to 7.52m (curb to curb). The bridge has a 2.5m sidewalk on the east side. King Street West/Highway 8 has an urban cross section east of the Spencer Creek Bridge and a rural cross section west of the bridge.

There are two intersections within the study area, both are two-way stop control with the right-of-way assigned to King Street/Highway 8:

- Woodleys Lane: is a skewed “T” intersection and Woodleys Lane serves as access to the Dundas Valley Golf and Curling Club. The eastbound approach from King Street/Highway 8 has a “Hidden Intersection” sign approximately 150m before the intersection with Woodleys Lane.
- Bond Street: is a four-leg intersection in a residential area with no dedicated lanes for turning movements. There is a bus stop on the southeast corner which is served by Hamilton Street Railway (HSR) Route 5 – Delaware.

## 2.2 Existing Traffic Volumes

### 2.2.1 Link/ Midblock Volumes

Based on City of Hamilton website information, Annual Average Daily Traffic (AADT) on King Street West/Highway 8 was approximately 9,300 vehicles per day in 2013. The City also provided midblock traffic counts at the Spencer Creek Bridge (carried out in October 5, 2016). Table 2-1 summarizes historic AADT data.

Table 2-1 – Historic AADT’s on King Street West/Highway 8 within Study Area

Year	EB Count	WB Count	Total AADT
2013	4,644	4,656	9,300
2016	4,358	4,386	8,744

After reviewing previous traffic count data, very little variation in link volume was observed during the last three years.

In terms of link/midblock capacity analysis within King Street/Highway 8, a maximum link capacity of 880 vehicles per hour per lane is typically assumed. Volumes higher than 792 vehicles per hour per lane will indicate the need for additional link capacity as the volume-to-capacity (V/C) ratio will be greater than 0.90. Table 2-2 shows existing peak direction link volumes and v/c ratios based on 2016 traffic counts.

Table 2-2 – 2016 Existing Conditions Link Capacity Analysis on King Street/ Highway 8 between Bond Street and Woodleys Lane

Peak Hour	Hourly Volume (peak direction)	V/C
7:45AM – 8:45AM	428 (EB)	0.49
4:30PM – 5:30PM	384 (WB)	0.44

Based on these link V/C ratios, currently there is no need for widening of King Street/Highway 8 within the study area.

Detailed midblock traffic data is included in Attachment 1.

### 2.2.2 Intersection Turning Volumes

The following study intersections are included in this report:

- King Street West/Highway 8 at Woodleys Lane
- King Street West/Highway 8 at Bond Street

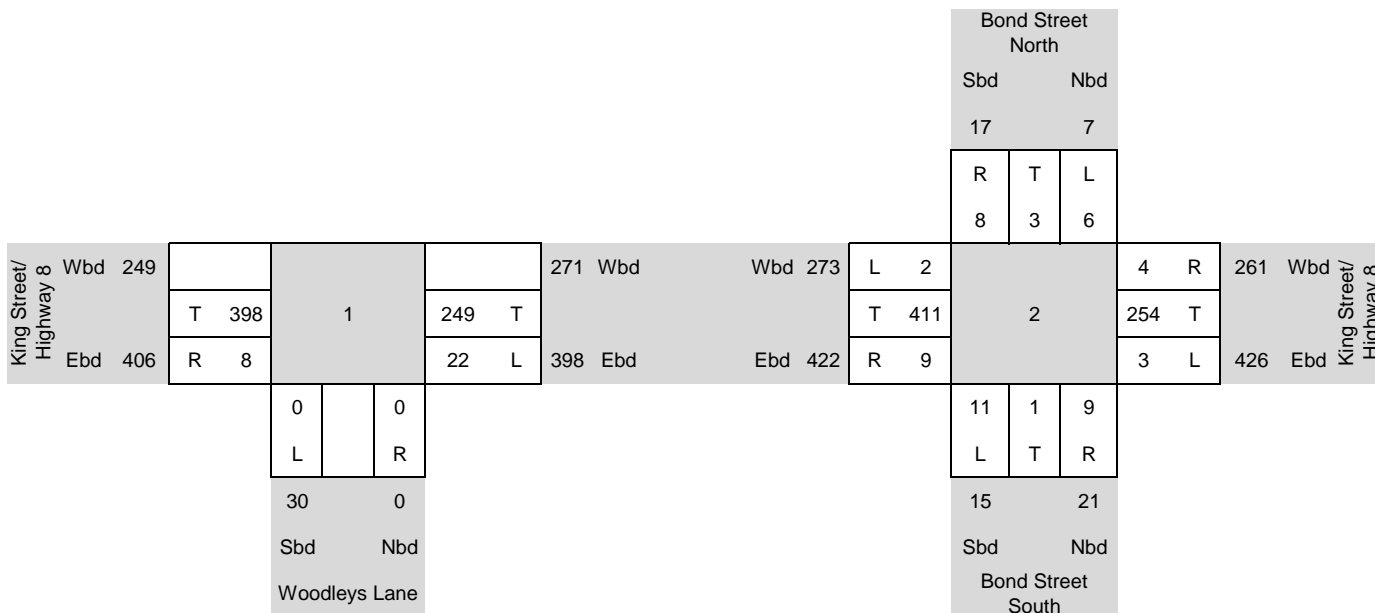
Analysis peak hours included the weekday AM and PM peak hours. Turning movement counts were obtained from the City of Hamilton and are described in Table 2-3.

Table 2-3 – Intersection Turning Movement Count Sources

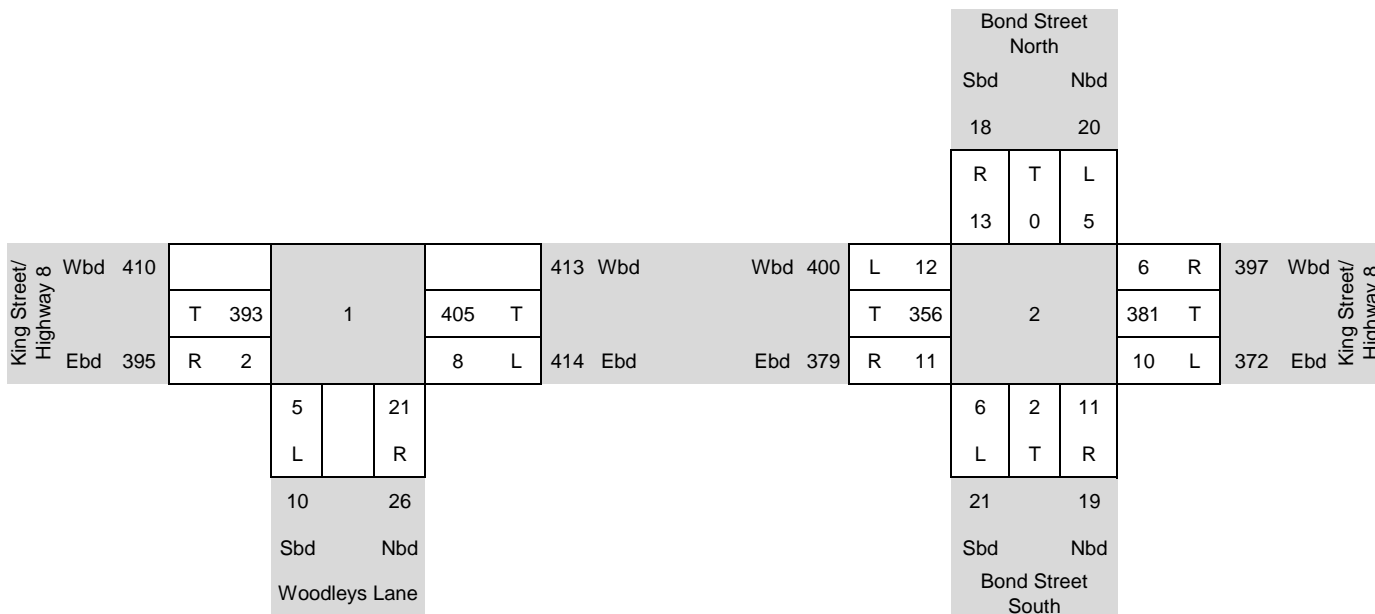
Intersection	Survey Date and Time	Weekday Peak Hour	
		AM Peak Hour	PM Peak Hour
King Street West/ Highway 8 at Woodleys Lane	Friday, October 14, 2016 7:00AM – 10:00AM, 1:30PM – 3:30PM, 4:00PM – 7:00PM	8:00AM – 9:00AM	4:45PM – 5:45PM
King Street West/Highway 8 at Bond Street	Thursday, October 13, 2016 7:00AM – 10:00AM, 1:30PM – 3:30PM, 4:00PM – 7:00PM	8:15AM – 9:15AM	4:30PM – 5:30PM

Existing traffic volumes in the AM and PM peak hours are provided in Figure 2-1. Detailed turning movement counts are provided in Attachment 2.

### Existing Traffic Volumes, AM Peak Hour



### Existing Traffic Volumes, PM Peak Hour



Source: City of Hamilton November 8, 2016

Schematic

Figure 2-1

Existing (2016) Traffic Volumes, Weekday AM and PM Peak Hour

King Street West Bridge 248 Municipal Class EA - Transportation Analysis



## 2.3 Existing Traffic Operations

WSP performed capacity analysis for the indicated intersections by using Highway Capacity Manual (HCM) Methodology and Synchro 8.0 software. Traffic operations analysis was based on Synchro Modelling requirements from the City of Hamilton Traffic Impact Study Guidelines (July 2009). This analysis is based on existing lane configurations and takes into consideration a peak hour factor of 0.92 and heavy vehicle percentages from the actual traffic counts. Table 2-4 provides a summary of intersection levels of service (LOS) and V/C ratios

Table 2-4 – Existing Intersection Capacity Analyses

Intersection	AM Peak Hour			PM Peak Hour		
	V/C	Delay (sec.)	LOS	V/C	Delay (sec.)	LOS
<b>King Street West and Woodleys Lane</b>						
Eastbound Through/Right	0.26	0	A	0.25	0	A
Westbound Through/Left	0.02	1	A	0.01	0	A
Northbound Left/Right	0.00	0	A	0.05	12	B
<b>King Street West and Bond Street</b>						
Eastbound Left/Through/Right	0.00	0	A	0.01	0	A
Westbound Left/Through/Right	0.00	0	A	0.01	0	A
Northbound Left/Through/Right	0.06	15	B	0.05	15	B
Southbound Left/Through/Right	0.04	14	B	0.04	13	B

Results of the capacity analyses for existing conditions indicate that all intersection movements are operating at good levels of service and delay during the weekday AM and PM peak hours, as shown in Table 2-4.

Detailed Synchro Reports are included in Attachment 3.

## 2.4 Review of Collision Data

WSP conducted a review of existing conditions within the study area including the last five years of collision history (October 2011 to October 2016). Collision data was extracted from the City's collision database by the City staff and provided to WSP on November 21, 2016.

Seventeen collisions occurred during the last five years within the study area. Four of the collisions were intersection-related, with three collisions occurring at the intersection of King Road at Woodleys Lane. These collisions may have occurred due to an 'unconventional' intersection configuration and could be avoided by the provision of a better alignment and sight distance.

In terms of severity, approximately 41 percent of collisions (7 out of 17) caused property damage only, approximately 59 percent involved non-fatal injuries (10 out of 17) and there were no fatalities.

Most of collisions, approximately 76 percent, occurred during daylight (13 out of 17) while approximately 12 percent occurred during dark/artificial lighting conditions (2 out of 17) and approximately 6 percent occurred at dusk.

Regarding impact type, a significant amount of collisions involved single moving vehicles (SMV). Approximately 47 percent of collisions involved single moving vehicles (8 out of 17, and two of them struck unattended/parked vehicles very close to the Bond Street intersection.



Rain and road alignment (either curve on hill or curve on level) might be a factor on approximately 47 percent of collisions (8 out of 17). In four of those events, the driver lost control of the vehicle and it skidded/sled. The potential realignment of this road section may help prevent future accident occurrences.

Detailed Accident Reports are included in Attachment 4.

### 3. Future Traffic Conditions

#### 3.1 Growth Rates

WSP reviewed two sources of information in order to estimate future year traffic on King Road/Highway 8:

- historic traffic volumes
- City of Hamilton Travel Demand Model (EMME model – volume plots within study area)

As indicated in Section 2.2.1, historic AADT volumes indicate a slight decrease during the 2013 to 2016 time period.

Furthermore, the City's Travel Demand Model plots for the Spencer Creek Bridge 248 location provided volume information for years 2011 and 2031 as described in Table 3-1.

Table 3-1 – Link Volumes from Hamilton Travel Demand Model

Year	Link Flow		
	EB	WB	Total
2011	343	505	848
2031	685	330	1,015

Table 3-1 indicates a forecasted average growth rate of approximately 0.9 percent per year for both directions.

According to information provided by the City of Hamilton, population growth in the study area is estimated at approximately 1.0 percent per year.

A growth rate of 1.0 percent per annum was assumed for King Street West/ Highway 8 and Bond Street. No growth rate was applied to turning movements associated with Woodleys Lane since this road serves primarily the Dundas Valley Golf and Curling Club, which is a facility that is not expected to generate additional traffic growth in the foreseeable future.

### 3.2 Future (2026) Traffic

The horizon year for future traffic analysis is 2026 (ten years from existing conditions).

#### 3.2.1 Link/Midblock Volumes

Future (2026) traffic for the study horizon was calculated by applying a 1.0 percent annual growth rate over ten years to the existing volumes. Table 3-2 shows a comparison of existing and future volumes along with their respective volume-over-capacity ratios.

Table 3-2 - Link Capacity Analysis on King Street/ Highway 8 between Bond Street and Woodleys Lane – Year Comparison 2016/2026

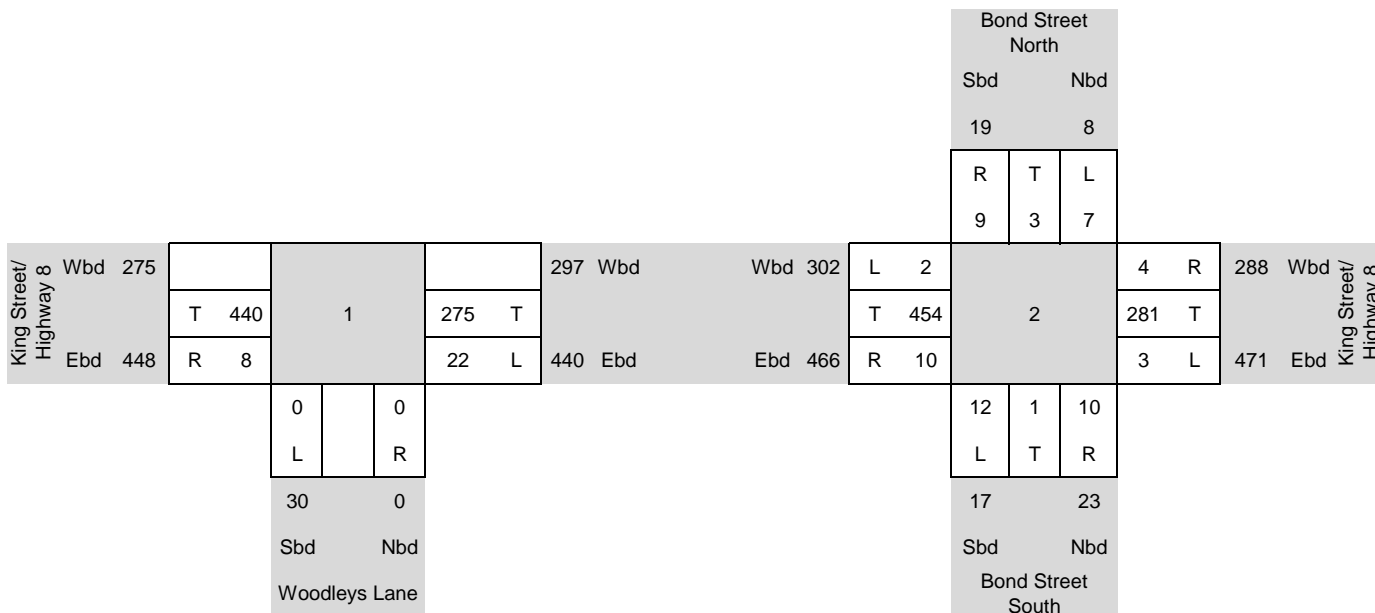
Peak Hour	Hourly Volume (peak direction)		V/C	
	2016	2026	2016	2026
7:45AM – 8:45AM	428 (EB)	473 (EB)	0.49	0.54
4:30PM – 5:30PM	384 (WB)	424 (WB)	0.44	0.48

Based on these link V/C ratios, there is no need for widening of King Street/Highway 8 within the study area for the following ten years.

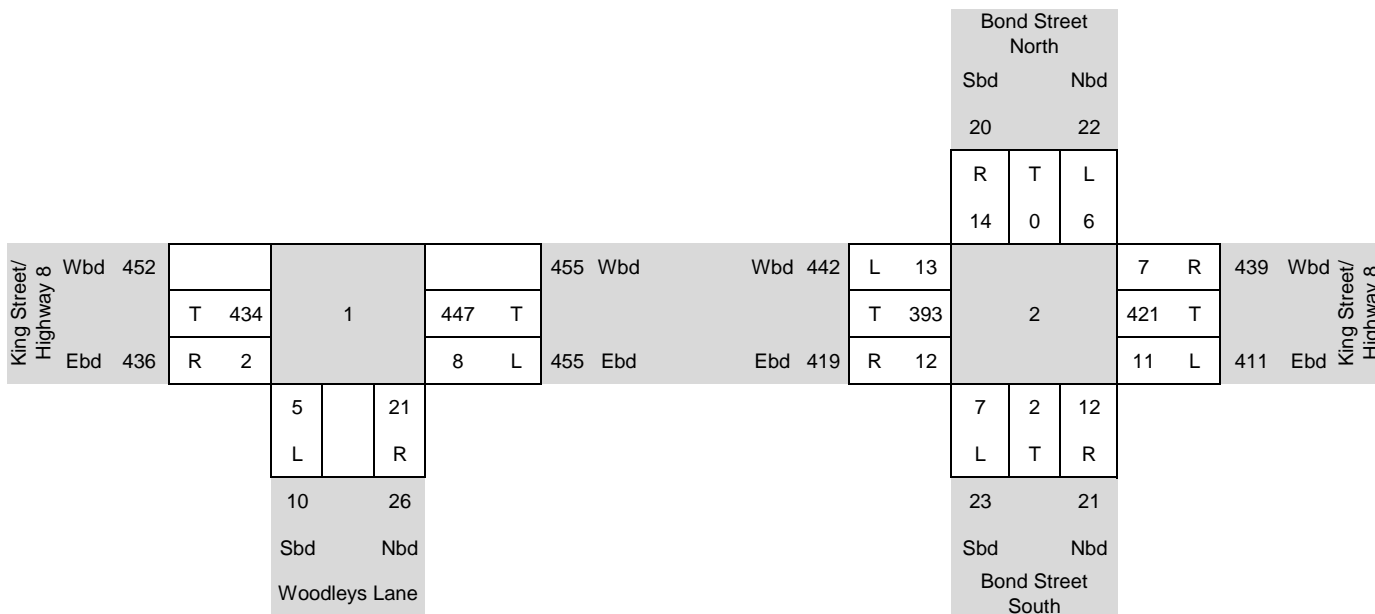
#### 3.2.2 Intersection Turning Volumes

Future (2026) traffic for the study horizon was calculated by adding the projected traffic growth and the existing traffic. Future (2026) volumes for the AM and PM peak hours are presented in Figure 3-1.

### Existing Traffic Volumes, AM Peak Hour



### Existing Traffic Volumes, PM Peak Hour



Source: City of Hamilton November 8, 2016

Schematic

Figure 3-1

Future (2026) Traffic Volumes, Weekday AM and PM Peak Hour

King Street West Bridge 248 Municipal Class EA - Transportation Analysis



### 3.3 Future (2026) Traffic Operations Analysis

Intersection capacity analyses for the future (2026) horizon traffic conditions were completed for the two study area intersections to determine Levels of service and volume-over-capacity ratios during the AM and PM peak hours. Intersection operations were analyzed using HCM methodology and Synchro 8.0 software. Table 7 provides a summary of intersection operation metrics under future (2026) traffic conditions.

Table 3-3 – Future (2026) Intersection Traffic Operations

Intersection	AM Peak Hour			PM Peak Hour		
	V/C	Delay (sec.)	LOS	V/C	Delay (sec.)	LOS
<b>King Street West and Woodleys Lane</b>						
Eastbound Through/Right	0.29	0	A	0.28	0	A
Westbound Through/Left	0.02	1	A	0.01	0	A
Northbound Left/Right	0.00	0	A	0.06	13	B
<b>King Street West and Bond Street</b>						
Eastbound Left/Through/Right	0.00	0	A	0.01	0	A
Westbound Left/Through/Right	0.00	0	A	0.01	0	A
Northbound Left/Through/Right	0.07	16	C	0.07	16	C
Southbound Left/Through/Right	0.05	15	B	0.06	15	B

Results of the capacity analyses for future (2026) conditions indicate that all intersection movements will operate at good levels of service and delay during the weekday AM and PM peak hours, as shown in Table 3-3. Furthermore, there will not be deterioration of traffic conditions at the study intersections with the projected traffic growth.

## 4. Transit

Hamilton’s Transportation Master Plan - *City in Motion* (2007) summarizes transit services under existing conditions and provides high level recommendations for implementation.

HSR Transit route No. 5 – Delaware serves the residential area and has a stop at the corner of King Street West/Highway 8 with Bond Street. Bus service is provided Monday to Sunday approximately every 30 minutes at this stop. Figure 4-1 describes transit service in the study area.

Figure 4-1 – Transit Route in Study Area



Source: HSR System Map – September 2016

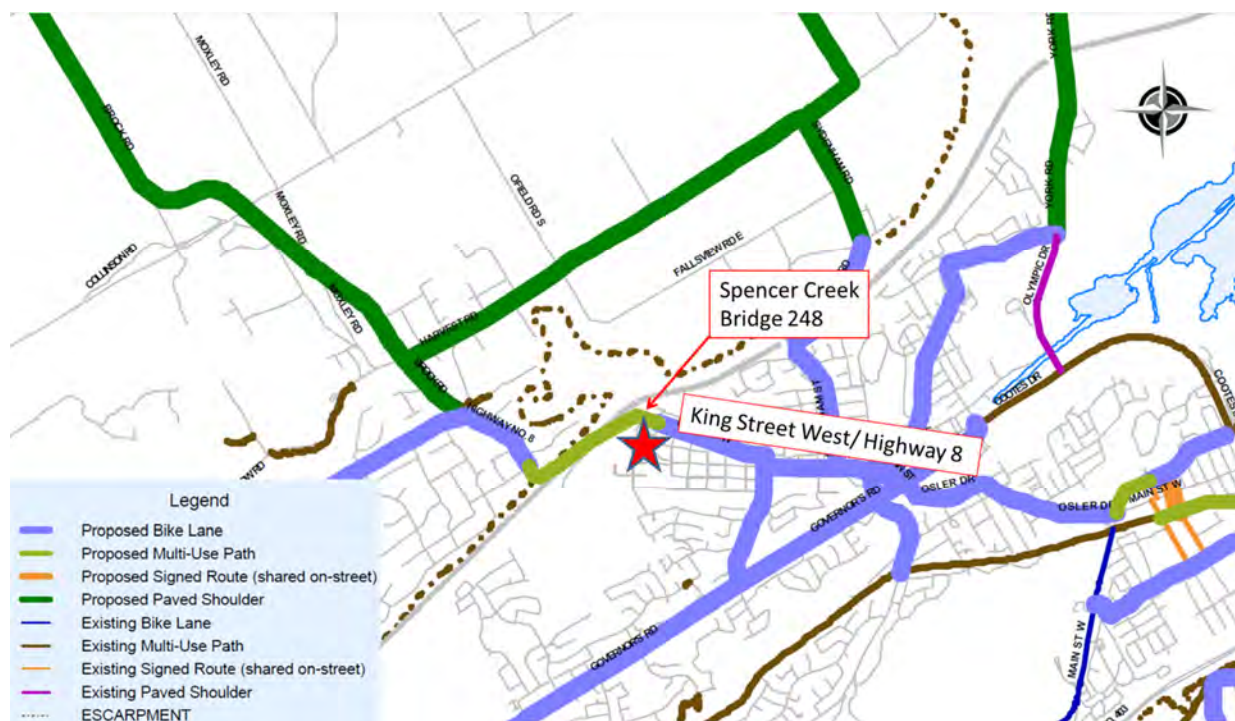
Hamilton's Transportation Master Plan - *City in Motion* (2007) does not anticipate a need for transit expansion within the study area.

## 5. Active Transportation

Hamilton's Cycling Master Plan – *Shifting Gears* (2009) establishes priorities for implementation of cycling facilities within the City. The Plan proposed multi-use path on the section of King Street West/ Highway 8 west of Spencer Bridge. On the east section of King Road West/ Highway 8 (east of the Spencer Creek Bridge), the Plan proposes a bike lane. Figure 3 illustrates the preferred cycling network as proposed by the Cycling Master Plan.

Hamilton's Transportation Master Plan - *City in Motion* (2007) proposed an on-street bike lane on a 1.7 km section of King Street West/ Highway 8 from bond Street to Brock Road, with Spencer Creek Bridge 248 being included in this section. In terms of timing, this on-street infrastructure facility was proposed for medium-term (2012 to 2016). Figure 5-1 describes existing and proposed cycling facilities in the study area.

Figure 5-1 – Preferred Cycling Network from Cycling Master Plan



Source: Hamilton's Cycling Master Plan – Appendix B – Preferred Cycling Network Map

It is expected that the new bridge will provide accommodation for bicyclists and pedestrians in order to promote active modes of transportation.

## 6. Summary and Recommendations

The Traffic analysis associated with the Traffic Report for the Municipal Class EA process to facilitate the bridge rehabilitation works on the 'King Street West Bridge (Bridge #248) in the City of Hamilton is summarized as follows:

- The existing roadway in the study area, King Street West/ Highway 8 (running east to west) provides connection between the communities of Dundas and Greensville, with Bridge 248 crossing over Spencer Creek.
- This Traffic Study includes a traffic operations analysis and roadway capacity analysis for horizon years 2016/ existing and 2026, while the time periods contained in the analysis include roadway AM and PM peak hours.
- There are no signalized intersections along Highway 8 within the study area. The posted speed limit on Highway 8 is 50 km/h and there are advisory speed limit signs before the bridge (30 km/h).
- Total AADT's on Highway 8 within the study area have decreased slightly from 9,300 vehicles per day in 2013 to 8,744 in 2016.
- Based on these link V/C ratios, currently there is no need for widening of King Street/Highway 8 within the study area.

- Results of the intersection capacity analyses for existing conditions indicate that all intersection movements are operating at good levels of service and delay during the weekday AM and PM peak hours.
- Seventeen collisions occurred during the last five years within the study area. Four of the collisions were intersection-related, with three collisions occurring at the intersection of King Road at Woodleys Lane. These collisions may have occurred due to an 'unconventional' intersection configuration and could be avoided by the provision of a better alignment and sight distance.
- Approximately 41 percent of collisions caused property damage only, 59 percent involved non-fatal injuries and there were no fatalities.
- Potential realignment of King Street West/ Highway 8 within the study area may help prevent future accident occurrences, especially during winter and rainy seasons.
- Based on review of historic traffic data and Region's Demand Model, a growth rate of 1.0 percent per annum was assumed for King Street West/ Highway 8 and Bond Street for ten-year horizon analysis (2026).
- Based on projected V/C ratios, there is no need for widening of King Street/Highway 8 within the study area for the following ten years.
- Results of the capacity analyses for future (2026) conditions indicate that all intersection movements will operate at good levels of service and delay during the weekday AM and PM peak hours.
- Currently, the study area is served by HSR Transit route No. 5 – Delaware, with a stop at the corner of King Street West/Highway 8 with Bond Street.
- Hamilton's Transportation Master Plan - *City in Motion* (2007) does not anticipate a need for transit expansion within the study area.
- The City of Hamilton has a large pathway system that connects parks and valleys, and provides convenient pedestrian and cycling routes across the study area.
- Hamilton's Cycling Master Plan – *Shifting Gears* (2009) proposed multi-use path on the section of King Street West/ Highway 8 west of Spencer Bridge. On the east section of King Road West/ Highway 8 (east of the Spencer Creek Bridge), the Plan proposes a bike lane.
- Hamilton's Transportation Master Plan - *City in Motion* (2007) proposed an on-street bike lane on a 1.7 km section of King Street West/ Highway 8 from bond Street to Brock Road, with Spencer Creek Bridge 248 being included in this section.
- The new bridge (if constructed) should provide accommodation for bicyclists and pedestrians in order to promote active modes of transportation.

# Attachment 1

MIDBLOCK TRAFFIC DATA





Prepared For: City of Hamilton  
 Prepared By: *PYRAMID Traffic Inc.*  
 Location: King St W, btwn Bond St & Woodley Ln  
 Start Date: Wednesday Oct 5, 2016

Site ID: 1  
 Interval: 15 min.

Period Ending	Channel 1 EB	Channel 2 WB	Hourly Summary
0:15	7	8	
0:30	4	6	
0:45	1	5	
1:00	7	0	38
1:15	7	1	31
1:30	2	4	27
1:45	0	4	25
2:00	4	2	24
2:15	1	2	19
2:30	2	3	18
2:45	3	1	18
3:00	3	1	16
3:15	0	3	16
3:30	2	3	16
3:45	3	1	16
4:00	2	2	16
4:15	1	0	14
4:30	2	3	14
4:45	5	3	18
5:00	1	4	19
5:15	8	3	29
5:30	8	12	44
5:45	5	12	53
6:00	12	12	72
6:15	13	17	91
6:30	19	29	119
6:45	29	26	157
7:00	39	36	208
7:15	36	43	257
7:30	57	58	324
7:45	75	69	413
8:00	104	81	523
8:15	114	55	613
8:30	119	94	711
8:45	91	66	724
9:00	84	89	712
9:15	86	66	695
9:30	65	64	611
9:45	66	56	576
10:00	76	61	540
10:15	77	52	517
10:30	55	46	489
10:45	49	70	486
11:00	65	54	468
11:15	54	57	450
11:30	57	52	458
11:45	60	79	478
12:00	56	61	476

Period Ending	Channel 1 EB	Channel 2 WB	Hourly Summary
12:15	67	62	494
12:30	70	62	517
12:45	68	53	499
13:00	64	82	528
13:15	70	74	543
13:30	68	69	548
13:45	65	71	563
14:00	63	59	539
14:15	58	61	514
14:30	66	84	527
14:45	80	78	549
15:00	70	96	593
15:15	76	84	634
15:30	90	82	656
15:45	90	88	676
16:00	83	99	692
16:15	78	98	708
16:30	91	85	712
16:45	70	100	704
17:00	70	97	689
17:15	82	83	678
17:30	103	104	709
17:45	84	99	722
18:00	86	96	737
18:15	71	67	710
18:30	78	72	653
18:45	68	67	605
19:00	80	65	568
19:15	65	77	572
19:30	58	56	536
19:45	56	48	505
20:00	55	41	456
20:15	47	51	412
20:30	43	44	385
20:45	49	44	374
21:00	44	35	357
21:15	27	53	339
21:30	26	41	319
21:45	18	31	275
22:00	33	27	256
22:15	23	32	231
22:30	13	32	209
22:45	7	18	185
23:00	14	13	152
23:15	8	10	115
23:30	12	9	91
23:45	7	8	81
0:00	8	3	65

AM Peak: 724

PM Peak: 737

24 HR VOLUME: 8744

**MH Corbin Traffic Analyzer Study  
 Computer Generated Summary Report  
 City: City of Hamilton  
 Street: King St W - EB  
 Location: 1**

---

A study of vehicle traffic was conducted with the device having serial number 134624. The study was done in the EB lane at King St W - EB in City of Hamilton, ON in btwn Bond St & Woodley Ln county. The study began on 2016-10-05 at 12:00 AM and concluded on 2016-10-06 at 12:00 AM, lasting a total of 24.00 hours. Traffic statistics were recorded in 15 minute time periods. The total recorded volume showed 4,358 vehicles passed through the location with a peak volume of 119 on 2016-10-05 at [08:15 AM-08:30 AM] and a minimum volume of 0 on 2016-10-05 at [01:30 AM-01:45 AM]. The AADT count for this study was 4,358.

**SPEED**

Chart 1 lists the values of the speed bins and the total traffic volume for each bin. At least half the vehicles were traveling in the 40 - 50 KM/H range or lower. The average speed for all classified vehicles was 49 KM/H with 45.49% vehicles exceeding the posted speed of 50 KM/H. 0.21% percent of the total vehicles were traveling in excess of 89 KM/H. The mode speed for this traffic study was 40KM/H and the 85th percentile was 57.25 KM/H.

< to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	110 to 119	120 to 129	130 to 139	140 to >
0	5	28	268	2042	1808	118	20	4	5	0	0	0	0	0

CHART 1

**CLASSIFICATION**

Chart 2 lists the values of the classification bins and the total traffic volume accumulated for each bin. Most of the vehicles classified during the study were Passenger Vehicles. The number of Passenger Vehicles in the study was 4193 which represents 98 percent of the total classified vehicles. The number of Small Trucks in the study was 28 which represents 1 percent of the total classified vehicles. The number of Trucks/Buses in the study was 48 which represents 1 percent of the total classified vehicles. The number of Tractor Trailers in the study was 29 which represents 1 percent of the total classified vehicles.

< to 4.9	5.0 to 8.4	8.5 to 9.9	10.0 to 12.9	13.0 to 15.9	16.0 to 18.9	19.0 to 22.4	22.5 to >							
2784	1409	28	48	16	10	3	0							

CHART 2

**HEADWAY**

During the peak traffic period, on 2016-10-05 at [08:15 AM-08:30 AM] the average headway between vehicles was 7.5 seconds. During the slowest traffic period, on 2016-10-05 at [01:30 AM-01:45 AM] the average headway between vehicles was 900 seconds.

**WEATHER**

The roadway surface temperature over the period of the study varied between 15.00 and 37.00 degrees C.

### Class/Volume Report Graph

HI-Star ID: 20DE0  
 Street: King St W - EB  
 State: ON  
 City: City of Hamilton  
 Area: btwn Bond St & Woodley Ln

Begin: 2016-10-05 12:00 AM  
 Lane: EB  
 Oper: MD  
 Posted: 50  
 AADT Factor: 1

End: 2016-10-06 12:00 AM  
 Hours: 24:00  
 Period: 15  
 Raw Count: 4358  
 AADT Count: 4358

NC200 - Metres	0.0 to 4.9	5.0 to 8.4	8.5 to 9.9	10.0 to 12.5	13.0 to 15.5	16.0 to 18.5	19.0 to 22.4	22.5 >	Total
2016-10-05 [12:00 AM-12:15 AM]	7	5	2	0	0	0	0	0	7
2016-10-05 [12:15 AM-12:30 AM]	4	3	1	0	0	0	0	0	4
2016-10-05 [12:30 AM-12:45 AM]	1	0	0	0	0	0	0	0	0
2016-10-05 [12:45 AM-01:00 AM]	7	4	3	0	0	0	0	0	7
	19	12	6	0	0	0	0	0	18
2016-10-05 [01:00 AM-01:15 AM]	7	3	4	0	0	0	0	0	7
2016-10-05 [01:15 AM-01:30 AM]	2	2	0	0	0	0	0	0	2
2016-10-05 [01:30 AM-01:45 AM]	0	0	0	0	0	0	0	0	0
2016-10-05 [01:45 AM-02:00 AM]	4	3	1	0	0	0	0	0	4
	13	8	5	0	0	0	0	0	13
2016-10-05 [02:00 AM-02:15 AM]	1	1	0	0	0	0	0	0	1
2016-10-05 [02:15 AM-02:30 AM]	2	1	1	0	0	0	0	0	2
2016-10-05 [02:30 AM-02:45 AM]	3	3	0	0	0	0	0	0	3
2016-10-05 [02:45 AM-03:00 AM]	3	2	1	0	0	0	0	0	3
	9	7	2	0	0	0	0	0	9
2016-10-05 [03:00 AM-03:15 AM]	0	0	0	0	0	0	0	0	0
2016-10-05 [03:15 AM-03:30 AM]	2	2	0	0	0	0	0	0	2
2016-10-05 [03:30 AM-03:45 AM]	3	1	2	0	0	0	0	0	3
2016-10-05 [03:45 AM-04:00 AM]	2	1	0	1	0	0	0	0	2
	7	4	2	1	0	0	0	0	7
2016-10-05 [04:00 AM-04:15 AM]	1	1	0	0	0	0	0	0	1
2016-10-05 [04:15 AM-04:30 AM]	2	0	2	0	0	0	0	0	2
2016-10-05 [04:30 AM-04:45 AM]	5	2	3	0	0	0	0	0	5
2016-10-05 [04:45 AM-05:00 AM]	1	0	1	0	0	0	0	0	1
	9	3	6	0	0	0	0	0	9
2016-10-05 [05:00 AM-05:15 AM]	8	4	4	0	0	0	0	0	8
2016-10-05 [05:15 AM-05:30 AM]	8	4	4	0	0	0	0	0	8
2016-10-05 [05:30 AM-05:45 AM]	5	3	2	0	0	0	0	0	5
2016-10-05 [05:45 AM-06:00 AM]	12	8	4	0	0	0	0	0	12
	33	19	14	0	0	0	0	0	33
2016-10-05 [06:00 AM-06:15 AM]	13	9	4	0	0	0	0	0	13
2016-10-05 [06:15 AM-06:30 AM]	19	17	2	0	0	0	0	0	19
2016-10-05 [06:30 AM-06:45 AM]	29	18	10	0	0	0	0	0	28
2016-10-05 [06:45 AM-07:00 AM]	39	19	18	0	1	0	0	0	38
	100	63	34	0	1	0	0	0	98
2016-10-05 [07:00 AM-07:15 AM]	36	26	10	0	0	0	0	0	36
2016-10-05 [07:15 AM-07:30 AM]	57	34	20	1	0	1	0	0	56
2016-10-05 [07:30 AM-07:45 AM]	75	49	22	2	1	1	0	0	75
2016-10-05 [07:45 AM-08:00 AM]	104	68	28	1	4	1	0	0	102
	272	177	80	4	5	3	0	0	269
2016-10-05 [08:00 AM-08:15 AM]	114	76	32	1	2	0	0	0	111
2016-10-05 [08:15 AM-08:30 AM]	119	75	39	3	1	0	0	0	118
2016-10-05 [08:30 AM-08:45 AM]	91	57	29	0	3	0	0	1	90
2016-10-05 [08:45 AM-09:00 AM]	84	49	30	0	3	0	0	0	82
	408	257	130	4	9	0	0	1	401
2016-10-05 [09:00 AM-09:15 AM]	86	53	30	0	1	0	0	0	84
2016-10-05 [09:15 AM-09:30 AM]	65	43	20	0	0	2	0	0	65
2016-10-05 [09:30 AM-09:45 AM]	66	42	23	0	1	0	0	0	66
2016-10-05 [09:45 AM-10:00 AM]	76	45	27	0	1	0	0	0	73
	293	183	100	0	3	2	0	0	288
2016-10-05 [10:00 AM-10:15 AM]	77	46	26	0	2	1	0	0	75
2016-10-05 [10:15 AM-10:30 AM]	55	33	21	1	0	0	0	0	55
2016-10-05 [10:30 AM-10:45 AM]	49	27	19	2	0	0	0	0	48
2016-10-05 [10:45 AM-11:00 AM]	65	46	18	0	0	0	0	0	64
	246	152	84	3	2	1	0	0	242
2016-10-05 [11:00 AM-11:15 AM]	54	33	20	0	0	0	1	0	54
2016-10-05 [11:15 AM-11:30 AM]	57	33	20	2	1	0	0	0	56
2016-10-05 [11:30 AM-11:45 AM]	60	31	26	0	1	0	0	0	58
2016-10-05 [11:45 AM-12:00 PM]	56	39	16	0	0	0	1	0	56
	227	136	82	2	2	0	2	0	224
2016-10-05 [12:00 PM-12:15 PM]	67	41	22	2	0	0	0	0	65
2016-10-05 [12:15 PM-12:30 PM]	70	42	24	1	2	0	1	0	70
2016-10-05 [12:30 PM-12:45 PM]	68	43	24	0	0	0	0	0	67
2016-10-05 [12:45 PM-01:00 PM]	64	45	17	0	0	0	0	0	62
	269	171	87	3	2	0	1	0	264
2016-10-05 [01:00 PM-01:15 PM]	70	46	22	1	0	0	0	0	69
2016-10-05 [01:15 PM-01:30 PM]	68	45	20	0	2	1	0	0	68
2016-10-05 [01:30 PM-01:45 PM]	65	35	27	1	1	0	1	0	65
2016-10-05 [01:45 PM-02:00 PM]	63	36	26	0	0	0	0	0	62
	266	162	95	2	3	1	1	0	264
2016-10-05 [02:00 PM-02:15 PM]	58	39	15	0	0	1	1	0	56
2016-10-05 [02:15 PM-02:30 PM]	66	36	28	1	0	1	0	0	66
2016-10-05 [02:30 PM-02:45 PM]	80	51	28	0	1	0	0	0	80
2016-10-05 [02:45 PM-03:00 PM]	70	53	15	1	0	0	0	0	69
	274	179	86	2	1	2	1	0	271
2016-10-05 [03:00 PM-03:15 PM]	76	54	21	0	1	0	0	0	76
2016-10-05 [03:15 PM-03:30 PM]	90	53	31	1	1	1	1	0	88
2016-10-05 [03:30 PM-03:45 PM]	90	54	32	0	3	0	1	0	90
2016-10-05 [03:45 PM-04:00 PM]	83	53	25	2	2	0	1	0	83



### Time/Speed Report

HI-Star ID: 20DE0  
 Street: King St W - EB  
 State: ON  
 City: City of Hamilton  
 Area: btwn Bond St & Woodley Ln

Begin: 2016-10-05 12:00 AM  
 Lane: EB  
 Oper: MD  
 Posted: 50  
 AADT Factor: 1

End: 2016-10-06 12:00 AM  
 Hours: 24:00  
 Period: 15  
 Raw Count: 4358  
 AADT Count: 4358

NC200 - km/h	0 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	110 to 119	120 to 129	130 to 139	140 >	Total
2016-10-05 [12:00 AM-12:15 AM]	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0	7
2016-10-05 [12:15 AM-12:30 AM]	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
2016-10-05 [12:30 AM-12:45 AM]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016-10-05 [12:45 AM-01:00 AM]	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0	7
	0	0	0	0	5	12	1	0	0	0	0	0	0	0	0	18
2016-10-05 [01:00 AM-01:15 AM]	0	0	0	0	2	4	1	0	0	0	0	0	0	0	0	7
2016-10-05 [01:15 AM-01:30 AM]	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
2016-10-05 [01:30 AM-01:45 AM]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016-10-05 [01:45 AM-02:00 AM]	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4
	0	0	0	0	6	6	1	0	0	0	0	0	0	0	0	13
2016-10-05 [02:00 AM-02:15 AM]	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2016-10-05 [02:15 AM-02:30 AM]	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
2016-10-05 [02:30 AM-02:45 AM]	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	3
2016-10-05 [02:45 AM-03:00 AM]	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3
	0	0	0	1	1	5	2	0	0	0	0	0	0	0	0	9
2016-10-05 [03:00 AM-03:15 AM]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016-10-05 [03:15 AM-03:30 AM]	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
2016-10-05 [03:30 AM-03:45 AM]	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
2016-10-05 [03:45 AM-04:00 AM]	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
	0	0	0	0	4	2	0	0	0	1	0	0	0	0	0	7
2016-10-05 [04:00 AM-04:15 AM]	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
2016-10-05 [04:15 AM-04:30 AM]	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
2016-10-05 [04:30 AM-04:45 AM]	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	5
2016-10-05 [04:45 AM-05:00 AM]	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	0	0	0	0	1	5	3	0	0	0	0	0	0	0	0	9
2016-10-05 [05:00 AM-05:15 AM]	0	0	0	0	2	5	1	0	0	0	0	0	0	0	0	8
2016-10-05 [05:15 AM-05:30 AM]	0	0	0	0	2	6	0	0	0	0	0	0	0	0	0	8
2016-10-05 [05:30 AM-05:45 AM]	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	5
2016-10-05 [05:45 AM-06:00 AM]	0	0	0	1	4	6	1	0	0	0	0	0	0	0	0	12
	0	0	0	1	8	22	2	0	0	0	0	0	0	0	0	33
2016-10-05 [06:00 AM-06:15 AM]	0	0	0	0	6	5	1	1	0	0	0	0	0	0	0	13
2016-10-05 [06:15 AM-06:30 AM]	0	0	0	0	4	13	2	0	0	0	0	0	0	0	0	19
2016-10-05 [06:30 AM-06:45 AM]	0	0	0	2	8	15	3	0	0	0	0	0	0	0	0	28
2016-10-05 [06:45 AM-07:00 AM]	0	0	0	1	12	24	1	0	0	0	0	0	0	0	0	38
	0	0	0	3	30	57	7	1	0	0	0	0	0	0	0	98
2016-10-05 [07:00 AM-07:15 AM]	0	0	1	0	13	20	2	0	0	0	0	0	0	0	0	36
2016-10-05 [07:15 AM-07:30 AM]	0	0	0	0	15	37	4	0	0	0	0	0	0	0	0	56
2016-10-05 [07:30 AM-07:45 AM]	0	0	0	7	35	31	1	1	0	0	0	0	0	0	0	75
2016-10-05 [07:45 AM-08:00 AM]	0	0	0	0	52	48	2	0	0	0	0	0	0	0	0	102
	0	0	1	7	115	136	9	1	0	0	0	0	0	0	0	269
2016-10-05 [08:00 AM-08:15 AM]	0	0	0	1	58	50	2	0	0	0	0	0	0	0	0	111
2016-10-05 [08:15 AM-08:30 AM]	0	0	1	8	61	44	3	1	0	0	0	0	0	0	0	118
2016-10-05 [08:30 AM-08:45 AM]	0	0	2	4	25	58	1	0	0	0	0	0	0	0	0	90
2016-10-05 [08:45 AM-09:00 AM]	0	0	6	1	34	39	1	0	0	1	0	0	0	0	0	82
	0	0	9	14	178	191	7	1	0	1	0	0	0	0	0	401
2016-10-05 [09:00 AM-09:15 AM]	0	0	0	1	50	32	1	0	0	0	0	0	0	0	0	84
2016-10-05 [09:15 AM-09:30 AM]	0	0	0	4	29	30	1	1	0	0	0	0	0	0	0	65
2016-10-05 [09:30 AM-09:45 AM]	0	0	0	14	23	26	3	0	0	0	0	0	0	0	0	66
2016-10-05 [09:45 AM-10:00 AM]	0	0	4	6	24	39	0	0	0	0	0	0	0	0	0	73
	0	0	4	25	126	127	5	1	0	0	0	0	0	0	0	288
2016-10-05 [10:00 AM-10:15 AM]	0	0	0	10	35	29	1	0	0	0	0	0	0	0	0	75
2016-10-05 [10:15 AM-10:30 AM]	0	0	0	3	29	23	0	0	0	0	0	0	0	0	0	55
2016-10-05 [10:30 AM-10:45 AM]	0	0	2	27	18	1	0	0	0	0	0	0	0	0	0	48
2016-10-05 [10:45 AM-11:00 AM]	0	1	0	10	27	24	1	1	0	0	0	0	0	0	0	64
	0	1	0	25	118	94	3	1	0	0	0	0	0	0	0	242
2016-10-05 [11:00 AM-11:15 AM]	0	0	2	5	21	24	0	0	1	1	0	0	0	0	0	54
2016-10-05 [11:15 AM-11:30 AM]	0	0	0	8	31	14	3	0	0	0	0	0	0	0	0	56
2016-10-05 [11:30 AM-11:45 AM]	0	0	0	7	32	18	0	0	1	0	0	0	0	0	0	58
2016-10-05 [11:45 AM-12:00 PM]	0	0	0	4	27	24	1	0	0	0	0	0	0	0	0	56
	0	0	2	24	111	80	4	0	2	1	0	0	0	0	0	224
2016-10-05 [12:00 PM-12:15 PM]	0	0	0	9	35	18	2	1	0	0	0	0	0	0	0	65
2016-10-05 [12:15 PM-12:30 PM]	0	1	0	3	38	28	0	0	0	0	0	0	0	0	0	70
2016-10-05 [12:30 PM-12:45 PM]	0	0	0	4	40	22	1	0	0	0	0	0	0	0	0	67
2016-10-05 [12:45 PM-01:00 PM]	0	0	0	2	39	19	1	1	0	0	0	0	0	0	0	62
	0	1	0	18	152	87	4	2	0	0	0	0	0	0	0	264
2016-10-05 [01:00 PM-01:15 PM]	0	0	1	7	38	22	0	1	0	0	0	0	0	0	0	69
2016-10-05 [01:15 PM-01:30 PM]	0	0	1	9	30	27	1	0	0	0	0	0	0	0	0	68
2016-10-05 [01:30 PM-01:45 PM]	0	0	0	3	33	29	0	0	0	0	0	0	0	0	0	65
2016-10-05 [01:45 PM-02:00 PM]	0	1	0	4	33	23	0	1	0	0	0	0	0	0	0	62
	0	1	2	23	134	101	1	2	0	0	0	0	0	0	0	264
2016-10-05 [02:00 PM-02:15 PM]	0	0	0	3	30	20	1	1	0	1	0	0	0	0	0	56
2016-10-05 [02:15 PM-02:30 PM]	0	0	0	4	33	26	3	0	0	0	0	0	0	0	0	66
2016-10-05 [02:30 PM-02:45 PM]	0	0	0	2	39	36	3	0	0	0	0	0	0	0	0	80
2016-10-05 [02:45 PM-03:00 PM]	0	0	1	6	38	22	2	0	0	0	0	0	0	0	0	69
	0	0	1	15	140	104	9	1	0	1	0	0	0	0	0	271
2016-10-05 [03:00 PM-03:15 PM]	0	0	0	7	45	24	0	0	0	0	0	0	0	0	0	76
2016-10-05 [03:15 PM-03:30 PM]	0	0	0	5	56	26	1	0	0	0	0	0	0	0	0	88
2016-10-05 [03:30 PM-03:45 PM]	0	0	0	2	37	46	4	1	0	0	0	0	0	0	0	90
2016-10-05 [03:45 PM-04:00 PM]	0	0	0	4	46	28	3	1	1	0	0	0	0	0	0	83
	0	0	0	18	184	124	8	2	1	0	0	0	0	0	0	337
2016-10-05 [04:00 PM-04:15 PM]	0	0	0	11	31	33	2	0	0	0	0	0	0	0	0	77
2016-10-05 [04:15 PM-04:30 PM]	0	0	1	11	38	38	3	0	0	0	0	0	0	0	0	91
2016-10-05 [04:30 PM-04:45 PM]	0	0	0	0	40	29	0	0	1	0	0	0	0	0	0	70
2016-10-05 [04:45 PM-05:00 PM]	0	0	0	6	32	29	0	0	0	0	0	0	0	0	0	67
	0	0	1	28	141	129	5	0	1	0	0	0	0	0	0	305
2016-10-05 [05:00 PM-05:15 PM]	0	0	0	4	38	36	3	1	0	0	0	0	0	0	0	82
2016-10-05 [05:15 PM-05:30 PM]	0	0	0	0	58	40	2	1	0	0	0	0	0	0	0	101
2016-10-05 [05:30 PM-05:45 PM]	0	0	0	2	32	45	4	0	0	0	0	0	0	0	0	83
2016-10-05 [05:45 PM-06:00 PM]	0	0	1	4	35	41	4	1	0	0	0	0	0	0	0	86
	0	0	1	10	163	162	13	3	0	0	0	0	0	0	0	352
2016-10-05 [06:00 PM-06:15 PM]	0	0	0	0	28	36	4	2	0	0	0	0	0	0	0	70
2016-10-05 [06:15 PM-06:30 PM]	0	0	0	2	39	34	1	0	0	0	0	0	0	0	0	76
2016-10-05 [06:30 PM-06:45 PM]	0															

2016-10-05 [06:45 PM-07:00 PM]	0	0	0	2	32	43	2	1	0	0	0	0	0	0	0	80
	0	0	0	10	127	143	9	3	0	1	0	0	0	0	0	293
2016-10-05 [07:00 PM-07:15 PM]	0	0	1	2	36	24	1	1	0	0	0	0	0	0	0	65
2016-10-05 [07:15 PM-07:30 PM]	0	0	0	3	34	20	0	0	0	0	0	0	0	0	0	57
2016-10-05 [07:30 PM-07:45 PM]	0	0	0	5	31	18	2	0	0	0	0	0	0	0	0	56
2016-10-05 [07:45 PM-08:00 PM]	0	0	3	5	19	24	3	0	0	0	0	0	0	0	0	54
	0	0	4	15	120	86	6	1	0	0	0	0	0	0	0	232
2016-10-05 [08:00 PM-08:15 PM]	0	0	0	1	25	19	2	0	0	0	0	0	0	0	0	47
2016-10-05 [08:15 PM-08:30 PM]	0	0	0	5	27	9	2	0	0	0	0	0	0	0	0	43
2016-10-05 [08:30 PM-08:45 PM]	0	0	0	4	28	14	2	0	0	0	0	0	0	0	0	48
2016-10-05 [08:45 PM-09:00 PM]	0	0	0	5	23	13	3	0	0	0	0	0	0	0	0	44
	0	0	0	15	103	55	9	0	0	0	0	0	0	0	0	182
2016-10-05 [09:00 PM-09:15 PM]	0	0	0	3	19	5	0	0	0	0	0	0	0	0	0	27
2016-10-05 [09:15 PM-09:30 PM]	0	2	3	4	7	2	2	0	0	0	0	0	0	0	0	20
2016-10-05 [09:30 PM-09:45 PM]	0	0	0	4	9	5	0	0	0	0	0	0	0	0	0	18
2016-10-05 [09:45 PM-10:00 PM]	0	0	0	1	12	17	2	0	0	0	0	0	0	0	0	32
	0	2	3	12	47	29	4	0	0	0	0	0	0	0	0	97
2016-10-05 [10:00 PM-10:15 PM]	0	0	0	3	8	10	1	0	0	0	0	0	0	0	0	22
2016-10-05 [10:15 PM-10:30 PM]	0	0	0	0	4	9	0	0	0	0	0	0	0	0	0	13
2016-10-05 [10:30 PM-10:45 PM]	0	0	0	0	2	4	1	0	0	0	0	0	0	0	0	7
2016-10-05 [10:45 PM-11:00 PM]	0	0	0	0	5	9	0	0	0	0	0	0	0	0	0	14
	0	0	0	3	19	32	2	0	0	0	0	0	0	0	0	56
2016-10-05 [11:00 PM-11:15 PM]	0	0	0	1	4	1	1	1	0	0	0	0	0	0	0	8
2016-10-05 [11:15 PM-11:30 PM]	0	0	0	0	2	7	2	0	0	0	0	0	0	0	0	11
2016-10-05 [11:30 PM-11:45 PM]	0	0	0	0	2	4	1	0	0	0	0	0	0	0	0	7
2016-10-05 [11:45 PM-12:00 AM]	0	0	0	0	1	7	0	0	0	0	0	0	0	0	0	8
	0	0	0	1	9	19	4	1	0	0	0	0	0	0	0	34
Daily Totals:	0	5	28	268	2042	1808	118	20	4	5	0	0	0	0	0	4298
Report Totals:	0	5	28	268	2042	1808	118	20	4	5	0	0	0	0	0	4298
Report Percentages:	0.00%	0.12%	0.65%	6.24%	47.51%	42.07%	2.75%	0.47%	0.09%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	

**MH Corbin Traffic Analyzer Study  
 Computer Generated Summary Report  
 City: City of Hamilton  
 Street: King St W - WB  
 Location: 1**

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A study of vehicle traffic was conducted with the device having serial number 113547. The study was done in the WB lane at King St W - WB in City of Hamilton, ON in btwn Bond St & Woodley Ln county. The study began on 2016-10-05 at 12:00 AM and concluded on 2016-10-06 at 12:00 AM, lasting a total of 24.00 hours. Traffic statistics were recorded in 15 minute time periods. The total recorded volume showed 4,386 vehicles passed through the location with a peak volume of 104 on 2016-10-05 at [05:15 PM-05:30 PM] and a minimum volume of 0 on 2016-10-05 at [12:45 AM-01:00 AM]. The AADT count for this study was 4,386.

**SPEED**

Chart 1 lists the values of the speed bins and the total traffic volume for each bin. At least half the vehicles were traveling in the 50 - 60 KM/H range or lower. The average speed for all classified vehicles was 57 KM/H with 84.46% vehicles exceeding the posted speed of 50 KM/H. 1.48% percent of the total vehicles were traveling in excess of 89 KM/H. The mode speed for this traffic study was 50KM/H and the 85th percentile was 66.90 KM/H.

< to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	110 to 119	120 to 129	130 to 139	140 to >
0	4	22	93	551	2159	1211	207	47	17	0	0	0	0	0

CHART 1

**CLASSIFICATION**

Chart 2 lists the values of the classification bins and the total traffic volume accumulated for each bin. Most of the vehicles classified during the study were Passenger Vehicles. The number of Passenger Vehicles in the study was 4204 which represents 98 percent of the total classified vehicles. The number of Small Trucks in the study was 40 which represents 1 percent of the total classified vehicles. The number of Trucks/Buses in the study was 50 which represents 1 percent of the total classified vehicles. The number of Tractor Trailers in the study was 17 which represents 0 percent of the total classified vehicles.

< to 4.9	5.0 to 8.4	8.5 to 9.9	10.0 to 12.9	13.0 to 15.9	16.0 to 18.9	19.0 to 22.4	22.5 to >							
1941	2263	40	50	10	2	2	3							

CHART 2

**HEADWAY**

During the peak traffic period, on 2016-10-05 at [05:15 PM-05:30 PM] the average headway between vehicles was 8.571 seconds. During the slowest traffic period, on 2016-10-05 at [12:45 AM-01:00 AM] the average headway between vehicles was 900 seconds.

**WEATHER**

The roadway surface temperature over the period of the study varied between 15.00 and 37.00 degrees C.



































### Class/Volume Report Graph

HI-Star ID: 10FDCB  
 Street: King St W - WB  
 State: ON  
 City: City of Hamilton  
 Area: btwn Bond St & Woodley Ln

Begin: 2016-10-05 12:00 AM  
 Lane: WB  
 Oper: MD  
 Posted: 50  
 AADT Factor: 1

End: 2016-10-06 12:00 AM  
 Hours: 24:00  
 Period: 15  
 Raw Count: 4386  
 AADT Count: 4386

NC200 - Metres	0.0 to 4.9	5.0 to 8.4	8.5 to 9.9	10.0 to 12.4	12.5 to 15.9	16.0 to 18.4	18.5 to 22.4	22.5 >	Total
2016-10-05 [12:00 AM-12:15 AM]	8	3	5	0	0	0	0	0	8
2016-10-05 [12:15 AM-12:30 AM]	6	3	3	0	0	0	0	0	6
2016-10-05 [12:30 AM-12:45 AM]	5	3	2	0	0	0	0	0	5
2016-10-05 [12:45 AM-01:00 AM]	0	0	0	0	0	0	0	0	0
<b>19</b>	<b>9</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>
2016-10-05 [01:00 AM-01:15 AM]	1	0	1	0	0	0	0	0	1
2016-10-05 [01:15 AM-01:30 AM]	4	3	1	0	0	0	0	0	4
2016-10-05 [01:30 AM-01:45 AM]	4	3	1	0	0	0	0	0	4
2016-10-05 [01:45 AM-02:00 AM]	2	1	1	0	0	0	0	0	2
<b>11</b>	<b>7</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>
2016-10-05 [02:00 AM-02:15 AM]	2	1	1	0	0	0	0	0	2
2016-10-05 [02:15 AM-02:30 AM]	3	2	1	0	0	0	0	0	3
2016-10-05 [02:30 AM-02:45 AM]	1	1	0	0	0	0	0	0	1
2016-10-05 [02:45 AM-03:00 AM]	1	1	0	0	0	0	0	0	1
<b>7</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>
2016-10-05 [03:00 AM-03:15 AM]	3	1	1	0	0	0	0	0	2
2016-10-05 [03:15 AM-03:30 AM]	3	2	1	0	0	0	0	0	3
2016-10-05 [03:30 AM-03:45 AM]	1	0	1	0	0	0	0	0	1
2016-10-05 [03:45 AM-04:00 AM]	2	0	2	0	0	0	0	0	2
<b>9</b>	<b>3</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>
2016-10-05 [04:00 AM-04:15 AM]	0	0	0	0	0	0	0	0	0
2016-10-05 [04:15 AM-04:30 AM]	3	1	2	0	0	0	0	0	3
2016-10-05 [04:30 AM-04:45 AM]	3	1	2	0	0	0	0	0	3
2016-10-05 [04:45 AM-05:00 AM]	4	1	2	0	0	0	0	0	3
<b>10</b>	<b>3</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>
2016-10-05 [05:00 AM-05:15 AM]	3	1	1	0	0	0	0	0	2
2016-10-05 [05:15 AM-05:30 AM]	12	7	5	0	0	0	0	0	12
2016-10-05 [05:30 AM-05:45 AM]	12	3	9	0	0	0	0	0	12
2016-10-05 [05:45 AM-06:00 AM]	12	2	10	0	0	0	0	0	12
<b>39</b>	<b>13</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38</b>
2016-10-05 [06:00 AM-06:15 AM]	17	6	9	1	0	0	0	0	16
2016-10-05 [06:15 AM-06:30 AM]	29	12	15	0	0	0	1	0	28
2016-10-05 [06:30 AM-06:45 AM]	26	14	10	0	0	1	0	0	25
2016-10-05 [06:45 AM-07:00 AM]	36	14	17	1	2	0	0	0	34
<b>108</b>	<b>46</b>	<b>51</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>103</b>
2016-10-05 [07:00 AM-07:15 AM]	43	16	22	0	3	0	0	1	42
2016-10-05 [07:15 AM-07:30 AM]	58	27	31	0	0	0	0	0	58
2016-10-05 [07:30 AM-07:45 AM]	69	27	38	2	1	0	0	0	68
2016-10-05 [07:45 AM-08:00 AM]	81	40	34	1	4	0	0	0	79
<b>251</b>	<b>110</b>	<b>125</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>247</b>
2016-10-05 [08:00 AM-08:15 AM]	55	25	28	0	0	0	0	0	53
2016-10-05 [08:15 AM-08:30 AM]	94	38	54	0	0	1	0	0	93
2016-10-05 [08:30 AM-08:45 AM]	66	34	31	0	1	0	0	0	66
2016-10-05 [08:45 AM-09:00 AM]	89	34	52	1	1	1	0	0	89
<b>304</b>	<b>131</b>	<b>165</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>301</b>
2016-10-05 [09:00 AM-09:15 AM]	66	26	35	1	3	0	0	0	65
2016-10-05 [09:15 AM-09:30 AM]	64	22	41	0	1	0	0	0	64
2016-10-05 [09:30 AM-09:45 AM]	56	35	21	0	0	0	0	0	56
2016-10-05 [09:45 AM-10:00 AM]	61	28	29	0	2	0	0	0	59
<b>247</b>	<b>111</b>	<b>126</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>244</b>
2016-10-05 [10:00 AM-10:15 AM]	52	14	34	1	3	0	0	0	52
2016-10-05 [10:15 AM-10:30 AM]	46	22	24	0	0	0	0	0	46
2016-10-05 [10:30 AM-10:45 AM]	70	30	39	0	0	0	0	0	69
2016-10-05 [10:45 AM-11:00 AM]	54	26	24	1	1	0	0	0	52
<b>222</b>	<b>92</b>	<b>121</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>219</b>
2016-10-05 [11:00 AM-11:15 AM]	57	26	27	3	0	0	0	1	57
2016-10-05 [11:15 AM-11:30 AM]	52	22	29	0	0	1	0	0	52
2016-10-05 [11:30 AM-11:45 AM]	79	37	37	2	2	0	0	0	78
2016-10-05 [11:45 AM-12:00 PM]	61	26	26	1	2	0	0	0	55
<b>249</b>	<b>111</b>	<b>119</b>	<b>6</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>242</b>
2016-10-05 [12:00 PM-12:15 PM]	62	27	32	0	1	0	0	1	61
2016-10-05 [12:15 PM-12:30 PM]	62	29	27	2	1	0	0	0	59
2016-10-05 [12:30 PM-12:45 PM]	53	21	28	1	0	0	0	0	50
2016-10-05 [12:45 PM-01:00 PM]	82	37	43	0	1	0	0	0	81
<b>259</b>	<b>114</b>	<b>130</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>251</b>
2016-10-05 [01:00 PM-01:15 PM]	74	26	42	1	4	1	0	0	74
2016-10-05 [01:15 PM-01:30 PM]	69	31	36	0	0	1	0	0	68
2016-10-05 [01:30 PM-01:45 PM]	71	34	35	1	1	0	0	0	71
2016-10-05 [01:45 PM-02:00 PM]	59	26	31	0	0	0	0	0	57
<b>273</b>	<b>117</b>	<b>144</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>270</b>
2016-10-05 [02:00 PM-02:15 PM]	61	25	31	1	1	0	0	0	58
2016-10-05 [02:15 PM-02:30 PM]	84	46	37	0	1	0	0	0	84
2016-10-05 [02:30 PM-02:45 PM]	78	38	34	1	3	2	0	0	78
2016-10-05 [02:45 PM-03:00 PM]	96	33	61	0	2	0	0	0	96
<b>319</b>	<b>142</b>	<b>163</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>316</b>
2016-10-05 [03:00 PM-03:15 PM]	84	35	40	3	2	0	0	0	80
2016-10-05 [03:15 PM-03:30 PM]	82	34	44	2	1	0	0	0	81
2016-10-05 [03:30 PM-03:45 PM]	88	38	45	2	0	0	0	1	86
2016-10-05 [03:45 PM-04:00 PM]	99	49	46	1	0	0	1	1	98

	353	156	175	8	3	0	1	0	2	345	
2016-10-05 [04:00 PM-04:15 PM]	98	40	54	0	1	1	0	0	0	96 	
2016-10-05 [04:15 PM-04:30 PM]	85	40	42	1	1	0	0	0	0	84 	
2016-10-05 [04:30 PM-04:45 PM]	100	48	50	1	0	0	0	0	0	99 	
2016-10-05 [04:45 PM-05:00 PM]	97	48	48	0	1	0	0	0	0	97 	
	380	176	194	2	3	1	0	0	0	376	
2016-10-05 [05:00 PM-05:15 PM]	83	36	45	0	1	0	0	0	0	82 	
2016-10-05 [05:15 PM-05:30 PM]	104	37	66	1	0	0	0	0	0	104 	
2016-10-05 [05:30 PM-05:45 PM]	99	48	47	3	0	1	0	0	0	99 	
2016-10-05 [05:45 PM-06:00 PM]	96	48	44	0	0	0	0	0	0	92 	
	382	169	202	4	1	1	0	0	0	377	
2016-10-05 [06:00 PM-06:15 PM]	67	31	36	0	0	0	0	0	0	67 	
2016-10-05 [06:15 PM-06:30 PM]	72	31	38	0	1	0	0	0	0	70 	
2016-10-05 [06:30 PM-06:45 PM]	67	39	26	1	0	0	0	0	0	66 	
2016-10-05 [06:45 PM-07:00 PM]	65	28	37	0	0	0	0	0	0	65 	
	271	129	137	1	1	0	0	0	0	268	
2016-10-05 [07:00 PM-07:15 PM]	77	32	41	0	1	0	0	0	0	74 	
2016-10-05 [07:15 PM-07:30 PM]	56	24	32	0	0	0	0	0	0	56 	
2016-10-05 [07:30 PM-07:45 PM]	48	25	22	0	0	0	0	0	0	47 	
2016-10-05 [07:45 PM-08:00 PM]	41	20	21	0	0	0	0	0	0	41 	
	222	101	116	0	1	0	0	0	0	218	
2016-10-05 [08:00 PM-08:15 PM]	51	25	26	0	0	0	0	0	0	51 	
2016-10-05 [08:15 PM-08:30 PM]	44	18	26	0	0	0	0	0	0	44 	
2016-10-05 [08:30 PM-08:45 PM]	44	22	21	1	0	0	0	0	0	44 	
2016-10-05 [08:45 PM-09:00 PM]	35	12	23	0	0	0	0	0	0	35 	
	174	77	96	1	0	0	0	0	0	174	
2016-10-05 [09:00 PM-09:15 PM]	53	26	26	0	0	0	0	0	0	52 	
2016-10-05 [09:15 PM-09:30 PM]	41	13	26	1	0	0	0	0	0	40 	
2016-10-05 [09:30 PM-09:45 PM]	31	13	15	1	0	0	0	0	0	29 	
2016-10-05 [09:45 PM-10:00 PM]	27	5	20	0	0	0	0	0	0	25 	
	152	57	87	2	0	0	0	0	0	146	
2016-10-05 [10:00 PM-10:15 PM]	32	11	20	0	0	0	0	0	0	31 	
2016-10-05 [10:15 PM-10:30 PM]	32	15	16	0	0	0	0	0	0	31 	
2016-10-05 [10:30 PM-10:45 PM]	18	10	7	0	0	0	0	0	0	17 	
2016-10-05 [10:45 PM-11:00 PM]	13	6	7	0	0	0	0	0	0	13 	
	95	42	50	0	0	0	0	0	0	92	
2016-10-05 [11:00 PM-11:15 PM]	10	8	2	0	0	0	0	0	0	10 	
2016-10-05 [11:15 PM-11:30 PM]	9	6	3	0	0	0	0	0	0	9 	
2016-10-05 [11:30 PM-11:45 PM]	8	4	4	0	0	0	0	0	0	8 	
2016-10-05 [11:45 PM-12:00 AM]	3	2	1	0	0	0	0	0	0	3 	
	30	20	10	0	0	0	0	0	0	30	
Daily Totals:	4386	1941	2263	40	50	10	2	2	3	4311	
Total Counted:	4386										
Total Classified:	4311	4386	1941	2263	40	50	10	2	2	3	4311
Total Unclassified:	75										
Report Percentages:		45.02%	52.49%	0.93%	1.16%	0.23%	0.05%	0.05%	0.07%		
Peak Time: (AM):	2016-10-05 [08:15 AM-08:30 AM]	Peak Count:	94								
Peak Time: (PM):	2016-10-05 [05:15 PM-05:30 PM]	Peak Count:	104								

### Time/Speed Report

HI-Star ID: 10FDCB  
 Street: King St W - WB  
 State: ON  
 City: City of Hamilton  
 Area: btwn Bond St & Woodley Ln

Begin: 2016-10-05 12:00 AM  
 Lane: WB  
 Oper: MD  
 Posted: 50  
 AADT Factor: 1

End: 2016-10-06 12:00 AM  
 Hours: 24:00  
 Period: 15  
 Raw Count: 4386  
 AADT Count: 4386

NC200 - km/h	0 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	110 to 119	120 to 129	130 to 139	140 >	Total
2016-10-05 [12:00 AM-12:15 AM]	0	0	0	0	1	4	3	0	0	0	0	0	0	0	0	8
2016-10-05 [12:15 AM-12:30 AM]	0	0	0	1	0	1	2	1	1	0	0	0	0	0	0	6
2016-10-05 [12:30 AM-12:45 AM]	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	5
2016-10-05 [12:45 AM-01:00 AM]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	1	1	7	8	1	1	0	0	0	0	0	0	19
2016-10-05 [01:00 AM-01:15 AM]	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
2016-10-05 [01:15 AM-01:30 AM]	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	4
2016-10-05 [01:30 AM-01:45 AM]	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	4
2016-10-05 [01:45 AM-02:00 AM]	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
	0	0	0	0	1	4	5	1	0	0	0	0	0	0	0	11
2016-10-05 [02:00 AM-02:15 AM]	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
2016-10-05 [02:15 AM-02:30 AM]	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3
2016-10-05 [02:30 AM-02:45 AM]	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
2016-10-05 [02:45 AM-03:00 AM]	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	0	0	0	1	1	1	3	1	0	0	0	0	0	0	0	7
2016-10-05 [03:00 AM-03:15 AM]	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
2016-10-05 [03:15 AM-03:30 AM]	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	3
2016-10-05 [03:30 AM-03:45 AM]	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
2016-10-05 [03:45 AM-04:00 AM]	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
	0	0	0	2	0	2	2	1	1	0	0	0	0	0	0	8
2016-10-05 [04:00 AM-04:15 AM]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2016-10-05 [04:15 AM-04:30 AM]	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
2016-10-05 [04:30 AM-04:45 AM]	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3
2016-10-05 [04:45 AM-05:00 AM]	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3
	0	0	0	0	0	2	2	5	0	0	0	0	0	0	0	9
2016-10-05 [05:00 AM-05:15 AM]	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
2016-10-05 [05:15 AM-05:30 AM]	0	0	0	0	2	4	4	2	0	0	0	0	0	0	0	12
2016-10-05 [05:30 AM-05:45 AM]	0	0	0	0	1	5	4	2	0	0	0	0	0	0	0	12
2016-10-05 [05:45 AM-06:00 AM]	0	0	0	0	1	5	5	1	0	0	0	0	0	0	0	12
	0	0	0	0	4	16	13	5	0	0	0	0	0	0	0	38
2016-10-05 [06:00 AM-06:15 AM]	0	0	0	1	1	4	6	1	1	2	0	0	0	0	0	16
2016-10-05 [06:15 AM-06:30 AM]	0	0	1	0	1	14	7	4	1	0	0	0	0	0	0	28
2016-10-05 [06:30 AM-06:45 AM]	0	0	1	0	2	14	6	1	1	0	0	0	0	0	0	25
2016-10-05 [06:45 AM-07:00 AM]	0	0	0	0	2	9	19	2	1	1	0	0	0	0	0	34
	0	0	2	1	6	41	38	8	4	3	0	0	0	0	0	103
2016-10-05 [07:00 AM-07:15 AM]	0	0	0	0	6	16	14	4	2	0	0	0	0	0	0	42
2016-10-05 [07:15 AM-07:30 AM]	0	0	0	0	4	24	23	6	1	0	0	0	0	0	0	58
2016-10-05 [07:30 AM-07:45 AM]	0	0	0	0	12	28	27	1	0	0	0	0	0	0	0	68
2016-10-05 [07:45 AM-08:00 AM]	0	0	1	0	10	36	28	2	2	0	0	0	0	0	0	79
	0	0	1	0	32	104	92	13	5	0	0	0	0	0	0	247
2016-10-05 [08:00 AM-08:15 AM]	0	0	0	1	5	27	17	3	0	0	0	0	0	0	0	53
2016-10-05 [08:15 AM-08:30 AM]	0	0	0	0	12	54	21	4	1	1	0	0	0	0	0	93
2016-10-05 [08:30 AM-08:45 AM]	0	0	0	0	12	34	16	4	0	0	0	0	0	0	0	66
2016-10-05 [08:45 AM-09:00 AM]	0	0	0	0	16	49	20	2	1	1	0	0	0	0	0	89
	0	0	0	1	45	164	74	13	2	2	0	0	0	0	0	301
2016-10-05 [09:00 AM-09:15 AM]	0	0	1	2	13	37	10	2	0	0	0	0	0	0	0	65
2016-10-05 [09:15 AM-09:30 AM]	0	0	0	1	12	36	15	0	0	0	0	0	0	0	0	64
2016-10-05 [09:30 AM-09:45 AM]	0	0	0	0	12	33	9	1	1	0	0	0	0	0	0	56
2016-10-05 [09:45 AM-10:00 AM]	0	1	0	1	14	28	11	3	1	0	0	0	0	0	0	59
	0	1	1	4	51	134	45	6	2	0	0	0	0	0	0	244
2016-10-05 [10:00 AM-10:15 AM]	0	0	2	2	5	21	19	2	1	0	0	0	0	0	0	52
2016-10-05 [10:15 AM-10:30 AM]	0	0	0	2	6	22	13	3	0	0	0	0	0	0	0	46
2016-10-05 [10:30 AM-10:45 AM]	0	0	0	1	4	50	11	1	2	0	0	0	0	0	0	69
2016-10-05 [10:45 AM-11:00 AM]	0	0	1	2	10	30	6	2	1	0	0	0	0	0	0	52
	0	0	3	7	25	123	49	8	4	0	0	0	0	0	0	219
2016-10-05 [11:00 AM-11:15 AM]	0	0	0	3	7	34	13	0	0	0	0	0	0	0	0	57
2016-10-05 [11:15 AM-11:30 AM]	0	0	0	1	10	24	16	0	1	0	0	0	0	0	0	52
2016-10-05 [11:30 AM-11:45 AM]	0	1	2	2	8	48	14	1	2	0	0	0	0	0	0	78
2016-10-05 [11:45 AM-12:00 PM]	0	0	0	3	17	25	8	0	0	2	0	0	0	0	0	55
	0	1	2	9	42	131	51	1	3	2	0	0	0	0	0	242
2016-10-05 [12:00 PM-12:15 PM]	0	0	0	4	6	34	11	5	1	0	0	0	0	0	0	61
2016-10-05 [12:15 PM-12:30 PM]	0	0	0	0	19	30	8	1	0	1	0	0	0	0	0	59
2016-10-05 [12:30 PM-12:45 PM]	0	0	0	3	14	26	6	1	0	0	0	0	0	0	0	50
2016-10-05 [12:45 PM-01:00 PM]	0	0	1	7	20	41	8	3	1	0	0	0	0	0	0	81
	0	0	1	14	59	131	33	10	2	1	0	0	0	0	0	251
2016-10-05 [01:00 PM-01:15 PM]	0	0	0	1	13	42	17	1	0	0	0	0	0	0	0	74
2016-10-05 [01:15 PM-01:30 PM]	0	0	1	0	7	30	23	6	1	0	0	0	0	0	0	68
2016-10-05 [01:30 PM-01:45 PM]	0	0	0	2	12	41	15	1	0	0	0	0	0	0	0	71
2016-10-05 [01:45 PM-02:00 PM]	0	0	0	1	6	24	21	5	0	0	0	0	0	0	0	57
	0	0	1	4	38	137	76	13	1	0	0	0	0	0	0	270
2016-10-05 [02:00 PM-02:15 PM]	0	1	0	2	6	32	16	1	0	0	0	0	0	0	0	58
2016-10-05 [02:15 PM-02:30 PM]	0	0	0	1	10	58	12	2	1	0	0	0	0	0	0	84
2016-10-05 [02:30 PM-02:45 PM]	0	0	0	0	5	47	21	2	3	0	0	0	0	0	0	78
2016-10-05 [02:45 PM-03:00 PM]	0	0	0	2	14	43	32	4	0	1	0	0	0	0	0	96

	0	1	0	5	35	180	81	9	4	1	0	0	0	0	0	316
2016-10-05 [03:00 PM-03:15 PM]	0	0	0	1	22	44	13	0	0	0	0	0	0	0	0	80
2016-10-05 [03:15 PM-03:30 PM]	0	0	1	3	12	46	16	3	0	0	0	0	0	0	0	81
2016-10-05 [03:30 PM-03:45 PM]	0	0	0	0	9	47	25	1	2	2	0	0	0	0	0	86
2016-10-05 [03:45 PM-04:00 PM]	0	0	0	0	18	44	32	3	1	0	0	0	0	0	0	98
	0	0	1	4	61	181	86	7	3	2	0	0	0	0	0	345
2016-10-05 [04:00 PM-04:15 PM]	0	0	0	5	7	43	34	7	0	0	0	0	0	0	0	96
2016-10-05 [04:15 PM-04:30 PM]	0	0	0	2	6	43	27	3	2	1	0	0	0	0	0	84
2016-10-05 [04:30 PM-04:45 PM]	0	0	0	2	5	46	42	4	0	0	0	0	0	0	0	99
2016-10-05 [04:45 PM-05:00 PM]	0	0	0	1	12	42	35	7	0	0	0	0	0	0	0	97
	0	0	0	10	30	174	138	21	2	1	0	0	0	0	0	376
2016-10-05 [05:00 PM-05:15 PM]	0	0	0	0	4	42	31	3	2	0	0	0	0	0	0	82
2016-10-05 [05:15 PM-05:30 PM]	0	0	0	1	14	44	38	6	1	0	0	0	0	0	0	104
2016-10-05 [05:30 PM-05:45 PM]	0	0	0	5	12	45	32	4	1	0	0	0	0	0	0	99
2016-10-05 [05:45 PM-06:00 PM]	0	0	0	0	8	42	37	4	1	0	0	0	0	0	0	92
	0	0	0	6	38	173	138	17	5	0	0	0	0	0	0	377
2016-10-05 [06:00 PM-06:15 PM]	0	0	0	0	2	33	26	5	0	1	0	0	0	0	0	67
2016-10-05 [06:15 PM-06:30 PM]	0	0	0	2	6	31	25	5	1	0	0	0	0	0	0	70
2016-10-05 [06:30 PM-06:45 PM]	0	0	0	1	9	33	15	5	2	1	0	0	0	0	0	66
2016-10-05 [06:45 PM-07:00 PM]	0	0	1	3	4	24	20	12	1	0	0	0	0	0	0	65
	0	0	1	6	21	121	86	27	4	2	0	0	0	0	0	268
2016-10-05 [07:00 PM-07:15 PM]	0	0	4	8	10	35	16	1	0	0	0	0	0	0	0	74
2016-10-05 [07:15 PM-07:30 PM]	0	0	0	0	8	33	14	1	0	0	0	0	0	0	0	56
2016-10-05 [07:30 PM-07:45 PM]	0	0	1	4	2	27	10	3	0	0	0	0	0	0	0	47
2016-10-05 [07:45 PM-08:00 PM]	0	0	0	0	5	18	16	2	0	0	0	0	0	0	0	41
	0	0	5	12	25	113	56	7	0	0	0	0	0	0	0	218
2016-10-05 [08:00 PM-08:15 PM]	0	0	0	0	2	30	13	3	3	0	0	0	0	0	0	51
2016-10-05 [08:15 PM-08:30 PM]	0	0	0	0	5	17	19	3	0	0	0	0	0	0	0	44
2016-10-05 [08:30 PM-08:45 PM]	0	0	0	1	1	24	16	2	0	0	0	0	0	0	0	44
2016-10-05 [08:45 PM-09:00 PM]	0	0	0	0	2	21	5	6	0	1	0	0	0	0	0	35
	0	0	0	1	10	92	53	14	3	1	0	0	0	0	0	174
2016-10-05 [09:00 PM-09:15 PM]	0	0	1	1	6	27	12	4	1	0	0	0	0	0	0	52
2016-10-05 [09:15 PM-09:30 PM]	0	1	3	1	5	16	7	6	0	1	0	0	0	0	0	40
2016-10-05 [09:30 PM-09:45 PM]	0	0	0	2	5	10	11	1	0	0	0	0	0	0	0	29
2016-10-05 [09:45 PM-10:00 PM]	0	0	0	0	1	13	10	0	0	1	0	0	0	0	0	25
	0	1	4	4	17	66	40	11	1	2	0	0	0	0	0	146
2016-10-05 [10:00 PM-10:15 PM]	0	0	0	1	1	16	10	3	0	0	0	0	0	0	0	31
2016-10-05 [10:15 PM-10:30 PM]	0	0	0	0	4	15	9	3	0	0	0	0	0	0	0	31
2016-10-05 [10:30 PM-10:45 PM]	0	0	0	0	3	7	7	0	0	0	0	0	0	0	0	17
2016-10-05 [10:45 PM-11:00 PM]	0	0	0	0	1	7	4	1	0	0	0	0	0	0	0	13
	0	0	0	1	9	45	30	7	0	0	0	0	0	0	0	92
2016-10-05 [11:00 PM-11:15 PM]	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	10
2016-10-05 [11:15 PM-11:30 PM]	0	0	0	0	0	6	3	0	0	0	0	0	0	0	0	9
2016-10-05 [11:30 PM-11:45 PM]	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	8
2016-10-05 [11:45 PM-12:00 AM]	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3
	0	0	0	0	0	17	12	1	0	0	0	0	0	0	0	30
Daily Totals:	0	4	22	93	551	2159	1211	207	47	17	0	0	0	0	0	4311
Report Totals:	0	4	22	93	551	2159	1211	207	47	17	0	0	0	0	0	4311
Report Percentages:	0.00%	0.09%	0.51%	2.16%	12.78%	50.08%	28.09%	4.80%	1.09%	0.39%	0.00%	0.00%	0.00%	0.00%	0.00%	

# Attachment 2

TURNING MOVEMENT COUNTS

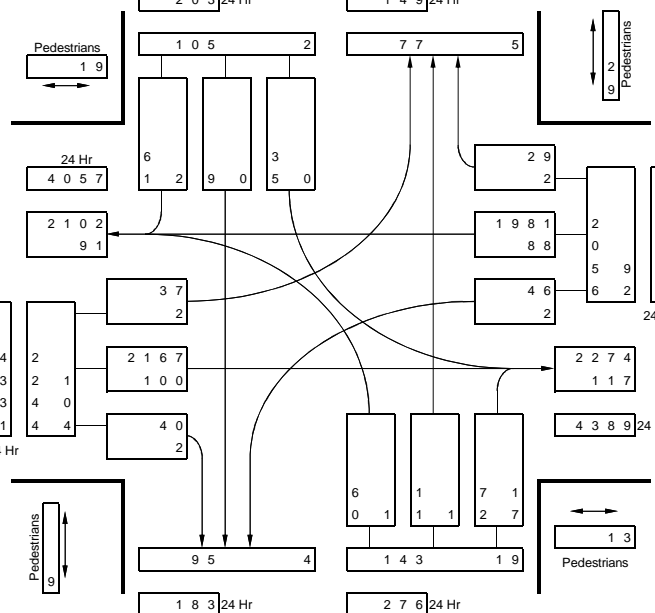
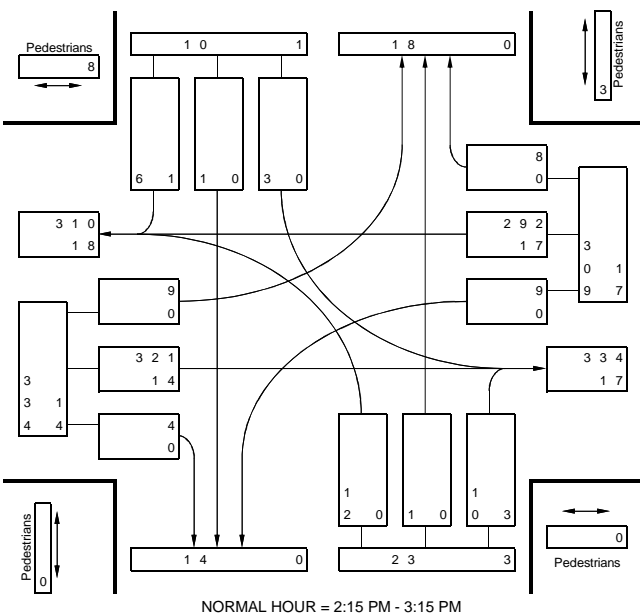
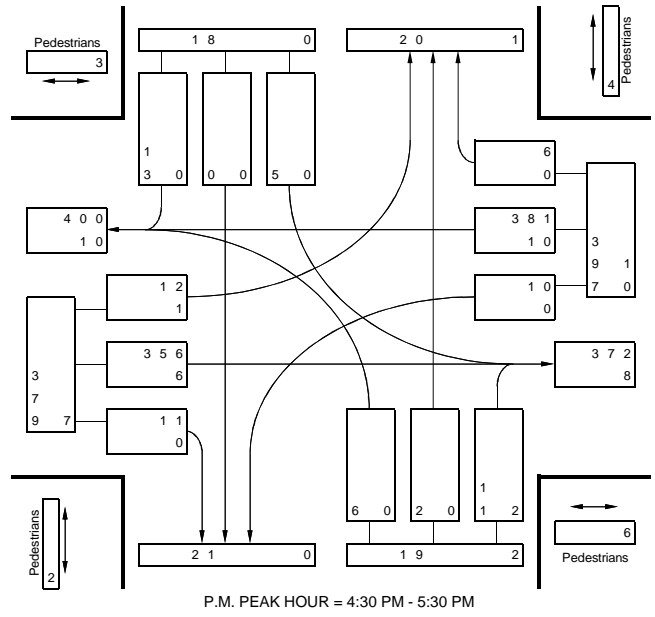
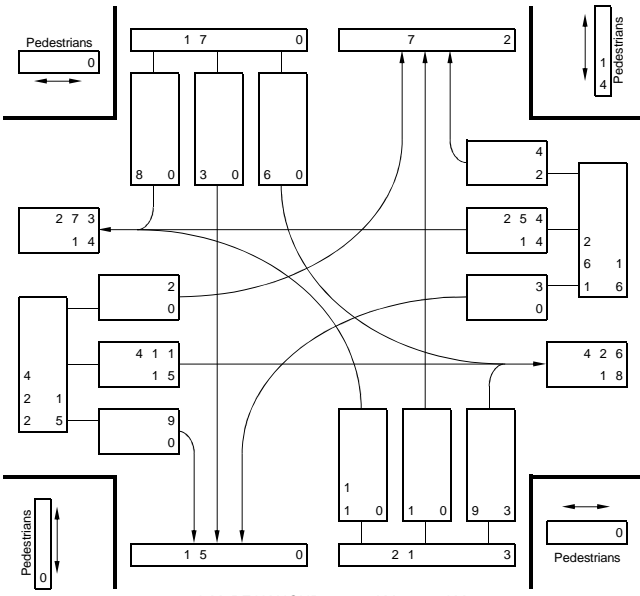


Intersection: King St W at Bond St  
Direction: (East/West)  
Road Condition: Dry  
Comments:

Weather: Clear

Total Vehicles: 4,548  
M.V.E./Year: 2,984  
AWDT Factor: 1.93

Date: Thursday  
Oct 13, 2016  
Period: 7 hours



7 Hr & 24 Hr TOTAL VOLUMES

Intersection: King St W at Bond St  
 Direction: (East/West)

(North/South)

Total Vehicles: 5,156

Date: Thursday  
 Oct 13, 2016  
 Period: 8 hours

Road Condition: Dry

Weather: Clear

Comments:

15 mins. Ending	TOTAL VEHICLES												Pedestrians				
	North Bd. on N/S			East Bd. on E/W			South Bd. on N/S			West Bd. on E/W			Total Veh's	N side	E side	S side	W side
	L	S	R	L	S	R	L	S	R	L	S	R					
7:15	0	0	3	0	47	0	0	1	1	32	0	85	0	0	0	0	0
7:30	2	0	0	1	56	0	0	0	1	43	0	104	0	0	0	0	0
7:45	2	0	2	1	83	0	1	0	4	57	0	153	0	0	0	0	1
8:00	2	0	5	1	88	0	3	0	1	68	0	169	0	0	0	0	2
8:15	0	0	2	1	98	2	0	1	2	42	0	149	0	0	0	0	0
8:30	2	1	1	1	117	3	2	0	1	64	2	194	0	0	0	0	0
8:45	6	0	3	1	105	2	2	1	1	59	1	181	0	14	0	0	0
9:00	0	0	2	0	93	1	0	0	3	68	1	171	0	0	0	0	0
9:15	3	0	3	0	96	3	2	2	3	63	0	175	0	0	0	0	0
9:30	1	0	0	1	52	1	0	0	0	62	1	118	0	0	0	1	0
9:45	1	0	2	0	63	0	2	0	3	67	0	140	0	0	0	0	0
10:00	1	0	1	0	58	1	2	1	1	44	0	109	0	0	0	0	2
13:45	0	0	2	0	75	2	1	0	3	60	0	143	1	0	0	0	0
14:00	3	1	2	3	60	0	1	1	3	58	0	133	0	0	0	0	0
14:15	2	1	2	3	63	2	7	0	2	79	1	163	0	1	0	0	0
14:30	4	1	4	2	79	1	0	0	0	74	1	170	4	2	0	0	0
14:45	3	0	2	5	75	2	0	0	3	64	2	157	1	0	0	0	0
15:00	2	0	2	0	94	0	2	1	0	64	2	168	2	1	0	0	0
15:15	3	0	2	2	73	1	1	0	3	90	3	181	1	0	0	0	0
15:30	2	0	4	1	64	3	1	0	2	72	1	152	1	0	0	0	0
16:15	5	3	6	1	73	2	0	0	3	86	3	185	2	0	0	0	0
16:30	4	0	4	0	69	1	1	1	1	103	2	189	0	1	4	0	0
16:45	3	1	1	5	78	4	0	0	2	83	1	180	3	3	0	0	1
17:00	2	1	4	3	103	1	1	0	8	98	2	227	0	0	2	1	0
17:15	0	0	2	3	95	2	2	0	3	101	1	212	0	1	2	1	1
17:30	1	0	4	1	80	4	2	0	0	99	2	194	0	0	2	0	0
17:45	3	2	6	1	60	1	1	0	4	91	0	172	3	5	1	2	0
18:00	3	0	1	0	70	1	1	0	3	90	3	174	1	1	1	0	0
18:15	1	0	3	1	81	1	0	1	7	76	2	174	4	0	0	0	0
18:30	1	0	0	1	66	0	2	0	5	68	0	143	0	1	0	0	0
18:45	2	0	1	1	63	3	0	0	3	62	1	138	0	0	0	0	0
19:00	4	1	2	3	85	0	0	0	3	50	1	153	0	0	0	0	0
<b>TOTAL</b>	<b>68</b>	<b>12</b>	<b>78</b>	<b>43</b>	<b>2,462</b>	<b>44</b>	<b>37</b>	<b>10</b>	<b>79</b>	<b>53</b>	<b>2,237</b>	<b>33</b>	<b>23</b>	<b>30</b>	<b>13</b>	<b>0</b>	<b>9</b>
<b>APPR.</b>		<b>158</b>			<b>2,549</b>			<b>126</b>		<b>2,323</b>		<b>5,156</b>				<b>75</b>	

15 mins. Ending	TRUCKS & BUSES												Total		
	North Bd. on N/S			East Bd. on E/W			South Bd. on N/S			West Bd. on E/W					
	L	S	R	L	S	R	L	S	R	L	S	R			
7:15	0	0	1	0	4	0	0	0	1	0	2	0	0	0	8
7:30	0	0	0	0	5	0	0	0	0	1	0	0	0	0	6
7:45	0	0	1	0	6	0	0	0	0	1	4	0	0	0	12
8:00	0	0	0	0	13	0	0	0	0	1	8	0	0	0	22
8:15	0	0	1	1	10	0	0	0	0	0	5	0	0	0	17
8:30	0	0	0	0	2	0	0	0	0	0	3	2	0	0	7
8:45	0	0	1	0	6	0	0	0	0	0	3	0	0	0	10
9:00	0	0	1	0	5	0	0	0	0	0	1	0	0	0	7
9:15	0	0	1	0	2	0	0	0	0	0	7	0	0	0	10
9:30	0	0	0	0	1	0	0	0	0	0	2	0	0	0	3
9:45	0	0	1	0	3	0	0	0	0	0	0	0	0	0	4
10:00	0	0	1	0	4	0	0	0	0	0	3	0	0	0	8
13:45	0	0	0	0	3	1	0	0	0	0	0	0	0	0	4
14:00	1	0	1	0	3	0	0	0	0	0	3	0	0	0	8
14:15	0	1	0	0	3	0	0	0	0	0	5	0	0	0	9
14:30	0	0	2	0	3	0	0	0	0	0	5	0	0	0	10
14:45	0	0	0	0	2	0	0	0	0	0	2	0	0	0	4
15:00	0	0	1	0	6	0	0	0	0	0	1	0	0	0	8
15:15	0	0	0	0	3	0	0	0	1	0	9	0	0	0	13
15:30	0	0	1	0	2	1	0	0	0	0	6	0	0	0	10
16:15	0	0	1	0	3	0	0	0	0	0	5	0	0	0	9
16:30	0	0	1	0	5	0	0	0	0	0	2	0	0	0	8
16:45	0	0	0	1	3	0	0	0	0	0	2	0	0	0	6
17:00	0	0	1	0	1	0	0	0	0	0	1	0	0	0	3
17:15	0	0	0	0	1	0	0	0	0	0	4	0	0	0	5
17:30	0	0	1	0	1	0	0	0	0	0	3	0	0	0	5
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
18:15	0	0	1	0	2	0	0	0	0	0	1	0	0	0	5
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2
19:00	0	0	0	0	1	0	0	0	0	0	2	0	0	0	3
<b>TOTAL</b>	<b>1</b>	<b>1</b>	<b>19</b>	<b>2</b>	<b>103</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>92</b>	<b>2</b>			<b>227</b>
<b>APPR.</b>		<b>21</b>			<b>107</b>			<b>2</b>			<b>97</b>				

15 mins. Ending	TRUCKS												Total		
	North Bd. on N/S			East Bd. on E/W			South Bd. on N/S			West Bd. on E/W					
	L	S	R	L	S	R	L	S	R	L	S	R			
7:15	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
7:30	0	0	0	0	3	0	0	0	0	0	1	0	0	0	4
7:45	0	0	0	0	4	0	0	0	0	0	1	4	0	0	9
8:00	0	0	0	0	10	0	0	0	0	0	1	6	0	0	17
8:15	0	0	0	0	1	0	0	0	0	0	0	3	0	0	4
8:30	0	0	0	0	2	0	0	0	0	0	1	1	1	0	4
8:45	0	0	0	0	2	0	0	0	0	0	2	0	0	0	4
9:00	0	0	0	0	3	0	0	0	0	0	1	0	0	0	4
9:15	0	0	0	0	1	0	0	0	0	0	5	0	0	0	6
9:30	0	0	0	0	2	0	0	0	0	0	1	0	0	0	1
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10:00	0	0	0	0	4	0	0	0	0	0	2	0	0	0	6
13:45	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3
14:00	1	0	0	0	3	0	0	0	0	0	2	0	0	0	6
14:15	0	1	0	0	3	0	0	0	0	0	2	0	0	0	6
14:30	0	0	1	0	1	0	0	0	0	0	3	0	0	0	5
14:45	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
15:00	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
15:15	0	0	0	0	2	0	0	0	0	0	2	0	0	0	4
15:30	0	0	0	0	2	0	0	0	0	0	3	0	0	0	5
16:15	0	0	0	0	1	0	0	0	0	0	4	0	0	0	5
16:30	0	0	0	0	4	0	0	0	0	0	1	0	0	0	5
16:45	0	0	0	1	3	0	0	0	0	0	2	0	0	0	6
17:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
17:15	0	0	0	0	1	0	0	0	0	0	2	0	0	0	3
17:30	0	0	0	0	1	0	0	0	0	0	3	0	0	0	4
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	2	0	0	0	0	0	1	0	0	0	3
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
19:00	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
<b>TOTAL</b>															

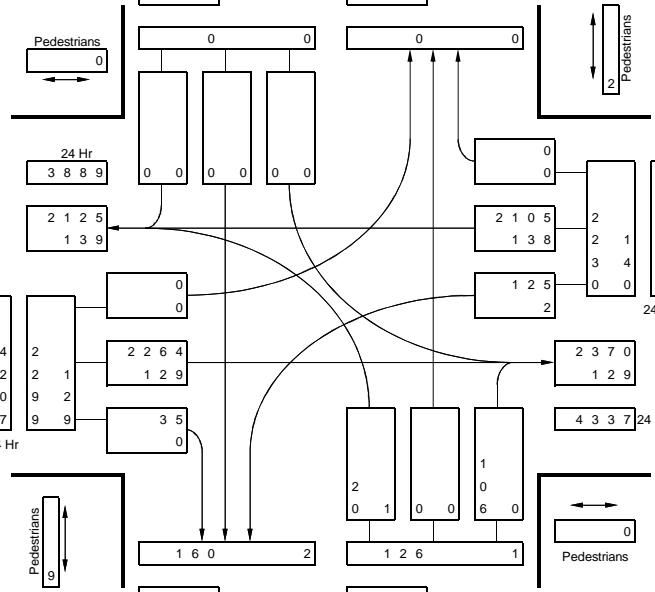
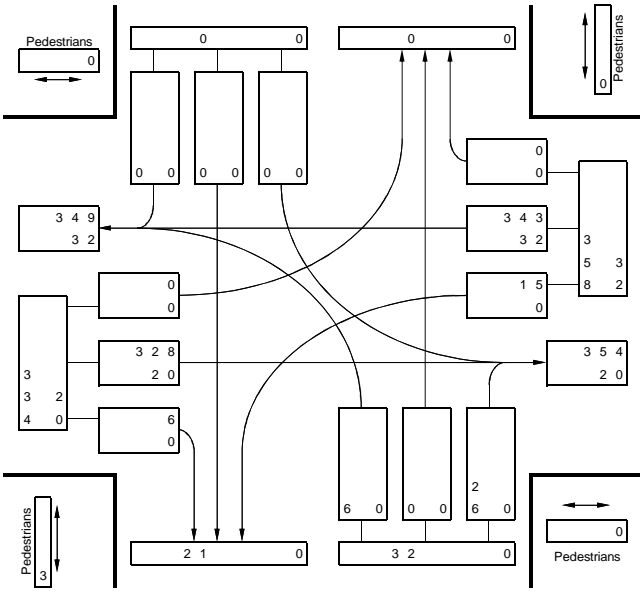
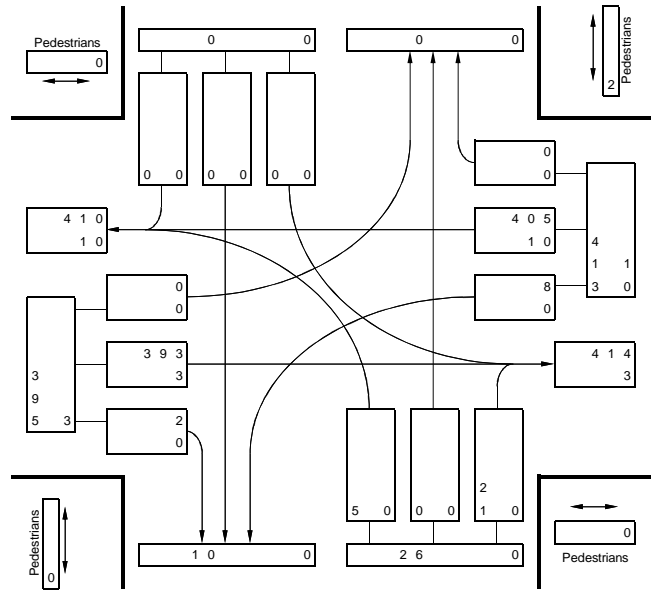
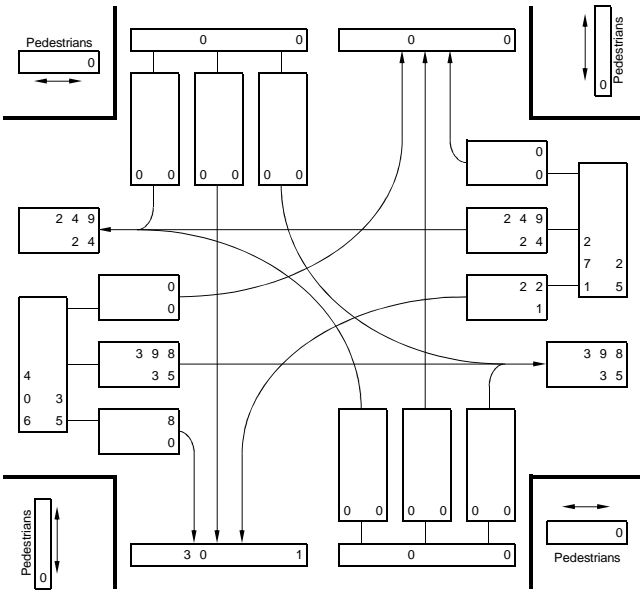


Intersection: Highway 8 at Woodley Lane  
Direction: (East/West)  
Road Condition: Dry  
Comments:

Weather: Clear

Total Vehicles: 4,655  
M.V.E./Year: 2,896  
AWDT Factor: 1.83

Date: Friday  
Oct 14, 2016  
Period: 7 hours



7 Hr & 24 Hr TOTAL VOLUMES

Intersection: Highway 8 at  
Direction: (East/West)

Woodley Lane  
(North/South)

Total Vehicles: 5,307

Date: Friday  
Oct 14, 2016  
Period: 8 hours

Road Condition: Dry

Weather: Clear

Comments:

TOTAL VEHICLES																	
15 mins. Ending	North Bd. on N/S			East Bd. on E/W			South Bd. on N/S			West Bd. on E/W			Total Veh's	Pedestrians			
	L	S	R	L	S	R	L	S	R	L	S	R		N side	E side	S side	W side
7:15	0	0	0	0	49	1	0	0	0	0	38	0	88	0	0	0	0
7:30	0	0	1	0	38	0	0	0	0	4	57	0	100	0	0	0	0
7:45	0	0	1	0	79	2	0	0	0	2	58	0	142	0	0	0	0
8:00	0	0	1	0	92	1	0	0	0	4	66	0	164	0	0	0	0
8:15	0	0	0	0	105	1	0	0	0	3	50	0	159	0	0	0	0
8:30	0	0	0	0	115	0	0	0	0	1	58	0	174	0	0	0	0
8:45	0	0	0	0	95	2	0	0	0	8	62	0	167	0	0	0	0
9:00	0	0	0	0	83	5	0	0	0	10	79	0	177	0	0	0	0
9:15	0	0	0	0	68	4	0	0	0	9	60	0	141	0	0	0	0
9:30	1	0	1	0	84	1	0	0	0	10	59	0	156	0	0	0	0
9:45	2	0	2	0	58	5	0	0	0	13	42	0	122	0	0	0	0
10:00	0	0	2	0	63	1	0	0	0	10	52	0	128	0	0	0	0
13:45	0	0	0	0	79	0	0	0	0	5	71	0	155	0	0	0	2
14:00	2	0	3	0	61	4	0	0	0	6	54	0	130	0	0	0	0
14:15	0	0	6	0	68	0	0	0	0	5	75	0	154	0	0	0	3
14:30	0	0	4	0	72	0	0	0	0	4	92	0	172	0	0	0	0
14:45	2	0	12	0	71	3	0	0	0	4	81	0	173	0	0	0	0
15:00	1	0	4	0	89	1	0	0	0	2	81	0	178	0	0	0	1
15:15	2	0	5	0	79	2	0	0	0	3	98	0	189	0	0	0	2
15:30	1	0	5	0	89	0	0	0	0	6	83	0	184	0	0	0	0
16:15	2	0	11	0	83	0	0	0	0	2	98	0	196	0	0	0	0
16:30	1	0	5	0	88	0	0	0	0	3	87	0	184	0	0	0	0
16:45	1	0	10	0	67	0	0	0	0	3	100	0	181	0	0	0	1
17:00	0	0	2	0	106	1	0	0	0	0	108	0	217	0	1	0	0
17:15	2	0	6	0	94	0	0	0	0	5	107	0	214	0	1	0	0
17:30	1	0	7	0	111	1	0	0	0	2	95	0	217	0	0	0	0
17:45	2	0	6	0	82	0	0	0	0	1	95	0	186	0	0	0	0
18:00	0	0	12	0	96	0	0	0	0	0	99	0	207	0	0	0	0
18:15	1	0	5	0	87	0	0	0	0	4	68	0	165	0	0	0	0
18:30	2	0	10	0	72	1	0	0	0	4	74	0	163	0	0	0	0
18:45	6	0	6	0	69	6	0	0	0	6	73	0	166	0	0	0	2
19:00	2	0	8	0	66	0	0	0	0	5	77	0	158	0	0	0	0
<b>TOTAL</b>	<b>31</b>	<b>0</b>	<b>135</b>	<b>0</b>	<b>2,558</b>	<b>42</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>144</b>	<b>2,397</b>	<b>0</b>	<b>5,307</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>11</b>
<b>APPR.</b>		<b>166</b>			<b>2,600</b>					<b>2,541</b>						<b>13</b>	

TRUCKS & BUSES														
15 mins. Ending	North Bd. on N/S			East Bd. on E/W			South Bd. on N/S			West Bd. on E/W			Total	
	L	S	R	L	S	R	L	S	R	L	S	R		
7:15	0	0	0	0	4	0	0	0	0	0	2	0	6	
7:30	0	0	0	0	5	0	0	0	0	0	6	0	11	
7:45	0	0	0	0	6	0	0	0	0	0	5	0	11	
8:00	0	0	0	0	10	0	0	0	0	0	3	0	13	
8:15	0	0	0	0	15	0	0	0	0	0	3	0	18	
8:30	0	0	0	0	10	0	0	0	0	0	5	0	15	
8:45	0	0	0	0	7	0	0	0	0	0	8	0	15	
9:00	0	0	0	0	3	0	0	0	0	1	8	0	12	
9:15	0	0	0	0	5	0	0	0	0	0	1	0	6	
9:30	0	0	0	0	8	0	0	0	0	0	7	0	15	
9:45	1	0	0	0	4	0	0	0	0	0	8	0	13	
10:00	0	0	0	0	3	0	0	0	0	0	4	0	7	
13:45	0	0	0	0	5	0	0	0	0	0	3	0	8	
14:00	0	0	0	0	2	0	0	0	0	0	4	0	6	
14:15	0	0	0	0	5	0	0	0	0	1	10	0	16	
14:30	0	0	0	0	3	0	0	0	0	0	6	0	9	
14:45	0	0	0	0	1	0	0	0	0	0	8	0	9	
15:00	0	0	0	0	8	0	0	0	0	0	6	0	14	
15:15	0	0	0	0	6	0	0	0	0	0	9	0	15	
15:30	0	0	0	0	5	0	0	0	0	0	9	0	14	
16:15	0	0	0	0	4	0	0	0	0	0	6	0	10	
16:30	0	0	0	0	2	0	0	0	0	0	2	0	4	
16:45	0	0	0	0	2	0	0	0	0	0	4	0	6	
17:00	0	0	0	0	1	0	0	0	0	0	5	0	6	
17:15	0	0	0	0	1	0	0	0	0	0	1	0	2	
17:30	0	0	0	0	1	0	0	0	0	0	3	0	4	
17:45	0	0	0	0	0	0	0	0	0	0	1	0	1	
18:00	0	0	0	0	3	0	0	0	0	0	1	0	4	
18:15	0	0	0	0	0	0	0	0	0	0	4	0	4	
18:30	0	0	0	0	1	0	0	0	0	0	2	0	3	
18:45	0	0	0	0	0	0	0	0	0	0	1	0	1	
19:00	0	0	0	0	2	0	0	0	0	0	0	0	2	
<b>TOTAL</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>132</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>145</b>	<b>0</b>	<b>280</b>	
<b>APPR.</b>		<b>1</b>			<b>132</b>						<b>147</b>			

TRUCKS														
15 mins. Ending	North Bd. on N/S			East Bd. on E/W			South Bd. on N/S			West Bd. on E/W			Total	
	L	S	R	L	S	R	L	S	R	L	S	R		
7:15	0	0	0	0	4	0	0	0	0	0	0	0	4	
7:30	0	0	0	0	3	0	0	0	0	0	5	0	8	
7:45	0	0	0	0	4	0	0	0	0	0	4	0	8	
8:00	0	0	0	0	6	0	0	0	0	0	2	0	8	
8:15	0	0	0	0	6	0	0	0	0	0	1	0	7	
8:30	0	0	0	0	8	0	0	0	0	0	3	0	11	
8:45	0	0	0	0	3	0	0	0	0	0	6	0	9	
9:00	0	0	0	0	1	0	0	0	0	1	6	0	8	
9:15	0	0	0	0	5	0	0	0	0	0	0	0	5	
9:30	0	0	0	0	8	0	0	0	0	0	5	0	13	
9:45	1	0	0	0	4	0	0	0	0	0	7	0	12	
10:00	0	0	0	0	3	0	0	0	0	0	3	0	6	
13:45	0	0	0	0	5	0	0	0	0	0	3	0	8	
14:00	0	0	0	0	2	0	0	0	0	0	3	0	5	
14:15	0	0	0	0	4	0	0	0	0	1	8	0	13	
14:30	0	0	0	0	2	0	0	0	0	0	3	0	5	
14:45	0	0	0	0	1	0	0	0	0	0	4	0	5	
15:00	0	0	0	0	3	0	0	0	0	0	4	0	7	
15:15	0	0	0	0	5	0	0	0	0	0	3	0	8	
15:30	0	0	0	0	2	0	0	0	0	0	3	0	5	
16:15	0	0	0	0	1	0	0	0	0	0	4	0	5	
16:30	0	0	0	0	0	0	0	0	0	0	1	0	1	
16:45	0	0	0	0	2	0	0	0	0	0	3	0	5	
17:00	0	0	0	0	0	0	0	0	0	0	4	0	4	
17:15	0	0	0	0	1	0	0	0	0	0	1	0	2	
17:30	0	0	0	0	1	0	0	0	0	0	3	0	4	
17:45	0	0	0	0	0	0	0	0	0	0	1	0	1	
18:00	0	0	0	0	3	0	0	0	0	0	1	0	4	
18:15	0	0	0	0	0	0	0	0	0	0	3	0	3	
18:30	0	0	0	0	1	0	0	0	0	0	2	0	3	
18:45	0	0	0	0	0	0	0	0	0	0	1	0	1	
19:00	0	0	0	0	1	0	0	0	0	0	0	0	1	
<b>TOTAL</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>89</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>97</b>	<b>0</b>	<b>189</b>	
<b>APPR.</b>		<b>1</b>			<b>89</b>						<b>99</b>			

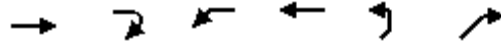
# Attachment 3

SYNCHRO ANALYSIS REPORTS



HCM Unsignalized Intersection Capacity Analysis  
 1: Woodleys Ln & King St W

<Existing> AM Peak Hour  
 11/30/2016



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	→			←	↘	↙
Volume (veh/h)	398	8	22	249	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	433	9	24	271	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			441		755	437
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			441		755	437
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	100
cM capacity (veh/h)			1103		371	624

Direction, Lane #	EB 1	WB 1	NE 1
Volume Total	441	295	0
Volume Left	0	24	0
Volume Right	9	0	0
cSH	1700	1103	1700
Volume to Capacity	0.26	0.02	0.00
Queue Length 95th (m)	0.0	0.5	0.0
Control Delay (s)	0.0	0.9	0.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.9	0.0
Approach LOS			A

Intersection Summary			
Average Delay		0.3	
Intersection Capacity Utilization		34.7%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis  
 2: Bond St S/Bond St N & King St W

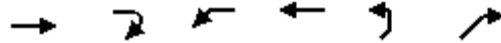
<Existing> AM Peak Hour  
 11/30/2016



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	2	411	9	3	254	4	11	1	9	6	3	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	447	10	3	276	4	12	1	10	7	3	9
Pedestrians					14							
Lane Width (m)					4.8							
Walking Speed (m/s)					1.2							
Percent Blockage					2							
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	280			457			751	743	466	765	746	278
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	280			457			751	743	466	765	746	278
tC, single (s)	4.1			4.1			7.1	6.5	6.5	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.6	3.5	4.0	3.3
p0 queue free %	100			100			96	100	98	98	99	99
cM capacity (veh/h)	1294			1115			322	344	529	310	343	765
<b>Direction, Lane #</b>	<b>SE 1</b>	<b>NW 1</b>	<b>NE 1</b>	<b>SW 1</b>								
Volume Total	459	284	23	18								
Volume Left	2	3	12	7								
Volume Right	10	4	10	9								
cSH	1294	1115	389	441								
Volume to Capacity	0.00	0.00	0.06	0.04								
Queue Length 95th (m)	0.0	0.1	1.4	1.0								
Control Delay (s)	0.1	0.1	14.8	13.5								
Lane LOS	A	A	B	B								
Approach Delay (s)	0.1	0.1	14.8	13.5								
Approach LOS			B	B								
<b>Intersection Summary</b>												
Average Delay			0.8									
Intersection Capacity Utilization			37.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis  
 1: Woodleys Ln & King St W

<Existing> PM Peak Hour  
 11/30/2016



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	→			←	↘	↙
Volume (veh/h)	393	2	8	405	5	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	427	2	9	440	5	23
Pedestrians				2		
Lane Width (m)				4.2		
Walking Speed (m/s)				1.2		
Percent Blockage				0		
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			429		886	430
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			429		886	430
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	96
cM capacity (veh/h)			1141		315	628

Direction, Lane #	EB 1	WB 1	NE 1
Volume Total	429	449	28
Volume Left	0	9	5
Volume Right	2	0	23
cSH	1700	1141	527
Volume to Capacity	0.25	0.01	0.05
Queue Length 95th (m)	0.0	0.2	1.3
Control Delay (s)	0.0	0.2	12.2
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	12.2
Approach LOS			B

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		38.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis  
2: Bond St S/Bond St N & King St W

<Existing> PM Peak Hour  
11/30/2016



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	12	356	11	10	381	6	6	2	11	5	0	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	387	12	11	414	7	7	2	12	5	0	14
Pedestrians		2			4			6			3	
Lane Width (m)		4.8			4.8			4.8			4.8	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	424			405			880	870	403	878	873	422
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	424			405			880	870	403	878	873	422
tC, single (s)	4.2			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	99			99			97	99	98	98	100	98
cM capacity (veh/h)	1100			1157			255	283	607	256	282	632

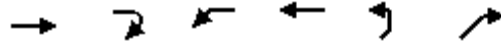
Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	412	432	21	20
Volume Left	13	11	7	5
Volume Right	12	7	12	14
cSH	1100	1157	390	448
Volume to Capacity	0.01	0.01	0.05	0.04
Queue Length 95th (m)	0.3	0.2	1.3	1.0
Control Delay (s)	0.4	0.3	14.7	13.4
Lane LOS	A	A	B	B
Approach Delay (s)	0.4	0.3	14.7	13.4
Approach LOS			B	B

Intersection Summary			
Average Delay		1.0	
Intersection Capacity Utilization	36.3%	ICU Level of Service	A
Analysis Period (min)	15		



HCM Unsignalized Intersection Capacity Analysis  
 1: Woodleys Ln & King St W

<Future 2026> AM Peak Hour  
 11/30/2016



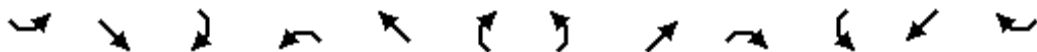
Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	→			←	↘	↙
Volume (veh/h)	440	8	22	275	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	478	9	24	299	0	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			487		829	483
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			487		829	483
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	100
cM capacity (veh/h)			1061		335	588

Direction, Lane #	EB 1	WB 1	NE 1
Volume Total	487	323	0
Volume Left	0	24	0
Volume Right	9	0	0
cSH	1700	1061	1700
Volume to Capacity	0.29	0.02	0.00
Queue Length 95th (m)	0.0	0.5	0.0
Control Delay (s)	0.0	0.8	0.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.8	0.0
Approach LOS			A

Intersection Summary			
Average Delay		0.3	
Intersection Capacity Utilization		36.0%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis  
2: Bond St S/Bond St N & King St W

<Future 2026> AM Peak Hour  
11/30/2016



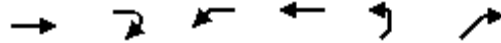
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	2	454	10	3	281	4	12	1	10	7	3	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	493	11	3	305	4	13	1	11	8	3	10
Pedestrians					14							
Lane Width (m)					4.8							
Walking Speed (m/s)					1.2							
Percent Blockage					2							
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	310			504			829	820	513	843	823	308
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	310			504			829	820	513	843	823	308
tC, single (s)	4.1			4.1			7.1	6.5	6.5	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.6	3.5	4.0	3.3
p0 queue free %	100			100			95	100	98	97	99	99
cM capacity (veh/h)	1262			1071			285	311	497	274	309	737

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	507	313	25	21
Volume Left	2	3	13	8
Volume Right	11	4	11	10
cSH	1262	1071	351	400
Volume to Capacity	0.00	0.00	0.07	0.05
Queue Length 95th (m)	0.0	0.1	1.7	1.2
Control Delay (s)	0.1	0.1	16.0	14.5
Lane LOS	A	A	C	B
Approach Delay (s)	0.1	0.1	16.0	14.5
Approach LOS			C	B

Intersection Summary			
Average Delay		0.9	
Intersection Capacity Utilization		39.4%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis  
 1: Woodleys Ln & King St W

11/30/2016



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	→			←	↘	↙
Volume (veh/h)	434	2	8	447	5	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	472	2	9	486	5	23
Pedestrians				2		
Lane Width (m)				4.2		
Walking Speed (m/s)				1.2		
Percent Blockage				0		
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			474		976	475
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			474		976	475
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	96
cM capacity (veh/h)			1099		279	593

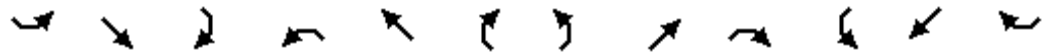
Direction, Lane #	EB 1	WB 1	NE 1
Volume Total	474	495	28
Volume Left	0	9	5
Volume Right	2	0	23
cSH	1700	1099	487
Volume to Capacity	0.28	0.01	0.06
Queue Length 95th (m)	0.0	0.2	1.4
Control Delay (s)	0.0	0.2	12.8
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	12.8
Approach LOS			B

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization	40.6%		ICU Level of Service A
Analysis Period (min)		15	

# HCM Unsignalized Intersection Capacity Analysis

## 2: Bond St S/Bond St N & King St W

11/30/2016



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	13	393	12	11	421	7	7	2	12	6	0	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	427	13	12	458	8	8	2	13	7	0	15
Pedestrians		2			4			6			3	
Lane Width (m)		4.8			4.8			4.8			4.8	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	468			446			970	960	444	968	963	466
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	468			446			970	960	444	968	963	466
tC, single (s)	4.2			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	99			99			97	99	98	97	100	97
cM capacity (veh/h)	1059			1117			221	250	575	221	249	597
<b>Direction, Lane #</b>	<b>SE 1</b>	<b>NW 1</b>	<b>NE 1</b>	<b>SW 1</b>								
Volume Total	454	477	23	22								
Volume Left	14	12	8	7								
Volume Right	13	8	13	15								
cSH	1059	1117	347	395								
Volume to Capacity	0.01	0.01	0.07	0.06								
Queue Length 95th (m)	0.3	0.2	1.6	1.3								
Control Delay (s)	0.4	0.3	16.1	14.6								
Lane LOS	A	A	C	B								
Approach Delay (s)	0.4	0.3	16.1	14.6								
Approach LOS			C	B								
<b>Intersection Summary</b>												
Average Delay			1.1									
Intersection Capacity Utilization			38.8%		ICU Level of Service				A			
Analysis Period (min)			15									

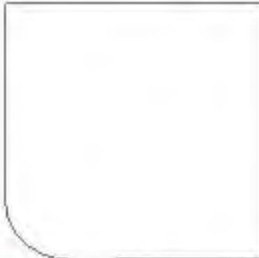
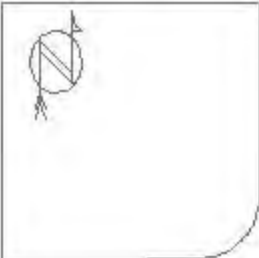
# Attachment 4

ACCIDENT REPORTS



# Hwy 8 D Woodley to Bond D

## 17 Accidents 01/01/11 - 11/06/16



01/29/14 17:00

06/01/12 15:35

04/17/13 6:48 03/31/12 17:00

07/16/13 13:00

03/25/14 11:55

11/06/15 9:15

09/22/16 16:24

10/20/16 17:00

06/25/14 19:05

12/21/15 15:45

12/13/15 13:52 04/12 17:35

12/14/11 13:25 02/29/12 23:50

10/14/15 6:44

12/17/13 8:55

((Distance >= 0))&((Coll Class <> Self Reportable)), (0) accidents with insufficient data for display

- |              |                  |              |                |
|--------------|------------------|--------------|----------------|
| ← Straight   | ▭ Parked         | × Pedestrian | Fixed objects: |
| ← Stopped    | ↪ Erratic        | ⊗ Bicycle    | □ General      |
| ← Unknown    | ↪ Out of control | ○ Injury     | ▣ Signal       |
| ↔ Backing    | ↪ Right turn     | ⊙ Fatality   | ▣ Tree         |
| ↗ Overtaking | ↪ Left turn      | 💡 Nighttime  | ◁ 3rd vehicle  |
| ↔ Sideswipe  | ↪ U-turn         | 🚗 DUI        | ★ Extra data   |
|              |                  |              | ▣ Pole         |
|              |                  |              | ▣ Curb         |
|              |                  |              | 🐾 Animal       |

Corridor: King St W- Woodleys Lane to Bond St  
 Range: January 1, 2011 - November 6, 2016  
 Compiled: November 21, 2016

CASE ID	DATE	TIME	STREET 1	STREET 2	DISTANCE	DIR FROM INT	COLLISION LOC	WEATHER	LIGHTING	COLL CLASS
2011793959	12/14/2011	13:25	KING D	BOND D	80	West	Non intersection	Rain	Daylight	PD only
2012549406	02/29/2012	23:50	KING D	WOODLEY	15	North	Non intersection	Rain	Daylight ar	Non fatal injury
2012574915	03/31/2012	17:00	HWY 8 D	WOODLEY	70	North	Overpass or bridge	Clear	Daylight	Non fatal injury
2012604068	05/04/2012	17:35	BOND D	KING D	11	South	Intersection related	Clear	Daylight	PD only
2012628562	06/01/2012	15:35	KING D	BOND D	159	West	Overpass or bridge	Rain	Daylight	Non fatal injury
2013581725	04/17/2013	6:45	KING D	WOODLEY	0		0 At intersection	Clear	Daylight	Non fatal injury
2013655215	07/16/2013	13:00	KING D	BOND D	22	West	Non intersection	Clear	Daylight	PD only
2013775627	12/17/2013	8:55	KING D	BOND D	35	East	Non intersection	Clear	Daylight	PD only
2014520890	01/29/2014	17:00	KING D	BOND D	20	West	Non intersection	Clear	Dark artific	PD only
2014562289	03/25/2014	11:55	KING D	WOODLEY	0		0 At intersection	Clear	Daylight	Non fatal injury
2014707717	06/25/2014	19:05	KING D	WOODLEY	0		0 At intersection	Clear	Daylight	Non fatal injury
2015731696	10/14/2015	6:44	KING D	WOODLEY	43	East	Non intersection	Rain	Daylight	Non fatal injury
2015749488	11/06/2015	9:15	KING D	BOND D	40	West	Non intersection	Rain	Daylight	Non fatal injury
2015776919	12/13/2015	13:12	KING D	BOND D	200	West	Non intersection	Rain	Daylight	PD only
2015782761	12/21/2015	15:45	KING D	BOND D	135	West	Near private drive	Rain	Dark artific	PD only
2016723953	09/22/2016	16:24	KING D	BOND D	26	East	Near private drive	Clear	Daylight	Non fatal injury
2016747389	10/20/2016	17:00	KING D	BOND D	100	West	Non intersection	Rain	Dusk	Non fatal injury



INITIAL IMPACT	ROAD 1 ALIGN	ROAD 2 ALIGN	ROAD 1 SURF COND	ROAD 2 SURF COND	TRAF CONT	DRV 1 ACT
SMV other	Curve on hill	Straight on level	Wet	Wet	No control	Lost control
SMV other	Curve on hill	Curve on hill	Wet	Wet	No control	Lost control
Rear end	Curve on hill	Curve on hill	Dry	Dry	No control	Driving Properly
SMV other	Straight on level	Straight on level	Dry	Dry	Stop sign	Lost control
Head on	Curve on hill	Straight on level	Wet	Wet	No control	Driving Properly
Rear end	Straight on hill		Dry		Stop sign	Other driver action
Side swipe	Curve on hill	Straight on level	Dry	Dry	No control	Other driver action
SMV strikes unattended	Straight on level	Straight on level	Wet	Wet	No control	Driving Properly
SMV strikes unattended	Straight on level	Straight on level	Dry	Dry	No control	Improper passing
Rear end	Curve on hill		Dry		Stop sign	Lost control
Left turn (oncoming)	Curve on hill		Dry		Stop sign	Improper turn
SMV other	Curve on hill	Curve on hill	Wet	Wet	No control	Other driver action
Side swipe	Curve on hill	Straight on level	Wet	Wet	No control	Speed too fast
SMV other	Curve on level	Straight on level	Wet	Wet	No control	Lost control
SMV other	Curve on hill	Straight on level	Wet	Wet	No control	Lost control
Left turn (opposite thru)	Straight on level	Straight on level	Dry	Dry	No control	Driving Properly
Side swipe	Curve on hill	Straight on level	Wet	Wet	No control	Speed too fast

DRV 2 ACT	VEH 1 DIR	VEH 2 DIR	VEH 1 MANEUVER	VEH 2 MANEUVER	VEH 1 EVENT
	East		Going ahead		Skidding/sliding
	East		Going ahead		Other motor vehicle
Driving Properly	West	West	Slowing or stopping	Going ahead	Animal - domestic
	East		Turning right		Skidding/sliding
Speed too fast	West	East	Going ahead	Going ahead	Other motor vehicle
Driving Properly	West	West	Going ahead	Stopped	Other motor vehicle
Driving Properly	East	West	Going ahead	Going ahead	Load spill
	East		Going ahead	Parked	Unattended vehicle
Other driver action	West	West	Going ahead	Parked	Unattended vehicle
Driving Properly	West	West	Stopped	Going ahead	Other motor vehicle
	North	East	Turning left	Slowing or stopping	Cyclist
	East		Turning left		Bridge support
Driving Properly	East	West	Going ahead	Going ahead	Other motor vehicle
	East		Going ahead		Skidding/sliding
	East		Going ahead		Skidding/sliding
Improper turn	West	East	Going ahead	Turning left	Other motor vehicle
Driving Properly	South	North	Going ahead	Going ahead	Other motor vehicle

