Appendix D
to
Report ENG2023-031

The Corporation of the City of Kawartha Lakes

Council Report

Report Number ENG2016-029

Date: October 4, 2016
Time: 2:00 p.m.
Place: Council Chambers

Ward Community Identifier: 5

Subject: *Request for Speed Reduction – Long Beach Road*

Author/Title: Joseph Kelly, Senior Engineering Technician

Signature:

RECOMMENDATION(S):

RESOLVED THAT Report ENG2016-029, ***Request for Speed Reduction – Long Beach Road***, be received;

THAT the speed limit of Long Beach Road from 135m north of Lakeview Park Road to CKL Rd 121 be reduced to 60 km/h;

THAT the necessary By-law for the above recommendations be forwarded to Council for adoption; and

THAT the Mayor and Clerk be authorized to execute any documents and agreements required by the approval of this application/agreement/decision.

Department Head:

Corporate Services Director / Other:

Chief Administrative Officer:

Background:

Staff received a request from local residents and Councilors to investigate the feasibility of reducing the speed limit on Long Beach Road. Specifically, the area north of the waterfront community of Long Beach, which currently enjoys a 40 km/h speed limit. Residents feel unsafe walking between the waterfront community of Daytonia Beach, on Daytonia Beach Rd, and Long Beach because of Long Beach Road has a speed limit of 80 km/h. A key map can be seen in Appendix A.

Staff also received requests to reduce the 40 km/h speed limit in Long Beach itself.

This report addresses those concerns.

According to our 2011 Roads Needs Study, Long Beach Road is a rural, collector road experiencing an estimated annual average daily traffic (AADT) of 730 vehicles. Peak seasonal traffic is known to increase up to 25%.

Long Beach Road is often heavily used as a scenic alternative to Highway 35 en route to Fenelon Falls as it offers gorgeous views of Cameron Lake. This can be frustrating to the residents of Long Beach. Long Beach Road is CKL Road 34 coming east of the hamlet of Cameron allowing fast travel to the waterfront community of Long Beach. This contributes to distracted gawking when drivers should be heeding the 40 km/h speed limit and paying attention to pedestrians.

The trend in waterfront communities in CKL is active transportation. Residents are not content to sit and enjoy their views and would like to walk or cycle long distances in nature. Unfortunately with most waterfront communities that means walking on the one access road to the community which has traditionally been posted at 80 km/h or is unposted with the assumed limit of 80 km/h.

Speed limits should be studied and adjusted accordingly as competing uses change with time.

Speed Data Analysis:

Speed data was collected from September 2 to 9, 2015. This captured Labour Day long weekend traffic which typically is one of the highest of the year in the area. Counters were placed both directly in the Long Beach built-up area (40 km/h zone) and further north in the 80 km/h zone (200m south of Daytonia Beach Road).

Speed data suggests an elevated but normal level of compliance with the current speed limits. If there is a disparity between road risks/land use and the speed

limit, action should be taken to reduce it since it is impossible to enforce speeds below the speed limit.

In traffic engineering, the 85th percentile speed is an important factor in determining safe speed limits. It is the speed at which 85% of drivers are travelling at or below. It is typically 10 to 22 km/h faster than the posted speed limit. The 85 percentile speed on Long Beach Rd is 45.4 km/h within the 40 zone (Figure 1) and 87.8 km/h in the 80 zone (Figure 2). Complete speed count data can be seen in Appendix B.

Posted speed limit = 40 km/h, Exceeding = 1915 (34.95%), Mean Exceeding = 46.37 km/h
Maximum = 144.1 km/h, **Minimum** = 10.3 km/h, **Mean** = 37.2 km/h
85% Speed = 45.4 km/h, **95% Speed** = 51.8 km/h, **Median** = 36.4 km/h
16 km/h Pace = 29 - 45, **Number in Pace** = 3676 (67.08%)
Variance = 76.89, **Standard Deviation** = 8.77 km/h
Figure 1. Speed data summary of Long Beach Rd (40 zone) showing normal compliance levels

Posted speed limit = 80 km/h, Exceeding = 1797 (34.47%), Mean Exceeding = 89.17 km/h
Maximum = 154.8 km/h, **Minimum** = 10.8 km/h, **Mean** = 75.2 km/h
85% Speed = 87.8 km/h, **95% Speed** = 96.1 km/h, **Median** = 74.9 km/h
16 km/h Pace = 66 - 82, **Number in Pace** = 2571 (49.32%)
Variance = 194.85, **Standard Deviation** = 13.96 km/h
Figure 2. Speed data summary of Long Beach Road (80 zone) showing elevated but normal compliance levels

Rationale:

CKL Engineering follows The Transportation Association of Canada's (TAC) "Guidelines for Establishing Posted Speed Limits" as part of its formal speed reduction warrant process. The TAC guide recommends a road risk method to determine appropriate speed limits according to road engineering characteristics, geometry, roadside environment, classification, land use, access/intersection density, and vulnerable road users. This guide along with good engineering judgment represents a consistent, repeatable, and defendable method of determining speed limits.

When considering the 2600m length of Long Beach Road (between CKL Rd 121 and the current 40 zone) using the TAC Speed Guidelines the recommended posted speed limit as determined by rural collector road characteristics is 70 km/h (Appendix C). Due to the road design and risks to vulnerable users it is prudent to reduce the speed further.

Motorists come off Long Beach distracted by the views and eager to make up for lost time while gawking. Pedestrians from both Long Beach and Daytonia Beach walking between Long Beach and CKL Rd 121 are vulnerable on a road with no shoulder and a speed limit of 80 or 70 km/h.

It is recommended that, for the purpose of this study, the collector status of the road be reduced to local status to reflect its design rather than its volumes. In

doing so, TAC Speed Guidelines recommend a speed limit of 60 km/h (Appendix C).

It is not recommended to further reduce the 40 km/h zone. Compliance levels are normal and it is proven that 30 km/hr speed zones are ineffective in reducing speeds. It also adds undue burden to enforcement when increased enforcement to the existing limit would be enough.

As a result of the justification review carried out by staff, it is recommended that the speed limit of Long Beach Road from CKL Rd 121 to 135m north of Lakeview Park Road be reduced to 60 km/h by way of an amendment to Schedule "C" (Highways with a Speed Limit of 60 Kilometres per Hour) of By-law 2005-328 (Speed By-law).

To bring the By-law into effect, signs shall be installed after the By-law amendment has been passed.

Other Alternatives Considered:

Financial Considerations:

Cost of sign installation to bring By-Law into effect.

Relationship of Recommendation(s) To the 2016-2019 Strategic Plan:

The City's Strategic Plan outlines Council's Vision of a Vibrant and Growing Economy, Quality of Life and a Healthy Environment.

Providing life safety and protection is a priority objective of the City.

Review of Accessibility Implications of Any Development or Policy:

There is no accessibility implications associated with the recommended course of action.

Servicing Comments:

N/A

Consultations:

Attachments:

Appendix A: Key Map

ENG2016-029-Appendix A.pdf

Appendix B: Speed Statistics

ENG2016-029-Appendix B.pdf

Appendix C: TAC Speed Form

ENG2016-029-Appendix C.pdf

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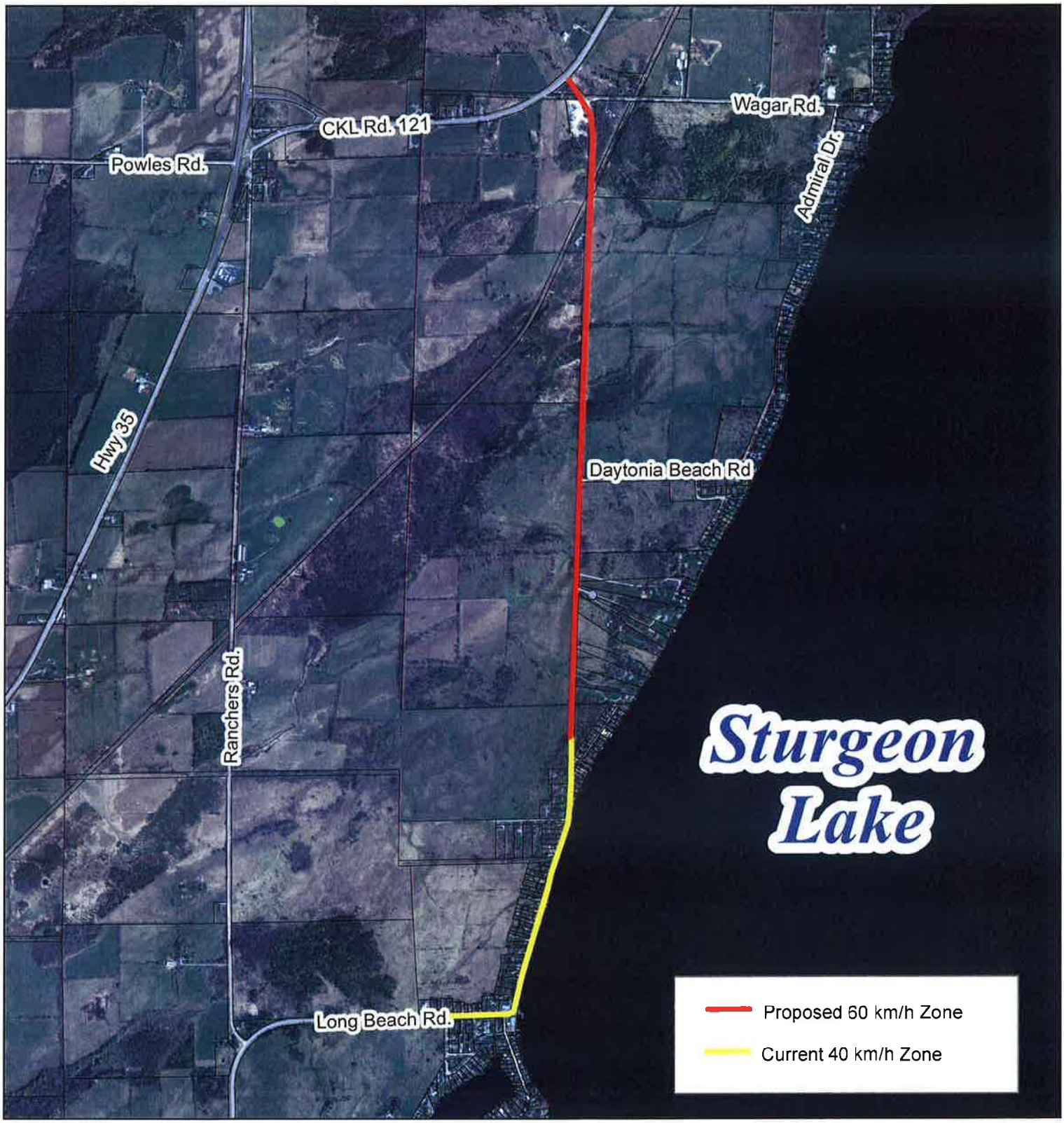
Department Head: Juan Rojas, Director of Engineering & Corporate Assets

Department File: Engineering

Long Beach Road Key Map

This is Attachment A to Report # ENG2016-029

KAWARTHA LAKES



Map produced by the City of Kawartha Lakes Engineering Department with data obtained under license. Reproduction without permission is prohibited.

The foregoing information is given for convenience only and it should be clearly understood that you must satisfy yourself as to whether the premises and the existing or proposed use thereof are, or would be, in conformity with all applicable by-laws and regulations of the municipality.

All distances and locations are approximate and are not of survey quality. This map is illustrative only. Do not rely on it as being a precise indicator of privately or publicly owned land, routes, locations or features, nor as a guide to navigate.

0 500 1,000 Meters

N

Projection: Transverse Mercator
Coordinate System: NAD83, Zone 17

This is Attachment B to Report # ENG2016-029

Sept 23, 2015

Long Beach Road (80 km/h Zone) Speed Statistics

Grand Total

Site: Long Beach Road
Descrpition: LongBeach 200m south of Daytona
Filter time: 18:00 Wednesday, September 02, 2015 => 18:00 Wednesday, September 09, 2015
Author: Joseph Kelly
RSU Installers: Joseph Kelly

Vehicles = 5213
Posted speed limit = 80 km/h, Exceeding = 1797 (34.47%), Mean Exceeding = 89.17 km/h
Maximum = 154.8 km/h, **Minimum** = 10.8 km/h, **Mean** = 75.2 km/h
85% Speed = 87.8 km/h, **95% Speed** = 96.1 km/h, **Median** = 74.9 km/h
16 km/h Pace = 66 - 82, **Number in Pace** = 2571 (49.32%)
Variance = 194.85, **Standard Deviation** = 13.96 km/h

Speed Bins

Speed	Bin		Below		Above		Energy	vMult	n * vMult
0 - 10	0	0.0%	0	0.0%	5213	100.0%	0.00	0.00	0.00
10 - 20	19	0.4%	19	0.4%	5194	99.6%	0.00	0.00	0.00
20 - 30	32	0.6%	51	1.0%	5162	99.0%	0.00	0.00	0.00
30 - 40	18	0.3%	69	1.3%	5144	98.7%	0.00	0.00	0.00
40 - 50	93	1.8%	162	3.1%	5051	96.9%	0.00	0.00	0.00
50 - 60	395	7.6%	557	10.7%	4656	89.3%	0.00	0.00	0.00
60 - 70	1161	22.3%	1718	33.0%	3495	67.0%	0.00	0.00	0.00
70 - 80	1698	32.6%	3416	65.5%	1797	34.5%	0.00	0.00	0.00
80 - 90	1180	22.6%	4596	88.2%	617	11.8%	0.00	0.00	0.00
90 - 100	444	8.5%	5040	96.7%	173	3.3%	0.00	0.00	0.00
100 - 110	111	2.1%	5151	98.8%	62	1.2%	0.00	0.00	0.00
110 - 120	42	0.8%	5193	99.6%	20	0.4%	0.00	0.00	0.00
120 - 130	13	0.2%	5206	99.9%	7	0.1%	0.00	0.00	0.00
130 - 140	2	0.0%	5208	99.9%	5	0.1%	0.00	0.00	0.00
140 - 150	3	0.1%	5211	100.0%	2	0.0%	0.00	0.00	0.00
150 - 160	2	0.0%	5213	100.0%	0	0.0%	0.00	0.00	0.00
160 - 170	0	0.0%	5213	100.0%	0	0.0%	0.00	0.00	0.00
170 - 180	0	0.0%	5213	100.0%	0	0.0%	0.00	0.00	0.00
180 - 190	0	0.0%	5213	100.0%	0	0.0%	0.00	0.00	0.00
190 - 200	0	0.0%	5213	100.0%	0	0.0%	0.00	0.00	0.00

Total Speed Rating = 0.00
Total Moving Energy (Estimated) = 0.00

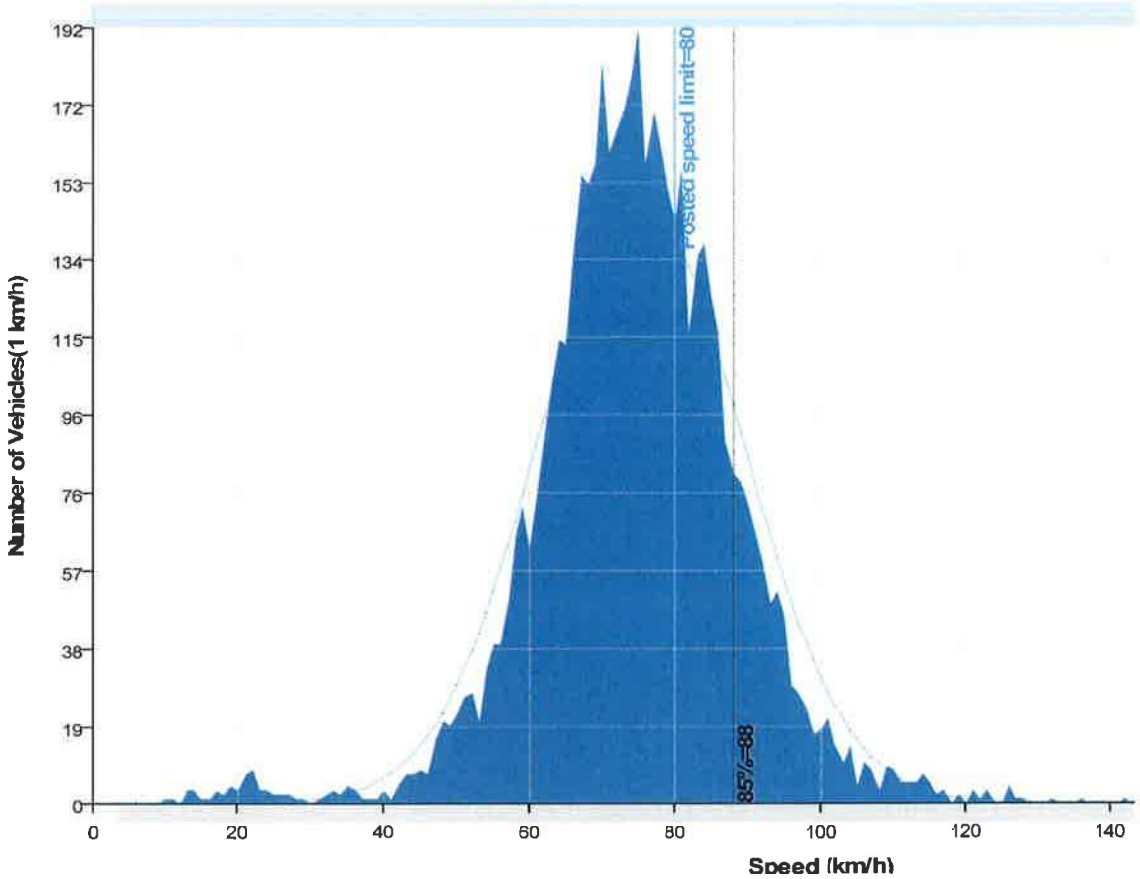
Speed limit fields

	Limit	Below		Above	
0	80 (PSL)	3416	65.5%	1797	34.5%

Speed Histogram

Speed Histogram

SpeedHist-64 (Metric) **Site:** LongBeachRd.0.0N
Description: LongBeach 200m south of Daytona
Filter time: 18:00 Wednesday, September 02, 2015 => 18:00 Wednesday, September 09, 2015
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0) Span(0 - 100)
Scheme: Vehicle classification (ARX)



Speed Statistics by Hour

Hour Bins

Time	Bin		Min	Max	Mean	Median	85%	95%	>PSL 80 km/h	
0000	72	1.4%	47.7	121.1	75.9	76.0	86.0	95.4	26	36.1%
0100	50	1.0%	44.5	142.3	78.3	78.8	90.4	104.8	22	44.0%
0200	36	0.7%	49.7	109.4	76.0	77.4	86.8	95.8	12	33.3%
0300	10	0.2%	57.3	95.7	83.0	83.9	94.7	95.4	7	70.0%
0400	9	0.2%	49.2	99.0	75.1	72.7	88.2	99.0	3	33.3%
0500	1	0.0%	57.4	57.4	57.4	57.2	57.2	57.2	0	0.0%
0600	6	0.1%	52.4	74.9	68.6	71.3	73.8	74.9	0	0.0%
0700	19	0.4%	50.3	132.1	76.3	66.6	97.6	118.8	5	26.3%
0800	62	1.2%	20.4	99.5	68.9	67.0	85.3	91.8	14	22.6%
0900	119	2.3%	27.9	112.0	75.8	76.0	90.0	98.3	43	36.1%
1000	245	4.7%	22.6	127.1	76.3	75.6	89.3	96.5	96	39.2%
1100	322	6.2%	13.0	115.9	75.1	74.9	88.2	94.3	111	34.5%
1200	399	7.7%	10.8	110.8	72.0	72.7	84.6	90.7	103	25.8%
1300	474	9.1%	11.4	149.3	74.2	73.8	85.7	91.8	145	30.6%
1400	441	8.5%	20.0	117.2	74.7	74.9	86.4	94.3	139	31.5%
1500	415	8.0%	17.4	123.0	73.9	74.2	85.7	94.3	126	30.4%
1600	449	8.6%	14.0	126.7	75.7	75.2	88.2	97.2	150	33.4%
1700	415	8.0%	13.8	115.9	76.8	76.7	88.2	97.9	162	39.0%
1800	389	7.5%	19.7	119.4	76.0	76.0	89.3	96.8	152	39.1%
1900	399	7.7%	22.5	136.0	77.7	77.8	89.6	96.1	173	43.4%
2000	298	5.7%	21.4	154.8	78.3	76.0	93.6	102.6	123	41.3%
2100	277	5.3%	16.7	152.5	73.8	73.8	86.8	95.4	89	32.1%
2200	187	3.6%	36.6	117.9	74.3	73.4	87.8	99.7	64	34.2%
2300	119	2.3%	37.6	128.1	73.5	72.0	85.0	93.6	32	26.9%
----	**5213**	**100.0%**	**10.8**	**154.8**	**75.2**	**74.9**	**87.8**	**96.1**	**1797**	**34.5%**

Daily Summaries

Column Legend:

0 [Time]	24-hour time (0000 - 2359)
1 [Total]	Number in time step
2 [Vbin]	Speed bin totals
3 [Mean]	Average speed
4 [Vpp]	Percentile speed

*** Wednesday, September 02, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
1800	62	0	0	0	2	5	15	22	13	4	1	0	0	0	0	0	73.4	84.6
1900	51	0	0	0	0	2	6	21	14	8	0	0	0	0	0	0	78.3	89.6
2000	43	0	1	0	1	1	10	11	12	4	2	0	1	0	0	0	77.5	92.2
2100	49	0	1	2	0	1	15	17	12	0	1	0	0	0	0	0	72.0	85.0
2200	22	0	0	0	1	6	3	3	5	1	2	1	0	0	0	0	75.2	93.6
2300	8	0	0	0	0	2	2	3	0	1	0	0	0	0	0	0	70.9	-
07-19	**62**	**0**	**0**	**0**	**2**	**5**	**15**	**22**	**13**	**4**	**1**	**0**	**0**	**0**	**0**	**0**	**73.4**	**84.6**
06-22	**205**	**0**	**2**	**2**	**3**	**9**	**46**	**71**	**51**	**16**	**4**	**0**	**1**	**0**	**0**	**0**	**75.1**	**87.5**
06-00	**235**	**0**	**2**	**2**	**4**	**17**	**51**	**77**	**56**	**18**	**6**	**1**	**1**	**0**	**0**	**0**	**75.0**	**87.5**
00-00	**235**	**0**	**2**	**2**	**4**	**17**	**51**	**77**	**56**	**18**	**6**	**1**	**1**	**0**	**0**	**0**	**75.0**	**87.5**

*** Thursday, September 03, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	8	0	0	0	0	1	2	2	3	0	0	0	0	0	0	0	74.2	-
0100	5	0	0	0	0	0	0	2	1	2	0	0	0	0	0	0	84.5	-
0200	5	0	0	0	0	1	0	2	2	0	0	0	0	0	0	0	76.1	-
0300	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	57.3	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	73.2	-
0700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0800	11	0	1	0	0	3	3	1	3	0	0	0	0	0	0	0	63.5	81.7
0900	23	0	0	0	0	2	6	7	4	3	0	1	0	0	0	0	76.4	90.0
1000	43	0	0	0	1	2	6	15	13	6	0	0	0	0	0	0	78.0	89.6
1100	39	0	0	2	3	0	9	13	7	3	1	1	0	0	0	0	74.4	86.4
1200	53	0	0	0	2	4	14	20	9	2	1	1	0	0	0	0	73.1	84.2
1300	66	0	0	0	1	3	14	31	10	6	0	0	1	0	0	0	76.1	86.0
1400	45	0	0	0	0	2	10	18	11	2	2	0	0	0	0	0	75.5	84.2
1500	50	0	2	0	1	5	15	18	7	0	0	2	0	0	0	0	70.5	82.1
1600	67	0	0	0	1	7	18	22	11	7	1	0	0	0	0	0	73.8	83.5
1700	59	0	0	0	0	0	11	20	18	7	2	1	0	0	0	0	79.6	90.4
1800	56	0	3	0	0	0	12	17	14	7	2	1	0	0	0	0	77.4	92.5
1900	71	0	0	0	1	2	12	22	24	5	3	2	0	0	0	0	79.7	89.3
2000	42	0	0	0	0	1	8	14	10	6	2	1	0	0	0	0	79.6	92.5
2100	35	2	1	0	0	4	6	7	10	5	0	0	0	0	0	0	72.2	87.1
2200	37	0	0	1	0	2	5	12	11	3	1	2	0	0	0	0	78.6	88.9
2300	19	0	0	1	0	3	3	8	1	3	0	0	0	0	0	0	70.9	88.2
07-19	**512**	**0**	**6**	**2**	**9**	**28**	**118**	**182**	**107**	**43**	**9**	**7**	**1**	**0**	**0**	**0**	**75.2**	**86.8**
06-22	**661**	**2**	**7**	**2**	**10**	**35**	**144**	**226**	**151**	**59**	**14**	**10**	**1**	**0**	**0**	**0**	**75.8**	**88.2**
06-00	**717**	**2**	**7**	**4**	**10**	**40**	**152**	**246**	**163**	**65**	**15**	**12**	**1**	**0**	**0**	**0**	**75.8**	**88.2**
00-00	**736**	**2**	**7**	**4**	**10**	**43**	**154**	**252**	**169**	**67**	**15**	**12**	**1**	**0**	**0**	**0**	**75.8**	**88.2**

*** Friday, September 04, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	10	0	0	0	0	1	3	0	4	1	0	0	1	0	0	0	79.6	-
0100	5	0	0	0	0	2	0	1	1	0	0	0	0	0	1	0	83.7	-
0200	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	68.4	-
0300	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	88.5	-
0400	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	49.2	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	52.4	-
0700	4	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	71.4	-
0800	11	0	0	0	0	1	3	4	3	0	0	0	0	0	0	0	73.4	85.3
0900	22	0	0	0	0	4	1	6	6	3	1	1	0	0	0	0	79.9	95.4
1000	43	0	2	0	0	4	8	9	12	5	2	1	0	0	0	0	76.3	92.2
1100	60	0	0	0	1	1	13	21	17	5	1	1	0	0	0	0	77.2	87.1
1200	62	4	0	1	0	6	18	21	10	2	0	0	0	0	0	0	67.7	82.4
1300	60	0	0	0	3	7	12	21	13	1	2	0	0	0	1	0	74.1	83.9
1400	70	0	0	0	1	8	21	21	14	4	0	1	0	0	0	0	73.6	84.6
1500	69	0	0	0	2	5	21	27	13	1	0	0	0	0	0	0	71.7	81.0
1600	64	0	0	0	0	0	17	20	19	3	4	0	1	0	0	0	79.3	87.8
1700	75	0	2	0	0	3	9	30	18	10	3	0	0	0	0	0	77.8	90.0
1800	60	0	0	0	0	2	8	20	20	6	3	1	0	0	0	0	80.8	91.1
1900	67	0	0	0	1	2	13	21	22	7	0	1	0	0	0	0	77.8	87.8
2000	65	0	0	0	0	4	15	20	16	8	2	0	0	0	0	0	77.5	89.6
2100	49	0	0	0	1	4	10	13	13	8	0	0	0	0	0	0	76.4	90.4
2200	37	0	0	0	0	4	10	11	7	4	0	1	0	0	0	0	75.7	84.6
2300	22	0	0	0	0	0	6	9	7	0	0	0	0	0	0	0	75.6	83.5
07-19	**500**	**4**	**4**	**1**	**7**	**41**	**132**	**203**	**145**	**40**	**16**	**5**	**1**	**0**	**1**	**0**	**75.4**	**87.1**
06-22	**782**	**4**	**4**	**1**	**9**	**52**	**170**	**257**	**196**	**63**	**18**	**6**	**1**	**0**	**1**	**0**	**75.8**	**87.5**
06-00	**841**	**4**	**4**	**1**	**9**	**56**	**186**	**277**	**210**	**67**	**18**	**7**	**1**	**0**	**1**	**0**	**75.8**	**87.5**
00-00	**861**	**4**	**4**	**1**	**10**	**60**	**189**	**279**	**216**	**69**	**18**	**7**	**2**	**0**	**2**	**0**	**75.9**	**87.5**

*** Saturday, September 05, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	23	0	0	0	1	3	4	10	2	2	1	0	0	0	0	0	73.9	88.2
0100	12	0	0	0	1	2	2	3	2	1	1	0	0	0	0	0	74.8	86.0
0200	10	0	0	0	0	1	1	4	3	1	0	0	0	0	0	0	78.3	-
0300	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	82.1	-
0400	6	0	0	0	0	0	1	3	1	1	0	0	0	0	0	0	77.1	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0700	6	0	0	0	0	2	1	0	0	0	0	2	0	1	0	0	89.0	-
0800	5	0	0	0	0	2	2	0	0	1	0	0	0	0	0	0	68.8	-
0900	17	0	0	0	0	0	3	8	4	1	1	0	0	0	0	0	78.7	83.9
1000	31	0	0	0	0	0	6	15	8	2	0	0	0	0	0	0	76.2	83.5
1100	68	0	0	0	0	4	15	21	19	7	2	0	0	0	0	0	77.0	88.2
1200	72	0	1	0	1	6	17	32	8	7	0	0	0	0	0	0	73.4	85.3
1300	97	1	0	0	0	9	18	39	22	7	1	0	0	0	0	0	74.3	85.7
1400	92	0	1	0	2	6	26	34	11	11	0	1	0	0	0	0	74.1	86.4
1500	81	1	0	1	1	6	17	21	26	6	1	1	0	0	0	0	75.0	86.8
1600	87	1	0	0	1	9	12	35	17	10	1	1	0	0	0	0	75.7	88.9
1700	69	0	0	0	1	2	13	30	17	4	2	0	0	0	0	0	76.9	85.0
1800	81	0	1	0	1	6	11	23	27	8	4	0	0	0	0	0	77.7	88.6
1900	66	0	1	0	1	3	20	20	15	6	0	0	0	0	0	0	74.2	83.9
2000	42	0	0	0	1	4	8	11	6	3	5	3	1	0	0	0	80.9	103.7
2100	36	0	0	0	2	5	7	13	3	3	2	0	0	0	1	0	74.2	90.0
2200	21	0	0	1	1	2	5	6	4	0	2	0	0	0	0	0	72.2	87.1
2300	28	0	0	0	0	2	9	8	6	2	1	0	0	0	0	0	74.6	85.0
07-19	**706**	**3**	**3**	**1**	**7**	**52**	**141**	**258**	**159**	**64**	**12**	**5**	**0**	**1**	**0**	**0**	**75.6**	**87.5**
06-22	**850**	**3**	**4**	**1**	**11**	**64**	**176**	**302**	**183**	**76**	**19**	**8**	**1**	**1**	**1**	**0**	**75.7**	**87.8**
06-00	**899**	**3**	**4**	**2**	**12**	**68**	**190**	**316**	**193**	**78**	**22**	**8**	**1**	**1**	**1**	**0**	**75.6**	**87.8**
00-00	**952**	**3**	**4**	**2**	**14**	**74**	**198**	**337**	**202**	**83**	**24**	**8**	**1**	**1**	**1**	**0**	**75.6**	**87.8**

*** Sunday, September 06, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	12	0	0	0	0	0	3	4	5	0	0	0	0	0	0	0	77.0	83.5
0100	10	0	0	0	0	0	2	5	3	0	0	0	0	0	0	0	75.8	-
0200	7	0	0	0	1	1	2	0	1	1	1	0	0	0	0	0	75.7	-
0300	3	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	84.2	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	57.4	-
0600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0700	5	0	0	0	0	2	2	0	0	1	0	0	0	0	0	0	68.9	-
0800	8	0	0	0	1	1	5	0	1	0	0	0	0	0	0	0	65.9	-
0900	8	0	0	1	0	0	3	3	0	0	1	0	0	0	0	0	69.7	-
1000	18	0	0	0	1	3	5	3	3	3	0	0	0	0	0	0	71.9	87.1
1100	35	1	0	0	0	1	11	13	7	2	0	0	0	0	0	0	73.1	83.9
1200	74	1	4	1	0	7	16	24	18	2	1	0	0	0	0	0	70.5	84.6
1300	78	0	1	0	0	2	22	29	16	7	1	0	0	0	0	0	74.8	84.6
1400	87	0	0	0	0	6	24	27	21	6	1	2	0	0	0	0	76.4	86.4
1500	72	0	0	2	3	4	9	30	18	4	1	0	1	0	0	0	75.1	86.0
1600	70	1	1	0	2	3	14	33	12	2	2	0	0	0	0	0	72.7	81.7
1700	67	1	0	0	1	4	19	21	14	3	4	0	0	0	0	0	73.7	84.2
1800	45	0	0	0	3	3	6	15	10	8	0	0	0	0	0	0	76.4	90.4
1900	41	0	0	1	1	0	5	14	14	6	0	0	0	0	0	0	78.7	89.6
2000	45	0	0	0	0	3	14	11	12	3	1	0	0	0	0	1	77.7	88.9
2100	49	0	0	0	1	6	11	13	11	5	0	1	0	0	0	1	75.7	87.8
2200	28	0	0	0	1	8	9	3	4	3	0	0	0	0	0	0	68.7	86.0
2300	17	0	0	0	0	4	6	2	2	2	0	0	1	0	0	0	73.8	87.1
07-19	**567**	**4**	**6**	**4**	**11**	**36**	**136**	**198**	**120**	**38**	**11**	**2**	**1**	**0**	**0**	**0**	**73.8**	**85.7**
06-22	**702**	**4**	**6**	**5**	**13**	**45**	**166**	**236**	**157**	**52**	**12**	**3**	**1**	**0**	**0**	**2**	**74.5**	**86.0**
06-00	**747**	**4**	**6**	**5**	**14**	**57**	**181**	**241**	**163**	**57**	**12**	**3**	**2**	**0**	**0**	**2**	**74.2**	**86.0**
00-00	**780**	**4**	**6**	**5**	**15**	**59**	**189**	**250**	**173**	**59**	**13**	**3**	**2**	**0**	**0**	**2**	**74.3**	**86.0**

*** Monday, September 07, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	13	0	0	0	1	1	1	5	1	3	1	0	0	0	0	0	77.3	94.3
0100	8	0	0	0	0	0	3	0	3	1	1	0	0	0	0	0	79.8	-
0200	8	0	0	0	0	0	0	6	2	0	0	0	0	0	0	0	77.4	-
0300	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	94.7	-
0400	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	75.9	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	71.3	-
0700	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	95.9	-
0800	9	0	0	0	0	3	2	2	1	1	0	0	0	0	0	0	71.7	-
0900	4	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	53.5	-
1000	25	0	0	1	2	3	8	4	1	2	1	2	1	0	0	0	73.1	94.0
1100	30	0	0	0	1	2	5	7	8	7	0	0	0	0	0	0	77.4	91.4
1200	49	0	2	0	1	1	11	20	10	3	1	0	0	0	0	0	72.8	86.4
1300	60	1	0	0	2	2	17	12	22	3	1	0	0	0	0	0	74.9	86.4
1400	61	0	3	0	1	9	8	15	20	5	0	0	0	0	0	0	73.2	88.2
1500	56	0	1	1	0	6	12	13	15	3	2	3	0	0	0	0	75.7	88.9
1600	58	0	0	0	0	2	16	11	16	10	1	2	0	0	0	0	79.8	92.2
1700	49	0	0	0	0	1	6	17	14	8	2	1	0	0	0	0	81.2	92.2
1800	41	0	0	0	2	7	10	12	8	2	0	0	0	0	0	0	70.9	81.0
1900	57	0	0	0	4	4	10	15	15	2	4	1	1	1	0	0	77.7	88.6
2000	26	0	0	0	0	5	4	10	1	4	2	0	0	0	0	0	75.7	94.0
2100	33	0	0	0	0	4	15	8	4	1	0	0	1	0	0	0	71.4	80.3
2200	24	0	0	0	1	4	5	6	4	4	0	0	0	0	0	0	73.6	87.5
2300	18	0	0	0	0	4	6	3	3	1	1	0	0	0	0	0	72.1	82.1
07-19	**443**	**1**	**6**	**3**	**10**	**36**	**96**	**114**	**115**	**45**	**8**	**8**	**1**	**0**	**0**	**0**	**75.4**	**89.3**
06-22	**560**	**1**	**6**	**3**	**14**	**49**	**125**	**148**	**135**	**52**	**14**	**9**	**3**	**1**	**0**	**0**	**75.4**	**89.3**
06-00	**602**	**1**	**6**	**3**	**15**	**57**	**136**	**157**	**142**	**57**	**15**	**9**	**3**	**1**	**0**	**0**	**75.2**	**89.3**
00-00	**633**	**1**	**6**	**3**	**16**	**58**	**140**	**169**	**148**	**62**	**17**	**9**	**3**	**1**	**0**	**0**	**75.4**	**89.3**

* Tuesday, September 08, 2015

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	3	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	78.1	-
0100	3	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	75.3	-
0200	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	74.3	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	88.2	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	70.0	-
0700	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	68.2	-
0800	7	0	0	0	0	0	4	1	1	1	0	0	0	0	0	0	71.3	-
0900	25	0	1	0	1	1	5	8	2	7	0	0	0	0	0	0	75.2	90.7
1000	50	0	0	0	1	1	13	14	14	5	0	0	2	0	0	0	79.0	89.3
1100	41	0	0	0	1	4	9	16	7	4	0	0	0	0	0	0	73.8	87.5
1200	43	0	0	0	1	1	12	17	9	3	0	0	0	0	0	0	75.0	84.2
1300	57	0	0	0	3	5	12	18	12	5	2	0	0	0	0	0	73.8	86.4
1400	43	0	1	0	2	2	4	19	13	2	0	0	0	0	0	0	75.1	86.8
1500	53	0	0	0	0	3	15	19	10	4	1	1	0	0	0	0	75.5	87.8
1600	55	0	1	0	3	4	13	18	8	4	2	1	1	0	0	0	74.6	85.7
1700	53	1	0	0	1	4	13	17	12	4	1	0	0	0	0	0	73.4	87.1
1800	44	1	0	0	0	7	9	14	9	3	1	0	0	0	0	0	72.6	83.5
1900	46	0	0	0	1	4	6	13	13	8	1	0	0	0	0	0	78.0	91.8
2000	35	0	0	0	1	2	4	11	10	6	1	0	0	0	0	0	78.8	93.6
2100	26	1	0	0	1	2	5	10	4	1	2	0	0	0	0	0	73.0	84.6
2200	18	0	0	0	1	1	4	7	4	1	0	0	0	0	0	0	73.8	86.0
2300	7	0	0	0	0	1	1	4	0	1	0	0	0	0	0	0	74.7	-
07-19	**473**	**2**	**3**	**0**	**13**	**32**	**110**	**162**	**97**	**42**	**7**	**2**	**3**	**0**	**0**	**0**	**74.7**	**88.2**
06-22	**582**	**3**	**3**	**0**	**16**	**40**	**126**	**197**	**124**	**57**	**11**	**2**	**3**	**0**	**0**	**0**	**75.1**	**88.9**
06-00	**507**	**3**	**3**	**0**	**17**	**42**	**131**	**208**	**128**	**59**	**11**	**2**	**3**	**0**	**0**	**0**	**75.1**	**88.9**
00-00	**616**	**3**	**3**	**0**	**17**	**42**	**134**	**210**	**131**	**60**	**11**	**2**	**3**	**0**	**0**	**0**	**75.1**	**88.9**

* Wednesday, September 09, 2015

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	3	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	70.6	-
0100	7	0	0	0	0	1	1	1	2	2	0	0	0	0	0	0	79.2	-
0200	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	68.8	-
0300	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	83.9	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	74.9	-
0700	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	53.6	-
0800	11	0	0	0	0	4	3	2	1	1	0	0	0	0	0	0	68.1	79.2
0900	20	0	0	0	1	1	4	6	5	2	1	0	0	0	0	0	75.8	87.1
1000	35	0	0	0	0	2	11	9	10	2	1	0	0	0	0	0	75.0	86.4
1100	49	1	0	0	2	7	13	14	6	4	2	0	0	0	0	0	71.4	86.0
1200	46	0	0	0	1	4	13	12	15	1	0	0	0	0	0	0	73.2	83.5
1300	56	0	0	0	2	8	17	17	10	2	0	0	0	0	0	0	70.7	81.7
1400	43	0	0	0	0	4	9	18	7	5	0	0	0	0	0	0	75.2	84.2
1500	34	0	0	1	0	2	8	17	4	2	0	0	0	0	0	0	72.9	85.3
1600	48	0	0	0	1	4	12	17	10	3	1	0	0	0	0	0	74.5	87.8
1700	43	1	0	0	0	3	13	9	13	2	2	0	0	0	0	0	74.8	86.8
07-19	**386**	**2**	**0**	**1**	**7**	**40**	**103**	**121**	**81**	**24**	**7**	**0**	**0**	**0**	**0**	**0**	**73.3**	**85.3**
06-22	**387**	**2**	**0**	**1**	**7**	**40**	**103**	**122**	**81**	**24**	**7**	**0**	**0**	**0**	**0**	**0**	**73.3**	**85.3**
06-00	**387**	**2**	**0**	**1**	**7**	**40**	**103**	**122**	**81**	**24**	**7**	**0**	**0**	**0**	**0**	**0**	**73.3**	**85.3**
00-00	**400**	**2**	**0**	**1**	**7**	**42**	**106**	**124**	**85**	**26**	**7**	**0**	**0**	**0**	**0**	**0**	**73.3**	**85.7**

* Grand Total

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
--	5213	19	32	18	93	395	1161	1698	1180	444	111	42	13	2	3	2	75.2	87.8

In profile: Vehicles = 5213 / 5835 (89.34%)

Sept 23, 2015

Long Beach Road (40 km/hr Zone)
Speed Statistics

Grand Total

Site: Long Beach Road
Descrpition: 505 Long Beach Road
Filter time: 17:00 Wednesday, September 02, 2015 => 17:00 Wednesday, September 09, 2015
Author: Joseph Kelly
RSU Installers: Joseph Kelly

Vehicles = 5480
Posted speed limit = 40 km/h, Exceeding = 1915 (34.95%), Mean Exceeding = 46.37 km/h
Maximum = 144.1 km/h, **Minimum** = 10.3 km/h, **Mean** = 37.2 km/h
85% Speed = 45.4 km/h, **95% Speed** = 51.8 km/h, **Median** = 36.4 km/h
16 km/h Pace = 29 - 45, **Number in Pace** = 3676 (67.08%)
Variance = 76.89, **Standard Deviation** = 8.77 km/h

Speed Bins

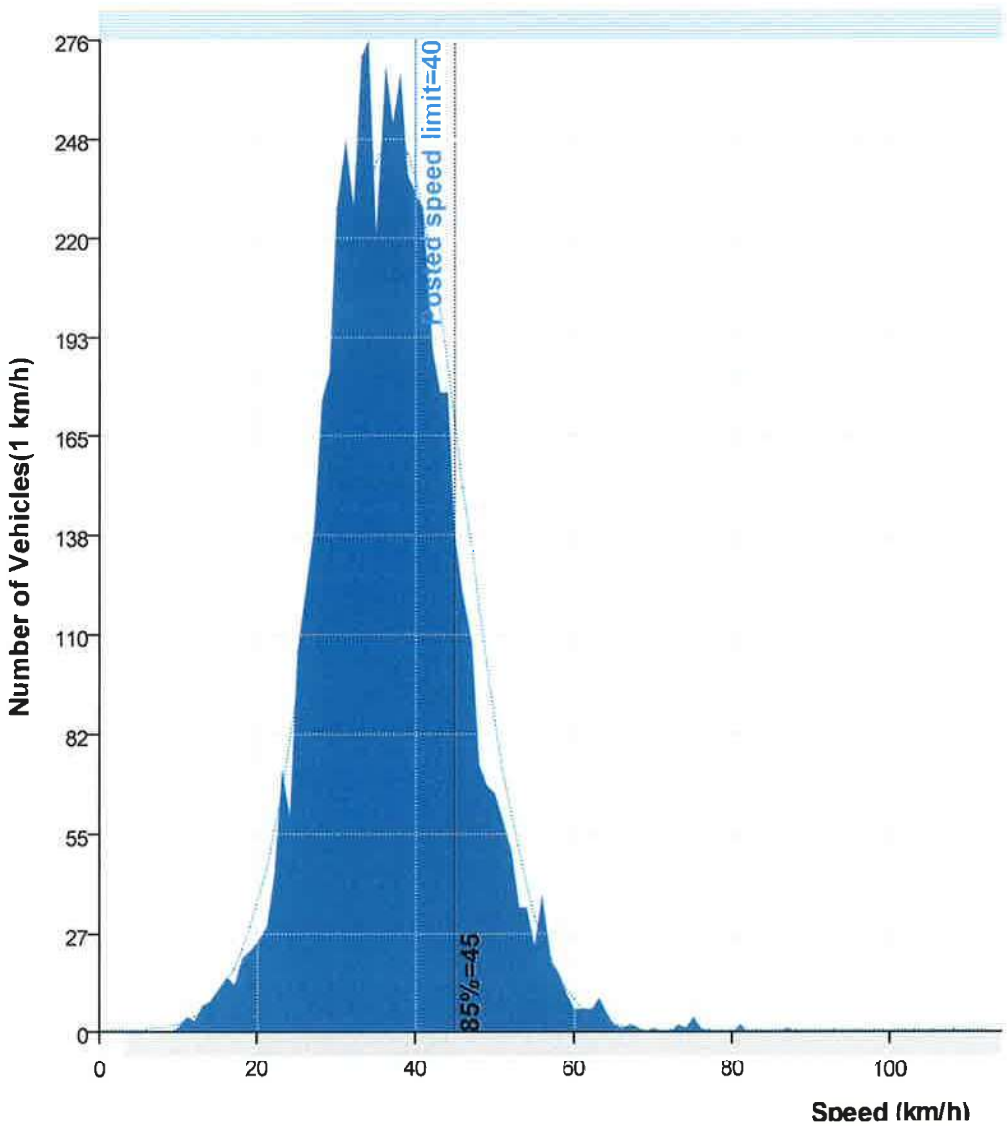
Speed	Bin		Below		Above		Energy	vMult	n * vMult
0 - 10	0	0.0%	0	0.0%	5480	100.0%	0.00	0.00	0.00
10 - 20	104	1.9%	104	1.9%	5376	98.1%	0.00	0.00	0.00
20 - 30	958	17.5%	1062	19.4%	4418	80.6%	0.00	0.00	0.00
30 - 40	2503	45.7%	3565	65.1%	1915	34.9%	0.00	0.00	0.00
40 - 50	1514	27.6%	5079	92.7%	401	7.3%	0.00	0.00	0.00
50 - 60	350	6.4%	5429	99.1%	51	0.9%	0.00	0.00	0.00
60 - 70	38	0.7%	5467	99.8%	13	0.2%	0.00	0.00	0.00
70 - 80	9	0.2%	5476	99.9%	4	0.1%	0.00	0.00	0.00
80 - 90	3	0.1%	5479	100.0%	1	0.0%	0.00	0.00	0.00
90 - 100	0	0.0%	5479	100.0%	1	0.0%	0.00	0.00	0.00
100 - 110	0	0.0%	5479	100.0%	1	0.0%	0.00	0.00	0.00
110 - 120	0	0.0%	5479	100.0%	1	0.0%	0.00	0.00	0.00
120 - 130	0	0.0%	5479	100.0%	1	0.0%	0.00	0.00	0.00
130 - 140	0	0.0%	5479	100.0%	1	0.0%	0.00	0.00	0.00
140 - 150	1	0.0%	5480	100.0%	0	0.0%	0.00	0.00	0.00
150 - 160	0	0.0%	5480	100.0%	0	0.0%	0.00	0.00	0.00
160 - 170	0	0.0%	5480	100.0%	0	0.0%	0.00	0.00	0.00
170 - 180	0	0.0%	5480	100.0%	0	0.0%	0.00	0.00	0.00
180 - 190	0	0.0%	5480	100.0%	0	0.0%	0.00	0.00	0.00
190 - 200	0	0.0%	5480	100.0%	0	0.0%	0.00	0.00	0.00

Total Speed Rating = 0.00
Total Moving Energy (Estimated) = 0.00

Speed limit fields

	Limit	Below		Above	
0	40 (PSL)	3565	65.1%	1915	34.9%

Speed Histogram



Speed Statistics by Hour

Hour Bins

Time	Bin		Min	Max	Mean	Median	85%	95%	>PSL 40 km/h	
0000	92	1.7%	19.9	62.1	41.7	41.8	51.1	57.6	54	58.7%
0100	53	1.0%	29.0	63.0	43.9	44.3	50.8	52.9	40	75.5%
0200	31	0.6%	33.0	75.8	48.6	46.4	56.9	64.1	25	80.6%
0300	14	0.3%	40.4	73.7	49.2	43.9	53.6	63.4	14	100.0%
0400	8	0.1%	38.0	75.7	49.3	45.4	54.7	75.6	7	87.5%
0500	2	0.0%	38.4	42.5	40.5	38.2	42.5	42.5	1	50.0%
0600	7	0.1%	26.6	57.0	42.1	42.5	51.8	56.9	4	57.1%
0700	27	0.5%	21.0	75.4	41.9	41.0	48.6	63.4	17	63.0%
0800	73	1.3%	14.4	55.1	39.8	41.0	48.2	52.6	39	53.4%
0900	149	2.7%	12.0	74.6	41.1	41.4	49.7	55.8	85	57.0%
1000	243	4.4%	16.1	73.8	41.1	40.3	49.3	55.8	126	51.9%
1100	324	5.9%	15.5	144.1	39.6	39.2	47.2	53.3	152	46.9%
1200	412	7.5%	11.9	66.4	36.7	36.4	44.3	49.3	136	33.0%
1300	480	8.8%	14.1	61.0	35.7	34.9	43.9	49.0	120	25.0%
1400	449	8.2%	14.4	68.4	35.5	34.6	42.8	50.0	117	26.1%
1500	418	7.6%	14.1	70.4	36.1	35.3	43.6	50.4	117	28.0%
1600	425	7.8%	12.4	75.2	36.1	35.3	43.9	51.8	120	28.2%
1700	419	7.6%	15.6	63.9	35.8	35.3	43.6	50.0	106	25.3%
1800	430	7.8%	11.0	60.5	35.5	35.3	43.2	47.9	126	29.3%
1900	416	7.6%	14.0	81.3	37.2	36.7	45.4	52.6	145	34.9%
2000	325	5.9%	10.3	63.5	37.1	36.7	45.4	50.0	116	35.7%
2100	310	5.7%	13.5	64.3	36.3	36.0	44.6	51.1	108	34.8%
2200	236	4.3%	16.7	76.3	36.5	36.7	45.0	51.8	76	32.2%
2300	137	2.5%	23.2	60.7	39.6	38.9	47.2	54.4	64	46.7%
----	**5480**	**100.0%**	**10.3**	**144.1**	**37.2**	**36.4**	**45.4**	**51.8**	**1915**	**34.9%**

Daily Summaries

Column Legend:

0	**[Time]**	24-hour time (0000 - 2359)
1	**[Total]**	Number in time step
2	**[Vbin]**	Speed bin totals
3	**[Mean]**	Average speed
4	**[Vpp]**	Percentile speed

*** Wednesday, September 02, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
1700	55	0	4	30	18	2	1	0	0	0	0	0	0	0	0	0	38.6	43.6
1800	63	1	11	26	25	0	0	0	0	0	0	0	0	0	0	0	37.5	45.0
1900	57	1	4	22	21	9	0	0	0	0	0	0	0	0	0	0	41.3	49.3
2000	39	1	7	14	12	5	0	0	0	0	0	0	0	0	0	0	38.7	47.5
2100	50	0	7	13	24	6	0	0	0	0	0	0	0	0	0	0	40.5	48.6
2200	27	0	3	8	14	2	0	0	0	0	0	0	0	0	0	0	39.6	45.0
2300	9	0	1	0	5	3	0	0	0	0	0	0	0	0	0	0	44.6	-
07-19	**118**	**1**	**15**	**56**	**43**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**38.0**	**44.6**
06-22	**264**	**3**	**33**	**105**	**100**	**22**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**39.3**	**46.8**
06-00	**300**	**3**	**37**	**113**	**119**	**27**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**39.5**	**47.5**
00-00	**300**	**3**	**37**	**113**	**119**	**27**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**39.5**	**47.5**

*** Thursday, September 03, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	11	0	1	2	6	2	0	0	0	0	0	0	0	0	0	0	42.4	47.5
0100	7	0	0	1	3	2	1	0	0	0	0	0	0	0	0	0	47.7	-
0200	5	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	45.5	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	48.5	-
0700	3	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	39.0	-
0800	15	0	1	4	7	3	0	0	0	0	0	0	0	0	0	0	41.7	50.0
0900	29	0	1	10	12	6	0	0	0	0	0	0	0	0	0	0	42.8	52.2
1000	36	0	2	11	18	5	0	0	0	0	0	0	0	0	0	0	43.3	49.3
1100	38	1	6	11	13	6	0	0	0	0	0	0	0	0	1	0	41.7	50.8
1200	55	0	1	27	26	1	0	0	0	0	0	0	0	0	0	0	40.5	46.1
1300	64	0	5	35	20	3	1	0	0	0	0	0	0	0	0	0	38.7	46.1
1400	43	0	3	27	9	3	1	0	0	0	0	0	0	0	0	0	38.1	46.4
1500	52	0	12	24	10	6	0	0	0	0	0	0	0	0	0	0	37.0	44.3
1600	60	1	11	34	13	1	0	0	0	0	0	0	0	0	0	0	35.7	42.8
1700	59	1	3	32	17	5	1	0	0	0	0	0	0	0	0	0	38.8	46.4
1800	65	0	11	32	21	1	0	0	0	0	0	0	0	0	0	0	36.1	42.8
1900	79	1	11	38	25	4	0	0	0	0	0	0	0	0	0	0	37.3	43.2
2000	44	0	3	24	15	1	1	0	0	0	0	0	0	0	0	0	38.9	45.4
2100	42	4	9	20	7	2	0	0	0	0	0	0	0	0	0	0	33.7	42.5
2200	44	1	8	19	12	4	0	0	0	0	0	0	0	0	0	0	37.6	45.4
2300	27	0	4	12	5	5	1	0	0	0	0	0	0	0	0	0	40.0	51.8
07-19	**519**	**3**	**57**	**247**	**168**	**40**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**38.9**	**46.4**
06-22	**685**	**8**	**80**	**329**	**216**	**47**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**38.4**	**46.4**
06-00	**756**	**9**	**92**	**360**	**233**	**56**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**38.4**	**46.4**
00-00	**779**	**9**	**93**	**364**	**246**	**60**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**38.6**	**46.8**

*** Friday, September 04, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	13	0	1	2	6	4	0	0	0	0	0	0	0	0	0	0	44.3	52.2
0100	6	0	0	4	1	1	0	0	0	0	0	0	0	0	0	0	38.1	-
0200	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	47.5	-
0300	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	46.9	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	38.4	-
0600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0700	4	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	43.1	-
0800	11	0	0	4	5	2	0	0	0	0	0	0	0	0	0	0	42.4	46.8
0900	27	0	5	7	11	4	0	0	0	0	0	0	0	0	0	0	40.8	49.7
1000	37	0	2	13	16	6	0	0	0	0	0	0	0	0	0	0	42.2	49.3
1100	59	0	3	30	22	3	0	0	1	0	0	0	0	0	0	0	40.2	45.4
1200	63	3	6	39	14	1	0	0	0	0	0	0	0	0	0	0	35.2	41.8
1300	60	0	7	38	14	1	0	0	0	0	0	0	0	0	0	0	36.1	44.3
1400	74	2	10	35	20	5	2	0	0	0	0	0	0	0	0	0	38.1	45.0
1500	71	1	8	37	20	5	0	0	0	0	0	0	0	0	0	0	37.5	43.2
1600	60	2	6	29	19	3	1	0	0	0	0	0	0	0	0	0	37.9	45.0
1700	71	3	5	43	13	6	1	0	0	0	0	0	0	0	0	0	37.2	45.4
1800	72	1	12	39	17	3	0	0	0	0	0	0	0	0	0	0	36.1	42.5
1900	59	1	8	30	15	3	0	0	2	0	0	0	0	0	0	0	39.0	47.2
2000	75	1	7	32	32	3	0	0	0	0	0	0	0	0	0	0	38.9	46.8
2100	52	1	7	22	17	4	1	0	0	0	0	0	0	0	0	0	38.4	44.6
2200	49	3	10	26	9	1	0	0	0	0	0	0	0	0	0	0	34.7	42.5
2300	20	0	0	11	7	2	0	0	0	0	0	0	0	0	0	0	40.2	43.6
07-19	**609**	**12**	**64**	**315**	**174**	**39**	**4**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**37.9**	**45.4**
06-22	**795**	**15**	**86**	**399**	**238**	**49**	**5**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**38.1**	**45.4**
06-00	**864**	**18**	**96**	**436**	**254**	**52**	**5**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**37.9**	**45.4**
00-00	**888**	**18**	**97**	**443**	**264**	**58**	**5**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**38.1**	**45.7**

*** Saturday, September 05, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	24	0	3	11	6	4	0	0	0	0	0	0	0	0	0	0	40.2	47.5
0100	14	0	0	3	8	3	0	0	0	0	0	0	0	0	0	0	45.2	51.5
0200	11	0	0	3	4	3	0	1	0	0	0	0	0	0	0	0	47.2	54.0
0300	4	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	51.4	-
0400	6	0	0	1	3	1	0	1	0	0	0	0	0	0	0	0	51.3	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0700	7	0	0	2	3	0	1	1	0	0	0	0	0	0	0	0	47.6	-
0800	6	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	34.9	-
0900	19	0	1	8	7	2	1	0	0	0	0	0	0	0	0	0	41.1	49.0
1000	38	0	1	19	15	3	0	0	0	0	0	0	0	0	0	0	40.7	47.5
1100	62	1	5	26	22	7	1	0	0	0	0	0	0	0	0	0	40.0	47.5
1200	74	1	14	38	20	1	0	0	0	0	0	0	0	0	0	0	35.9	42.5
1300	89	2	29	47	10	1	0	0	0	0	0	0	0	0	0	0	32.9	39.2
1400	86	2	41	32	9	2	0	0	0	0	0	0	0	0	0	0	31.4	38.9
1500	85	2	26	46	10	1	0	0	0	0	0	0	0	0	0	0	32.8	39.2
1600	76	1	31	39	5	0	0	0	0	0	0	0	0	0	0	0	31.5	36.7
1700	73	0	26	40	7	0	0	0	0	0	0	0	0	0	0	0	33.2	38.5
1800	85	5	27	42	10	1	0	0	0	0	0	0	0	0	0	0	31.7	38.2
1900	62	4	22	33	3	0	0	0	0	0	0	0	0	0	0	0	30.7	38.5
2000	48	0	16	27	4	1	0	0	0	0	0	0	0	0	0	0	33.0	38.5
2100	39	4	16	12	6	1	0	0	0	0	0	0	0	0	0	0	31.0	40.0
2200	27	2	13	7	3	1	0	1	0	0	0	0	0	0	0	0	33.6	41.4
2300	31	0	4	14	11	2	0	0	0	0	0	0	0	0	0	0	37.7	42.5
07-19	**700**	**14**	**203**	**340**	**121**	**18**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**34.2**	**41.4**
06-22	**849**	**22**	**257**	**412**	**134**	**20**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**33.7**	**41.0**
06-00	**907**	**24**	**274**	**433**	**148**	**23**	**3**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**33.9**	**41.0**
00-00	**966**	**24**	**277**	**451**	**171**	**35**	**4**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**34.5**	**41.8**

*** Sunday, September 06, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	14	0	1	7	3	2	1	0	0	0	0	0	0	0	0	0	40.6	52.2
0100	10	0	1	3	5	1	0	0	0	0	0	0	0	0	0	0	40.5	-
0200	5	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	46.4	-
0300	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	42.7	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	42.5	-
0600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0700	5	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	42.1	-
0800	6	0	1	3	2	0	0	0	0	0	0	0	0	0	0	0	36.4	-
0900	11	0	4	2	4	0	0	1	0	0	0	0	0	0	0	0	39.0	47.2
1000	20	1	4	10	4	1	0	0	0	0	0	0	0	0	0	0	35.7	43.2
1100	40	1	5	24	8	2	0	0	0	0	0	0	0	0	0	0	35.6	41.8
1200	73	4	27	29	13	0	0	0	0	0	0	0	0	0	0	0	31.7	40.3
1300	79	1	28	45	4	1	0	0	0	0	0	0	0	0	0	0	32.4	37.4
1400	90	4	24	53	9	0	0	0	0	0	0	0	0	0	0	0	32.8	38.5
1500	66	1	20	34	10	1	0	0	0	0	0	0	0	0	0	0	33.0	40.7
1600	64	3	22	32	7	0	0	0	0	0	0	0	0	0	0	0	31.9	39.2
1700	56	3	21	29	2	1	0	0	0	0	0	0	0	0	0	0	30.7	36.4
1800	56	2	17	22	13	2	0	0	0	0	0	0	0	0	0	0	34.5	42.5
1900	38	3	11	17	6	1	0	0	0	0	0	0	0	0	0	0	32.7	40.3
2000	46	6	11	23	5	1	0	0	0	0	0	0	0	0	0	0	31.0	39.2
2100	51	1	9	27	13	1	0	0	0	0	0	0	0	0	0	0	35.5	41.4
2200	31	0	10	16	5	0	0	0	0	0	0	0	0	0	0	0	33.5	39.2
2300	24	0	1	13	9	1	0	0	0	0	0	0	0	0	0	0	39.0	44.3
07-19	**566**	**20**	**173**	**284**	**80**	**8**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**33.0**	**40.0**
06-22	**701**	**30**	**204**	**351**	**104**	**11**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**33.0**	**40.3**
06-00	**756**	**30**	**215**	**380**	**118**	**12**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**33.3**	**40.7**
00-00	**790**	**30**	**217**	**392**	**131**	**18**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**33.6**	**41.0**

*** Monday, September 07, 2015**

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	19	1	1	5	8	3	1	0	0	0	0	0	0	0	0	0	42.2	51.1
0100	8	0	0	1	6	1	0	0	0	0	0	0	0	0	0	0	44.4	-
0200	6	0	0	0	3	2	1	0	0	0	0	0	0	0	0	0	50.7	-
0300	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	73.7	-
0400	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	44.6	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	51.9	-
0700	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	30.8	-
0800	10	0	3	3	1	3	0	0	0	0	0	0	0	0	0	0	39.2	-
0900	7	1	0	3	3	0	0	0	0	0	0	0	0	0	0	0	37.0	-
1000	21	0	6	9	3	2	1	0	0	0	0	0	0	0	0	0	36.5	44.6
1100	30	1	4	10	11	4	0	0	0	0	0	0	0	0	0	0	38.5	48.2
1200	52	1	11	32	6	1	1	0	0	0	0	0	0	0	0	0	34.7	39.6
1300	67	2	23	34	7	1	0	0	0	0	0	0	0	0	0	0	32.6	38.5
1400	68	1	17	38	10	2	0	0	0	0	0	0	0	0	0	0	33.6	41.0
1500	57	1	8	30	14	2	1	1	0	0	0	0	0	0	0	0	37.6	44.6
1600	57	1	10	31	13	2	0	0	0	0	0	0	0	0	0	0	35.7	41.0
1700	48	3	15	22	8	0	0	0	0	0	0	0	0	0	0	0	33.0	40.3
1800	43	1	12	19	9	2	0	0	0	0	0	0	0	0	0	0	35.0	44.3
1900	69	0	14	31	20	2	2	0	0	0	0	0	0	0	0	0	36.7	45.7
2000	29	0	3	12	11	3	0	0	0	0	0	0	0	0	0	0	39.6	46.1
2100	42	1	7	20	10	3	1	0	0	0	0	0	0	0	0	0	37.4	45.7
2200	30	0	8	13	6	2	1	0	0	0	0	0	0	0	0	0	37.3	45.7
2300	17	0	3	8	5	1	0	0	0	0	0	0	0	0	0	0	36.7	45.7
07-19	**462**	**12**	**110**	**231**	**86**	**19**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**35.0**	**43.2**
06-22	**603**	**13**	**134**	**294**	**127**	**28**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**35.6**	**43.9**
06-00	**650**	**13**	**145**	**315**	**138**	**31**	**7**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**35.7**	**44.3**
00-00	**685**	**14**	**146**	**321**	**156**	**37**	**9**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**36.2**	**44.6**

* Tuesday, September 08, 2015

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	7	0	0	1	5	1	0	0	0	0	0	0	0	0	0	0	43.7	-
0100	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	48.1	-
0200	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	63.5	-
0300	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	43.4	-
0400	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	42.5	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	3	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	46.0	-
0700	4	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	42.1	-
0800	10	0	0	5	4	1	0	0	0	0	0	0	0	0	0	0	41.3	-
0900	32	0	4	12	13	3	0	0	0	0	0	0	0	0	0	0	40.0	46.1
1000	56	0	4	22	22	6	1	1	0	0	0	0	0	0	0	0	42.3	49.7
1100	43	0	9	13	18	3	0	0	0	0	0	0	0	0	0	0	38.3	46.8
1200	44	0	2	14	21	7	0	0	0	0	0	0	0	0	0	0	42.2	49.7
1300	59	2	1	28	18	10	0	0	0	0	0	0	0	0	0	0	40.6	50.0
1400	44	0	3	19	18	3	1	0	0	0	0	0	0	0	0	0	40.2	47.2
1500	50	0	4	24	19	2	1	0	0	0	0	0	0	0	0	0	39.7	47.2
1600	56	0	6	25	17	7	1	0	0	0	0	0	0	0	0	0	40.0	48.6
1700	57	0	5	28	19	5	0	0	0	0	0	0	0	0	0	0	39.2	46.1
1800	46	0	3	21	17	4	1	0	0	0	0	0	0	0	0	0	40.0	46.1
1900	52	0	3	17	22	10	0	0	0	0	0	0	0	0	0	0	42.0	51.1
2000	44	0	3	19	19	3	0	0	0	0	0	0	0	0	0	0	40.2	47.5
2100	34	0	9	13	10	2	0	0	0	0	0	0	0	0	0	0	35.7	43.9
2200	28	0	3	10	11	4	0	0	0	0	0	0	0	0	0	0	40.3	45.0
2300	9	0	1	1	4	3	0	0	0	0	0	0	0	0	0	0	45.1	-
07-19	**501**	**2**	**41**	**213**	**187**	**52**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**40.3**	**48.2**
06-22	**634**	**2**	**56**	**263**	**239**	**68**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**40.2**	**47.9**
06-00	**671**	**2**	**60**	**274**	**254**	**75**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**40.3**	**48.2**
00-00	**683**	**2**	**60**	**275**	**263**	**76**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**40.4**	**48.2**

* Wednesday, September 09, 2015

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
0000	4	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	37.2	-
0100	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	45.6	-
0200	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	64.3	-
0300	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	50.4	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	28.1	-
0700	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	33.6	-
0800	15	1	1	5	7	1	0	0	0	0	0	0	0	0	0	0	38.7	46.4
0900	24	0	1	5	15	3	0	0	0	0	0	0	0	0	0	0	43.3	47.9
1000	35	1	0	12	15	7	0	0	0	0	0	0	0	0	0	0	42.4	53.3
1100	52	1	4	17	22	8	0	0	0	0	0	0	0	0	0	0	41.6	49.7
1200	51	0	3	24	19	4	1	0	0	0	0	0	0	0	0	0	40.4	46.1
1300	62	0	7	26	25	4	0	0	0	0	0	0	0	0	0	0	39.3	46.1
1400	45	0	4	18	18	4	1	0	0	0	0	0	0	0	0	0	40.1	46.4
1500	37	0	6	17	11	3	0	0	0	0	0	0	0	0	0	0	37.8	44.6
1600	52	1	2	18	23	4	3	1	0	0	0	0	0	0	0	0	42.5	49.3
07-19	**375**	**4**	**28**	**144**	**155**	**38**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**40.6**	**47.5**
06-22	**377**	**4**	**30**	**144**	**155**	**38**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**40.6**	**47.5**
06-00	**377**	**4**	**30**	**144**	**155**	**38**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**40.6**	**47.5**
00-00	**390**	**4**	**31**	**145**	**164**	**39**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**40.7**	**47.5**

* Grand Total

Time	Total	Vbin 10 20	Vbin 20 30	Vbin 30 40	Vbin 40 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Vbin 100 110	Vbin 110 120	Vbin 120 130	Vbin 130 140	Vbin 140 150	Vbin 150 160	Mean	Vpp 85
--	5481	104	958	2504	1514	350	38	9	3	0	0	0	0	0	1	0	37.2	45.4

In profile: Vehicles = 5481 / 6135 (89.34%)

This is Attachment C to ENG2016-029

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Long Beach Rd			
Segment Evaluated:	40 zone (135m north of Lakeview Park Rd)	to	CKL Rd 121	
Geographic Region:	CKL, Fenelon			
Road Agency:				
Road Classification:	Collector	Length of Corridor:	2,600	m
Urban / Rural:	Rural	Design Speed: (Required for Freeway, Expressway, Highway)		km/h
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	80	km/h
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)	87.8	km/h
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)		

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Higher	3
B	ROADSIDE HAZARDS	Higher	9
C1	PEDESTRIAN EXPOSURE	Higher	3
C2	CYCLIST EXPOSURE	Higher	3
D	PAVEMENT SURFACE	Lower	3
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	3
	STOP controlled intersection	1	
	Signalized intersection	0	
	Roundabout or traffic circle	0	
	Crosswalk	0	
	Active, at-grade railroad crossing	0	
	Sidestreet STOP-controlled or lane	5	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	1
	Left turn movements permitted	7	
	Right-in / Right-out only	0	
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	3

Total Risk Score:

32

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

70

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Recommend use local classification since road does not meet collector design specifications.

Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version: 10-Apr-09

Name of Corridor:	Long Beach Rd				
Segment Evaluated:	40 zone (135m north of Lakeview Park Rd)	to	CKL Rd 121		
Geographic Region:	CKL, Fenelon				
Road Agency:					
Road Classification:	Local	Length of Corridor:	2,600	m	
Urban / Rural:	Rural	Design Speed: (Required for Freeway, Expressway, Highway)		km/h	
Divided / Undivided:	Divided	Current Posted Speed: (For information only)	80	km/h	
Major / Minor:	Major	Prevailing Speed: (85th Percentile - for information only)	87.8	km/h	
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)			

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Higher	3
B	ROADSIDE HAZARDS	Higher	9
C1	PEDESTRIAN EXPOSURE	Higher	3
C2	CYCLIST EXPOSURE	Higher	3
D	PAVEMENT SURFACE	Lower	3
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	*Number of Occurrences*	1
	STOP controlled intersection	1	
	Signalized intersection	0	
	Roundabout or traffic circle	0	
	Crosswalk	0	
	Active, at-grade railroad crossing	0	
	Sidestreet STOP-controlled or lane	5	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	*Number of Occurrences*	1
	Left turn movements permitted	7	
	Right-in / Right-out only	0	
E3	NUMBER OF INTERCHANGES	*Number of Occurrences*	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	Higher	3

Total Risk Score:

30

Recommended Posted Speed Limit (km/h):

As determined by road characteristics

60

As determined by policy

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Recommend use local classification since road does not meet collector design specifications.