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TRANSTECH

July 30, 2012

SRM Associates
110 Scotia Court
Whitby, Ontario L1N 6A3

Attention: Ms. Jennifer Haslett, B.Sc., EP
Manager, Environmental Assessments

Dear Ms. Haslett:

Re: Parking Demand Study
Uxbridge Downtown Flood Reduction EA
Township of Uxbridge
Our Project No. 10257

The Township of Uxbridge and the Region of Durham retained SRM Associates (a GHD company) to prepare a Schedule 'C' Municipal Class Environmental Assessment for a culvert replacement in order to reduce the flood risk in the downtown core of Uxbridge. The existing culvert conveys Uxbridge Creek under a portion of the downtown area. As part of the study, it was determined that a reduction in the parking supply would result from the proposed works. To address concerns raised by stakeholders that the revised parking supply may not meet the current parking demand, SRM Associates retained Transtech (also a GHD company) to conduct a parking demand study in the affected area.

The purpose of this study is to determine whether the future (post culvert replacement) parking supply can accommodate the current parking demand. In order to accomplish this, Transtech conducted a parking demand study within the downtown Uxbridge area.

PARKING DEMAND STUDY

A manual count of parked vehicles within the study area was conducted on Friday, November 5th and Saturday, November 6th, 2010 and Friday, November 12th and Saturday, November 13th, 2010 between the hours of 10:00 am and 6:00 pm. The number of occupied spaces was noted every half hour during the above times. The results of the study are detailed in the appendix. The peak parking demand for each studied day is shown in bold type. The study area included on-street and off-street parking.

The on-street parking areas are as follows:

- Railway Street: from Brock Street to Spruce Street.
- Brock Street (RR 8): from Railway Street to 1st Avenue/Marietta Street.
- Main Street: from Brock Street to Planks Lane and Brock Street to Dominion Street.
- Toronto Street: from Albert Street to Main Street.
- Bascom Street: from Brock Street to Centennial Drive.

The off-street parking areas are as follows:

- Centennial Drive parking lot.
- Church Street parking lot.
- Toronto Street/Main Street parking lot.
- Albert Street north and south parking lots.

The existing on-street and off-street parking supply is detailed by Zone in **Table 1** below. See **Figure 1** in the appendix for the location/details of each zone.

Table 1 Existing Parking Supply Summary

Zone		Description	Designated Spaces
On-Street	S1	Railway Street (Brock Street to Spruce Street)	26
	S2	Brock Street (Railway Street to Toronto Street)	49
	S3	Brock Street (Toronto Street to Main Street)	25
	S4	Brock Street (Main Street to 1st Ave/Marietta Street)	11
	S5	Main Street (Brock Street to Planks Lane)	34
	S6	Main Street (Dominion Street to Brock Street)	20
	S7	Toronto Street (Albert Street to Main Street)	15
	S8	Bascom Street (Brock Street to Centennial Drive)	7
	Sub-Total (On-Street Parking)		**187**
Off-Street	P1	Centennial Drive parking lot	74
	P2	Church Street parking lot	26
	P3	Toronto Street/Main Street parking lot	59
	P4	Albert Street north parking lot	30
	P5	Albert Street south parking lot	33
	Sub-Total (Off-Street Parking)		**222**
Total Parking Supply			**409**

As shown in **Table 1** above, there are 187 existing on-street parking spaces and 222 existing off-street parking lot spaces for a total of 409 existing parking spaces within the study area.

The results of the study are detailed in the appendix, **Tables 2** through **8** inclusive. The peak parking demand for on-street and off-street parking for each day is shown in bold type.

On-Street Parking

The highest weekday peak parking demand for all on-street parking (Zones S1 to S8) was 128 parking spaces at 12:30 p.m. on Friday, November 12th, 2010. This represents a peak utilization of the on-street parking supply of 68.45%.

There was a peak parking demand of 118 parking spaces on the first Friday at 1:00 p.m. which represents a peak utilization of the on-street parking supply of 63.10%.

The foregoing shows a consistent demand for on-street parking during the weekday peak period and indicates substantial surplus capacity during the weekday peak period.

The highest Saturday peak parking demand for all on-street parking (Zones S1 to S8) was 135 parking spaces at 2:00 p.m. on November 13th. This represents a peak utilization of the on-street parking supply of 72.19%.

There was a peak parking demand of 107 parking spaces on the first Saturday at 1:30 p.m. which represents a peak utilization of the on-street parking supply of 57.22%.

The foregoing indicates a substantial surplus of on-street parking capacity during the Saturday study periods.

As shown in the tables, there were periods where the number of parked vehicles exceeded the number of designated parking spaces.

On Friday November 12th, 2010 in Zone S4 (Brock Street) one vehicle was observed illegally parked at 2:00 p.m. and two vehicles at 2:30 p.m. On Saturday November 13th, 2010 in Zone S5 (Brock Street) one vehicle was observed illegally parked at 2:30 p.m. Both Zones S4 and S5 are in an area of dense retail development and it is reasonable to assume the illegal parking was the result of patrons making a short-term stop to access one of the retail locations.

Off-Street Parking

The highest weekday peak parking demand for all off-street parking (Zones P1 to P5) was 148 parking spaces at 10:30 a.m. on Friday, November 12th, 2010. This represents a peak utilization of the off-street parking supply of 66.67%.

There was a peak parking demand of 146 parking spaces on the first Friday at 11:00 a.m. and 11:30 a.m. which represents a peak utilization of the off-street parking supply of 65.77%.

The foregoing shows a very consistent demand for off-street parking (less than 1% variation) during the weekday peak period and indicates substantial surplus capacity within the off-street parking facilities.

The highest Saturday peak parking demand for all off-street parking (Zones P1 to P5) was 115 parking spaces at 2:00 p.m. on November 13th. This represents a peak utilization of the on-street parking supply of 51.80%.

There was a peak parking demand of 96 parking spaces on the first Saturday at 2:00 p.m. which represents a peak utilization of the on-street parking supply of 43.24%.

The foregoing indicates substantial surplus off-street parking capacity during the Saturday study periods.

There was one instance of illegal parking observed in Zone P3 (Parking lot between Toronto St. and Main St.) on Friday November 12th, 2010 at 2:30 p.m. This lot has an oddly shaped configuration providing an opportunity for vehicles to park in an undesignated area. The illegally parked vehicle was not observed at 3:00 p.m., indicating this was a short-term situation.

ANALYSIS

As shown above, the peak parking demand for on-street parking occurred on Saturday November 13th, 2010 with 135 of the 187 available parking spaces used representing a utilization of 72.19%. This results in a surplus of 27.81% or 52 on-street parking spaces.

The peak parking demand for off-street parking occurred on Friday November 12th, 2010 with 148 of the 222 available parking spaces used representing a utilization of 66.67%. This results in a surplus of 33.33% or 74 off-street parking spaces.

There is a total of 409 existing parking spaces available within the study area. Based on a worst case scenario (combining the on-street peak parking demand of 135 spaces and the off-street peak parking demand of 148 spaces) results in the need for 283 parking spaces representing a total peak parking demand of 69%. This results in a surplus of 31% or 126 parking spaces.

The preferred design for the proposed works, as outlined in the EA study, recommends a combination of new concrete culvert and open channel. In order to accommodate the preferred solution, approximately 12 parking spaces will be lost in the off-street parking facility (Zone P3) located between Toronto Street and Main Street. In addition the building at 30/32 Brock Street will require demolition.

The data collected during the survey indicated that the parking facility in Zone P3, which will be affected by the proposed works, was operating near or at capacity during the weekday morning to late afternoon hours. This parking area is utilized during the weekday by commuters accessing GO Transit and patrons of the surrounding businesses. While the reduction of parking spaces may inconvenience a small number of weekday users, the nearby parking facilities on Albert Street (Zone P4 & P5) and the on-street parking within in the area, can easily accommodate these users.

The parking demand study indicated that the parking facility in Zone P3 was underutilized on both Saturday's during the survey period. The peak parking demand was 43 spaces on November 13th between 2:00 and 3:00 p.m. This represents a peak utilization of 72.88% based on the current 59 space availability, and 91.48% utilization based on the future reduced supply of 47 parking spaces. Based on the foregoing, there will be a surplus of 4 parking spaces and the reduced parking supply will adequately meet the needs of Saturday users.

The loss of parking spaces due to the proposed works will result in a surplus of 62 parking spaces in the off-street parking areas and an overall surplus of 114 parking spaces.

It should be noted that the estimated loss of 12 parking spaces could potentially be regained, should the Township opt to utilize the vacant lands resulting from the demolition of the existing building at 30/32 Brock Street as a parking facility.

CONCLUSIONS

The results from the parking studies conducted on two Fridays and two Saturdays were very similar. It can be assumed from these results that the data collected is representative of typical peak usage on a Friday and Saturday.

The proposed works will result in a loss of off-street parking of approximately 12 spaces. However, the loss of 12 parking spaces will still result in an overall surplus of 114 parking spaces within the study area. The potential loss of 12 parking spaces results in a marginal reduction in the overall parking supply. We are of the opinion that this is not a significant loss to downtown Uxbridge and can easily be accommodated by the remaining currently underutilized parking lots and on-street parking areas within the study area.

In addition, there is an opportunity for the Township to regain the lost parking should they wish to utilize the land made available from the demolition of the existing building at 30/32 Brock Street.

It should be noted that this study only examined current parking demand based on the parking observations conducted in November of 2010. Therefore, the data gathered may differ from the actual annual peak. This report does not attempt to predict future demand based upon future development. However, it is our opinion that the peak parking demand is representative of typical usage and that the surplus parking is more than adequate to accommodate future demand.

We trust the enclosed is sufficient for your needs, but please do not hesitate to contact the undersigned should you require any additional assistance.

Yours truly,

TRANSTECH

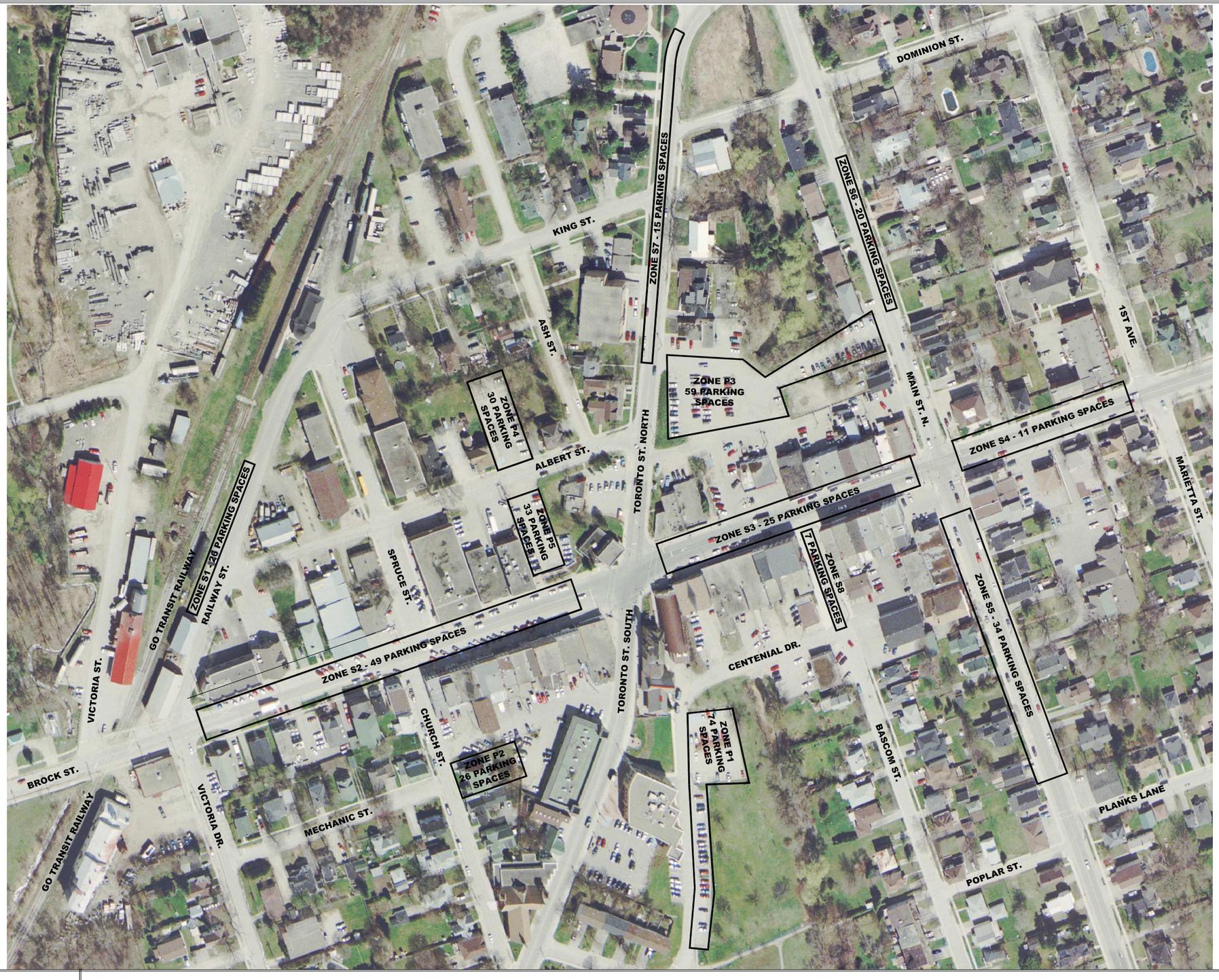
Kevin Morris, C.E.T.
Associate, Transportation Planner

J.A. (Jim) Bacchus, B.A.
Principal, General Manager

KM/br

Encl.

APPENDIX



NOT TO SCALE

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TOWN OF UXBRIDGE - DOWNTOWN FLOOD REDUCTION EA

PARKING ZONE KEY PLAN

Figure 1

Table 2: Parking Count Downtown Uxbridge Friday November 05, 2010 On Street Parking

Time	Zone S1	Zone S2	Zone S3	Zone S4	Zone S5	Zone S6	Zone S7	Zone S8	Total
10:00am	16	9	9	5	11	4	7	4	65
10:30am	15	20	12	2	11	4	8	4	76
11:00am	15	34	17	2	13	5	9	5	100
11:30am	16	23	15	3	11	6	7	6	87
12:00pm	16	33	18	4	14	**8**	7	6	106
12:30pm	**18**	31	11	5	14	6	8	5	98
1:00pm	**18**	35	18	6	18	**8**	10	5	**118**
1:30pm	16	**38**	15	5	**19**	5	**11**	5	114
2:00pm	16	37	13	6	17	5	**11**	5	110
2:30pm	14	34	18	6	15	**8**	8	**7**	110
3:00pm	14	29	15	**8**	13	6	9	6	100
3:30pm	15	24	18	**8**	11	6	9	6	97
4:00pm	15	28	**19**	**8**	13	6	8	6	103
4:30pm	15	32	17	4	12	5	7	6	98
5:00pm	14	32	**19**	4	13	6	7	3	98
5:30pm	13	30	16	2	7	3	9	4	84
6:00pm	12	37	**19**	2	6	4	9	4	93
Supply	**26**	**49**	**25**	**11**	**34**	**20**	**15**	**7**	**187**
% Utilization (Max.)	69.23%	77.55%	76.00%	72.73%	55.88%	40.00%	73.33%	100.00%	63.10%

Table 3: Parking Count Downtown Uxbridge Saturday November 06, 2010 On Street Parking

Time	Zone S1	Zone S2	Zone S3	Zone S4	Zone S5	Zone S6	Zone S7	Zone S8	Total
10:00am	4	23	20	**5**	11	4	7	**5**	79
10:30am	4	19	20	**5**	12	3	5	4	72
11:00am	4	25	23	**5**	**19**	2	6	3	87
11:30am	4	38	15	4	14	3	9	4	91
12:00pm	4	35	14	3	14	5	9	4	88
12:30pm	4	37	14	2	13	3	9	**5**	87
1:00pm	4	32	20	3	16	5	6	4	90
1:30pm	3	**42**	**25**	3	16	**8**	6	4	**107**
2:00pm	4	36	22	4	13	4	7	3	93
2:30pm	4	41	19	1	15	**8**	7	3	98
3:00pm	3	29	17	2	14	5	4	1	75
3:30pm	4	34	6	1	15	5	3	1	69
4:00pm	**5**	33	12	2	14	2	4	2	74
4:30pm	4	29	8	2	13	4	5	1	66
5:00pm	4	24	9	1	14	1	6	1	60
5:30pm	4	20	11	1	16	2	**10**	1	65
6:00pm	3	14	13	1	15	6	**10**	1	63
Supply	**26**	**49**	**25**	**11**	**34**	**20**	**15**	**7**	**187**
% Utilization (Max.)	19.23%	85.71%	100.00%	45.45%	55.88%	40.00%	66.67%	71.43%	57.22%

Table 4: Parking Count Downtown Uxbridge Friday November 12, 2010 On Street Parking

Time	Zone S1	Zone S2	Zone S3	Zone S4	Zone S5	Zone S6	Zone S7	Zone S8	Total
10:00am	18	32	18	8	**18**	4	5	4	107
10:30am	19	40	13	7	**18**	3	6	6	112
11:00am	19	31	16	6	17	4	5	5	103
11:30am	19	39	15	7	17	4	6	4	111
12:00pm	20	41	16	6	17	7	9	3	119
12:30pm	20	**46**	18	6	15	7	12	4	**128**
1:00pm	21	41	15	5	16	**11**	**13**	4	126
1:30pm	19	33	17	10	16	7	8	6	116
2:00pm	20	38	14	12*	15	7	10	5	109
2:30pm	23	33	20	**13***	17	3	8	4	108
3:00pm	20	28	17	10	13	7	9	4	108
3:30pm	20	29	14	9	14	8	4	4	102
4:00pm	**24**	29	15	8	11	5	5	6	103
4:30pm	21	34	**21**	6	10	9	5	**7**	113
5:00pm	17	40	15	5	12	10	7	2	108
5:30pm	16	38	16	4	17	**11**	8	3	113
6:00pm	18	31	16	3	16	10	9	2	105
Supply	**26**	**49**	**25**	**11**	**34**	**20**	**15**	**7**	**187**
% Utilization (Max.)	92.31%	93.88%	84.00%	118.19%	52.94%	55.00%	86.67%	100.00%	68.45%

*Indicates illegally parked vehicle.

Table 5: Parking Count Downtown Uxbridge Saturday November 13, 2010 On Street Parking

Time	Zone S1	Zone S2	Zone S3	Zone S4	Zone S5	Zone S6	Zone S7	Zone S8	Total
10:00am	7	30	**24**	4	14	1	10	3	93
10:30am	7	26	21	4	14	2	11	2	87
11:00am	7	30	20	3	13	3	11	4	91
11:30am	7	37	20	3	14	1	**12**	3	97
12:00pm	7	36	18	4	13	3	9	3	93
12:30pm	8	35	21	2	14	6	10	3	99
1:00pm	8	37	21	2	14	6	9	3	100
1:30pm	12	38	21	1	23	8	10	4	117
2:00pm	8	**40**	22	6	34	**11**	11	3	**135**
2:30pm	9	32	21	6	**35***	7	10	4	89
3:00pm	9	37	17	8	31	6	7	5	120
3:30pm	18	34	18	**10**	33	7	5	**6**	131
4:00pm	**23**	35	18	9	29	6	6	**6**	132
4:30pm	17	31	14	7	27	8	6	5	115
5:00pm	15	26	11	5	21	**11**	8	5	102
5:30pm	15	22	11	7	22	7	11	1	96
6:00pm	10	14	13	2	16	5	10	2	72
Supply	**26**	**49**	**25**	**11**	**34**	**20**	**15**	**7**	**187**
% Utilization (Max.)	88.46%	81.63%	96.00%	90.91%	102.94%	55.00%	80.00%	85.71%	72.19%

*Indicates illegally parked vehicle.

Table 6: Parking Count Downtown Uxbridge Friday November 05, 2010 Off-Street Parking

Time	Zone P1	Zone P2	Zone P3	Zone P4	Zone P5	Total
10:00am	26	7	49	17	19	118
10:30am	30	10	55	**19**	21	135
11:00am	32	10	**57**	18	**29**	**146**
11:30am	**41**	11	54	18	22	**146**
12:00pm	25	11	53	**19**	24	132
12:30pm	19	11	47	18	25	120
1:00pm	18	**13**	55	17	23	126
1:30pm	18	12	49	18	27	124
2:00pm	19	11	49	18	26	123
2:30pm	21	10	49	15	28	123
3:00pm	24	**13**	50	14	27	128
3:30pm	35	11	45	12	26	129
4:00pm	30	11	46	11	30	128
4:30pm	31	10	41	10	30	122
5:00pm	26	8	43	10	17	104
5:30pm	12	8	28	8	16	72
6:00pm	9	6	21	7	15	58
Supply	**74**	**26**	**59**	**30**	**33**	**222**
% Utilization (Max.)	55.41%	50.00%	96.61%	63.33%	87.88%	65.77%

Table 7: Parking Count Downtown Uxbridge Saturday November 06, 2010 Off-Street Parking

Time	Zone P1	Zone P2	Zone P3	Zone P4	Zone P5	Total
10:00am	13	12	22	17	5	69
10:30am	16	13	29	16	6	80
11:00am	19	13	23	**19**	5	79
11:30am	19	**15**	33	17	8	92
12:00pm	16	**15**	31	17	**11**	90
12:30pm	17	13	32	17	10	89
1:00pm	17	9	**35**	15	7	83
1:30pm	23	11	34	17	9	94
2:00pm	**27**	11	33	18	7	**96**
2:30pm	17	11	26	17	10	81
3:00pm	18	9	29	16	6	78
3:30pm	12	7	24	**19**	5	67
4:00pm	8	7	21	18	7	61
4:30pm	8	5	21	17	9	60
5:00pm	11	3	17	14	5	50
5:30pm	2	2	13	12	2	31
6:00pm	1	2	14	11	4	32
Supply	**74**	**26**	**59**	**30**	**33**	**222**
% Utilization (Max.)	36.49%	57.69%	59.32%	63.33%	33.33%	43.24%

Table 8: Parking Count Downtown Uxbridge Friday November 12, 2010 Off-Street Parking

Time	Zone P1	Zone P2	Zone P3	Zone P4	Zone P5	Total
10:00am	**37**	12	53	19	25	146
10:30am	34	12	54	21	27	**148**
11:00am	29	12	51	21	27	140
11:30am	26	12	53	**22**	27	140
12:00pm	26	13	52	21	25	137
12:30pm	24	12	57	20	**30**	143
1:00pm	18	**14**	54	19	25	130
1:30pm	22	13	57	21	25	138
2:00pm	20	**14**	57	**22**	21	134
2:30pm	19	10	**60***	20	28	77
3:00pm	28	9	51	20	**30**	138
3:30pm	29	9	52	21	29	140
4:00pm	22	11	53	19	27	132
4:30pm	22	11	51	17	25	126
5:00pm	10	10	41	17	23	101
5:30pm	12	9	33	13	19	86
6:00pm	12	8	36	12	14	82
Supply	**74**	**26**	**59**	**30**	**33**	**222**
% Utilization (Max.)	50.00%	53.85%	101.69%	73.33%	90.91%	66.67%

*Indicates illegally parked vehicle.

Table 9: Parking Count Downtown Uxbridge Saturday November 13, 2010 Off-Street Parking

Time	Zone P1	Zone P2	Zone P3	Zone P4	Zone P5	Total
10:00am	12	14	34	15	7	82
10:30am	12	13	32	14	5	76
11:00am	11	13	33	14	5	76
11:30am	14	12	34	14	6	80
12:00pm	18	9	37	14	7	85
12:30pm	20	13	34	15	10	92
1:00pm	16	19	42	15	8	100
1:30pm	20	20	36	15	10	101
2:00pm	22	20	**43**	**16**	**14**	**115**
2:30pm	**23**	19	**43**	15	**14**	114
3:00pm	17	19	42	**16**	12	106
3:30pm	9	20	37	14	12	92
4:00pm	9	**22**	32	14	10	87
4:30pm	8	19	30	13	12	82
5:00pm	11	19	33	15	8	86
5:30pm	7	14	27	12	5	65
6:00pm	6	9	19	11	7	52
Supply	**74**	**26**	**59**	**30**	**33**	**222**
% Utilization (Max.)	31.08%	84.62%	72.88%	53.33%	42.42%	51.80%