WESTBORO LOCAL AREA PARKING STUDY

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INTRODUCTION

1.1 Background and Study Purpose

Consistent with the policies outlined in the City of Ottawa's Municipal Parking Management Strategy, the City has identified a need to complete a Local Area Parking (LAP) Study for the community of Westboro in order to determine the requirement, nature, and extent of municipal involvement in the provision of public parking services. The completion of this parking study also supports one of the recommendations emerging from the Westboro/Richmond Road Transportation Management Implementation Plan (TMIP) that was presented to Transportation Committee and Council in February 2011. Specifically, the TMIP Study stated ... further to the policies set out in the Municipal Parking Management Strategy and a background discussion paper on possible parking options in the core area of Westboro Village, it is recommended that the City undertake a Local Area Parking Study for the Westboro area to determine how to best provide and manage parking.

The study will ultimately: identify community parking issues; provide more detailed information and analyses of the existing and projected parking supply, demand and patterns; identify candidate parking solutions; and propose an action plan.

However, in advance of conducting any extensive data collection and analyses activities, a preliminary scoping phase was undertaken to help focus the parking study. This scoping stage, which is addressed within the balance of Section 1 through Section 4 of this report, involved: compilation of background information and reports; initial consultation with community stakeholders; and preliminary field observations. This initial work was used to clearly define the extents of the study area and extensive data collection activities used to develop the recommendations described in subsequent sections of this report. Specifically, Section 5 outlines the data collection activities, Section 6 describes the analysis procedures and results, Section 8 comments on other considerations such as area context and parking trends, and Section 9 identifies the resulting study recommendations and conclusions.

1.2 Initial Study Area

The study area, at the scoping phase, is the area bounded by Scott Street to the north, Byron Avenue to the south, Island Park Drive to the east and Golden Avenue to the west. One of the key scoping tasks is to refine the extents of the initial study area, as shown in Figure 1.



1.3 Existing Parking Environment

For the purposes of this assessment, the parking supply will be categorized as follows:

- **1. Public on-street** All on-street parking available in the study area is currently unpaid parking. If signed as parking is permitted, generally the maximum duration is 60 minutes for all days of the week (there are some exceptions). If unsigned, the maximum is 3 hours between 7 AM and 7 PM (as per By-law).
- **2. Public off-street** This is paid parking (short-term and long-term) available to the general public. Public paid parking is currently available at 277 Richmond Road (Picton Lot) and at 401 Golden Avenue (Westboro Station).
- 3. Private commercial (customers) This is parking provided by businesses on-site for use by their customers. Examples of this include the Superstore at Richmond/Kirkwood, and Starbuck's at Richmond/Berkley. The Newport Restaurant has a parking lot off-site (at the corner of Byron/Churchill) to accommodate their customers. Mountain Equipment Co-op is the only business that charges customers for parking (\$1/h up to a maximum of two hours) and rents 2 spaces to VirtuCar.
- 4. Private commercial (not for customers) This is parking provided predominantly on-site for employees. Examples include the Eiffel Building and Affiliated Appraisers (on the south block of Richmond Road between Roosevelt and Churchill).
- **5. Private residential** This is parking for individual residences.
- **6. Other** These lots are not considered part of the parking supply. They include, for example, car sale lots, automobile garages and storage yards.

Figure 2 provides a summary of the existing parking supply in terms of opportunities for public and private parking within the study area.

1.4 Previous Parking Studies

There have been a number of parking studies within the Westboro Community as summarized in Appendix A. Since 1978, six studies have been conducted (excluding the subject study) that address various aspects of the parking situation within the Westboro Community. A detailed review of each previous parking study has not completed as part of this assessment. However, the time periods and geographic boundaries of each study are noted to vary slightly, which makes an assessment of historical parking trends challenging to quantify.

Ottawa

Figure 1: Initial Study Area

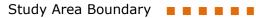




Figure 2: On-Street and Off-Street Parking Supply (October 2011)





POLICY/URBAN PLANNING BACKGROUND

1.5 City of Ottawa Official Plan

The current Official Plan (OP) offers the following strategic direction related to parking:

- To provide short-term parking that supports the needs of local businesses, residents, institutions and tourism destinations;
- To limit the supply of long-term parking in a manner that balances transit ridership objectives with the needs of automobile users;
- Supports intensification and minimize the amount of land devoted to parking through measures such as parking structures and arrangements to share parking among land uses; and
- To regulate both the minimum and maximum parking requirements for development within 600 m of rapid transit stations, not only in Mixed-Use Centres and the Central Area but wherever facilities exist or will be constructed in the near future.

Figure 3 shows that the majority of the study area is considered within an approximate 600 m radius surrounding Dominion Station and Westboro Station. Within the 600 m radius area, the City of Ottawa's Zoning By-law has provisions regarding the minimum and maximum rates of parking supply for various land use designations.

1.6 City of Ottawa Parking Management Strategy

The principles and objectives of the City's Municipal Parking Management Program are based on the role of the parking program established in the 2008 Transportation Master Plan and are the result of extensive consultation during 2008 and 2009 with Business Improvement Areas, Community Associations, Church representatives, and members of the public interested in issues including accessibility, tourism, cycling, motorcycle and scooter riding, and transportation demand management. The following are the objectives of the Program:

- 1. Provide and maintain an appropriate supply of affordable, secure, accessible, convenient, and appealing public parking.
- 2. Provide and promote affordable short-term parking services, and fair and consistent enforcement services, that support local businesses, institutions, and tourism.



3. Promote, establish, and maintain programs and facilities that encourage the use of alternative modes of transportation including public transit, car/van pooling, taxis, auto sharing, cycling, and walking.

600 m radius

WESTEORC

Study Area Boundary

Figure 3: Community Proximity to Rapid Transit

- 4. Support residential intensification and resolve parking problems within residential areas caused by significant traffic generators or conflicting uses of the roadway, including implementing on-street permit parking programs to relieve area residents and visitors from parking regulations directed at the non-resident.
- 5. Ensure the revenues generated by the Municipal Parking Program are sufficient to wholly recover all related operating and life-cycle maintenance expenditures; contribute to a reserve fund to finance future parking system development, operation, and promotion; and then assist in the funding of related initiatives to encourage the use of alternative modes of transportation.

A companion Discussion Paper was prepared for the City of Ottawa in April of 2009 – the purpose being to document the research and analysis undertaken that supported the Municipal Parking Management Strategy and Rate-Setting Guideline for the City. The paper



contains, among other topics, specific, industry-wide guidance on the supply and design of public parking, including guidance on when the introduction of paid parking should be considered. Specifically, the report suggests a sustained utilization rate of over 85% should be achieved to consider paid parking, and that decisions to introduce paid parking or adjust rates should be based on Local Area Parking Studies that take into account land use context, development trends, TDM initiatives, marketing, off-street public and private facilities, transit, among other things.

Details of the City's Parking Management Strategy can be found here:

http://ottawa.ca/en/roads_trans/parking/parking_mgt_strategy/index.html

1.7 Richmond/Westboro Secondary Plan

The Richmond Road/Westboro Secondary Plan is a guide to its long-term design and development, taking into consideration land use, urban design, zoning, transportation, existing streetscape conditions, compatibility of new development, and other issues of concern to the local communities.

Details of the Secondary Plan can be found here:

http://ottawa.ca/city hall/ottawa2020/official plan/vol 2a/richmond westboro/index en-03.html

1.8 Richmond Road/Westboro Community Design Plan (CDP)

The Richmond Road/Westboro CDP was initiated by the Planning and Growth Management Department at the City of Ottawa in response to requests for a neighbourhood study from the Westboro and Westboro Beach Community Associations. IBI Group conducted a Transportation Impact Study (TIS) to evaluate the proposed CDP from a transportation perspective at the year 2021 planning horizon and to evaluate Richmond Road as a multipurpose transportation corridor. The IBI Report was completed in August 2007.

The study area for the TIS was bounded by Island Park Drive on the east, the Ottawa River on the north, Ottawa River Parkway on the west, and Byron Avenue on the south.

There were two primary objectives of the TIS, namely: identify the transit modal share (TMS) needed to accommodate the projected travel demand without increasing roadway capacity; and identify measures required to achieve the higher TMS. On the first objective, the report recommended that 40% become the City's official target for TMS within the Richmond Road Corridor (the existing TMS is between 7% and 14%). On the second objective, a number of measures were identified within the report, including: implementation of transit priority strategies at several intersections; improved pedestrian



environment; increased focus on Transportation Demand Management (TDM) strategies for individual future developments (i.e., on-site bicycle parking and storage facilities, shower and change facilities, preferential carpool parking, contribution to transit fares, and amendments to the City's parking regulations to allow for a reduced number of parking spaces¹).

Details of the Community Design Plan can be found here:

http://ottawa.ca/residents/planning/community_plans/completed/richmond_westboro/index_en.html

In April 2012, the City of Ottawa announced it was seeking outside professional guidance to refresh the Westboro CDP that was prepared in 2007. Specifically, it is understood that the proposed scope of work will ask the team to provide certainty for areas where future growth is expected.

1.9 Westboro/Richmond Road Transportation Management Implementation Plan

When Council approved the Richmond Road/Westboro CDP, direction was given that a Transportation Management Implementation Plan (TMIP) be prepared with the purpose of identifying initiatives that can be implemented over the next 15 years to promote alternative modes of transportation and ensure an adequate level of service without providing additional automobile capacity. McCormick Rankin Corporation was engaged to conduct the TMIP study, and a draft was presented to Transportation Committee and Council in February 2011.

The TMIP covers a wider geographical area than the CDP by including the neighbourhoods south of Richmond/Byron extending to Carling Avenue.

In brief, the TMIP included a review of the existing transportation network and travel patterns within the study area and surrounding community. Data analysis indicated that 98% of trips along the Richmond Road corridor either start or end in the study area or surrounding communities. Therefore, initiatives intended to reduce auto dependence along the corridor must focus on changing the way people travel to, from, and within the broader Westboro community. The existing peak hour modal shares for all modes were reviewed and targets were set for each. Regarding autos specifically, the report indicated that the PM peak period auto modal share must decrease by 13% (from 53% today to a future target of 40%) to avoid the need to provide additional roadway capacity. To achieve this goal, the number of trips on foot, by bicycle and by transit must increase.

¹ Although the TIS is not specific, this TDM measure is assumed to involve changes to the Part 4 of the Zoning Bylaw related to parking.



With regard to parking initiatives, the highlights of the TMIP include:

- supporting dedicated car share spaces in municipal parking lots if parking lots are introduced;
- providing specially designated carpool spaces either within the existing on-street parking or within any municipally-managed lot that might be introduced to the area;
- consider changing the parking cap from 1.75 to 1.50 spaces per unit for multi-unit residential developments in the areas within 600 metres of transit stations; and
- recommend that the City undertake a Local Area Parking Study for the Westboro area to determine how to best provide and manage parking.

A phased implementation plan was also developed comprising numerous initiatives to encourage walking, cycling, and transit ridership. A performance monitoring plan is proposed to allow the City to periodically assess the success of these proposed initiatives and adjust the implementation plan accordingly.

An Executive Summary of the TMIP can be found here:

http://ottawa.ca/en/city_hall/planningprojectsreports/planning/community_plans/completed /westboro/exec_summary/index.htm

1.10 Land Use

Figure 4 provides a summary of the 2010 land use within and surrounding the study area as provided by the City of Ottawa. The majority of the properties adjacent to Richmond Road are commercial in nature – either office or retail developments. There are also pockets of industrial, institutional (i.e., church) and residential.

Table 1 provides a summary of major new developments in the area in recent years – existing and proposed. It is noteworthy that much of the development has been, and will be, residential in nature (with an estimated 1,500 to 2,000 new dwelling units). The larger, multi-storey developments are likely to offer some ground floor retail to serve the residents and local community. While the recent residential focus does result in a desirable mixed-use community that often promotes non-auto travel, the additional retail development can also impose a demand for additional short-term, on-street parking.

The entries in Table 1 are identified in Figure 4 for reference.



Figure 4: Existing Land Use (2010)



Source: City of Ottawa

Table 1: Recent Private Developments within the Study Area (March 2012)

No.	Development (Developer) Municipal Address	Status	Estimated Parking Spaces	Parking Access Via	Garage Location	Notes
1	101 Richmond (Ashcroft) 101 Richmond Rd.	Built	127	Patricia	Underground	Previously a gas station and used car dealership; provided 75 public/private parking spaces.
2	Q West (Ashcroft) 114 Richmond Rd.	Under Construction	600	Richmond and Byron	Underground	Convent site; no on-site parking.
3	111 West (Ashcroft) 111 Richmond Rd.	Under Construction	184	Patricia	Underground	Former Canadian Tire Store; provided 36 parking spaces for customers
4	(Westboro Collection) 305 and 311 Tweedsmuir Ave., 319 and 320 McRae Ave. and 1976 Scott St.	Application Restarting	120	Tweedsmuir, Scott, McRae	Underground	Currently occupied by 'Jets Car Centre', Westboro Storage, Marvel Motors, Rockford Automotive and Gifford Automotive
5	300 Richmond (Cassone) 300 Richmond Rd.	Under Construction	31	Eden	Underground	Previously occupied by 'G Cars' (used car dealership)
6	175 Richmond (Claridge) 175 Richmond Rd.	Application on Hold	310	Wilber	Underground	Currently occupied by a Mixed-Use Complex
7	405 Tweedsmuir (Tweedsmuir Loft Inc) 405 Tweedsmuir Ave.	Application on Hold	11	Tweedsmuir	At-Grade	Currently occupied by a residential home



No.	Development (Developer) Municipal Address	Status	Estimated Parking tatus Parking Access Garage Location Spaces Via		Notes	
8	406 Tweedsmuir (n/a) 406 Tweedsmuir Ave.	Pre- Application Consultation	n/a	Tweedsmuir	At-Grade	Currently occupied by a residential home
9	Stonework Lofts (Phoenix) 2060 Scott St.	Complete	38	Winona	At- Grade/Underground	Previously an automobile service center
10	335 Roosevelt (Uniform Urban Developments) 335 Roosevelt Ave.	OMB Review	220	Roosevelt, Wilmont	Above and Underground	Currently occupied by Fendor Glass and Aluminum
11	Westboro Station (Bourk) 424 Richmond Rd.	Phase 1 and 2 completed	101 private 60 public (phase 1 only)	Byron	Private and Public Underground	Previously a garage and specialty retail stores; provided 50 private parking spaces
12	The Exchange (Domicile) 420 Berkley Ave.	Completed	54	Berkley	Underground (visitors-above)	Previously open space/vacant land.
13	Westboro Park (Amica) 491 Richmond Rd. ⁽¹⁾	Completed	56	Richmond	Underground	Former parking lot with 95 private spaces; Canderel also intends to allow acquisitioning of another segment of their surface parking lot to allow for construction of a 24 storey residential tower.



No.	Development (Developer) Municipal Address	Status	Estimated Parking Spaces	Parking Access Via	Garage Location	Notes				
14	450 Churchill (Springcress Properties) 450 Churchill Ave ⁽¹⁾	Comment Period in Progress	24	Churchill	Underground	Currently occupied by Westboro United Church				
	(1) This development is outside of the study area.									

The estimated number of parking spaces for each development has been identified in the foregoing table. In sum, approximately 1,900 new parking spaces have been planned in association with these developments. The City of Ottawa Zoning By-law Part 4 - Parking, Queuing and Loading Provisions - provides direction on the minimum and maximum number of parking spaces (including visitors) to be provided on-site for various land uses. For example, in the Inner City Area, the By-law indicates a minimum parking supply rate for apartments/condominiums of 0.5 spaces (resident) and 0.2 spaces (visitor) for each dwelling unit. Rates are also identified for a range of non-residential uses, including restaurants, banks, convenience stores, etc.

1.11 Cash-in-Lieu of Parking Applications

Historical applications for Cash-in-Lieu of Parking were compiled by the City of Ottawa between 1990 and 2012. Such agreements exempt owners/occupants from providing parking spaces where required by the aforementioned Zoning By-law (for a fee) and transfer the responsibility for the provision of required parking to the municipality. According to data provided by the City of Ottawa (see Appendix B), the number of approved applications within the in the study area, over the 22-year period, was determined to be 14, which affected a total of over 140 parking spaces.

The majority of the applications involved less than ten spaces, which, coincidentally, is the threshold value below which a formal Parking Study is not required in support of the application. Since 1990, there have been four Cash-in Lieu of Parking applications involving 10 or more spaces, including:

- 340 Richmond Road (current Lululemon Store), which was granted an exemption of 19 spaces in 2003 when rezoned at the time for restaurant purposes;
- 203 and 205 Richmond Road (current Bushtukah Store), which was granted an exemption of 14 spaces when a refit of the building was completed in 2004;



- 309 and 313 Athlone Avenue (at Scott; current Salus Corporation), which was granted an exemption of 31 spaces in 2005 to permit the development of a fourstorey, mixed use development; and
- 190 and 222 Richmond Road (current Superstore and LCBO), which was granted an exemption of 32 spaces in 2005.

A listing of the current Cash-in Lieu of Parking applications being considered (as of March 2012) is available on the City of Ottawa website, and include the following:

• 366 Richmond Road; 378 Richmond Road; 380 Richmond Road; 375 Danforth Avenue; and 439 Churchill Avenue.

PRELIMINARY PARKING SCAN

Prior to conducting extensive data collection and analyses activities, a preliminary parking scan was completed to help identify key issues and focus subsequent phases of the study, including more extensive data collection and analyses activities. Note that the preliminary parking scan considers parking utilization only (and not duration), which is based on passing observation.

1.12 Parking Supply

Aerial photography, in combination with field reconnaissance conducted in March 2011, was referenced to estimate the existing parking supply within the study area as shown previously in Figure 2. To the extent possible, the supply was categorized in terms of public and private parking spaces (excluding residential and other) within ten parking zones that comprise the study area. Table 2 provides a summary of the estimated parking supply by zone (categorized by public on-street, public off-street and private), while Figure 5 illustrates the zone boundaries.



Table 2: Composition of Parking Supply (March 2011)

	Estimated Number of Parking Spaces by Zone										
Туре	#1	#2	#3	#4	#5	#6	# <i>7</i>	#8	#9	#10	Total
Public: on-street											
Richmond Rd	14	20	34	35	16	19	23	24	26	14	225
Other	60	20	182	45	136	70	72	-	20	30	635
Public: off-street	-	-	-	-	110	-	-	-	-	-	110
Total Public	74	40	216	80	262	89	95	24	46	44	970
Private: customers	38	-	12	76	125	8	68	345	-	-	672
Private: employees	-	-	137	144	30	20	35	-	245	-	611
Total Private	38	-	149	220	155	28	103	345	245	-	1,283
Total	112	40	365	300	417	117	198	369	291	44	2,253

Figure 5: Parking Zones

1.13 Parking Demand

Field reconnaissance was conducted in March 2011 to assess the demand for parking within the study area at certain time periods (utilization only). The number of parked vehicles was not actually counted, rather a visual assessment was conducted to identify obvious "hot spots" within the study area. This information would be used to focus the data collection activities for the next phase of the study.

Included in Appendix C are a series of snapshots reflecting the general level of parking utilization (on-street and off-street) within the study area. Six time periods were selected for observations, namely four time slices during the weekday and two during the weekend.

Table 3 provides a summary of basic conclusions for each time period considered as drawn from the preliminary scan of parking demand for public spaces.



Table 3: Summary Notes of Field Observation - Parking Demand

Time	Notes							
	Richmond Road west of Churchill well utilized (combination of construction and customers)							
Weekday: AM period	Richmond Road east of Churchill has spare capacity							
[Wednesday 9:00 - 10:00 AM]	Side streets have spare capacity							
	Exception: McRae and Kirkwood N. well utilized (likely employees)							
	Paid public parking lot not well utilized							
	Richmond Road well utilized in the BIA and east of Athlone							
Weekday: mid-day	Side streets in BIA well utilized							
[Wednesday 12:00 - 1:00 PM]	Exception: side streets outside the BIA have spare capacity							
	Paid public parking lot not well utilized							
	Richmond Road well utilized; spare capacity east of Kirkwood							
Weekday: PM period	Side streets have spare capacity							
[Wednesday 4:45 – 5:45 PM]	Exception: McRae and Kirkwood N. well utilized (likely employees)							
	Paid public parking lot not well utilized							
	Richmond Road west of Athlone well utilized							
	Richmond Road east of Athlone has spare capacity							
Weekday: evening period	Side streets have spare capacity							
[Thursday 7:00 - 8:00 PM]	Exception: Winona (close to restaurants on Richmond), Tweedsmuir and Patricia (private residential party)							
	Paid public parking lot not well utilized							
	Richmond Road west of Athlone well utilized							
	Richmond Road east of Athlone well utilized							
Weekend: mid-day	Side streets well utilized							
[Saturday 12:30 – 1:30 PM]	Exception: spare capacity on some more secluded streets							
	Paid public parking lot not well utilized							
	Richmond Road west of Athlone well utilized							
Weekend: mid-day	Richmond road east of Athlone has spare capacity							
[Sunday 12:30 - 1:30 PM]	Side streets have spare capacity							
	Paid public parking lot not well utilized							

INITIAL CONSULTATION

1.14 Key Stakeholders

An initial meeting was held during the Spring 2011 involving City staff, the local Councillor and some key stakeholders. The participants were advised that the Preliminary Scoping Phase of this study was being undertaken by Delcan, and that when this work was substantially complete, the draft report would be made available for their review/comment. The key stakeholders identified at the time included the following:

- Kitchissippi Ward Councillor (Katherine Hobbs);
- Westboro Village Business Improvement Area (BIA);
- Westboro Community Association (WCA); and



Hampton Iona Community Group.

As the studied progressed, additional stakeholders were identified, including, for example, the Highland Park Lawn Bowling Club and Churchill Seniors Club. The input received from stakeholders is summarized as follows:

Westboro Village Business Improvement Area (BIA)

Meeting 26 Sept 2011

- Current lack of parking mixture (i.e., 1, 2 and 3 hours) within the BIA for customers is a key issue; predominantly 1 hour on-street parking, which is insufficient, for example, to attend a medical/dental appointment or leisurely lunch/dinner;
- Enhanced signage is needed to direct drivers to the public lot at Picton; and
- Roosevelt Ave and Tweedsmuir Ave noted specifically as streets with on-street parking issues.

Highland Park Lawn Bowling Club

Meeting 17 October 2011

- Advised that bowling season is from May through October (weekends and daytime weekdays);
- Primary concerns regarding parking include: angled parking on Golden (and associated damage to the fence); lack of parking in the area for their activities (including tournaments and associated parking demands); and lack of accessible parking;
- There is currently angled parking on Golden Ave adjacent to the site, which provides 8-10 spaces. Demand for these spaces has increased since 2007/2008, related to area construction and overall development pressures; and
- Also observed that parking spill-over is occurring on Golden Ave and Ravenhill Ave, which impacts sight lines at the STOP controlled Byron/Golden intersection; asked that the study area be expanded to include Golden and Ravenhill.

Churchill Seniors Group

Meeting 17 October 2011

- The Centre is currently served by 23 "on-site" parking spaces (16 on-site and 7 within the boulevard of Madison); and many clients who attend have mobility or medical conditions (≈40%)requiring them to park close to the facility; parking passes have been issued and By-law enforcement used to ticket illegally parked cars on-site;
- Primary concerns regarding parking include: parking in the immediate area is limited and generally restricted to 1 hour only (which is insufficient relative to typical class



- length of up to 75 minutes); facility programming is such that client demand for parking spaces tend to overlap;
- Also identified general on-site circulation issues (cars waiting tend to block aisles/driveways); and
- Possible ideas presented for consideration include: pave grassed area backing onto Madison Ave; stackable lot; shuttle bus service and encourage carpooling; approach businesses in the area for shared parking; and advocate with area Community Associations.

Westboro Community Association (WCA)

E-mail comments dated 13 February 2012

- Richmond Road has changed dramatically over the past 20 years and has become an area of destination shopping and as a result has different parking requirements today than it did 10 or 20 years ago. This also applies to Scott St., Churchill Ave and McRae St;
- Any possibility of having City owned parking has evaporated as a result of land availability and the cost of such land if it was available;
- Concerns with the way cash-in-lieu for parking is administered and collected by the City of Ottawa. There should be no reduction in the amount and what is collected should be used in the area in which it is collected;
- While it is great that the merchants in large part are doing great business wise the WCA keeps hearing from residents on either side of Richmond Road especially about on street parking being taken up by retail customers. Better enforcement could possibly have adverse effects on the well-being of the retail fabric on Richmond Rd but something needs to be done; and
- Boils down to two major issues ... where to find the potential for an adequate supply of public parking; and how to control the overflow of parking penetrating the residential fabric.

1.15 Walk About

The need for a Walk-about, to confirm parking issues within the Core Study Area, was discussed with the Westboro BIA. It was concluded that there was a sufficient understanding of the parking issues, and that a Walk-about was not essential at this stage of the study.



1.16 Customer and Merchant Survey

As part of previous Local Area Parking Studies completed on behalf of the City of Ottawa, surveys of individual business owners and customers have been conducted in an attempt to provide a flavour of individuals' parking experience. These surveys have limited statistical significance as the sample size is small, however they do offer value in the sense that common perceptions can emerge.

The most recent survey of this type for the community was prepared for the Westboro Village BIA in September 2008, with the primary motive being the possibility of metered parking within the community². The key perceptions that emerged from this survey were as follows:

Customer Survey (104 responses of 200 distributed surveys)

• regarding general opinions of customers, between one third and one half found the parking in the area convenient.

Merchant Survey (85 responses of 125 distributed surveys)

 regarding general opinions of merchants on the availability of customer parking in the Village area, almost two thirds of the responses highlighted the perceived lack of customer parking.

The 2008 survey recommended additional survey exercises should be completed as part of future work, namely: a comprehensive public and private parking supply inventory; and eight or twelve hour parking demand survey (mid-week day and weekend day). The current Delcan study addresses both of these recommendations. Based on feedback from the BIA indicating that there would be minimal value in completing an additional series of customer/merchant surveys (four years after the last round of surveys), they will not be completed as part of this study.

1.17 Synthesis of Parking Issues

Many of the foregoing comments received regarding parking: represent perceptions; are considered possible actions for consideration; or are specific to on-site parking operational issues. As the primary purpose of this study is to develop an action plan for municipal involvement in the provision of public parking services, the comments must be filtered to identify only the issues germane to municipal parking.

² Westboro Village Parking Study: Customer and Merchant Survey; prepared by Geospace Research Associates (September 2008).



Based on the foregoing review of the existing parking environment and background, as well as initial consultation with stakeholders, our understanding of the parking issues/opportunities affecting the Westboro Community are as follows:

- 1. Inadequate supply of short-term parking.
- 2. Lack of parking mixture to satisfy the demands of the wide range of businesses and services in Westboro.
- 3. Spill over from the commercial area into the adjacent residential streets.
- 4. Underutilization of public off-street parking (i.e., paid private lots).
- 5. Heavy use of on-street parking by employees.
- 6. Inconsistency in the collection of Cash in Lieu funds, and use of funds outside of the area in which they are collected.
- 7. Lack of accessible parking in the areas close to the Highland Lawn Bowling Club (Golden/Byron) and Churchill Seniors Group Centre (Churchill/Richmond).
- 8. Damage to fence caused by angled parking next to Highland Lawn Bowling Club on Golden Avenue.
- 9. Use of alternative travel modes (i.e., walking, cycling and transit).

The ensuing data collection program will be used to substantiate many of the parking issues that have been identified, and help to formulate a parking action plan for the Westboro Community.



DATA COLLECTION PROGRAM

1.18Core Study Area

Figure 6 identifies the Core Study Area in which subsequent parking occupancy and turnover data collection activities were focussed. The area includes the Richmond Road Corridor between Golden and Kirkwood and the side streets contained by the Draft Study Area that are within approximately 150m distance from the Richmond Road Corridor (excluding Byron). The Core Study Area is considered generally consistent with the BIA area.

The side streets on which parking data was recorded includes: McRae; Tweedsmuir; Athlone; Madison; Winona; Churchill; Edgewood; Eden; Danforth; and Golden.

Complete coverage of all the side-streets was not possible given the overall size of the coverage area, desire for 30 minute intervals, and limited resources available to gather the data.





Figure 6: Core Study Area for Data Collection



Core Study Area Boundary •

Occupancy and Turnover Data

Streets Surveyed for

1.19 Approach to Data Collection

Various alternatives to collecting the required parking occupancy and turnover data were explored. Traditionally, both types of data require large deployments of field staff to count parking demand or record license plates of individual vehicles at specified time intervals. The resource requirements to gather the data (turnover data in particular), using this traditional approach, were found to be too onerous, and another approach was adopted.

Specifically, we elected to gather the data using a video recording and post-process the images to determine parking occupancy and turnover of the on-street parking demand. A single vehicle was equipped with a small camera (capturing the curbside parking situation) and connected to a laptop computer. The video recording of each observation run was time-stamped and archived to the computer's hard drive for subsequent processing. The focus of the on-street parking study was the Richmond Road Corridor (full coverage, both north and south faces), with selective side streets also being captured.

On-Street parking

As noted, the parking <u>occupancy</u> and <u>turnover</u> data was gathered using video recording techniques. A video recording of parked vehicles on the street was conducted within the Richmond Road Corridor and selected side streets at 30 minute intervals. The days and time periods of the data collection for on-street parking are outlined below.

Richmond Road Corridor - Golden to Kirkwood:

- Saturday 22 October 2011 9am to 6pm (9 hours) at 30 minute intervals
- Thursday 27 October 2011 9am to 9pm (12 hours) at 30 minute intervals

For the Corridor, the camera was pointed toward the shoulder and a pass was made in each direction. Each complete run (i.e., one pass in each direction) took approximately 15 minutes to complete.

Selected side streets:

- Saturday 29 October 2011 9am to 6pm (9 hours) at 30 minute intervals
- Thursday 17 November 2011 9am to 9pm (12 hours) at 30 minute intervals

For the side streets, the camera was pointed directly ahead and one pass was made of the street and parked vehicles on both sides were recorded. The route covering all of the aforementioned side streets took approximately 20 minutes to complete.

In total, 42 hours of video was recorded.

Off-Street parking



The opportunities for off-street parking within the Study Area consist of both public and private lots. Where applicable, these lots were categorized as serving either customers or employees.

Occupancy surveys were conducted at approximate 3-4 hour intervals throughout the day to determine typical parking utilization (i.e., snapshots during the window specified) at major off-street parking lots serving customers, including for example, the Real Canadian Superstore at 190 Richmond Road (just west of Kirkwood). A similar survey was conducted at major lots serving employees, including for example, Maplesoft Consulting at 408 Churchill Avenue.

The days and time periods of the data collection for off-street parking were as follows.

- Thursday 03 November 2011 between 9-10 am, 12-1 pm, 3-4 pm, 7-8 pm
- Saturday 05 November 2011 between 11-12 pm, 2-3 pm

Several private lot owners were approached on their ability/willingness to provide pay machine data in order to gauge parking <u>turnover</u> within the following private parking lots: Vinci lot on Picton Street; Westboro Station; and Mountain Equipment Coop (MEC) as this lot is widely used by the general public.

1.20 Data Entry

Prior to processing the video recordings of each pass, an aerial map of the study area was prepared with each candidate on-street parking stall given a specific identification (ID) number. This was subject to some interpretation as the on-street stalls are not marked in the field, and therefore the supply within a given block face can vary slightly over time depending on the size of vehicle and positioning between driveways or other constraints (i.e., signage, hydrants, bus stops, etc.). In this way, information on a particular parking space or sequence/combination of parking spaces (i.e., block face), could be analyzed.

The data entry process of the video data set consisted of watching and recording, for each parking space ID, if it was empty or occupied, and if occupied, the defining features of the parked vehicle. A Microsoft ACCESS data base was developed to assist in the data entry and subsequent processing. The user was prompted, for each parking space ID (for the given time slice), the type of vehicle and colour according to the following convention:

- **Vehicle type:** motorcycle, 2-door car; 4-door car; SUV; minivan; cargo van; pickup truck; or empty
- **Colour palette:** black; white; silver; dark grey; light red; dark red; brown; purple; light green; dark green; light blue; light blue; yellow; orange; and other.

A sample of the database input screen is provided as Figure 7.

The combination of vehicle type and colour was considered sufficient detail to determine, with reasonable accuracy, if a different vehicle occupied the stall during the adjacent time



slice. Admittedly, license plate matching is the only unique identifier of a particular vehicle, but as noted previously, the resource requirements to collect license plate data were considered too onerous in the context of this study. Input to the database was made as efficient as possible, and typing errors were minimized, by having the user enter the information by applying a maximum of two mouse clicks per vehicle. The net result of the data entry process for the on-street parking data was a database consisting of 21,253 records.

The occupancy data for the off-street lots was tabulated and included as part of the overall database.

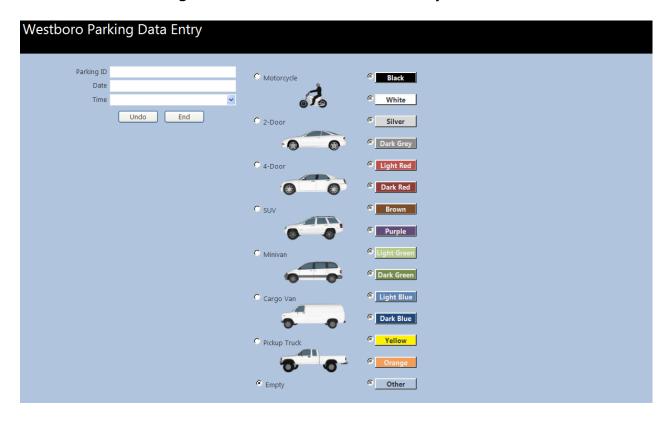


Figure 7: Customized Database Entry Screen



1.21 Processing Tools

With the data entry complete, a series of customized Microsoft EXCEL macros were developed to assist in the processing and interpretation of the on-street data set. The macros enabled the data set to be analyzed in a variety of ways. For example, the analysis could focus on the utilization and turnover of an individual parking space, or series of spaces that define a block face or entire study area. Although the possibilities for assessing and presenting the data set are considered countless, the focus of the ensuing analyses was the following:

Richmond Road Corridor - Golden to Kirkwood:

- parking utilization by time of day on Thursday and Saturday for the entire Corridor and individual block faces; and
- parking turnover (presented as a histogram) on Thursday and Saturday for the entire Corridor and individual block faces.

Selected side streets:

- parking utilization by time of day on Thursday and Saturday for the street; and
- parking turnover (presented as a histogram) on Thursday and Saturday for the street.

Specific to the turnover data, a simplistic "violator" metric was developed that indicates the percentage of the total observations that exceed the specific parking regulation for that block face or street (typically 1 or 3 hours between 7 am and 7 pm). The Percent Violators metric was calculated, for a given block face, as the number of observed violating vehicles, divided by, total number of observed parked vehicles. It is important to recognize, however, that this metric is not sensitive to how long the parked vehicle has been in violation, only the number of occurrences. For example, the metric would yield a lower percent violators for the scenario of a single car parked in the same spot for 8 hours (within a block face) compared to the scenario when four cars parked in the same spot for 2 hours each. Note that in some cases, the parking regulations change by time of day, and therefore the data needed to be filtered accordingly to present such a metric.

For the off-street lots, parking utilization at specified times on Thursday and Saturday for each lot was calculated.



ANALYSIS RESULTS

The ensuing results section will focus on results for <u>sample</u> segments of the Richmond Road Corridor, and summarize the results for individual block faces and side streets. In this way, the reader is given an appreciation for the type of information that is available in the appendices for the individual road segments that may be of specific interest to them. When interpreting these data, it is important to recognize the context of a particular segment/block face and how parking demands may change throughout the day based on the nature of the nearby land uses, hour of operation, etc.

1.22 Parking Utilization

Figure 8 provides a temporal breakdown of the on-street parking utilization, on Thursday 27 October 2011 between 9 am and 9 pm (12 hours), on the south side of Richmond Road Corridor extending from Roosevelt to Churchill. The total on-street parking supply for this segment, as indicated by the maximum value of left y-axis of the graph, is 36 spaces. At 9 am on this day, 16 spaces were occupied (blue column) with parked vehicles and 20 spaces were empty (red column), which equates to a utilization of less than 50% as indicated by the lighter blue line measured using the scale of the right y-axis. Moving across the x-axis, to subsequent half hour time periods, the demand, and therefore utilization increases. At approximately 4 pm, the utilization within this segment of the Corridor starts to decline for a period of several hours, and then increases again in the early evening. The peak utilization of 85% is noted to occur once at 2 pm and again 8 pm.



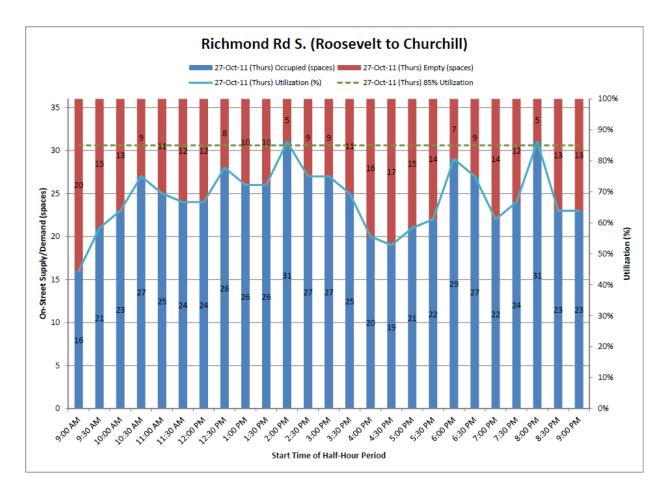


Figure 8: Sample Parking Utilization (Thursday) on Richmond Road

Figure 9 provides the same information for conditions on Saturday 22 October 2011 between 9 am and 6 pm (9 hours). Hourly utilization is generally higher compared to the Thursday. The peak utilization of approximately 85% is noted to occur for much of the day until about 4 pm.

Similar graphs for individual block faces within the Corridor, as well as for those side streets surveyed, are included as Appendix D.

It is important to note that the target range for an appropriate supply of public on-street parking is 75 to 85% during peak times, which is an industry standard reflected in the City of Ottawa's Municipal Parking Management Strategy. Furthermore, industry practice indicates that consideration for paid parking should be made when parking utilization of greater than 85% is achieved area-wide for a sustained period.



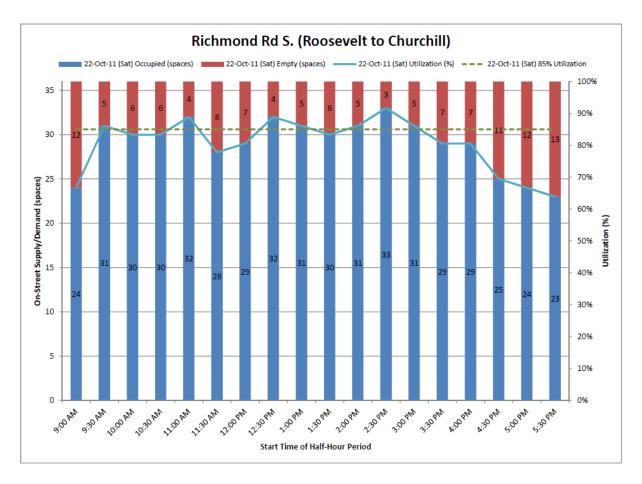


Figure 9: Sample Parking Utilization (Saturday) on Richmond Road

Figure 11 through Figure 15 are temporal snapshots of the actual on-street parking utilization within the study area, on a block-by-block basis, according to the detailed data provided in Appendix D. Three, 2-hour time slices were considered on a weekday, namely from 10:00 am to noon, noon to 2:00 pm, and 5:30 to 7:30 pm. On Saturday, the two times considered including from 10:00 am to noon and from 1:30 pm to 3:30.

Also included within these exhibits are the results of the parking utilization within the offstreet parking lots that are documented in Table 4 (with lot number cross-referenced with Figure 10 showing lot location/extents). It is important to note, however, that the off-street parking utilization shown represents a single observation at one time within the specified time window, and has been provided for context.



Table 4: Off-Street Parking Lot Utilization (October 2011)

Tubic		Type/ Primary Usage	Location	,	Percent Utilization						
				Total Supply		Thur	Saturday				
No.	Lot				9am to 10am	12pm to 1pm	3pm to 4pm	7pm to 8pm	11am to 12pm	2pm to 3pm	
1	Real Canadian Superstore	Private/customer	190 Richmond	380	22%	51%	81%	42%	67%	77%	
2	Bushtukah	Private/customer	203 Richmond	27	37%	85%	78%	67%	89%	96%	
3	Paddle Shack	Private/customer	1960 Scott	15	13%	40%	40%	47%	80%	93%	
4	Vinci Picton Lot ⁽¹⁾	Public	277 Richmond	15	33%	87%	53%	33%	n/a	n/a	
5	Bank of Montreal	Private/customer	288 Richmond	8	75%	38%	75%	50%	75%	100%	
6	Fratelli Restaurant	Private/customer	309 Richmond	35	40%	86%	83%	29%	11%	14%	
7	Germotte Studio	Private/customer	383 Winona	13	15%	31%	38%	8%	85%	85%	
8	Newport Restaurant	Private/employee	334 Richmond	28	61%	54%	79%	39%	57%	11%	
9	Newport Restaurant	Private/customer	335 Richmond	18	44%	39%	33%	94%	11%	17%	
10	Maplesoft Consulting ⁽²⁾	Private/employee	408 Churchill	44	61%	66%	66%	55%	39%	23%	
11	Wall Space Gallery	Private/customer	358 Richmond	16	31%	44%	19%	19%	38%	69%	
12	Mountain Equipment Co-op	Private/customer	366 Richmond	61	18%	95%	39%	23%	95%	93%	
13	Auto Racks ⁽³⁾	Private/customer	378 Richmond	17	0%	12%	24%	0%	35%	24%	
14	Affiliated Appraisers ⁽²⁾	Private/employee	384 Richmond	18	28%	100%	100%	6%	11%	6%	



			Location		Percent Utilization						
		Type/		Total Supply		Thur	Saturday				
No.	Lot	Primary Usage			9am to 10am	12pm to 1pm	3pm to 4pm	7pm to 8pm	11am to 12pm	2pm to 3pm	
15	Eiffell Building ⁽²⁾	Private/employee	411 Roosevelt	57	44%	56%	53%	19%	5%	7%	
16	Tubman Funeral Home ⁽⁴⁾	Private/customer	403 Richmond	30	27%	40%	33%	63%	20%	27%	
17	Starbucks Coffee	Private/customer	421 Richmond	28	68%	86%	71%	50%	93%	86%	
18	Madison ⁽²⁾	Private/employee		145	67%	68%	61%	29%	49%	32%	
19	Westboro Station ⁽⁵⁾	Public	430 Richmond	60	<10%	<10%	<10%	<10%	<10%	<10%	

Notes:

- (1) Although the total parking lot supply is 150 spaces, information provided by Vinci has revealed that approximately 15 spaces are reserved for 'Pay & Display' use and the remainder are reserved for monthly permit holders. On Saturday, patrons can only purchase daily parking and therefore hourly breakdowns are not possible.
- Parking supply predominantly for employees, and therefore low utilization is expected on evenings and weekends.
- Auto Racks has since moved to Gladwin Crescent and Richmond Road property assumed as part of MEC Expansion.
- Parking demand is variable.

 Utilization based on anecdotal observation provided by the Developer; maximum 6-8 public spaces are occupied at any one time. Note that the lot is not well known to the public and is somewhat removed from the areas of highest demand.



Figure 10: Location of Off-Street Parking Lots (November 2011)

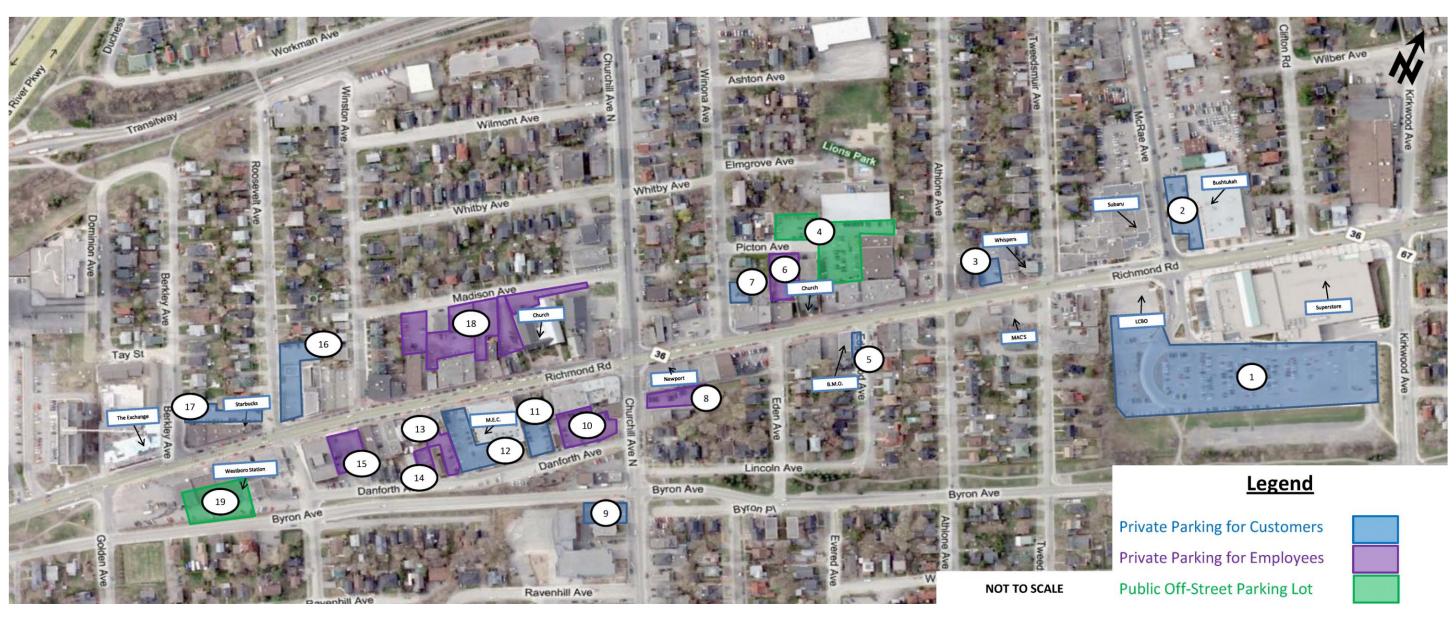




Figure 11: Actual Public Parking Utilization (Weekday Morning Period)

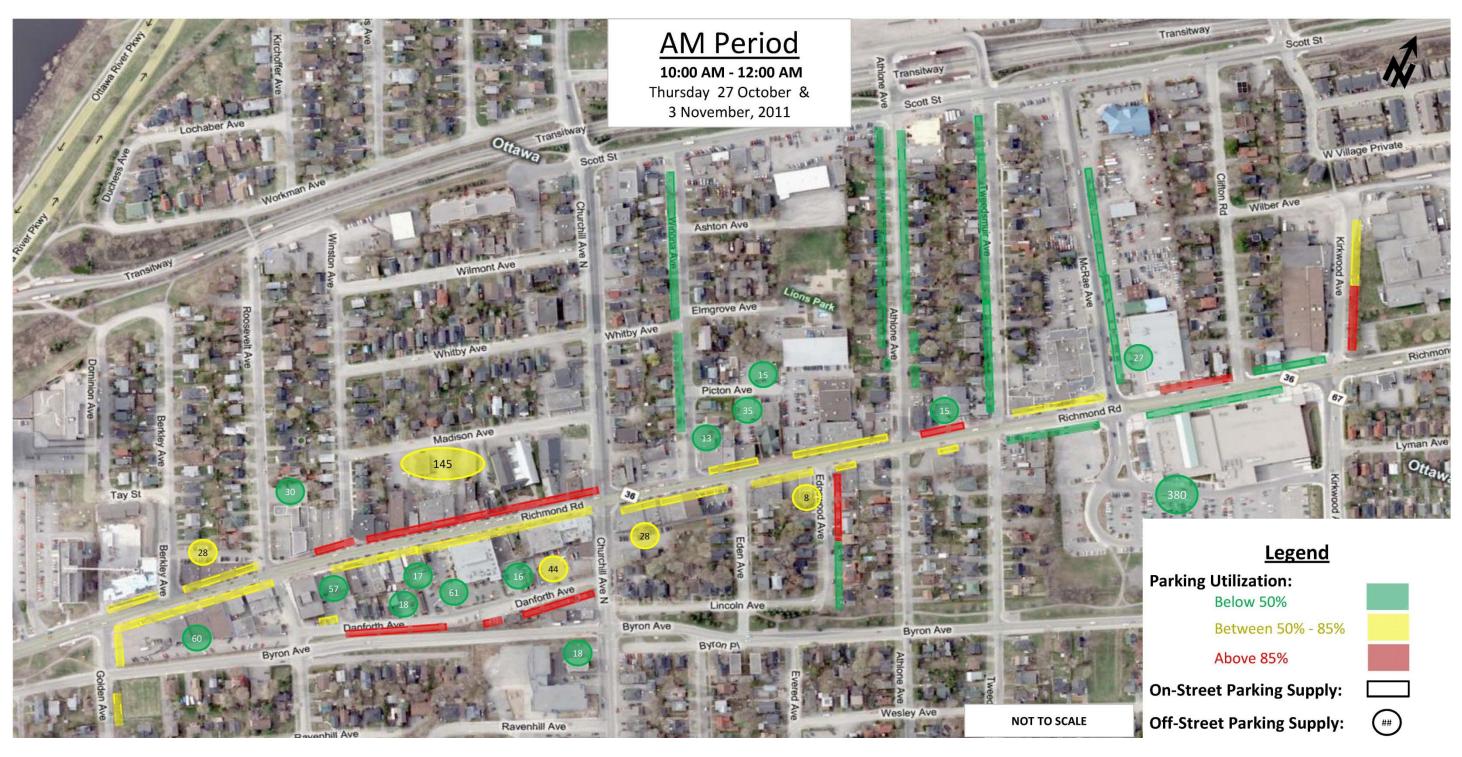




Figure 12: Actual Public Parking Utilization (Weekday Mid-day Period)

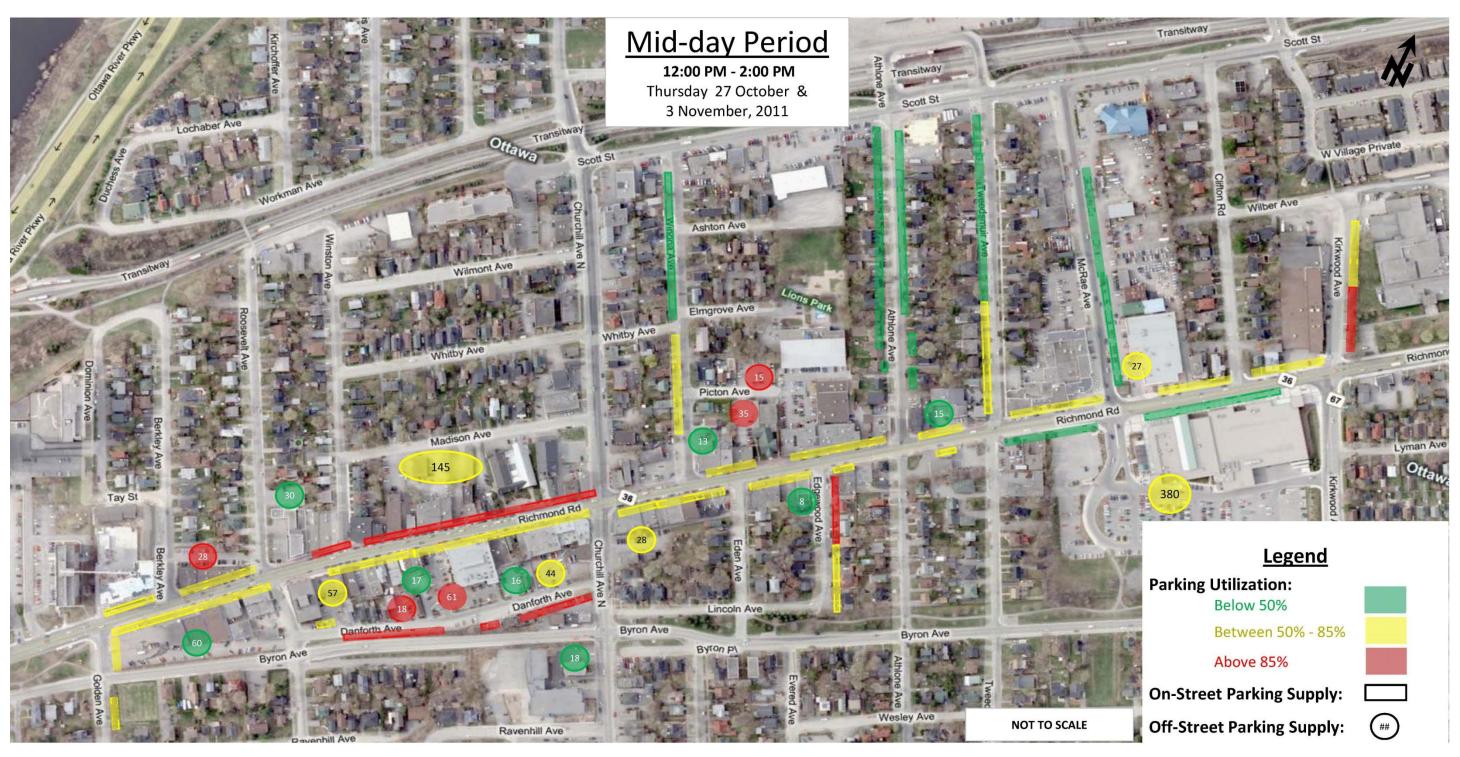




Figure 13: Actual Public Parking Utilization (Weekday Evening Period)

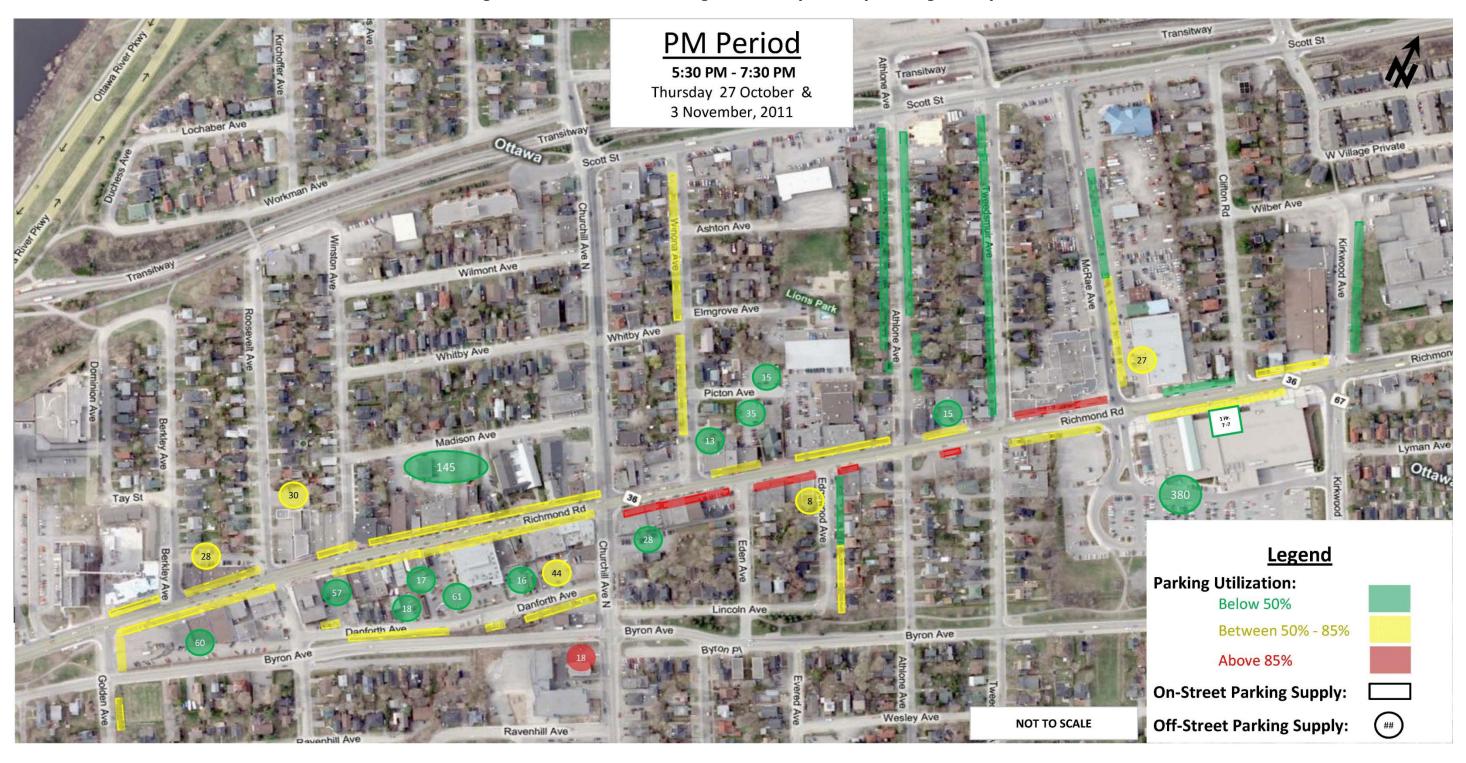




Figure 14: Actual Public Parking Utilization (Saturday Morning Period)

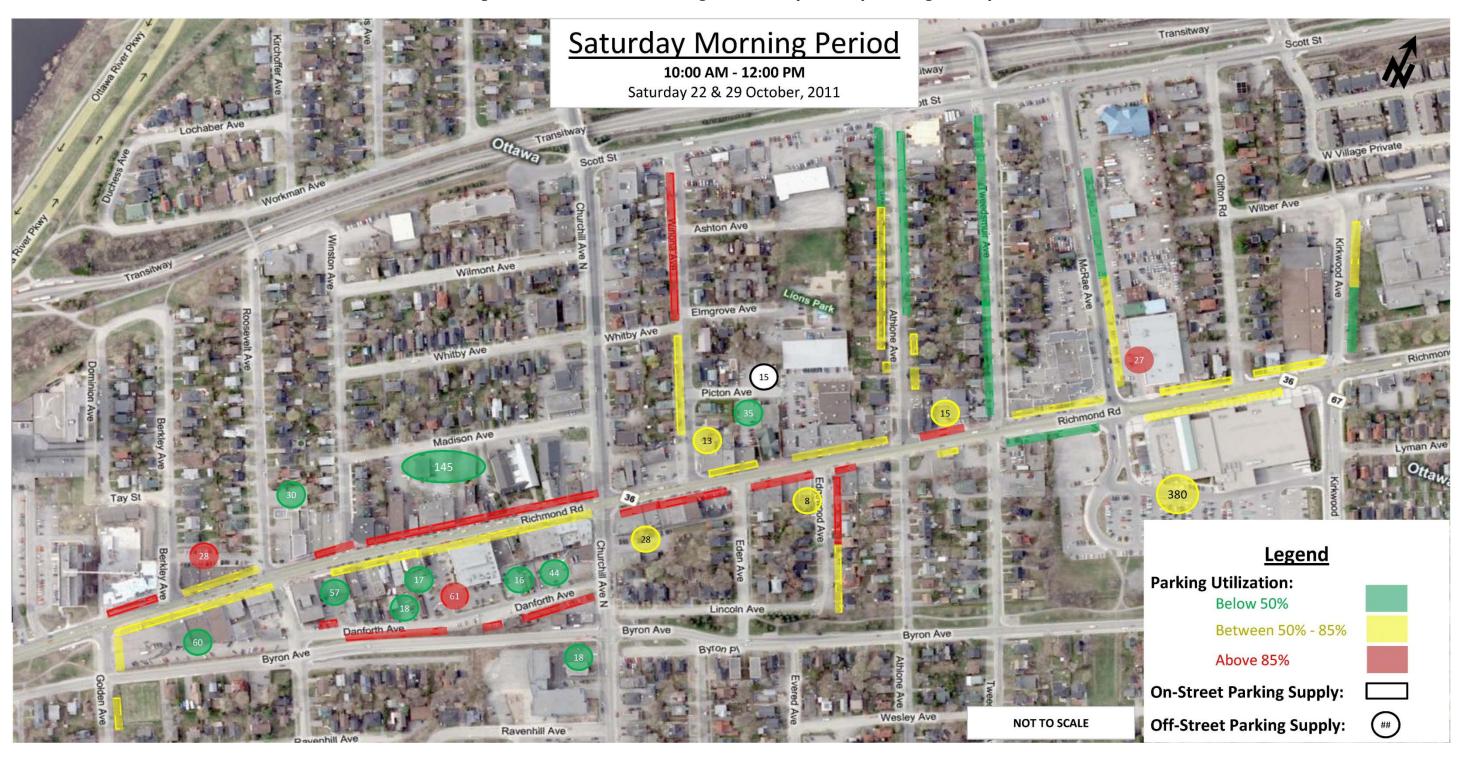




Figure 15: Actual Public Parking Utilization (Saturday Mid-day Period)





The on-street parking data indicate the following:

- during the two-hour weekday morning period, 85% and higher utilization was
 experienced for isolated pockets within the study area, including most notably on the
 north side of Richmond Road between Churchill and Roosevelt, and on Danforth
 Avenue. The vast majority of the Richmond Road Corridor experiences parking
 utilization between 50% and 85% during the weekday morning period, and most
 intersecting side-streets surveyed (east of Churchill) experience parking utilization of
 less than 50%;
- during the two-hour weekday mid-day period, 85% and higher utilization was
 experienced for the same areas as noted above. The majority of the Richmond Road
 Corridor still experiences parking utilization between 50% and 85% during the
 weekday mid-day time period, and some intersecting side-streets in close proximity
 to Richmond Road are experiencing slightly higher parking utilization compared to
 the morning period;
- during the two-hour weekday evening period, 85% and higher utilization was
 experienced for isolated pockets within the Richmond Road Corridor only including
 the south side between McRae and Churchill. The balance of the Richmond Road
 Corridor experiences parking utilization between 50% and 85% during the weekday
 evening time period and most intersecting side-streets surveyed (east of Churchill)
 experience parking utilization of less than 50%, with the notable exceptions being
 Winona, McRae and Edgewood (3 hour parking);
- during the two-hour Saturday morning period, 85% and higher utilization was
 experienced for isolated pockets within the study area, including most notably on the
 north side of Richmond Road between Churchill and Golden, south side of Richmond
 Road between Athlone Churchill, on Danforth Avenue, and on Winona Avenue north
 of Whitby (3 hour parking). The majority of the intersecting side-streets surveyed
 (east of Churchill) experience parking utilization of between 50% and 85% during
 the Saturday morning time period; and
- during the two-hour Saturday mid-day period, 85% and higher utilization was
 experienced for many of the same areas as noted above, however utilization on
 Richmond Road diminished within certain pockets (south side east of Churchill) and
 increased in others (north side east of Churchill and south side between Roosevelt
 and Churchill) compared to the morning period. The majority of the intersecting
 side-streets surveyed (east of Churchill) experience parking utilization of between
 50% and 85% during the Saturday mid-day period.

The foregoing off-street parking data indicate the following:

- several niche retail stores, such as Bushtukah and MEC, experience high parking utilization during the weekday lunch period and throughout the day on Saturday;
- the Starbuck's Coffee experiences a similar utilization trend as noted above;



- parking utilization at sit-down restaurants, such as Fratelli and the Newport, experience high parking utilization at traditional meal times;
- those parking lots dedicated to employee parking (and signed as such), including
 Affiliated Appraisers and Maplesoft Consulting, exhibit modest to very high utilization
 on weekdays, but very low utilization on Saturdays (which one would expect); and
- from the information available, the paid lots available to the public, namely the Vinci
 Lot at Picton and the Westboro Station lot, are generally not well utilized. The
 notable exception is the Picton Lot during the mid-day period. The low utilization
 may be partially explained by a combination of lack of public awareness and
 proximity of these lots to areas of high parking demand.

1.23 Parking Turnover

Figure 16 is a histogram of on-street parking duration on the south side of Richmond Road between Roosevelt and Churchill on both Saturday 22 October 2011 (red column) and Thursday 27 October 2011 (blue column). The y-axis represents the number of parking occurrences (≈ 500 daily), and the x-axis the estimated duration of each stay in half hour increments. Given the posted 1-hour parking regulation on this segment of Richmond Road, the majority of observation (estimated 90%) are either half-hour or one hour durations. However, some longer parking durations are noted, indicating a parking violation.

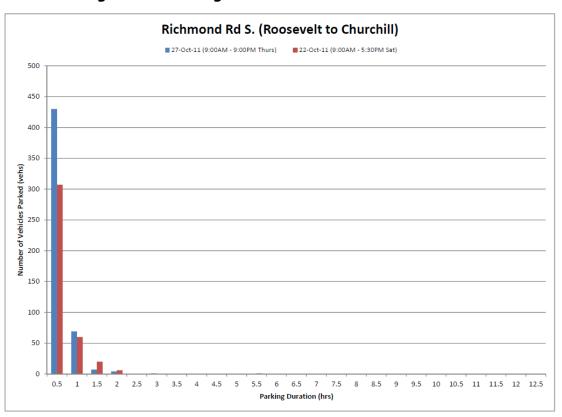


Figure 16: Parking Turnover on Richmond Road Corridor



Similar histograms for individual block faces within the Corridor, as well as for those side streets surveyed, are included as Appendix E.

1.24Summary Assessment

Table 5 provides a block-by-block summary of parking utilization (minimum, maximum and number of hours greater than 85% utilization) and turnover (maximum, average and percentage violators) for both Thursday and Saturday. Conditions along Richmond Road and adjacent side streets are presented. In terms of utilization, there are many blocks that experienced at least one time slice at 100% parking utilization (24 30-minute slices on a Thursday or 18 30-minute slices on a Saturday).

On the Thursday, 12 blocks exhibited a utilization of greater than 85% for more than 4 hours of the day (not necessarily consecutive hours), whereas on Saturday only seven blocks exhibited this level of utilization for more than 4 hours. Although there are fewer blocks on Saturday identified as exceeding 85% utilization, the number of hours the threshold is achieved is noted to be generally longer on Saturday (compared to Thursday). The area with this intensive usage throughout the day on Saturday is Richmond Road (both sides) and Danforth Avenue (south side) between Churchill and Roosevelt.

In comparing the actual utilization to the estimated utilization completed as part of the scoping exercise (Appendix C), the trends are generally very similar. The notable exceptions include McRae Street, where preliminary observations indicated very high utilization for most of the day (weekday and Saturday), whereas the data indicates an average utilization of less than 50%. This could be a reflection of seasonal parking demands (Spring versus Fall) associated with the adjacent land uses (i.e., car dealership). It should also be emphasized that several local streets in the Broader Study Area that were not part of the detailed data collection did exhibit heavy parking utilization as part of the preliminary observations, particularly on a Saturday, including:

- Roosevelt Avenue between Byron and Scott;
- Churchill Avenue between Richmond and Scott; and
- Lincoln Avenue between Churchill and Edgewood.

In terms of parking turnover, all blocks within the Richmond Road Corridor and the majority of side street blocks exhibit a turnover that is consistent with the signed regulations. The notable exceptions, where the percentage of time a vehicle was parked well in excess of the signed regulations (more than half the time) were the following side streets:

- Athlone Avenue half block north of Richmond (Thursday only);
- Danforth Avenue (north side) east of Roosevelt (Thursday only); and
- Winona Avenue between Richmond and Whitby (Thursday and Saturday).



Table 5: Summary of On-Street Parking Utilization and Turnover in Westboro

	Weekday	Weekend		Thursday			Saturday						
Description	Restrictions	Restrictions	Supply		Utilization		Turnover		Utilization		1	Turnover	
·	(hrs)	(hrs)		Min	Max	Hrs > 85%	Max (hrs)	Violators	Min	Max	Hrs > 85%	Max (hrs)	Violators
Richmond Rd N. (Kirkwood to Clifton)	1	1	7	0%	71%	0.0	1.5	19%	29%	86%	2.5	2.0	21%
Richmond Rd N. (Clifton to McRae)	1	1	8	25%	100%	1.5	8.0	22%	25%	100%	1.5	2.5	17%
Richmond Rd N. (McRae to Tweedsmuir)	1	1	9	33%	89%	4.5	7.5	39%	44%	100%	2.0	7.5	30%
Richmond Rd N. (Tweedsmuir to Athlone)	1	1	3	33%	100%	5.0	2.0	37%	0%	100%	4.0	1.5	25%
Richmond Rd N. (Athlone to Winona)	1	1	21	29%	100%	1.5	4.5	26%	33%	95%	3.0	2.5	25%
Richmond Rd N. (Churchill to Roosevelt)	1	1	27	48%	96%	5.0	3.5	16%	56%	100%	8.5	4.5	34%
Richmond Rd N. (Roosevelt to Berkley)	1	1	10	40%	100%	1.0	2.0	19%	50%	90%	2.5	2.0	29%
Richmond Rd N. (Birkley to Golden)	1	1	7	14%	100%	5.5	3.5	27%	57%	100%	5.0	3.5	29%
Richmond Rd S. (Golden to Roosevelt)	1	1	19	42%	84%	0.0	4.0	25%	58%	95%	1.0	7.0	29%
Richmond Rd S. (Roosevelt to Churchill)	1	1	36	44%	86%	1.0	3.0	16%	64%	92%	3.5	5.5	22%
Richmond Rd S. (Churhill to Eden)	1	1	15	20%	100%	4.5	3.0	15%	67%	100%	6.0	3.0	24%
Richmond Rd S. (Eden to Edgewood)	1	1	7	0%	100%	4.0	2.0	18%	43%	100%	5.5	3.0	30%
Richmond Rd S. (Edgewood to Athlone)	1	1	3	0%	100%	5.0	2.0	26%	0%	100%	2.5	1.5	29%
Richmond Rd S. (Athlone to Tweedsmuir)	1	1	2	0%	100%	7.5	2.0	26%	0%	100%	5.5	2.0	37%
Richmond Rd S. (Tweedsmuir to McRae)	1	1	10	0%	90%	0.5	1.5	10%	10%	70%	0.0	1.5	14%
Richmond Rd S. (McRae to Kirkwood)	1	1	14	14%	79%	0.0	1.0	9%	36%	79%	0.0	2.0	14%
Golden Ave (Richmond to Ravenhill)	3	3	18	39%	100%	2.5	4.0	3%	61%	83%	0.0	8.0	3%
Richmond Rd. (Kirkwood to Golden) N. & S.	1	1	198	46%	78%	0.0	8.0	19%	59%	87%	0.5	7.5	25%
Richmond Rd. (Golden to Churchill) N. & S.	1	1	99	53%	81%	0.0	4.0	18%	64%	91%	3.0	7.0	28%
Richmond Rd. (Churchill to Kirkwood) N. & S.	1	1	99	34%	78%	0.0	8.0	20%	42%	83%	0.0	7.5	22%
Kirkwood Ave (Richmond to Wilber)	3	3	71	8%	87%	0.5	12.0	30%	11%	61%	0.0	7.0	5%
Kirkwood Ave (Richmond to Wilber) N.	3	3	37	16%	89%	0.5	12.0	24%	19%	84%	0.0	7.0	6%
Kirkwood Ave (Richmond to Wilber) S.	3	3	34	0%	94%	5.5	8.5	38%	0%	35%	0.0	4.0	1%
McRae Ave (Richmond to Scott)	3	3	46	20%	41%	0.0	8.5	30%	7%	43%	0.0	7.5	13%
McRae Ave (Richmond to Scott) N.	3	3	25	4%	32%	0.0	8.0	32%	0%	44%	0.0	7.5	16%
McRae Ave (Richmond to Scott) S.	3	3	21	24%	57%	0.0	8.5	29%	14%	62%	0.0	7.0	37%
Tweedsmuir Ave (Richmond to Scott)	3	3	42	5%	40%	0.0	12.5	19%	5%	26%	0.0	6.5	15%
Tweedsmuir Ave (Richmond to Scott) N.	3	3	26	0%	27%	0.0	7.5	18%	4%	12%	0.0	4.0	20%
Tweedsmuir Ave (Richmond to Scott) S.	3	3	16	13%	69%	0.0	12.5	20%	6%	63%	0.0	6.5	14%
Athlone Ave (Richmond to Scott)	1	3	35	6%	40%	0.0	12.5	44%	6%	54%	0.0	7.0	11%
Athlone Ave (Richmond to Scott) N.	1	3	23	9%	43%	0.0	12.5	54%	0%	43%	0.0	7.0	14%
Athlone Ave (Richmond to Scott) S.	1	3	12	0%	50%	0.0	2.0	33%	17%	83%	0.0	4.5	9%
Edgewood Ave (Richmond to Eden)	3	3	19	11%	84%	0.0	9.0	21%	16%	95%	1.0	8.0	6%
Edgewood Ave (Richmond to Eden) N.	3	3	12	8%	92%	3.5	9.0	24%	8%	100%	3.5	8.0	6%
Edgewood Ave (Richmond to Eden) S.	3	3	7	14%	71%	0.0	8.0	14%	0%	86%	1.0	4.0	6%
Danforth Ave S. (Churchill to Roosevelt)	3	3	38	39%	95%	4.0	6.5	9%	42%	100%	7.0	7.5	3%
Danforth Ave N. (east of Roosevelt)	1	1	7	43%	100%	4.5	4.5	60%	43%	100%	7.0	4.0	41%
Winona Ave (Richmond to Whitby)	1	1	12	0%	83%	0.0	7.5	65%	25%	75%	0.0	9.0	82%
Winona Ave (Whitby to Scott)	3	3	9	11%	78%	0.0	7.5	26%	44%	100%	2.5	9.0	19%
Notes: a) With the exception of Athlone Ave. (1 hr 8AM-4	IPM), 1 hr parking is	restricted to 7AM	-7PM, otherwis	se parking is 3	hr.	•							

a) With the exception of Athlone Ave. (1 hr 8AM-4PM), 1 hr parking is restricted to 7AM-7PM, otherw
 b) To simplify the analysis in the above Table, Athone Ave. was assumed as 1 hr parking 7AM-7PM.



c) Percent violators was calculated as (number of observed violating vehicles)/(total number of observed parked vehicles)

OTHER CONSIDERATIONS

1.25 Area Context

A retail district of boutiques, gourmet restaurants, and specialty sport shops make the heart of Westboro a popular shopping destination, whereas the many new condo developments near the neighbourhood's core reflect its urban appeal away from the downtown core. The Transitway running on Westboro's northern border allows easy access to downtown and the Ottawa River offers ample outdoor recreational opportunities.

From a parking perspective, the merchants and patrons of Westboro Village currently benefit from 'free' on-street parking. However, the residential areas that are close to commercial centres or cultural/recreational facilities often have non-resident vehicles parking on residential streets. This parking spill-over restricts the amount of parking available to residents and their visitors.

Should paid parking be introduced on streets near a commercial core, the 'free' parking in neighbouring streets (not subject to paid parking) also attracts people unwilling to pay for parking closer to their destination. This begs the fundamental question - how far are people willing to walk for 'free' parking? The literature suggests that the tolerable walking distance is related to numerous factors, including types of users, trip purpose, available time, frequency of occurrence or use, the familiarity of the user with the facility, the perception of security, the expectations and concerns of the user, the degree of weather protection provided along the path of travel, the perception or absence of barriers or conflicts along the past of travel, and the cost of alternatives to walking, if any. In the case of Westboro, which represents an outdoor environment, one source³ attempts to quantify the acceptable range in terms of distance and level-of-service (LoS), namely LoS A (125 m), LoS B (250m), LoS C (375m) and LoS D (500m). This range of values equates to walk times of just under 2 minutes up to approximately 7 minutes. Another source⁴ equates the type of activity to a tolerable level of service, indicating a: minimum LoS A/B for grocery stores, professional services, medical clinics, etc.; minimum LoS B/C for general retail, restaurant, employees, religious institution, etc.; and LoS C/D for airport parking, major sport or cultural event, etc. For reference, Scott Street is situated roughly 300m north of Richmond Road (at Churchill), which suggest that the majority of the residential side streets within the broader study area provide parkers with a reasonable level of service (i.e., LoS B/C) in terms of walking to the commercial corridor along Richmond Road.

Victoria Transport Policy Institute - Parking Evaluation (Table 4) http://www.vtpi.org/tdm/tdm73.htm.



³ How Far Should Parkers Have to Walk?, National Parking Association Parking May 2008

1.26 Future Parking Supply/Demand

Within the Core Study Area, there are currently an estimated 1,300 off-street parking spaces serving a range of commercial developments, split almost equally between spaces serving customer demands and serving employee demands. Parking spaces serving private residences are excluded from this total.

In general, as development occurs, there is the potential for vacant lots currently used to accommodate parking demand will be replaced by new developments that generate additional demand for parking (i.e., increasing parking demand and decreasing parking supply). A timely example of new commercial development is the current 10,000 ft² expansion of the Mountain Equipment Co-op (MEC) Store at 366 Richmond Road. The project involves demolition of two building to the west of MEC – a building that housed Extreme Pita and Auto Racks, and the house behind it on Danforth Avenue. It is understood that the expansion will eliminate 17 parking spaces associated with Auto Racks (which are noted to be at most one third occupied during the peak retail times). However, there will be a net increase in one parking spot at MEC as a result of the overall expansion plan (from the current 62 to 63), and that MEC will be paying Cash-in-Lieu for four spots as there is insufficient space on-site to accommodate the By-law requirement. Two of the parking spaces will be reserved for electric cars (i.e., charging stations), two spaces for car-sharing vehicles, and one space for a hybrid vehicle.

Although the change to the total available parking supply over time is not available, our discussions with the stakeholder group have suggested that infill developments over the past decade within the study area have eroded the opportunity to provide a purpose-built, off-street parking facility. The general trend would appear to be a gradual reduction in the supply of off-street parking, with some developments seeking further exemption from the City to resolve on-site parking shortfalls by relying on Cash-in-Lieu Applications.

Based on the foregoing, the general parking trend in the area would appear to be increasing demand and decreasing supply.

In reviewing the information provided in Table 4 and Figure 10, one location that is a possible candidate for future redevelopment is the series of smaller surface lots located along Madison Avenue between Winston and Churchill (particularly the series of lots currently further to the west serving the Ottawa-Carleton Mortgage Inc., Gear Garage and Domicile). There are six individual lots with relatively undefined driveway connections to Madison Avenue, and the total available parking supply is approximately 145 spaces. There are other candidate sites within the broader study area with more obvious potential for redevelopment, including for example sites along McRae Avenue and Scott Street.



RECOMMENDATIONS AND CONCLUSIONS

1.27 Recommended Actions

Table 6 represents a proposed Parking Action Plan for Westboro. The table includes a listing of the parking issues/opportunities (identified previously in Section 4.4), the findings of the supporting analyses, potential responses/solutions and anticipated results, as well as a specific recommendation for the City to consider.

1.28 Conclusions

Based on the findings of previous parking studies, and supporting feedback from stakeholders, there is a general belief that there are parking issues within the Westboro Community. Consistent with the policies outlined in the City of Ottawa's Municipal Parking Management Strategy, the City identified a need to complete a Local Area Parking (LAP) Study for the community in order to detail the requirement, nature, and extent of their possible involvement in the provision of public parking services. The completion of this parking study also supports one of the recommendations emerging from the Westboro/Richmond Road Transportation Management Implementation Plan (TMIP) that was presented to Transportation Committee and Council in February 2011.

The Municipal Parking Management Strategy suggests that when the practical parking capacity for an area has been exceeded, consideration should be given to such measures as the provision of additional parking supply (in the form of new off-street spaces) and the introduction of paid parking to influence the demand (allows customers to stay as long as they are willing to pay). A sustained parking utilization rate of over 85% is the accepted industry trigger to consider the introduction of paid parking, in combination with an appreciation of land use context, development trends, TDM initiatives, etc.

The foregoing analyses of the Fall 2011 data set indicates that the threshold 85% utilization rate (to <u>consider</u> paid parking) is not consistently achieved throughout the study area either spatially or over a sufficient period of time. There are pockets within the area to monitor more closely than others as the utilization is approaching the 85% threshold, including the north side of Richmond Road between Churchill and Roosevelt and Danforth Avenue. Until such time as there is a more consistent and sustained utilization of on-street parking in excess of the 85% guideline, the introduction of pay and display parking in Westboro as a possible solution is not warranted.



On-going monitoring of the parking utilization and turnover is suggested for Westboro given the current balance of parking supply and demand in combination with the anticipated trend of decreasing parking supply and increasing parking demand.



Table 6: Westboro Parking Action Plan

Item No.	Issue/ Opportunity	Analysis	Potential Responses/Solutions and Anticipated Result	Study Recommendation
1	Inadequate supply of short-term parking.	The City has established a target utilization of 85% for on-street parking. According to the data the majority of the Richmond Road Corridor (and adjacent side streets) experience on-street parking utilization between 50% and 85% during the many hours of the typical weekday and Saturday time periods. Parking utilization of more than 85% was experienced for isolated pockets within the study area, however the location of these within the study area varied by time of day. Furthermore, the high utilization was shown not to be sustained for extended periods throughout the day. The general trend in parking for Westboro is expected to be increasing demand and decreasing supply (although the supporting quantitative evidence is limited).	Given the findings of the analysis, potential solutions to increase the supply of short-term parking, such as paid parking and additional offstreet parking lots, do not need to be considered for Westboro at this time. On-going monitoring of parking utilization is considered appropriate based on the anticipated trends in parking demand and supply for Westboro.	No action required at this time. However on-going monitoring is needed to ensure appropriate balance of parking supply and demand is maintained. The focus of the monitoring should be the Richmond Road Corridor between Golden and Athlone, as well as on the side streets adjacent to the Corridor.
2	Lack of parking mixture to satisfy the demands of the wide range of businesses and services in Westboro.	The current supply is predominantly 1-hour parking maximum with some 3 hour parking, and stakeholders have advised that 60 minutes is not considered long enough to attend a medical/dental appointment, have a leisurely meal, or attend a fitness class. On Richmond Road (between Golden and Kirkwood), all of the almost 200 on-street parking spaces offer 60 min maximum duration parking. Many of the adjacent side streets are also signed to permit only 60 min maximum parking duration parking, including Churchill. There are some side streets within the study area that are not signed (implying 3 hour parking is permitted) or signed explicitly for 3 hour parking, including portions of Golden, Danforth, Edgewood, Tweedsmuir (north of Richmond) and McRae. The analysis indicates that the average parking duration on many streets within the study area is consistently less than the posted regulation. There are some streets, however, that exhibit a relatively high percentage of violations, which suggests a high demand for a parking duration longer than 60 min. These streets include Athlone, Winona and Danforth (just east of Roosevelt) on weekdays. Typically side streets will have an equal or longer maximum parking duration than side streets with the rationale being to encourage turn-over on the main street for short-term retail customers. A review of the Fall 2011 data suggests increasing the parking duration on Richmond Road may increase the utilization over 85% for longer periods, thereby elevating paid parking as a possible consideration. For this reason, lengthening the current parking regulation within the Richmond Road Corridor (or at least in some areas) may not be desirable. Churchill Avenue (between Richmond and Scott) is an arterial roadway that is centrally located within the area of highest parking demand for Westboro. Although detailed data were not collected here, the results of the preliminary parking scan suggested that Churchill Avenue exhibits high onstreet parking duration. The parking data does suggest th	Consideration could be given to extending the existing 60 min maximum parking duration on some streets within the study area. Ideal candidates include those streets that are close to land uses with demand for somewhat longer-term parking (medical/dental offices, restaurants, etc.) and where existing utilization is relatively low. A 90 minute maximum parking duration would appear reasonable given the experiences in neighbouring West Wellington. It is expected that the parking turnover rate will reduce at locations close to certain establishments, or at certain times of day, where/when longer parking is in high demand (medical/dental offices, restaurants, etc.). This is likely to result in some shift of parking demand away from the 60 minute duration areas to the streets with the new, longer durations. This shift, plus any new demand associated with increased area-wide patronage, is likely to increase the overall parking utilization at some locations within the study area and at specific times of the day. Other areas may experience a slight decrease in utilization, such as those streets that currently offer 3 hour parking.	The City to consider implementing a 1.5 or 2 hour maximum parking duration on streets where utilization is currently low. Any specific adjustments to the existing parking regulations would have to go through the standard process.



Item No.	Issue/ Opportunity	Analysis	Potential Responses/Solutions and Anticipated Result	Study Recommendation
3	Spill over from the commercial area into the adjacent residential streets.	There are retail/service and employment-generating uses distributed throughout the study area. This presents a demand for short and longer-term parking that is within walking use to these uses. Stakeholders have identified spill over parking on several streets, including Roosevelt and Tweedsmuir. The analysis indicates modest utilization (<70% maximum) on Tweedsmuir on both weekdays and Saturdays. Data were not collected on Roosevelt. In 2011, heavy use was also reported by stakeholders in the vicinity of Golden and Ravenhill (assumed to be construction workers related to Westboro Station). However, the construction is essentially completed now and this condition is not expected to exist today. As of 2011, there was no parking signage (implies 3 hour maximum) on many of the specified streets, including Tweedsmuir and Golden. Since this time, a number of streets have had their parking signage changed from unsigned (3 hours) to signed 60 min maximum parking duration, including Golden and Briarwood.	Spill over parking is typically addressed by adjusting/adding signage for shorter durations to discourage the practice. Given the findings of the analysis, there does not appear to be a need to make any adjustments to the parking regulations on Tweedsmuir. However, conditions on this street should continue to be monitored, as well as on Roosevelt, Golden and Ravenhill (to confirm the spill over from construction related activity was temporary).	The City should continue to adjust parking regulations on residential streets in consultation with the residents.
4	Underutilization of public off-street parking (i.e., paid private lots).	There is a privately managed lot at Picton Avenue, and a relatively new private lot at Westboro Station. The data indicate that these lots are not well utilized (<55%) during most times of the day, with the exception of the Picton Lot at the weekday lunch hour period (87%).	Way finding signage can be used to better communicate the availability and location of paid parking lots and to improve public awareness of the longer-term parking alternatives. With increased awareness, utilization of off-street paid lots would be expected to increase, which should free-up shorter-term spaces on-street	The City, in collaboration with the BIA, should review the current policy regarding provision of way finding signs to off-street paid parking lots that are privately owned/managed. The City currently does not manage signage to privately managed off-street public parking. However, the City and BIA should discuss
5	Heavy use of on-street parking by employees.	Through anecdotal field observation and input from stakeholders, long-term parking by employees is considered to be an issue on Kirkwood Avenue, McRae Avenue and Danforth Avenue. Currently, 3-hour parking is permitted on these three streets. The data indicate high utilization on Kirkwood (north of Richmond) on weekdays and slightly lower on Saturdays, and that the percent violators is in the order of 30% on both weekdays and Saturdays. This section of Kirkwood is not a residential street. The data indicate modest utilization on McRae on weekdays and Saturdays and slightly lower on weekends, and that the percent violators is in the order of 30% on a weekday, and almost negligible on Saturday. This section of McRae is not a residential street. On the section of Danforth Avenue between Churchill and Roosevelt, the data indicate high utilization on both weekdays and Saturdays, although the percentage of violators is quite low (<10%). There is no specific evidence indicating if the parking on Danforth is employee-based or customers.	and/or attract more visitors to the area. Consideration could be given to adjusting the existing 3 hour regulation to a lower maximum parking duration. In the area of Danforth in particular, this would free up short term supply for customer use and discourage long-term employee parking. On Kirkwood and McRae, the existing regulation appears consistent with the needs of the adjacent land use.	responsibilities and funding solutions. The City should lower the existing 3 hour regulation on Danforth. Before implementing this change (to 1, 1.5 or 2 hours), additional investigation is recommended to determine if employees or retail customers are the source of the longer-term parking on this section of Danforth.
6	Inconsistency in the collection of Cash in Lieu funds and use of funds outside of the area in which they are collected.	The review of Cash-in-Lieu of Parking Applications in Westboro indicated that approximately 140 spaces have been approved through the Program since 1990.	None available.	No action at this time. However, it is understood that the City is planning to review the current approach to Cash-in-Lieu of Parking.



Item No.	Issue/ Opportunity	Analysis	Potential Responses/Solutions and Anticipated Result	Study Recommendation
7	Lack of accessible parking in the areas close to the Highland Lawn Bowling Club (Golden/Byron) and Churchill Seniors Group Centre (Churchill/Richmond).	Valid accessible permit holders have more options for on-street options than others as they are permitted. For example, permit holders are able to park in no parking zones and at no cost on-street (should the space be paid). The Highland Lawn Bowling Club has no on-site parking, while the Churchill Seniors Group Centre does have on-site parking with several accessible parking spaces.	None available.	No action at this time.
8	Damage to fence caused by angled parking next to the Highland Lawn Bowling Club on Golden Avenue.	Property damage from angled parking was confirmed through field observation.	The signage has already been modified to permit only parallel parking. Slightly lower on-street parking supply has resulted, but less property damage.	The City should monitor the effectiveness of the new signage on Golden Avenue.
9	Use of alternative travel modes (i.e., walking, cycling and transit).	Stakeholders suggested on-going promotion of public transit and active transportation modes for travel to/from/within Westboro so as a potential means to reduce the demand for on-street parking. The area is relatively well served by existing transit routes and good sidewalk facilities, although there are certainly opportunities to enhance the use alternative travel modes. According to the 2005 Origin-Destination Survey in the National Capital Region, the share of all trips to/from the Ottawa West District within a private automobile (driver and passenger) was approximately 75% over a 24 hour period with the balance being 17% public transit and 8% active modes. The share of all trips within the district is considerably different with 54% auto, 7% transit and 39% active modes. The O-D Survey data also indicate that a high percentage of trips take place within the District (i.e., an origin or destination within the District as opposed to travelling completely through), which suggests there is an opportunity to modifying the travel behaviour of local residents through improved pedestrian, cycling and transit facilities/service may have implications on parking demand.	The review of the Transportation Management Implementation Plan (TMIP) for Richmond Road/Westboro identified a number of parking-related Transportation Demand Management initiatives that could be considered as part of individual developments, or within any future municipally-managed parking facilities, including the provision of parking spaces for car share users and/or car pool users. It is understood that a number of initiatives are currently being implemented as part of TMIP, including measures such as enhanced bicycle parking and sidewalk improvements. The TMIP Study indicates that solutions would become more effective when combined with parking pricing.	The City should continue to implement the solutions identified within the TMIP for Richmond Road/Westboro.



The majority of the foregoing study recommendations reflect relatively minor changes to the existing on-street parking regulation that will require consideration by the area stakeholders (i.e., proprietors/BIA, local residents, etc.). The plan includes actions for the City to consider in an attempt to: increase the mixture of parking durations (to satisfy the demands of the wide range of businesses and services in Westboro); encourage the use of the existing off-street paid lots by the public (that are currently underutilized for most of the day); and manage spill over from the commercial area into the adjacent residential streets.



APPENDIX A:

Summary of Previous Westboro Parking Studies

APPENDIX B:

Approved Cash-in-Lieu Parking Applications in Westboro Since 1990

APPENDIX C:

Preliminary Parking Scan Results

APPENDIX D:

Detailed Parking Occupancy Data

APPENDIX E:

Detailed Parking Turnover Data