



Final Report

City of Saint John Transportation Strategic Plan Phase 2 – Parking Strategy



Prepared for City of Saint John
by IBI Group
in association with Crandall Engineering
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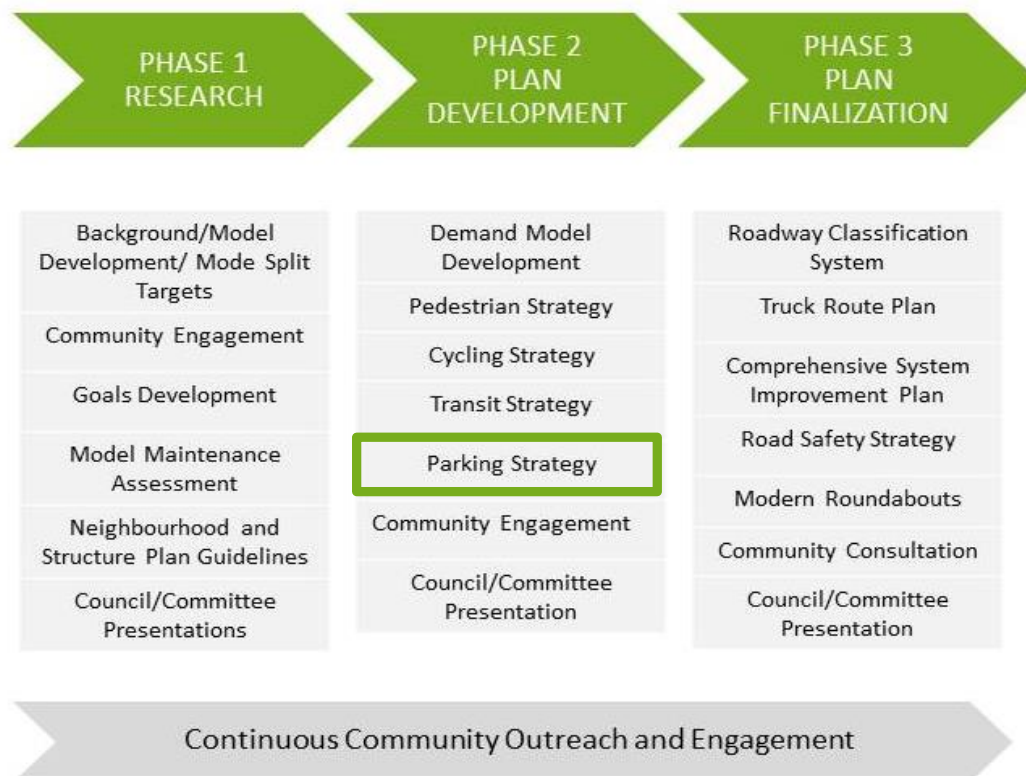
1 Introduction

1.1 Study Background

The City of Saint John is preparing a transportation strategic plan (MoveSJ) that is being completed in three phases (research, plan development, and plan finalization). MoveSJ aims to quantify and recommend improvements to the transportation system over a 25 year horizon. The primary objectives of MoveSJ are to guide the growth of an integrated multi-modal transportation system, taking into account unique road users such as pedestrians, cyclists, public transit users, truckers, among others. MoveSJ also strives to provide a safe, efficient, and accessible network for all who live and work in the City of Saint John.

As part of the project's second phase, this report summarizes the parking strategy. This task examines current parking operations and aims to accommodate Saint John's future parking needs. **Exhibit 1.1** provides further details regarding the MoveSJ project framework.

Exhibit 1.1: MoveSJ Planning Process



1.2 Scope and Objectives

The parking strategy will mainly focus on the Uptown Peninsula, where parking is highly demanded by commuters, visitors, and residents. A comprehensive survey of parking supply and demand was completed in 2000 with a future parking demand forecast completed in 2006, however many of the anticipated developments have not materialized.

The parking strategy is divided into three primary tasks:

- **Existing Conditions Review:** review the City of Saint John's current parking operations using the supply and demand data collected as part of this study;
- **Future Parking Demand Analysis:** identify future parking needs by forecasting the Uptown Peninsula's future parking demand; and
- **Parking Strategy Development:** develop a parking strategy that:
 - Reviews the best practices of similar municipalities;
 - Examines Transportation Demand Management (TDM) initiatives as potential strategies to improve future parking operations;
 - Examines the existing Residential Zone Parking Permit Program; and
 - Identifies the impacts of on-street parking on street maintenance.

2 Existing Uptown Peninsula Parking Supply and Utilization

2.1 Parking Inventory

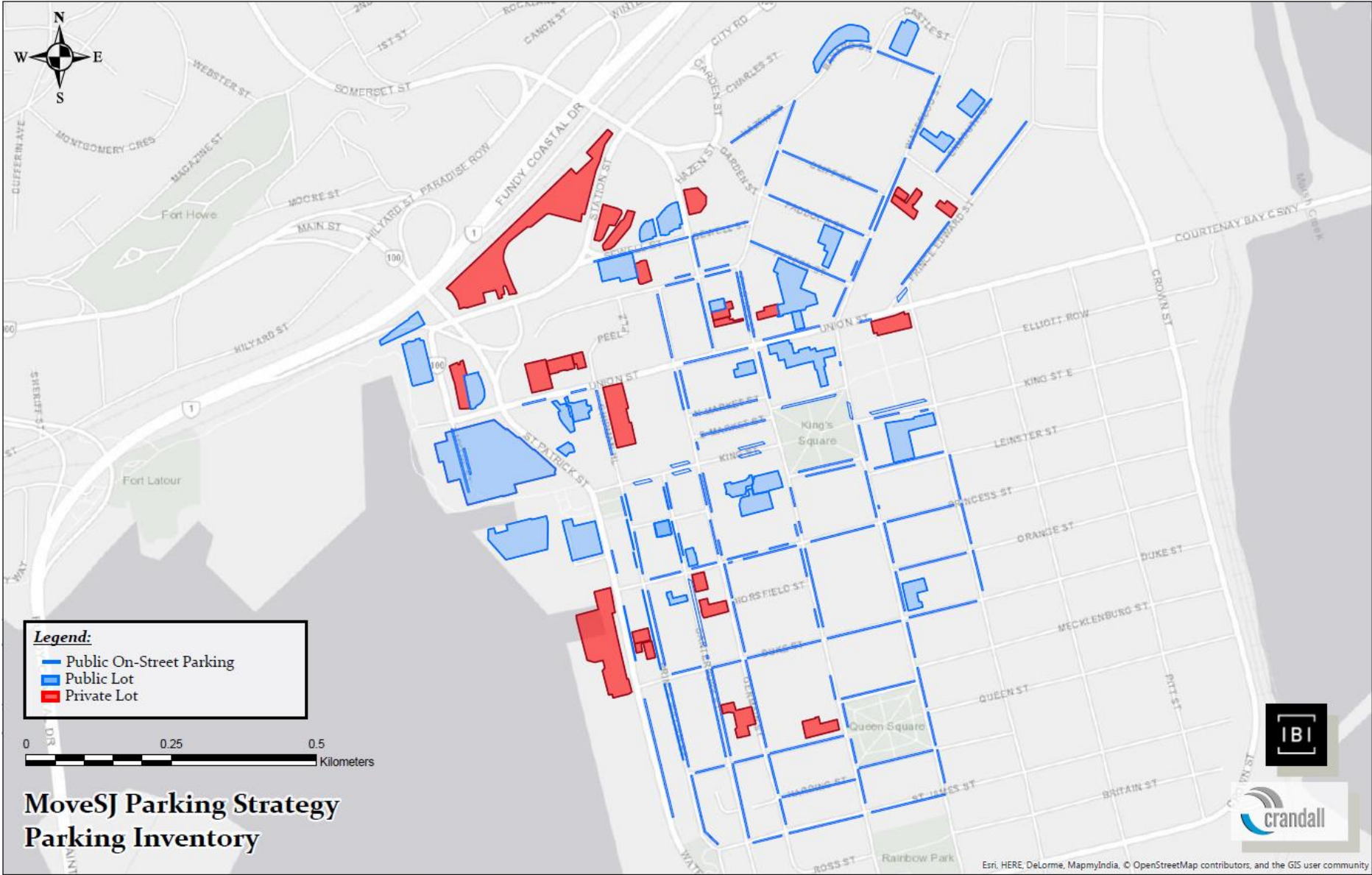
The existing conditions parking supply and utilization study was conducted by Crandall Engineering, a civil engineering firm based out of Moncton and Saint John. Hourly parking demand counts were completed for on-street and off-street facilities on Thursday, June 22, 2017, Tuesday, June 27, 2017, and Wednesday, June 28, 2017 from 8 AM to 6 PM. The City of Saint John provided on-street and off-street parking inventories, which was confirmed during field observations.

The existing parking inventory is summarized in **Exhibit 2.1** and the Uptown Peninsula study area is presented in **Exhibit 2.2**.

Exhibit 2.1: Parking Inventory

Ownership	Type of Parking	Capacity
Off-Street		
Municipal	Hourly	148
Municipal	Monthly	883
Municipal	Monthly/Hourly	1,389
Municipal Off-Street Total		2,420
Private	Monthly	1,306
Private	Monthly/Hourly	810
Private Off-Street Total		2,116
Off-Street Total		4,536
On-Street		
Municipal	Metered	695
Municipal	Unmetered	575
On-Street Total		1,270
System Total		5,806

Exhibit 2.2: Study Area Map



As displayed in **Exhibit 2.1**, the Uptown Saint John parking supply is comprised of 5,806 parking spaces divided in the following manner:

- 1,270 on-street parking spaces;
- 2,420 municipally owned off-street parking spaces; and
- 2,116 privately owned off-street parking spaces.

There are 53 off-street parking lots (4,536 spaces) in the study area available to the general public; 28 lots are owned by the Saint John Parking Commission and 25 lots are privately owned. The on-street parking supply consists of 695 metered spaces and approximately 575 unmetered spaces. Unmetered spaces were generally found in the more residential areas where alternate side parking is in effect.

2.2 Seasonal Parking Adjustment Factor

Parking patterns vary widely throughout the calendar year. For example, parking demand during the winter months is typically lower due to the cold weather and heavy snowfall which may deter people from visiting the Uptown core. Parking systems are generally designed to accommodate the 85th to 90th percentile peak annual parking demand. This ensures that the existing parking supply is able to accommodate all but the highest demand throughout the year. Parking systems are not designed to accommodate the highest demand, as it would result in a large portion of spaces being unfilled for the remainder of the year.

To seasonably adjust the collected parking data, the City of Saint John provided monthly parking revenue data for 2016. **Exhibit 2.3** shows the 2016 monthly parking revenues.

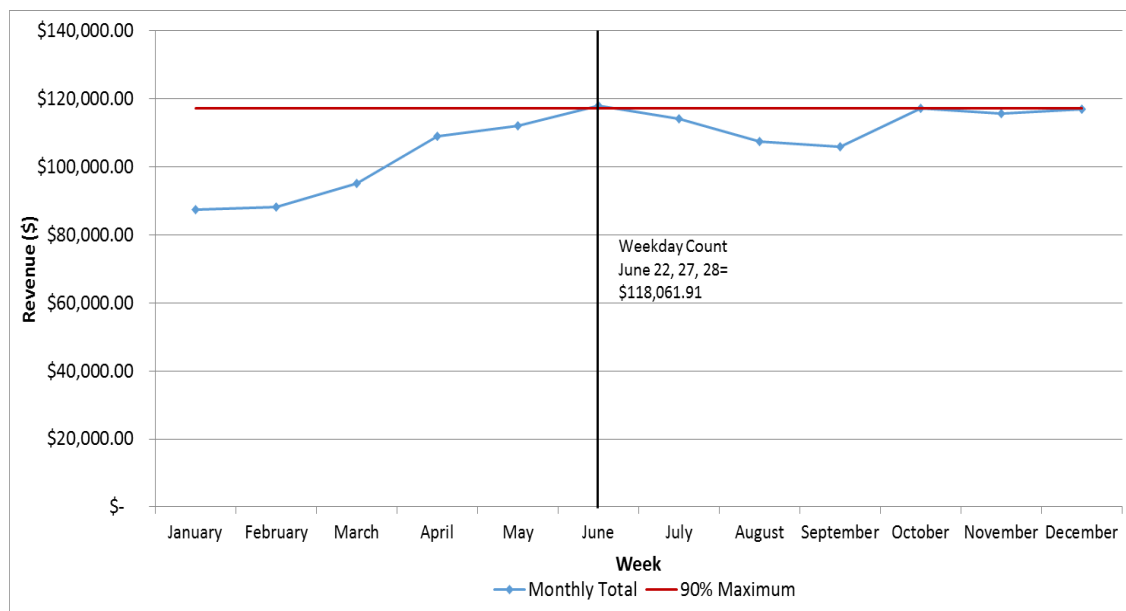


Exhibit 2.3: 2016 Monthly Parking Revenues

To determine the seasonal adjustment factor, the parking revenue collected the month the survey was conducted (June) was compared to the 90th percentile parking revenue (\$117,118.90). Based on the assessment of 2016 monthly parking revenues, the June seasonal

adjustment factor is 0.992. To calculate the seasonally adjusted parking demand, all collected parking demand was multiplied by the seasonal adjustment factor.

2.3 Parking Utilization

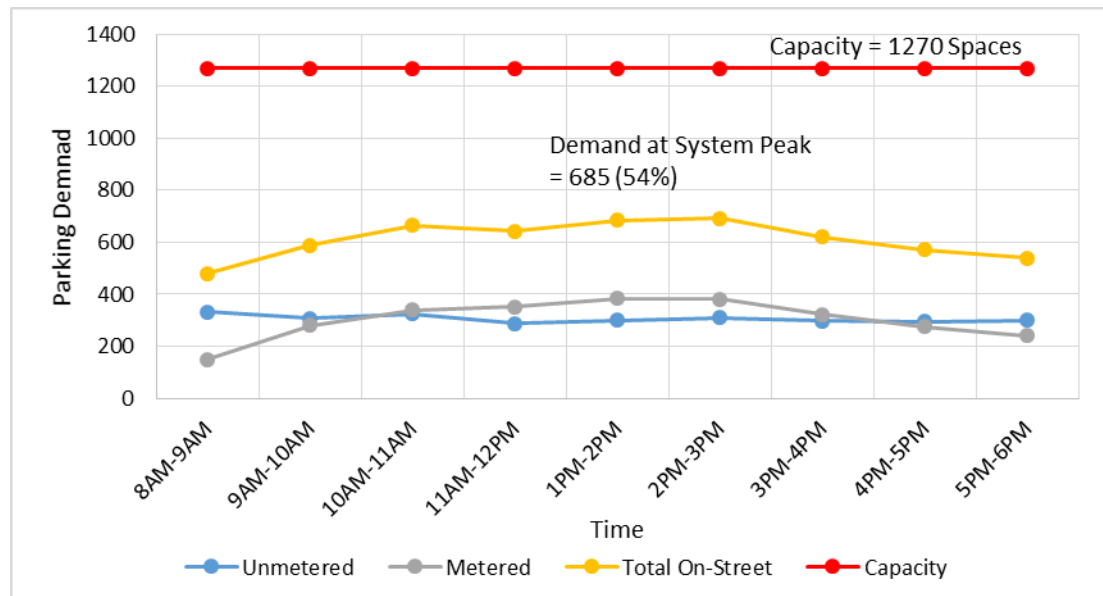
Using the collected parking occupancy data, a complete review of the study area’s existing parking utilization was undertaken (how much parking is used and when).

Parking systems are considered “effectively full” at an occupancy of approximately 85%, depending on lot size and characteristics. This represents the point where finding a space is challenging for drivers, resulting in an increased likelihood of a driver having to search for an available parking space. Using the collected utilization data and the 85% effective capacity threshold, IBI Group identified the locations where parking operates near capacity, and where excess capacity is available.

2.3.1 On-Street Utilization

Hourly parking counts were collected for all 695 metered spaces and 575 unmetered on-street parking spaces in the study area. **Exhibit 2.4** illustrates the hourly on-street parking patterns during the weekday period.

Exhibit 2.4: On-Street Parking Utilization



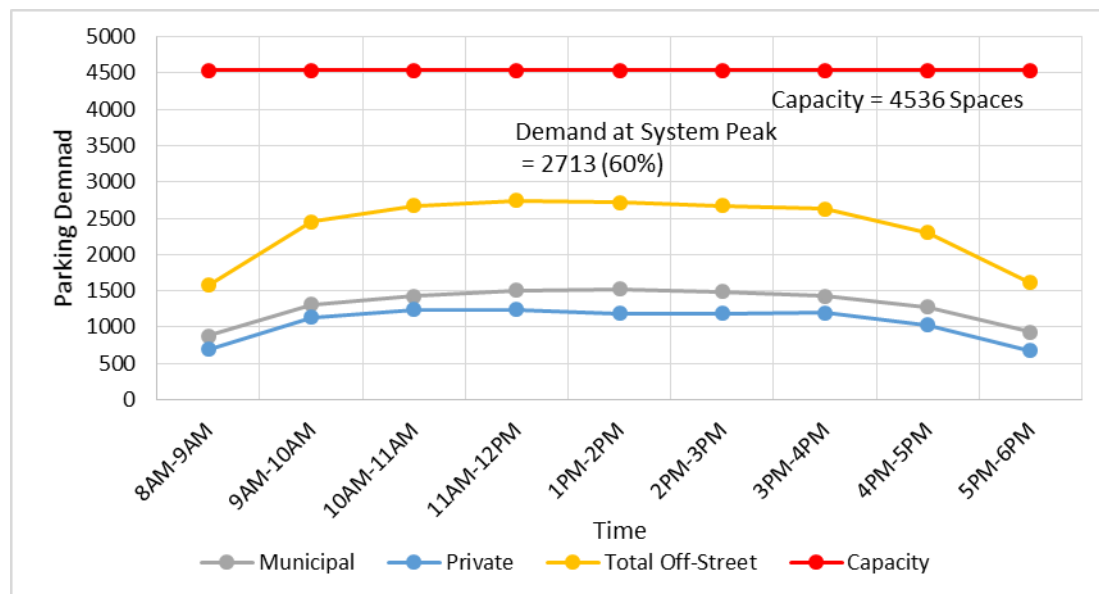
Some observations from the on-street parking utilization results:

- Metered and unmetered spaces experienced similar demand throughout the day;
- Parking demand was sustained above 50% between 10 AM – 3 PM; and
- The maximum on-street parking demand occurred between 2 – 3 PM, where 691 spaces (54%) were occupied. Given that the on-street parking system operated below the effective capacity at all times, it is concluded that sufficient on-street parking opportunities are provided during weekdays.

2.3.2 Off-Street Utilization

Similar to on-street parking, hourly parking demand counts were collected between 8 AM – 6 PM for the 4,536 off-street parking spaces. **Exhibit 2.5** illustrates the hourly off-street parking patterns during the weekday period.

Exhibit 2.5: Off-Street Parking Utilization



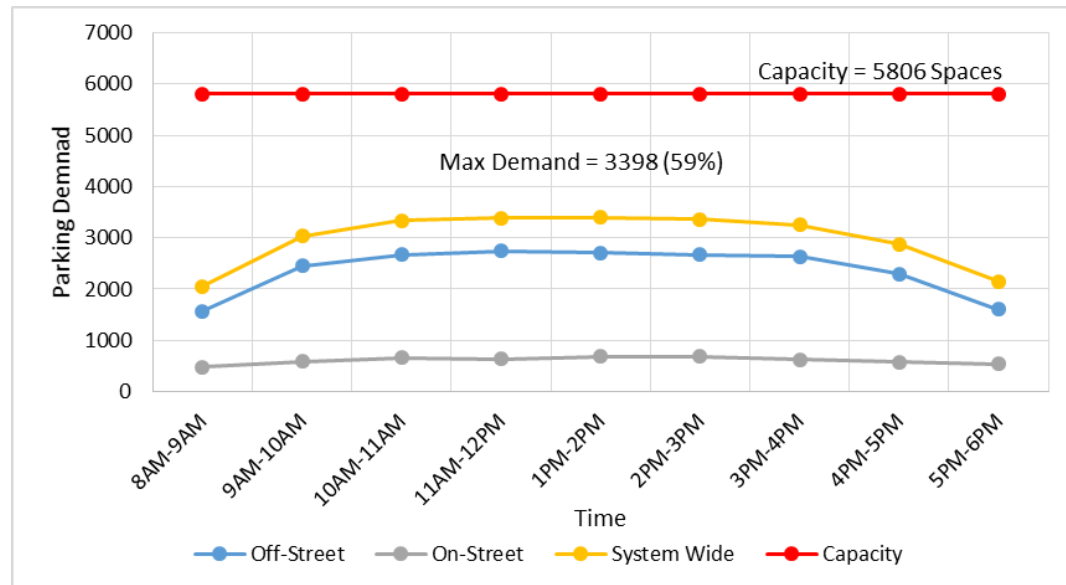
Some observations from the off-street parking utilization results:

- Municipally owned lots experienced higher demand than private lots;
- Off-street parking utilization was sustained above 50% between 10 AM – 5 PM; and
- The maximum off-street parking demand occurred at 11 AM – 12 PM, where 2,747 spaces (61%) were occupied. Given that the off-street parking system operated below the effective capacity at all times, it is concluded that sufficient off-street parking opportunities are provided during weekdays.

2.3.3 Uptown Parking System Utilization

The Uptown parking system's overall utilization is displayed in **Exhibit 2.6**.

Exhibit 2.6: System Wide Parking Utilization



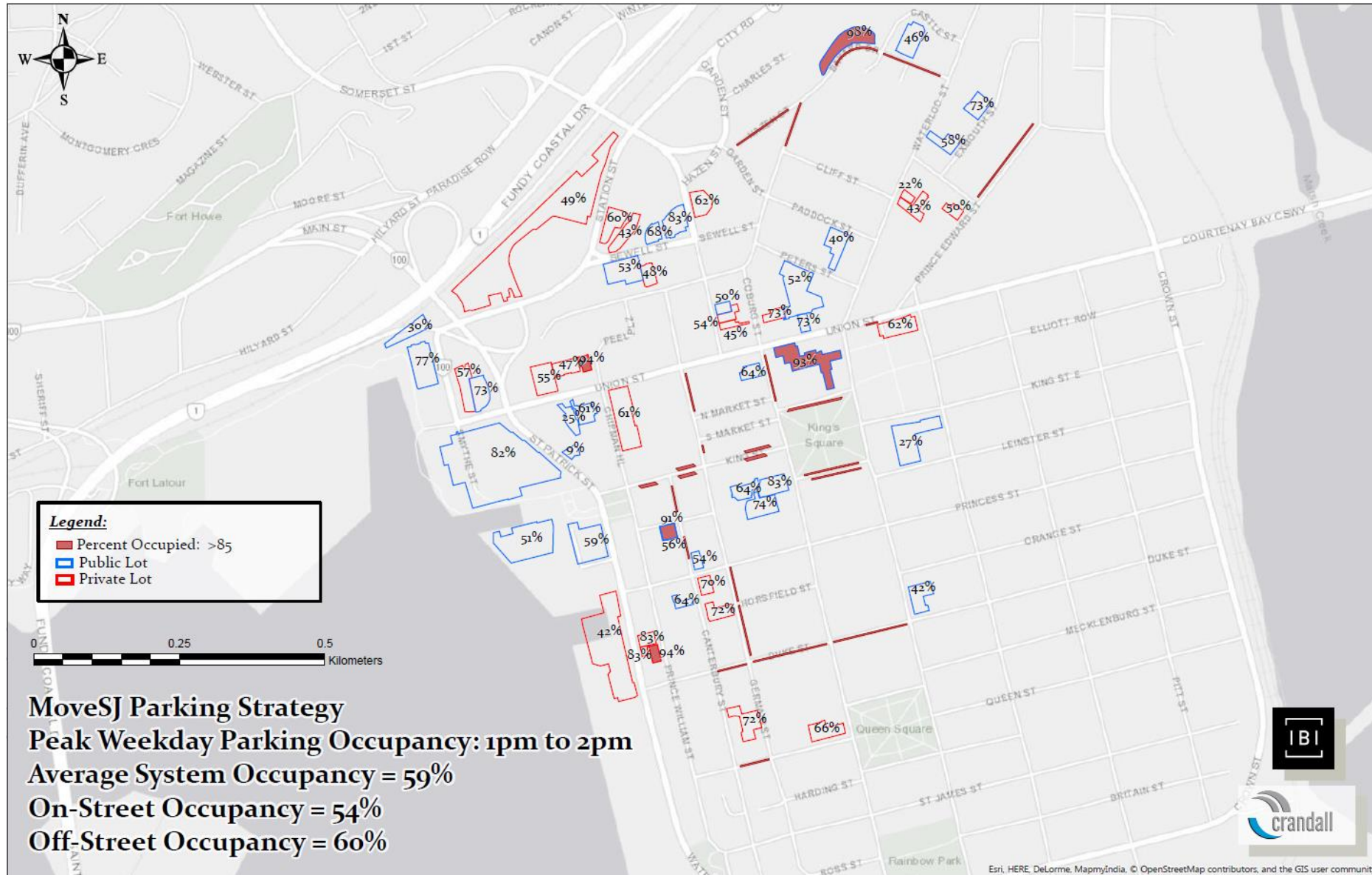
When considering the study area as a whole, the following observations are made:

- The system wide peak hour occurs between 1-2 PM, with 3,398 of 5,806 spaces occupied (59% utilization);
 - During the system peak, 685 on-street spaces were occupied (54%);
 - During the system peak, 2713 off-street spaces were occupied (60%);
- System wide occupancy is sustained above 50% from 9 AM – 4 PM; and
- The parking system operates well below the 85% effective capacity threshold at all times.

Considering these results, the Uptown parking supply in 2017 is considered sufficient to accommodate the weekday parking demand at all times.

While sufficient parking opportunities are provided system wide, individual lots and street segments are observed to operate near or at capacity. **Exhibit 2.7** geographically displays the lot-by-lot and street-by-street parking utilization observed during the period of peak parking demand.

Exhibit 2.7: Existing Parking Utilization Map (1:00 to 2:00 PM)



Considering the results shown in **Exhibit 2.7**, the following conclusions are drawn:

- In general, higher on-street parking occupancies were observed in the Central Business District (CBD) than elsewhere. The CBD is bound by Union Street to the north, Sydney Street to the east, Duke Street to the south, and St. Patrick Street / Water Street to the west;
- Out of the 94 on-street segments that were surveyed, 14 were observed to operate above 85% utilization during the system peak. This indicates that there are many on-street segments that are operating well below capacity;
- Off-street lots that offer hourly parking have higher occupancies than those that offer monthly parking only. This suggests that additional monthly permits could potentially be sold without resulting in operational issues; and
- Out of 54 lots, 5 were observed to operate above 85% utilization during the system peak. Many of the off-street lots are operating well below capacity.

Based on industry research, the publically accepted walking distance between a parking space and the user's final destination ranges between 300 – 400 metres. While several lots and street segments are observed to operate above effective capacity, there are sufficient parking opportunities within walking distance to accommodate any excess demand.

2.3.4 Friday Evening Sensitivity Analysis

A Friday evening survey was conducted for the restaurant district at 6 PM on September 8, 2017. The restaurant district is bounded by King Street to the north, Charlotte Street to the east, Duke Street to the south, and Water Street to the west. This survey included on-street and off-street facilities to assess how the Friday evening parking demand differs from regular weekdays. **Exhibit 2.8** shows the study area for the Friday Evening survey.

Exhibit 2.8: Friday Evening Parking Study Area

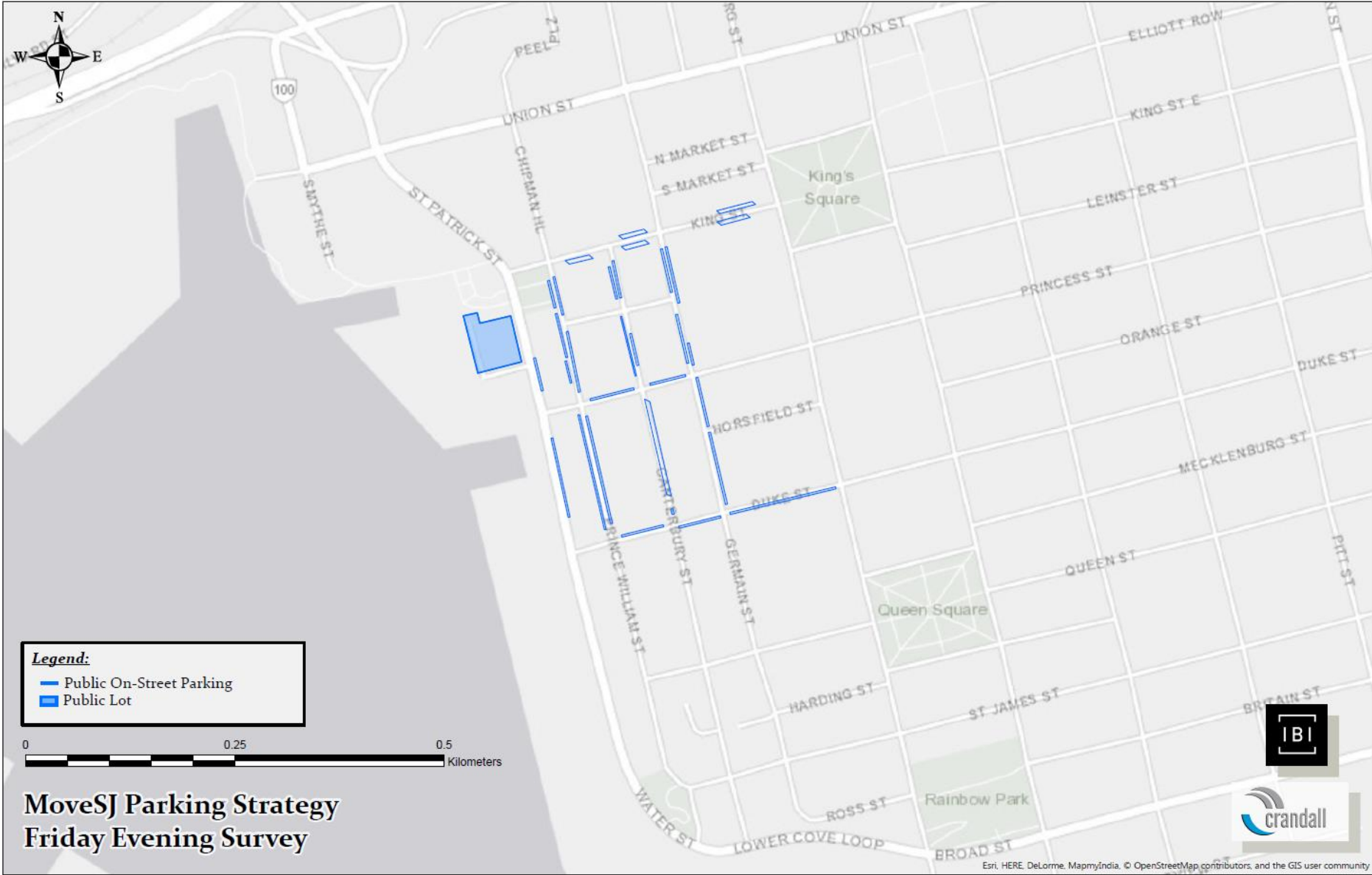


Exhibit 2.9 compares the parking utilization experienced during a Friday evening to those experienced during the period of peak parking demand (1 – 2 PM) and a typical weekday evening.

Exhibit 2.9: Friday Evening Parking Utilization Comparison

Street	From Street	To Street	Capacity	# OF OCCUPIED PARKING SPACES					
				2:00 PM Weekday		6:00 PM Weekday		6:00 PM Friday	
Water Street	King Street	Princess Street	6	5	83%	2	33%	3	50%
	Princess Street	Duke Street	8	5	63%	0	0%	4	50%
Prince William Street	King	Princess	35	16	46%	17	49%	13	37%
	Princess	Duke Street	38	12	32%	18	47%	26	68%
Canterbury Street	King	Princess	26	22	85%	16	62%	28	108%
	Princess	Duke Street	32	18	56%	18	56%	20	63%
Germain Street	King	Princess	30	25	83%	15	50%	25	83%
	Princess	Duke Street	19	18	95%	16	84%	19	100%
King Street	Prince William	Germain	27	25	93%	18	67%	21	78%
	Germain	Charlotte	24	23	96%	10	42%	18	75%
Princess Street	Prince William	Germain	13	7	54%	7	54%	17	131%
TOTAL ON-STREET			258	176	68%	137	53%	194	75%

Parking Lot	Capacity	# OF OCCUPIED PARKING SPACES					
		2:00 PM Weekday		6:00 PM Weekday		6:00 PM Friday	
Canterbury Garage (Upper)	22	20	91%	13	59%	19	86%
Canterbury/Princess Lot	13	7	54%	2	15%	5	38%
Coast Guard Lot	99	58	59%	62	63%	71	72%
TOTAL OFF-STREET	134	85	63%	77	57%	95	71%

Some observations from the Friday evening survey:

- Friday evening had the highest demand for on-street and off-street parking facilities, followed by the weekday peak period, then the weekday evening period;
- Parking demand on Water Street, King Street, and the Canterbury/Princess Lot was higher during the weekday peak compared to Friday evening;
- Parking demand on Canterbury Street, Germain Street, and the Canterbury Garage (Upper) were similar when comparing the weekday peak and Friday evening;
- Parking demand on Prince William Street, Princess Street, and the Coast Guard Lot was higher during the Friday evening period compared to the weekday peak; and
- During the Friday evening period, 3 on-street parking segments had utilizations of 100% or higher, indicating that illegal parking may be an issue. Saint John is recommended to consider increasing enforcement within the restaurant area during Friday evenings.

Based on these findings and local knowledge, parking within the restaurant district is known to operate near effective capacity on Friday evenings. However, while not included within the sensitivity analysis, parking utilization is known to rapidly decrease as a function of distance from the restaurant district. Therefore, sufficient parking opportunities are anticipated to be available within publically accepted walking distance (300-400 meters) of the restaurant district to accommodate the excess demand.

3 Future Uptown Peninsula Parking Demand Forecasting

While the existing parking supply is sufficient to meet existing parking demand, the City of Saint John is anticipated to grow over the next 10 years. Given the expected growth, long-term planning is needed to ensure that the future parking demand can be accommodated. Future parking demand within the Uptown Peninsula is anticipated to be impacted by the following factors:

- Parking demand growth due to population growth in the Saint John region;
- Targeted personal vehicle modal split reduction (5% over the 10 year horizon);
- New developments within the study area; and
- Parking supply losses or gains.

3.1 Increased Activity of Existing Land Uses

The Uptown core's future parking demand is anticipated to grow, even if there are no new developments within the study area. This occurs because the activity drawn by the existing land uses is anticipated to grow as a function of population growth outside the study area. The PlanSJ Municipal Plan (2011) provided population and employment growth forecasts over 14 and 21 year horizons. Using the growth data, an annual growth rate of 1.15% was calculated. It is assumed that an increase in population will result in a proportional increase in parking demand.

Note that while population is a significant contributor to parking demand, parking demand growth is not directly proportional to population growth. For the purposes of this planning exercise, the estimated growth in demand is considered a conservative forecast. Saint John is recommended to monitor the parking situation moving forward and adjust the parking demand projections as necessary.

Exhibit 3.1 presents the projected peak hour parking demand growth over the 10 year horizon period.

Exhibit 3.1: Parking Demand Growth due to Increased Activity

Type	Peak Demand (1:00-2:00 PM)	Demand Growth	Comments
On-Street	685	84	1.15% growth per year for 10 years (12.2% total)
Off-Street	2,713	330	
System Total	3,398	414	

Parking demand within Uptown Peninsula is expected to grow by 414 vehicles over the 10 year analysis period due to city-wide growth.

3.2 Modal Split Reduction

Based on the City of Saint John Municipal Plan (2011), there is a push to explore TDM initiatives aimed at promoting alternative modes of transportation, such as transit, cycling, and walking. In other words, there is a push to reduce the mode share of single occupancy vehicles, which is anticipated to reduce parking demand. No single occupancy vehicle modal split reduction target

was specified, therefore a conservative TDM reduction of 5% was assumed over the 10 year analysis period. **Exhibit 3.2** presents the projected peak hour parking demand reduction due to TDM over the 10 year horizon period.

Exhibit 3.2: Parking Demand Reduction due to Modal Split Changes

Type	Peak Demand (1:00-2:00 PM)	Demand Reduction	Comments
On-Street	685	34	5% reduction over 10 years
Off-Street	2,713	136	
System Total	3,398	170	

Assuming a 5% mode share reduction is achieved over the 10 year horizon, a parking demand decrease of 170 vehicles is anticipated compared to existing conditions.

3.3 Parking Supply Changes and New Developments within the Uptown Peninsula Study Area

The increased activity of existing land uses and the modal split reduction of personal vehicles is anticipated to result in a net growth in overall parking demand across the entire Uptown study area. However, the impact of new developments and parking supply changes is anticipated to be localized to areas within close proximity to the new developments or parking supply changes. Therefore, a micro level assessment of each potential future development and parking supply change was undertaken to develop an understanding of the parking related impacts. Planned and anticipated future developments, and parking supply changes were determined through discussions with City staff. The developments and parking supply changes and their respective impacts is summarized in **Exhibit 3.3**.

Exhibit 3.3: Planned/Anticipated Future Developments and Parking Supply Losses

Location	Development	Municipal Parking System Impact*
Planned and Anticipated Future Developments		
None		
Municipal Parking Supply Changes		
Canterbury & Princess Lot	Full closure	13 parking spaces lost
Canterbury & Grannan Lot	Full closure	48 parking spaces lost
JDI Garage	New 530 parking space garage	325 JDI employees will relocate from municipal lots which is anticipated to make approximately 227 spaces available in municipal lots during the period of peak parking demand
Irving Oil Garage	New 320 parking space garage	125 parking spaces lost since the new garage will replace an existing lot and only serve Irving Oil employees
SYSTEM WIDE TOTAL		13 parking spaces gained

*Note: the parking supply estimates presented in **Exhibit 3.3** are current as of December 2017 and are subject to change as project details are finalized and more developments are proposed.

The Canterbury/Princess and Canterbury/Grannan lots are anticipated to be fully closed. Additionally, two new parking garages are proposed for the Uptown core. A 530 parking space JDI Garage and a 320 parking space Irving Oil Garage which is anticipated to replace the existing 125 parking space King Street East lot. Neither parking garage will be open to the general public. However, the JDI garage will serve JDI employees who are currently parking in municipal lots, which is anticipated to reduce the parking demand experienced by the affected lots. When reallocating the JDI employee parking demand to the new garage, it was assumed that 80% of the employees with permits were parked between 1-2 PM, due to the fact that not all employees are in the office on any given day. This assumption is considered a conservative estimate as a 100% assumption is not realistic and would further reduce the projected future parking demand.

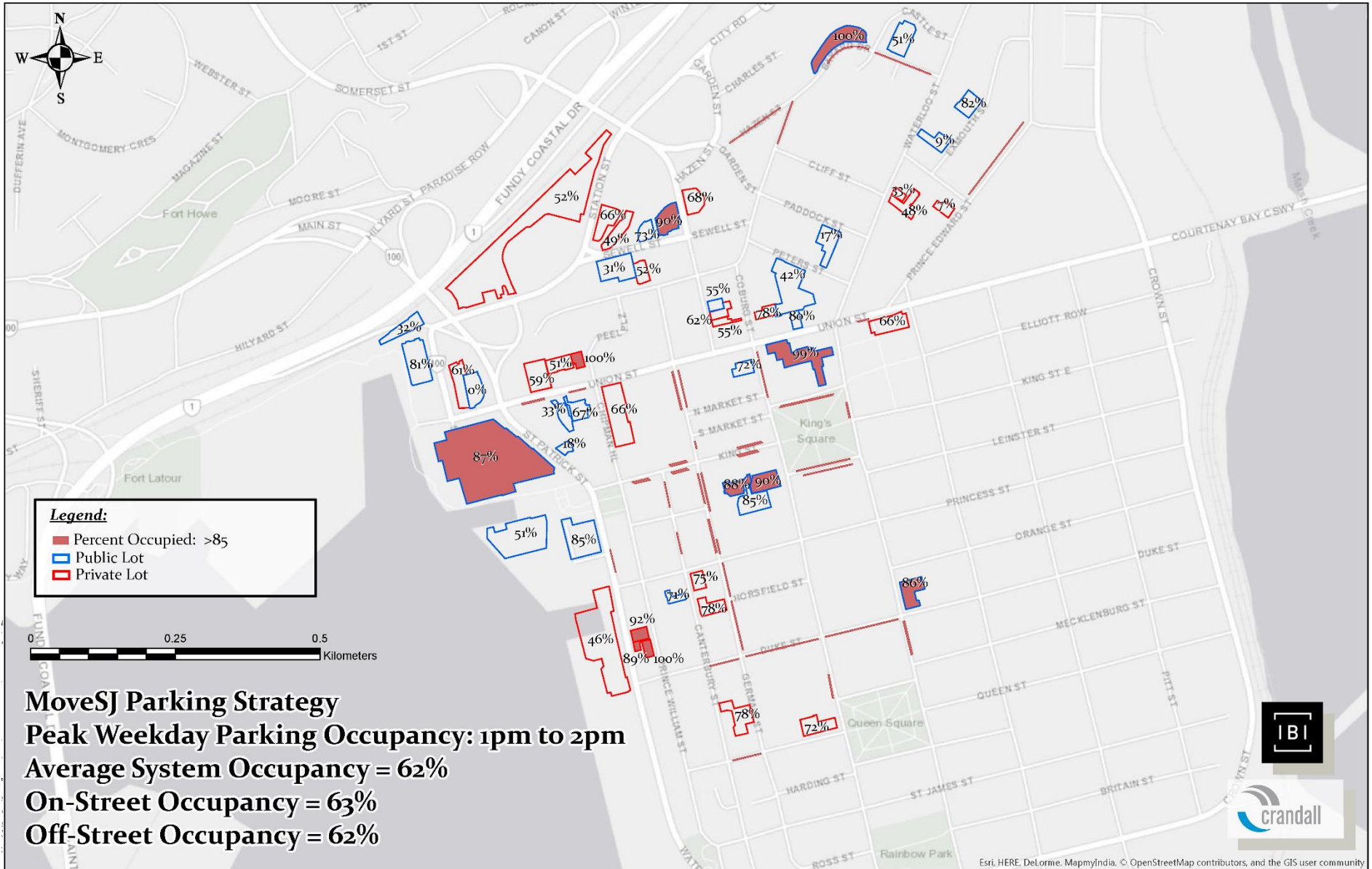
Considering the parking supply changes presented in **Exhibit 3.3**, parking demand was reallocated to lots that are within acceptable walking distance (300 – 400 metres) and operating under effective capacity. Parking demand was redistributed in the following manner:

- Canterbury & Princess lot closure demand reallocated to the following lots:
 - Canterbury Street and Princess Street lot;
 - Port Saint John lot; and
 - Coastguard (Water Street) lot.
- Canterbury & Grannan lot closure demand reallocated to:
 - Coastguard (Water Street) lot;
 - Brunswick Square garage; and
 - Trinity Royal lot.
- King Street on-street parking conversion excess demand reallocated to:
 - Prince William Street;
 - Charlotte Street; and
 - Princess Street lot.
- JDI Garage: demand reallocated to the JDI garage from the following lots:
 - Peters Street lot;
 - Paddock Street lot;
 - Price Edward Square lot;
 - Waterloo Street and Exmouth Street lot;
 - Duke Street and Sydney Street lot;
 - Sewell Street and Dorchester Street lot; and
 - Peel Plaza garage.
- Irving Oil Garage: demand reallocated to:
 - Duke Street and Sydney Street lot; and
 - Peters Street lot.

3.4 Projected Uptown Parking Summary

This section consolidates all parking supply and demand changes outlined in the previous sections, and examines the Uptown parking system's projected future performance. **Exhibit 3.4** illustrates the projected future parking utilization during the period of peak demand.

Exhibit 3.4: Projected Future Parking Utilization Map (1:00 to 2:00 PM)



In summary, the assessment of Saint John's future parking situation revealed the following:

- During the period of peak demand, the Uptown parking system is projected to operate with a utilization of 62% utilization. Both on- and off-street parking systems are projected to operate below effective capacity;
- The Coastguard (Water Street) lot (89%), Duke Street and Sydney Street lot (86%), Market Square Underground lot (87%), Sewell and Dorchester lot, (90%), St. Joseph's Hospital (103%), Sydney Street lot (99%), Trinity Royal (88%), Prince William Street lot (106%), and Water Street – Harbour Building lot (91%) are projected to operate above effective capacity;
- While several street segments and lots are projected to operate above effective capacity, there is sufficient parking supply within acceptable walking distance to accommodate any excess demand; and
- Based on these results, the parking demand in the Uptown Peninsula is expected to increase compared to existing conditions, but still operate below capacity. A parking supply expansion is not considered necessary.

This estimate is based on all known and potential redevelopment projects identified at the time this report was prepared, and is therefore subject to change as the details of these projects affecting the Uptown Peninsula's parking supply are finalized.

3.5 Coastguard Lot Closure Sensitivity Analysis

Through discussions with City staff, potential plans for a major development were identified that if constructed, would replace the two Coastguard lots on Water Street. A sensitivity analysis is conducted to estimate the effects the development would have on local and system-wide parking operations.

Currently, the Rear and Water Street Coastguard lots have capacities of 169 and 99 spaces, respectively for a total of 268 spaces. There is the potential to replace some of the lost parking spaces within the development, however as a worst case scenario, all 268 parking spaces are assumed to be lost. The proposed development is assumed to provide sufficient parking to meet the Saint John Zoning by-laws. In other words, the development is assumed to provide sufficient on-site parking to accommodate the generated parking demand.

Similar to the redistribution of parking spaces in Section 3.3, existing parking demand from the two Coastguard lots were reallocated to lots within 300-400 metres with available capacity. Demand was reallocated to the following facilities:

- St. Patrick Street lot;
- Compark Union Street lot;
- Union Street lot;
- Smythe Street lot; and
- Brunswick Square Garage.

The two Coastguard lot closure sensitivity analysis revealed the following:

- During the period of peak demand, the Uptown parking system is projected to operate with 65% utilization. Both on- and off-street systems are anticipated to remain below capacity; and
- In addition to the lots previously identified Section 3.4, the following additional lots are projected to operate above effective capacity:

- St Patrick's Street lot (91%);
- Union Street lot (93%);
- Compark Union Street lot (86%); and
- Smythe Street lot (86%).

4 Parking Strategy Development

4.1 Best Practices Review

A best practices review was undertaken to draw upon experiences and standards that have been successfully established in the Maritimes and Ontario. Saint John's parking prices and fees, parking by-law regulations (vehicle and bicycle), and cash-in-lieu of parking policies are compared to those of other similarly sized municipalities. The following municipalities were selected:

- City of Belleville (Ontario);
- City of Brantford (Ontario);
- City of Fredericton (New Brunswick);
- City of Kingston (Ontario);
- City of Moncton (New Brunswick);
- City of Peterborough (Ontario);
- City of Pickering (Ontario);
- City of St. Catharines (Ontario); and
- City of St. John's (Newfoundland).

4.1.1 On-Street Parking Limit

Saint John's maximum on-street parking duration was compared to those of similar municipalities. The comparison results are presented in **Exhibit 4.1**.

Exhibit 4.1: Maximum On-Street Parking Duration Comparison

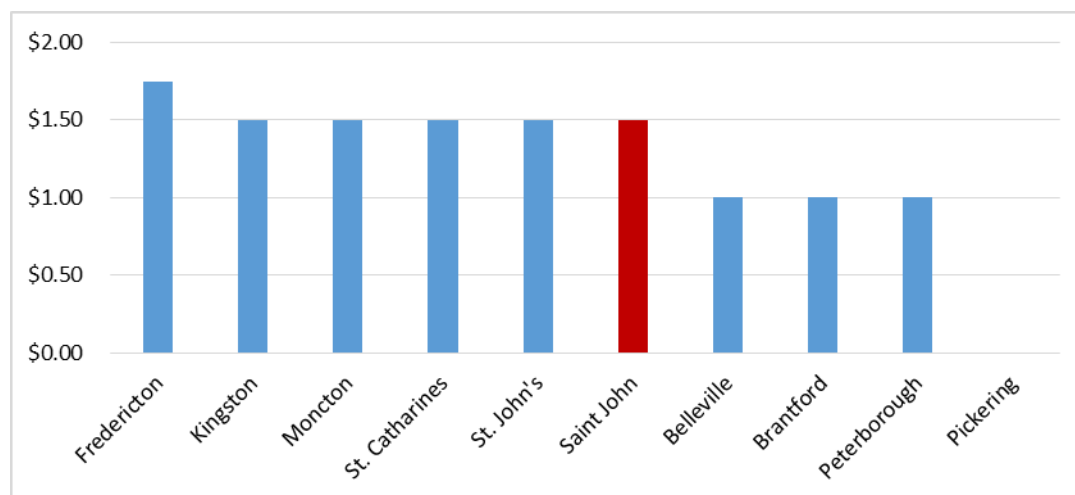
City	Max Time Limit	Notes
Belleville	2 Hours	
Brantford	2 Hours	
Fredericton	4 Hours	
Kingston	2 or 3 Hours	Location Dependant
Moncton	2, 4, or 12 Hours	Location Dependant
Peterborough	2 Hours	
Pickering	3 Hours	
St. Catharines	3 Hours	
St. John's	2 Hours	
Saint John	2 Hours	

In general, comparable municipalities allow on-street parking up to 2 or 3 hours. With the objective of maximizing turnover and the availability of on-street parking, Saint John is recommended to maintain the existing 2 hour parking limit.

4.1.2 Parking Rates

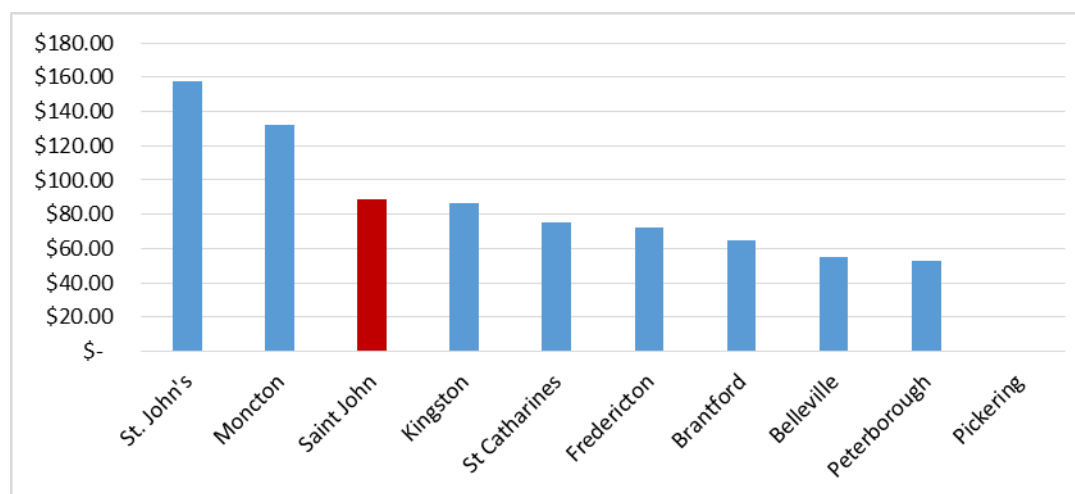
To determine whether the current parking rates are appropriate, Saint John's hourly and monthly parking rates were compared with those of the similar municipalities. The hourly and monthly results are presented in **Exhibit 4.2** and **Exhibit 4.3**, respectively. Several municipalities provide a range of parking prices, which vary depending on location. For these municipalities, the average parking prices were used.

Exhibit 4.2: Hourly Parking Rate Comparison



As presented in **Exhibit 4.2**, Saint John's hourly parking rate appears to be in the middle range among comparable municipalities suggesting that the current \$1.50 rate is appropriate. Hourly rates are observed to range between \$1.00 and \$1.75, with parking free in Pickering.

Exhibit 4.3: Monthly Parking Rate Comparison



As presented in **Exhibit 4.3**, Saint John's monthly parking rate appears to be the third highest among comparable municipalities, indicating that further monthly parking rate increases may not be appropriate in the immediate future. Note that parking is free in Pickering, while monthly

parking rates in St. John's and Moncton are significantly higher than the other comparator municipalities.

4.1.3 Parking Fines

Parking practices are regulated by the City of Saint John Zoning By-law (ZBL). Parking fines range from \$20 for an expired parking meter/pay & display to \$75 for parking in an accessible parking space without a permit. **Exhibit 4.4** compares several common parking related violations in Saint John to those of the similar sized municipalities.

Exhibit 4.4: Parking Fines Comparison

City	No Parking	No Stopping	Expired Meter	Overtime Parking	Accessible Parking
Belleville	\$20.00	\$20.00	\$10.00	\$20.00	\$300.00
Brantford	\$30.00	\$30.00	\$30.00	\$30.00	\$300.00
Fredericton	\$25.00	\$25.00	\$15.00	\$25.00	\$125.00
Kingston	\$25.00	\$30.00	\$25.00	\$25.00	\$300.00
Moncton	\$45.00	\$45.00	\$45.00	\$45.00	\$45.00
Peterborough	\$25.00	\$30.00	\$15.00	\$15.00	\$300.00
Pickering	\$25.00	\$25.00	\$25.00	\$25.00	\$300.00
St. Catharines	\$30.00	\$48.00	\$20.00	\$20.00	\$300.00
St. John's	\$50.00	\$50.00	\$30.00	\$30.00	\$100.00
Saint John	\$30.00	\$30.00	\$20.00	\$30.00	\$75.00
Average	\$30.50	\$33.30	\$23.50	\$26.50	\$214.50

With the exception of parking in an accessible space without a permit, Saint John's parking fines appear to be consistent with the other municipalities. Saint John is recommended to increase the fine associated with the accessible parking violation to \$300 to match the best practices established in the comparator municipalities.

It should be noted that Saint John has an incremental fine structure where the longer the ticket is unpaid, the larger the fine becomes. The parking fines shown for Saint John in **Exhibit 4.4** reflects the initial fine. Incremental fines were not observed in any of comparator municipalities, but the structure is considered beneficial as it provides an incentive for fines to be paid sooner. Note that the maximum fine associated with an accessible parking violation is \$100 (if paid after 30 days), which is still significantly lower than the accessible parking fines of the comparator municipalities.

4.1.4 Vehicle Parking Requirements

Saint John's parking requirements, specified in Section 4.2 of the ZBL, were compared to those of similar sized municipalities. Residential, office, retail, and restaurant land uses were selected for the comparison as these land uses comprise the majority of the Uptown Saint John, and therefore form the most effective comparison. It should be noted that some municipalities specify different requirements for different zones. For these municipalities, the Downtown zone was selected for the comparison. **Exhibit 4.5** summarizes the comparison results.

Exhibit 4.5: Parking Requirement Comparison

Municipality	Land Use				
	1 or 2 Dwelling Units	3 or more Dwelling Units	Office (/100m ² GFA)	Retail (/100m ² GFA)	Restaurant
Belleville	1 per unit	1 per unit	3.6 spaces	5.4 spaces	1 per 4 seats
Brantford	1 per unit	1.5 per unit	3.3 spaces	3.3 spaces	1 per 4 seats
Fredericton	1 per unit	0.5 per unit	First 450m ² : none 0.9 per 100 m ² after	First 280m ² : none 1.9 per 100m ² after	None required
Kingston	1 per unit	1 per unit	3.6 spaces	3.6 spaces	1 per 5 employees + 1 per 4 seats
Moncton	1 per unit	1 per unit	2 spaces	2.5 spaces	1 per 4 seats
Peterborough	1 per unit	1 per unit	2.2 spaces	2.9 spaces	1 per 5 seats + 11.1 per 100m ²
Pickering	1.75 per unit	1 per unit	2.5 spaces	3.5 spaces	5 per 100m ²
St. Catharines	1 per unit	1.25 per unit	3.6 spaces	5 spaces	5 per 100m ²
St. John's	1.25 per unit	1.25 per unit	3.3 spaces	6.7 spaces	20 per 100m ²
Saint John	1 per unit	1 per unit	2 spaces	<5000m²: 3.33 spaces >5000m²: 4 spaces	10 per 100m²
Average	1.1 per unit	1.1 per unit	2.63 spaces	3.53 spaces	10.2 per 100m²

The City of Saint John's parking requirements are generally observed to be consistent with the average of comparable municipalities. Note that to promote growth, Saint John grants a 20% parking requirement reduction to developments within designated Intensification Areas. The Uptown Peninsula study area is designated as an Intensification Area.

Two notable examples are Fredericton where the parking requirements are significantly lower than the other comparator municipalities, and St. Catharines which provides a parking exemption for residential land uses within parts of the Downtown core. The parking exemption policy's objective is to promote new residential developments within select areas. Parking rates of 1.00 and 1.25 spaces per unit are in effect in all other areas for single unit dwellings and apartment buildings, which is in line with Saint John's requirements. Parking exemptions are not necessarily recommended for Saint John, but merely outlining some of the trends in other cities. St. Catharines might slightly modify this policy in the future, due to large growth projections.

A growing trend among municipalities is the implementation of maximum parking requirements within the Downtown core, which sets a limit on the maximum number of parking spaces permitted per development. The maximum requirements are intended to serve as a TDM measure to control the Downtown core's parking supply.

4.1.5 Bicycle Parking Requirements

The bicycle parking requirements highlighted in Section 4.5 of Saint John's ZBL were compared to those of other similar sized municipalities. **Exhibit 4.6** shows the bicycle parking requirements of each municipality.

Exhibit 4.6: Bicycle Parking Requirement Comparison

Municipality	Residential	Non-Residential
Belleville	-	-
Brantford	-	-
Fredericton	< 6 units: 0 > 6 units: 0.3 per unit	7% of the required vehicle spaces (based on non-CBD rate)
Kingston	Multiple family dwelling unit: 1 per unit	-
Moncton	Multiple dwelling unit: 5% of the number of vehicle spaces required (minimum 2 spaces)	5% of the required vehicle spaces, a minimum of 2 spaces
Peterborough	-	-
Pickering	Apartment: 0.5 per unit Stacked Dwelling: 1 per unit	1 per 1000m ² GFA, a minimum of 2 spaces
St. Catharines	< 10 units: 0 > 10 units: 6 + 1 per 10 units	1 per 1000m ² GFA
St. John's	-	-
Saint John	< 12 units: 0 > 12 units: 0.3 per unit	> 5000m² GFA: 7% of the required vehicle spaces, a minimum of 2 spaces

For non-residential land uses, Saint John's bicycle parking requirements are based on the number of vehicle spaces required. This practice is not recommended as limiting the number of bicycle spaces on the basis of vehicle parking is not desirable. In some cases, applications for vehicle parking requirement reductions are justified through the provision of additional bicycle parking spaces, suggesting an inverse relationship. Saint John is recommended to adopt bicycle parking requirements similar to Moncton and Pickering, where the requirement is based on gross floor area.

As an initiative aimed at promoting alternative modes of transportation, Saint John could consider slightly increasing the existing residential bicycle parking requirement. Section 4.2 further explores transportation demand management (TDM) measures Saint John could consider adopting, such as the provision of shower and change facilities, and sheltered bicycle parking.

4.1.6 Shared Parking

Shared parking involves the use of one parking facility by more than one land use. The practice aims to reduce the overall parking requirement by taking advantage of the respective land use's different parking demand patterns by time-of-day. For example, employment land uses traditionally experience a peak parking demand during weekday business hours while residential land uses peak during weekday evenings and weekends. Shared parking ensures that parking facilities are not designated for any particular user, but operate as a pooled parking resource. This strategy can be considered on a "micro" scale within a single mixed use development, or on a "macro" scale between several developments.

Exhibit 4.7 shows the shared parking reductions of comparable municipalities.

Exhibit 4.7: Shared Parking Reduction Comparison

Municipality	Reduction
Belleville	-
Brantford	-
Fredericton	Outside the CBD, developments containing both residential and non-residential uses, qualifies for a 15% parking space reduction for the non-residential uses only
Kingston	-
Moncton	Mixed use developments qualify for a 10% parking requirement reduction
Peterborough	-
Pickering	The Zoning By-laws provide a shared parking reduction rate based on the land use, day type (weekday or weekend), and time of day
St. Catharines	-
St. John's	-
Saint John	-

The cities of Fredericton and Moncton have shared parking policies that grant a parking reduction if the proposed development is mixed use. This is not considered ideal as many land uses can experience peak parking demands at similar times, in which case reductions are not considered appropriate. Saint John could consider adopting a shared parking policy similar to the City of Pickering, where the granted shared parking reduction is based on land use, time-of-day, and day type (weekday or weekend).

4.1.7 Cash-In-Lieu

Cash-in-lieu of parking is a policy used in many Canadian municipalities as a mechanism to address parking supply management. It can be used to:

- Facilitate redevelopment where providing parking on-site is either too costly or difficult due to site configuration or condition (i.e. heritage);
- Encourage shared or short-term parking strategies, discourage vehicle use, and encourage and potentially fund transit;
- Intensify and re-urbanize Downtown cores (especially former surface lots);
- Protect heritage buildings; and
- Assure property owners that sufficient parking opportunities will be available.

Cash-in-lieu of parking policies generally focus on a specific geographic area, often a Downtown core or an area that the municipality has targeted for intensification or redevelopment. These policies allow developers to pay cash as an alternative to providing the minimum number of parking spaces required by the Zoning By-law. The collected funds are placed in a parking reserve fund, and are normally used for the acquisition, improvement, and construction of municipally owned parking facilities.

The construction of municipal parking through cash-in-lieu funds allows a municipality to own parking Downtown, and therefore control the parking supply and pricing, while supporting desired land uses. Cash-in-lieu is most commonly used for office developments, but is also seen in some municipalities for retail and residential buildings. Municipalities may build additional parking in order to encourage a mix of uses in the Downtown core and support economic development policies.

The City of Saint John does not currently have a cash-in-lieu policy in place. Through consultation with comparable municipalities, cash-in-lieu rates were gathered and compared to guide the City of Saint John in proposing rates if there is interest to implement a cash-in-lieu policy. **Exhibit 4.8** summarizes the results.

Exhibit 4.8: Cash-in-lieu of Parking Rate Comparison

Municipality	Price Per Spot	Notes
Belleville	-	No current cash-in-lieu policy
Brantford	-	Cash-in-lieu rate determined on a case by case basis through discussion with city staff
Fredericton	\$7,000.00	
Kingston	\$4,904.70	
Moncton	\$2,500.00	
Peterborough	\$6,000.00	
Pickering	-	No current cash-in-lieu policy
St. Catharines	-	No current cash-in-lieu policy
St. John's	-	Cash-in-lieu rate determined based on cost of constructing indoor parking in the area subject to the Downtown Parking Standard
Saint John	-	No current cash-in-lieu policy
Average	\$5101.18	

As presented in **Exhibit 4.8**, approximately half of the consulted municipalities do not have a cash-in-lieu of parking policy. When assessing the rates of municipalities that currently have a policy, the cash-in-lieu rates range between \$2,500 and \$7,000 with an average rate of approximately \$5,100.

Through discussions with Brantford staff, current practices were determined to require each developer to work with City staff in determining an appropriate rate on a case by case basis. Brantford is currently reviewing its cash-in-lieu of parking policy and a set rate is expected in the near future.

Many other large municipalities use a cash-in-lieu rate that represents approximately 50% of the costs to provide municipal parking, either in structures or surface lots. The rationale for this is due to the shared use nature of the municipal parking supply, where a single space is able to serve the parking needs of various land uses throughout the course of a day. Considering this best practice approach, an appropriate rate for Saint John will depend on the local context for constructing additional parking. This would require further investigation outside of this parking strategy study.

4.1.8 Monthly Off-Street Parking Permit Sales

As observed during the parking utilization surveys, there is an opportunity to expand upon the number of permits sold at several off-street permit lots. Considering the target utilization of 85% and the observed peak weekday demand, it is estimated that up to 450-500 additional permits can be sold and distributed between the Uptown permit parking system. To err on the side of caution, the sale of additional permits is recommended to be increased in a phased manner to ensure that permits are not oversold. Following each phase, Saint John is recommended to monitor the resulting utilization prior to further releasing additional permits.

4.2 Transportation Demand Management (TDM)

TDM initiatives are used by municipalities to influence travel behaviour. This improves transportation system efficiency and helps manage parking demand by decreasing the volume of single-occupancy vehicles on roads and in parking lots. These initiatives take many forms, including policies, programs, services, and products to influence why, when, where, and how people travel.

In Saint John, TDM measures can be applied to manage long-term parking demand, while supporting mobility to, from, and within the Uptown core. This section outlines different approaches that the City is currently employing and opportunities the City could consider implementing as part of this parking strategy.

4.2.1 Carpooling

Currently, the City of Saint John does not run a dedicated carpool program within the Uptown core. However, informal carpool and parking and ride lots are located along Route 1 in the Rothesay and Quispamsis areas. Additionally, Saint John currently supports one key aspect of a carpool program – marketing and support – as part of the annual *Commuter Challenge* transportation challenge each June. This event celebrates active and sustainable transportation and rewards walking, cycling, carpooling/ride-sharing, taking transit and telecommuting, and has seen some of the highest participation in the province.

For municipalities, the *Carpool Incentive Programs Manual*¹ recommends four core components for an effective carpool program including:

1. An online carpool matching service

There are many online tools for setting up a regular carpool. Prospective carpoolers enter their origin, destination, departure and arrival time, and whether they prefer to be a driver or passenger. The tool connects them with others making a same or similar trip.

2. Preferred carpool parking in parking lots

Many municipalities have begun offering preferred carpool parking in major facilities to entice carpooling, including Calgary, Hamilton, and Ajax. These reserved spaces are located in popular parking lot locations such as near major entrances / exits and require groups to register to receive a special decal or permit. They are most effective near office employment uses, such as Downtown areas, which generate a large percentage of daytime peak trips.

3. Marketing and promotion

Marketing and promotion to potential commuters is an important step in initiating a successful carpool program. Effective approaches include:

- Posters and information signs posted at or near the carpool spaces;
- A dedicated webpage that is search-engine optimized for users;
- A postcard or handout that can be shared with major employers and businesses in the area; and
- Internal communications with City staff who work in close proximity.

4. Incentives and rewards

Direct or indirect financial incentives are a strong force to encouraging carpooling, especially in areas where parking is plentiful, free, or low-cost. Currently the City of Saint John runs the

¹ (US Environmental Protection Agency, 2005)

Commuter Challenge to promote carpooling through events and incentives. Other possible incentives can include:

- Reduced permit parking rates for carpoolers. Carpoolers must apply for a carpool permit and only vehicles displaying this permit are permitted to park in the designated carpool spaces;
- Emergency parking day passes (e.g. 2 per month) for when carpoolers have to travel separately;
- An Emergency Ride Home program that reimburses registered carpoolers in case of unexpected events that require a vehicle to deal with;
- Monthly or quarterly giveaways (e.g. travel mugs, t-shirts, or gift cards); and
- Coupon book for local restaurants and entertainment.

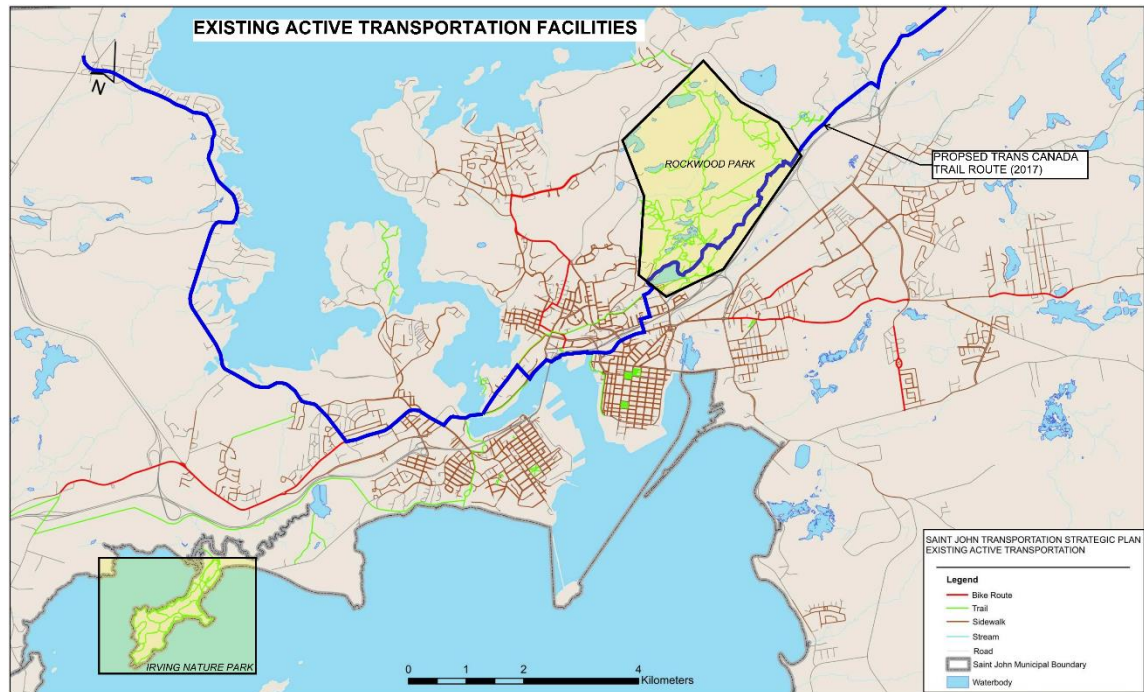
4.2.2 Cycling

4.2.2.1 Existing and Planned Bikeways

On-road bicycle facilities are gradually being implemented on City streets as part of infrastructure renewal projects and other strategic initiatives. The most recent initiative was the completion of an on-road cycling route from the University/Hospital area to the Uptown. The route follows University Avenue, Millidge Avenue, Somerset Street, Churchill Boulevard, Visart Street, Adelaide Street, and Simonds Street to connect with Harbour Passage. This is an important AT connection in the City and was identified as a top priority in the 2010 *Trails and Bikeways Strategic Plan*. In addition to the Uptown-North End connection, designated on-road bicycle facilities can be found on sections of Manawagonish Road, Westfield Road, and Rothesay Road.

Bike lanes in Saint John have been installed for several years, however these lanes are not linked together to form a defined route. With a large number of residents, institutions, and jobs within a 5 km distance of Uptown, providing a safe, connected, and year-round cycling network could help reduce vehicle and parking travel demand to the Uptown core.

Exhibit 4.9: Existing Active Transportation Infrastructure



4.2.2.2 Bike Parking and Supporting Facilities

The provision of adequate, safe, and convenient bike parking and supporting facilities are important to encourage cycling as a regular mode of transportation for residents, commuters, and visitors. Like automobile parking, there is a need for both short-term bike parking for visitors and long-term bike parking for residents and commuters.

Short-term bicycle parking, also known as Type 2, is used for a few minutes to a few hours. They are available for public use and typically located in an easily accessible location, such as the entrance of the building. Some are sheltered, either by a building overhang or separate shelter, to provide some protection from the weather.

Within Uptown Saint John, there are 7 locations where a bike ring is present, and 1 higher-capacity bike rack at the Canada Games Aquatic Centre. This is something that can be improved. It is recommended that sufficient bicycle parking opportunities be provided near major destinations throughout the City as a whole, in addition to Uptown. The City should also examine expanding short-term bike parking to areas just outside of Uptown core, especially in areas that serve as a destination in the City, such as shopping malls, parks, and recreation centres/arenas. This should include installing covered and/or weather protected racks.

Long-term bike parking, also known as Type 1, provides an enhanced level of security for bikes that are parked for longer periods of time. This type of parking includes controlled-access bike cages, bike rooms, and bike lockers. Accessing this type of parking requires an individual to “sign-up” for access with a key fob or access card. It would be beneficial to examine incorporating a Zoning By-Law requirement for land uses such as Offices, Apartment Buildings, Hospitals, and Major Transit Stations, where workers and residents can park their bikes for long periods of time. Similarly, the City could show leadership by installing a secure Uptown bike facility for its employees and nearby commuters. A number of municipalities have taken this approach, including the Cities of Hamilton, Mississauga, Kitchener, and Toronto.

Similarly, providing dedicated showers and changing facilities enables cyclist commuters to rinse off and change out of their commuting gear before starting their day. The City could consider offering incentives to businesses that install cyclist showers and change facilities in large office employment developments, and could install them at all major City worksites.

4.2.2.3 Bike Sharing

Not every person who enjoys cycling for exercise, recreation, and as a mode of transportation is able to cycle, due to not having their own bike available for use. A form of cycling infrastructure that exists in many municipalities including Toronto, Hamilton, and Ottawa is bike sharing. Bike sharing is ideal for short distance point-to-point trips within a city, and provides the ability for members to pick up a bicycle at any station and return it to any other bike station within the covered area. Bike sharing is useful for those who do not own their own bicycle, as well as those who use multiple modes of transportation to move around.

The City of Saint John does not officially operate a commercial bike sharing program, however since 2014 there has been a successful bike sharing program operating out of the Crescent Valley neighbourhood, relying on donated bikes to be repaired and shared with residents who do not own a bike. It would be beneficial for the City to build on this success with expansion and support of a city-wide bike sharing program.

4.2.3 Public and Private Transit

4.2.3.1 Existing Service

Saint John is served by a combination of local and regional buses. The terminal is served by:

- 22 regular routes operated by Saint John Transit. The route scheduling varies by line, but generally the main routes operate roughly every half hour on weekdays and Saturdays, and hourly on Sundays. The west-side, north and south routes operate roughly hourly on weekdays and Saturdays, and do not operate on Sundays. The east-side routes operate roughly every half-hour on weekdays and hourly on weekends.
- 3 Comex (express BRT service) operated by Saint John Transit, which operate to/from Hampton, Kennebecasis Valley, and Quispamsis during the weekday peak hours; and
- Coach bus service operates out of the Maritime Bus Terminal near Harbour Station in Uptown Saint John through Maritime Bus. Maritime Bus runs regular service to many destinations in the Maritime Provinces and into Quebec, including 4 trips/day service to Moncton, 3 trips/day service to Halifax, and daily service to Quebec City and Montreal.

Current Saint John Transit fares are displayed in **Exhibit 4.10**.

Exhibit 4.10: Saint John Transit Fares

Fare Type	Cost
Cash Fare	\$2.75
Adults	
10 Ride Card	\$25.00 - \$2.50 / ride
20 Ride Card	\$50.00 - \$2.50 / ride
Monthly Pass	\$77.00 / month
Seniors (65+)	
Monthly Pass	\$55.00 / month
10 Ride Card	\$22.00 - \$2.20 / ride
20 Ride Card	\$44.00 - \$2.20 / ride
Cash Fare	\$2.50
Students (to Grade 12)	
Monthly Pass	\$66.00 / month
10 Ride Card	\$22.00 - \$2.20 / ride
20 Ride Card	\$44.00 - \$2.20 / ride
Children (under 15)	
Cash Fare (6 to 14)	\$2.50
Cash Fare (5 and under)	Free (first 3 children)
Comex (Express BRT)	
Monthly Pass	\$125.00 / month
10 Ride Card	\$38.00
20 Ride Card	\$68.00
Cash Fare	\$4.00

Saint John Transit also offers a 10% discount for companies to purchase monthly passes for employees (minimum 20 participating).

4.2.4 Carshare

There is currently no Carshare program operating in Saint John. In 2014, Enterprise Carshare launched in Sackville, the first such program in New Brunswick. This is an initiative that Saint John could consider investigating, as the City has a significant population of students and residents where travel to and from Uptown would be supported by car sharing.

4.3 Parking Outside the Uptown Core

4.3.1 Existing Residential Permit Program

Parking outside of Saint John's Uptown Core is generally free. To aid local residents in finding parking opportunities where spaces are unavailable off-street, Saint John offers a Residential Zone Parking Permit Program.

The program's intent is to reduce the competition for scarce curbside space on residential streets by enforcing a two hour parking time limit while granting exemptions to residential permit holders. Any individual who does not have access to off-street parking and who resides within the designated area may apply for a residential parking permit. Permits cost \$48.00 per year with temporary weekly permits available for \$7.00.

4.3.2 Best Practices Review

St. John's

St. John's offers a residential permit program to Uptown residents who do not have access to off-street parking. Uptown residents can submit a complaint/request, which the City will investigate. If considered appropriate, local residents in close proximity of the requested area will be surveyed to determine whether they are in favour of the program. The program is only granted if the majority of the local residents are in favour. When the program is in effect, parking within the designated area is restricted to users displaying a valid residential parking permit. Note that residents are not guaranteed a parking space in-front of their residence. However, the program does prevent non-residents from occupying on-street parking spaces within the designated area.

Moncton

The City of Moncton offers residential parking permits to individuals living in close proximity to the Moncton Hospital to provide local residents with the ability to park in front of their homes. Permits are free of charge.

Kingston

Kingston offers local residents a parking program that provides permit holders an exemption to the 1 hour maximum limit on weekday mornings and afternoons. Permits are generally not required to park on-street during other times. Applicants must be a resident of the pre-defined permit area to be eligible, and permit holders may only park in the pre-defined areas. Permits do not guarantee a parking space and holders may not park on-street during snow events.

In addition to the residential parking program, the City of Kingston offers an accessible parking program. Under the program, permit holders are provided with a designated on-street parking space in a location decided through consultation between City staff and the applicant. To be eligible, applicants must possess a provincially issued accessible parking permit and not have any parking at their residence. The registered vehicle is exempt from the time restrictions otherwise in effect and may park for a maximum of 72 hours.

St. Catharines

The City of St. Catharines offers residential parking permits at a cost of \$40 for a 12 month term. Permit holders are exempt from maximum hourly restrictions when parked in a legal parking space, but are not exempt from time-of-day restrictions. For example, between 8:00 AM and 6:00 PM, on-street parking is permitted along Yates Street for a maximum of two hours. The residential parking permit allows permit holders to exceed this two hour parking limit. The residential permit program is valid city wide where "maximum time limit" or "residents only zones" are posted. The valid residential permit must be displayed in vehicle.

Peterborough

The City of Peterborough currently offers an overnight residential on-street permit program. Overnight permit parking is only available in areas where off-street, driveway, or laneway parking is unavailable and where 51% of the affected residents support the program. The existing residential parking program is currently under review and subject to change.

Pickering

While not formally a residential permit program, the City of Pickering does grant requests to exempt individuals from the 3 hour parking limit under special circumstances such as out of town guests or driveway repairs. A maximum of 21 days per year is permitted to each individual.

Other Comparator Cities

The Cities of Fredericton, Belleville, and Brantford do not offer residential parking programs.

4.3.3 Programs for Consideration

In addition to the current residential parking program, Saint John could consider adopting the following two programs:

- Residential Parking Only Program; and/or
- Accessible On-Street Permit Program.

Residential Parking Only

Saint John's residential permit parking program applies a balanced approach to parking. Local residents are provided with priority while visitors are still permitted to park, albeit for a controlled duration. An alternative program completely restricts on-street parking to users displaying a valid residential parking permit. This program is more suitable in locations where on-street parking is desired to be limited, or where the residential parking demand is projected to be very high, such as locations with student housing.

Accessible On-Street Permit Program

In addition to the residential on-street parking program, Saint John could consider adopting an on-street accessible parking program similar to the City of Kingston. Under the accessible on-street parking program, permit holders would be provided with a designated on-street parking space in a location decided through consultation between City staff and the applicant.

On the question on whether accessible parking should be free, there are three reasons why it is not advised:

- Few Canadian cities offer completely free disabled parking. Those that do, or have special exemptions such as time limits are typically very large cities such as Toronto, Mississauga and Ottawa where the large parking supply can absorb the loss of parking revenue from free parking;
- The Ontario Ministry of Transportation has reported on the growing amount of disabled parking permit misuse in the province. Such misuse stems from using expired permits, transferring permits, using fake permits, and using permits when no longer required. Such misuse should not be rewarded with free parking; and
- One objective of accessibility is to achieve transportation equity wherever possible. This means the ability to those with accessibility limitations to park on and off street as conveniently as possible. Equity should not extend to free parking when the rest of the public pays.

4.4 Impacts of On-Street Parking on Street Maintenance

4.4.1 Existing Maintenance Practices

To facilitate street maintenance (cleaning and snow removal), the City currently employs two strategies, alternative side parking and temporary overnight snow ban.

Alternate Side Parking

Parking is permitted on the odd-number side of the street between the 1st and 15th day of each month while parking is permitted on the even-numbered side between the 16th and last day of the month. This strategy allows the City to clean, remove snow, and maintain both sides of the street while providing continuous on-street parking opportunities.

A changeover period exists between 6:01 PM to 12:00 AM on the 15th and last day of the month to provide on-street parkers a grace period and ensure a smooth transition.

Temporary Overnight Snow Ban

To provide crews an opportunity to clear the road network of snow, the City can issue a temporary overnight on-street parking ban on streets identified in Schedule Q of the Saint John Traffic By-law. The parking ban remains in effect between 11:00 PM and 7:00 AM of the next day.

During on-street parking snow bans, the City provides residents free parking opportunities in designated off-street lots throughout the Uptown core. Residents are permitted to park in these lots between 6:00 PM and 7:00 AM the following day. Overnight parking is permitted in the following lots during snow bans:

- Princess Street and Canterbury Street lot;
- Duke Street and Sydney Street lot;
- Peters Street lot;
- Carmarthen Street lot;
- Mecklenburg Street lot;
- Charlotte Street and Queen Street lot; and
- Water Street lot.

Residents may also park overnight in the Carleton-Sewell parking garage for \$5.00 during snow bans.

4.4.2 Best Practices Review

Belleville

To facilitate snow clearing activities, the City of Belleville prohibits on-street parking between 1:00 AM and 6:00 AM on all city streets from November 2 to April 14 of the following year. Additionally, during a snowstorm, vehicles are not permitted to stop on any street between 11:00 PM and 7:00 AM of the following day.

Outside of the November 2 to April 14 winter restrictions, overnight parking is prohibited on all curbed streets.

Brantford

Similar to Saint John, the City of Brantford has adopted the alternating side of on-street parking policy. Parking is permitted on the one side of the street between the 1st and 15th day of each month while parking is permitted on the other side between the 16th and last day of the month. Brantford's policy differs from Saint John's with respect to the changeover period. Where Saint John provides a six hour changeover period between 6:01 PM to 12:00 AM, Brantford provides a 15 hour transition period between 9:00 PM and 12:00 (noon) of the following day.

Additionally, to facilitate snow clearing activities, Brantford prohibits on-street parking on designated snow routes during snow bans.

Fredericton

Overnight parking within Downtown Fredericton is not permitted between 2:30 and 6:30 AM year round. Additionally, during winter months (December 1 to March 31), the overnight restriction is extended to 12:00 (midnight) and 7:00 AM to facilitate snow removal. The extended restriction is in effect regardless of the presence of snow.

Kingston

The City of Kingston has adopted the alternating side of on-street parking policy to facilitate street cleaning. Alternate side parking is only in effect on certain streets that are considered too narrow to support on-street parking on both sides. Parking is permitted on the one side of the street between the 1st and 15th day of each month while parking is permitted on the other side between the 16th and last day of the month.

Additionally, to facilitate snow clearing activities, Kingston prohibits on-street parking on all City streets from December 1 to March 31 between 1:00 AM and 7:00 AM.

Moncton

To facilitate snow clearing activities, Moncton prohibits on-street parking on all City streets from December 1 to April 15 between 12:00 (midnight) and 7:00 AM.

Peterborough

Peterborough has adopted the alternating side of on-street parking policy to facilitate street cleaning. Parking is permitted on the one side of the street between the 1st and 15th day of each month while parking is permitted on the other side between the 16th and last day of the month.

To facilitate snow clearing activities, Peterborough prohibits on-street parking on all City streets from December 1 to April 1 between 2:00 AM and 6:00 AM. Additionally, when snow clearing operations are underway during a snowstorm, vehicles are not permitted to stop on any city street. Vehicles are permitted to park at any municipal off-street lot while winter parking restrictions are in effect.

Pickering

To facilitate snow clearing activities, Pickering prohibits on-street parking on all City streets from December 1 to April 15 between 12:00 (midnight) and 7:00 AM.

St. Catharines

Parking is prohibited on all Regional Roads between 2:00 AM and 6:00 AM year round. Additionally, parking in metered on-street spaces in the Downtown core is prohibited between 3:00 AM and 6:00 AM throughout the year. To facilitate snow clearing activities, St Catharines prohibits on-street parking on all City streets from December 1 to March 31 between 2:00 AM and 5:00 AM.

St. Catharines publishes an annual fall street cleaning schedule online and simply encourages residents to refrain from parking on-street during the time street cleaners are scheduled in the neighbourhood.

St. John's

The City of St. John's annually posts a Downtown core street cleaning schedule online. Parking on streets scheduled to be cleaned is restricted during the nights specified. Street cleaning outside the Downtown core is not scheduled.

To facilitate snow clearing activities, St. John's prohibits on-street parking on all City streets from the first Wednesday of January to early spring (exact dates published online) between 12:30 AM and 7:30 AM.

4.4.3 Practices for Consideration

Saint John's existing street cleaning and winter road maintenance practices are determined to be similar to those of the reviewed comparator municipalities.

Several municipalities employ a street cleaning strategy similar to Saint John's alternate side parking restriction strategy. However, Saint John could consider adopting a scheduled Uptown street cleaning strategy similar to St. John's. The existing alternate side parking restrictions would be maintained outside of the Uptown core while the restrictions would be rescinded within the core and a street cleaning schedule developed. This strategy would allow on-street parking on both sides of Uptown streets during the majority of the year, with on-street parking restricted during the short period while street cleaning efforts are underway. In the event the City adopts the scheduled Uptown street cleaning strategy, Saint John is recommended to maintain the alternate side strategy on streets considered too narrow to support parking on both sides.

Snow clearing practices slightly vary between municipalities in terms of the start and end times, and the period during which the winter restrictions are in effect. The winter parking restrictions are ideally tailored to the local climate of each municipality, therefore Saint John's existing restrictions are recommended to be maintained.

5 Conclusions and Recommendations

Based on the study findings, the following conclusions and recommendations are drawn:

Existing Parking Supply and Demand

- Uptown Saint John parking supply is comprised of 5,806 parking spaces divided in the following manner:
 - 1,270 on-street parking spaces;
 - 2,420 municipally owned off-street parking spaces; and
 - 2,116 privately owned off-street parking spaces.
- The system wide peak hour occurs between 1-2 PM, with 3,398 of 5,806 spaces occupied (59% utilization). The on-street parking system peaks at 54% occupancy while the off-street system peaks at 61% occupancy. Considering these results, the Uptown parking supply in 2017 is considered sufficient to accommodate the weekday parking demand at all times.
- While sufficient parking opportunities are provided system wide, individual lots and street segments are observed to operate near or at capacity. However, there are sufficient parking opportunities within acceptable walking distance (300 - 400m) to accommodate any excess demand.
- During Friday evenings within the restaurant district, parking demand exceeds the peak demand observed during the typical weekday operations. However, based on local knowledge, parking utilization is known to rapidly decrease as a function of distance from the restaurant district. Sufficient parking opportunities are anticipated to be available within the publically accepted walking distance.

Future Parking Projections

- Future parking demand within the Uptown Peninsula is anticipated to be impacted by the following factors:
 - Parking demand growth due to population growth in the Saint John region (1.15% growth per year, or 12.2% over the 10 year horizon);
 - Targeted personal vehicle modal split reduction (5% over the 10 year horizon);

- New developments within the study area; and
- Parking supply losses or gains.
- Future parking demand in the Uptown Peninsula is expected to increase compared to existing conditions, but still operate below effective capacity. During the period of peak demand, the Uptown parking system is projected to operate with a utilization of 62% utilization. Both on- and off-street parking systems are projected to operate below effective capacity.
- In the event a potential development replaces on the two existing Coastguard lots, the Uptown parking system is projected to operate with a utilization of 65%. Both on-street and off-street parking systems are anticipated to remain below effective capacity.
- Similar to existing conditions, individual lots and street segments are projected to operate near or at capacity. However, sufficient parking opportunities are anticipated to be available within acceptable walking distance (300 - 400m) to accommodate any excess demand.
- **Recommendation:** Based on these results, a parking supply expansion is not considered necessary.

Parking Strategies

- In general, comparable municipalities allow on-street parking up to 2 or 3 hours.
 - **Recommendation:** With the objective of maximizing turnover and the availability of on-street parking, Saint John is recommended to maintain the existing 2 hour parking limit.
- Based on a review of similar municipalities, Saint John's hourly and monthly parking rates appear to be appropriate.
 - **Recommendation:** No immediate rate increases are necessary.
- With the exception of parking in an accessible space without a permit, Saint John's parking fines appear to be consistent with the other municipalities.
 - **Recommendation:** Saint John is recommended to increase the fine associated with the accessible parking violation to \$300 to match the best practices established in the comparator municipalities.
- The City of Saint John's parking requirements are generally observed to be consistent with the average of comparable municipalities.
 - **Recommendation:** No changes are considered necessary.
- **Recommendation:** For non-residential land uses, Saint John is recommended to adopt bicycle parking requirements similar to Moncton and Pickering, where the requirement is based on gross floor area rather than the number of vehicle spaces required.
- **Recommendation:** Saint John could consider adopting a shared parking policy similar to the City of Pickering, where the granted shared parking reduction is based on land use, time-of-day, and day type (weekday or weekend).
- **Recommendation:** Saint John could consider adopting a cash-in-lieu rate that represents approximately 50% of the costs to provide municipal parking, either in structures or surface lots. This would require further investigation outside of this parking strategy study.

- As observed during the parking utilization surveys, there is an opportunity to expand upon the number of permits sold at several off-street permit lots while remaining below the effective capacity threshold. It's estimated that up to 450-500 additional permits can be sold.
 - **Recommendation:** Saint John is recommended to increase the numbers of permits sold in the appropriate lots. A phase approach is recommended where the number of permits sold is increased incrementally in small amounts. This will prevent overselling.
- **Recommendation:** Improve upon existing TDM measures to promote alternative modes of transportation. Potential TDM measures include carpooling, cycling, transit, and carshare.
- Saint John's residential permit parking program applies a balanced approach to parking. Local residents are provided with priority while visitors are still permitted to park, albeit for a controlled duration.
- **Recommendation:** Additional residential permit parking programs Saint John could potentially adopt include:
 - Residential parking only: completely restricts on-street parking to users displaying a valid residential parking permit; and
 - Accessible On-Street Permit Program: accessible permit holders would be provided with a designated on-street parking space in a location decided through consultation between City staff and the applicant.
- Saint John's existing street cleaning and winter road maintenance practices are determined to be similar to those of the reviewed comparator municipalities.
 - **Recommendation:** Saint John could consider adopting a scheduled Uptown street cleaning strategy similar to St. John's. The existing alternate side parking restrictions would be maintained outside of the Uptown core while the restrictions would be rescinded within the core and a street cleaning schedule developed. This strategy would allow on-street parking on both sides of Uptown streets during the majority of the year, with on-street parking restricted during the short period street cleaning efforts are underway.
- Snow clearing practices slightly vary between municipalities in terms of the start and end times, and the period during which the winter restrictions are in effect.
 - **Recommendation:** The winter parking restrictions are ideally tailored to the local climate of each municipality, therefore Saint John's existing restrictions are recommended to be maintained.