



Spring Garden Area

Area Parking Study

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Executive Summary

In the summer of 2018, Spring Garden Area Business Association staff conducted a survey of on-street parking in the area. The goal of this project was to understand the issues surrounding the availability of parking within and around the Spring Garden Area. To achieve this, partial license plate information was recorded for vehicles parked along street segments in the Spring Garden area every thirty minutes during an eight-hour period.

A summary of the results of the survey are as follows:

- Nearly every street within the Spring Garden area is on average, at or above capacity because of illegal parking.
- Peak parking times are: 1pm to 2pm on weekdays, and between 11am to 11:30am, and 1:30pm to 3pm on weekends.
- On weekdays, 77% of on-street parkers stayed for 90 minutes or less with the largest percentage of parkers staying 30 minutes or less. On weekends, the proportion shifts and 68% of parkers stay 90 minutes or less.
- Off-street parking occupancy is on average at 80% of capacity on weekdays at peak time (12pm-2pm) and 67% capacity on weekends (2pm-3pm)

It is clear from the current findings that there is a high demand for parking within the Spring Garden Area, with average parking occupancy rates above 70% on all streets and a peak occupancy rate of 100% on six of the seventeen streets surveyed. However, the occupancy rate of off-street parking lots in the area never exceed 80% on average. This means that there is capacity available in the area but it is not being used efficiently.

Parking turnover is another area of concern. Only three streets met or exceeded their benchmark turnover rate. Illegal parking contributed to this, however a larger issue may be a lack of clarity around where, when and how long parking is allowed in different areas.

The results indicate that there is a need for increased enforcement during peak times as well as clarity of all the parking options available to visitors to the area and the rules that regulate them. The Spring Garden Area Business Association is committed to working with the Municipality and private lot operators to address these issues.

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Introduction

Parking is a significant planning policy focus of the Halifax Regional Municipality (HRM), as expressed in documents such as the 2008 Regional Parking Strategy Functional Plan, 2015 Parking Roadmap, and 2017 Integrated Mobility Plan. However, while these documents recognize the role parking policy can play in achieving transportation and sustainability goals, they do not specifically focus on conditions in the Spring Garden Area Business Improvement District (BID). This is despite recognition by both the municipality that parking conditions in the area are an ongoing concern (HRM, 2015). With the anticipated release of Package B of the Draft Regional Centre Secondary Municipal Planning Strategy (RCSMPS), which will include policies encompassing the Downtown Halifax BID, and the forthcoming Spring Garden Road Streetscaping project, it is timely to address parking here.

Goal:

The goal of this project is to understand the issues surrounding the availability of parking within and around the Spring Garden Area (SGA).

Objective:

The objectives of this project are to:

1. Record the number and type of parking spaces around the SGA along with current parking habits including lengths, violations, and enforcement; and
2. Identify parking issues that are currently impacting the SGA.

Approach:

The Parking Survey was conducted by gathering quantitative information on the length of time vehicles spent in parking spots, violations and enforcements within and around the SGA. The data was collected through a process of recording license plate, violation, and enforcement information every thirty minutes during an eight-hour period.

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Methods

To determine current parking conditions within the SGA it was necessary to collect information through the use of field observations and the recording of parking habits. Observers collected on-street parking both within the SGA and within a three-minute walk of the area. Due to the size of the study area, it was divided into three parts each taking approximate thirty minutes to walk and survey.

Area One:

Spring Garden Road from Summer Street to South Park Street, South Park Street from Sackville Street to Morris Street, and Breton Street from Spring Garden Road to Morris Street.

Area Two:

Dresden Row from Sackville Street to Morris Street, Birmingham Street from Sackville Street to Morris Street, and Brenton Place to Clyde Street.

Area Three:

Queen Street from Sackville Street to Morris Street, Brunswick from Spring Garden Road to Sackville Street, Spring Garden Road from Birmingham Street to Grafton Street and Artillery Place.



Methods

Field observations and surveying took place weekdays on Tuesday and Thursday from 9am to 5pm (typical working hours) and during the weekends on Saturday from 10am to 6pm between May and September 2018. These observation dates and times were chosen to observe issues that may only arise during certain times of the day or week.

An initial inventory was compiled of the available parking supply and parking controls within the SGA. Only on-street parking was included within the field observations and surveying. On-street parking within the area included a range of metered and non-metered spaces along with permit only, accessible spaces, and temporary loading zones. Each legal parking space, along with potential illegal parking spaces, were recorded onto an excel spreadsheet. 335 legal parking spaces were identified in the Spring Garden area.

For the parking survey, each area was recorded in thirty-minute periods over eight hours. During each round the first three digits of each license plate (to maintain privacy) was recorded along with the vehicles parking location and any violations.

Note: As defined by the Motor Vehicle Act of Nova Scotia the use of a loading zone is only permitted while a vehicle is being actively loaded. If a vehicle is not being actively loaded it is considered parked and therefore in violation of the law. For this reason, only vehicles that were not being actively loaded within a loading zone were recorded within this survey.



Analysis and Findings

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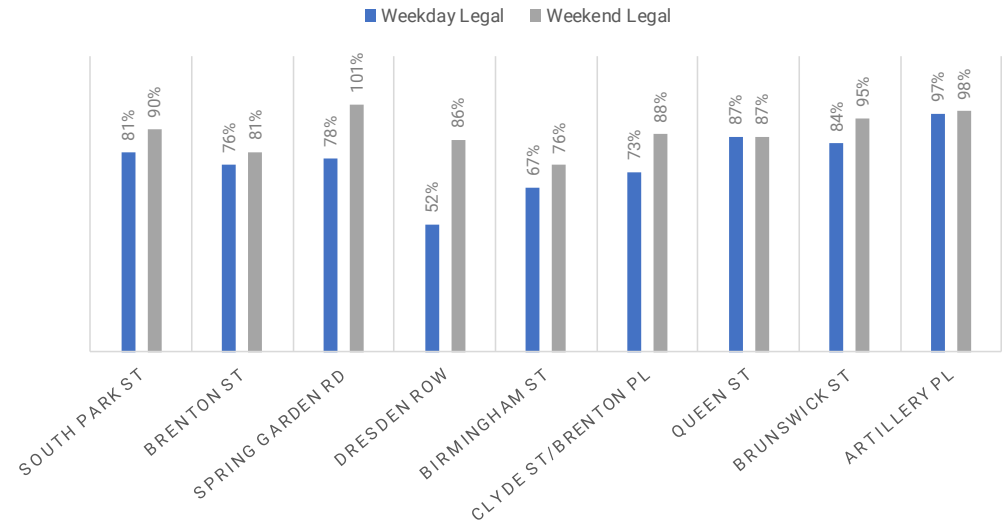
Parking Occupancy

Parking occupancy, or utilization, is the percentage of the total parking capacity for an area occupied by vehicles at a given time. Weekday rates and weekend rates were calculated for every 30-minute observation interval and then averaged across the observation period to provide a daily condition indicator by street as well as an hourly indicator for the whole area. To compensate for the illegal parking that was observed, two occupancy rates were calculated: one for legal parking spaces (metered space, free parking zone, etc.), and another that includes illegal spaces (no parking zone, double-parking at a meter, etc.). It should be noted that the combined legal and illegal occupancy rate can exceed 100%, as the figure is calculated in relation to the capacity of legal spaces. It is important to note that in cases where the occupancy rate exceeds 100% due to the combination of legal and illegal parking this does not necessarily indicate that parking is unavailable.

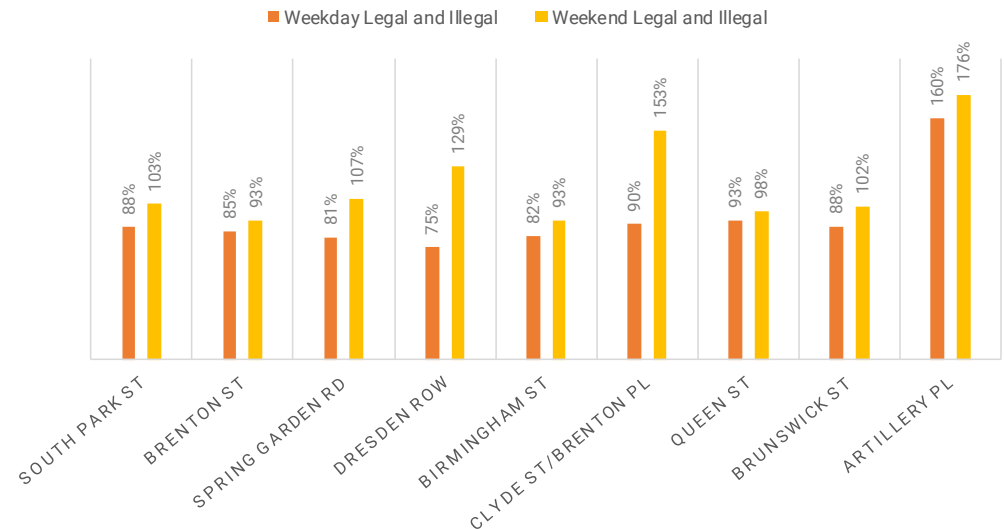
Parking Occupancy Rates by Street

The legal parking occupancy rate does not exceed capacity on all but one street, Spring Garden Road, and only on weekends. However, Artillery Place, Brunswick Street and South Park Street are all near capacity both during the week and on weekends. This indicates a higher demand for on-street parking in these locations. Looking at the combination of legal and illegal parking, occupancy is exceeded by almost every street on weekends, indicating an overall higher demand for on-street parking on the weekends.

**AVERAGE ON-STREET PARKING OCCUPANCY RATES
(WEEKDAY, 9AM-5PM; WEEKEND, 10AM-6PM)**



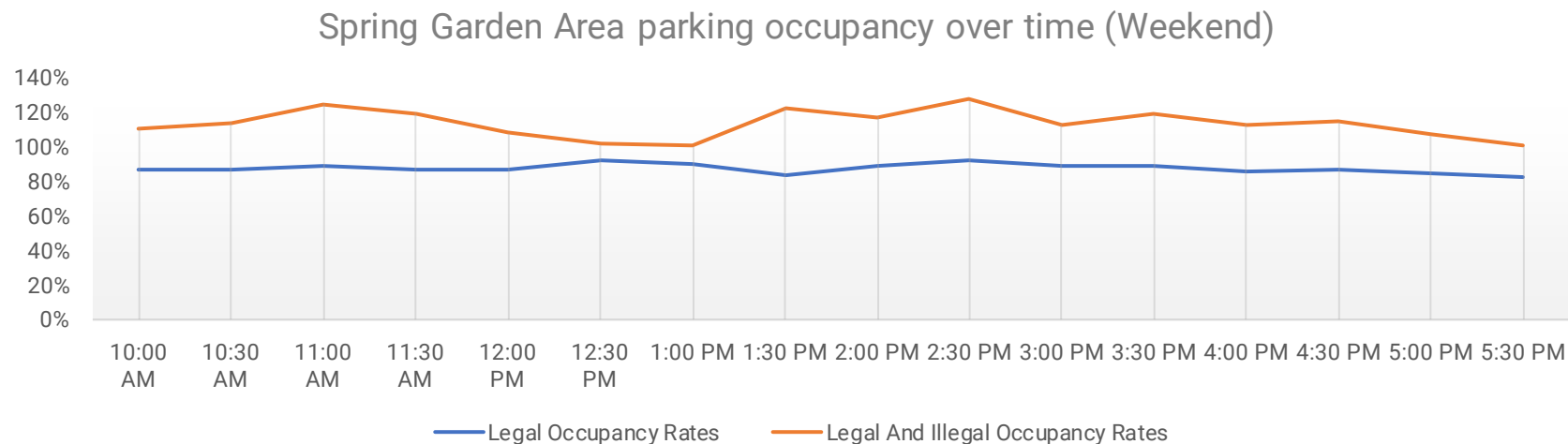
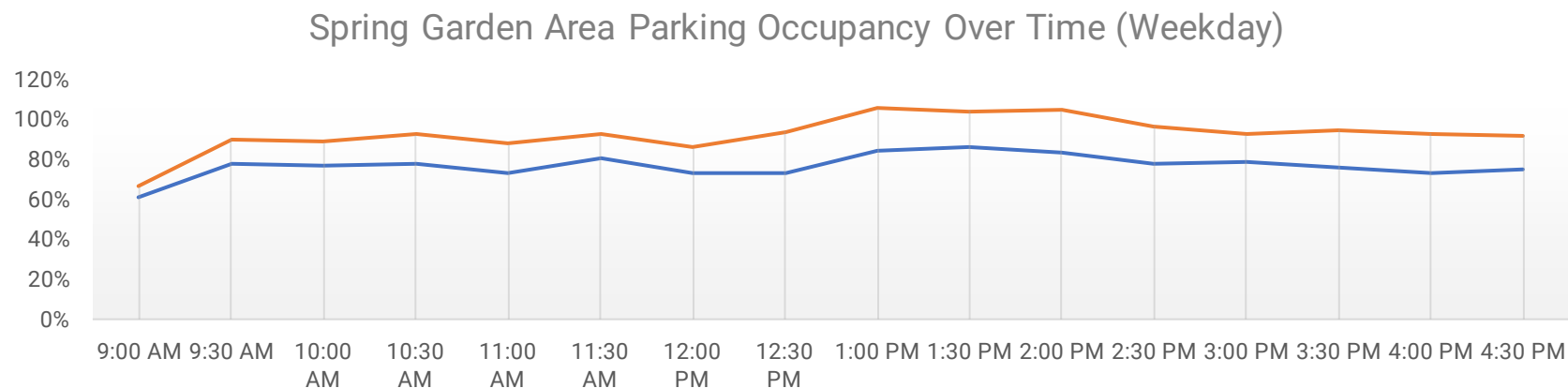
**AVERAGE ON-STREET PARKING OCCUPANCY RATES
(WEEKDAY, 9AM-5PM; WEEKEND, 10AM-6PM)**



Parking Occupancy

Parking Occupancy Rates Over Time

Peak occupancy occurred between 1 and 2 pm on weekdays, and 2 and 3pm on weekends. During the week, the rate of occupancy of illegal parking compared to legal parking stayed approximately the same. However, the rate of occupancy of illegal parking compared to legal parking on weekends increased significantly during peak times. The occupancy rate was already at 80% when surveying began, indicating that parkers arrived early to claim the legal parking spaces. Peak illegal parking times occurred between 10:30 to 11:30am and 1 to 3pm. This indicates that there was an influx of visitors during this time. The relatively stable rate of legal parking occupancy means one of two things, either parkers stayed longer throughout the day compared to during the week, or demand was high enough that legal spaces were filled before the investigator came back to check on the space.

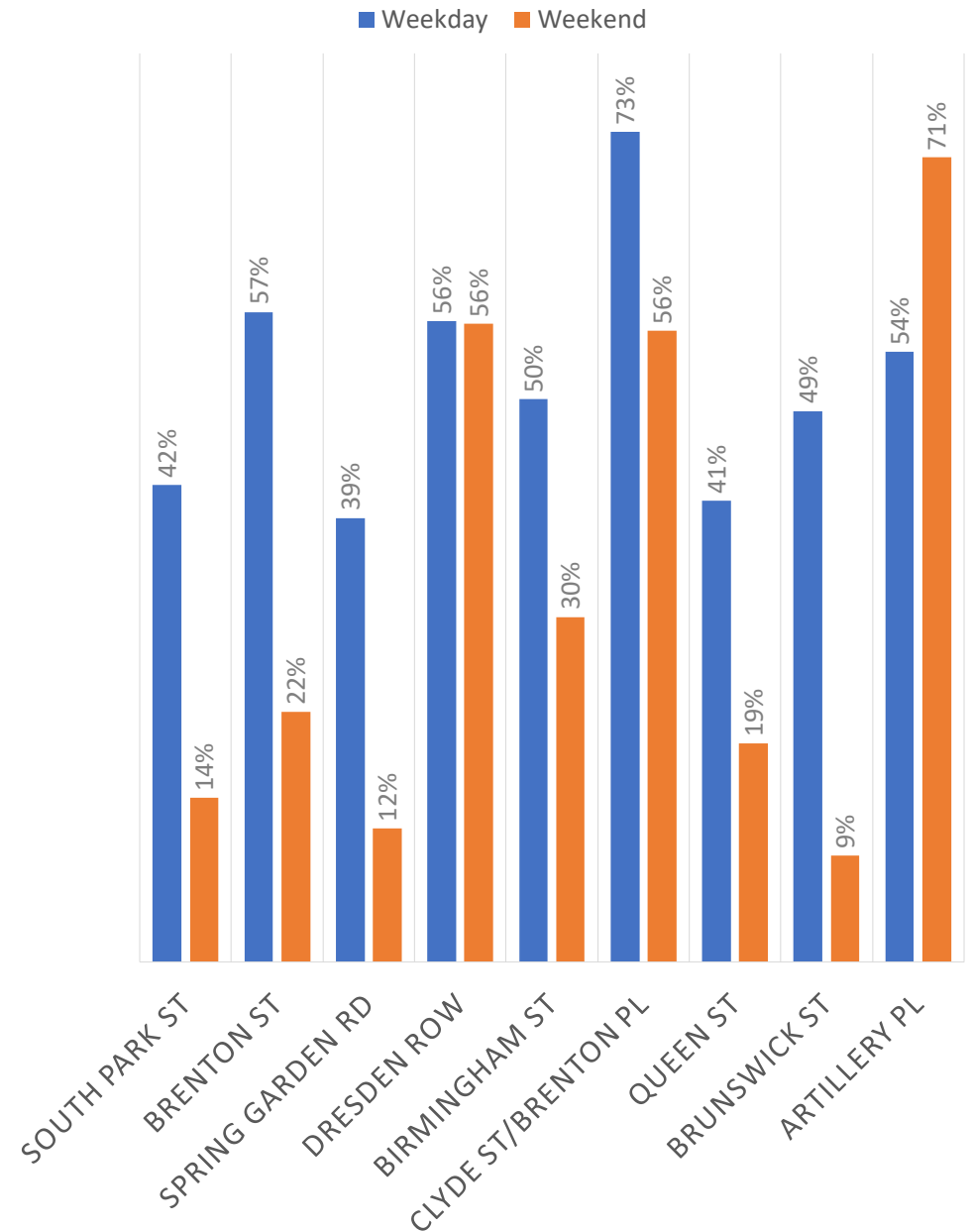


Illegal Parking

The illegal parking rate is the percentage of unpaid or unpermitted vehicles in legal and illegal spaces relative to parking occupancy for an area. Like parking occupancy, these figures were calculated for each observation interval for all spaces in a sample area and averaged across all observations periods to provide a general indicator for each survey area. It should be noted that this rate describes vehicles parked illegally, which can include vehicles illegally parked in legally-designated spaces (e.g., unpaid meters), rather than just vehicles parked in illegal spaces.

The overall rate of illegal parking is significantly higher during the week than it is on the weekend. This may be primarily because there are fewer parking restrictions on weekends than on weekdays. Increases in illegal parking rates on weekends may be caused by higher demand for on-street parking in those areas. Additionally, over the course of surveying over one thousand parking infractions were recorded while less than fifty tickets were issued. Therefore, another reason for high rates of illegal parking may be that the current level of enforcement may not be a sufficient deterrent to illegal parking.

AVERAGE ON-STREET ILLEGAL PARKING RATES (TOTAL NUMBER OF VEHICLES DURING SURVEY PERIOD/TOTAL NUMBER OF VIOLATIONS DURING SURVEY PERIOD)



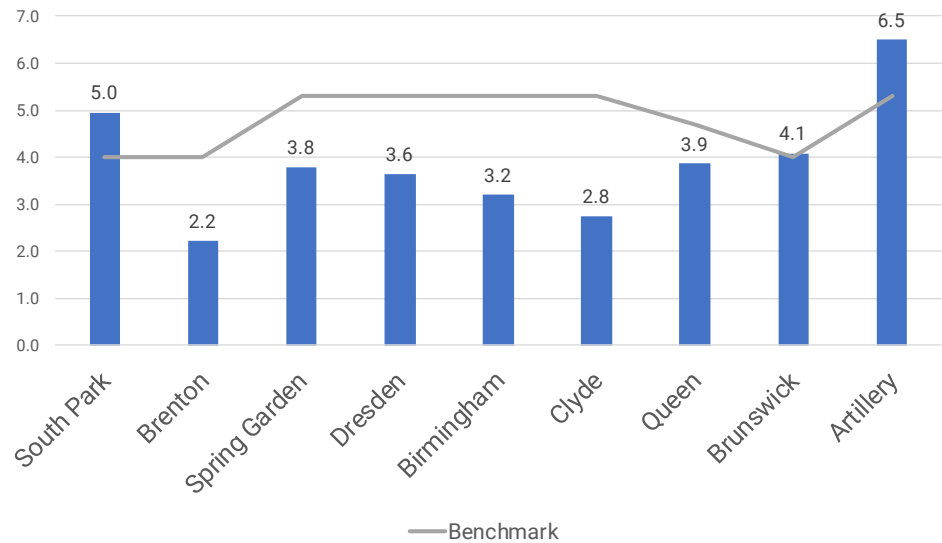
Turnover Rate

Parking turnover refers to the number of vehicles that use a space over the course of the observation period (8 hours). Turnover was calculated for each street segment for the observation period and averaged across all spaces to provide a general indicator for each street segment. The average parking turnover can be compared to a street segment's benchmark parking turnover, which is the capacity of the segment if every parking meter was used for the observation period to their maximum legally designated meter time.

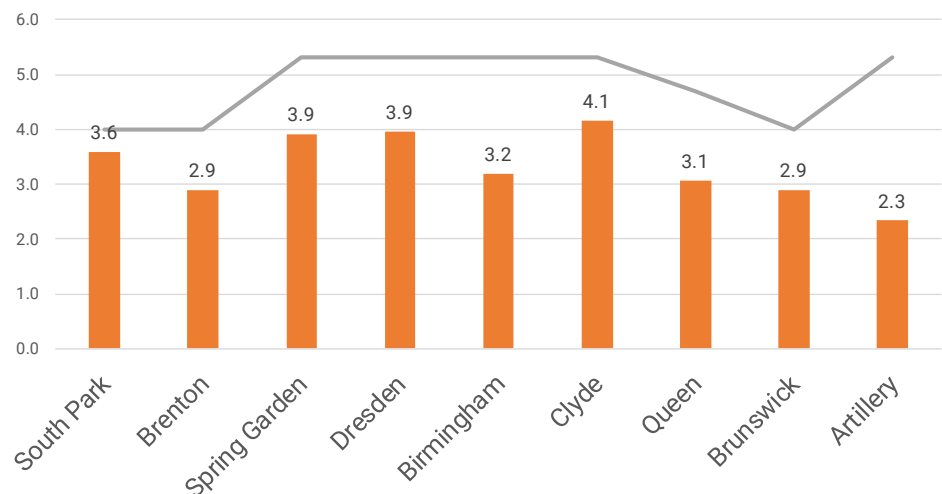
On weekdays, nearly every street performs below the benchmark with only South Park Street, Artillery Place and Brunswick Street operating at their benchmark or better. One reason for this may be because there are fewer meters on the below benchmark streets and the parking rules are less clear. On weekends, every street operates below their benchmark. This is expected because the incentive to reduce parking times is less (no cost, less enforcement).

Note: When calculating benchmark parking turnover for areas containing parking spots with non-specified maximum designated times the following was used: For permit only parking, each permit only spot was given a parking turnover rate of 1, to represent residential on street parking. For loading zones that became free weekend parking a turnover rate of 5.3 or a maximum parking duration of 90 minutes.

Average on-street parking turnover by # of vehicles
(Weekday, 9am-5pm)



Average on-street parking turnover by # of vehicles
(Weekend, 10am-6pm)

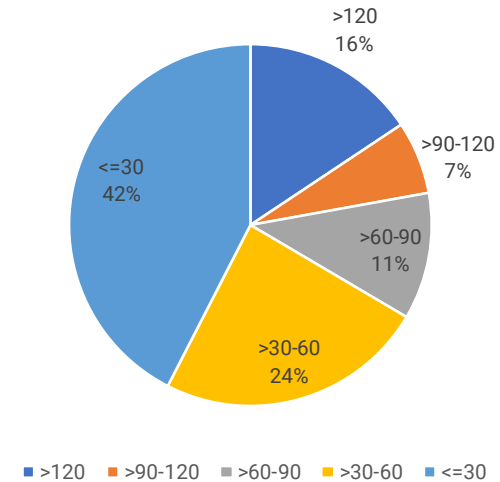


On-Street Parking Duration

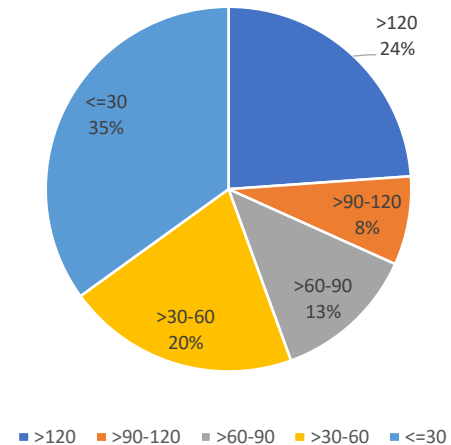
Closely related to parking turnover is parking duration, a measure of the time a vehicle is parked. Parking duration was calculated for each vehicle in each parking space. This was summarized for the whole area by adding a count of all the parking durations within a specific time category for each vehicle observed and dividing that by the total number of vehicles. Parking durations were counted for 1487 vehicles during the weekend surveying and 2520 vehicles during weekday surveying.

On weekdays, nearly 75% of parkers parked for 90 minutes or less with the largest percentage of parkers staying 30 minutes or less. On weekends, the proportion shifted and 34% of parkers stayed longer than 90 minutes. One explanation for this is that parkers are staying longer on weekends because there is less incentive to move.

Weekday On-Street Parking Duration (Min)

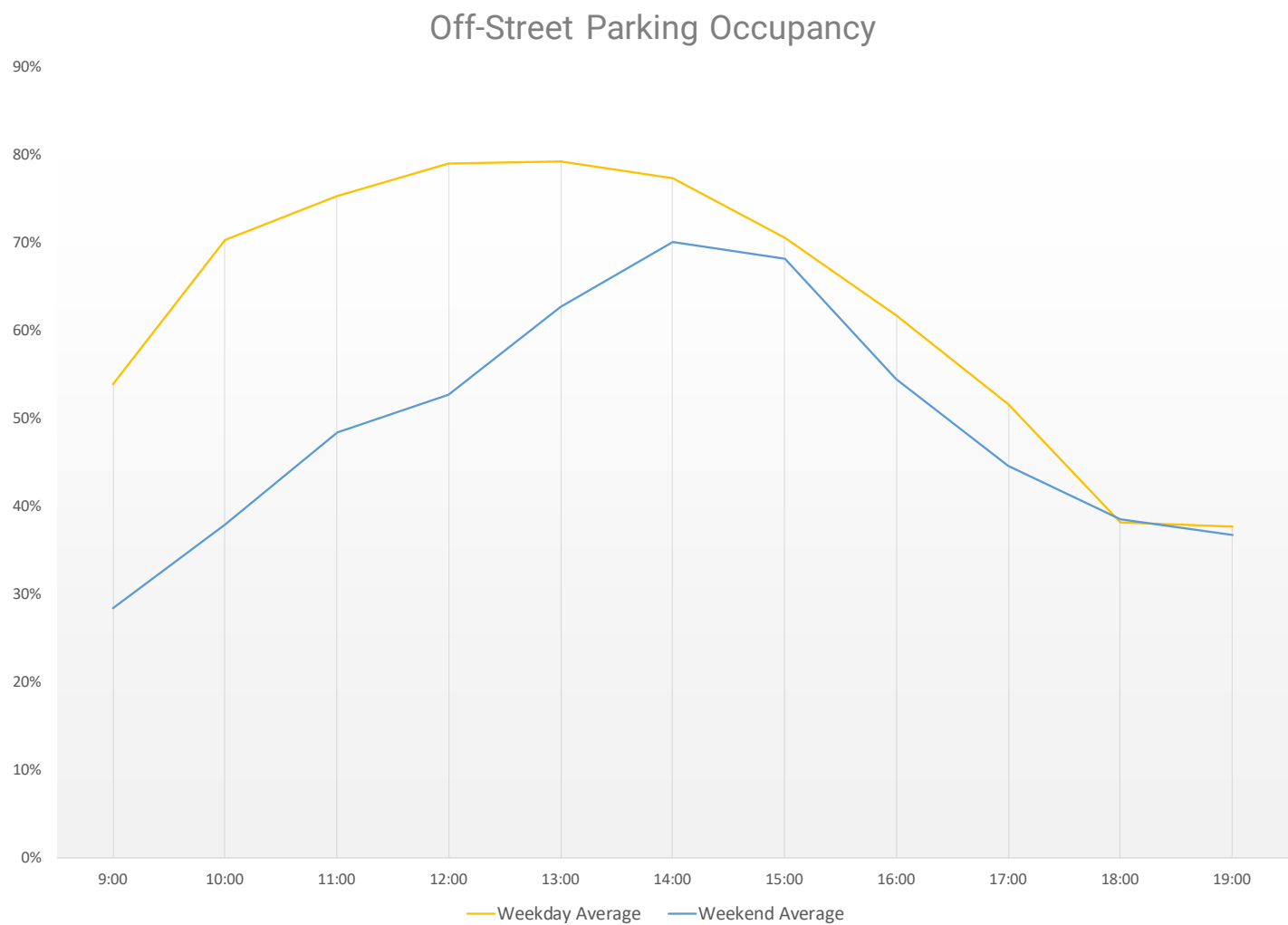


Weekend On-Street Parking Duration (Min)



Off-Street Parking

Off-street parking occupancy was calculated by averaging the hourly occupancy of three private parking lots in the Spring Garden area. These finding show that the peak times for off-street parking generally line up with the peak times for on-street parking. However, the occupancy rates are not the same. There is, on average, a 20% vacancy rate during peak times on weekdays and 35% vacancy rate during peak times on weekends.



1870

Off-street parking spaces within a 5 min walk of the Spring Garden Area

1.5

Number of hours the average vehicle stays in an off-street parking space

13

Number of off-street parking lots within a 5 minute walk of the Spring Garden Area

Limitations

The scope of the survey was limited due to the use of a sole investigator. This required the survey to have a thirty-minute gap period around midday for the investigator to rest and eat. While breaks were staggered at different times on different days, it is impossible to know how long vehicles remained or arrived at a parking location during this time. Likewise, the survey did not consider if vehicles were parked for an extended period of time before or after the survey was conducted. Each vehicle is therefore considered to have arrived and remained only for the periods of time that survey was conducted. The one exception to this limitation occurred when the vehicle received a ticket from a parking enforcer indicating that the vehicle arrived at an earlier time and has overstayed their time limit. Another limitation is that the observations for the survey were performed at thirty-minute intervals, meaning the data and metrics does not account for any vehicles that may have parked and departed in less time.

It is important to note that the very presence of the investigator decreased the chance of parking violations within the study site. People often assumed that the investigator was a parking enforcement officer. On multiple occasions it was observed that people quickly moved their vehicles or checked meters as the investigator approached to avoid possible tickets.

While recording the first three digits of each license plate respects privacy it does not allow the survey to consider meter hopping, the act of moving a vehicle to a new meter within the area to avoid the parking time limit. Additionally, this survey could not consider meters that had been paid through the "Hot Spot" parking app. These meters were seen as unpaid by the surveyor and were recorded as such. It is important to note that the use of the "Hot Spot" parking app makes up approximately 1% of the total parking payments so the margin of error is quite small.

The Spring Garden area is currently undergoing a large amount of new development. With this new development a large portion of the workers park their vehicles in the area. Construction workers must adhere to the parking regulations of the area unless they are using a company vehicle within the confines of the job site, these vehicles were excluded from the survey. This influx of vehicles often resulted in meter feeding and meter hopping. It is important to note that this increase in commuter workers may skew the data by inflating the demand and the number of parking violations. The previously mentioned construction within the SGA has removed several on-street parking meters. This temporarily skews parking supply until the construction is complete.

Conclusion

It is clear from the current findings that there is a high demand for parking within the Spring Garden Area, with average parking occupancy rates above 70% on all streets and a peak occupancy rate of 100% on six of the seventeen streets surveyed. However, the occupancy rate of off-street parking lots in the area never exceed 80% on average. This means that there is capacity available in the area but it is not being used efficiently.

The results show a high level of illegal street parking as well. The rate of illegal parking ranged from 39% to a 73% on weekdays. A certain level of illegal street parking is expected to take place, as people are often reluctant to pay for parking or wait to find a parking space with the necessary allotted time limited. However, even during Saturday surveying when there is rarely time limits and no parking charge, illegal parking rates still ranged as high as 80% on streets with Saturday time limits and 61% on streets with no time limit. Additionally, a significant amount of illegal parking that is not being captured by violations issued by parking enforcement. During the nine survey days over one-thousand individual parking violations were recorded or, approximately fourteen new parking violations every hour that the survey was being conducted. However, during the same period less than 50 tickets were distributed by parking enforcement.

Parking turnover is another area of concern. Only three streets met or exceeded their benchmark turnover rate. Illegal parking contributed to this, however, a larger issue may be a lack of clarity around where, when and how long parking is allowed in different areas.

The results indicate that there is a need for increased enforcement during peak times as well as clarity of all the parking options available to visitors to the area and the rules that regulate them. The Spring Garden Area Business Association is committed to working with the Municipality and private lot operators to address these issues.