



Traffic Data Centre

2019

Parking Stress Assessment



London Borough of Sutton

Area 3

Parking Stress Assessment – London Borough of Sutton

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Version Control

Rev	Prepared by	Quality Checked by	Approved by	Detail
01	Gina Cuzuban	Barry Hallam	Felix Emmanuel	Initial Issue

2 INTRODUCTION

2.1 BACKGROUND

Following adoption of the Parking Strategy in September 2016, the London Borough of Sutton has undertaken a range of information gathering and consultation processes. In late 2017 / early 2018 the first resident's survey on the Parking Strategy was undertaken covering 43,000 households. This gave a better understanding of residents parking concerns to begin considering potential solutions. Further consultations are ongoing for Areas 2 & 3.

To support the proposals being proposed in various roads, the Council appointed Traffic Data Centre (TDC) carry out a Parking Stress Assessment/Parking Beat Survey. The purpose of the Survey is to assess trends of parking demand associated with specific attractors in the borough and provide additional insight into parking trends within all the 4 Council Wards covered by this consultation (Area 2) area sampling 13 roads. These surveys covered each road (See 2.2) for the day at regular intervals of 2 hours in order to build a profile of the parking demand in the road throughout the day. All roads were surveyed on both a weekday and a weekend.

2.2 SITE LOCATIONS

Selected roads in 4 Council Wards in Area 3 were surveyed. The areas surveyed are shown in *Figure 1*.

Figure 1: Map of surveyed Areas



Table 1: Roads included in survey

<u>Ward</u>	<u>Road</u>	<u>Survey Days</u>
Nonsuch	<i>Hampton Road</i>	<i>Weekday & Weekend</i>
	<i>Moreton Road</i>	<i>Weekday & Weekend</i>
Wallington North	<i>Belmont Road</i>	<i>Weekday & Weekend</i>
	<i>Grosvenor Road</i>	<i>Weekday & Weekend</i>
	<i>Melbourne Road</i>	<i>Weekday & Weekend</i>
	<i>Springfield Road</i>	<i>Weekday & Weekend</i>
Wallington South	<i>Clarendon Road</i>	<i>Weekday & Weekend</i>
	<i>Onslow Gardens</i>	<i>Weekday & Weekend</i>
	<i>Ross Road</i>	<i>Weekday & Weekend</i>
Worcester Park	<i>Green Lane</i>	<i>Weekday & Weekend</i>
	<i>Longfellow Road</i>	<i>Weekday & Weekend</i>
	<i>St Philip's Avenue</i>	<i>Weekday & Weekend</i>
	<i>Washington Road</i>	<i>Weekday & Weekend</i>

3 SURVEY METHODOLOGY

The following parking stress survey methodology was agreed with the Council in advance of surveys undertaken. Surveys were carried out on between 17 September and 28 September 2019. These provide a representation of a weekday and a weekend day, which are likely to have different parking patterns and characteristics.

3.1 PRE-SURVEY MEASUREMENTS

Prior to the surveys commencing a team from TDC visited each Ward to collect data regarding the current characteristics of each road to be surveyed. This included the restrictions and the distances of all kerbside space located on the public highway, noting areas of restricted and non-restricted carriageway.

Based on this data, the carriageway was split into theoretical spaces for parking, either as unrestricted kerbside or fully, or partially, restricted kerbside e.g. single or double yellow lines. Each individual section of carriageway was measured and divided by 5 metres (assumed to be a typical vehicle length). These calculations were used to prepare field sheets for use on survey day.

Separately, a calculation was also made of available, unrestricted, parking spaces (**capacity**). For this purpose, the results were rounded down e.g. if a length of available parking was only 4 metres then it was not classified as a place to park – unless it was an individually marked parking bay. On narrow roads where it is not possible to park on both sides of the road without obstructing the flow of traffic, the capacity was calculated by reference to one side only, being the side where most vehicles were parked. If, on such a road, vehicles were parked on both sides, the capacity for both sides of the road was calculated and the higher capacity side taken as available.

3.2 SURVEY DAY

Surveyors walked the area undertaking a parking beat every two hours. This ensured that data was captured regularly across the day to ensure periods of high demand were observed and parking patterns, such as durations of stay, were identifiable. The survey was scheduled to encompass the period from early morning (6am) through to early evening (post 6pm). The two hourly beats meant that exact start and end times varied across the survey area.

The number of vehicles parked upon each available parking section of restriction was noted during each beat, along with a partial vehicle registration number which was used to ascertain the length of stay of that vehicle.

3.3 SURVEY MONITORING

TDC Supervisor staff attended the sites during the survey in order to ensure that adequate resources were deployed and to undertake spot check surveys on several roads in each area. This allowed for subsequent cross-referencing of the data in order to ensure that reliable results were obtained during the analysis.

4 SUMMARY RESULTS

4.1 RESULTS

Detailed results can be found in [Appendix A](#)

The following is a summary showing, for each road surveyed, the maximum parking stress (vehicles parked divided by available spaces as a percentage) and the vehicles that parked all day as a percentage of those parked at the start of each day (6am).

Table 2: Summary of Results

Road	Ward	Capacity (available parking spaces)	Total length of parking spaces (m)	Weekday		Weekend	
				Maximum Stress	Vehicles parked all day	Maximum Stress	Vehicles parked all day
Hampton Road	Nonsuch	62	310	108%	54%	100%	55%
Moreton Road	Nonsuch	42	210	138%	45%	129%	58%
Belmont Road	Wallington North	36	180	169%	36%	172%	39%
Grosvenor Road	Wallington North	15	75	247%	29%	233%	19%
Melbourne Road	Wallington North	23	115	157%	34%	143%	39%
Springfield Road	Wallington North	53	265	108%	27%	87%	44%
Clarendon Road	Wallington South	17	85	141%	17%	112%	17%
Onslow Gardens	Wallington South	150	750	87%	15%	89%	44%
Ross Road	Wallington South	110	550	110%	17%	102%	36%
Green Lane	Worcester Park	60	300	103%	34%	98%	41%
Longfellow Road	Worcester Park	166	830	87%	6%	92%	42%
St Philip's Avenue	Worcester Park	52	260	119%	71%	121%	46%
Washington Road	Worcester Park	77	385	109%	22%	104%	46%

4.2 LEVEL OF PARKING STRESS

It is possible for the parking stress to exceed 100%. Taking Hampton Road as an example:

There is available parking on this road for 62 vehicles which consists of 1 Disabled Bay and some unrestricted lengths of road. At one point during the day all 62 spaces were occupied and an additional 5 vehicles parked on the road (across driveways) making a total of 67 vehicles and a stress of 108%.

5 RESULTS BY WARD

5.1 NONSUCH

Two roads were surveyed in Nonsuch. They were surveyed on a weekday (Wednesday 18 September 2019) and again on a weekend (Saturday 28 September 2019). The following charts illustrate the parking stress and duration of stay for the selected roads in this ward.

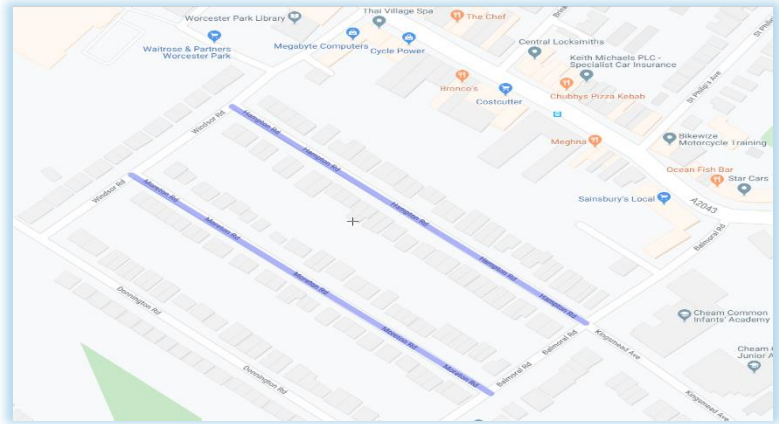


Figure 2: Nonsuch - Map of Surveyed Roads

Figure 3: Nonsuch - Weekday Parking Stress

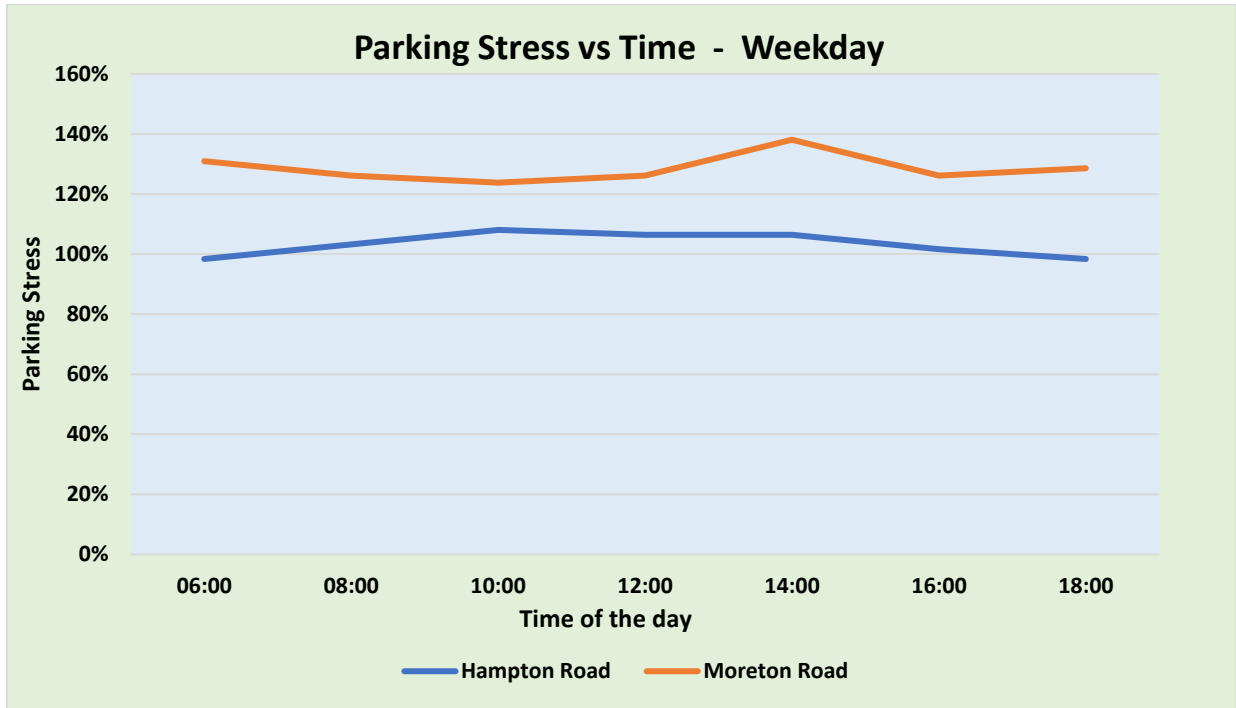


Figure 4: Nonsuch - Weekday Duration of Stay

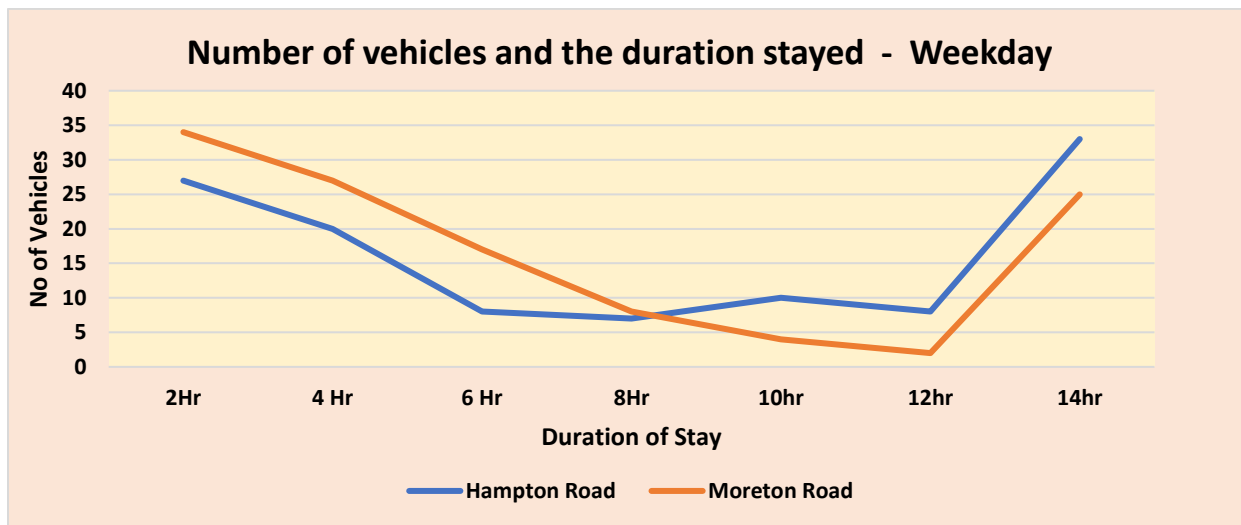


Figure 5: Nonsuch - Weekend Parking Stress

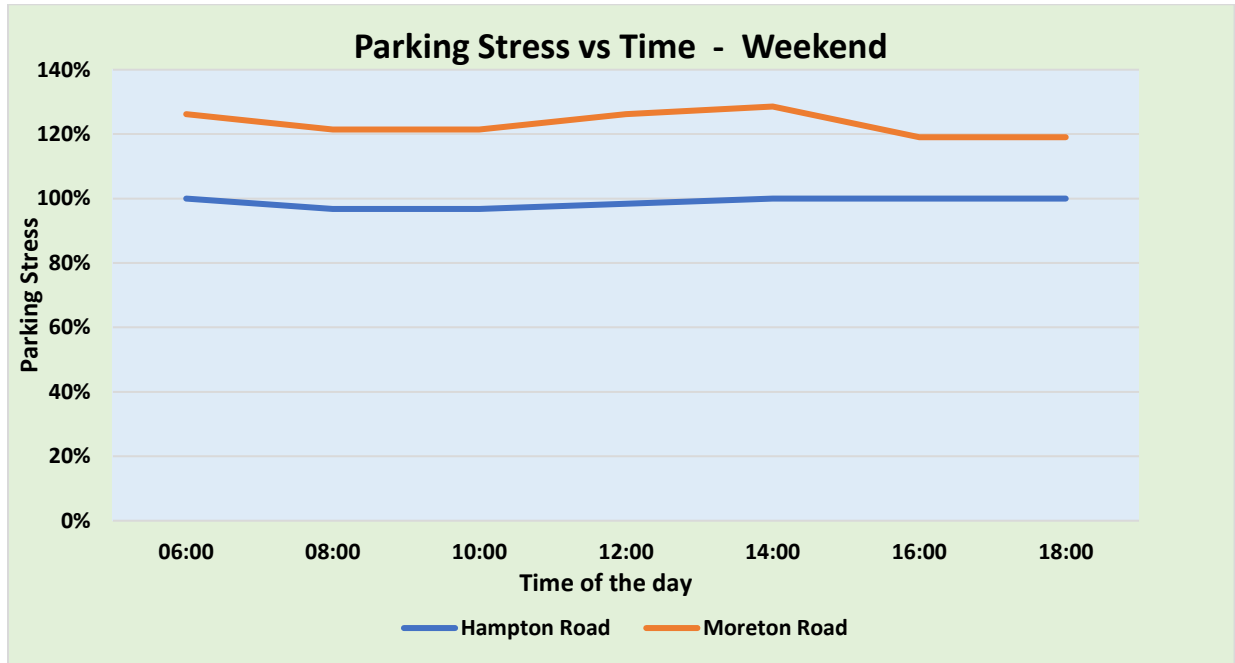
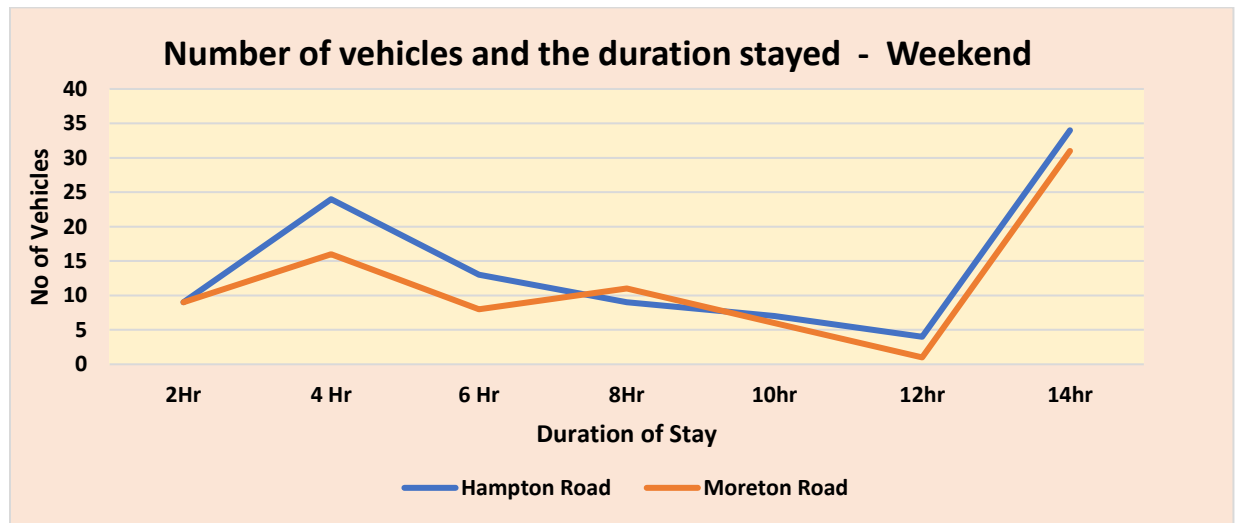


Figure 6: Nonsuch - Weekend Duration of Stay



5.1.1 Hampton Road

Hampton Road runs from Windsor Road to Balmoral Road. It is a straight residential road with mostly unrestricted parking and one Disabled Bay.



Figure 7: Hampton Road

Table 3: Hampton Road - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
310	62	67	108%	62	100%

Figure 8: Hampton Road - Weekday Parking Stress and Duration of Stay

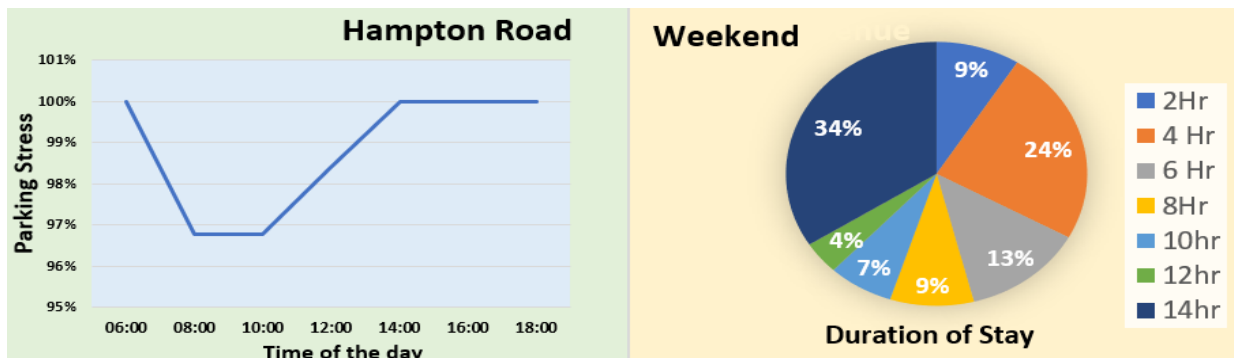
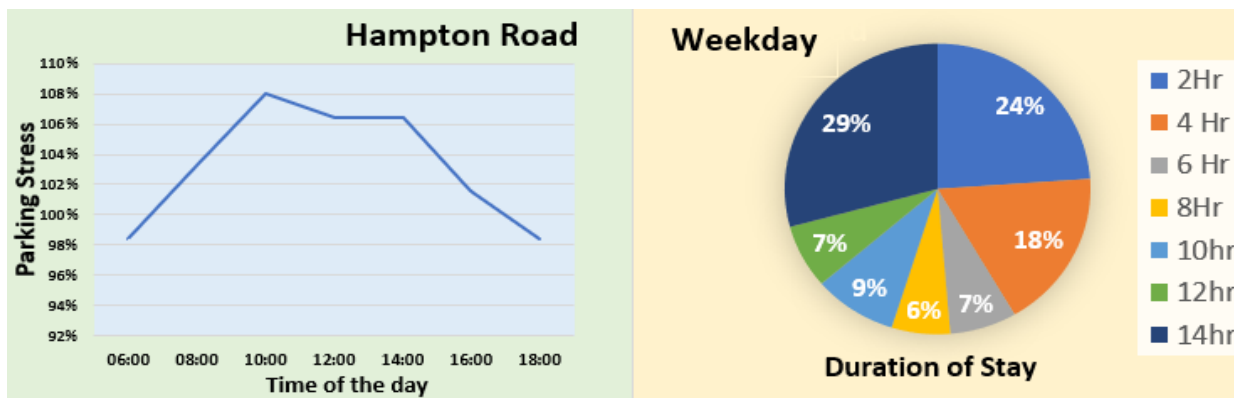


Figure 9: Hampton Road - Weekend Parking Stress and Duration of Stay



5.1.2 Moreton Road



Moreton Road Road runs from Windsor Road to Balmoral Road. It is a straight residential road with mostly unrestricted parking.

Figure 10: Moreton Road

Table 4: Moreton Road - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
210	42	58	138%	54	129%

Figure 11: Moreton Road - Weekday Parking Stress and Duration of Stay

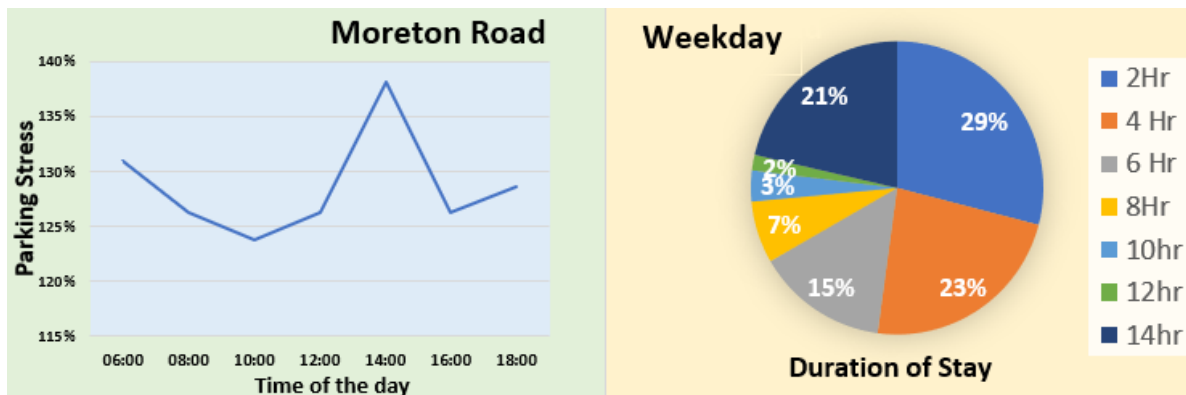
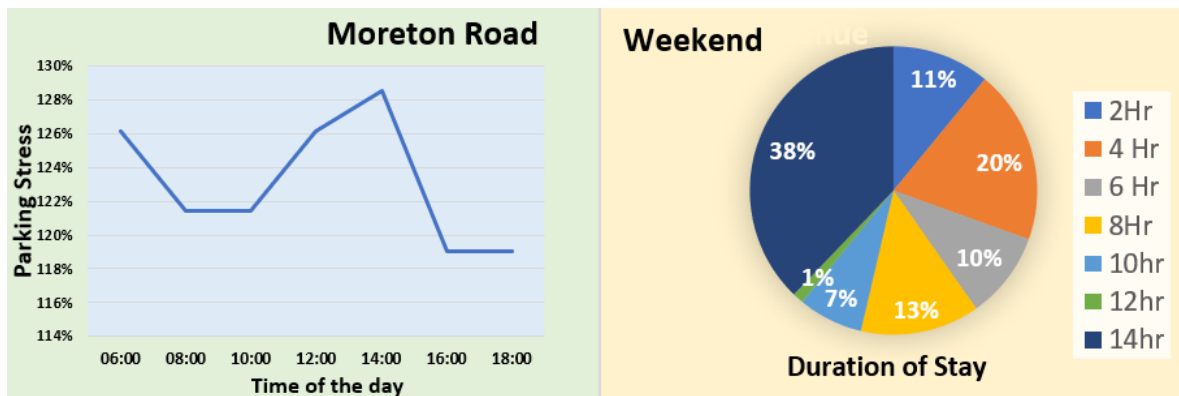


Figure 12: Moreton Road - Weekend Parking Stress and Duration of Stay



5.2 WALLINGTON NORTH

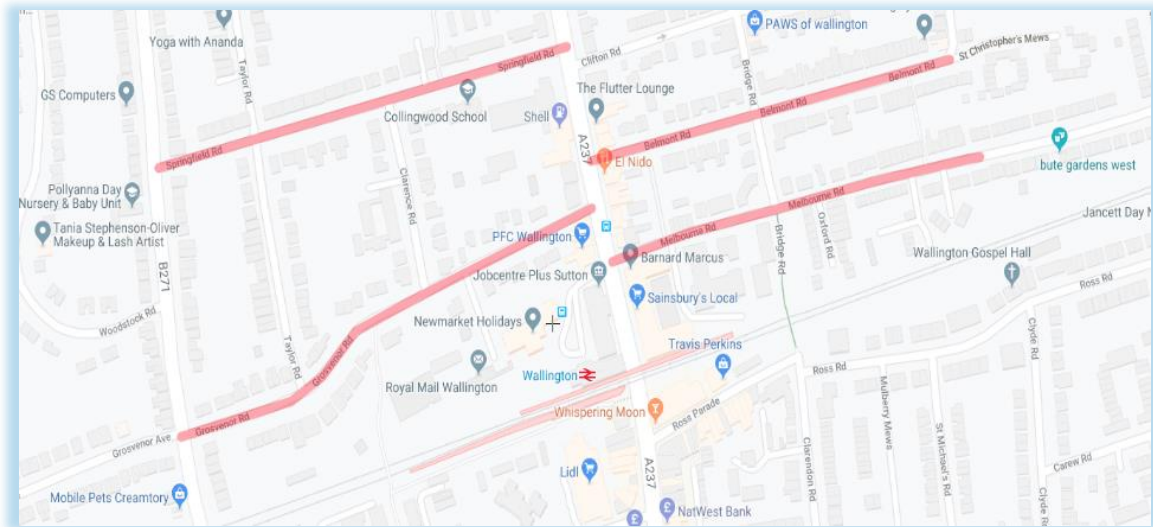


Figure 13: Wallington North – Map of surveyed roads

Four roads were surveyed in Wallington North. They were surveyed on a weekday (Thursday 19 September 2019) and again on a weekend (Saturday 21 September 2019). The following charts illustrate the parking stress and duration of stay for the selected roads in this ward.

Figure 14: Wallington North – Weekday Parking Stress and Duration of Stay

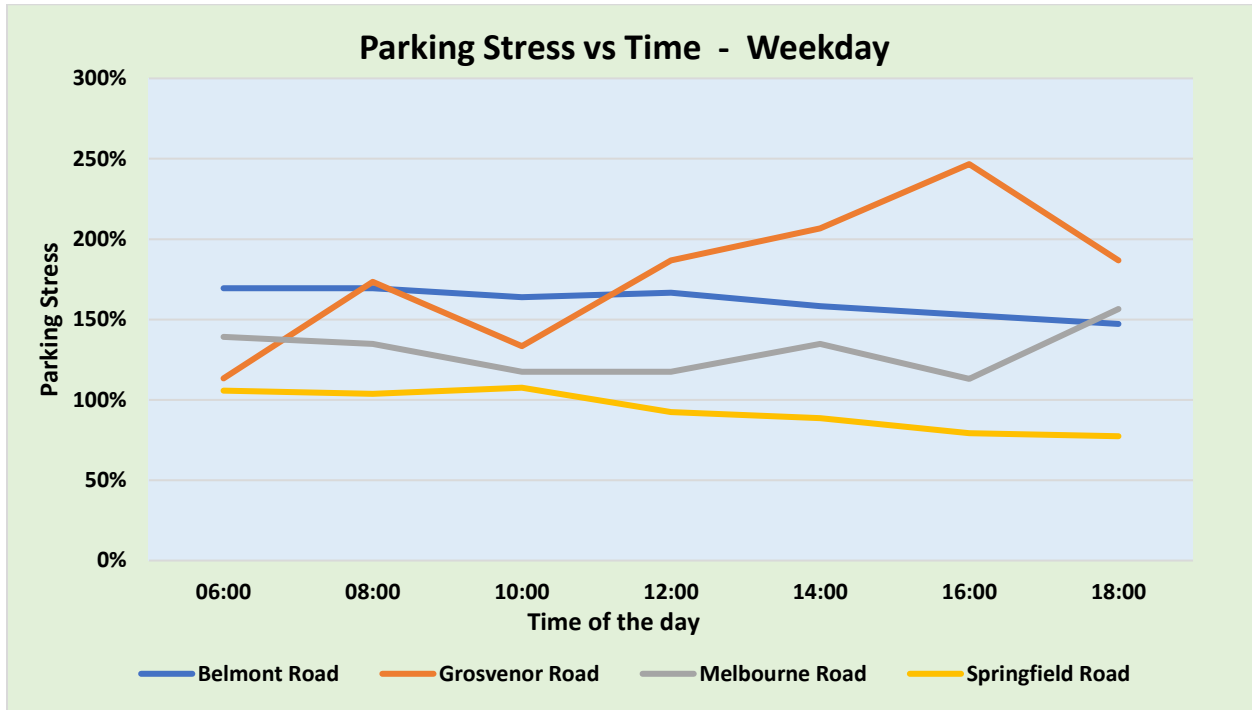


Figure 15: Wallington North - Weekend Duration of Stay

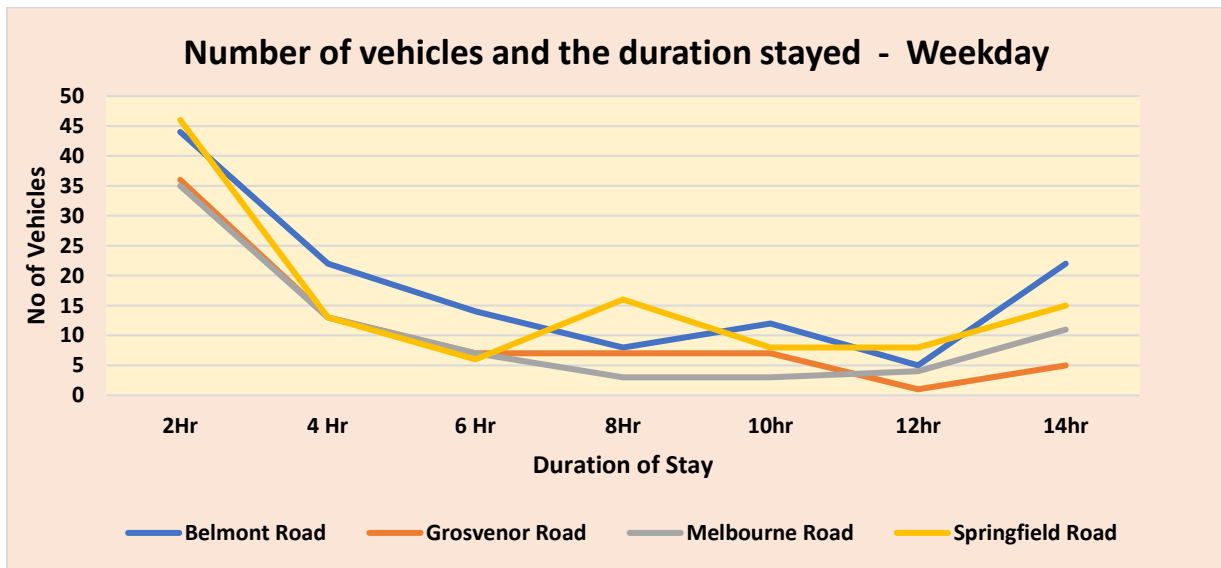


Figure 16: Wallington North - Weekend Parking Stress

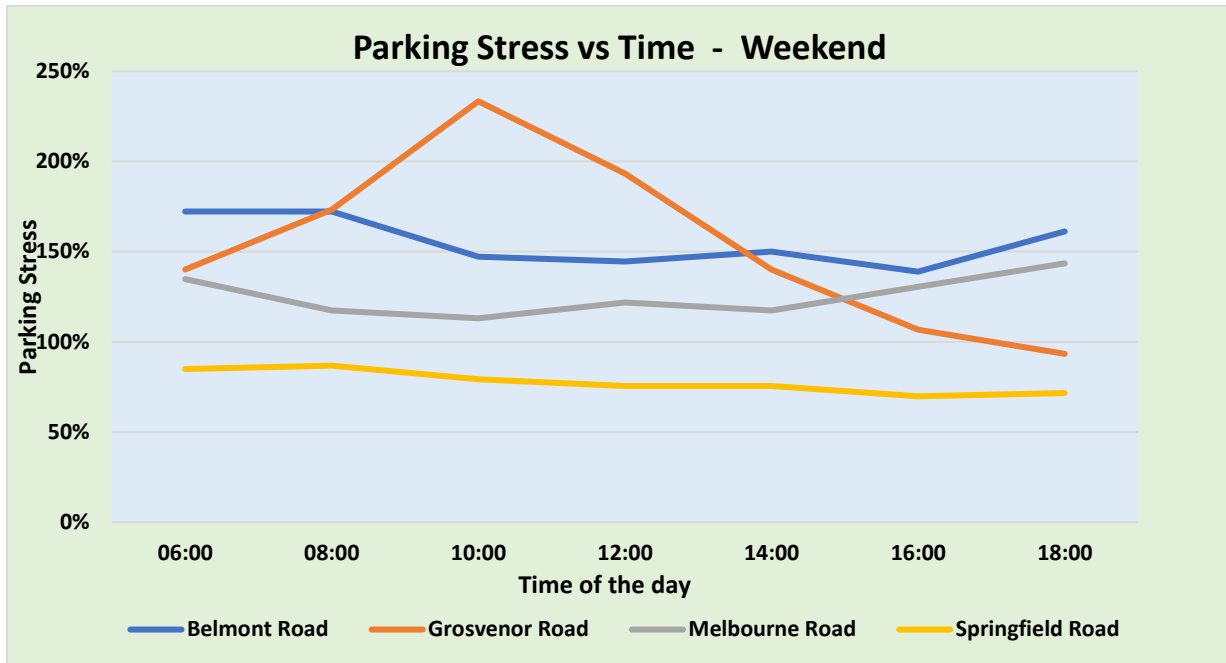
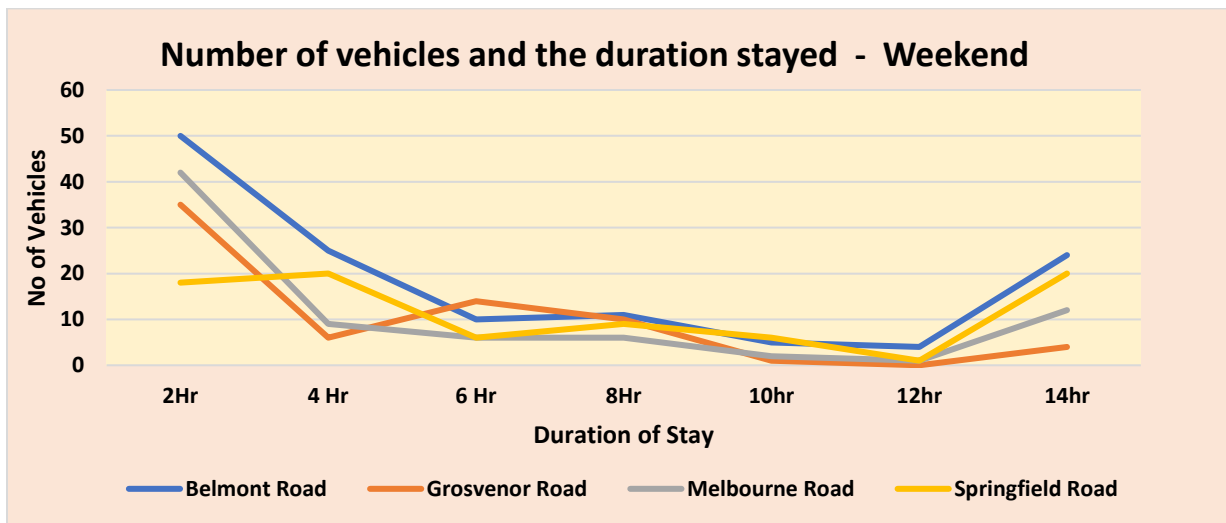


Figure 17: Wallington North - Weekend Duration of Stay



5.2.1 Belmont Road

Belmont Road is a straight residential road that runs between Bute Road and Manor Road. Parking is mostly unrestricted and there is one-way traffic for approximately half of the road (between Bridge Road and Manor Road).



Figure 18: Belmont Road

Table 5: Belmont Road - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
180	36	61	169%	62	172%

Figure 19: Belmont Road - Weekday Parking Stress and Duration of Stay

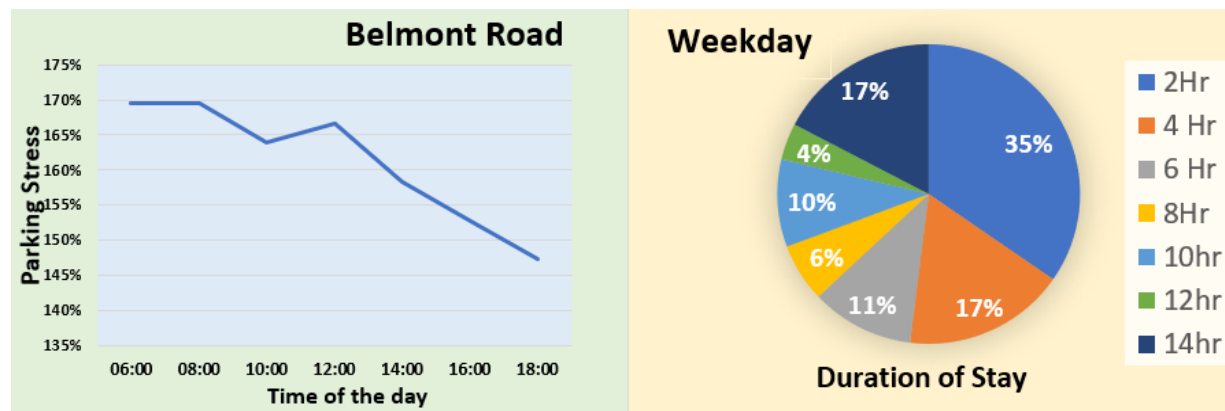
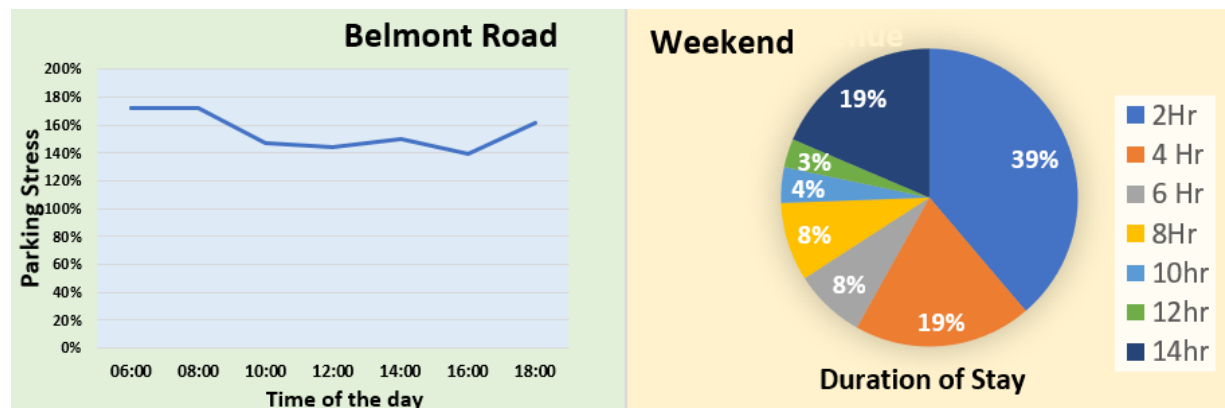


Figure 20: Belmont Road – Weekend Parking Stress and Duration of Stay



5.2.2 Grosvenor Road



Grosvenor Road is a residential road running between Manor Road to Park Lane. There is a mixture of restricted and unrestricted parking including some “Loading Only” spaces close to the shops on Manor Road.

Figure 21: Grosvenor Road

Table 6: Grosvenor Road - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
75	15	37	247%	35	233%

Figure 22: Grosvenor Road - Weekday Parking Stress and Duration of Stay

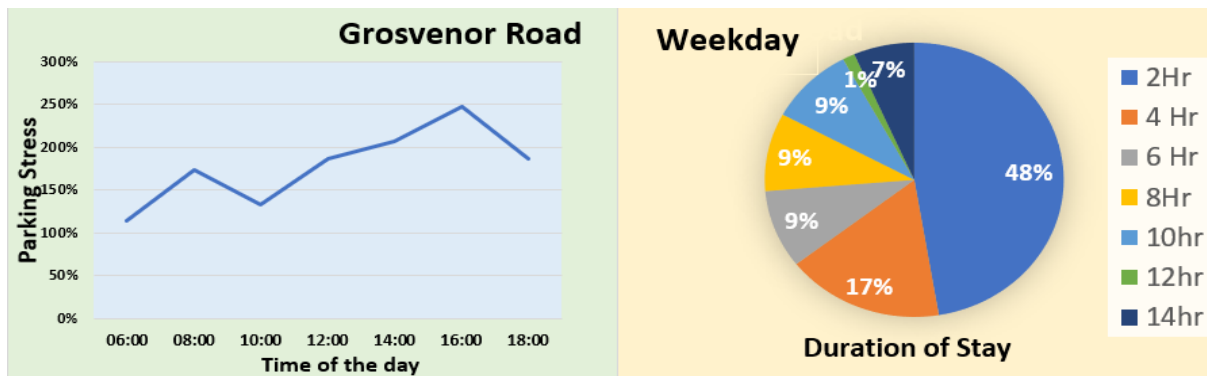
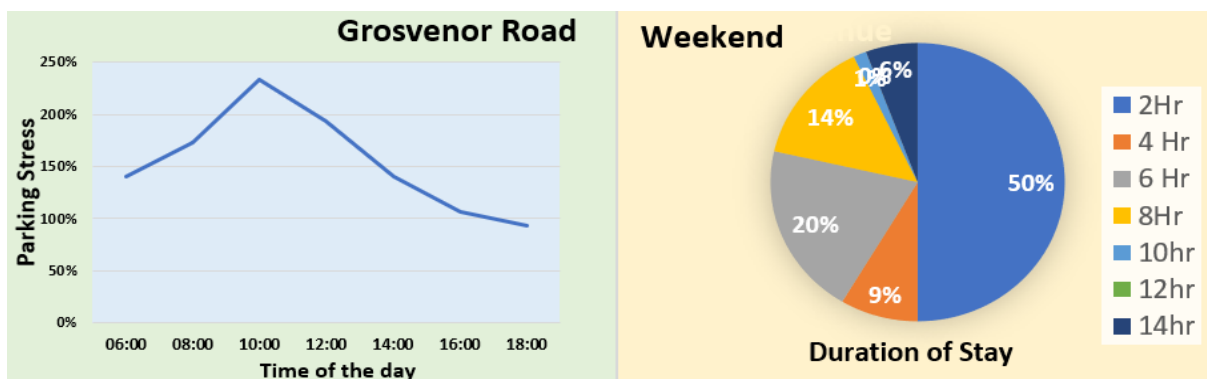


Figure 23: Grosvenor Road - Weekend Parking Stress and Duration of Stay



5.2.3 Melbourne Road

Melbourne Road is a mostly residential road between Manor Road and Bute Gardens West. There are some businesses and a carpark close to the junction with Manor Road. There are marked parking bays – for part-footway parking - and some unrestricted parking.



Figure 24: Melbourne Road

Table 7: Melbourne Road - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
115	23	36	157%	42	143%

Figure 25: Melbourne Road - Weekday Parking Stress and Duration of Stay

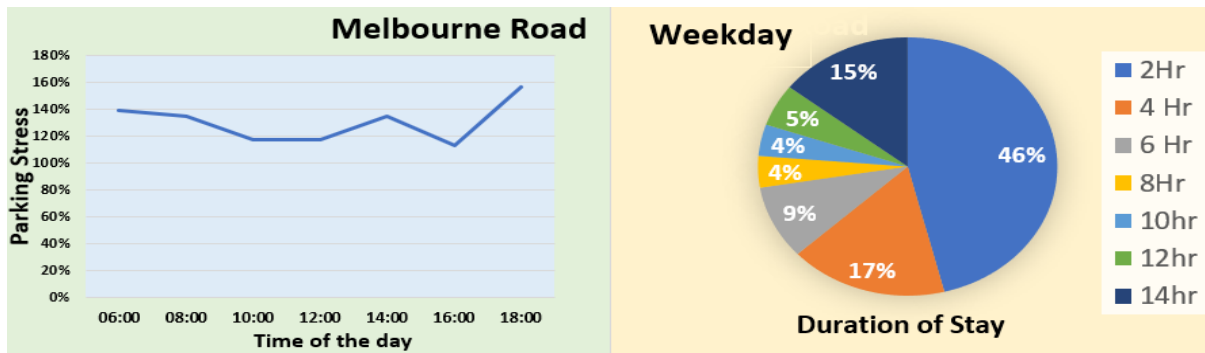
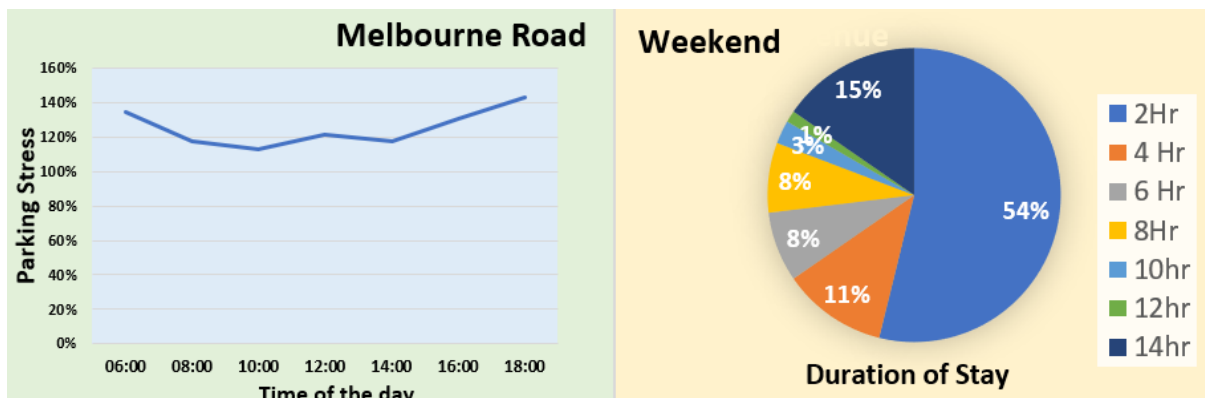


Figure 26: Melbourne Road - Weekend Parking Stress and Duration of Stay



5.2.4 Springfield Road



Springfield Road is a residential road that runs between Manor Road and Park Lane. The parking is mostly unrestricted.

Figure 27: Springfield Road

Table 8: Springfield Road - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
265	53	57	108%	46	87%

Figure 28: Springfield Road - Weekday Parking Stress and Duration of Stay

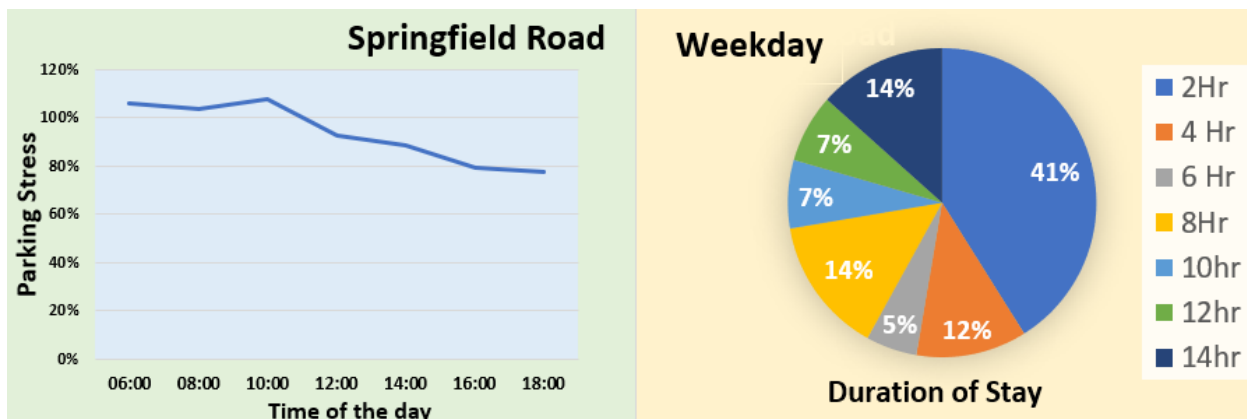
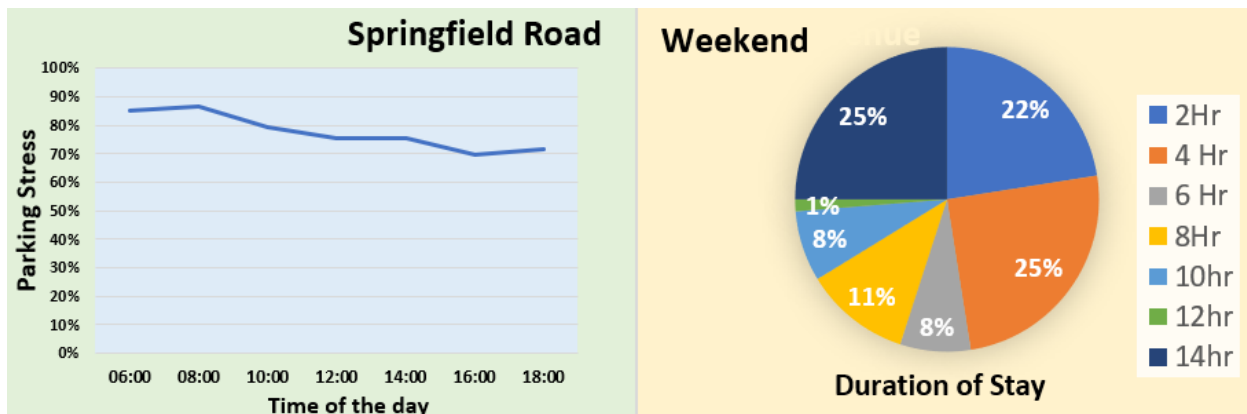


Figure 29: Springfield Road - Weekend Parking Stress and Duration of Stay



5.3 WALLINGTON SOUTH

Three roads were surveyed in Wallington North. They were surveyed on a weekday (Wednesday 18 September 2019) and again on a weekend (Saturday 28 September 2019). The following charts illustrate the parking stress and duration of stay for the selected roads in this ward.

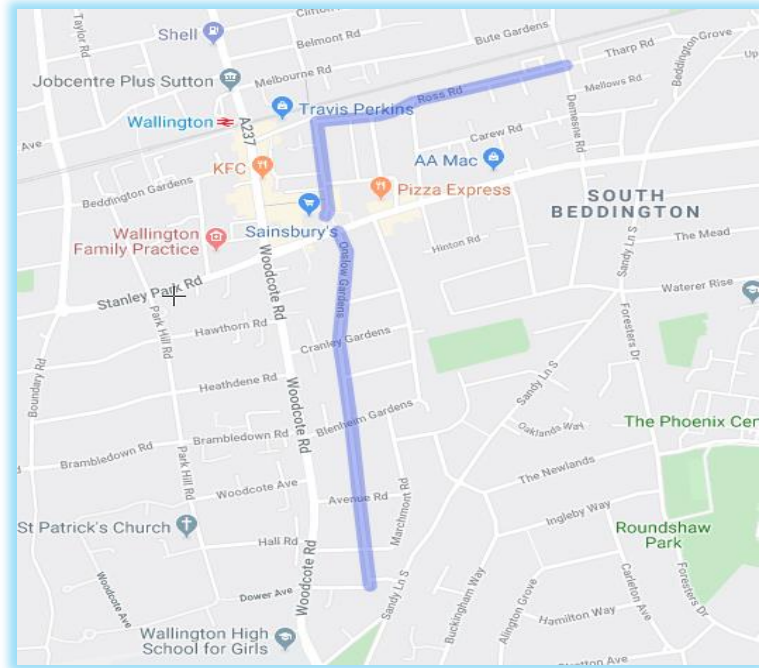


Figure 30: Wallington South - Map of roads surveyed

Figure 31: Wallington South - Weekday Parking Stress

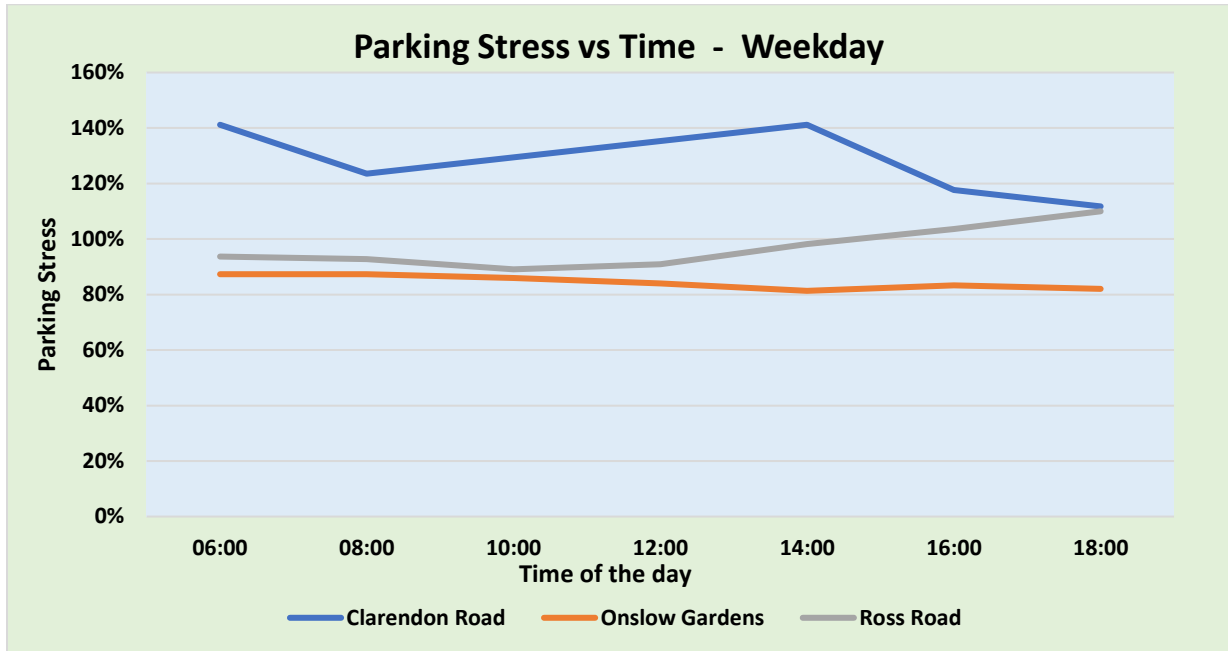


Figure 32: Wallington South - Weekday Duration of Stay

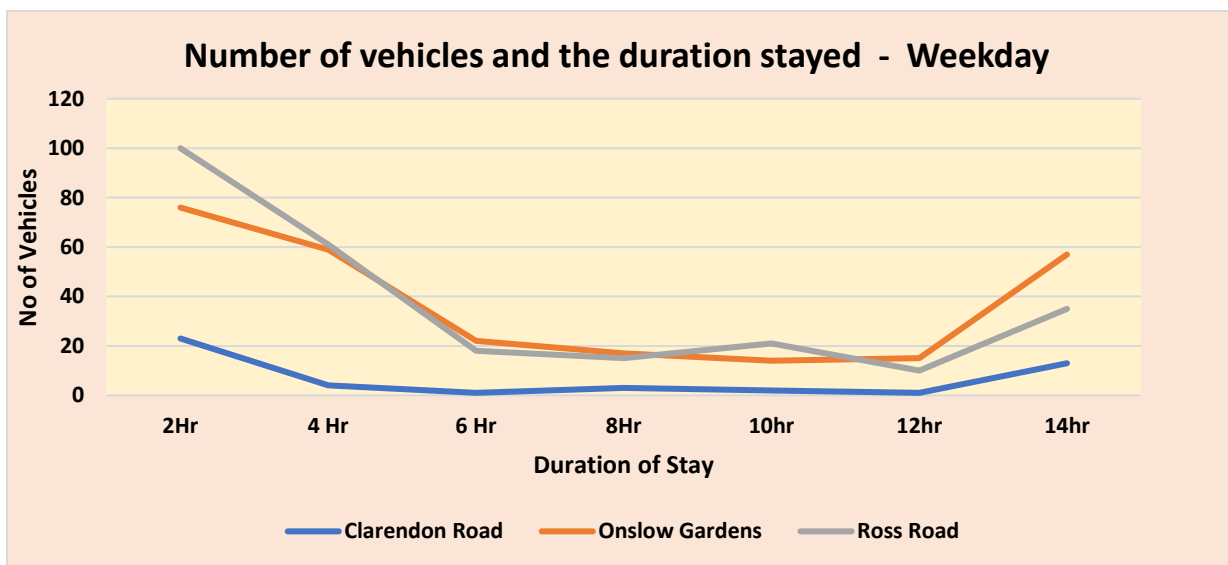


Figure 33: Wallington South - Weekend Parking Stress

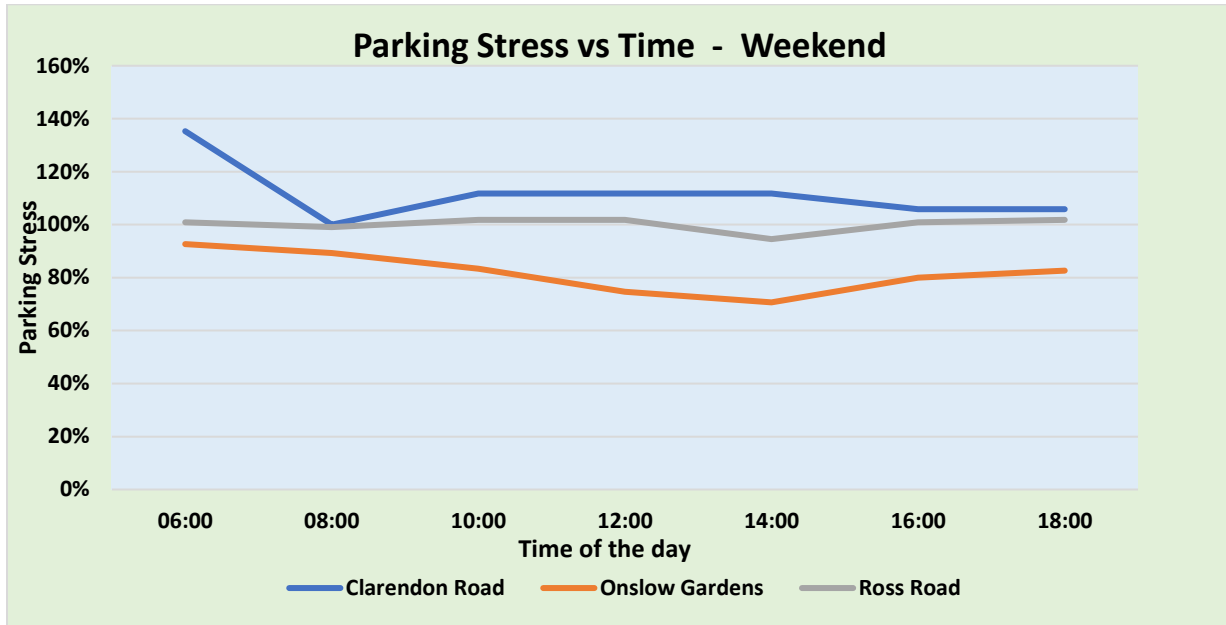
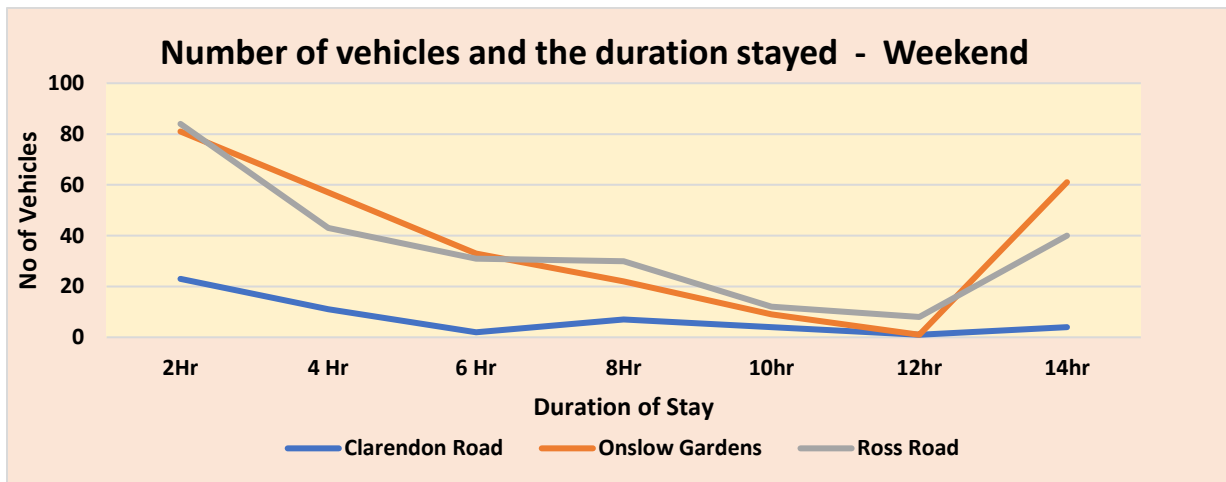


Figure 34: Wallington South - Weekend Duration of Stay



5.3.1 Clarendon Road

Clarendon Road is a residential road starting at Ross Parade and ending near pedestrian footways leading to Stafford Road. The parking is mostly unrestricted and there are 6 Disabled Parking Bays.



Figure 35: Clarendon Road

Table 9: Clarendon Road - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
85	17	24	141%	23	112%

Figure 36: Clarendon Road - Weekday Parking Stress and Duration of Stay

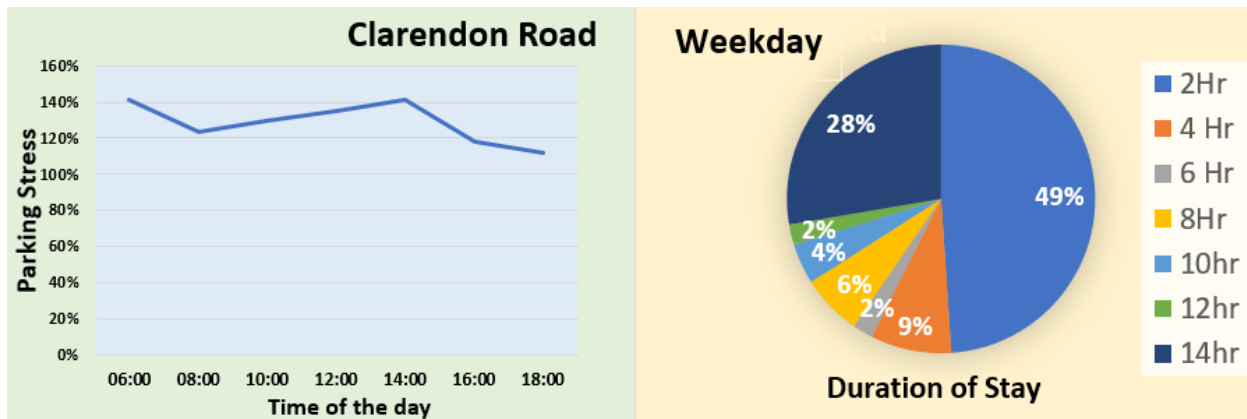
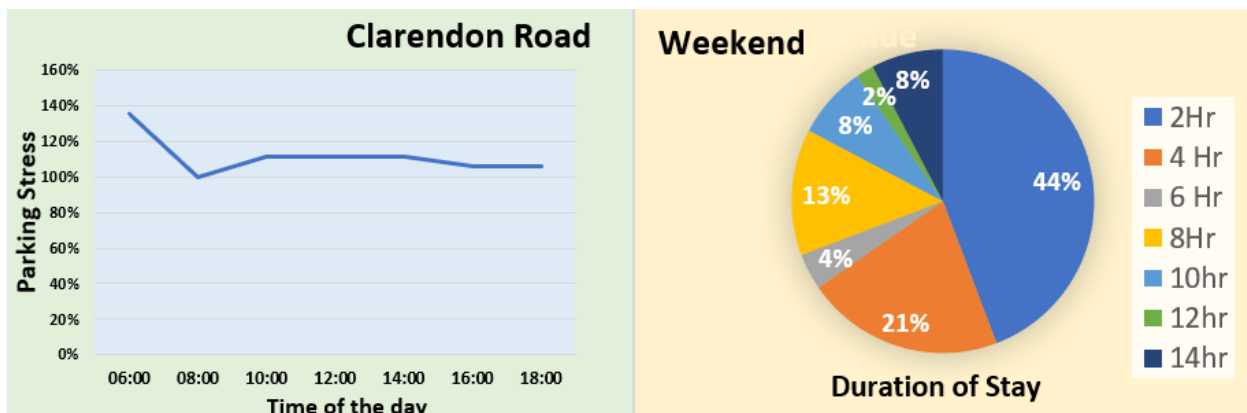


Figure 37: Clarendon Road - Weekend Parking Stress and Duration of Stay



5.3.2 Onslow Gardens



Onslow Gardens is a residential road starting at Stafford Road and Shirley Road. The parking is mostly unrestricted and there is one Disabled Parking Bay.

Figure 38: Onslow Gardens

Table 10: Onslow Gardens - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
750	150	131	87%	139	89%

Figure 39: Onslow Road - Weekday Parking Stress and Duration of Stay

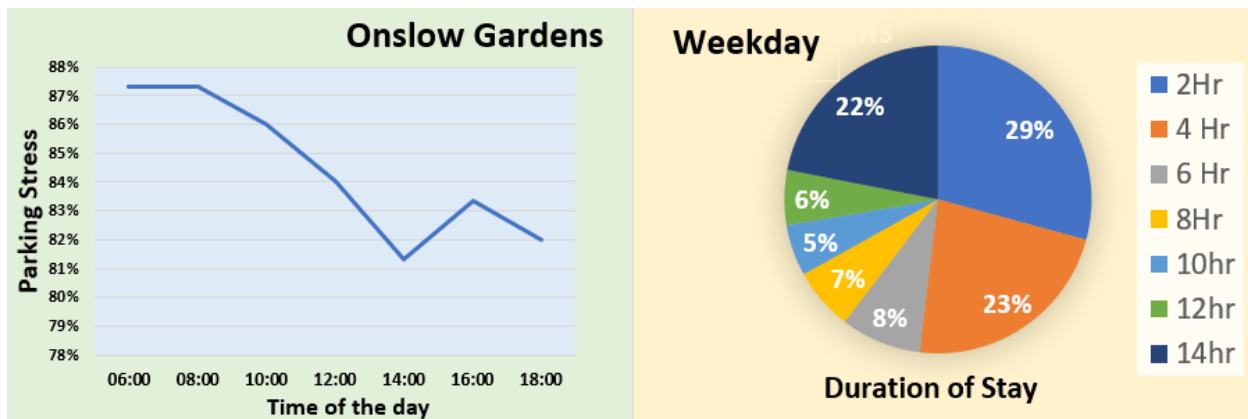
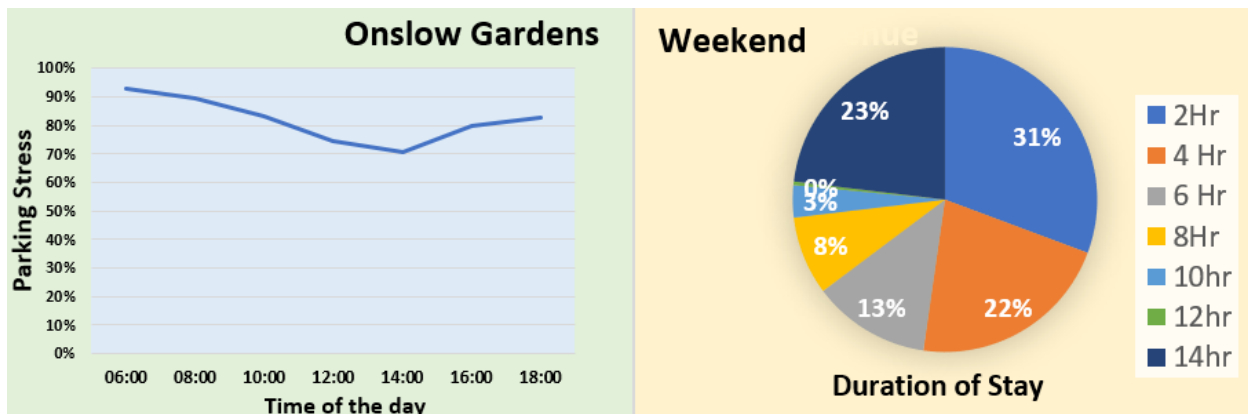


Figure 40: Onslow Gardens - Weekend Parking Stress and Duration of Stay



5.3.3 Ross Road

Ross Road is a residential road running from Clarendon Road to Demesne Road. The available parking is unrestricted.



Figure 41: Ross Road

Table 11: Ross Road - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
550	110	121	110%	112	102%

Figure 42: Ross Road - Weekday Parking Stress and Duration of Stay

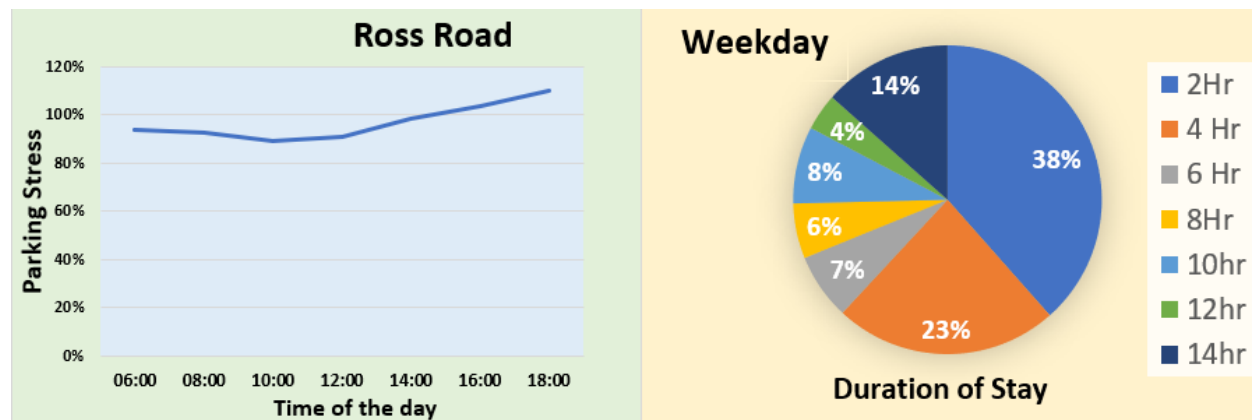
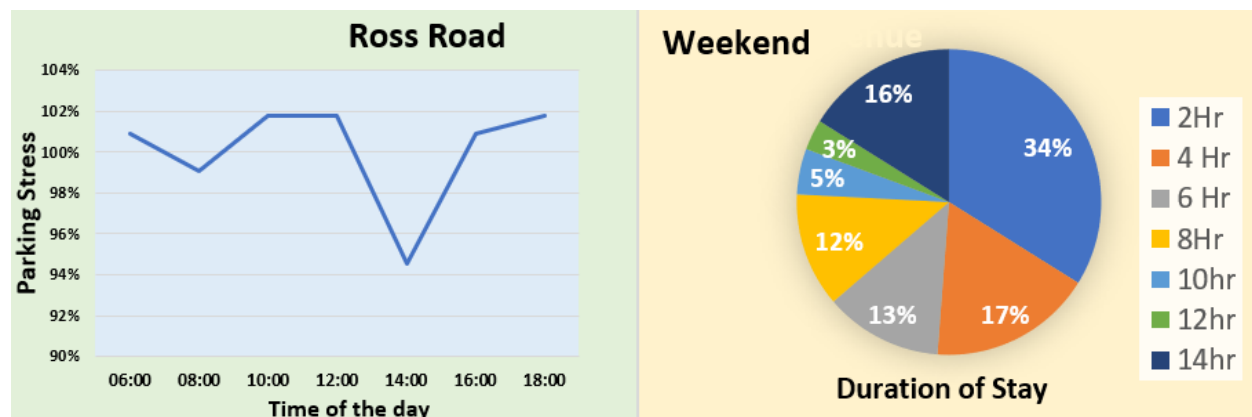


Figure 43: Ross Road - Weekend Parking Stress and Duration of Stay



5.4 WORCESTER PARK

Four roads were surveyed in Worcester Park. They were surveyed on a weekday (Wednesday 18 September 2019) and again on a weekend (Saturday 28 September 2019). The following charts illustrate the parking stress and duration of stay for the selected roads in this ward.

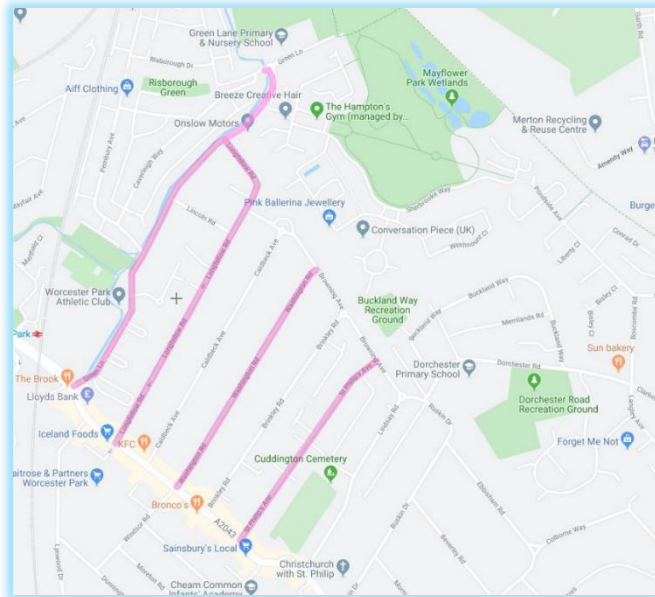


Figure 44: Worcester Park - Map of surveyed Roads

Figure 45: Worcester Park – Weekday Parking Stress

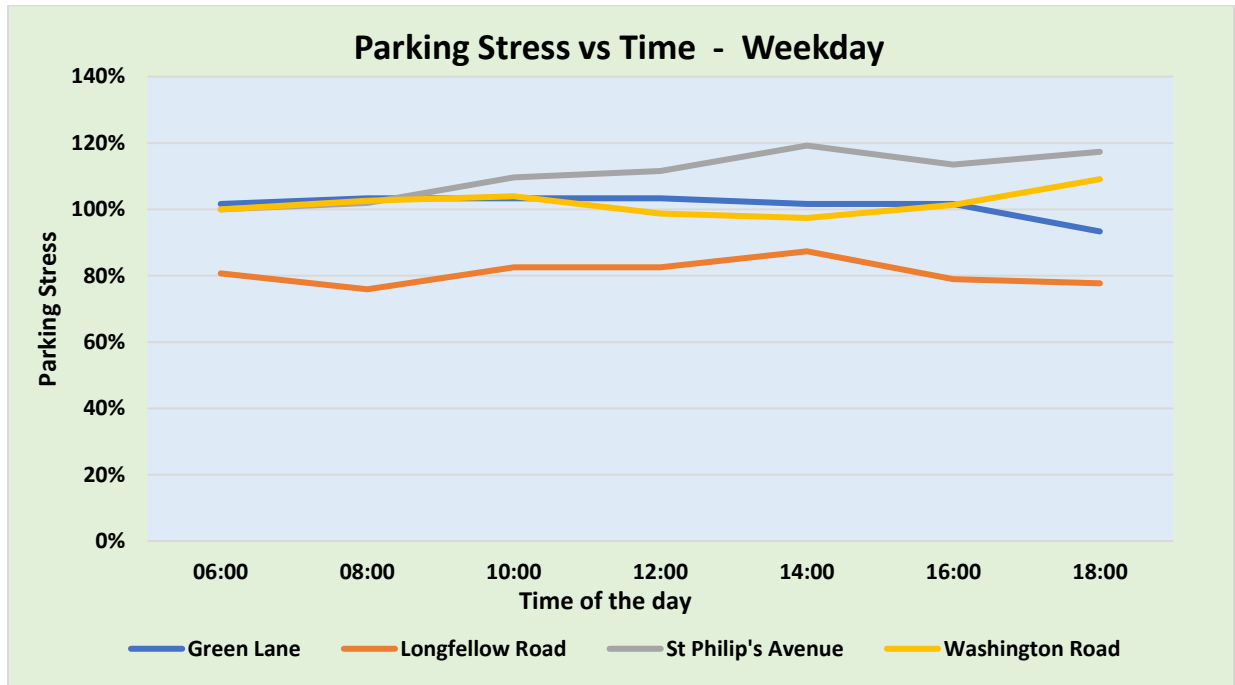


Figure 46: Worcester Park - Weekday Duration of Stay

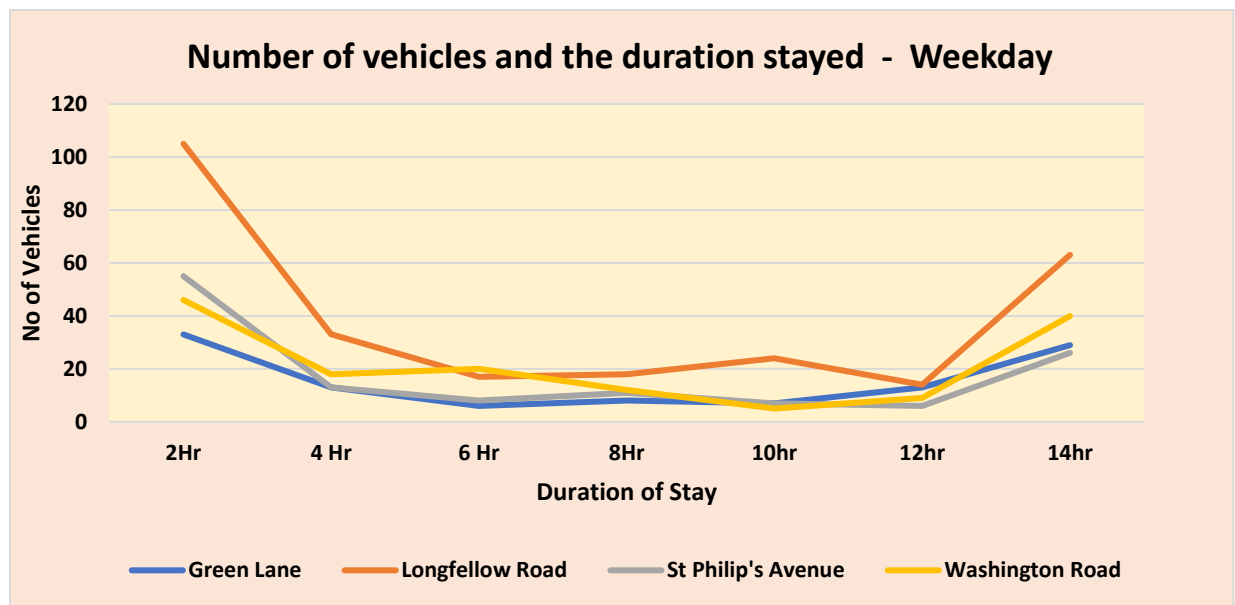


Figure 47: Worcester Park - Weekend Parking Stress

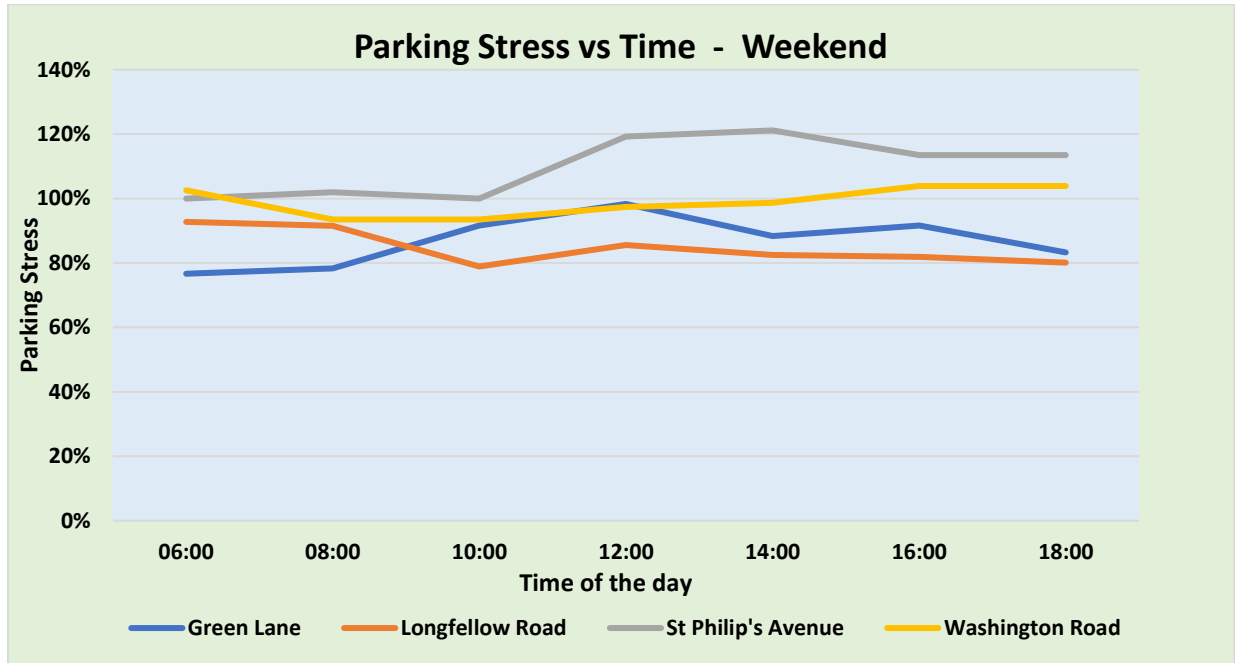
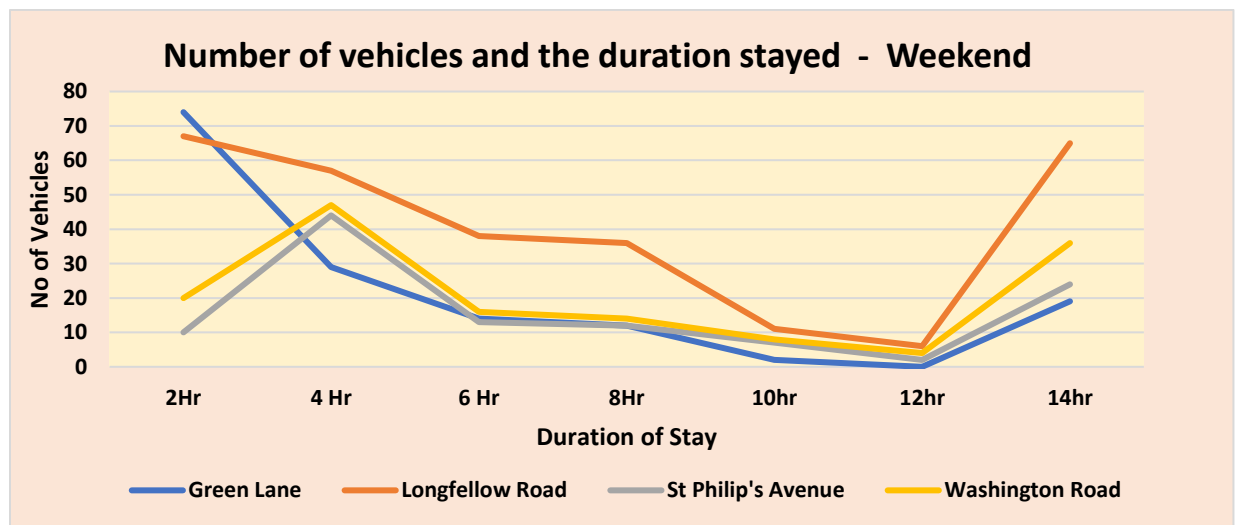


Figure 48: Worcester Park - Weekend Duration of Stay



5.4.1 Green Lane

Green Lane runs from Central Road to the junction with Kingshill Avenue.

The North East stretch of Green lane – alongside the Nursery School – is not included in the survey. The short stretch to the South East of Central Road is also excluded.

The road is mostly residential, and the available parking is unrestricted.



Figure 49: Green Lane

Table 12: Green Lane - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
300	60	62	103%	74	98%

Figure 50: Green Lane - Weekday Parking Stress and Duration of Stay

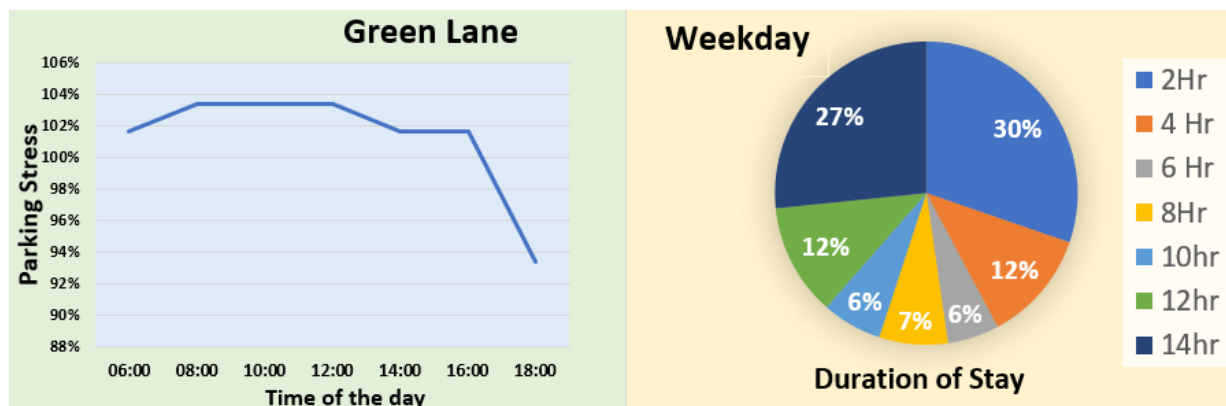
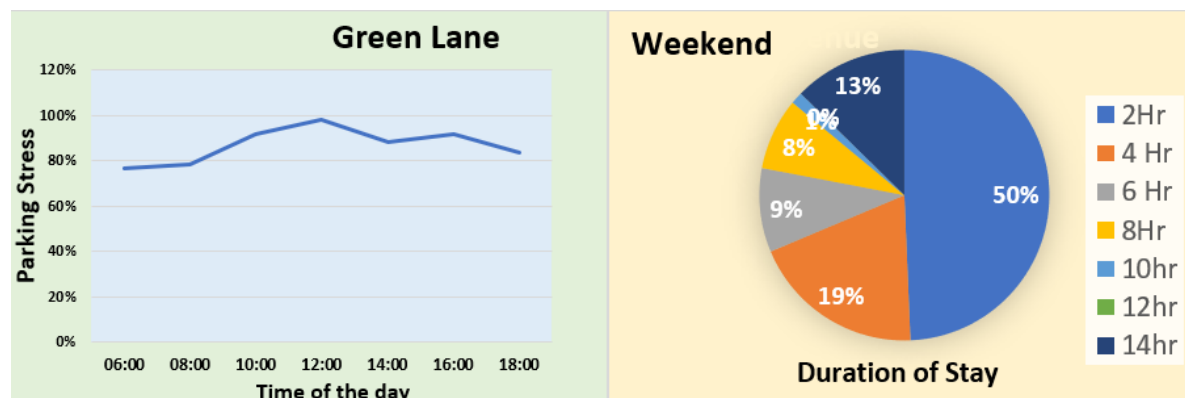


Figure 51: Green Lane - Weekend Parking Stress and Duration of Stay



5.4.2 Longfellow Road



Longfellow Road is a One-way residential road running from Green Lane to Central Road. It is mostly narrow, and parking is provided by parking bays which allow part footway parking.

Figure 52: Longfellow Road

Table 13: Longfellow Road - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
830	166	145	87%	154	92%

Figure 53: Longfellow Road - Weekday Parking Stress and Duration of Stay

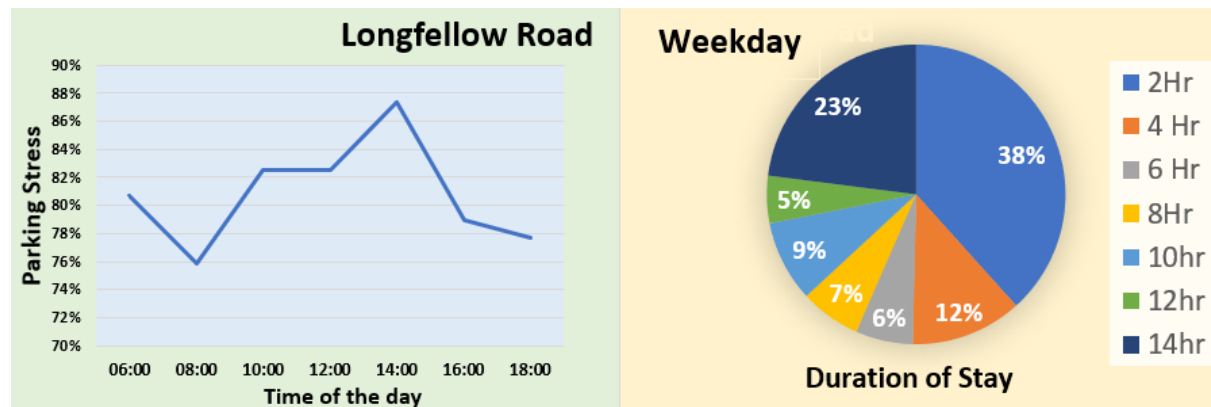
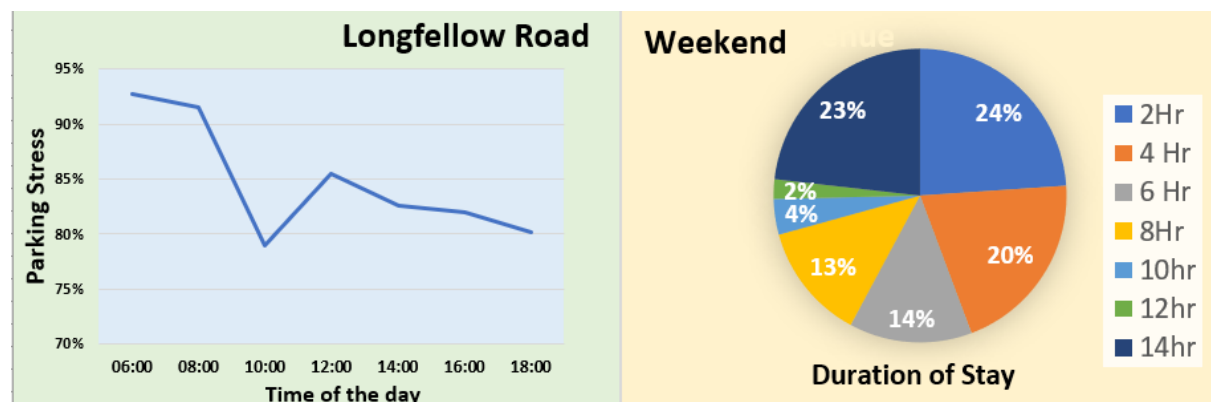


Figure 54: Longfellow Road - Weekend Parking Stress and Duration of Stay



5.4.3 St Philip's Avenue

St Philip's Avenue is a residential road running from Central Road to Browning Road. Most parking is unrestricted and there is one Disabled Bay.



Figure 55: St Philip's Avenue

Table 14: St Philip's Avenue - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
260	52	62	119%	63	121%

Figure 56: St Philip's Avenue - Weekday Parking Stress and Duration of Stay

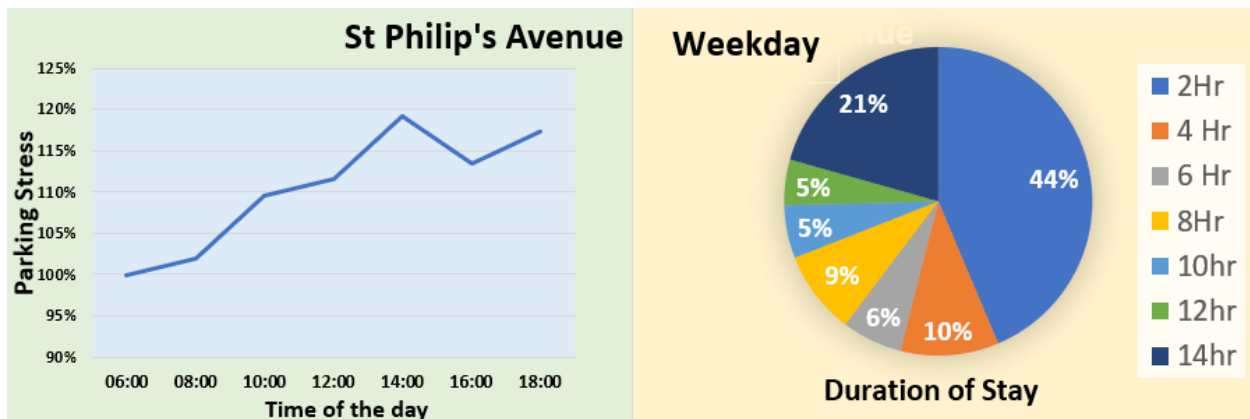
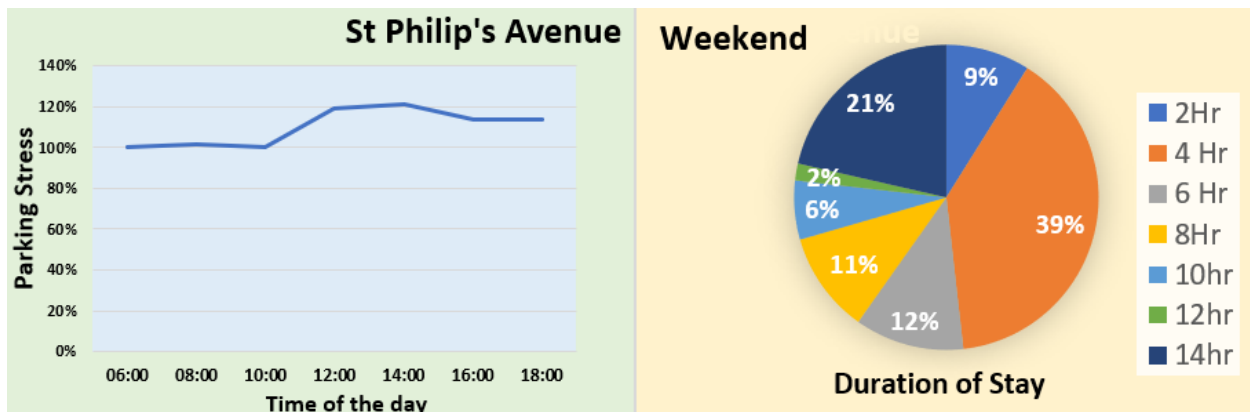


Figure 57: St Philip's Avenue - Weekend Parking Stress and Duration of Stay



5.4.4 Washington Road



Washington Road is a residential road running from Central Road to Browning Road. Most parking is unrestricted and there is one Disabled Bay

Figure 58: Washington Road

Table 15: Washington Road - Parking Stress

Length of available parking (m)	Available parking spaces	Weekday		Weekend	
		Maximum number of cars parked on road	Maximum parking stress	Maximum number of cars parked on road	Maximum parking stress
385	77	84	109%	80	104%

Figure 59: Washington Road - Weekday Parking Stress and Duration of Stay

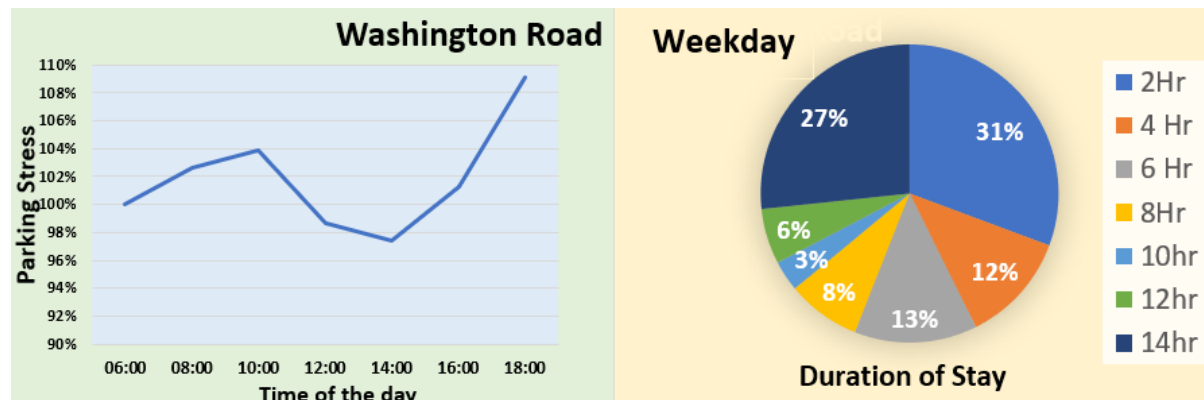
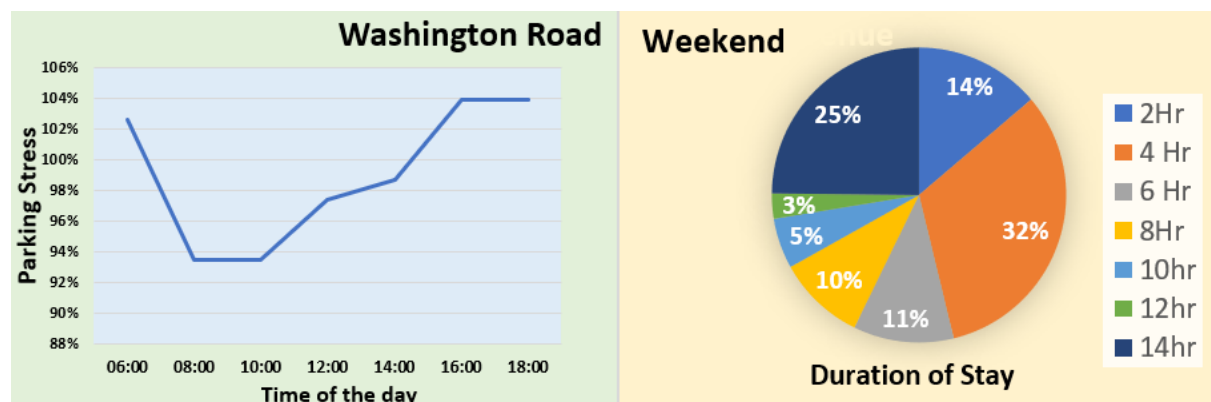


Figure 60: Washington Road – Weekend Parking Stress and Duration of Stay





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