

Parnell Square Cultural Quarter: New Dublin City Library and Public Realm Works

Traffic and Transport Assessment

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Quality information

Prepared by



Brian McMahon
Principal Engineer

Checked by



Dimitri Karakaxas
Associate Director

Approved by



Joe Seymour
Director

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Prepared for:

Dublin City Council and PSQ Development Ltd (Joint Applicants)

Prepared by:

Brian McMahon
Principal Engineer

AECOM Ireland Limited
4th Floor
Adelphi Plaza
Georges Street Upper
Dun Laoghaire
Co. Dublin A96 T927
Ireland

T: +353 1 238 3100
aecom.com

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1. Introduction

1.1 Background

AECOM Ireland Ltd (AECOM) has been commissioned to undertake a Traffic and Transport Assessment (TTA) in support of a planning application being lodged by Dublin City Council and PSQ Developments Ltd (Joint Applicants), for the development of a Cultural Quarter at Parnell Square North. The new cultural quarter includes the relocation of the existing Central Library, currently locational in the Ilac Shopping Centre. The Cultural Quarter will be anchored by a cluster of new cultural facilities with the City Library at its heart. The development proposals comprise the redevelopment of the former Coláiste Mhuire site and houses 20-21 Parnell Square are located on either side of the Hugh Lane Gallery. As part of this development it is also proposed to improve the public realm of Parnell Square North to facilitate a new public plaza. The proposals will consist of the following (total Gross Floor Area of 11,198sqm):

- Lending and Reference Library (items for loan and reference in multiple formats);
- Children's and Young Adults' Library (learning, reading, activity and recreational spaces for creating music, theatre, art, media and gaming);
- Storey House (a literature centre, displaying, interpreting and showcasing Dublin's unique literary heritage);
- Conference and Exhibition Spaces (for large and small events, bookable by the community);
- Learning Suite (comprising a digital media hub and online learning centre);
- Music Hub (offering a blend of physical and digital resources, listening, downloading and creating facilities); and
- Innovation Hub (supporting the business and enterprise needs of the city with collections, online resources and spaces in which to work and collaborate).

Figure 1.1 below broadly indicates the proposed development location.



Figure 1.1: Site Location (Source: Google Maps)

The new buildings will provide capacity for 3,000 visitors daily – 1 million visitors a year. This TTA report will demonstrate that the majority of visitors to the development will arrive on foot as their principal form of transport. Therefore, and due to the increase in pedestrian numbers on Parnell Square North, it is important that pedestrian routeing and public realm are improved.

The development proposals will include improvements to the public realm of Parnell Square North to facilitate a new public plaza and high-quality pedestrian connectivity to the main public transport routes on Parnell Square East and West. It is proposed to provide enhanced pedestrian facilities on Parnell Square North by reducing the road carriageway width, removing existing parking, and redistributing some of the existing road space for wide pedestrian paths and improved public realm.

In completing this report, AECOM has made reference to the following documents:

- Traffic and Transport Assessments Guidelines (Transport Infrastructure Ireland (TII) May 2014);
- Design Manual for Urban Streets – DMURS (Department of Transport, Tourism and Sport (DTTAS) April 2013);
- The Traffic Management Guidelines (Department of Transport (DoT) 2003);
- Dublin City Development Plan 2016–2022 (DCC);
- The Transport Strategy for the Greater Dublin Area 2016–2035 (NTA);
- Dublin City Centre Transport Study (DCC/NTA June 2015); and
- The Greater Dublin Area Cycle Network Plan (NTA December 2013)

1.2 Objectives

The main objective of this report is to examine the traffic and transport impact of the proposed development on the surrounding road network, in accordance with the TII Traffic and Transport Assessment Guidelines. The traffic and transport impact of the proposed development has been calculated and its influence on the local area road network has been analysed.

An assessment of existing and proposed public transport, pedestrian, and cycle facilities has also been undertaken.

1.3 Pre-Planning Consultation with Dublin City Council, Roads and Transportation Department

AECOM attended a pre-planning meeting with the Roads and Transportation Department along with Dublin County Council to scope the requirements of the TTA and the analysis that has to be undertaken. During the meeting, AECOM discussed the development proposals, traffic survey requirements, parking survey requirements, pedestrian and cycle facilities.

1.4 Study Methodology

The methodology adopted for this report can be summarised as follows:

Existing Conditions – AECOM visited the site to review the current traffic situation, and commissioned 2018 traffic surveys during the weekday peak periods;

Existing Transport Infrastructure – AECOM collected information on public transport, walking and cycling conditions in the area of the site;

Development Proposals – Description of proposed development;

Development Trip Generation – AECOM derived trip rates and trip generations for the scheme, which were assigned to the existing network having regard for traffic patterns on the local road network;

Percentage Impact – The traffic impact on key junctions was considered, taking account for traffic growth; and

Junction Analysis – The operation of key junctions, with and without the proposed development, was undertaken, to determine future operation and any requirements for mitigation measures.

1.5 Structure of Report

The remainder of the report is divided into the following sections:

Section 2 considers the location of the site and existing traffic flows;

Section 3 discusses the proposed development;

Section 4 considers the traffic generation and potential impacts of the development;

Section 5 contains an analysis of the traffic impacts of the proposed development;

Section 6 provides a summary of the surrounding car parking; and

Section 7 provides a summary and conclusions.

2. Existing Conditions

2.1 Introduction

This chapter includes a review of existing baseline conditions of the receiving environment including: the site layout, the local road network, public transport, walking and cycling facilities. It also includes details of existing traffic volumes and collision rates.

2.2 Existing Conditions

2.2.1 Existing Site

The existing site is located on Parnell Square North, at the site of the former Choláiste Mhuire School and 21–22 Parnell Square.



Figure 2.1: Site Location (Source: Google Maps)

2.2.2 Existing Development

The existing Central Library is currently situated in the Ilac Centre, approximately 500m from the proposed site on Parnell Square. The existing Central Library currently has 40 full time staff. The Central Library is located close to Dublin City Centre, with a number of public transport facilities located nearby, which provides excellent conditions for the provision of sustainable travel measures. The proximity of the public transport network and the intensification of land use in the local area support the principles of sustainable transportation. Parking for the existing Central Library is currently available within the Ilac Centre.

2.2.3 Accesses

There are a number of laneways that provide access to the proposed development site. These laneways are narrow and underused at the moment.

2.3 Existing Road Network

This section provides an overview of the local road network in the vicinity of the proposed site location.

Parnell Square North

Parnell Square North is a two-lane one-way street which culminates in a junction connecting to: Parnell Square East, Gardiner Row and Fredrick Street North. Street parking provisions and good quality pavements of approximately 2.6m are located on either side of the approximately 6.8m road. Coach parking is also provided on Parnell Square North. A Dublin Bikes station is currently provided on the north-west end of the street. In total, there are 47 car parking spaces located on Parnell Square North; 44 regular spaces and 3 mobility-impaired spaces. A bus stop is also located on Parnell Square North.



Figure 2.2: Parnell Square North facing East (Source: Google Maps)

Parnell Square East

Parnell Square East is a one-way street that connects southbound traffic from: Parnell Square North, Fredrick Street North and Gardiner Row. Approximately 11.9m wide, the street includes one bus lane and bus stops on the east side. On-street car parking is available on the west side. Footpaths are provided on both sides of the road for its entire length. In total there are 16 car parking spaces located on Parnell Square East; 13 regular spaces and 3 mobility-impaired spaces.



Figure 2.3: Parnell Square East facing South (Source: Google Maps)

Parnell Square South

Parnell Square South accommodates one-way traffic flow south-west and provides access to the front entrance of the Rotunda Hospital. Two traffic lanes allow traffic to continue to flow south-west along Parnell Street or north via Parnell Square West. The northbound Luas track is also provided on Parnell Square South. There is no on-street parking.



Figure 2.4: Parnell Square South facing West (Source: Google Maps)

Parnell Square West

Parnell Square West is also a two-lane one-way street which connects traffic flowing north from the east and west along Parnell Street. The road is approximately 11.3m wide, with footpaths of approximately 3m width situated on both sides of the road.

In total there are 28 car parking spaces located on Parnell Square West; 18 regular spaces, 8 mobility-impaired spaces and 2 electric vehicle spaces. Bus stops are located on the western side of the street.



Figure 2.5: Parnell Square West facing North (Source: Google Maps)

Granby Row

Granby Row is a three-lane one-way street which connects north-bound traffic from Parnell Street West. The road is approximately 11.8m wide and comprises two general traffic lanes and a bus lane. The road culminates in a junction which connects Granby Row to Dorset Street. In total there are 4 car parking spaces located on Granby Row; 2 regular spaces and 2 mobility-impaired spaces.

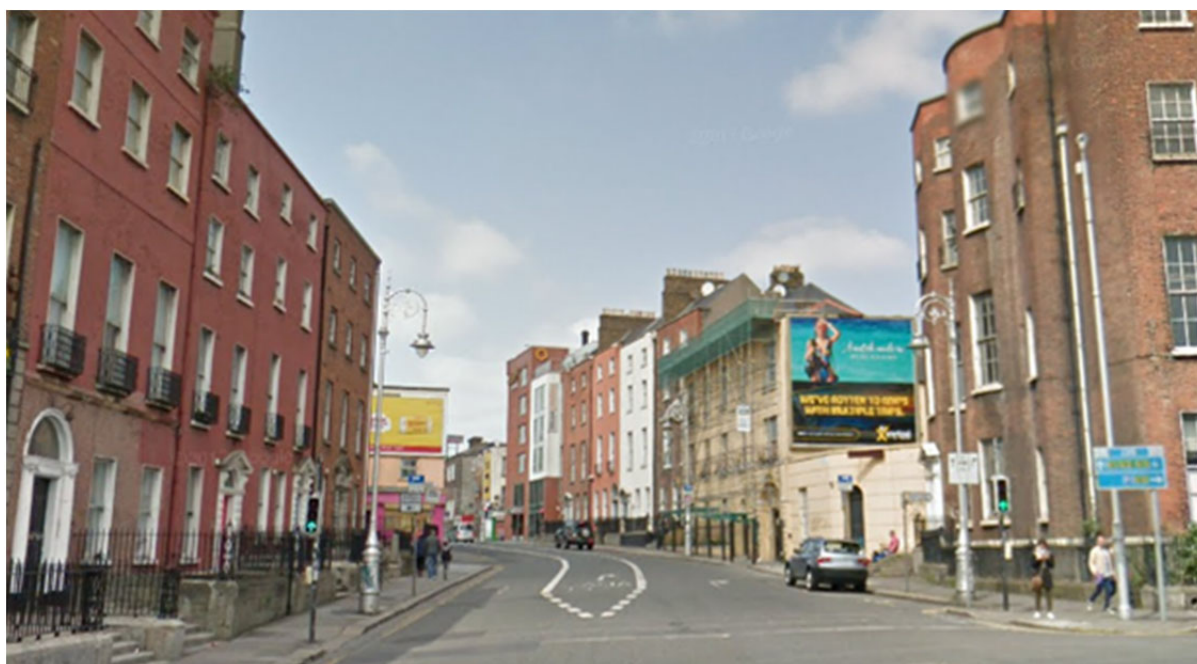


Figure 2.6: Granby Row facing North (Source: Google Maps)

Frederick Street North

Frederick Street North is approximately 13.2m wide. Southbound traffic is restricted to: bus, public service vehicles, motorcycles and cyclists on lower Frederick Street. On-street parking is available on the western side of Frederick Street North. In total there are 23 car-parking spaces located on Frederick Street North; all regular spaces.



Figure 2.7: Frederick Street facing North (Source: Google Maps)

2.4 Existing Site Accessibility

Parnell Square has been identified in the Dublin City Development Plan 2016–2022 as forming a major part of a future strategic pedestrian network, with a major strategic pedestrian route on Parnell Square East and secondary strategic routes on the other three sides of the square.

Currently, all roads throughout the area have footpaths, although their provision varies in width and quality. For example, footpaths on Parnell Square West are relatively narrow and can be congested at times due to the presence of a number of bus stops. The majority of road junctions in the area are signalised and provide drop kerbs, tactile paving and pedestrian refuge islands. However, two of the three arms of the Parnell Square West/Granby Row/Parnell Street North junction do not have pedestrian crossing facilities. Pedestrians crossing in these areas are vulnerable as the wide roads encourage vehicles to travel at excessive speeds. The proposal includes provision to upgrade the pedestrian facilities on Parnell Square North and to provide enhanced crossing facilities at the surrounding junctions, which will improve accessibility to the proposed library and surrounding destinations.

Figure 2.8 below illustrates the areas which are within 1km, 2km, 3km and 5km from the proposed Cultural Quarter. It is evident that a significant proportion of existing library users will continue to be within a reasonable walking or cycling distance from the new library building.

There are no dedicated cycling facilities on Parnell Square itself, although there is a bus lane on Parnell Square East which can be used by southbound cyclists. Advisory cycle lanes are provided on Parnell Street and on O'Connell Street to the south of Parnell Square. The current road width on Parnell Square West and the volume of buses passing through the area impacts to some extent on the attractiveness of cycling in the area.

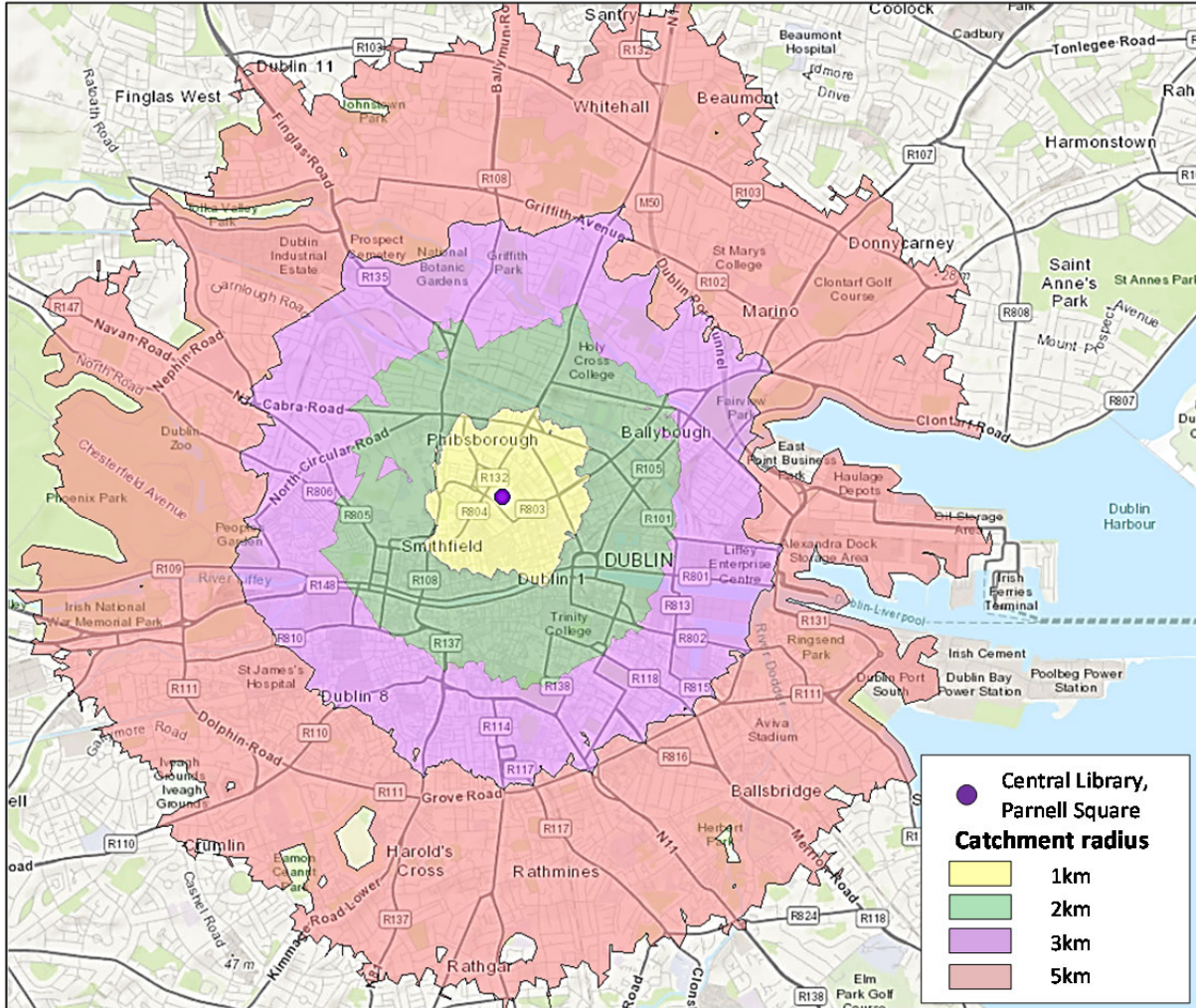


Figure 2.8: Isochrone of Distances to the Proposed Cultural Quarter

2.5 Existing Public Transport

2.5.1 Existing Bus Services

Parnell Square is currently well connected by bus services, with a number of bus routes providing connections throughout the city and suburbs. The existing bus stops and bus routes that use these stops are shown in Table 2.1

Table 2.1: Existing Public Transport Stops near Parnell Square

Service No.	Route
38/a/b/d	Burlington Road – Damastown
46a	Dún Laoghaire – Phoenix Park
46e	Blackrock towards Mountjoy Sq.
120	Parnell St. – Ashtown Rail Station
122	Ashington – Drimnagh Road
7	Loughlinstown towards Mountjoy Sq.
7b	Shankhill towards Mountjoy Sq.
7d	Dalkey towards Mountjoy Sq.
8	Dalkey towards Mountjoy Sq.
9	Charlestown – Limekiln Avenue
4	Harristown – Monkstown Avenue
13	Harristown – Grange Castle
140	Finglas – Palmerstown Park
40	Finglas – Liffey Valley
40b	Parnell Street towards Toberburr
40d	Parnell Street towards Tyrrelstown
1	Santry – Sandymount
11	Wadelai Park – Sandyford
16/c	Dublin Airport – Ballinteer
44	DCU – Enniskerry
747	Heuston Station to Dublin Airport

2.5.2 Light Rail Services

Within the local vicinity, Luas Cross City provides high-capacity public transport links. Completed in late 2017, Luas Cross City extended the existing Green Luas line from St. Stephens Green to Broomsbridge, connecting the two existing Luas lines and providing enhanced access to the City Centre. The route for Luas Cross City is illustrated in Figure 2.9 below. There are a number of Luas stops that will serve access to and from Parnell Square. The closest Luas Stop is on Parnell Street, located 450m from the proposed development. The O’Connell Street Stop is then also located only 500m from the proposed development.

Luas Cross City has now provided the following benefits to Parnell Square:

- Cross-city connectivity between the site and a number of key city centre public transport nodes.
- Connection to the Longford / Maynooth commuter rail line at Broombridge.
- Connection to the Luas Green and Red lines.

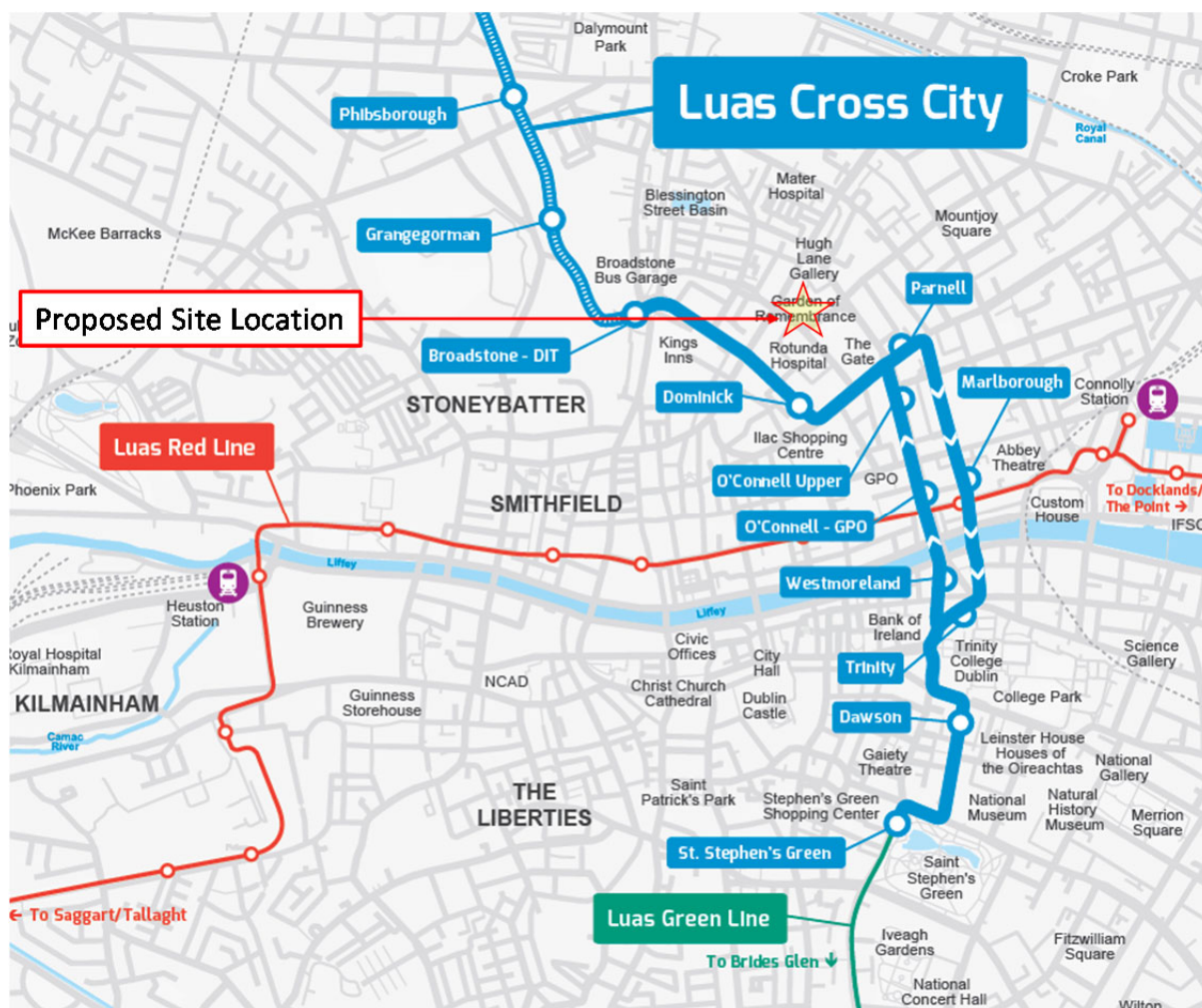


Figure 2.9: Luas Cross-City Route

Table 2.2: Luas Cross-City Timetable

Service No.	Location of Luas Stop	Route	Typical Service Frequency		
			Mon – Fri	Sat	Sun
Luas Cross City – Peak Times	Dominick Street / Parnell Street / O’Connell Street	St. Stephens Green to Broomsbridge	3-7mins	6-8mins	12-15 mins
Luas Cross City – Off-Peak Times	Dominick Street / Parnell Street / O’Connell Street	St. Stephens Green to Broomsbridge	5-18 mins	7-21 mins	12-21 mins

The site’s proximity to existing public transport nodes as well as to existing pedestrian and cyclist linkages present a range of alternatives to visitors from the Greater Dublin Area other than access by private vehicle.

2.6 Existing Pedestrian Provision in the Local Area

Existing pedestrian movement through the area tends to correspond with the more significant transport corridors such as the eastern side of O’Connell Street, and the western side of Parnell Square. The majority of the road junctions in the area are signalised and provide good pedestrian crossing facilities in the form of drop kerbs, tactile paving and pedestrian refuge islands.

Pedestrian counts were undertaken at the signalised junctions either side of the Parnell Square North over a twelve-hour period from 07:00 to 19:00 on 10th May 2018 to ensure that both the AM and PM peak demand hours were covered, as well as the inter-peak period. Figure 2.10, shows the 12-hour pedestrian count at the two junctions at either end of Parnell Square North. AECOM undertook counts on Parnell Square North from the video surveys, which are also shown in Figure 2.11 below.

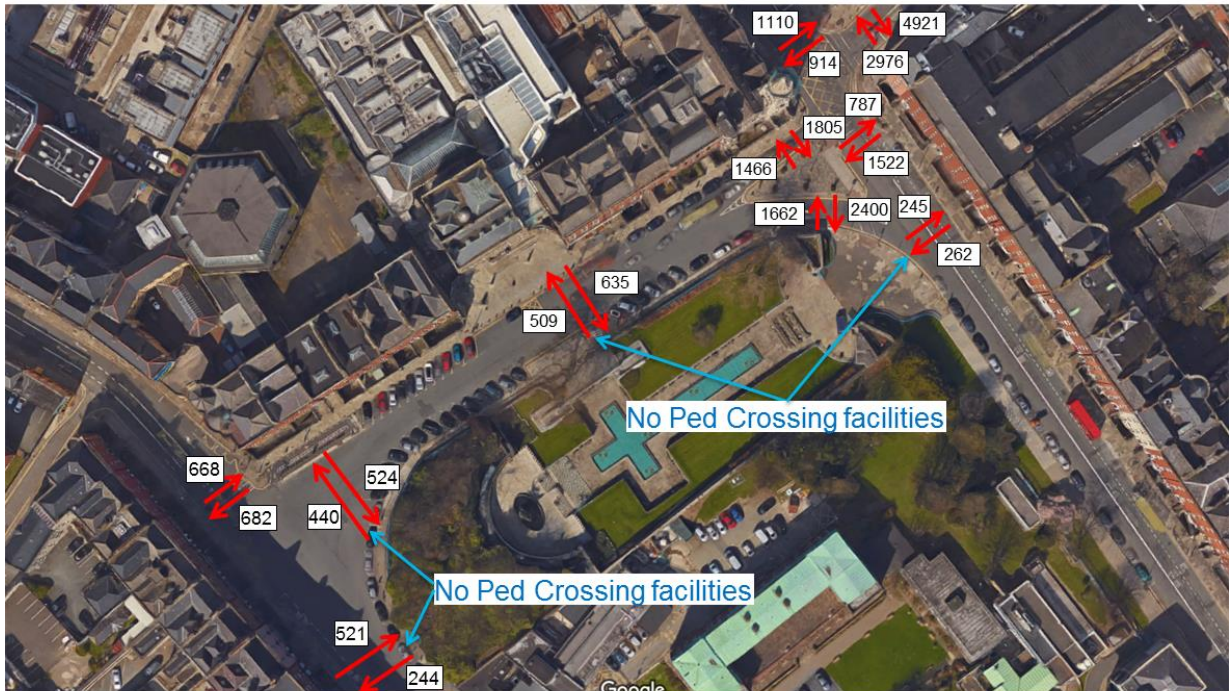


Figure 2.10: 12-Hour Pedestrian Count at the Junctions on Parnell Square North

The predominant pedestrian movements were at signal-controlled crossings; however, a number of pedestrians were noted crossing at locations where pedestrian crossings were not provided. In particular, pedestrians were noted to cross at the junction of Parnell Square West / Granby Row / Parnell Street North. Pedestrians crossing at areas where the road is very wide makes them vulnerable to collisions with vehicles travelling at excessive speeds around the corner from Parnell Street West to East.



Figure 2.11: Pedestrian Movements at Parnell Square / Granby Row

2.7 Existing Cycle Provision on Parnell Square

The existing cycle facilities in the local vicinity are poor. On Parnell Square East a bus lane provides some level of protection to cyclists, while advisory cycle lanes are only provided on Parnell Street and on O'Connell Street to the south of Parnell Square. The existing cycle facilities in the local area are presented in Figure 2.12 below.

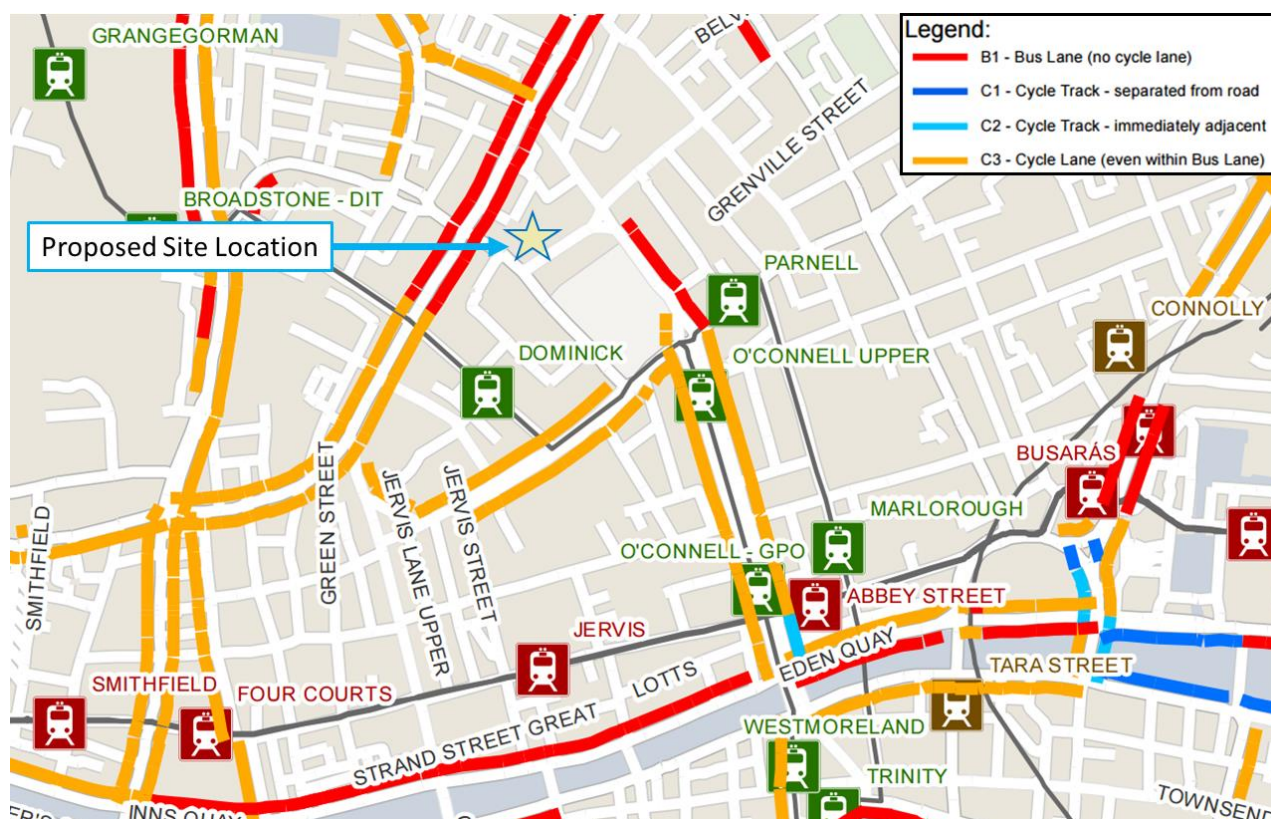


Figure 2.12: Existing Cycle Facilities (GDA Cycle Network Plan)

2.8 Existing Traffic Conditions

A programme of data collection was necessary to ensure that a full understanding of the current situation could be established. The data collection programme involved a series of traffic and transport surveys undertaken by Tracsis on Thursday the 10th May 2018. The surveys undertaken included the following:

- Junction Turning Count (JTC)
- Bus Counts
- Pedestrian Crossing Counts
- On Street Park Surveys

The following sections summarise the data collected as part of the programme of surveys.

2.8.1 Junction Turning Counts (JTCs)

To establish a picture of the volume and profile of traffic on Parnell Square, video footage was undertaken at each of the four Parnell Square junctions and queue lengths were taken on each junction arm in 15-minute intervals. The surveys were undertaken for the 12-hour period: 7am to 7pm on Thursday 10th May 2018. A site location map is indicated in Figure 2.13 below. The number of vehicle movements and the classification of vehicle (car, light goods vehicle (LGV), heavy goods vehicle (HGV), bus, cyclists, etc.) were recorded.

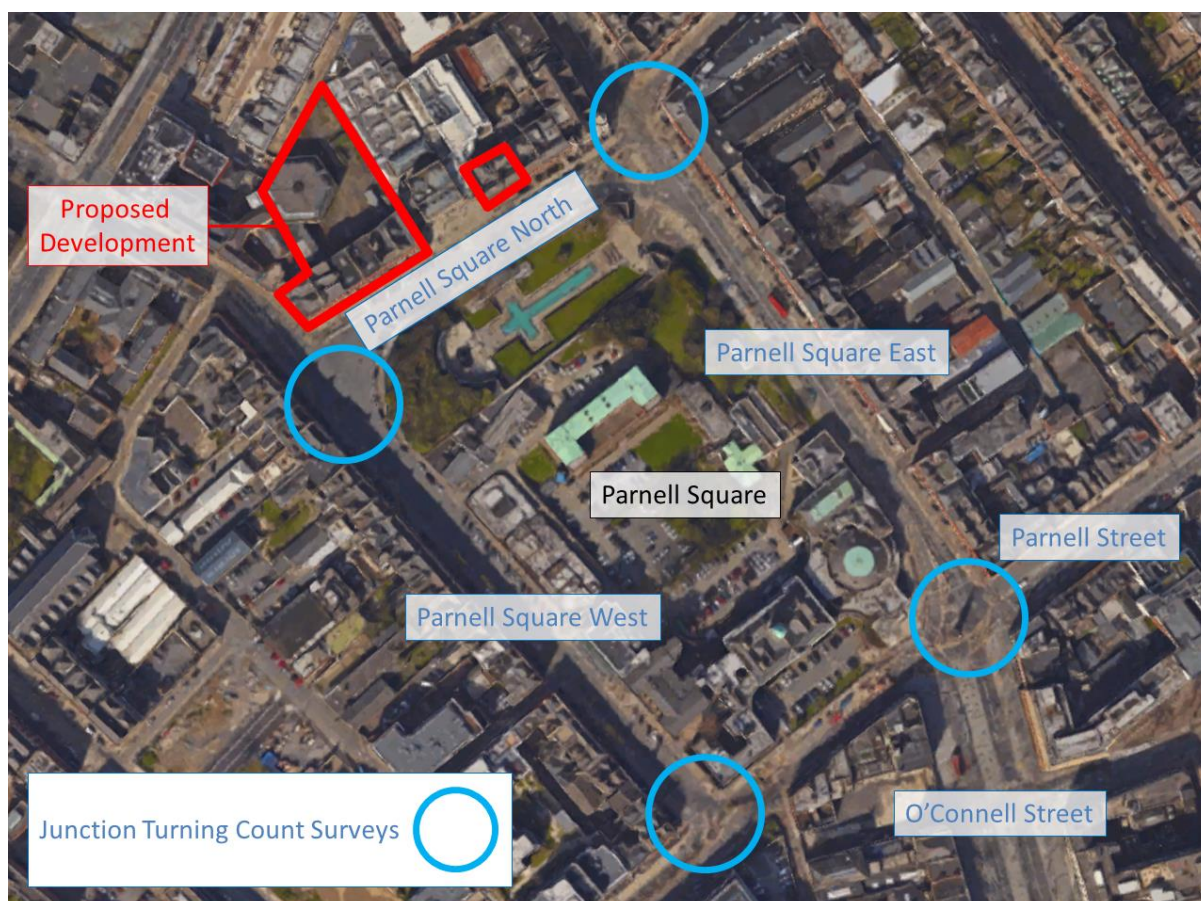


Figure 2.13: Junction Turning Counts on Parnell Square North

As a first step in the analysis of the JTC data, traffic flows at each of the JTCs within the study area were aggregated together to reveal the traffic demand profile on the square (see Figure 2.14 below). The demand profile was then examined to reveal the system AM and PM peak hours (as highlighted in green below in Figure 2.14).

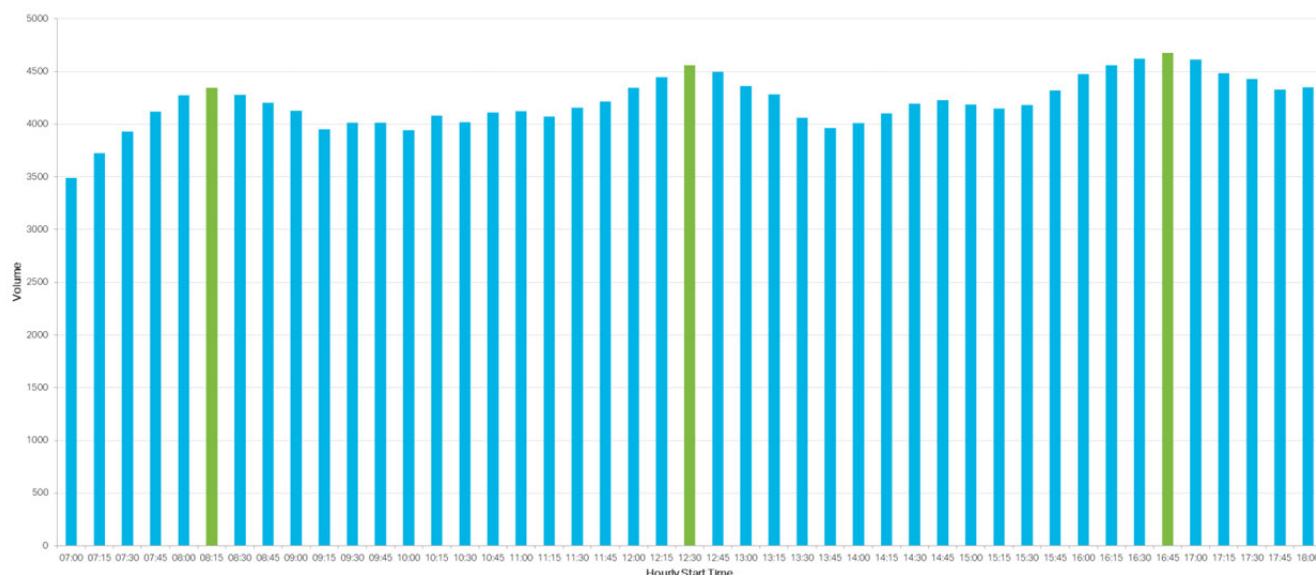


Figure 2.14: Traffic Profile Parnell Square

As can be seen from Figure 2.14 above, the: AM, Inter Peak (IP) and PM peak hours on Parnell Square occur during the following hours:

- AM Peak Hour (08:15 – 09:15);
- IP Peak Hour (12:30 – 13:30); and
- PM Peak Hour (16:45 – 17:45).

2.8.2 Peak Hour Volumes and AADT

Once the system AM and PM peak hours had been established, the JTC data were further interrogated to establish the peak hour flow at each individual junction.

It should be noted that a seasonality factor of 0.97 for the month of May has been applied to the collected data, in line with guidance provided in TII PAG Unit 16.2: Expansion Factors for Short Period Traffic Counts. Table 2.3 below outlines a summary of the peak hour AADT information.

Table 2.3: Total Junction Turning Counts (2018)

Site	Location	PCU per Hour		PCU per Day AADT
		AM	PM	
Site 1	Parnell Square North/Parnell Square East/Frederick Street North / Gardiner Row	1,068	1,304	13,375
Site 2	Cavendish Row/Parnell Street/O’Connell Street	1,592	1,798	19,660
Site 3	Parnell Street/Parnell Square West	1,142	1,453	15,598
Site 4	Parnell Square West/Parnell Square North	714	1,013	8,822

In the JTC surveys, vehicles were classified into the following categories:

- Cars (CAR)
- Taxis (TAXI)
- Light goods vehicles (LGV),
- Other goods vehicles - type 1 (OGV1),
- Other goods vehicles - type 2 (OGV2),
- Dublin Buses (DBUS),
- Other buses (OBUS),
- Motorcycles (M/C) and
- Pedal cycles (P/C).

2.8.3 Parnell Square North/Parnell Square East/Frederick Street North/Gardiner Row

There was a total of 11,171 vehicles counted over the 12-hour period on the Parnell Square North/Parnell Square East/Frederick Street North / Gardiner Row junction. Figure 2.15 below shows a breakdown of the vehicles in their various classes. It was evident that there are high numbers of cyclists traversing through the junction, with cyclists recorded at 12.74%. There is a low level of Heavy Goods Vehicles, with OGV1 at 1.73% and OGV2 at 0.05%.

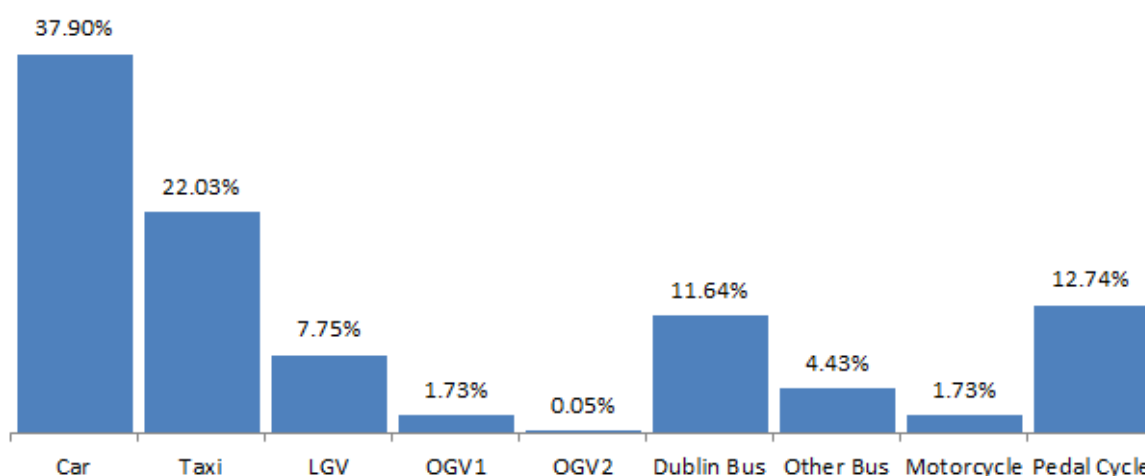


Figure 2.15: Parnell Square North/Parnell Square East/Frederick Street North/Gardiner Row

Figure 2.16 below shows the total vehicles on all arms of the junction for the whole 12-hour period, with a breakdown of the vehicles into the various categories. Travelling onto Parnell Square East had the most traffic with a total of 7,875 vehicles.

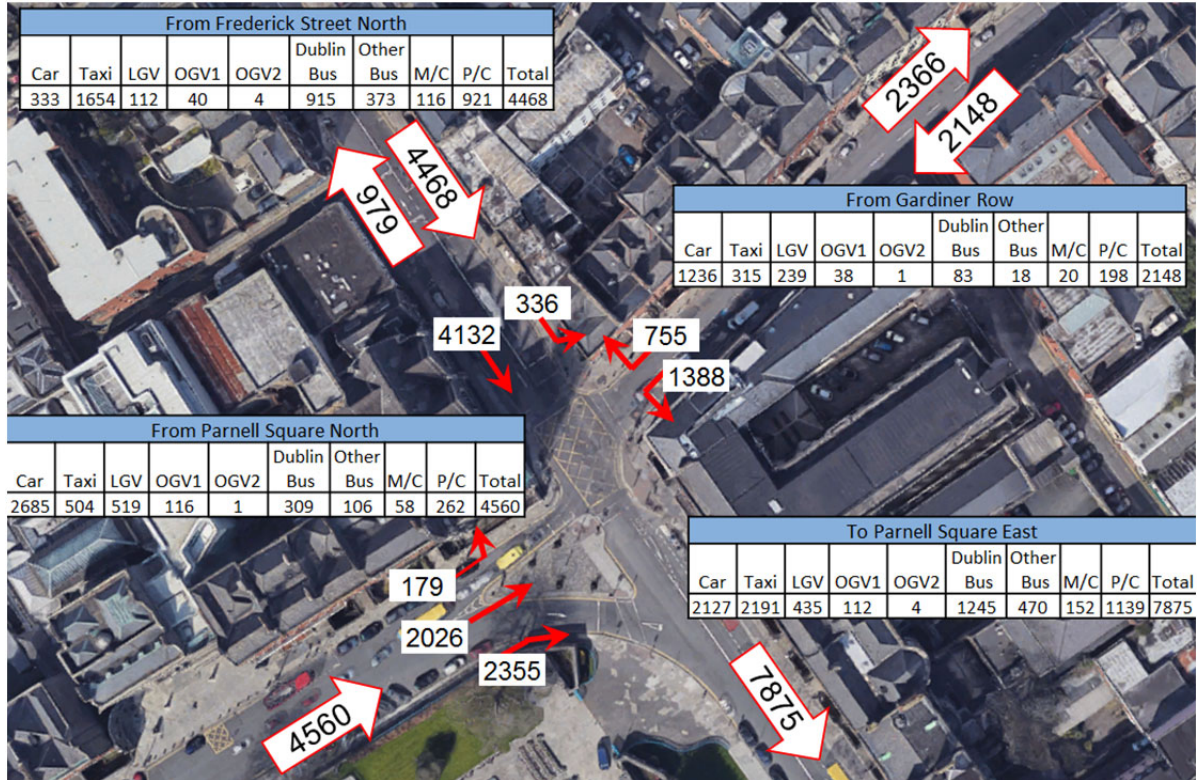


Figure 2.16: Parnell Square North/Parnell Square East/Frederick Street North/Gardiner Row

There were 20,070 pedestrian movements recorded during the 12-hour survey period, which can be seen below in Figure 2.17. The arm with the greatest number of pedestrian crossings is Gardiner Row, with a total of 7,897 pedestrians crossing at the controlled crossing. A total of 507 pedestrians were noted to cross south of the junction, at the Garden of Remembrance where no pedestrian crossing facilities are currently provided. This may indicate that an existing pedestrian desire line is not being facilitated.

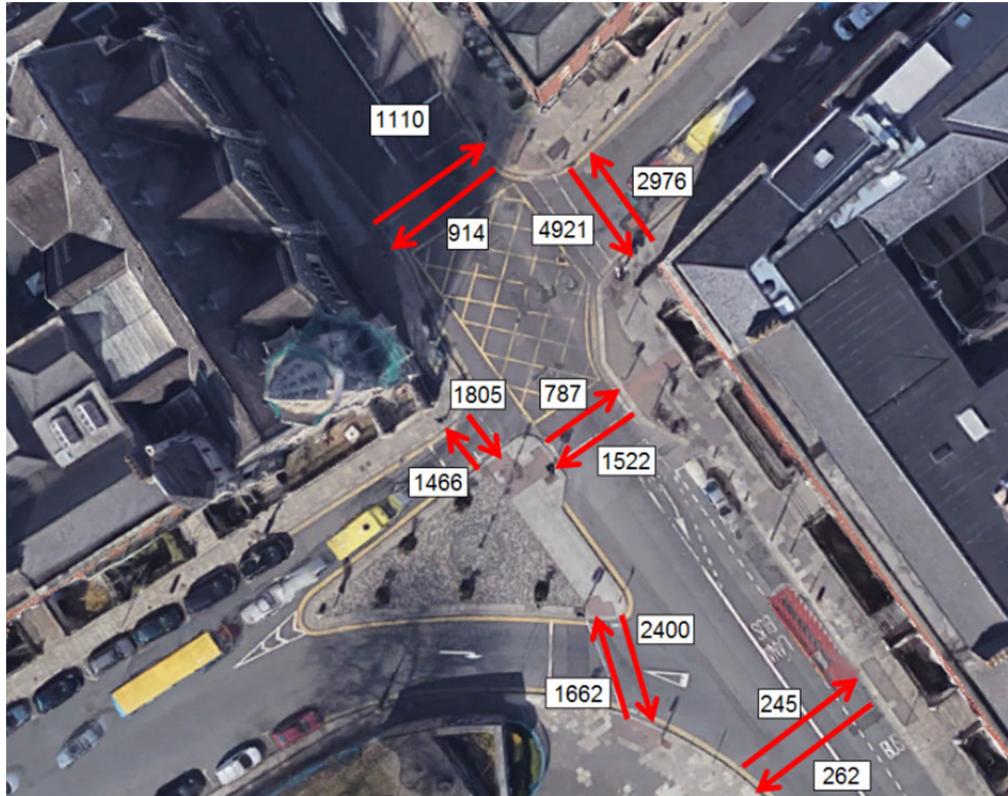


Figure 2.17: 12-Hour Pedestrian Count

Figure 2.18 shows a total of 1,376 cyclists during the 12-hour survey at this junction. The most popular route was to travel from Frederick Street North straight onto Parnell Square East, a route taken by 62.4% of the cyclists. Parnell Square East was the busiest arm of the junction, contributing to 79.7% of all cycle traffic.

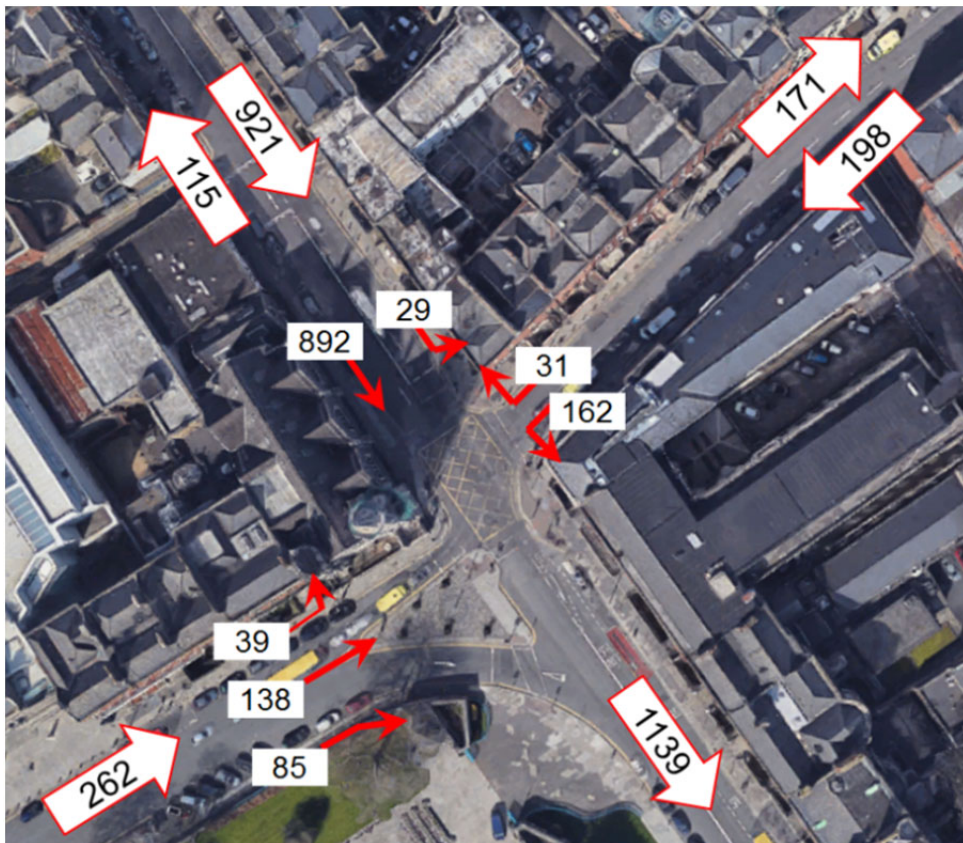


Figure 2.18: 12-Hour Cycle Traffic Count

Figure 2.19 shows the total 12-hour bus count at the junction. There was a total of 1,804 buses counted during the survey, which contributed to 16.07% of overall traffic. Of these, 1,307 were Dublin Bus (11.64% of overall traffic), while 497 were other buses such as private companies or tourist buses (4.43% of overall traffic). Travelling straight from Frederick Street North onto Parnell Square East had the highest frequency, a route taken by 70.5% of buses. This was followed by turning right from Parnell Square North onto Parnell Square East, a route taken by 19.12% of buses.

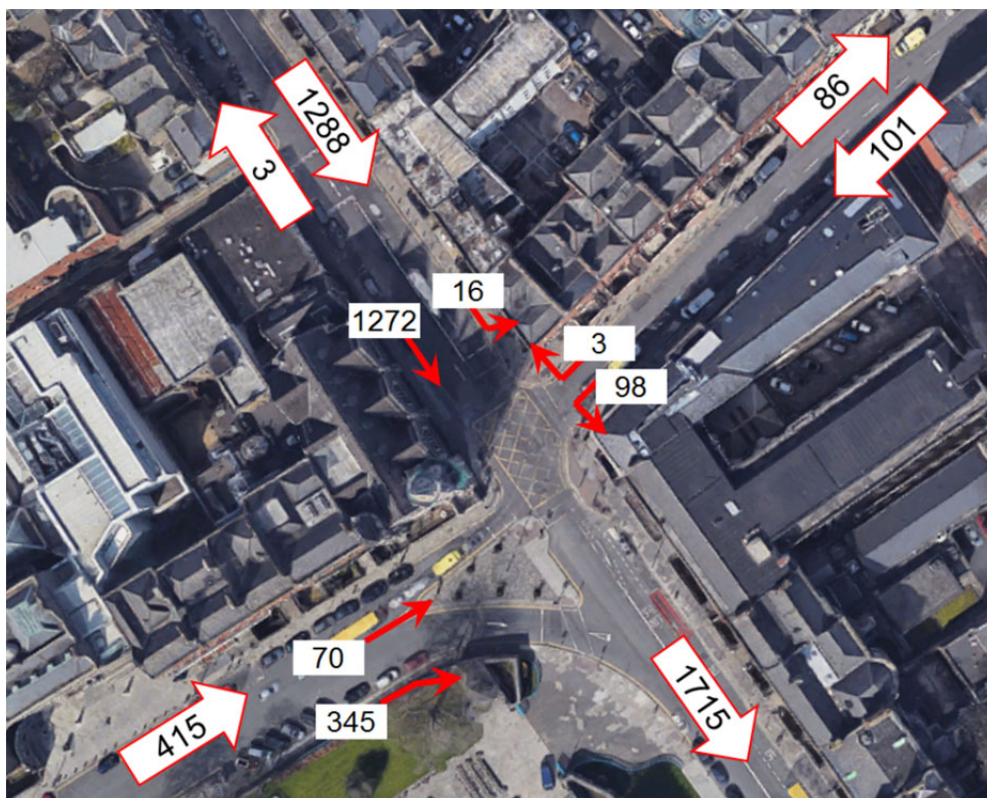


Figure 2.19: 12 Hour Bus Traffic Count

2.8.4 Cavendish Row/Parnell Street/O’Connell Street

There was a total of 17,056 vehicles counted over the 12-hour period on the Cavendish Row/Parnell Street/O’Connell Street junction. Figure 2.20 below shows a breakdown of the vehicles in their various classes. It was evident that there are high numbers of cyclists traversing through the junction, with cyclists recorded at 18.69%. However, car travel remained most popular at 32.50%. There is a low level of Heavy Goods Vehicles, with OGV1 at 1.43% and OGV2 at 0.06%.

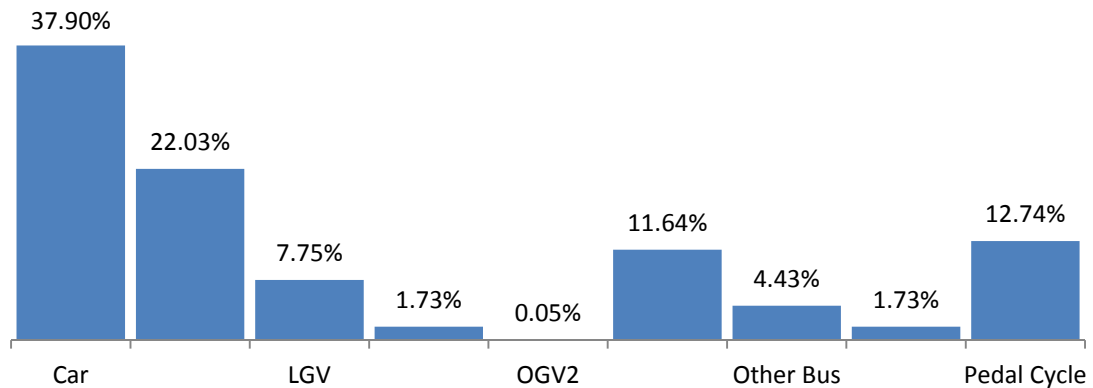


Figure 2.20: Cavendish Row/Parnell Street/O’Connell Street

Figure 2.21 below shows the total vehicles on all arms of the junction for the whole 12-hour period, with a breakdown of the vehicles into the various categories. The arm with the heaviest traffic was Parnell Street, with a total of 10,448 vehicles recorded throughout the whole survey.

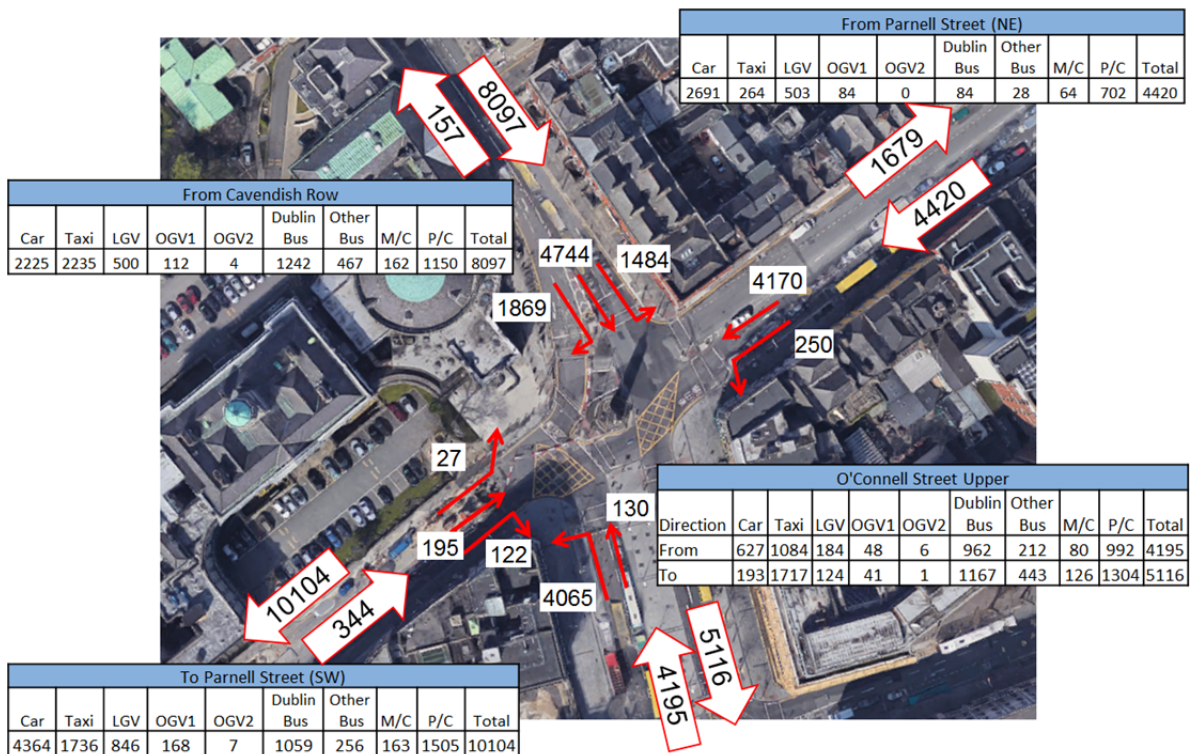


Figure 2.21: Cavendish Row/Parnell Street/O’Connell Street – 12 Hour

Figure 2.22 below shows the 12-hour cycle traffic movements at the junction. The busiest route was from Cavendish Row to O’Connell Street Upper, a route taken by 30.11% of cyclists. As seen, 344 cyclists originated from Parnell Street South-West, although this is a one-way street. Similarly an additional 130 cyclists travelled from O’Connell Street Upper to Cavendish Row, another one-way street.

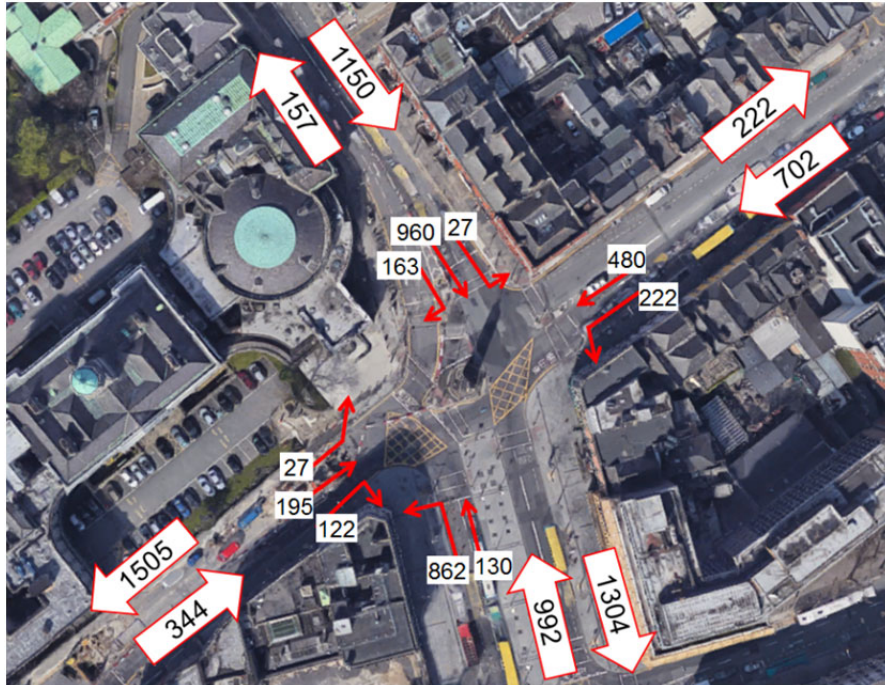


Figure 2.22: Cavendish Row/Parnell Street/O’Connell Street – 12 Hour Cycle Traffic Movements

O’Connell Street Upper had the highest frequency of buses, with 2,784 movements; 76.47% of which were operated by Dublin Bus. Many tourist buses also pass through this junction, such as: CityScape, DoDublin, CitySightseeing and the Airlink to Dublin Airport.

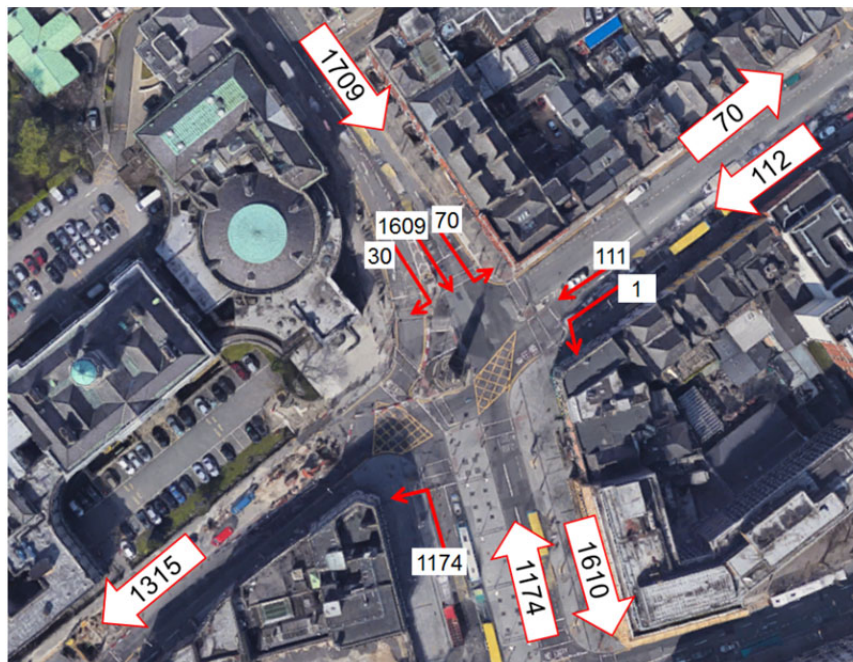


Figure 2.23: Cavendish Row/Parnell Street/O’Connell Street – 12 Hour Bus Traffic Movements

2.8.5 Parnell Street/Parnell Square West Junction

There was a total of 13,969 vehicles counted over the 12-hour period on the Parnell Street/ Parnell Square West junction. Figure 2.24 below shows a breakdown of the vehicles into their various classes. There was a very high amount of cars with 50.39% of total vehicles. Cycling was lower than the two previous junctions, but still a high percentage at 13.21%. There was a low level of Heavy Goods Vehicles, with OGV1 at 1.91% and OGV2 at 0.06%.

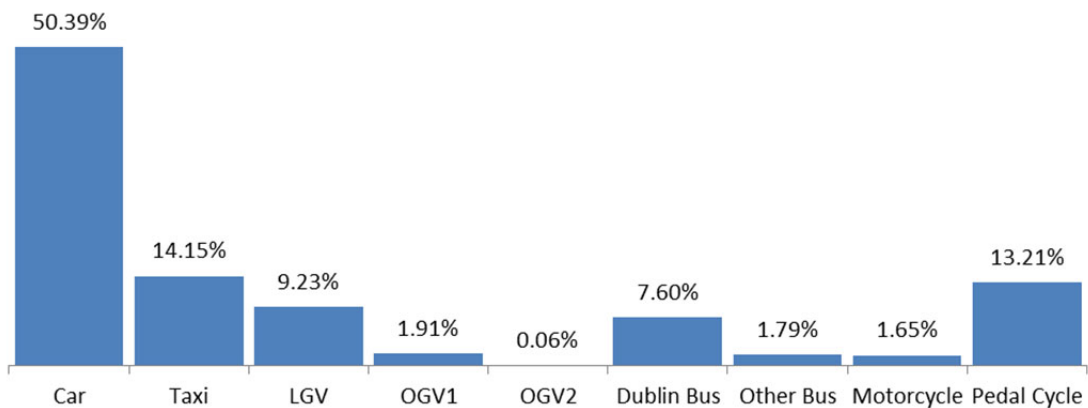


Figure 2.24: Parnell Street/ Parnell Square West

Figure 2.25 below shows the total vehicles on all three arms of the junction for the whole 12 hour period, with a breakdown of the vehicles into the various categories. The arm with the heaviest traffic was Parnell Street North-East, with a total of 10,022 vehicles throughout the whole survey. Dublin Bus contributed to 7.60% of the overall traffic, with an average service of 89 buses an hour, almost all (99.6%) of which turned right from Parnell Street North-East onto Parnell Square West.

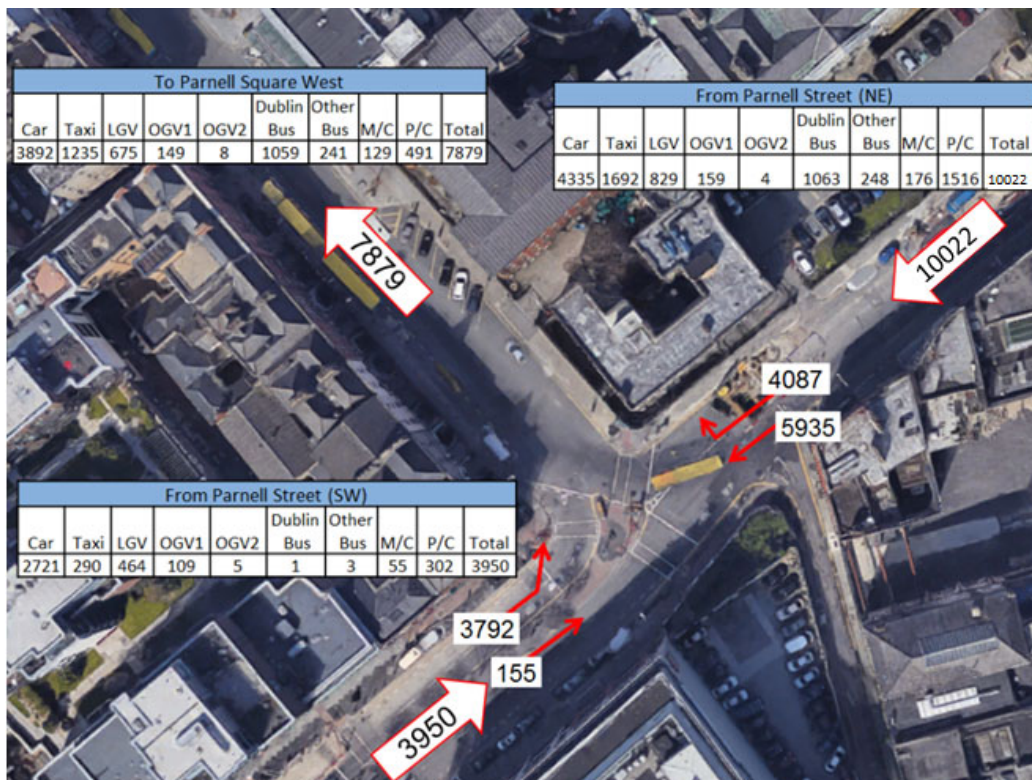


Figure 2.25: Parnell Street/ Parnell Square West – 12 Hour

Figure 2.26 below shows the 12-hour cycle of traffic that was recorded during the survey. There was a total of 1,818 cyclists during the 12-hour period, with the most popular route being from Parnell Street North-East to Parnell Street South-West, taken by 63.41% of cyclists.

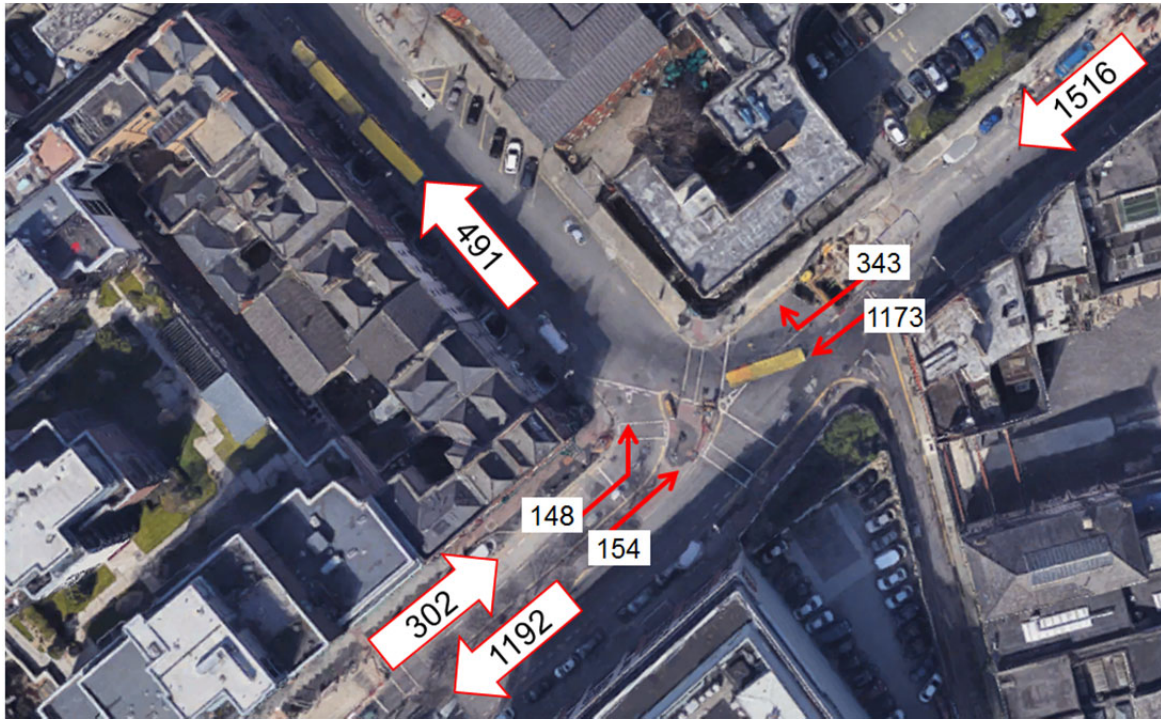


Figure 2.26: 12-Hour Cycle Traffic

Figure 2.27 below shows the 12-hour bus traffic recorded during the survey period. Buses contributed to 9.39% of the overall traffic, with Dublin Bus contributing 7.60%. Dublin Bus supplied an average service of 89 buses an hour, almost all (99.6%) of which turned right from Parnell Street North-East onto Parnell Square West.

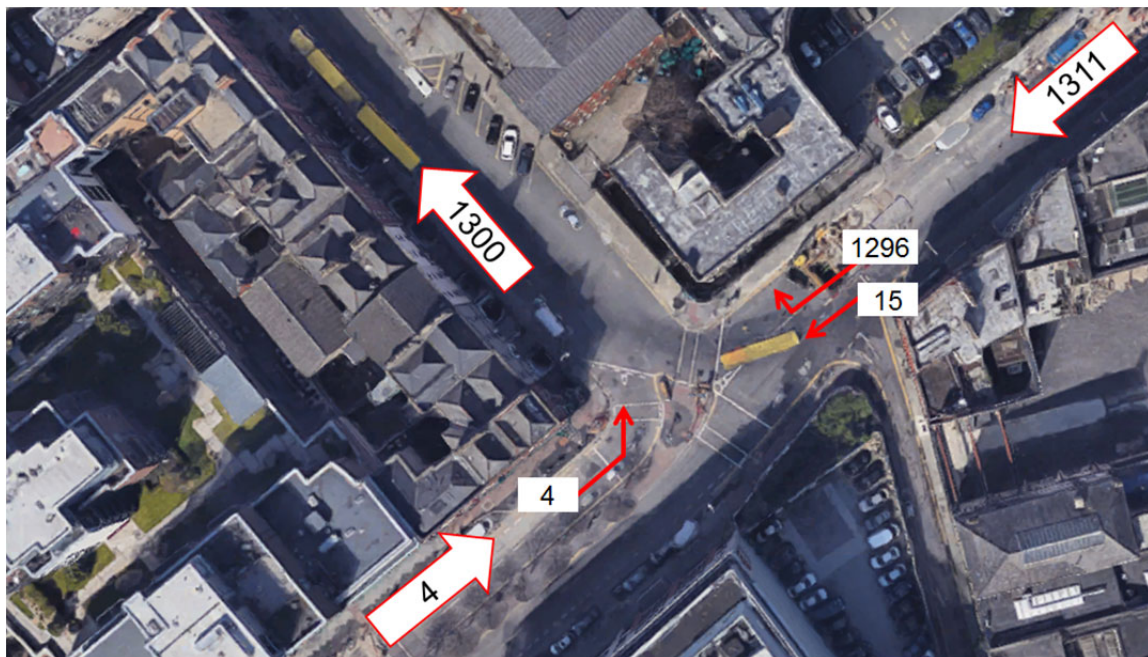


Figure 2.27: 12-Hour Bus Traffic

2.8.6 Parnell Square West/Parnell Square North

There was a total of 8,014 vehicles counted over the 12-hour period on the Parnell Square West/ Parnell Square North junction. Figure 2.28 below shows a breakdown of the vehicles in their various classes. Cars were the most popular mode of transport at 49%. Cycling was lowest of all modes, accounting for only 7.77% of all vehicle movements. There was a low level of Heavy Goods Vehicles, with OGV1 at 1.81% and OGV2 at 0.09%.

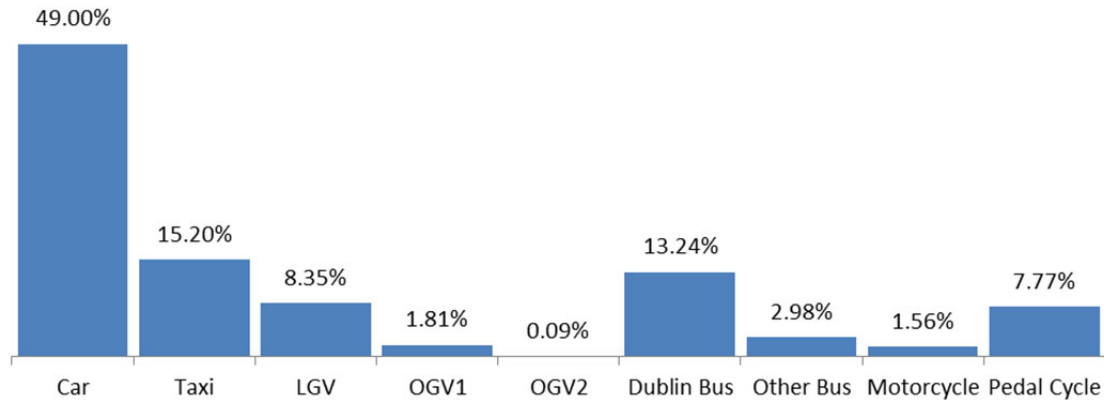


Figure 2.28: Parnell Square West/ Parnell Square North

Figure 2.29 below shows the total vehicles on all three arms of the junction for the whole 12-hour period, with a breakdown of the vehicles into the various categories. The arm with the heaviest traffic was Parnell Street West, with a total of 7,944 vehicles throughout the whole survey.



Figure 2.29: Parnell Square West/ Parnell Square North – 12-Hour

Figure 2.30 below shows the 12-hour cycle traffic that was recorded during the survey. There was a total of 623 cyclists recorded during the 12-hour period, with the most popular route being from Parnell Square West to Granby Row, taken by 60.5% of cyclists.



Figure 2.30: 12-Hour Cycle Traffic

Figure 2.31 shows the 12-hour bus traffic survey, with a total of 1,300 buses. Dublin Bus contributed to 13.24% of the overall traffic, with an average service of 89 buses an hour, 29% of which turned right onto Parnell Square North.

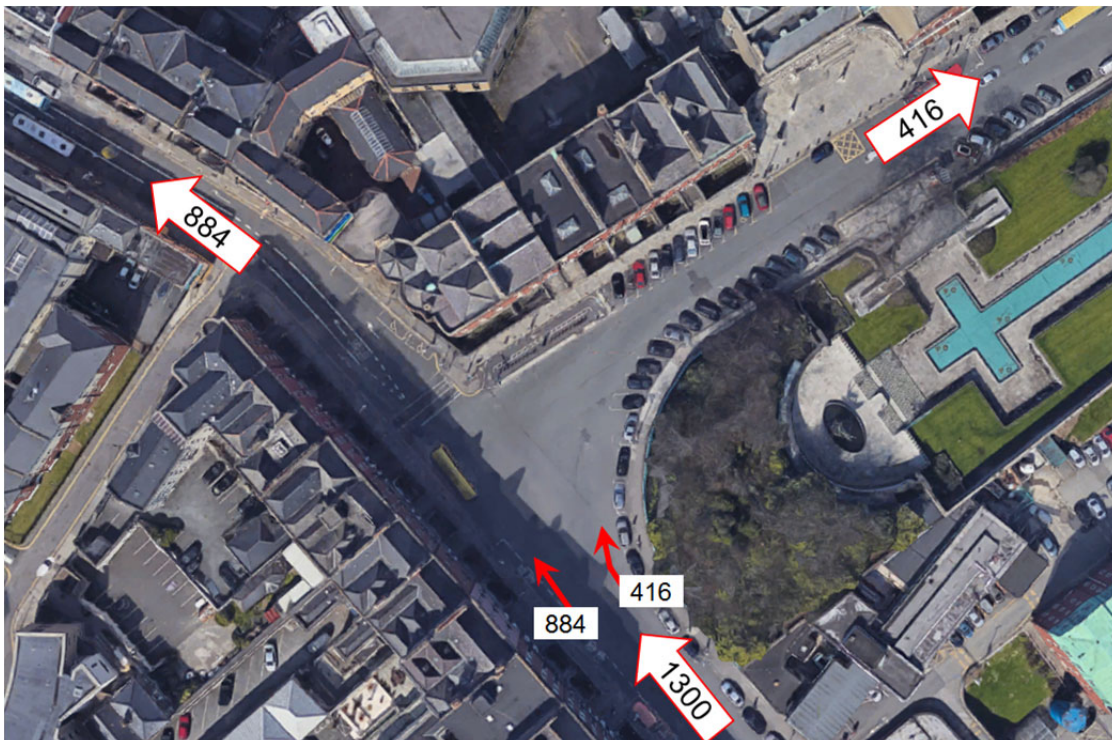


Figure 2.31: Parnell Square West/ Parnell Square North – 12-Hour Bus Traffic

2.9 Bus Survey

A bus survey was undertaken on Parnell Square North. The bus stop on Parnell Square North is located directly opposite the Garden of Remembrance, alongside Dublin City Gallery – The Hugh Lane, and The Irish Writers’ Centre. It is approximately 13 metres in length and there are 4 poles advertising several bus companies: John Mc Ginley, DoDublin, Airlink, CityScape and CitySightseeing.

The bus stop on Parnell Square North is used by all bus/coach operators. During the 12-hour survey period, 95 buses were recorded to have stopped, from 13 different operators. There was an average of 8 buses per hour, with a maximum of 13 which occurred between 11:00 and 12:00. The minimum number of buses per hour was 4, which occurred between 18:00 and 19:00.

The full bus survey analysis is provided in Appendix G of this report.

2.10 Proposed Public Transport Upgrades

Future Public Transport facilities, including significant proposals to upgrade the public transport, cycle and walking facilities are outlined in the sections below. There are significant proposals planned in the [Transport Strategy for the Greater Dublin Area 2016–2035](#) which will improve access to Parnell Square and the city centre.

2.10.1 Bus Connects

The NTA unveiled its new plan for Dublin’s bus network, BusConnects, in June 2018. The NTA highlighted a number of routes where the demand for travel necessitates significant levels of infrastructural investment in order to minimise delays to bus services. The identified core network comprises sixteen radial bus corridors. The proposed Swords to City Centre route passes via Parnell Square East and West, as shown in Figure 2.32.

Bus Connects will overhaul the current bus system by: building a network of ‘next generation’ bus corridors to improve transport efficiency and connect more people and places; introduce seamless electronic ticketing, improving boarding times and transfer between transport services; and transitioning the roll-out of a new low emission vehicle fleet along with improved passenger sheltering and signage infrastructure.



Figure 2.32: Proposed Swords to City Centre Route (source: BusConnects.ie)

2.10.2 Metro Link

Metro Link is a modified version of the original Metro North proposal. The original proposed route was from the City Centre to Swords, whereas the new route runs from the estuary north of Swords to Sandyford, a total distance of 26km.

This new metro line will provide a high-speed, high-capacity, high-frequency public transport link (a train every two minutes in each direction). A large proportion of the route is underground; importantly it includes Dublin Airport and the city centre. The route will then go above ground close to Charlemont Stop on the LUAS Green Line. The existing line will be upgraded to metro standard in order to cater for the Metro Link.

Metro Link will serve a large number of significant destinations, including: Swords, Dublin Airport, Ballymun, Dublin City University, the Mater Hospital, City Centre, St Stephen’s Green, Dundrum and Sandyford Business District. There will be 15 new stations and an additional 3,000 park and ride spaces provided. This new infrastructure will provide a high frequency service for the new cultural quarter with an underground stop provided on O’Connell Street.

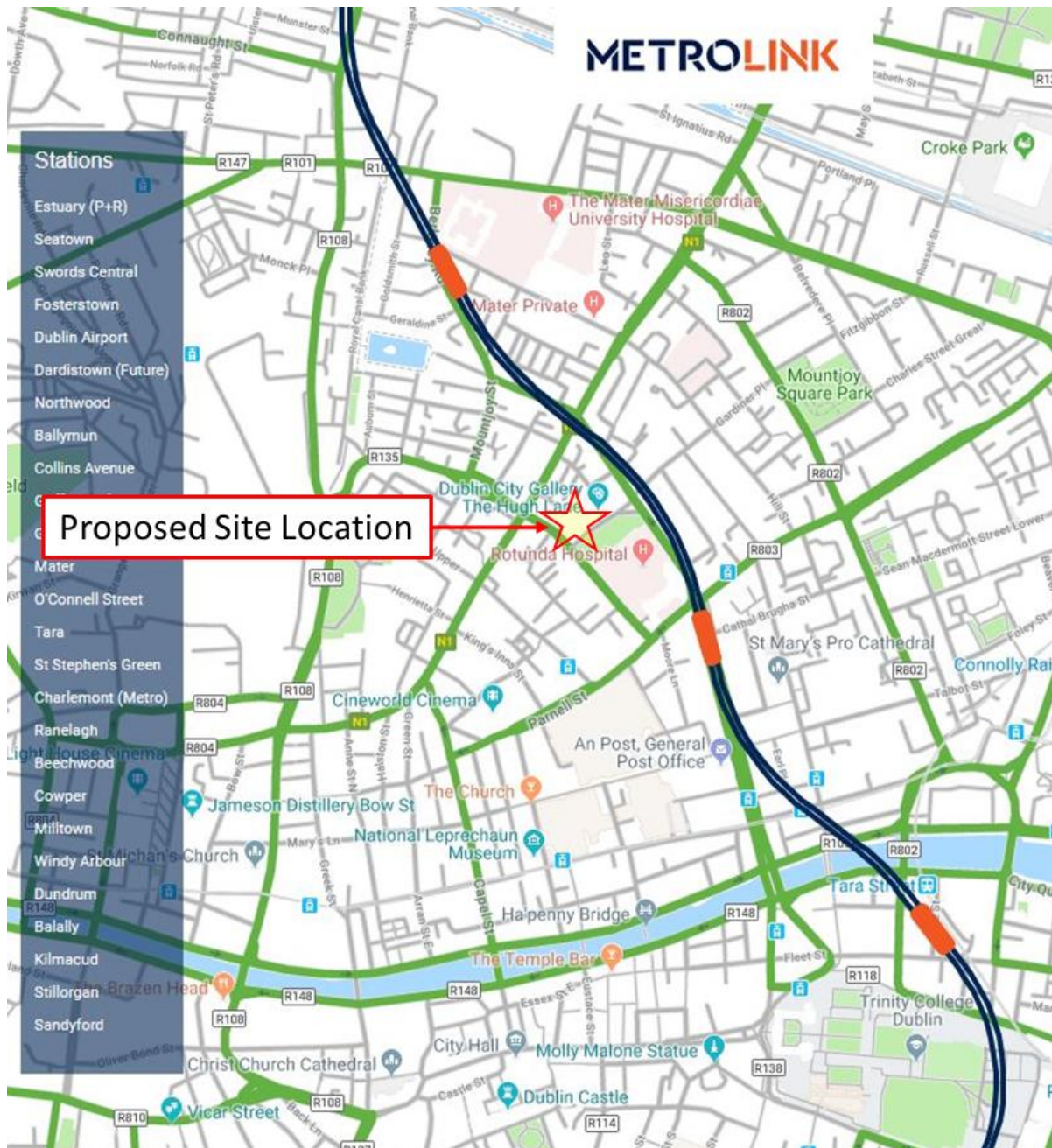


Figure 2.33: Proposed Metro Link in Dublin City Centre

2.10.3 Dublin City Council Strategic Green Routes

The Dublin City Council Development Plan (2016 – 2022) identifies a number of proposals for: Green Routes (which would provide for cyclists and pedestrians), strategic pedestrian routes and cycle routes across the city. Figure 2.34 below illustrates the city centre green route network proposed in the Development Plan, with plans for the following green routes: Parnell Square East, Frederick Street North, Gardiner Row, Parnell Street, Dorset Street and Dominick Street. Figure 2.35 illustrates the strategic pedestrian routes proposed in the same document, with O’Connell Street listed as a Civic Spine and Liffey Corridor strategic route; and the four sides of the square listed as secondary streets.

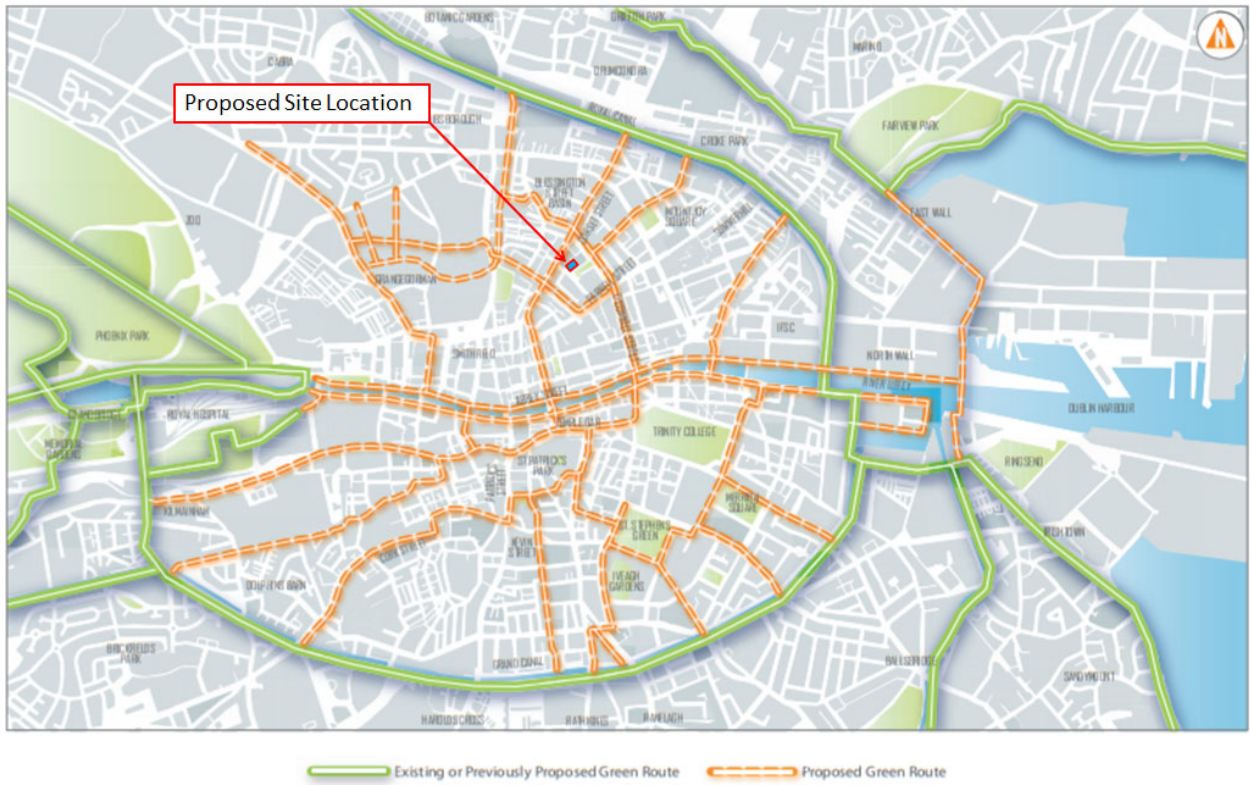


Figure 2.34: City Centre Green Routes (DCC Development Plan 2016 – 2022)

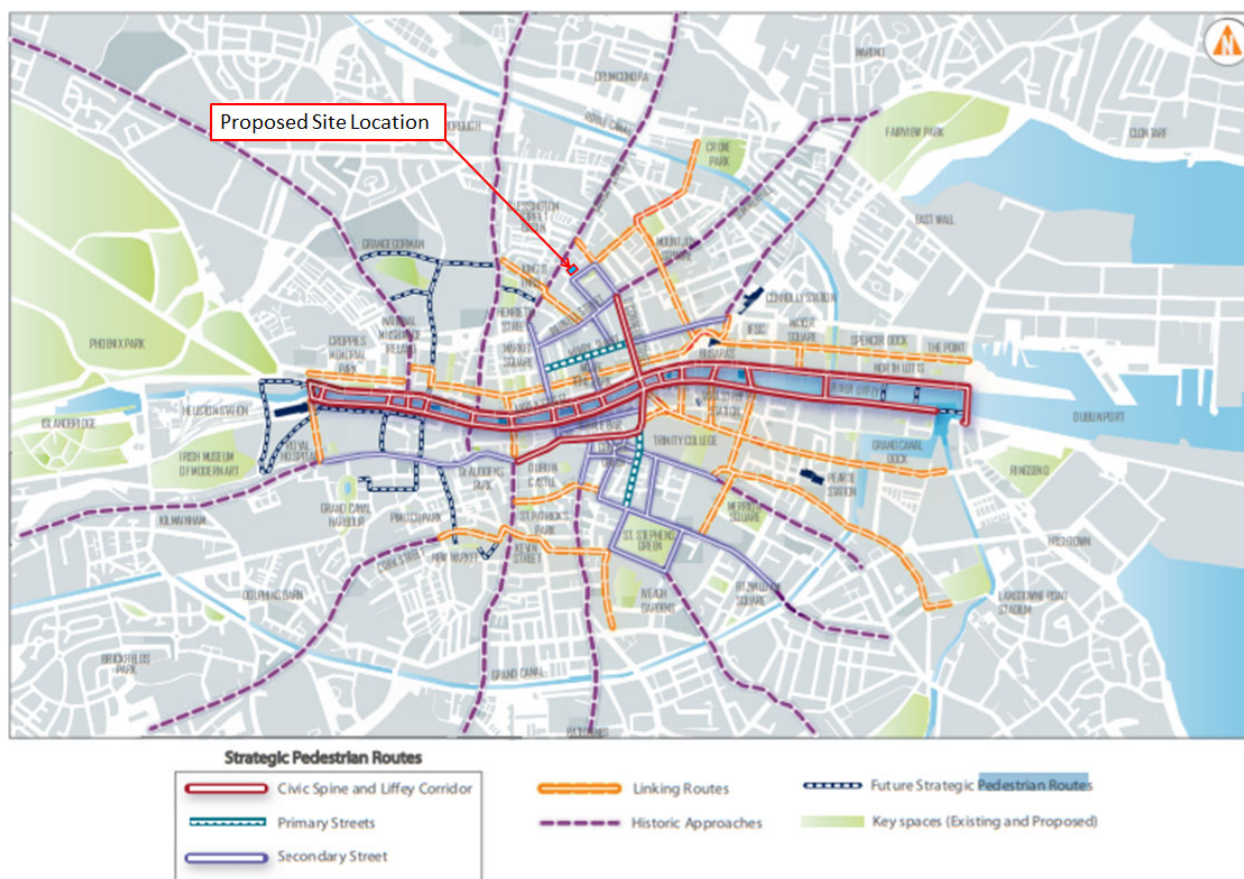


Figure 2.35: Strategic Pedestrian Routes (DCC Development Plan 2016 – 2022)

It can be seen from Figure 2.36 below that Parnell Square has been identified as forming an important part of a future strategic pedestrian network, with secondary street pedestrian routes on Parnell Square. Parnell Square connects to the Civic Spine and Liffey Corridor route on O’Connell Street. The Civic Spine is set out in the Development Plan and the Dublin City Public Realm Strategy as a route through the city centre along which the city’s primary civic, cultural and historic attractions connect. The route is from O’Connell Street, from College Green to Christchurch Place.

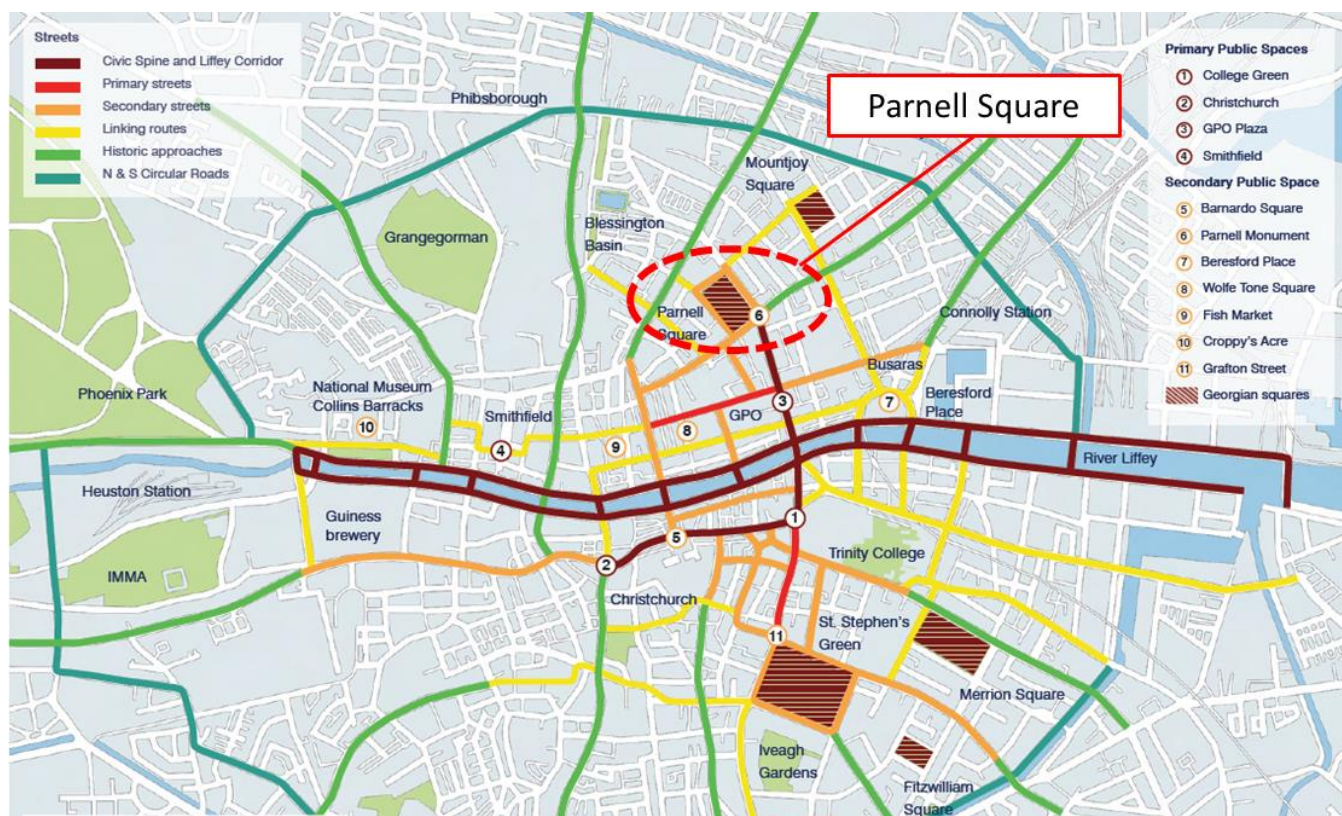


Figure 2.36: Dublin City Public Realm Strategy

2.11 Cycle Upgrades

The National Transport Authority prepared a strategic cycle network plan for the Greater Dublin Area. The study identified cycle routes for: Dublin City, Fingal, South Dublin, Dun Laoghaire-Rathdown, Meath, Kildare and Wicklow, which should be prioritised over the next ten years. Routes have been categorised as primary, secondary, feeder and green routes depending on the demand for their use and the quality of service that can be delivered. From the analysis of cycling demand, 13 primary radial cycle routes have been identified that link the city centre to key suburban areas.

Figure 2.37 shows the proposed cycle infrastructure in the area around Parnell Square from the Greater Dublin Area Network Cycle Plan. A number of radial routes pass close to Parnell Square, but in particular primary route No. 3, which traverses Parnell Square East. Other notable routes include: the No. 2A on Dorset Street, No. 2B on Gardiner Row, and the no. 4 on Parnell Street.

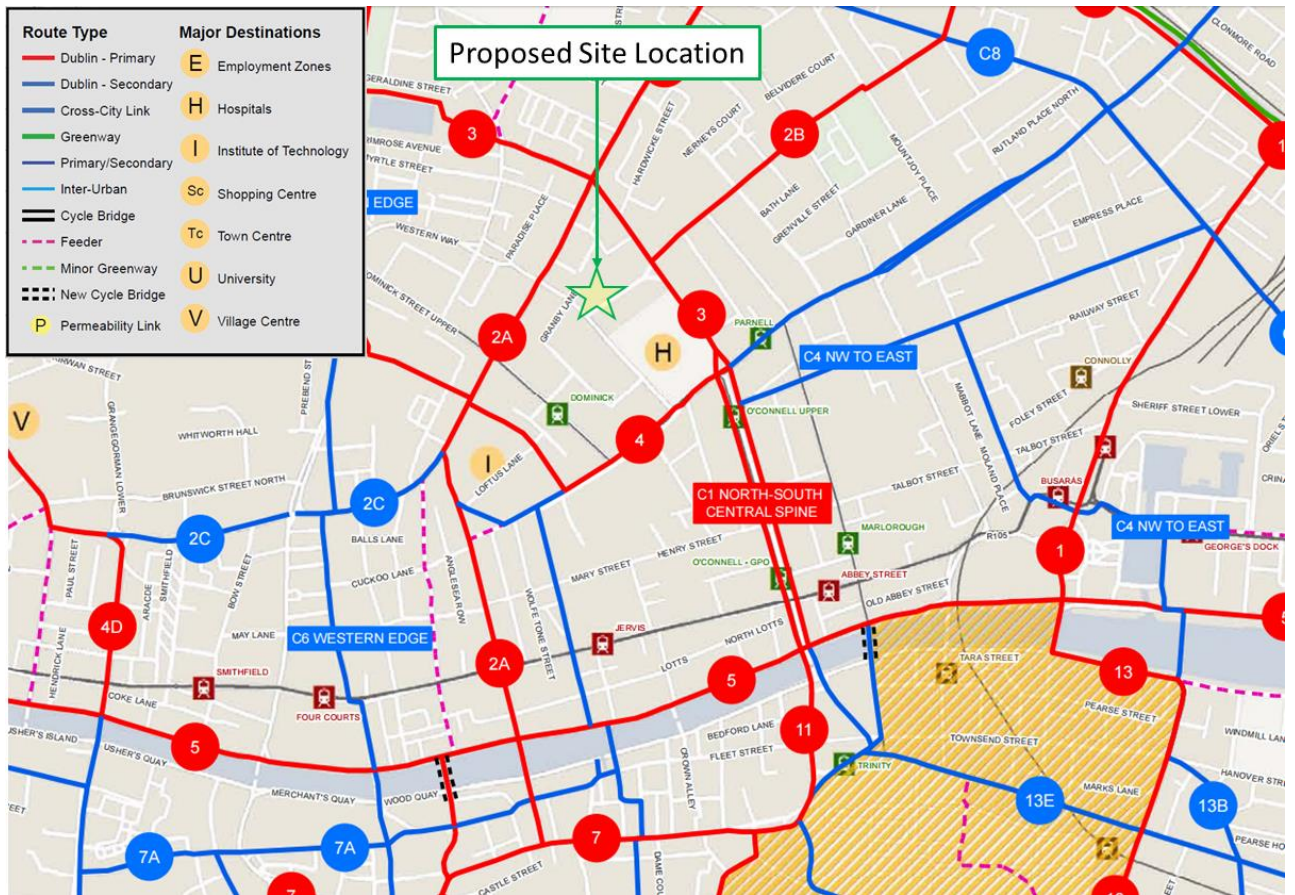


Figure 2.37: Proposed GDA Cycle Network Plan

3. The Proposed Development

3.1 General

The proposed development comprises a mix of new library spaces, which are, in summary:

- Lending and Reference Library (items for loan and reference in multiple formats);
- Children's and Young Adults' Library (learning, reading, activity and recreational spaces for creating music, theatre, art, media and gaming);
- Storey House (a literature centre, displaying, interpreting and showcasing Dublin's unique literary heritage);
- Conference and Exhibition Spaces (for large and small events, bookable by the community);
- Learning Suite (comprising a digital media hub and online learning centre);
- Music Hub (offering a blend of physical and digital resources, listening, downloading and creating facilities); and
- Innovation Hub (supporting the business and enterprise needs of the city with collections, online resources and spaces in which to work and collaborate).

The development proposals comprise a mix of new educational centres, with a total gross floor area (GFA) of approximately 11,198sqm. Access is provided at street level, helping to promote interaction between outside and inside. It is also proposed to provide a central pedestrian space that functions as a grounds for meeting, performance, working, social events and a link between the Cultural Quarter and the Garden of Remembrance.

3.2 Proposed Public Realm

As part of this development it is also proposed to improve the public realm of Parnell Square North. These improvements are primarily focused on providing better public space for pedestrians and cyclists, while maintaining two lanes for existing traffic. The new pedestrian facilities include improvements to the public realm of Parnell Square North, with wider footpaths and high-quality pedestrian connectivity to the main public transport routes on Parnell Square East and West. Thus, the proposed layout results in a more equitable distribution of space between all modes.

The proposed public realm is provided in Bernard Seymour Landscape Architects' layouts, shown in Figure 3.1 below. The main features of the public realm include the following:

- Provision of two traffic lanes, each 3.0m wide;
- Reconfiguration of the Parnell Square East and Parnell Square West Junctions;
- New pedestrian crossings on Parnell Square East and West;
- Widening of the footpaths on Parnell Square North;
- Provision of a controlled crossing on Parnell Square North;

- Relocation of the existing Dublin Bikes Station;
- Provision of cycle parking on Parnell Square North; and
- New street furniture, public lighting and street art.

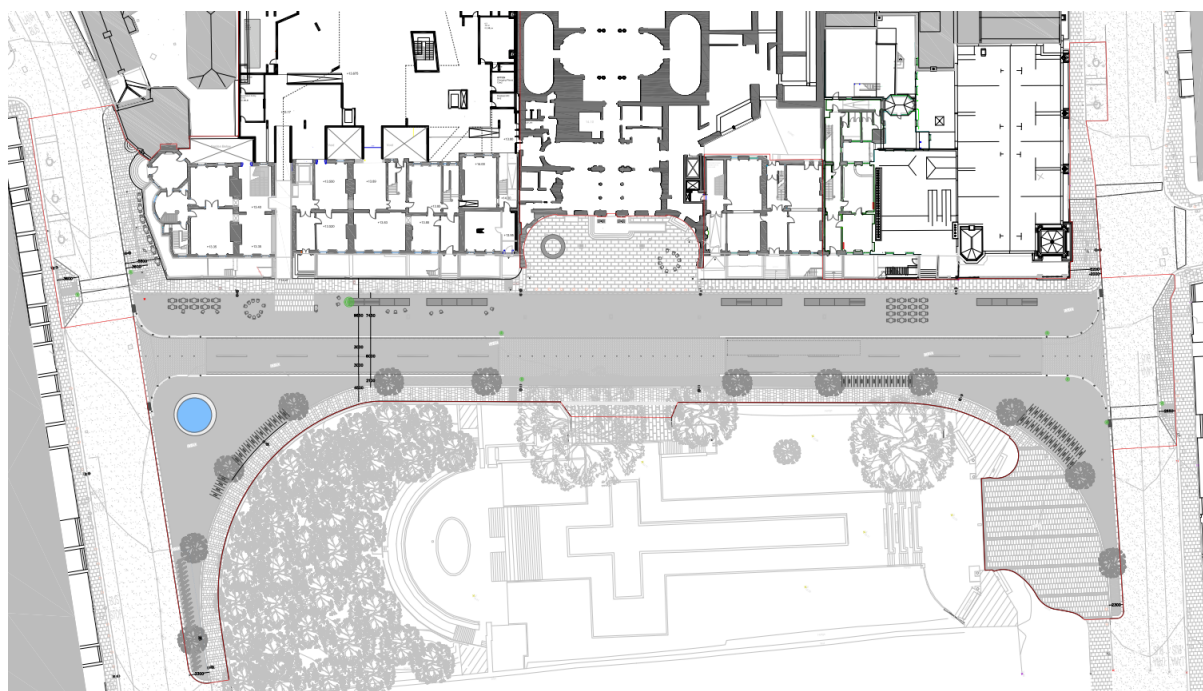


Figure 3.1: Proposed New Public Realm Parnell Square North (Source: Bernard Seymour Landscape Architects)

3.3 Proposed Road Layout

It is proposed to redistribute some of the existing road space on Parnell Square North which is currently used for traffic, to improve the public realm for pedestrians and cyclists. The principal proposal for the redistribution is to remove the existing parking and provide two lanes of traffic on Parnell Square North, both 3.0m wide, in accordance with DMURS. The provision of a nearside traffic lane will allow for the set down of buses and deliveries. It is proposed to remove the existing large radii at the junction of Parnell Square West / Granby Row / Parnell Street North, where it is noted that motorists drive at excessive speeds (discussed in Section 2.6). This will also reduce the crossing distance here at Parnell Square North, where there might be a future pedestrian desire line into the entrance of the Cultural Quarter. It is also proposed to remove the existing right slip lane which turns onto Parnell Square East. The changes to the road layout are highlighted in Figure 3.2, below.

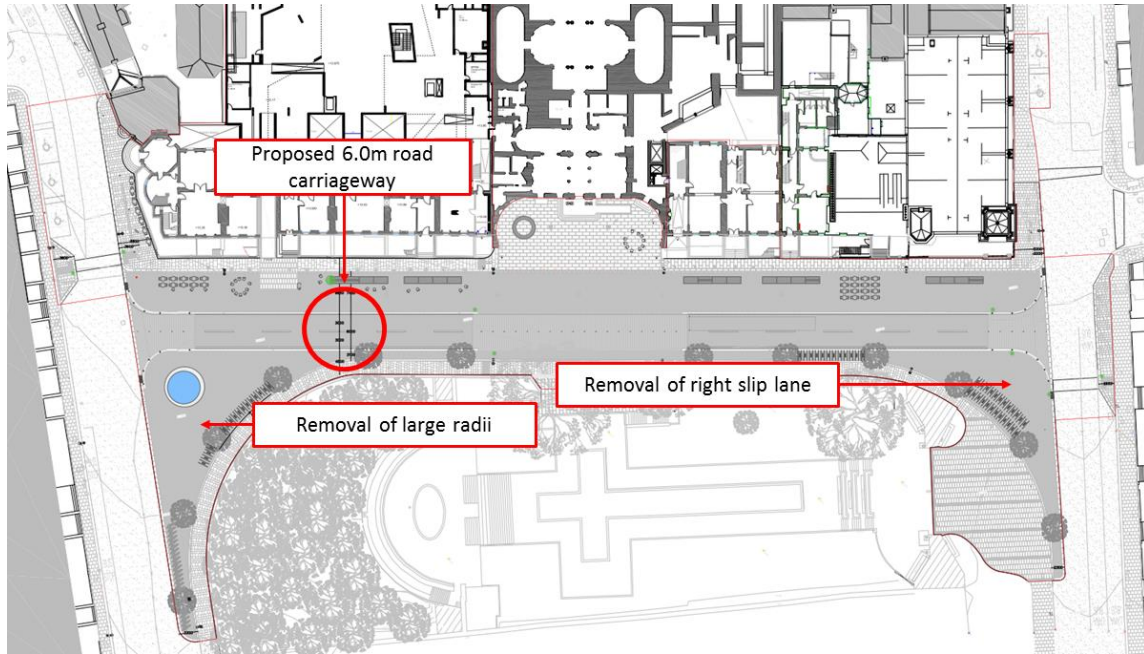


Figure 3.2: Proposed Changes to the Road Carriageway Layout

3.4 Proposed Pedestrian Provision

It is proposed to provide a 9.85m-wide pedestrian plaza to the north of the proposed road carriageway. Currently the footpath on the northern side of Parnell Square North is only 2.5m wide. It is also proposed to increase the width of the footpath south of the road carriageway, from 2.5m to 4.5m. New controlled crossings are proposed, including: a controlled crossing to the west of the Hugh Lane Gallery, a new controlled crossing on Parnell Square East, and upgrading the existing crossing on Parnell Square West. All these proposed upgrades are highlighted in Figure 3.3 below.

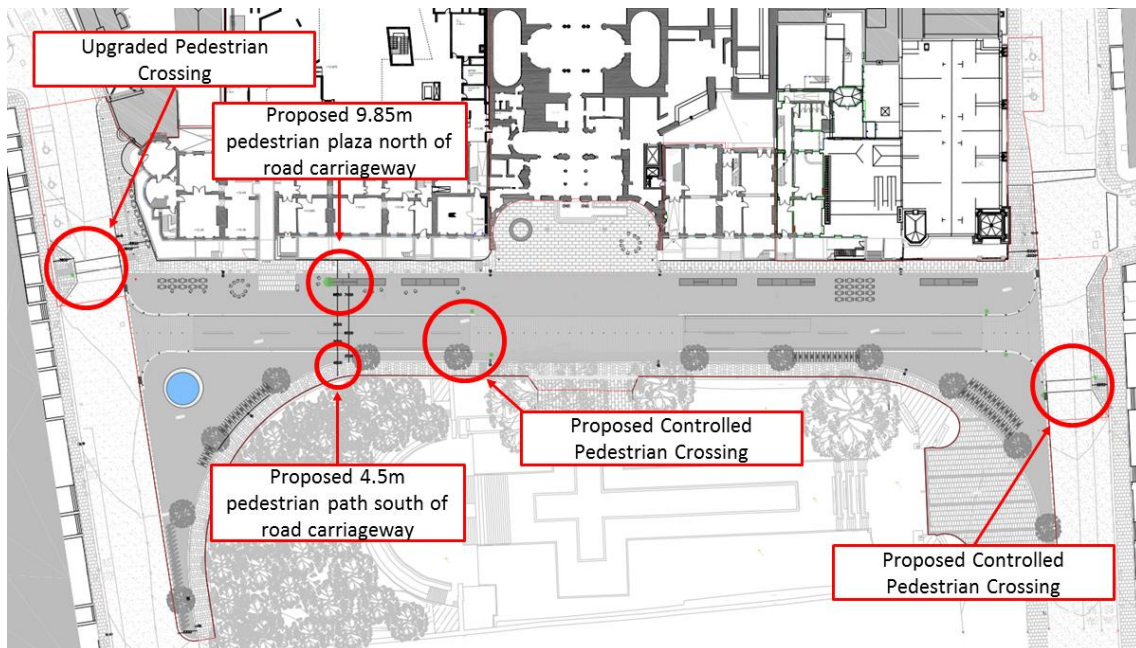


Figure 3.3: Proposed Upgrades to the Pedestrian Provision

3.5 Cycle Parking

It is proposed to provide 50 cycle parking stands, providing 100 spaces (i.e. 2 bicycles per rack). This new cycle parking is proposed along Parnell Square North at various locations, as shown Figure 3.4 below.

There is an existing Dublin Bike Station located outside the former Coláiste Mhuire site on Parnell Square North. It is proposed to relocate the Dublin Bike Station to an area adjacent to the Garden of Remembrance on Parnell Square West, as shown in Figure 3.4 below.

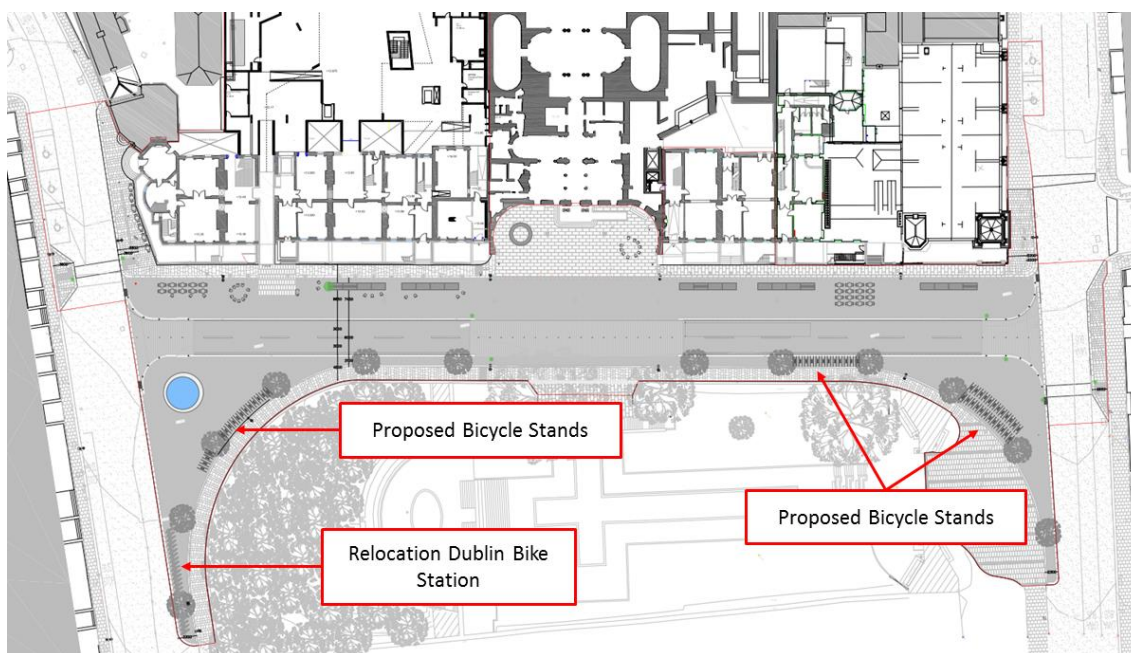


Figure 3.4: Proposed Cycle Parking Provision

3.6 Cycle Parking Standards

Regarding cycle parking requirements, a review has been undertaken of the DCC cycling policy standards set out in Dublin City Council Development Plan 2016–2022. The standards provide a guide on the number of bicycle parking spaces to be provided for new developments in terms of visitor and long-stay parking. The cycle parking standards are summarised for the proposed land uses in Table 3.1, while Table 3.2 presents the cycle parking requirements for the proposed scale of the development.

Table 3.1: DCC Cycle Parking Standards

Land Use	Zone	Cycle Parking Standard
Cultural and Recreational Buildings	2	1 per 150 sq.m

Table 3.2: Cycle Parking Standards

Proposed Development	GFA	Cycle Parking Requirement
Parnell Square Cultural Quarter	11,198	75

Fifty cycle parking stands and 100 spaces (i.e. 2 bicycles per rack) are proposed, exceeding those required by the DCC Cycle Standards. The cycle parking is proposed along Parnell Square North at various locations, as shown Figure 3.4 above.

Furthermore, four dedicated staff bike parking stands are proposed in the secure laneway loading area at the new Cultural Quarter.

3.7 Car Parking

The proposed public realm enhancements will result in the loss of: 47 car parking spaces on Parnell Square North (44 standard spaces and 3 mobility-impaired); 4 car parking spaces on Granby Row; 2 car parking spaces on Parnell Square West; and 2 car parking spaces on Frederick Street North. The removal of these car parking spaces is essential to provide the space necessary to: create a high-quality public realm and linear plaza; cater for the increased numbers of visitors to the area; and help upgrade the wider urban quarter on Parnell Square North.

It is also proposed to mitigate any loss of mobility-impaired spaces with the provision of three new mobility-impaired spaces on Granby Row and the conversion of two standard spaces on Frederick Street North, from standard to mobility-impaired, approximately just 160m from the development site entrance. These changes to car parking are set out in Table 3.3 below.

Table 3.3: Proposed Changes to Car Parking

Location	Loss of Spaces		Additional Spaces		Total Change	
	Standard	Mobility Impaired	Standard	Mobility Impaired	Standard	Mobility Impaired
Parnell Square N	44	3	0	0	-44	-3
Granby Row	2	2	0	3	-2	+1
Parnell Square W	2	0	0	0	-2	0
Frederick Street North	2	0	0	2	-2	+2
Total	-50	-5	0	5	-50	0

The proposed mobility-impaired car parking spaces will be a minimum of 3.0m wide by 4.75m long, in accordance with the Dublin City Development Plan 2016–2022, compared to the existing narrow spaces provided. Car parking surveys undertaken in the area (detailed further in the Parnell Square Cultural Quarter Parking Report), show that these five mobility-impaired spaces will be more than adequate to meet current demand. The proposed locations of the car parking spaces are shown in Figure 3.5.

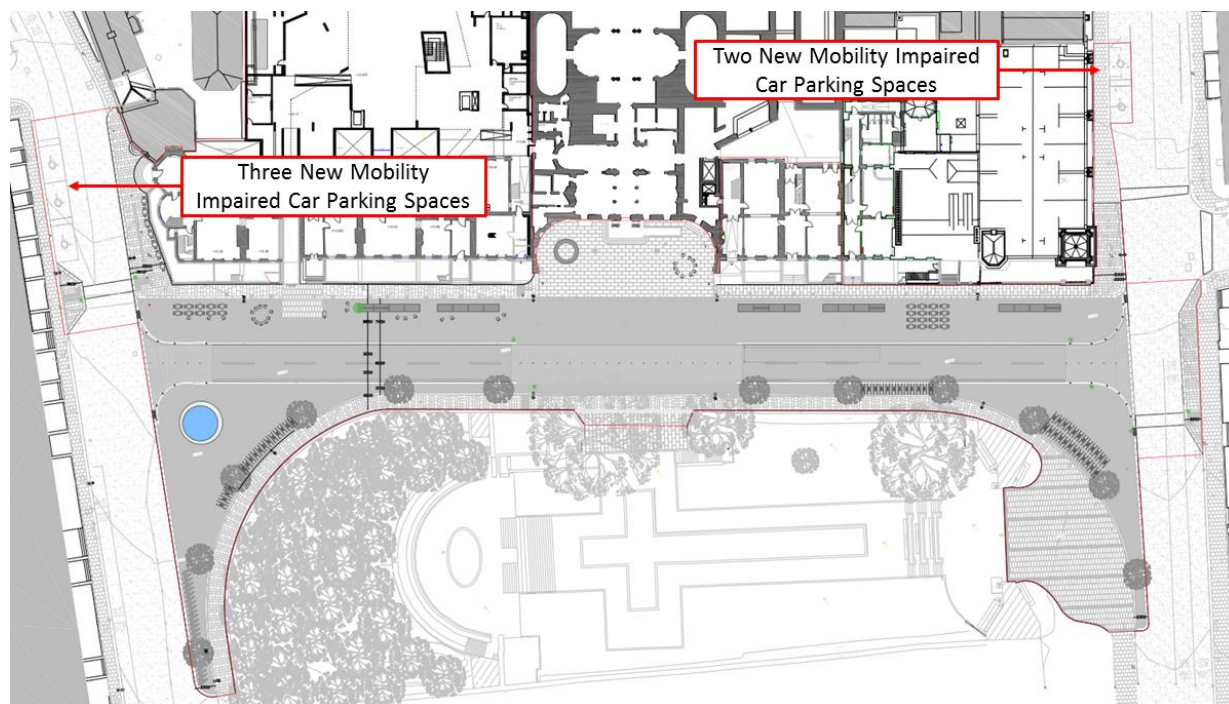


Figure 3.5: Proposed Locations of Mobility Car Parking Spaces

It is not proposed to provide standard car parking at the development site. There is on-street parking provided in the local area, with multi-storey parking provided at a number of nearby locations, including: Rotunda Hospital, Parnell Centre, the Ilac Centre, Moore Lane, the Gresham and Cathal Brugha Street. The number of parking spaces is shown in Table 3.4 and their locations are shown graphically in Figure 3.6.

Table 3.4: Multi-storey Car Parking Provision

Multi-storey Parking	Car Parking Provision
Rotunda Hospital	91
Parnell Centre	500
Ilac Shopping Centre	1000
Moore Lane	95
Riu Plaza – The Gresham	100
Clerys – Cathal Brugha Street	567
Total	2,353



Figure 3.6: Multi-storey Car Parks in the Local Area

3.8 Servicing

3.8.1 Existing Servicing Arrangements

Access will be required for servicing vehicles to the proposed developments for refuse and deliveries. A data collection survey was undertaken in May 2018 to identify the existing level of delivery vehicles on Parnell Square North. The findings identified that over the course of a 12-hour survey period, 4 delivery trucks / vans were parked on Parnell Square North. Two of these deliveries were for the Hugh Lane Gallery, while the other two were for Frederick Street North. Therefore, the

existing number of deliveries on Parnell Square North is low, as set out in the Delivery Survey Technical Note, provided in Appendix H.

3.8.2 Projected Servicing Arrangements

To further investigate the servicing arrangements that will be required by the proposal, a projected delivery schedule was provided by the existing Central Library staff. This projected delivery schedule was analysed and it was identified that the only categories of deliveries that will require servicing arrangements on Parnell Square North are:

- **Music** – ‘Instruments and Equipment’ and ‘Coral Other’ require use of the Main Entrance occasionally.
- **Nos. 20/21** – ‘Exhibition and Event Materials’ require use of Parnell Square North to reach the Innovation Hub and Design Gallery.
- **Food / Café / Restaurant** – ‘Food Waste from Staff’, ‘Food Waste from Education’ and ‘Food Deliveries’ require use of Parnell Square North in order to avail of a service hoist located at the front of the building, in close proximity to the Cultural Quarter Catering Hub. This will avoid food waste and perishables being transported through the public areas of the building.

All other categories of deliveries are expected to use Frederick Lane where a secure loading area has been provided. The deliveries that will use Frederick Lane are:

- **City Library - Distribution of library materials;**
- **Maintenance and Waste;**
- **Stationery, Office Consumables;**
- **Exhibitions and Events.**

Frequency and Location

Servicing arrangements for the ‘Food, Café / Restaurant’s’ requirements of waste removal and food delivery will require approximately 2 daily deliveries, with an additional 13 separate deliveries over the rest of the month.

Additionally there will be approximately 6 deliveries per month on Parnell Square North to service ‘Music’ arrangements and ‘Nos. 20/21’ exhibition and event materials. The remaining deliveries will use the secure loading area on Frederick Lane where it is expected that there will be an average of 8 deliveries daily.

Types of Vehicle

In terms of the delivery vehicles servicing the Parnell Square Cultural Quarter, the existing Central Library staff have advised that that all proposed deliveries on Parnell Square North will be conducted using Light Goods Vehicles (LGVs), in particular transit vans. It has also been advised that deliveries on Frederick Lane will be predominately conducted by LGVs; however, provision exists for larger vehicles (Rigid Heavy Goods Vehicles), to service the site from the secure loading area, if required.

4. Trip Generation and Distribution

4.1 Data Collection

The trip generation calculation associated with the Cultural Quarter involved extensive engagement with the existing Library located within the Ilac Centre, to understand the existing trip generation and the anticipated expansion. In April 2016 a travel survey of the staff and visitors was undertaken to establish existing modal splits and employee resident locations. It should be noted that the Luas Cross City had yet to be opened and therefore, the percentage of staff and visitors using this mode may have increased since the survey was undertaken.

4.2 Modal Splits

This section will detail the methodology used in determining the modal split for the existing Central Library. This will include a commentary on the existing modal splits as these were used as the basis of the future year projections. The factors that influenced the changing modal splits will also be discussed and quantified.

4.2.1 Existing Central Library – Staff Survey

The existing modal split for staff was determined following a travel survey of staff in April 2016. Forty surveys in total were received, representing an extremely high response rate of 100% (based on forty staff). The existing modal split for staff members can be seen in Figure 4.1 below. The majority of Central Library staff currently travel to work using sustainable modes of travel (85%) such as: walking, cycling and public transport. 51% of staff use public transport, while a relatively high proportion (34%) walk or cycle. Just 15% of staff currently drive to work. With the current staff totalling 40 employees, that means that only 6 staff currently drives to work.

How do you usually travel to work?

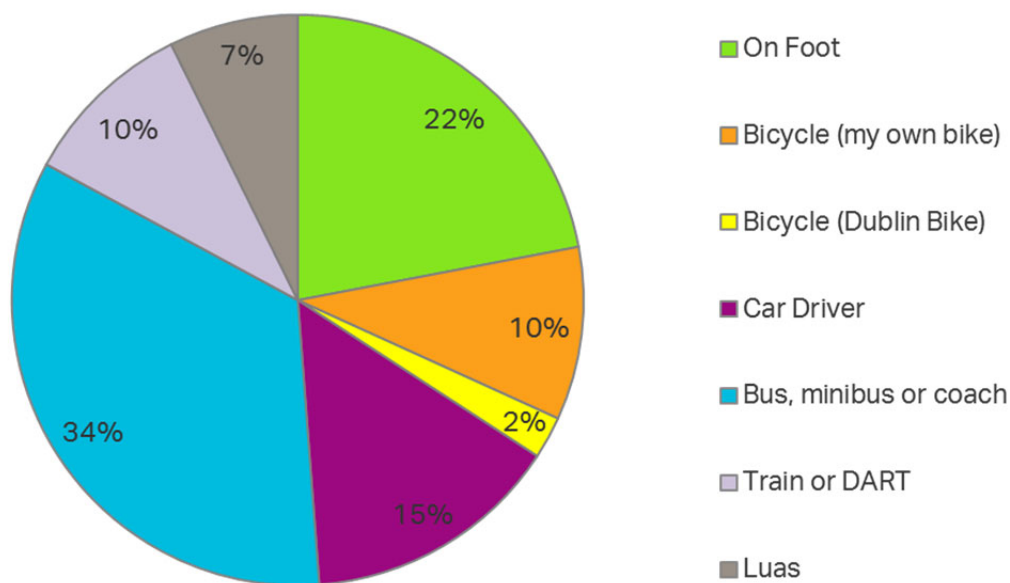


Figure 4.1: Modal Split for Existing Staff

It can be seen that bus is the primary mode of transport (34%) as it provides the best access from Dublin City and suburbs to the existing facilities in the Ilac Centre. Walking (22%) and cycling (12%) are represented with high modal shares, something that reflects the city centre location of the existing Central Library with good pedestrian and cyclist linkages available. Train / Dart (10%) is reasonably high, with the Ilac Centre located close to Connolly Station. The Luas has also quite a high modal share (7%) as the Red Line runs in close proximity to the shopping centre, along Abbey Street.

4.2.2 Existing Central Library – Visitor Survey

The existing modal split for visitors was determined following a travel survey of visitors in April 2016. This is shown in Figure 4.2 below:

How do you usually travel to the library?

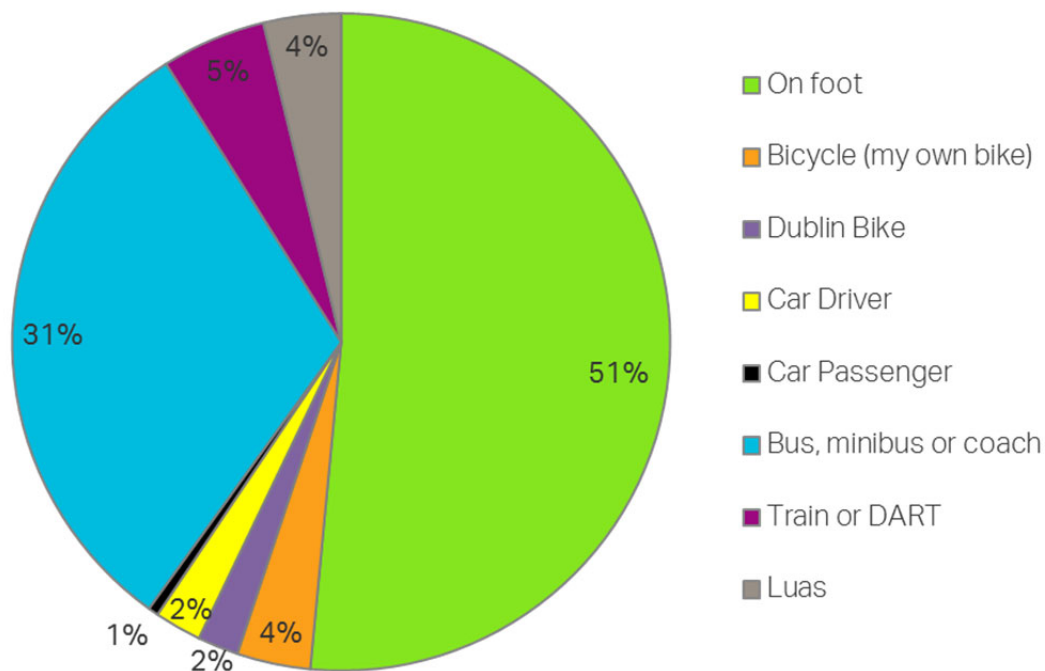


Figure 4.2: Modal Split for Existing Visitors

It can be seen that walking (51%) is the primary mode of transport to the existing Library. Given its city centre location this is not surprising. 40% of visitors access the library using public transport, with: 31% using the bus, 5% using the Train or Dart, and 4% using the Luas. 6% of visitors use bicycles to access the Library. A low number of visitors drive to the Central Library, with just 2% of respondents representing this mode, while 1% usually gets a lift as a car passenger.

4.3 Proposed Cultural Quarter – Future Modal Split.

4.3.1 Parnell Square Cultural Quarter – Potential Staff Modal Split

It is encouraging that just 15% of staff currently drives to work, with the vast majority using sustainable modes of travel. There is an important opportunity to maintain and potentially increase the mode share for sustainable modes throughout the relocation to Parnell Square North. An action plan is provided in the Parnell Square Cultural Quarter Travel Plan, which accompanies this application, outlining a range of measures to ensure that there is a continued shift towards a higher share for sustainable modes.

A modal split has been developed for the staff at the Parnell Square Cultural Quarter based on the existing public transport infrastructure, with the exception that the Luas Cross City is now operational. As outlined in the Travel Plan, one third of drivers feel it would be “very easy” or “quite easy” to travel to work by bus. Therefore, the future modal split for the Cultural Quarter was based on the existing percentages, with the expectation that with the transfer of some drivers to the bus

and the Luas Cross City, the number of trips by car will decrease and the number of staff accessing the site by public transport will increase.

This future modal split can be seen in Figure 4.3 below.

Potential Future Staff Modal Split

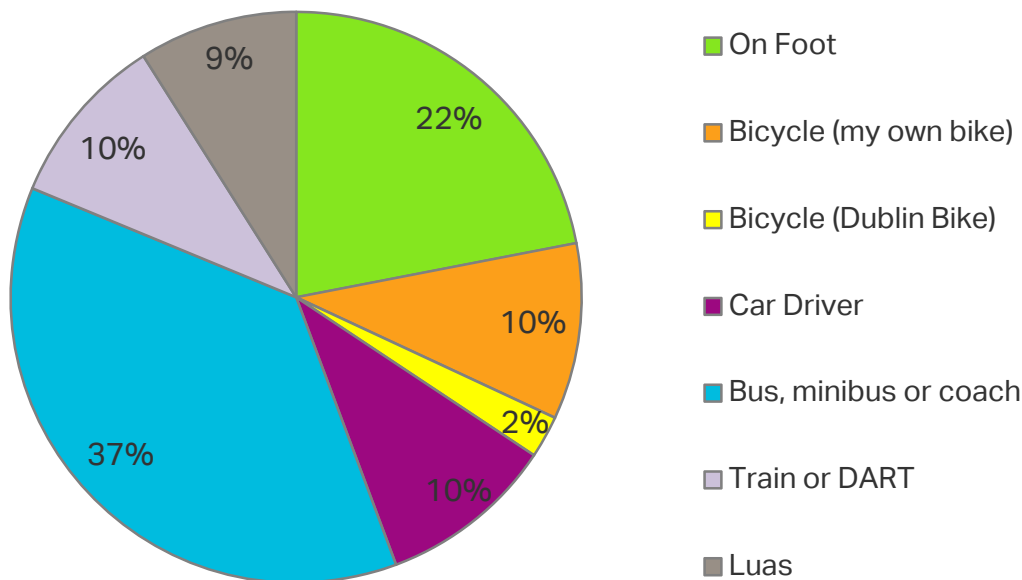


Figure 4.3: Proposed Future Modal Split for Staff

It can be seen that the Luas modal share has increased when compared to the existing modal split. This is due to the proximity of the Luas Cross City at O’Connell Street, Parnell Square and Dominic Street.

The cycling modal share has also increased as it will be more attractive to staff because of cyclist facilities being proposed within the development. It is an objective of the Travel Plan to attain an increased modal share for public transport, cycling and walking.

Total car use has decreased and this is reflective of the absence of staff parking, which will act as a key deterrent to staff driving. It is expected that any staff members who drive to work following the relocation will use commercial car parks and other paid parking options within the surrounding area.

Parnell Square Cultural Quarter – Potential Visitor Modal Split

Currently 97% of current library visitors travel using sustainable modes, with approximately half travelling on foot. Just 3% of visitors to the library travel by car (either driver or passenger). This is extremely positive as it indicates that the new development at Parnell Square North is unlikely to attract a large proportion of car-based trips. However, it is essential that every effort is made to maintain these sustainable travel patterns following the relocation.

The new development will include significantly more facilities than the existing library, including conference facilities, music centre, education facilities and cafes. It is likely that this will change the nature of visits somewhat, as it may result in an increase in group visits (e.g. event attendees and school visits), as well as longer

visits from individuals due to the more diverse nature of facilities available. However, given that the current travel patterns for visitors is extremely sustainable with just 3% arriving by car, it is recommended that the Central Library aims to maintain this modal split following the relocation.

This future modal split can be seen in Figure 4.4 below.

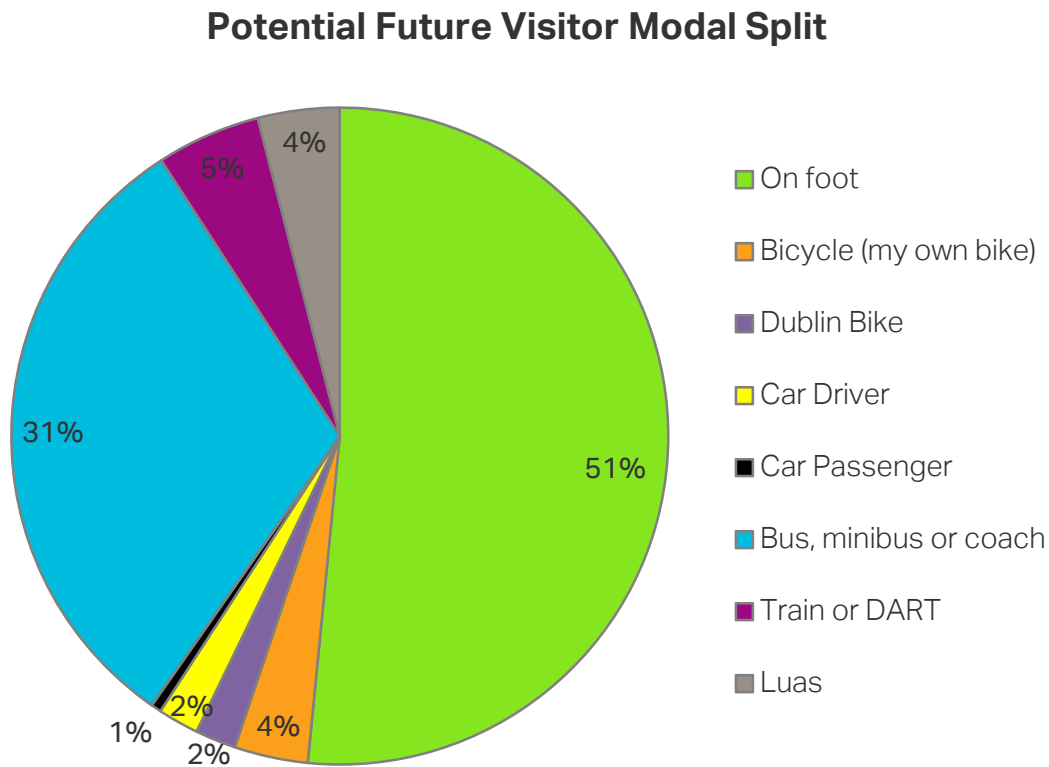


Figure 4.4: Proposed Future Modal Split for Visitors

It can be seen that the Luas modal share has increased when compared to the existing modal split. This is due to the proximity of the Luas Cross City at O’Connell Street, Parnell Square and Dominic Street. Total car use has decreased and this is reflective of the proposed limited availability of car parking in the local area.

4.4 Trip Generation

The data collection survey at the existing Central Library allows an accurate estimation of the daily total trips by mode and is provided in Table 4.1 below. The new buildings will provide capacity for 3,000 visitors a day. Based on the future visitor modal split, 97% of visitors will travel to the Cultural Quarter using sustainable means. Only 2% are anticipated to arrive as a car driver, with 1% as a car passenger.

Table 4.1: Total Daily Trips by Mode

Total Daily Trips by Mode		
	Arrivals	Departures
Walking	1545	1545
Bicycle	188	188
Bus	956	956
Train or Dart	157	157
Luas	126	126
Car Driver	67	67
Car Passenger	30	30
Totals	3070	3070

The table below sets out the travel demand in staff person trips during the weekday AM and PM peak period. It is assumed that all the staff trips will be undertaken during the AM peak of 8–9am and PM peak of 5–6pm. It is estimated that 70 staff members will be working in the new Cultural Quarter.

Table 4.2: Staff Trips during Peak Periods

Staff Trips during Peak Periods				
	Staff Trips			
	Weekday AM		Weekday PM	
	Arrivals	Departures	Arrivals	Departures
Walking (22%)	15	0	0	15
Bicycle (12%)	8	0	0	8
Bus (37%)	26	0	0	26
Train or Dart (10%)	7	0	0	7
Luas (9%)	6	0	0	6
Car Driver (10%)	7	0	0	7
Car Passenger (0%)	0	0	0	0
Totals	70	0	0	70

The predicated visitor vehicle trip generation of the proposed development is 60 vehicles a day based on the future visitor modal split.

The hourly profile of the visitor trips has been further broken down using hourly trip rates from the industry standard TRICS database. The results from the TRICS analysis shows that a total of 59 visitor arrivals and 29 visitor departures in the AM peak, and a total of 192 visitor arrivals and 250 visitor departures in the PM peak. Table 4.3 below shows the mode of travel for visitors during the AM and PM peaks.

Table 4.3: Visitor Trips During Peak Periods

Visitor Trips during Peak Periods				
	Visitor Trips			
	Weekday AM		Weekday PM	
	Arrivals	Departures	Arrivals	Departures
Walking (51%)	30	15	98	128
Bicycle (6%)	4	2	11	15
Bus (31%)	18	9	59	78
Train or Dart (5%)	3	1	10	13
Luas (4%)	2	1	8	10
Car Driver (2%)	1	1	4	5
Car Passenger (1%)	1	0	2	3
Totals	59	29	192	250

Goods Vehicles and Deliveries

Daily large Heavy Goods Vehicle deliveries are not anticipated. Planned deliveries to the library include daily book deliveries and regular service deliveries, as well as infrequent deliveries of larger items such as exhibitions, displays and musical instruments.

On Parnell Square North, servicing arrangements for the 'Food, Café / Restaurant's' requirements of waste removal and food delivery will require approximately 2 daily deliveries, with an additional 13 separate deliveries over the rest of the month.

Additionally there will be approximately 6 deliveries per month on Parnell Square North to service 'Music' arrangements and 'Nos. 20/21' exhibition and event materials. All deliveries on Parnell Square North will be conducted using Light Goods Vehicles.

The remaining deliveries will use the secure loading area on Frederick Lane where it is expected that there will be an average of 8 deliveries daily. This area will accommodate rigid trucks and light vans to service the site when necessary.

5. Assessment of Impacts

5.1 Introduction

This chapter sets out an assessment of the impacts associated with the development proposals. Initially the impacts associated with the public transport provision will be set out. The traffic impacts of the proposed development will then be set out and discussed.

5.2 Assessment of Public Transport Impacts

The number of public transport trips generated by the development based on the modal splits outlined in the previous chapter is presented in Table 5.1 below. The number of public transport trips generated during the peak hours is relatively modest, considering the existing public transport capacity in the city centre (a single double decker bus has the capacity of 95 passengers).

Furthermore, the majority of the trips to the new development are not new trips on the road network. They will be either diverted trips from the existing library (the existing central library is located 500m from the proposed development), or they will be linked to other activities in the city centre. From the travel survey undertaken at the existing library in April 2016 (as discussed in further detail in the AECOM Travel Plan), a significant minority (45%) of trips to the central library are linked trips to other activities in the city centre. However, in order to show a robust assessment and a worst-case scenario, we have assumed that all the trips highlighted in Table 5.1 are new trips.

Table 5.1: Total Trips during Peak Periods

Total Trips during Peak Periods				
	Total Trips			
	Weekday AM		Weekday PM	
	Arrivals	Departures	Arrivals	Departures
Walking	45	15	98	143
Bicycle	12	2	11	23
Bus	44	9	59	103
Train or Dart	10	1	10	20
Luas	9	1	8	16
Car Driver	8	1	4	12
Car Passenger	1	0	2	3
Totals	129	29	192	320

In the AM a total of 53 bus trips are generated, while 162 bus trips are generated in the PM peak. The existing Dublin Bus capacity is adequate to accommodate the proposed development given that they will be shared amongst the 20 routes highlighted in Table 5.2 below. The public transport system in Dublin City Centre is

considered to have significant spare capacity during the off-peak periods to cater for the anticipated travel demand throughout the day.

Table 5.2: Public Transport Impacts (AM and Peak Hour)

Public Transport Impacts (AM and Peak Hour)		
Element	Public Transport Impacts	
Central Library	38/a/b/d	Burlington Road – Damastown
	46a	Dún Laoghaire – Phoenix Park
	46e	Blackrock towards Mountjoy Sq.
	120	Parnell St. – Ashtown Rail Station
	122	Ashington – Drimnagh Road
	7	Loughlinstown towards Mountjoy Sq.
	7b	Shankhill towards Mountjoy Sq.
	7d	Dalkey towards Mountjoy Sq.
	8	Dalkey towards Mountjoy Sq.
	9	Charlestown – Limekiln Avenue
	4	Harristown – Monkstown Avenue
	13	Harristown – Grange Castle
	140	Finglas – Palmerstown Park
	40	Finglas – Liffey Valley
	40b	Parnell Street towards Toberburr
	40d	Parnell Street towards Tyrrelstown
	1	Santry – Sandymount
	11	Wadelai Park – Sandyford
16/c	Dublin Airport – Ballinteer	
44	DCU – Enniskerry	

In the AM a total of 11 Train or Dart trips are generated, while 30 Train or Dart trips are generated in the PM peak. In the AM a total of 10 Luas trips are generated, while 24 Luas trips are generated in the PM peak. Given the frequency of both light and heavy rail, the predicted trips generated by the development will not have any impact on the public transport network.

5.3 Assessment of Traffic Impacts

A minority of staff and visitors will drive to the proposed development, as set out in Table 4.1 in the previous section. Table 5.3 sets out the anticipated vehicle trip generation of the proposed development, with a total of 9 vehicle trips in the AM peak and 16 vehicle trips in the PM peak. The new development at Parnell Square North is not predicted to attract a large proportion of car-based trips, and will not impact on any of the adjacent road junctions.

Table 5.3: Peak Hour Trips by Driver

Peak Hour Trips by Driver				
	Driver Trips			
	Weekday AM		Weekday PM	
	Arrivals	Departures	Arrivals	Departures
Staff Car Driver	7	0	0	7
Visitors Car Driver	1	1	4	5
Totals	8	1	4	12

5.3.1 Proposed Parnell Square North/Parnell Square East/Frederick Street North / Gardiner Row Junction

It is proposed to reconfigure Parnell Square North, with two lanes of traffic provided along the Parnell Square North link. It will include an upgrade to the Parnell Square North/ Parnell Square East/ Frederick Street North/ Gardiner Row junction. The main changes to the junction will include the following:

- The removal of the right slip lane close to the Garden of Remembrance;
- The removal of the traffic island between the left slip lane and the straight/left turn lane; and
- Provision of a pedestrian crossing to the south of the new junction.

These proposals will have an impact on the capacity of this junction and therefore a LinSig assessment of the existing and proposed junction has been undertaken.

5.3.2 Proposed Parnell Square North/Parnell Square West/Granby Row Upgrades

Layout changes are proposed to the Parnell Square North / Parnell Square West / Granby Row junction. However, there are no proposed changes to the operation or capacity of the junction, and therefore the junction does not require a capacity analysis.

5.3.3 LinSig Analysis

The outputs from the LinSig software present Degree of Saturation (DoS) and queue lengths as indicators of the operational efficiency of the junction. A Degree of Saturation of 100% indicates that the junction is operating at its theoretical maximum capacity; however, a value of approximately 90% is considered to be the optimum DOS for a traffic-signal controlled junction. In all options the LinSig model has been optimised to balance the green time given to each arm of the junction.

5.3.3.1 Parnell Square North/Parnell Square East/Frederick Street North/Gardiner Row Junction – AM Results

Analysis was undertaken at this junction to determine how the junction would perform with the inclusion of these upgraded facilities.

Shown below in Table 5.4 are the LinSig analysis results for the existing and proposed Parnell Square North/ Parnell Square East/ Frederick Street North/ Gardiner Row junction in the AM peak hour.

The arm with the largest increase in DoS is the right-turning arm of Parnell Square North arm, increasing from 22.3% to 54.2%, with a corresponding increase of queuing from 1 vehicle to 7 vehicles. This is due to the removal of the right slip lane and controlling the right turn movements at this junction.

The arm with the largest decrease is the straight ahead/ left-turning arm of Parnell Square North arm, decreasing from 69.0% to 42.0%, with a corresponding decrease in queuing from 6 vehicles to 5 vehicles. This is due to the increased green time given to the straight ahead / left-tuning lane compared to the base scenario.

Frederick Street shows an increase in DoS in the proposed scenario compared to the base. This is a result of a reduction in green time compared to the base, while Gardiner Street shows a decrease in DoS, as there is an increase in the green time compared to the base scenario.

Overall, the proposed junction is operating efficiently, with all arms of the junction under the optimum DOS for a traffic-signal controlled junction (90%).

Table 5.4: Parnell Square North/Parnell Square East/Frederick Street North/Gardiner Row

Arm	Direction	Existing		Proposed	
		DOS (%)	Mean Max Queue (pcu)	DOS (%)	Mean Max Queue (pcu)
Parnell Square North	Left / Ahead	69.0%	6	42.0%	5
	Right	22.3%	1	54.2%	7
Frederick Street	Left / Ahead	45.2%	11	56.5%	14
Gardiner Row	Left / Right	66.5%	7	53.9%	6
Practical Reserve Capacity (%)		30.4%		59.4%	

5.3.3.2 Parnell Square North/Parnell Square East/Frederick Street North/Gardiner Row Junction – PM Results

Analysis was undertaken at this junction to determine how the junction would perform with the inclusion of these upgraded facilities.

Shown below in Table 5.5 are the LinSig analysis results for the existing and proposed Parnell Square North/Parnell Square East/Frederick Street North / Gardiner Row junction in the AM peak hour.

The arm with the largest increase in DoS is the right-turning arm of Parnell Square North, increasing from 26.4% to 61.7%, with a corresponding increase of queuing from 2 vehicles to 9 vehicles. This is due to the removal of the right slip lane and controlling the right-turn movements at this junction. The Straight Through / Left turning lane on Parnell Street North shows a decrease in DoS, as there is an increase in the green time compared to the base scenario.

The arm with the largest decrease is Gardiner Street, decreasing from 82.1% to 61.7%, with a corresponding decrease in queuing from 10 vehicles to 8 vehicles. This is due to the increased green time given to Gardiner Street compared to the base scenario. Frederick Street shows an increase in DoS in the proposed scenario compared to the base. This is the result of a reduction in green time compared to the base.

Overall, the proposed junction is operating efficiently, with all arms of the junction under the optimum DOS for a traffic-signal controlled junction (90%).

Table 5.5: Parnell Square North/Parnell Square East/Frederick Street North/Gardiner Row

		Existing		Proposed	
Arm	Direction	DOS (%)	Mean Max Queue (pcu)	DOS (%)	Mean Max Queue (pcu)
Parnell Square North	Left / Ahead	61.8%	8	58.0%	8
	Right	26.4%	2	61.7%	9
Frederick Street	Left / Ahead	55.1%	13	62.0%	15
Gardiner Row	Left / Right	82.1%	10	61.7%	8
Practical Reserve Capacity (%)		9.6%		45.2%	

Results show that in both peak hours, the proposed junction will perform under capacity with a PRC of 59.4% in the AM peak hour and 45.2% in the PM peak hour. The highest queuing in both peak hours is on the Frederick Street arm with an average queue of 14 PCU in the AM peak and 15 PCU in the PM peak. In the AM peak, the Frederick Street arm has the highest saturation, at 56.5%. In the PM peak, Frederick Street is again the most saturated, at 62.0%.

Overall, the proposed junction is performing well; however, with slight delay and queuing during peak traffic hours.

6. Car Parking

6.1 Introduction

This section aims to provide an understanding of the existing parking conditions, availability and utilisation of the area surrounding Parnell Square, based on analysis of survey data. A parking survey report is provided in Appendix F, which discusses each parking zone in detail.

The parking survey was carried out on Thursday 10th May 2018, for on-street parking over a 12-hour period from 07:00 to 19:00, to ensure that both the AM and PM peak demand hours were covered, as well as the inter-peak period.

The separate on-street parking zones and the area surveyed can be seen in Figure 6.1 below.

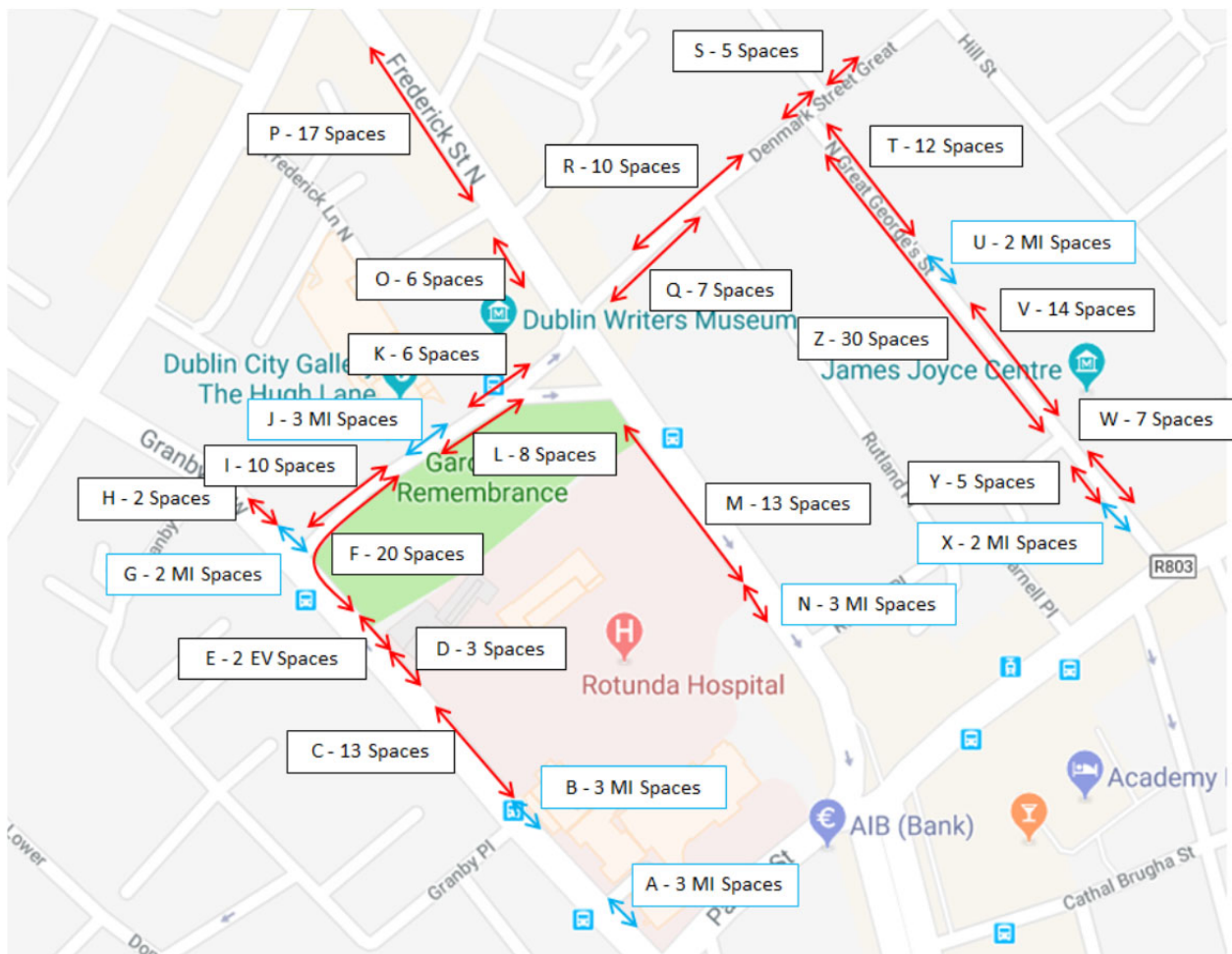


Figure 6.1: Locations of on-street parking survey, Parnell Square

The survey covered a total of 208 parking spaces; 188 regular spaces, 18 mobility-impaired spaces and 2 electric vehicle spaces.

A total of 618 cars were observed at 26 different locations, labelled A – Z as in Figure 6.1.

6.2 Results

Table 6.1, Table 6.2, Table 6.3, and Table 6.4 below show the total number of available spaces at each location, the time or time-frame at which maximum occupancy occurred, and the percentage of cars at each location that was parked for less than or greater than one hour.

Table 6.1: Parking Summary – Regular Spaces

PARKING SUMMARY - REGULAR SPACES				
	Number of Spaces	Peak Usage Time	Duration < 1 hour	Duration > 1 hour
C	13	11:00 - 16:00	36.36%	63.6%
D	3	08:00 - 14:00	45.45%	54.6%
F	20	13:00 - 14:00	50.00%	50.0%
H	2	11:00	100.00%	0.0%
I	10	09:00 - 15:00	14.28%	85.7%
K	6	11:00 - 14:00	28%	72.2%
L	8	11:00	35%	65.4%
M	13	11:00 - 13:00	30%	70.2%
O	6	15:00	53%	46.7%
P	17	12:00	48.11%	51.9%
Q	7	11:00	57%	42.9%
R	10	12:00	37.04%	63.0%
S	5	11:00 - 15:00	73.33%	26.7%
T	12	11:00 - 15:00	37.04%	63.0%
V	14	13:00 - 14:00	35.29%	64.7%
W	7	13:00 - 14:00	50.00%	50.0%
Y	5	12:00 - 19:00	30.00%	70.0%
Z	30	10:00 - 14:00	33.90%	66.1%
Total	188		40.47%	59.53%

Table 6.2: Parking Summary – Mobility-impaired Spaces

PARKING SUMMARY - MOBILITY IMPAIRED SPACES				
	Number of Spaces	Peak Usage Time	Duration < 1 hour	Duration > 1 hour
A	3	12:00 - 15:00	30.77%	69.23%
B	3	10:00 - 18:00	20%	80.00%
G	2	12:00 - 14:00	0%	100.00%
J	3	13:00 - 14:00	50%	50.00%
N	3	13:00 - 15:00	25%	75.00%
U	2	12:00 - 18:00	0%	100.00%
X	2	16:00 - 18:00	0%	100.00%
Total	18		24.24%	75.76%

Table 6.3: Parking Summary – Electric Vehicle Spaces

PARKING SUMMARY - ELECTRIC VEHICLE SPACES				
	Number of Spaces	Peak Usage Time	Duration < 1 hour	Duration > 1 hour
E	2	11:00	50%	50%
Total	2		50%	50%

Table 6.4 summarises all 208 parking spaces surveyed, and shows the maximum occupancy of all locations observed, and the duration of all vehicles.

Table 6.4: Parking Summary – All Vehicles

PARKING SUMMARY - ALL VEHICLES		
Number of Spaces	Duration < 1 hour	Duration > 1 hour
208	37.70%	62.30%

6.3 Impact from the Removal of Parking from Parnell Square North

The proposed public realm enhancements will result in a total loss of 50 spaces; 47 car parking spaces on Parnell Square North (44 standard spaces and 3 mobility-impaired spaces), 4 car parking spaces on Granby Row (2 standard spaces and 2 mobility-impaired spaces), and the loss of 2 car parking spaces on Parnell Square West by the relocation of the Electric Vehicle car parking spaces.

However, it is proposed to mitigate any loss of mobility-impaired spaces with the provision of 3 new mobility-impaired spaces on Granby Row and the conversion of 2 existing spaces on Frederick Street North from standard to mobility-impaired. All changes to car parking surrounding Parnell Square are set out in Table 6.5 below.

Table 6.5: Proposed Change to Car Parking

Location	Loss of Spaces		Additional Spaces		Total Change	
	Standard	Mobility Impaired	Standard	Mobility Impaired	Standard	Mobility Impaired
Parnell Square North	44	3	0	0	-44	-3
Granby Row	2	2	0	3	-2	+1
Parnell Square West	2	0	0	0	-2	0
Frederick Street North	2	0	0	2	-2	+2
Total	-50	-5	0	5	-50	0

Figure 6.2 below compares the existing and proposed capacity and how the removal of 50 car parking spaces will affect parking in the surrounding area of Parnell Square North. During the survey period there was a minimum of 41 spaces available at all times (total percentage occupancy never exceeded 80.29%).

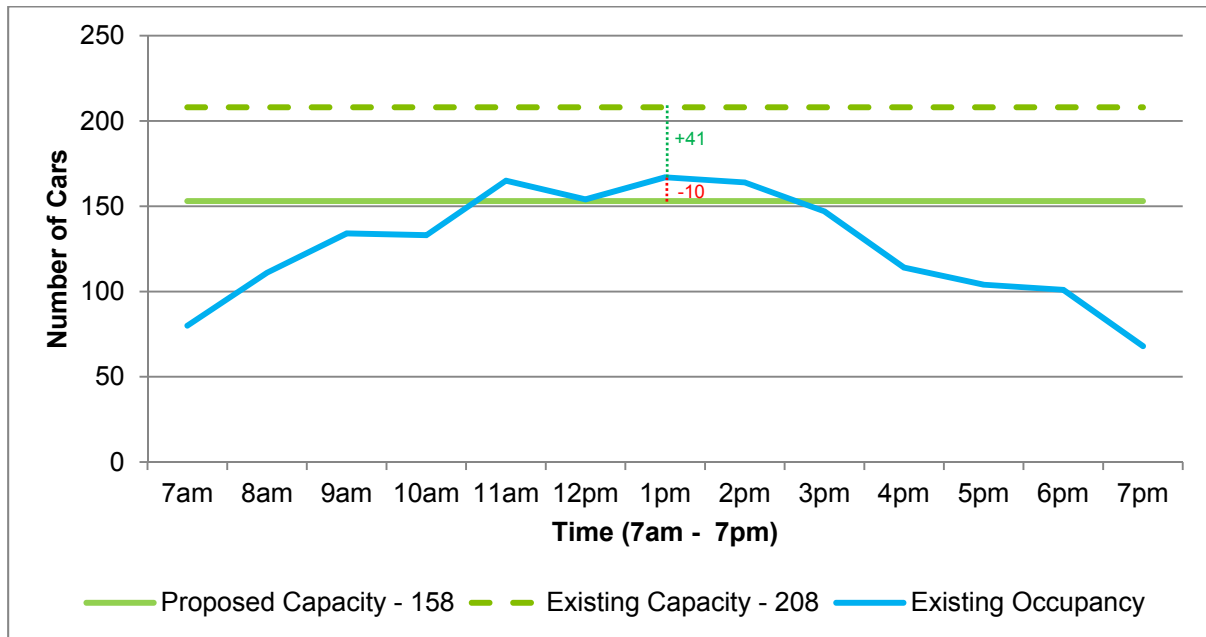


Figure 6.2: Parking Summary – Existing and Proposed Capacity/Occupancy

The graph in Figure 6.2 shows that the existing parking demand may exceed the existing street parking spaces in the surrounding area.

This may result in some motorists deciding to change modes, move to public transport, or park in other locations in Dublin City Centre. There is on-street parking provided in the local area, with multi-storey parking provided at a number of nearby locations including: the Rotunda Hospital, Parnell Centre, the Ilac Centre, Moore Lane, the Gresham and at Cathal Brugha Street.

The removal of these car parking spaces is essential to providing the space necessary to: create a high-quality public realm and linear plaza; cater for the increased numbers of visitors to the area; and help upgrade the wider urban quarter on Parnell Square North.

6.4 Proposed Mobility-impaired Car Parking Spaces

It is proposed to remove three Mobility-impaired Car Parking Spaces on Parnell Square North, which are located the Dublin City Gallery, The Hugh Lane. Throughout the 12-hour period, there was 1 car parked at 09:00, and another car parked between 13:00 and 14:00, for between 1 and 2 hours, seen in Figure 6.3 and Figure 6.4 below.



Figure 6.3: Location J on-street parking Parnell Square North

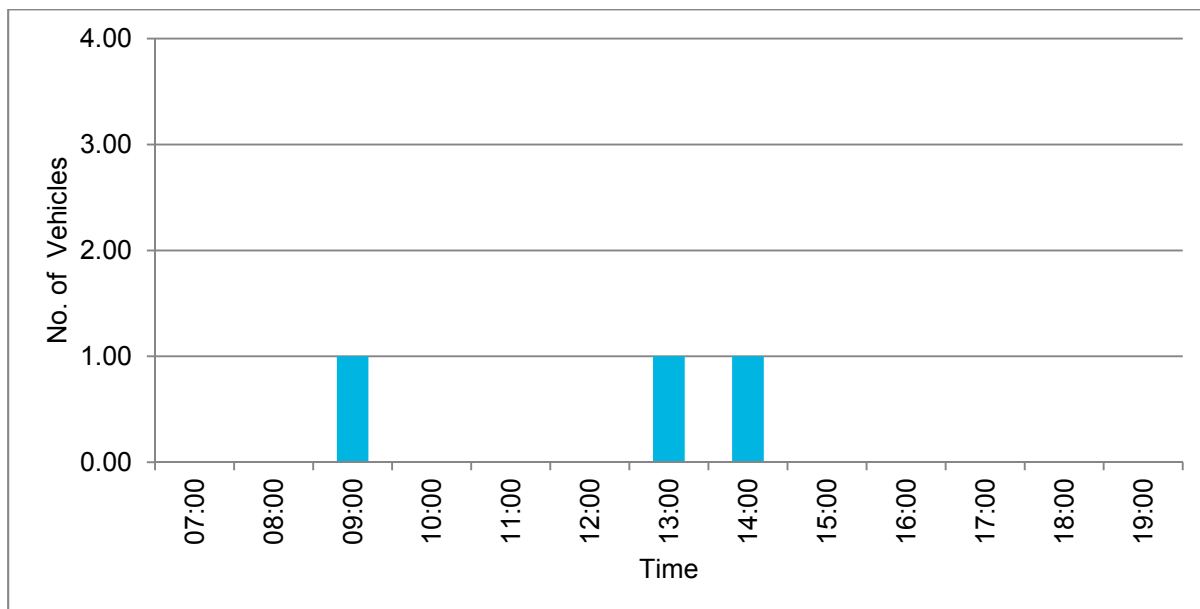


Figure 6.4: Location J, Occupancy

Around the corner from Parnell Square North on Granby Row, there are 2 mobility-impaired car parking spaces. Throughout the whole 12 hour period, only 1 car parked in either of the 2 spaces. As seen from Figure 6.5 and Figure 6.6, it was parked from 12:00 - 14:00.

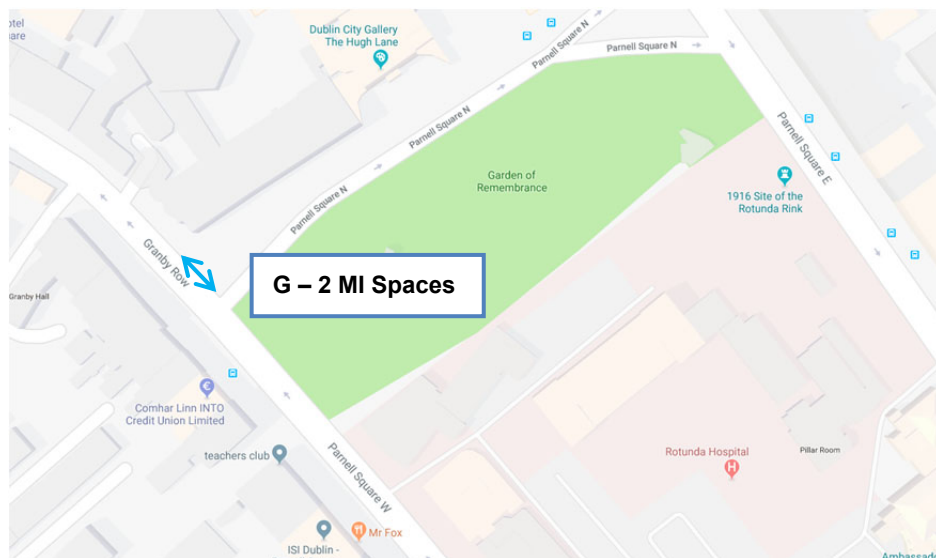


Figure 6.5: Location G, on-street parking Granby Row

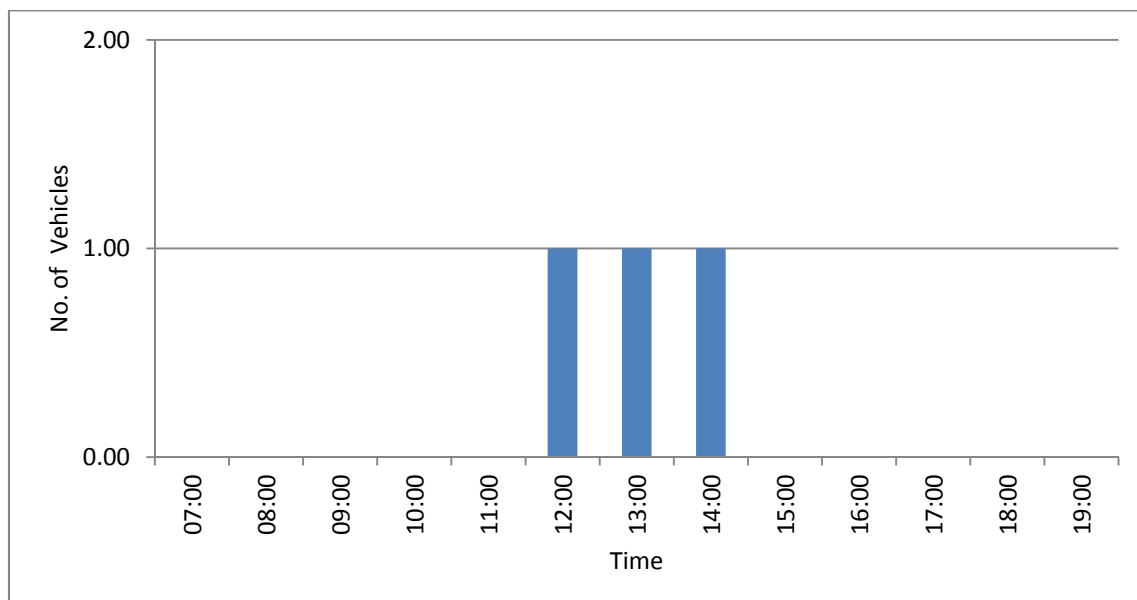


Figure 6.6: Location G, Occupancy

Further north on Granby Row, behind the two mobility-impaired car spaces, are 2 regular car spaces. At 11:00, maximum occupancy of 2 cars was reached. At 12:00 and at 15:00 there was only 1 car occupying the spaces and for the remainder of the day, both spaces were free, as shown in Figure 6.7 and Figure 6.8.

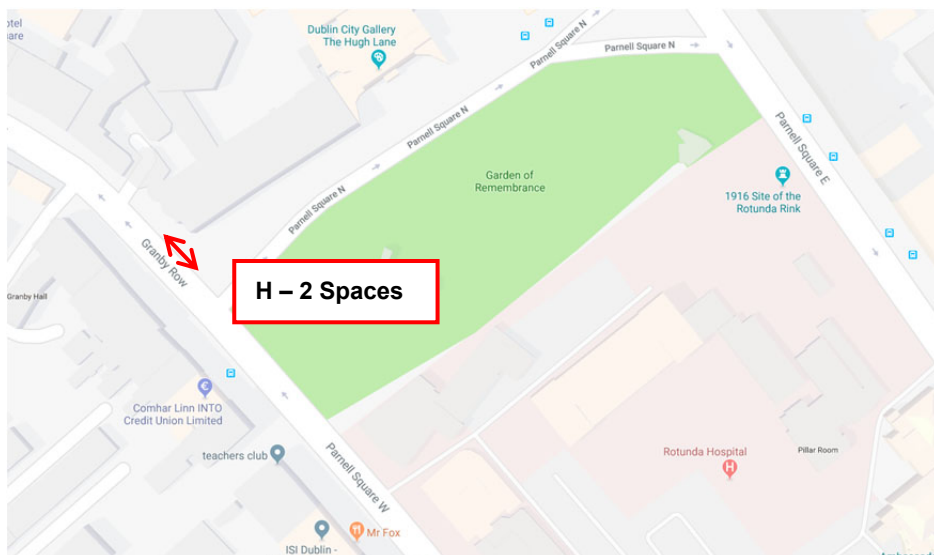


Figure 6.7: Location H, on-street parking Granby Row

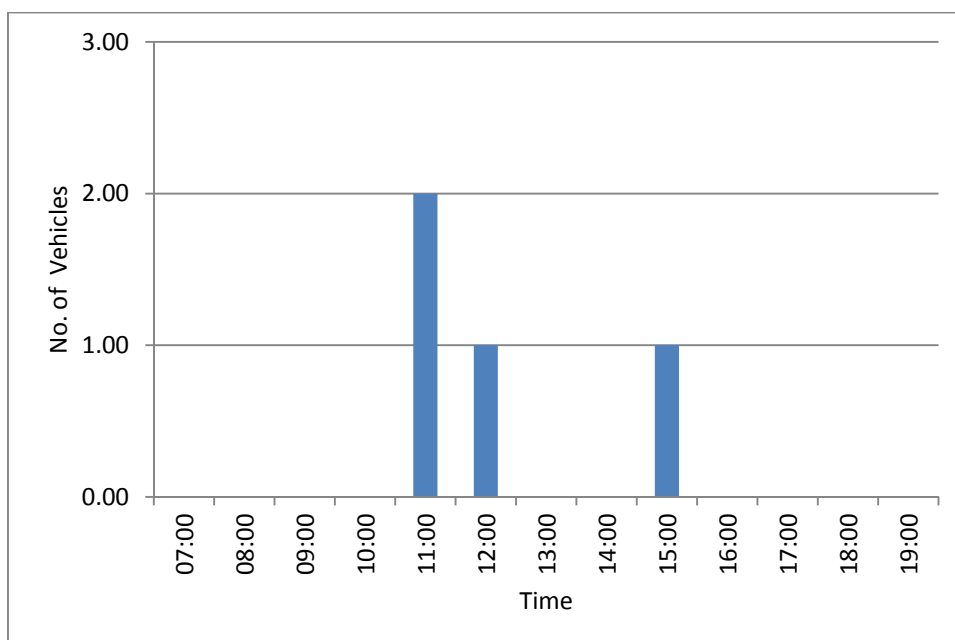


Figure 6.8: Location H, Occupancy

Therefore, it is proposed to replace the 3 mobility-impaired spaces on Parnell Square North, by converting the two regular parking spaces on Granby Row to mobility-impaired spaces. Given the total demand for mobility-impaired car parking spaces occurred at 13.00 with a total demand of two, the proposed 5 mobility-impaired spaces will cater for any demand for mobility-impaired spaces in the local area.

7. Summary and Conclusions

7.1 Executive Summary

This Traffic and Transport Assessment Report has been compiled for a planning application by Dublin City Council and PSQ Developments Ltd (Joint Applicants), for the development of a Cultural Quarter at Parnell Square North. The cultural Quarter will be anchored by a cluster of new cultural facilities with the City Library at its heart.

The development proposals comprise the redevelopment of the former Coláiste Mhuire site and houses 20–21 Parnell Square which line on either side of the Hugh Lane Gallery.

The new buildings will provide capacity for 3,000 visitors daily – 1 million visitors a year. This TTA report has demonstrated, through surveys of the existing staff and visitors to the existing central library in the Ilac Centre, that the majority of visitors to the development will walk and this will be their principal form of transport. Therefore, and due to the increase in pedestrian numbers, it has been proposed to vastly improve the pedestrian routeing and public realm on Parnell Square North with: wider footpaths, narrower roads and additional pedestrian crossings.

7.2 Development Proposals

The proposals, which will consist of the following (total Gross Floor Area of 11,198sqm):

- Lending and Reference Library (items for loan and reference in multiple formats);
- Children's and Young Adults' Library (learning, reading, activity and recreational spaces for creating music, theatre, art, media and gaming);
- Storey House (a literature centre, displaying, interpreting and showcasing Dublin's unique literary heritage);
- Conference and Exhibition Spaces (for large and small events, bookable by the community);
- Learning Suite (comprising a digital media hub and online learning centre);
- Music Hub (offering a blend of physical and digital resources, listening, downloading and creating facilities); and
- Innovation Hub (supporting the business and enterprise needs of the city with collections, online resources and spaces to work and collaborate).

7.3 Accessibility

The proposed development is situated within an ideal location to benefit from existing sustainable travel facilities. The proposal, which forms part of the Parnell Square Cultural Quarter plan to upgrade the pedestrian facilities on Parnell Square North and to provide enhanced crossing facilities at the surrounding junctions, will improve accessibility to the proposed library and surrounding destinations.

High frequency bus services are available in the local area. The Luas Cross City is located approximately 450m from the proposed development. In addition, rail services are located approximately 1.4km from the site, further enhancing the accessibility of the site.

7.4 Car Parking

It is not proposed to provide car parking at the development site. There is on-street parking provided in the local area, with multi-storey parking situated at a number of nearby locations including: Rotunda Hospital, Parnell Centre, the Ilac Centre, Moore Lane, the Gresham and at Cathal Brugha Street.

The removal of all car parking spaces on Parnell Square North will result in the loss of three mobility-impaired spaces. Therefore, to mitigate this impact on mobility-impaired spaces, it is proposed to provide three new mobility-impaired parking spaces on Granby Row. These car parking spaces are located adjacent to the proposed development. It is also proposed to provide two additional mobility car parking spaces on North Frederick Street, by converting two existing standard spaces for mobility-impaired use.

7.5 Trip Generation

Based on a survey undertaken of the existing staff and visitors' travel modes, the majority of trips to the proposed development will be via sustainable modes (97%).

The proposed development will generate a two-way total additional 9 movements and 16 vehicle movements during the AM and PM peak hours respectively.

7.6 Operational Assessment

The junction capacity modelling package LinSig was used to assess the operation of the upgraded Parnell Square North/Parnell Square East/Frederick Street North / Gardiner Row Junction. The result of the junction analysis undertaken demonstrates that the proposed junction will operate without any material or adverse impact on the road infrastructure.

7.7 Conclusions

The Transport Assessment has considered the transport implications of the proposed development. It demonstrates that the development can be readily accessed by sustainable modes and that the surrounding road network has the capacity to accommodate the proposed upgrade of Parnell Square North as a result of the proposed development.

Appendix A Drawings

Appendix B Trics Data

Calculation Reference: AUDIT-204602-180625-0608

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
 Category : V - LIBRARY
 MULTI-MODAL TOTAL PEOPLE

Selected regions and areas:

01	GREATER LONDON	
	WH WANDSWORTH	1 days
15	GREATER DUBLIN	
	DL DUBLIN	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross Floor Area
 Actual Range: 900 to 992 (units: sqm)
 Range Selected by User: 375 to 4575 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 16/10/14

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	1 days
Thursday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Town Centre	1
Suburban Area (PPS6 Out of Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	1
Retail Zone	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

D1	2 days
----	--------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

10,001 to 15,000	1 days
50,001 to 100,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

500,001 or More	2 days
-----------------	--------

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
------------	--------

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	2 days
----	--------

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	1 days
6a Excellent	1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	DL-07-V-01	LIBRARY	DUBLIN
	NAVAN ROAD		
	CABRA WEST		
	DUBLIN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross Floor Area:	992 sqm	
	Survey date: THURSDAY	29/09/11	Survey Type: MANUAL
2	WH-07-V-01	LIBRARY	WANDSWORTH
	GARRATT LANE		
	WANDSWORTH		
	Town Centre		
	Retail Zone		
	Total Gross Floor Area:	900 sqm	
	Survey date: TUESDAY	12/11/13	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 07 - LEISURE/V - LIBRARY
 MULTI-MODAL TOTAL PEOPLE
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	900	0.778	1	900	0.000	1	900	0.778
09:00 - 10:00	2	946	4.651	2	946	1.691	2	946	6.342
10:00 - 11:00	2	946	4.387	2	946	4.651	2	946	9.038
11:00 - 12:00	2	946	3.700	2	946	4.175	2	946	7.875
12:00 - 13:00	2	946	3.541	2	946	3.436	2	946	6.977
13:00 - 14:00	2	946	5.021	2	946	4.598	2	946	9.619
14:00 - 15:00	2	946	3.858	2	946	4.017	2	946	7.875
15:00 - 16:00	2	946	4.863	2	946	3.753	2	946	8.616
16:00 - 17:00	2	946	4.968	2	946	5.021	2	946	9.989
17:00 - 18:00	2	946	2.537	2	946	4.070	2	946	6.607
18:00 - 19:00	2	946	1.321	2	946	2.854	2	946	4.175
19:00 - 20:00	2	946	0.106	2	946	0.846	2	946	0.952
20:00 - 21:00	1	992	0.000	1	992	0.403	1	992	0.403
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			39.731			39.515			79.246

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

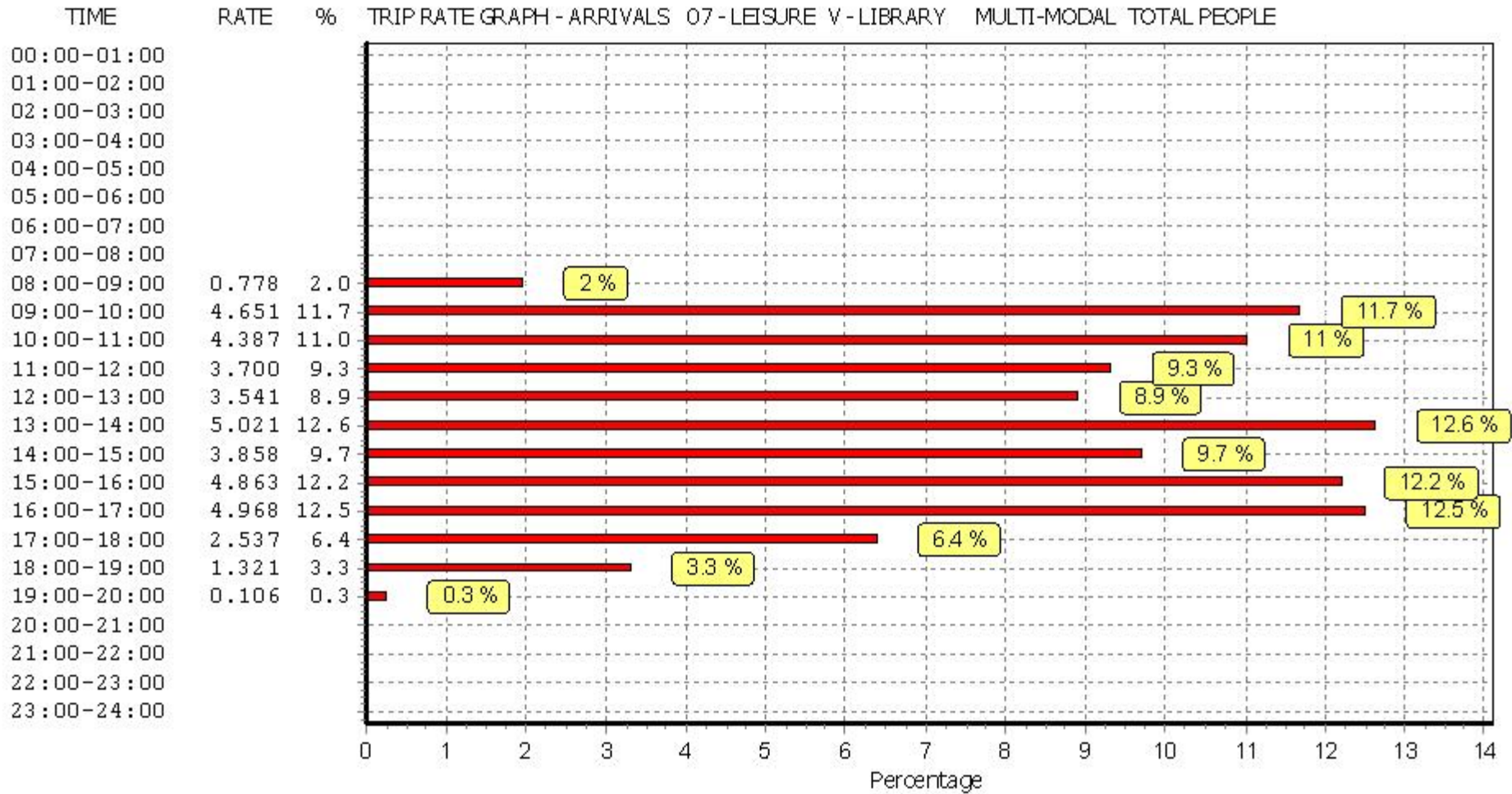
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The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

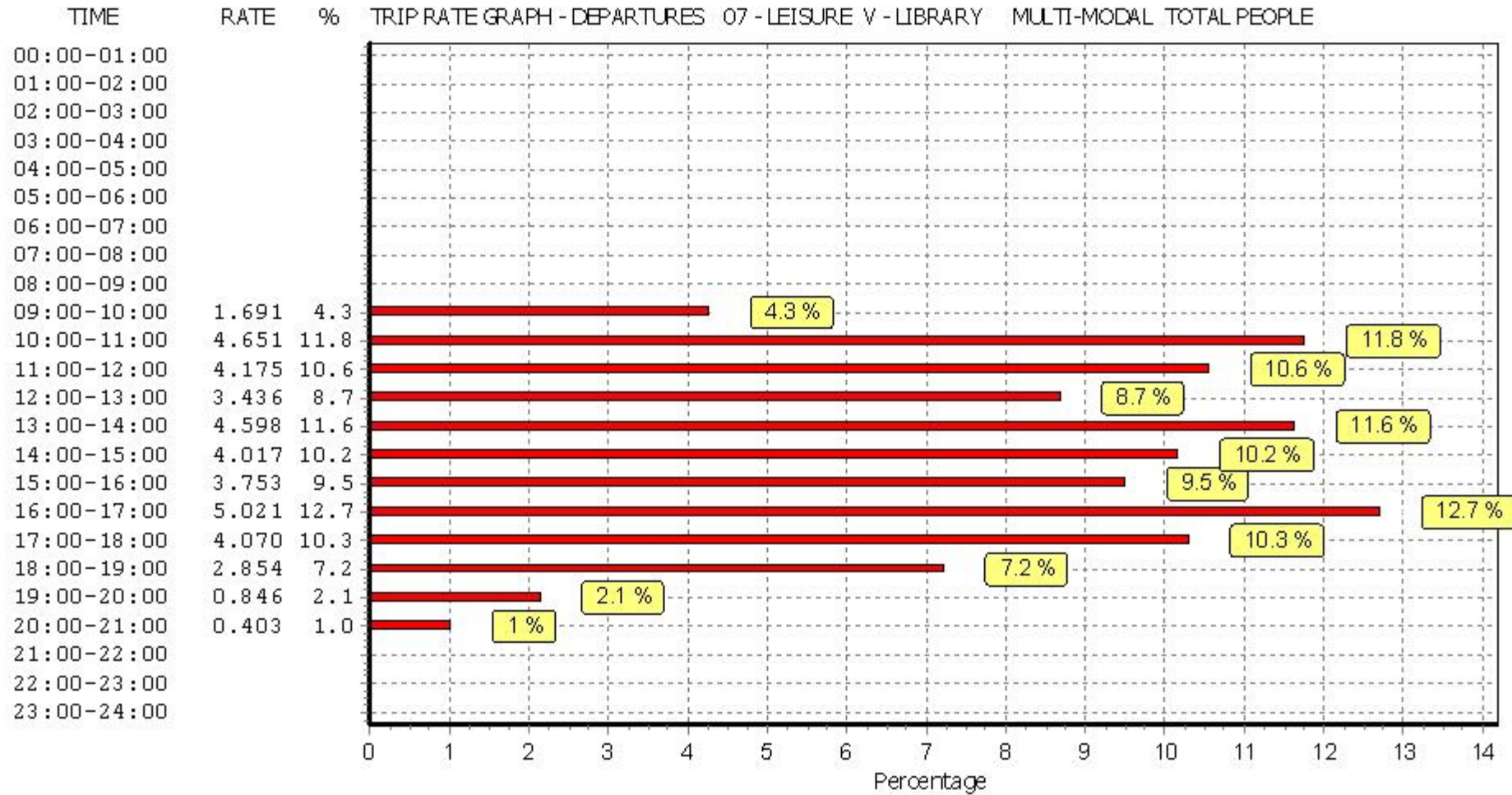
Parameter summary

Trip rate parameter range selected:	900 - 992 (units: sqm)
Survey date date range:	01/01/10 - 16/10/14
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

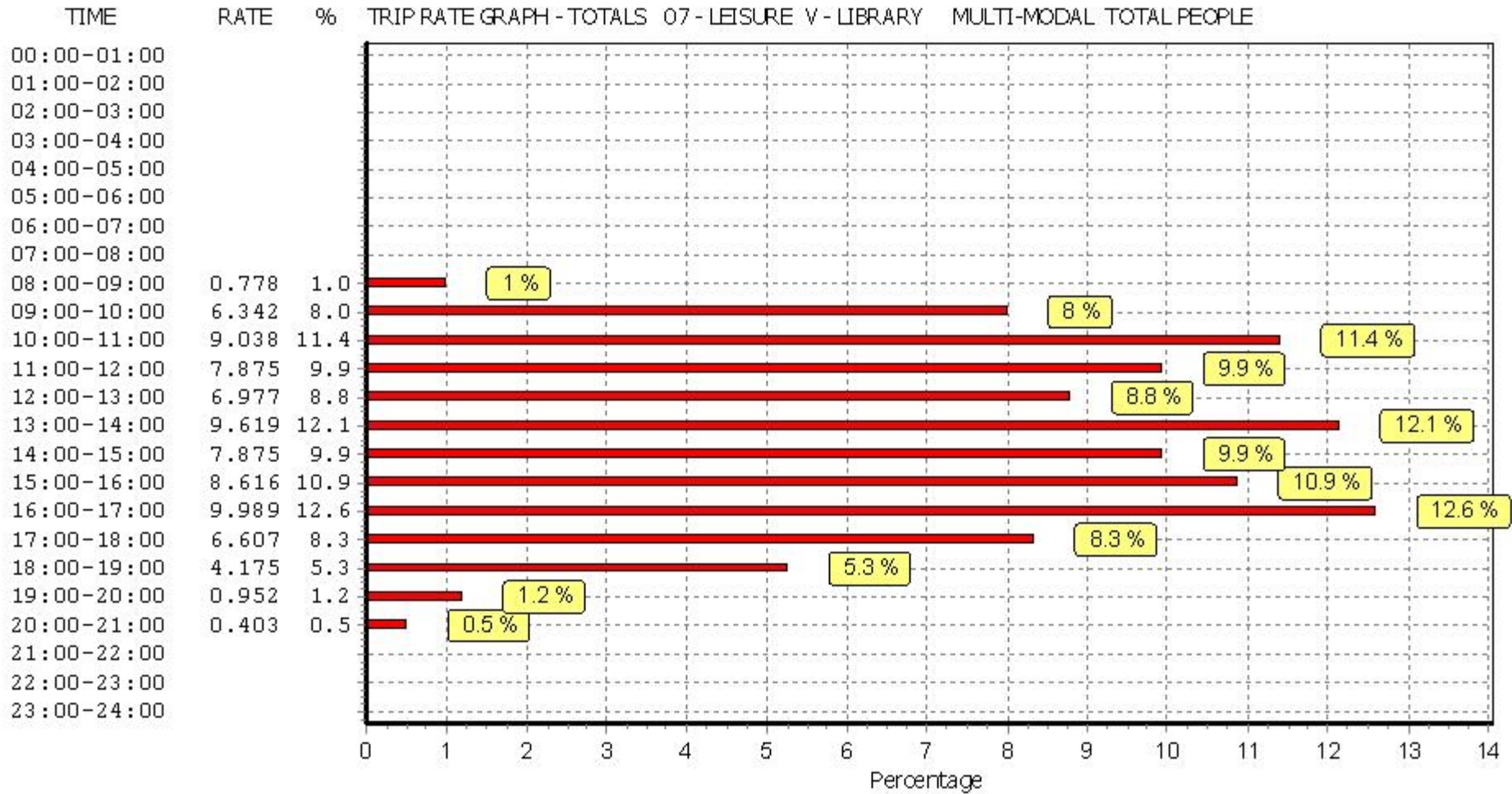
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



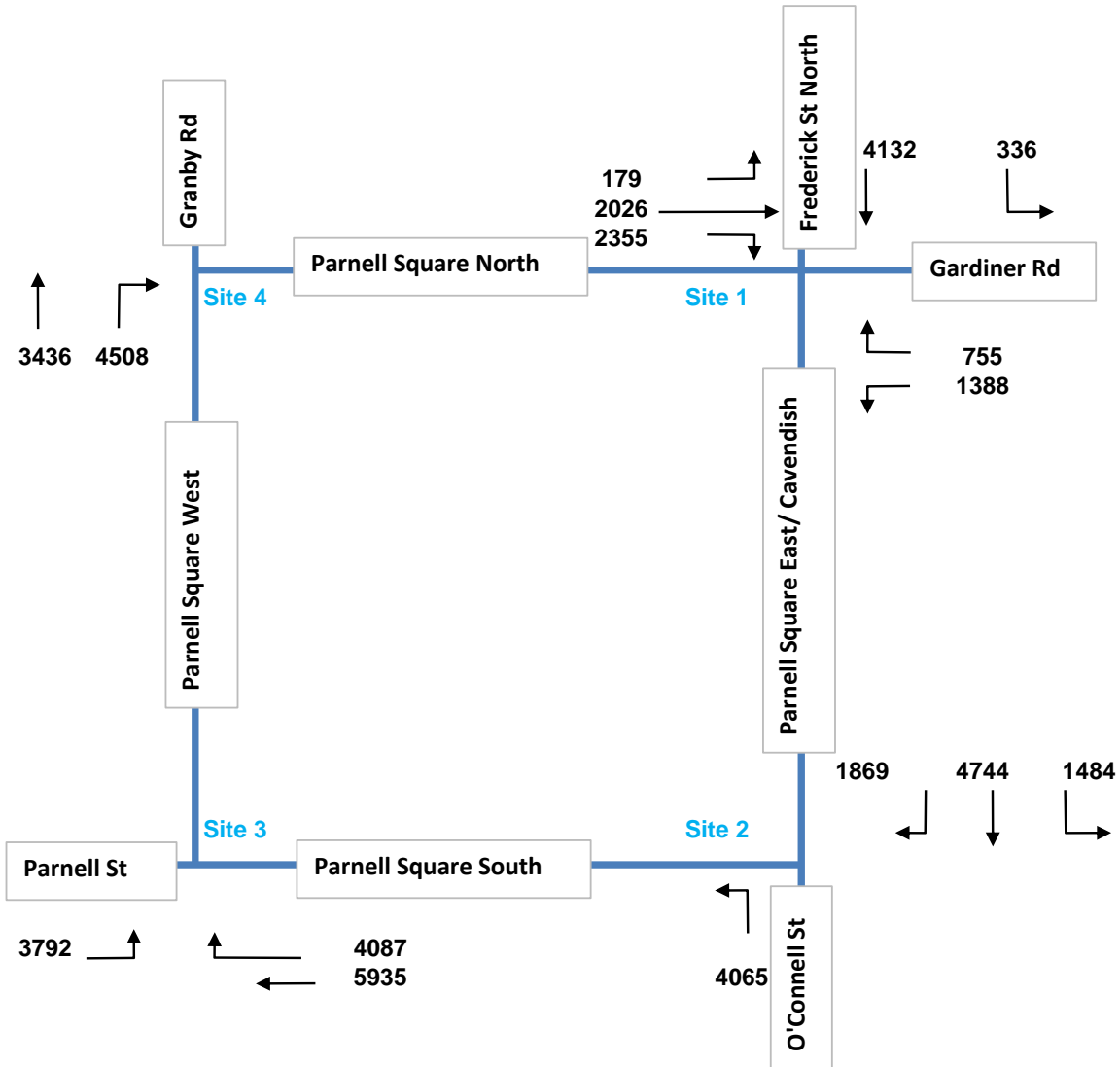
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



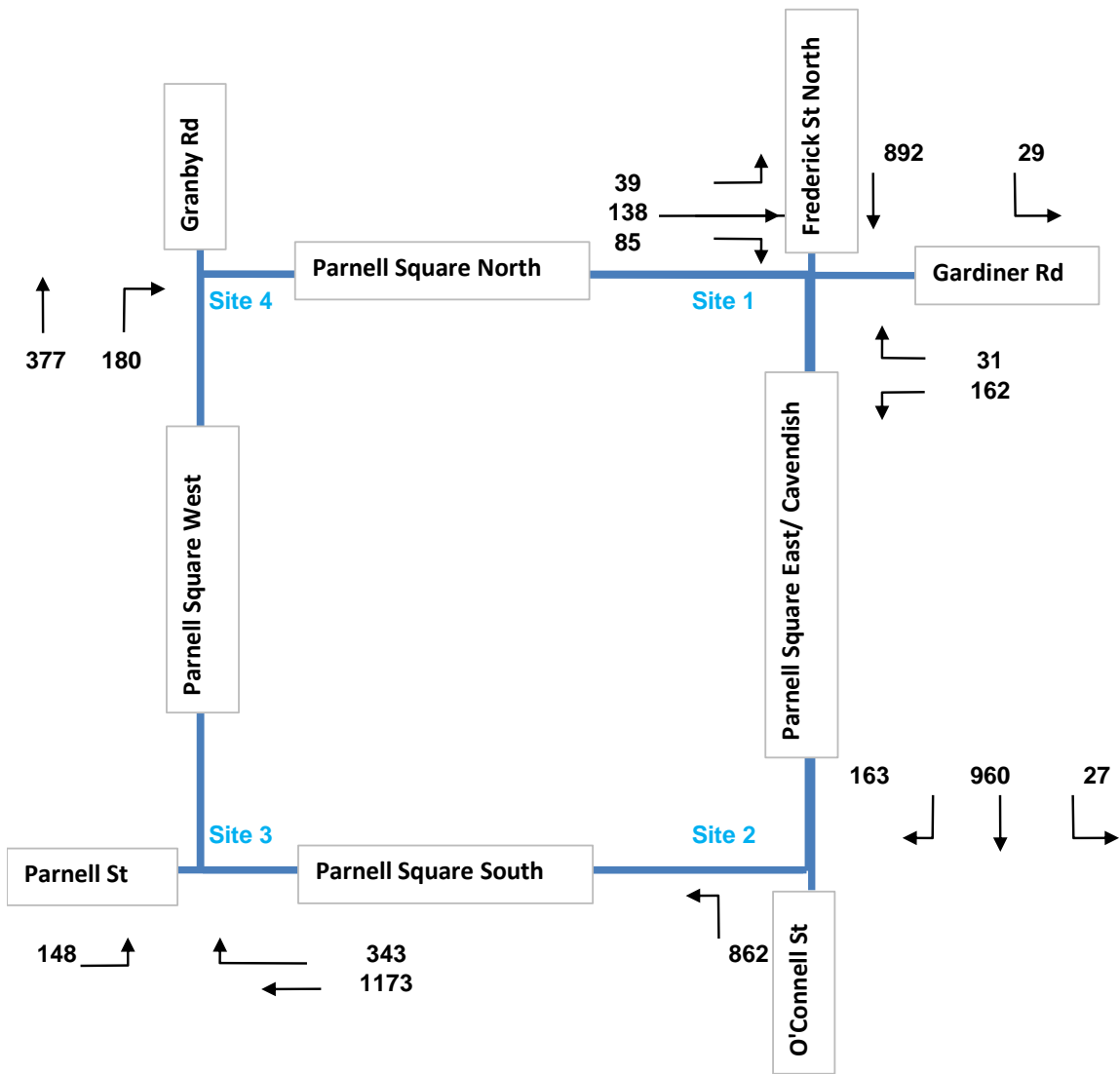
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Appendix C Network Flow Diagram

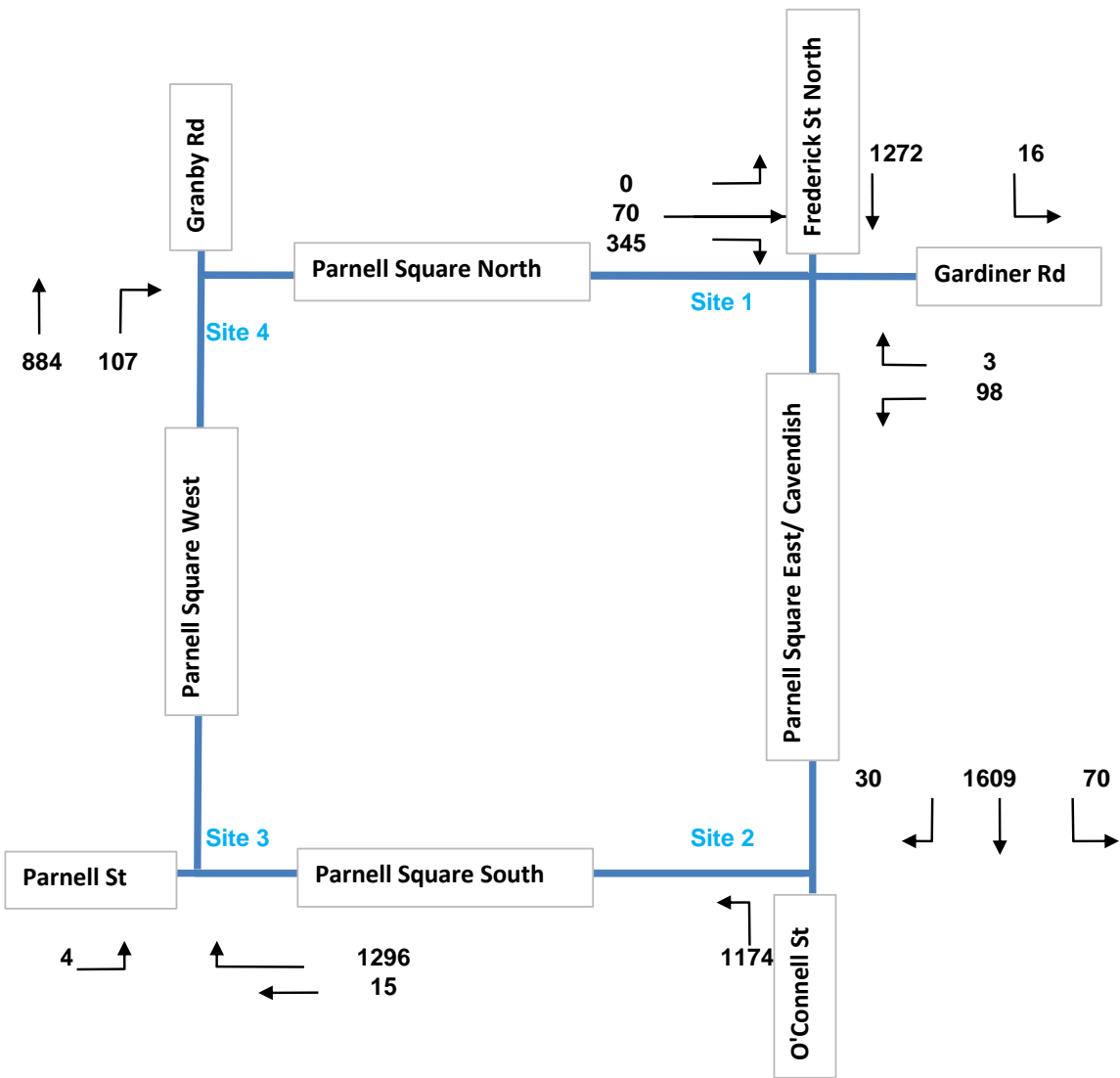
VEHICLE 12HR



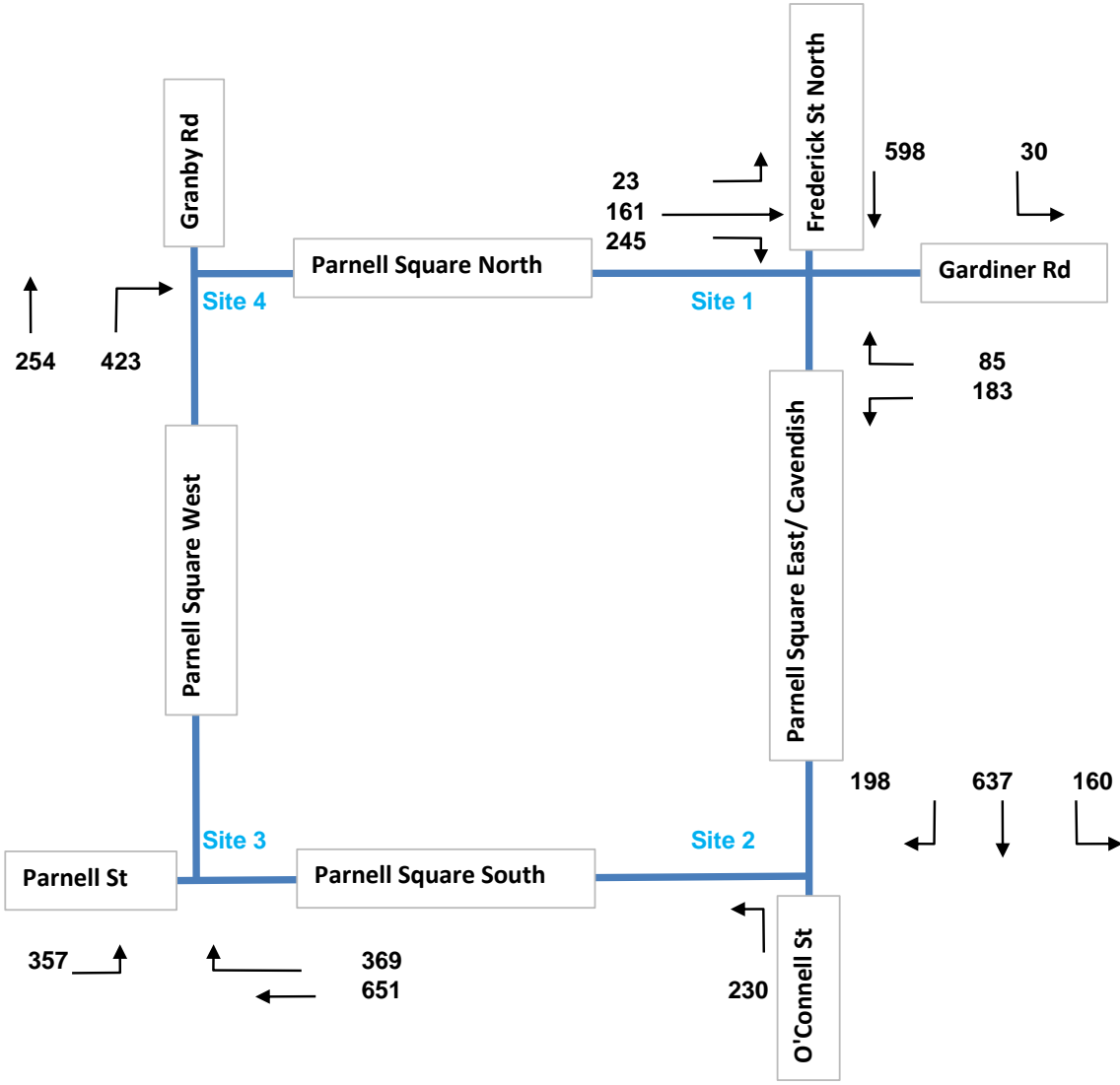
CYCLIST 12HR



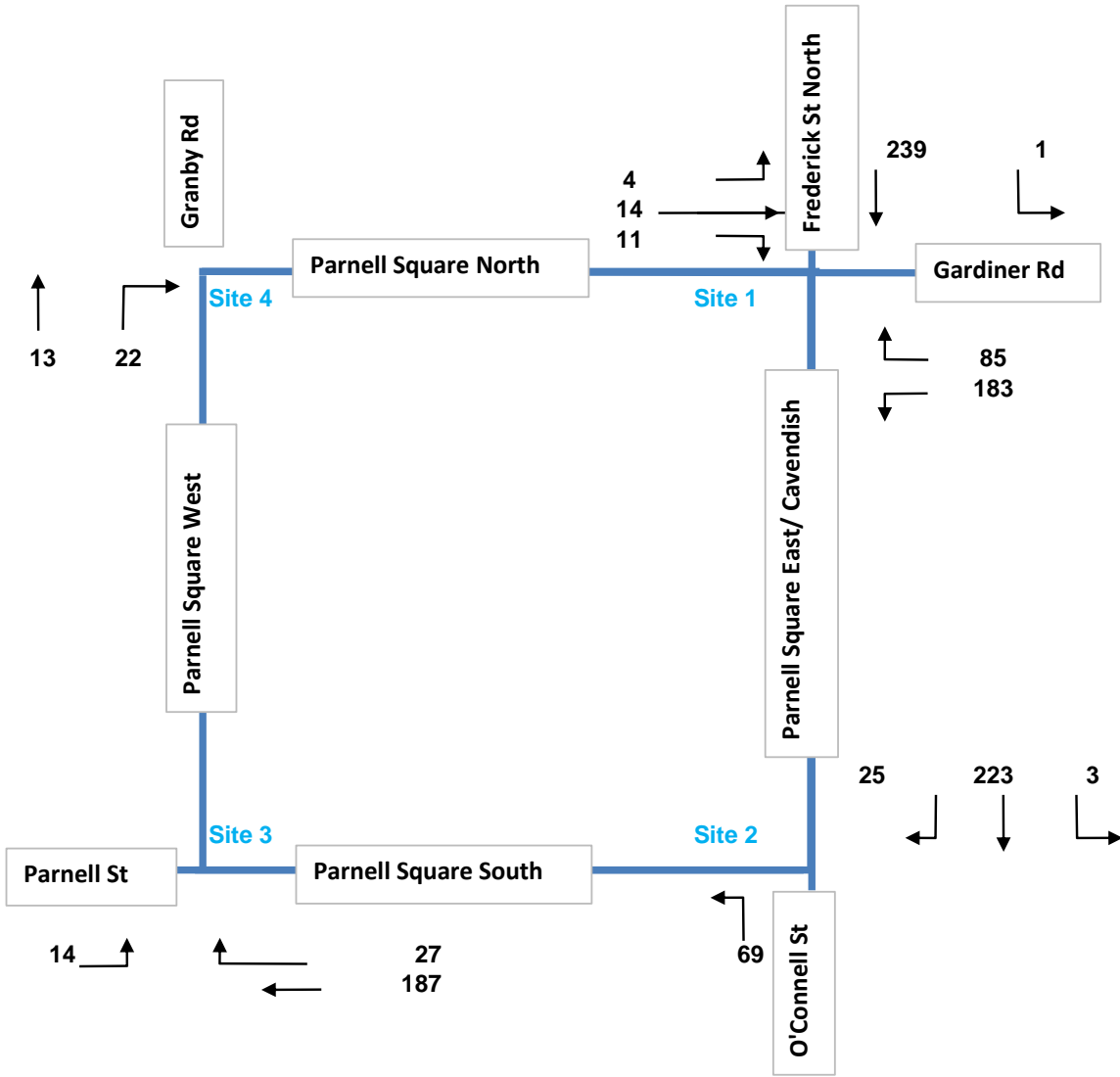
BUS 12HR



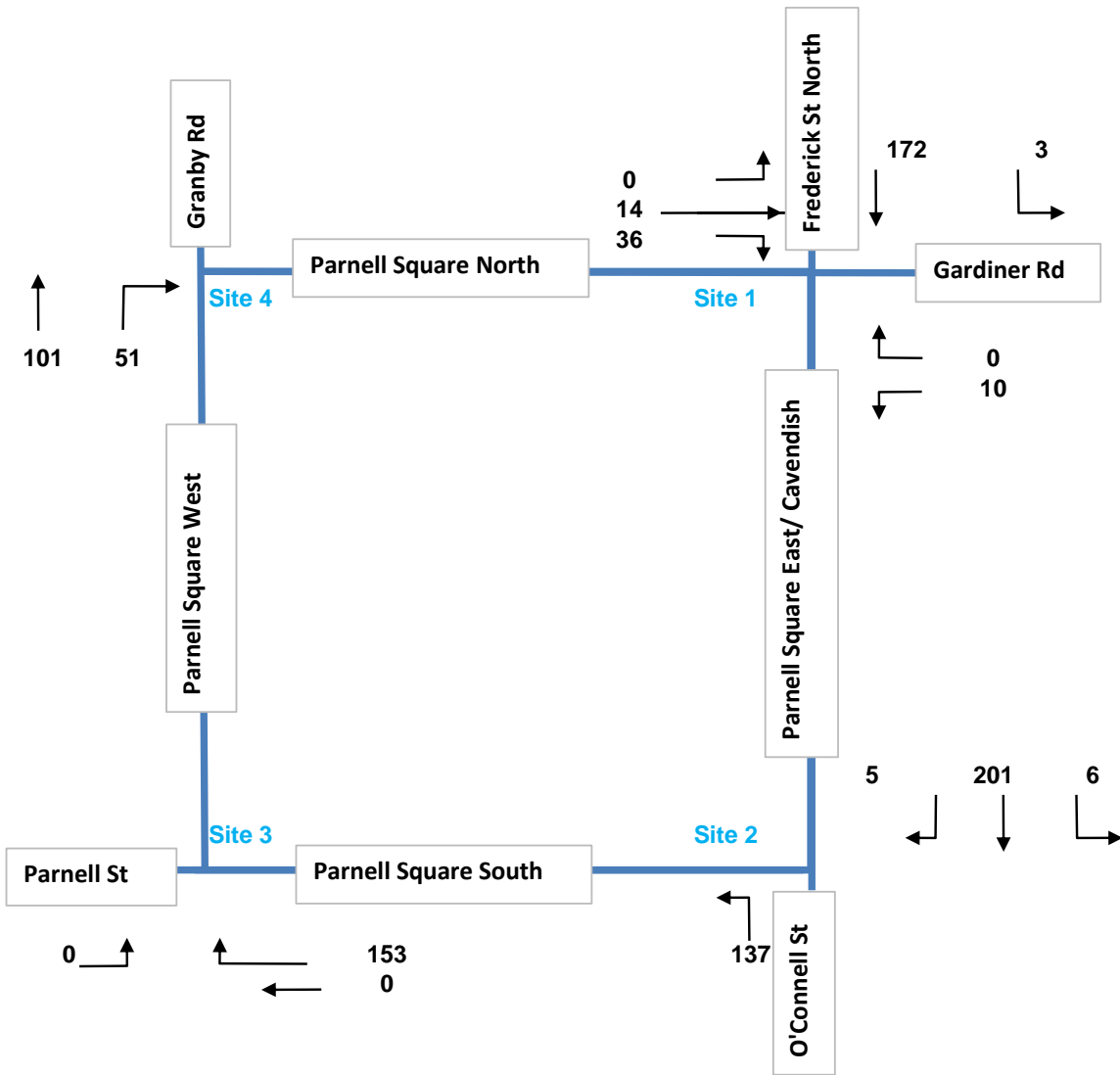
VEHICLE AM PEAK
08:15-09:15 HRS



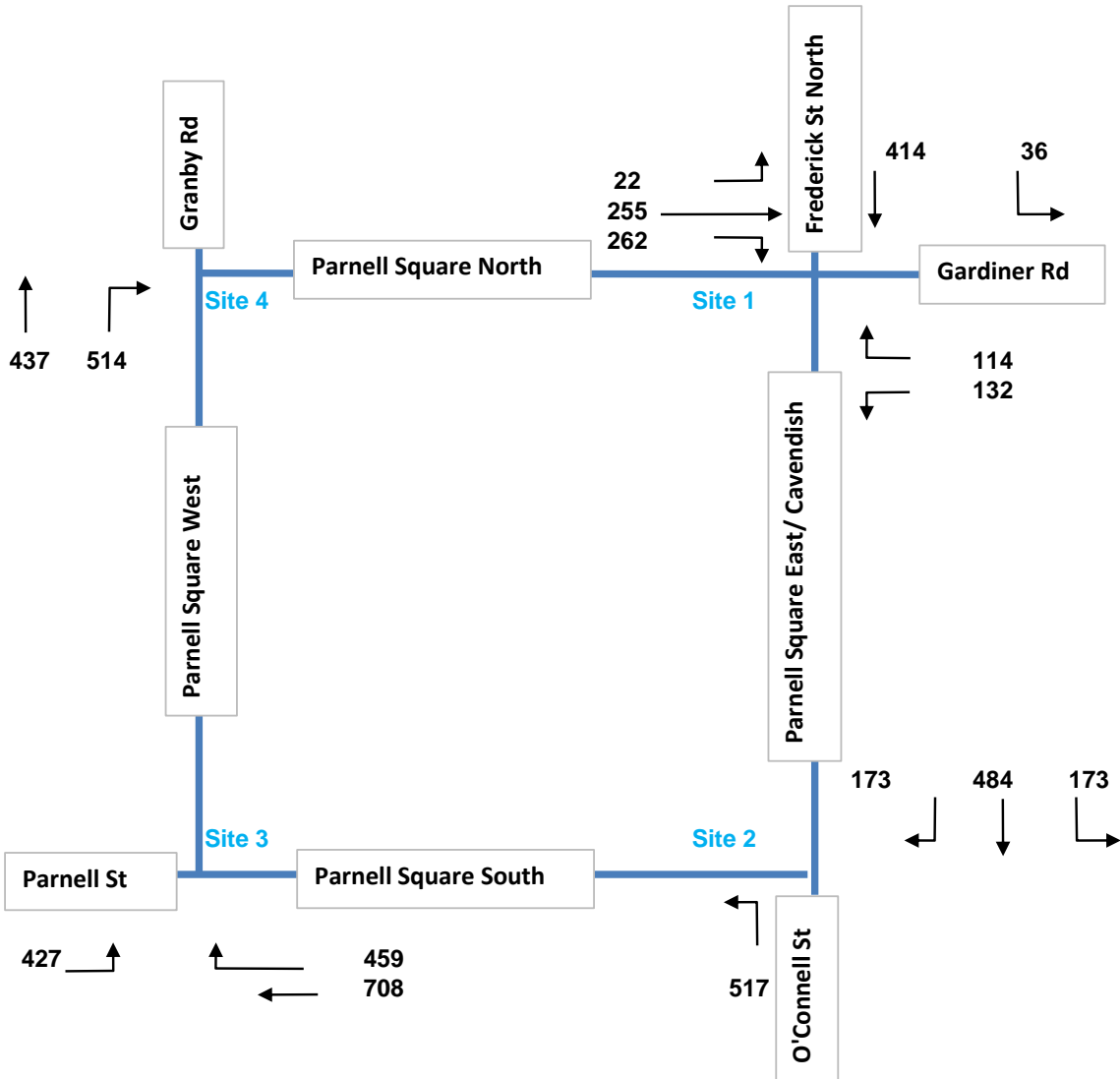
CYCLIST AM PEAK
08:15-09:15 HRS



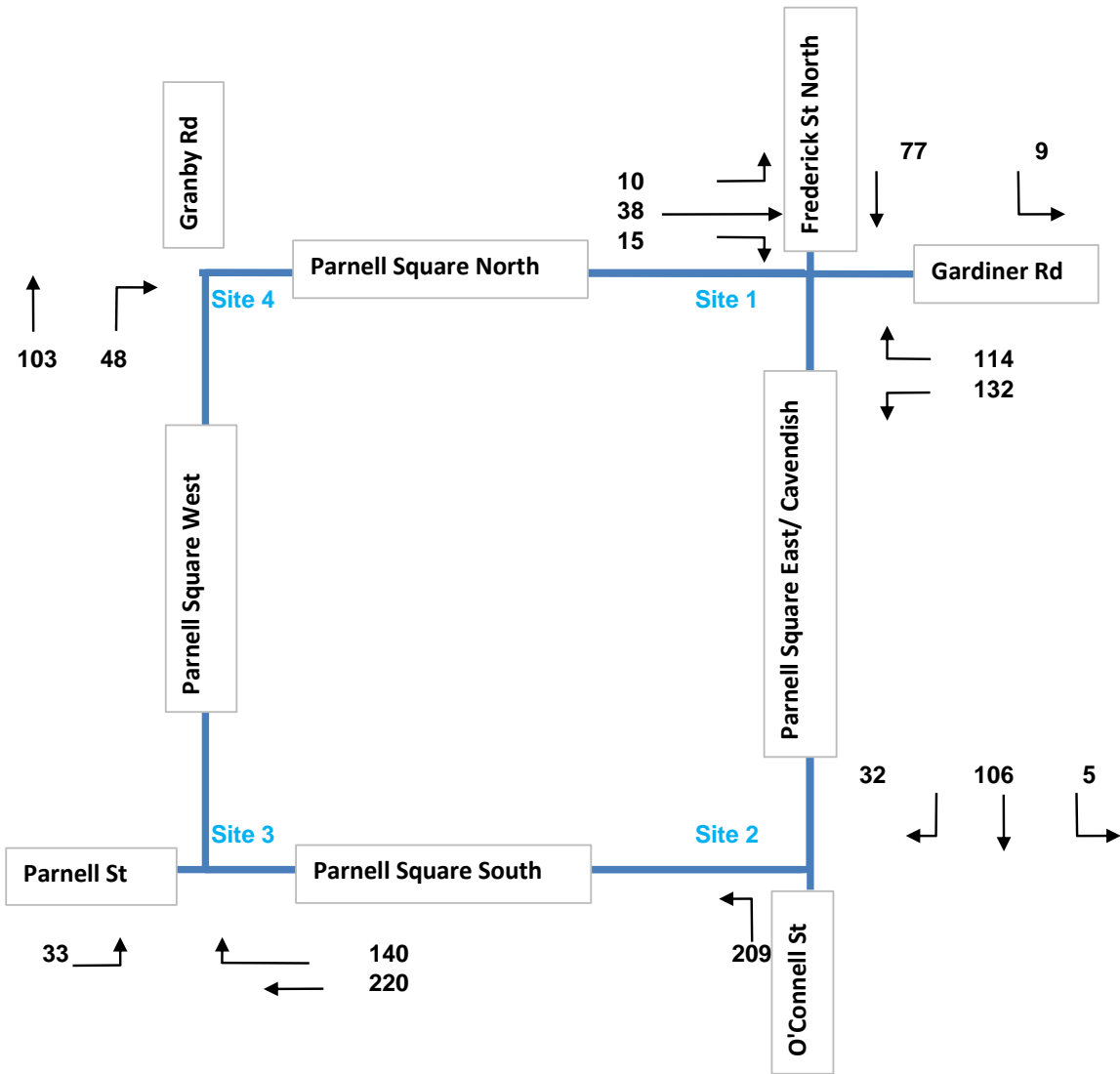
BUS AM PEAK
08:15-09:15 HRS



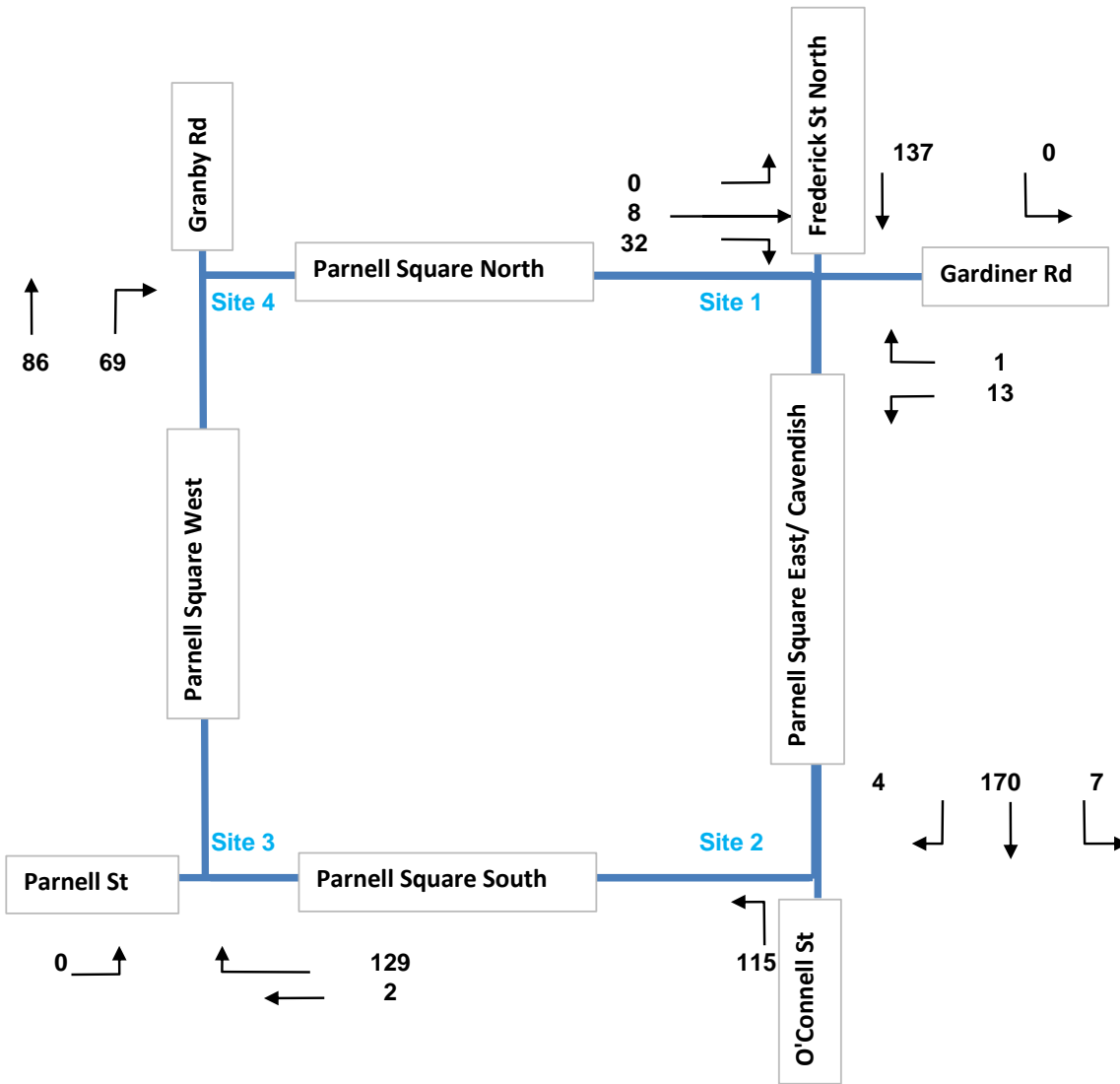
VEHICLE PM PEAK
16:45-17:45 HRS



CYCLIST PM PEAK
16:45-17:45 HRS



BUS PM PEAK
16:45-17:45 HRS



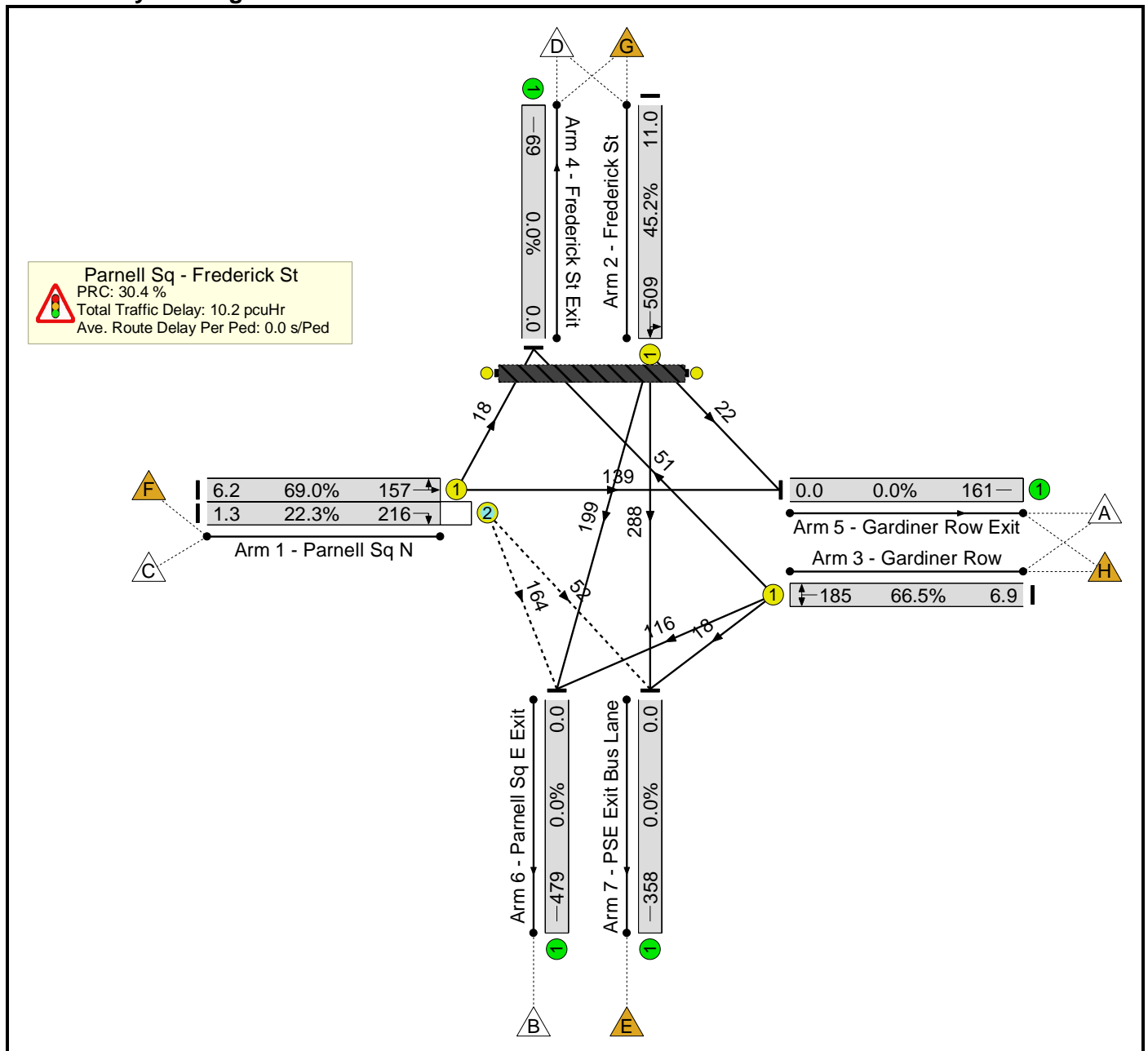
Appendix D Modelling Outputs

Basic Results Summary
Basic Results Summary

User and Project Details

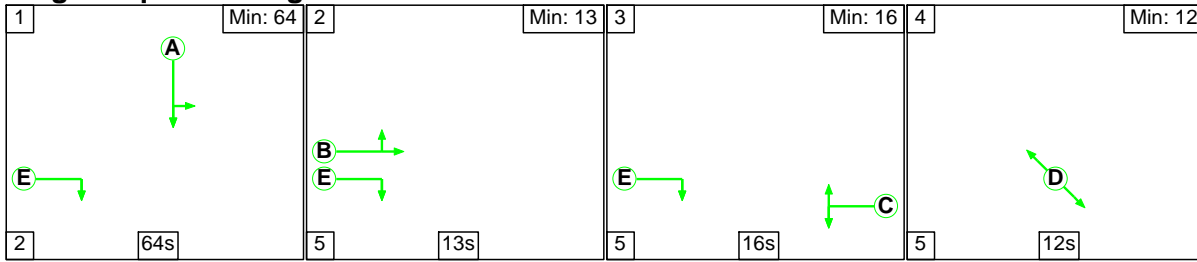
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Title:	Traffic and Transport Assessment
Location:	Parnell Sq - Frederick St Junction
Additional detail:	Base Scenario
File name:	ParnellSq-FrederickSt_AM Base.lsg3x
Author:	Timi Vibal
Company:	AECOM
Address:	4F Adelphi Plaza, George's Street Upper, Dun Laoghaire, Co Dublin

Scenario 1: 'Scenario 1' (FG1: 'AM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram

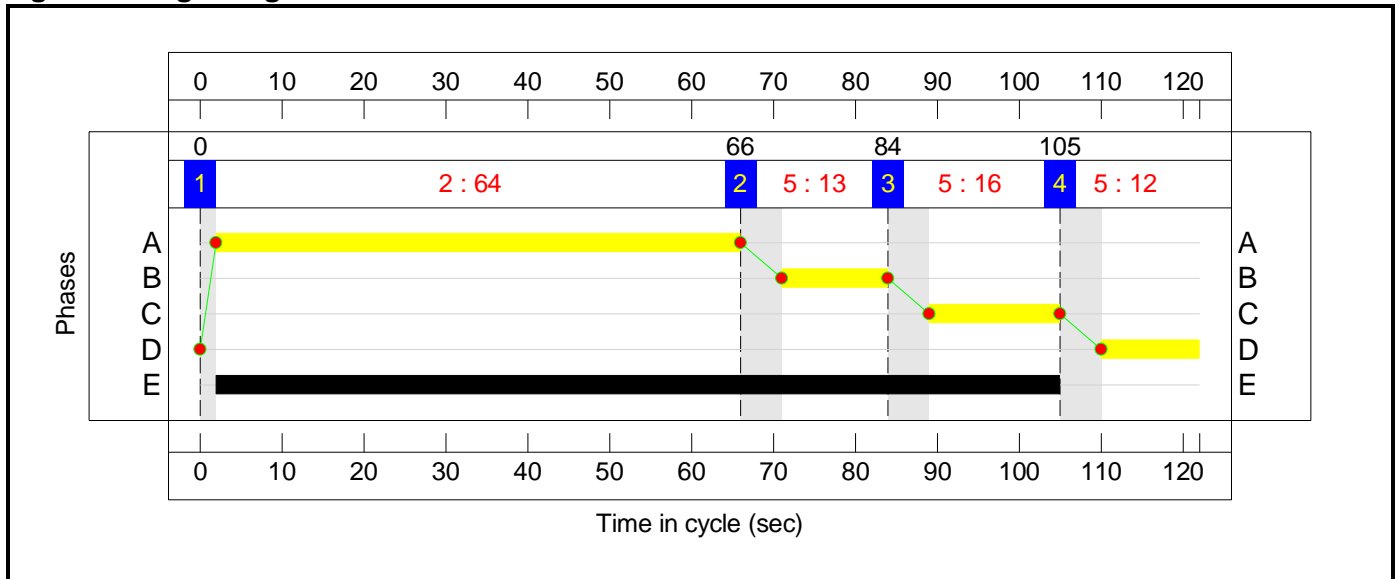


Basic Results Summary

Stage Sequence Diagram



Signal Timings Diagram



Basic Results Summary

Network Results

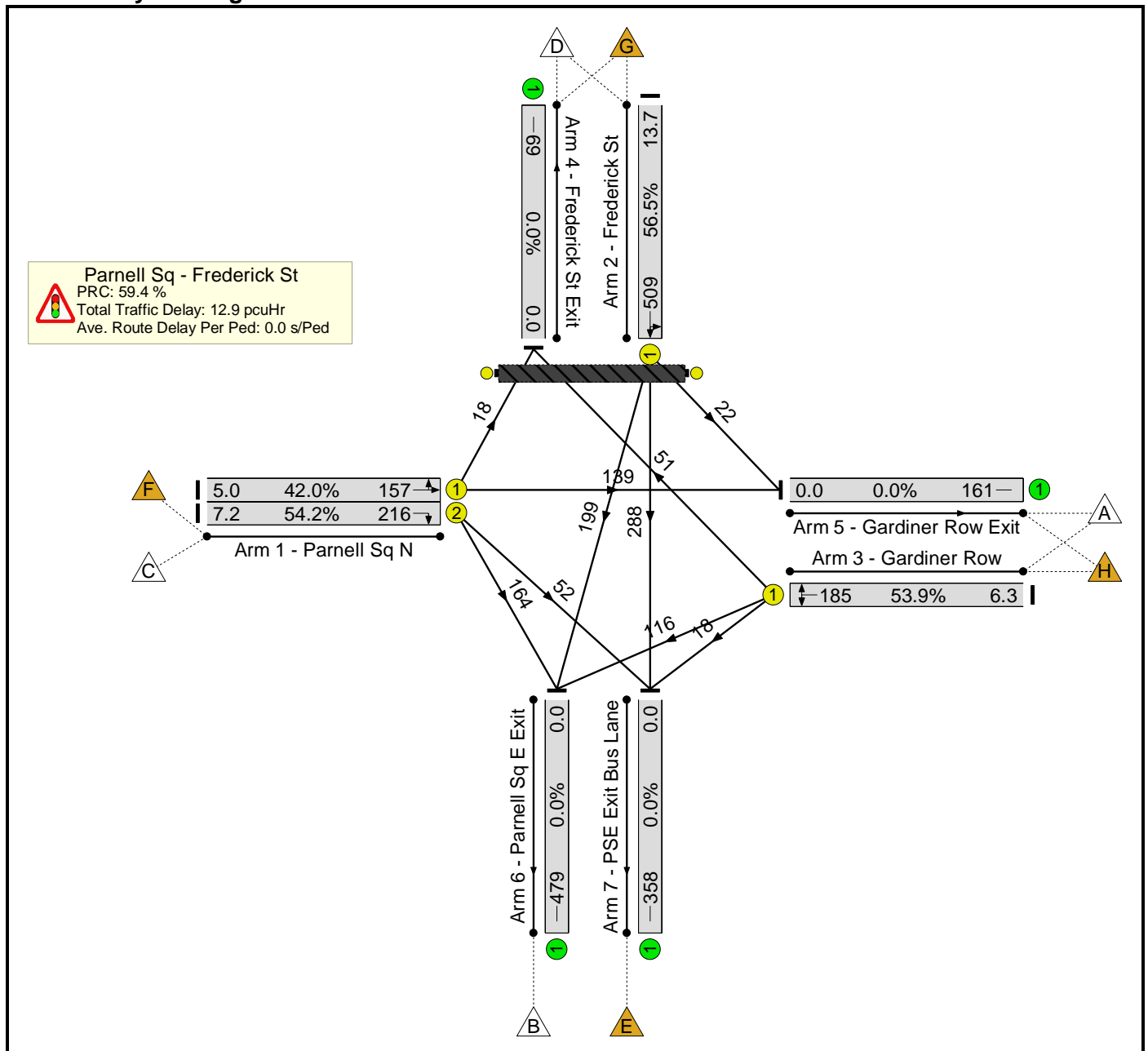
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Traffic and Transport Assessment	-	-	-		-	-	-	-	-	-	69.0%	181	35	0	10.2	-	-
Parnell Sq - Frederick St	-	-	-		-	-	-	-	-	-	69.0%	181	35	0	10.2	-	-
1/1	Parnell Sq N Left Ahead	U	B		1	13	-	157	1983	228	69.0%	-	-	-	3.3	76.7	6.2
1/2	Parnell Sq N Right Right2	O	E		1	103	-	216	2115	968	22.3%	181	35	0	0.4	6.4	1.3
2/1	Frederick St Left Ahead Ahead2	U	A		1	64	-	509	2115	1127	45.2%	-	-	-	2.9	20.4	11.0
3/1	Gardiner Row Right Left Left2	U	C		1	16	-	185	1995	278	66.5%	-	-	-	3.5	68.8	6.9
Ped Link: P1	Ped Link	-	D		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
		C1	PRC for Signalled Lanes (%):		30.4		30.4		Total Delay for Signalled Lanes (pcuHr):			10.15		Cycle Time (s):		122	
			PRC Over All Lanes (%):		30.4		Total Delay Over All Lanes(pcuHr):			10.15							

Basic Results Summary
Basic Results Summary

User and Project Details

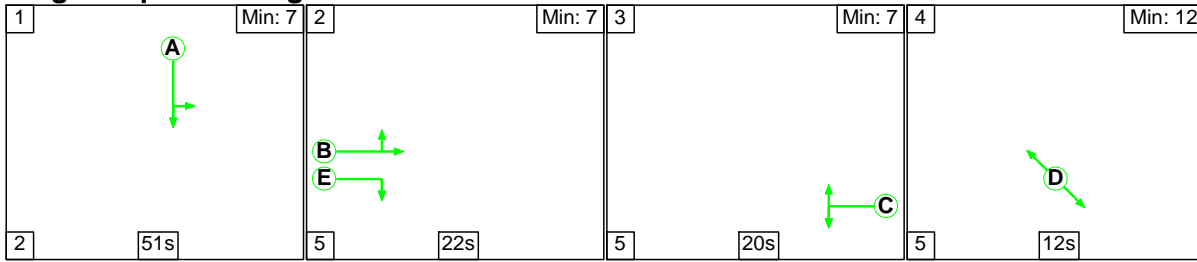
Project:	Parnell Square Cultural Quarter
Title:	Traffic and Transport Assessment
Location:	Parnell Sq - Frederick St Junction
Additional detail:	Option 1
File name:	ParnellSq-FrederickSt_AM Option 1.lsg3x
Author:	Timi Vibal
Company:	AECOM
Address:	4F Adelphi Plaza, George's Street Upper, Dun Laoghaire, Co Dublin

Scenario 1: 'Scenario 1' (FG1: 'AM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram

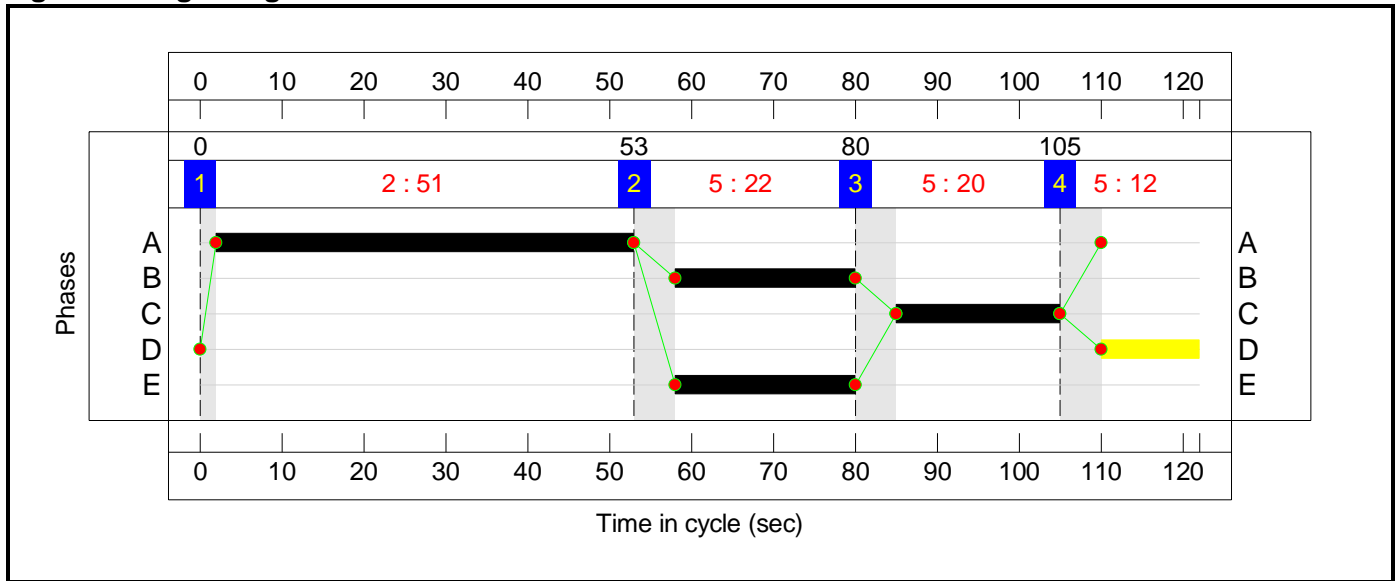


Basic Results Summary

Stage Sequence Diagram



Signal Timings Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Traffic and Transport Assessment	-	-	-		-	-	-	-	-	-	56.5%	0	0	0	12.9	-	-
Parnell Sq - Frederick St	-	-	-		-	-	-	-	-	-	56.5%	0	0	0	12.9	-	-
1/1	Parnell Sq N Left Ahead	U	B		1	22	-	157	1983	374	42.0%	-	-	-	2.3	51.9	5.0
1/2	Parnell Sq N Right Right2	U	E		1	22	-	216	2115	399	54.2%	-	-	-	3.3	54.5	7.2
2/1	Frederick St Left Ahead Ahead2	U	A		1	51	-	509	2115	901	56.5%	-	-	-	4.4	31.0	13.7
3/1	Gardiner Row Right Left Left2	U	C		1	20	-	185	1995	343	53.9%	-	-	-	2.9	57.4	6.3
Ped Link: P1	Ped Link	-	D		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
		C1	PRC for Signalled Lanes (%):		59.4		59.4		Total Delay for Signalled Lanes (pcuHr):			12.87		Cycle Time (s): 122			
			PRC Over All Lanes (%):		59.4		Total Delay Over All Lanes(pcuHr):			12.87							

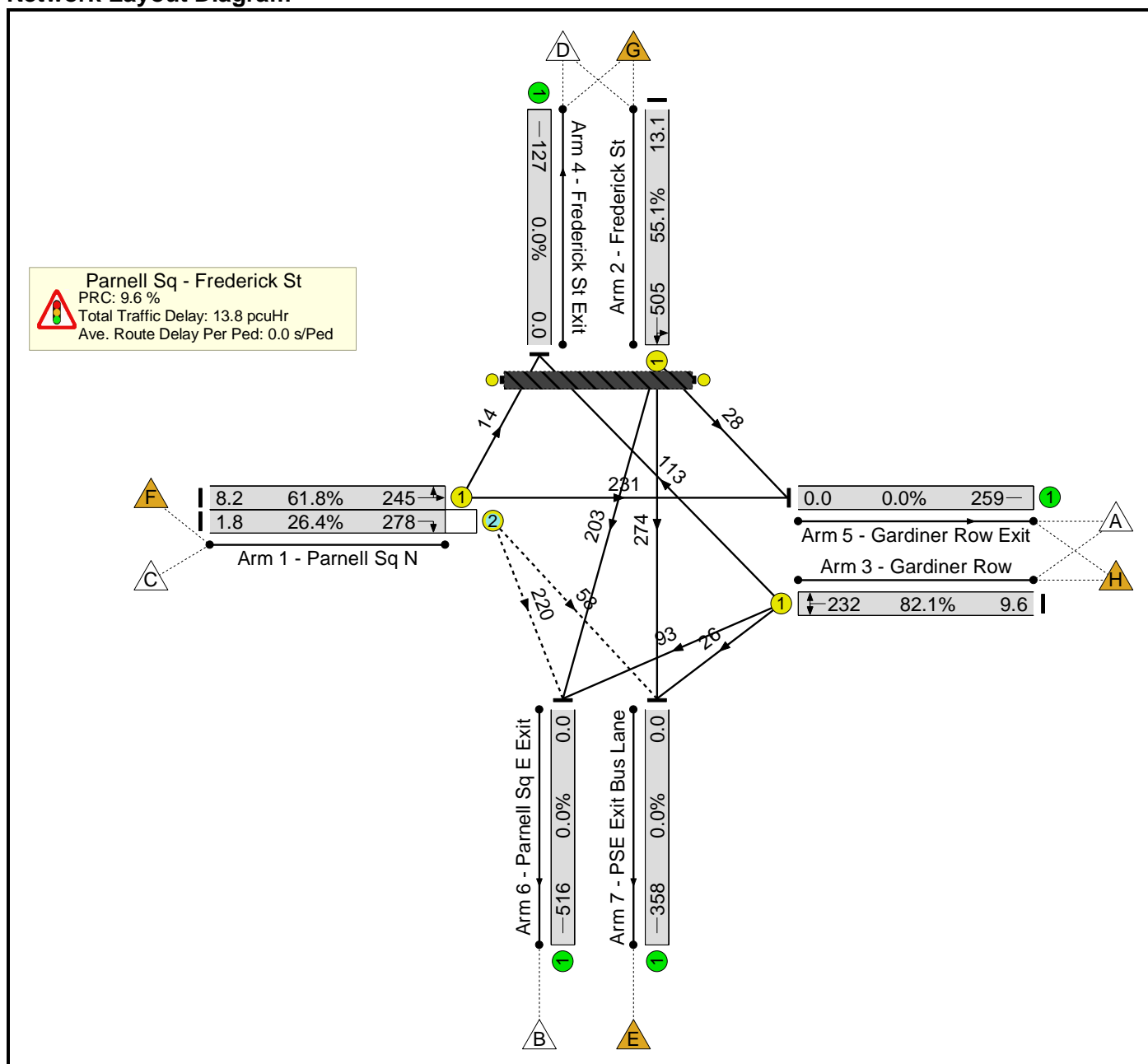
Basic Results Summary
Basic Results Summary

User and Project Details

Project:	Parnell Square Cultural Quarter
Title:	Traffic and Transport Assessment
Location:	Parnell Sq - Frederick St Junction
Additional detail:	Base Scenario
File name:	ParnellSq-FrederickSt_PM Base.lsg3x
Author:	Timi Vibal
Company:	AECOM
Address:	4F Adelphi Plaza, George's Street Upper, Dun Laoghaire, Co Dublin

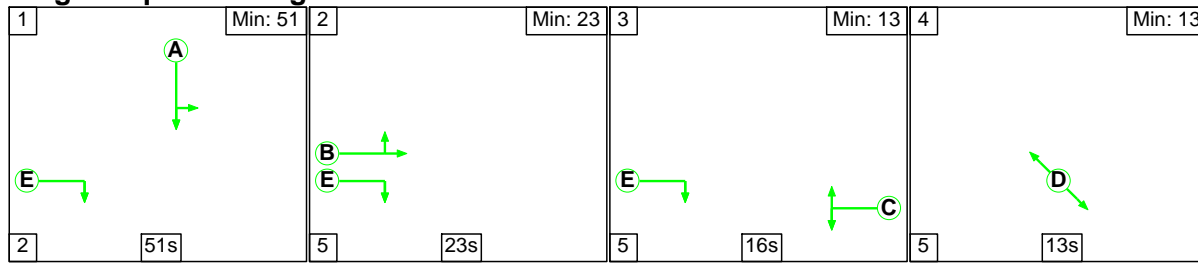
Scenario 1: 'Scenario 1' (FG1: 'PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

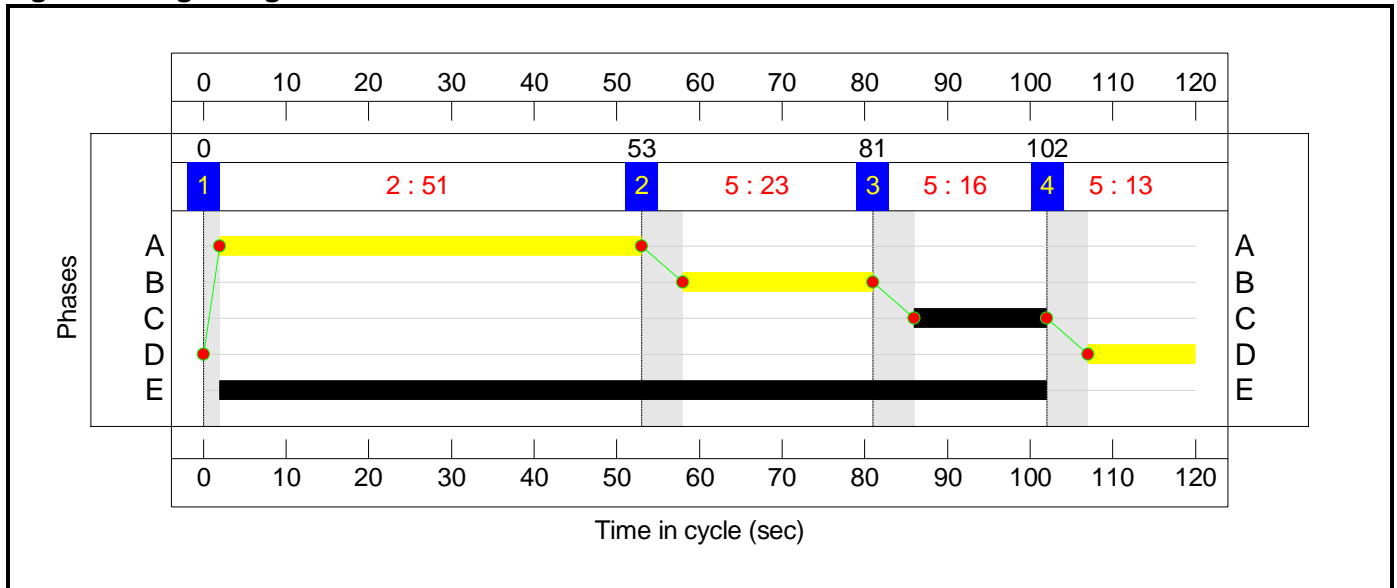


Basic Results Summary

Stage Sequence Diagram



Signal Timings Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)			
Network: Traffic and Transport Assessment	-	-	-		-	-	-	-	-	-	82.1%	208	69	0	13.8	-	-			
Parnell Sq - Frederick St	-	-	-		-	-	-	-	-	-	82.1%	208	69	0	13.8	-	-			
1/1	Parnell Sq N Left Ahead	U	B		1	23	-	245	1983	397	61.8%	-	-	-	3.8	55.6	8.2			
1/2	Parnell Sq N Right Right2	O	E		1	100	-	278	2115	1051	26.4%	208	69	0	0.5	6.7	1.8			
2/1	Frederick St Left Ahead Ahead2	U	A		1	51	-	505	2115	916	55.1%	-	-	-	4.2	29.7	13.1			
3/1	Gardiner Row Right Left Left2	U	C		1	16	-	232	1995	283	82.1%	-	-	-	5.3	82.8	9.6			
Ped Link: P1	Ped Link	-	D		1	13	-	0	-	0	0.0%	-	-	-	-	-	-			
		C1	PRC for Signalled Lanes (%):		9.6		PRC Over All Lanes (%):		9.6		Total Delay for Signalled Lanes (pcuHr):		13.80		Total Delay Over All Lanes(pcuHr):		13.80		Cycle Time (s): 120	

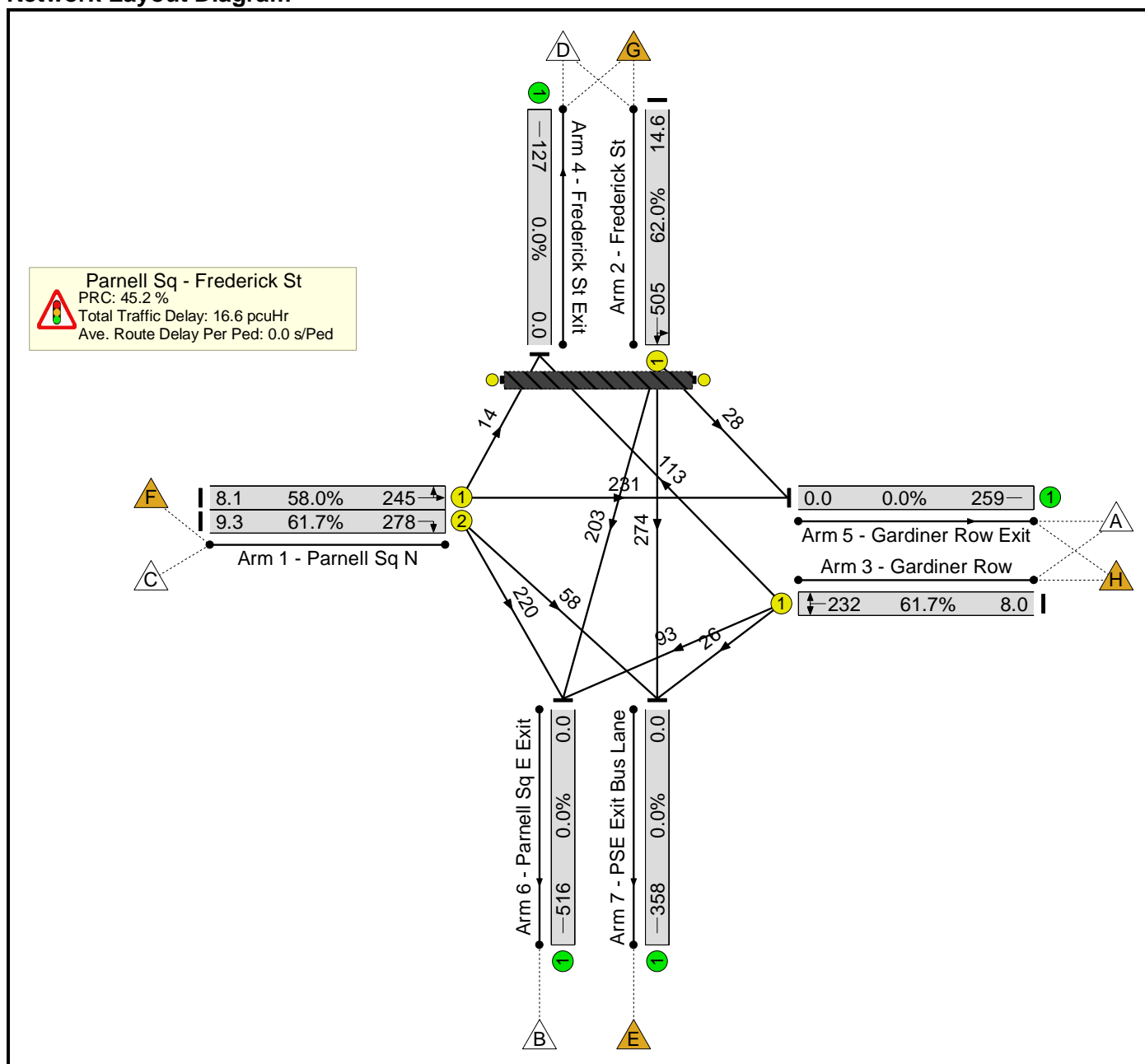
Basic Results Summary
Basic Results Summary

User and Project Details

Project:	Parnell Square Cultural Quarter
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Company:	AECOM
Address:	4F Adelphi Plaza, George's Street Upper, Dun Laoghaire, Co Dublin

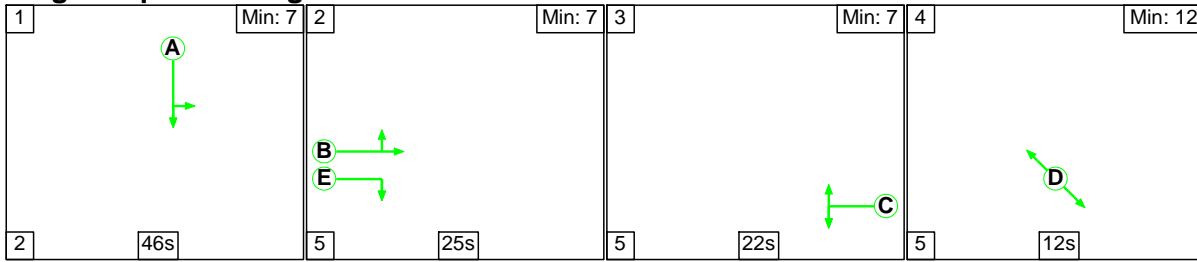
Scenario 1: 'Scenario 1' (FG1: 'PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

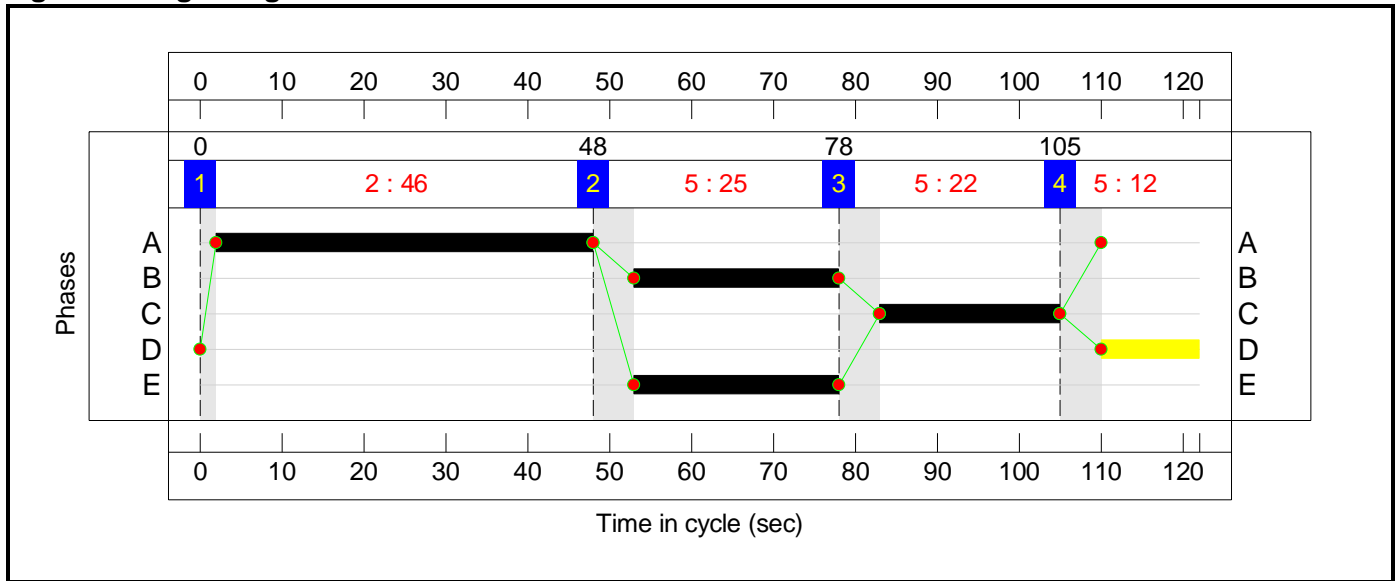


Basic Results Summary

Stage Sequence Diagram



Signal Timings Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Traffic and Transport Assessment	-	-	-		-	-	-	-	-	-	62.0%	0	0	0	16.6	-	-
Parnell Sq - Frederick St	-	-	-		-	-	-	-	-	-	62.0%	0	0	0	16.6	-	-
1/1	Parnell Sq N Left Ahead	U	B		1	25	-	245	1983	423	58.0%	-	-	-	3.6	53.2	8.1
1/2	Parnell Sq N Right Right2	U	E		1	25	-	278	2115	451	61.7%	-	-	-	4.2	53.8	9.3
2/1	Frederick St Left Ahead Ahead2	U	A		1	46	-	505	2115	815	62.0%	-	-	-	5.1	36.1	14.6
3/1	Gardiner Row Right Left Left2	U	C		1	22	-	232	1995	376	61.7%	-	-	-	3.7	57.8	8.0
Ped Link: P1	Ped Link	-	D		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
		C1	PRC for Signalled Lanes (%):		45.2		Total Delay for Signalled Lanes (pcuHr):		16.56		Cycle Time (s):		122				
			PRC Over All Lanes (%):		45.2		Total Delay Over All Lanes(pcuHr):		16.56								

Appendix E Traffic Survey Data

Junction Turning Count

Project Number	3315-IRE
Project Name	Parnell Square Traffic Counts
Client	AECOM
Sites	1-4
Survey Date	10/05/2018
Survey Time	07:00-19:00
Weather	Dry and Sunny
Observations	No incidents or observations during the survey period

 [Dashboard](#)

 [3-Star Data](#) (CSV Export)

 [Contact Us](#)



Origin : Arm B Parnell Square East

	Destination : Arm A Gardiner Row							Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	1	1
1 Hr	0	0	0	0	0	0	1	1
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	1	1
10:00	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	1	1
12:15	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	1	1
3 Hr	0	0	0	0	0	0	1	1
13:00	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	1	1
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	1	1
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	1	1
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	1	1
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	2	2
Total	0	0	0	0	0	0	4	4

	Destination : Arm B Parnell Square East							Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0

	Destination : Arm C Parnell Square North							Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0

	Destination : Arm D Frederick Street North							Total
	Car	Taxi	L					

ORIGIN SUMMARY

Time	Origin : Arm A Gardiner Row								Total	
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle
07:00	25	1	2	2	0	2	0	0	3	36
07:15	29	4	2	0	0	1	0	0	3	39
07:30	28	3	4	1	0	1	0	0	2	39
07:45	27	3	7	1	0	1	0	0	4	43
1 Hr	109	11	15	4	0	5	0	0	12	156
08:00	32	2	6	2	0	2	0	0	3	47
08:15	40	5	2	1	1	1	0	0	9	59
08:30	20	5	8	0	0	1	1	0	8	43
08:45	31	2	5	1	0	2	0	1	15	57
1 Hr	123	14	21	4	1	6	1	1	35	206
09:00	25	5	6	0	0	3	1	0	5	45
09:15	34	8	10	5	0	1	0	1	5	64
09:30	23	4	7	2	0	2	1	0	2	41
09:45	39	5	7	1	0	2	0	0	11	56
1 Hr	121	23	30	8	0	8	2	1	13	206
3 Hr	353	48	66	16	1	19	3	2	60	568
10:00	19	8	4	1	0	1	1	0	1	35
10:15	27	7	3	0	0	1	0	1	4	43
10:30	21	9	5	3	0	1	0	1	2	42
10:45	33	12	6	0	0	1	0	0	3	55
1 Hr	109	36	18	4	0	4	1	2	10	175
11:00	30	10	5	0	0	3	0	0	4	64
11:15	22	8	3	0	0	3	1	1	4	42
11:30	14	8	7	1	0	1	0	0	3	34
11:45	24	17	6	4	0	2	0	0	5	58
1 Hr	90	43	25	6	0	8	1	1	14	188
12:00	22	11	2	0	0	1	1	1	4	42
12:15	20	9	8	0	0	3	1	2	1	44
12:30	39	9	0	0	0	1	0	2	6	51
12:45	28	5	6	1	0	2	1	1	5	49
1 Hr	94	34	25	1	0	7	3	6	16	186
3 Hr	284	113	68	11	0	19	5	9	40	549
13:00	28	10	4	2	0	2	0	0	5	51
13:15	26	7	5	0	0	4	0	0	3	45
13:30	27	10	1	0	0	1	1	0	2	42
13:45	21	12	6	1	0	2	0	1	6	49
1 Hr	102	39	16	3	0	9	1	1	15	167
14:00	19	6	7	0	0	2	1	1	0	36
14:15	21	7	5	2	0	1	0	0	1	37
14:30	21	5	4	1	0	1	0	2	2	36
14:45	40	4	5	0	0	2	0	0	3	54
1 Hr	101	22	21	3	0	6	1	3	6	163
15:00	17	5	10	1	0	2	1	1	2	39
15:15	26	4	3	0	0	3	0	1	4	41
15:30	25	6	6	0	0	2	0	0	7	44
15:45	24	6	8	0	0	2	2	0	1	43
1 Hr	92	19	27	1	0	9	3	2	14	167
3 Hr	295	80	64	7	0	24	5	6	36	517
16:00	20	6	3	1	0	3	0	0	3	36
16:15	25	5	4	0	0	2	0	0	10	46
16:30	32	6	7	0	0	1	0	2	6	46
16:45	30	10	2	0	0	2	0	0	3	46
1 Hr	107	27	16	1	0	8	0	0	15	174
17:00	26	8	5	1	0	3	1	0	15	59
17:15	27	6	3	0	0	3	0	0	9	48
17:30	31	7	1	0	0	3	1	1	9	53
17:45	26	6	4	2	0	1	0	3	4	42
1 Hr	110	27	13	3	0	9	3	1	36	202
18:00	18	5	2	0	0	2	0	1	5	33
18:15	23	9	6	0	0	1	1	0	3	43
18:30	20	1	3	0	0	1	0	0	1	26
18:45	26	5	1	0	0	4	2	1	2	36
1 Hr	87	20	12	0	0	4	2	2	11	138
3 Hr	304	74	41	4	0	21	5	3	62	514
Total	1236	315	239	38	1	83	18	20	196	2148

Time	Origin : Arm B Parnell Square East								Total	
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0

Time	Origin : Arm C Parnell Square North								Total	
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle
07:00	18	4	6	0	0	4	2	1	3	38
07:15	30	7	8	4	0	5	1	0	0	55
07:30	27	6	10	5	1	5	0	1	4	59
07:45	47	6	13	4	0	4	0	1	1	76
1 Hr	122	23	37	13	1	18	3	3	8	228
08:00	43	6	16	5	0	5	0	1	3	79
08:15	50	9	12	2	0	7	1	2	4	81
08:30	46	5	14	6	0	6	0	2	7	86
08:45	38	8	15	4	0	7	2	0	8	82
1 Hr	177	28	57	17	0	25	3	5	22	334
09:00	41	6	17	7	0	8	7	1	8	95
09:15	44	11	10	0	0	7	5	0	2	79
09:30	27	10	13	7	0	8	5	1	6	77
09:45	32	18	12	2	0	9	5	0	3	81
1 Hr	144	45	52	16	0	32	22	2	19	332
10:00	443	96	146	46	1	75	28	10	49	894
10:15	34	12	10	2	0	7	3	0	1	69
10:30	41	16	16	4	0	8	8	3	3	99
10:45	45	14	19	4	0	5	1	0	0	88
1 Hr	44	9	13	5	0	8	0	5	0	84
11:00	164	52	58	15	0	28	12	8	4	340
11:15	63	13	11	4	0	7	2	1	4	104
11:30	46	10	12	5	0	7	1	0	3	84
11:45	56	13	23	1	0	5	2	1	6	107

Origin : Arm A Parnell Street (NE)

	Destination : Arm A Parnell Street (NE)								Total	
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0

	Destination : Arm B O'Connell Street Upper								Total	
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle
07:00	0	0	0	0	0	0	0	0	1	1
07:15	0	0	0	0	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	6	6
07:45	0	0	0	0	0	0	0	0	3	3
1 Hr	0	0	0	0	0	0	0	0	11	11
08:00	0	0	0	0	0	0	0	0	7	7
08:15	0	0	0	0	0	0	0	0	9	9
08:30	0	0	0	0	0	0	0	0	13	13
08:45	0	1	0	0	0	0	0	0	7	8
1 Hr	0	1	0	0	0	0	0	0	36	37
09:00	0	0	0	0	0	0	0	0	8	8
09:15	0	0	0	0	0	0	0	0	6	6
09:30	0	0	1	0	0	0	0	0	5	6
09:45	0	0	0	0	0	0	0	0	6	6
1 Hr	0	0	1	0	0	0	0	0	25	26
3 Hr	0	1	1	0	0	0	0	0	72	74
10:00	1	1	0	1	0	0	0	0	1	4
10:15	0	0	0	0	0	0	0	0	2	2
10:30	0	0	0	0	0	0	0	1	4	5
10:45	0	0	0	0	0	0	0	0	4	4
1 Hr	1	1	0	1	0	0	0	1	11	15
11:00	0	0	1	0	0	0	1	0	3	5
11:15	0	0	0	0	0	0	0	0	3	3
11:30	0	0	0	0	0	0	0	0	7	7
11:45	0	0	0	0	0	0	0	0	4	4
1 Hr	0	0	1	0	0	0	1	0	17	19
12:00	0	0	0	0	0	0	0	0	5	5
12:15	0	0	0	0	0	0	0	0	4	4
12:30	0	0	0	0	0	0	0	0	6	6
12:45	0	0	1	0	0	0	0	0	3	4
1 Hr	0	0	1	0	0	0	0	0	18	19
3 Hr	1	1	2	1	0	0	1	1	46	53
13:00	0	0	1	0	0	0	0	0	1	2
13:15	1	0	0	0	0	0	0	0	4	5
13:30	0	0	0	0	0	0	0	0	6	6
13:45	2	0	0	0	0	0	0	0	3	5
1 Hr	3	0	1	0	0	0	0	0	14	18
14:00	1	0	1	0	0	0	0	0	2	4
14:15	0	0	0	0	0	0	0	0	1	1
14:30	0	0	0	0	0	0	0	0	3	3
14:45	2	0	0	0	0	0	0	0	6	8
1 Hr	3	0	1	0	0	0	0	0	12	16
15:00	0	0	1	0	0	0	0	0	4	5
15:15	0	0	0	0	0	0	0	0	4	4
15:30	0	0	0	0	0	0	0	0	3	3
15:45	1	0	0	0	0	0	0	0	2	3
1 Hr	1	0	1	0	0	0	0	0	13	15
3 Hr	7	0	3	0	0	0	0	0	39	49
16:00	2	0	0	0	0	0	0	0	5	7
16:15	0	0	0	0	0	0	0	0	4	4
16:30	0	0	0	0	0	0	0	0	1	1
16:45	0	0	0	0	0	0	0	0	6	6
1 Hr	2	0	0	0	0	0	0	0	16	18
17:00	1	0	0	0	0	0	0	0	7	8
17:15	1	0	0	0	0	0	0	0	8	9
17:30	0	0	1	0	0	0	0	0	3	4
17:45	0	0	0	0	0	0	0	0	6	6
1 Hr	2	0	1	0	0	0	0	0	24	27
18:00	0	0	0	0	0	0	0	0	11	11
18:15	0	0	0	0	0	0	0	1	4	5
18:30	0	0	1	0	0	0	0	0	4	5
18:45	1	0	1	0	0	0	0	0	6	8
1 Hr	1	0	2	0	0	0	0	1	25	29
3 Hr	5	0	3	0	0	0	0	1	65	74
Total	13	2	9	1	0	0	1	2	222	250

	Destination : Arm C Parnell Street (SW)								Total	
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle
07:00	64	6	8	1	0	2	0	0	6	87
07:15	75	2	22	0	0	2	0	0	7	108
07:30	75	6	16	2	0	3	0	1	10	113
07:45	63	3	10	3	0	3	1	2	8	93
1 Hr	277	17	56	6	0	10	1	3	31	401
08:00	61	5	18	0	0	1	0	0	14	99
08:15	54	5	11	2	0	2	0	0	11	85
08:30	42	5	10	3	0	2	0	2	37	101
08:45	56	4	9	1	0	0	0	0	35	105
1 Hr	213	19	48	6	0	5	0	2	97	390
09:00	69	8	9	1	0	2	1	0	24	114
09:15	54	7	9	1	0	2	4	2	10	89
09:30	56	7	9	4	0	2	0	2	12	92
09:45	56	6	9	2	0	0	0	1	11	85
1 Hr	235	28	36	8	0	6	5	5	87	393
3 Hr	725	64	140	20	0	21	6	10	185	1171
10:00	56	9	12	1	0	2	1	1	3	85
10:15	54	5	8	0	0	2	1	1	10	81
10:30	43	5	8	2	0	1	1	2	4	66
10:45	54	5	12	4	0	0	0	0	8	83
1 Hr	207	24	40	7	0	5	3	6	23	315
11:00	68	3	15	5	0	2	1	3	5	102
11:15	48	3	8	3	0	1	1	1	6	74
11:30	68	5	11	1	0	2	1	1	6</	

Origin : Arm B O'Connell Street Upper

	Destination : Arm A Parnell Street (NE)								Total	
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0

	Destination : Arm B O'Connell Street Upper								Total	
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0

	Destination : Arm C Parnell Street (SW)								Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	
16	18	2	2	2	15	5	1	8	69
11	12	2	4	0	16	2	0	9	56
11	12	7	0	1	15	1	0	7	54
14	9	7	3	0	16	2	2	9	62
52	51	18	9	3	62	10	3	33	241
7	17	5	0	0	21	4	0	6	60
7	12	4	3	0	15	4	0	11	56
16	15	4	3	0	15	4	0	15	72
6	18	4	1	0	28	7	2	17	83
36	62	17	7	0	79	19	2	48	271
10	15	2	1	0	24	9	1	16	78
8	12	7	0	1	26	5	0	10	69
6	19	1	1	0	27	9	0	6	69
14	24	5	1	0	37	6	0	7	94
38	70	15	3	1	114	29	1	39	310
128	183	50	19	4	255	58	6	121	823
6	22	4	2	0	30	11	2	10	87
13	30	7	1	0	25	7	0	8	91
14	33	5	1	0	16	1	2	11	83
20	23	4	1	0	25	3	1	10	87
53	108	20	5	0	96	22	5	39	348
12	9	2	2	0	18	2	2	9	56
21	31	8	1	0	23	3	4	6	72
18	30	9	0	0	17	5	3	9	91
14	21	6	2	0	21	5	0	13	82
65	91	25	5	0	79	15	9	37	326
10	23	7	0	1	18	3	0	9	71
21	33	8							

Origin : Arm D Cavendish Row

	Destination : Arm A Parnell Street (NE)								Total		
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle	
07:00	8	0	2	0	0	0	1	1	0	1	13
07:15	16	2	2	0	0	0	0	0	0	0	20
07:30	10	2	6	1	0	2	0	1	2	2	24
07:45	25	2	3	1	0	1	0	0	0	0	32
1 Hr	59	6	13	2	0	4	1	1	3	89	
08:00	23	4	5	1	0	0	0	0	0	0	33
08:15	29	2	9	0	0	2	0	1	0	0	43
08:30	22	4	6	2	0	1	0	0	0	0	35
08:45	18	2	3	1	1	2	0	0	0	1	28
1 Hr	92	12	23	4	1	5	0	1	1	139	
09:00	19	3	5	0	0	1	0	0	0	1	29
09:15	20	0	4	0	0	0	0	0	0	1	25
09:30	14	5	3	3	0	1	0	0	0	0	26
09:45	14	6	8	0	0	2	0	0	0	0	30
1 Hr	67	14	20	3	0	4	0	0	2	110	
3 Hr	218	32	56	9	1	13	1	2	8	338	
10:00	9	2	0	1	0	1	0	0	0	0	13
10:15	11	3	4	1	0	2	0	1	0	0	22
10:30	12	5	7	0	0	1	0	0	0	0	25
10:45	12	5	5	1	0	2	0	0	0	0	25
1 Hr	44	15	16	3	0	6	0	1	0	85	
11:00	21	3	5	2	0	2	1	0	0	0	34
11:15	11	3	6	1	0	1	0	0	0	0	23
11:30	14	2	6	0	0	1	0	0	0	0	23
11:45	16	2	3	1	0	1	1	0	0	0	24
1 Hr	62	10	20	4	0	5	3	0	0	104	
12:00	19	1	8	0	0	3	0	0	1	1	32
12:15	24	2	3	1	0	0	0	1	1	1	32
12:30	21	4	11	1	0	2	0	1	1	1	41
12:45	21	3	4	0	0	0	0	0	0	0	32
1 Hr	85	10	26	2	0	7	0	4	3	137	
3 Hr	191	35	62	9	0	18	3	5	3	326	
13:00	13	3	7	2	1	0	1	0	2	2	29
13:15	19	2	1	3	0	2	0	1	0	0	28
13:30	31	4	3	0	0	1	0	0	0	0	39
13:45	22	5	6	1	0	1	0	0	0	0	35
1 Hr	85	14	17	6	1	4	1	1	2	131	
14:00	20	1	6	1	0	2	0	0	0	0	30
14:15	20	1	5	1	0	1	0	1	0	0	29
14:30	25	3	8	0	0	1	0	0	0	0	37
14:45	30	1	6	1	0	2	1	1	0	0	42
1 Hr	95	6	25	3	0	6	1	2	0	138	
15:00	23	2	5	0	0	2	0	1	1	1	34
15:15	27	3	3	2	0	1	0	1	0	0	37
15:30	24	9	2	2	0	1	1	2	0	0	41
15:45	22	2	4	1	0	0	0	1	1	1	31
1 Hr	96	16	14	5	0	4	1	5	2	143	
3 Hr	276	36	56	14	1	14	3	8	4	412	
16:00	17	2	7	1	0	2	0	0	1	0	30
16:15	30	6	4	0	0	0	0	0	3	43	
16:30	23	6	1	1	0	2	0	1	0	0	34
16:45	27	2	8	0	0	1	0	0	2	0	40
1 Hr	97	16	20	2	0	5	0	1	8	147	
17:00	30	2	2	0	0	2	0	0	1	0	37
17:15	30	1	5	0	0	1	1	0	0	0	38
17:30	23	2	2	0	0	1	0	0	1	0	29
17:45	22	1	4	0	0	1	0	0	1	0	29
1 Hr	105	6	13	0	0	5	1	0	3	133	
18:00	24	0	4	0	0	2	0	1	1	1	32
18:15	31	0	2	0	0	1	0	0	0	0	37
18:30	23	3	1	0	0	2	0	0	1	0	30
18:45	21	2	3	1	0	2	0	0	0	0	29
1 Hr	99	5	10	1	0	7	0	1	5	128	
3 Hr	301	27	43	3	0	17	1	2	14	408	
Total	986	130	217	35	2	62	8	17	27	1484	

	Destination : Arm B O'Connell Street Upper								Total		
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle	
12	22	5	1	0	0	23	11	4	21	99	
3	22	2	3	1	0	21	8	2	25	87	
5	18	3	2	0	0	26	13	3	29	99	
5	29	6	1	0	0	22	11	3	42	119	
25	91	16	7	1	0	92	43	12	117	404	
2	24	6	0	0	0	25	12	7	38	114	
4	37	4	0	0	0	25	14	5	45	134	
7	26	6	3	0	0	28	10	6	49	135	
5	27	6	1	0	0	31	7	8	61	146	
18	114	22	4	0	0	109	43	26	193	529	
1	25	2	2	0	0	31	17	3	45	126	
3	27	2	1	0	0	29	9	2	23	96	
5	32	3	0	0	0	31	13	7	29	120	
5	43	1	1	0	0	27	16	3	22	115	
14	127	8	4	0	0	118	55	15	113	460	
57	332	46	15	1	0	319	141	53	429	1393	
5	34	3	0	0	0	17	7	0	13	79	
2	42	0	0	0	0	28	12	1	11	96	
5	39	7	1	0	0	19	15	2	14	102	
6	41	1	1	0	0	27	5	3	9	93	
18	156	11	2	0	0	91	39	6	47	370	
1	35	3	1	0	0	20	12	4	12	68	
4	49	3	2	0	0	19	3	3	7	71	90
5	38	3	1	0	0	19	7	1	15	89	
3	38	3	2	0	0	25	11	2	10	94	
13	160	12	6	0	0	83	33	10	44	361	
4	43	3	1	0	0	17	10	2	9	89	
6	45	3	1	0	0	23	5	5	9	97	
3	36	3	0	0	0	24	7	0	32	105	
6	38	5	0	0	0	27	8	2	29	108	
10	162	14	3	0	0	91	30	10	70	399	
50	478	37	11	0	0	265	102	26	161	1130	
8	51	0	1	0	0	19	10	0	20	109	
6	42	1	0	0	0	27	6	2	11	95	
5	40	4	1	0	0	25	9	2	14	100	
2	36	2	1	0	0	17	7	2	21	88	
21	169	7	3	0	0	88	32	6	86	392	
1	39	3	0	0	0	24	10	0	9	85	
0	34	3	1	0	0	30	10	1	16	95	
4	38	1	0	0	0	16	9	2	12	82	
1	37	2	0	0	0	25	8	2	18	93	
6	147	9	1	0	0	95	37	5	55	355	
2	29	1	0	0	0	24	8	2	11	77	
5	33	2	2	0	0	25	7	3	9	86	
1	30	1	2	0	0	24	6	1	11	76	
4	45	1	0	0	0	27	15	4	15	111	
12	137	5	4	0	0	100	36	10	46	350	
39	453	21	8	0	0	283	105	21	167	1097	
4	39	2	0	0	0	28	9	3	12	97	
3	32	0	0	0	0	29	11	2	18	95	
3	37	0	1	0	0	29	4	4	12	90	
0	41	1	0	0	0	29	8	2	21	102	
10	149	3	1	0	0	115	32	11	63	384	
1	40	1	0	0	0	28	11	1	25	107	
2	32	0	0	0	0	24	8	0	20	86	
3	35	1	0	0	0	24	5	1	23	92	
4	38	2	1	0	0	27	6	2	17	97	
10	145	4	1	0	0	103	30	4	85	382	
1	29	1	0	0	0	21	10	3	10	75	
4	51	1	0	0	0	29	8	2	15	101	
3	41	1	1	0	0	22	7	2	16	93	
6	37	1	3	0	0	19	7	2	14	89	
14	158	4	4	0	0	82	32	9	55	358	
34	452	11	6	0	0	300	94	24	203	1124	
Total	180	1715	115	40	1	1167	442	124	960	4744	

	Destination : Arm C Parnell Street (SW)								Total	
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle
19	2	2	1	0	0	0	1	0	0	25
33	4	5	1	0	0	0	0	0	1	44
27	4	1	2	0	0	0	0	0	1	35
20	3	3	3	0	0	0	0	0	1	30
99	13	11	7	0	0	1	0	0	3	134
27	7	5	2	1	1	1	0	0	1	44
28	6	2	0	0	0	1	0	0	6	43
19	8	4	3	0	0	1	0	0	3	38
21	5	3	1	0	0	1	0	0	12	43
95	26	14	6	1	1	3	0	0	22	168
14	4	4	0	0	0	1	0	0	1	24
30	9	6	1	0	0	1	0	0	3	50
24	3	6	4	0	0	0	0	0	1	38
36	11	5	1	0	0	0	0	0	4	57
104	27	21	6	0	0	1	1	0	3	165
298	66	46	19	1	2	5	0	0	34	471
23	8	5	1	0	0					

DESTINATION SUMMARY

	Destination : Arm A Parnell Street (NE)								Total		
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcyc le		Pedal Cycle	
07:00	8	0	2	0	0	0	1	1	0	1	13
07:15	16	2	2	0	0	0	0	0	0	2	22
07:30	10	2	6	1	0	2	0	1	5	27	
07:45	25	2	3	1	0	1	0	0	5	37	
1 Hr	59	6	13	2	0	4	1	1	13	99	
08:00	23	4	5	1	0	0	0	0	1	34	
08:15	29	2	9	0	0	2	0	1	2	45	
08:30	22	4	6	2	0	1	0	0	1	36	
08:45	18	2	3	1	1	2	0	0	5	32	
1 Hr	92	12	23	4	1	5	0	1	9	147	
09:00	19	3	5	0	0	1	0	0	2	30	
09:15	20	0	4	0	0	0	0	0	3	27	
09:30	14	5	3	3	0	1	0	0	1	27	
09:45	14	6	8	0	0	2	0	0	2	32	
1 Hr	67	14	20	3	0	4	0	0	8	116	
3 Hr	218	32	56	9	1	13	1	2	30	362	
10:00	9	2	0	1	0	1	0	0	3	16	
10:15	11	3	4	1	0	2	0	1	4	26	
10:30	12	5	7	0	0	1	0	0	4	29	
10:45	12	5	5	1	0	2	0	0	0	25	
1 Hr	44	15	16	3	0	6	0	1	11	96	
11:00	21	3	5	2	0	2	1	0	2	36	
11:15	11	3	6	1	0	1	1	0	3	26	
11:30	14	2	6	0	0	1	0	0	1	24	
11:45	16	2	3	1	0	1	1	0	2	26	
1 Hr	62	10	20	4	0	5	3	0	8	112	
12:00	19	1	8	0	0	3	0	0	8	39	
12:15	24	2	3	1	0	0	0	1	8	39	
12:30	21	4	11	1	0	2	0	1	3	43	
12:45	21	3	4	0	0	0	0	2	4	35	
1 Hr	85	10	26	2	0	7	0	4	23	157	
3 Hr	191	35	62	9	0	18	3	5	42	365	
13:00	13	3	7	2	1	0	1	0	3	30	
13:15	19	2	1	3	0	2	0	1	4	32	
13:30	31	4	3	0	0	1	0	0	8	47	
13:45	22	5	6	1	0	1	0	0	3	38	
1 Hr	95	14	17	6	1	4	1	1	16	147	
14:00	20	1	6	1	0	2	0	0	3	32	
14:15	20	1	5	1	0	1	0	1	4	33	
14:30	25	3	8	0	0	1	0	0	3	40	
14:45	30	1	6	1	0	2	1	1	3	45	
1 Hr	95	6	25	3	0	6	1	2	12	150	
15:00	23	2	5	0	0	2	0	1	7	40	
15:15	27	3	5	2	0	1	0	1	1	38	
15:30	24	9	2	2	0	1	1	2	5	46	
15:45	22	2	4	1	0	0	0	1	4	34	
1 Hr	96	16	14	5	0	4	1	5	17	158	
3 Hr	276	36	56	14	1	14	3	8	47	455	
16:00	17	2	7	1	0	2	0	0	8	37	
16:15	30	6	4	0	0	0	0	0	6	46	
16:30	23	6	1	1	0	2	0	1	14	48	
16:45	27	2	8	0	0	1	0	0	6	44	
1 Hr	97	16	20	2	0	5	0	1	34	175	
17:00	30	2	2	0	0	2	0	0	15	51	
17:15	30	1	5	0	0	1	1	0	6	44	
17:30	23	2	2	0	0	1	0	0	11	39	
17:45	22	1	4	0	0	1	0	0	13	41	
1 Hr	105	6	13	0	0	5	1	0	45	175	
18:00	24	0	4	0	0	2	0	0	3	46	
18:15	31	0	2	0	0	1	0	0	7	41	
18:30	23	3	1	0	0	2	0	0	11	40	
18:45	21	2	3	1	0	2	0	0	3	32	
1 Hr	99	5	10	1	0	7	0	1	24	147	
3 Hr	301	27	43	3	0	17	1	2	103	497	
Total	986	130	217	35	2	62	8	17	222	1679	

	Destination : Arm B O'Connell Street Upper								Total	
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcyc le		Pedal Cycle
12	22	5	1	0	0	23	11	4	23	101
3	22	2	3	1	0	21	8	2	27	89
5	18	3	2	0	0	26	13	3	36	106
5	29	6	1	0	0	22	11	3	45	122
25	91	16	7	1	0	92	43	12	131	418
2	24	6	0	0	0	25	12	7	46	122
4	37	4	0	0	0	25	14	5	55	144
7	26	6	3	0	0	28	10	6	56	152
5	28	6	1	0	0	31	7	8	69	155
18	115	22	4	0	0	109	43	26	236	573
1	25	2	2	0	0	31	17	3	54	135
3	27	2	1	0	0	29	9	2	31	104
5	32	4	0	0	0	31	13	7	36	128
5	43	1	1	0	0	27	16	3	28	123
14	127	9	4	0	0	118	55	15	149	491
57	333	47	15	1	0	319	141	53	516	1482
6	35	3	1	0	0	17	7	0	14	83
2	42	0	0	0	0	28	12	1	15	100
5	39	7	1	0	0	19	15	3	19	108
6	41	1	1	0	0	27	5	3	15	99
19	157	11	3	0	0	91	39	7	83	380
1	35	4	1	0	0	20	19	4	16	94
4	49	3	2	0	0	19	3	3	11	94
5	38	3	1	0	0	19	7	1	24	98
3	38	3	2	0	0	25	11	2	17	101
13	160	13	6	0	0	83	34	10	68	387
4	43	3	1	0	0	17	10	2	19	93
6	45	3	1	0	0	23	5	5	15	103
3	36	3	0	0	0	24	7	0	41	114
5	38	1	0	0	0	27	8	3	26	115
19	162	15	3	0	0	91	30	10	101	431
51	479	39	12	0	0	265	103	27	232	1208
8	59	1	1	0	0	19	10	0	24	114
7	42	1	0	0	0	27	6	2	18	103
5	40	4	1	0	0	25	9	2	23	109
4	36	2	1	0	0	17	7	2	28	97
24	169	8	3	0	0	88	32	6	83	423
2	38	4	0	0	0	24	10	0	11	89
0	34	3	1	0	0	30	10	1	20	99
4	38	1	0	0	0	16	9	2	19	89
3	37	2	0	0	0	25	8	2	31	108
9	147	10	1	0	0	95	37	5	81	385
2	29	2	0	0	0	24	8	2	15	82
5	33	2	2	0	0	25	7	3	17	94
1	30	1	2	0	0	24	6	1	17	82
5	45	1	0	0	0	27	15	4	20	117
13	137	6	4	0	0	100	36	10	69	375
46	453	24	8	0	0	283	105	21	243	1183
6	39	2	0	0	0	28	9	3	23	110
3	32	0	0	0	0	29	11	2	28	105
3	37	0	1	0	0	29	4	4	19	97
0	41	1	0	0	0	29	8	2	27	108
12	149	3	1	0	0	115	32	11	97	420
2	40	1	0	0	0	28	11	1	36	119
3	32	0	0	0	0	24	8	0	34	101
3	35	2	0	0	0	24	5	1	31	101
4	38	2	1	0	0	27	6	2	26	106
12	145	5	1	0	0	103	30	4	127	427
1	29	1	0	0	0	20	10	3	29	109
4	51	1	0	0	0	20	8	3	22	109
3	41	2	1	0	0	22	7	2	21	99
7	37	2	3	0	0	19	7	2	22	99
15	158	6	4	0	0	82	32	10	89	398
39	452	14	6	0	0	300	94	25	313	1243
Total	193	1717	124	41	1	1167	443	126	1304	5116

	Destination : Arm C Parnell Street (SW)								Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcyc le	
99	26	12	4	2	17	6	1	14	181
119	18	29	5	0	18	2	0	17	208
113	22	24	4	1	18	1	1	18	202
97	15	20	9	0	19	3	4	18	185
428	81	85	22	3	72	12	6	67	776
95	29	28	2	1	23	4	0	21	203
89	23	17	5	0	17	5	0	28	184
77	28	18	9	0	17	5	2	55	211
83	27	16	3	0	28	8	2	64	231
344	107	79	19	1	85	22	4	168	829
93	27	15	2	0	27	10	1	41	216
92	28	22	2	1	28	10	2	23	208
86	29	16	9	0	29	9	2	19	199
105	41	19	4	0	37	6	1	22	236
377	125	72	17	1	121	35	6	105	859
1149	313	236	58	5	278	69	16	340	2464
85	39	21	4	0	32	12	5	13	211
99	44	21	3	0	28	8	2	23	228
81	48	18	4	0	17	2	4	18	192
108	37	21	7	0	25	3			

Origin : Arm A Parnell Street (NE)

	Destination : Arm A Parnell Street (NE)									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0

	Destination : Arm B Parnell Street (SW)									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
70	8	10	2	1	0	0	0	0	11	102
80	7	23	2	0	0	0	0	0	10	122
71	18	13	4	0	0	0	0	2	12	120
73	12	2	4	0	1	0	2	16	110	110
294	45	48	12	1	1	0	4	49	454	454
73	21	17	2	0	0	0	0	17	130	130
61	14	9	3	0	0	0	0	24	111	111
52	10	13	6	0	0	0	2	40	123	123
69	13	16	4	0	0	0	0	61	163	163
255	58	55	15	0	0	0	2	142	527	527
72	12	12	1	0	0	0	0	36	133	133
60	13	19	2	0	0	0	1	26	121	121
64	10	13	6	0	0	0	3	20	116	116
69	10	22	6	0	0	0	1	24	132	132
265	45	66	15	0	0	0	5	106	502	502
814	148	169	42	1	1	0	11	297	1483	1483
67	18	22	3	0	0	1	3	11	125	125
64	13	17	1	0	0	0	3	16	114	114
44	13	22	4	0	0	0	4	18	105	105
81	12	15	7	0	0	0	1	12	128	128
256	56	76	15	0	0	1	11	57	472	472
77	15	15	4	0	0	1	4	17	133	133
73	14	15	3	0	0	0	3	15	123	123
83	19	13	2	0	0	0	2	14	133	133
75	12	13	5	0	0	1	1	20	127	127
308	60	56	14	0	0	2	10	66	516	516
63	13	19	1	0	0	0	2	18	116	116
72	26	12	2	0	0	0	0	16	128	128
62	17	18	0	0	0	0	2	35	134	134
74	14	9	2	0	0	1	3	37	140	140
271	70	58	5	0	0	1	7	106	518	518
835	186	190	34	0	0	4	28	229	1506	1506
71	26	14	3	0	0	0	4	18	136	136
61	27	19	2	0	0	0	3	16	128	128
52	12	10	2	0	0	1	1	25	103	103
51	17	11	0	0	0	0	3	18	100	100
235	82	54	7	0	0	1	11	77	467	467
66	14	9	3	0	0	1	2	17	112	112
55	13	18	6	0	0	1	1	15	109	109
56	10	15	2	0	1	0	3	20	107	107
65	8	14	2	0	0	1	3	15	108	108
242	45	56	13	0	1	3	9	67	436	436
73	20	12	3	0	1	0	2	22	133	133
61	17	8	5	0	0	0	2	24	117	117
63	24	9	2	0	0	0	0	19	117	117
53	18	12	0	0	0	0	5	13	101	101
250	79	41	10	0	1	0	9	78	468	468
727	206	151	30	0	2	4	29	222	1371	1371
59	13	6	1	0	0	1	5	22	107	107
58	11	12	2	0	0	0	9	33	125	125
63	19	6	2	0	0	0	1	28	119	119
70	14	16	1	0	0	0	1	35	137	137
250	57	40	6	0	0	1	16	118	488	488
61	18	8	0	0	0	1	0	37	125	125
65	13	6	0	0	1	0	5	52	142	142
89	15	7	0	0	0	0	5	50	166	166
69	12	7	3	0	0	0	1	46	138	138
284	58	28	3	0	1	1	11	185	571	571
56	19	8	0	0	0	0	1	42	126	126
62	21	12	1	0	0	0	2	29	127	127
63	23	9	1	0	0	0	2	30	128	128
70	29	11	1	0	1	0	2	21	135	135
251	92	40	3	0	1	0	7	122	516	516
785	207	108	12	0	2	2	34	425	1575	1575
316	747	618	118	1	5	10	102	1173	5935	5935

	Destination : Arm C Parnell Square West									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
26	15	2	2	1	18	5	1	4	74	74
31	9	3	2	0	16	3	0	6	70	70
32	13	5	1	1	20	1	0	4	77	77
26	11	6	3	0	15	2	1	3	67	67
115	48	16	8	2	69	11	2	17	288	288
18	14	4	0	0	25	4	1	3	69	69
25	15	2	1	0	18	4	0	4	69	69
16	12	2	2	0	18	6	0	8	64	64
14	19	4	0	0	25	7	2	7	78	78
73	60	12	3	0	86	21	3	22	280	280
12	16	3	1	0	25	10	1	7	75	75
26	9	6	1	0	31	9	0	1	83	83
17	13	4	1	0	30	7	0	2	74	74
25	21	4	0	0	37	6	0	1	94	94
80	59	17	3	0	123	32	1	11	326	326
268	167	45	14	2	278	64	6	50	894	894
20	16	6	0	0	33	9	1	1	86	86
28	25	8	1	0	29	9	0	4	104	104
32	27	5	1	0	16	3	0	2	86	86
28	21	10	1	0	27	2	1	4	94	94
108	89									

Origin : Arm B Parnell Street (SW)

	Destination : Arm A Parnell Street (NE)									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	1	1
07:45	0	0	0	0	0	0	0	0	2	2
1 Hr	0	0	0	0	0	0	0	0	4	4
08:00	0	0	0	0	0	0	0	0	1	1
08:15	0	0	0	0	0	0	0	0	2	2
08:30	0	0	0	0	0	0	0	0	2	2
08:45	0	0	0	0	0	0	0	0	5	5
1 Hr	0	0	0	0	0	0	0	0	10	10
09:00	0	0	0	0	0	0	0	0	1	1
09:15	0	0	0	1	0	0	0	0	1	2
09:30	0	0	0	0	0	0	0	0	3	3
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	1	0	0	0	0	5	6
3 Hr	0	0	0	1	0	0	0	0	19	20
10:00	0	0	0	0	0	0	0	0	1	1
10:15	0	0	0	0	0	0	0	0	3	3
10:30	0	0	0	0	0	0	0	0	2	2
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	6	6
11:00	0	0	0	0	0	0	0	0	2	2
11:15	0	0	0	0	0	0	0	0	4	4
11:30	0	0	0	0	0	0	0	0	2	2
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	8	8
12:00	0	0	0	0	0	0	0	0	5	5
12:15	0	0	0	0	0	0	0	0	3	3
12:30	0	0	0	0	0	0	0	0	5	5
12:45	0	0	0	0	0	0	0	0	4	4
1 Hr	0	0	0	0	0	0	0	0	17	17
3 Hr	0	0	0	0	0	0	0	0	31	31
13:00	0	0	0	0	0	0	0	0	4	4
13:15	0	0	0	0	0	0	0	0	4	4
13:30	0	0	0	0	0	0	0	0	3	3
13:45	0	0	0	0	0	0	0	0	6	6
1 Hr	0	0	0	0	0	0	0	0	17	17
14:00	0	0	0	0	0	0	0	0	1	1
14:15	0	0	0	0	0	0	0	0	3	3
14:30	0	0	0	0	0	0	0	0	1	1
14:45	0	0	0	0	0	0	0	0	5	5
1 Hr	0	0	0	0	0	0	0	0	10	10
15:00	0	0	0	0	0	0	0	0	2	2
15:15	0	0	0	0	0	0	0	0	1	1
15:30	0	0	0	0	0	0	0	0	4	4
15:45	0	0	0	0	0	0	0	0	2	2
1 Hr	0	0	0	0	0	0	0	0	9	9
3 Hr	0	0	0	0	0	0	0	0	36	36
16:00	0	0	0	0	0	0	0	0	3	3
16:15	0	0	0	0	0	0	0	0	6	6
16:30	0	0	0	0	0	0	0	0	10	10
16:45	0	0	0	0	0	0	0	0	3	3
1 Hr	0	0	0	0	0	0	0	0	22	22
17:00	0	0	0	0	0	0	0	0	11	11
17:15	0	0	0	0	0	0	0	0	4	4
17:30	0	0	0	0	0	0	0	0	8	8
17:45	0	0	0	0	0	0	0	0	7	7
1 Hr	0	0	0	0	0	0	0	0	30	30
18:00	0	0	0	0	0	0	0	0	5	5
18:15	0	0	0	0	0	0	0	0	5	5
18:30	0	0	0	0	0	0	0	0	4	4
18:45	0	0	0	0	0	0	0	0	2	2
1 Hr	0	0	0	0	0	0	0	0	16	16
3 Hr	0	0	0	0	0	0	0	0	68	68
Total	0	0	0	1	0	0	0	0	154	155

	Destination : Arm B Parnell Street (SW)									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	1	0	0	0	0	0	0	0	0	1
1 Hr	1	0	0	0	0	0	0	0	0	1
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	1	0	0	0	0	0	0	0	0	1
13:00	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
16:00	1	0	0	0	0	0	0	0	0	1
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
1 Hr	1	0	0	0	0	0	0	0	0	1
17:00	1	0	0	0	0	0	0	0	0	1
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
1 Hr	1	0	0	0	0	0	0	0	0	1
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	2	0	0	0	0	0	0	0	0	2
Total	3	0	0	0	0	0	0	0	0	3

	Destination : Arm C Parnell Square West									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
34	3	7	3	0	0	0	0	1	1	49
48	5	8	3	0	0	0	0	1	0	65
25	4	7	3	1	0	0	0	1	2	43
65	6	13	2	0	0	0	1	2	4	93
172	18	35	11	1	0	0	1	5	7	250
51	1	11	4	0	0	0	0	1	1	69
49	3	13	2	0	0	0	0	3	2	72
47	4	12	6	1	0	0	0	0	2	72
42	10	13	3	0	0	0	0	1	4	73
189	18	49	15	1	0	0	0	5	9	296
43	7	14	6	0	0	0	0	0	3	73
37	13	12	2	0	0	0	0	0	3	67
36	8	13	5	0	0	0	0	0	4	66
37	12	12	1	0	0	0	0	0	0	62
153	40	51	14	0	0	0	0	0	10	268
514	76	135	40	2	0	0	1	10	26	804
40	8	6	4	0	0	0	0	0	3	61
38	9	13	5	0	0	0	0	3	7	75
43	7	11	4	0	0	0	0	0	0	65
33	8	11	3	0	0	0	0	4	1	60
154	32	41	16	0	0	0	0	7	11	261
56	7	11	4	1	0	0	0	0	3	82
46	4	13	2	0	0	0	0	0	3	68
53	8	16	2	0	0	0	0	0	4	83
54	4	13	6	0	0	0	0	0	3	80
209	23	53</								

DESTINATION SUMMARY

	Destination : Arm A Parnell Street (NE)									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	1	1
07:45	0	0	0	0	0	0	0	0	2	2
1 Hr	0	0	0	0	0	0	0	0	4	4
08:00	0	0	0	0	0	0	0	0	1	1
08:15	0	0	0	0	0	0	0	0	2	2
08:30	0	0	0	0	0	0	0	0	2	2
08:45	0	0	0	0	0	0	0	0	5	5
1 Hr	0	0	0	0	0	0	0	0	10	10
09:00	0	0	0	0	0	0	0	0	1	1
09:15	0	0	0	1	0	0	0	0	2	3
09:30	0	0	0	0	0	0	0	0	3	3
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	1	0	0	0	0	6	7
3 Hr	0	0	0	1	0	0	0	0	20	21
10:00	0	0	0	0	0	0	0	0	1	1
10:15	0	0	0	0	0	0	0	0	4	4
10:30	0	0	0	0	0	0	0	0	2	2
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	7	7
11:00	0	0	0	0	0	0	0	0	2	2
11:15	0	0	0	0	0	0	0	0	4	4
11:30	0	0	0	0	0	0	0	0	3	3
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	9	9
12:00	0	0	0	0	0	0	0	0	5	5
12:15	0	0	0	0	0	0	0	0	3	3
12:30	0	0	0	0	0	0	0	0	5	5
12:45	0	0	0	0	0	0	0	0	4	4
1 Hr	0	0	0	0	0	0	0	0	17	17
3 Hr	0	0	0	0	0	0	0	0	33	33
13:00	0	0	0	0	0	0	0	0	4	4
13:15	0	0	0	0	0	0	0	0	4	4
13:30	0	0	0	0	0	0	0	0	3	3
13:45	0	0	0	0	0	0	0	0	7	7
1 Hr	0	0	0	0	0	0	0	0	18	18
14:00	0	0	0	0	0	0	0	0	1	1
14:15	0	0	0	0	0	0	0	0	4	4
14:30	0	0	0	0	0	0	0	0	2	2
14:45	0	0	0	0	0	0	0	0	6	6
1 Hr	0	0	0	0	0	0	0	0	13	13
15:00	0	0	0	0	0	0	0	0	3	3
15:15	0	0	0	0	0	0	0	0	1	1
15:30	0	0	0	0	0	0	0	0	5	5
15:45	0	0	0	0	0	0	0	0	2	2
1 Hr	0	0	0	0	0	0	0	0	11	11
3 Hr	0	0	0	0	0	0	0	0	42	42
16:00	0	0	0	0	0	0	0	0	3	3
16:15	0	0	0	0	0	0	0	0	6	6
16:30	0	0	0	0	0	0	0	0	11	11
16:45	0	0	0	0	0	0	0	0	4	4
1 Hr	0	0	0	0	0	0	0	0	24	24
17:00	0	0	0	0	0	0	0	0	11	11
17:15	0	0	0	0	0	0	0	0	4	4
17:30	0	0	0	0	0	0	0	0	9	9
17:45	0	0	0	0	0	0	0	0	7	7
1 Hr	0	0	0	0	0	0	0	0	31	31
18:00	0	0	0	0	0	0	0	0	5	5
18:15	0	0	0	0	0	0	0	0	5	5
18:30	0	0	0	0	0	0	0	0	4	4
18:45	0	0	0	0	0	0	0	0	3	3
1 Hr	0	0	0	0	0	0	0	0	17	17
3 Hr	0	0	0	0	0	0	0	0	72	72
Total	0	0	0	1	0	0	0	0	167	168

	Destination : Arm B Parnell Street (SW)									Total		
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle			
70	8	10	2	1	0	0	0	0	11	102		
80	7	23	2	0	0	0	0	0	11	123		
71	18	13	4	0	0	0	0	2	12	120		
73	12	2	4	0	1	0	0	2	17	111		
294	45	48	12	1	1	0	0	4	51	456		
73	21	17	2	0	0	0	0	0	17	130		
61	14	9	3	0	0	0	0	0	24	111		
52	10	13	6	0	0	0	0	2	40	123		
69	13	16	4	0	0	0	0	0	63	165		
255	58	55	15	0	0	0	0	2	144	529		
72	12	12	1	0	0	0	0	0	36	133		
60	13	19	2	0	0	0	0	1	26	121		
64	10	13	6	0	0	0	0	3	20	116		
69	10	22	6	0	0	0	0	1	25	133		
265	45	66	15	0	0	0	0	5	107	503		
814	148	169	42	1	1	0	0	11	302	1488		
67	18	22	3	0	0	0	0	1	3	115		
64	13	17	1	0	0	0	0	3	17	115		
44	13	22	4	0	0	0	0	4	18	105		
82	12	15	7	0	0	0	0	1	12	129		
257	56	76	15	0	0	0	0	1	11	58	474	
77	15	15	4	0	0	0	0	1	4	17	133	
73	14	15	3	0	0	0	0	3	16	124		
83	19	13	2	0	0	0	0	2	14	133		
75	12	13	5	0	0	0	0	1	1	20	127	
308	60	56	14	0	0	0	0	2	10	67	517	
63	13	19	1	0	0	0	0	2	18	116		
72	26	12	2	0	0	0	0	0	16	128		
62	17	18	0	0	0	0	0	2	35	134		
74	14	9	2	0	0	0	0	1	3	37	140	
271	70	58	5	0	0	0	0	1	7	106	518	
836	186	190	34	0	0	0	0	4	28	231	1509	
71	26	14	3	0	0	0	0	4	18	136		
61	27	19	2	0	0	0	0	3	19	131		
52	12	10	2	0	0	0	0	1	1	26	104	
51	17	11	0	0	0	0	0	3	18	100		
235	82	54	7	0	0	0	0	1	11	81	471	
66	14	9	3	0	0	0	0	1	2	17	112	
55	13	18	6	0	0	0	0	1	1	15	109	
56	10	15	2	0	0	0	0	1	3	20	107	
65	8	14	2	0	0	0	0	1	3	15	108	
242	45	56	13	0	0	0	0	1	3	9	67	436
73	20	12	3	0	0	0	0	2	23	134		
61	17	8	5	0	0	0	0	2	24	117		
63	24	9	2	0	0	0	0	0	19	117		
53	18	12	0	0	0	0	0	5	14	102		
250	79	41	10	0	0	0	0	9	80	470		
727	206	151	30	0	2	4	29	228	1377			
60	13	6	1	0	0	0	0	1	5	23	109	
58	11	12	2	0	0	0	0	9	33	125		
63	19	6	2	0	0	0	0	1	29	120		
70	14	16	1	0	0	0	0	1	36	138		
251	57	40	6	0	0	0	0	1	16	121	492	
62	18	8	0	0	0	0	0	1	0	37	126	
65	13	6	0	0	0	0	0	5	52	142		
89	15	7	0	0	0	0	0	5	50	166		
69	12	7	3	0	0	0	0	1	46	138		
285	58	28	3	0	0	0	0	1	11	185	572	
56	19	8	0	0	0	0	0	1	42	126		
62	21	12	1	0	0	0	0	2	30	128		
63	23	9	1	0	0	0	0	2	31	129		
70	29	11	1	0	0	0	0	2	22	136		
251	92	40	3	0	0	0	0	7	125	519		
787	207	108	12	0	2	2	34	431	1583			
3164	747	618	118	1	5	10	102	1192	5957			

	Destination : Arm C Parnell Square West									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
60	18	9	5	1	18	5	2	5	123	
79	14	11	5	0	16	3	1	6	135	
57	17	12	4	2	20	1	1	6	120	
91	17	19	5	0	15	3	3	7	160	
287	66	51	19	3	69	12	7	24	538	
69	15	15	4	0	25	4	2	4	138	
74	18	15	3	0	18	4	3	6	141	
63	16	14	8	1	18	6	0	10	136	
56	29	17	3	0	25	7	3	11	151	
262	78	61	18	1	86	21	8	31	566	
55	23	17	7	0	25	10	1	10	148	
63	22	18	3	0	31	9	0	4	150	
53	21	17	6	0	30	7	0	6	140	
62	33	16	1	0	37	6	0	1	156	
233	99	68	17	0	123	32	1	21	594	
782	243	180	54	4	278	65	16	76	1688	
60	24	12	4	0	33	9	1	4	147	
66	34	21	6	0	29	9	3	11	179	
75	34	16	5	0	16	3	0	2	151	
61	29	21	4	0	27	2	5	5	154	
262	121	70	19	0	105	23	9	22	631	
77	23	17	5	1	18	3				

Origin : Arm A Parnell Square North

	Destination : Arm A Parnell Square North									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0

	Destination : Arm B Parnell Square West									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	1
1 Hr	0	0	0	0	0	0	0	0	0	1
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	1
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	1

	Destination : Arm C Granby Row									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	1	1
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	1	1
3 Hr	0	0	0	0	0	0	0	0	1	1
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	1	1
1 Hr	0	0	0	0	0	0	0	0	1	1
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	1	0	0	0	0	0	0	0	0	1
1 Hr	1	0	0	0	0	0	0	0	0	1

Origin : Arm B Parnell Square West

	Destination : Arm A Parnell Square North									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	17	8	7	1	0	4	2	1	0	40
07:15	29	11	7	1	0	5	0	0	1	54
07:30	33	7	9	6	1	5	0	1	2	64
07:45	58	5	12	4	0	4	1	1	0	85
1 Hr	137	31	35	12	1	18	3	3	3	243
08:00	47	4	16	5	0	6	0	1	2	81
08:15	56	8	11	3	0	6	1	3	3	91
08:30	47	8	14	5	1	6	0	1	7	89
08:45	33	8	15	3	0	8	4	0	4	75
1 Hr	183	28	56	16	1	26	5	5	16	336
09:00	34	10	18	2	0	7	7	1	5	84
09:15	45	11	12	1	0	7	5	0	3	84
09:30	34	10	13	6	0	8	4	0	3	78
09:45	36	13	10	3	0	11	6	0	1	80
1 Hr	149	44	53	12	0	33	22	1	12	326
3 Hr	469	103	144	40	2	77	30	9	31	905
10:00	42	12	9	3	0	6	3	0	0	75
10:15	41	15	15	4	0	8	7	2	3	95
10:30	39	18	17	3	0	6	0	0	0	83
10:45	44	11	12	5	0	6	0	5	2	85
1 Hr	166	56	53	15	0	28	10	7	5	336
11:00	69	10	12	5	0	7	2	1	1	107
11:15	41	10	13	4	0	7	1	0	3	79
11:30	54	13	21	1	0	6	2	1	5	103
11:45	55	11	12	4	0	8	5	0	3	98
1 Hr	219	44	58	14	0	28	10	2	12	387
12:00	53	8	20	1	0	5	1	2	2	92
12:15	53	8	11	1	0	6	2	1	2	84
12:30	71	11	13	3	0	8	0	2	2	110
12:45	60	10	12	1	0	7	2	4	5	101
1 Hr	237	37	56	6	0	26	5	9	11	387
3 Hr	622	137	167	35	0	80	25	18	28	1112
13:00	66	11	13	1	0	7	4	0	3	105
13:15	80	21	12	2	0	8	2	1	4	130
13:30	82	11	16	0	0	5	1	3	3	121
13:45	54	19	7	5	0	8	1	0	2	96
1 Hr	282	62	48	8	0	28	8	4	12	452
14:00	64	10	11	1	0	7	3	3	4	103
14:15	62	9	6	4	0	10	1	1	4	97
14:30	48	17	14	1	0	3	0	1	4	88
14:45	75	6	11	0	0	9	4	0	4	109
1 Hr	249	42	42	6	0	29	8	5	16	397
15:00	83	11	5	1	0	6	2	2	1	111
15:15	60	9	7	5	0	6	2	0	2	91
15:30	66	10	4	1	0	6	4	1	1	93
15:45	64	14	5	3	0	9	4	4	5	108
1 Hr	273	44	21	10	0	27	12	7	9	403
3 Hr	804	148	111	24	0	84	28	16	37	1252
16:00	64	12	11	1	0	7	3	1	3	102
16:15	72	12	3	1	0	3	3	1	5	100
16:30	67	17	10	2	0	9	2	3	4	114
16:45	70	12	14	0	0	6	3	1	8	114
1 Hr	273	53	38	4	0	25	11	6	20	430
17:00	64	13	4	0	0	6	1	2	9	99
17:15	78	8	7	1	0	3	3	0	7	107
17:30	71	13	4	0	0	4	2	0	12	106
17:45	49	11	6	2	0	7	0	1	12	88
1 Hr	262	45	21	3	0	20	6	3	40	400
18:00	71	8	8	0	0	6	2	0	6	101
18:15	69	12	5	1	0	4	1	1	6	99
18:30	69	7	4	0	0	7	2	2	5	96
18:45	72	18	4	3	0	6	2	1	7	113
1 Hr	281	45	21	4	0	23	7	4	24	409
3 Hr	816	143	80	11	0	68	24	13	84	1239
Total	2711	531	502	110	2	309	107	56	180	4508

	Destination : Arm B Parnell Square West									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0

	Destination : Arm C Granby Row									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	13	11	3	3	0	16	2	0	5	53
07:15	13	8	3	1	0	11	4	1	2	43
07:30	9	7	2	1	1	14	2	0	1	37
07:45	21	9	3	0	0	12	2	1	4	52
1 Hr	56	35	11	5	1	53	10	2	12	185
08:00	18	8	2	1	0	15	5	0	1	50
08:15	13	10	3	0	0	14	3	0	3	46
08:30	14	12	0	1	0	12	4	0	2	45
08:45	10	15	2	0	0	15	3	0	1	46
1 Hr	55	45	7	2	0	56	15	0	7	187
09:00	16	12	3	1	1	18	4	1	4	60
09:15	11	10	4	1	0	24	4	0	3	57
09:30	13	9	4	2	0	24	4	0	2	58
09:45	22	14	2	0	0	24	1	0	2	65
1 Hr	62	45	13	4	1	90	13	1	11	240
3 Hr	173	125	31	11	2	199	38	3	30	612
10:00	19	13	5	1	0	25	5	3	2	73
10:15	18	21	2	1	0	23	2	0	6	73
10:30	31	20	6	1	0	11	3	0	1	73
10:45	17	15	7	1	0	18	2	0	4	64

Origin : Arm C Granby Row

	Destination : Arm A Parnell Square North								Total	
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle		Pedal Cycle
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	2	2
07:45	0	0	0	0	0	0	0	0	1	1
1 Hr	0	0	0	0	0	0	0	0	3	3
08:00	0	0	0	0	0	0	0	0	2	2
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	3	3
08:45	0	0	0	0	0	0	0	0	1	1
1 Hr	0	0	0	0	0	0	0	0	6	6
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	1	1
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	1	1
3 Hr	0	0	0	0	0	0	0	0	10	10
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	1	1
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	1	1
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	1	1
13:00	0	0	0	0	0	0	0	0	1	1
13:15	0	0	0	0	0	0	0	0	2	2
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	3	3
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	3	3
14:30	0	0	0	0	0	0	0	0	2	2
14:45	0	0	0	0	0	0	0	0	2	2
1 Hr	0	0	0	0	0	0	0	0	7	7
15:00	0	0	0	0	0	0	0	0	1	1
15:15	0	0	0	0	0	0	0	0	1	1
15:30	0	0	0	0	0	0	0	0	3	3
15:45	0	0	0	0	0	0	0	0	1	1
1 Hr	0	0	0	0	0	0	0	0	6	6
3 Hr	0	0	0	0	0	0	0	0	16	16
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	1	1
16:30	0	0	0	0	0	0	0	0	2	2
16:45	0	0	0	0	0	0	0	0	3	3
1 Hr	0	0	0	0	0	0	0	0	6	6
17:00	0	0	0	0	0	0	0	0	1	1
17:15	0	0	0	0	0	0	0	0	3	3
17:30	0	0	0	0	0	0	0	0	1	1
17:45	0	0	0	0	0	0	0	0	2	2
1 Hr	0	0	0	0	0	0	0	0	7	7
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	13	13
Total	0	0	0	0	0	0	0	0	40	40

	Destination : Arm B Parnell Square West								Total	
	Car	Taxi	LGV	OGV1	OGV2	Jublin Bu	Other Bus	Motorcycle		Pedal Cycle
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	1	1
1 Hr	0	0	0	0	0	0	0	0	1	1
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	1	1
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	1	1
1 Hr	0	0	0	0	0	0	0	0	2	2
3 Hr	0	0	0	0	0	0	0	0	3	3
10:00	0	0	0	0	0	0	0	0	1	1
10:15	0	0	0	0	0	0	0	0	1	1
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	2	2
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	1	1
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	1	1
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	1	1
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	1	1
3 Hr	0	0	0	0	0	0	0	0	4	4
13:00	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	1	1
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	1	1
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	1	1
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	8	8

	Destination : Arm C Granby Row								Total	
	Car	Taxi	LGV	OGV1	OGV2	Jublin Bu	Other Bus	Motorcycle		Pedal Cycle
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0

DESTINATION SUMMARY

	Destination : Arm A Parnell Square North									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	17	8	7	1	0	4	2	1	0	40
07:15	29	11	7	1	0	5	0	0	1	54
07:30	33	7	9	6	1	5	0	1	4	66
07:45	58	5	12	4	0	4	1	1	1	86
1 Hr	137	31	35	12	1	18	3	3	6	246
08:00	47	4	16	5	0	6	0	1	4	83
08:15	56	8	11	3	0	6	1	3	3	91
08:30	47	8	14	5	1	6	0	1	10	92
08:45	33	8	15	3	0	8	4	0	5	76
1 Hr	183	28	56	16	1	26	5	5	22	342
09:00	34	10	18	2	0	7	7	1	5	84
09:15	45	11	12	1	0	7	5	0	3	84
09:30	34	10	13	6	0	8	4	0	4	79
09:45	36	13	10	3	0	11	6	0	1	80
1 Hr	149	44	53	12	0	33	22	1	13	327
3 Hr	469	103	144	40	2	77	30	9	41	915
10:00	42	12	9	3	0	6	3	0	0	75
10:15	41	15	15	4	0	8	7	2	3	95
10:30	39	18	17	3	0	6	0	0	0	83
10:45	44	11	12	5	0	6	0	5	2	85
1 Hr	166	56	53	15	0	26	10	7	5	338
11:00	69	10	12	5	0	7	2	1	2	108
11:15	41	10	13	4	0	7	1	0	2	79
11:30	54	13	21	1	0	6	2	1	5	103
11:45	55	11	12	4	0	8	5	0	3	98
1 Hr	219	44	58	14	0	28	10	2	13	388
12:00	53	8	20	1	0	5	1	2	2	92
12:15	53	8	11	1	0	6	2	1	2	84
12:30	71	11	13	3	0	8	0	2	2	110
12:45	60	10	12	1	0	7	2	4	5	101
1 Hr	237	37	56	6	0	26	5	9	11	387
3 Hr	622	137	167	35	0	80	25	18	29	1113
13:00	66	11	13	1	0	7	4	0	4	106
13:15	80	21	12	2	0	8	2	1	6	132
13:30	82	11	16	0	0	5	1	3	3	121
13:45	54	19	7	5	0	8	1	0	2	96
1 Hr	282	62	48	8	0	28	8	4	15	455
14:00	64	10	11	1	0	7	3	3	4	103
14:15	62	9	6	4	0	10	1	1	7	100
14:30	48	17	14	1	0	3	0	1	6	90
14:45	75	6	11	0	0	9	4	0	6	111
1 Hr	249	42	42	6	0	29	8	5	23	404
15:00	83	11	5	1	0	6	2	2	2	112
15:15	60	9	7	5	0	6	2	0	3	92
15:30	66	10	4	1	0	6	4	1	4	96
15:45	64	14	5	3	0	9	4	4	6	109
1 Hr	273	44	21	10	0	27	12	7	15	409
3 Hr	804	148	111	24	0	84	28	16	53	1268
16:00	64	12	11	1	0	7	3	1	3	102
16:15	72	12	3	1	0	3	3	1	6	101
16:30	67	17	10	2	0	9	2	3	6	116
16:45	70	12	14	0	0	6	3	1	11	117
1 Hr	273	53	38	4	0	25	11	6	26	436
17:00	64	13	4	0	0	6	1	2	10	100
17:15	78	8	7	1	0	3	3	0	10	110
17:30	71	13	4	0	0	4	2	0	13	107
17:45	49	11	6	2	0	7	0	1	14	90
1 Hr	262	45	21	3	0	20	6	3	47	407
18:00	71	8	8	0	0	6	2	0	6	101
18:15	69	12	5	1	0	4	1	1	6	99
18:30	69	7	4	0	0	7	2	2	5	96
18:45	72	18	4	3	0	6	2	1	7	113
1 Hr	281	45	21	4	0	23	7	4	24	409
3 Hr	816	143	80	11	0	68	24	13	97	1252
Total	2711	531	502	110	2	309	107	56	220	4548

	Destination : Arm B Parnell Square West									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	1
1 Hr	0	0	0	0	0	0	0	0	0	1
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	1
1 Hr	0	0	0	0	0	0	0	0	0	1
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	1
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	1
1 Hr	0	0	0	0	0	0	0	0	0	2
3 Hr	0	0	0	0	0	0	0	0	0	4
10:00	0	0	0	0	0	0	0	0	0	1
10:15	0	0	0	0	0	0	0	0	0	1
10:30	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	2
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	1
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	1
12:00	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	1
12:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	1
3 Hr	0	0	0	0	0	0	0	0	0	4
13:00	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	1
13:30	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	1
14:00	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
1 Hr	0	0	0	0	0	0	0	0	0	0
3 Hr	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	9

	Destination : Arm C Granby Row									Total
	Car	Taxi	LGV	OGV1	OGV2	Dublin Bus	Other Bus	Motorcycle	Pedal Cycle	
07:00	13	11	3	3	0	16	2	0	5	53
07:15	13	8	3	1	0	11	4	1	2	43
07:30	9	7	2	1	1	14	2	0	1	37
07:45	21	9	3	0	0	12	2	1	4	52
1 Hr	56	35	11	5	1	53	10	2	12	186
08:00	18	8	2	1	0	15	5	0	1	50
08:15	13	10	3	0	0	14	3	0	3	46
08:30	14	12	0	1	0	12	4	0	2	45
08:45	10	15	2	0	0	15	3	0	1	46
1 Hr	55	45	7	2	0	56	15	0	7	187
09:00	16	12	3	1	1	18	4	1	4	60
09:15	11	10	4	1	0	24	4	0	3	57
09:30	13	9	4	2	0	24	4	0	3	59
09:45	22	14	2	0	0	24	1	0	2	65
1 Hr	62	45	13	4	1	90	13	1	12	241
3 Hr	173	125	31	11	2	199	38	3	31	613
10:00	19	13	5	1	0	25	5	3	2	73
10:15	18	21	2	1	0	23	2	0	6	73
10:30	31	20	6	1	0	11	3	0	1	73
10:45	17	15	7	1	0	18	2	0	5	



Tracsis^{plc}

Traffic and Data Services

Client: AECOM

Project: 3315-IRE Parnell Square Traffic Counts

Site: 1-4

Survey Date: Thursday 10 May 2018

Survey Period: 07:00-19:00

Method: Video Observation

AM Weather: Dry and Sunny

PM Weather: Dry and Sunny

Incidents / Observations:

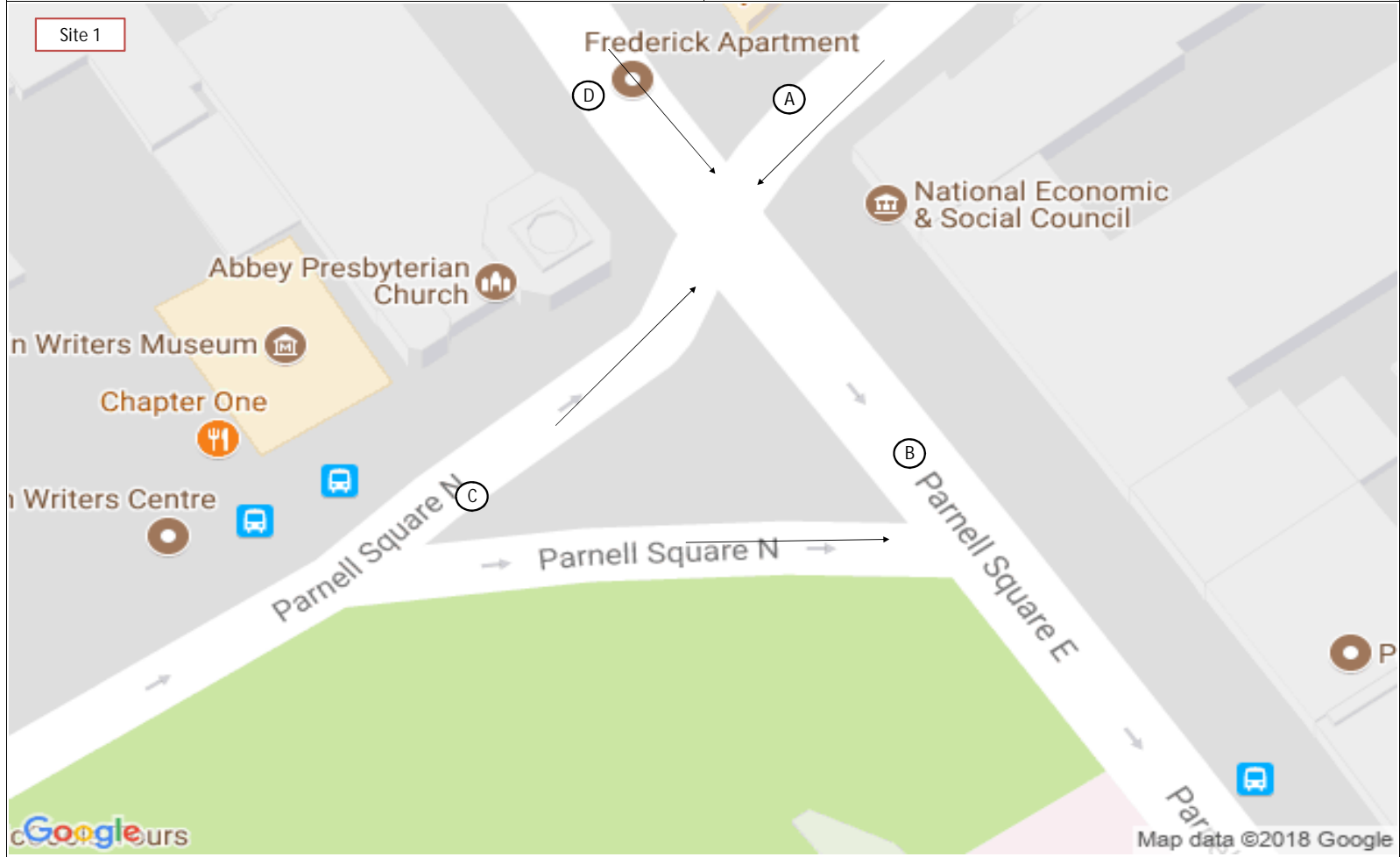
Site 1 Arm C OS no footage available due to cameras being stolen



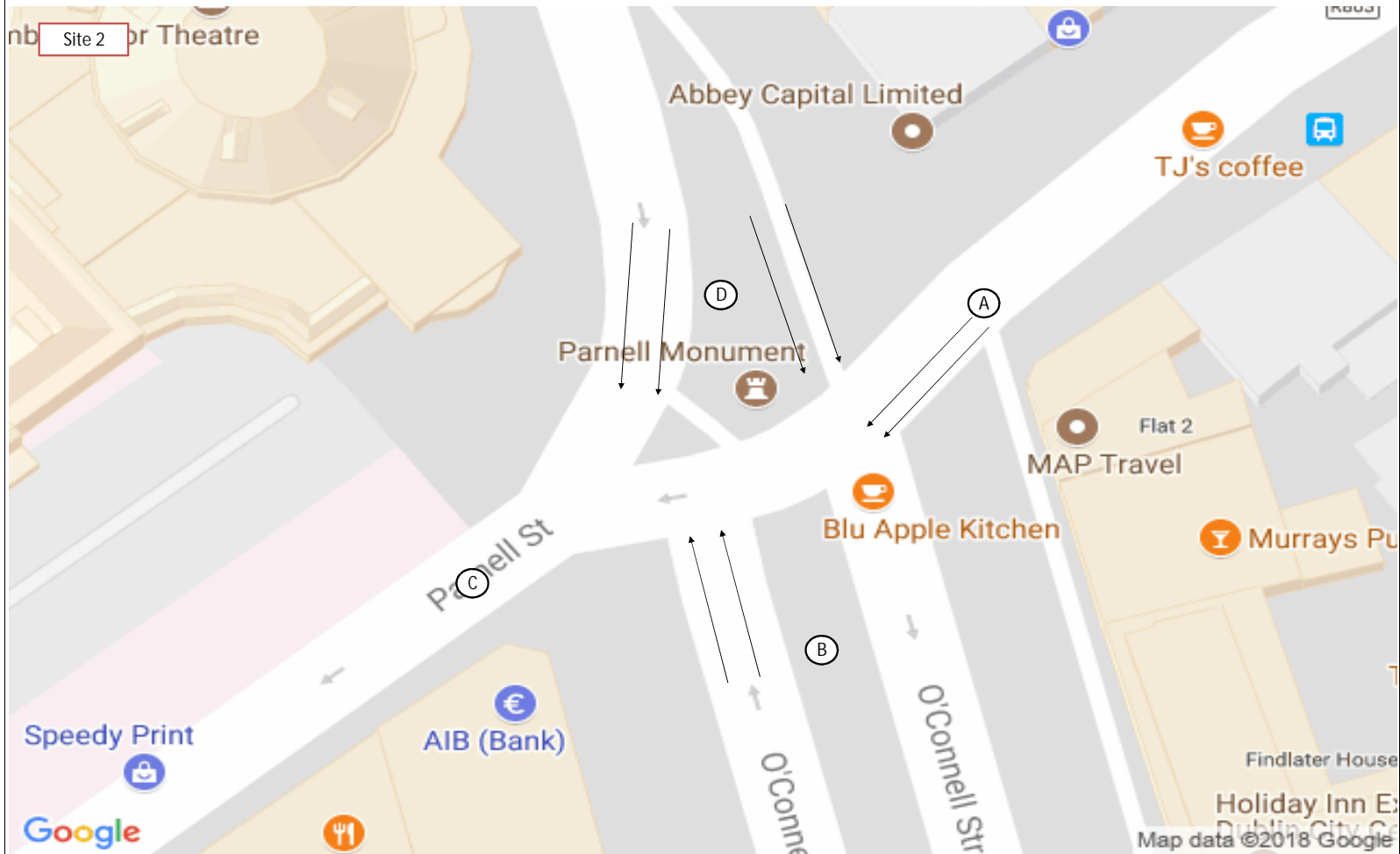
Client :	AECOM	Site plan for :	Overview
Project :	3315-IRE Parnell Square Traffic Counts	Date :	10/05/2018



Client :	AECOM	Site plan for :	1
Project :	3315-IRE Parnell Square Traffic Counts	Date :	10/05/2018



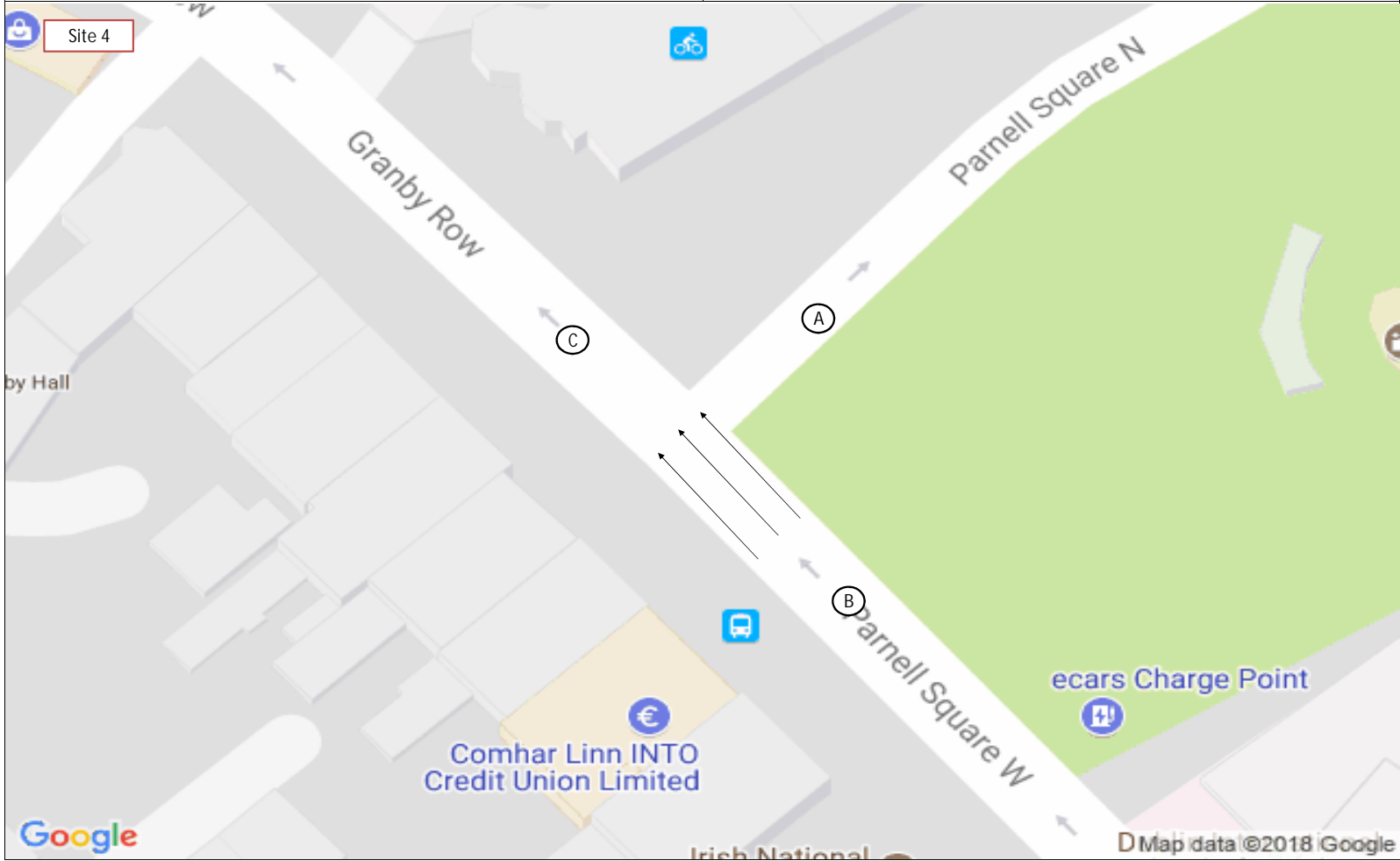
Client :	AECOM	Site plan for :	2
Project :	3315-IRE Parnell Square Traffic Counts	Date :	10/05/2018



Client :	AECOM	Site plan for :	3
Project :	3315-IRE Parnell Square Traffic Counts	Date :	10/05/2018



Client : AECOM	Site plan for : 4
Project : 3315-IRE Parnell Square Traffic Counts	Date : 10/05/2018

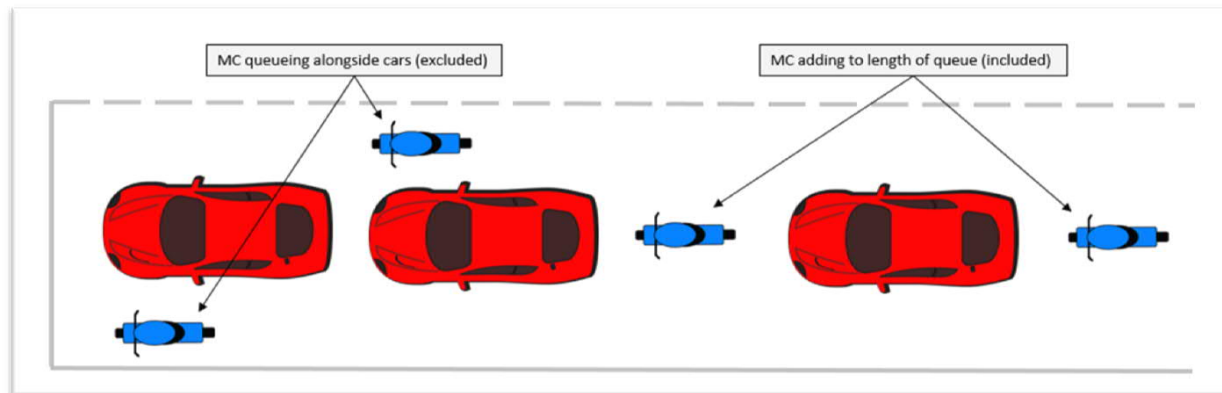


Queue Methodology

A queue is defined as those vehicles at a junction which are stationary or which have slowed down to walking speed or less. Queues are counted according to the weighting system defined below.

Vehicle	Number	Metres
PC, MC	0.5	2.5
LV	1	5
OGV1	2	10
OGV2	3	15
Bus	3	15

Please note that PC or MC are only recorded as queuing when adding to the length of the queue and those that are stopped abreast with another vehicle will not be counted.



Instances in which there are "+" figures in the queue data represent the longest queue that can be accurately seen. These queues were longer than reported but would have to be estimated if any further vehicles exceeding these limits were reported.

Each lane is labelled from inside to outside; NS = Nearside, OS = Offside. Nearside is defined as the driver's nearside which is closest to kerb (inside lane).

Vehicle	Number	Metres
PC, MC *	0.5	2.5
LV	1	5
OGV1	2	10
OGV2	3	15
Bus	3	15

*no footage available

	Arm A	Arm C		Arm D
		NS	OS*	
07:00	1	1	0	9
07:05	6	9	0	2
07:10	5	0	0	2
07:15	3	5	0	12
07:20	11	1	0	8
07:25	7	2	0	7
07:30	5	5	0	10
07:35	11	5	0	7
07:40	6	5	0	11
07:45	6	3	0	0
07:50	3	4	0	11
07:55	5	1	0	18
08:00	2	5	0	9
08:05	16+	8	0	10
08:10	5	3.5	0	12
08:15	7	6	0	14
08:20	7	8.5	0	11
08:25	8	4.5	0	20
08:30	3	5	0	15
08:35	9	4	0	20
08:40	8	3	0	8
08:45	7	3	0	14
08:50	5	5.5	0	21
08:55	6	9.5	0	13
09:00	4	6.5	0	12.5
09:05	4	6	0	15
09:10	15+	7	0	15
09:15	10	8	0	9.5
09:20	6	3	0	4
09:25	8	8	0	5
09:30	8	6	0	13.5
09:35	10	8.5	0	13.5
09:40	2	7	0	5.5
09:45	7	6	0	26
09:50	8	1	0	13
09:55	10	3	0	14
10:00	7	6	0	6.5
10:05	2	2	0	10
10:10	8	4	0	6
10:15	2	3	0	1
10:20	3	8	0	12
10:25	6	7	0	3
10:30	3	5	0	11
10:35	3	7	0	23
10:40	6	1	0	10
10:45	11	2	0	10.5
10:50	8	3	0	0.5
10:55	9	4	0	21

Client : AECOM
 Project : 3315-IRE Parnell Square Traffic Counts
 Site : 1
 Date : 10/05/2018
 Queue Method: Snap
 Queue Lengths: Vehicle Number

Vehicle	Number	Metres
PC, MC *	0.5	2.5
LV	1	5
OGV1	2	10
OGV2	3	15
Bus	3	15

11:00	12	1.5	0	11
11:05	9	9	0	12.5
11:10	3	7.5	0	16.5
11:15	6	6	0	5
11:20	9	8	0	13
11:25	8	4	0	15
11:30	6	4	0	3.5
11:35	1	6	0	3
11:40	2	9	0	12
11:45	6	6.5	0	10
11:50	10	3	0	6
11:55	3	6	0	4.5
12:00	3	12	0	12.5
12:05	3	6.5	0	11.5
12:10	6	7	0	16
12:15	5	6	0	21
12:20	11	3	0	3
12:25	7	8.5	0	9
12:30	6	3	0	5
12:35	9	10	0	22
12:40	1	7	0	12
12:45	7	7	0	21
12:50	12	3.5	0	5
12:55	11	6.5	0	11
13:00	3	5	0	9
13:05	8	7	0	25
13:10	8	4	0	10
13:15	7.5	6	0	8
13:20	6	6	0	6
13:25	8	13	0	2
13:30	5	5	0	10
13:35	8	5.5	0	6
13:40	3	5	0	6
13:45	5.5	5	0	8
13:50	7	9	0	3.5
13:55	8	7	0	10.5
14:00	5	6	0	23
14:05	5	10.5	0	15
14:10	12.5	3.5	0	14
14:15	9	4.5	0	21
14:20	6	8	0	13
14:25	5	2	0	10.5
14:30	4	5	0	11
14:35	7.5	7	0	5
14:40	5	6	0	6
14:45	2	4.5	0	7
14:50	6	7	0	16
14:55	15	7.5	0	14
15:00	11	6	0	6
15:05	8.5	8	0	7.5
15:10	4	6	0	15
15:15	7	9.5	0	14.5
15:20	5	6	0	3
15:25	8	13.5	0	19
15:30	7	6	0	2
15:35	4	7	0	12
15:40	7	15	0	14
15:45	8	1	0	3
15:50	6	8	0	6
15:55	5	6.5	0	10

Client : AECOM
 Project : 3315-IRE Parnell Square Traffic Counts
 Site : 1
 Date : 10/05/2018
 Queue Method: Snap
 Queue Lengths: Vehicle Number

Vehicle	Number	Metres
PC, MC *	0.5	2.5
LV	1	5
OGV1	2	10
OGV2	3	15
Bus	3	15

16:00	9	12	0	13.5
16:05	7.5	4	0	11
16:10	3	6	0	11
16:15	5	6	0	8
16:20	3	6.5	0	18
16:25	6	9	0	12.5
16:30	8	10	0	14.5
16:35	7	8	0	11
16:40	11	9	0	4
16:45	6	10	0	16
16:50	7	8.5	0	7
16:55	5	10	0	6
17:00	5	8.5	0	23
17:05	10	7.5	0	13
17:10	10	10.5	0	10
17:15	8	7.5	0	20
17:20	4	4	0	8
17:25	4	10	0	10
17:30	11	1	0	1
17:35	5	7	0	16
17:40	4	6	0	18
17:45	5.5	4.5	0	9
17:50	5.5	6.5	0	13
17:55	2	7.5	0	4
18:00	3.5	7.5	0	13
18:05	1	11	0	6
18:10	0.5	8	0	11
18:15	4	5.5	0	9
18:20	13	7	0	5
18:25	8	6	0	4
18:30	4	10	0	12
18:35	4	5	0	4
18:40	6.5	7	0	6
18:45	5	6.5	0	11.5
18:50	8	5.5	0	6
18:55	1	4	0	10

Client : AECOM
 Project : 3315-IRE Parnell Square Traffic Counts
 Site : 2
 Date : 10/05/2018
 Queue Method: Snap
 Queue Lengths: Vehicle Number

Vehicle	Number	Metres
PC, MC *	0.5	2.5
LV	1	5
OGV1	2	10
OGV2	3	15
Bus	3	15

	Arm A		Arm B		Arm D			
	NS	OS	NS	OS	NS	Middle 1	Middle 2	OS
07:00	6	1	4	2	1	3	1	1
07:05	3	5	2	2	2	3	1	8
07:10	7	13+	6	0	1	9	2	0
07:15	0	13	4	1	1	0	4	4
07:20	1	14	3	0	3	5.5	2	2
07:25	5	14	15	0	1	1	4	4
07:30	5	16+	3	0	5	9	2	1
07:35	1	12	13	0	1	0	1	1
07:40	3	13+	7	0	1	6	1	0
07:45	2	8	12	1	1	9	4	1
07:50	3	7	3	0.5	0	22	2	1
07:55	1	16+	4.5	1	3	8.5	5	2
08:00	5	8	10	0	1	6	2	0
08:05	2	13	3	0	3	20+	7	0
08:10	12	6	2	0	1	18	7	3
08:15	8	5	3	2	4	6	1	1
08:20	7	9	7	0	8	4.5	1	8
08:25	4	7	1	2	3	28+	3	2
08:30	1	12	2	1	1	13	6	0
08:35	1	0	9	0	3	20	3	0
08:40	4	10	6	4	4	12	3	2
08:45	9	12	4	2	5	7	4	0
08:50	4	18	15+	4	7	10	8	2
08:55	7	7	17+	3	1	1.5	7	2
09:00	1	17	3	3	2	28	4	1
09:05	18	6	13	1	3	18	3	4
09:10	19	3	15	2	3	23	2	0
09:15	4	8	16	3	7	20+	4	6
09:20	16	5	11	0	1	2	3	5
09:25	18+	4	11	0	3	2	4	4
09:30	7	7	15	0	1	22.5	1	1
09:35	5	18	10	0	5	3	10	1
09:40	3	18	19+	7	1	13	10	5
09:45	3	4	13+	2	3	14	7	5
09:50	5	20	17+	0	2	15+	14+	1
09:55	8	17	12	0	3	18	11	3
10:00	3	13	20+	6	0	3	5	2
10:05	11	12	16+	5	3	16	7	2
10:10	10	7	20	0	3	10	6	4
10:15	16	5	16+	2	0	8	6	10
10:20	10	13	12	1	1	4	6	4
10:25	7	7	16+	0	4.5	2	4	6
10:30	13	3	12	2	2	5	6	8
10:35	14	5	12	2.5	0	7	2	2
10:40	18+	3	1	0.5	1	12	3	3
10:45	18+	1	16+	1	1	7	3	3
10:50	3	17	6	0	6	13	6	2
10:55	9	1	7	0	1	6	4	2

11:00	12	1	6	0	2	6	4	6
11:05	6	7	1	1	4	11.5	4	3
11:10	15	7	17.5+	0	6	8	4.5	6
11:15	5	16	16+	6	2	11	2.5	5
11:20	4	18	18	4.5	1	3.5	9	7
11:25	19	0	5	1	2	8.5	2	3
11:30	13	13	4	3	2	7	4	1
11:35	6	18+	7	0	0	6	5	2
11:40	6	7	6	1	2	7	1	2
11:45	3	7	6	0	1	11	4	1
11:50	1	11	3	1	0	0	4	0
11:55	3	16	3	0	0	24	3	2
12:00	14	1	1	1	2	7	1	1
12:05	5	6	3	0	4	19	3	2
12:10	5	5	2	0	4	0	3	1
12:15	11	4	12	0	1	7	1	1
12:20	12	5	16	3	4	17	3	1
12:25	9	3	7	1	4	3	4	2
12:30	18+	5	5	0.5	1.5	3	1	1
12:35	16+	3	0	1	4	22+	4	3
12:40	4	18	6	2	1	22+	6	1
12:45	2	14	12	0	1	1	6	2
12:50	5	4	12.5	2	5	6	10	5
12:55	5	20+	2.5	0	0	8	4	2
13:00	5	18	3	0	3	6	1	0
13:05	6	12	16	3	4	29+	7	3
13:10	19+	9	10	0	3	26	4	1
13:15	3	10	10	5.5	1	2	2	4
13:20	8	1	16	1.5	6	7	4	0
13:25	19	1	7	1	10	19	3	0
13:30	15	6	17	0	2	5	4	7
13:35	19	6	10	0.5	7	3	2	6
13:40	13	4	2	1	10	6	2	2
13:45	11	10	21	0.5	2	11	2	0
13:50	5	18	7	2.5	4	16	4	1
13:55	4	20	10	0	4	5	1	1
14:00	16	3	2	0	8	15	5	4
14:05	16	10	6	1.5	1	3	1	0
14:10	5	2	3	0	2	19	0	3
14:15	1	2	3	3	4	10	1	1
14:20	5	6	15	0	6	4	1	0
14:25	13	0	16	0.5	2	5	3	1
14:30	2	10	9	0	4	9	2	1
14:35	6	4	6	1.5	1	3	2.5	1
14:40	7	6	6	0	4	7	6	0
14:45	2	18	3	0.5	1	7	6.5	0
14:50	4.5	15	18	0	4	13	4	1
14:55	11	7	15	0	5	19	2	3
15:00	14	7	8	3	2	3	4	1
15:05	6	2	10	6	2	20	2	2
15:10	11	6	3	0	8	3	4	1
15:15	2	6	6	1	6	8	0	1
15:20	5	5	21+	4	1	11	1	2
15:25	3	2	4	0	0	21	1	0
15:30	1	5	6	0	1	1	2	4
15:35	6	7	9	0	6	1	2	1
15:40	3	10	6	0	2	0	0	2
15:45	13	3	11	0.5	4	4	3	2
15:50	2.5	4	19+	0.5	3	8	2	0
15:55	1	10	21+	1	7	14	2	2

16:00	10	3	2	1	4	10	8	2.5
16:05	5	2	1	0.5	0	6	3	1
16:10	4	7	9	1.5	2	9	3	7
16:15	9	6	3	0	6	18	3	2.5
16:20	2	6	8	2	0.5	3	0	3
16:25	4	15	13	0	1	14	2	0
16:30	0	18	20.5+	0	1	1	2	2
16:35	4	5	11	6	3	5	7	3
16:40	13	4	13	0	0	16	7	0
16:45	3	17	16	3	10	6	5	2
16:50	4	17	12	2	0	24	3	4
16:55	3	9	3.5	1	3	4	3	2
17:00	5	9	13	0	2	10	6	3
17:05	4	6	12	1	3	17	2	1.5
17:10	3	5	0	1	2	7	1	0
17:15	3	12	14	1.5	0	4	1	1
17:20	8	5	4	0.5	6	4	6	1
17:25	2	3	4	0	3	3	2	0
17:30	6	12	19+	1.5	2	5	4	0
17:35	11	7	9	1.5	8	18	4	0
17:40	11	10	2	1	3	7	6	0
17:45	5	14	15	0.5	3	1	2	1
17:50	9	9	21+	0	1	2	3	0
17:55	3	11	18+	0.5	5	4	3	0.5
18:00	7	13	19+	0.5	4	12.5	3	0
18:05	8	11	14	6.5	1	9	2	2
18:10	6	8	5	1	2	17	1.5	2
18:15	7	8	12	0	1	15	2.5	2
18:20	11	9	13	0	4	8	1	3
18:25	20	5	19+	0.5	1	3	3	0
18:30	1	13	5	0	9	12	1	0
18:35	22	4	22+	0.5	4	15	4	1
18:40	6	21	21+	6	5	3	3	6
18:45	18	16	16+	1	3	12.5	4	0
18:50	13	10	0	1.5	3	5	3	5
18:55	5	16	0	4	2	22	4	4

Client : AECOM
Project : 3315-IRE Parnell Square Traffic Counts
Site : 3
Date : 10/05/2018
Queue Method: Snap
Queue Lengths: Vehicle Number

Vehicle	Number	Metres
PC, MC *	0.5	2.5
LV	1	5
OGV1	2	10
OGV2	3	15
Bus	3	15

	Arm A		Arm B
	NS	OS	NS
07:00	2	0	6
07:05	1	0	3
07:10	1	0	5.5
07:15	0	0	2
07:20	3	0	9
07:25	0	0	10
07:30	0	0	2
07:35	0	0	4
07:40	0	0	2
07:45	0	0	16.5
07:50	1	0	11
07:55	0	0	16.5
08:00	0	0	3
08:05	0	0	8
08:10	2	0	12
08:15	0	0	15
08:20	4	0	11
08:25	3	0	5.5
08:30	0	0	11
08:35	0	0	16
08:40	0	0	5
08:45	0	0	5
08:50	3	0	6
08:55	0	0	5
09:00	2	0	8.5
09:05	0	0	9
09:10	0	0	10
09:15	2	0	5.5
09:20	0	0	14
09:25	0	0	6.5
09:30	4	0	9
09:35	1	0	8.5
09:40	2	0	11
09:45	0	0	6
09:50	3	0	13
09:55	2	0	9
10:00	2	0	7
10:05	3	0	7
10:10	0	0	7
10:15	0.5	0	17.5
10:20	0	0	15
10:25	1	0	7
10:30	0	0	16
10:35	0	0	13
10:40	0	0	10
10:45	6	0	8
10:50	0	0	2
10:55	0	0	10.5

11:00	0	0	9
11:05	2	0	7
11:10	7	0	11
11:15	1	0	20+
11:20	1	0	14.5
11:25	0	0	11
11:30	0	0	10
11:35	3	0	6
11:40	0	0	7
11:45	0.5	0	17
11:50	0	0	20+
11:55	0	0	20+
12:00	0	0	18+
12:05	1	0	17
12:10	0	0	14
12:15	3	0	17+
12:20	0	0	18+
12:25	1	0	13
12:30	0.5	0	18+
12:35	1	0	20+
12:40	0.5	0	19+
12:45	1	0	18+
12:50	0	0	18+
12:55	2	0	18+
13:00	1	0	20+
13:05	0	0	17
13:10	0	0	20+
13:15	2	0	18+
13:20	0.5	0	18+
13:25	1	0	18+
13:30	1	0	18+
13:35	0	0	18+
13:40	0	0	18+
13:45	0	0	18+
13:50	0	0	18+
13:55	0	0	16
14:00	2	0	18+
14:05	1	0	14
14:10	0	0	18+
14:15	1	0	18+
14:20	1	0	20+
14:25	1	0	18+
14:30	1	0	20
14:35	1	0	18
14:40	1	0	18+
14:45	1	0	8+
14:50	0	0	16
14:55	3	0	17
15:00	2	0	18
15:05	2	0	18
15:10	4	0	10.5
15:15	0	0	15
15:20	1	0	16
15:25	1	0	18
15:30	4	0	15
15:35	1	0	17
15:40	0	0	18
15:45	0	0	18
15:50	2	0	19
15:55	1	0	7

16:00	1	0	8
16:05	0	0	17
16:10	1	0	18+
16:15	4	0	18+
16:20	0	0	18+
16:25	0	0	13
16:30	2	0	12
16:35	0	0	18+
16:40	0	0	18+
16:45	4	0	18+
16:50	2	0	11
16:55	0	0	9
17:00	0	0	18+
17:05	1	0	12
17:10	0	0	3
17:15	0	0	10
17:20	2	0	14
17:25	0	0	15
17:30	0	0	16
17:35	0	0	17
17:40	5	0	16
17:45	0	0	10.5
17:50	2	0	10
17:55	1	0	4
18:00	1	0	11
18:05	0	0	7
18:10	4	0	18+
18:15	1	0	18+
18:20	0	0	18+
18:25	3	0	18+
18:30	1	0	18+
18:35	1	0	18+
18:40	1	0	18+
18:45	1	0	18+
18:50	2	0	18+
18:55	1	0	20+

Client : AECOM
Project : 3315-IRE Parnell Square Traffic Counts
Site : 4
Date : 10/05/2018
Queue Method: Snap
Queue Lengths: Vehicle Number

Vehicle	Number	Metres
PC, MC *	0.5	2.5
LV	1	5
OGV1	2	10
OGV2	3	15
Bus	3	15

	Arm B		
	NS	Middle	OS
07:00	0	0	0
07:05	1	0	0
07:10	0	0	0
07:15	0	0	0
07:20	0	0	0
07:25	0	0	0
07:30	0	0	0
07:35	0	0	0
07:40	0	0	0
07:45	0	0	0
07:50	0	0	0
07:55	0	0	0
08:00	0	0	0
08:05	0	0	0
08:10	0	0	0
08:15	0	0	0
08:20	0	3	0
08:25	0	0	0
08:30	0	0	0
08:35	0	0	0
08:40	0	0	0
08:45	0	0	0
08:50	0	3	0
08:55	0	0	0
09:00	0	0	0
09:05	5	4	0
09:10	4	0	0
09:15	0	0	0
09:20	0	0	0
09:25	0	0	0
09:30	0	0	2
09:35	0	0	0
09:40	9	3	0
09:45	0	0	2
09:50	0	0	0
09:55	0	0	0
10:00	0	6	0
10:05	0	0	0
10:10	0	0	0
10:15	0	0	0
10:20	0	0	0
10:25	3	0	1
10:30	0	0	0
10:35	1	0	1
10:40	0	0	0
10:45	0	0	0
10:50	0	0	0
10:55	0	1	0

11:00	2	0	1
11:05	0	0	0
11:10	0	0	0
11:15	0	0	0
11:20	0	0	0
11:25	0	0	0
11:30	0	0	0
11:35	0	0	0
11:40	0	0	0
11:45	0	0	0
11:50	0	0	1
11:55	0	0	0
12:00	0	0	0
12:05	0	1	0
12:10	0	0	0
12:15	0	0	0
12:20	0	0	0
12:25	0	1	1
12:30	0	0	0
12:35	0	0	0
12:40	0	0	0
12:45	0	0	0
12:50	0	0	0
12:55	0	2	2
13:00	4	0	1
13:05	0	0	1.5
13:10	1	0	1
13:15	2	1	0
13:20	1	0	1
13:25	0	0	0
13:30	0	2	0
13:35	0	3	1
13:40	0	0	0
13:45	0	1	0
13:50	0	0	0
13:55	0	5	0
14:00	1	0	0
14:05	0	0	0
14:10	0	0	0
14:15	0	4	0
14:20	0	0	0
14:25	0	0	0
14:30	0	4	0
14:35	0	0	0
14:40	1	0	0
14:45	0	0	0
14:50	0	1	0
14:55	0	4	0
15:00	0	2	0
15:05	1	1	1
15:10	0	0	0
15:15	0	0	0
15:20	0	1	1
15:25	0	0	0
15:30	2	0	0
15:35	0	0	0
15:40	0	1	0
15:45	1	0	0
15:50	0	0	0
15:55	0	0	0

16:00	1	4	0
16:05	6	0	0
16:10	0	0	0
16:15	0	0	0
16:20	0	0	0
16:25	0	0	0
16:30	0	0	0
16:35	4	0	0
16:40	0	0	0
16:45	0	3	0
16:50	0	0	0
16:55	0	0	1
17:00	0	0	0
17:05	0	0	0
17:10	0	0	0
17:15	0	0	0
17:20	0	3	1
17:25	0	0	0
17:30	0	0	0
17:35	0	0	0
17:40	0	1	0
17:45	0	0	0
17:50	0	0	0
17:55	0	0	0
18:00	0	0	0
18:05	0	0	0
18:10	1	5	1
18:15	0	0	1
18:20	0	0	0
18:25	0	0	0
18:30	0	2	8
18:35	0	0	0
18:40	5	3	1
18:45	0	10	0
18:50	0	3.5	1
18:55	3	6	0



Tracsis^{plc}

Traffic and Data Services

Client: AECOM

Project: 3315-IRE Parnell Square Traffic Counts

Site: A-R

Survey Date: Thursday 10 May 2018

Survey Period: 07:00-19:00

Method: Video Observation

AM Weather: Dry and Sunny

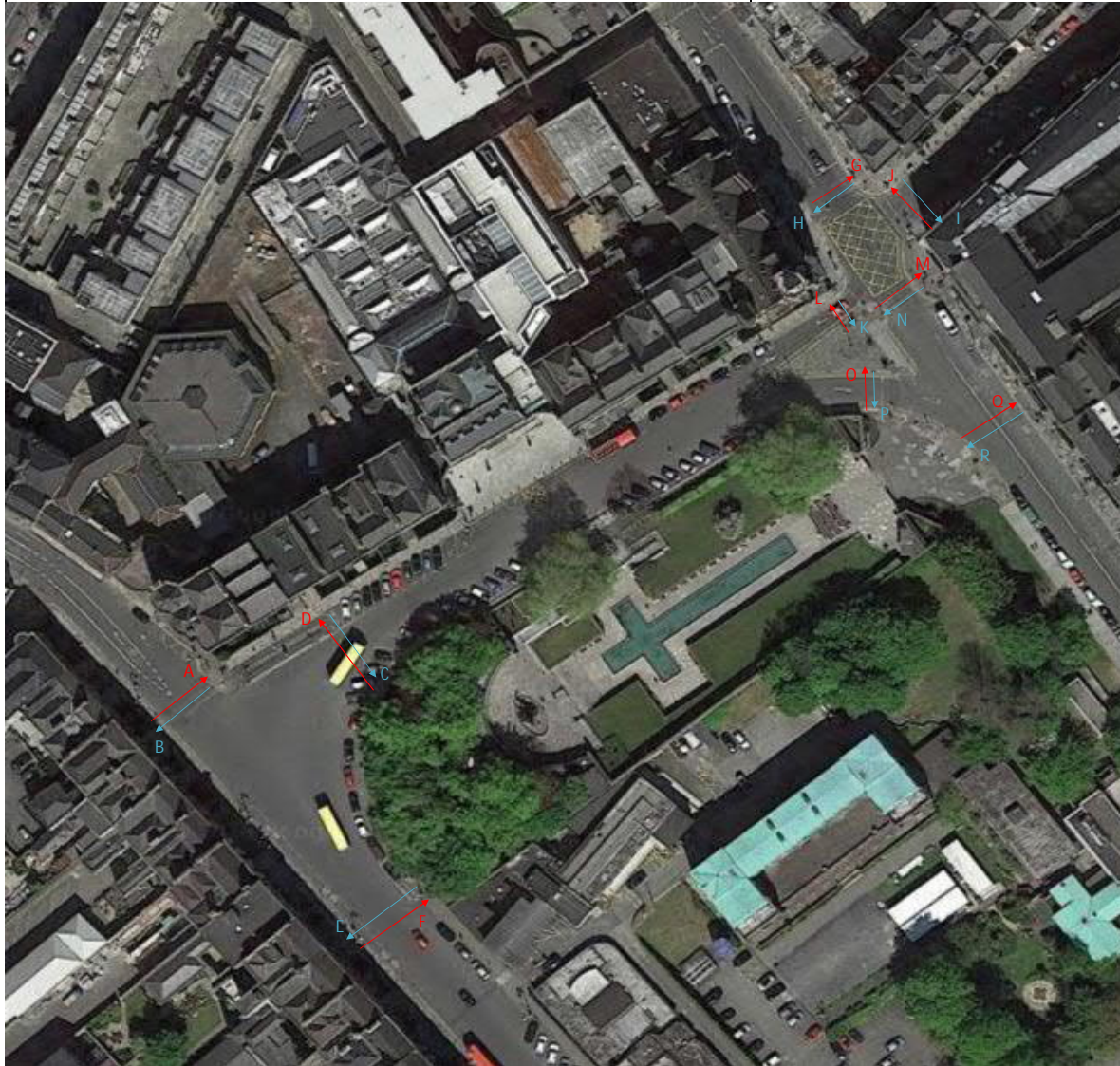
PM Weather: Dry and Sunny

Incidents / Observations:

No observations to report.



Client : AECOM	Site plan for : A-R
Project : 3315-IRE Parnell Square Traffic Counts	Date : 10/05/2018



	Crossing A-B				Crossing C-D				Crossing E-F				Crossing G-H				Crossing I-J			
	A		B		C		D		E		F		G		H		I		J	
	Adult	Child <18	Adult	Child <18	Adult	Child <18	Adult	Child <18	Adult	Child <18	Adult	Child <18	Adult	Child <18	Adult	Child <18	Adult	Child <18	Adult	Child <18
07:00	5	0	4	0	7	0	3	0	7	0	1	0	3	0	2	0	56	0	21	0
07:15	4	0	2	0	8	0	4	0	4	0	7	0	8	0	6	0	55	0	23	0
07:30	11	0	4	0	12	0	1	0	5	0	7	0	6	0	4	0	54	0	13	0
07:45	5	0	8	0	9	0	2	0	5	0	7	1	12	1	8	0	91	0	40	0
1 Hr	25	0	18	0	36	0	10	0	21	0	22	1	29	1	20	0	256	0	97	0
08:00	7	2	9	2	3	0	1	0	6	0	6	0	16	0	13	0	126	0	27	0
08:15	4	2	14	6	11	0	3	0	11	1	8	0	10	0	10	0	160	0	31	0
08:30	8	3	12	3	12	0	1	0	18	1	5	0	24	7	16	0	175	0	27	0
08:45	14	1	29	6	11	0	5	0	13	2	9	0	22	0	29	0	163	0	32	0
1 Hr	33	8	64	17	37	0	10	0	48	4	28	0	72	7	68	0	624	0	117	0
09:00	14	1	25	1	8	0	4	0	19	0	4	0	13	0	31	2	163	0	37	0
09:15	11	3	15	1	11	0	6	0	14	0	5	0	9	2	11	1	104	0	35	0
09:30	16	0	17	1	8	0	3	0	7	0	2	0	7	0	18	3	100	0	35	0
09:45	9	0	2	0	7	0	6	0	15	1	2	0	21	0	20	2	77	0	33	0
1 Hr	50	4	59	3	34	0	19	0	55	1	13	0	50	2	80	8	444	0	140	0
10:00	5	0	11	0	22	0	10	0	15	1	6	0	7	0	24	2	89	0	35	0
10:15	14	0	11	1	11	0	3	0	8	1	4	0	13	0	14	1	86	0	25	0
10:30	12	65	9	0	15	0	5	0	14	0	5	0	85	0	23	0	103	0	40	0
10:45	14	2	23	0	8	0	9	0	11	1	1	0	20	0	28	0	98	1	29	0
1 Hr	45	67	54	1	56	0	27	0	48	3	16	0	125	0	89	3	376	1	129	0
11:00	11	0	16	0	10	0	5	0	13	1	3	0	26	0	25	0	120	2	46	0
11:15	6	1	7	0	6	1	11	0	8	1	2	0	13	1	10	1	94	0	34	0
11:30	11	0	20	0	15	0	8	0	7	0	1	0	10	0	13	0	88	0	43	0
11:45	11	0	10	1	13	0	6	0	8	0	8	1	20	0	16	1	95	0	39	0
1 Hr	39	1	53	1	44	1	30	0	36	2	14	1	69	1	64	2	397	2	162	0
12:00	14	0	10	1	10	0	10	0	9	0	6	0	25	1	11	1	103	0	48	0
12:15	11	1	11	1	11	1	4	0	9	0	1	0	14	0	23	0	106	0	58	0
12:30	9	0	8	0	11	0	8	0	5	0	1	0	23	0	21	2	110	1	73	2
12:45	15	0	8	0	11	0	5	0	14	0	5	0	22	1	27	0	94	4	68	3
1 Hr	49	1	37	2	43	1	27	0	37	0	13	0	84	2	82	3	413	5	247	5
13:00	19	0	8	0	6	0	9	0	14	0	3	0	32	0	27	0	98	1	46	0
13:15	14	1	19	1	18	0	8	0	17	0	3	0	22	0	16	2	136	2	72	0
13:30	16	0	12	2	15	0	12	1	13	0	4	0	31	0	20	1	118	4	79	0
13:45	12	0	15	1	5	0	7	0	8	0	5	0	21	0	23	0	94	0	87	0
1 Hr	61	1	54	4	44	0	36	1	52	0	15	0	106	0	86	3	446	7	284	0
14:00	11	0	15	0	10	0	13	0	4	0	1	0	31	0	20	0	95	0	72	0
14:15	13	0	19	0	9	0	12	0	7	0	4	0	21	1	7	0	90	1	81	0
14:30	11	3	18	1	15	0	9	0	6	0	3	0	22	0	21	0	115	5	64	1
14:45	11	0	16	6	7	0	4	0	9	0	4	0	24	1	34	0	126	8	69	0
1 Hr	46	3	68	7	41	0	38	0	26	0	12	0	88	2	82	0	426	14	286	1
15:00	7	2	20	0	10	0	11	0	16	0	7	0	22	0	16	0	103	2	51	0
15:15	11	0	15	0	9	0	9	0	13	2	7	1	22	0	38	0	88	1	48	0
15:30	28	2	13	0	12	0	17	0	11	0	13	0	29	1	37	0	102	1	71	0
15:45	7	1	24	12	16	1	12	0	17	1	3	0	30	1	27	0	84	2	69	1
1 Hr	53	5	72	12	47	1	49	0	57	3	30	1	103	2	118	0	377	6	239	1
16:00	15	0	13	1	12	0	8	0	5	0	6	0	18	0	21	0	101	0	83	0
16:15	5	0	15	0	8	0	10	0	13	1	8	1	25	0	14	0	105	3	84	2
16:30	18	0	7	0	6	0	11	0	12	0	8	0	26	0	19	0	112	3	70	0
16:45	9	2	18	0	18	0	21	1	5	0	7	0	37	1	19	0	95	2	103	2
1 Hr	47	2	53	1	44	0	50	1	35	1	29	1	106	1	73	0	413	8	340	4
17:00	26	1	13	0	13	0	17	1	8	0	8	0	28	0	11	0	99	1	80	2
17:15	19	0	12	1	10	0	24	0	12	0	3	0	28	0	20	0	109	2	108	4
17:30	16	1	7	0	12	1	17	0	9	0	11	0	30	0	16	0	79	2	130	0
17:45	9	1	16	2	6	0	13	0	12	1	8	0	45	2	28	0	86	4	136	0
1 Hr	70	3	48	3	41	1	71	1	41	1	30	0	131	2	75	0	373	9	454	6
18:00	12	0	15	0	16	0	20	0	16	1	6	0	38	1	17	0	72	0	123	2
18:15	10	1	13	0	18	1	16	0	11	0	8	0	24	0	10	0	70	0	115	0
18:30	17	0	11	0	11	0	23	0	13	2	2	0	19	0	8	2	87	1	120	1
18:45	15	0	12	0	7	0	11	0	7	0	2	0	35	0	21	0	93	1	101	2
1 Hr	54	1	51	0	52	1	70	0	47	3	18	0	116	1	56	2	322	2	459	5
Total	572	96	631	51	519	5	437	3	503	18	240	4	1089	21	893	21	4867	54	2954	22

Crossing K-L			
K		L	
Adult	Child <18	Adult	Child <18
13	0	7	0
24	0	3	0
18	0	2	0
26	0	8	0
81	0	20	0
33	1	10	1
44	0	10	0
74	0	14	0
86	1	19	1
237	2	53	2
86	2	22	3
31	0	21	2
55	0	16	0
38	1	25	0
210	3	84	5
33	2	10	0
42	0	18	0
22	2	16	0
45	0	24	0
142	4	68	0
34	2	22	0
29	0	21	0
23	0	13	0
38	1	26	1
124	3	82	1
44	2	19	1
33	0	19	0
23	0	39	2
30	0	27	0
130	2	104	3
51	3	48	1
37	1	30	0
39	0	35	0
29	1	39	0
156	5	152	1
22	0	35	0
33	4	26	0
31	0	35	0
33	1	23	0
119	5	119	0
37	0	53	0
35	0	34	2
46	0	34	1
35	2	28	1
153	2	149	4
35	1	38	0
42	0	63	0
31	0	36	0
34	0	43	0
142	1	180	0
32	1	48	0
28	0	65	4
46	0	67	0
69	3	60	1
175	4	240	5
40	1	52	1
26	0	46	1
16	0	53	3
22	0	38	0
104	1	189	5

1773 32 1440 26

Crossing M-N			
M		N	
Adult	Child <18	Adult	Child <18
3	0	8	0
4	0	5	0
0	0	8	0
7	0	11	0
14	0	32	0
10	2	15	1
7	0	13	1
13	0	23	0
19	1	50	0
49	3	101	2
16	1	44	1
8	0	36	6
10	0	22	1
8	0	36	1
42	1	138	9
4	0	30	0
6	0	29	1
8	1	55	0
12	0	43	1
30	1	157	2
6	0	33	2
9	1	26	0
11	0	25	0
18	0	19	0
44	1	103	2
14	2	21	1
23	0	24	0
12	0	43	0
16	0	45	0
65	2	133	1
17	0	36	0
24	1	43	0
21	0	40	2
27	0	16	2
89	1	135	4
13	0	34	0
28	5	26	1
12	0	42	8
25	2	27	3
78	7	129	12
16	1	30	0
11	0	29	0
22	2	39	2
20	0	32	0
69	3	130	2
16	0	29	0
27	2	59	2
21	0	33	2
29	0	43	0
93	2	164	4
17	1	48	0
24	0	35	0
35	0	35	2
39	3	25	4
115	4	143	6
28	2	28	0
10	0	20	0
12	0	25	1
21	1	37	2
71	3	110	3

759 28 1475 47

Crossing O-P			
O		P	
Adult	Child <18	Adult	Child <18
5	0	13	0
3	0	25	0
2	0	20	0
8	0	28	0
18	0	86	0
8	0	31	2
8	0	34	2
21	1	74	2
18	0	95	1
55	1	234	7
14	0	96	0
16	0	51	0
13	0	54	0
19	0	52	1
62	0	253	1
17	0	53	3
20	0	45	1
17	1	65	0
22	0	60	0
76	1	223	4
19	0	57	4
28	1	41	0
21	0	36	2
34	1	75	1
102	2	209	7
18	0	49	0
34	2	42	0
41	2	36	0
35	0	59	0
128	4	186	0
51	1	62	2
39	0	53	0
37	0	57	1
63	0	48	2
190	1	220	5
43	1	42	1
29	0	46	5
33	0	42	1
32	2	42	1
137	3	172	8
59	0	60	0
37	2	52	0
42	0	60	0
63	0	36	1
201	2	208	1
31	0	52	0
46	1	45	4
48	0	52	1
53	0	44	0
178	1	193	5
52	0	56	0
71	3	40	0
82	0	58	2
74	3	73	3
279	6	227	5
58	2	57	2
48	1	28	0
54	1	22	0
50	1	37	0
210	5	144	2

1636 26 2355 45

Crossing Q-R			
Q		R	
Adult	Child <18	Adult	Child <18
5	0	2	0
3	0	2	0
2	0	4	0
0	0	0	0
10	0	8	0
3	2	1	0
5	0	4	0
1	0	2	0
4	0	3	0
13	2	10	0
4	0	4	0
6	0	3	0
5	0	9	0
5	0	4	0
20	0	20	0
2	0	11	0
2	0	6	0
3	0	5	0
2	0	2	0
9	0	24	0
4	1	5	0
3	0	4	0
5	0	4	0
4	0	2	0
16	1	15	0
2	0	5	0
4	0	8	1
4	0	8	0
4	2	10	1
14	2	31	2
5	0	5	0
8	0	8	0
6	0	12	0
3	0	4	0
22	0	29	0
7	0	4	0
11	2	7	0
7	0	6	0
32	3	24	0
6	0	6	0
0	0	5	0
3	0	8	0
2	0	6	0
11	0	25	0
8	0	12	0
10	0	3	0
9	0	8	0
7	0	4	0
34	0	27	0
7	0	3	0
6	0	12	0
6	0	1	0
9	0	4	0
28	0	20	0
1	0	8	0
11	0	12	0
7	0	5	0
9	0	2	0
28	0	27	0

237 8 260 2



Tracsis^{plc}

Traffic and Data Services

Client: AECOM

Project: 3315-IRE Parnell Square Traffic Counts

Zone: A - Z

Survey Date: Thursday 10 May 2018

Survey Period: 07:00 - 19:00


Method: Parking by Duration of Stay

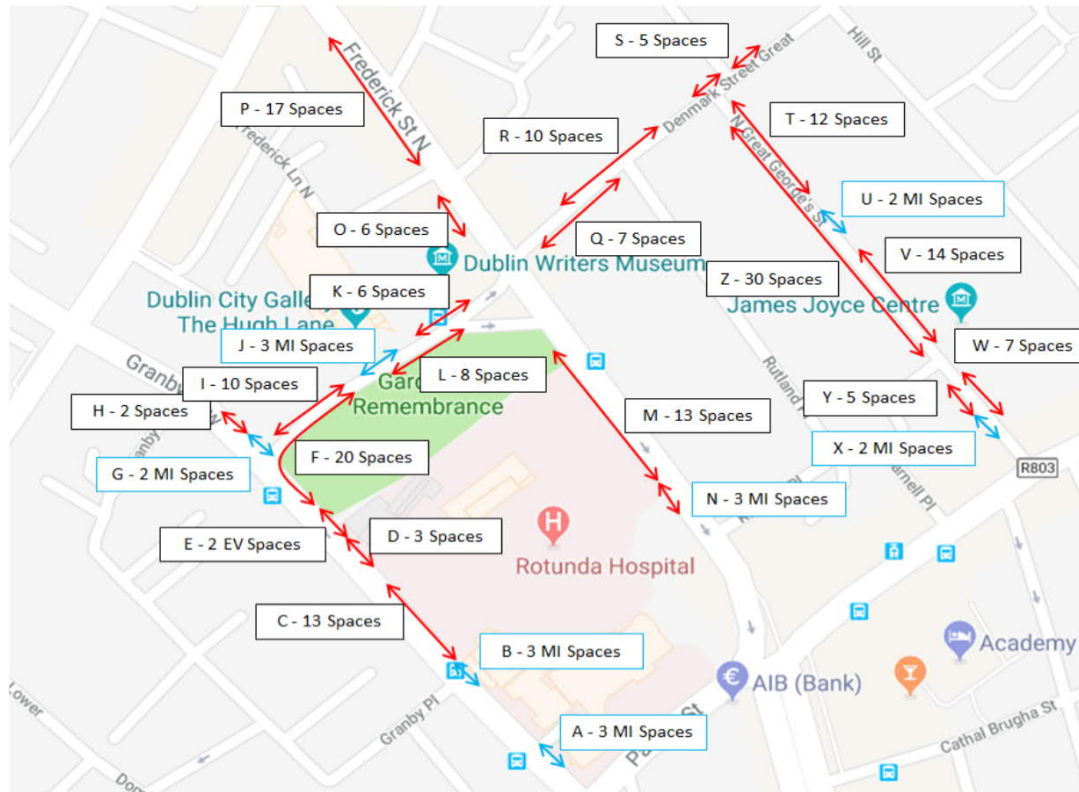
AM Weather: Dry and Sunny

PM Weather: Dry and Sunny

Incidents / Observations:

No incidents or observations during the survey period.





Abbreviation	Bay Type
EV	Electric Vehicle
MI	Mobility Impaired
MB	Marked Bay

No. of Bay Types

Zone Name / Bay Type	EV	MI	MB	Grand Total
A	0	3	0	3
B	0	3	0	3
C	0	0	13	13
D	0	0	3	3
E	2	0	0	2
F	0	0	20	20
G	0	2	0	2
H	0	0	2	2
I	0	0	10	10
J	0	3	0	3
K	0	0	6	6
L	0	0	8	8
M	0	0	13	13
N	0	3	0	3
O	0	0	6	6
P	0	0	17	17
Q	0	0	7	7
R	0	0	10	10
S	0	0	5	5
T	0	0	12	12
U	0	2	0	2
V	0	0	14	14
W	0	0	7	7
X	0	2	0	2
Y	0	0	5	5
Z	0	0	30	30
TOTAL	2	18	188	208

No. Vehicles Parked by Duration Interval

Street Name / Duration Interval (hrs)	00:00 - 01:00	01:00 - 02:00	02:00 - 03:00	03:00 - 04:00	04:00 - 05:00	05:00 - 06:00	06:00 - 07:00	07:00 - 08:00	08:00 - 09:00	09:00 - 10:00	10:00 - 11:00	11:00 - 12:00	Grand Total	Average Duration Span (hrs)	
A	4	6	1	0	1	1	0	0	0	0	0	0	13	01:18 - 02:18	
B	2	6	1	0	0	0	0	0	0	0	1	0	10	01:48 - 02:48	
C	24	19	18	1	2	0	0	0	0	0	1	1	66	01:19 - 02:19	
D	5	2	0	2	0	0	0	1	1	0	0	0	11	02:05 - 03:05	
E	3	2	1	0	0	0	0	0	0	0	0	0	6	00:40 - 01:40	
F	33	29	22	5	3	0	0	0	1	0	0	1	94	01:15 - 02:15	
G	0	0	1	0	0	0	0	0	0	0	0	0	1	02:00 - 03:00	
H	4	0	0	0	0	0	0	0	0	0	0	0	4	00:00 - 01:00	
I	3	5	5	3	0	0	0	3	1	0	0	0	21	03:05 - 04:05	
J	1	1	0	0	0	0	0	0	0	0	0	0	2	00:30 - 01:30	
K	5	6	3	2	1	1	0	0	0	0	0	0	18	01:30 - 02:30	
L	9	6	5	5	1	0	0	0	0	0	0	0	26	01:20 - 02:20	
M	17	22	12	5	0	1	0	0	0	0	0	0	57	01:09 - 02:09	
N	1	0	2	1	0	0	0	0	0	0	0	0	4	01:45 - 02:45	
O	8	4	1	1	0	0	0	1	0	0	0	0	15	01:04 - 02:04	
P	26	14	5	3	2	1	1	1	0	0	0	1	54	01:17 - 02:17	
Q	12	3	4	1	0	0	1	0	0	0	0	0	21	00:57 - 01:57	
R	10	7	5	2	0	1	0	0	2	0	0	0	27	01:37 - 02:37	
S	11	1	1	2	0	0	0	0	0	0	0	0	15	00:36 - 01:36	
T	10	7	2	2	0	0	0	2	1	1	1	0	27	02:35 - 03:35	
U	0	0	0	0	0	0	1	0	0	0	0	0	1	06:00 - 07:00	
V	12	7	7	1	2	0	1	1	0	0	0	1	34	02:21 - 03:21	
W	10	6	1	1	0	1	0	0	0	0	0	1	20	01:24 - 02:24	
X	0	1	1	0	0	0	0	0	0	0	0	0	2	01:30 - 02:30	
Y	3	2	0	1	1	0	2	0	0	0	0	1	10	03:18 - 04:18	
Z	20	10	8	4	3	0	3	2	1	1	2	3	59	02:58 - 03:58	
Grand Total	233	166	106	42	16	6	9	11	7	2	5	7	8	618	01:44 - 02:44

Appendix F Parking Survey Report

Parnell Square Cultural Quarter: New Dublin City Library and Public Realm Works

Parking Surveys

June 2018

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1. Introduction

This report aims to provide an understanding of the existing parking conditions, availability and utilisation of the area surrounding Parnell Square, based on analysis of survey data.

The parking survey was carried out on Thursday 10th May 2018, for on-street parking over a twelve-hour period from 07:00 to 19:00, to ensure that both the AM and PM peak demand hours were covered, as well as the inter-peak period.

The separate on-street parking zones and the area surveyed can be seen in Figure 1.1 below.

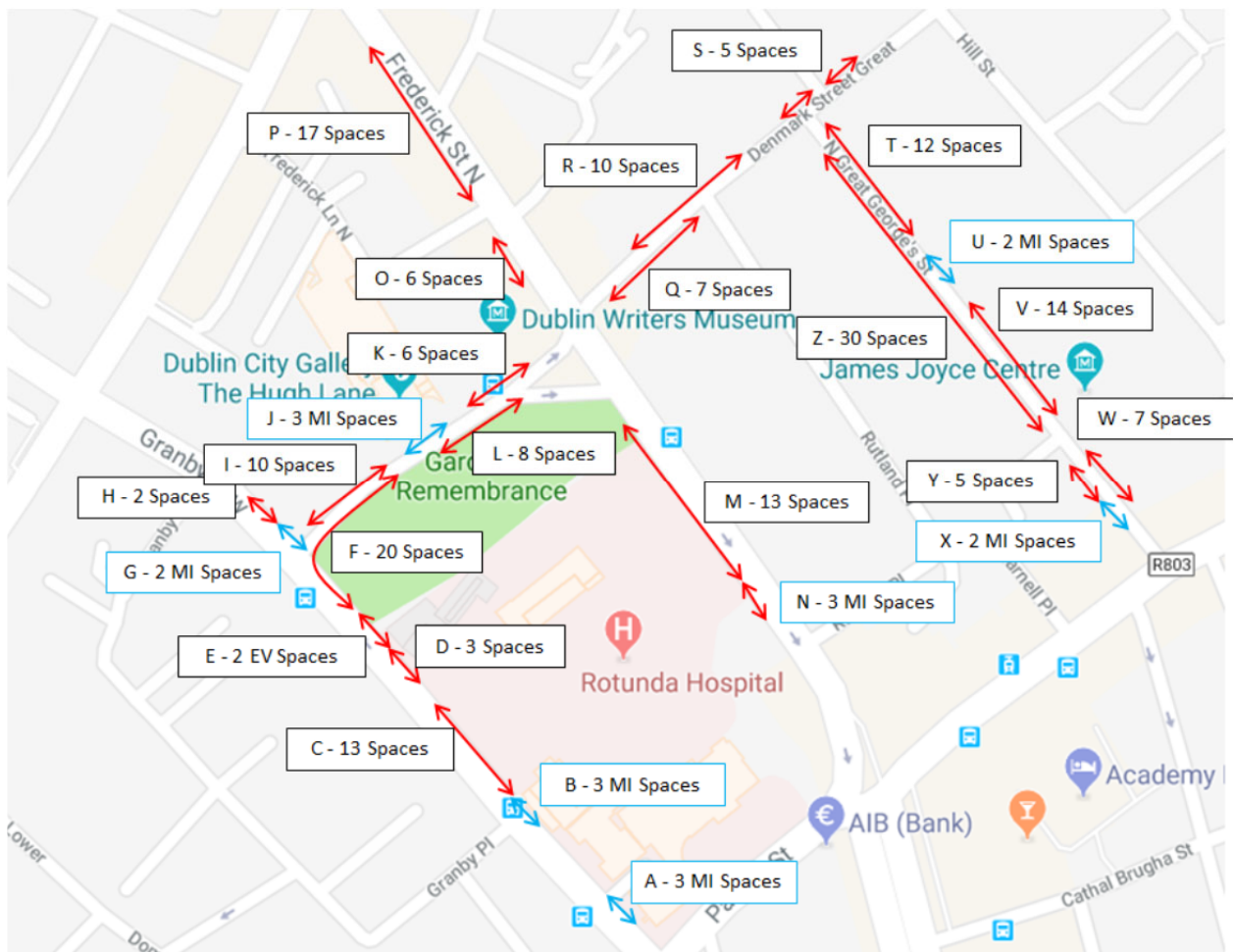


Figure 1.1: Locations of on-street parking survey, Parnell Square

2. On-Street Parking Surveys

2.1 Location A: Parnell Square West

There are 3 mobility-impaired parking spaces located outside the Rotunda Hospital on Parnell Square West. Maximum occupancy occurred at 08:00, 10:00 and between 12:00 and 14:00, where all 3 spaces were occupied. The minimum occupancy was 1 vehicle, which occurred at 19:00, and can be seen in Figure 2.1.2 below.



Figure 2.1.1: Location A, on-street parking Parnell Square West

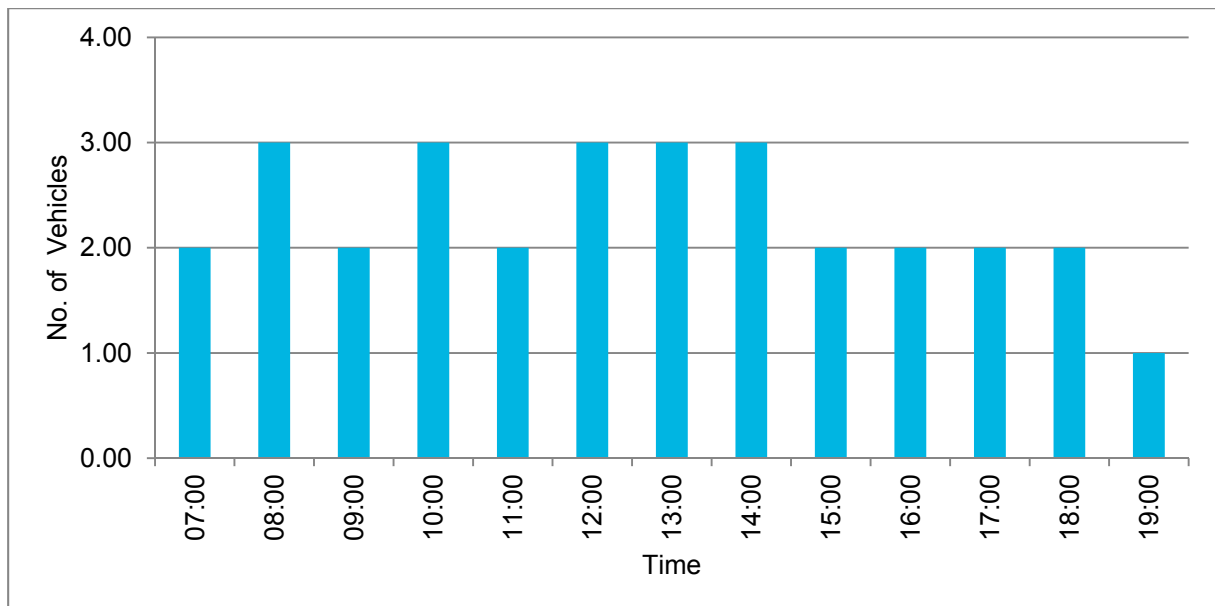


Figure 2.1.2: Location A, Occupancy

As shown in Figure 2.1.3, 46% of cars were parked for a duration of 1–2 hours, and 31% stayed for the shorter duration of less than an hour.

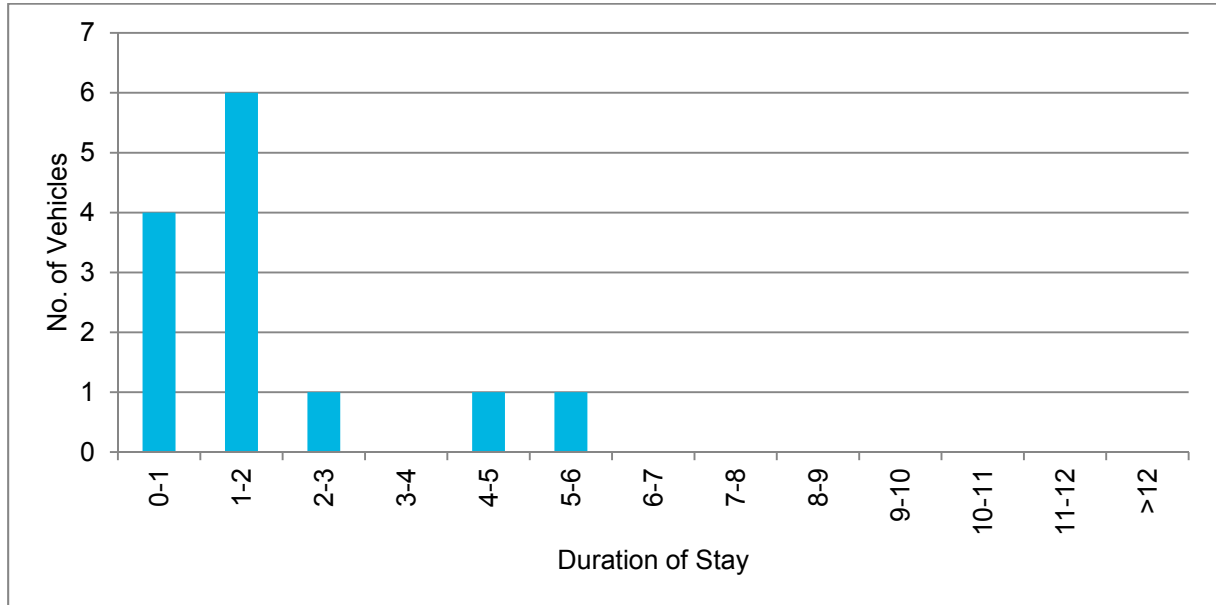


Figure 2.1.3: Location A, Parking Duration

2.2 Location B: Parnell Square West

There are another 3 mobility impaired parking spaces located the other side of the entrance to the Rotunda Hospital on Parnell Square West, as seen in Figure 2.2.1. Maximum occupancy occurred from 10:00 – 12:00, and from 15:00 – 18:00, where all 3 spaces were occupied. Minimum occupancy was 1 car, which occurred from 07:00 – 09:00 and from 13:00 – 14:00.

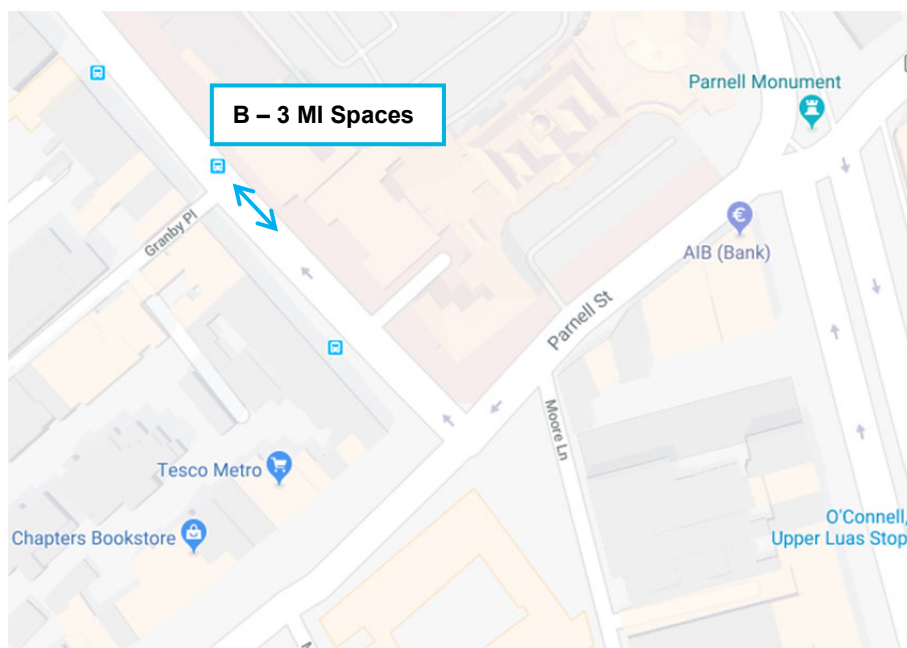


Figure 2.2.1: Location B, on-street parking Parnell Square West

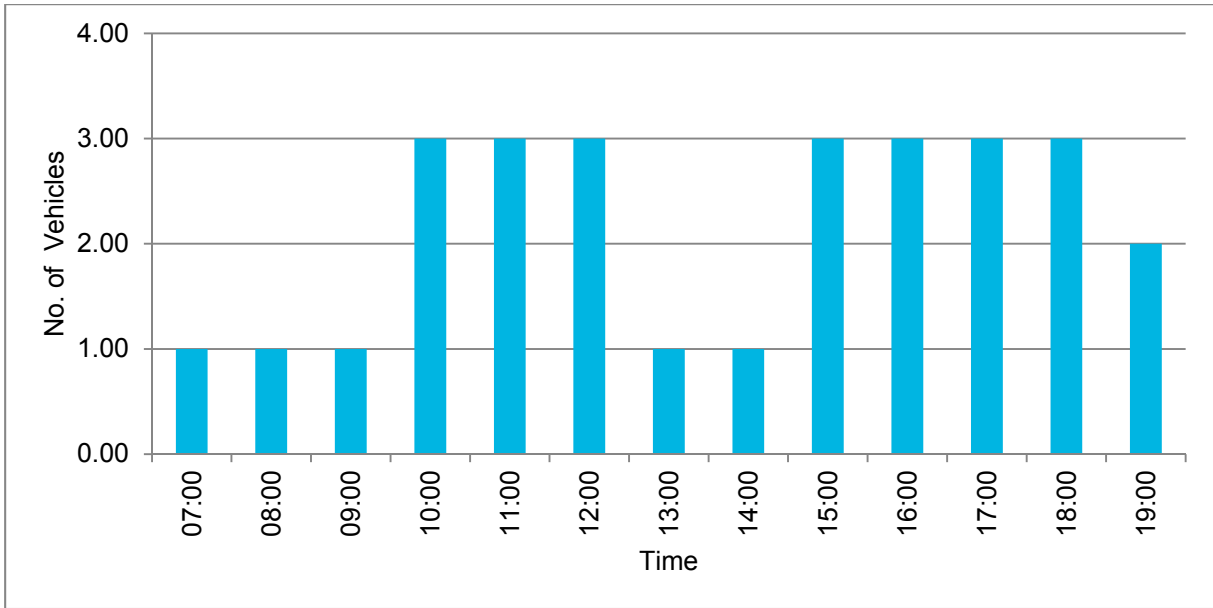


Figure 2.2.2: Location B, Occupancy

Similar to Location A, the majority of cars were parked for 1–2 hours (60%), with an additional 20% staying for less than 60 minutes.

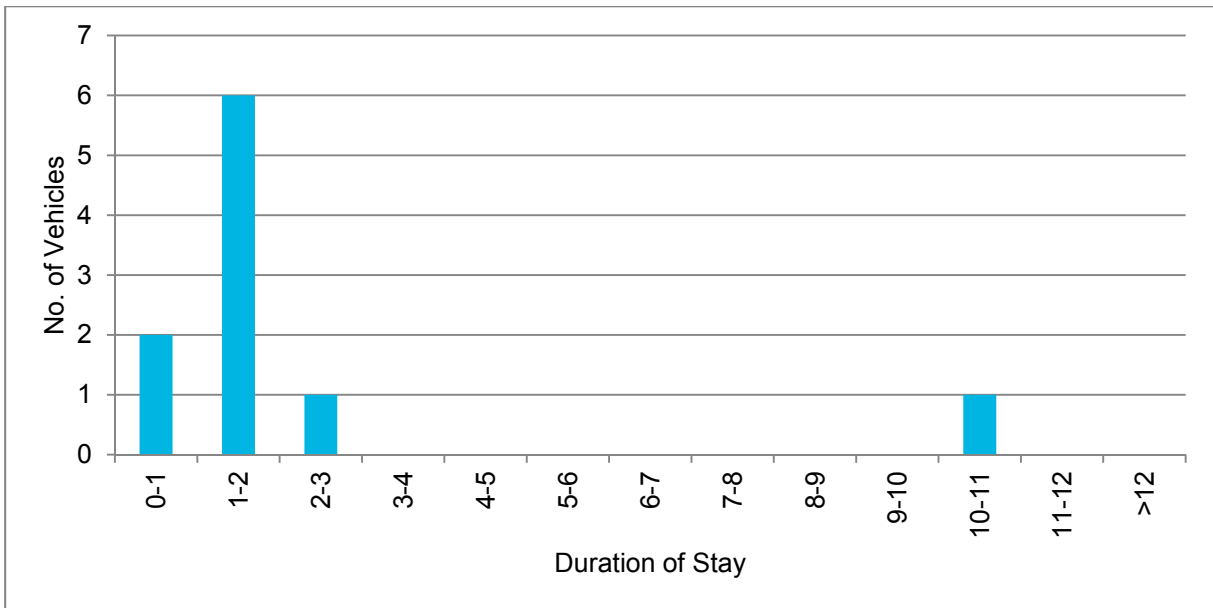


Figure 2.2.3: Location B, Parking Duration

2.3 Location C: Parnell Square West

Along Parnell Square West there are 13 regular car parking spaces, the closest regular car spaces to the Rotunda Hospital. Maximum occupancy, when all 13 spaces were occupied, occurred from 08:00 – 09:00 and between 11:00 and 16:00, as shown in Figure 2.3.1.



Figure 2.3.1: Location C, on-street parking Parnell Square West

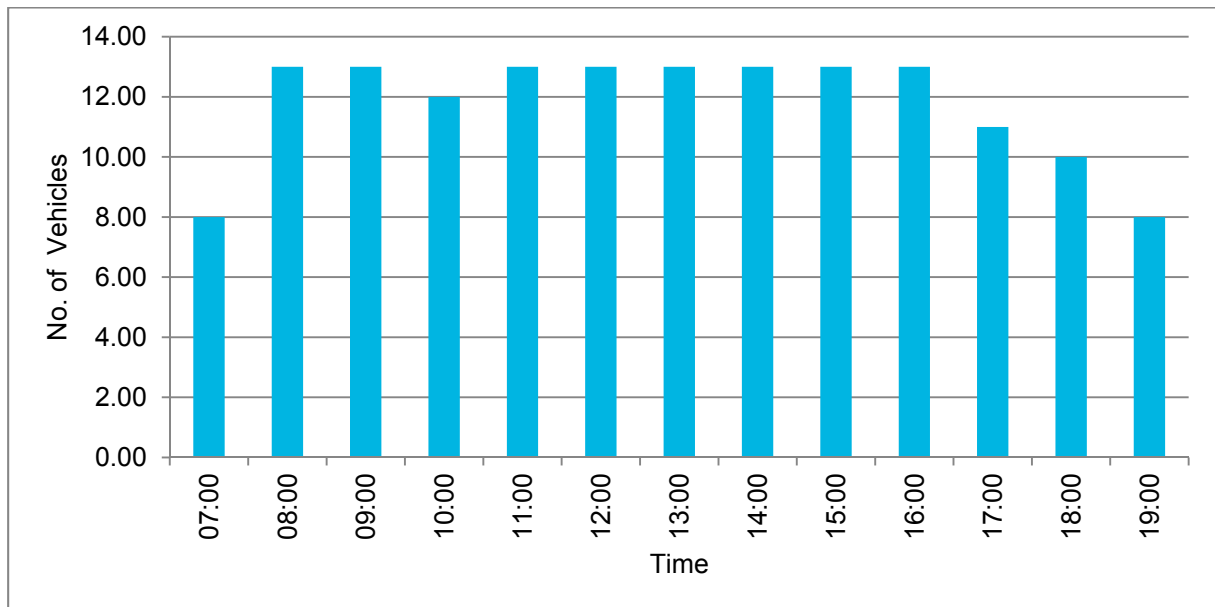


Figure 2.3.2: Location C Occupancy

As seen below in Figure 2.3.3, 37% of cars were parked for less than an hour, while 29% and 26% stayed between 1–2 and 2–3 hours respectively.

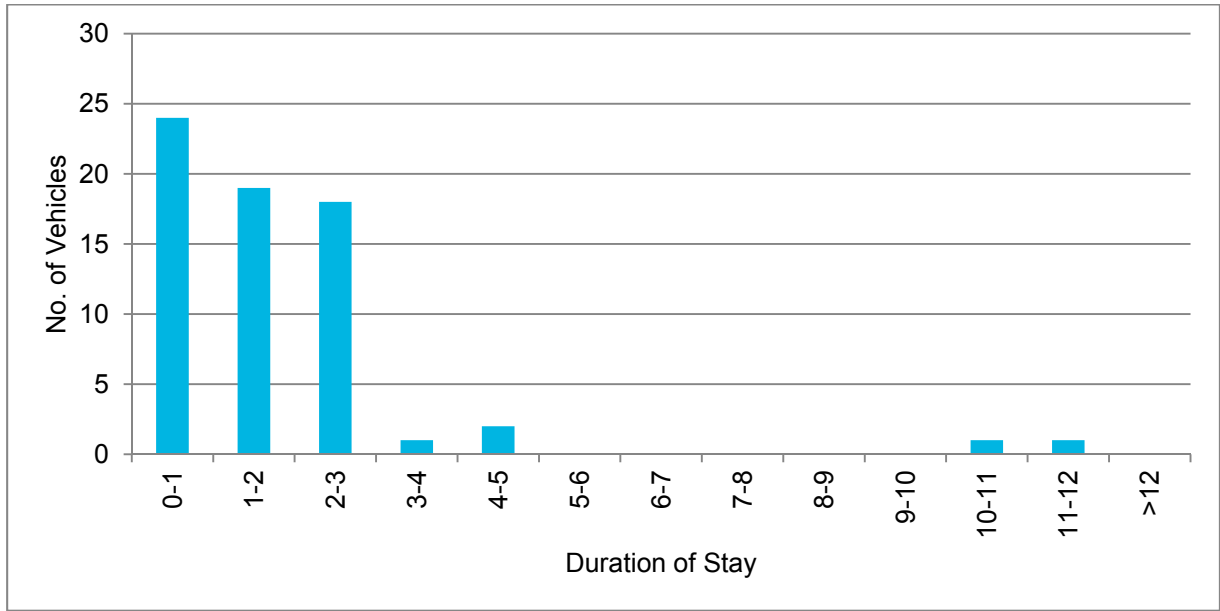


Figure 2.3.3: Location C Parking Duration

2.4 Location D: Parnell Square West

Following on towards the Garden of Remembrance and the 13 spaces at Location C, there are a further 3 regular car spaces located along Parnell Square West, which can be seen in Figure 2.4.1 below. Maximum occupancy was reached for the majority of the day, from 08:00–14:00 and from 16:00–17:00.

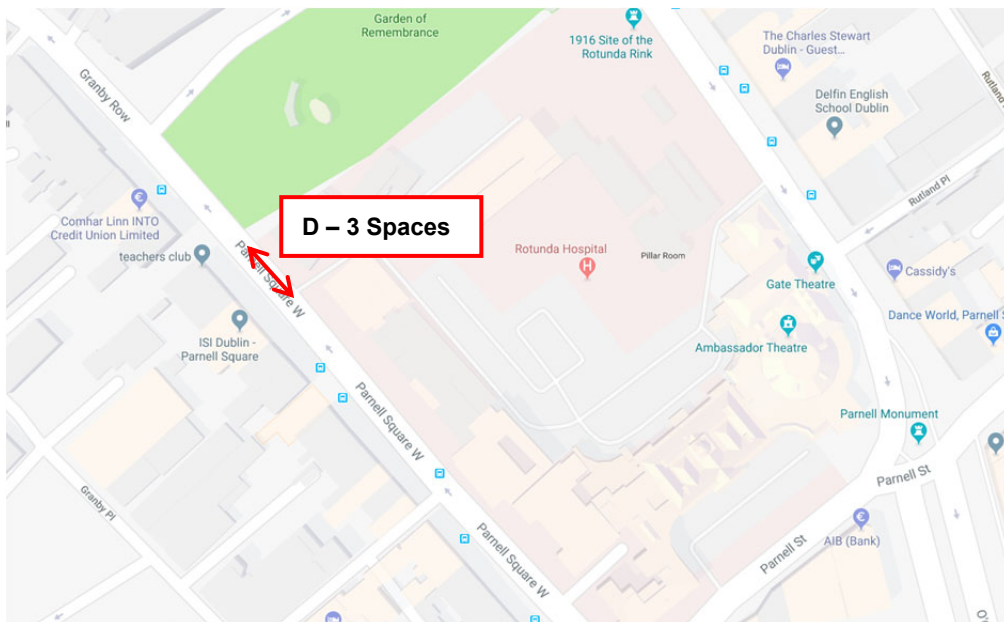


Figure 2.4.1: Location D, on-street parking Parnell Square West

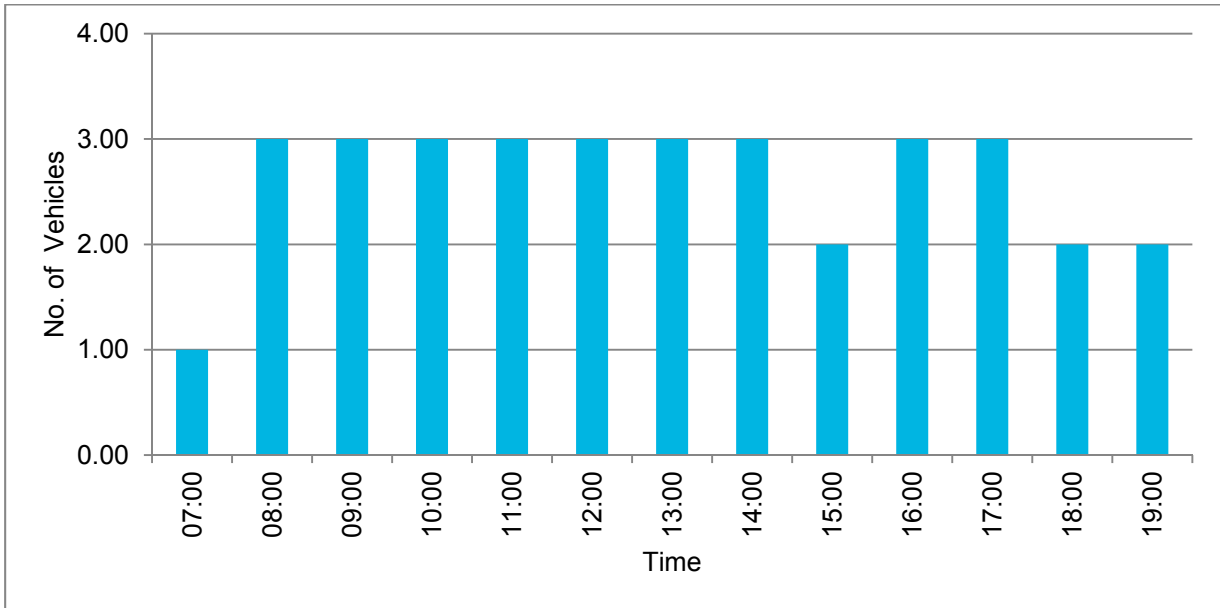


Figure 2.4.2: Location D, Occupancy

Although the 3 spaces were occupied for the majority of the day, 45% of cars were parked for less than an hour. 18% stayed between 1 and 2 hours, and another 18% were parked between 3 and 4 hours.

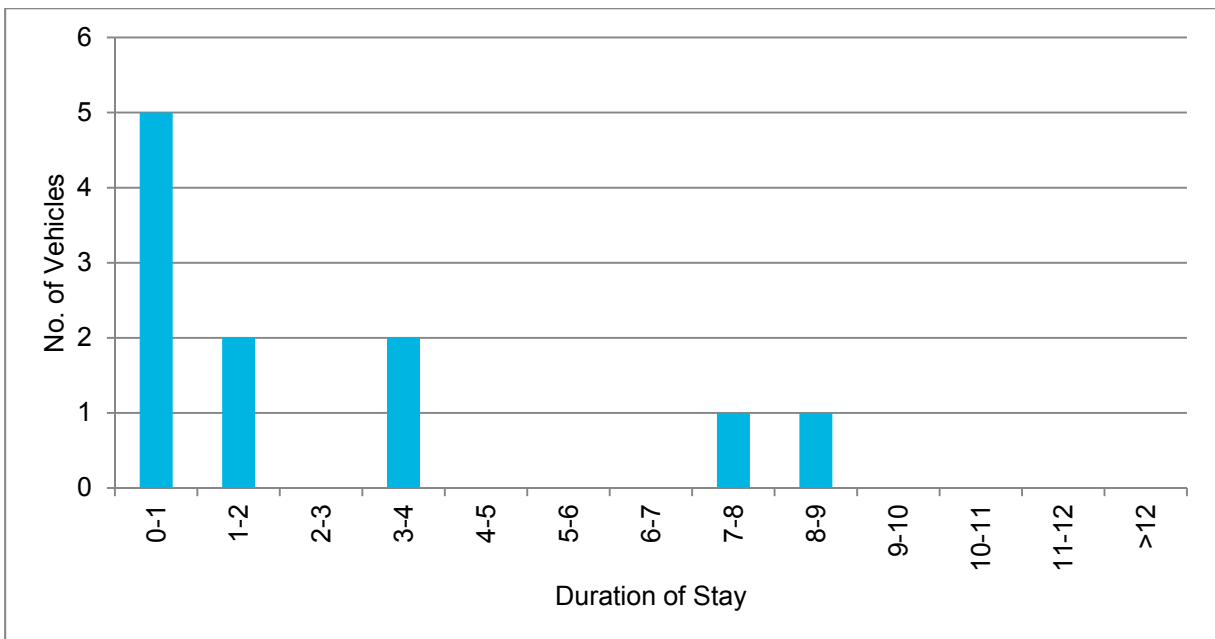


Figure 2.4.3: Location D, Parking Duration

2.5 Location E: Parnell Square West

There are 2 Electric Vehicle spaces located along Parnell Square West, just before the right turn onto Parnell Square North, as shown in Figure 2.5.1. There was only 1 period during the 12-hour survey when both Electric Vehicle spaces were occupied, at 11:00. Both spaces were empty from 9:00–10:00, at 12:00 and again at 18:00.



Figure 2.5.1: Location E, on-street parking Parnell Square West

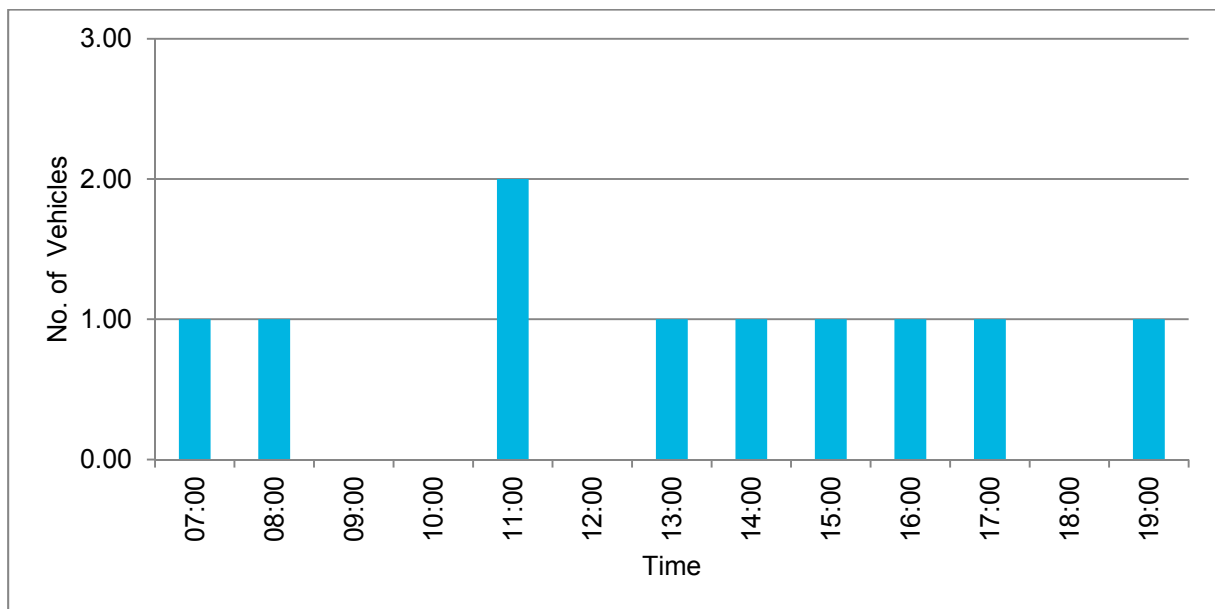


Figure 2.5.2: Location E, Occupancy

As seen from Figure 2.5.3, below, none of the 6 vehicles, were parked for longer than 3 hours, with 50% staying less than 60 minutes.

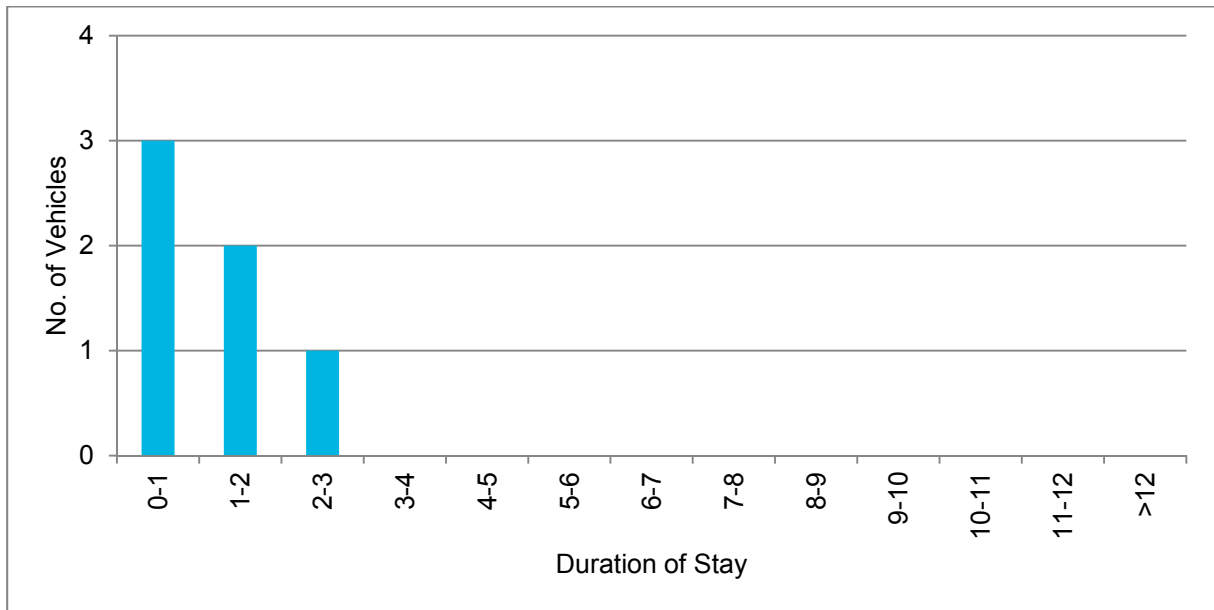


Figure 2.5.3: Location E, Parking Duration

2.6 Location F: Parnell Square West/North

There are 20 regular car parking spaces that follow the bend around the Garden of Remembrance, from Parnell Square West onto Parnell Square North, as seen in Figure 2.6.1. Maximum occupancy was reached when all 20 spaces were full, at 08:00, 11:00 and from 13:00 – 14:00. There was 95% occupancy at 12:00, and 80% occupancy between 09:00 and 10:00.



Figure 2.6.1: Location F, on-street parking Parnell Square West/North

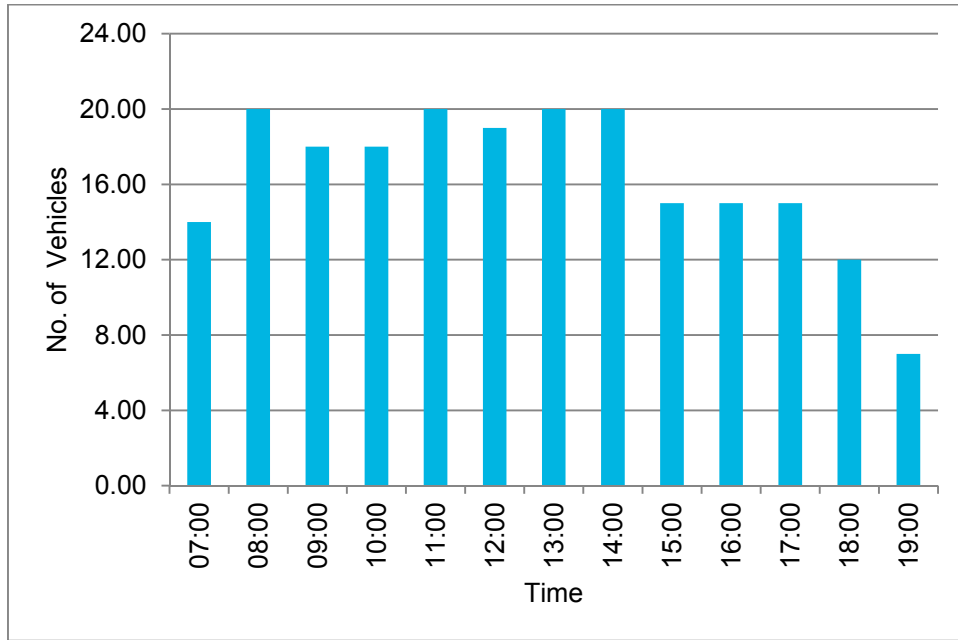


Figure 2.6.2: Location F, Occupancy

On the day of the survey, 94 cars were parked within the 20 spaces provided, 35% of which were parked for less than 60 minutes. 31% stayed between 1 and 2 hours, while a further 23% stayed between 2 and 3 hours long.

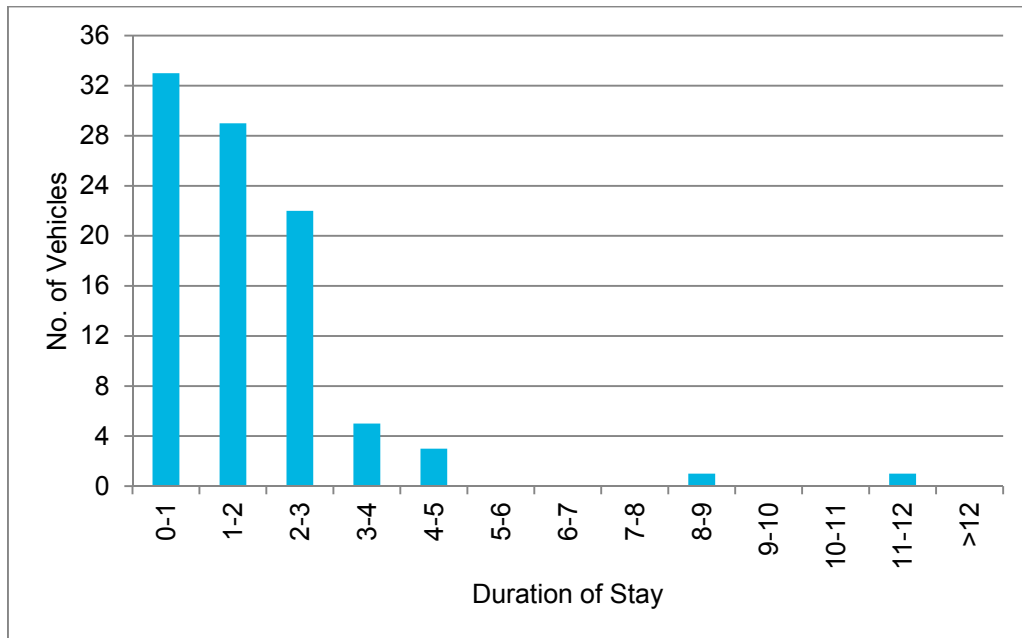


Figure 2.6.3: Location F, Parking Duration

2.7 Location G: Granby Row

Around the corner from Parnell Square North on Granby Row, there are 2 mobility-impaired car parking spaces. Throughout the whole 12-hour period, only 1 car parked in either of the 2 spaces. As seen from Figure 2.7.2, it was parked from 12:00–14:00.

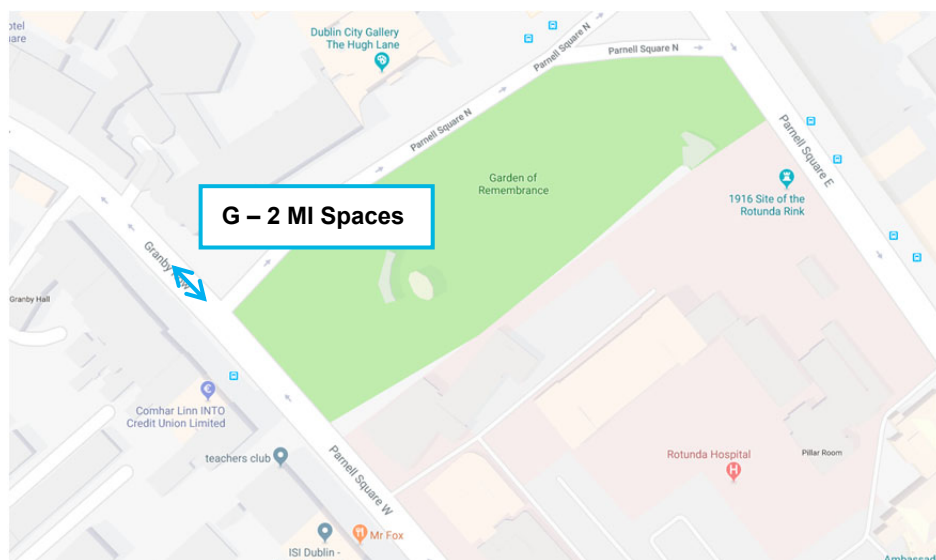


Figure 2.7.1: Location G, on-street parking Granby Row

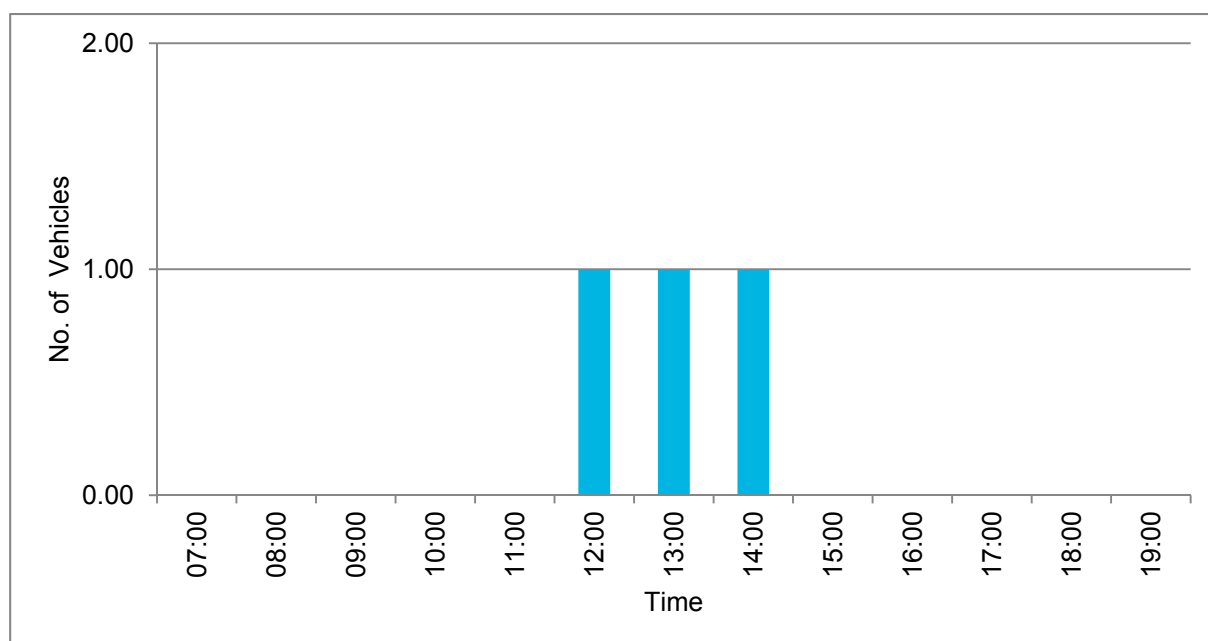


Figure 2.7.2: Location G, Occupancy

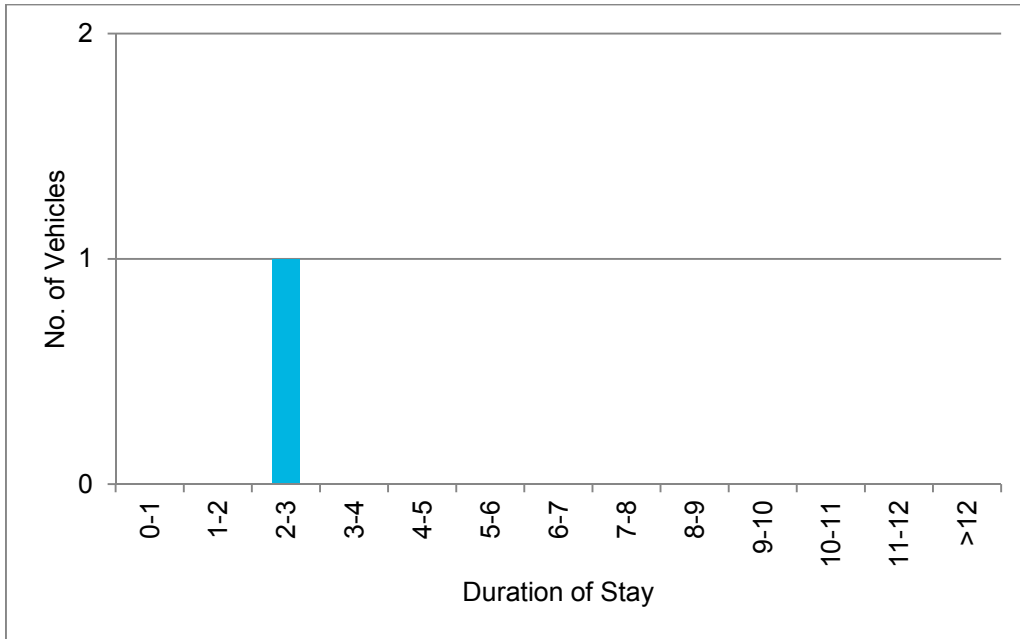


Figure 2.7.3: Location G, Parking Duration

2.8 Location H: Granby Row

Further north on Granby Row, behind the two mobility impaired car spaces, are 2 regular car spaces. At 11:00, maximum occupancy of 2 cars was reached. At 12:00 and at 15:00 there was only 1 car occupying the spaces and for the remainder of the day, both spaces were free.

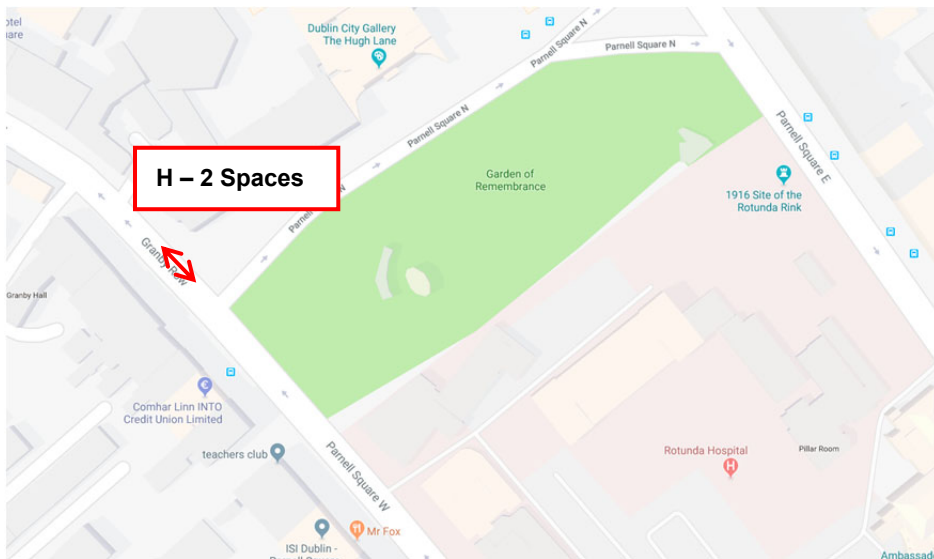


Figure 2.8.1: Location H, on-street parking Granby Row

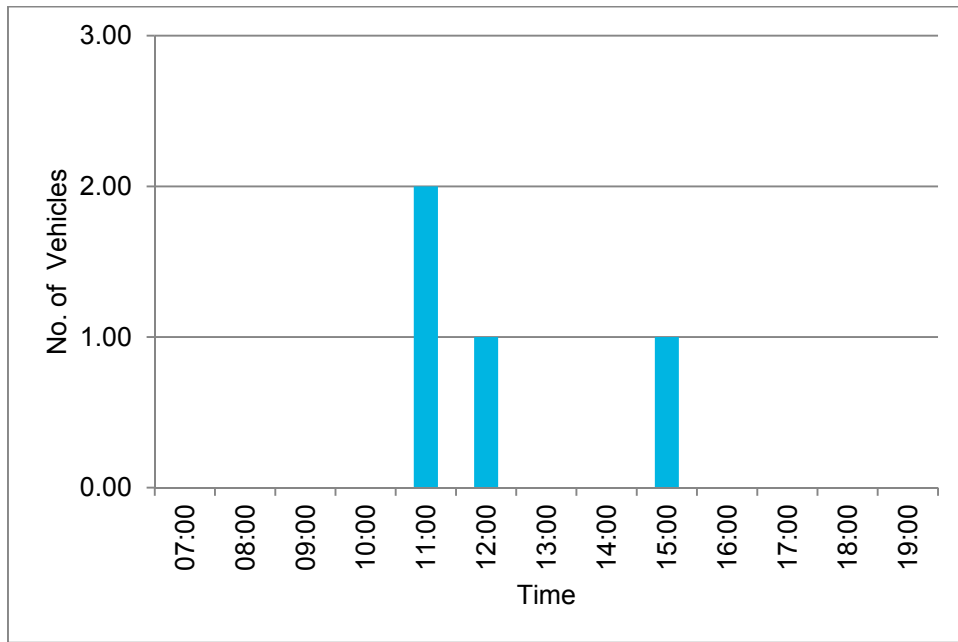


Figure 2.8.2: Location H, Occupancy

As seen from Figure 2.8.3, all 4 of the cars were parked for less than an hour.

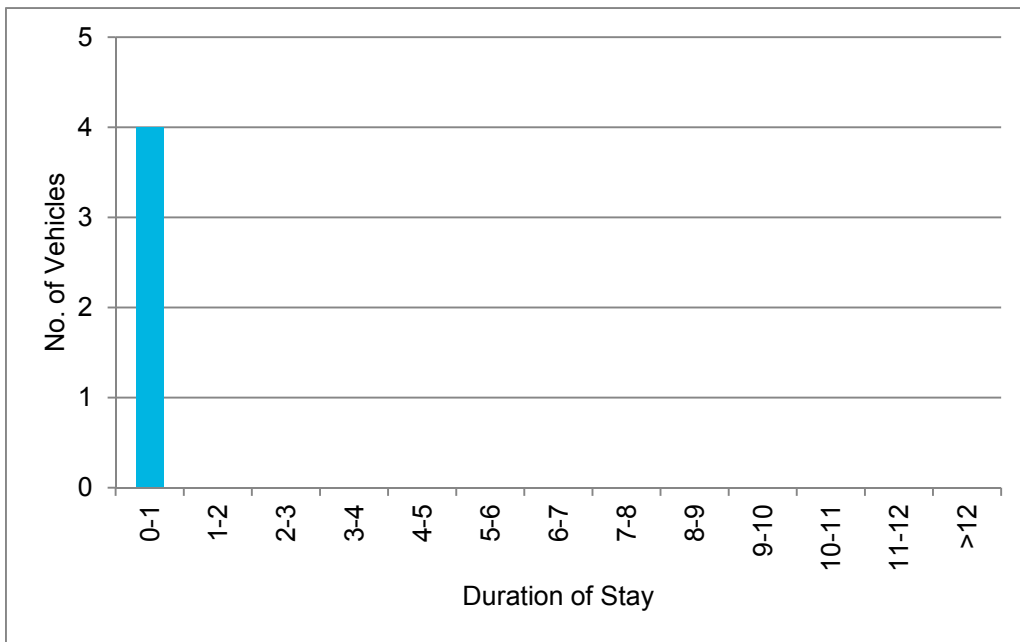


Figure 2.8.3: Location H, Parking Duration

2.9 Location I: Parnell Square North

On the opposite side of the road to the Garden of Remembrance, beside the Dublin Bike docking station, there are 10 regular car parking spaces, as seen in Figure 2.9.1. Throughout the whole 12-hour period, this location never reached maximum occupancy. From 9:00–11:00 and from 13:00–15:00 there was 80% occupancy.



Figure 2.9.1: Location I, on-street parking Parnell Square North

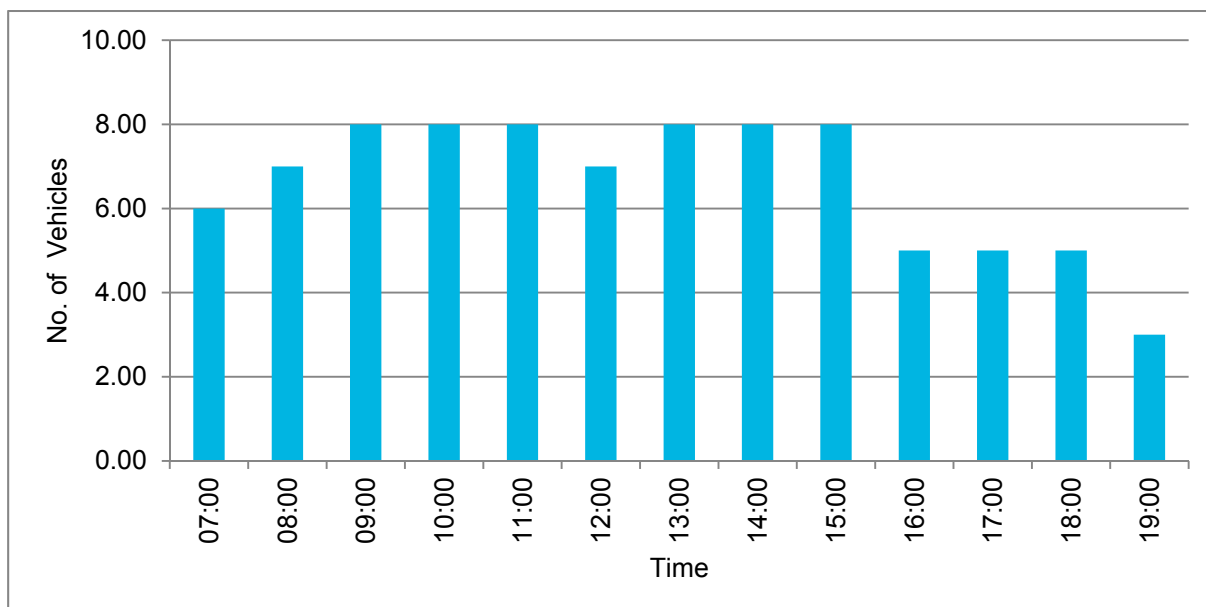


Figure 2.9.2: Location I, Occupancy

As seen below in Figure 2.9.3, 48% of the cars were parked for 1–3 hours. There was one car that was parked for longer than the 12-hour period of the survey.

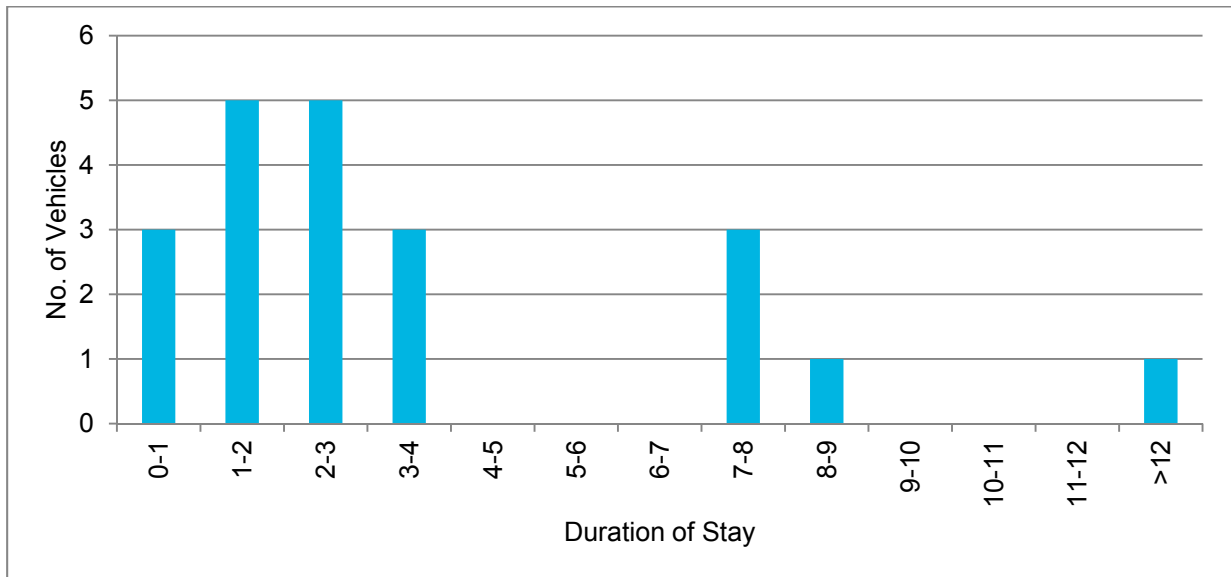


Figure 2.9.3: Location I Parking Duration

2.10 Location J: Parnell Square North

Beside the 10 spaces at Location I, there are 3 Mobility Impaired parking spaces outside the Dublin City Gallery, The Hugh Lane. Throughout the 12-hour period, there was 1 car parked at 09:00, and another car parked between 13:00 and 14:00 for between 1 and 2 hours, which can be seen in Figure 2.10.2 and Figure 2.10.3 below.



Figure 2.10.1: Location J on-street parking Parnell Square North

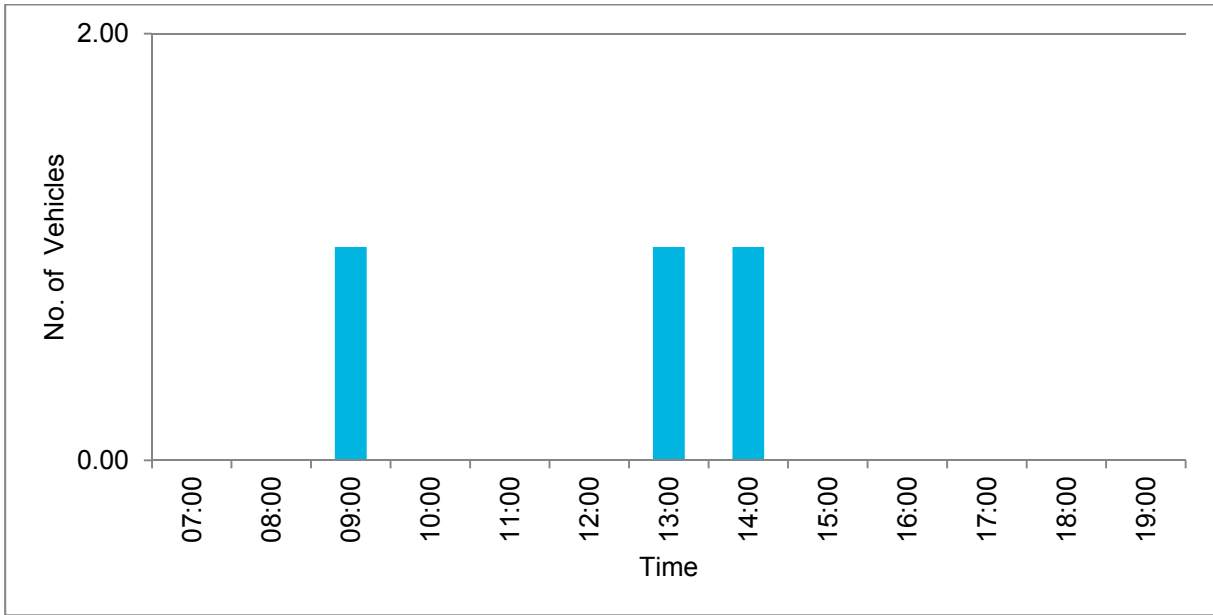


Figure 2.10.2: Location J, Occupancy

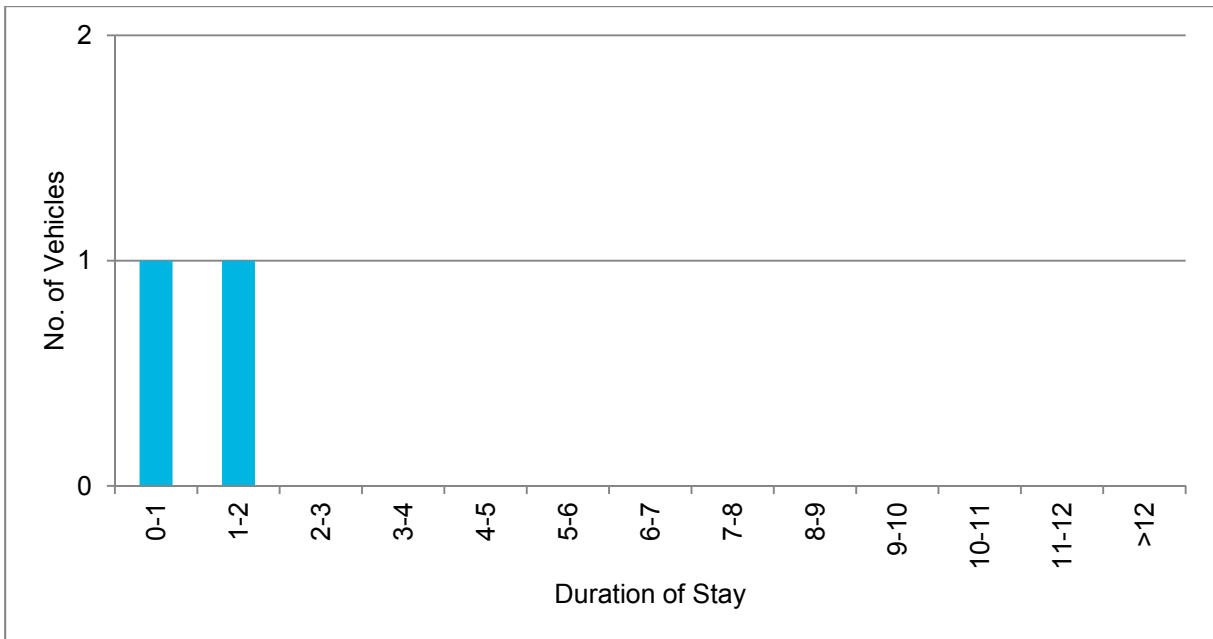


Figure 2.10.3: Location J, Parking Duration

2.11 Location K: Parnell Square North

Continuing along Parnell Square North, there are a further 6 regular car parking spaces located outside the Irish Writers’ Museum. Maximum Occupancy was reached at 11:00 and from 13:00–14:00. At 17:00 all 6 of the spaces were vacant. From Figure 2.11.3, it can be seen that 33.33% of cars stayed between 1 and 2 hours, while a further 28% were parked for less than 60 minutes.



Figure 2.11.1: Location K on-street parking Parnell Square North

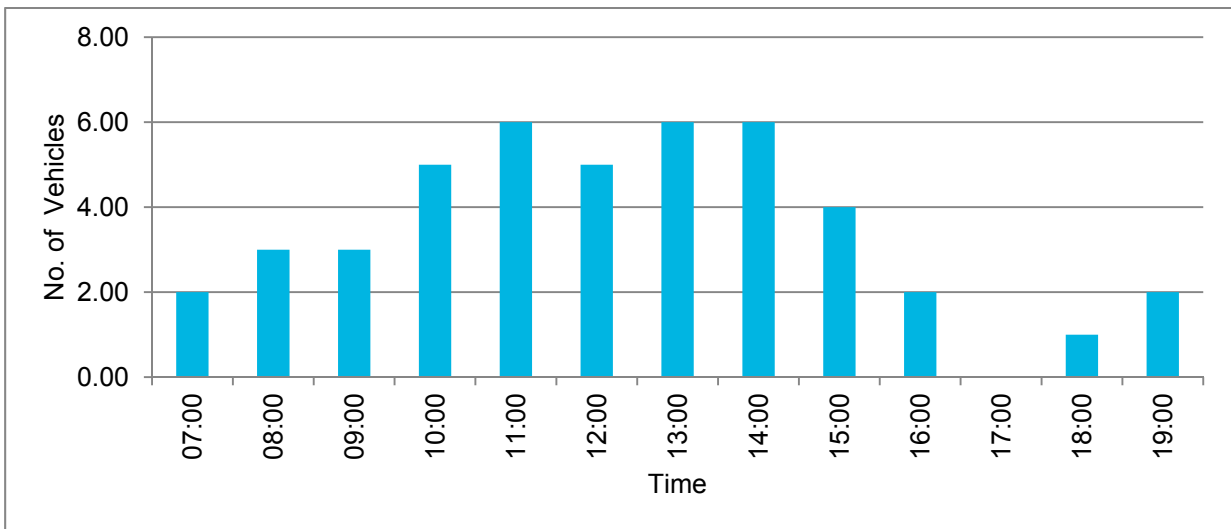


Figure 2.11.2: Location K Occupancy

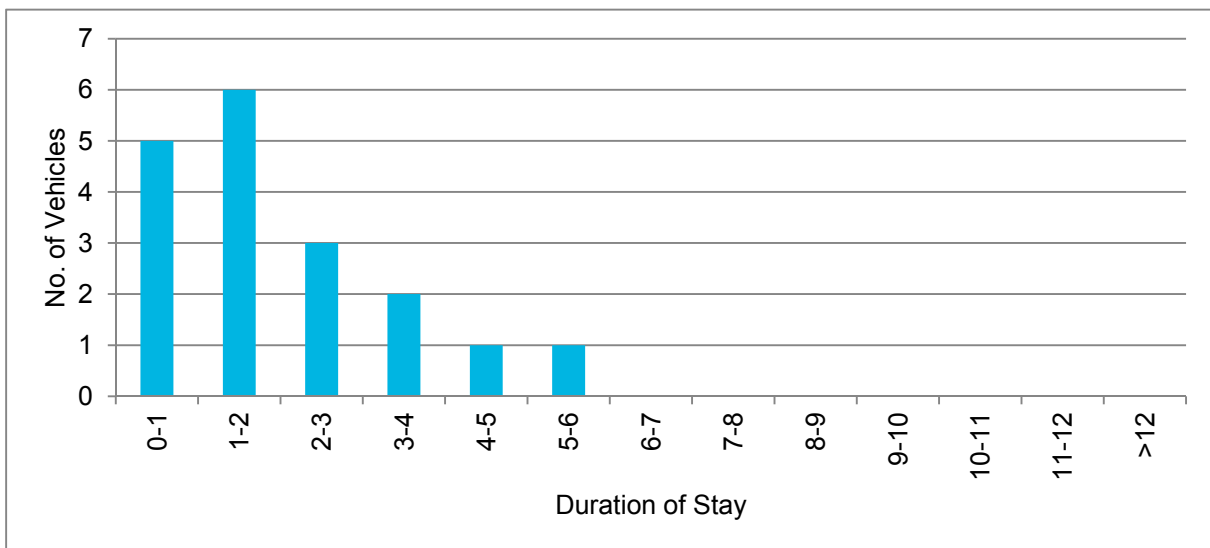


Figure 2.11.3: Location K Parking Duration

2.12 Location L: Parnell Square North

On the opposite side of the road, along the wall of the Garden of Remembrance, there are 8 regular car parking spaces, as seen in Figure 2.12.1. As seen in Figure 2.12.2 below, maximum occupancy was only reached once throughout the 12-hour survey period, at 11:00. At midday there was only 1 occupied space and 7 vacant parking spaces.



Figure 2.12.1: Location L, on-street parking Parnell Square North

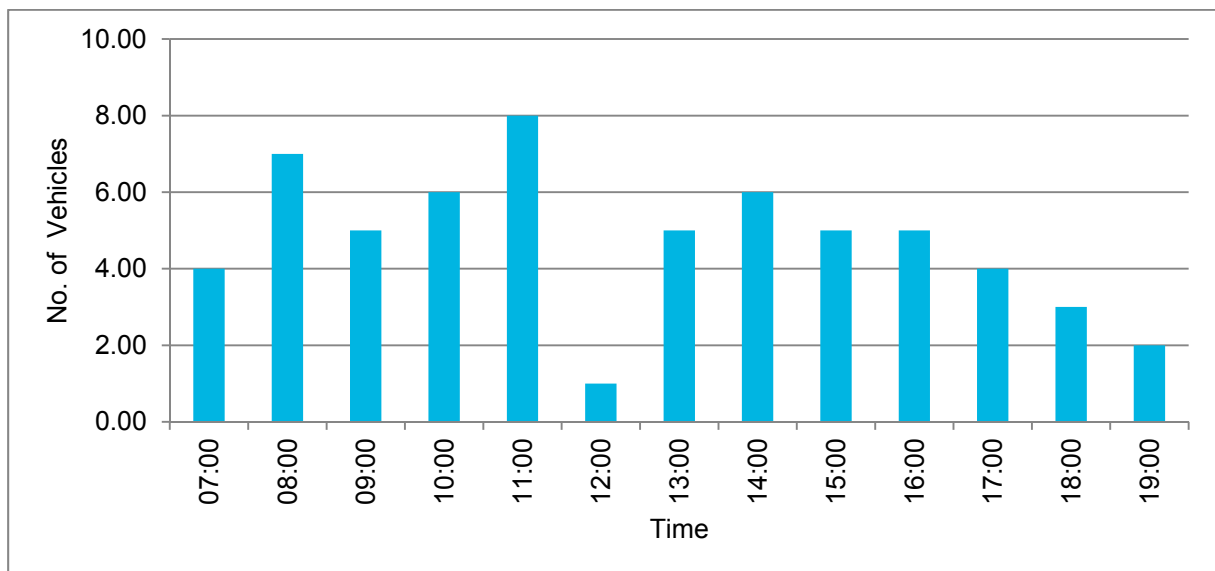


Figure 2.12.2: Location L, Occupancy

As seen in Figure 2.12.3, over the course of the survey a total of 26 cars parked in the 8 spaces. 35% of these were parked for less than an hour. 23% stayed between 1 and 2 hours, while a further 39% of the cars were parked for between 2 and 4 hours.

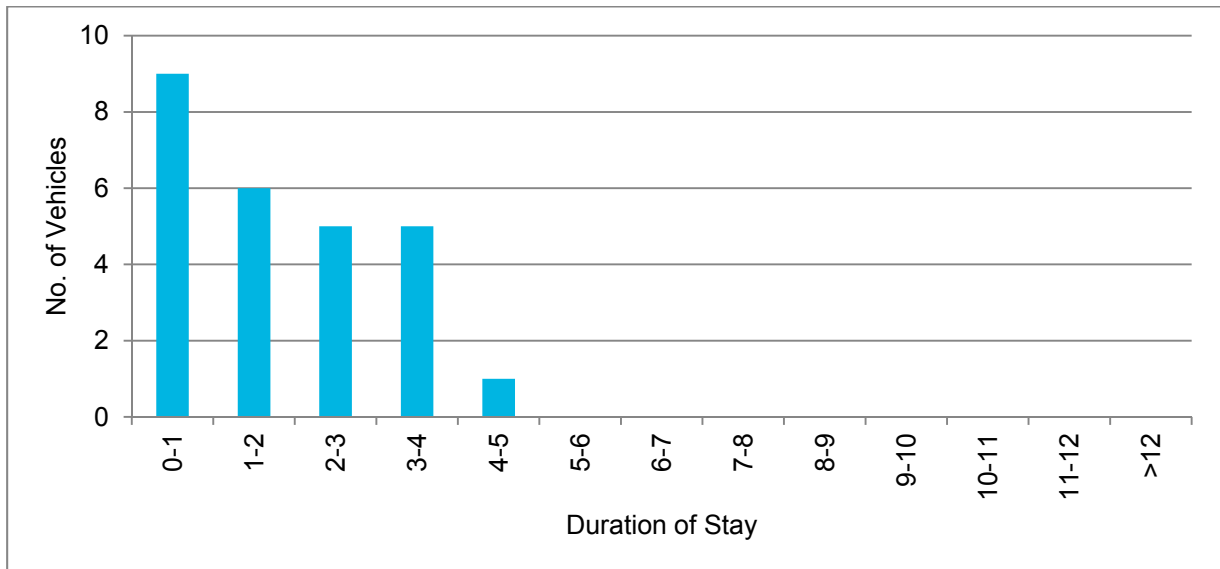


Figure 2.12.3: Location L, Parking Duration

2.13 Location M: Parnell Square East

Just after the corner from Parnell Square North to Parnell Square East, there are 13 regular car parking spaces at the far side of the Rotunda Hospital and close to The Gate Theatre and also The Ambassador Theatre. Maximum occupancy was reached from 11:00 to 13:00, there was only 1 vacant space at 14:00, and 2 vacant spaces at 09:00.

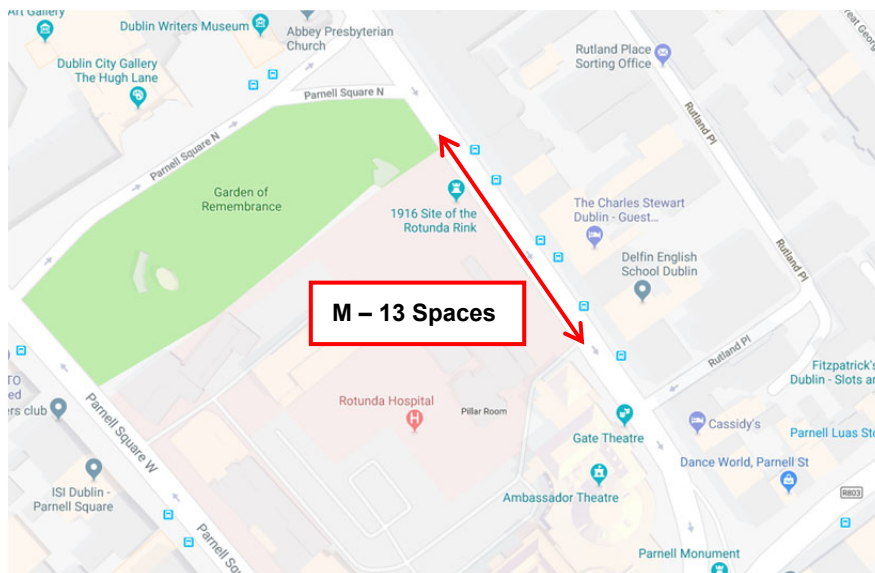


Figure 2.13.1: Location M, on-street parking Parnell Square East

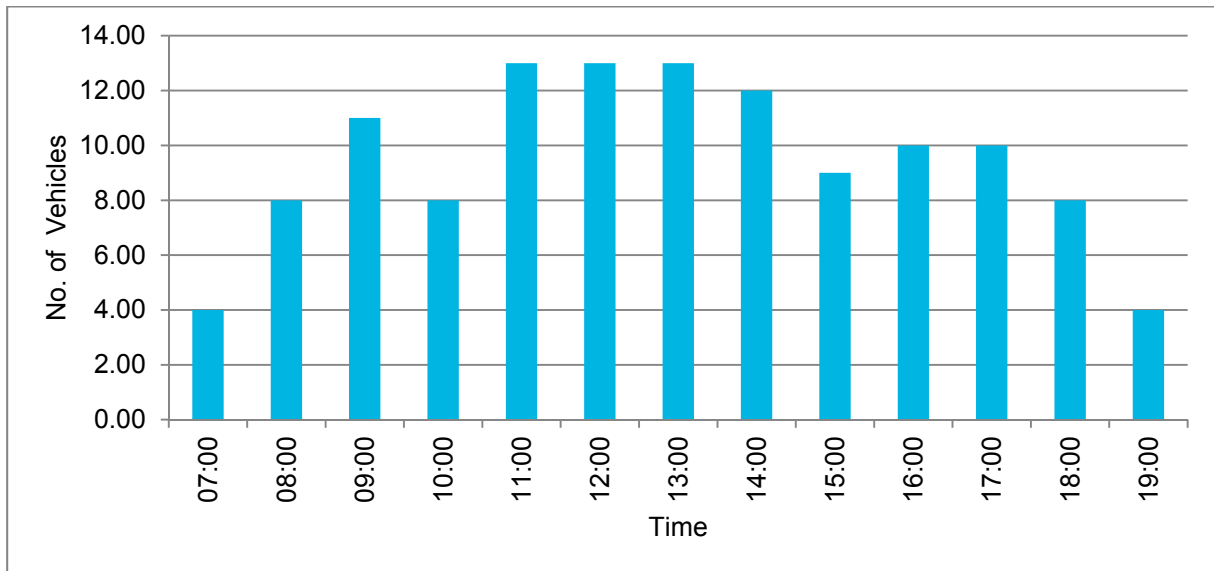


Figure 2.13.2: Location M, Occupancy

As seen in Figure 2.13.3 below, during the 12-hour survey period, 57 different cars parked within the 13 regular car spaces. 69% of those were parked for less than 2 hours. 21% were parked for between 2 and 3 hours.

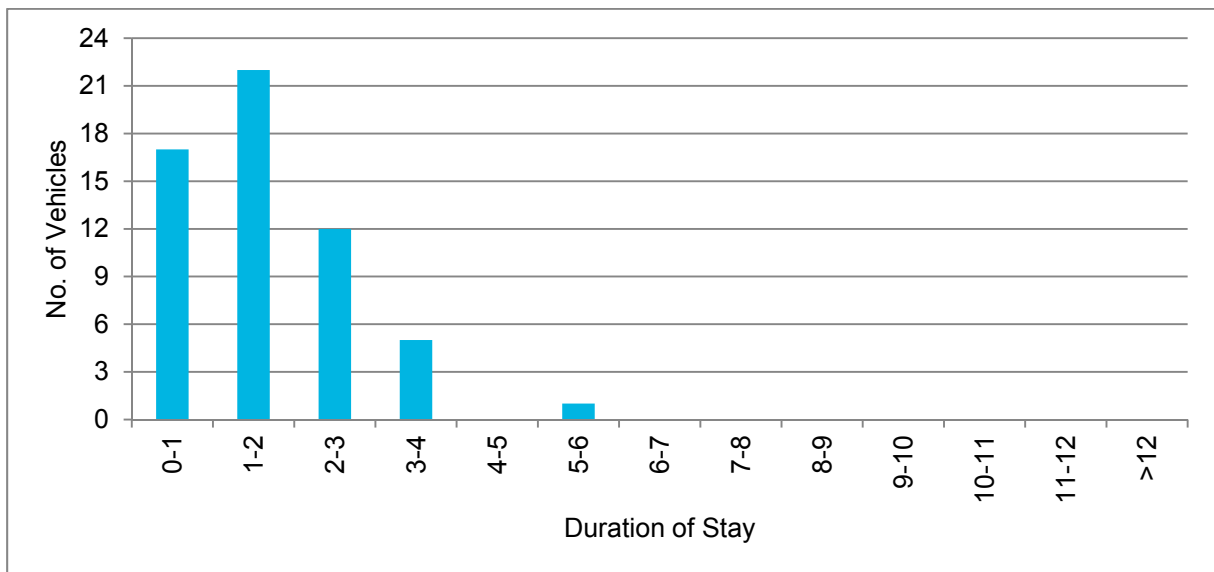


Figure 2.13.3: Location M Parking Duration

2.14 Location N: Parnell Square East

Following the 13 regular car spaces on Parnell Square East, there are 3 mobility impaired car parking spaces, located in close proximity to The Gate Theatre. Maximum occupancy was never reached during the 12-hour survey period. All 3 spaces were vacant at 12:00 and from 16:00 to 19:00.

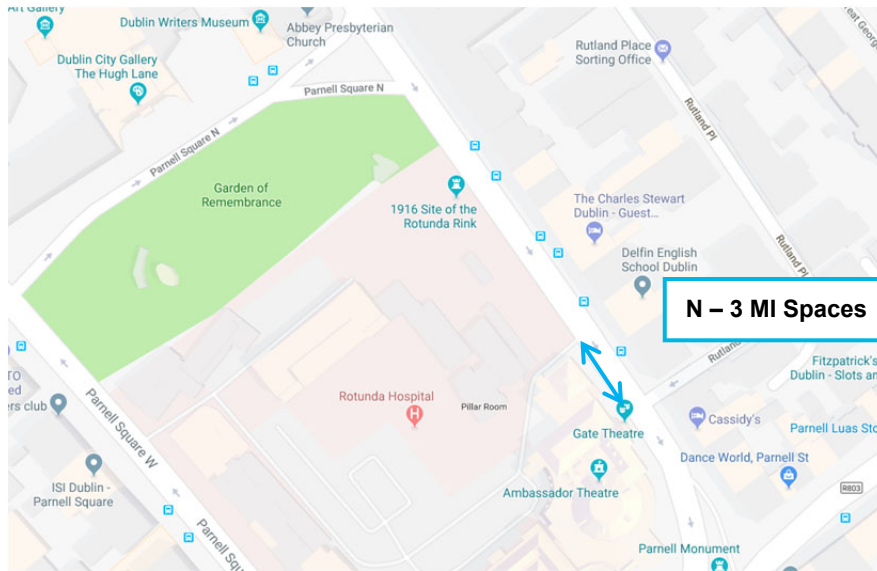


Figure 2.14.1: Location N on-street parking Parnell Square East

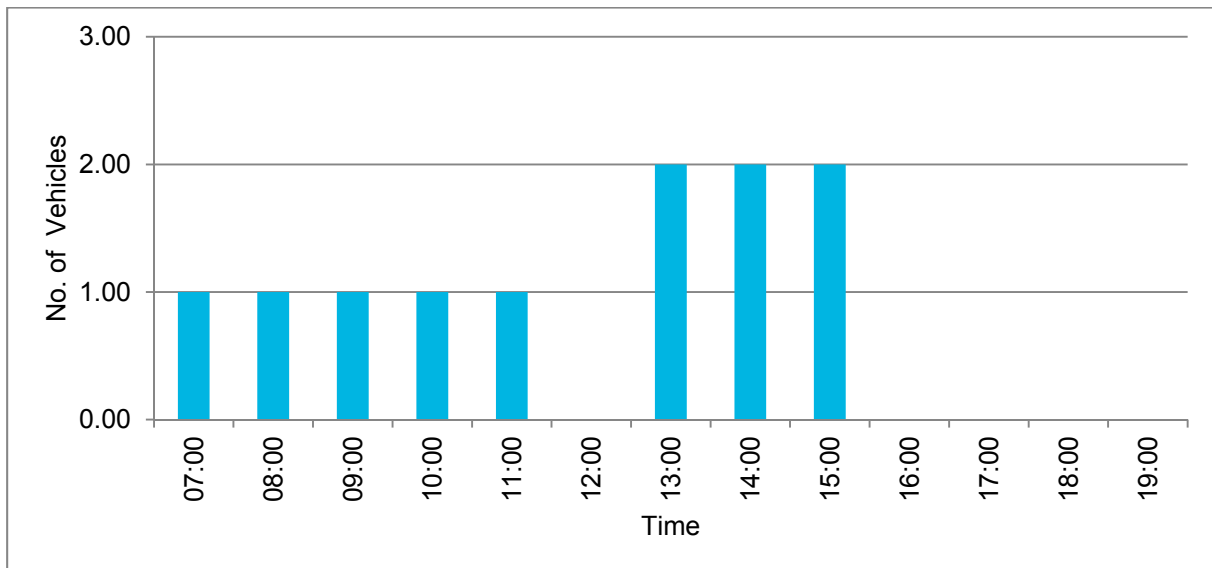


Figure 2.14.2: Location N Occupancy

As seen in Figure 2.14.3, 50% of the total 4 cars that parked stayed for 2 to 3 hours. 1 car stayed for less than 60 minutes, and another 1 car stayed for between 3 and 4 hours.

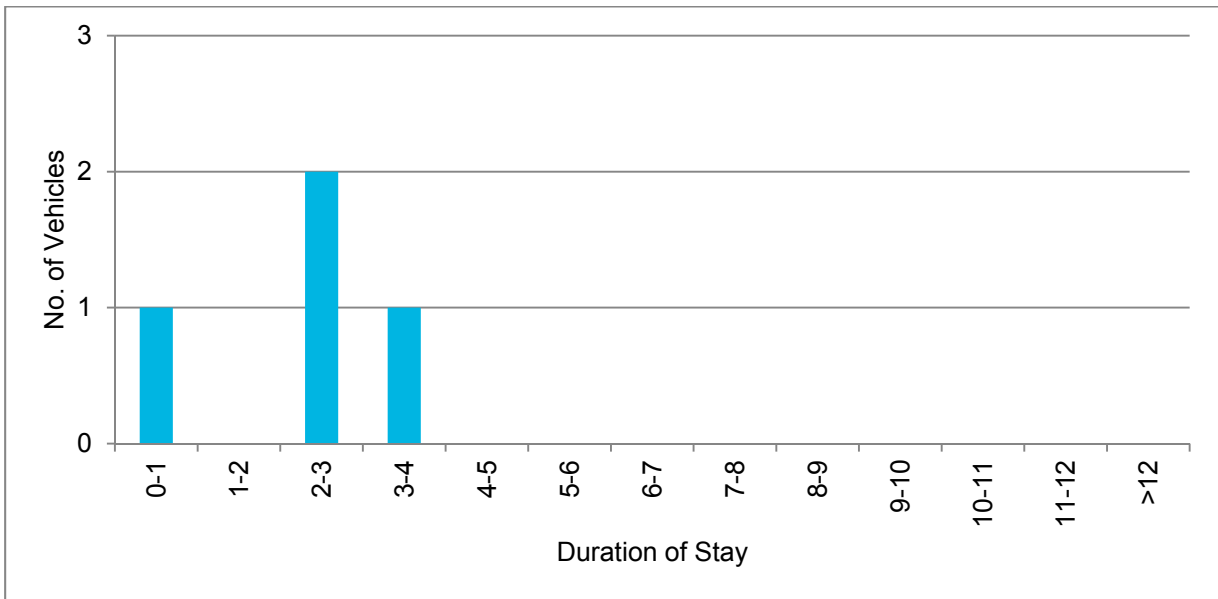


Figure 2.14.3: Location N Parking Duration

2.15 Location O: Fredrick Street North

Located outside The Abbey Presbyterian Church along Fredrick Street North, there are 6 regular car parking spaces. Maximum occupancy was never reached; however, there was only 1 vacant space, at 15:00. Occupancy was at 50% from 09:00 to 10:00, and also from 12:00 to 14:00, as seen in Figure 2.15.1.



Figure 2.15.1: Location O, on-street parking Fredrick Street North

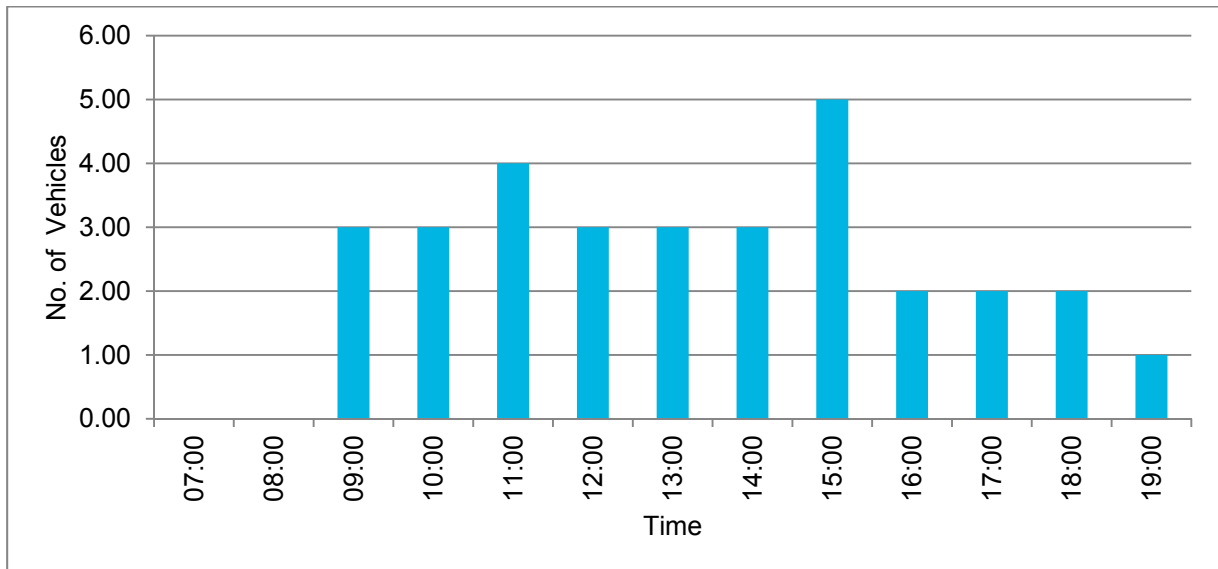


Figure 2.15.2: Location O, Occupancy

As seen below in Figure 2.15.3, there was a total of 15 cars during the 12-hour survey period, 53% of which were parked for less than 60 minutes. There was one car that stayed for up to 8 hours.

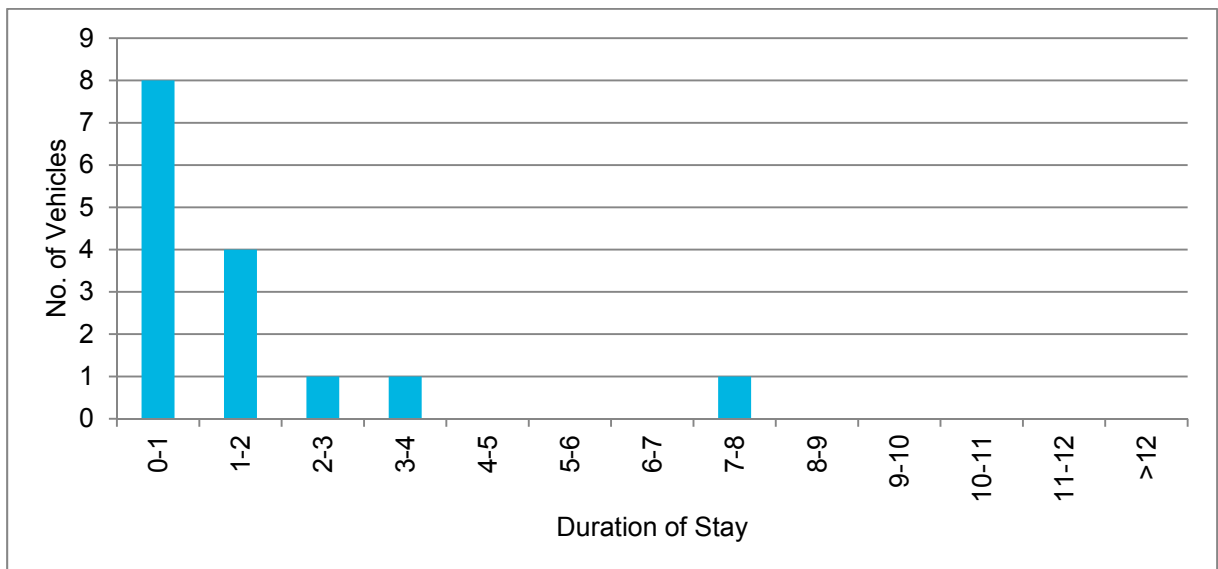


Figure 2.15.3: Location O, Parking Duration

2.16 Location P: Fredrick Street North

Further north on Fredrick Street North there are 17 regular car parking spaces, alongside residential and business buildings, shown in Figure 2.16.1. Maximum occupancy was never reached; the highest number of cars parked at one time was 14, which occurred at 12:00.



Figure 2.16.1: Location P, on-street parking Fredrick Street North

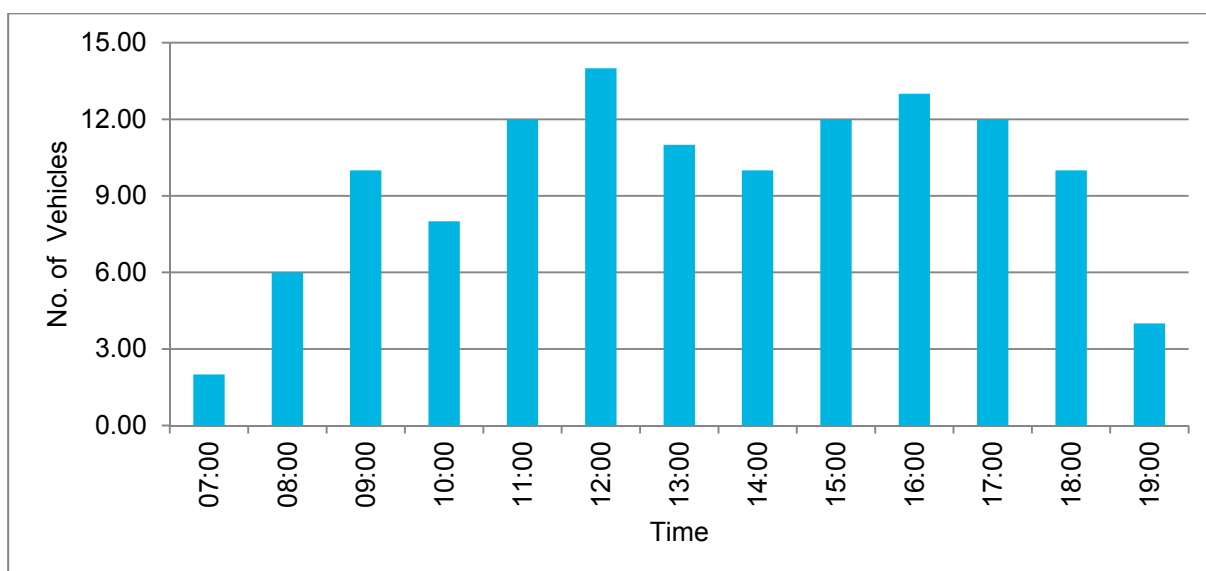


Figure 2.16.2: Location P, Occupancy

As seen below in Figure 2.16.3, there were 54 cars that parked in the 17 spaces during the 12-hour period. 48% of the 54 cars stayed for less than 60 minutes. A further 26% of the cars were parked for between 2 and 3 hours. There was one single vehicle that stayed for up to 12 hours.

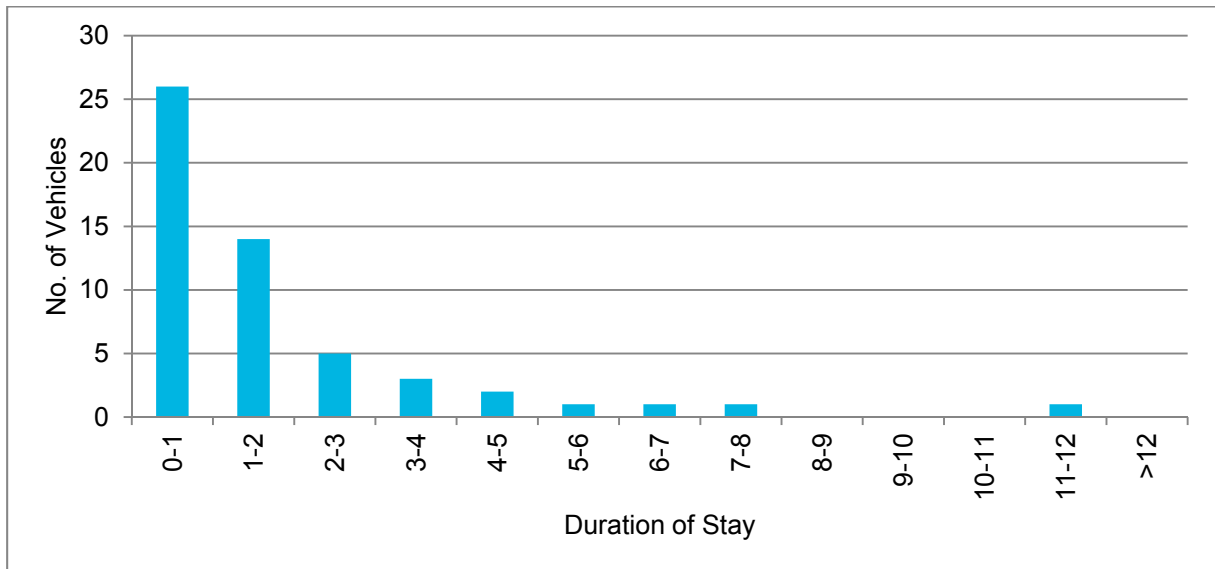


Figure 2.16.3: Location P, Parking Duration

2.17 Location Q: Gardiner Row

There are 7 regular parking spaces located on Gardiner Row alongside The National, Economic and Social Council, as shown in Figure 2.17.1 below. Maximum occupancy was reached only once at 11:00. There was 71% occupancy (5 cars) between 12:00 and 15:00.

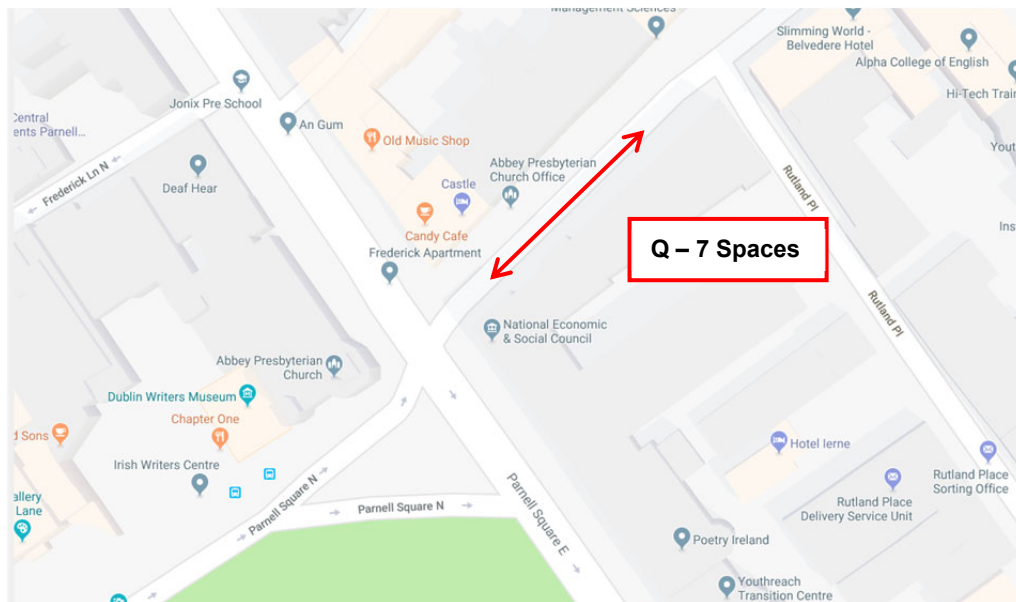


Figure 2.17.1: Location Q, on-street parking Gardiner Row

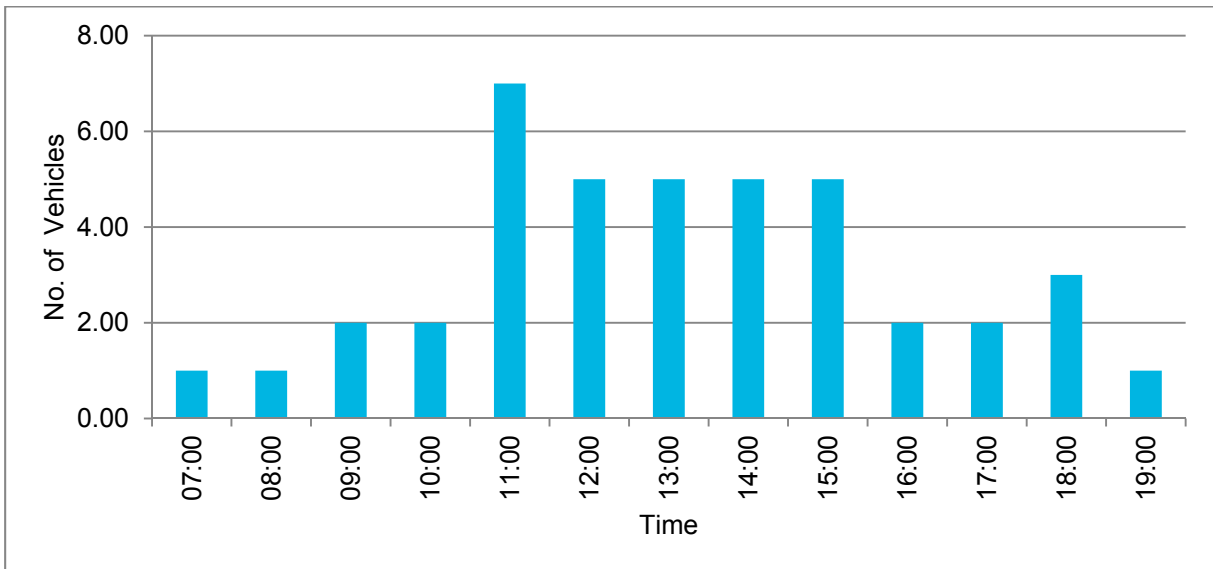


Figure 2.17.2: Location Q, Occupancy

As seen below in Figure 2.17.3, there was a total of 21 cars parked during the 12 hour survey period. 57% of which stayed for less than an hour. A further 33.33% of the 21 cars stayed between 1 and 3 hours.

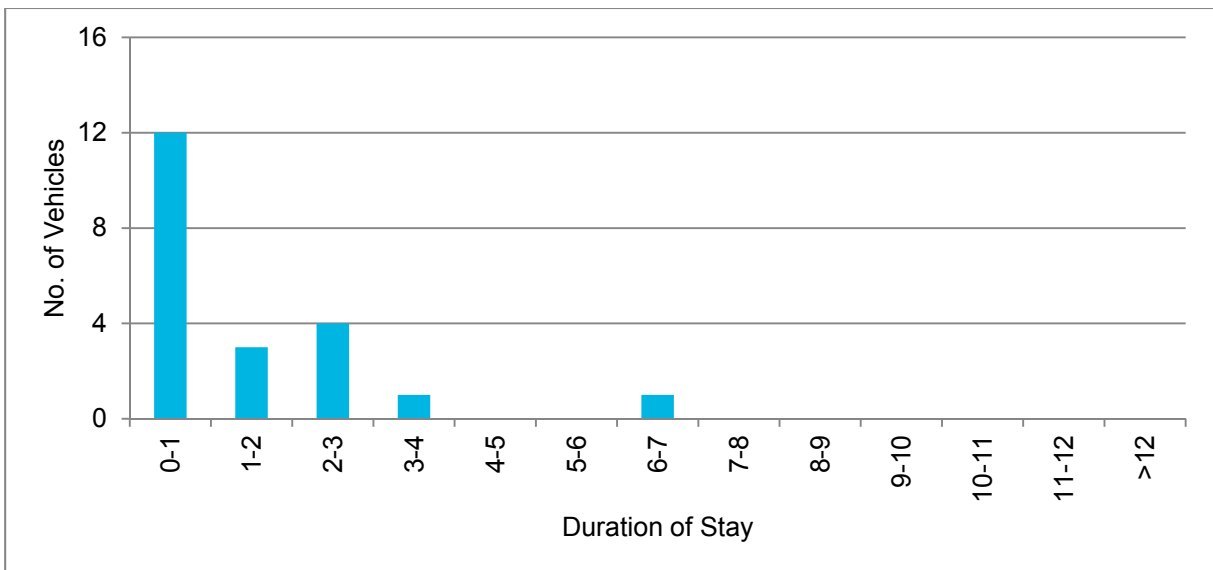


Figure 2.17.3: Location Q, Parking Duration

2.18 Location R: Gardiner Row

On the opposite side of the road to Location Q, there are 10 regular car parking spaces. These spaces are alongside businesses such as The Castle Hotel, Barry's Hotel and also The Grafton College of Management Sciences. Maximum occupancy was reached at 12:00 only. There was 90% occupancy at 13:00 and 70% occupancy at 11:00 and again at 14:00.

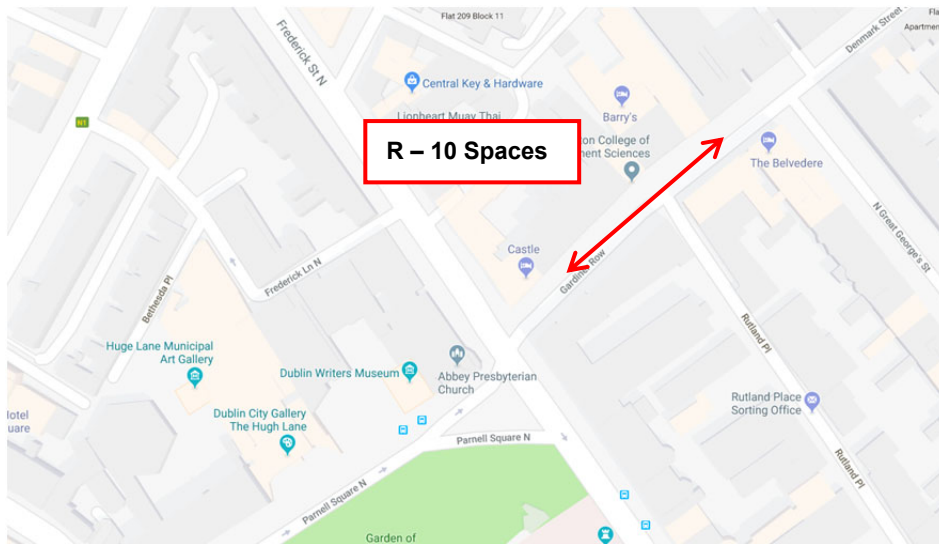


Figure 2.18.1: Location R, on-street parking Gardiner Row

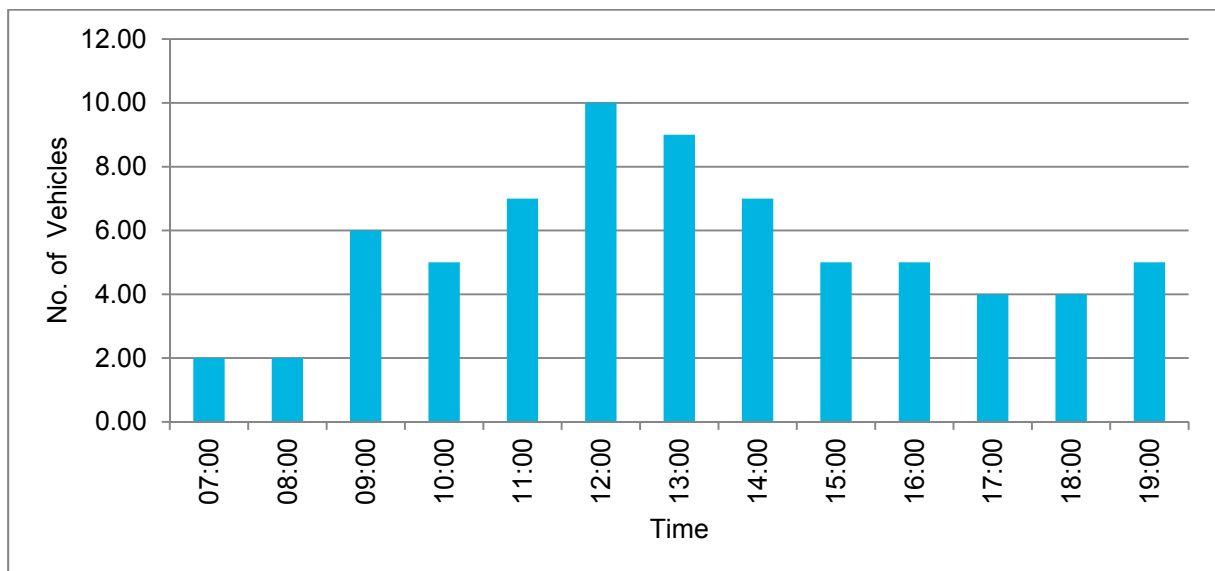


Figure 2.18.2: Location R, Occupancy

As seen below in Figure 2.18.3, a total of 27 cars parked during the duration of the survey. 37% of these were only parked for less than an hour. A further 26% stayed between 1 and 2 hours and another 19% were parked between 2 and 3 hours.

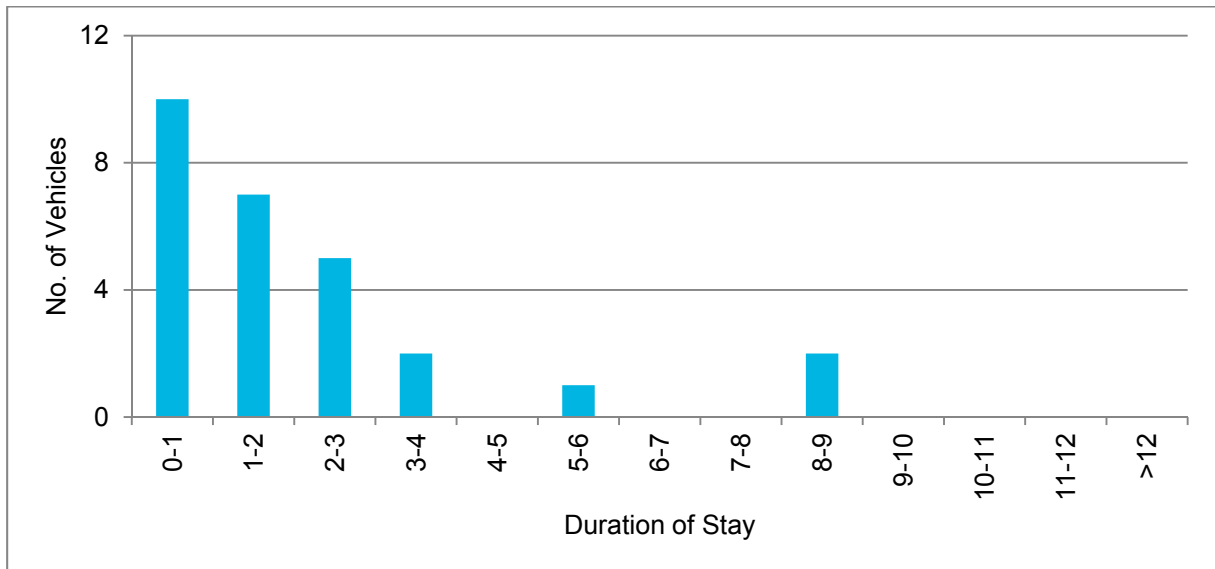


Figure 2.18.3: Location R, Parking Duration

2.19 Location S: Denmark Street Great

On Denmark Street Great there are 5 regular car parking spaces located outside Belvedere College, which can be seen below in Figure 2.19.1. Maximum occupancy of 5 was reached at 11:00 and at 15:00. All 5 spaces were vacant from 07:00 to 09:00 and also at 19:00. As shown in Figure 2.19.3 there was a total of 15 cars parked in the 5 spaces during the 12-hour survey period. 73% of these were parked for less than 60 minutes. None of the spaces were occupied for more than 4 hours.

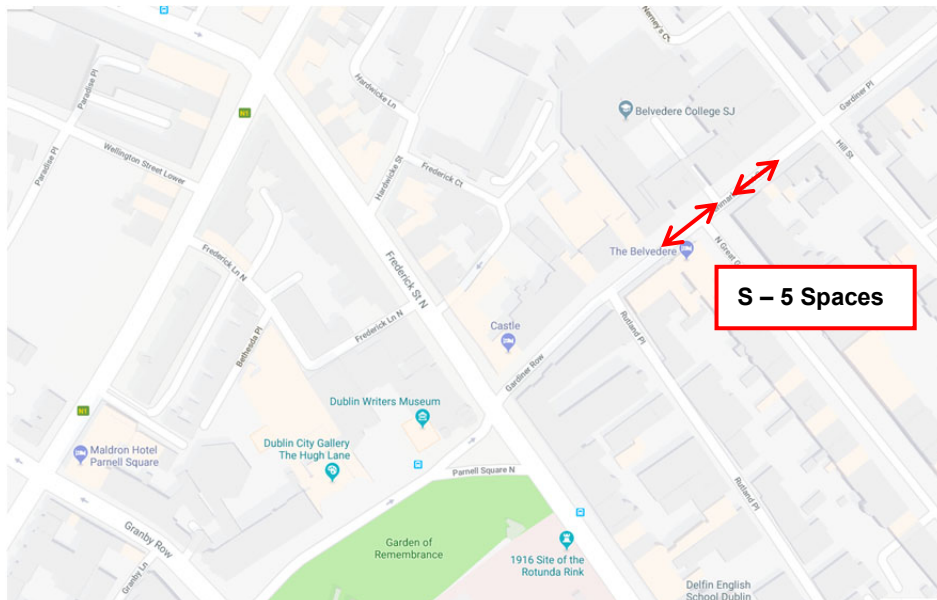


Figure 2.19.1: Location S, on-street parking Denmark Street Great

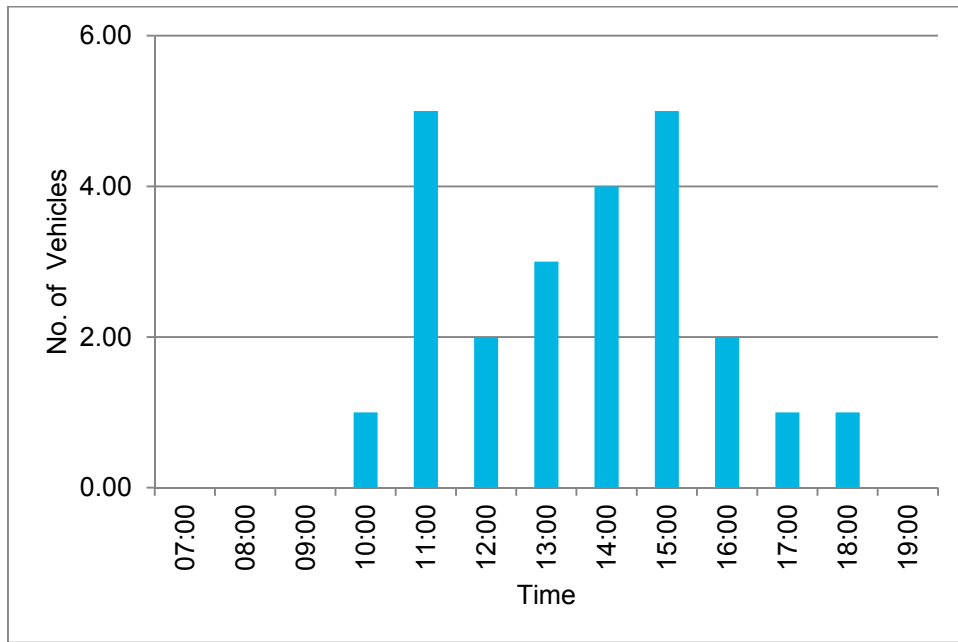


Figure 2.19.2: Location S, Occupancy

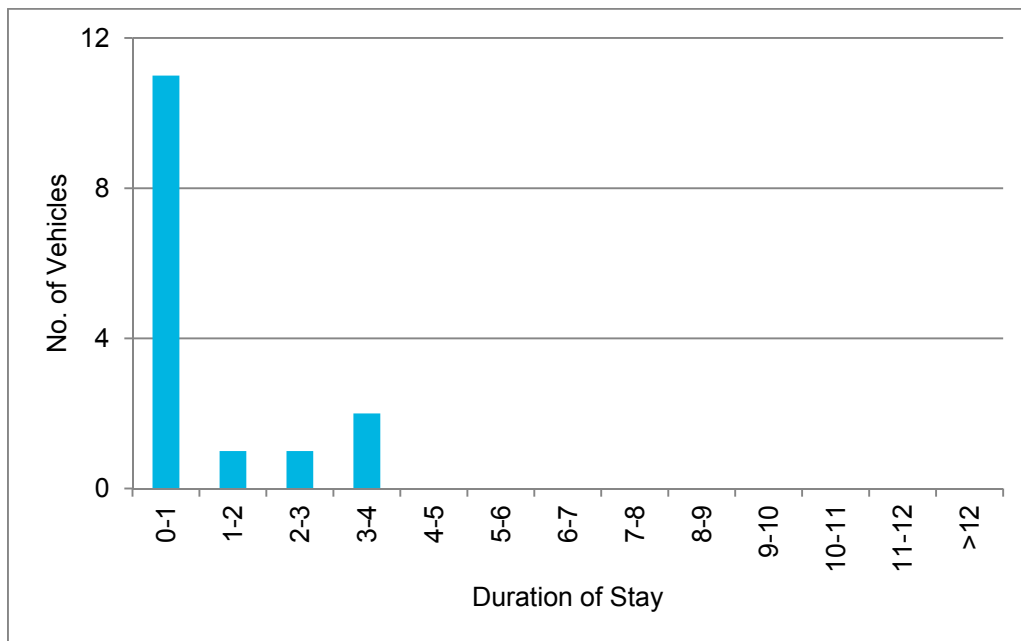


Figure 2.19.3: Location S, Parking Duration

2.20 Location T: North Great George's Street

There are 12 regular car parking spaces alongside the HSE North Great George's Street Medical Centre, which are shown in Figure 2.20.1 below. Maximum occupancy of 12 was never reached during the survey; however, 83.33% of the spaces were occupied from 11:00 to 15:00. 75% occupancy occurred from 09:00 to 10:00.



Figure 2.20.1: Location T, on-street parking North Great George's Street

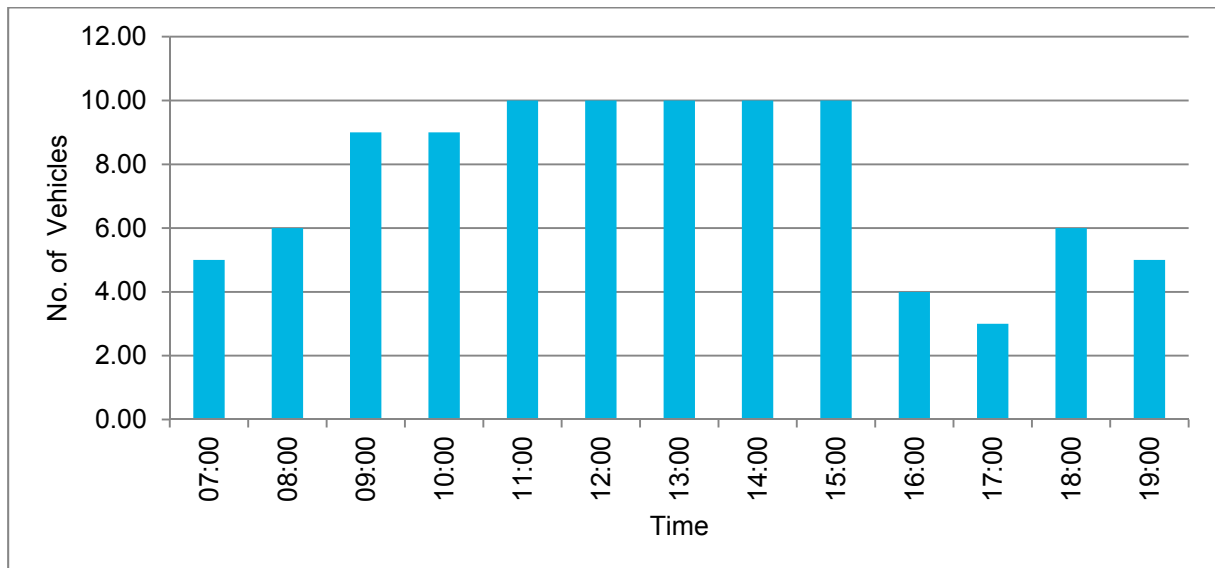


Figure 2.20.2: Location T, Occupancy

Figure 2.20.3 shows that there were 27 cars overall throughout the survey, with 37% staying less than an hour. There were significantly more cars staying longer durations than other locations, with 22% staying for 7 hours or more.

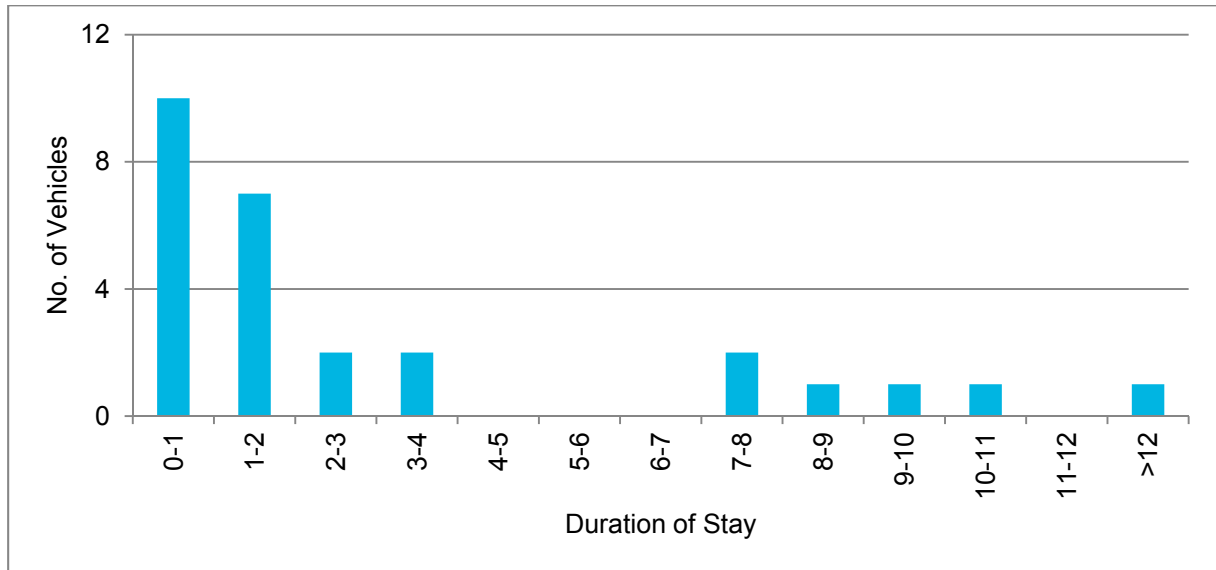


Figure 2.20.3: Location T, Parking Duration

2.21 Location U: North Great George’s Street

Close to the entrance of the HSE North Great George’s Street Medical Centre there are two mobility impaired spaces, as seen in Figure 2.21.1 below. During the whole 12 hour period, there was only 1 car occupying either of the spaces. It was parked for 6 to 7 hours between 12:00 and 19:00.

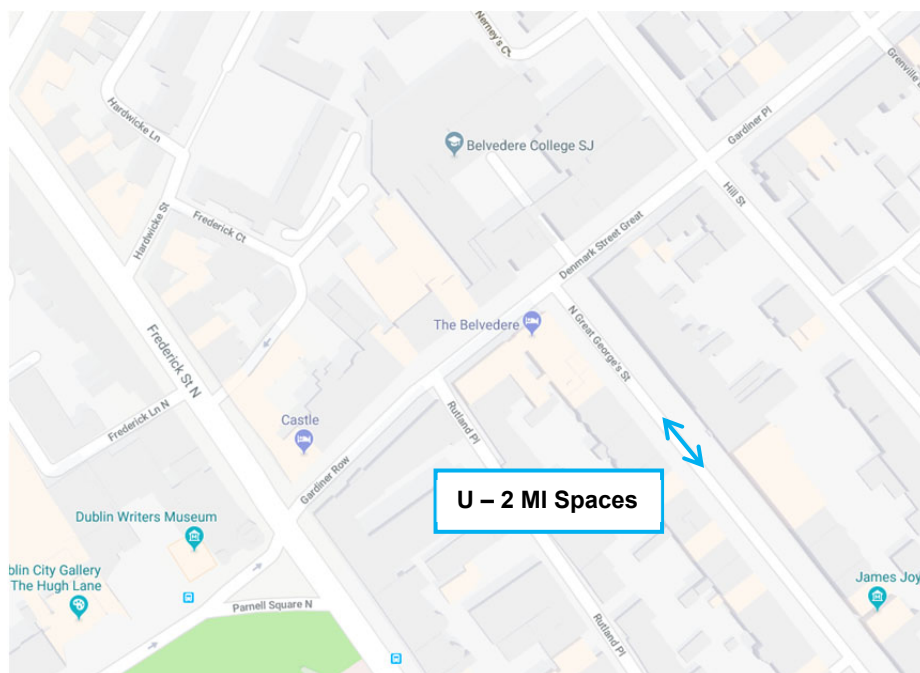


Figure 2.21.1: Location U, on-street parking North Great George’s Street

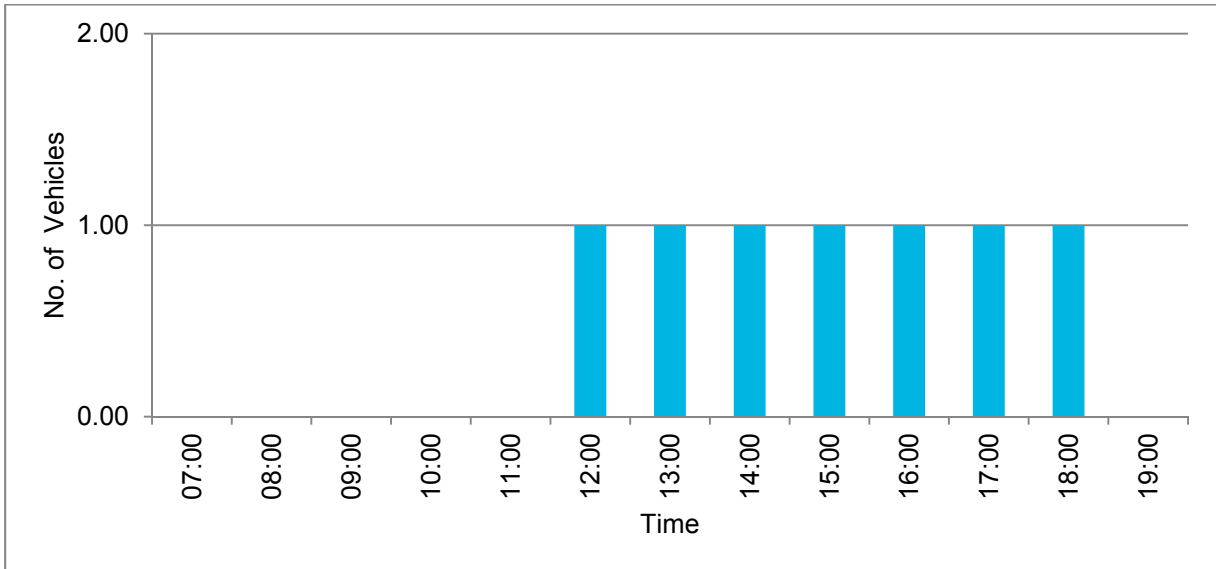


Figure 2.21.2: Location U, Occupancy

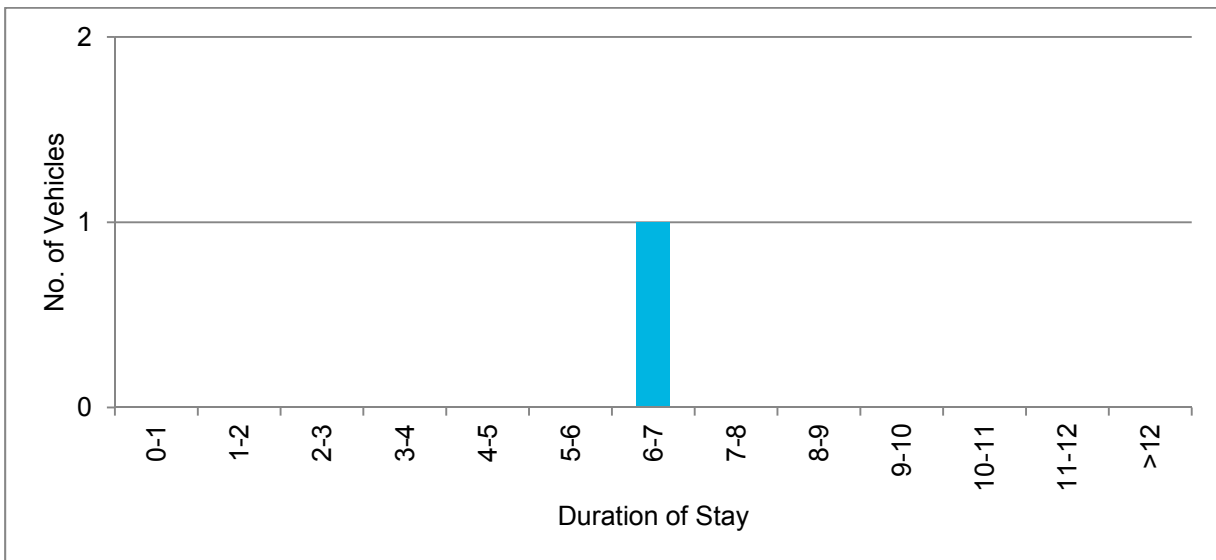


Figure 2.21.3: Location U, Parking Duration

2.22 Location V: North Great George’s Street

There are 14 regular car parking spaces located also North Great George’s Street near the James Joyce Centre, which can be seen in Figure 2.22.1. Maximum occupancy of 14 was not reached during the 12-hour survey period. From 13:00 to 14:00, occupancy reached its highest of 86%, when 12 spaces were taken. The minimum occupancy was 43%, which occurred at 16:00 and 17:00, as seen in Figure 2.22.3.

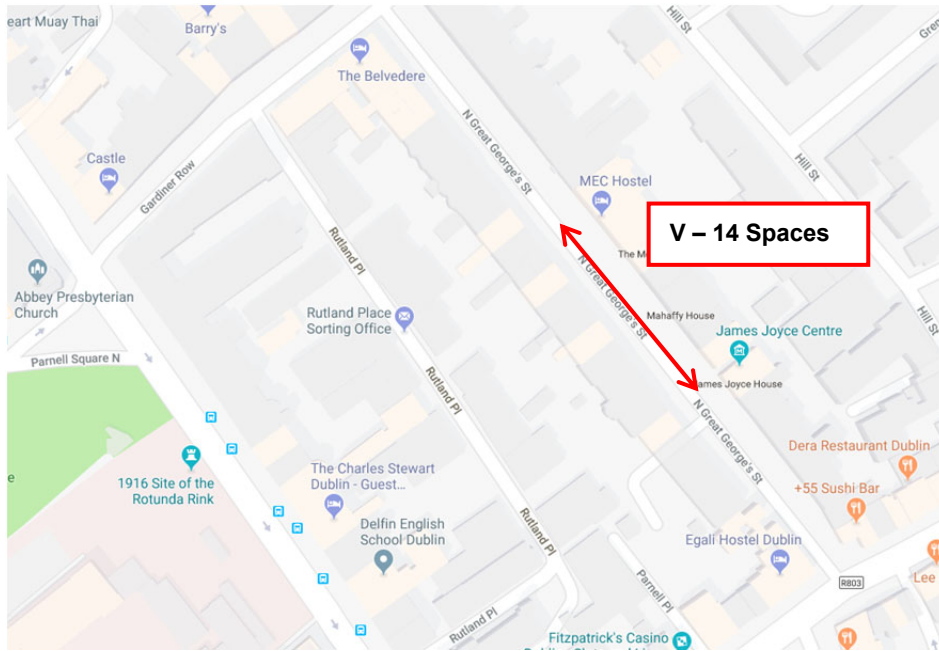


Figure 2.22.1: Location V, on-street parking North Great George’s Street

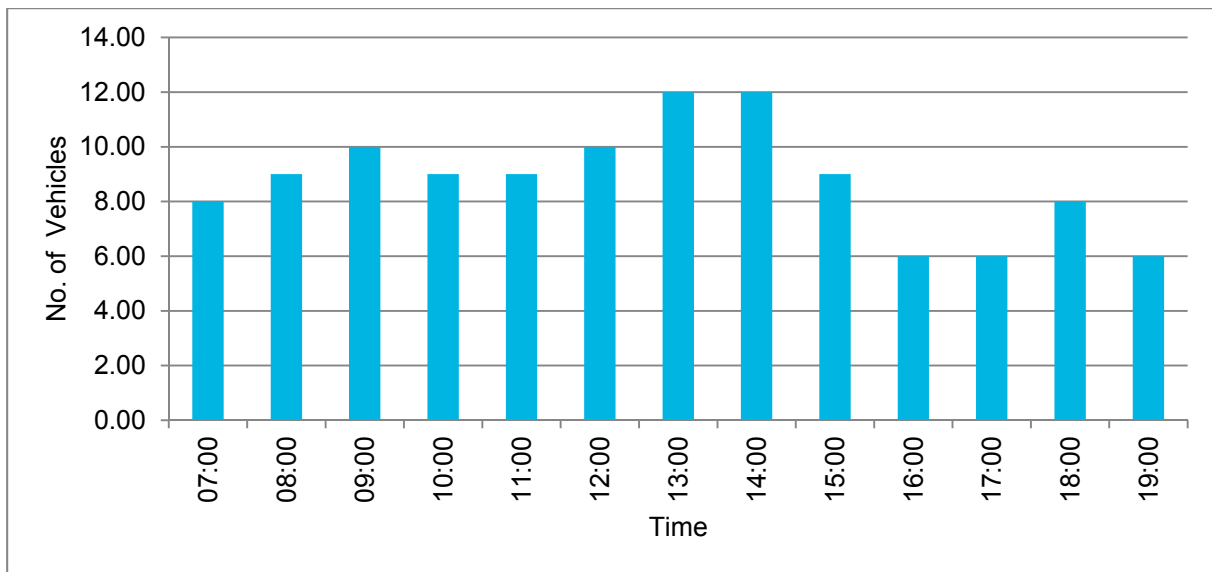


Figure 2.22.2: Location V, Occupancy

From Figure 2.22.3 below, it can be seen that there was a total of 34 cars over the survey period, 35% of which stayed for less than 60 minutes. A further 41% stayed for 1 to 3 hours. 8.8% of the 34 cars stayed parked for over 11 hours.

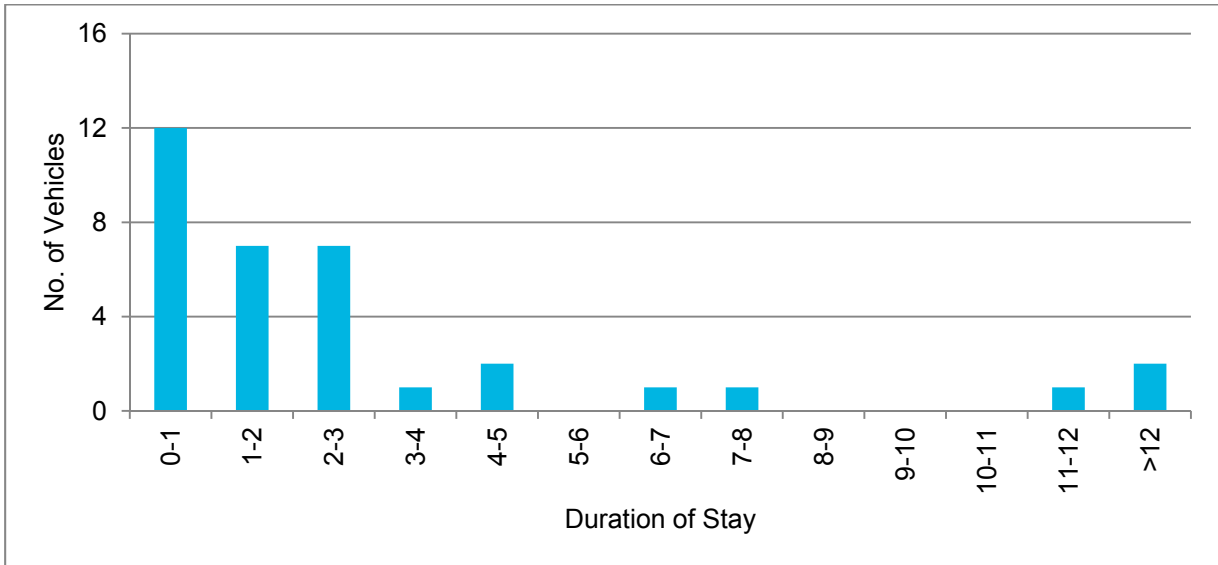


Figure 2.22.3: Location V, Parking Duration

2.23 Location W: North Great George’s Street

There are 7 additional regular car parking spaces on North Great George’s Street on the other side of the James Joyce Centre, as shown in Figure 2.23.1. Maximum occupancy was reached when all 7 spaces were occupied, which occurred at 13:00 and at 14:00. The minimum occupancy was 1 car, which occurred at 07:00 and 08:00.

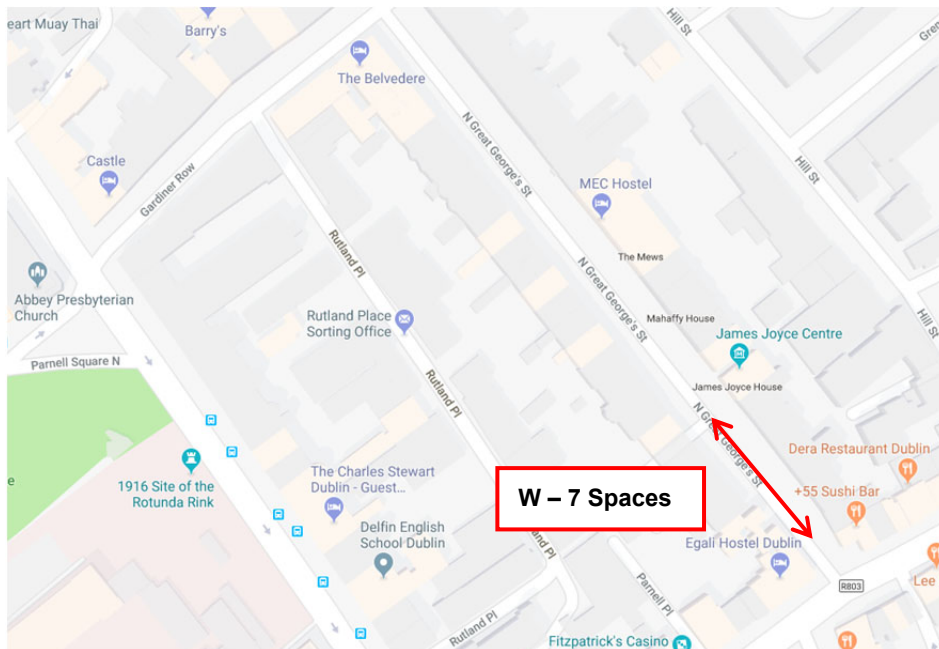


Figure 2.23.1: Location W, on-street parking North Great George’s Street

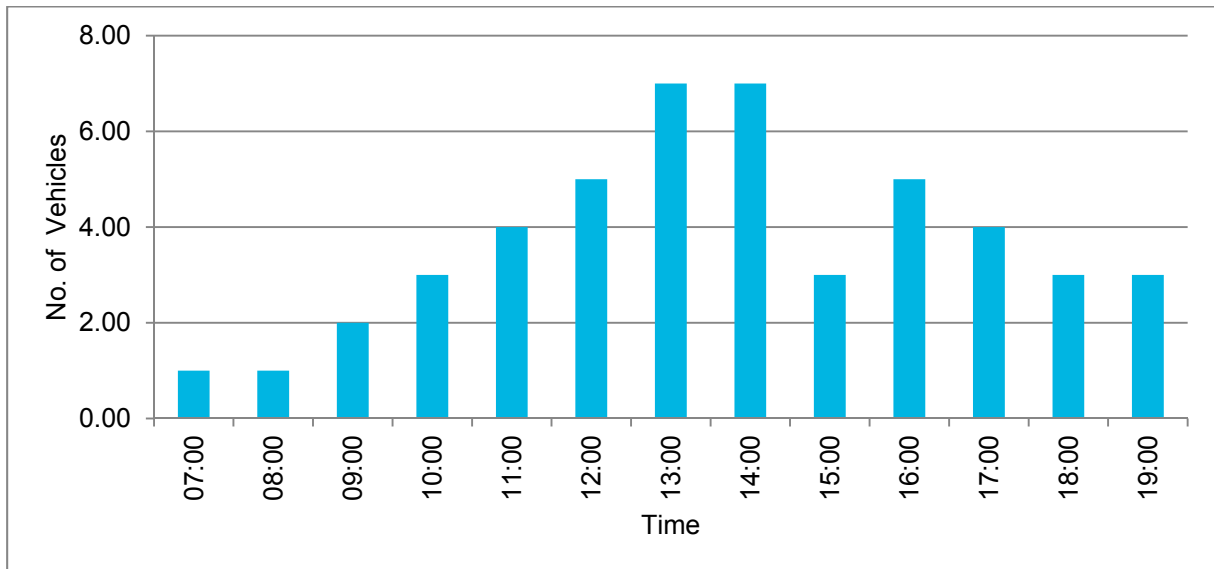


Figure 2.23.2: Location W, Occupancy

Figure 2.23.3 shows that there was a total of 20 cars parked throughout the survey period, with 50% staying less than an hour. A further 30% stayed between 1 and 2 hours, while 1 car remained parked for the duration of the survey.

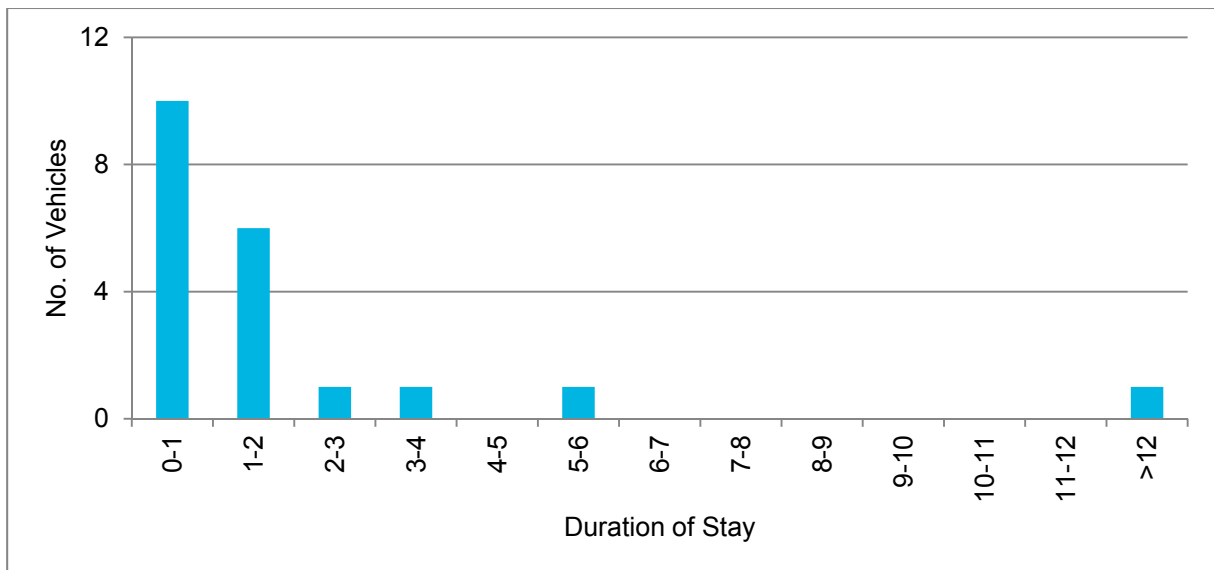


Figure 2.23.3: Location W, Parking Duration

2.24 Location X: North Great George’s Street

On the opposite side of the road from the James Joyce Centre, there are two Mobility Impaired Spaces on North Great George’s Street. Maximum occupancy of 2 cars was never reached. Both spaces were vacant from 07:00 to 12:00, at 15:00 and also at 19:00. There was one car that stayed 1 to 2 hours between 13:00 and 14:00, and another car that stayed 2 to 3 hours between 16:00 and 18:00, as seen in Figure 2.24.2 and Figure 2.24.3.

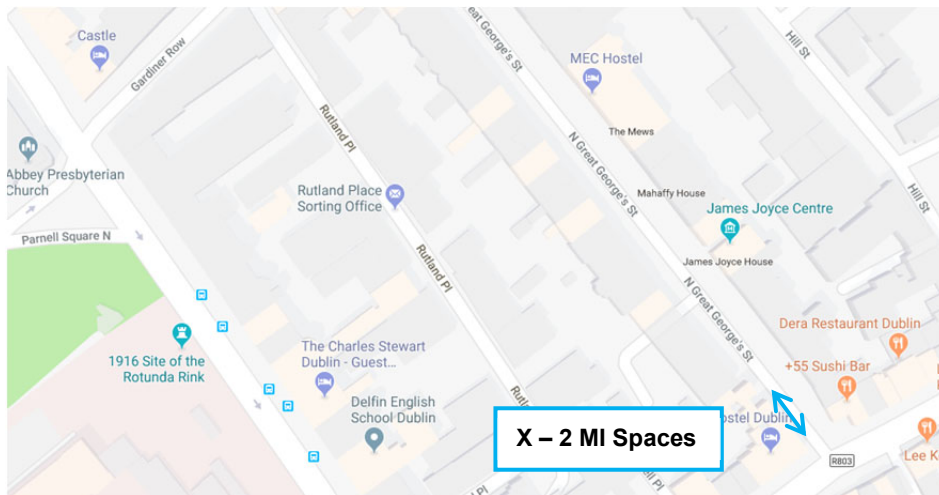


Figure 2.41.1: Location X, on-street parking North Great George's Street

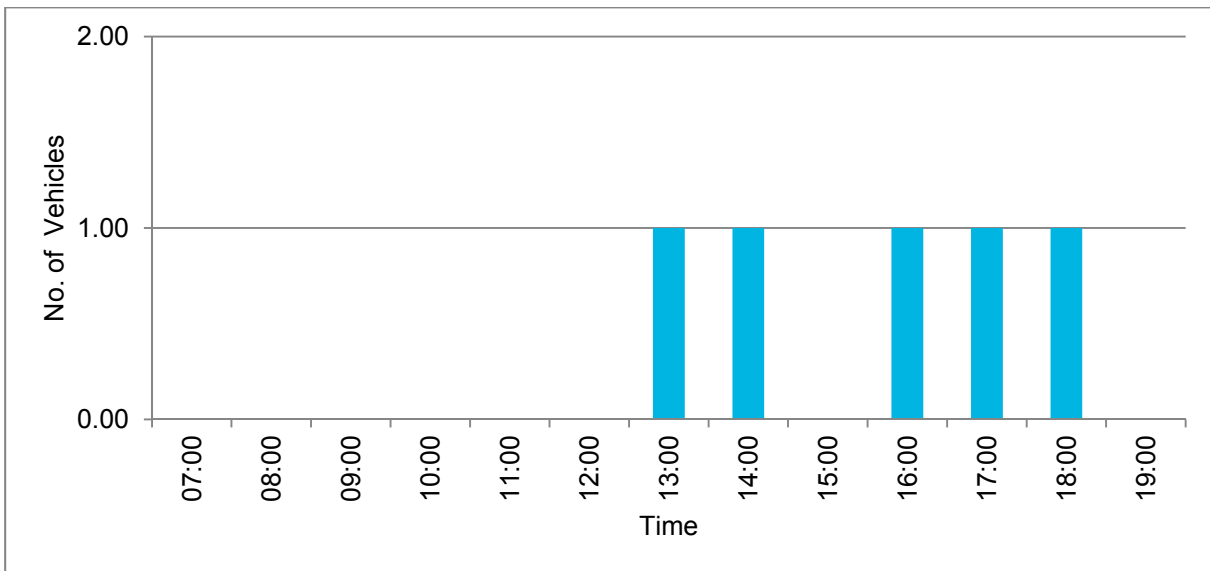


Figure 2.24.2: Location X, Occupancy

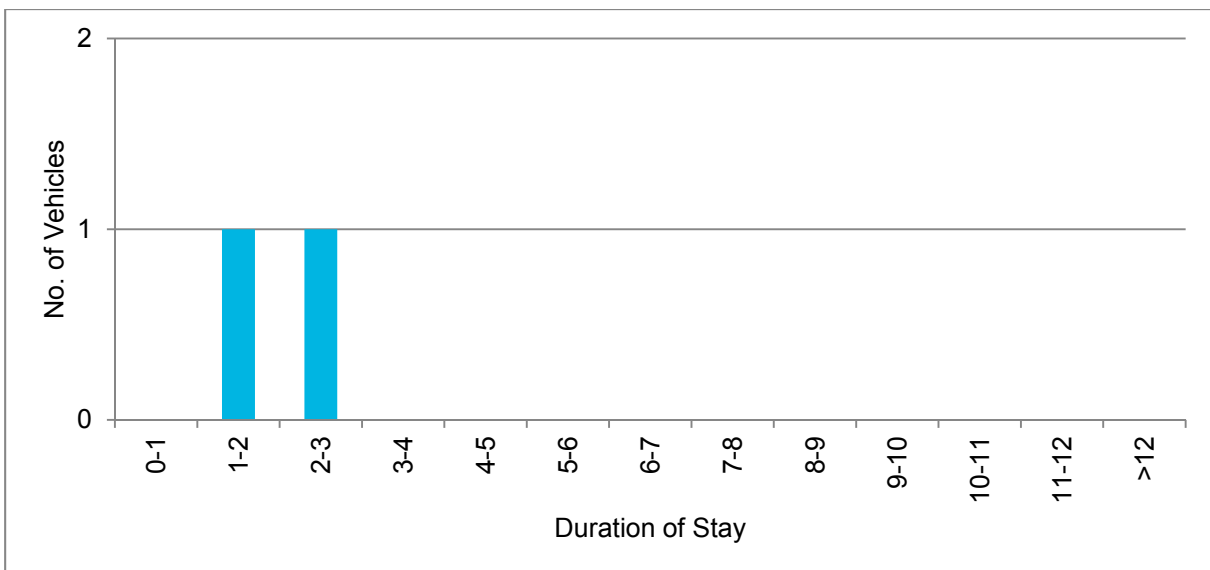


Figure 2.24.3: Location X, Parking Duration

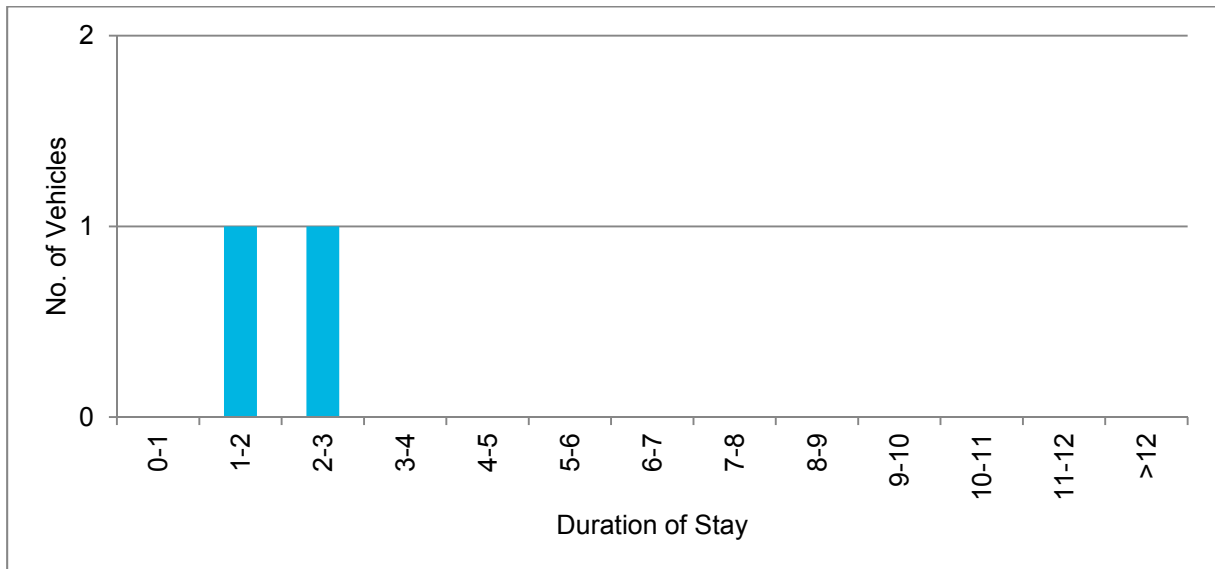


Figure 2.24.3: Location X, Parking Duration

2.25 Location Y: North Great George’s Street

Beside the 2 mobility impaired spaces are 5 regular car parking spaces. Maximum occupancy was not reached during the survey time; however, there was 80% occupancy from 12:00 – 14:00 and from 18:00 – 19:00. The minimum occupancy was 40%, which occurred only at 07:00, seen in Figure 2.25.3.

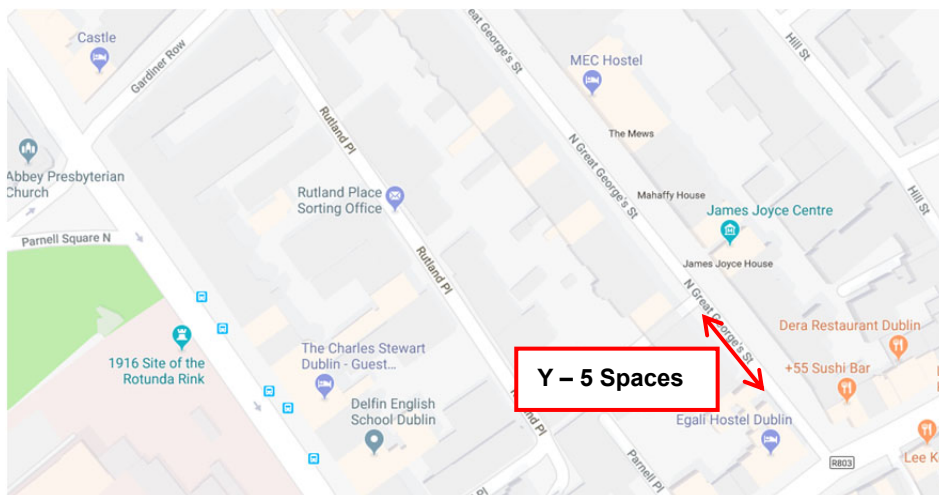


Figure 2.25.1: Location Y, on-street parking North Great George’s Street

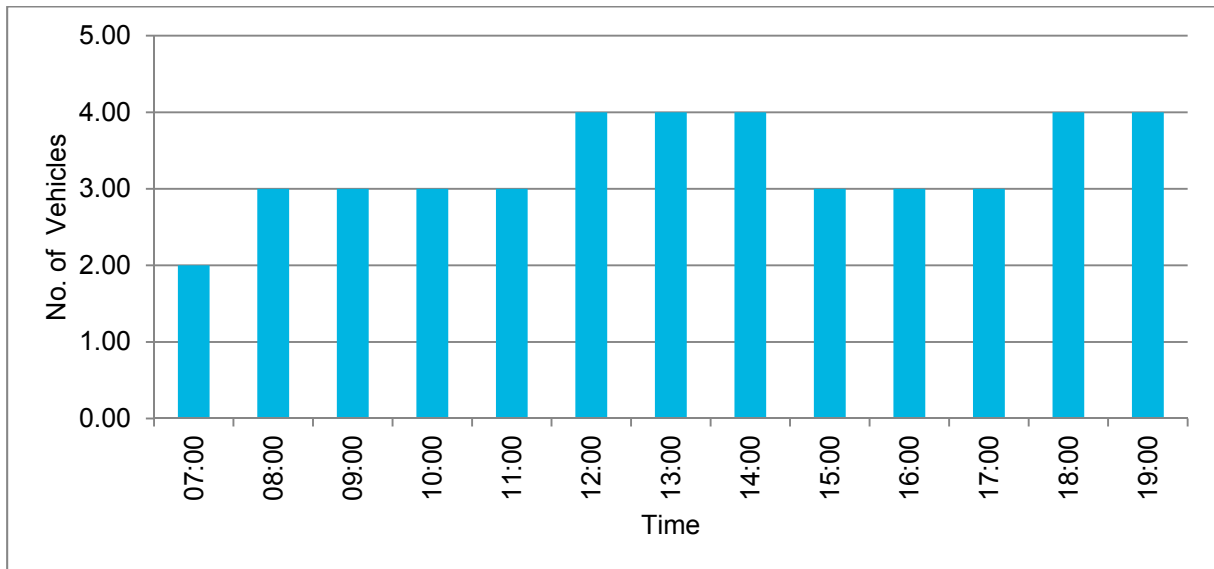


Figure 2.25.2: Location Y, Occupancy

From Figure 2.25.3, it can be seen that there were 10 cars in total for the duration of the survey, 50% were parked for less than 2 hours and 1 car was parked for the full survey duration, over 12 hours.

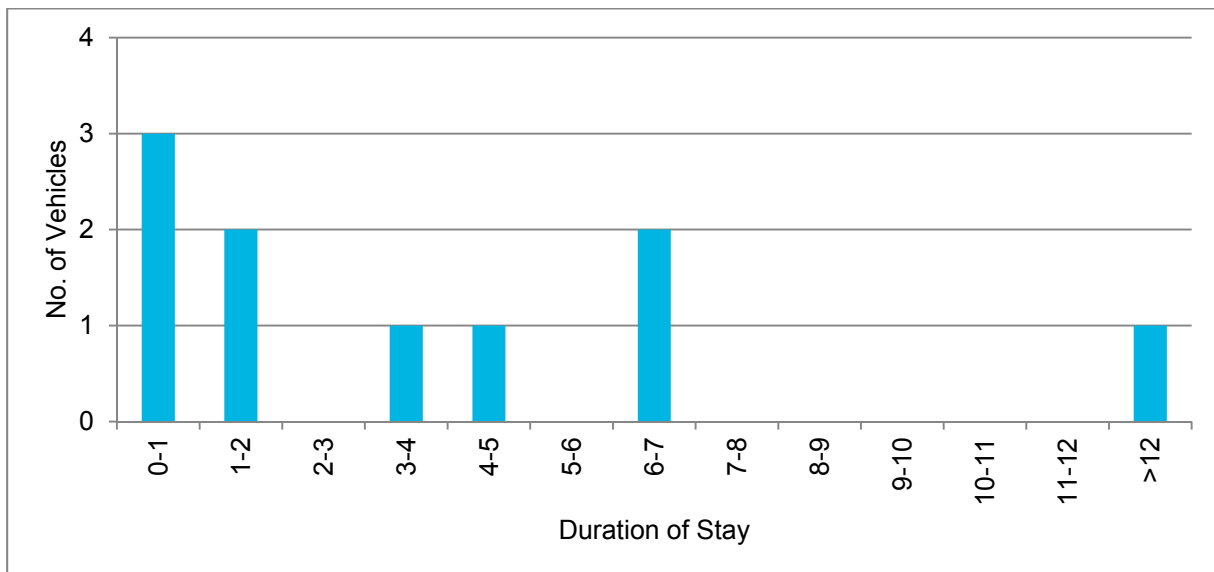


Figure 2.25.3: Location Y, Parking Duration

2.26 Location Z: North Great George’s Street

There is a large amount of on-street parking along North Great George’s Street on the opposite side of the HSE Medical Centre. There is space for 30 regular cars, as seen in Figure 2.26.1. Maximum occupancy of 30 cars was not reached during the survey. 83.33% of the spaces were occupied at 11:00, at 13:00 and again at 15:00, which can be seen in Figure 2.26.2. The lowest occupancy was 7 cars, 23.33%, which occurred at 19:00.

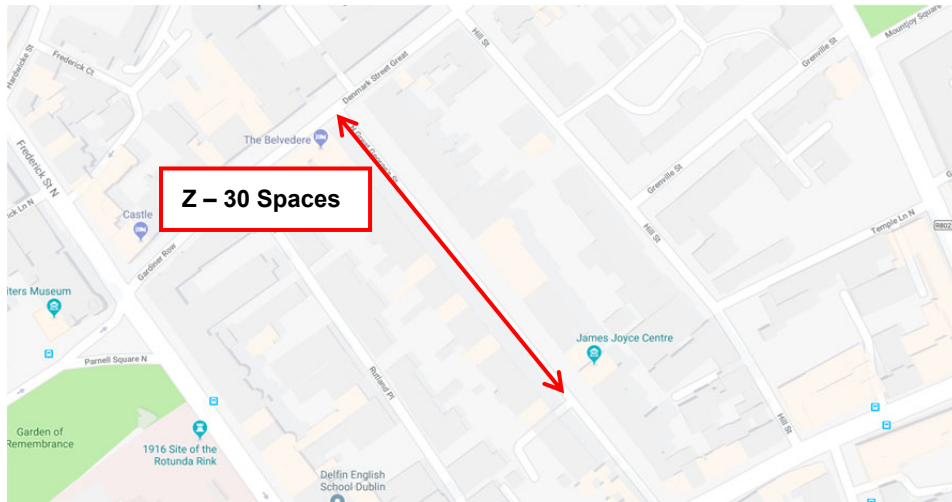


Figure 2.26.1: Location Z, on-street parking North Great George’s Street

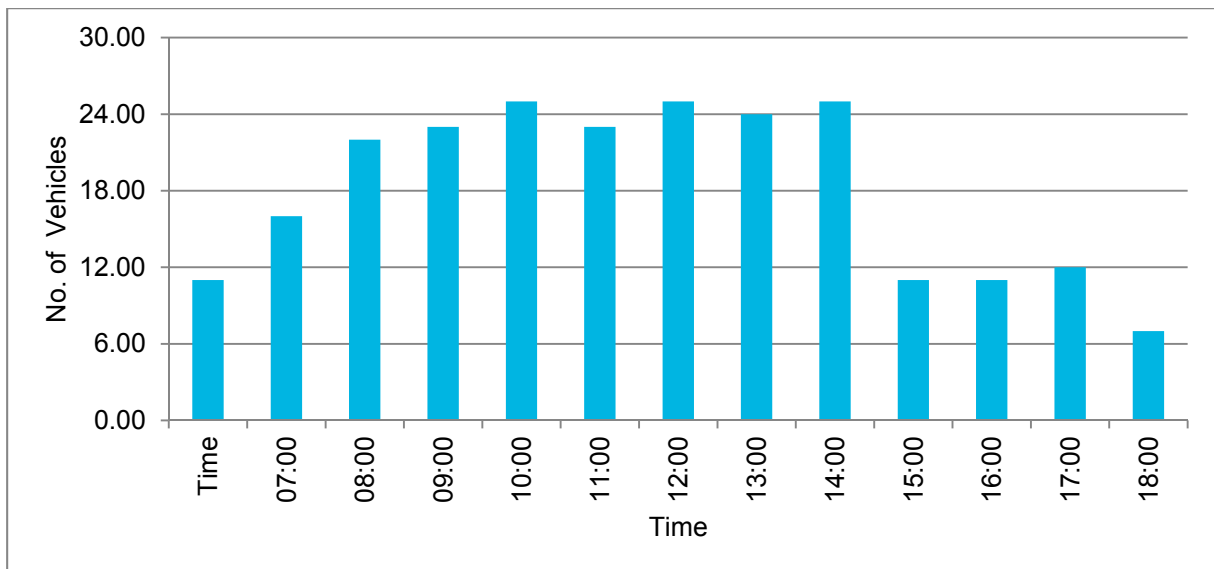


Figure 2.26.2: Location Z, Occupancy

During the survey period there were 59 cars in total that parked within Location Z. As seen below in Figure 2.26.3, 34% of these were parked for less than an hour. There was a significant amount (24%) which stayed for longer than 6 hours.

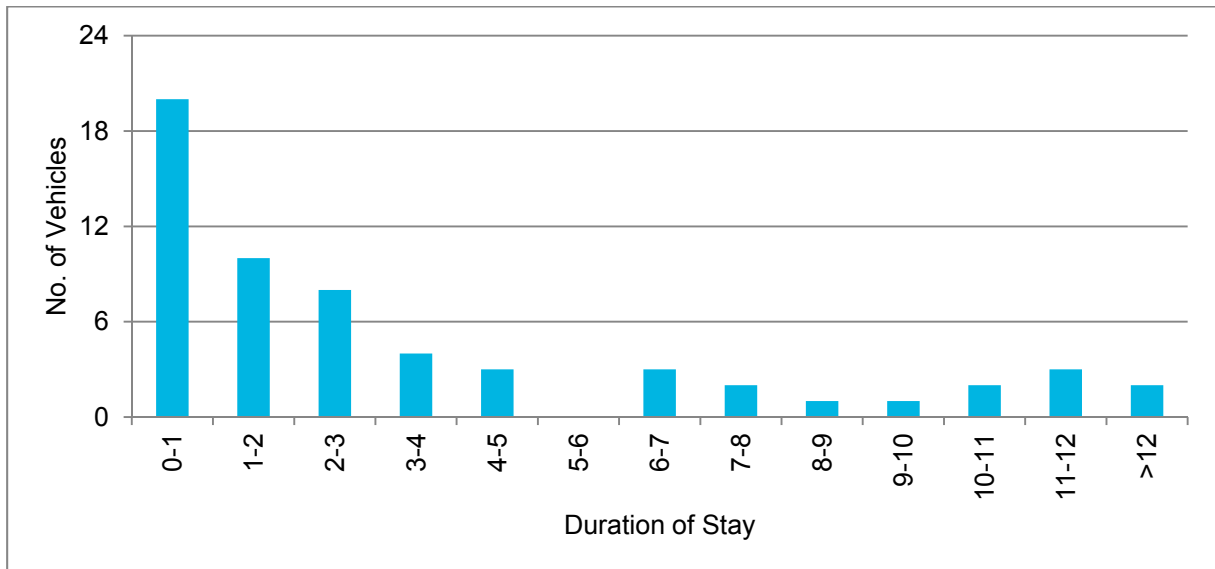


Figure 2.26.3: Location Z, Parking Duration

3. Parking Survey Summary

The survey took place over a 12-hour period, from 07:00 to 19:00 on Thursday 10th May 2018. It covered a total of 208 parking spaces; 188 regular spaces, 18 mobility impaired spaces and 2 electric vehicle spaces.

A total of 618 cars were observed at 26 different locations, labelled A – Z as in Figure 1.1 below. Figure 3.1, Figure 3.2 and Figure 3.3 show the total number of available spaces at each location, the time or time-frame at which maximum occupancy occurred, and the percentage of cars, at each location, that was parked for less than or greater than one hour.

PARKING SUMMARY - REGULAR SPACES				
	Number of Spaces	Peak Usage Time	Duration < 1 hour	Duration > 1 hour
C	13	11:00 - 16:00	36.36%	63.6%
D	3	08:00 - 14:00	45.45%	54.6%
F	20	13:00 - 14:00	50.00%	50.0%
H	2	11:00	100.00%	0.0%
I	10	09:00 - 15:00	14.28%	85.7%
K	6	11:00 - 14:00	28%	72.2%
L	8	11:00	35%	65.4%
M	13	11:00 - 13:00	30%	70.2%
O	6	15:00	53%	46.7%
P	17	12:00	48.11%	51.9%
Q	7	11:00	57%	42.9%
R	10	12:00	37.04%	63.0%
S	5	11:00 - 15:00	73.33%	26.7%
T	12	11:00 - 15:00	37.04%	63.0%
V	14	13:00 - 14:00	35.29%	64.7%
W	7	13:00 - 14:00	50.00%	50.0%
Y	5	12:00 - 19:00	30.00%	70.0%
Z	30	10:00 - 14:00	33.90%	66.1%
Total	188		40.47%	59.53%

Figure 3.1: Parking Summary – Regular Spaces

PARKING SUMMARY - MOBILITY IMPAIRED SPACES				
	Number of Spaces	Peak Usage Time	Duration < 1 hour	Duration > 1 hour
A	3	12:00 - 15:00	30.77%	69.23%
B	3	10:00 - 18:00	20%	80.00%
G	2	12:00 - 14:00	0%	100.00%
J	3	13:00 - 14:00	50%	50.00%
N	3	13:00 - 15:00	25%	75.00%
U	2	12:00 - 18:00	0%	100.00%
X	2	16:00 - 18:00	0%	100.00%
Total	18		24.24%	75.76%

Figure 3.2: Parking Summary – Mobility Impaired Spaces

PARKING SUMMARY - ELECTRIC VEHICLE SPACES				
	Number of Spaces	Peak Usage Time	Duration < 1 hour	Duration > 1 hour
E	2	11:00	50%	50%
Total	2		50%	50%

Figure 3.3: Parking Summary – Electric Vehicle Spaces

Figure 3.4 summarises all 208 parking spaces surveyed, and shows the maximum occupancy of all locations observed, and the duration of all vehicles.

PARKING SUMMARY - ALL VEHICLES		
Number of Spaces	Duration < 1 hour	Duration > 1 hour
208	37.70%	62.30%

Figure 3.4: Parking Summary – All Vehicles

The proposed public realm enhancements will result in a total loss of 50 spaces; 47 car parking spaces on Parnell Square North (44 standard spaces and 3 mobility impaired spaces), 4 car parking spaces on Granby Row (2 standard spaces and 2 mobility impaired spaces), and the loss of 2 car parking spaces on Parnell Square West by the relocation of the electric vehicle car parking spaces.

However, it is proposed to mitigate any loss of mobility impaired spaces with the provision of three new mobility impaired spaces on Granby Row and the conversion of two existing standard spaces on Frederick Street North from standard to mobility impaired. All changes to car parking surrounding Parnell Square are set out in Figure 3.5 below.

LOCATION	LOSS OF SPACES		ADDITIONAL SPACES		TOTAL CHANGE	
	Standard	Mobility Impaired	Standard	Mobility Impaired	Standard	Mobility Impaired
Parnell Square North	44	3	0	0	-44	-3
Granby Row	2	2	0	3	-2	1
Parnell Square West	2	0	0	0	-2	0
Frederick Street North	2	0	0	2	-2	2
Total	-50	-5	0	5	-50	0

Figure 3.5: Parking Summary – All Vehicles

Figure 3.6 below compares the existing and proposed capacity and how the removal of 50 car parking spaces will affect parking in the surrounding area of Parnell Square North. During the survey period there was a minimum of 41 spaces available at all times (total percentage occupancy never exceeded 80.29%).

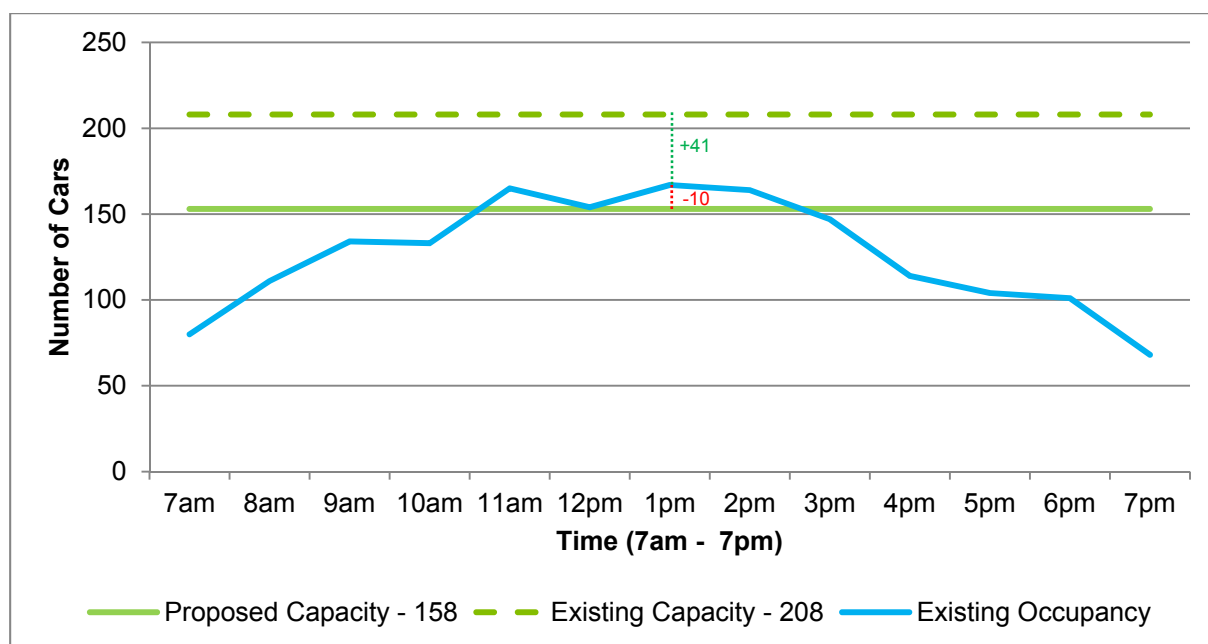


Figure 3.6: Parking Summary – Existing and Proposed Capacity/Occupancy

The graph in Figure 3.6 shows that the existing parking demand may exceed the existing street parking spaces in the surrounding area.

This may result in some motorists deciding to change modes, move to public transport, or others deciding to park in other locations in Dublin City Centre. There is on-street parking in the local area, with multi-story parking provided at a number of nearby locations including the Rotunda Hospital, Parnell Centre, the Ilac Centre, Moore Lane, the Gresham Hotel and Cathal Brugha Street.

The removal of these car parking spaces is essential to provide the space necessary to create a high quality public realm and linear plaza, to cater for the increased numbers of visitors to the area and help upgrade the wider urban quarter on Parnell Square North.

Appendix G Bus Survey Analysis

Technical Note

Overview

This Information Note has been prepared following a review of the surveys carried out on bus stops in Parnell Square, as part of the Parnell Square Cultural Quarter: New Dublin Library and Public Realm Works. This note highlights the findings of the survey.

Surveys Conducted

A data collection exercise was undertaken in May 2018 to obtain information on bus frequencies, bus type, dwell times, and boarding and alighting volumes for the bus stop located on Parnell Square North. The survey was conducted on Thursday 10th May 2018 from 7am to 7pm.

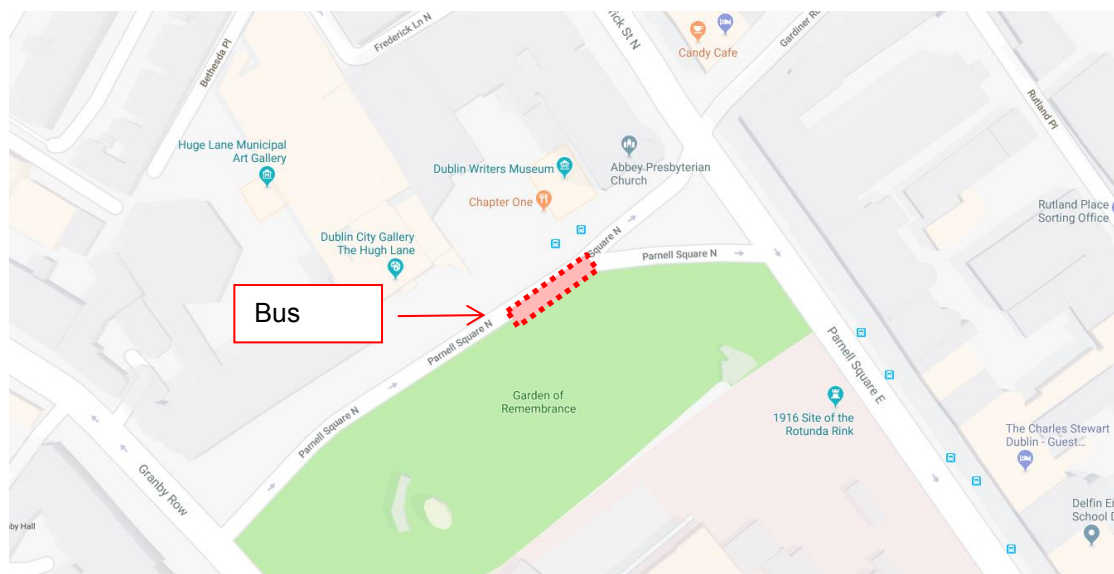


Figure 1 – Survey Location

Recorded Data

The bus survey outputs are detailed in the spreadsheets provided and defined as follows:

- Bus Company Name
- Bus Type (i.e. high floor or double decker)
- Time of Arrival

- Time of Departure
- Bus Dwell Time
- Number of Boarding Passengers
- Number of Boarding Mobility Impaired / Disabled Passengers
- Number of Boarding Passengers w/ Pushchairs or Other Equipment
- Number of Alighting Passengers
- Number of Alighting Mobility Impaired/ Disabled Passengers
- Number of Alighting Passengers w/ Pushchairs or Other Equipment

Analysis of Survey Data – Parnell Square North

Bus

The bus stop on Parnell Square North is used by all bus/coach operators. During the 12-hour survey period, 95 buses were recorded to have stopped, from 13 different operators. There was an average of 8 buses per hour, with a maximum of 13 which occurred between 11:00 and 12:00. The minimum number of buses per hour was 4, which occurred between 18:00 and 19:00.

Bus Stop

The bus stop on Parnell Square North is located directly opposite from the Garden of Remembrance, alongside the Dublin City Gallery, The Hugh Lane, and The Irish Writers' Centre. It is approximately 13 metres in length and there are 4 poles advertising bus companies: John Mc Ginley, DoDublin, Airlink, CityScape and CitySightseeing. There is no shelter or seating, as seen in Figure 2.



Figure 2 – Parnell Square North Bus Stop

There was little pattern to which buses stopped, varying from each company. During the survey a total of 415 buses passed through Parnell Square North; however, only 95 of buses stopped at the bus stop seen in Figure 2. The most frequent bus company was DoDublin, with a total of 31 and an average service of 3 per hour. 309 Dublin Buses passed Parnell Square North, although only 8 stopped, all between 07:30 and 11:00. 88.4% of the buses were double deckers, with the remainder high floor buses. There were 4 John Mc Ginley buses, one during the peak AM period (08:00–09:00), one during the peak PM period (17:00–18:00). Figure 3 shows the frequency of the 13 different operators that service the bus stop of Parnell Square North.

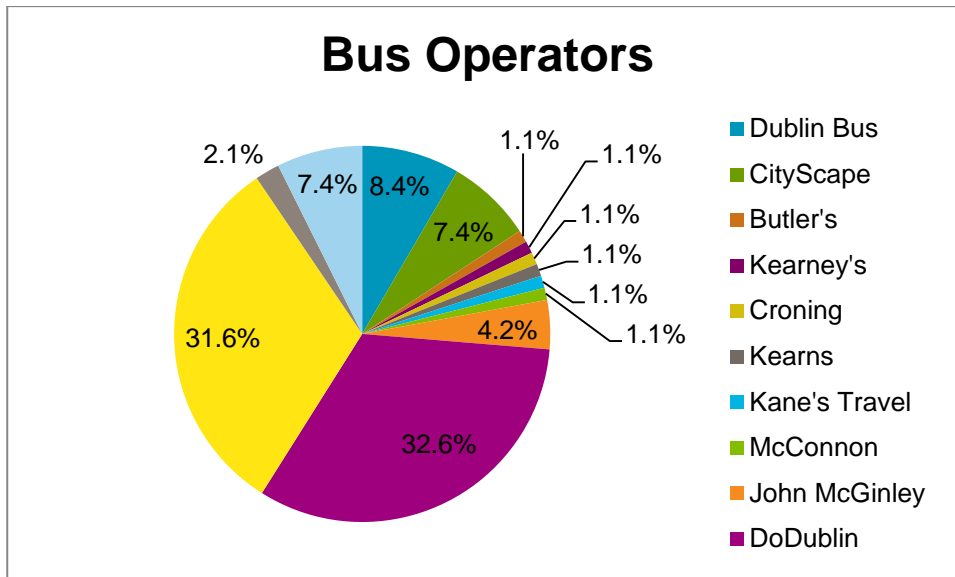


Figure 3 – Bus Operators at Parnell Square North Bus Stop

The longest dwell time recorded was by a John McGinley high floor bus, when it waited 2 hours and 16 minutes before continuing. During this time 37 passengers boarded and 17 alighted. The shortest dwell time was by a CitySightseeing double decker, which waited for 6 seconds although no passengers boarded or alighted. The average dwell time was 5 minutes and 30 seconds.

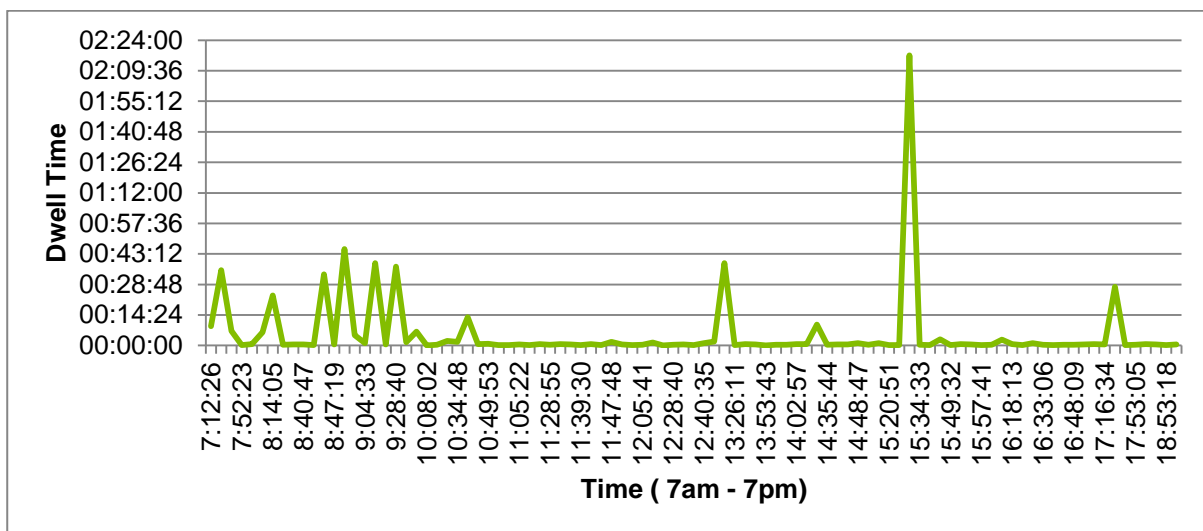


Figure 4 – Dwell Times at Parnell Square North Bus Stop

A total of 225 passengers boarded buses during the 12-hour period, and a total of 122 alighted at the Parnell Square North bus stop. The largest number of boarders was recorded at 17:17 when 41 passengers boarded a John McGinley high floor bus, the second largest was 37 passengers who also boarded a John McGinley bus at 15:28. Figure 4 shows that generally longer dwell times were recorded at peak times (08:00–09:00 and 17:00–18:00).

During peak AM period, 08:00–09:00, there was a total of 23 passengers who boarded buses, and 6 that alighted. During the peak PM period, 17:00–18:00, 42 passengers boarded a bus and 12 alighted. There were no mobility impaired/disabled passengers recorded throughout the 12 hour survey, nor any passengers that boarded or alighted with a pushchair/equipment.

Name	No. of Buses Recorded	No. Stopped	Max Delay	Total Boarders	Total Alighters	Total Passengers
Parnell Square North	415	95	02:16:53	225	122	347

Table 1: Bus Survey Summary

Conclusions

Over the course of a 12-hour survey period, 415 buses passed through Parnell Square North, with 95 of these stopping to drop off or collect passengers. These buses included Dublin Bus, Sightseeing buses, private operators offering daily/regular services to Dublin and also a frequent service to Dublin Airport. Dwell times for buses were generally short, with 69.5% being shorter than 1 minute; however, longer dwell times were recorded for private bus services and coaches.

There was an average of 8 buses per hour, with 13 buses being the maximum hourly service between 11:00 and 12:00.

A total of 347 passengers were recorded during the survey period, with 225 boarding a bus and 122 alighting from a bus.

Appendix H Delivery Survey Analysis

Technical Note

Project number	Subject	Date
Parnell Square Cultural Quarter: New Dublin City Library and Public Realm Works	A Review of Survey Results- Truck Deliveries	25 June 2018

Overview

This Information Note has been prepared following a review of the surveys carried out on Parnell Square North as part of the Parnell Square Cultural Quarter. This note highlights the findings of the survey.

Surveys Conducted

A data collection exercise was undertaken in May 2018 to obtain information on the frequency of truck and van deliveries, dwell times, location the truck/van parked, and the destination of deliveries on Parnell Square North. The survey was conducted on 10th May 2018 from 7am to 7pm.

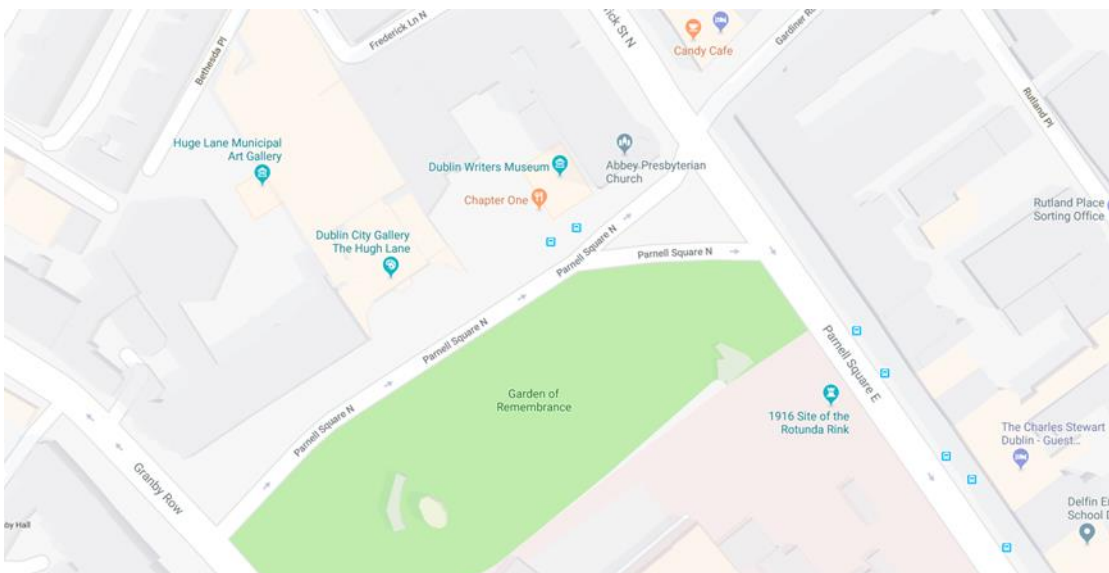


Figure 1 – Survey Location

Recorded Data

The truck delivery survey outputs are detailed in the spreadsheet provided and can be defined as follows:

- Description of the Truck/ Van
- Truck/ Van Arrival Time
- Truck/ Van Departure Time
- Truck/Van Dwell Time
- Parking Location
- Delivery Destination

Analysis of Survey Data – Parnell Square North

Along Parnell Square North there are 3 possible locations that may require deliveries:

- Dublin City Gallery, The Hugh Lane
- The Irish Writers' Centre
- Chapter One restaurant

During the 12-hour survey period there was a total of 4 deliveries, two of which delivered to businesses on Frederick Street North.

The first delivery was at 10:04 by a truck marked 'La Rousse Foods'. It parked outside the Hugh Lane on the far side of the road and also delivered to the Hugh Lane. The truck was parked for 7 minutes and 38 seconds before departing at 10:11.



Figure 2 – Delivery 1

The second delivery took place at 11:15, when an unmarked white van parked outside the Hugh Lane Gallery for 6 minutes and 30 seconds, while delivering to a business on Frederick Street North. It departed at 11:21.



Figure 3 – Delivery 2

The third delivery was made by a DPD van which parked behind the bus stop on Parnell Square North from 12:15 to 12:17. This delivery had the shortest dwell time of 1 minute and 58 seconds, in which it deposited goods to the Hugh Lane Gallery.



Figure 4 – Delivery 3

The last delivery during the 12-hour survey period was at 13:53, when a red van stayed parked at the bus stop on Parnell Square North for just over 8 minutes until it departed at 14:01. This delivery had the longest dwell time out of the four deliveries, during which a delivery was made to Frederick Street North.



Figure 5 – Delivery 4

There were no deliveries during the peak AM period (08:00 – 09:00), nor were there any deliveries during the peak PM period (17:00 – 18:00). The average delivery dwell time was 6 minutes and 2 seconds.

Conclusions

Over the course of the 12-hour survey period, 4 delivery trucks / vans were parked on Parnell Square North for an average of 6 minutes and 2 seconds. 50% of these deliveries were for the Hugh Lane Gallery, while the other 50% were for Frederick Street North. The dwell times over the course of the 12-hour period can be seen below in Figure 6.

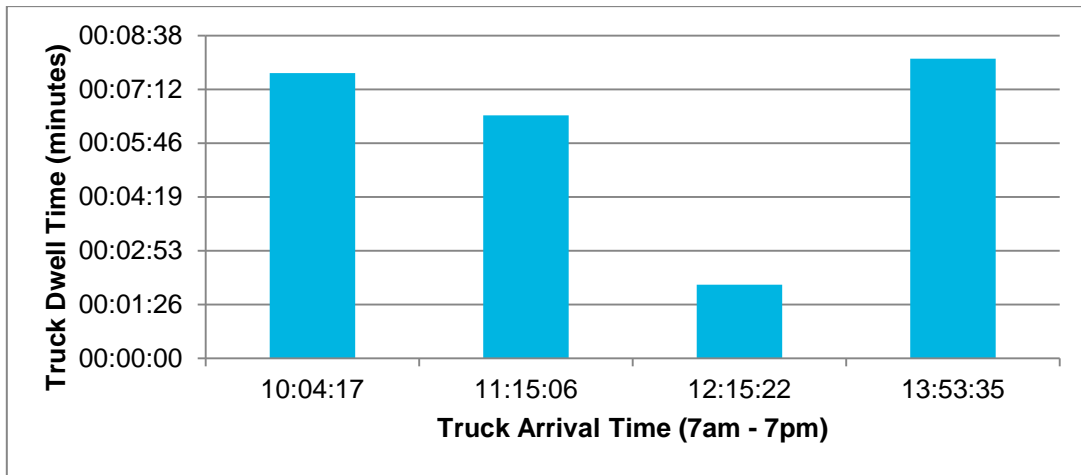


Figure 6 – Delivery Dwell Times

