consulting engineers

NRB

Traffic & Transport Assessment Report

Including…

Planning Stage Mobility Management Plan

(Appendix F)

For

Proposed Development

At

Rathfarnham Castle, Rathfarnham, Dublin 6W.

FINAL ISSUE

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Contents

Appendices.....

EXECUTIVE SUMMARY

NRB Consulting Engineers Ltd were appointed to address the Traffic/Transportation issues associated with a Part 8 planning application for development at Rathfarnham Castle, Rathfarnham, Dublin 6W.

This Traffic and Transport Assessment Report (TTA) has been prepared to address the Traffic/Transportation issues and Traffic Impact associated with the proposed development, and specifically the impact upon the capacity of the existing adjacent road network.

Conscious that this is a relatively small development in traffic generation terms, as evidenced in Section 3.0, the assessment focuses on the capacity and safety of the established site accesses onto the R114 and the layout and design of the proposed car park which is part of the plans.

The Report has been prepared fully in accordance with TII's Traffic & Transport Assessment Guidelines and addresses the worst-case traffic impact of the proposal. This TTA addresses the adequacy of the existing local road network to safely accommodate the worst-case vehicular demands with the development fully operational, taking account of the existing transportation demands locally. Separate assessments and analyses are included for the weekday AM and PM Commuter Peaks and also the Saturday afternoon peak hours.

We commissioned and undertook new weekday and Saturday traffic surveys of the adjacent road network which were used for the purposes of the study, with future year traffic conditions established using TII-approved annual growth factors. This represents industry-standard procedure with the traffic survey data forming the basis of the study.

The Traffic & Transport Assessment confirms that the established existing road network, and the established junctions onto the R114, are more than adequate to accommodate the worst-case traffic associated with the development. The assessment confirms that the full operation of the development will have a negligible and unnoticeable impact upon the operation of the adjacent road network.

A Planning Stage Mobility Management Plan for the development has also been prepared and is included as ***Appendix F***.

Based on our studies, we conclude that there are no adverse or significant traffic/transportation capacity or operational issues associated with the proposed high quality development which would prevent planning permission being granted by South Dublin County Council.

1.0 INTRODUCTION

1.1 This Traffic and Transport Assessment (TTA) has been prepared by NRB Consulting Engineers Ltd and addresses the Traffic/Transport issues arising from the proposed development at Rathfarnham Castle, Rathfarnham, Dublin 6W.

1.2 Drawings of the proposals, including the access and car park layout plans are included as ***Appendix A***, with a site location plan for reference included below as ***Figure 1.1***;

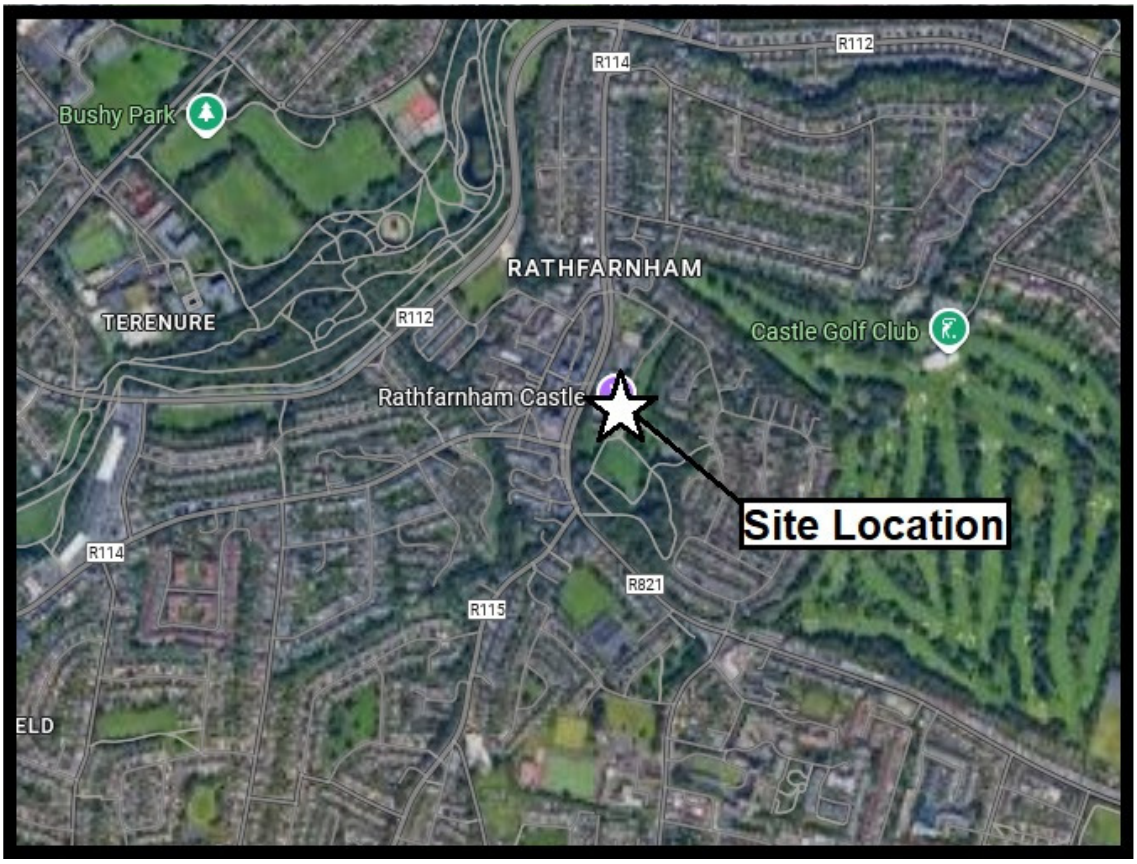


Figure 1.1 - Site Location

1.3 In describing the Receiving Environment and the Proposed Future Environment, this report addresses the following aspects of the proposed development:

- The levels of traffic generated by the proposed development (Using the Industry Standard TRICS Database),
- Location of the development on suitably zoned and easily accessible lands being an extension to the established tourist facility,
- Best Practice Sustainability Principles,
- Traffic & Transport impact,
- Capacity of the long-established adjacent road junctions to accommodate the worst-case development traffic flows,

- Capacity of the Existing Road Network, and,
- Adequacy and safety of the existing roads and junctions locally, within the area of influence.

1.4 Recommendations contained within this Traffic & Transport Assessment are based on the following sources of information and industry-standard practices; -

- TII Traffic & Transport Assessment Guidelines,
- The most recent version of the TRICS Database,
- Recent Local Traffic Survey Data commissioned,
- Relevant Design Guidance including Design Manual for Urban Roads and Streets (DMURS),
- Junction Capacity Modelling using TII-approved Proprietary Software, and,
- Our experience in assessing the impact of Developments of this Nature.

1.5 The Report has been prepared in accordance with the requirements of the TII's Traffic & Transport Assessment Guidelines 2014. These are the professional Guidelines used to assess the impact of developments on public roads.

1.6 A Planning Stage Mobility Management Plan for the development, addressing alternative and non-car modes of access, has also been prepared and is included as ***Appendix F***. This should be read in conjunction with the TTA Report.

2.0 EXISTING CONDITIONS AND PROPOSED DEVELOPMENT / PARKING

2.1 The castle at Rathfarnham dates back to the Elizabethan period. It was built for Adam Loftus, a Yorkshire clergyman and politician, who eventually rose to become Archbishop of Dublin and Lord Chancellor of Ireland. Loftus's castle, with its four flanker towers, is an excellent example of the Elizabethan fortified house in Ireland. In the late eighteenth century, the house was remodelled on a splendid scale employing some of the finest architects of the day including Sir William Chambers and James 'Athenian' Stuart. The collection includes family portraits by Angelica Kauffman, Sir Peter Lely, and Hugh Douglas Hamilton. It now hosts a wealth of exhibitions and cultural events.

2.2 The proposed development of the site is intended to further enhance the facilities and increase the attractiveness of the destination. The Castle site is bound to the north and east by established private residential housing estates and to south and west by the public road network (being the R114 and R115 Regional Roads) under the control of South Dublin County Council (SDCC). An aerial image from Google Streetview showing the site in context is included below as ***Figure 2.1***.

Figure 2.1 – Recent Aerial Image Showing Site Context (Google)

2.3 The proposed development car park site will be access by way of the long established vehicular access arrangement serving the existing public car parking area to the west

from the R114 Rathfarnham Road. Extracted Google Images showing the current alignment and facilities on the approaches to the R114 site accesses are included below as ***Figure 2.2*** and ***Figure 2.3*** for ease of reference.

Figure 2.2 – R114 Rathfarnham Road Entrance to Parking View South (Google)

2.4 The R114 Rathfarnham Road at the site is a wide single carriageway, divided by a central reservation as illustrated above, restricting the access and parking area to left-in left-out only, circumstances which are being maintained. It currently carries a weekday AM commuter Peak Hour (8-9am) **2-Way** flow of approximately 1,057 Passenger Car Units (PCUs or car-equivalents) & a PM Peak Hr (5-6pm) 2-Way flow of 1,231 PCUs (measured just north of the parking area entrance location).

Figure 2.3 – R114 Rathfarnham Road Exit from Parking View North (Google)

2.5 To put the measured traffic flows on Rathfarnham Road at the site in context, a road such as this has a free flow link capacity of c 1,500-1,800 PCUs per-lane per-direction per-hour (or a 2-way link capacity of between 3,000 & 3,600 PCUs). So, based on this evidence, Rathfarnham Road at the site might be considered moderately trafficked, as it is carrying less than 50% of its link capacity. It is accepted that the capacity of any road or link in an urban area is limited by the capacity of junctions along its length. In this case, the capacity is likely affected by adjacent junctions at Butterfield Ave to the south and at Dodder View Road to the north.

2.6 We commissioned and undertook a detailed weekday and weekend traffic surveys of the flows at the site with the full survey output included as ***Appendix B*** for ease of reference.

Proposed Development

2.7 The proposed development includes works to the building to the north of the castle known as Cromwell's Fort (GFA 269m^2), and its change of use to two multi-purpose event spaces and associated lobby areas. The works to this building include:

- the removal of a modern flat roof covering and the replacement with a pitched roof with zinc finish and rendered masonry gable-ends;
- the removal of the existing solid floor to the southern internal room and replacement with a new insulated floor slab and the insertion of a new raised floor to the northern room;
- the removal of infill blockwork from existing openings and the provision of new windows and doors to existing openings;
- Installation of new services, partitions and repair and repointing works as required, including application of lime render finish

2.8 The development also includes works to the existing single storey former stable buildings (GFA 591m^2) within the existing courtyards to the north of the Castle and change of use to cultural/arts spaces, retail, café/restaurant, public toilets and ancillary lobby, storage and services spaces. The proposed works to this building include:

- the removal of temporary roof coverings and the replacement with slate roof coverings;
- the minor modification of roof profiles above 2no. entrance doorways to provide sufficient head height at entrances;
- the removal of temporary bracing to windows and doors and replacement with new windows and doors to existing openings;

- the insertion of a new opening to the western perimeter wall to provide a new public entrance to the courtyard immediately to the north of the castle, and the closing up of an adjacent existing doorway opening;
- The creation of new openings within dividing walls of the existing stable buildings to provide improved connection between the buildings;
- The construction of a new single-storey mono-pitch extension (GFA 83m^2) to the northern elevation of a former stable building;
- New insulated floor slabs, installation of new services and repair, repointing and lime render works as required.

2.9 The works include the provision of a new single storey café and restaurant and ancillary support space (area GFA 528m^2) within the former council depot yards comprising:

- The demolition of a section of wall to the north-west to provide access between the proposed restaurant dining area and back of house areas;
- The construction of a single storey mono-pitch structure in the north-west corner including clerestory windows facing north and west along the existing perimeter walls of the site to provide a café/restaurant dining area, and an associated single storey flat-roof structure to the north to provide ancillary support to the café/restaurant, including kitchens, staff and visitor WCs;
- The provision of an internal plant room to the rear;
- The provision of external ancillary support areas including a screened bin store, screened plant enclosure at ground level and screened rooftop plant enclosure;
- The provision of two new openings within the existing western perimeter wall to facilitate the insertion of secure entrance gates, to provide staff, deliveries and bin store access to the rear of the ancillary space and bin storage areas;
- The provision of four new openings within the existing western perimeter wall to facilitate the insertion of new glazed window openings to the café/restaurant;
- Repairs and repointing to the existing walls as required.

2.10 The development also includes the provision of a new, single storey, slated roof structures to the existing structures (GFA 33m^2) to the north of the building known as the Seismograph Building consisting of:

- A secure bike store area and provision of 10no. long term bicycle storage spaces including 1no. enlarged bicycle space for a cargo bike;
- A secure bin storage area for the retail spaces;

2.11 The demolition and reconstruction of the walls to the north and west of the northernmost former depot yard.

2.12 **PARKING**: The works include the provision of a new car park on part of the Sean Keating garden adjacent to the boundary with Castleside Drive, with entry from the existing Rathfarnham Road car park, including:

- The demolition of 2no. existing gate posts and part of the adjacent existing garden wall and railings, and the removal of 14no. existing trees to facilitate the construction of a new pedestrian and vehicular entrance, pedestrian footpath and delivery drop-off area;
- The regrading and relevelling of the existing sunken pond and garden area to provide 54 no. car parking spaces (including 4no. accessible parking spaces and 10 no. EV parking spaces) and 42 no. short-term bicycle parking spaces to the north of the site and associated landscaping;
- The reconfiguration of the existing pedestrian entrance gate and new hard and soft landscaping to the north-west corner of the site to facilitate improved pedestrian access;

2.13 The works include all associated site services, site development works and landscaping comprising:

- Removal of temporary cabin structures from the existing former council depot yards and associated site clearances;
- The construction of new gated entrance and railings between Rathfarnham Castle forecourt and the proposed site;
- The removal of 4 no. car spaces from the existing Rathfarnham Road car park to provide a new enlarged pavement area adjacent to the entrance to the Café/Restaurant;
- The reallocation of the existing bus set down area to accommodate a universally accessible set down area;
- The local regrading of the footpath within the Rathfarnham Road car park along the perimeter wall to the west of the courtyards to provide accessible entrance points to the courtyards;
- The removal of part of southern end of the existing low level boundary wall between the existing car park and Rathfarnham Road to facilitate a new raised table and improved pedestrian crossing point; installation of a new access control gate to the carpark entrance from Rathfarnham Road;

- The regrading and relevelling of the existing surfaces to facilitate universal access throughout the site
- The provision of new hard and soft landscaping to the existing courtyards;
- The provision of new secure entrance gates to the existing openings between the park and courtyards;
- The infilling with masonry construction of an existing unused entrance between the northern courtyard and the park to facilitate the regrading of the courtyard.
- Installation of new drainage, attenuation and site services and associated trenching and reinstatement works.
- Installation of new external site lighting to the car parking areas and courtyard spaces;
- Repairs and repointing of existing structures throughout, as required.

3.0 TRIP GENERATION, ASSIGNMENT & DISTRIBUTION

3.1 The Trip Rate Information Computer System (TRICS) database is ordinarily used to ascertain vehicular trip generation associated with the use of any particular site. This represents industry-standard practice for Traffic and Transport Assessments in Ireland, and is indeed the recommended assessment methodology within the TII Guidelines for Traffic & Transport Assessment. In this case the worst-case TRICS assessment has been undertaken based on the current version of TRICS.

3.2 A robust and onerous assessment has been undertaken of the impact on the immediate local network, in order to ensure that we thoroughly assess the effect of the development, in terms of stress testing the road capacity impact of the scheme on the local links (conscious that the site represents development on an established & accessible site in the 50Km/Hr urban limit).

3.3 The TRICS assessment output for the subject site is included herein as ***Appendix C*** (based on the most recent version of TRICS, selecting the most appropriate site uses). The resulting Associated Trip Rates using TRICS for the weekday AM and PM commuter peak period and also the weekend (Saturday) peak hours are as set out below as ***Table 3.1*** and ***Table 3.2***.

Table 3.1; - Traffic Generation / Trip Rates - Worst Case Weekday Flows

RETAIL ELEMENT OF DEVELOPMENT					
520m² GFA Local Retail	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Weekday AM Peak Hr 8-9	4.590	24	3.750	20	44
Weekday PM Peak Hr 5-6	6.432	33	6.981	36	69
24 Hour Day	78.094	406	77.939	405	811
COMMUNITY ELEMENT OF DEVELOPMENT					
515m² GFA Community Facilities	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Weekday AM Peak Hr 8-9	0.570	3	0.197	1	4
Weekday PM Peak Hr 5-6	0.713	4	0.419	2	6
24 Hour Day	6.994	36	7.269	37	73
RESTAURANT ELEMENT OF DEVELOPMENT					
545m² GFA Restaurant	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Weekday AM Peak Hr 8-9	0.000	0	0.000	0	0
Weekday PM Peak Hr 5-6	1.120	6	0.572	3	9
24 Hour Day	12.601	69	12.520	68	137
TOTAL WEEKDAY PEAK TRAFFIC GENERATED BY PROPOSALS (TRICS)					
Network Period	**Arrivals (PCUs)**		**Departures (PCUs)**		Total 2-Way Traffic
Weekday AM Peak Hr 8-9	27		21		48
Weekday PM Peak Hr 5-6	43		41		84
24 Hour Day	511		510		1021

Table 3.2; - Traffic Generation / Trip Rates - Worst Case Saturday Flows

RETAIL ELEMENT OF DEVELOPMENT					
520m² GFA Local Retail	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Sat Afternoon 12-1PM	6.013	31	5.832	30	62
Sat Afternoon 3-4PM	5.847	30	5.960	31	61
24 Hour Saturday	78.507	408	78.346	407	815
COMMUNITY ELEMENT OF DEVELOPMENT					
515m² GFA Community Facilities	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Sat Afternoon 12-1PM	0.374	2	0.393	2	4
Sat Afternoon 3-4PM	0.433	2	0.472	2	4
24 Hour Saturday	6.994	36	7.269	37	73
RESTAURANT ELEMENT OF DEVELOPMENT					
545m² GFA Restaurant	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Sat Afternoon 12-1PM	4.958	27	3.116	17	44
Sat Afternoon 3-4PM	2.550	14	2.550	14	28
24 Hour Saturday	35.554	194	34.518	188	382
TOTAL SATURDAY PEAK TRAFFIC GENERATED BY PROPOSALS (TRICS)					
Network Period	**Arrivals (PCUs)**		**Departures (PCUs)**		Total 2-Way Traffic
Sat Afternoon 12-1PM	60		49		109
Sat Afternoon 3-4PM	46		47		93
24 Hour Saturday	638		632		1270

3.4 However, it should be noted that use of other data sets (for example any requirement to use higher flow rates) will have no impact on the conclusions for a development of this relatively small scale on an established site within the urban speed limit, particularly where no right turns are facilitated.

Assignment/Distribution - Future Year Traffic

3.5 We have used hand assignment techniques based on the observed proportions and established flows, with the worst-case traffic assigned to the roads based on these existing traffic patterns and junction turning proportions. This represents industry-standard best practice and reflects an established gravity-model based distribution method.

3.6 The standard methodology applied was to firstly ascertain the base background traffic conditions for the critical weekday AM and PM Commuter Peak periods and the weekend Saturday Peaks. We commissioned a Traffic Survey at the site, and this data is included as ***Appendix B***. We then used and applied the *TII Project Appraisal Guidelines* to establish traffic conditions during the selected opening year for the subject application of 2028 and the associated selected assessed design year 15 years following opening (2043).

3.7 It should be noted that we have selected these Opening/Completion years as being reasonable and appropriate, however, varying the opening year or the design years by 1-5 years, if required for any reason, would have no significant impact upon the conclusions of the study (given the low annual growth rates now applicable).

3.8 Traffic growth factors for future year assessments were calculated from data obtained from Project Appraisal Guidelines for National Roads Unit 5.3, which provides the recommended method of predicting future year traffic growth on Roads.

3.9 Calculations of the relevant growth factors are included in ***Table 3.3*** below (based on tabulated 'medium growth' in the Dublin Met Area). The resulting Traffic Flow Projections and Figures allowed the assessment of impact of the development to be undertaken, all as set out in ***Appendix D***.

Table 3.3 - Traffic Growth Rates, TII Project Appraisal Guidelines (Ref Table 6.1)

Year	to Year	Growth Factor
Survey	2028	1.049
2028	2043	1.110

4.0 TRAFFIC IMPACT - TRAFFIC CAPACITY RESULTS

4.1 The TII Traffic and Transport Assessment Guidelines sets out a mechanism for assessment of developments of this nature, in determining whether further assessment is indeed required and whether an impact is considered significant and needs further assessment. The TII Traffic and Transport Assessment Guidelines suggests a Threshold Assessment of the impact on the local roads is provided in order to determine whether further, more detailed modelling and assessment of particular critical junctions is necessary.

4.2 In the case of a development sustainably located with alternative travel available and being within the 50Km/Hr urban area, such as in this case, it can be considered inappropriate and unnecessary to 'chase' development traffic through junctions remote from the sites sustainable location. This is referred to as a 'Predict and Provide' approach to the assessment of development impact.

4.3 The recommendation is that the Threshold level is set at 5% for congested situations or for networks that are considered as critical, such as is the case here – with the 5% threshold being applicable for the key weekday AM and PM Commuter Peak Hours in particular and the 10% threshold applied to weekend periods.

4.4 To set the increases in traffic flow in context, the day-to-day variation in traffic volumes due to variables such as day-of-week, or weather conditions, is accepted as being 10%, so in this context small increases in traffic can pass wholly unnoticed. We have indicated the worst-case traffic increases on a 'Network Flow Diagrams' within ***Appendix D***, with the specific impact on the adjacent key junctions extracted and summarised below as ***Table 4.1 & Table 4.2***.

Table 4.1; - Threshold Assessment - Weekday Peak Hours WITH Development.

Assessed Road or Junction	Traffic Increase %		COMMENT
	AM Pk Hr	PM Pk Hr	
R114 Existing Site Exit Junction	NA	NA	Junction Modelled using TII Approved Software
R114 / Butterfield Ave Junction	1.9%	3.2%	<<5% No Further Assessment Required
R114 / Castleside Signal Junction	2.7%	3.7%	<5% No Further Assessment Required

Table 4.2; - Threshold Assessment - Saturday Peak Hours WITH Development.

Assessed Road or Junction	Traffic Increase %		COMMENT
	12-1 PM	3-1 PM	
R114 Existing Site Exit Junction	NA	NA	Junction Modelled using TII Approved Software
R114 / Butterfield Ave Junction	4.9%	3.7%	<10% No Further Assessment Required
R114 / Castleside Signal Junction	5.6%	4.2%	<10% No Further Assessment Required

4.5 We have undertaken detailed modelling and assessment of the R114 exit junction to the south in order to confirm adequacy. The junction has been assessed using the TII-approved TRL Modelling Software Package *Junctions 9*-PICADY (**P**riority **I**ntersection **C**apacity **A**nd **D**ela**Y**). This package enable the user to predict the capacity, queues and delays at priority-controlled junctions. The outputs from the software present RFC (Ratio of Flow to Capacity) and queue lengths as indicators of the operational efficiency of the specific junction.

R114 Exit Junction – Capacity Assessment

4.6 We have appended the detailed computer simulation model results (PICADY) of the capacity modelling for the established Site Exit Junction as ***Appendix F,*** with comments contained on the associated Appendix Cover Sheet. A summary of the results is reproduced below, as ***Tables 4.3*** and ***Table 4.4*** (With full outputs of the analysis within the Appendices).

Table 4.3: Capacity Assessment of Existing R114 Exit Junction (Weekday)

Modelled Year & Scenario	Period "Mean-Max" Q (PCUs)	Period Max RFC
2028 Opening Year 8-9AM Peak	0.1	0.05
2028 Opening Year 5-6PM Peak	0.1	0.09
2043 Design Year 8-9AM Peak	0.1	0.06
2043 Design Year 5-6PM Peak	0.1	0.11

Table 4.4: Capacity Assessment of Existing R114 Exit Junction (Saturday)

Modelled Year & Scenario	Period "Mean-Max" Q (PCUs)	Period Max RFC
2028 Opening Year 12-1PM Peak	0.1	0.13
2028 Opening Year 3-4PM Peak	0.1	0.12
2043 Design Year 12-1PM Peak	0.2	0.2
2043 Design Year 3-4PM Peak	0.2	0.2

4.7 The results of the modelling clearly show that the established junction has more than adequate capacity to accommodate the worst case traffic associated with the entire proposed development on the site. Indeed it should be noted that the RFCs are way below 0.85, highlighting the reserve capacity that remains with the scheme operational.

Summary of Results/Analysis

4.8 The above analyses confirms that the completion and operation of the proposed development will have an acceptable & negligible impact upon the capacity and safety of the urban road network in the area, and the associated traffic effects can easily be accommodated with the subject development in place.

5.0 CONCLUSIONS

5.1 NRB Consulting Engineers Ltd were appointed to address the Traffic/Transportation issues associated with a Part 8 planning application for development at Rathfarnham Castle, Rathfarnham, Dublin 6W.

5.2 This Traffic and Transport Assessment Report (TTA) has been prepared to address the Traffic/Transportation issues and Traffic Impact associated with the proposed development, and specifically the impact upon the capacity of the existing adjacent road network.

5.3 Conscious that this is a relatively small development in traffic generation terms, as evidenced in Section 3.0, the assessment focuses on the capacity and safety of the established site accesses onto the R114 and the layout and design of the proposed car park which is part of the plans.

5.4 The Report has been prepared fully in accordance with TII's Traffic & Transport Assessment Guidelines and addresses the worst-case traffic impact of the proposal. This TTA addresses the adequacy of the existing local road network to safely accommodate the worst-case vehicular demands with the development fully operational, taking account of the existing transportation demands locally. Separate assessments and analyses are included for the weekday AM/PM Commuter Peaks & the Saturday peak hours.

5.5 We commissioned and undertook new weekday and Saturday traffic surveys of the adjacent road network which were used for the purposes of the study, with future year traffic conditions established using TII-approved annual growth factors. This represents industry-standard procedure with the traffic survey data forming the basis of the study.

5.6 The Traffic & Transport Assessment confirms that the established existing road network, and the established junctions onto the R114, are more than adequate to accommodate the worst-case traffic associated with the development. The assessment confirms that the full operation of the development will have a negligible and unnoticeable impact upon the operation of the adjacent road network.

5.7 A Planning Stage Mobility Management Plan for the development, addressing alternative and non-car modes of access, has also been prepared and is included as ***Appendix F***. This should be read in conjunction with the TTA Report.

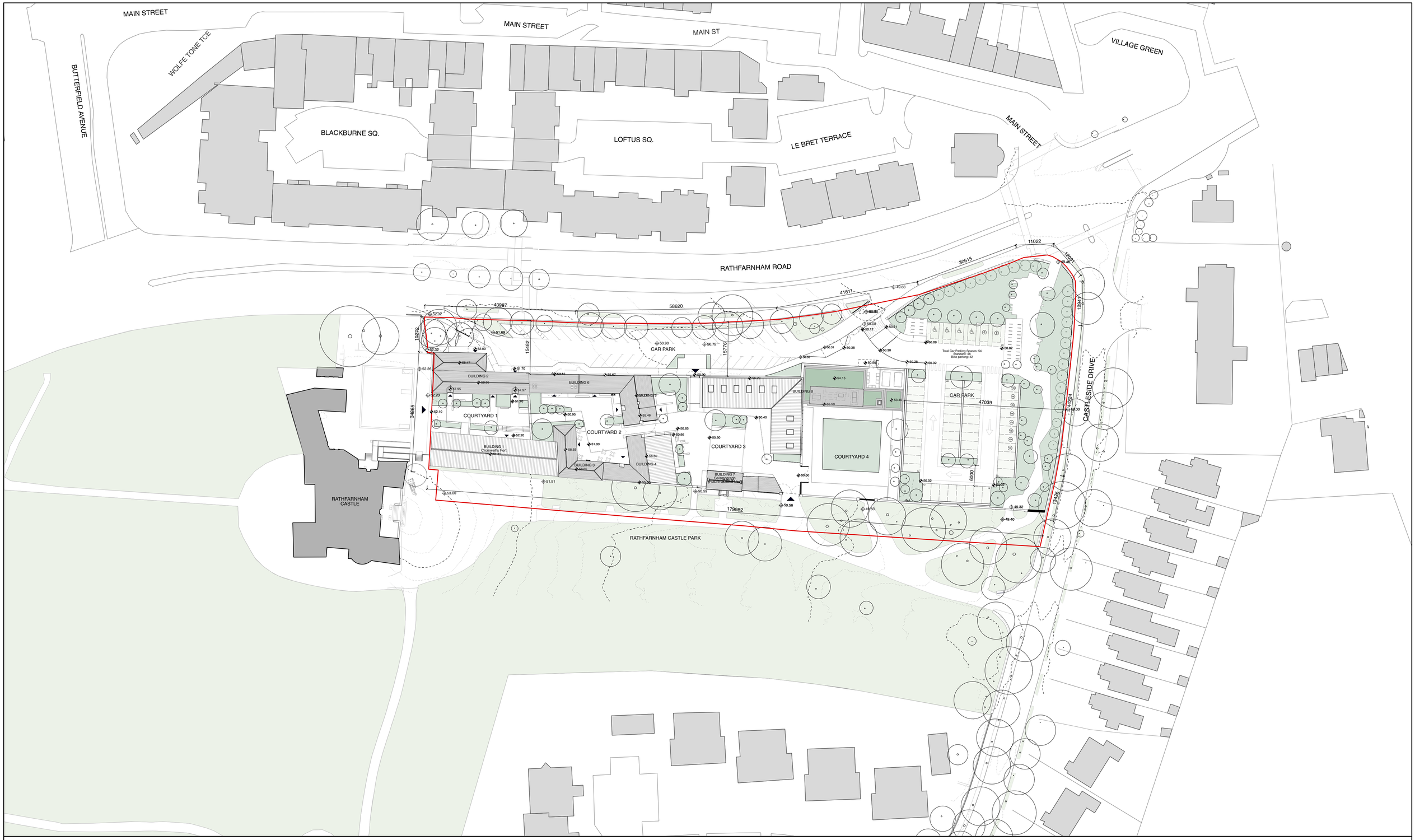
5.8 Based on our studies, we conclude that there are no adverse or significant traffic/transportation capacity or operational issues associated with the proposed high quality development which would prevent planning permission being granted by South Dublin County Council.

APPENDICES - CONTENT

A	Proposed Development – Site Layout Drawing / Access / TRACKs
B	New 2025 Traffic Survey Data Output
C	TRICS Trip Generation Output (Shops / Restaurants / Community Facilities)
D	Traffic Surveys, Trip Distribution & Network Traffic Flow Calculations (Weekday & Sat)
E	'Junction 9' PiCADY Capacity Model Output; Established Site Exit to R114
F	Planning Stage Mobility Management Plan

APPENDIX A

Proposed Development
Site Layout / Access / TRACKs



Use figured dimensions only. Do not scale drawing. Check all dimensions on site.

Read in conjunction with specification and consultants drawings.

Report any discrepancies to the Architects before putting work in hand.

Project Boundary Shown in RED

Proposed Interventions

Proposed works shown in BLACK.

Refer to notes for further detail

00.00 Proposed Spot Level

Existing

Major contour

Minor contour

00.00 Existing Spot Level

Principal Entrance

Secondary Entrance

0 10 20 30 40 50 M

Rev.	Date	Description	Drn.	Chk.
-	21.03.25	First Issue for review	HG	CC

Project
Stables & Courtyards at Rathfarnham Castle Park

Client
SDCC

Drawing
Site Plan - Proposed

Project Stage 2a | Date 21.03.2025 | Scale 1:500@A1 | Project No. 0661 | Drawing No. L-101 | Revision B

Howley Hayes Cooney
19 Rock Hill, Blackrock, Dublin, A94 F6X5
01 278 4644
hhcarchitecture.ie

NRB Consulting Engineers Ltd recommend that Road and land ownership boundaries are verified through Legal & Land searches by the Client.
This drawing is based upon Architects drawing L-101-Site Plan - Proposed, received 14/03/25. NRB Consulting Engineers Ltd shall not be liable for any inaccuracies or deficiencies.

REV	DATE	AMENDMENTS	DRAWN	CHK	APP

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Client

Project: Rathfarnham Castle
Dublin

Title: Proposed Site
Layout

Project No.: 23-089

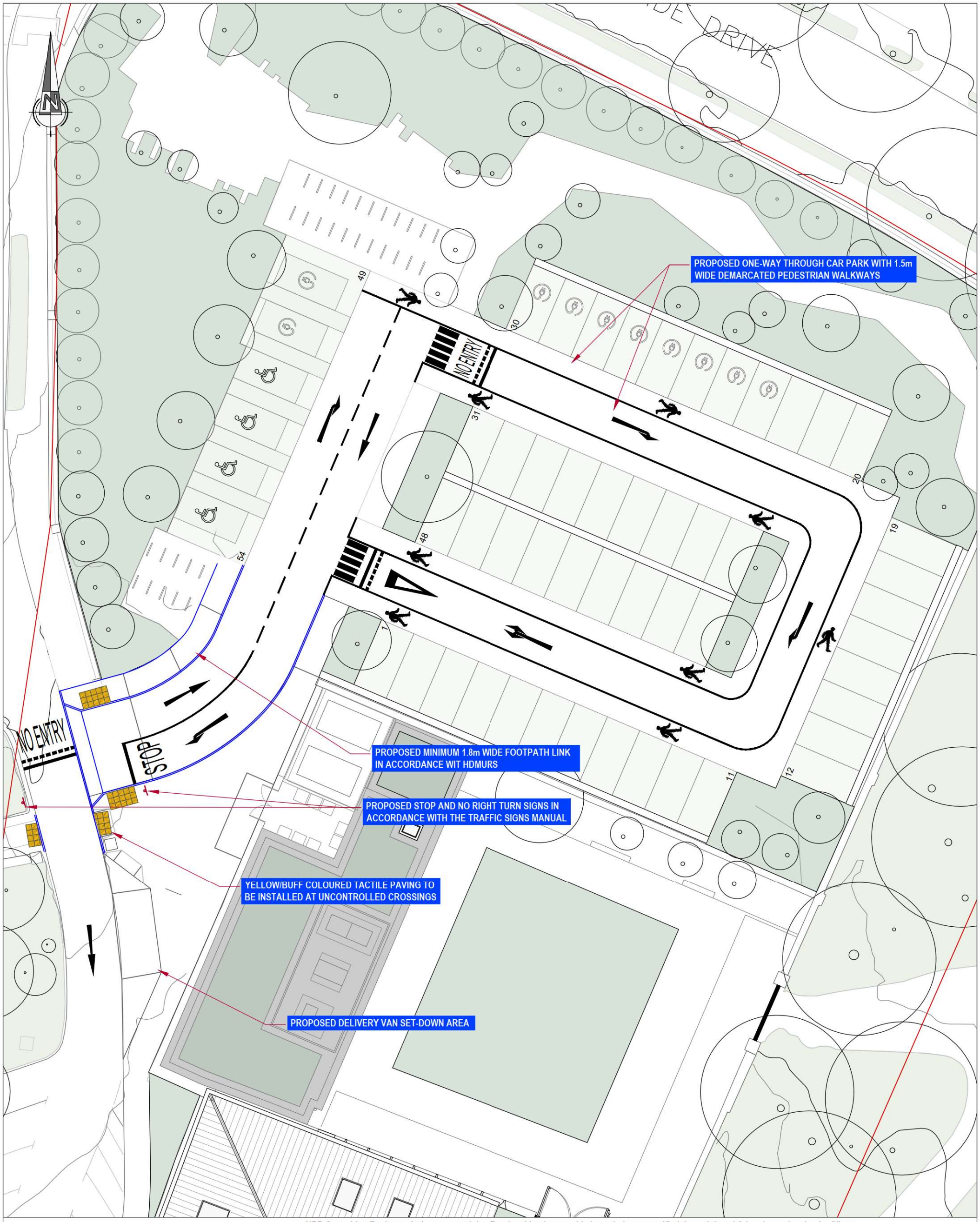
Drawing No.: NRB-TA-001

Drawn	Checked	Approved
PB	ER 24/03/25	ER 24/03/25

Date	Scale @ A3	Rev
24-Mar-25	1:1000	A

NRB Consulting Engineers Ltd accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions to be worked to.

Purpose of Issue: ☐ Draft ☐ Information ☐ Approval ☐ As Built ☐ Tender ☐ Construction



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REV	DATE	AMENDMENTS	DRAWN	CHK	APP

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Client

Project: Rathfarnham Castle, Dublin

Title: Proposed Car Park General Arrangement

Project No.: 23-089

Drawing No.: NRB-TA-002

Drawn: PB

Checked: ER 24/03/25

Approved: ER 24/03/25

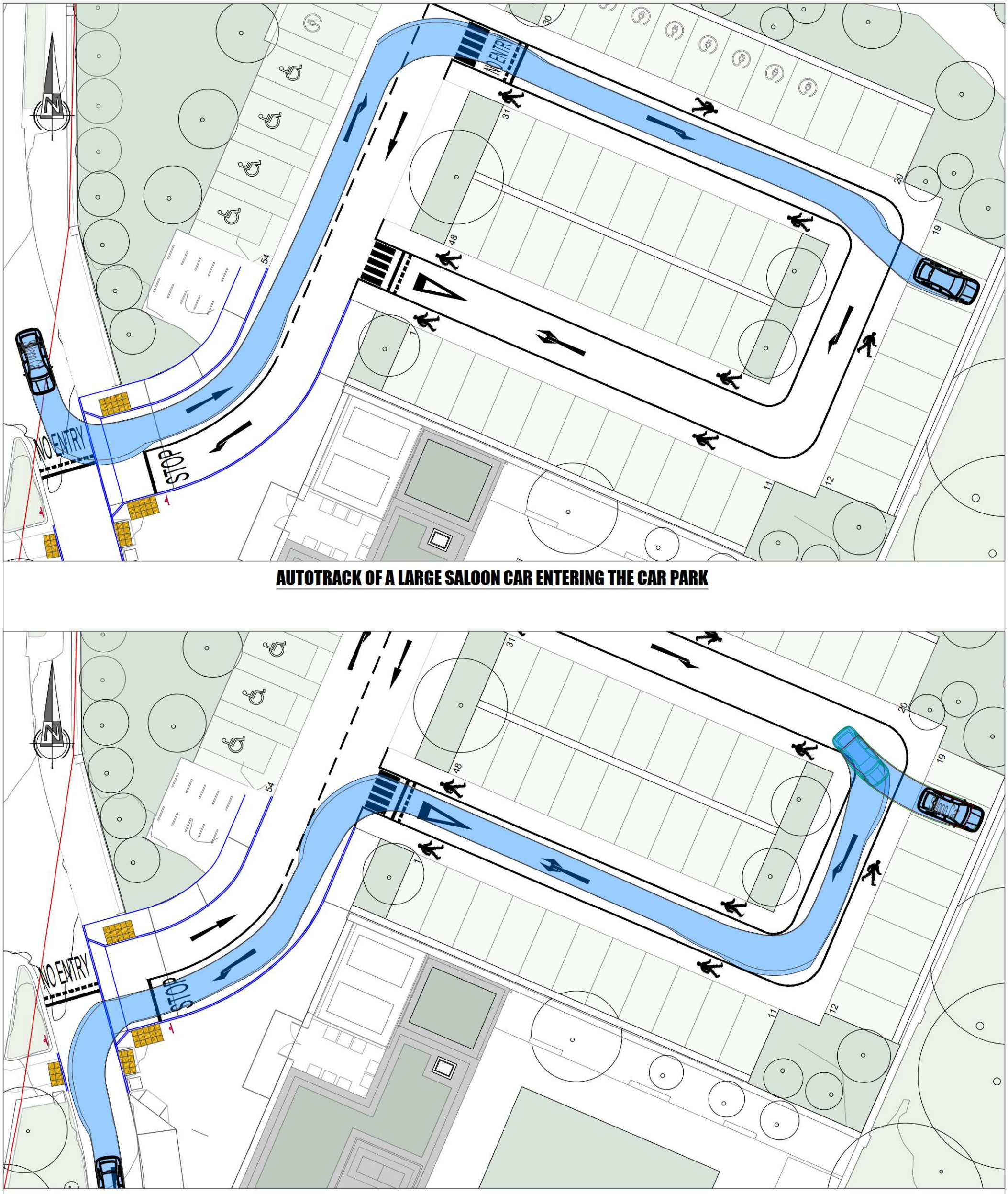
Date: 24-Mar-25

Scale @ A3: 1:250

Rev: A

NRB Consulting Engineers Ltd accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions to be worked to.

Purpose of Issue: ☐ Draft ☐ As Built ☐ Information ☐ Tender ☐ Approval ☐ Construction



AUTOTRACK OF A LARGE SALOON CAR ENTERING THE CAR PARK

AUTOTRACK OF A LARGE SALOON CAR EXITING THE CAR PARK

NRB Consulting Engineers Ltd recommend that Road and land ownership boundaries are verified through Legal & Land searches by the Client.
This drawing is based upon Architects drawing L-101-Site Plan - Proposed, received 14/03/25. NRB Consulting Engineers Ltd shall not be liable for any inaccuracies or deficiencies.

REV	DATE	AMENDMENTS	DRAWN	CHK	APP

NRB Consulting Engineers Ltd
1st Floor, Apollo Building
Dundrum Road
Dundrum
Dublin 14

Phone/Fax: +353 1 292 1941
Email: info@nrb.ie
Web: www.nrb.ie
Registered in Ireland No. 491679

Client

Project: Rathfarnham Castle, Dublin

Title: Proposed Car Park AutoTRACKs

Project No.: 23-089

Drawing No.: NRB-TA-003

Drawn: PB

Checked: ER 24/03/25

Approved: ER 24/03/25

Date: 24-Mar-25

Scale @ A3: 1:250

Rev: A

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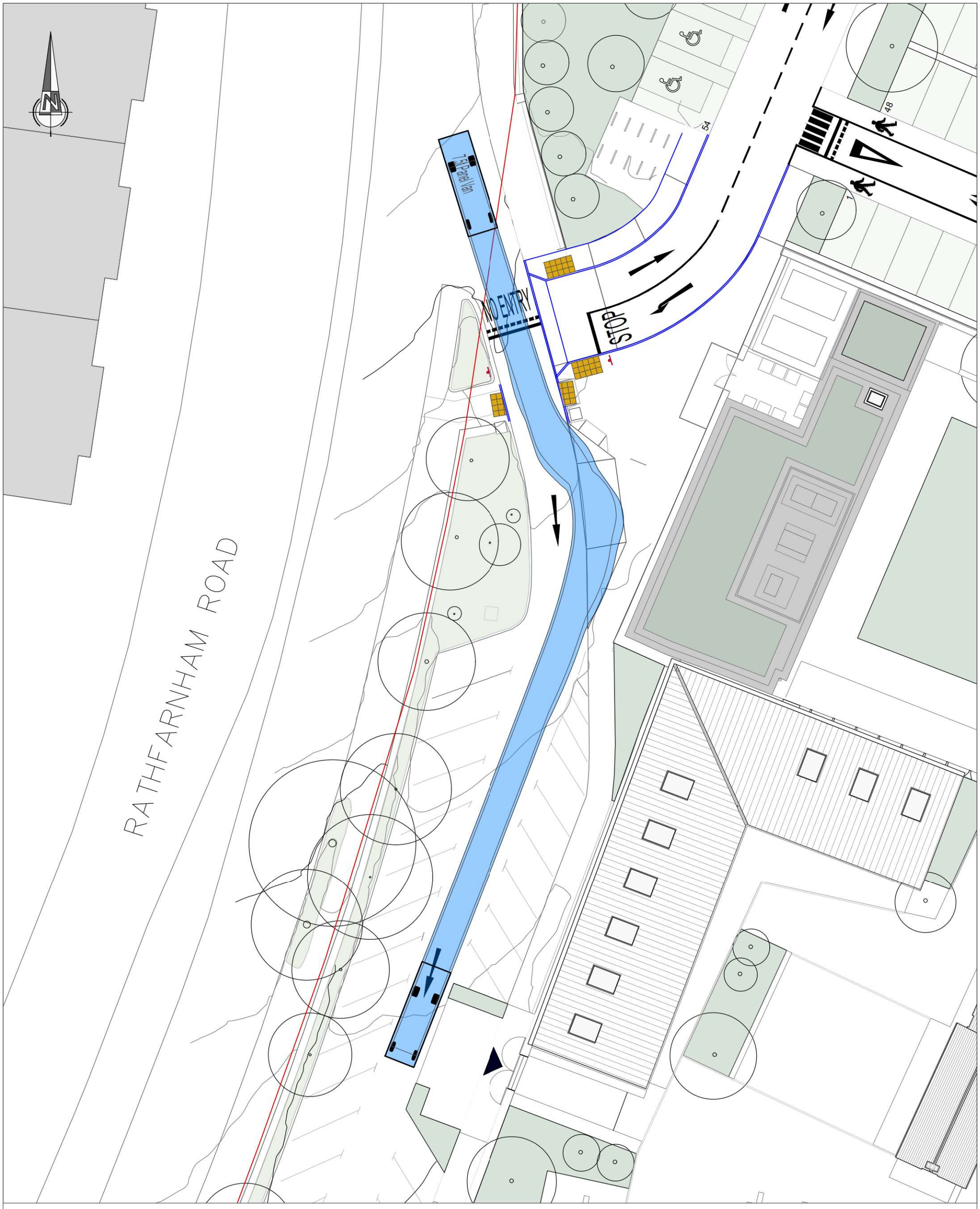
Purpose of Issue: ☐ Draft ☐ As Built ☐ Information ☐ Tender ☐ Approval ☐ Construction



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Client

Project: Rathfarnham Castle, Dublin

Title: AutoTRACK of a Delivery Van at Deliveries Area

Project No.: 23-089

Drawing No.: NRB-TA-004

Drawn: PB

Checked: ER 24/03/25

Approved: ER 24/03/25

Date: 24-Mar-25

Scale @ A3: 1:250

Rev: A

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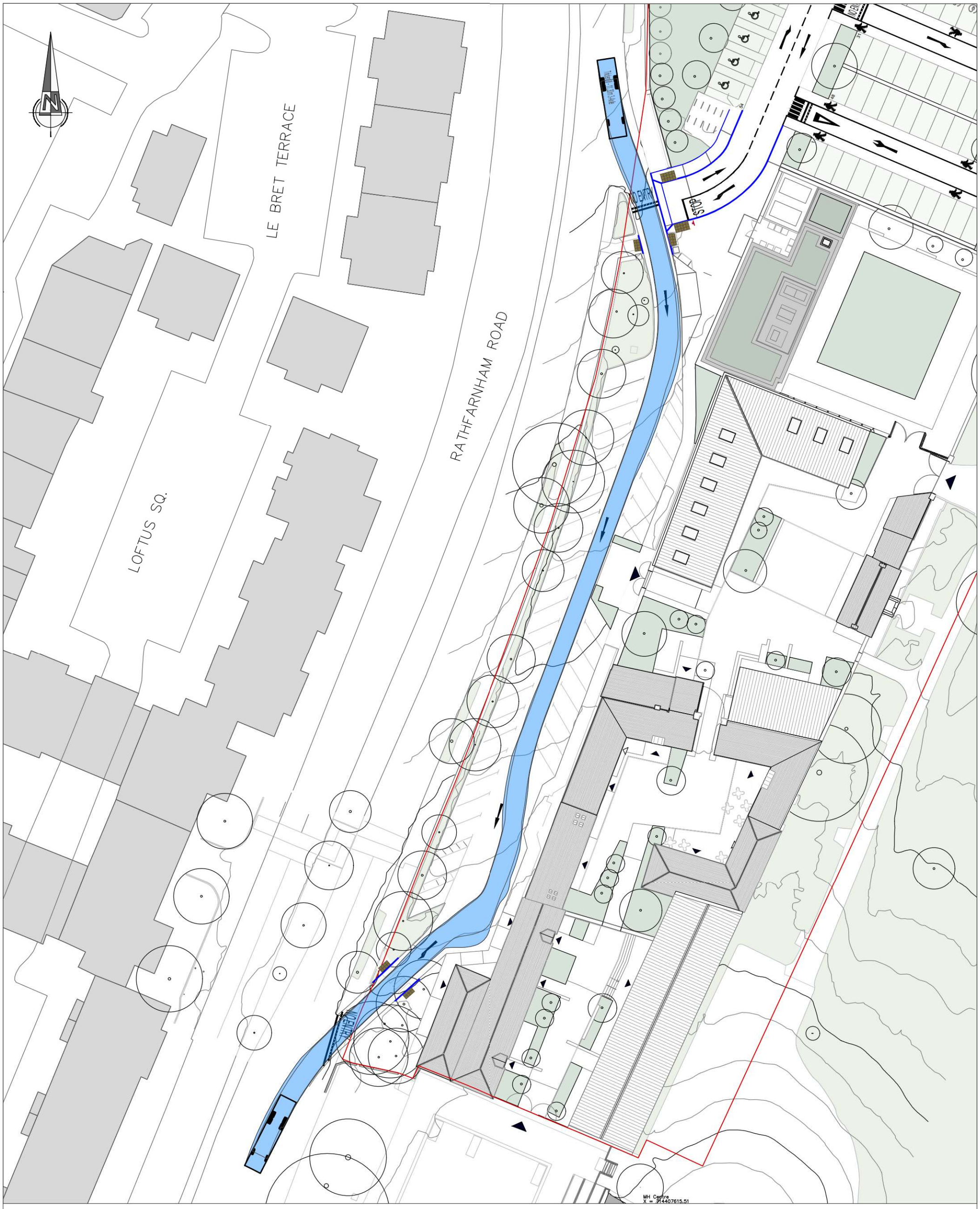
Purpose of Issue: ☐ Draft ☐ As Built ☐ Information ☐ Tender ☐ Approval ☐ Construction



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This drawing is based upon Architects drawing L-101-Site Plan - Proposed, received 14/03/25. NRB Consulting Engineers Ltd shall not be liable for any inaccuracies or deficiencies.

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Client

Project No. 23-089

Drawing No. NRB-TA-005

Project: Rathfarnham Castle
Dublin

Drawn: PB

Checked: ER 24/03/25

Approved: ER 24/03/25

Title: AutoTRACK of a Bus Entering and Exiting

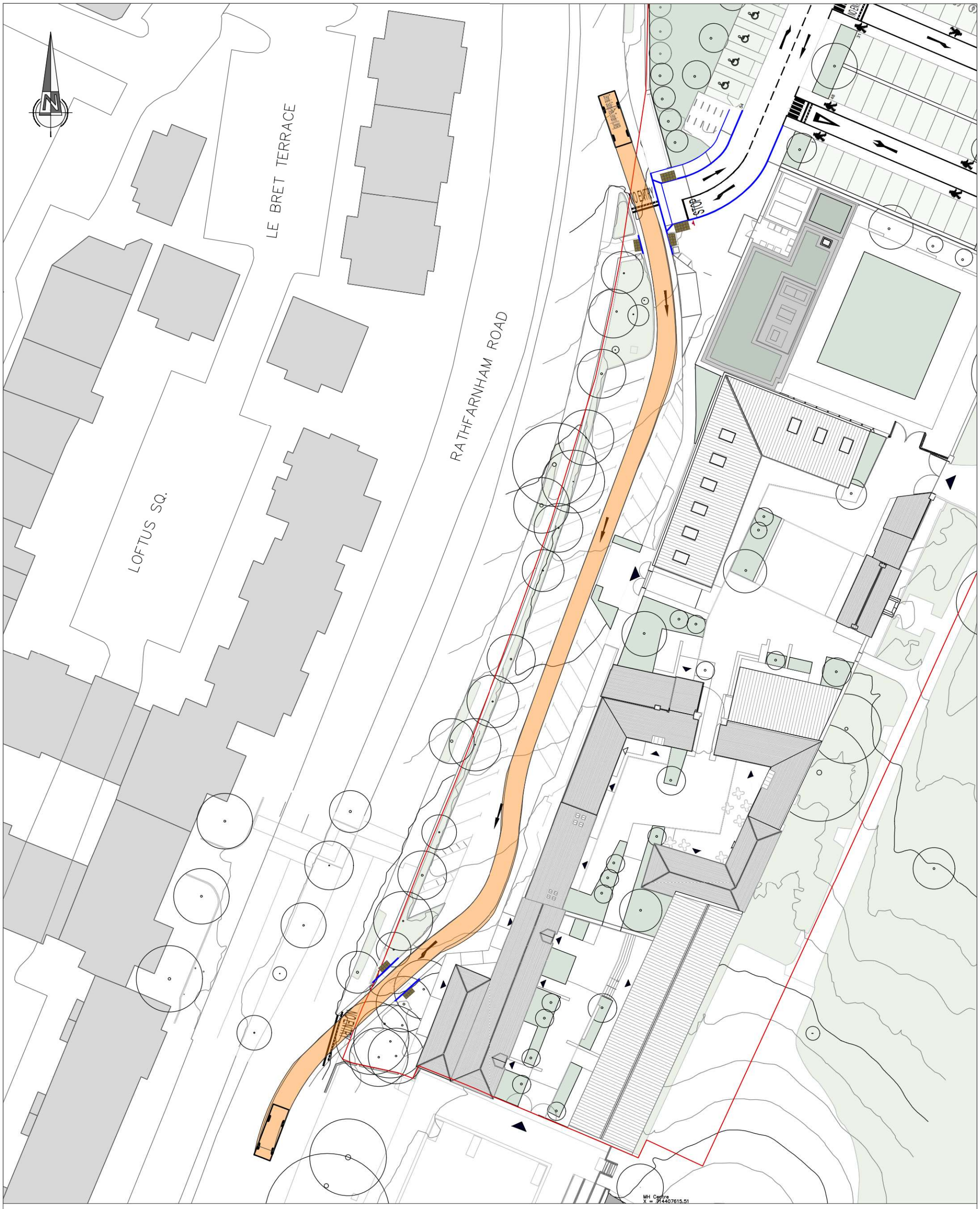
Date: 24-Mar-25

Scale @ A3: 1:500

Rev: A

NRB Consulting Engineers Ltd accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions to be worked to.

Purpose of Issue: ☐ Draft ☐ As Built ☐ Information ☐ Tender ☐ Approval ☐ Construction



NRB Consulting Engineers Ltd recommend that Road and land ownership boundaries are verified through Legal & Land searches by the Client.
This drawing is based upon Architects drawing L-101-Site Plan - Proposed, received 14/03/25. NRB Consulting Engineers Ltd shall not be liable for any inaccuracies or deficiencies.

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Registered in Ireland No. 491679

Client

Project No. 23-089

Drawing No. NRB-TA-006

Project: Rathfarnham Castle
Dublin

Drawn: PB

Checked: ER 24/03/25

Approved: ER 24/03/25

Title: AutoTRACK of a Fire Tender Entering and Exiting

Date: 24-Mar-25

Scale @ A3: 1:500

Rev: A

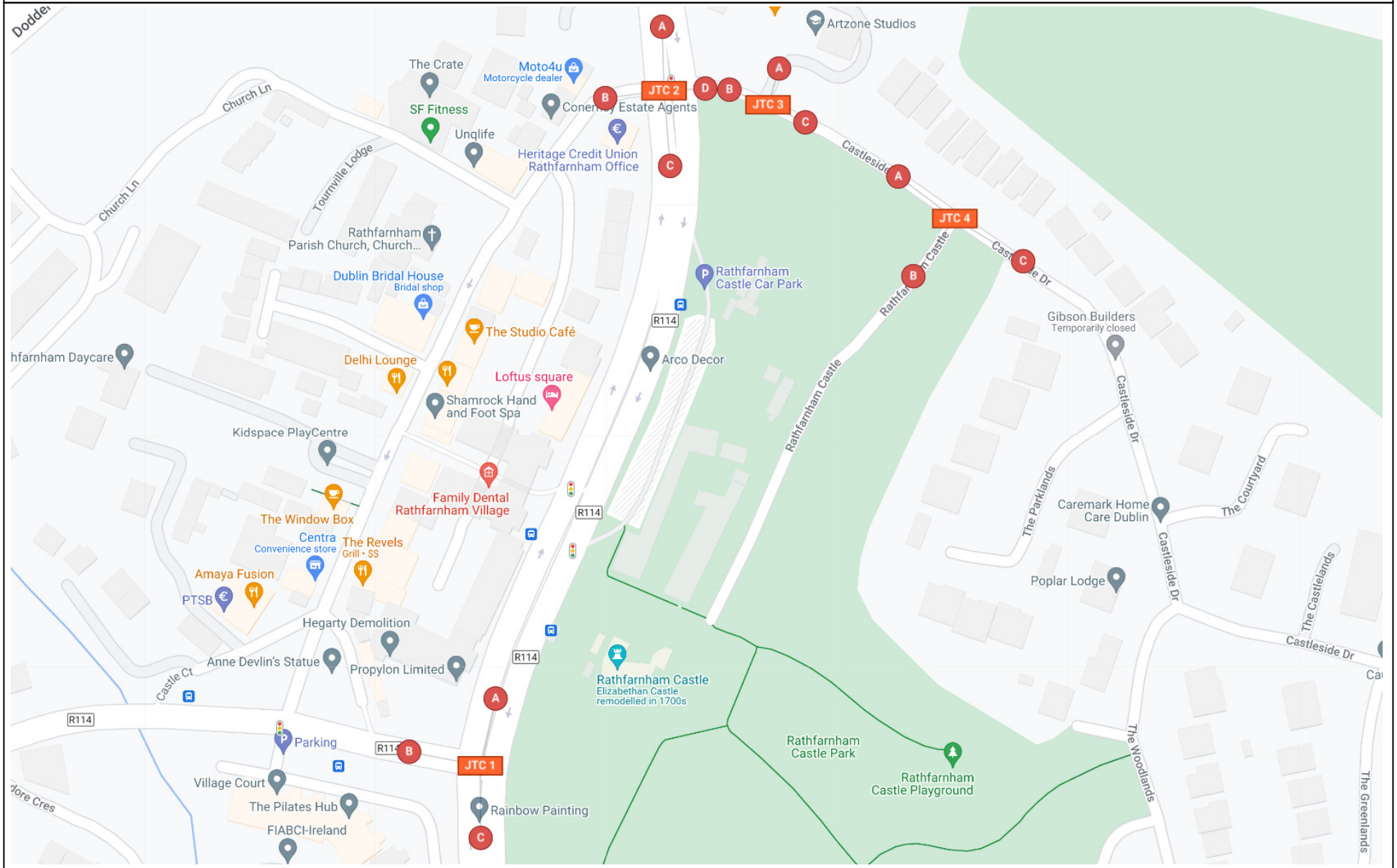
NRB Consulting Engineers Ltd accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions to be worked to.

Purpose of Issue: ☐ Draft ☐ As Built ☐ Information ☐ Tender ☐ Approval ☐ Construction

APPENDIX B

2025 Traffic Survey Data Output

Site/Movement Labelling



	Job number: IDA/24/426	Job Dates: 11th & 13th January 2024	Drawing No: IDA/24/426-01
	Client: NRB Consulting Engineers	Job Days: Thursday & Saturday	Author: IB

IDASO
Innovative Data Solutions

IDASO

24897 - Rathfarnham Castle **NOVEMBER 2024**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **IDA/24/897**

SITE: Site 1 DATE: 14th November 2024

LOCATION: Rathfarnham Rd/Bothar Rath Fearnain/Butterfield Ave DAY: Thursday

	MOVEMENT 1 (A => C)								MOVEMENT 2 (A => B)								MOVEMENT 3 (B => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
07:30	1	0	26	7	1	4	39	43	0	0	6	1	0	1	8	9	0	0	51	2	1	1	55	57
07:45	4	0	41	9	1	2	57	57	0	0	7	1	0	0	8	8	4	1	53	7	1	1	67	65
H/TOT	5	0	67	16	2	6	96	100	0	0	13	2	0	1	16	17	4	1	104	9	2	2	122	122
08:00	5	0	34	6	0	1	46	43	0	0	17	0	1	1	19	21	1	0	46	4	2	2	55	58
08:15	2	1	65	6	0	5	79	82	1	0	28	3	0	1	33	33	4	0	56	2	1	2	65	65
08:30	7	0	71	6	2	1	87	84	0	0	15	1	0	1	17	18	11	1	48	4	0	2	66	59
08:45	7	1	61	4	0	2	75	71	1	0	19	1	0	1	22	22	2	2	59	5	1	0	69	67
H/TOT	21	2	231	22	2	9	287	280	2	0	79	5	1	4	91	94	18	3	209	15	4	6	255	249
09:00	5	0	47	2	0	1	55	52	0	0	21	2	2	0	25	27	2	0	47	5	0	1	55	54
09:15	1	0	39	6	1	2	49	51	0	0	11	0	0	2	13	15	0	0	49	4	1	2	56	59
H/TOT	6	0	86	8	1	3	104	103	0	0	32	2	2	2	38	42	2	0	96	9	1	3	111	113
P/TOT	32	2	384	46	5	18	487	483	2	0	124	9	3	7	145	153	24	4	409	33	7	11	488	484

	MOVEMENT 1 (A => C)								MOVEMENT 2 (A => B)								MOVEMENT 3 (B => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
16:00	10	3	107	7	2	3	132	127	0	0	28	1	1	1	31	33	1	0	44	0	0	1	46	46
16:15	8	5	97	8	0	1	119	111	2	2	32	2	0	1	39	37	1	1	43	1	1	1	48	49
16:30	13	5	98	10	0	1	127	115	0	1	37	1	0	1	40	40	0	1	61	2	1	0	65	65
16:45	7	2	91	12	0	4	116	113	0	0	37	1	0	1	39	40	0	0	44	1	0	1	46	47
H/TOT	38	15	393	37	2	9	494	466	2	3	134	5	1	4	149	150	2	2	192	4	2	3	205	207
17:00	12	2	101	2	1	1	119	110	2	0	28	2	0	0	32	30	0	0	76	3	1	1	81	83
17:15	15	0	88	7	0	1	111	100	1	1	30	0	0	1	33	33	1	0	56	2	0	1	60	60
17:30	13	3	67	6	1	3	93	85	0	1	33	1	0	1	36	36	1	0	50	0	0	1	52	52
17:45	18	0	93	1	0	0	112	98	0	0	21	1	0	0	22	22	1	0	50	3	1	1	56	57
H/TOT	58	5	349	16	2	5	435	393	3	2	112	4	0	2	123	121	3	0	232	8	2	4	249	252
18:00	23	2	96	2	0	3	126	109	0	0	33	0	0	4	37	41	1	1	56	0	0	1	59	59
18:15	11	2	90	1	0	2	106	98	2	0	29	3	0	0	34	32	1	1	58	3	0	1	64	64
H/TOT	34	4	186	3	0	5	232	207	2	0	62	3	0	4	71	73	2	2	114	3	0	2	123	123
P/TOT	130	24	928	56	4	19	1161	1066	7	5	308	12	1	10	343	344	7	4	538	15	4	9	577	582

SITE: Site 1 DATE: 14th November 2024

LOCATION: Rathfarnham Rd/Bothar Rath Fearnain/Butterfield Ave DAY: Thursday

	MOVEMENT 4 (B => C)								MOVEMENT 5 (C => B)								MOVEMENT 6 (C => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
07:30	2	0	49	5	1	2	59	60	2	0	43	4	1	0	50	49	20	2	110	7	1	1	141	126
07:45	2	0	71	15	1	1	90	90	4	0	55	5	1	2	67	67	19	4	103	5	1	2	134	119
H/TOT	4	0	120	20	2	3	149	150	6	0	98	9	2	2	117	116	39	6	213	12	2	3	275	245
08:00	3	0	86	14	0	0	103	101	6	0	85	3	1	1	96	93	31	2	94	7	1	3	138	116
08:15	5	0	89	4	1	1	100	98	6	0	53	4	1	0	64	60	29	2	96	2	0	2	131	109
08:30	5	0	93	5	5	1	109	111	6	0	66	4	0	1	77	73	36	3	69	4	0	2	114	85
08:45	1	1	66	4	2	1	75	77	2	2	57	5	0	1	67	65	34	0	99	7	3	2	145	123
H/TOT	14	1	334	27	8	3	387	387	20	2	261	16	2	3	304	291	130	7	358	20	4	9	528	433
09:00	2	0	50	5	2	1	60	61	6	3	49	4	2	2	66	63	12	1	113	10	1	2	139	132
09:15	2	0	76	6	2	0	86	86	1	0	43	3	2	0	49	50	12	0	86	8	0	3	109	102
H/TOT	4	0	126	11	4	1	146	147	7	3	92	7	4	2	115	113	24	1	199	18	1	5	248	234
P/TOT	22	1	580	58	14	7	682	684	33	5	451	32	8	7	536	520	193	14	770	50	7	17	1051	912

	MOVEMENT 4 (B => C)								MOVEMENT 5 (C => B)								MOVEMENT 6 (C => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
16:00	5	0	73	3	0	0	81	77	2	2	61	8	0	1	74	72	2	1	64	12	0	2	81	81
16:15	2	0	65	3	0	1	71	70	2	1	52	5	0	1	61	60	2	2	102	9	0	2	117	116
16:30	2	0	84	2	0	0	88	86	7	0	50	4	2	2	65	63	3	1	82	9	1	1	97	96
16:45	4	1	78	2	0	0	85	81	2	0	52	7	2	0	63	63	3	2	93	3	0	1	102	99
H/TOT	13	1	300	10	0	1	325	314	13	3	215	24	4	4	263	258	10	6	341	33	1	6	397	392
17:00	3	0	70	4	1	2	80	81	0	0	63	5	0	0	68	68	7	2	89	8	0	2	108	103
17:15	2	0	69	2	0	0	73	71	1	0	65	2	2	2	72	75	7	3	107	5	3	2	127	125
17:30	5	0	54	5	1	1	66	64	0	0	86	4	1	2	93	96	4	0	96	3	1	2	106	106
17:45	5	0	65	5	0	1	76	73	2	0	70	1	0	0	73	71	9	1	120	2	1	0	133	126
H/TOT	15	0	258	16	2	4	295	289	3	0	284	12	3	4	306	310	27	6	412	18	5	6	474	460
18:00	4	0	55	1	1	1	62	61	3	0	57	2	0	1	63	62	5	1	95	5	0	3	109	107
18:15	4	2	65	6	0	1	78	75	0	2	66	5	1	1	75	76	2	0	98	2	0	1	103	102
H/TOT	8	2	120	7	1	2	140	136	3	2	123	7	1	2	138	138	7	1	193	7	0	4	212	209
P/TOT	36	3	678	33	3	7	760	739	19	5	622	43	8	10	707	706	44	13	946	58	6	16	1083	1061

SITE: Site 1 DATE: 23rd November 2024

LOCATION: Rathfarnham Rd/Bothar Rath Fearnain/Butterfield Ave DAY: Saturday

	MOVEMENT 1 (A => C)								MOVEMENT 2 (A => B)								MOVEMENT 3 (B => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
10:00	2	0	75	4	1	3	85	87	0	0	16	1	0	1	18	19	0	0	37	2	2	0	41	43
10:15	1	0	54	4	1	3	63	66	0	1	20	0	0	1	22	22	0	0	32	3	1	1	37	39
10:30	0	1	39	3	0	3	46	48	0	0	18	0	0	1	19	20	0	0	56	2	0	1	59	60
10:45	4	0	77	0	1	2	84	84	0	0	13	0	0	1	14	15	0	0	49	3	0	1	53	54
H/TOT	7	1	245	11	3	11	278	285	0	1	67	1	0	4	73	76	0	0	174	10	3	3	190	196
11:00	2	0	74	6	2	2	86	88	0	0	26	3	0	1	30	31	1	0	53	1	0	1	56	56
11:15	1	3	65	5	0	1	75	73	1	0	27	1	0	1	30	30	0	0	53	2	1	1	57	59
11:30	0	1	67	5	0	2	75	76	0	0	15	0	1	1	17	19	0	0	59	1	0	1	61	62
11:45	3	1	79	2	1	2	88	88	0	0	22	2	1	1	26	28	0	0	52	1	0	1	54	55
H/TOT	6	5	285	18	3	7	324	325	1	0	90	6	2	4	103	108	1	0	217	5	1	4	228	232
12:00	1	2	70	3	0	1	77	76	0	0	28	1	0	1	30	31	0	0	59	1	1	1	62	64
12:15	3	3	84	4	2	2	98	98	0	0	28	2	1	1	32	34	0	0	64	1	2	1	68	71
12:30	1	4	87	5	1	2	100	100	1	0	36	3	0	1	41	41	1	0	62	2	1	1	67	68
12:45	1	0	78	1	2	2	84	87	0	0	27	2	0	1	30	31	0	0	46	2	0	1	49	50
H/TOT	6	9	319	13	5	7	359	361	1	0	119	8	1	4	133	137	1	0	231	6	4	4	246	253
13:00	0	1	74	6	0	1	82	82	0	0	25	1	0	0	26	26	1	1	66	0	0	1	69	69
13:15	5	3	73	3	2	2	88	86	2	0	24	0	0	2	28	28	0	0	71	0	0	1	72	73
13:30	2	0	81	2	0	1	86	85	0	0	30	0	0	1	31	32	1	0	52	2	0	1	56	56
13:45	8	2	98	3	0	3	114	109	1	1	21	2	0	0	25	24	1	2	93	2	0	1	99	98
H/TOT	15	6	326	14	2	7	370	362	3	1	100	3	0	3	110	110	3	3	282	4	0	4	296	296
14:00	3	3	89	1	0	1	97	94	0	0	30	0	0	2	32	34	2	0	74	2	0	1	79	78
14:15	1	1	81	1	0	2	86	87	0	0	26	1	0	0	27	27	1	1	81	4	0	1	88	88
14:30	3	1	85	5	0	1	95	93	0	0	20	0	0	2	22	24	0	0	53	2	0	1	56	57
14:45	1	0	83	5	1	2	92	94	0	0	22	1	3	0	26	29	0	2	58	4	0	1	65	65
H/TOT	8	5	338	12	1	6	370	368	0	0	98	2	3	4	107	114	3	3	266	12	0	4	288	288
15:00	4	1	84	4	1	2	96	95	0	0	36	4	0	0	40	40	1	0	66	2	0	1	70	70
15:15	2	2	87	1	0	2	94	93	0	0	27	4	0	1	32	33	0	0	58	1	0	1	60	61
15:30	1	2	89	5	0	2	99	99	0	0	26	1	0	2	29	31	0	0	59	1	0	1	61	62
15:45	3	2	75	0	0	2	82	80	1	0	27	0	0	0	28	27	1	0	51	0	0	1	53	53
H/TOT	10	7	335	10	1	8	371	367	1	0	116	9	0	3	129	131	2	0	234	4	0	4	244	246
16:00	2	2	78	3	1	2	88	88	0	0	24	2	0	2	28	30	0	1	37	1	0	1	40	40
16:15	5	2	71	1	0	1	80	76	0	0	27	0	0	0	27	27	1	1	50	1	1	1	55	56
16:30	1	0	69	2	0	3	75	77	0	0	26	1	1	1	29	31	0	0	40	0	0	1	41	42
16:45	2	1	77	4	0	2	86	86	0	0	23	1	0	2	26	28	1	0	40	2	0	1	44	44
H/TOT	10	5	295	10	1	8	329	327	0	0	100	4	1	5	110	116	2	2	167	4	1	4	180	182
17:00	1	1	72	1	0	2	77	78	0	0	27	0	0	0	27	27	0	0	48	1	0	1	50	51
17:15	4	1	72	1	0	0	78	74	1	2	22	0	0	1	26	25	0	0	40	1	0	1	42	43
17:30	0	1	90	1	1	4	97	101	0	0	20	0	0	1	21	22	0	1	50	0	0	1	52	52
17:45	1	1	74	1	1	1	79	80	0	1	25	0	0	2	28	29	1	0	43	1	0	1	46	46
H/TOT	6	4	308	4	2	7	331	333	1	3	94	0	0	4	102	103	1	1	181	3	0	4	190	192
P/TOT	68	42	2451	92	18	61	2732	2728	7	5	784	33	7	31	867	895	13	9	1752	48	9	31	1862	1885

SITE: Site 1 DATE: 23rd November 2024

LOCATION: Rathfarnham Rd/Bothar Rath Fearnain/Butterfield Ave DAY: Saturday

	MOVEMENT 4 (B => C)								MOVEMENT 5 (C => B)								MOVEMENT 6 (C => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
10:00	0	1	41	4	1	1	48	49	0	0	37	2	0	1	40	41	3	2	79	10	2	0	96	94
10:15	0	0	70	6	0	1	77	78	1	0	52	5	0	1	59	59	0	1	94	4	2	3	104	108
10:30	0	0	56	7	1	0	64	65	0	0	42	2	0	1	45	46	1	1	76	8	0	1	87	87
10:45	1	0	60	4	1	1	67	68	0	1	46	2	1	1	51	52	0	1	95	6	0	4	106	109
H/TOT	1	1	227	21	3	3	256	260	1	1	177	11	1	4	195	198	4	5	344	28	4	8	393	398
11:00	0	1	65	2	1	1	70	71	0	0	42	3	1	1	47	49	0	1	118	2	1	2	124	126
11:15	0	0	67	1	1	1	70	72	0	0	46	6	1	1	54	56	3	0	103	12	0	2	120	120
11:30	0	0	70	0	0	1	71	72	2	0	48	8	0	1	59	58	1	3	65	0	0	1	70	68
11:45	0	0	65	6	0	1	72	73	1	1	53	0	0	1	56	56	2	1	101	5	0	1	110	109
H/TOT	0	1	267	9	2	4	283	288	3	1	189	17	2	4	216	219	6	5	387	19	1	6	424	423
12:00	0	0	67	2	1	1	71	73	0	0	65	1	0	1	67	68	2	0	103	5	2	2	114	116
12:15	0	0	67	2	0	1	70	71	2	1	71	3	0	1	78	77	0	0	89	2	1	2	94	97
12:30	1	0	70	1	0	1	73	73	0	0	58	3	1	0	62	63	1	2	118	5	0	3	129	130
12:45	0	0	64	2	0	1	67	68	0	0	65	5	0	2	72	74	1	3	111	4	0	1	120	118
H/TOT	1	0	268	7	1	4	281	285	2	1	259	12	1	4	279	282	4	5	421	16	3	8	457	461
13:00	2	0	66	6	0	1	75	74	1	0	50	1	0	1	53	53	2	2	113	4	2	2	125	126
13:15	0	0	58	1	0	0	59	59	0	0	66	2	0	1	69	70	1	1	123	2	0	1	128	128
13:30	0	0	54	4	0	1	59	60	0	0	77	2	0	0	79	79	2	1	132	5	0	3	143	144
13:45	1	0	61	1	0	1	64	64	1	0	61	7	1	2	72	74	2	1	119	8	0	1	131	130
H/TOT	3	0	239	12	0	3	257	257	2	0	254	12	1	4	273	276	7	5	487	19	2	7	527	528
14:00	1	1	66	4	1	2	75	77	0	1	69	1	1	0	72	72	1	3	109	4	2	3	122	124
14:15	0	0	81	5	0	1	87	88	0	2	54	0	0	2	58	59	4	3	113	9	1	0	130	126
14:30	1	1	77	1	0	1	81	81	2	0	75	3	0	1	81	80	5	2	111	5	1	3	127	126
14:45	1	1	59	0	1	1	63	64	1	0	55	2	1	0	59	59	2	3	105	0	0	1	111	109
H/TOT	3	3	283	10	2	5	306	310	3	3	253	6	2	3	270	270	12	11	438	18	4	7	490	485
15:00	1	0	78	4	0	1	84	84	2	1	59	0	1	1	64	64	4	1	117	4	0	3	129	128
15:15	1	0	77	1	0	1	80	80	1	0	76	5	0	1	83	83	3	3	99	5	0	1	111	108
15:30	3	0	68	0	0	1	72	71	0	0	51	3	0	2	56	58	5	1	89	4	0	2	101	98
15:45	1	1	78	2	0	1	83	83	1	1	77	1	0	1	81	81	2	3	83	2	1	1	92	91
H/TOT	6	1	301	7	0	4	319	318	4	2	263	9	1	5	284	286	14	8	388	15	1	7	433	425
16:00	0	0	72	2	0	1	75	76	1	1	71	2	0	1	76	76	5	1	80	3	0	2	91	88
16:15	0	0	59	1	0	1	61	62	0	0	53	4	0	1	58	59	4	3	88	2	0	1	98	94
16:30	1	0	70	1	0	1	73	73	0	1	45	3	0	1	50	50	5	0	82	2	1	3	93	93
16:45	0	0	65	6	0	1	72	73	0	0	70	2	0	1	73	74	2	3	98	3	0	1	107	105
H/TOT	1	0	266	10	0	4	281	284	1	2	239	11	0	4	257	259	16	7	348	10	1	7	389	380
17:00	0	0	61	2	1	1	65	67	2	0	56	1	0	1	60	59	4	1	87	3	0	2	97	95
17:15	1	0	55	1	1	1	59	60	0	2	62	4	0	1	69	69	2	2	93	2	0	2	101	100
17:30	0	3	64	4	1	1	73	73	1	0	73	1	1	1	77	78	1	2	90	4	0	2	99	99
17:45	1	0	57	1	0	1	60	60	0	0	77	2	0	1	80	81	2	0	91	1	1	2	97	98
H/TOT	2	3	237	8	3	4	257	260	3	2	268	8	1	4	286	287	9	5	361	10	1	8	394	392
P/TOT	17	9	2088	84	11	31	2240	2262	19	12	1902	86	9	32	2060	2077	72	51	3174	135	17	58	3507	3492

24897 - Rathfarnham Castle **NOVEMBER 2024**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **IDA/24/897**

SITE: Site 2 DATE: 14th November 2024

LOCATION: Rathfarnham Rd/Castleside Dr/Main St DAY: Thursday

	MOVEMENT 1 (A => D)								MOVEMENT 2 (A => C)								MOVEMENT 3 (A => B)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
07:30	0	0	3	0	1	0	4	5	0	0	24	6	1	5	36	42	1	0	6	1	1	0	9	9
07:45	0	0	1	0	0	0	1	1	3	0	42	10	0	2	57	57	3	0	9	1	0	0	13	11
H/TOT	0	0	4	0	1	0	5	6	3	0	66	16	1	7	93	99	4	0	15	2	1	0	22	20
08:00	4	0	1	0	0	0	5	2	6	0	53	6	1	3	69	68	1	0	11	1	1	0	14	14
08:15	1	0	1	2	0	0	4	3	4	1	87	7	1	4	104	105	4	0	12	1	0	0	17	14
08:30	2	0	2	0	0	0	4	2	5	0	78	7	1	2	93	92	3	0	5	1	1	0	10	9
08:45	0	0	4	0	0	0	4	4	8	1	69	3	0	3	84	80	2	0	17	2	0	0	21	19
H/TOT	7	0	8	2	0	0	17	11	23	2	287	23	3	12	350	345	10	0	45	5	2	0	62	56
09:00	1	0	2	0	0	0	3	2	6	0	60	4	2	1	73	71	2	0	8	2	1	0	13	12
09:15	0	0	2	0	0	0	2	2	0	0	47	6	0	5	58	63	0	0	9	0	0	0	9	9
H/TOT	1	0	4	0	0	0	5	4	6	0	107	10	2	6	131	134	2	0	17	2	1	0	22	21
P/TOT	8	0	16	2	1	0	27	21	32	2	460	49	6	25	574	578	16	0	77	9	4	0	106	97

	MOVEMENT 1 (A => D)								MOVEMENT 2 (A => C)								MOVEMENT 3 (A => B)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
16:00	3	0	8	0	0	0	11	9	10	3	124	8	2	4	151	147	2	1	16	1	0	0	20	18
16:15	1	0	9	1	0	0	11	10	12	7	133	11	0	2	165	153	4	0	22	2	0	0	28	25
16:30	2	0	5	0	0	0	7	5	14	6	119	7	0	3	149	137	1	0	23	2	0	0	26	25
16:45	4	0	4	0	0	0	8	5	9	2	124	11	0	4	150	146	1	0	17	0	0	0	18	17
H/TOT	10	0	26	1	0	0	37	29	45	18	500	37	2	13	615	583	8	1	78	5	0	0	92	85
17:00	4	0	5	0	0	0	9	6	12	2	117	4	1	1	137	128	0	0	28	1	0	0	29	29
17:15	3	0	6	0	0	0	9	7	17	1	97	6	0	3	124	113	1	1	8	2	0	0	12	11
17:30	1	0	2	0	0	0	3	2	15	4	100	6	0	3	128	117	1	0	14	3	0	0	18	17
17:45	1	0	6	0	0	0	7	6	17	0	111	1	0	1	130	117	1	1	20	2	0	0	24	23
H/TOT	9	0	19	0	0	0	28	21	61	7	425	17	1	8	519	475	3	2	70	8	0	0	83	80
18:00	3	0	4	0	0	0	7	5	25	2	109	2	0	6	144	129	1	1	12	0	1	0	15	15
18:15	2	0	1	0	0	0	3	1	14	2	106	4	0	3	129	120	4	0	14	0	0	0	18	15
H/TOT	5	0	5	0	0	0	10	6	39	4	215	6	0	9	273	249	5	1	26	0	1	0	33	30
P/TOT	24	0	50	1	0	0	75	56	145	29	1140	60	3	30	1407	1307	16	4	174	13	1	0	208	195

SITE: Site 2 DATE: 14th November 2024

LOCATION: Rathfarnham Rd/Castleside Dr/Main St DAY: Thursday

	MOVEMENT 4 (B => A)								MOVEMENT 5 (B => D)								MOVEMENT 6 (B => C)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
07:30	2	0	5	0	0	0	7	5	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
07:45	1	1	4	0	0	0	6	5	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
H/TOT	3	1	9	0	0	0	13	10	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5
08:00	2	0	7	0	0	0	9	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	1	0	3	0	0	0	4	3	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	4
08:30	2	0	1	0	0	0	3	1	1	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1
08:45	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	6	0	11	0	0	0	17	11	1	0	0	0	0	0	1	0	0	0	5	1	0	0	6	6
09:00	0	1	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
09:15	2	0	6	0	0	0	8	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	2	1	7	0	0	0	10	7	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
P/TOT	11	2	27	0	0	0	40	28	1	0	0	0	0	0	1	0	0	0	12	1	0	0	13	13

	MOVEMENT 4 (B => A)								MOVEMENT 5 (B => D)								MOVEMENT 6 (B => C)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
16:00	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
16:15	1	0	4	1	0	0	6	5	1	0	0	0	0	0	1	0	0	0	2	0	0	0	2	2
16:30	1	0	1	1	0	0	3	2	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	4
16:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1
H/TOT	2	0	8	2	0	0	12	10	2	0	0	0	0	0	2	0	1	0	6	1	0	0	8	7
17:00	0	0	4	1	0	0	5	5	0	0	1	0	0	0	1	1	0	0	5	0	0	0	5	5
17:15	0	0	6	1	0	0	7	7	2	0	0	0	0	0	2	0	0	0	3	0	0	0	3	3
17:30	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	3	0	1	0	4	5
17:45	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	0	0	17	2	0	0	19	19	2	0	1	0	0	0	3	1	0	0	12	0	1	0	13	14
18:00	1	0	6	0	0	0	7	6	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
18:15	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
H/TOT	1	0	9	0	0	0	10	9	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5
P/TOT	3	0	34	4	0	0	41	38	4	0	1	0	0	0	5	1	1	0	23	1	1	0	26	26

SITE: Site 2 DATE: 14th November 2024

LOCATION: Rathfarnham Rd/Castleside Dr/Main St DAY: Thursday

	MOVEMENT 7 (C => B)								MOVEMENT 8 (C => A)								MOVEMENT 9 (C => D)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
07:30	0	0	14	0	1	0	15	16	21	2	127	9	1	2	162	147	0	0	2	0	0	0	2	2
07:45	0	0	28	2	1	0	31	32	21	5	126	11	1	3	167	151	0	0	1	0	0	0	1	1
H/TOT	0	0	42	2	2	0	46	48	42	7	253	20	2	5	329	298	0	0	3	0	0	0	3	3
08:00	0	0	27	2	0	0	29	29	32	2	120	8	2	4	168	147	0	0	4	0	1	0	5	6
08:15	0	0	38	1	1	0	40	41	34	2	112	3	0	3	154	129	0	0	2	2	0	1	5	6
08:30	2	1	21	1	0	0	25	23	46	3	92	4	0	4	149	114	0	0	3	1	0	0	4	4
08:45	0	0	26	3	2	0	31	33	38	2	122	9	2	2	175	147	0	0	5	0	0	0	5	5
H/TOT	2	1	112	7	3	0	125	126	150	9	446	24	4	13	646	537	0	0	14	3	1	1	19	21
09:00	1	0	35	1	0	0	37	36	13	1	112	13	0	4	143	136	0	0	6	0	1	0	7	8
09:15	0	0	31	2	0	0	33	33	11	0	109	10	0	5	135	131	0	0	4	0	1	0	5	6
H/TOT	1	0	66	3	0	0	70	69	24	1	221	23	0	9	278	267	0	0	10	0	2	0	12	14
P/TOT	3	1	220	12	5	0	241	243	216	17	920	67	6	27	1253	1102	0	0	27	3	3	1	34	38

	MOVEMENT 7 (C => B)								MOVEMENT 8 (C => A)								MOVEMENT 9 (C => D)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
16:00	0	0	21	3	0	0	24	24	4	1	71	8	0	3	87	86	0	0	7	3	0	0	10	10
16:15	1	0	36	2	0	0	39	38	2	3	97	8	0	4	114	115	0	0	9	0	0	0	9	9
16:30	1	0	47	1	0	0	49	48	3	2	93	10	2	1	111	110	0	0	8	0	0	0	8	8
16:45	0	0	37	1	0	0	38	38	1	2	94	2	0	2	101	101	0	0	8	0	0	0	8	8
H/TOT	2	0	141	7	0	0	150	148	10	8	355	28	2	10	413	412	0	0	32	3	0	0	35	35
17:00	0	0	45	3	0	0	48	48	7	2	105	7	1	3	125	122	0	0	9	0	0	0	9	9
17:15	0	0	32	1	1	0	34	35	8	2	122	7	2	3	144	141	0	0	10	1	0	0	11	11
17:30	0	0	32	0	0	0	32	32	2	0	112	2	1	3	120	122	1	0	5	0	0	0	6	5
17:45	0	0	25	1	0	0	26	26	10	1	141	5	2	1	160	154	0	0	4	0	0	0	4	4
H/TOT	0	0	134	5	1	0	140	141	27	5	480	21	6	10	549	539	1	0	28	1	0	0	30	29
18:00	0	0	29	1	0	0	30	30	6	2	121	4	0	4	137	135	0	0	3	0	0	0	3	3
18:15	1	0	19	0	0	0	20	19	4	1	123	4	0	2	134	132	0	0	10	0	0	0	10	10
H/TOT	1	0	48	1	0	0	50	49	10	3	244	8	0	6	271	267	0	0	13	0	0	0	13	13
P/TOT	3	0	323	13	1	0	340	338	47	16	1079	57	8	26	1233	1218	1	0	73	4	0	0	78	77

SITE: Site 2 DATE: 14th November 2024

LOCATION: Rathfarnham Rd/Castleside Dr/Main St DAY: Thursday

	MOVEMENT 10 (D => C)								MOVEMENT 11 (D => B)								MOVEMENT 12 (D => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
07:30	0	0	5	1	0	0	6	6	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	6
07:45	0	0	6	0	1	0	7	8	0	0	0	0	0	0	0	0	1	0	7	0	0	0	8	7
H/TOT	0	0	11	1	1	0	13	14	0	0	0	0	0	0	0	0	1	0	13	0	0	0	14	13
08:00	0	0	4	0	0	0	4	4	0	0	1	0	0	0	1	1	8	1	1	0	0	0	10	3
08:15	0	0	5	1	0	1	7	8	2	0	1	0	0	0	3	1	3	0	7	0	0	0	10	8
08:30	0	0	5	1	0	0	6	6	0	0	0	0	0	0	0	0	5	0	4	1	0	0	10	6
08:45	0	0	3	1	0	0	4	4	0	0	2	0	0	0	2	2	3	0	2	0	0	0	5	3
H/TOT	0	0	17	3	0	1	21	22	2	0	4	0	0	0	6	4	19	1	14	1	0	0	35	20
09:00	0	0	4	0	0	0	4	4	2	0	0	0	0	0	2	0	0	0	6	0	0	0	6	6
09:15	0	0	3	0	1	0	4	5	1	0	0	0	0	0	1	0	0	0	3	1	0	0	4	4
H/TOT	0	0	7	0	1	0	8	9	3	0	0	0	0	0	3	0	0	0	9	1	0	0	10	10
P/TOT	0	0	35	4	2	1	42	45	5	0	4	0	0	0	9	4	20	1	36	2	0	0	59	43

	MOVEMENT 10 (D => C)								MOVEMENT 11 (D => B)								MOVEMENT 12 (D => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
16:00	0	0	7	0	1	0	8	9	2	0	2	0	0	0	4	2	0	0	6	0	0	0	6	6
16:15	0	0	2	1	0	0	3	3	0	0	1	2	0	0	3	3	0	0	8	0	0	0	8	8
16:30	0	0	3	2	0	0	5	5	2	0	0	0	0	0	2	0	0	0	6	0	0	0	6	6
16:45	0	0	3	1	0	0	4	4	0	0	1	0	0	0	1	1	1	0	1	0	0	0	2	1
H/TOT	0	0	15	4	1	0	20	21	4	0	4	2	0	0	10	6	1	0	21	0	0	0	22	21
17:00	0	0	5	0	0	0	5	5	0	0	2	0	0	0	2	2	2	0	7	0	0	0	9	7
17:15	0	0	14	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	8
17:30	0	0	6	0	0	0	6	6	0	0	2	0	0	0	2	2	0	0	6	0	0	0	6	6
17:45	0	0	7	1	0	0	8	8	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	3
H/TOT	0	0	32	1	0	0	33	33	0	0	4	0	0	0	4	4	3	0	24	0	0	0	27	24
18:00	1	0	8	0	0	0	9	8	1	0	1	0	0	0	2	1	0	0	4	0	0	0	4	4
18:15	0	0	3	0	0	0	3	3	2	0	0	0	0	0	2	0	0	0	3	0	0	0	3	3
H/TOT	1	0	11	0	0	0	12	11	3	0	1	0	0	0	4	1	0	0	7	0	0	0	7	7
P/TOT	1	0	58	5	1	0	65	65	7	0	9	2	0	0	18	11	4	0	52	0	0	0	56	52

SITE: Site 2 DATE: 16th November 2024

LOCATION: Rathfarnham Rd/Castleside Dr/Main St DAY: Saturday

	MOVEMENT 1 (A => D)								MOVEMENT 2 (A => C)								MOVEMENT 3 (A => B)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
10:00	0	0	6	0	0	0	6	6	7	1	65	5	1	3	82	80	0	1	5	1	0	0	7	6
10:15	0	0	4	0	1	0	5	6	1	0	68	3	0	3	75	77	0	0	5	2	0	0	7	7
10:30	1	0	1	0	0	0	2	1	3	1	73	3	0	4	84	85	1	0	8	1	0	0	10	9
10:45	1	0	7	0	0	0	8	7	7	0	68	2	0	2	79	75	1	0	9	1	0	0	11	10
H/TOT	2	0	18	0	1	0	21	20	18	2	274	13	1	12	320	317	2	1	27	5	0	0	35	32
11:00	0	0	8	0	0	0	8	8	6	0	70	4	1	4	85	85	0	0	6	1	0	0	7	7
11:15	0	0	6	0	0	0	6	6	9	1	93	4	0	3	110	105	0	0	13	0	0	0	13	13
11:30	0	0	4	0	0	0	4	4	2	0	89	7	1	1	100	100	0	0	19	2	0	0	21	21
11:45	3	0	8	0	0	0	11	9	12	1	114	5	0	7	139	136	0	0	18	1	0	0	19	19
H/TOT	3	0	26	0	0	0	29	27	29	2	366	20	2	15	434	426	0	0	56	4	0	0	60	60
12:00	0	0	9	0	0	0	9	9	8	0	97	4	0	2	111	107	0	0	8	1	0	0	9	9
12:15	3	0	8	1	0	0	12	10	8	1	90	7	0	1	107	101	0	1	18	0	0	0	19	18
12:30	0	0	4	0	0	0	4	4	3	3	86	4	2	4	102	104	0	0	18	1	0	0	19	19
12:45	0	0	4	0	0	0	4	4	3	3	87	7	2	1	103	102	0	0	20	1	0	0	21	21
H/TOT	3	0	25	1	0	0	29	27	22	7	360	22	4	8	423	414	0	1	64	3	0	0	68	67
13:00	1	0	2	0	0	0	3	2	4	3	103	2	0	3	115	113	0	0	15	2	0	0	17	17
13:15	3	0	7	0	1	0	11	10	5	2	97	6	0	2	112	109	2	0	12	0	0	0	14	12
13:30	2	0	1	0	0	0	3	1	9	1	122	3	1	3	139	135	2	0	12	0	0	0	14	12
13:45	1	1	11	0	0	0	13	12	3	4	100	3	0	5	115	115	0	2	14	0	0	0	16	15
H/TOT	7	1	21	0	1	0	30	25	21	10	422	14	1	13	481	472	4	2	53	2	0	0	61	56
14:00	0	0	9	0	0	0	9	9	5	0	100	4	0	1	110	107	0	0	13	0	0	0	13	13
14:15	4	0	7	0	0	0	11	8	5	0	101	5	0	4	115	115	0	1	24	0	0	0	25	24
14:30	0	1	8	0	0	0	9	8	5	2	137	4	0	1	149	145	1	0	20	0	0	0	21	20
14:45	0	0	3	0	0	0	3	3	3	1	95	3	1	2	105	105	0	0	21	0	0	0	21	21
H/TOT	4	1	27	0	0	0	32	28	18	3	433	16	1	8	479	472	1	1	78	0	0	0	80	78
15:00	0	0	6	1	0	0	7	7	7	2	94	4	0	2	109	104	2	0	16	1	0	0	19	17
15:15	0	0	6	0	0	0	6	6	3	0	120	5	0	4	132	134	0	1	20	1	0	0	22	21
15:30	0	0	6	0	0	0	6	6	4	0	121	4	0	3	132	132	0	0	11	1	0	0	12	12
15:45	0	0	7	1	0	0	8	8	3	2	108	4	0	3	120	119	0	0	7	0	0	0	7	7
H/TOT	0	0	25	2	0	0	27	27	17	4	443	17	0	12	493	489	2	1	54	3	0	0	60	57
16:00	0	0	6	0	0	0	6	6	5	1	75	1	1	3	86	85	0	1	18	0	0	0	19	18
16:15	1	0	5	0	0	0	6	5	4	0	77	3	1	3	88	89	1	1	20	1	0	0	23	22
16:30	0	0	7	0	0	0	7	7	1	0	94	0	0	3	98	100	0	0	13	0	0	0	13	13
16:45	1	0	2	0	0	0	3	2	4	1	107	3	0	2	117	115	0	0	10	0	0	0	10	10
H/TOT	2	0	20	0	0	0	22	20	14	2	353	7	2	11	389	389	1	2	61	1	0	0	65	63
17:00	0	0	5	0	0	0	5	5	0	2	108	1	1	3	115	118	0	0	18	0	0	0	18	18
17:15	3	0	5	1	0	0	9	7	2	3	86	3	0	2	96	95	0	0	8	0	0	0	8	8
17:30	0	0	3	0	0	0	3	3	2	1	95	3	1	3	105	107	0	0	12	0	0	0	12	12
17:45	1	0	3	0	0	0	4	3	1	2	101	1	0	3	108	109	0	0	10	3	0	0	13	13
H/TOT	4	0	16	1	0	0	21	18	5	8	390	8	2	11	424	429	0	0	48	3	0	0	51	51
P/TOT	25	2	178	4	2	0	211	192	144	38	3041	117	13	90	3443	3408	10	8	441	21	0	0	480	464

24897 - Rathfarnham Castle **NOVEMBER 2024**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **IDA/24/897**

SITE: Site 2 DATE: 16th November 2024

LOCATION: Rathfarnham Rd/Castleside Dr/Main St DAY: Saturday

	MOVEMENT 4 (B => A)								MOVEMENT 5 (B => D)								MOVEMENT 6 (B => C)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
10:00	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
10:15	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
10:30	0	0	6	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
10:45	1	0	7	0	0	0	8	7	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	2
H/TOT	1	0	16	0	0	0	17	16	0	0	0	0	0	0	0	0	0	1	5	0	0	0	6	5
11:00	2	0	3	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0	0	1	3	0	0	0	4	3
11:30	0	1	2	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
11:45	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	2	1	9	0	0	0	12	9	0	0	0	0	0	0	0	0	0	1	6	0	0	0	7	6
12:00	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	1	0	5	0	1	0	7	7	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	1
12:30	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
12:45	1	0	2	0	1	0	4	4	0	0	1	0	0	0	1	1	0	1	1	1	0	0	3	2
H/TOT	3	0	10	0	2	0	15	14	0	0	1	0	0	0	1	1	1	2	2	1	0	0	6	3
13:00	1	0	2	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
13:15	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
13:30	1	0	6	0	0	0	7	6	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	1
13:45	0	0	5	0	0	0	5	5	0	0	0	0	0	0	0	0	0	1	5	0	0	0	6	5
H/TOT	2	0	15	0	0	0	17	15	0	0	0	0	0	0	0	0	1	1	10	0	0	0	12	10
14:00	0	1	5	0	0	0	6	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
14:15	0	0	6	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
14:30	1	0	3	0	0	0	4	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
14:45	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	2	0	0	0	2	2
H/TOT	2	1	14	0	0	0	17	14	1	0	0	0	0	0	1	0	0	1	6	0	0	0	7	6
15:00	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
15:15	0	0	2	1	0	0	3	3	0	0	2	0	0	0	2	2	0	0	2	0	0	0	2	2
15:30	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
15:45	1	0	2	0	0	0	3	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
H/TOT	1	0	10	1	0	0	12	11	0	0	2	0	0	0	2	2	1	1	4	0	0	0	6	4
16:00	0	0	2	0	0	0	2	2	1	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1
16:15	1	0	2	1	0	0	4	3	1	0	0	0	0	0	1	0	0	0	2	0	0	0	2	2
16:30	1	1	4	0	0	0	6	5	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	4
16:45	0	0	5	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
H/TOT	2	1	13	1	0	0	17	15	2	0	0	0	0	0	2	0	0	0	6	1	1	0	8	9
17:00	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
17:15	1	0	3	0	0	0	4	3	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
17:30	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
17:45	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
H/TOT	1	0	10	0	0	0	11	10	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	8
P/TOT	14	3	97	2	2	0	118	104	3	0	3	0	0	0	6	3	3	7	47	2	1	0	60	51

SITE: Site 2 DATE: 16th November 2024

LOCATION: Rathfarnham Rd/Castleside Dr/Main St DAY: Saturday

	MOVEMENT 7 (C => B)								MOVEMENT 8 (C => A)								MOVEMENT 9 (C => D)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
10:00	0	1	24	2	1	0	28	28	4	0	83	4	1	2	94	94	0	0	10	0	0	0	10	10
10:15	1	0	14	1	1	0	17	17	4	3	99	2	0	3	111	109	0	0	3	1	0	0	4	4
10:30	0	0	22	0	0	0	22	22	4	0	114	3	3	3	127	130	0	0	6	0	0	0	6	6
10:45	0	1	24	1	0	0	26	25	3	2	101	3	3	2	114	115	0	0	12	0	0	0	12	12
H/TOT	1	2	84	4	2	0	93	92	15	5	397	12	7	10	446	448	0	0	31	1	0	0	32	32
11:00	0	1	23	0	0	0	24	23	2	0	101	5	0	3	111	112	0	0	25	1	0	0	26	26
11:15	0	0	31	2	0	0	33	33	3	0	98	5	0	2	108	108	0	0	4	0	0	0	4	4
11:30	0	0	28	0	0	0	28	28	9	4	106	5	0	4	128	122	0	0	6	0	0	0	6	6
11:45	0	0	25	0	0	0	25	25	3	4	101	2	0	2	112	109	0	0	3	0	0	0	3	3
H/TOT	0	1	107	2	0	0	110	109	17	8	406	17	0	11	459	451	0	0	38	1	0	0	39	39
12:00	1	0	24	1	1	0	27	27	2	1	113	3	0	3	122	123	0	0	11	0	0	0	11	11
12:15	0	0	26	1	0	0	27	27	8	1	129	5	0	1	144	138	0	0	9	0	0	0	9	9
12:30	0	1	21	3	1	0	26	26	9	1	116	4	1	4	135	132	0	0	9	0	0	0	9	9
12:45	0	1	31	0	0	0	32	31	4	0	115	7	0	2	128	127	0	0	7	0	0	0	7	7
H/TOT	1	2	102	5	2	0	112	111	23	3	473	19	1	10	529	520	0	0	36	0	0	0	36	36
13:00	0	0	18	0	0	0	18	18	8	4	116	1	0	4	133	128	0	0	7	1	0	0	8	8
13:15	0	0	17	1	0	0	18	18	11	3	106	9	2	2	133	126	0	0	8	0	0	0	8	8
13:30	1	0	22	1	0	0	24	23	8	2	112	5	0	3	130	125	0	1	6	0	0	0	7	6
13:45	0	0	28	0	0	0	28	28	3	2	120	4	0	2	131	129	0	0	8	0	0	0	8	8
H/TOT	1	0	85	2	0	0	88	87	30	11	454	19	2	11	527	508	0	1	29	1	0	0	31	30
14:00	0	0	20	1	0	0	21	21	7	2	130	2	1	4	146	144	0	0	10	1	0	0	11	11
14:15	0	0	16	0	0	0	16	16	6	1	118	3	1	3	132	131	0	0	4	1	0	0	5	5
14:30	1	0	24	1	0	0	26	25	6	1	130	7	1	3	148	147	0	0	5	0	0	0	5	5
14:45	0	1	40	0	0	0	41	40	10	1	125	2	0	2	140	133	0	0	14	0	0	0	14	14
H/TOT	1	1	100	2	0	0	104	102	29	5	503	14	3	12	566	555	0	0	33	2	0	0	35	35
15:00	0	0	30	4	0	0	34	34	2	2	88	4	0	3	99	99	0	0	15	0	0	0	15	15
15:15	0	1	38	1	0	0	40	39	5	2	123	2	0	2	134	131	0	0	7	2	0	0	9	9
15:30	0	0	23	1	0	0	24	24	5	0	114	5	1	2	127	126	0	0	7	0	0	0	7	7
15:45	0	0	24	4	0	0	28	28	4	1	115	3	1	4	128	129	0	0	5	0	0	0	5	5
H/TOT	0	1	115	10	0	0	126	125	16	5	440	14	2	11	488	485	0	0	34	2	0	0	36	36
16:00	0	0	25	1	0	0	26	26	1	2	121	4	1	3	132	134	0	0	8	0	0	0	8	8
16:15	0	0	33	0	1	0	34	35	8	2	130	1	0	3	144	139	0	0	5	0	0	0	5	5
16:30	0	0	19	0	0	0	19	19	8	2	119	4	0	2	135	129	0	1	11	0	0	0	12	11
16:45	0	0	24	0	0	0	24	24	5	1	128	6	1	3	144	143	0	0	6	0	0	0	6	6
H/TOT	0	0	101	1	1	0	103	104	22	7	498	15	2	11	555	545	0	1	30	0	0	0	31	30
17:00	0	0	26	2	0	0	28	28	1	1	113	3	0	3	121	123	0	0	3	0	0	0	3	3
17:15	0	0	30	0	0	0	30	30	1	2	112	1	0	3	119	120	0	0	8	0	0	0	8	8
17:30	0	0	31	1	0	0	32	32	2	3	96	4	0	2	107	106	0	0	10	0	0	0	10	10
17:45	0	0	23	1	0	0	24	24	4	3	85	0	0	3	95	93	0	0	9	0	0	0	9	9
H/TOT	0	0	110	4	0	0	114	114	8	9	406	8	0	11	442	442	0	0	30	0	0	0	30	30
P/TOT	4	7	804	30	5	0	850	844	160	53	3577	118	17	87	4012	3954	0	2	261	7	0	0	270	268

SITE: Site 2 DATE: 16th November 2024

LOCATION: Rathfarnham Rd/Castleside Dr/Main St DAY: Saturday

	MOVEMENT 10 (D => C)								MOVEMENT 11 (D => B)								MOVEMENT 12 (D => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
10:00	0	0	11	0	0	0	11	11	0	0	1	0	0	0	1	1	0	0	3	0	0	0	3	3
10:15	0	0	10	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	7
10:30	0	0	4	0	0	0	4	4	0	0	2	0	0	0	2	2	0	0	4	0	0	0	4	4
10:45	0	0	8	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
H/TOT	0	0	33	0	0	0	33	33	0	0	3	0	0	0	3	3	0	0	18	0	0	0	18	18
11:00	1	0	25	1	0	0	27	26	0	0	2	0	0	0	2	2	0	0	12	0	0	0	12	12
11:15	0	0	7	0	0	0	7	7	0	0	1	0	0	0	1	1	1	0	4	0	1	0	6	6
11:30	0	0	2	0	0	0	2	2	0	0	1	0	0	0	1	1	0	0	2	0	0	0	2	2
11:45	0	0	5	0	0	0	5	5	0	0	1	0	0	0	1	1	1	0	4	1	0	0	6	5
H/TOT	1	0	39	1	0	0	41	40	0	0	5	0	0	0	5	5	2	0	22	1	1	0	26	25
12:00	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
12:15	0	0	22	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	8
12:30	1	0	7	0	0	0	8	7	0	0	2	0	0	0	2	2	1	0	7	0	0	0	8	7
12:45	0	0	6	0	0	0	6	6	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	1
H/TOT	1	0	37	0	0	0	38	37	0	0	2	0	0	0	2	2	2	0	19	0	0	0	21	19
13:00	0	0	4	1	0	0	5	5	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
13:15	0	0	9	0	0	0	9	9	0	0	2	0	0	0	2	2	0	0	1	1	0	0	2	2
13:30	0	0	12	0	0	0	12	12	0	0	1	0	0	0	1	1	4	0	10	1	0	0	15	12
13:45	0	0	6	0	1	0	7	8	0	1	1	0	0	0	2	1	0	0	9	0	0	0	9	9
H/TOT	0	0	31	1	1	0	33	34	0	1	4	0	0	0	5	4	4	0	22	2	0	0	28	25
14:00	0	0	5	0	0	0	5	5	0	0	1	0	0	0	1	1	0	0	7	0	0	0	7	7
14:15	0	0	5	0	0	0	5	5	1	0	0	0	0	0	1	0	0	0	4	0	0	0	4	4
14:30	0	1	12	0	0	0	13	12	1	0	4	0	0	0	5	4	0	0	4	0	0	0	4	4
14:45	0	0	5	0	0	0	5	5	1	0	1	0	0	0	2	1	0	0	3	0	0	0	3	3
H/TOT	0	1	27	0	0	0	28	27	3	0	6	0	0	0	9	6	0	0	18	0	0	0	18	18
15:00	0	0	14	0	0	0	14	14	0	0	2	0	0	0	2	2	0	0	12	0	0	0	12	12
15:15	0	0	13	0	0	0	13	13	0	0	0	0	0	0	0	0	3	0	4	0	0	0	7	5
15:30	0	0	8	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
15:45	0	0	3	0	0	0	3	3	0	0	1	0	0	0	1	1	1	0	5	3	0	0	9	8
H/TOT	0	0	38	0	0	0	38	38	0	0	3	0	0	0	3	3	4	0	23	3	0	0	30	27
16:00	0	0	12	0	0	0	12	12	1	0	1	0	0	0	2	1	2	0	8	0	0	0	10	8
16:15	0	0	5	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	10
16:30	0	1	7	0	0	0	8	7	0	0	0	0	0	0	0	0	1	0	5	0	0	0	6	5
16:45	0	0	8	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	0	1	32	0	0	0	33	32	1	0	1	0	0	0	2	1	3	0	24	0	0	0	27	24
17:00	0	0	5	0	0	0	5	5	0	0	2	0	0	0	2	2	1	0	2	0	0	0	3	2
17:15	0	0	6	0	0	0	6	6	0	0	1	0	0	0	1	1	1	0	8	0	0	0	9	8
17:30	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5
17:45	0	0	2	0	0	0	2	2	0	0	1	0	0	0	1	1	0	0	5	0	0	0	5	5
H/TOT	0	0	14	0	0	0	14	14	0	0	4	0	0	0	4	4	2	0	20	0	0	0	22	20
P/TOT	2	2	251	2	1	0	258	255	4	1	28	0	0	0	33	28	17	0	166	6	1	0	190	176

SITE: Site 3 DATE: 14th November 2024

LOCATION: Artzone Studio/Castleside Dr DAY: Thursday

	MOVEMENT 1 (A => C)								MOVEMENT 2 (A => B)								MOVEMENT 3 (B => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	3	4
07:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	2	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	4	0	1	0	5	6
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	3
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
09:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	3	0	0	0	3	3
P/TOT	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	2	0	0	9	1	1	0	11	12

	MOVEMENT 1 (A => C)								MOVEMENT 2 (A => B)								MOVEMENT 3 (B => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
16:00	1	0	0	0	0	0	1	0	0	0	14	0	0	0	14	14	0	0	5	0	0	0	5	5
16:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1
16:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	1	0	0	0	2	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
H/TOT	1	0	0	0	0	0	1	0	0	0	16	0	0	0	16	16	1	0	10	0	0	0	11	10
17:00	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	7	1	0	4	0	0	0	5	4
17:15	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4	0	0	7	1	0	0	8	8
17:30	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5	0	0	2	0	0	0	2	2
17:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	18	0	0	0	18	18	1	0	13	1	0	0	15	14
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	3	0	0	0	4	3
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	3	0	0	0	4	3
P/TOT	1	0	0	0	0	0	1	0	0	0	35	0	0	0	35	35	3	0	26	1	0	0	30	27

SITE: Site 3 DATE: 14th November 2024

LOCATION: Artzone Studio/Castleside Dr DAY: Thursday

	MOVEMENT 4 (B => C)								MOVEMENT 5 (C => B)								MOVEMENT 6 (C => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
07:30	0	0	2	0	0	0	2	2	0	0	9	1	0	0	10	10	0	0	0	0	0	0	0	0
07:45	0	0	1	0	0	0	1	1	1	0	13	0	0	0	14	13	0	0	0	0	0	0	0	0
H/TOT	0	0	3	0	0	0	3	3	1	0	22	1	0	0	24	23	0	0	0	0	0	0	0	0
08:00	4	0	3	0	1	0	8	6	9	1	7	0	0	0	17	9	0	0	0	0	0	0	0	0
08:15	1	0	4	3	0	0	8	7	4	0	14	1	0	0	19	16	0	0	0	0	0	0	0	0
08:30	3	0	4	1	0	0	8	6	6	0	7	2	0	0	15	10	0	0	0	0	0	0	0	0
08:45	0	0	9	0	0	0	9	9	2	0	8	1	0	0	11	9	0	0	0	0	0	0	0	0
H/TOT	8	0	20	4	1	0	33	28	21	1	36	4	0	0	62	44	0	0	0	0	0	0	0	0
09:00	1	0	7	0	1	0	9	9	2	0	9	0	0	0	11	9	0	0	0	0	0	0	0	0
09:15	0	0	4	0	1	0	5	6	0	0	6	1	1	0	8	9	0	0	0	0	0	0	0	0
H/TOT	1	0	11	0	2	0	14	15	2	0	15	1	1	0	19	18	0	0	0	0	0	0	0	0
P/TOT	9	0	34	4	3	0	50	46	24	1	73	6	1	0	105	85	0	0	0	0	0	0	0	0

	MOVEMENT 4 (B => C)								MOVEMENT 5 (C => B)								MOVEMENT 6 (C => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
16:00	3	0	10	3	0	0	16	14	2	0	4	0	1	0	7	6	0	0	0	0	0	0	0	0
16:15	2	0	17	1	0	0	20	18	0	0	7	3	0	0	10	10	0	0	0	0	0	0	0	0
16:30	1	0	12	0	0	0	13	12	2	0	8	2	0	0	12	10	0	0	0	0	0	0	0	0
16:45	5	0	9	0	0	0	14	10	1	0	5	1	0	0	7	6	0	0	0	0	0	0	0	0
H/TOT	11	0	48	4	0	0	63	54	5	0	24	6	1	0	36	32	0	0	0	0	0	0	0	0
17:00	3	0	11	0	0	0	14	12	2	0	8	0	0	0	10	8	0	0	0	0	0	0	0	0
17:15	5	0	10	0	0	0	15	11	0	0	17	0	0	0	17	17	0	0	0	0	0	0	0	0
17:30	1	0	6	0	0	0	7	6	0	0	9	0	0	0	9	9	0	0	0	0	0	0	0	0
17:45	2	0	8	0	0	0	10	8	1	0	7	1	0	0	9	8	0	0	0	0	0	0	0	0
H/TOT	11	0	35	0	0	0	46	37	3	0	41	1	0	0	45	42	0	0	0	0	0	0	0	0
18:00	3	0	7	0	0	0	10	8	2	0	13	0	0	0	15	13	0	0	0	0	0	0	0	0
18:15	1	0	8	0	0	0	9	8	2	0	5	0	0	0	7	5	0	0	0	0	0	0	0	0
H/TOT	4	0	15	0	0	0	19	16	4	0	18	0	0	0	22	18	0	0	0	0	0	0	0	0
P/TOT	26	0	98	4	0	0	128	107	12	0	83	7	1	0	103	92	0	0	0	0	0	0	0	0

SITE: Site 3 DATE: 16th November 2024

LOCATION: Artzone Studio/Castleside Dr DAY: Saturday

	MOVEMENT 1 (A => C)								MOVEMENT 2 (A => B)								MOVEMENT 3 (B => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
10:00	0	0	0	0	0	0	0	0	0	0	12	0	0	0	12	12	0	0	12	0	0	0	12	12
10:15	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	2	0	0	0	2	2
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	13	13
H/TOT	0	0	0	0	0	0	0	0	0	0	15	0	0	0	15	15	0	0	27	0	0	0	27	27
11:00	0	0	1	0	0	0	1	1	0	0	24	0	0	0	24	24	0	0	18	0	0	0	18	18
11:15	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5	0	0	5	0	0	0	5	5
11:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
H/TOT	0	0	1	0	0	0	1	1	0	0	30	0	0	0	30	30	0	0	25	0	0	0	25	25
12:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	8	0	0	0	8	8
12:15	0	0	0	0	0	0	0	0	0	0	25	0	0	0	25	25	2	0	10	1	0	0	13	11
12:30	0	0	0	0	0	0	0	0	1	0	2	0	0	0	3	2	0	0	4	0	0	0	4	4
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	1	0	28	0	0	0	29	28	2	0	22	1	0	0	25	23
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	4	3
13:30	0	0	0	0	0	0	0	0	2	0	16	1	0	0	19	17	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5	0	0	9	0	0	0	9	9
H/TOT	0	0	0	0	0	0	0	0	2	0	21	1	0	0	24	22	1	0	14	0	0	0	15	14
14:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	6	0	0	0	6	6
14:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	5	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	0	0	11	0	0	0	11	11
15:00	0	0	0	0	0	0	0	0	0	0	18	0	0	0	18	18	0	0	5	1	0	0	6	6
15:15	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5	0	0	4	0	0	0	4	4
15:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1
15:45	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	25	1	0	0	26	26	0	0	10	1	0	0	11	11
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
16:15	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	2	0	0	0	2	2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
17:15	0	0	0	0	0	0	0	0	1	0	7	0	0	0	8	7	0	0	2	0	0	0	2	2
17:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	1	0	8	0	0	0	9	8	0	0	6	0	0	0	6	6
P/TOT	0	0	1	0	0	0	1	1	4	0	132	2	0	0	138	134	3	0	117	2	0	0	122	119

SITE: Site 3 DATE: 16th November 2024

LOCATION: Artzone Studio/Castleside Dr DAY: Saturday

	MOVEMENT 4 (B => C)								MOVEMENT 5 (C => B)								MOVEMENT 6 (C => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
10:00	0	0	4	0	0	0	4	4	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0
10:15	0	0	7	1	1	0	9	10	0	0	15	0	0	0	15	15	0	0	0	0	0	0	0	0
10:30	1	0	4	0	0	0	5	4	0	0	9	0	0	0	9	9	0	0	0	0	0	0	0	0
10:45	1	0	5	0	0	0	6	5	0	0	13	0	0	0	13	13	0	0	1	0	0	0	1	1
H/TOT	2	0	20	1	1	0	24	23	0	0	39	0	0	0	39	39	0	0	1	0	0	0	1	1
11:00	0	0	15	1	0	0	16	16	1	0	15	1	1	0	18	18	0	0	1	0	0	0	1	1
11:15	0	0	7	0	0	0	7	7	1	0	6	0	0	0	7	6	0	0	0	0	0	0	0	0
11:30	0	0	10	0	0	0	10	10	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0
11:45	3	0	9	0	0	0	12	10	1	0	10	1	0	0	12	11	0	0	0	0	0	0	0	0
H/TOT	3	0	41	1	0	0	45	43	3	0	35	2	1	0	41	39	0	0	1	0	0	0	1	1
12:00	0	0	12	0	0	0	12	12	0	0	4	0	0	0	4	4	0	0	1	0	0	0	1	1
12:15	1	0	7	0	0	0	8	7	0	0	6	0	0	0	6	6	0	0	0	0	0	0	0	0
12:30	0	0	9	0	0	0	9	9	1	0	13	0	0	0	14	13	0	0	0	0	0	0	0	0
12:45	0	0	12	0	0	0	12	12	1	0	7	0	0	0	8	7	0	0	0	0	0	0	0	0
H/TOT	1	0	40	0	0	0	41	40	2	0	30	0	0	0	32	30	0	0	1	0	0	0	1	1
13:00	1	0	7	1	0	0	9	8	0	0	7	1	0	0	8	8	0	0	0	0	0	0	0	0
13:15	2	0	12	0	1	0	15	14	0	0	11	1	0	0	12	12	0	0	0	0	0	0	0	0
13:30	2	1	6	0	0	0	9	7	2	0	9	0	0	0	11	9	0	0	0	0	0	0	0	0
13:45	1	1	10	0	0	0	12	11	0	1	9	0	1	0	11	11	0	0	0	0	0	0	0	0
H/TOT	6	2	35	1	1	0	45	40	2	1	36	2	1	0	42	40	0	0	0	0	0	0	0	0
14:00	0	0	10	1	0	0	11	11	0	0	11	0	0	0	11	11	0	0	0	0	0	0	0	0
14:15	4	0	13	1	0	0	18	15	1	0	7	0	0	0	8	7	0	0	0	0	0	0	0	0
14:30	0	1	12	0	0	0	13	12	1	1	19	0	0	0	21	20	0	0	0	0	0	0	0	0
14:45	1	0	11	0	0	0	12	11	1	0	8	0	0	0	9	8	0	0	1	0	0	0	1	1
H/TOT	5	1	46	2	0	0	54	49	3	1	45	0	0	0	49	46	0	0	1	0	0	0	1	1
15:00	0	0	15	0	0	0	15	15	0	0	9	0	0	0	9	9	0	0	0	0	0	0	0	0
15:15	0	0	12	2	0	0	14	14	3	0	12	0	0	0	15	13	0	0	0	0	0	0	0	0
15:30	0	0	10	0	0	0	10	10	0	0	9	0	0	0	9	9	0	0	0	0	0	0	0	0
15:45	0	0	14	1	0	0	15	15	1	0	8	2	0	0	11	10	0	0	0	0	0	0	0	0
H/TOT	0	0	51	3	0	0	54	54	4	0	38	2	0	0	44	41	0	0	0	0	0	0	0	0
16:00	1	0	13	0	0	0	14	13	3	0	24	0	0	0	27	25	0	0	0	0	0	0	0	0
16:15	2	0	10	0	0	0	12	10	0	0	10	0	0	0	10	10	0	0	0	0	0	0	0	0
16:30	0	0	18	0	0	0	18	18	1	0	12	0	0	0	13	12	0	0	0	0	0	0	0	0
16:45	1	0	7	0	0	0	8	7	0	0	11	0	0	0	11	11	0	0	0	0	0	0	0	0
H/TOT	4	0	48	0	0	0	52	48	4	0	57	0	0	0	61	58	0	0	0	0	0	0	0	0
17:00	0	0	5	0	0	0	5	5	1	0	7	0	0	0	8	7	0	0	0	0	0	0	0	0
17:15	3	0	8	1	0	0	12	10	0	0	8	0	0	0	8	8	0	0	0	0	0	0	0	0
17:30	0	0	14	0	0	0	14	14	0	0	5	0	0	0	5	5	0	0	0	0	0	0	0	0
17:45	1	0	12	0	0	0	13	12	0	0	8	0	0	0	8	8	0	0	0	0	0	0	0	0
H/TOT	4	0	39	1	0	0	44	41	1	0	28	0	0	0	29	28	0	0	0	0	0	0	0	0
P/TOT	25	3	320	9	2	0	359	338	19	2	308	6	2	0	337	321	0	0	4	0	0	0	4	4

SITE: Site 4 DATE: 14th November 2024

LOCATION: Castleside Dr/Rathfarnham Castle DAY: Thursday

	MOVEMENT 1 (A => C)								MOVEMENT 2 (A => B)								MOVEMENT 3 (B => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
07:30	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
H/TOT	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
08:00	4	0	3	0	0	0	7	4	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0
08:15	2	0	3	2	0	0	7	5	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0
08:30	1	0	3	0	0	0	4	3	2	0	0	1	0	0	3	1	1	0	0	1	0	0	2	1
08:45	0	0	8	0	0	0	8	8	0	0	1	0	0	0	1	1	0	0	0	1	0	0	1	1
H/TOT	7	0	17	2	0	0	26	20	2	0	1	2	1	0	6	5	1	0	0	2	0	0	3	2
09:00	1	0	5	0	0	0	6	5	0	0	2	0	1	0	3	4	0	0	0	0	0	0	0	0
09:15	0	0	3	0	0	0	3	3	0	0	1	0	1	0	2	3	0	0	0	0	1	0	1	2
H/TOT	1	0	8	0	0	0	9	8	0	0	3	0	2	0	5	7	0	0	0	0	1	0	1	2
P/TOT	8	0	27	2	0	0	37	30	2	0	4	2	3	0	11	12	2	0	0	2	1	0	5	4

	MOVEMENT 1 (A => C)								MOVEMENT 2 (A => B)								MOVEMENT 3 (B => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
16:00	3	0	11	3	0	0	17	15	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	2
16:15	3	0	16	1	0	0	20	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	1	0	11	0	0	0	12	11	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
16:45	4	0	10	0	0	0	14	11	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
H/TOT	11	0	48	4	0	0	63	55	1	0	0	0	0	0	1	0	3	0	0	0	1	0	4	2
17:00	3	0	11	0	0	0	14	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	4	0	8	0	0	0	12	9	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
17:30	1	0	6	0	0	0	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	2	0	9	0	0	0	11	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	10	0	34	0	0	0	44	36	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
18:00	3	0	7	0	0	0	10	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	1	0	8	0	0	0	9	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	4	0	15	0	0	0	19	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P/TOT	25	0	97	4	0	0	126	107	2	0	0	0	0	0	2	0	3	0	0	0	1	0	4	2

SITE: Site 4 DATE: 14th November 2024

LOCATION: Castleside Dr/Rathfarnham Castle DAY: Thursday

	MOVEMENT 4 (B => C)								MOVEMENT 5 (C => B)								MOVEMENT 6 (C => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	11	11
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	11	11
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	1	0	0	22	22
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	8	0	0	0	18	10
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	13	1	0	0	18	15
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	6	1	0	0	12	8
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	8	0	0	0	10	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	1	35	2	0	0	58	41
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	9	0	0	0	11	9
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	15	1	0	0	18	16
P/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	1	71	4	0	0	98	79

	MOVEMENT 4 (B => C)								MOVEMENT 5 (C => B)								MOVEMENT 6 (C => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3	0	0	9	9
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	2	0	0	10	9
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	1	0	0	8	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	24	6	0	0	32	30
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	8	0	0	0	10	8
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	16	16
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	9	9
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	1	0	0	9	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	40	1	0	0	44	41
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	13	0	0	0	15	13
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5	0	0	0	7	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	18	0	0	0	22	18
P/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	82	7	0	0	98	89

SITE: Site 4 DATE: 23rd November 2024

LOCATION: Castleside Dr/Rathfarnham Castle DAY: Saturday

	MOVEMENT 1 (A => C)								MOVEMENT 2 (A => B)								MOVEMENT 3 (B => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
10:00	0	0	4	1	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	3	1	0	0	4	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
10:30	0	0	14	1	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	7	1	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	28	4	0	0	32	32	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
11:00	0	0	7	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	10	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	6	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	9	0	1	0	10	11	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
H/TOT	0	0	32	0	1	0	33	34	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
12:00	0	0	10	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	1	6	0	0	0	7	6	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0
12:30	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:45	1	0	9	1	0	0	11	10	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
H/TOT	1	1	29	1	0	0	32	30	1	0	0	1	0	0	2	1	0	0	0	1	0	0	1	1
13:00	0	0	6	0	0	0	6	6	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	1
13:15	0	0	12	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	1	0	5	1	0	0	7	6	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
H/TOT	1	0	27	1	0	0	29	28	0	0	1	0	0	0	1	1	1	0	1	0	0	0	2	1
14:00	0	0	10	1	1	0	12	13	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
14:15	1	0	15	0	0	0	16	15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	1
14:30	2	0	8	1	0	0	11	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	8	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	3	0	41	2	1	0	47	45	0	0	0	0	0	0	0	0	3	0	1	0	0	0	4	2
15:00	1	0	16	0	0	0	17	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	12	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	1	8	0	0	0	9	8	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
15:45	0	0	9	0	0	0	9	9	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1
H/TOT	1	1	45	0	0	0	47	45	1	0	1	0	0	0	2	1	0	0	1	0	0	0	1	1
16:00	0	0	4	1	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	1	0	12	0	0	0	13	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	1	0	6	0	0	0	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	1	6	0	0	0	7	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	2	1	28	1	0	0	32	29	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
17:00	0	0	11	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	8	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	5	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	2	0	7	1	0	0	10	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	2	0	31	1	0	0	34	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P/TOT	10	3	261	10	2	0	286	275	2	0	3	1	0	0	6	4	5	0	4	1	0	0	10	6

24897 - Rathfarnham Castle **NOVEMBER 2024**

MANUAL CLASSIFIED JUNCTION TURNING COUNTS **IDA/24/897**

SITE: Site 4 DATE: 23rd November 2024

LOCATION: Castleside Dr/Rathfarnham Castle DAY: Saturday

	MOVEMENT 4 (B => C)								MOVEMENT 5 (C => B)								MOVEMENT 6 (C => A)							
TIME	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**	**PCL**	**MCL**	**CAR**	**LGV**	**HGV**	**BUS**	**TOT**	**PCU**
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	9	9
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	9	9
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	6
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	15	15
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	5	0	0	39	39
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	12	12
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	8	7
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	7
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	0	9	10
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	32	2	1	0	36	36
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	13	13
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9	0	0	0	10	9
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	9	0	0	0	11	9
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8	0	0	0	9	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	39	0	0	0	43	39
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	16	16
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	8	0	0	0	10	8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	32	0	0	0	34	32
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	7	8
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	11	11
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	1	1	0	29	30
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	11	0	0	0	13	11
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	7
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	9	8
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8	1	0	0	10	9
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	34	1	0	0	39	35
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	11	0	0	0	12	11
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	7
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	14	0	0	0	15	14
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	11	10
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	42	0	0	0	45	42
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13	0	0	0	14	13
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	6
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	7
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	30	0	0	0	31	30
P/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	3	270	9	2	0	296	283

APPENDIX C

TRICS Trip Generation Output
(Shops / Restaurants / Community Facilities)

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301

Calculation Reference: AUDIT-160301-250324-0302

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : I - SHOPPING CENTRE - LOCAL SHOPS
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	EX	ESSEX	1 days
	HF	HERTFORDSHIRE	1 days
03	SOUTH WEST		
	GS	GLOUCESTERSHIRE	1 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	DR	DONCASTER	1 days
	SE	SHEFFIELD	1 days
09	NORTH		
	CU	CUMBERLAND	2 days
	TW	TYNE & WEAR	1 days
12	CONNAUGHT		
	CS	SLIGO	1 days
	GA	GALWAY	2 days
13	MUNSTER		
	CR	CORK	1 days
	WA	WATERFORD	1 days
15	GREATER DUBLIN		
	DL	DUBLIN	1 days
16	ULSTER (REPUBLIC OF IRELAND)		
	CV	CAVAN	1 days

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

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	2	452	0.111	2	452	0.111	2	452	0.222
06:00 - 07:00	9	1023	0.641	9	1023	0.500	9	1023	1.141
07:00 - 08:00	16	1035	2.265	16	1035	2.083	16	1035	4.348
08:00 - 09:00	16	1035	4.590	16	1035	3.750	16	1035	8.340
09:00 - 10:00	16	1035	5.302	16	1035	4.559	16	1035	9.861
10:00 - 11:00	16	1035	5.550	16	1035	5.085	16	1035	10.635
11:00 - 12:00	16	1035	5.453	16	1035	5.761	16	1035	11.214
12:00 - 13:00	16	1035	6.172	16	1035	6.015	16	1035	12.187
13:00 - 14:00	16	1035	5.979	16	1035	6.087	16	1035	12.066
14:00 - 15:00	16	1035	5.918	16	1035	6.063	16	1035	11.981
15:00 - 16:00	16	1035	5.852	16	1035	5.991	16	1035	11.843
16:00 - 17:00	16	1035	6.474	16	1035	6.438	16	1035	12.912
17:00 - 18:00	16	1035	6.432	16	1035	6.981	16	1035	13.413
18:00 - 19:00	16	1035	5.924	16	1035	6.045	16	1035	11.969
19:00 - 20:00	16	1035	4.771	16	1035	5.224	16	1035	9.995
20:00 - 21:00	16	1035	3.279	16	1035	3.460	16	1035	6.739
21:00 - 22:00	15	1068	2.186	15	1068	2.435	15	1068	4.621
22:00 - 23:00	9	944	0.729	9	944	0.906	9	944	1.635
23:00 - 24:00	3	1573	0.466	3	1573	0.445	3	1573	0.911
Total Rates:			78.094			77.939			156.033

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.

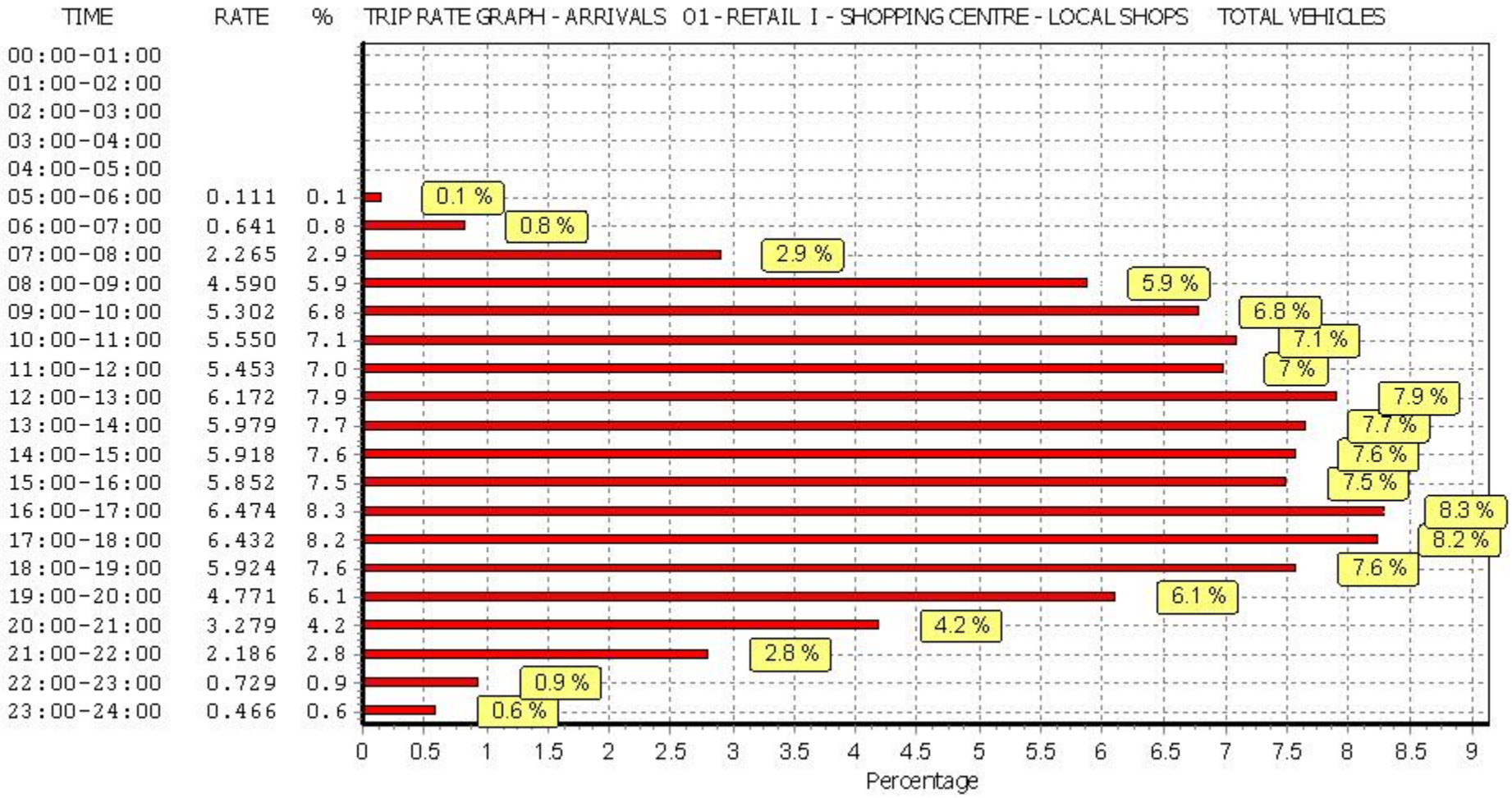
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*

Parameter summary

Trip rate parameter range selected:	200 - 2910 (units: sqm)
Survey date date range:	01/01/16 - 18/06/24
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

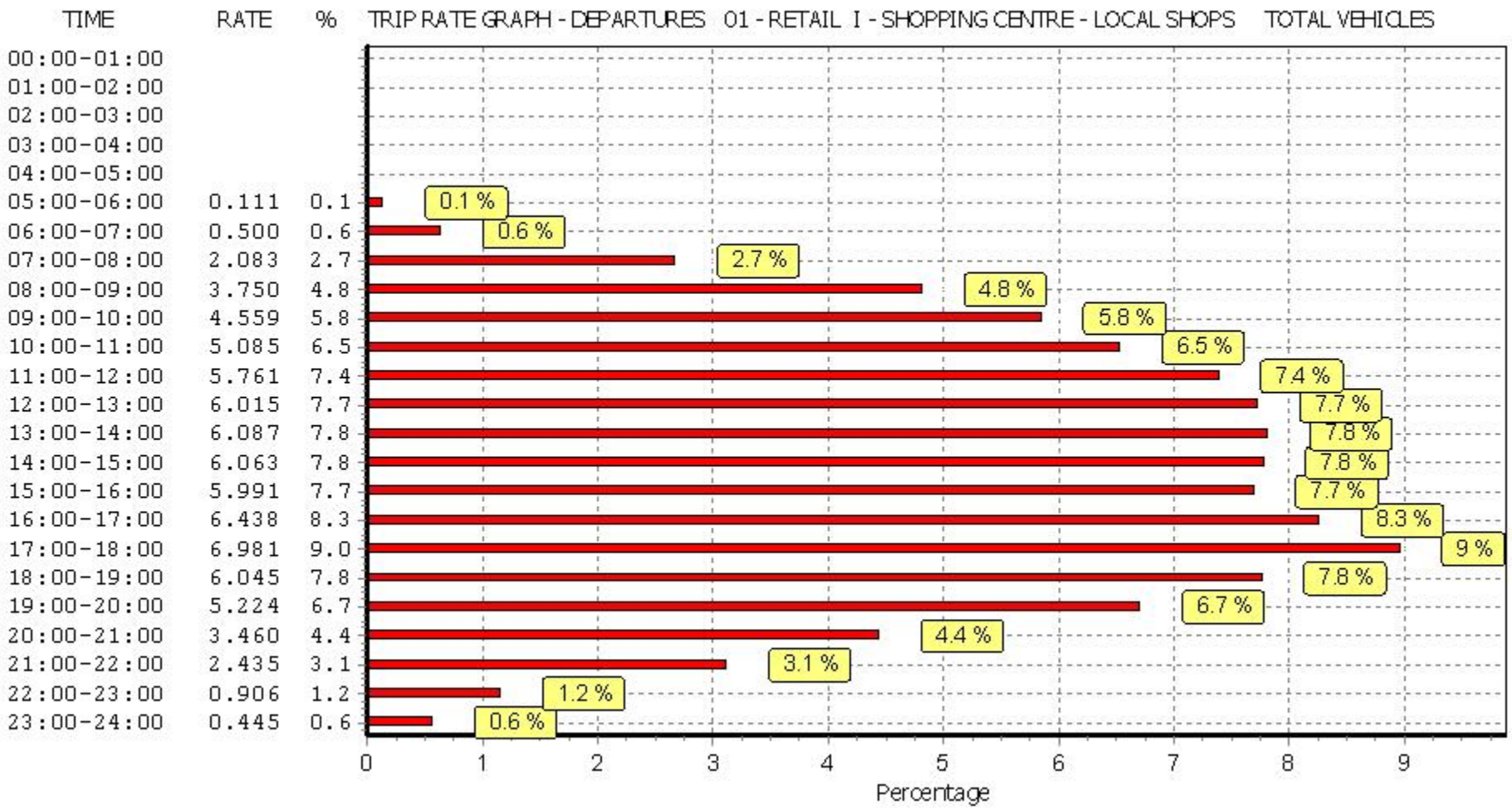
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301



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.

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301



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.

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301

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.

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301

Calculation Reference: AUDIT-160301-250324-0342

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : Q - COMMUNITY CENTRE
TOTAL VEHICLES

Selected regions and areas:

04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days
08	NORTH WEST		
	EC	CHESHIRE EAST	1 days
	GM	GREATER MANCHESTER	1 days
09	NORTH		
	TW	TYNE & WEAR	1 days
13	MUNSTER		
	TI	TIPPERARY	1 days
15	GREATER DUBLIN		
	DL	DUBLIN	1 days
16	ULSTER (REPUBLIC OF IRELAND)		
	DN	DONEGAL	1 days

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

TRIP RATE for Land Use 07 - LEISURE/Q - COMMUNITY CENTRE
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	1	270	0.000	1	270	0.000	1	270	0.000
07:00 - 08:00	6	396	0.337	6	396	0.000	6	396	0.337
08:00 - 09:00	9	565	0.570	9	565	0.197	9	565	0.767
09:00 - 10:00	9	565	0.865	9	565	0.472	9	565	1.337
10:00 - 11:00	9	565	0.452	9	565	0.452	9	565	0.904
11:00 - 12:00	9	565	0.393	9	565	0.570	9	565	0.963
12:00 - 13:00	9	565	0.374	9	565	0.393	9	565	0.767
13:00 - 14:00	9	565	0.334	9	565	0.295	9	565	0.629
14:00 - 15:00	9	565	0.315	9	565	0.295	9	565	0.610
15:00 - 16:00	9	565	0.433	9	565	0.472	9	565	0.905
16:00 - 17:00	8	596	0.273	8	596	0.482	8	596	0.755
17:00 - 18:00	8	596	0.713	8	596	0.419	8	596	1.132
18:00 - 19:00	7	574	0.796	7	574	0.498	7	574	1.294
19:00 - 20:00	6	587	1.108	6	587	1.194	6	587	2.302
20:00 - 21:00	5	650	0.031	5	650	0.462	5	650	0.493
21:00 - 22:00	3	687	0.000	3	687	1.068	3	687	1.068
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.994			7.269			14.263

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.*

Parameter summary

Trip rate parameter range selected:	100 - 1800 (units: sqm)
Survey date date range:	01/01/16 - 24/04/24
Number of weekdays (Monday-Friday):	9
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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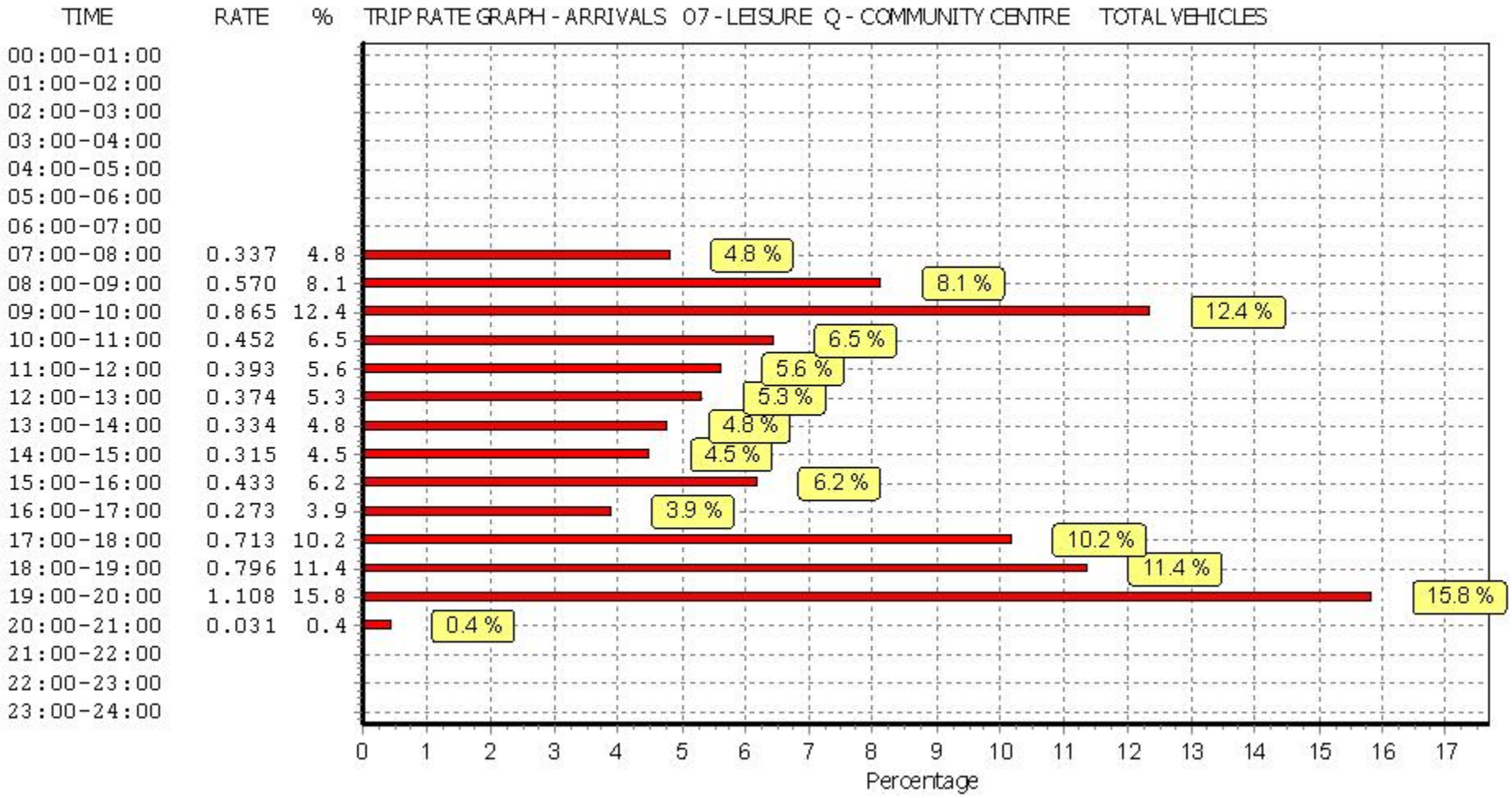
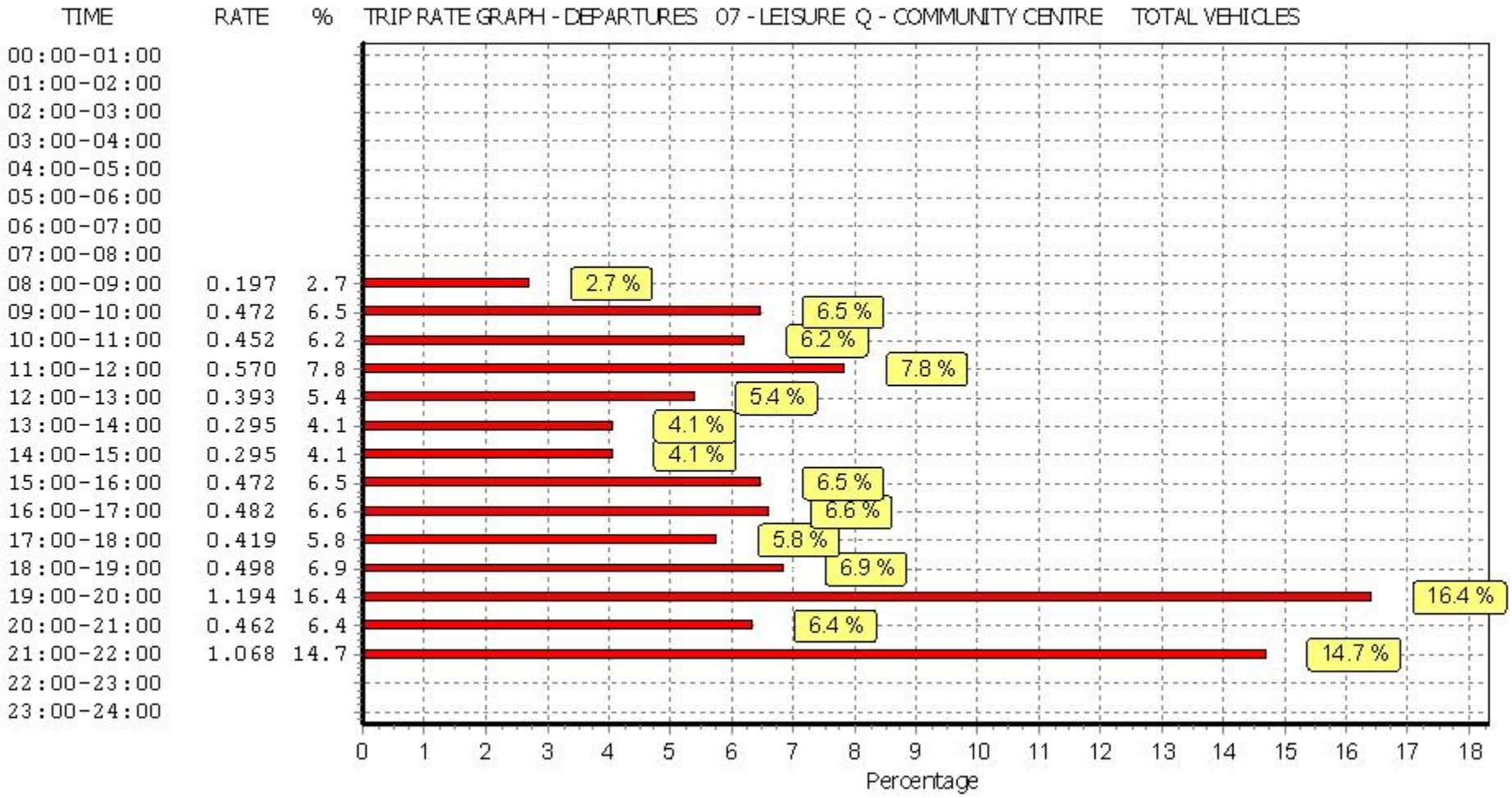


This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301



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.

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301

Calculation Reference: AUDIT-160301-250324-0350

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : B - RESTAURANTS
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
03	SOUTH WEST		
	DC	DORSET	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	2 days
	NF	NORFOLK	1 days
05	EAST MIDLANDS		
	DY	DERBY	2 days
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	2 days
	WM	WEST MIDLANDS	3 days
12	CONNAUGHT		
	GA	GALWAY	1 days
	RO	ROSCOMMON	1 days
13	MUNSTER		
	WA	WATERFORD	1 days

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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									
09:00 - 10:00	1	175	0.571	1	175	0.571	1	175	1.142
10:00 - 11:00	5	371	0.323	5	371	0.216	5	371	0.539
11:00 - 12:00	13	529	0.654	13	529	0.218	13	529	0.872
12:00 - 13:00	13	529	1.512	13	529	0.436	13	529	1.948
13:00 - 14:00	13	529	1.600	13	529	1.178	13	529	2.778
14:00 - 15:00	13	529	0.771	13	529	1.309	13	529	2.080
15:00 - 16:00	14	518	0.483	14	518	0.828	14	518	1.311
16:00 - 17:00	16	513	0.365	16	513	0.292	16	513	0.657
17:00 - 18:00	16	513	1.120	16	513	0.572	16	513	1.692
18:00 - 19:00	16	513	2.119	16	513	1.291	16	513	3.410
19:00 - 20:00	16	513	1.668	16	513	1.534	16	513	3.202
20:00 - 21:00	16	513	0.816	16	513	1.534	16	513	2.350
21:00 - 22:00	16	513	0.475	16	513	1.425	16	513	1.900
22:00 - 23:00	14	550	0.104	14	550	0.688	14	550	0.792
23:00 - 24:00	9	545	0.020	9	545	0.428	9	545	0.448
Total Rates:			12.601			12.520			25.121

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.

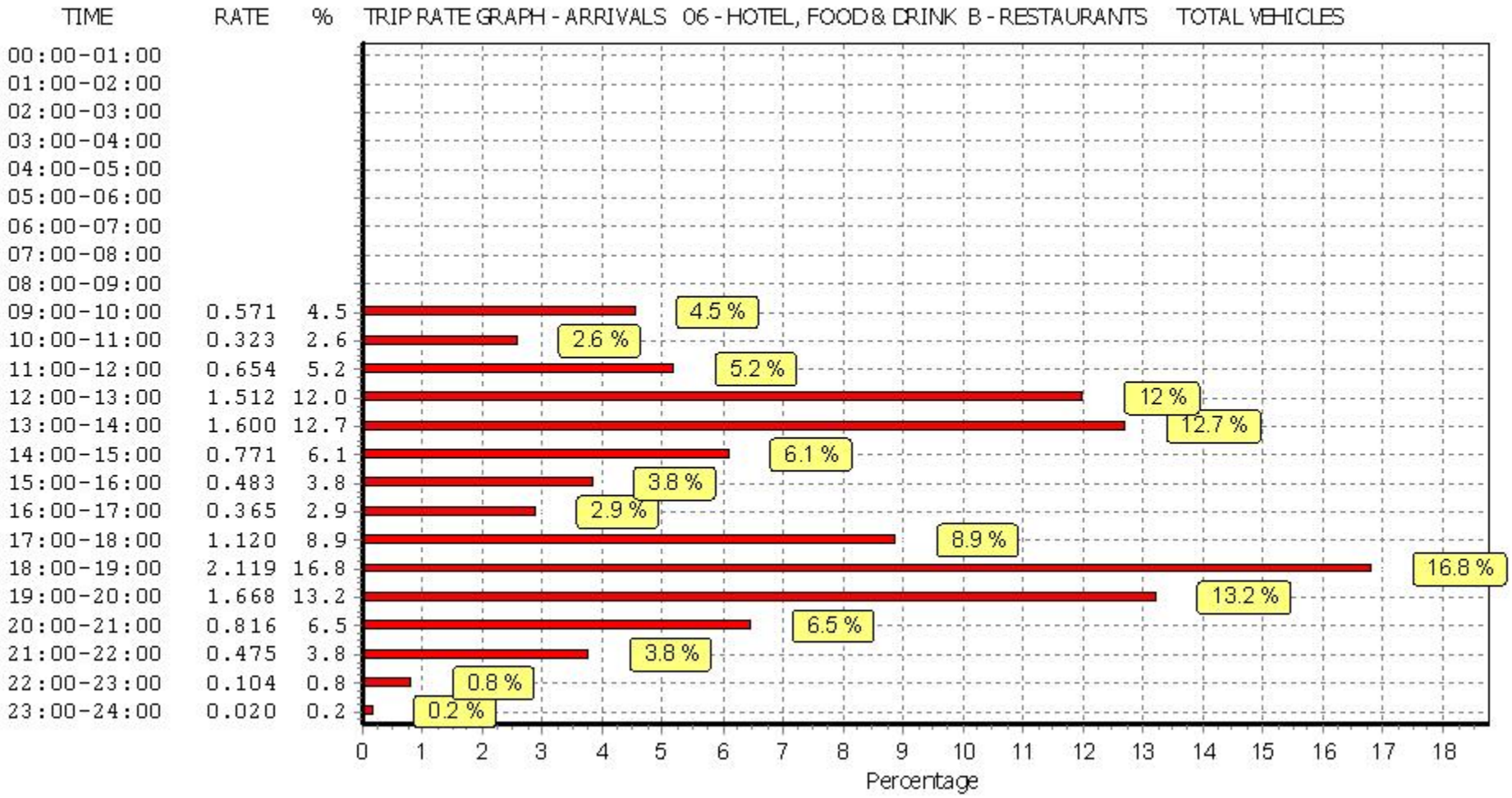
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*

Parameter summary

Trip rate parameter range selected:	110 - 1300 (units: sqm)
Survey date date range:	01/01/16 - 23/06/23
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

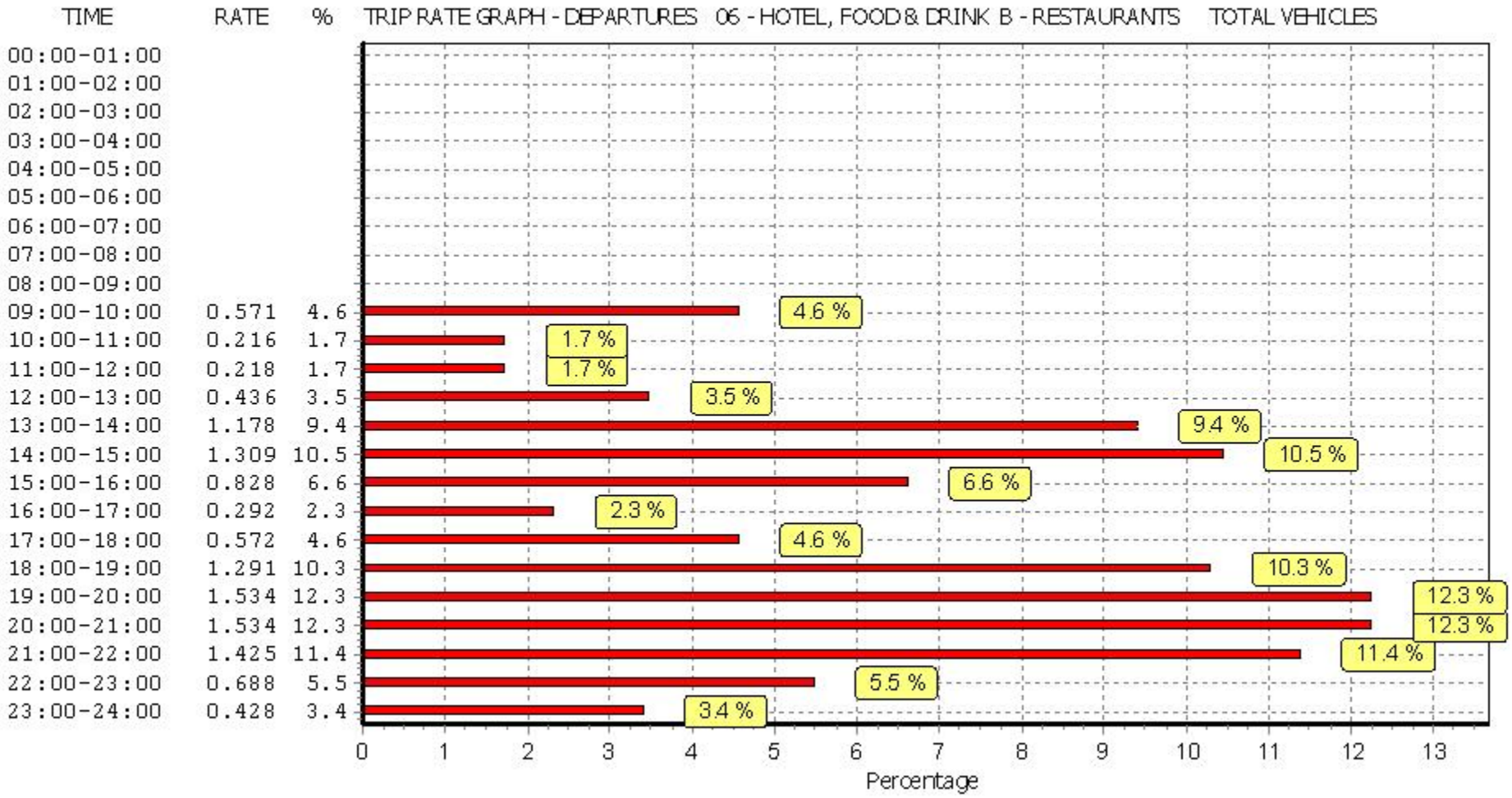
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301



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.

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301



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.

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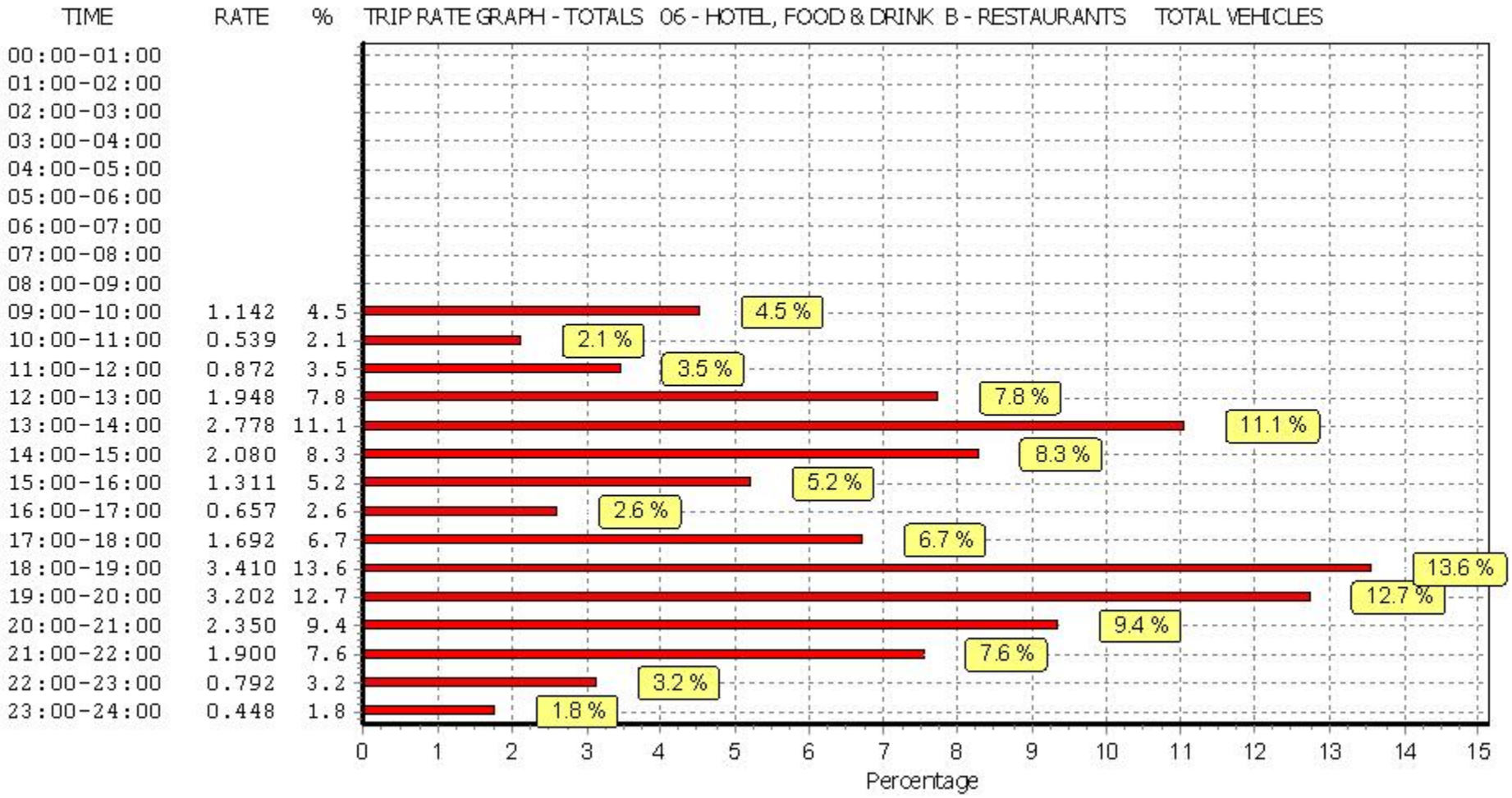

This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301

Calculation Reference: AUDIT-160301-250324-0337

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : I - SHOPPING CENTRE - LOCAL SHOPS
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	EX	ESSEX	1 days
	HF	HERTFORDSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	DR	DONCASTER	1 days
08	NORTH WEST		
	MS	MERSEYSIDE	1 days
09	NORTH		
	CU	CUMBERLAND	1 days
	TW	TYNE & WEAR	1 days
13	MUNSTER		
	CR	CORK	1 days
	WA	WATERFORD	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

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	4	1565	0.767	4	1565	0.623	4	1565	1.390
07:00 - 08:00	9	1473	2.354	9	1473	2.226	9	1473	4.580
08:00 - 09:00	9	1473	4.195	9	1473	3.470	9	1473	7.665
09:00 - 10:00	9	1473	5.138	9	1473	4.293	9	1473	9.431
10:00 - 11:00	9	1473	5.432	9	1473	4.934	9	1473	10.366
11:00 - 12:00	9	1473	5.356	9	1473	5.885	9	1473	11.241
12:00 - 13:00	9	1473	6.013	9	1473	5.832	9	1473	11.845
13:00 - 14:00	9	1473	6.073	9	1473	6.262	9	1473	12.335
14:00 - 15:00	9	1473	5.998	9	1473	6.134	9	1473	12.132
15:00 - 16:00	9	1473	5.847	9	1473	5.960	9	1473	11.807
16:00 - 17:00	9	1473	6.375	9	1473	6.284	9	1473	12.659
17:00 - 18:00	9	1473	6.428	9	1473	6.880	9	1473	13.308
18:00 - 19:00	9	1473	6.043	9	1473	6.058	9	1473	12.101
19:00 - 20:00	9	1473	5.062	9	1473	5.530	9	1473	10.592
20:00 - 21:00	9	1473	3.546	9	1473	3.651	9	1473	7.197
21:00 - 22:00	9	1473	2.346	9	1473	2.595	9	1473	4.941
22:00 - 23:00	4	1645	1.003	4	1645	1.125	4	1645	2.128
23:00 - 24:00	2	2070	0.531	2	2070	0.604	2	2070	1.135
Total Rates:			78.507			78.346			156.853

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.*

Parameter summary

Trip rate parameter range selected:	375 - 2910 (units: sqm)
Survey date date range:	01/01/16 - 18/06/24
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	1
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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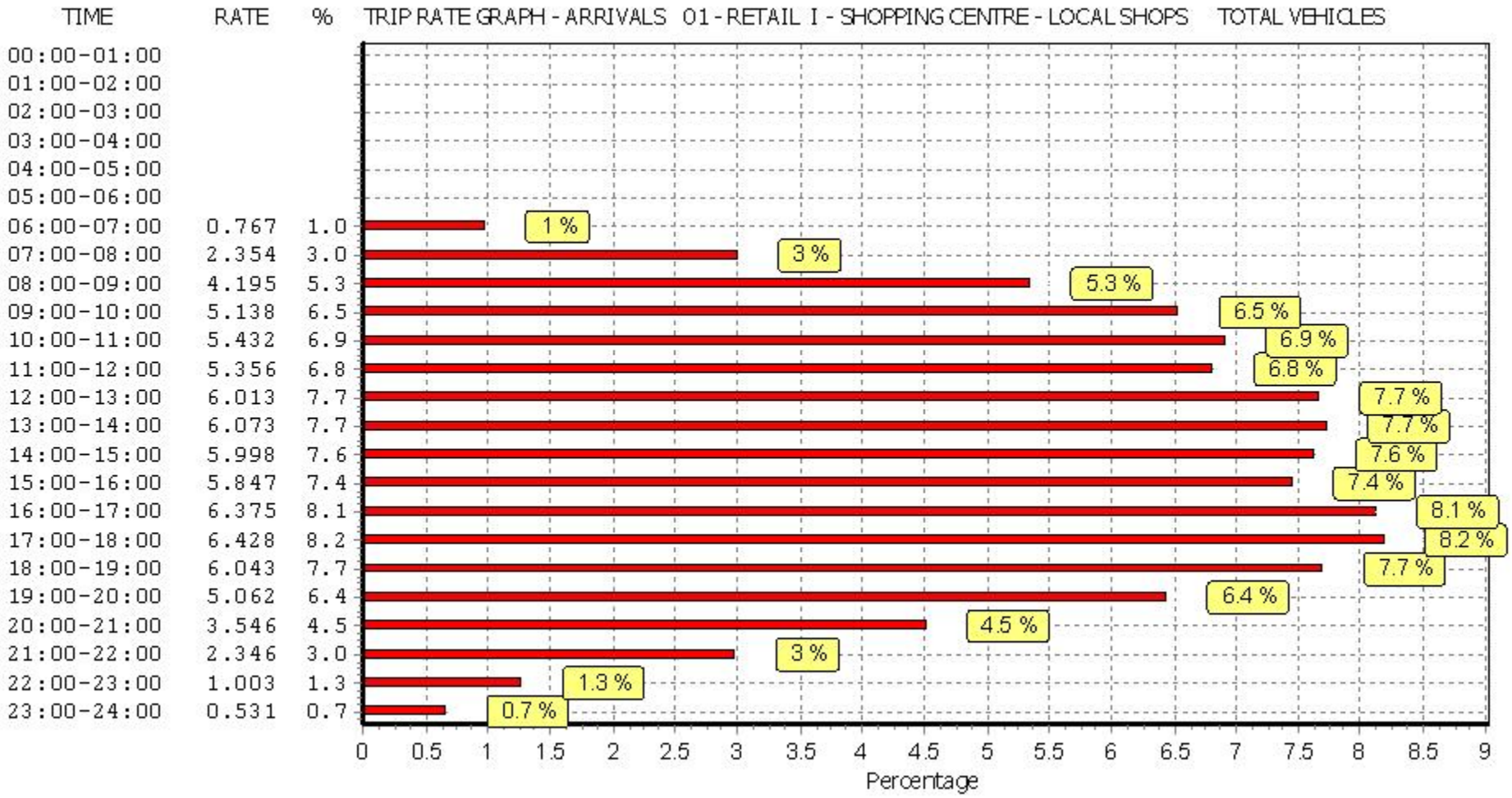

This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

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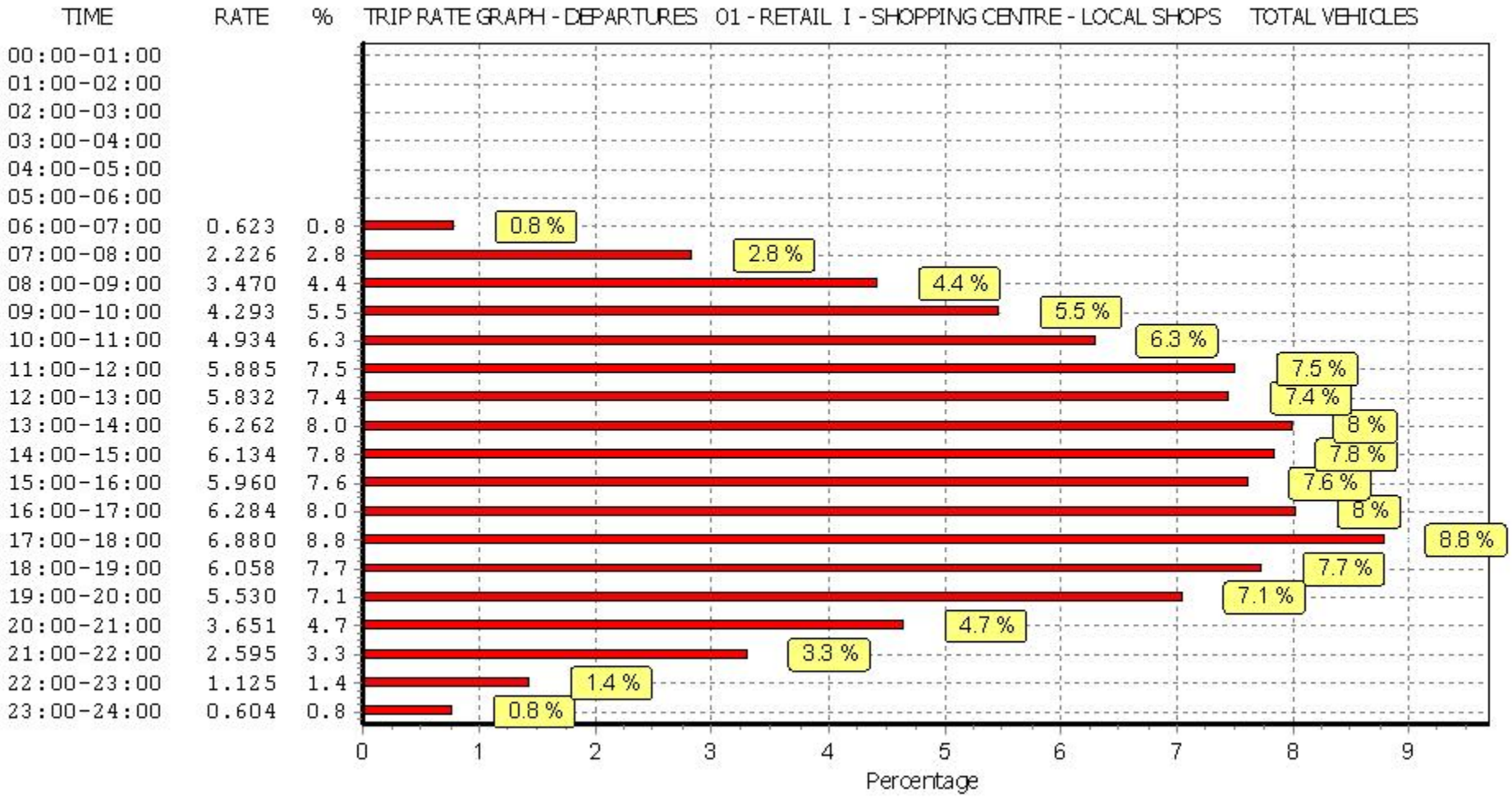

This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301

Calculation Reference: AUDIT-160301-250324-0340

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : B - RESTAURANTS
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
08	NORTH WEST		
	EC	CHESHIRE EAST	1 days
09	NORTH		
	CU	CUMBERLAND	1 days

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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									
09:00 - 10:00									
10:00 - 11:00	3	235	2.550	3	235	0.283	3	235	2.833
11:00 - 12:00	3	235	2.125	3	235	1.983	3	235	4.108
12:00 - 13:00	3	235	4.958	3	235	3.116	3	235	8.074
13:00 - 14:00	3	235	2.833	3	235	2.833	3	235	5.666
14:00 - 15:00	3	235	1.275	3	235	2.408	3	235	3.683
15:00 - 16:00	3	235	2.550	3	235	2.550	3	235	5.100
16:00 - 17:00	3	235	4.674	3	235	2.975	3	235	7.649
17:00 - 18:00	3	235	3.966	3	235	4.249	3	235	8.215
18:00 - 19:00	3	235	4.249	3	235	4.249	3	235	8.498
19:00 - 20:00	3	235	4.533	3	235	4.816	3	235	9.349
20:00 - 21:00	3	235	0.850	3	235	1.558	3	235	2.408
21:00 - 22:00	3	235	0.142	3	235	1.275	3	235	1.417
22:00 - 23:00	2	236	0.849	2	236	1.911	2	236	2.760
23:00 - 24:00	1	321	0.000	1	321	0.312	1	321	0.312
Total Rates:			35.554			34.518			70.072

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.

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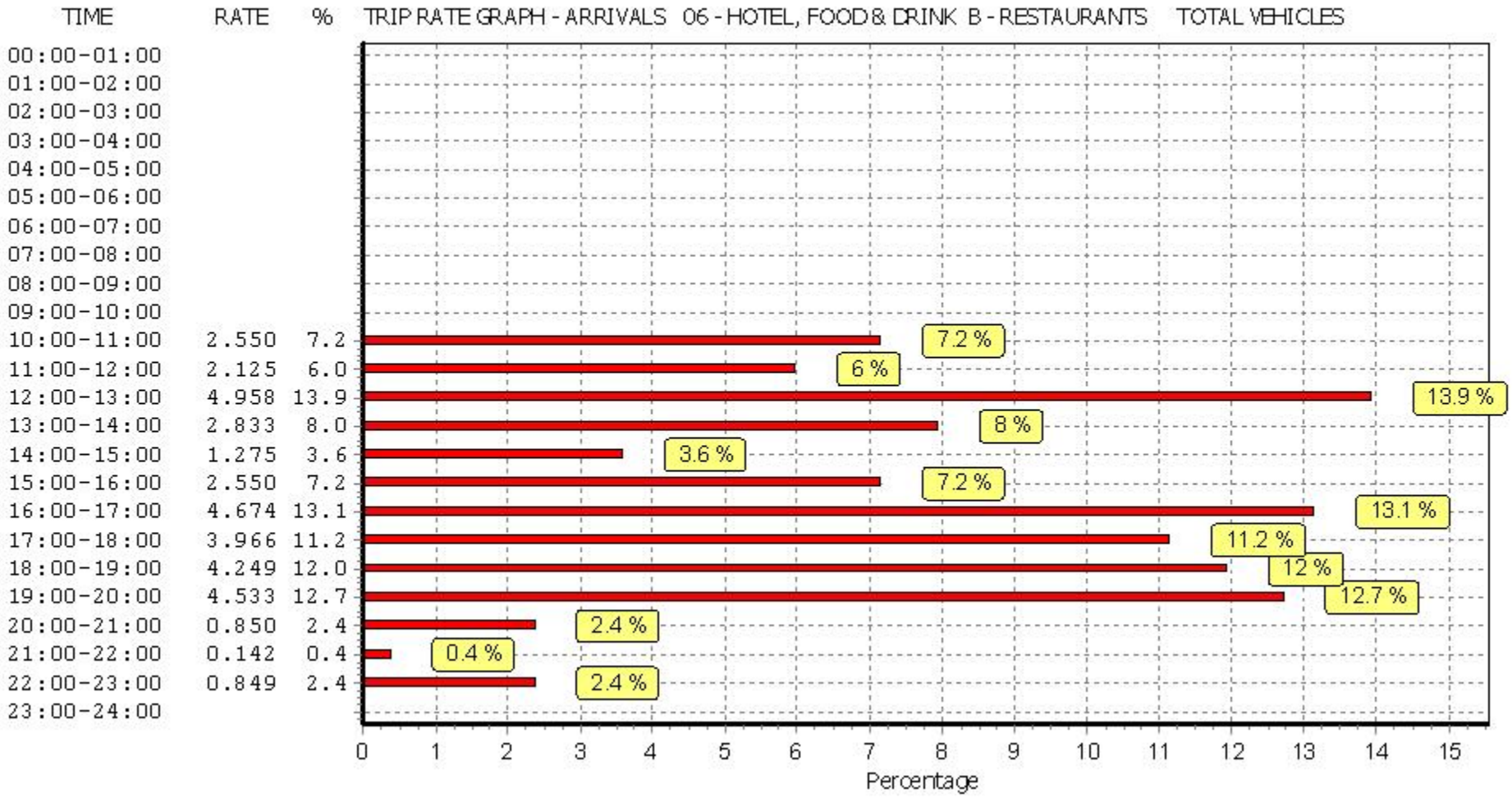
Parameter summary

Trip rate parameter range selected:	150 - 321 (units: sqm)
Survey date date range:	01/01/16 - 23/06/23
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	2
Number of Sundays:	1
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

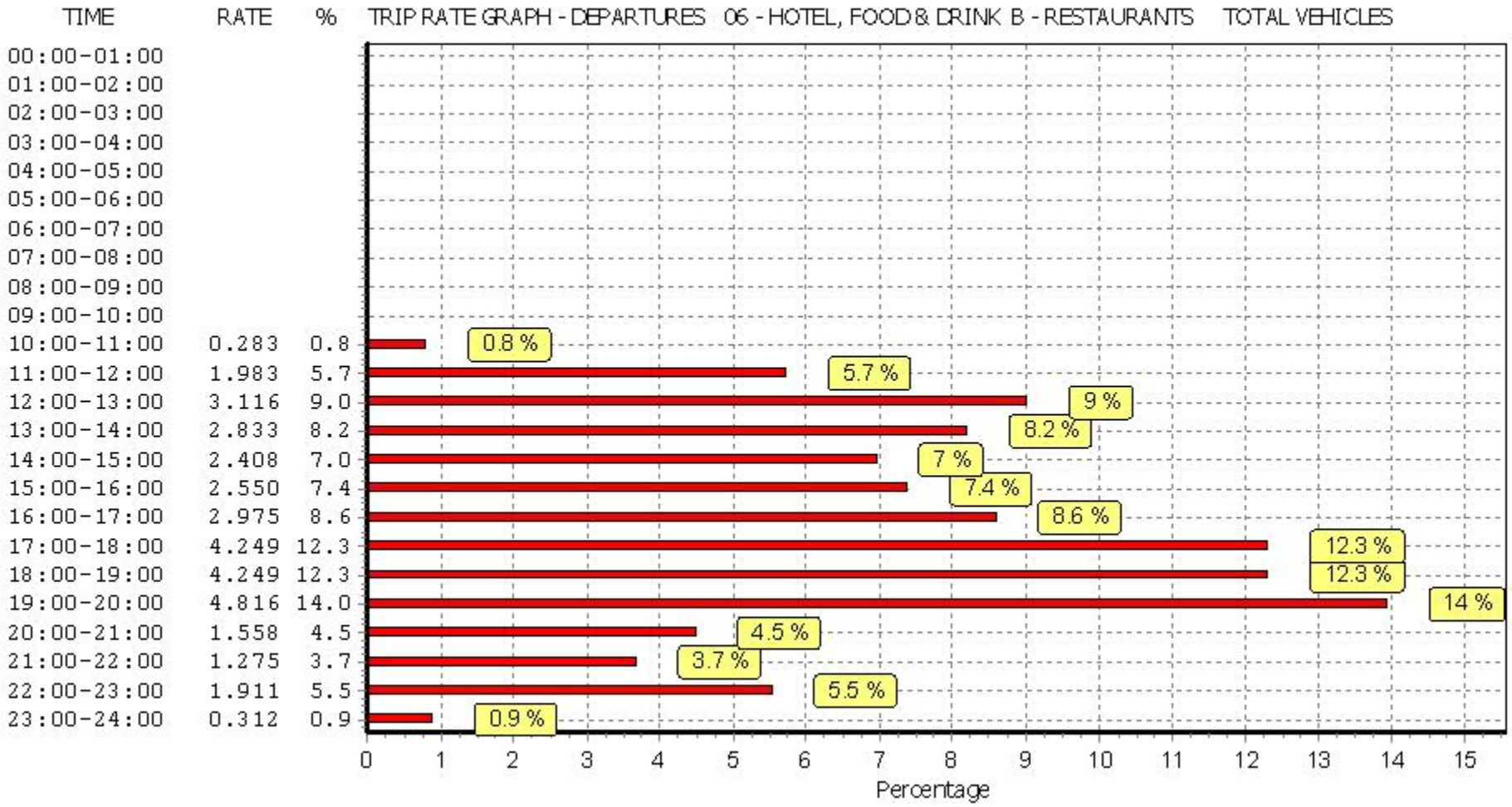
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301



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.

NRB Consulting Engineers Ltd 8 Leopardstown Business Centre, Ballyogan Avenue Dublin 18 Licence No: 160301



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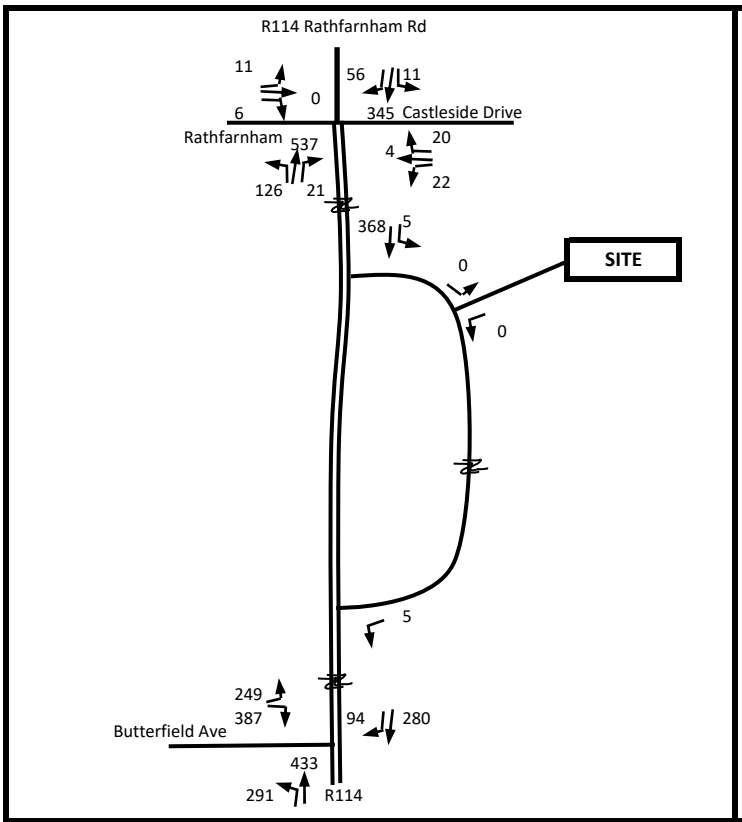
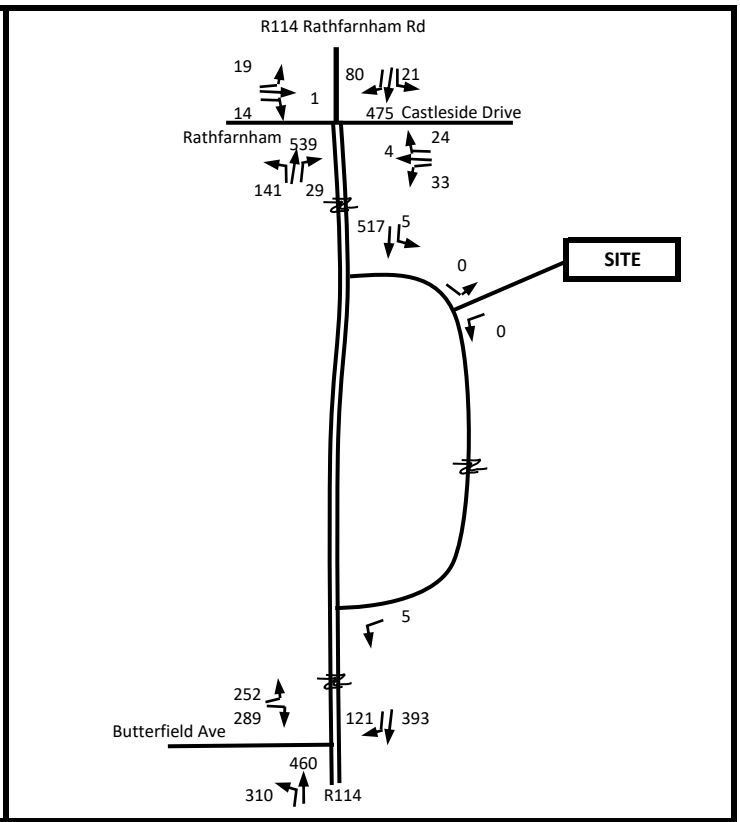
APPENDIX D

Traffic Surveys, Trip Distribution & Network Traffic Flow Calculations *(Weekday & Saturday)*

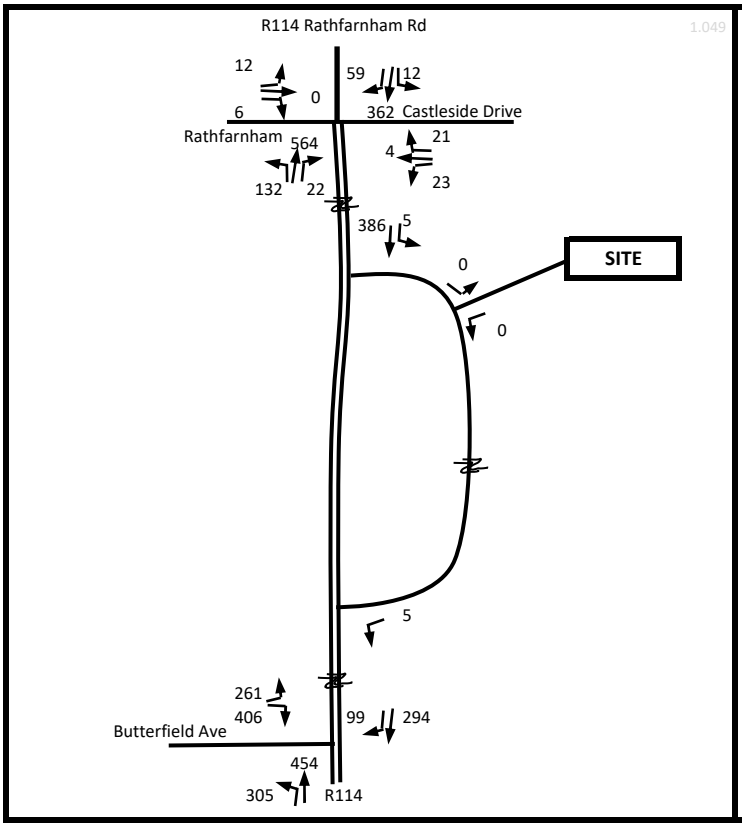


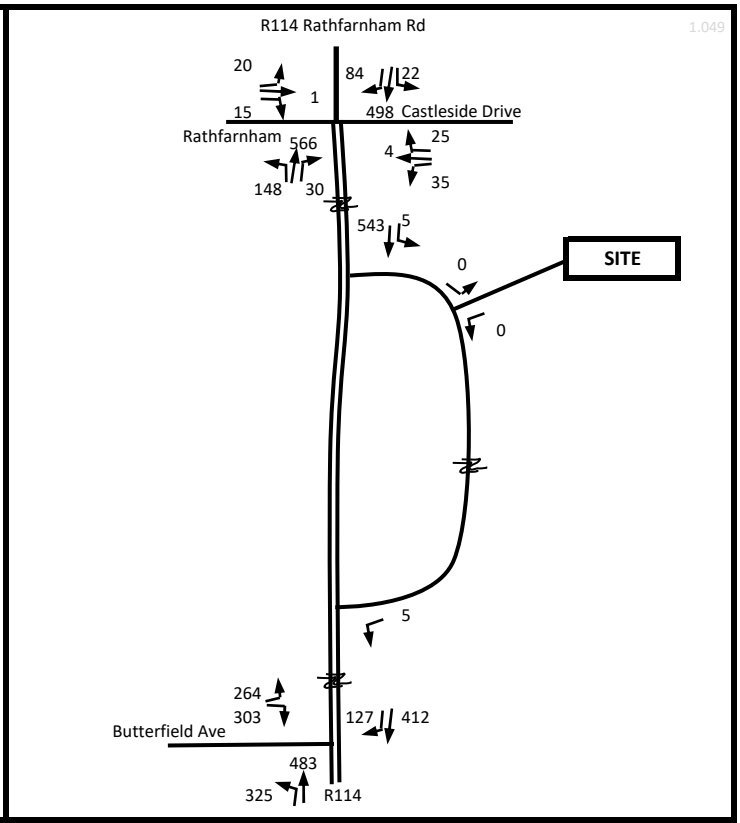


AM PEAK HOUR 8-9AM	WEEKDAY	PM PEAK HOUR 5-6PM

AS SURVEYED / EXISTING ROAD NETWORK TRAFFIC CONDITIONS 2025 (PCUs), WITHOUT SUBJECT DEVELOPMENT

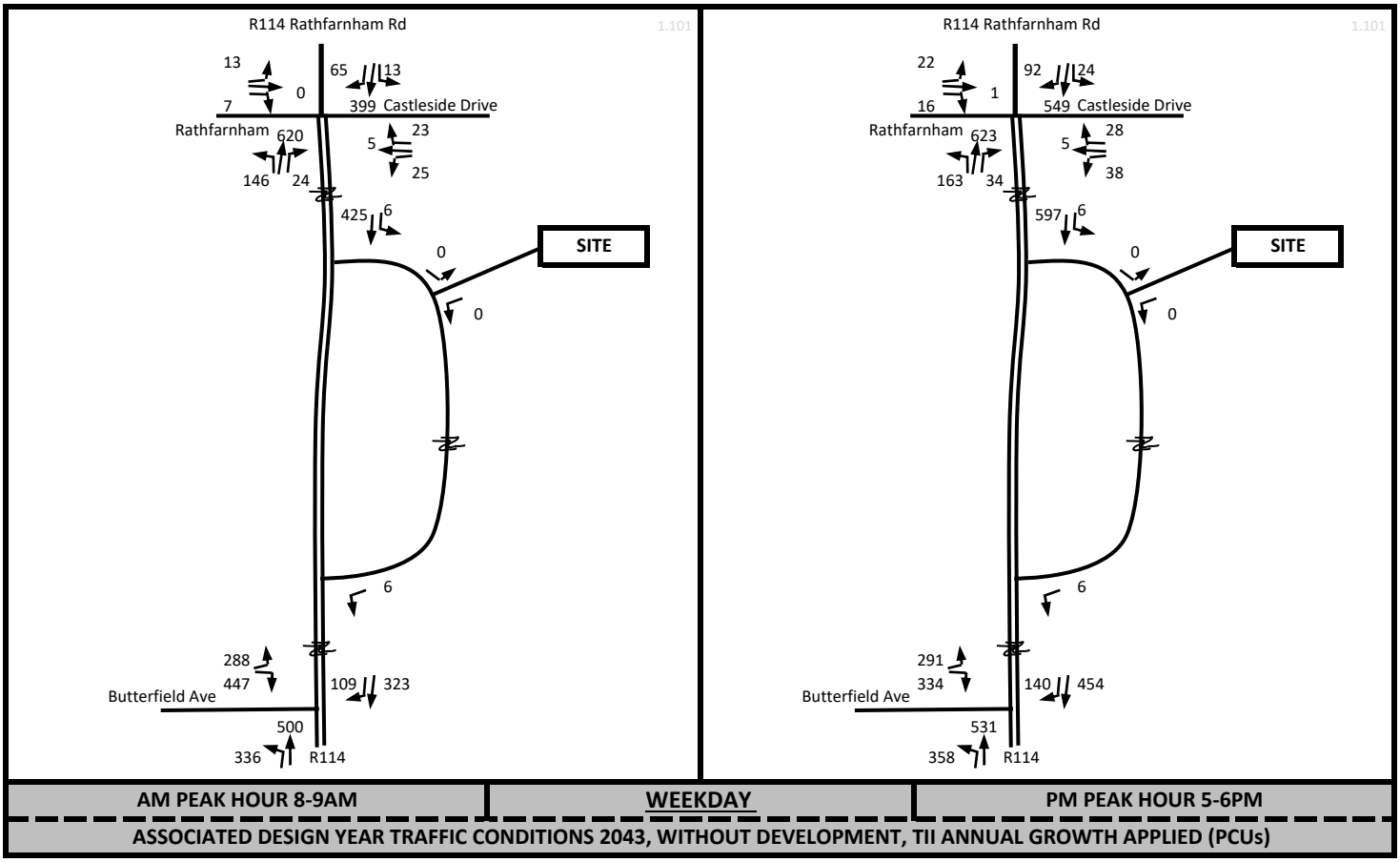
TII PE-PAG-02017 Project Appraisal Guidelines for National Roads Unit 5.3 (Travel Demand Projections 2019, Table 6.1: Central Growth Rates: Annual Growth Factors Met Dublin)	**2025 to 2028= 1.049** **2028 to 2043= 1.101**



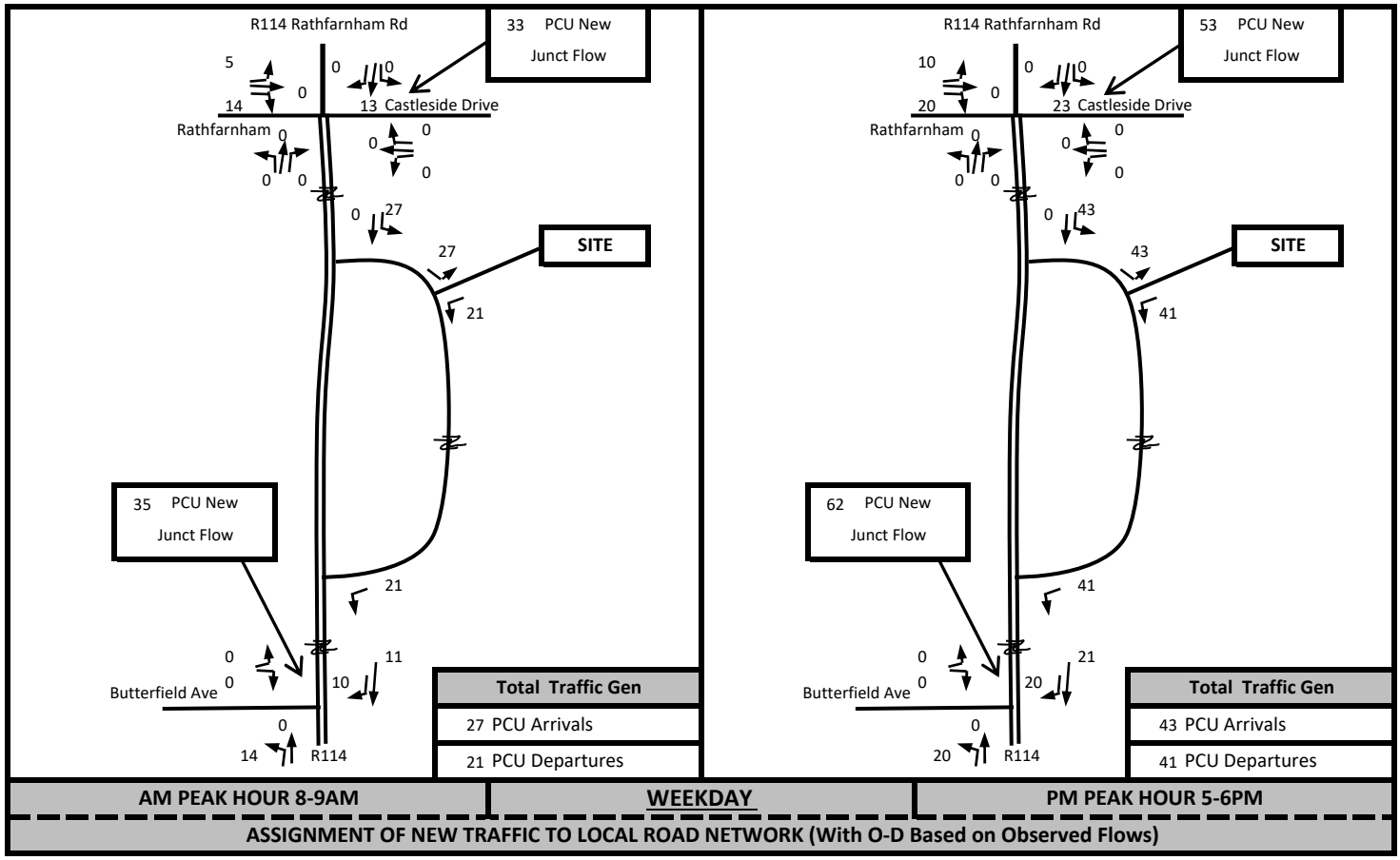


AM PEAK HOUR 8-9AM	WEEKDAY	PM PEAK HOUR 5-6PM

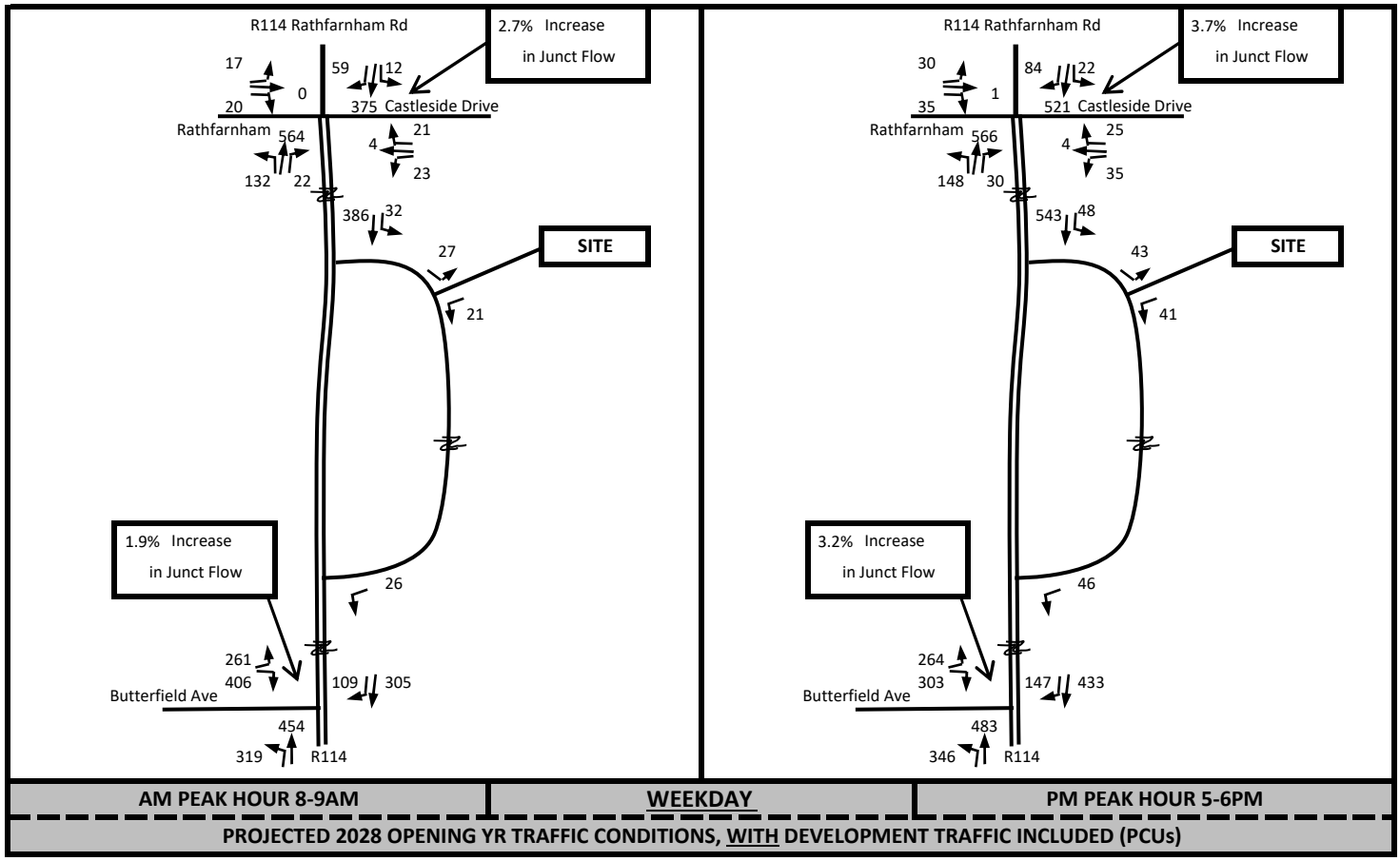
PROJECTED 2028 OPENING YEAR TRAFFIC CONDITIONS, WITHOUT DEVELOPMENT, TII ANNUAL GROWTH APPLIED (PCUs)



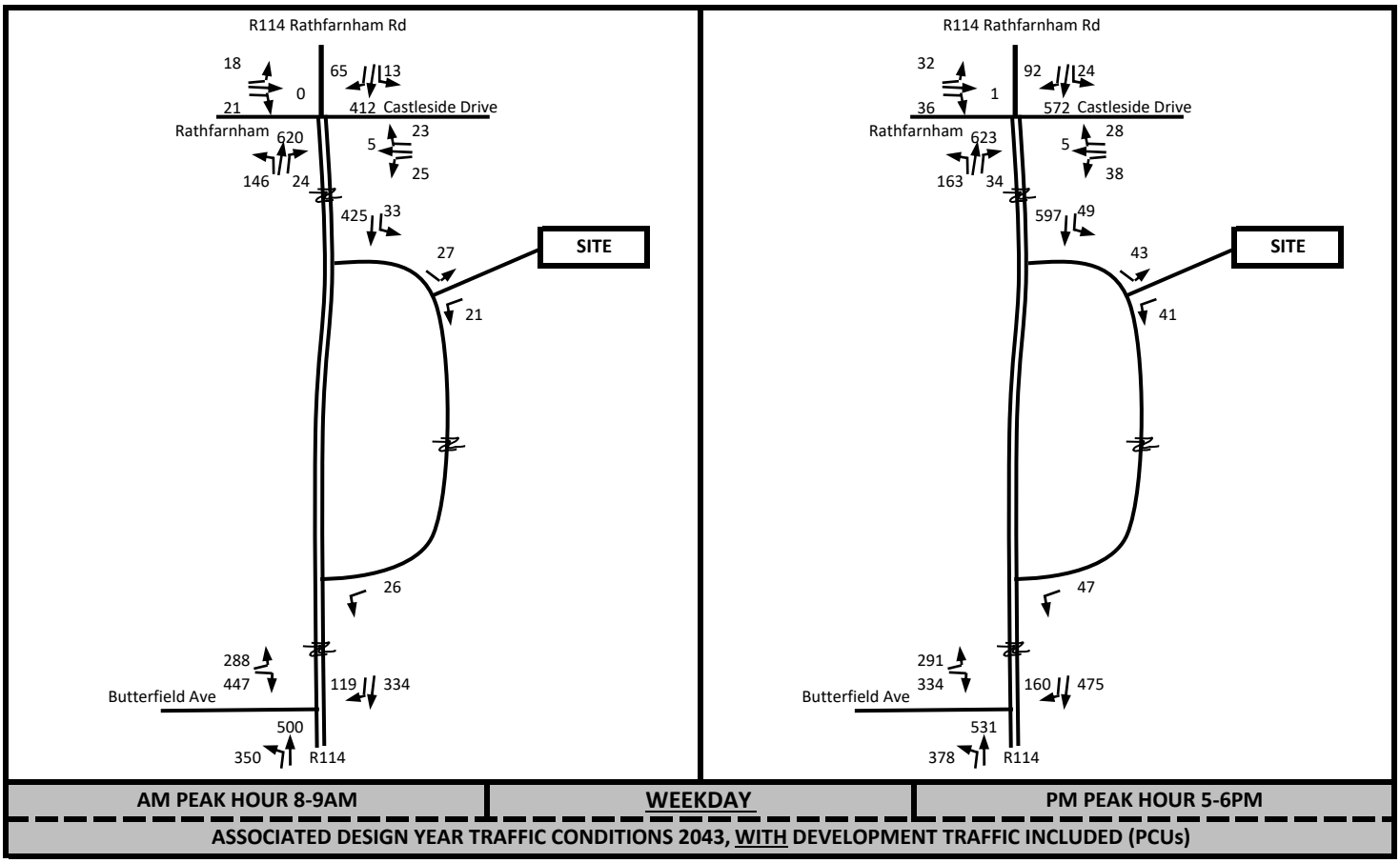
TRICS TRAFFIC GENERATION CALCULATIONS (REFER APPENDIX C)					
RETAIL ELEMENT OF DEVELOPMENT					
520 m2 Retail	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Weekday AM Peak Hr 8-9	4.590	24	3.750	20	44
Weekday PM Peak Hr 5-6	6.432	33	6.981	36	69
24 Hour Day	78.094	406	77.939	405	811
COMMUNITY ELEMENT OF DEVELOPMENT					
515 m2 Comm	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Weekday AM Peak Hr 8-9	0.570	3	0.197	1	4
Weekday PM Peak Hr 5-6	0.713	4	0.419	2	6
24 Hour Day	6.994	36	7.269	37	73
RESTAURANT ELEMENT OF DEVELOPMENT					
545 m2 Restaurant	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Weekday AM Peak Hr 8-9	0.000	0	0.000	0	0
Weekday PM Peak Hr 5-6	1.120	6	0.572	3	9
24 Hour Day	12.601	69	12.520	68	137
TOTAL TRAFFIC GENERATED BY PROPOSALS (TRICS)					
Network Period	**Arrivals (PCUs)**		**Departures (PCUs)**		Total 2-Way Traffic
Weekday AM Peak Hr 8-9	27		21		48
Weekday PM Peak Hr 5-6	43		41		84
24 Hour Day	511		510		1021



ASSIGNMENT OF NEW TRAFFIC TO LOCAL ROAD NETWORK (With O-D Based on Observed Flows)

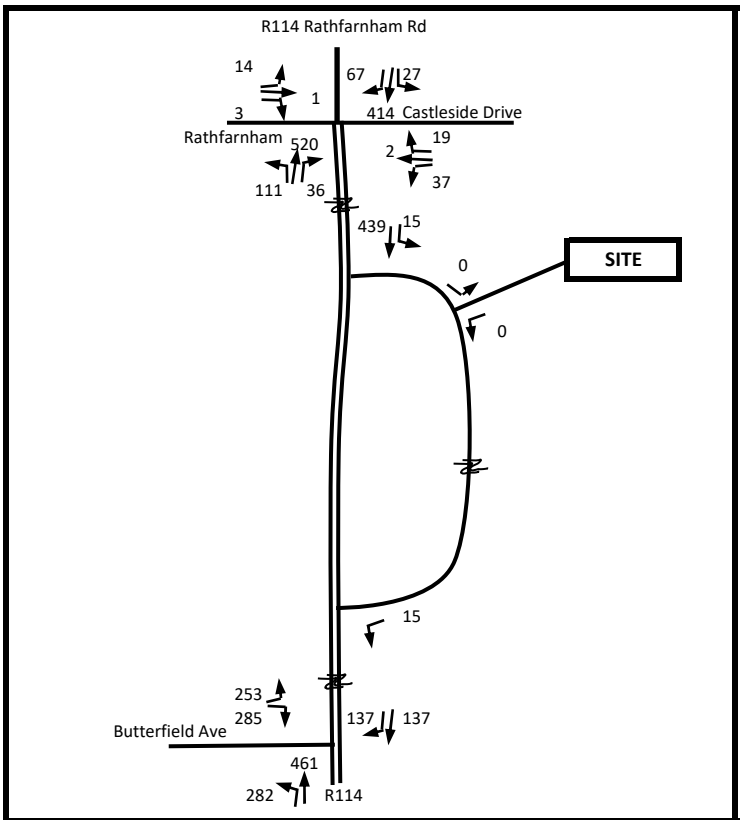


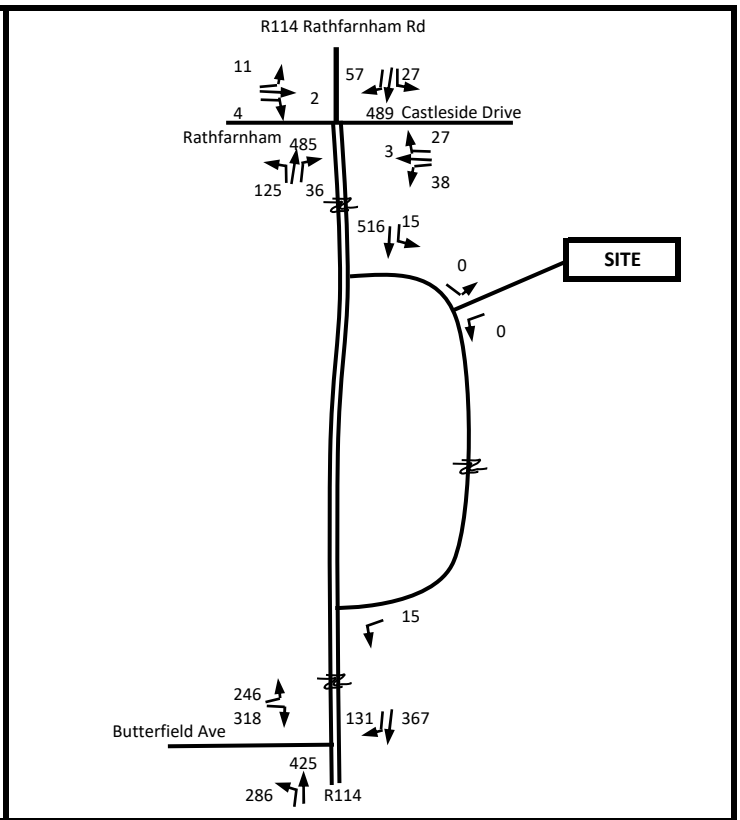
PROJECTED 2028 OPENING YR TRAFFIC CONDITIONS, WITH DEVELOPMENT TRAFFIC INCLUDED (PCUs)



AM PEAK HOUR 8-9AM	WEEKDAY	PM PEAK HOUR 5-6PM

ASSOCIATED DESIGN YEAR TRAFFIC CONDITIONS 2043, WITH DEVELOPMENT TRAFFIC INCLUDED (PCUs)

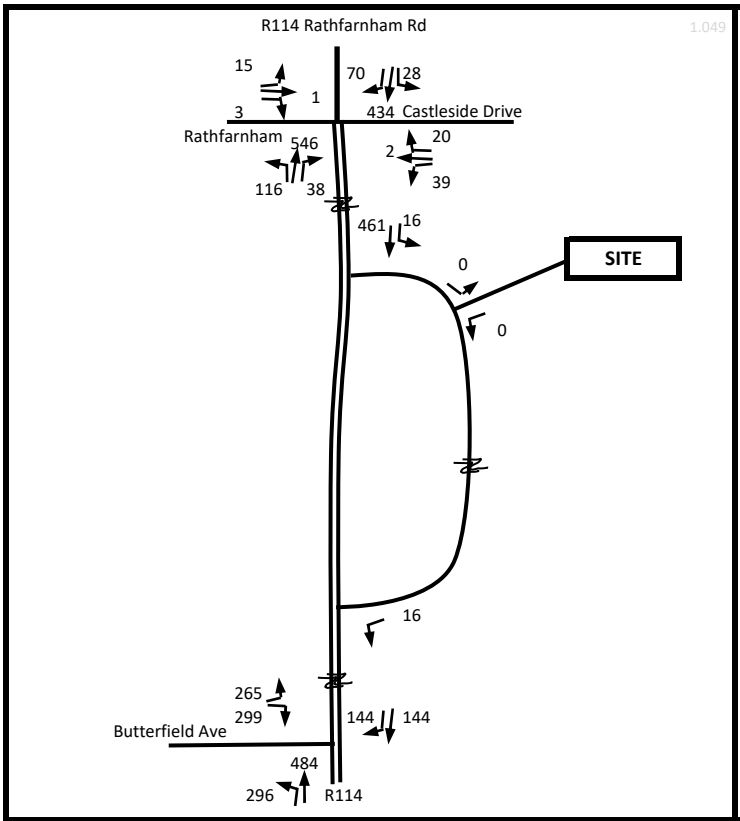


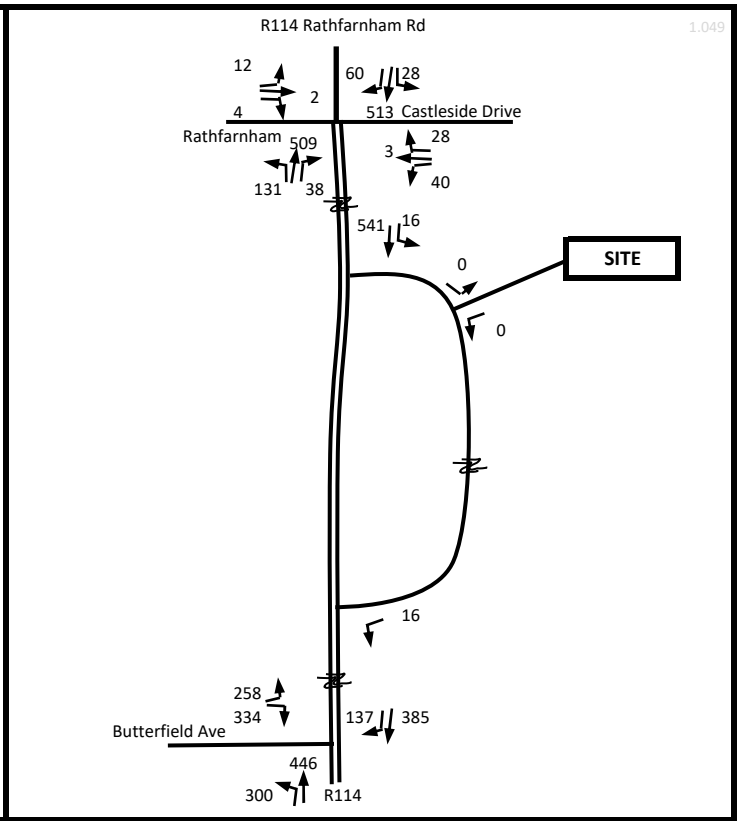


AFTERNOON HOUR 12-1PM	SATURDAYS	AFTERNOON HOUR 3-4PM

AS SURVEYED / EXISTING ROAD NETWORK TRAFFIC CONDITIONS 2025 (PCUs), WITHOUT SUBJECT DEVELOPMENT

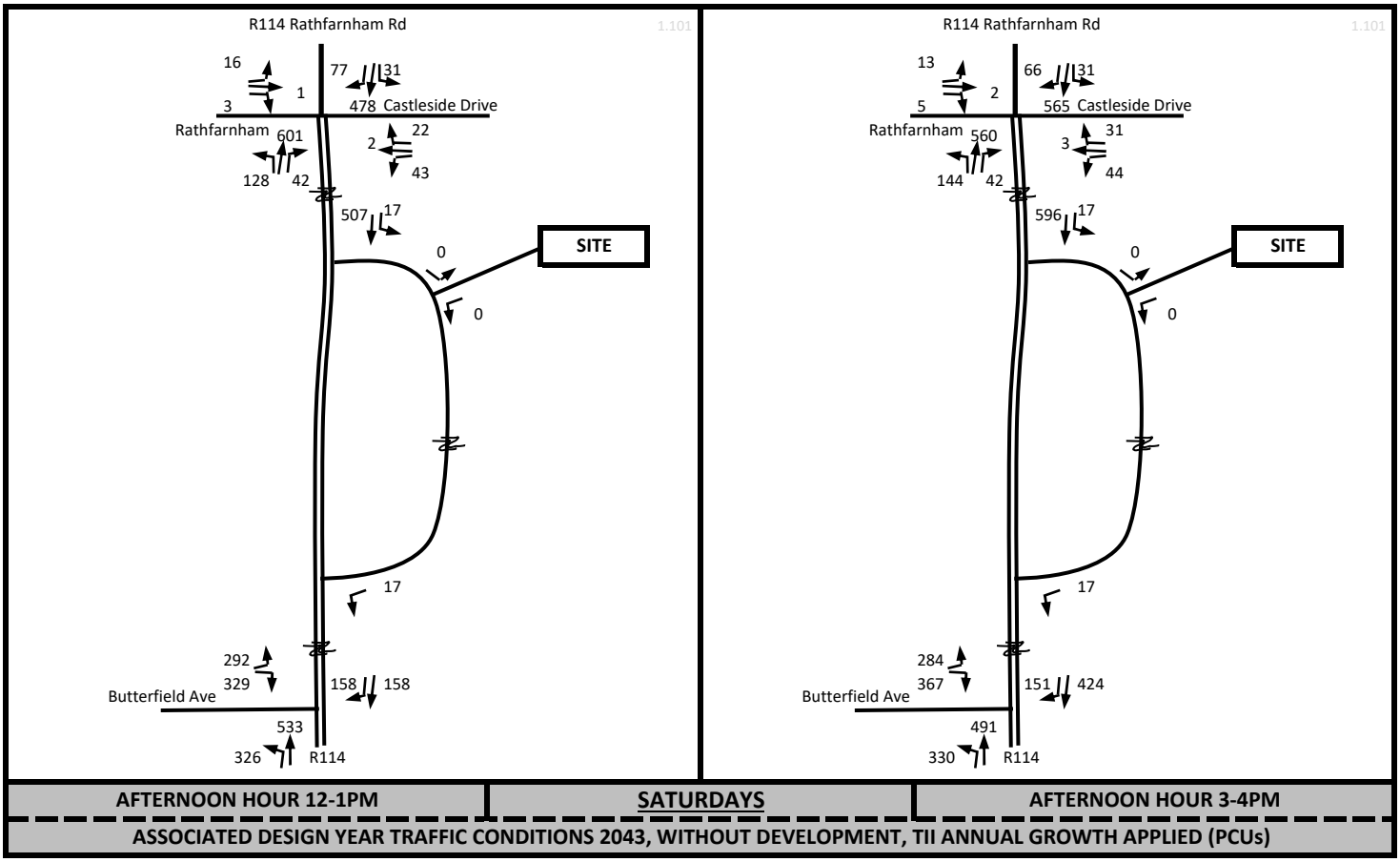
TII PE-PAG-02017 Project Appraisal Guidelines for National Roads Unit 5.3 (Travel Demand Projections 2019, Table 6.1: Central Growth Rates: Annual Growth Factors Met Dublin)	**2025 to 2028= 1.049** **2028 to 2043= 1.101**



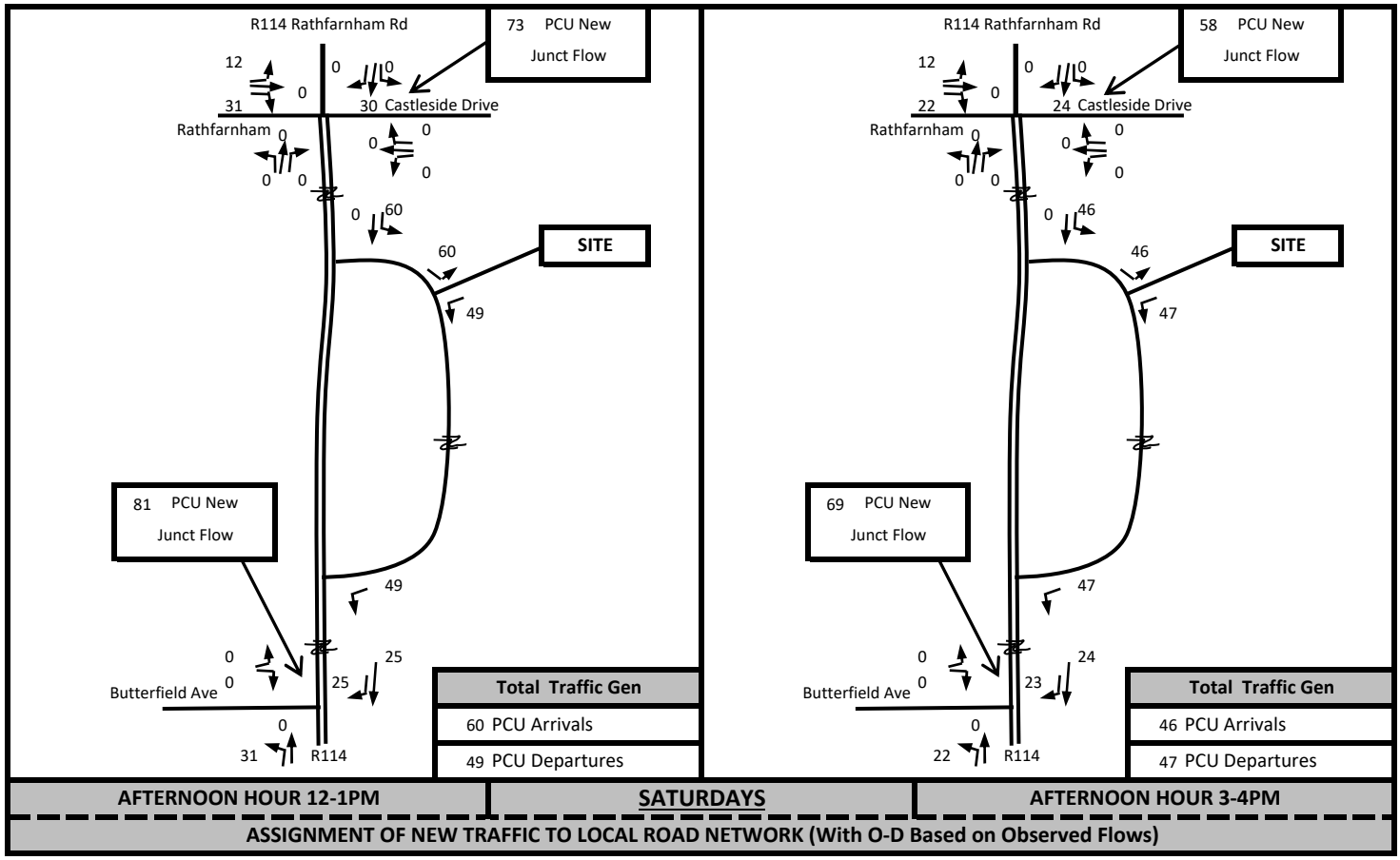


AFTERNOON HOUR 12-1PM	SATURDAYS	AFTERNOON HOUR 3-4PM

PROJECTED 2028 OPENING YEAR TRAFFIC CONDITIONS, WITHOUT DEVELOPMENT, TII ANNUAL GROWTH APPLIED (PCUs)

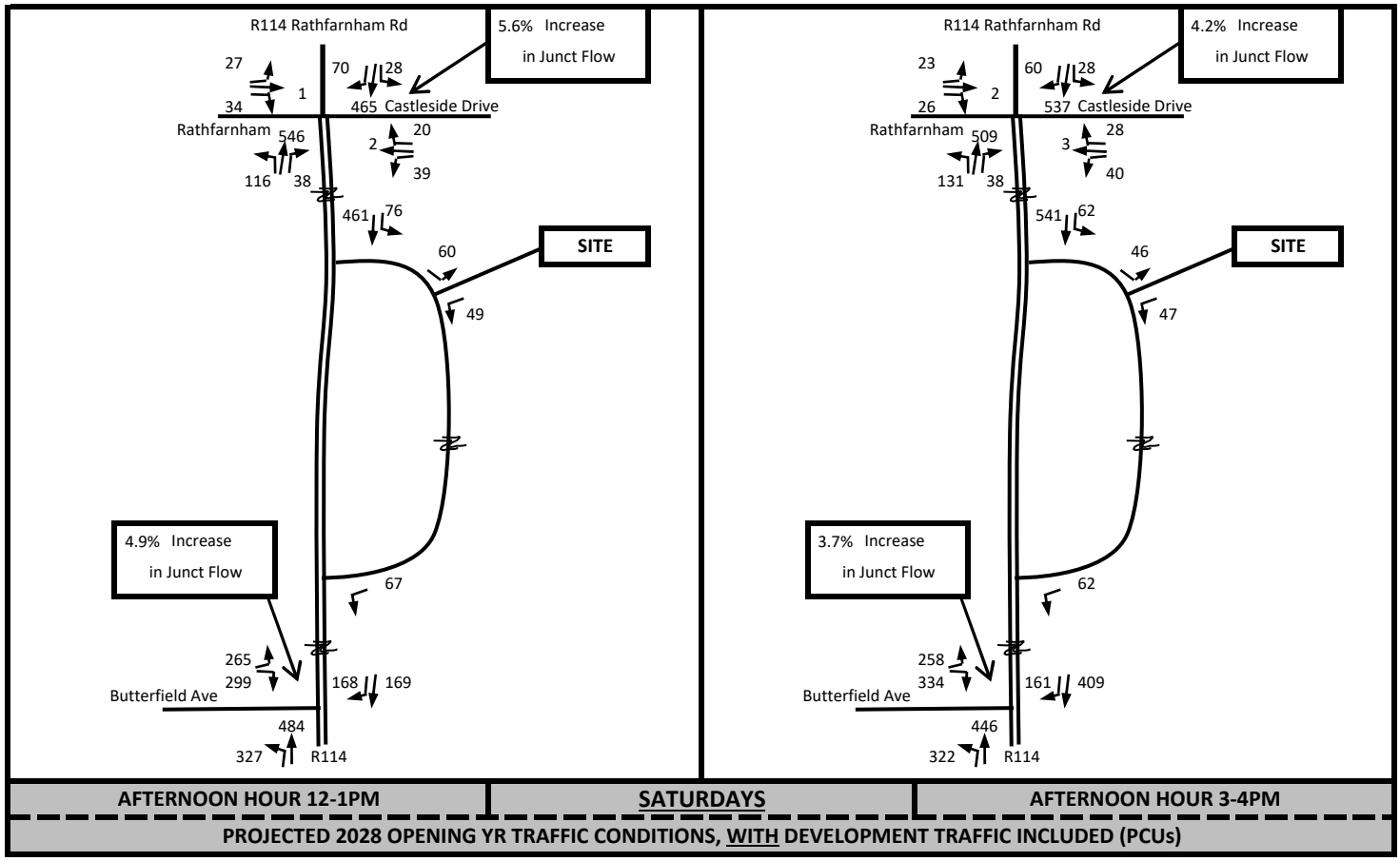


TRICS TRAFFIC GENERATION CALCULATIONS (REFER APPENDIX C)					
RETAIL ELEMENT OF DEVELOPMENT					
520 m2 Retail	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Sat Afternoon 12-1PM	6.013	31	5.832	30	62
Sat Afternoon 3-4PM	5.847	30	5.960	31	61
24 Hour Saturday	78.507	408	78.346	407	815
COMMUNITY ELEMENT OF DEVELOPMENT					
515 m2 Comm	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Sat Afternoon 12-1PM	0.374	2	0.393	2	4
Sat Afternoon 3-4PM	0.433	2	0.472	2	4
24 Hour Saturday	6.994	36	7.269	37	73
RESTAURANT ELEMENT OF DEVELOPMENT					
545 m2 Restaurant	**Arrivals (PCUs)**		**Departures (PCUs)**		**Total 2-Way Traffic**
Network Period	**per 100**	**Dev**	**per 100**	**Dev**	
Sat Afternoon 12-1PM	4.958	27	3.116	17	44
Sat Afternoon 3-4PM	2.550	14	2.550	14	28
24 Hour Saturday	35.554	194	34.518	188	382
TOTAL TRAFFIC GENERATED BY PROPOSALS (TRICS)					
Network Period	**Arrivals (PCUs)**		**Departures (PCUs)**		Total 2-Way Traffic
Sat Afternoon 12-1PM	60		49		109
Sat Afternoon 3-4PM	46		47		93
24 Hour Saturday	638		632		1270



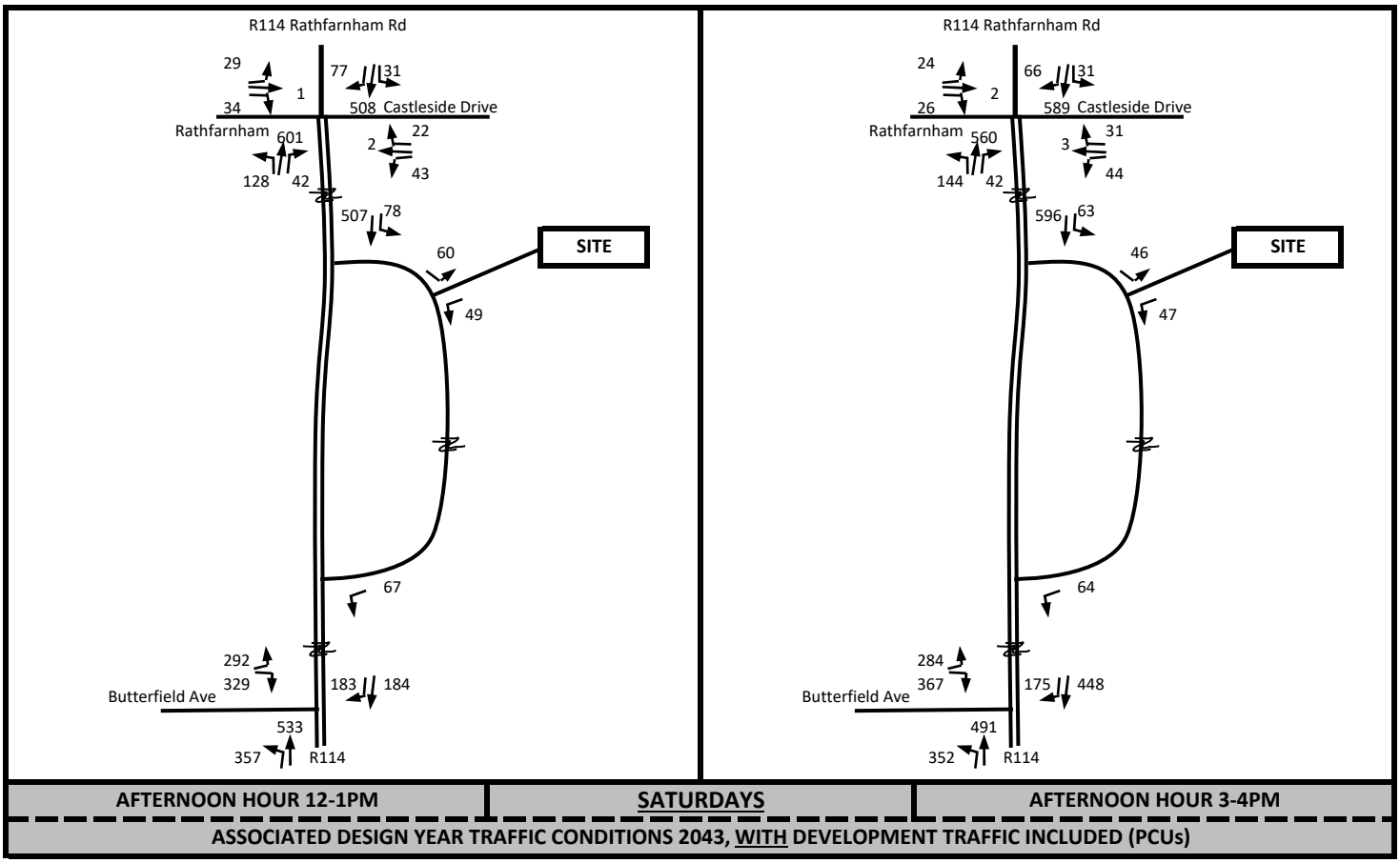
AFTERNOON HOUR 12-1PM | **SATURDAYS** | **AFTERNOON HOUR 3-4PM**

ASSIGNMENT OF NEW TRAFFIC TO LOCAL ROAD NETWORK (With O-D Based on Observed Flows)



AFTERNOON HOUR 12-1PM | **SATURDAYS** | **AFTERNOON HOUR 3-4PM**

PROJECTED 2028 OPENING YR TRAFFIC CONDITIONS, WITH DEVELOPMENT TRAFFIC INCLUDED (PCUs)



AFTERNOON HOUR 12-1PM	SATURDAYS	AFTERNOON HOUR 3-4PM

ASSOCIATED DESIGN YEAR TRAFFIC CONDITIONS 2043, WITH DEVELOPMENT TRAFFIC INCLUDED (PCUs)

APPENDIX E

'Junction 9' PiCADY Capacity Model Output Data
Existing R114 Exit T-Junction

R114 Site Exit T-Junction
Summary PiCADY Results in Order as included herein
(Weekday and Saturdays)

Modelled Scenario	Period Mean Max Q (PCUs)	Period Max RFC
WEEKDAY PEAKS		
2028 Opening Year 8-9AM Peak	0.1	0.05
2028 Opening Year 5-6PM Peak	0.1	0.09
2043 Design Year 8-9AM Peak	0.1	0.06
2043 Design Year 5-6PM Peak	0.1	0.11
SATURDAY PEAKS		
2028 Opening Year 12-1PM Peak	0.1	0.13
2028 Opening Year 3-4PM Peak	0.1	0.12
2043 Design Year 12-1PM Peak	0.2	0.2
2043 Design Year 3-4PM Peak	0.2	0.2

All Results Above are way below the recommended RFC of 0.85 (85% Capacity) and therefore no problems whatsoever are anticipated at the Junction in terms of Capacity or Predicted Vehicle Queues (This is unsurprising as the Junction is Left-out only and there are no right turns).

NB Any Small Changes to Selected Opening Year 2028 or Design Year 2043, or indeed significantly higher traffic volumes experienced, will clearly have no significant implications in terms of the conclusions of the Study, given the reserve capacity in the model as demonstrated above

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Wkday 2028 AM PM.j9
Path: C:\Users\Eoin\NRB Consulting Engineers Ltd\NRB Server - Documents\2023\23-089 Rathfarnham Castle\Calculations\Dev Exit Capacity
Report generation date: 25/03/2025 08:03:04

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2028 Wkday									
Stream B-AC	D1	0.1	6.40	0.05	A	D2	0.1	7.29	0.09	A
Stream C-B		0.0	0.00	0.00	A		0.0	0.00	0.00	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	25/03/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NRB-004\Eoin
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2028 Wkday	AM	ONE HOUR	07:45	09:15	15
D2	2028 Wkday	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028 Wkday, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Exit R114	T-Junction	Two-way		0.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00	✓	1.50		90.0		-

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.50	90	90

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	599	0.106	0.267	0.168	0.381
B-C	715	0.110	0.277	-	-
C-B	626	0.243	0.243	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2028 Wkday	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	386	100.000
B		✓	26	100.000
C		✓	825	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	386
	B	0	0	26
	C	825	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	1	0	1
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	6.40	0.1	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	634	0.031	19	0.0	5.912	A
C-A	621			621			
C-B	0	556	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	291			291			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	619	0.038	23	0.0	6.108	A
C-A	742			742			
C-B	0	542	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	347			347			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	597	0.048	29	0.1	6.396	A
C-A	908			908			
C-B	0	523	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	425			425			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	597	0.048	29	0.1	6.396	A
C-A	908			908			
C-B	0	523	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	425			425			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	619	0.038	23	0.0	6.111	A
C-A	742			742			
C-B	0	542	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	347			347			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	634	0.031	20	0.0	5.918	A
C-A	621			621			
C-B	0	556	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	291			291			

2028 Wkday, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Exit R114	T-Junction	Two-way		0.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2028 Wkday	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	543	100.000
B		✓	46	100.000
C		✓	747	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	543
	B	0	0	46
	C	747	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	1
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.09	7.29	0.1	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	601	0.058	34	0.1	6.408	A
C-A	562			562			
C-B	0	527	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	409			409			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	579	0.071	41	0.1	6.755	A
C-A	672			672			
C-B	0	508	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	488			488			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	549	0.092	51	0.1	7.290	A
C-A	822			822			
C-B	0	481	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	598			598			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	549	0.092	51	0.1	7.293	A
C-A	822			822			
C-B	0	481	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	598			598			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	579	0.071	41	0.1	6.758	A
C-A	672			672			
C-B	0	508	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	488			488			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	601	0.058	35	0.1	6.415	A
C-A	562			562			
C-B	0	527	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	409			409			

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Wkday 2043 AM PM.j9
Path: C:\Users\Eoin\NRB Consulting Engineers Ltd\NRB Server - Documents\2023\23-089 Rathfarnham Castle\Calculations\Dev Exit Capacity
Report generation date: 25/03/2025 08:01:28

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2043 Wkday									
Stream B-AC	D1	0.1	6.61	0.06	A	D2	0.1	7.65	0.11	A
Stream C-B		0.0	0.00	0.00	A		0.0	0.00	0.00	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	25/03/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NRB-004\Eoin
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2043 Wkday	AM	ONE HOUR	07:45	09:15	15
D2	2043 Wkday	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2043 Wkday, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Exit R114	T-Junction	Two-way		0.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00	✓	1.50		90.0		-

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.50	90	90

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	599	0.106	0.267	0.168	0.381
B-C	715	0.110	0.277	-	-
C-B	626	0.243	0.243	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2043 Wkday	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	425	100.000
B		✓	32	100.000
C		✓	788	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	425
	B	0	0	32
	C	788	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	1	0	1
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.06	6.61	0.1	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	626	0.038	24	0.0	6.037	A
C-A	593			593			
C-B	0	548	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	320			320			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	609	0.047	29	0.0	6.267	A
C-A	708			708			
C-B	0	533	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	382			382			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	585	0.060	35	0.1	6.611	A
C-A	868			868			
C-B	0	513	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	468			468			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	585	0.060	35	0.1	6.611	A
C-A	868			868			
C-B	0	513	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	468			468			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	609	0.047	29	0.1	6.270	A
C-A	708			708			
C-B	0	533	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	382			382			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	626	0.038	24	0.0	6.040	A
C-A	593			593			
C-B	0	548	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	320			320			

2043 Wkday, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Exit R114	T-Junction	Two-way		0.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2043 Wkday	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	597	100.000
B		✓	52	100.000
C		✓	822	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	597
	B	0	0	52
	C	822	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	1
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.11	7.65	0.1	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	590	0.066	39	0.1	6.592	A
C-A	619			619			
C-B	0	517	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	449			449			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	566	0.083	47	0.1	7.000	A
C-A	739			739			
C-B	0	496	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	537			537			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	533	0.107	57	0.1	7.644	A
C-A	905			905			
C-B	0	467	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	657			657			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	533	0.107	57	0.1	7.647	A
C-A	905			905			
C-B	0	467	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	657			657			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	566	0.083	47	0.1	7.006	A
C-A	739			739			
C-B	0	496	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	537			537			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	590	0.066	39	0.1	6.599	A
C-A	619			619			
C-B	0	517	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	449			449			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.2.1013

Filename: Sat 2028 Afternoon.j9
Path: C:\Users\Eoin\NRB Consulting Engineers Ltd\NRB Server - Documents\2023\23-089 Rathfarnham Castle\Calculations\Dev Exit Capacity
Report generation date: 25/03/2025 08:08:15

Summary of junction performance

	Aft					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2028 Sat 12oc									
Stream B-AC	D1	0.1	7.27	0.13	A					
Stream C-B		0.0	0.00	0.00	A					
	2028 Sat 3oc									
Stream B-AC						D2	0.1	7.55	0.12	A
Stream C-B							0.0	0.00	0.00	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	25/03/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NRB-004\Eoin
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2028 Sat 12oc	Aft	ONE HOUR	11:45	13:15	15
D2	2028 Sat 3oc	PM	ONE HOUR	14:45	16:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028 Sat 12oc, Aft

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Exit R114	T-Junction	Two-way		0.38	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00	✓	1.50		90.0		-

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.50	90	90

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	599	0.106	0.267	0.168	0.381
B-C	715	0.110	0.277	-	-
C-B	626	0.243	0.243	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2028 Sat 12oc	Aft	ONE HOUR	11:45	13:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	461	100.000
B		✓	67	100.000
C		✓	749	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	461
	B	0	0	67
	C	749	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	1	0	1
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.13	7.27	0.1	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	619	0.082	50	0.1	6.391	A
C-A	564			564			
C-B	0	542	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	347			347			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	60	600	0.100	60	0.1	6.736	A
C-A	673			673			
C-B	0	526	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	414			414			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	574	0.128	74	0.1	7.263	A
C-A	825			825			
C-B	0	503	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	508			508			

12:30 - 12:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	74	574	0.128	74	0.1	7.265	A
C-A	825			825			
C-B	0	503	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	508			508			

12:45 - 13:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	60	600	0.100	60	0.1	6.740	A
C-A	673			673			
C-B	0	526	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	414			414			

13:00 - 13:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	619	0.082	51	0.1	6.401	A
C-A	564			564			
C-B	0	542	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	347			347			

2028 Sat 3oc, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Exit R114	T-Junction	Two-way		0.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2028 Sat 3oc	PM	ONE HOUR	14:45	16:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	541	100.000
B		✓	62	100.000
C		✓	704	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	541
	B	0	0	62
	C	704	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	1
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.12	7.55	0.1	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

14:45 - 15:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	602	0.078	46	0.1	6.540	A
C-A	530			530			
C-B	0	527	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	407			407			

15:00 - 15:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	580	0.096	56	0.1	6.934	A
C-A	633			633			
C-B	0	508	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	486			486			

15:15 - 15:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	550	0.124	68	0.1	7.548	A
C-A	775			775			
C-B	0	482	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	596			596			

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	550	0.124	68	0.1	7.550	A
C-A	775			775			
C-B	0	482	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	596			596			

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	580	0.096	56	0.1	6.941	A
C-A	633			633			
C-B	0	508	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	486			486			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	602	0.078	47	0.1	6.552	A
C-A	530			530			
C-B	0	527	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	407			407			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.2.1013

Filename: Sat 2043 Afternoon.j9
Path: C:\Users\Eoin\NRB Consulting Engineers Ltd\NRB Server - Documents\2023\23-089 Rathfarnham Castle\Calculations\Dev Exit Capacity
Report generation date: 25/03/2025 08:10:42

Summary of junction performance

	Aft					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2043 Sat 12oc									
Stream B-AC	D1	0.2	7.77	0.17	A					
Stream C-B		0.0	0.00	0.00	A					
	2043 Sat 3oc									
Stream B-AC						D2	0.2	8.17	0.17	A
Stream C-B							0.0	0.00	0.00	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	25/03/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NRB-004\Eoin
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2043 Sat 12oc	Aft	ONE HOUR	11:45	13:15	15
D2	2043 Sat 3oc	PM	ONE HOUR	14:45	16:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2043 Sat 12oc, Aft

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Exit R114	T-Junction	Two-way		0.46	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00	✓	1.50		90.0		-

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.50	90	90

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	599	0.106	0.267	0.168	0.381
B-C	715	0.110	0.277	-	-
C-B	626	0.243	0.243	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2043 Sat 12oc	Aft	ONE HOUR	11:45	13:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	507	100.000
B		✓	84	100.000
C		✓	825	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	507
	B	0	0	84
	C	825	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	1	0	1
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.17	7.77	0.2	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	609	0.104	63	0.1	6.651	A
C-A	621			621			
C-B	0	533	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	382			382			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	588	0.128	75	0.1	7.084	A
C-A	742			742			
C-B	0	516	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	456			456			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	560	0.165	92	0.2	7.769	A
C-A	908			908			
C-B	0	491	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	558			558			

12:30 - 12:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	560	0.165	92	0.2	7.775	A
C-A	908			908			
C-B	0	491	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	558			558			

12:45 - 13:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	588	0.128	76	0.2	7.093	A
C-A	742			742			
C-B	0	516	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	456			456			

13:00 - 13:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	609	0.104	63	0.1	6.667	A
C-A	621			621			
C-B	0	533	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	382			382			

2043 Sat 3oc, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Exit R114	T-Junction	Two-way		0.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2043 Sat 3oc	PM	ONE HOUR	14:45	16:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	596	100.000
B		✓	80	100.000
C		✓	775	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	596
	B	0	0	80
	C	775	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	1
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.17	8.17	0.2	A
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

14:45 - 15:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	60	590	0.102	60	0.1	6.846	A
C-A	583			583			
C-B	0	517	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	449			449			

15:00 - 15:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	566	0.127	72	0.1	7.350	A
C-A	697			697			
C-B	0	496	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	536			536			

15:15 - 15:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	533	0.165	88	0.2	8.166	A
C-A	853			853			
C-B	0	467	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	656			656			

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88	533	0.165	88	0.2	8.172	A
C-A	853			853			
C-B	0	467	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	656			656			

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	566	0.127	72	0.1	7.362	A
C-A	697			697			
C-B	0	496	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	536			536			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	60	590	0.102	60	0.1	6.860	A
C-A	583			583			
C-B	0	517	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	449			449			

APPENDIX F

Planning Stage Mobility Management Plan

consulting engineers

NRB

Mobility Management Plan
(Travel Plan)
Appendix F

For

Proposed Development

At

Rathfarnham Castle,

Rathfarnham,

Dublin D6W.

SUBMISSION ISSUE

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Tel: +353 1 292 1941, E-mail: info@nrb.ie, Web: www.nrb.ie

Registered in Ireland No. 491679

Contents

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1.0 INTRODUCTION

1.1 NRB Consulting Engineers have been commissioned to prepare a preliminary Mobility Management Plan (or Travel Plan) to identify measures which could be implemented to promote sustainable travel amongst future visitors and staff at the proposed development on the site of Rathfarnham Castle, Rathfarnham, Dublin.

1.2 Reduced and Managed Car Parking is proposed as part of this Development, with a higher provision of cycle parking. Restricted and controlled provision of car parking is considered appropriate given the highly sustainable locational characteristics of the development. Generous cycle parking provision is also included within the design of the development.

1.3 The report has been prepared in order to explain the applicant's commitment to the promotion of more sustainable and cost-effective travel habits among the staff and visitors of the scheme, to discourage car usage and promote the use of public transport and active travel including cycling and walking. In this case, this is supported by the managed provision of car parking for the development.

1.4 The plan includes measures and services that will support staff within the development, encourage active travel and public transport modes and support the rationale for controlling car parking on-site. The Travel Plan also identifies all public transport options, car club spaces and bike share schemes, including bike sharing schemes locally, and details of other city transport schemes and options in the vicinity of the site. The content of this Report is an integral part of the Traffic and Transport Assessment.

1.5 **It should be recognised that a Travel Plan/Mobility Management Plan prepared at planning application stage, when the proposed development is un-built and unoccupied, without staff or visitors profile identified, can only highlight the current and proposed alternative transport initiatives in place at the site, and set out the applicant's commitment to the promotion of sustainable transport measures**.

What is a Travel Plan?

1.6 A Travel Plan is of course best prepared at full-development occupation, which allow targets to be actually set & focussed, based on the actual staff & visitor O-D and actual travel profile. However, this Report does provide a structure for the Management Company and the appointed Mobility Manager to follow post occupation. Once the staff & visitor profile is known, the travel habits and travel choices can then be best monitored and influenced. Modal shift targets will be set and included when a working plan is in place. A Travel Plan Coordinator / Mobility Manager will be appointed to oversee and co-ordinate the preparation of a working Plan.

1.7 Originally and elsewhere called Mobility Management Plans (MMPs), they originated in the United States and the Netherlands in the late 1980s. In the US, employers over a certain size (generally

over 100 employees) were required to implement 'Trip Reduction Plans' in order to reduce single-occupancy car commuting trips, and to increase car occupancy.

1.8 A Travel Plan (TP) or MMP consists of a package of measures put in place by an organisation to encourage and support more sustainable travel patterns among staff and visitors. Such a plan usually concentrates on work and school commuting patterns. In essence, a TP is useful not only to reduce the attractiveness of private car use, but also for the ability to promote and support the use of more sustainable transport modes such as walking, cycling, shared transport and mass transit such as buses and trains.

Aims and Objectives of this MMP

1.9 The package generally includes measures to promote and improve the attractiveness of using public transport, cycling, walking, car sharing, flexible working or a combination of these as alternatives to single-occupancy car journeys to work. A MMP can consider all travel associated with the site, including business travel, fleet management, customer access and deliveries. It should be considered as a dynamic process where a package of measures and campaigns are identified, piloted and monitored on an on-going basis.

1.10 The changes which are being sought as part of any plan may be as simple as car sharing one-day per week, or walking on Wednesdays, or taking the bus on days which do not conflict with other commitments, leisure or work activities.

1.11 It is envisaged that once in place, a working Travel Plan will enable the following benefits to be realised for the extant approved development:

- Reduced parking demand and reduced congestion on the local road network due to lower demand for private transport and/or more efficient use of private motor vehicles,
- Improved safety for cyclists and pedestrians,
- Direct financial savings for those taking part in the developed initiatives, through higher than average vehicle occupancy rates,
- A reduction in car parking & car set-down demand, resulting in improved operational efficiency and safety for all,
- Improved social networking between all those participating in the shared initiatives,
- Improved environmental consideration and performance,
- Improved public image for the development, which sets an example to the broader community and may lead to staff making better travel decisions in the future,
- Improved health and well-being for those using active non-car transport modes,
- Regular liaison with the Local Authority and public transport providers to maintain, improve, and support transportation services to and from the site,
- Improved attractiveness of the development to prospective staff,
- Optimal levels of safety for all, for staff, staff and visitors.

Methodology

1.12 As part of this Travel Plan, reference has been made to the following documents:

- South Dublin County Development Plan;
- Your Step By Step Guide To Travel Plans (NTA 2012);
- Achieving Effective Workplace Travel Plans (NTA 2011);
- Traffic and Transport Assessment Guidelines (TII);
- Traffic Management Guidelines (DoELG, 2003);
- Mobility Management Plans – DTO Advice Note (DTO, 2002);
- The Route to Sustainable Commuting (DTO 2001); and,
- Smarter Travel: A Sustainable Transport Future (DOT).

1.13 Consultation with key stakeholders is an essential part of any Travel plan. As discussed below, as part of the operational phase of this development, a Travel Plan Coordinator / Mobility Manager will be appointed from within the Management Company. Following on, once occupied staff and visitors will be asked to complete detailed questionnaires on essential data in relation to their existing travel patterns in order to determine appropriate modal shift targets. This information will be used to inform the ongoing implementation, monitoring and review of the plan for this development.

1.14 This information has been used herein as the basis for the assessment, conclusions and recommendations.

2.0 ACCESS TO THE SITE - BY MODE

2.1 The subject development consists of development at the former South Dublin County Council Depot, at the Stables and Courtyards of Rathfarnham Castle and the adjoining Sean Keating Garden, Grange Road/Rathfarnham Road, Dublin14 (D14 FC62 & D14 XT02), Rathfarnham Castle (Protected Structure RPS. 221) Grange Road, Rathfarnham, Dublin 14, on a development site of 1.1725 hectares. The site is bounded by Castleside Drive to the north, Rathfarnham Road to the west and Rathfarnham Castle and its grounds to the south and east. The development will consist of the refurbishment and change of use of the former stable buildings and former council depot yards, to provide mixed-use cultural/arts/cafe/ restaurant uses together with retail use, WC's, storage areas and a switch room.

2.2 This is a very accessible location in Dublin in terms of public transport and proximity to both the city and local services in SDCC.

Location

2.3 A site location plan showing the site and the proximity to the city and surrounding city neighbourhoods, is illustrated below as ***Figure 2.1.***

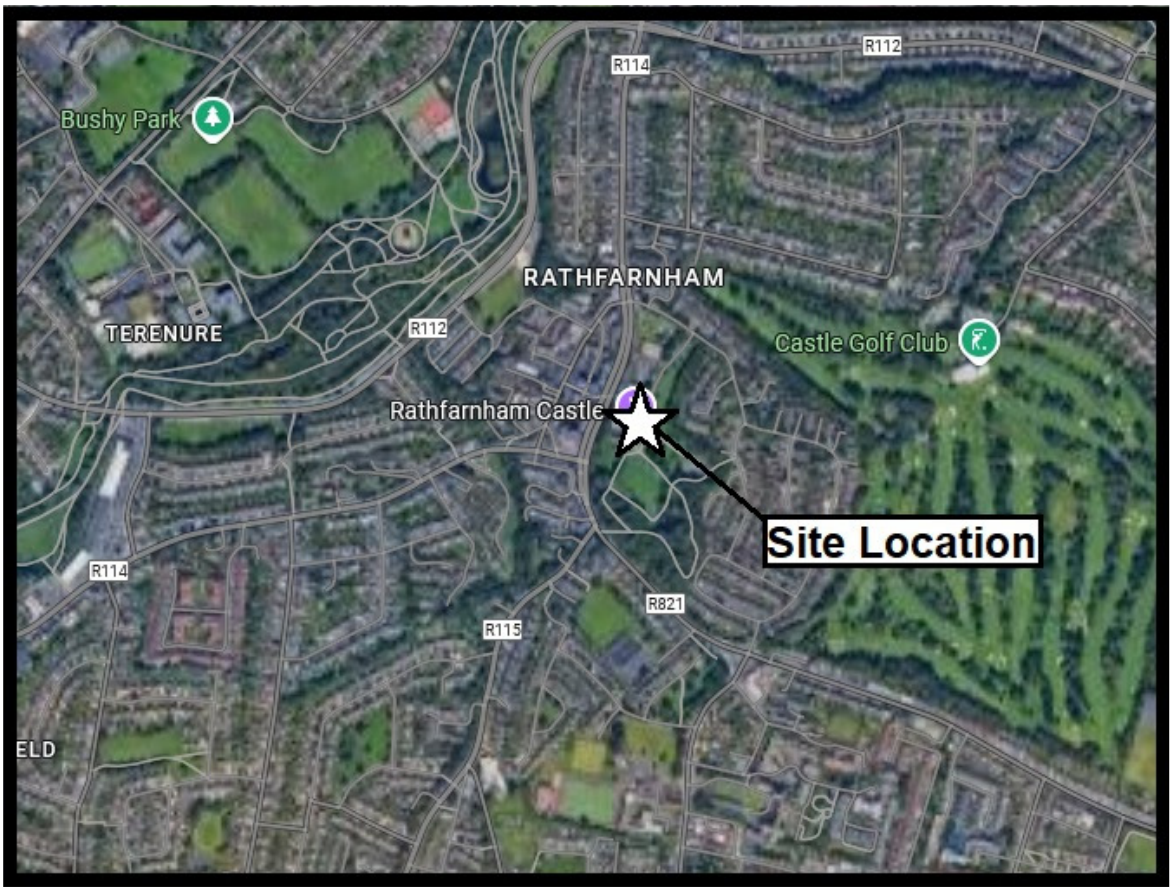


Figure 2.1 – Site Location

2.4 It is essential for the working Travel Plan to concentrate on journeys associated with work and visitors travel patterns. These are the groups which can most practically be encouraged to use modes of transport other than the car. The proposal seeks to create a successful commercial development as part of the historic castle, and the content and provisions of the MMP support this.

2.5 Notwithstanding this, the development is located in the heart of Rathfarnham and is in very close proximity to the range of current and proposed public and alternative transport, including active travel modes, all available nearby, many of which are identified herein.

Pedestrian and Cycling Facilities

2.6 The SDCC vision, as set out in their *Cycle South Dublin* Programme of works is an ambitious programme of work that reflects the increasing importance of making cycling a realistic and integral part of how people move around the County. It proposes a set of 41 projects that would deliver nearly 210km of new and improved cycle lanes over the next ten years. The programme has been prepared against the backdrop of the Council's commitments to Sustainable Travel; Climate Change; Building Stronger Local Economies and Improving Personal Health and Wellbeing. An extract from the SDCC document showing the site location is included below as ***Figure 2.2***.

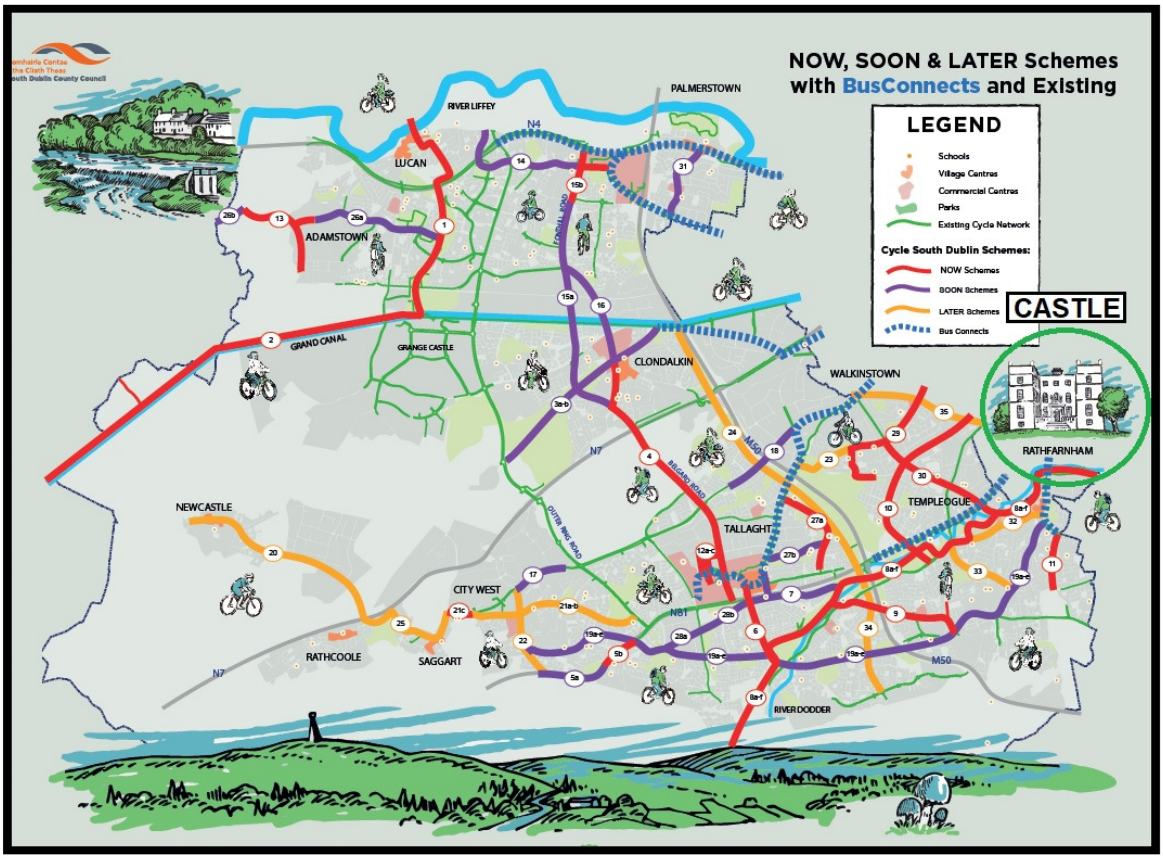


Figure 2.2 -SDCC Cycle South Dublin Programme Extract

2.7 In addition, the National Transport Authority (NTA) has surveyed the cycle facilities for the Greater Dublin Area (GDA) as part of the GDA Cycle Network Plan. An extract from this plan showing the facilities and the site in context is included herein as ***Figure 2.3*** below.

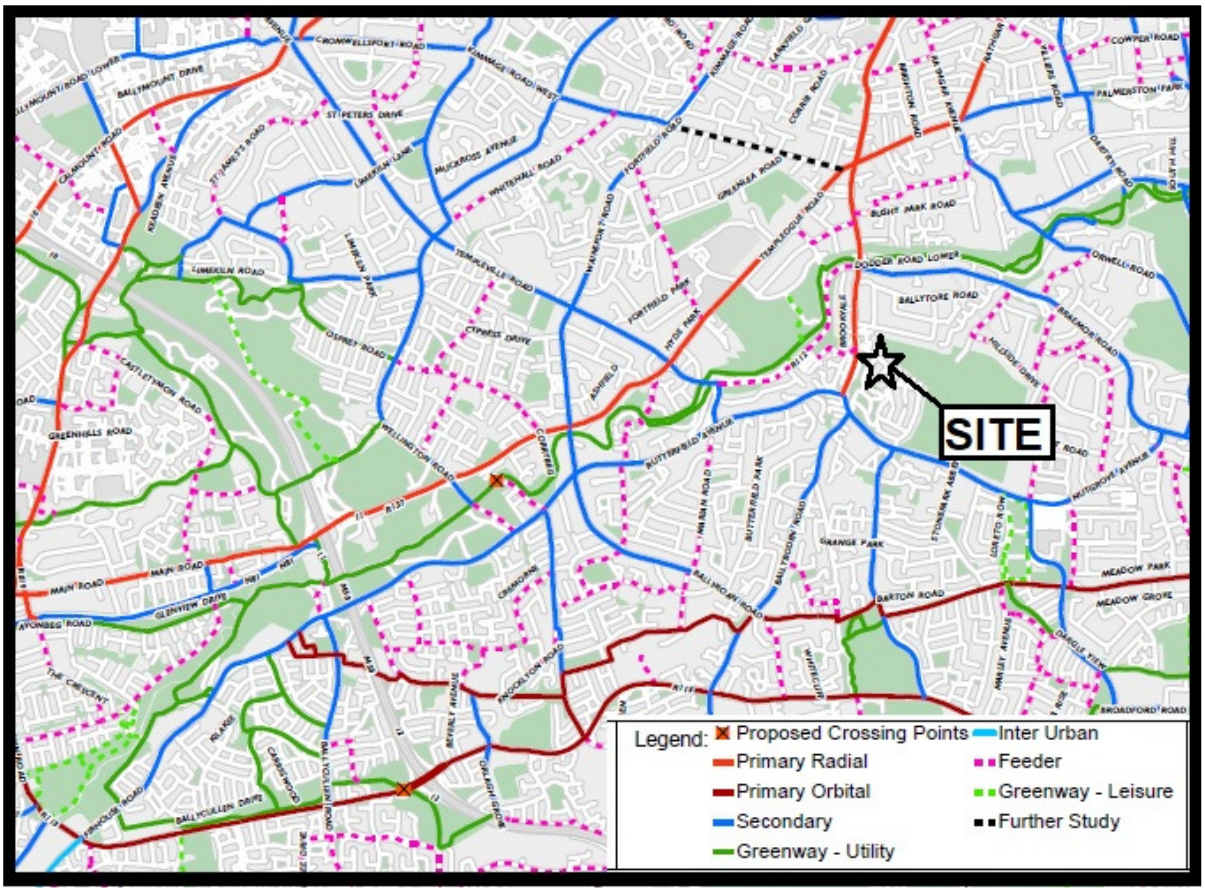


Figure 2.3 – GDA Cycle Network Plan

2.8 The site is ideally located immediately adjacent a Primary Cycle Route, and importantly is immediately served by the adjacent Dodder Park Greenway, which provides a continuous ever improving safe cycle link to the entire City.

2.9 The use and viability of the local cycling network and services will be enhanced through the encouragement of the use of bicycles and through the demand management reduced car parking provision.

2.10 The key to cycle accessibility is convenient safe links, with secure and carefully sited cycle parking. Cycling is ideal for shorter journeys. A significant amount of work has been carried out in the provision of facilities for Cyclists in SDCC (more that 200km of cycle facilities have been provided to date, and work is ongoing along the Dodder Riverbank to provide improved cycling access between the City and SDCC generally). The SDCC Development Plan, local and national strategies are to promote cycling and walking in the area and the development complies with these objectives.

2.11 It is clear that it is proposed that the site is bounded by primary, secondary and feeder routes, bordering the development site directly, thereby creating a high quality network of cycle routes throughout the local area.

2.12 The introduction of Toucan crossing facilities for cyclists at all Traffic Signal Controlled junctions within SDCC, a scheme which is being continually rolled out, will further enhance cyclist accessibility and permeability.

2.13 At present, pedestrian/cycle traffic at/to the existing sites are served by an extensive network of high quality footpaths and cycle lanes, along Rathfarnham Road and along the Dodder Greenway. The development includes sensible and simple at grade links to these facilities which are immediately adjacent the development.

Walking

2.14 The location of the proposed development is ideal in terms of encouraging walking. The proximity to several local employment destinations, schools and services means that both walking and cycling will be an attractive alternative option for the vast majority of staff. In addition, being located in the heart of Rathfarnham a short distance from every day services reduces the need to travel and will assist in encouraging walking.

2.15 The SDCC, and National Objective, is to cultivate a walking and cycling culture, through the implementation of appropriate infrastructure and promotional measures, which positively encourages all members of the community to walk or cycle at all life stages and abilities, using modes of sustainable transport that delivers environmental, health and economic benefits to both the individual and the community. This is compliant with the objectives of the SDCC Development Plan and National Strategies.

2.16 To help meet the target set in Ireland's first National Cycle Policy Framework launched in April 2009 (that 10% of all journeys will be by bicycle), the following will assist:

- Improve cycling conditions on primary cycle routes in the area as per the enclosed details,
- Develop new cycle route/ greenways through parks and open spaces,
- Improve connectivity/permeability from cycle routes to key destinations,
- Provide new secure cycle parking,
- Continue cycle training in schools,
- Ensure that cycling is a key element of all development (which has clearly been incorporated in this case), and,
- Monitor trends in cycle numbers using cycle counter data.

2.17 The local infrastructure plans support the 19 specific objectives in the National Cycle Policy Framework. The proposed development on the subject sites, through good design, will assist in the promotion of cycling as a primary mode of travel.

2.18 For journeys greater than 8km, it is recognised that a modal shift to cycling could be achievable for some, but not all, and options such as public transport and car sharing should be considered.

Journeys up to 8km could be undertaken by bicycle and journeys up to 3-4km could be undertaken by walking or cycling.

Cycle Parking

2.19 The Bicycle Parking requirements are set out in Table 12.23 of the SDCC Development Plan 2022-2028. The proposed development complies with the requirements of the Development Plan, applying the Standards to the new elements. The works include the provision of a new, single storey, slated roof structures to the existing structures to the north of the building known as the Seismograph Building consisting of a secure bike store area and provision of 10 no. long term bicycle storage spaces including 1 no. enlarged bicycle space for a cargo bike. In addition, there are 42 No short term bicycle parking spaces provided for visitors to the north of the new car park.

2.20 It is expected that a very significant number of staff and visitors will be willing to cycle, with the safe links and secure parking that are being provided, and that is reflected in the provision of large number of dedicated cycle parking spaces over and above the actual requirements. Once occupied, advice can be provided on routes by the appointed Travel Plan Coordinator and on dedicated Castle Visitor Websites. This can be further facilitated in consultation with SDCC, as the ongoing provision of cycle facilities as set out above is fully implemented.

2.21 It is acknowledged that cyclists need to be confident that their cycles will not be tampered with while they are in storage. With this in mind, it is proposed to install the cycle parking with racks which allow both frame and wheels to be secured, and this has been included. These cycle racks are located in an active, well lit & security monitored place or where they can be seen by a security guard, either directly, or by closed circuit television.

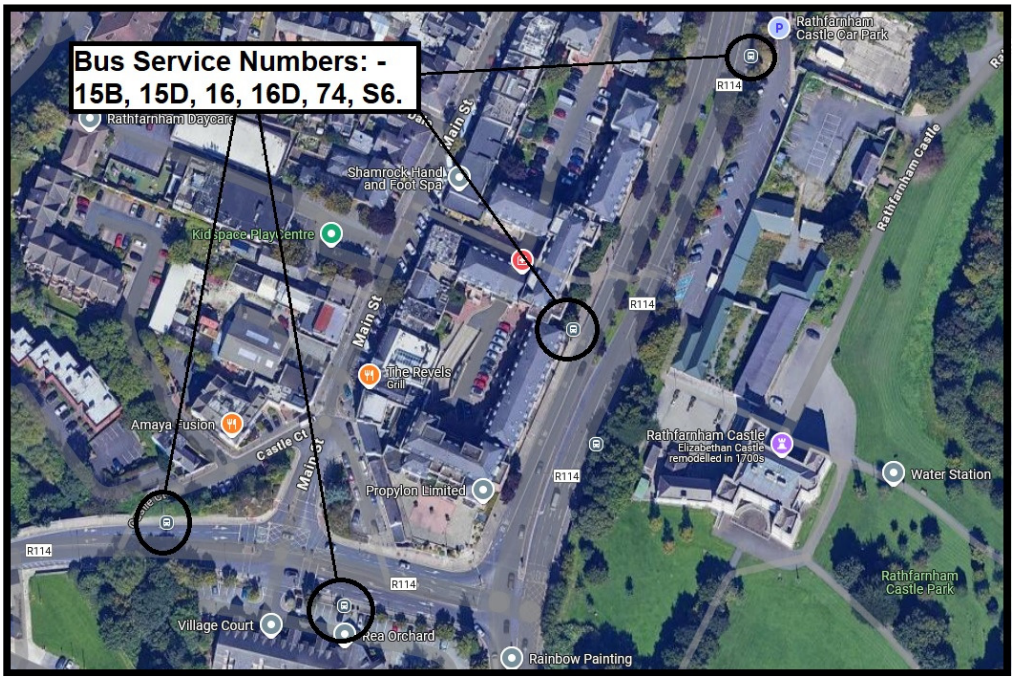
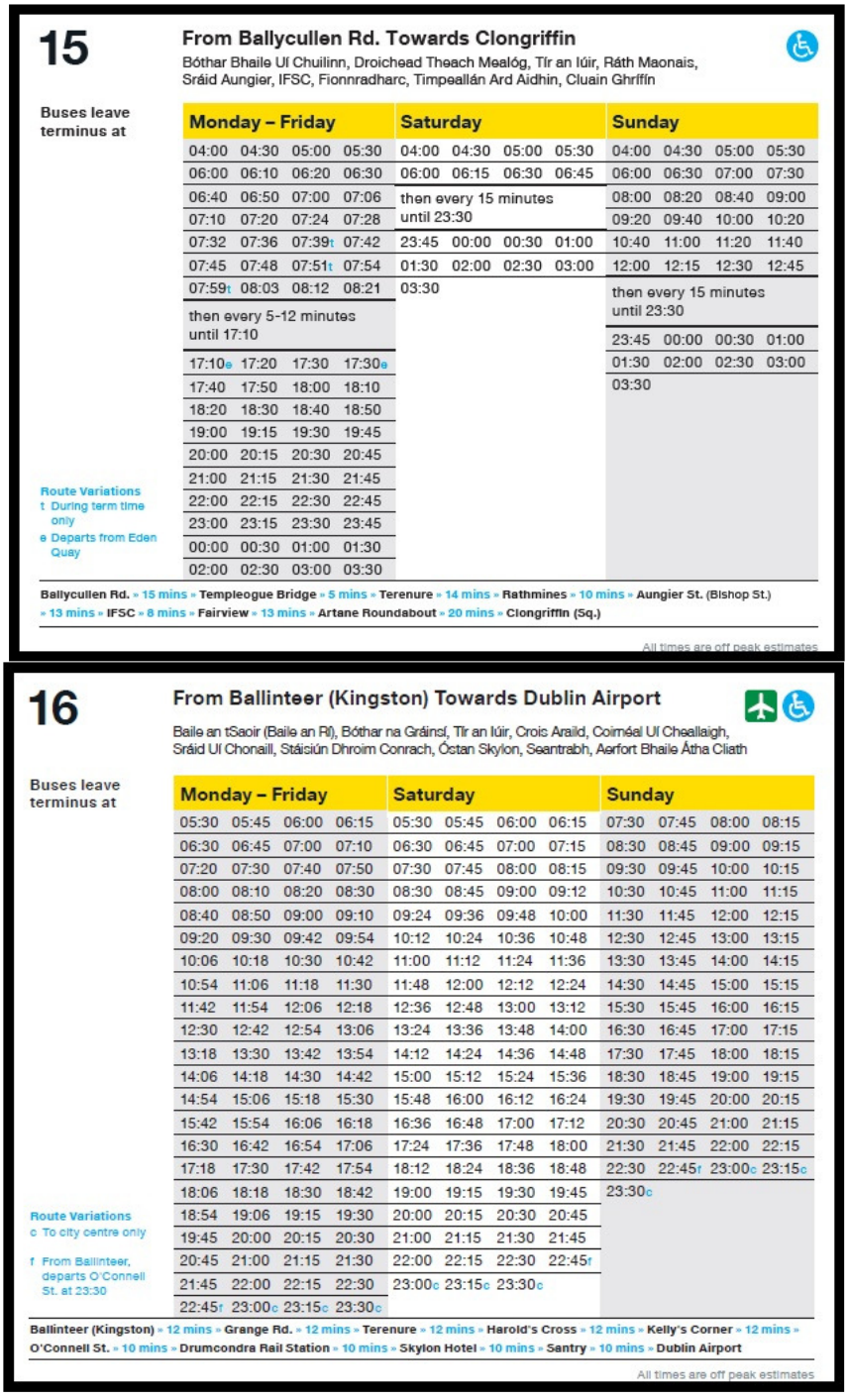


Figure 2.4 – Location of Existing Bus Services adjacent the Site

Bus Provision

2.22 There are a number of Bus Stops operating locally, with the closest main stops (being located on both Rathfarnham Road and on Butterfield Ave adjacent the site. There are several services, being with the location of the Bus Stops and services at the site depicted in ***Figure 2.4*** above.

2.23 The #15 and #16 services alone provide a very high frequency link to the local residential areas and also high frequency links to Dublin City, with a combined peak hour frequency of one bus every approx. 5 minutes. An extract from the Timetables solely for the 15 and 16 services (correct at the time of writing) are included below as ***Figure 2.5***



15

From Ballycullen Rd. Towards Clongriffin

Bóthar Bhaile Uí Chuilinn, Droichead Theach Mealóg, Tír an Iúir, Ráth Maonais, Sráid Aungier, IFSC, Fionnradharc, Timpeallán Ard Aidhin, Cluain Ghriffín

Buses leave terminus at

Monday – Friday				Saturday				Sunday			
04:00	04:30	05:00	05:30	04:00	04:30	05:00	05:30	04:00	04:30	05:00	05:30
06:00	06:10	06:20	06:30	06:00	06:15	06:30	06:45	06:00	06:30	07:00	07:30
06:40	06:50	07:00	07:06	then every 15 minutes until 23:30				08:00	08:20	08:40	09:00
07:10	07:20	07:24	07:28					09:20	09:40	10:00	10:20
07:32	07:36	07:39t	07:42	23:45	00:00	00:30	01:00	10:40	11:00	11:20	11:40
07:45	07:48	07:51t	07:54	01:30	02:00	02:30	03:00	12:00	12:15	12:30	12:45
07:59t	08:03	08:12	08:21	03:30				then every 15 minutes until 23:30			
then every 5-12 minutes until 17:10								23:45	00:00	00:30	01:00
17:10e	17:20	17:30	17:30e					01:30	02:00	02:30	03:00
17:40	17:50	18:00	18:10					03:30			
18:20	18:30	18:40	18:50								
19:00	19:15	19:30	19:45								
20:00	20:15	20:30	20:45								
21:00	21:15	21:30	21:45								
22:00	22:15	22:30	22:45								
23:00	23:15	23:30	23:45								
00:00	00:30	01:00	01:30								
02:00	02:30	03:00	03:30								

Route Variations
t During term time only
e Departs from Eden Quay

Ballycullen Rd. » 15 mins » Templeogue Bridge » 5 mins » Terenure » 14 mins » Rathmines » 10 mins » Aungier St. (Bishop St.) » 13 mins » IFSC » 8 mins » Fairview » 13 mins » Artane Roundabout » 20 mins » Clongriffin (Sq.)

All times are off peak estimates

16

From Ballinteer (Kingston) Towards Dublin Airport

Baile an tSaoir (Baile an Rí), Bóthar na Gráinsí, Tír an Iúir, Crois Araild, Coiméal Uí Cheallaigh, Sráid Uí Chonaill, Stáisiún Dhroim Conrach, Óstan Skylon, Seantrabh, Aerfort Bhaile Átha Cliath

Buses leave terminus at

Monday – Friday				Saturday				Sunday			
05:30	05:45	06:00	06:15	05:30	05:45	06:00	06:15	07:30	07:45	08:00	08:15
06:30	06:45	07:00	07:10	06:30	06:45	07:00	07:15	08:30	08:45	09:00	09:15
07:20	07:30	07:40	07:50	07:30	07:45	08:00	08:15	09:30	09:45	10:00	10:15
08:00	08:10	08:20	08:30	08:30	08:45	09:00	09:12	10:30	10:45	11:00	11:15
08:40	08:50	09:00	09:10	09:24	09:36	09:48	10:00	11:30	11:45	12:00	12:15
09:20	09:30	09:42	09:54	10:12	10:24	10:36	10:48	12:30	12:45	13:00	13:15
10:06	10:18	10:30	10:42	11:00	11:12	11:24	11:36	13:30	13:45	14:00	14:15
10:54	11:06	11:18	11:30	11:48	12:00	12:12	12:24	14:30	14:45	15:00	15:15
11:42	11:54	12:06	12:18	12:36	12:48	13:00	13:12	15:30	15:45	16:00	16:15
12:30	12:42	12:54	13:06	13:24	13:36	13:48	14:00	16:30	16:45	17:00	17:15
13:18	13:30	13:42	13:54	14:12	14:24	14:36	14:48	17:30	17:45	18:00	18:15
14:06	14:18	14:30	14:42	15:00	15:12	15:24	15:36	18:30	18:45	19:00	19:15
14:54	15:06	15:18	15:30	15:48	16:00	16:12	16:24	19:30	19:45	20:00	20:15
15:42	15:54	16:06	16:18	16:36	16:48	17:00	17:12	20:30	20:45	21:00	21:15
16:30	16:42	16:54	17:06	17:24	17:36	17:48	18:00	21:30	21:45	22:00	22:15
17:18	17:30	17:42	17:54	18:12	18:24	18:36	18:48	22:30	22:45f	23:00c	23:15c
18:06	18:18	18:30	18:42	19:00	19:15	19:30	19:45	23:30c			
18:54	19:06	19:15	19:30	20:00	20:15	20:30	20:45				
19:45	20:00	20:15	20:30	21:00	21:15	21:30	21:45				
20:45	21:00	21:15	21:30	22:00	22:15	22:30	22:45f				
21:45	22:00	22:15	22:30	23:00c	23:15c	23:30c					
22:45f	23:00c	23:15c	23:30c								

Route Variations
c To city centre only
f From Ballinteer, departs O'Connell St. at 23:30

Ballinteer (Kingston) » 12 mins » Grange Rd. » 12 mins » Terenure » 12 mins » Harold's Cross » 12 mins » Kelly's Corner » 12 mins » O'Connell St. » 10 mins » Drumcondra Rail Station » 10 mins » Skylon Hotel » 10 mins » Santry » 10 mins » Dublin Airport

All times are off peak estimates

Figure 2.5 – Extracts #15 and #16 Timetable

2.24 All of the Dublin Bus routes currently passing the development are operated using new low-floor wheelchair accessible city buses. Detail of routes, timetables and fares are provided on www.dublinbus.ie, and on the Transport for Ireland National Journey Planner App.

2.25 In terms of **Future Planned Services**, the NTA have recently published details of the overall bus network for the GDA, the 'New Dublin Area Network' - showing Spine Routes, Feeder and Orbital Routes. An extract from the NTA Plans showing the site location is included below as ***Figure 2.6.***

2.26 This future network shows that the site's accessibility to bus services will be further enhanced, with a high frequency and permeable service to be provided via the A2 and A4 'Main Spine Routes' immediately serving the site along Rathfarnham Road.

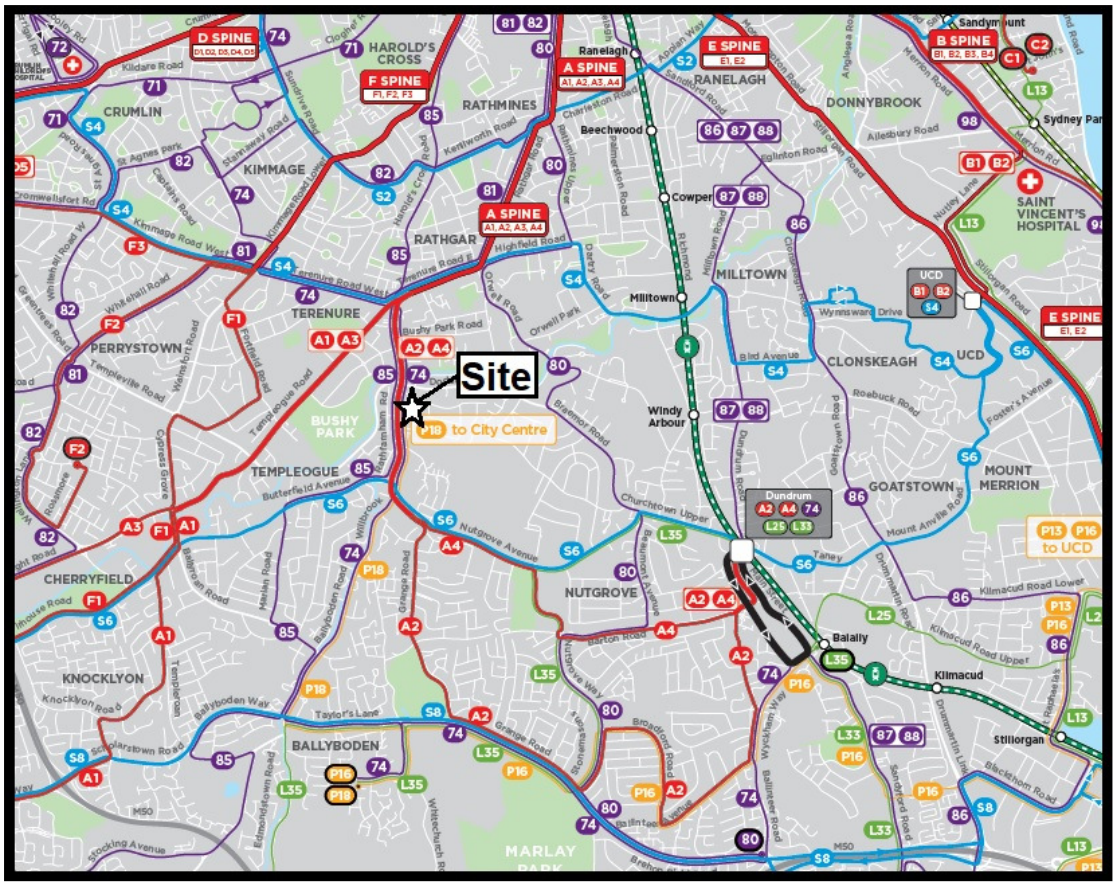


Figure 2.6 – Core Bus Connects and Site Location

Mainline Bus Services

2.27 The buses provide links to the City Centre mainline Bus and Rail Stations, thereby providing easy access for staff and visitors nationwide. The site is therefore accessible to a wide range of national mainline rail services serving all destinations around Ireland, and of course linking to Dublin Airport.

2.28 Maps and Tables showing Bus Services are easily accessible via Service Provider Apps.

LUAS

2.29 The LUAS Green Line stops at Milltown, Windy Arbour or Dundrum, whilst admittedly some distance away, are nonetheless accessible from the site by other mode (eg bus, car set-down or by bicycle). LUAS has become a highly successful travel mode linking south Dublin with local areas and onwards to the city centre. It is a semi-segregated light rail tram service operating at street level but generally gets priority over motorised vehicles at junctions.

2.30 The LUAS Green Line provides a regular service between the 3 Arena/Connolly Station and these south Dublin Stops with intermediate stops at key locations and public transport nodes. The normal day to day operating times are 05:30-24:00. The Green Line provides a service between Sandyford and Broombridge with intermediate stops at St Stephens Green, Westmoreland, Cabra, Phibsborough and Broadstone DIT.

2.31 LUAS runs on a frequency of service which changes depending upon the time of day to adequately cater for demand. LUAS has the ability to deliver significant increased capacity through a combination of longer carriages/trains and increased frequency of service.

2.32 In terms of number of transport alternatives easily available to Visitors and Staff, it is considered that the proposed development is very highly sustainable indeed, in terms of public and alternative transport accessibility. The proximity of the development to existing public transport services means that all visitors and staff will have viable alternatives to the private car for accessing the site and will not be reliant upon the car as a primary mode of travel.

2.33 Direct and high quality pedestrian linkages are provided between the sites and the existing pedestrian facilities on the surrounding road network. The entrances to the sites will be well lit, so that people can feel secure in using the facilities.

2.34 Public transport maps and timetables can be provided in prominent locations on the sites and the information will be kept up to date by the appointed Travel Plan Coordinator, a role for the Management Company.

2.35 Working Staff are generally now offered the opportunity to purchase public transport commuter tickets under the current 'Employer Pass' and 'TaxSaver' programmes, by individual Employers. Under these schemes the employer applies to Iarnród Éireann / Bus Éireann for tax free public transport tickets for their employees as an incentive for them to use public transport to travel to work.

2.36 With this in mind, the main focus of this Travel Plan will be to promote and support the use of alternative modes to the private car.

Car Parking

2.37 The works include the regrading and relevelling of the existing sunken pond and garden area to

provide 54 no. car parking spaces (including 4no. accessible parking spaces and 10 no. EV parking spaces) and 42 no. short-term bicycle parking spaces to the north of the site and associated landscaping also within this area. The new car parking provision is consistent with the SDCC Development Plan Maximum **Car Parking** standards.

2.38 This provision of car parking will act as a demand management measure, ensuring that the development is accessed in the most sustainable manner, being almost predominantly reliant on non-car modes of travel.

3.0 COLLECTION OF BASELINE INFORMATION

Possible Travel Pattern Questionnaires

3.1 Once occupied and operational, and when the Travel Plan Coordinator is appointed, the occupiers of the development will be encouraged to regularly monitor the Travel Plan initiatives in order to maximise on their success.

3.2 Shortly after opening, a detailed travel-questionnaire will be compiled and distributed to both visitors and staff for completion. The aim of the travel questionnaire will be to establish travel patterns between work and home and visits to the site by mode, among other travel demands. The information gathered from this survey will be used to inform the further development of the Travel Plan and to set Modal Share Targets and Initiatives based on real data.

3.3 The Baseline Survey information will also allow the Mobility Manager for the development to set realistic modal-split targets for the development.

3.4 It is anticipated that, given the location and good transport links at this development, combined with the non-provision of car parking on site, there will be a high percentage of use via public and alternative transport.

3.5 The Mobility Management Plan will need to maintain this positive modal split and improve it, where possible. It is informative to note that the "Smarter Travel: A Sustainable Transport Future" (DOT) Objective for 2020 was to achieve a reduced work related commuting by car modal share of 65% to 45%.

4.0 THE MOBILITY MANAGEMENT PLAN

4.1 The successful implementation of a Travel Plan / Mobility Management Plan will ensure that, in-so-far-as-possible, the impacts of any traffic are reduced and minimised where practical, while providing a number of environmental and economic advantages detailed below.

4.2 The following sub-sections detail the available initiatives which will serve to better manage travel demand, and therefore the traffic impact of work and school related journeys, focused on the movement of staff during peak times.

Walking

Walking - Key Information	
Approx. Zone of Influence	3.5km
Percentage of Visitors & Staff in area of influence	TBC in each survey when occupied
Percentage of Visitors & Staff interested in Walking	TBC in each survey when occupied

Table 4.1 – Key Information: Walking

4.3 There are many local, global, and personal benefits to walking to work, a few of which are listed following:

- **W** - Wake Up! - Studies have shown that people who walk to work are more awake and find it easier to concentrate.
- **A** - Always one step ahead - Walking makes people more aware of road safety issues and helps them develop stronger personal safety skills.
- **L** - Less congestion - If you leave the car at home and walk, there are fewer cars on the road which makes it safer for those who walk and cycle.
- **K** - Kinder to the environment - By leaving the car at home you are reducing the amount of CO 2 produced and helping to reduce the effects of climate change and air pollution.
- **I** - Interpersonal skills - Walking to work or school can be a great way to meet other walkers, share the experience, and develop personal skills.
- **N** - New adventures - Walking to work or school is a great way to learn about your local environment and community. It's also a fun way to learn about the weather, landscape, and local ecosystems.
- **G** - Get fit and stay active - Walking to and from work or school helps people incorporate physical activity into their daily routines. Research shows that regular physical activity can benefit your body and mind.

4.4 Most adults will consider walking a maximum of 3.5 km (Approx. 30/40 minutes) to work. Staff working within a 3.5 km radius of the site and visitors will be encouraged to walk to work as often as their schedule permits.

4.5 The following initiatives and incentives can be used to encourage walking to work:

- Take part in a 'Pedometer Challenge' which is organised through the Irish Heart Foundation or Smarter Travel Workplaces;
- Organise special events such as a 'Walk to work/school on Wednesdays' where participants are rewarded for their participation;
- Keep umbrellas in public areas on a deposit system for use when raining;
- Display Smarter Travel Workplaces Accessibility Walking maps on notice boards areas so staff can plan journeys;
- Organise lunch time or afternoon walks as part of a health and well-being programme;
- Highlight the direct savings gained due to reduced use of private vehicles.

Cycling

Cycling – Key Information	
Approx. zone of influence	10km
Percentage of Visitors & Staff in area of influence	TBC in each survey when occupied
Percentage of Visitors & Staff interested in cycling	TBC in each survey when occupied

Table 4.2 - Key Information - Cycling

4.6 Research suggests that cycling is a viable mode of transport for people who live up to 10 km from work or a destination.

4.7 Cycling is a great way to travel. It helps foster independence, raises awareness of road safety, and helps the environment.

4.8 Some positive aspects of cycling to work or school are listed following:

- **C** - Cycling is fun! - Cycling is a great form of transport but it's also a great recreational activity. Cycling is a skill that stays with you for life and it's a fantastic way to explore your local community.
- **Y** - You save time & money - cycling to work reduces the need to travel by car thus reducing fuel costs and freeing up road space for more cyclists;
- **C** - Confidence building - travelling to work as an independent cyclist can give people increased confidence proving beneficial in all aspects of life;
- **L** - Less congestion - If you leave the car at home and cycle to work there are fewer

cars on the road which makes it safer for those who cycle and walk to work or school;

- **I** - Interpersonal skills - Cycling to work or to school can be a great way to meet other cyclists and share the experience;
- **N** - New adventures - Cycling to work or school is a great way to learn about your local environment and community. It helps people to understand where they live and how their actions affect their local environment;
- **G** - Get fit and stay active - cycling to and from work or school helps people incorporate physical activity into their daily routines. Research shows that regular physical activity can benefit your body and mind.

4.9 The provision of enhanced and attractive cycle parking facilities at the site will clearly play a critical role in promoting journeys by bicycle.

4.10 The following initiatives and incentives can be used to encourage cycling to work:

- New cycle parking installed within the development, secure and well lit;
- Publicise cycle parking availability by way of signage and on notice boards;
- Display maps on notice boards areas so people can plan journeys;
- The development can provide free cycle accessories (panniers, lights, visi-vests, helmets) in periodic draws for cyclists,
- The Travel Plan Coordinator can organise cycle training sessions on site on the rules of the road and the specific risks associated with the locality;
- The Travel Plan Coordinator can invite bike suppliers on site for a 'Green Day' or 'Green Week' so that people can try bikes before buying;
- The Travel Plan Coordinator can set up a Bicycle User Group (BUG) to promote cycling;
- The Travel Plan Coordinator can highlight the direct savings gained due to reduced use of private vehicles;
- The Travel Plan Coordinator can encourage staff to take part in National Bike Week, see www.bikeweek.ie.

Public Transport

Public Transport – Key Information	
Approx. zone of influence	All Staff
Percentage of Visitors & Staff in area of influence	100%
Percentage of Visitors & Staff using Public Transport	TBC in each survey when occupied

Table 4.3 - Key Information: Public Transport

4.11 There are many benefits to taking public transport, some of which include:

- Personal Opportunities – Public transportation provides personal mobility and freedom;
- Saving fuel – Every full standard bus can take more than 50 cars off the road, resulting in fuel savings from reduced congestion;
- Reducing congestion – The more people who travel to work or to school on public transport, especially during peak periods, the less people travelling by private car;
- Saving money – Taking public transport to and from work or school is a lot cheaper than travelling by car and saves the cost of buying, maintaining and running a vehicle;
- Reducing fuel consumption – A full standard bus uses significantly less fuel per passenger than the average car;
- Reducing carbon footprint – Public transport is at least twice as energy efficient as private cars. Buses produce less than half the CO2 emissions per passenger kilometre compared to cars;
- Get fit and stay active - Walking to and from work or school to public transport helps people incorporate physical activity into their daily routines. Research shows that regular physical activity can benefit your body and mind.
- Less stress – Using public transport can be less stressful than driving yourself, allowing you to relax, read, or listen to music.

4.12 The following initiatives and incentives can be used to encourage people to take public transport:

- Publicise Employee Tax Saver Commuter tickets, which offer savings to employers in PSRI per ticket sold and significant savings to employees in marginal tax rate and levies on the price of their ticket;
- Encourage public transport use for travel by promoting smart cards, advertising the availability of these tickets to end occupiers/staff;
- Publicise the availability of Real Time Information. Real Time Information shows when your bus is due to arrive at your bus stop so you can plan your journey more accurately;
- Provide maps of local bus routes and the nearest bus stops and the length of time it takes to walk to them;

Go-Car/Car Sharing

Car Sharing – Key Information	
Approx. zone of influence	All Staff
Percentage of Visitors & Staff in area of influence	100%
Percentage of Visitors & Staff using Car Sharing	TBC in each survey when occupied

Table 4.4 - Key Information - Go-Car/Car Sharing

4.13 Every day thousands of commuters drive to work or to school on the same routes to the same destinations, at the same time as their colleagues. By car sharing just once a week, a commuter's fuel costs can be reduced by 20%, and in a similar fashion, the demand for work place parking can be reduced by 20%. If every single-occupancy driver carried another driver, there would be 50% less cars on the road at peak times.

4.14 Although use of the car to get to work is essential for some people, car sharing schemes such as GoCar and YUKO (which are active in Dublin) have the potential to deliver a significant reduction in private vehicle trips by promoting higher than average occupancy rates for each vehicle.

4.15 Car sharing often happens informally, however some participants often prefer a formal scheme such as a GoCar facility which will normally generate a higher take-up for car sharing, and more efficiency in terms of increased occupancy rates.

4.16 Encouraging more Visitors & Staff to share car journeys to work rather than driving alone as well as encouraging more to set up and take part in car sharing/pooling would prove a very effective means of reducing daily car trips to and from the site. If considered appropriate, as part of a working MMP, priority spaces can in future be allocated to car-sharing workers when they travel together. These could be dedicated as some of the most accessible spaces and therefore made clearly visible to other car park users

Action Plan Summary Table

4.17 The Summary Action Plan is described in the Table below. Modal Split Targets will be determined following on from the first survey shortly after visitors / staff occupy, typically within the first six months. This will be part of the role of the Travel Plan Coordinator. This will show existing travel patterns with realistic targets set to improve the modal split of staff.

	Initiative	Impact on Delivery	Difficulty Delivering	Current Modal Split	Target MS
Visitor / Staff Initiatives	Walking	Medium	Low	TBC	TBC
	Cycling	Medium	Medium	TBC	TBC
	Public Transport	High	Low	TBC	TBC
	Other	Medium	Medium	TBC	TBC
	Car - Sharing	Medium	Medium	TBC	TBC
	Cars - 1 Passenger Only	High - Negative	High	TBC	TBC
Promoting	Marketing the Plan	High	Low	Driven By MMP Coordinator	
	Measuring Success	High	Medium	Annual Surveys	

Action Plan Summary Table

5.0 IMPLEMENTING THE PLAN

Background

5.1 Setting realistic targets and a sustained approach to the promotion of the Travel Plan is important if the measures are to be successful. The objectives and benefits of the Plan will be made clear and broadcast during the full lifecycle of the Plan.

5.2 The implementation of a successful Travel Plan / Mobility Management Plan will require the upfront investment of resources. As well as reviewing objectives and initiatives regularly, it is equally important to measure results. This provides an indication of any Plan's success and ensures that the targets remain realistic.

The Travel Plan Coordinator / Mobility Manager

5.3 The key objective of this Travel Plan / MMP is to ensure that the traffic impacts and car usage associated with the operation of the development are minimised. Achieving this objective will result in a wide array of benefits for the development and its stakeholders.

5.4 To ensure the plan is effective it is essential for a Travel Plan Coordinator / Mobility Manager to be appointed for the Development upon opening / occupation.

5.5 It is envisaged that the Coordinator will work closely with visitors and staff to enthusiastically promote and market the Travel Plan. As visitors and staff will be the focus of the plan; their involvement must be sought from the outset.

5.6 To support the Travel Plan Coordinator's efforts, the Management Company must ensure that they have sufficient time to carry out their duties. In addition, it is essential that the powers of decision making are bestowed upon him/her, along with a suitable budget and programme for implementation.

Promoting the Travel Plan / MMP

5.7 Active promotion and marketing is needed if the Travel Plan / MMP is to have a positive impact on stakeholder travel patterns to and from the site.

5.8 All marketing initiatives should be focused on areas where there is willingness to change. Such information has been extracted from the questionnaires and has been described in Section 3 of this Plan.

- **Identify the Aim** – e.g., to reduce low occupancy car commuting and business travel & to promote active travel, public transport & alternatives to travelling by car.

- **Brand the Plan** – as part of communicating the Travel Plan / MMP, visually brand all work relating to it with a consistent look, slogan, identity or logo.

- **Identify the Target Audience** – 'segment the audience' (e.g. shift workers, sedentary workers, people travelling long/ short distances, mode used, members of a walking club or green team) so you can target the message and events towards these different groups.

5.9 As part of the marketing process, the Travel Plan Coordinator / Mobility Manager can personalise a plan for the Development, drawing attention to the benefits of participation and support for its implementation.

5.10 The Coordinator can identify communication tools and networks used by the different audiences in the development, and use these to communicate about travel.

5.11 Promotional material regardless of its quality is only as good as its distribution network; material incentives assist greatly in introducing people to alternative modes of commuting.

5.12 The plan should be about promoting equity among modes and offering choice and accessibility.

5.13 The Coordinator can promote positive messages associated with a plan, for example, reduced tax/PRSI payments, getting fit and active, reducing congestion, reducing CO2 emissions and encourage people to start small – changing one day per week for example, to explore their options.

5.14 Marketing drives which feature individual staff who have reduced their car use can carry a strong message. This will serve to raise not only the profile of the Plan, but also send a clear message in relation to the staff / visitors commitment to the Plan.

6.0 MONITORING AND REVIEW

6.1 The development forming the subject of this application accords with the principles of sustainable development, being located within an easily accessible established area with clear and easy access to alternative modes of travel. With reduced provision of car parking for the development, this also acts as a demand management measure. The Management Company, once the development is open and occupied, will utilise pragmatic measures that encourage safe and viable alternatives to the private car for accessing the development.

6.2 Good Travel Planning is not a one-off event, it is instead an on-going iterative process requiring continued effort. This preliminary report assists these efforts by forming an outline framework and providing guidance for its success. Monitoring and reviewing the initiatives set out within the plan will form a far greater part of the Final Travel Plan itself.

6.3 The key to the Plans success will be the appointment of a ***Travel Plan Coordinator / Mobility Manager*** for the development, once staff are in place and the scheme is open to visitors. They will be vested with total responsibility for implementing the plan. They should be granted the authority and time to execute the Plan and be provided with sufficient resources to realise the Plans success.

6.4 As visitors and staff are the focus of the plan; their involvement should be sought from the outset following occupation. To this end, the Plan Coordinator should be assisted and supported by the Management Company and Staff. This will serve to spread the workload, and also give the Staff a valuable input into the operation of the Plan.

6.5 Successful Travel Plans require marketing **and** regular review. The measures set out in the Action Plan Summary Table (Chapter 4) should form the basis of a sound, realistic Plan and should be clearly set out and be fully transparent to all users.

6.6 Visitors and Staff also have an essential responsibility in terms of co-operating with and taking an active part in the plan. They are, after all, the plan's primary focus.

6.7 It is recommended that the Final Travel Plan be set in motion, sensibly at occupation. The plan should evolve and develop with the development, taking into account changing Staff members and their travel preferences and needs.

6.8 Annual reviews of the Plan should include a full stakeholder survey, providing valuable information for target setting and marketing target groups. It is emphasised that failing to meet initial targets should not be seen as failure, as the preliminary 12 to 18 months of the plan should be viewed as a calibration exercise for target setting.