

Proposed Residential Development at lands at Stoney Hill Road, Rathcoole, Co. Dublin

Traffic and Transport Assessment

Romeville Developments Ltd.

Project number: 60659192

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Quality information

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Executive Summary

This Traffic and Transport Assessment (TTA) has been prepared by AECOM to accompany an application for a proposed 42 no unit residential development herein known as 'Phase 1' on a site located to the east of Stoney Hill Road, Rathcoole, Co. Dublin. This reports methodology consists of examining both local and national guidance. It has been found through the analysis of the report that the development from a traffic and transport perspective is in compliance with guidance and policy and will have no negative effect or detriment to the local network.

Proposed Development

The proposed development comprises of the demolition of 1 no. residential property and 1 no. ancillary outbuilding and will consist of the construction of a residential development of 42 no. dwellings on a site area of 2.60 hectares

The proposed development also includes 84 no. in curtilage surface car parking spaces, circa 2456.4 sqm usable public open spaces, a linear park to the south of the site, private gardens, a new vehicular entrance from Stoney Hill Road, an internal road network, including footpaths / cycleways, 3 no. refuse/bin stores, public lighting, landscaping, boundary treatments drainage and engineering works and all other associated and ancillary development / works. The total proposed residential development gross floorspace in phase 1 is circa: 5588 sqm.

Pre Application Consultation

AECOM has undertaken Pre Application Consultations (PAC) with the following parties:

South Dublin County Council

AECOM has completed Pre-Application Consultation (PAC) with South Dublin County Council as detailed below:-

- **May and June 2018**, consultations with South Dublin County Council (SDCC) in relation to the roads layouts; and
- **29th April 2019**, AECOM met with SDCC Roads Officers to discuss the emerging SHD scheme. The key items discussed were the road layouts, access junctions, home zones and DMURS.

Planning History

Planning permission was granted in 2020 for an SHD scheme on the proposed site and surrounding lands. SHD3ABP-307698-20.

In 2018, the applicant submitted two separate planning applications on the respective lands, which can be summarised as follows:

- SDCC Ref No. S18A/0413, comprising 85 houses; and
- SDCC Ref No. S18A/0364, comprising 48 houses and 39 apartments.

The above applications were both at Further Information (FI) stage. The applicant had issued a draft response to SDCC for comment in March 2019. However, the applicant has since chosen to withdraw the two planning applications and submit an application to An Bord Pleanála (ABP) via the Strategic Housing Development (SHD) route.

Proposed Site Access

The subject site will benefit from the provision of one vehicle access location from Stoney Hill Road as illustrated on Figure 2.1:

The site access will take the form of a priority controlled junction and will provide access to the site., the corner radii will be 6m to control the speed at which vehicles can enter/exit the site.

The provision of a raised entry treatments at the site access junction informs drivers that they are entering into an area where pedestrians may be present and as such, they must adjust their driving styles accordingly.

Proposed Car Parking

It is proposed to provide 84 no. car parking spaces to accommodate the parking requirements for the entire development. The car parking strategy for the proposed development is detailed within this report.

Proposed Cycle Parking

Cycle parking for residents is proposed to be within the curtilage of the residential units.

Accessibility

The proposed development is situated within a good location to benefit from existing and emerging sustainable travel facilities and infrastructure such as the emerging BusConnects scheme. Bus services are available from the Main Street in Rathcoole, which is within 550m walking distance of the north western boundary of the site, connecting the site to numerous local destinations including Dublin City Centre.

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1. Introduction

1.1 Background

AECOM has been commissioned by Romeville Developments Ltd. to prepare a Traffic and Transport Assessment in support of a planning application submission to South Dublin County Council (SDCC) for 42 no. residential units on lands to the east of Stoney Hill Road in Rathcoole, Co. Dublin.

The lands on which the proposed development will be constructed are primarily greenfield, whilst the north western section of the site is currently occupied by residential dwellings which are to be demolished as part of this development. The site layout is shown in Figure 1.

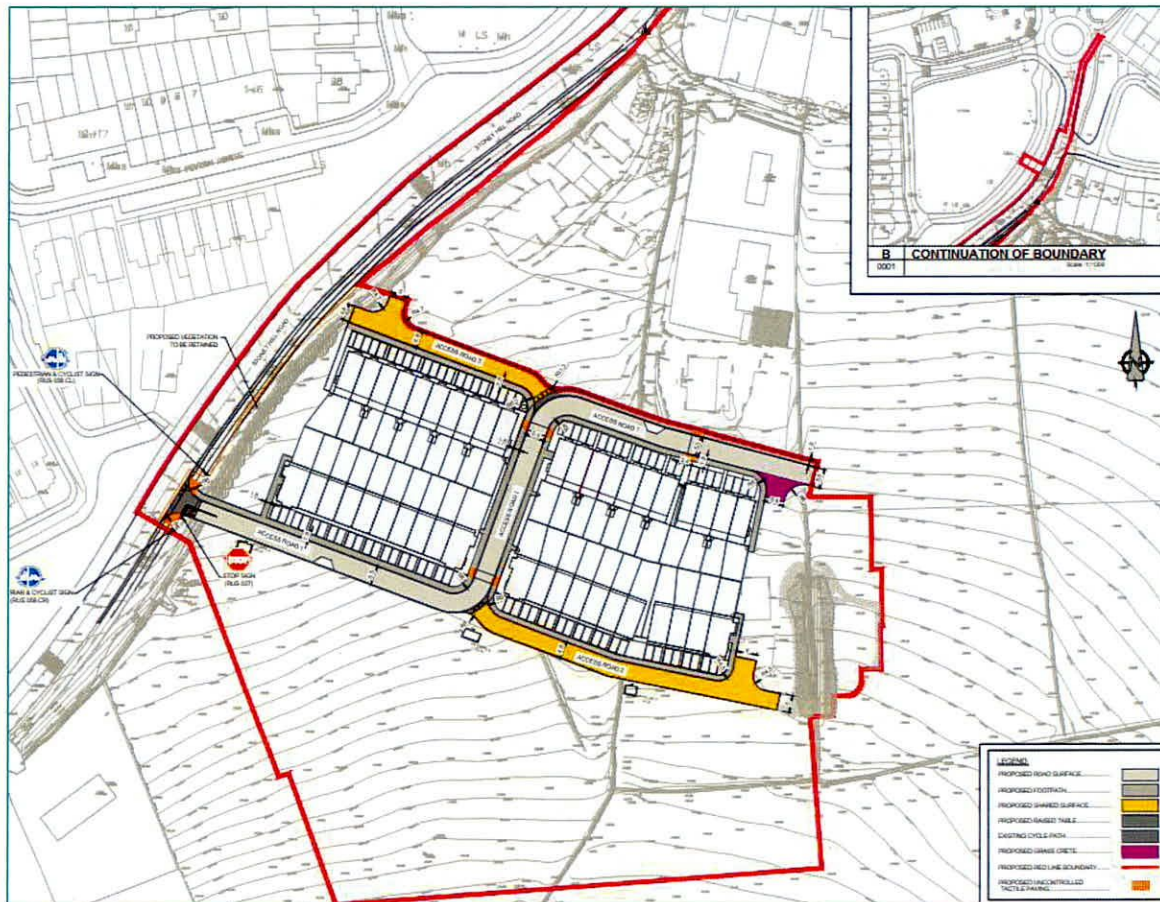


Figure 1.1 – Proposed Site Layout (Source: AECOM Drawing PR305837-ACM-01-00-DR-CE-10-0001)

This report has been produced to assess the potential traffic and transport implications of the proposed development upon the local road network. Having regard to the future development of the SDCC RES-N zoned lands as located to the east of the subject site, this TTA also includes estimates of the entire landholding's development.

During the development of this report, traffic turning count surveys have been commissioned specifically for this assessment, with the objective of providing background information relating to existing traffic movement patterns across the local road network. This information has been supplemented with data obtained from site audits of the local road network, subsequently enabling the identification of existing local travel characteristics and an appreciation of the local environment from a transportation perspective.

1.2 Development Description

Romeville Developments Limited, intend to apply for planning permission at a site of circa 2.9 hectares at Stoney Hill Road, Rathcoole, County Dublin. The site is located to the east of Stoney Hill Road and includes part of Stoney Hill Road.

The proposed development comprises of the demolition of 1 no. residential property and 1 no. ancillary outbuilding and will consist of the construction of a residential development of 42 no. 3 bedroom dwellings in a mix of terraced and semi-detached units. The proposed dwellings will comprise of 2 no. typologies (Typology F and Typology L). Typology F will comprise of 21 no. dwellings and Typology L will comprise of 21 no. dwellings. Typology L are two storey and typology F are two storey, plus second floor loft accommodation with front dormer windows. The total proposed residential development gross floorspace is circa: 5,622 sqm.

The proposed development also includes 84 no. in curtilage surface car parking spaces, circa 3,281 sq.m public open spaces in an eastern park and a western park, (including proposed play equipment), an additional large parkland to the south of the site of circa 11,797 sq.m comprising the first phase of a linear park, private domestic gardens, a new vehicular, pedestrian and cycle entrance from Stoney Hill Road, an internal road network, including footpaths / cycleways, 3 no. refuse/bin stores, public lighting, landscaping, boundary treatments, drainage and engineering works and all other associated and ancillary development / works.

1.3 Pre Application Consultation

1.3.1 South Dublin County Council

AECOM have undertaken extensive consultations with SDCC roads department to date in relation to the proposed scheme, during May 2018 and again in June 2018. AECOM met with Willie Purcell and Robert Roche (SDCC) on 29th April 2019 to discuss the granted SHD scheme. The meeting was somewhat of a workshop to review the site layout from a traffic and transport perspective. The key items discussed were as follows:

- Proposed road geometry and road levels;
- Site access locations;
- Home zones and shared surface details; and
- DMURS requirements.

1.3.2 An Bord Pleanála Record of Meeting ABP– 305677-19

A Section 5 PAC was undertaken on the 27th of November 2019 with representatives of An Bord Pleanála (Tom Rabbette, Sarah Moran and Ciaran Hand), the design team (Gareth Stanley, Colin Stanley, Robert Kieran, John Kirwan, Arthur O'Brien, Paul Urwin, Linda Doyle, Michael Dunne, Matteo Iannucci and Jacqueline Haley) and South Dublin County Council (Fiona Redmond, Suzanne O'Toole, William Purcell, Ronan Toft and Oisín Egan). Record of Meeting Ref: ABP-305677-19.

The key items on the agenda were as follows:

- Principle of development of RES-N zoned lands
- Residential design and layout, landscape and visual impacts
- Roads and traffic impacts
- Site Services and flood risk
- Childcare Provision
- Ecology and bats impacts
- Any other matters.

1.3.3 ABP Notice of Pre-Application Consultation Opinion

Following receipt of the ABP Opinion, AECOM note that the following item relates to Traffic & Transportation. AECOM has sought to address this specific issues, details of which are included below:-

"Principle of Development of RES-N Zoned lands

Further consideration/justification of the documents as they relate to the requirement for development at RES-N zoned lands to be 'in accordance with approved area plans' and in the context of the Draft Masterplan prepared by South Dublin County Council for the RES-N zoned lands to the east of the development site, as presented to Council on 14th October 2019, or any future Masterplan prepared by South Dublin County Council for the RES-N zoned lands at this location.

This consideration should have particular regard to the following matters:

- The alignment, layout and function of the spine road running through the site from the vehicular access on Stoney Hill Road and connecting to the lands to the east, with regard to (i) the indicative roads layout to the east of the site; (ii) the projected traffic volumes likely to be generated by the development of the remainder of the RES-N zoned lands, including the school site and (iii) compliance with DMURS.
- The provision of vehicular, pedestrian and cycle connections between the proposed development and future development to the east and the avoidance of any 'ransom strips'."

Compliance with DMURS is demonstrated within the accompanying DMURS Statement of Compliance.

1.3.4 Previous Planning Submissions

The site has been subject to various planning applications in the past, which have been outlined in Figure 1.1

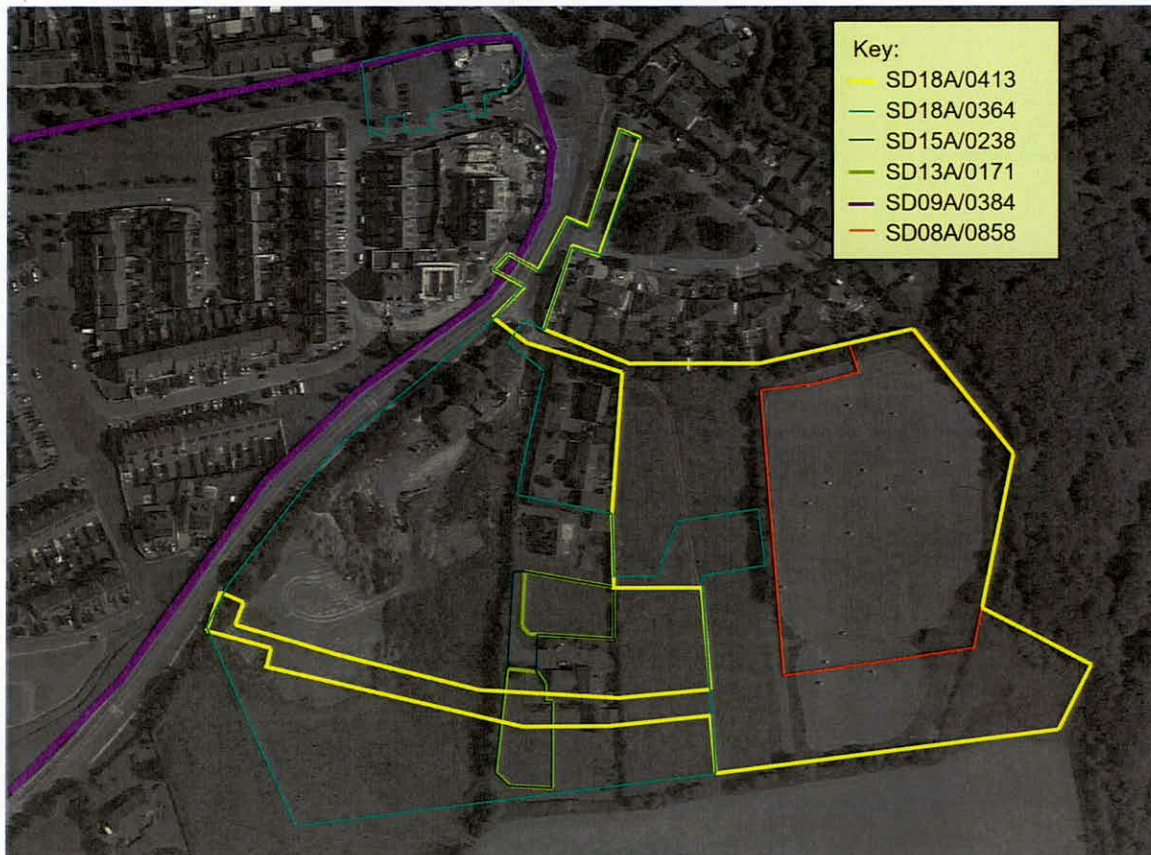


Figure 1.1 Previous Planning Applications on the Development Site (Source: Google Maps)

In 2020 the applicant submitted an SHD application which was granted permission in 2020, which is summarised below. In 2018, the applicant submitted two separate planning applications on the respective lands, which can be summarised as follows:

- SHD3ABP-307698-20, 204 units,
- SDCC Ref No. S18A/0413, 85 houses; and
- SDCC Ref No. S18A/0364, 48 houses and 39 apartments.

The above 2018 applications were both at Further Information (FI) stage. The applicant had issued a draft response to SDCC for comment in March 2019. The applicant then withdrew the two planning applications and submitted an application to An Bord Pleanála (ABP) via the Strategic Housing Development (SHD) route.

There was an application put forward for the construction of two no. houses which was refused three times (Planning Ref: SD13A/0171, SD14A/0040 and SD15A/0166) but was later granted permission under another application (Planning Ref: SD15A/0166).

In relation to the proposed SHD creche site, located in Peyton Housing estate, a previous planning application was approved (Planning Ref: 09A/0384). This application resulted in changes to the residential and apartment unit numbers, no changes were proposed at the creche facility for the SHD application.

The eastern part of the site was previously part of a planning application for 54 units in 2008 (Planning Ref: SD08A/0858). This application was refused in part due to transportation related issues. The proposed access arrangement to the development was to be provided via a roundabout and spur from a proposed distributor road as detailed in the Rathcoole 2002 Local Area Plan, which had no start date for construction and therefore the development was deemed premature in nature. The proposed access arrangements for this development are shown in Figure 2.3.

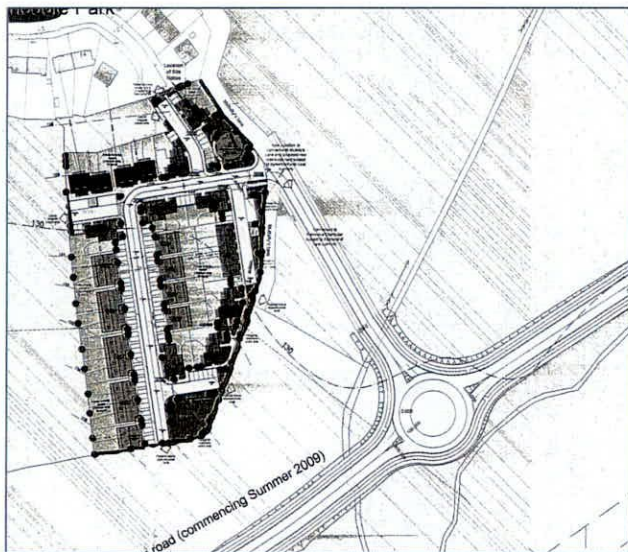


Figure 1.2 Planning Ref:SD08A/0858, Proposed Access Arrangements & Distributor Road

1.4 Scope

The purpose of this TTA is to quantify the existing transport environment and to detail the results of assessment work undertaken to identify the potential level of any transport impact generated as a result of the residential development.

The scope of the assessment covers transport and related sustainability issues including means of vehicular access, pedestrian, cyclist and local public transport connections. The principal objective of the report is to quantify any level of impact across the local road network and subsequently ascertain both the existing and future operational performance of the local road network.

1.5 Methodology

Our approach to the study accords with policy and guidance both at a national and local level. Accordingly, the adopted methodology responds to best practices, current and emerging guidance, exemplified by a series of publications, all of which advocate this method of analysis. Key publications consulted include: -

- South Dublin County Development Plan (2016 – 2022);
- South Dublin County Draft Development Plan (2022 – 2028);
- Design Manual for Urban Roads and Streets, DMURS, May 2019 (Dept of Transport, Tourism and Sport/ Dept of Environment, Community & Local Govt);

- Geometric Design of Junctions (priority junctions, direct accesses, roundabouts, grade separated and compact grade separated junctions), DN-GEO-03060, (TII, June 2017);
- PE-PDV-02045 Traffic and Transport Assessment Guidelines (May 2014), Transport Infrastructure Ireland;
- Greater Dublin Area Cycle Network Plan (National Transport Authority);
- National Cycle Manual (National Transport Authority, 2011); and
- Transport for Ireland Dublin Area Train and Tram Services (Transport for Ireland).

AECOM's methodology incorporated a number of key inter-related stages, including: -

- **Site Audit:** A site audit was undertaken to quantify existing road network issues and identify local infrastructure characteristics, in addition to establishing the level of accessibility to the site in terms of walking, cycling and public transport. An inventory of the local road network was also developed during this stage of the assessment.
- **Traffic Counts:** Traffic counts were undertaken and analysed with the objective of establishing local traffic characteristics in the immediate area of the proposed development.
- **Trip Generation:** A trip generation exercise has been carried out to establish the potential level of vehicle trips generated by the proposed residential development and also the potential future development of the SDCC RES-N zoned lands.
- **Trip Distribution:** Based upon both the existing traffic characteristics and the network layout in addition to the spatial/land use configuration and density of the urban structure across the catchment area of the development, a distribution exercise has been undertaken to assign site generated vehicle trips across the local road network.
- **Network Impact:** in accordance with the Institute of Highways and Transportation; Traffic Impact Assessment guidelines, the specific level of influence generated by the proposed residential development upon the local road network was ascertained and the junctions which required assessment in greater detail were identified.
- **Network Assessment:** Drawing upon the findings of the previous stages, an operational assessment of the local road network has been undertaken to evaluate the performance of the key local junctions following the implementation and occupation of the proposed development.

1.6 Structure of the Report

This TTA seeks to clarify the potential level of influence generated by the proposed development upon the local road network and subsequently ascertain the existing and future operational performance of the local transport system. The structure of the report responds to the various stages of this exercise including the key tasks summarised below:

- **Section 2** of this report describes the existing conditions at the subject site location and the surrounding area;
- **Section 3** provides a summary of the proposed development itself, including the proposed Parking Strategy;
- **Section 4** Includes the DMURS statement of compliance checks
- **Section 5** provides a summary of the vehicle trip generation, vehicle distribution, and network assignment exercise is detailed, in addition to quantifying the potential level of impact, as generated by the subject proposals and the potential development of the SDCC RES-N zoned lands , upon key junctions across the local road network.
- **Section 6** investigates and reports on the operational performance of the proposed site access junctions and adjacent local junctions for a range of different development/traffic scenarios following the commissioning of the development proposals
- **Section 7** reviews the construction management requirements;
- **Section 8** outlines the mobility management plan for perspective residents of the site;
- **Section 9** provides a summary of our appraisal together with the main conclusions of the assessment

2. Existing Conditions

2.1 Introduction

This chapter includes a review of the existing baseline conditions of the site including public transport, walking and cycling facilities and the current operation of the surrounding public network. AECOM undertook numerous site audits to identify the existing conditions in the vicinity of the site. The findings from AECOM's analysis are presented within this chapter.

2.2 Location

The proposed site is situated in the southern environment of Rathcoole Village, approximately 500m from the Main Street, and located approximately 14.5 km from Dublin City Centre. The subject site is located approximately 1km from the N7 Southbound and 1.3km from the N7 Northbound. Figure 2.1 below shows the developments location in relation to Dublin City

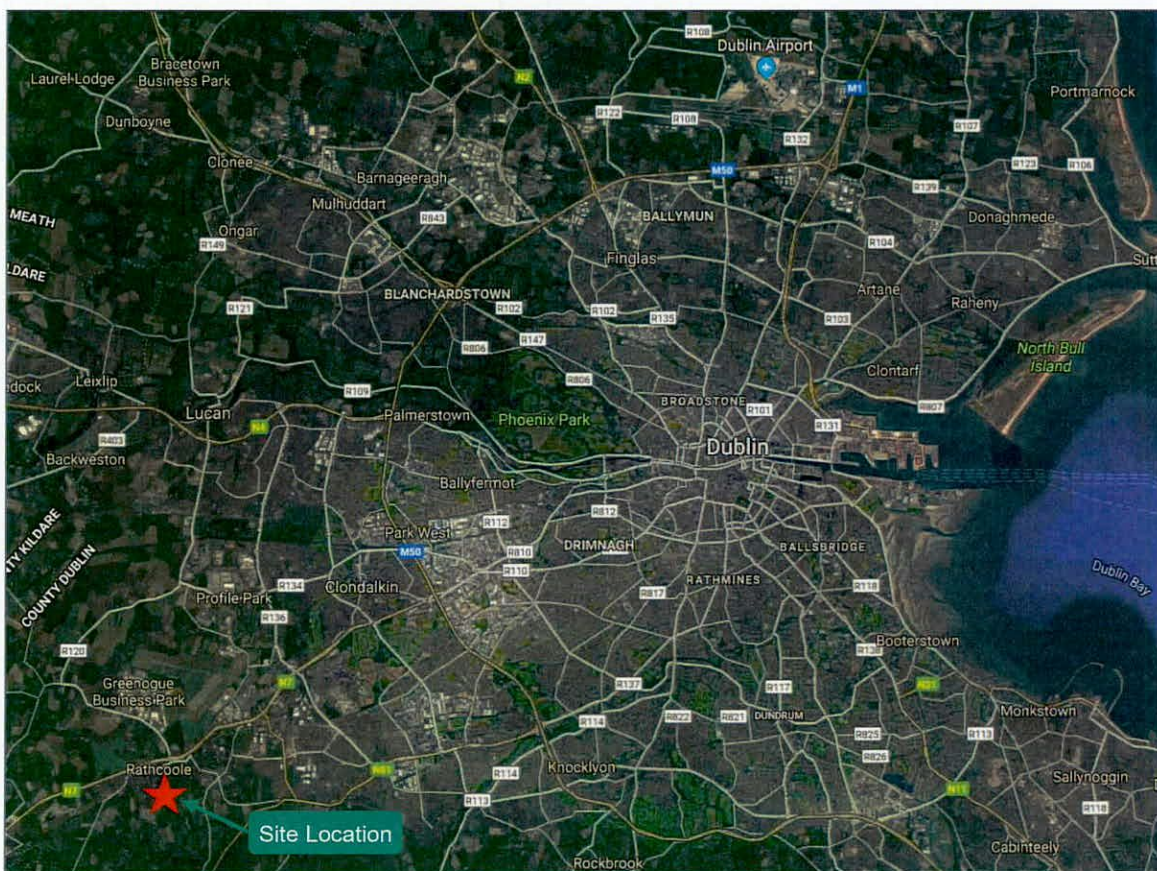


Figure 2.1 Development location in relation to Dublin City Centre (Source: Google Maps)

The proposed residential development is bounded by farmlands to the east and south, the Stoney Hill Road along its western boundary and by Rathcoole Park residential settlement along the northern boundary.

Figure 2.2 illustrates the surrounding environment of the proposed development.



Figure 2.2 Existing Site Layout (Source: Google Maps)

The posted speed limit along the Stoney Hill Road is 50km/hr in the vicinity of the subject site. There are also traffic calming measures along the Stoney Hill Road in the form of road humps to ensure vehicle speeds remain low.

2.2.1 Land Use Zoning

The proposed development lands are zoned for residential development 'Objective RES' within the current South Dublin County Draft Development Plan (2016-2022) as illustrated within Figure 2.5 .

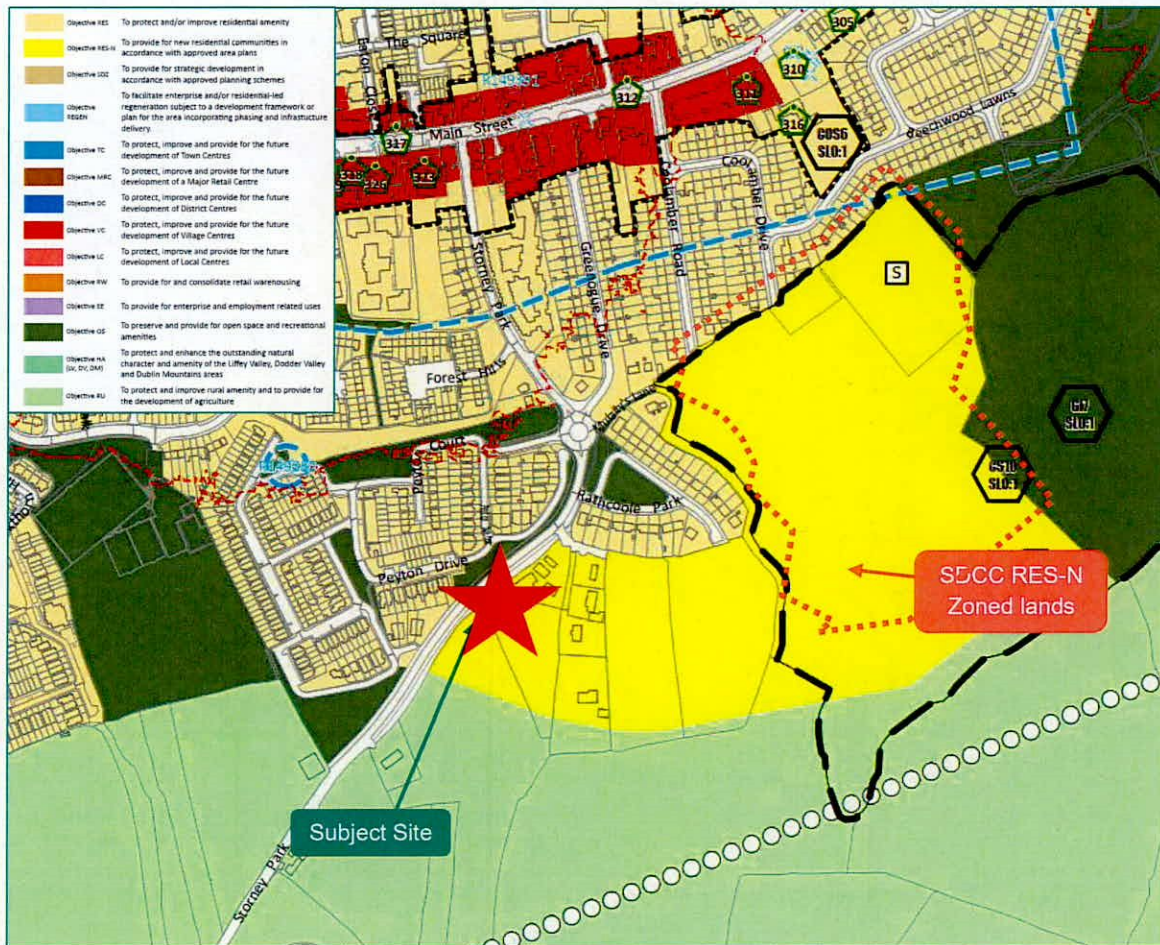


Figure 2.3 Site Zoning (Source: South Dublin County Draft Development Plan 2022-2028)

The zoning objective of 'RES' is 'To protect and/or improve residential amenity'.

The development lands are located adjacent to SDCC zoned RES-N lands, for which SDCC have prepared a draft Masterplan. The Masterplan has yet to be publicly published however, at this preliminary stage it is expected the SDCC Masterplan lands can accommodate up to 400 residential units and a school.

2.3 Existing Transportation Infrastructure

2.3.1 Background

An important stage in the development of a Traffic and Transport Assessment is the identification and appreciation of the local network's existing transport conditions and vehicle movement characteristics.

An audit of the local road network has therefore been undertaken to establish the existing transport conditions and vehicle movement patterns across the existing network.

2.3.2 Existing Pedestrian/ Cycling Infrastructure

In the vicinity of the site there are shared pedestrian/cycle routes along both sides of Stoney Hill Road which are segregated from vehicular traffic by grass verges. The shared pedestrian/cycle route on the eastern side of the road terminates at the residential neighbouring site access to the north of the site, however the pedestrian footpath continues north to the Rathcoole Park junction and subsequently the Stoney Hill Road/Stoney Lane roundabout junction. Stoney Hill Road is approximately 6.5 metres in width and the pedestrian footways on either side are approximately 2.8 m each. There is street lighting on the northern side of the road and the road is adequately signed throughout.

Figures 2.6 to 2.10 show the existing pedestrian/cycle network in the vicinity of the site.



Figure 2.4 Northbound Approach to Stoney Hill Road



Figure 2.7 View from Rathcoole Park Towards Site



Figure 2.5 Southbound along Stoney Hill Road



Figure 2.8 – View from Rathcoole Park Entrance Towards Stoney Hill Lane / Stoney Road Roundabout



Figure 2.6 Northbound along Stoney Hill Lane

2.3.3 Public Transport Infrastructure - Bus

As graphically illustrated in Figure 2.9 the site is situated to benefit from bus transport connections allowing residents of the subject site to travel by this sustainable mode.



Figure 2.9 Bus Stops in the Vicinity of the site (Source: www.journeyplanner.transportforireland.ie)

The closest bus stops to the site are located on Main Street approximately 550 meters north of the site, this is considered to be within a standard 1.5km walking distance reach for transport users. These bus stops are served by Dublin Bus Routes 69 and 69X, as detailed in Table 2.1:

Table 2.1 – Existing Bus Services

Location	Route No.	Route Description	Monday to Friday	Saturday	Sunday	Operator
Rathcoole, Main St	69	Hawkins Street (Dublin) – Rathcoole	Every Hour	Every Hour	10 times a day	Dublin Bus
Rathcoole, Main St	69X	Hawkins Street (Dublin)– Rathcoole	Once a day	N/A	N/A	Dublin Bus

2.3.4 Public Transport Infrastructure – Heavy Rail

The closest railway station to the site is Hazelhatch and Celbridge, located 8.5km to the north of the development. This is not within walking distance and would be approximately a 30 min cycle to reach the transport link at the station. It provides services east to Dublin Heuston and Dublin Grand Canal Dock; westward to Portlaoise and southwards to Waterford. This is illustrated in Figure 2.10.

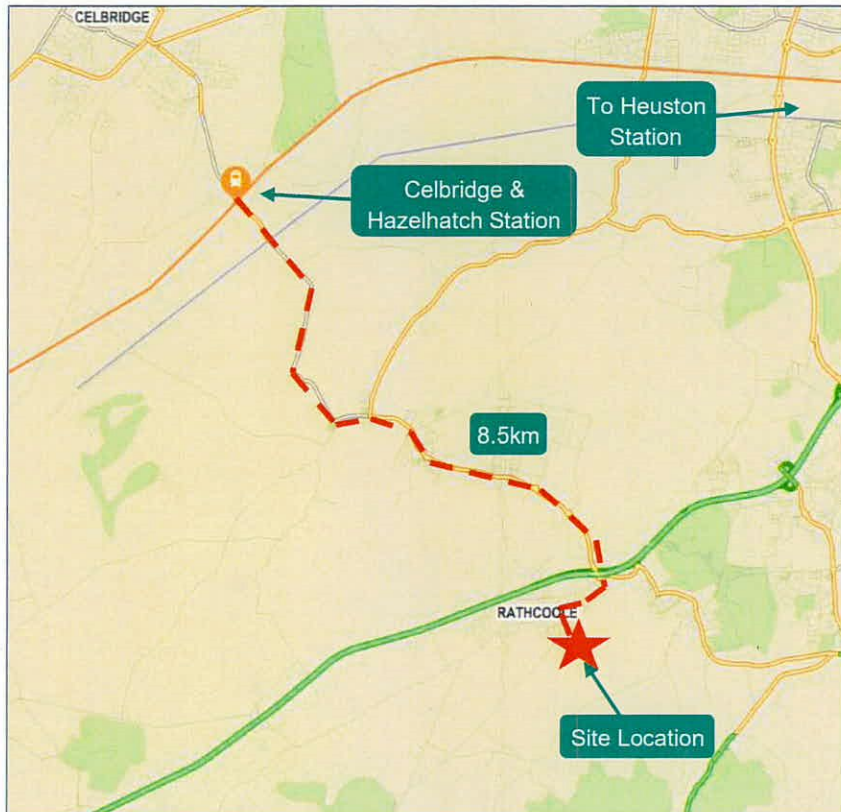


Figure 2.10 Celbridge and Hazelhatch Station location (Source: journeyplanner.transportforireland.ie)

2.3.5 Public Transport Infrastructure – LUAS

The Dublin LUAS is accessible approximately 3.3 km east of the site, which is within an understood cycling distance of 5 km.. The Saggart LUAS stop is a terminal stop for the red line service and provides high frequency services into Dublin City Centre, at an average daytime frequency of one service every 6 to 7 minutes. Figure 2.13 shows the location of the stop in relation to the proposed development with Figure 2.14 showing the Red Line Route to Dublin City Centre.



Figure 2.13 – Saggart Luas Stop

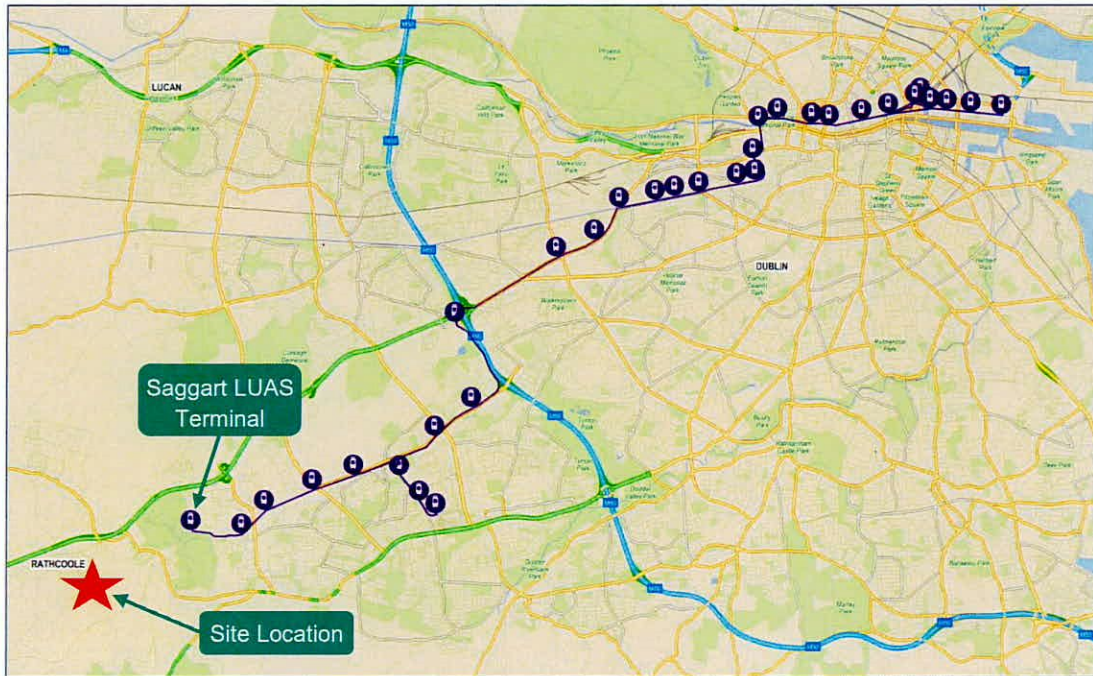


Figure 2.14 Luas Red Line Route (Source: www.journeyplanner.transportforireland)

2.4 Emerging Transportation Infrastructure

2.4.1 Cycle Network Proposals

In the immediate vicinity of the site there are no proposed infrastructure upgrades planned but there are however, upgrades planned through Rathcoole Village along the Main Street. Figure 2.15 shows the proposed cycle network upgrades as part of the Cycle Network Plan for the Greater Dublin Area.

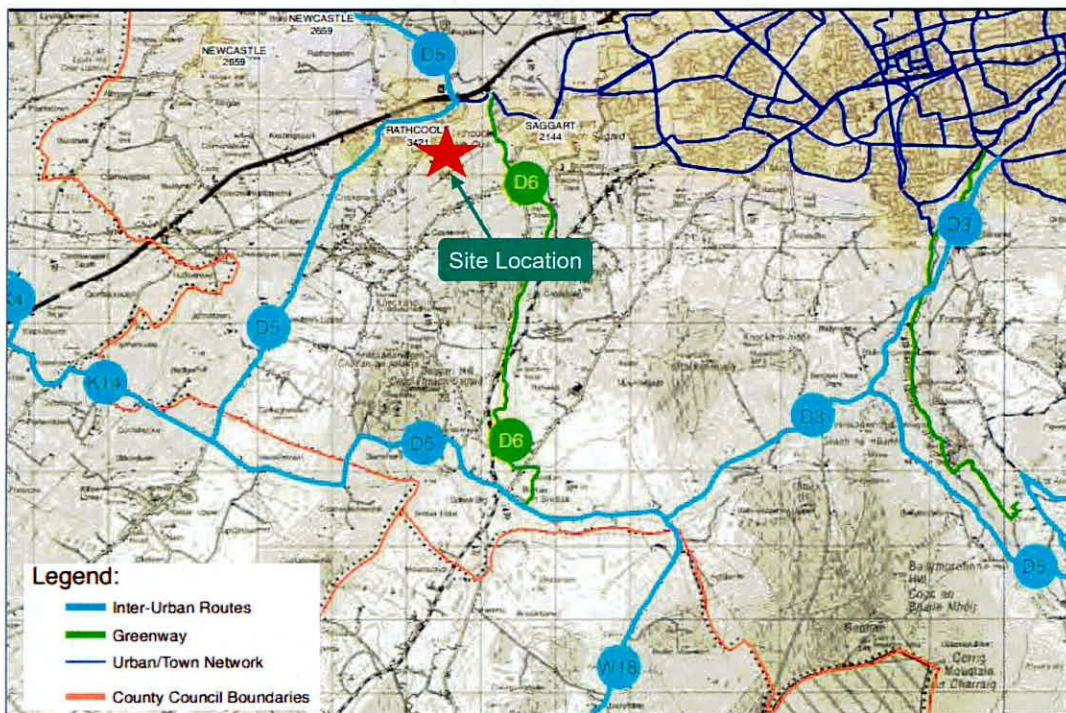


Figure 2.11 – Proposed Cycle Network Upgrades (Source: www.nationaltransport.ie)

2.4.2 Bus Network Proposals - BusConnects

The National Transport Authority (NTA) has recently published a consultation report entitled 'Dublin Area Bus Network Redesign Public Consultation Report'. The report introduces a number of significant changes to the bus services within Dublin including: -

- Services to be arranged along seven cross-city super-frequent spines
- Dramatic increase in the numbers of orbital services
- Increase in the number of all-day high-frequency services
- Move to a simplified two-fare system
- A new route numbering system.

"Under the proposals, the level of bus service will increase by 27%. This includes services on 11 brand-new orbital routes that will operate on a 15-minute frequency or better, in the north, south and west of the network area."

Figure 2.12 & Figure 2.13 indicate the existing and the proposed bus service midday frequencies in the vicinity of the subject site, prior to and after the BusConnects network redesign.

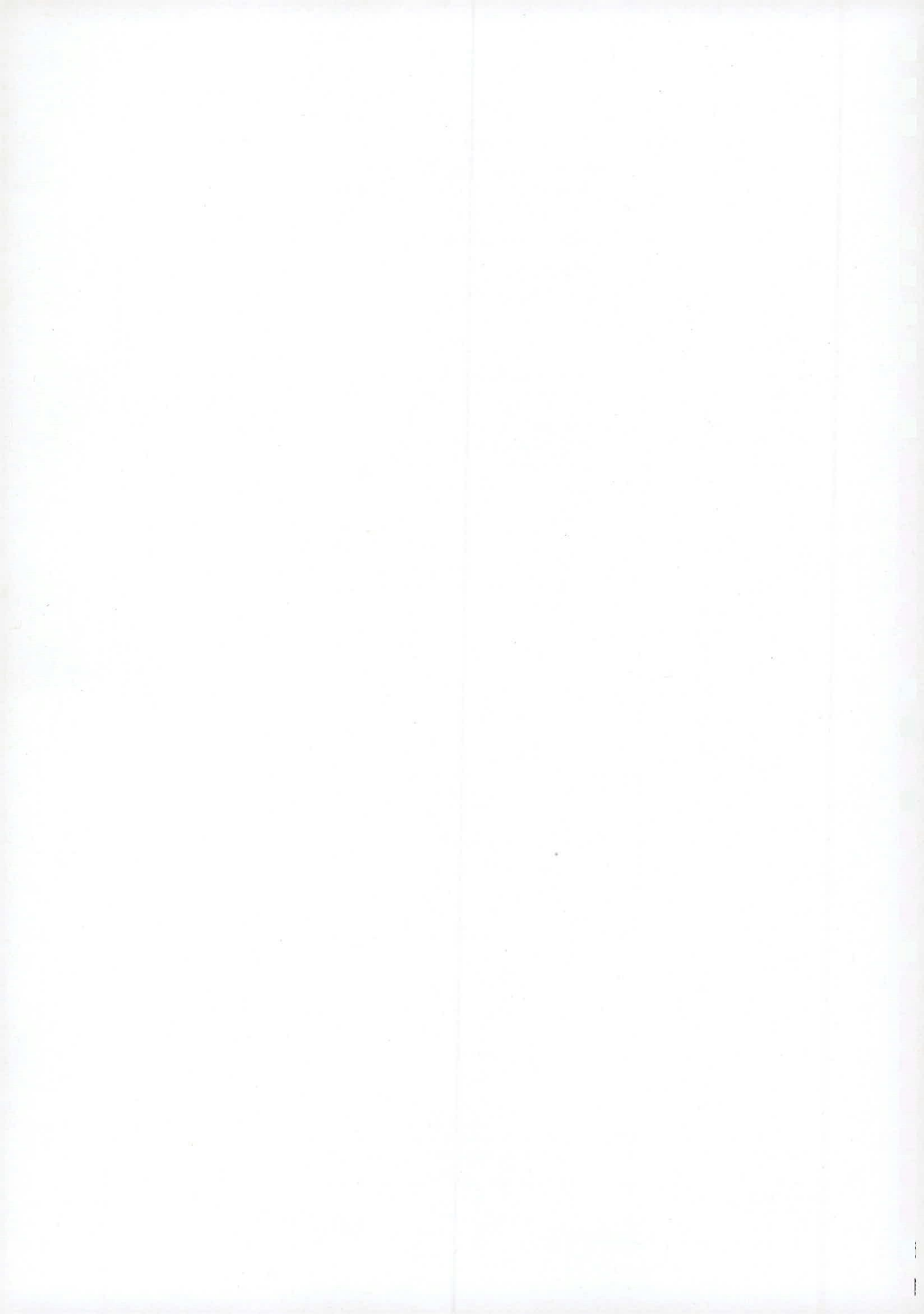


Figure 2.12 Existing Public Transport Services (weekday midday frequency) (Extract of Map 1 - <https://busconnects.ie/initiatives/dublin-area-bus-network-redesign-maps/>)



Figure 2.13 Proposed Public Transport Services (weekday midday frequency) (Extract of Dublin West Outer Map - <https://busconnects.ie/initiatives/dublin-area-bus-network-redesign-maps/>)

Under the BusConnects proposals, the following route will be available within walking distance of the subject site on Main Street in Rathcoole:-



- "Local Route 242, replaces today's hourly Route 69. It ends at Saggart Luas Station, but runs every 30 minutes rather than hourly, and every 15 minutes at peak times."

The subject site is ideally located to benefit from the enhanced accessibility levels delivered by the BusConnects proposals.

2.4.3 Local Road Proposals

The South Dublin County Development Plan 2016-2022 and Draft Development Plan for South County Dublin 2022-2028, has outlined long-term road network proposals which will be phased 'according to need' and 'may be brought forward for construction at an earlier date, subject to funding being available'. In the general vicinity of the subject site the following is proposed (Figure 2.18):-

- 'Western Dublin Orbital Route (south) – New road from Boherboy to Tootenhill – Link between the N81 and the N4 with a by-pass function around Rathcoole and Saggart'. –SDCC Development Plan 2016-2022

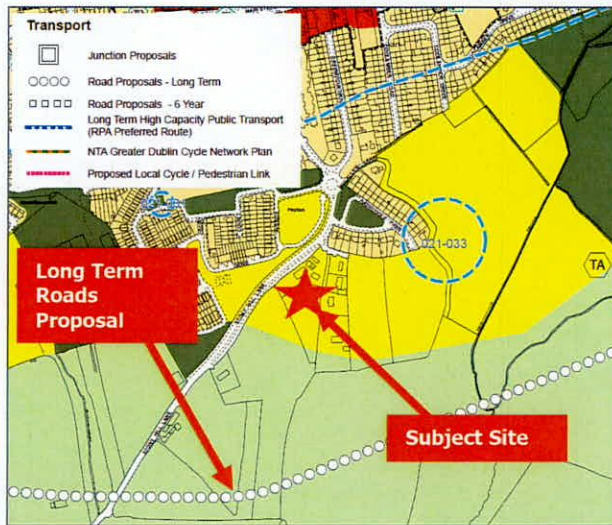


Figure 2.14 SDCC Infrastructure Objectives (extract Map 8 SDCC Development Plan)

2.4.4 Timescales

The implementation of the above cycle, public transport and road infrastructure schemes by the local authority will be subject to further design, public consultation, approval, and importantly availability of funding and resources.

2.5 Existing Site Access

At present there is one vehicular access to a neighbouring site from Stoney Hill Road. This access point serves the existing residential dwellings to the north of the site only and not the proposed site



Figure 2.15 Neighbouring Residential Site Access

2.6 Road Collision Statistics

A review of the Road Safety Authority (RSA) traffic collision database has been undertaken for the road network in the vicinity of the proposed site to identify any collision trends. This review will assist to identify any potential safety concerns in relation to the existing road network.

Traffic collision data was obtained for the period 2005 – 2016, which is the most recent data available from the RSA website. It should be noted that information relating to reported incidents for the years 2017, 2018, 2019 and 2020 is not yet available on the Road Safety Authority (RSA) website. The RSA records detail only those occasions where the incident was officially recorded such as the Garda being present to formally record details of the incident.

The incidents are categorised into class of severity, which includes minor serious and fatal collisions. The collision locations are shown in Figure 2.20. Upon inspection it can be seen that there have been no reported collisions along the Stoney Hill Road in the vicinity of the subject site over the most recent twelve year period.

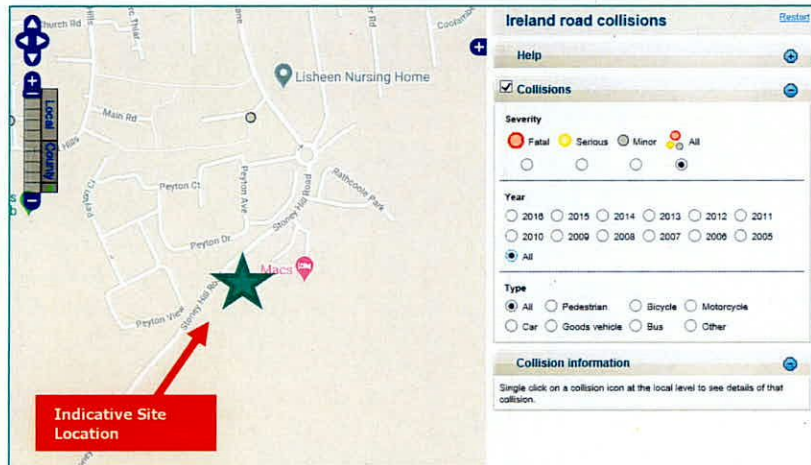


Figure 2.20 Collision Record within the vicinity of the subject site (source: www.rsa.ie)

2.7 Existing Conditions Summary

The site is ideally positioned within the urban environment to maximise access to/from the site utilising sustainable forms of travel including walking, cycling and public transport.

The sites proximity to public transport interchanges on Main St in Rathcoole (circa 550m walking distance) further enhances the sustainability characteristics of the site.

The site is ideally located to benefit from the enhanced accessibility levels delivered by the emerging BusConnects bus network improvements with the provision of a bus service through Rathcoole with a 15 minute peak hour frequency (30 minute off peak).

3. Proposed Development

3.1 Introduction

This chapter details the proposed development with regard to the transportation elements which includes the internal roads layout, proposed pedestrian/cycling infrastructure and parking provisions within the development area.

3.2 Proposed Development

Romeville Developments Ltd. is proposing to develop 42 units at Stoney Hill within the total site area of 1.41 ha which will be in the form of 3 bedroom units in a mix of semi-detached and terraced housing. The development is sections into two types of typologies, (Typology F and Typology L)

Typology F and L will each comprise of 21 no. dwellings each. and Typology L will be storey two buildings and Typology F will comprise of 2 storeys plus dormer windows.

The proposals will result in the demolition of 1 no. residential property and 1 no. ancillary outbuilding. The total proposed residential development gross floorspace in phase 1 is circa: 5588 sqm and proposals include the following:

- 84 no. in curtilage surface car parking spaces
- circa 2456.4 sqm usable public open spaces (include proposed play equipment, etc. when confirmed by DOT),
- a linear park to the south of the site,
- private gardens,
- a new vehicular entrance from Stoney Hill Road,
- an internal road network, including footpaths / cycleways,
- 3 no. refuse/bin stores,
- public lighting,
- Landscaping
- boundary treatments drainage and engineering works and
- other associated and ancillary development / works.

The proposed schedule of accommodation is shown in Table 3.1.

Further details of the development proposals including the site layout and transport network arrangements are illustrated in the architects' scheme drawings as submitted with this planning application.

Table 3.1 Proposed Schedule of Accommodation

Unit Type	Typology	No. of Bedrooms/GFA	Quantum	Total
Houses	L – Two Storey	3	21 units	42 Units
	F – Two Storey Plus dormer Windows	3	21 Units	

3.3 Site Access

3.3.1 Vehicles

The site access will take the form of a priority controlled junction and will provide access to the remainder of the site. The corner radii will be 6m to control the speed at which vehicles can enter/exit the site.

The location of the vehicle site access junctions has been derived from the existing levels on site and the necessity to minimise cut and fill.

The provision of a raised entry treatments at the site access junction informs drivers that they are entering into an area where pedestrians may be present and as such, they must adjust their driving styles accordingly.

The proposed access location can be seen in AECOM drawing: 60659192-ACM-01-00-DR-CE-10-0001. Figure 3.1 below shows the vehicle access arrangements with the proposed development.

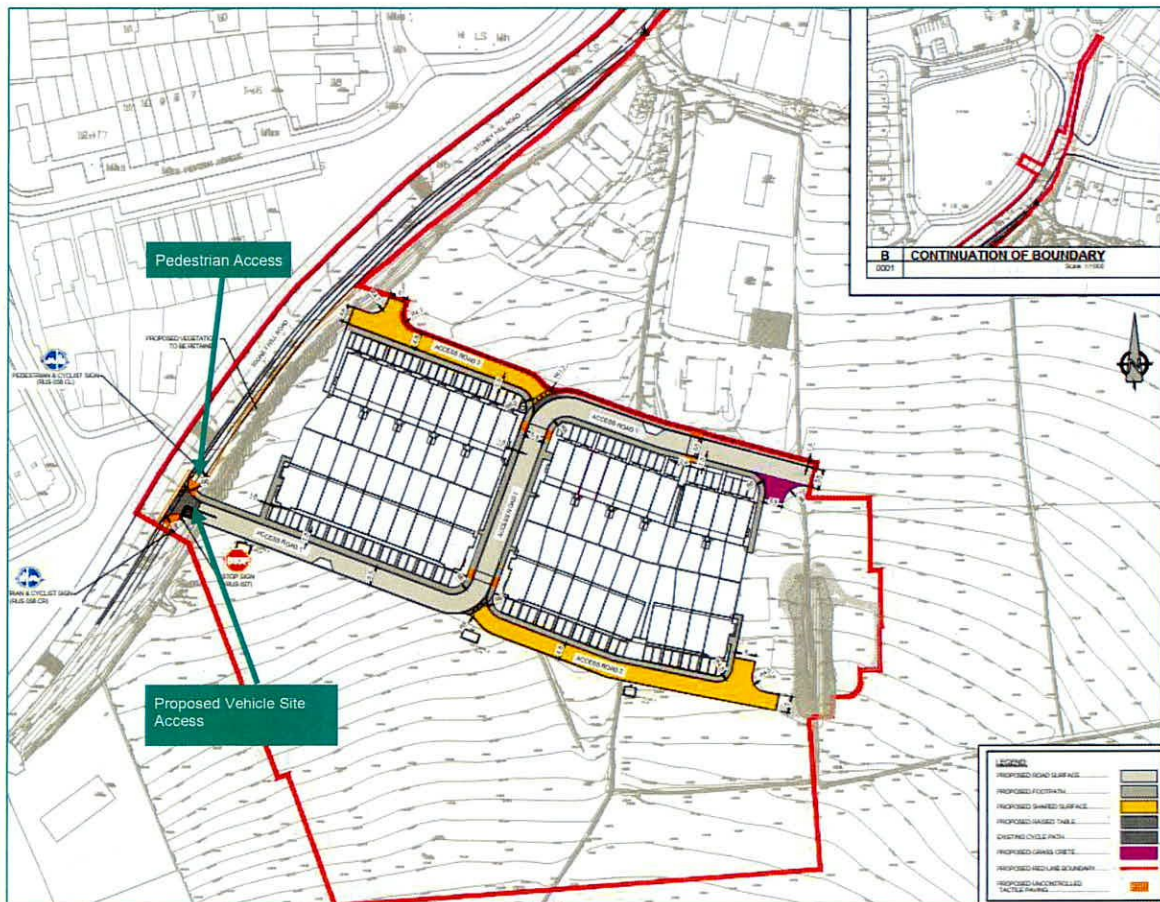


Figure 3.1 Proposed Vehicle and Pedestrian Access Arrangements (AECOM Drawing: 60659192-ACM-01-00-DR-CE-10-0001)

3.3.2 Pedestrian/Cycle Access & Permeability

The subject site will be accessible to pedestrians and cyclists from the adjacent Stoney Hill Road. The proposed development achieves filtered permeability, primarily for walking and cycling at one location along Stoney Hill Road (Figure 3.1):-

At the site access junction, pedestrians are provided with a dedicated footway along the northern side of the access route. In addition the southern side of the route, there is a pedestrian access which connects with the linear path which travels along the southern extents of the site.

The arrangement at the site access junction includes the provision of uncontrolled crossing points with associated tactile paving and dropped kerbs to allow pedestrians and cyclists to continue their journey along the Stoney Hill Road.

The internal pedestrian routes within the site were derived from the location of the residential dwellings and associated facilities. This has led to the creation of pedestrian routes that lead to/from and around the development and ties into the existing pedestrian facilities along Stoney Hill Road. Figure 3.1 below indicates the pedestrian routes within and around the subject site.

Pedestrians are given priority within the internal site layout to ensure desire lines within the site are accommodated providing a good level of service and ensures the risk of vehicle/pedestrian conflict with vehicles is minimised

3.4 Internal Roads Layout

The adopted design approach successfully achieves the appropriate balance between the functional requirements of different network users whilst enhancing the sense of place. The adopted road network design is compliant with statutory road design guidance and policy.

The access road which is 5.5m wide, is acting as the main spine route through the development, connecting with Stoney Hill Road. This access road has the potential to be extended at some point in the future to facilitate vehicle access to the South Dublin County Council RES-N zoned lands but there are no plans to do this as part of this planning application.

The implementation of self-regulating streets actively manages movement by offering real modal and route choices in a low speed, high quality residential environment. The design of the scheme proposals has actively sought to ensure there are no long straight sections of carriageway with the provision of strategically placed traffic calming features located at an appropriate frequency and distance.

Pedestrians are given priority within the internal site layout to ensure desire lines within the site are accommodated providing a good level of service and ensures the risk of vehicle/pedestrian conflict with vehicles is minimised.

Cyclists can also make use of the pedestrian paths, should they choose to walk their bicycles along them.

3.5 Access to SDCC RES-N zoned lands

The subject development lands are located close to SDCC zoned RES-N lands (Figure 2.3) for which SDCC have prepared a draft Masterplan. The Masterplan has yet to be published however, at this preliminary stage it is expected that the SDCC Masterplan lands can accommodate up to 400 residential units and a school.

The design of the subject development proposals have taken cognisance of the potential access from the subject site to access these SDCC lands whereby;

- Local streets (Access Road 1) which are 5.5m wide, acting as the main spine route through the development, connecting with Stoney Hill Road. This Access Road has the potential to be extended at some point in the future to facilitate vehicle and pedestrian access to the South Dublin County Council RES-N zoned lands but there are no plans to do this as part of this planning application

3.6 Servicing

An AutoTrack analysis has been carried out at the site access junctions and the internal junctions and turning areas within the site to demonstrate their capability to cater for a 10.2m long refuse lorry. The results of the analysis show that the site access junctions can accommodate servicing vehicles accessing, exiting and travelling through the site. This is illustrated in Figure 3.2

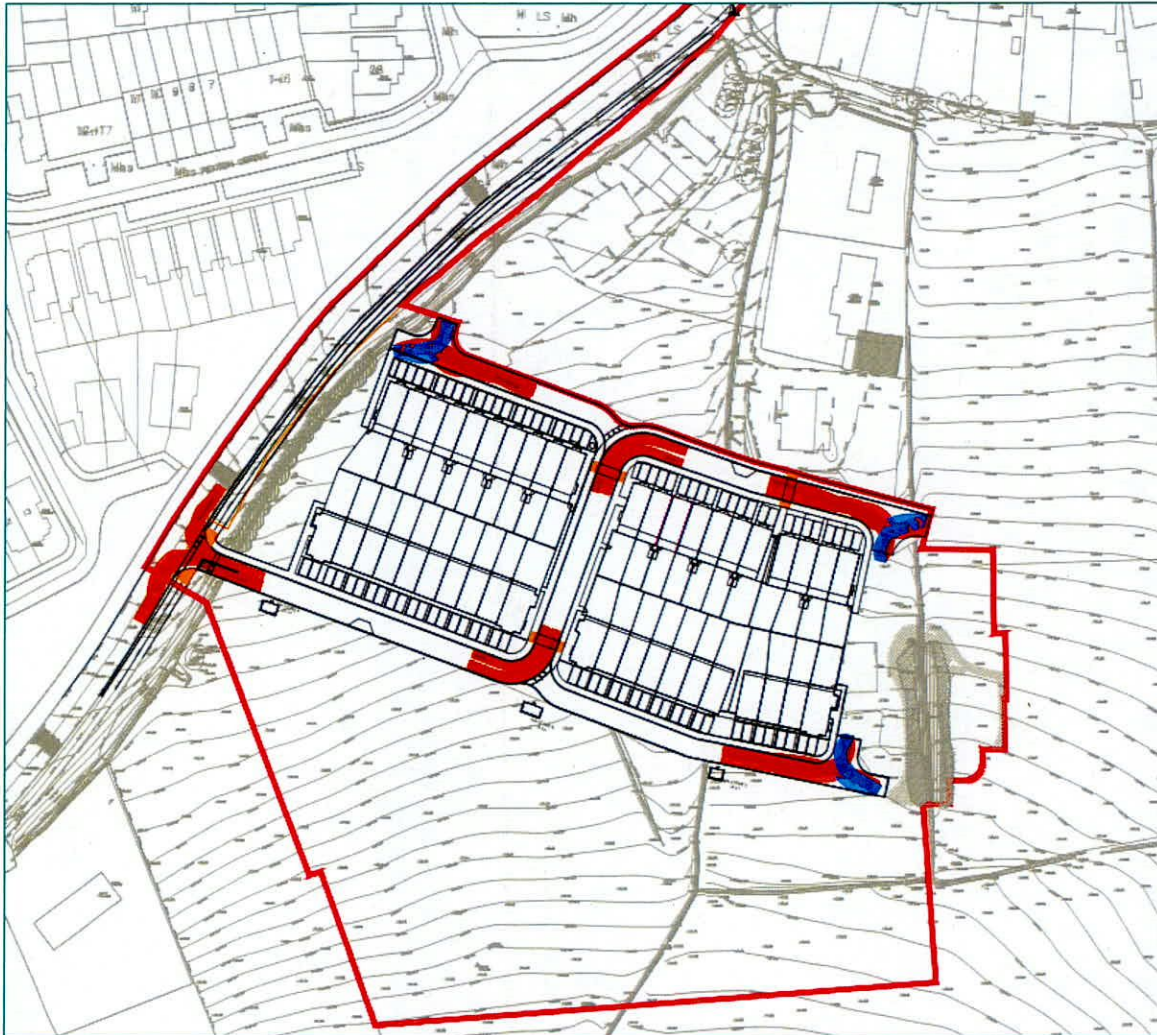


Figure 3.2 Proposed Swept Path Analysis (AECOM Drawing: 60659192-ACM-01-00-DR-CE-10-0102)

3.7 Visibility Splays

In accordance with DMURS a sightline of 45m is required having regard to the speed limit along Stoney Hill Road (50km/h), from each site access at a setback of 2.4m. These visibility splay requirements are achieved for all the site accesses, as illustrated in Figure 3.3 below.

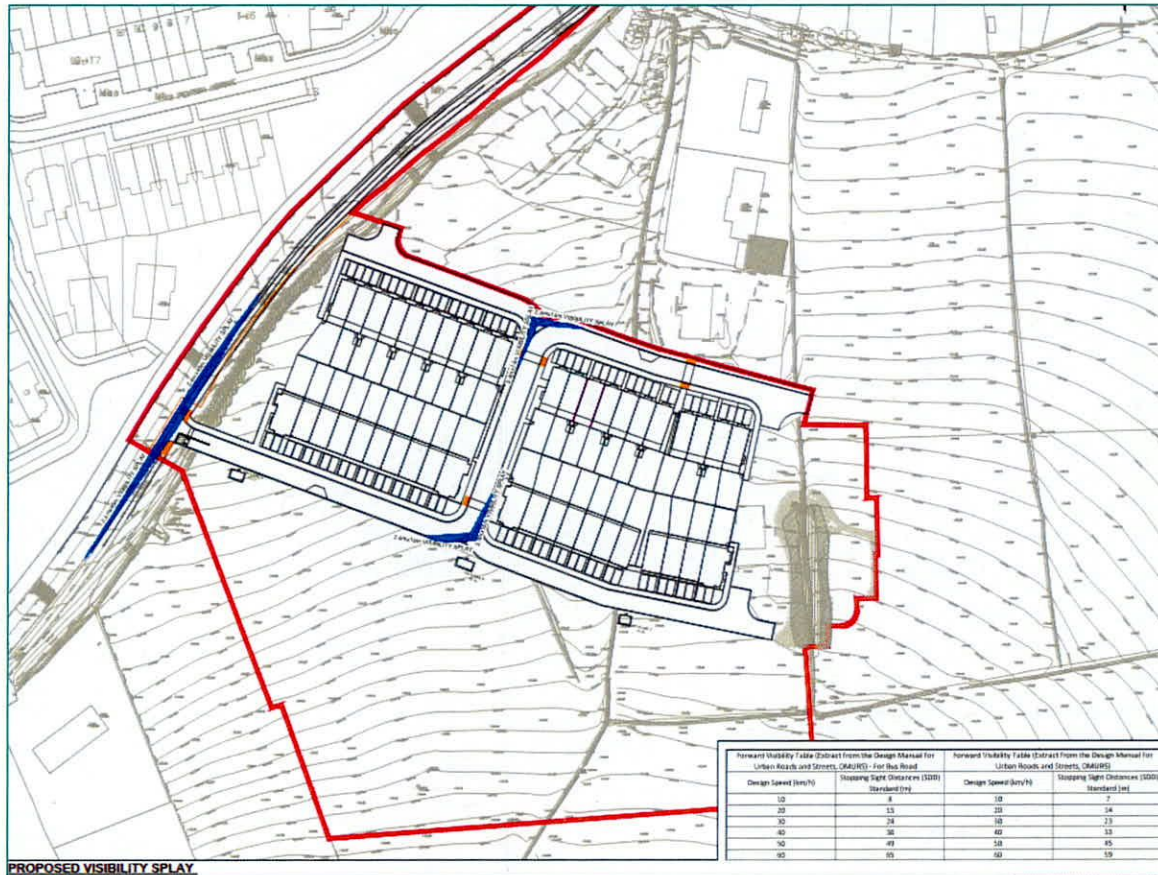


Figure 3.3 Proposed Visibility Splay (AECOM Drawing: 60659192-ACM-01-00-DR-CE-10-0101)

3.8 Parking Strategy

3.8.1 Standard Vehicle Parking

In order to determine the appropriate quantum of vehicle parking for the proposed residential development, reference has been made to the following guidance:-

- Table 11.23 of the South Dublin Council County Development Plan (2016-2022);
- South Dublin Council County Draft Development Plan (2022-2028);
- Guidelines for Planning Authorities Department of Housing, Planning and Local Government (DHPLG)

Accordingly, the subject site, can be classified as an 'Peripheral and/or Less Accessible Urban Location' as it is located within greater than 400m walking distance of a bus stop and the existing bus services in the area are not of a high frequency (60 minute peak hour service).

AECOM believe parking provision for the proposed development should be provided to take cognisance of the Department of Housing, Planning and Local Government SUHDS guidance.

The South Dublin County Development Plan 2016-2022 and Draft South Dublin County Development Plan 2022-2028 states the following in relation to car parking:-

- *'It is the policy of Council to take a balanced approach to the provision of car parking with the aim of meeting the needs of businesses and communities whilst promoting a transition towards more sustainable forms of transportation.'*
- *'Tables 11.23 and 11.24 set out the Maximum Parking rates for non-residential and residential development. Parking rates are divided into two main categories:*
 - *Zone 1: General rate applicable throughout the County.*

- Zone 2 (Non Residential): More restrictive rates for application within town and village centres, within 800 metres of a Train or Luas station and within 400 metres of a high quality bus service (including proposed services that have proceeded to construction).
- Zone 2 (Residential): More restrictive rates for application within town and village centres, within 400 metres of a high quality public transport service ⁵ (includes a train station, Luas station or bus stop with a high quality service)

(⁵ A high frequency route is where buses operate with a minimum 10 minute frequency at peak times and a 20 minute off-peak frequency.)

The Development Plan goes on to say:

'The number of spaces provided for any particular development should not exceed the maximum provision. The maximum provision should not be viewed as a target and a lower rate of parking may be acceptable subject to:

- *The proximity of the site to public transport and the quality of the transport service it provides. (This should be clearly outlined in a Design Statement submitted with a planning application),*
- *The proximity of the development to services that fulfil occasional and day to day needs,*
- *The existence of a robust and achievable Workforce Management or Mobility Management Plan for the development,*
- *The ability of people to fulfil multiple needs in a single journey,*
- *The levels of car dependency generated by particular uses within the development,*
- *The ability of residents to live in close proximity to the workplace,*
- *Peak hours of demand and the ability to share spaces between different uses,*
- *Uses for which parking rates can be accumulated, and*
- *The ability of the surrounding road network to cater for an increase in traffic.'*

With regard to the proposed development schedule, the associated SDCC and DHPLG car parking requirements and are outlined in Table 3.2 .

Table 3.1 – SDCC/DHPLG Vehicle Parking Requirements & Development Parking Provision

Land Use	Description	Quantum	SDCC Maximum Parking Standard (Zone 1)		Development Parking Provision
			Parking Required Per Unit (Zone 1)	MAXIMUM Parking Permitted	
Houses	3 Bed Houses	42 Units	2 spaces per unit	84	84

Due to the residential element of the subject development, the development proposals include the provision of 84 number parking spaces. This meets SDCC car parking requirements for the proposed development.

We believe this level of car parking is acceptable given the sites public transport accessibility, existing environment road network and considering the SDCC guidelines requirements for dwellings within peripheral locations.

3.8.2 Electric Vehicle Parking

Electric vehicle charging facilities are to be provided within the curtilage of the residential unit based on the residents requirements post occupation of units.

3.8.3 Cycle Parking

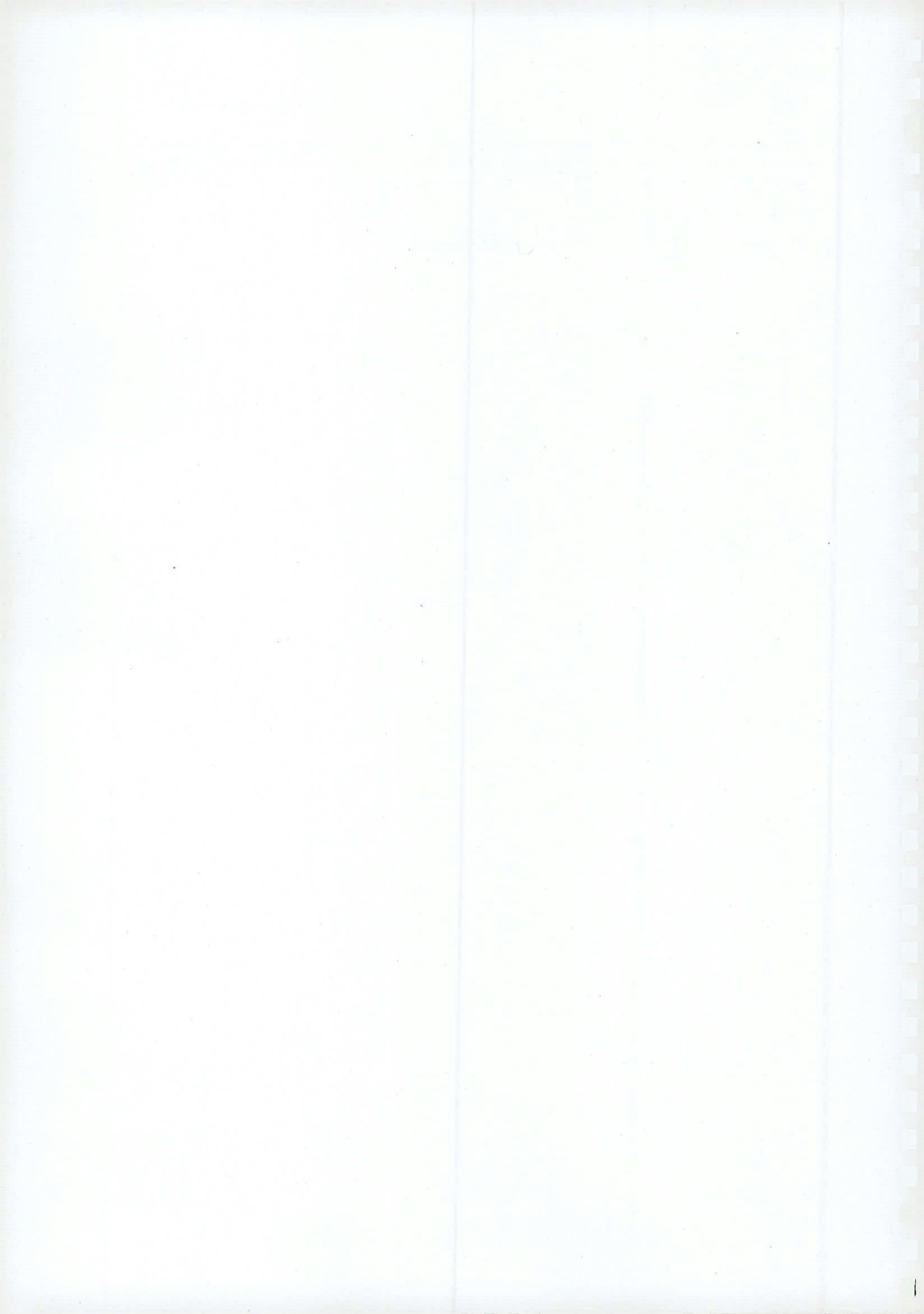
The houses and duplex units all benefit from the provision of rear/side accesses therefore these residents can park/store their bicycles within their own property boundary.

AECOM considers the proposed cycle parking provision being within the curtilage of each unit to be appropriate when cognisance is given to the accessibility of the site to the existing and proposed walking and cycling facilities in the surrounding area.

It is proposed within the Mobility Management Plan to monitor cycle parking following the opening of the proposed development. Should demand exceed the proposed within curtilage cycle parking, the management company will allocate additional cycle parking for the development i.e., additional cycle stands.

3.8.4 Parking Restrictions

All residential units are allocated 2 no. parking spaces per dwelling.



4. Statement of Compliance

4.1 General

This chapter comprises of a Statement of Compliance for the proposed development site, noting the DMURS manual and how the proposed development meets these standards.

4.2 Compliance with DMURS

The following measures are examples of where compliance with the DMURS guidelines has been demonstrated.

4.2.1 Internal Road Network

The internal layout has been informed by the DMURS guidelines. The following measures are examples of how the development is to comply with the DMURS guidelines:

- The proposed site access is to be designed to achieve a recommended visibility of 2.4m x 45m onto Stoney Hill Road;
- Design speed for internal roads of the development is 30km/hr;
- The development internal road width will typically be 5.5m to encourage slower speeds as well as to allow for manoeuvrability of vehicles accessing perpendicular parking spaces, as per figure 4.55 of DMURS
- Internal footpaths parallel with carriageway have been provided at a minimum width of 1.8m, which is the space required to allow two wheelchairs to pass each other, as per Figure 4.34 of DMURS;
- A section of shared surface is proposed with a maximum running lane width of 4.8m defined by flush kerbs, drainage or surface finish, which will further reduce speeds where there is a high likelihood of pedestrian / vehicle interaction, as per Section 4.4.8 of DMURS;
- Longer sections of road within the development are kept less than 70m long before horizontal or vertical deflection measures are introduced to encourage low speeds throughout the development, as per Section 4.4.7 of DMURS; -
- Pedestrian crossings are proposed which comprise of tactile paving and dropped kerbs to facilitate pedestrian movements.
- The corner radii of the proposed main road junction is 6m, as per Section 4.3.3 of DMURS;
- Forward visibility for the development, based on a design speed of 10km/h, complies with a 7m SSD, as per Section 4.4.4 and Table 4.2 of DMURS
- Parking, proximity of trees, changes in road direction, bends, raised tables and large section of shared surfacing will keep speeds to a minimum by creating a sense of enclosure, as per Section 4.2 of DMURS.

4.2.2 Landscaping

Section 4.2.7 of DMURS recommends to provide softer landscaping areas in order to promote a greener 'living' character within the development. The site therefore provides a significant amount of landscaping, including trees located along the site access roads to provide a sense of enclosure.

4.2.3 Materials and Finishes

DMURS also gives guidance on the types of materials and finishes to be used in order to provide a sense of calm for traffic and improve legibility for vulnerable road users. The road markings will be flush so as to permit fire tenders manoeuvring within the development infrequently.

4.2.4 Signing and Lining

As per Section 4.2.4 of DMURS, signing and lining is to be provided appropriately at the required locations throughout the development. However, the proposed development is to be designed to have a self-regulating approach to increase the road safety as opposed to relying on mandatory and warning signs. As noted in the Manual for Streets (2007), there may also be traffic calming benefits of a 'less is more' approach to reinforce lower design speeds.

5. Trip Generation and Distribution

5.1 Introduction

This section of the report presents the process by which the potential level of vehicle trips, associated with the future residential development have been generated and subsequently assigned across the local road network.

5.2 Traffic Surveys

In order to establish the existing local road network traffic characteristics and subsequently enable the identification of the potential impact of the proposed residential development, traffic surveys were commissioned in May 2022.

JTCs (weekday classified Junction Turning Counts) were conducted by Irish Traffic Surveys for 12 hours from 07:00-19:00 on Tuesday the 31st of May 2022, from this the peak hours were determined and analysed at the following locations as shown in Figure 4.1:

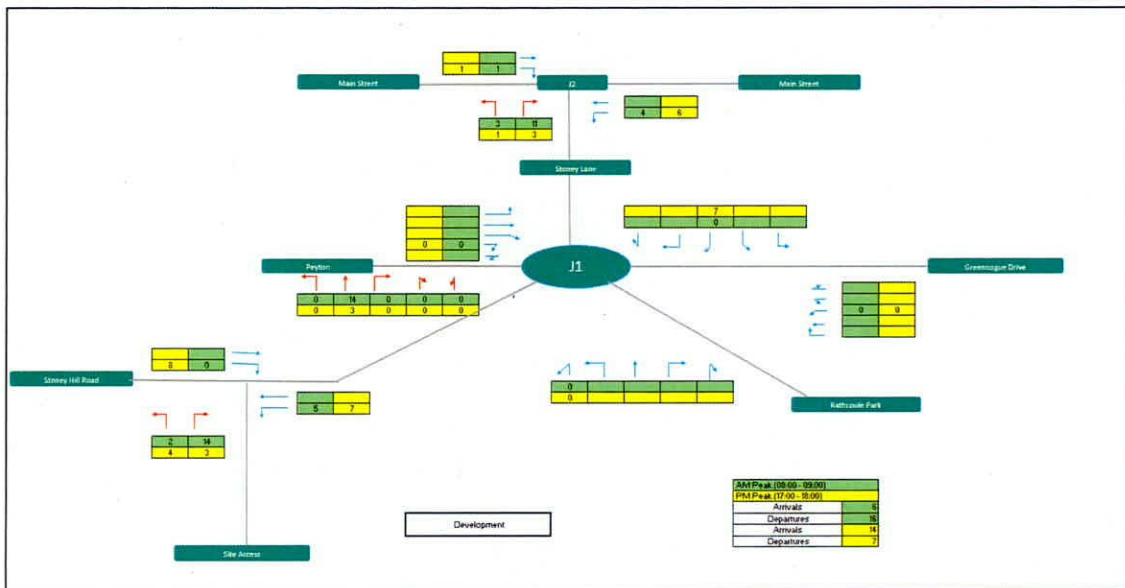
- 1 Stoney Hill Road / Peyton Avenue / Stoney Lane / Greenogue Drive / Mullally's Lane
- 2 Stoney Lane / Main Street
- 3 Site Access



Figure 5.1 Traffic Survey Locations (Source: Bing Maps)

The traffic survey established that the local AM and PM peak hours occur between 08:00 – 09:00 and 17:00 – 18:00 respectively. The recorded 2022 peak hour traffic flows are presented within Table 5.1 and Appendix A.

Table 5.1 2022 Traffic Survey Results (Development)



5.2.1 Proposed Development Trip Generation

To estimate the potential level of vehicle trips that could be generated by the proposed residential development AECOM have integrated the TRICS database. TRICS version 7.9.1 provides trip rate information for a variety of different land uses and development types, which can be applied to the subject development.

A summary of the trip rates is provided in Table 5.2 below, whilst Table 5.3 demonstrates the potential peak hour traffic generation based upon the development schedule. The TRICS output data has been appended in Appendix B.

Table 5.2 Proposed Development Trip Rates

Development Element	AM Peak Hour (08:00 – 09:00)		PM Peak Hour (17:00 – 18:00)	
	Arrivals	Departures	Arrivals	Departures
Residential	0.135	0.373	0.344	0.166

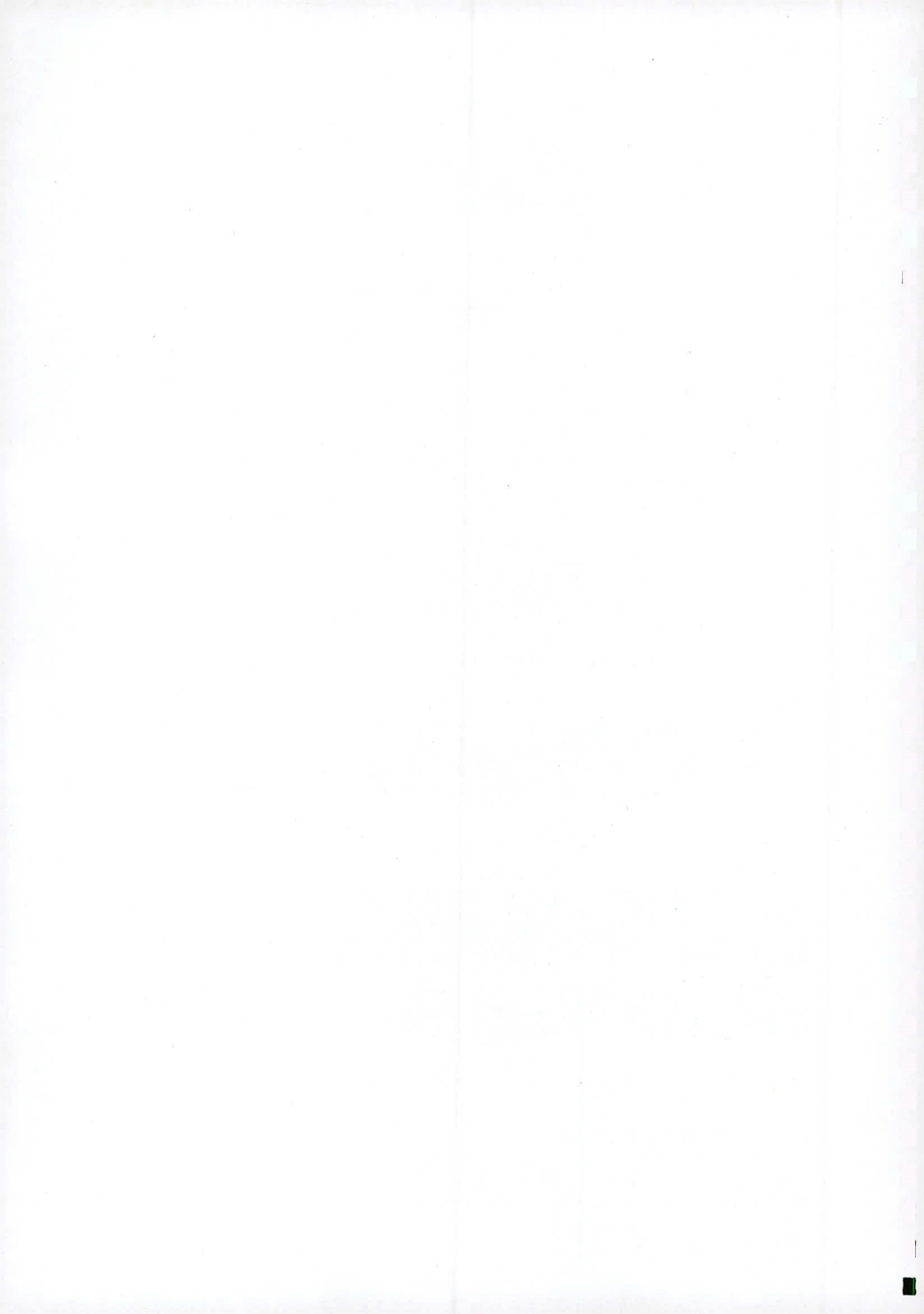
Table 5.3 Proposed Development Traffic Generations

Development Element	No of Units/GFA	AM Peak Hour (08:00 – 09:00)		PM Peak Hour (17:00 – 18:00)	
		Arrivals	Departures	Arrivals	Departures
Residential	42 Units	6	16	14	7
Peak Hour Totals		6	16	14	7
		21		21	

Table 5.3 demonstrates that the anticipated trip generations associated with the development is a total of 21 trips in the AM and 21 trips in the PM peak.

5.3 Trip Distribution

To understand the potential distribution of the trips arriving and departing the site, the base traffic survey results have been interrogated. The base traffic surveys indicate the direction that motorists currently travel to / from when arriving onto the immediate road network immediately adjacent to the site during the typical peak periods. Figure



5.2 illustrates the proposed trip distribution patterns during the morning and evening peak hours along Stoney Hill Road. For traffic travelling to / from the subject development, it has been assumed that they will do so by means of the existing passing traffic along the Stoney Hill Road.

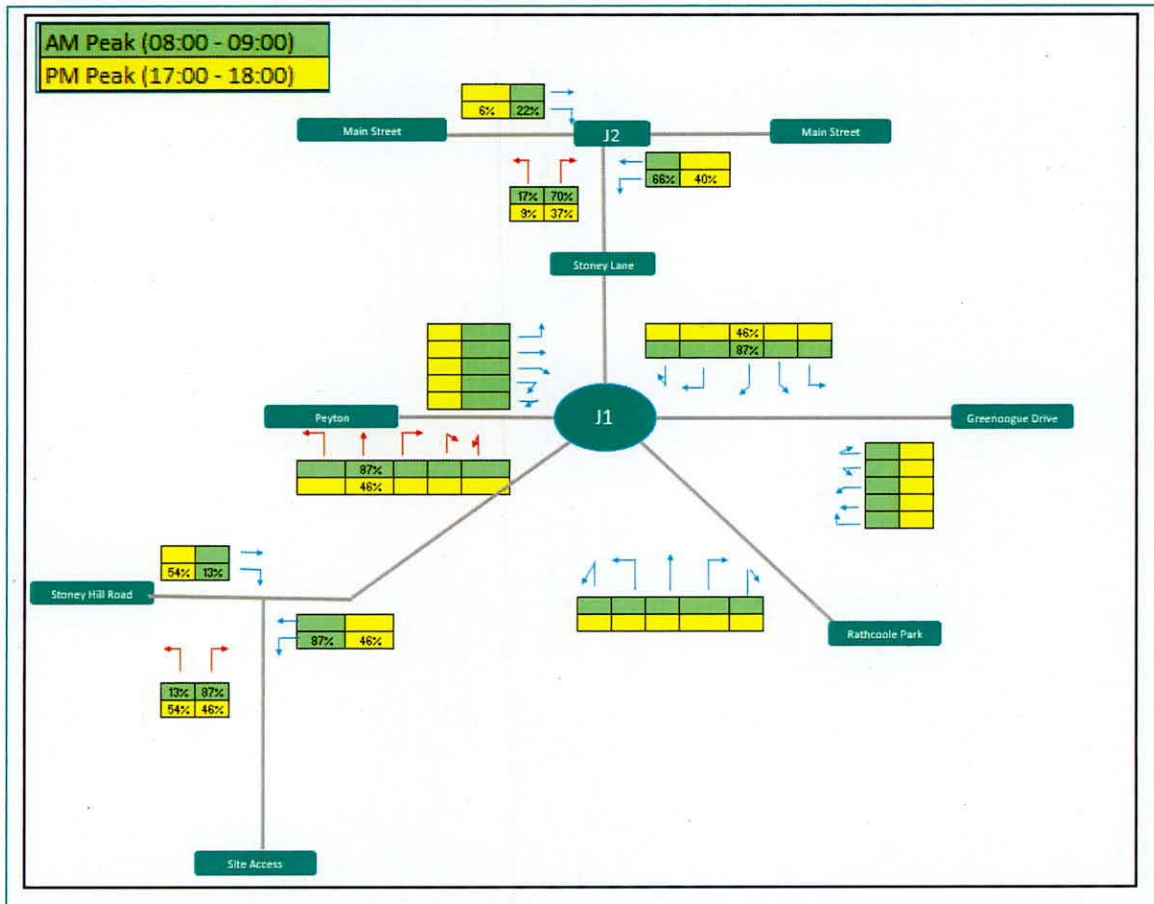


Figure 5.2 Trip Distribution

5.3.1.1 SDCC RES-N Zoned Lands Development Phasing

As previously mentioned, the subject development lands are located close to SDCC zoned RES-N lands, for which SDCC have prepared a draft Masterplan. The Masterplan has yet to be published however, at this preliminary stage it is expected that the SDCC Masterplan lands can accommodate up to 400 residential units and a school. This includes the 204 no. units of the entire landholding of Romeville developments. Deducted from this figure of 400 no. residential units are the 42 no. units proposed in this phase 1.

5.3.2 Committed Development

AECOM have reviewed the South Dublin County Council online planning files and have determined there are no significant local committed developments within the area of influence of the subject site that would generate a notable impact upon the local road network serving the subject site within the adopted 2039 design year.

5.3.3 Trip Distribution & Assignment

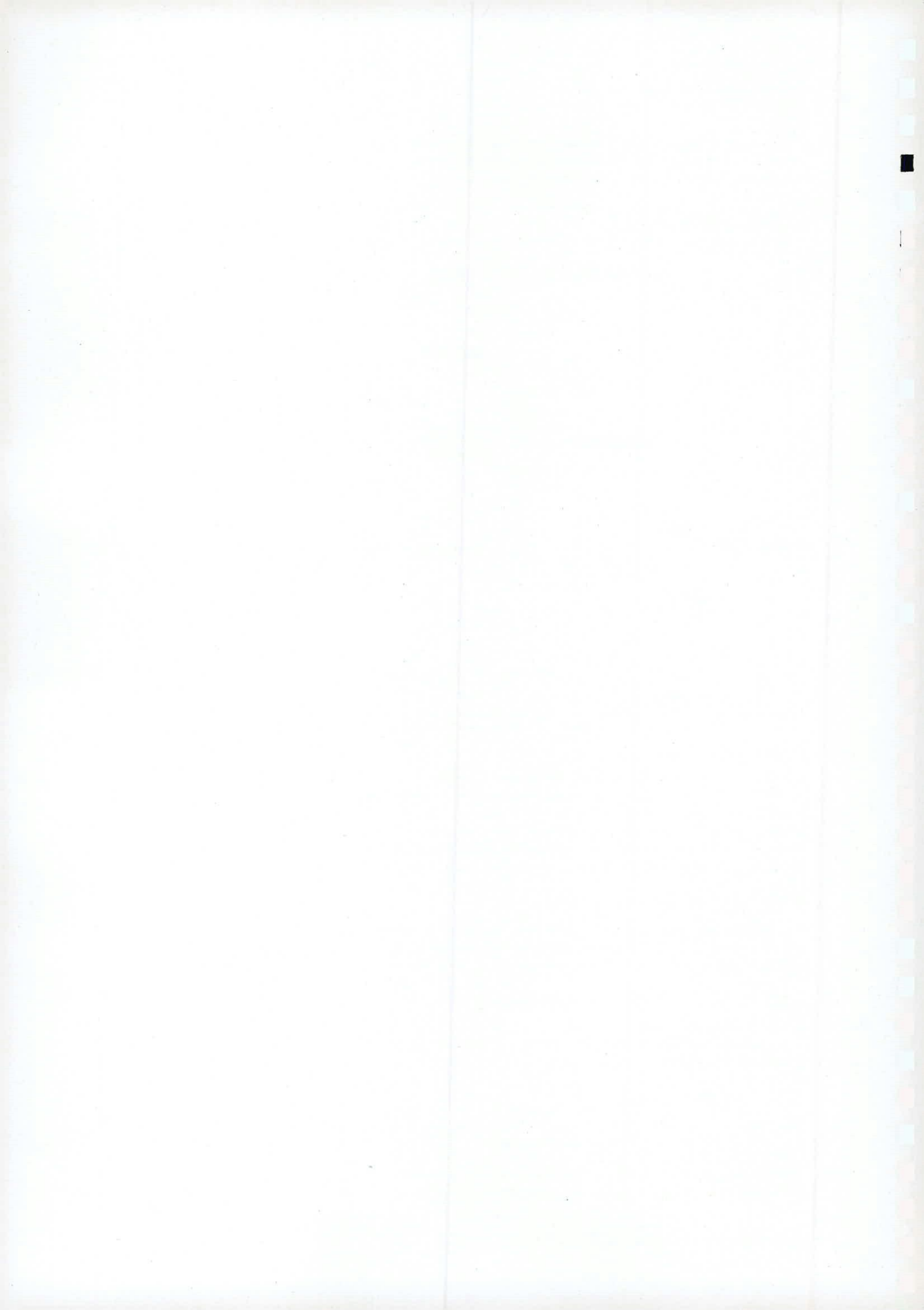
5.3.3.1 Subject Development

The distribution of subject development traffic as proposed by AECOM is based upon the surveyed traffic movements at the nearby key local junctions.

5.4 Traffic Growth

The TTA adopts an Opening Design Year of 2024. In accordance with TII Guidance, Future Design years (+5 and +15 years) of 2029 and 2039 will therefore be adopted.

The Transport Infrastructure Ireland (TII) 'Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (May 2019)' sets out growth rates for forecasting future year traffic for use in scheme modelling and



appraisal. It is noted that in respect of Rathcoole, which is in the 'Dublin Metropolitan Area', the growth during the period 2016 – 2030 is set at 1.0180% per annum for medium growth, reducing to 0.62% per annum from 2030 – 2040 (LV rates used).

The development has assessed the opening year of the development (2022) and the two horizon year assessments (2022 and 2037), as per the TII Traffic Assessment Guidelines. The assessment years used for this assessment are as follows:-

- 2022 to 2024 – 1.0363 (or 3.63%);
- 2022 to 2029 – 1.1330 (or 13.30%); and
- 2022 to 2039 – 1.2041 (or 20.41%).

5.5 Threshold Analysis

The TII Guidelines for Transport Assessments state that the thresholds for junction analysis in Transport Assessments are as follows:

- *'Traffic to and from the development exceeds 10% of the existing two-way traffic flow on the adjoining highway.'*
- *'Traffic to and from the development exceeds 5% of the existing two-way flow on the adjoining highway, where traffic congestion exists or will exist within the assessment period or in other sensitive locations.'*

5.5.1 Assessment Periods

The AM and PM peak hour flows have been identified as occurring between 08:00 – 09:00 and 17:00 – 18:00, respectively.

- 2022 Base AM and PM;
- 2024 (Opening Year) Base + Development AM and PM;
- 2029 (+5years) Base + Development AM and PM; and
- 2039 (+10years) Base + Development AM and PM

5.6 Network Impact

The TII 'Traffic and Transport Assessment Guidelines' states that the impact of a proposed development upon the local road network is considered material when the level of traffic it generates surpasses 10% and 5% on normal and congested networks, respectively. When such levels of impact are generated a more detailed assessment should be undertaken to ascertain the specific impact upon the networks operational performance.

Given the sites' location and surrounding road network, it has been assumed that the TII requirement for this development is that if the proposed development has a 5% or greater impact during the peak periods then the junction will be assessed.

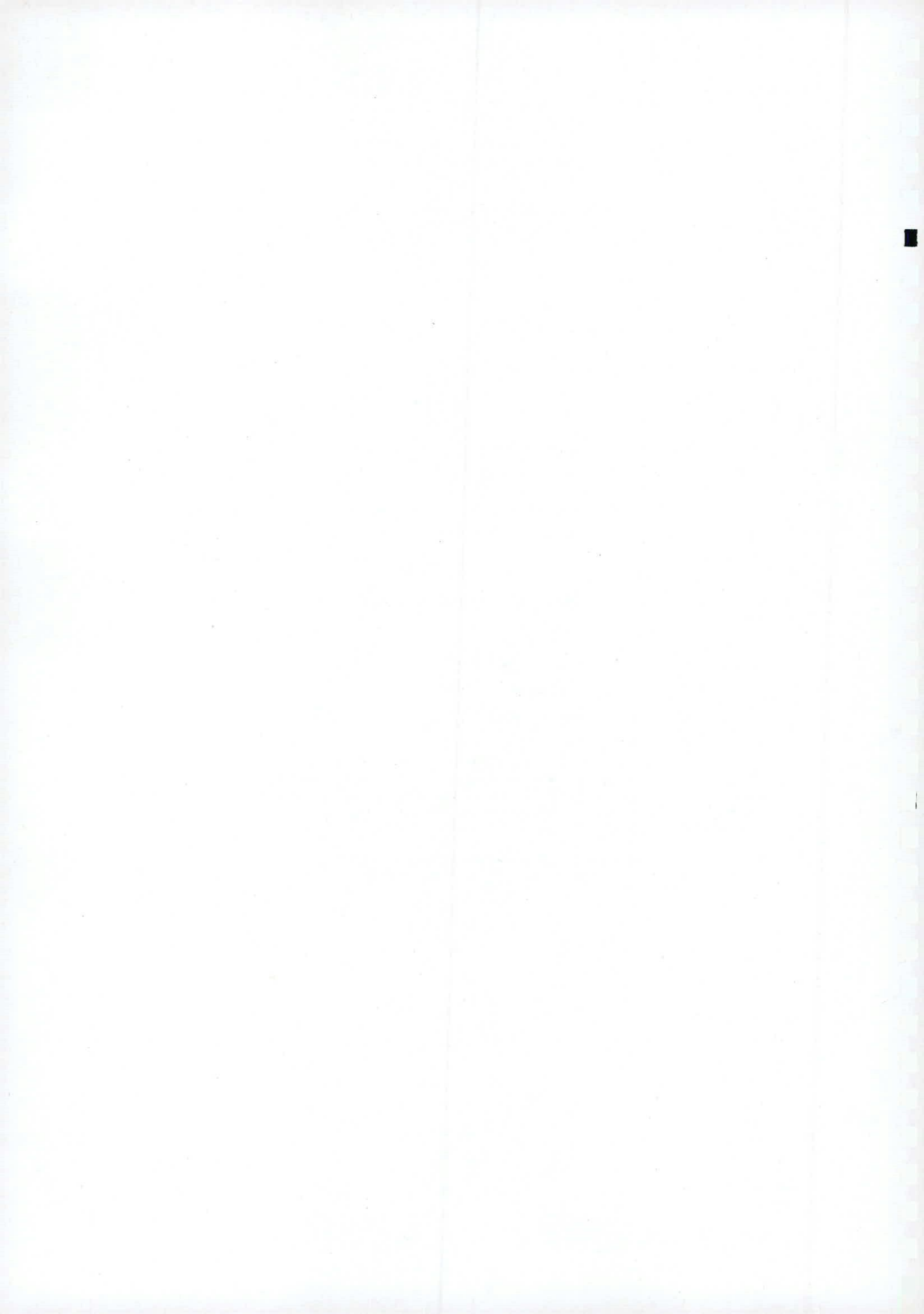




Figure 5.3 Key Local Junctions

5.6.1 Subject Development

In reference to Figure 5.3 above, Table 5.4 below details the amount of two-way vehicle trips to/from the proposed development site that will travel through the key offsite junctions in the 2039 design year as result of the subject development.

Table 5.4 Percentage Impact Analysis (Opening Year 2024)

Location	AM Peak Hour			PM Peak Hour		
	Existing Two-Way Vehicle Trips	New Vehicle Trips (Two-way)	% Increase	Existing Two-Way Vehicle Trips	New Vehicle Trips (Two-way)	% Increase
Junction 1	294	14	4.65%	213	10	4.61%
Junction 2	927	10	1.06%	1286	10	0.76%
Junction 3 / Site Access	147	21	14.02%	72	21	29.75%

The percentage impact of the operational phase will result in an impact of:

- 4.65% and 4.61% upon the Stoney Hill Road/ Main Street junction in the respective morning and evening peak hour periods.
- 1.06% and 0.76% upon the Stoney Lane Roundabout in the respective morning and evening peak hour periods.
- 14.2% and 29.75% upon the Stoney Hill Road/ Proposed Site Access junction in the respective morning and evening peak hour periods.

Each junction is discussed in more detail in the paragraphs below

Junction 1: Based on the TII Traffic and Transport Guidelines (May 2014), given that the impact upon this priority junction does not exceed 10% of the existing two-way traffic flow, modelling is not required for this junction. The traffic impacts upon this junction will be nominal.

Junction 2: Based on the TII Traffic and Transport Guidelines (May 2014), given that the impact upon this roundabout does not exceed 10% of the existing two-way traffic flow, modelling is not required for this junction. The traffic impacts upon this junction will be nominal.

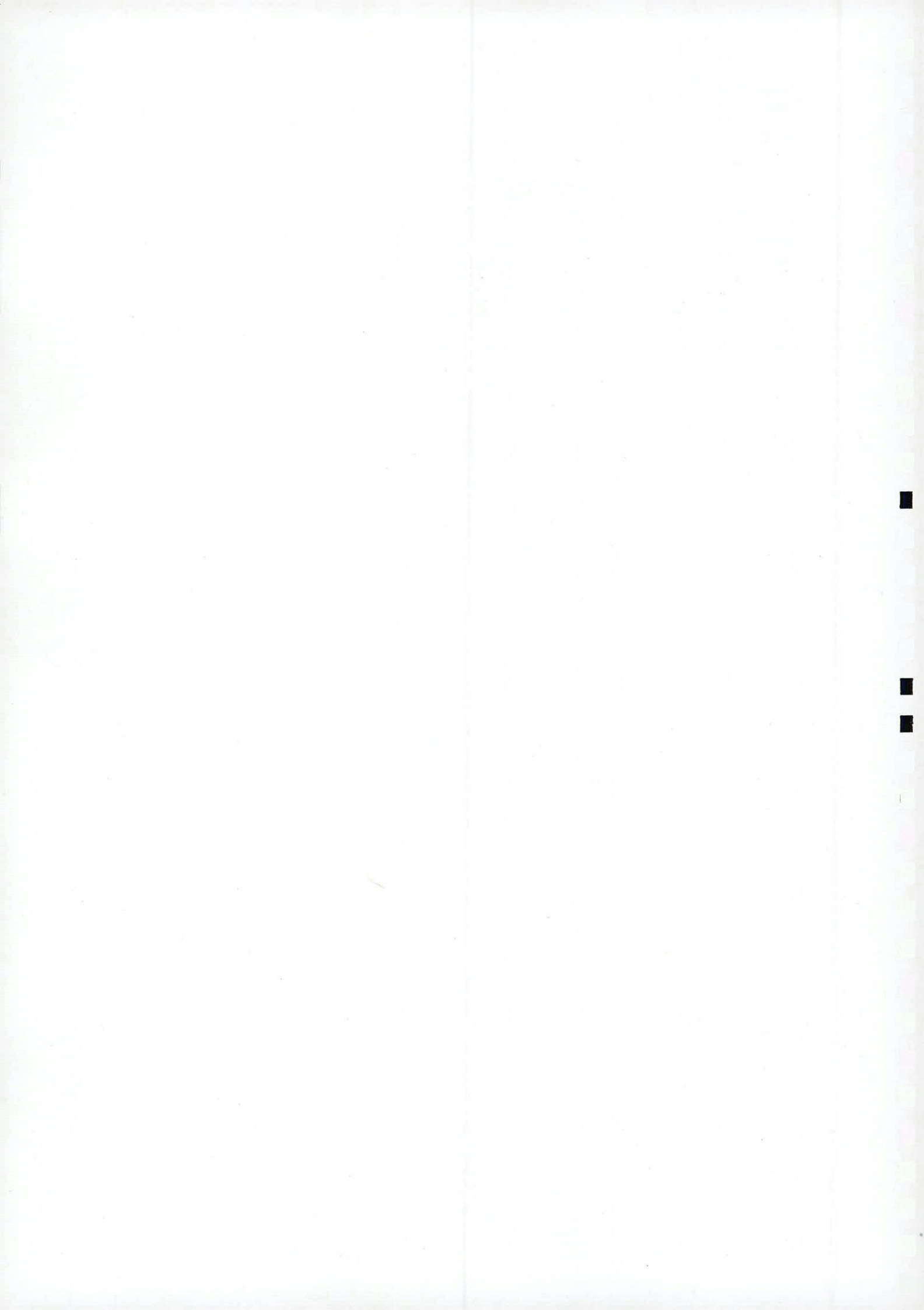
Junction 3 / Site Access: Based on the TII Traffic and Transport Guidelines (May 2014), given that the impact upon the site access does exceed 10% of the existing two-way traffic flow, modelling is required for this junction. It should be noted that the significant percentage increase along this road is due to the existing lower levels of traffic along this road.

It should also be acknowledged that the trip generation does not include for any potential pass by or diverted trip rate reduction. It can therefore be argued that the impacts are a worst-case scenario.

5.7 Summary

It is anticipated that the proposed development would generate 21 and 21 vehicle trips during the respective morning and evening peak hour periods.

Based on the percentage impact analysis it has been determined that Junction 3/ Site Access will be subject to detailed traffic modelling using the industry standard Junctions 10 software.



6. Network Analysis

6.1 Introduction

This chapter presents the impact analysis to identify the potential effects of the proposed development upon the surrounding road network at the junctions as identified in Chapter 5 of this report. As the junctions are unsignalised priority controlled junctions they will be assessed using the industry standard Junctions 10 (PICADY) software developed by Transport Research Laboratory (TRL).

6.2 Junction Analysis

The operational assessment of the local road network has been undertaken using TRL Junctions 10 for non-signalised junctions. When considering priority controlled junctions, a Ratio to Flow Capacity (RFC) of greater than 85% (0.85) would indicate a junction to be approaching capacity, as operation above this RFC value is poor and deteriorates quickly resulting in traffic congestion in the form of longer queues.

Junctions 10 is an industry standard software to model the capacity and queuing of non-signalised junctions (Priority controlled, intersections, roundabouts). The meaning of the acronyms used within the capacity assessment results are discussed below.

Ratio to Flow Capacity (for non-signalised junctions) and Queue length (PCU's) i.e. 1 PCU equates to a 5.75m long car

It is generally accepted that RFC values of 0.85 (85%) or less are indicators that a junction is operating within capacity. Junctions are only identified as operating over capacity if these values are exceeded.

6.3 Stoney Hill Road/ Site Access

A model was completed using the aforementioned traffic surveys to assess the traffic volumes for the morning and evening peak period and future assessment years with and without the development in place at the Stoney Hill Road/ Site access priority junction. A summary of the results are shown in Table 6.1 with the full Junctions 10 outputs contained within Appendix C.

Table 6.1 Stoney Hill Road/ Site Access

Assessment Year	Arm	AM Peak		PM Peak	
		Queue (PCU)	RFC	Queue (PCU)	RFC
2024 With Development (Opening Year)	Stoney Hill Site Exit Development	0.0	0.04	0.0	0.01
	Stoney Hill Road Western Arm	0.0	0.00	0.0	0.02
2029 With Development (Opening Year + 5)	Stoney Hill Site Exit Development	0.0	0.04	0.0	0.01
	Stoney Hill Road Western Arm	0.0	0.00	0.0	0.02
2039 With Development (Opening Year + 15)	Stoney Hill Site Exit Development	0.0	0.04	0.0	0.01
	Stoney Hill Road Western Arm	0.0	0.00	0.0	0.02

Based on the analysis of this priority controlled junction, it is clear that the with the inclusion of the proposed development along Stoney Hill Road, this junction would operate within capacity throughout the 2024 (opening year) to the 2039 (opening year + 15) assessment with the development in place.

As demonstrated in the 2024 assessment year, the proposed development would result in an increase of 0.04 (4%) RFC with no increase to queuing during the morning peak period on the site exit arm of the junction. During the evening peak period it is anticipated that the RFC would increase by 0.01 (1%) with no change in the PCU on the Stoney Hill road western arm of the junction.

From the analysis undertaken at both junctions, this indicates that the proposed development would not negatively impact on the surrounding road network

7. Construction Traffic Management Plan

This chapter of the report deals directly with the impacts of construction of the development. As with any construction project, the contractor will be required to prepare a comprehensive traffic management plan for the construction phase. The purpose of such a plan is to outline measures to manage the expected construction traffic activity during the construction period.

This chapter will provide an overview of the likely routing of construction vehicles, based on a most likely scenario of construction. It should be noted that the impacts of the construction will be temporary, and it will be the contractor's responsibility to prepare a Traffic Management Plan for the approval of South Dublin County Council in advance of any works.

7.1 Policy Guidance

Guidance for the temporary control of traffic at road works to facilitate the safety of the public during the works is provided below:

- Traffic Signs Manual Chapter 8 Temporary Traffic Measures and Sign Roadworks (2008);
- Addendum Transport Chapter 8, Temporary Traffic Measures and Sign Roadworks (2008);
- Traffic Management Guidelines, Department of Transport (2003);
- Requirements of South Dublin County Council.

7.2 Indicative Construction Programme & Phasing

The construction programme is expected to require 18 months (approximately) to complete from occupation of the site.

7.3 Construction Route

To minimise construction impacts upon the surrounding road network, it is recommended that all construction traffic accesses and exits the site from the N7 travelling down the R120 Regional Road and Main Street turning left onto the Stoney Lane then taking the turn for Stoney Hill Road at the Roundabout and continuing straight till the construction access for the residential development will be on the left side.



Figure 7.1 Proposed Construction Traffic Route (Source: Bing Maps)

7.4 Parking

All contractor vehicles will park within the development site area, it is recommended that as part of the construction management plan the contractor designates an area within the confines of the site dedicated to operative car parking. There will be no parking permitted on the surrounding road network or estate roads by the contractor or site operatives.

7.5 Mitigation Measures

A construction management plan will be developed by the contractor prior to the commencement of work on site and will be prepared in consultation with South Dublin County Council.

Construction debris particularly site clearance, spoil removal and dirty water run off can have a significant impact on footpaths and roads adjoining a construction site, if not adequately dealt with.

7.6 Hours of Operation

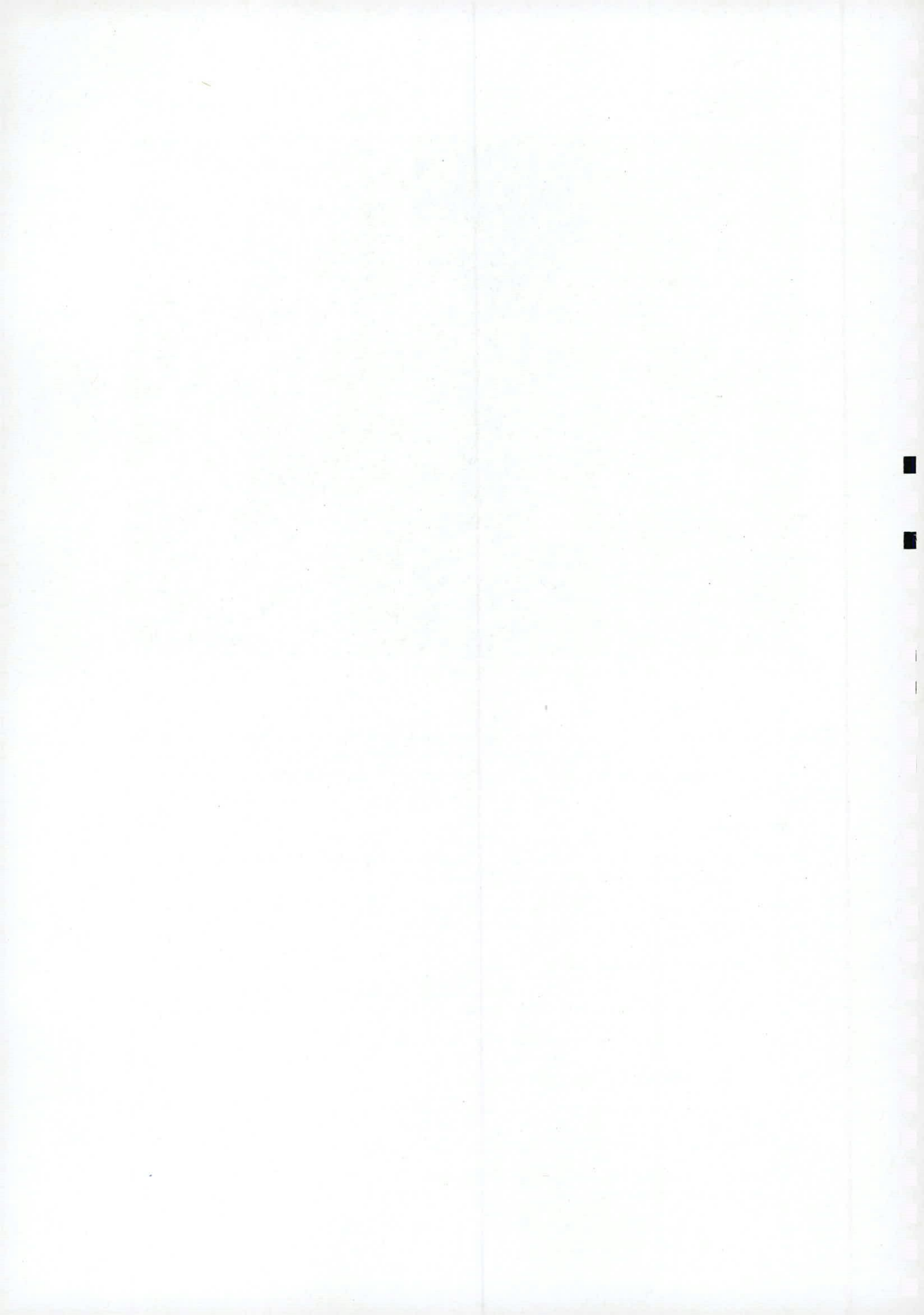
Site development and building works shall be carried out between the hours of operation recommended by SDCC to safeguard the residential amenities of properties in the vicinity. The typical hours of operation are as follows:

- Monday to Friday, 8am – 7pm, Saturdays 8am – 2pm and no works on Sundays or Public holidays.

7.7 Traffic Management Measures

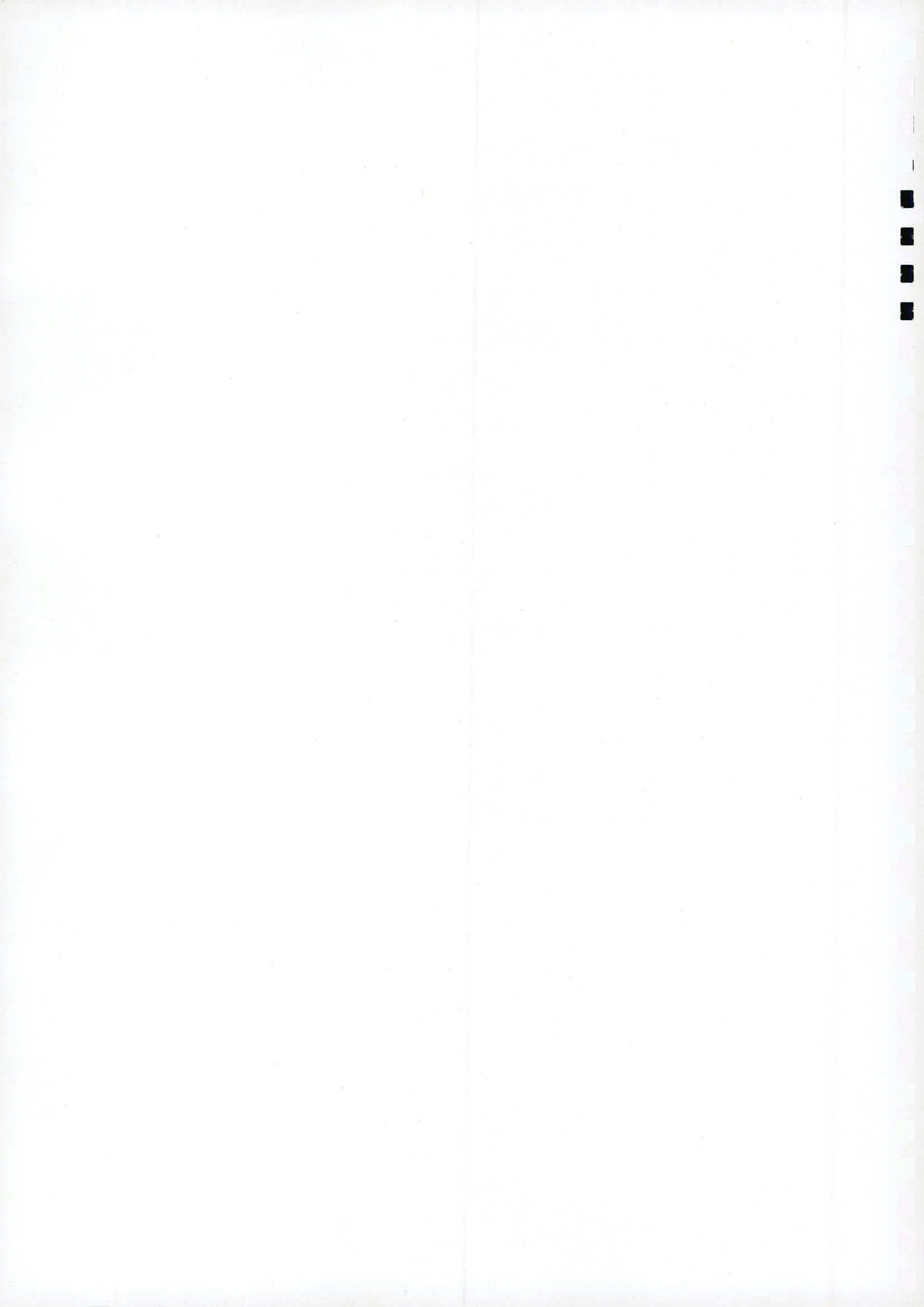
Below is a list of the proposed traffic management measures to be adopted during the construction works. Please note that this is not an exhaustive list, and that it will be the appointed contractor's responsibility to prepare a detailed construction management plan.

- Warning signs / Advanced warning signs will be installed at appropriate locations in advance of the construction access locations;



- Construction and delivery vehicles will be instructed to use only the approved and agreed means of access; and movement of construction vehicles will be restricted to these designated routes;
- Appropriate vehicles will be used to minimise environmental impacts from transporting construction material, for example the use of dust covers on trucks carrying dust producing material;
- Speed limits of construction vehicles to be managed by appropriate signage, to promote low vehicular speeds within the site;
- Parking of site vehicles will be managed and will not be permitted on public road, unless proposed within a designated area that is subject to traffic management measures and agreed with SDCC;
- A road sweeper will be employed to clean the public roads adjacent to the site of any residual debris that may be deposited on the public roads leading away from the construction works;
- On site wheel washing will be undertaken for construction trucks and vehicles to remove any debris prior to leaving the site, to remove any potential debris on the local roads;
- All vehicles will be suitably serviced and maintained to avoid any leaks or spillage of oil, petrol or diesel. Spill kits will be available on site. All scheduled maintenance carried out off-site will not be carried out on the public highway; and
- Safe and secure pedestrian facilities are to be provided where construction works obscure any existing pedestrian footways. Alternative pedestrian facilities will be provided in these instances, supported by physical barriers to segregate traffic and pedestrian movements, and to be identified by appropriate signage. Pedestrian facilities will cater for vulnerable users including mobility impaired persons.

The mitigation measures will therefore ensure that the presence of construction traffic will not lead to any significant environmental degradation or safety concerns in the vicinity of the proposed works. Furthermore, it is in the interests of the construction programme that deliveries, particularly concrete deliveries are not unduly hampered by traffic congestion, and as a result continuous review of haulage routes, delivery timings and access arrangements will be undertaken as construction progresses to ensure smooth operation.



8. Mobility Management Plan

8.1 General

This section of the report, will present an overview of the Mobility Management Measures for the proposed development. A review of the key measures and policies outlined in the SDCC Development Plan (2016 – 2022) and SDCC Draft Development Plan 2022-2028 has been undertaken.

Upon completion of the development, when the scheme is occupied it is recommended that an updated Mobility Management Plan is undertaken in unison with travel surveys for residents and visitors, which will inform travel targets for site users.

8.2 Objectives

The objectives of this section are as follows:

- To discourage private car use as a means of travel to and from the development;
- To increase and facilitate the number of people choosing to walk, cycle or travel by public transport to the development;
- To work with SDCC, the National Transport Authority and public transport providers to support and encourage resident and staff up take;
- To develop an integrated and unified public transport, private vehicle, business fleet management and suppliers of commercial services to the development; and
- To liaise and co-operate with adjacent developments in relation to a coordinated approach to Mobility Management between the various employment areas.
- To achieve the above targets, measures have been proposed for the specific modes of transport. These are based on existing infrastructure and public transport systems. These objectives are preliminary and will be further developed in the light of ongoing monitoring as the proposed development is occupied and information becomes available on future travel behaviour of residents and staff.

It is recommended that an Action Plan Coordinator is appointed, as someone who will take ownership of implementing the measures. Table 7.1 overleaf presents a list of recommended measures and actions.

8.3 Monitoring

A critical part of any MMP is ongoing monitoring. It is proposed that an initial evaluation of the operation of the plan will take place one year into the operation.

On occupation of the development it would be proposed to undertake travel attitude surveys to establish baseline modal split of residents. This would assist considerably in the setting of appropriate trip rate and modal share targets for the development.

An after study should then be undertaken following the operation of the MMP for a reasonable period of time. The two datasets could then be compared to review what changes are necessary after implementation of the various infrastructural measures and initiatives.

Campaigns and promotions would be run throughout the year to maintain public awareness of modes of travel other than the car and the benefits accrued to both the individual and the environment.

The occupiers of the proposed development will be encouraged to continually monitor the MMP initiatives in order to maximise on their success. Monitoring results could be included in the annual report or a separate environmental report. The results will also be forwarded to SDCC at intervals to be determined by agreement.

Table 7.1 – Recommended Mobility Management Measures and Actions

<i>Walking</i>		
Initiatives	Responsibility / Ownership	Timescale
<p>Provision of details on how to access the site on foot. Details would include safe walking routes and location of the nearest bus stops/rail station for perspective residents.</p> <p>Promote walking events / lunchtime walks for perspective residents.</p> <p>Provide quarterly 'How to Travel' newsletter via email to residents.</p> <p>Distribute travel maps, leaflets and timetables, ensuring consistent accessible formats, health information for walking routes, signposting to website / apps.</p>	<p>The Action Plan Co-ordinator</p>	<p>This will be established within 3 months of occupation.</p>

<i>Cycling</i>		
Initiatives	Responsibility / Ownership	Timescale
<p>Establish a Resident Bicycle User Group.</p> <p>Advertising the Bike to Work scheme for residents.</p> <p>Encourage establishment of a cycling club / society.</p> <p>Provision for cyclist equipment i.e. pump, allen keys, lights, puncture repairs.</p> <p>Display maps of local cycle network on resident notice boards.</p> <p>Participate in national cycle week.</p> <p>Survey and monitor cycle parking demand</p>	<p>The Action Plan Co-ordinator</p>	<p>This will be established within 3 months of occupation.</p>

Public Transport		
Initiatives	Responsibility / Ownership	Timescale
<p>Provision of public transport maps and timetables in prominent locations on site. Information should be kept up to date. This information could also be available online.</p> <p>Provision of information to residents on savings that can be made by using Leap Card and details on where Leap Cards can be purchased.</p> <p>Re-advertise and promote the Tax saver monthly and annual commuter tickets for public transport to staff of the development.</p> <p>Display a local area map with public transport stops / route numbers marked.</p> <p>Publicize real time passenger information apps and websites where relevant.</p> <p>Publicize door-to-door multi modal journey planner website</p> <p>Liaise with public transport operators regarding service frequencies to the residential development.</p> <p>Provide attractive, good quality walking routes to the existing public transport infrastructure</p>	<p>The Action Plan Co-ordinator</p>	<p>This will be established within 3 months of occupation.</p>

Car Sharing		
Initiatives	Responsibility / Ownership	Timescale
<p>Encouragement of residents and visitors of the development to use other modes of travel other than private car.</p> <p>Where it is necessary for car use to travel to and from work, residents should be made aware of other people who are either within close proximity of their homes or on their route into work.</p> <p>Hold a coffee morning / launch event for potential car sharers</p>	<p>The Action Plan Co-ordinator</p>	<p>This will be established within 3 months of occupation.</p>

Construction Phase		
Initiatives	Responsibility / Ownership	Timescale
<p>Provide a preliminary Construction Traffic Management Plan to provide detailed mitigation of construction traffic associated with the proposed development.</p>	<p>The Contractor / SDCC Roads & Traffic Department</p>	<p>This will be established and agreed prior to construction.</p>

9. Summary & Conclusion

9.1 Summary

This Traffic and Transport Assessment has been undertaken to quantify the potential influence of the proposed development along the Stoney Hill Road, upon the operational performance of the local area road network.

The subject development lands are located adjacent to SDCC zoned RES-N lands, for which SDCC have prepared a draft Masterplan. The Masterplan is at a preliminary stage. It is expected the SDCC Masterplan lands can accommodate up to 400 residential units and a school. In order to provide a robust assessment this TTA also considers the impact of future development on these SDCC lands.

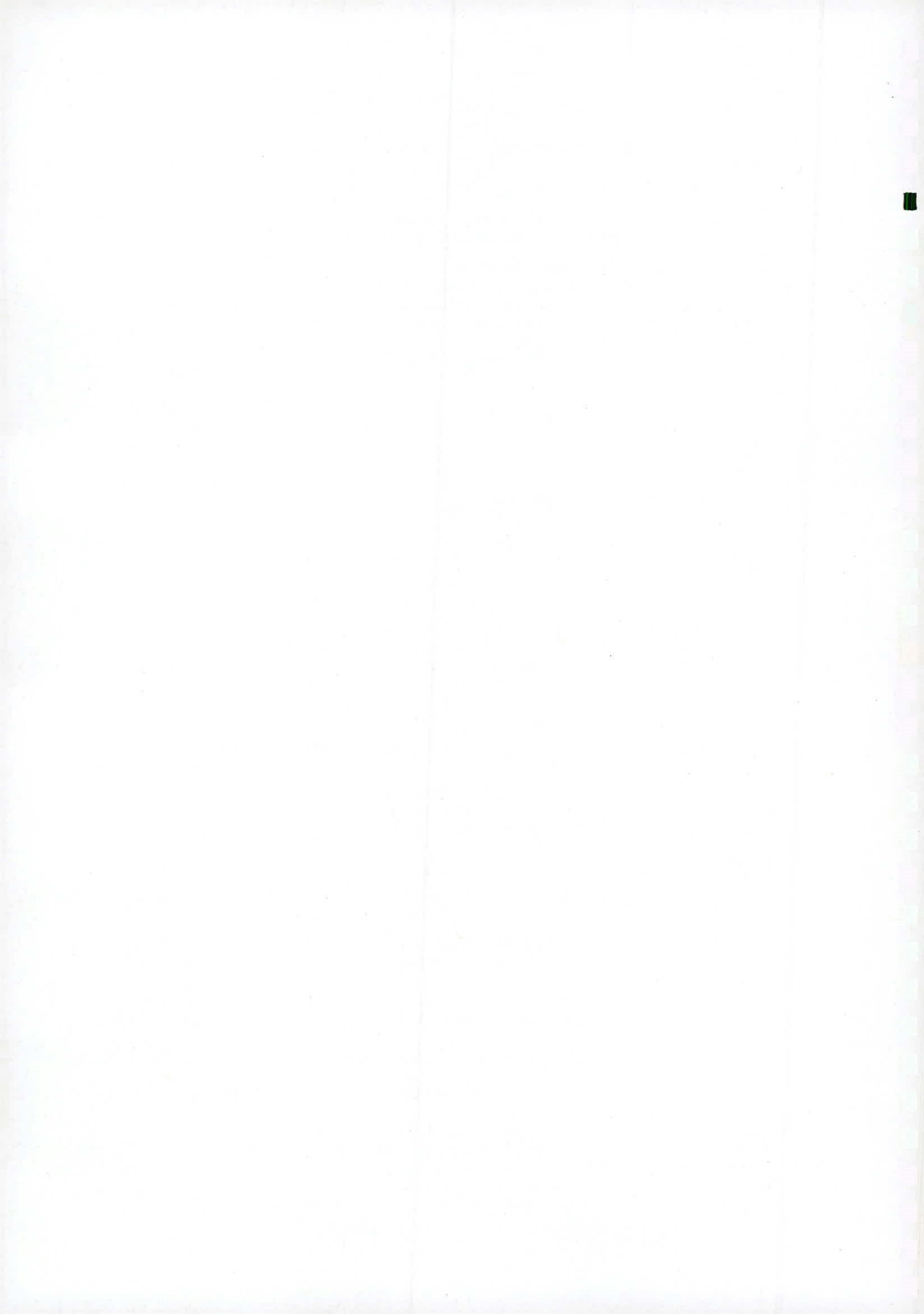
Our methodology incorporated a number of key inter-related stages, including:-

- Site Audit;
- Planning File Review;
- Policy Review;
- Traffic Surveys;
- Trip Generation, Distribution and Assignment;
- Network Impact; and
- Network Assessment.

9.2 Conclusion

The principal findings that can be drawn from this TTA are as follows:

- The subject site is ideally positioned within the urban environment to maximise access to/from the site utilising sustainable forms of travel including walking, cycling and public transport. The sites proximity to public transport interchanges on Main St in Rathcoole (circa 550m walking distance) further enhances the sustainability characteristics of the site.
- The assessment has demonstrated that the subject site is accessible by public transport with bus interchanges located within 550m walking distance on Main Street in Rathcoole. Bus services operate along this route with a 60 minute peak hour frequency.
- The subject site is ideally located to benefit from the enhanced accessibility levels delivered by the emerging BusConnects bus network improvements which will include the provision of Local Route 242 which will operate with a 15 minute peak hour frequency (30 minute off peak) and will be accessible to the subject site within 550m walking distance on Main street.
- The subject site will benefit from the provision of one number vehicle access locations from Stoney Hill Road:
 - The site access will take the form of a priority controlled junction and will provide access to the entire site, the corner radii will be 6m to control the speed at which vehicles can enter/exit the site.
 - The provision of a raised entry treatment at the site access junction informs drivers that they are entering into an area where pedestrians may be present and as such, they must adjust their driving styles accordingly.
- The subject site will be highly accessible to pedestrians and cyclists from the adjacent Stoney Hill Road. The proposed development achieves filtered permeability, primarily for walking and cycling at the site access location along Stoney Hill Road:-
- As detailed within the Area Plan submitted with the planning application, the design of the subject development proposals have taken cognisance of the potential access from the subject site to access these SDCC lands whereby Access Road 1 can be extended at some point in the future to facilitate vehicle access to the SDCC RES-N zoned lands.
- The subject development proposals seek to comply with the South Dublin County Council cycle and vehicle parking standards. We believe the level of car parking is acceptable given the sites public transport accessibility.
- The trip generation, assignment and network assessment exercise has demonstrated that the subject development proposals will generate nominal impacts across the local road network.



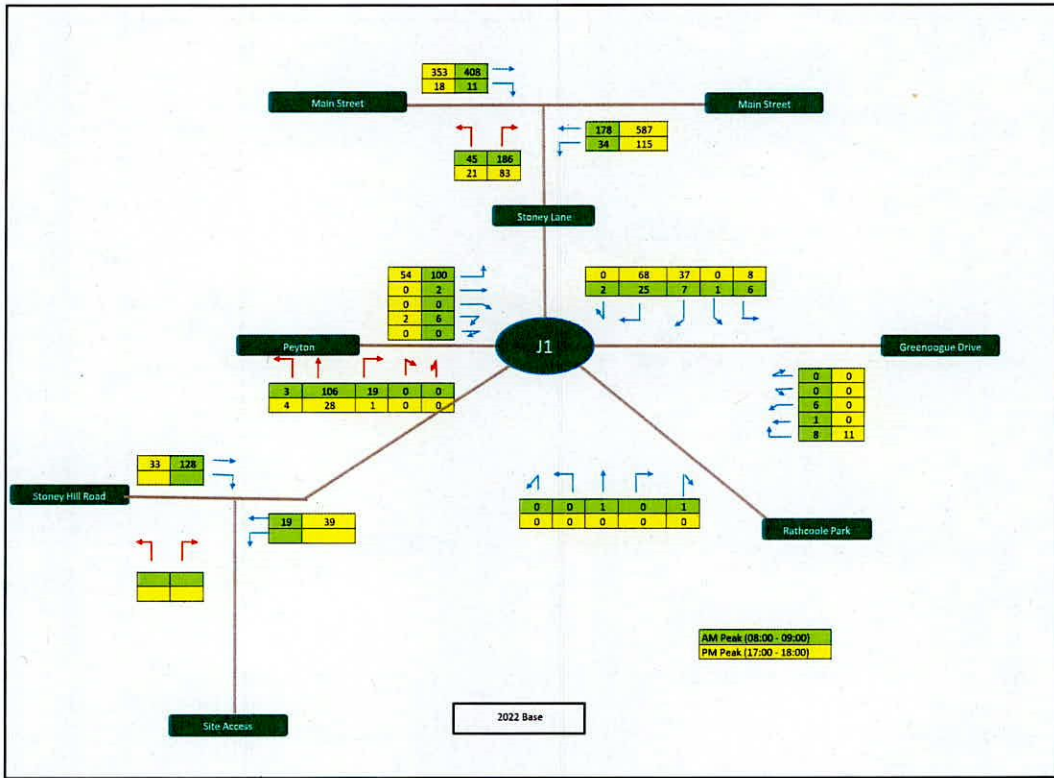
- The resulting percentage increase in traffic flows as a result of the traffic generated by the subject development is established as being below the 10% and 5% threshold at the following junctions:-
 1. Stoney Hill Road Roundabout
 2. Main Street priority Junction

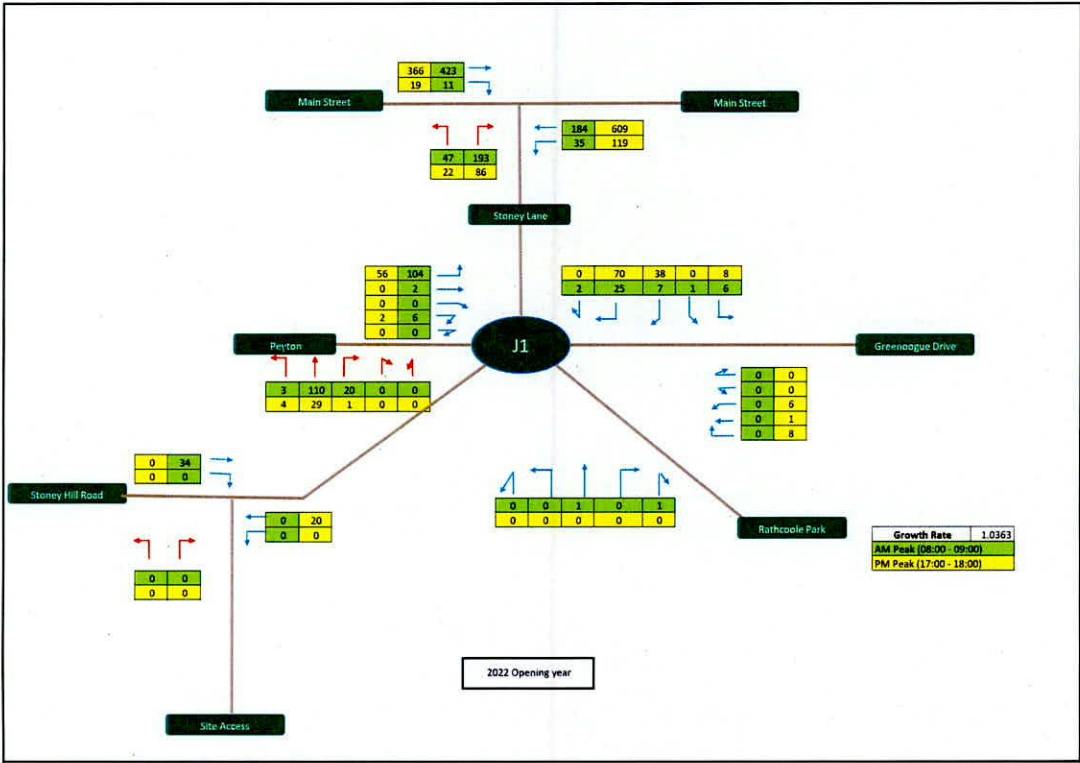
Junction 3 / site access junction is understood to be above the 10%% threshold and therefore junctions 10 modelling was undertaken at this junction.

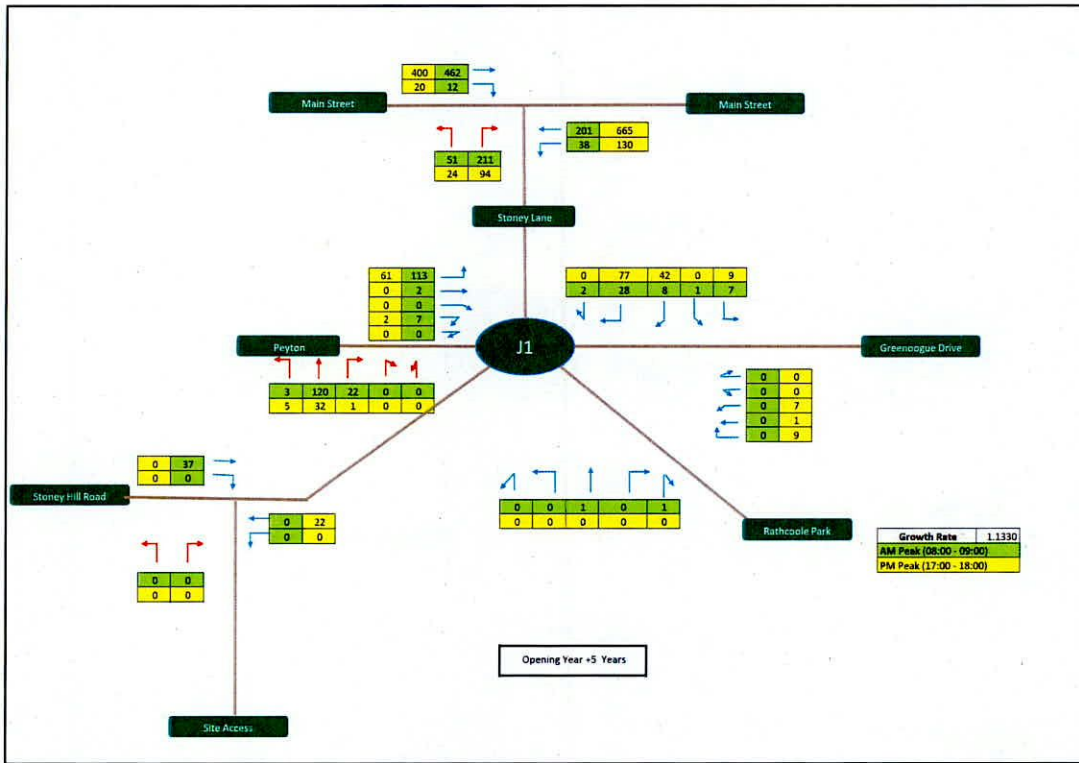
A mitigation strategy has been identified which includes a package of measures/initiatives aimed at reducing the impact of the development on the surrounding local road network.

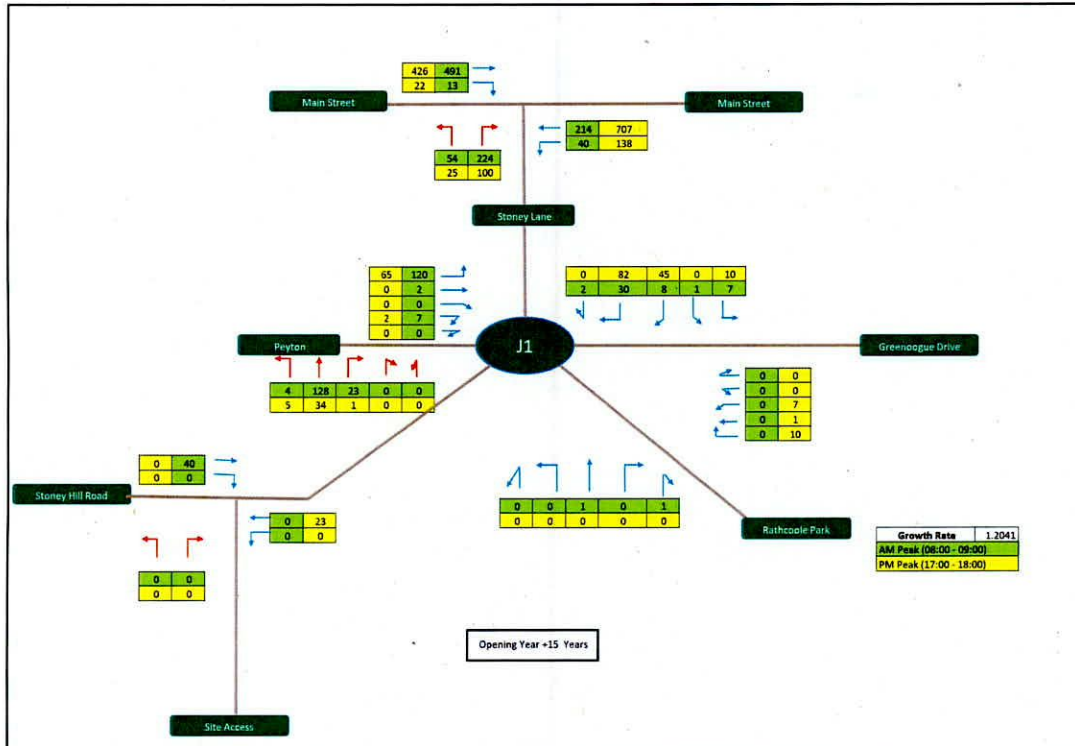
In conclusion, it is considered that the impact on the surrounding road network, as a result of the proposed development along the Stoney Hill Road will be nominal. This is based on the anticipated levels of traffic generated by the development proposals, the existing and future road infrastructure and the information and analysis summarised in the above report. It is concluded that there are no traffic or transportation related reasons that should prevent the granting of planning permission for the proposed development.

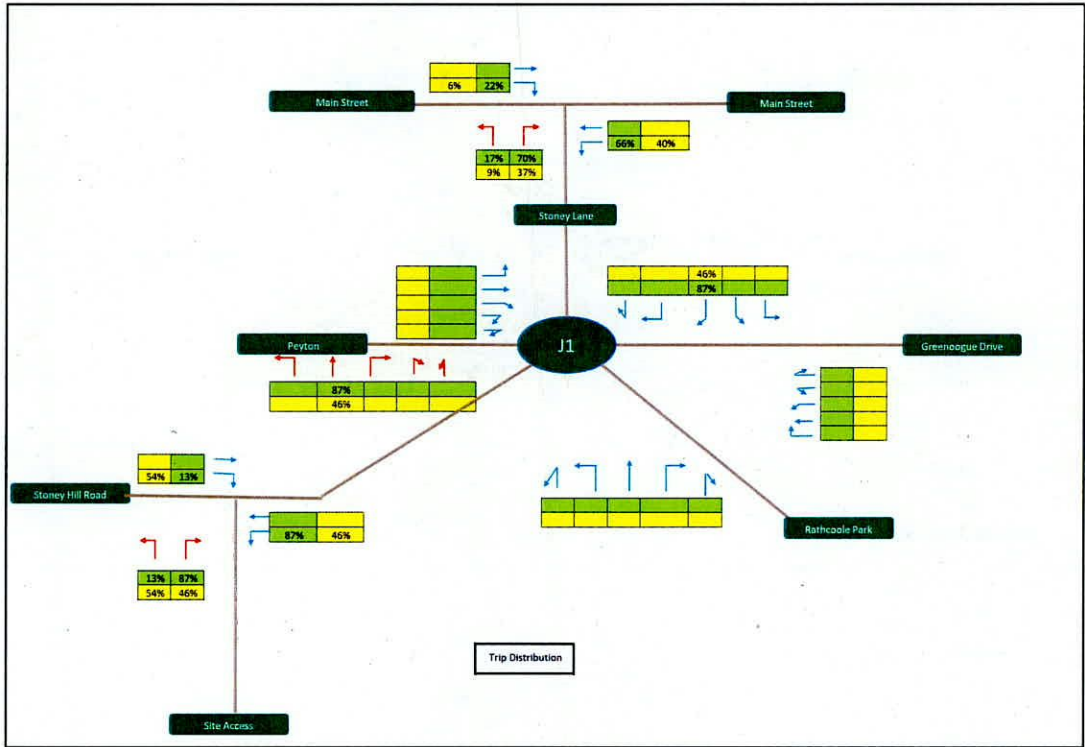
Appendix A Network flow Diagrams

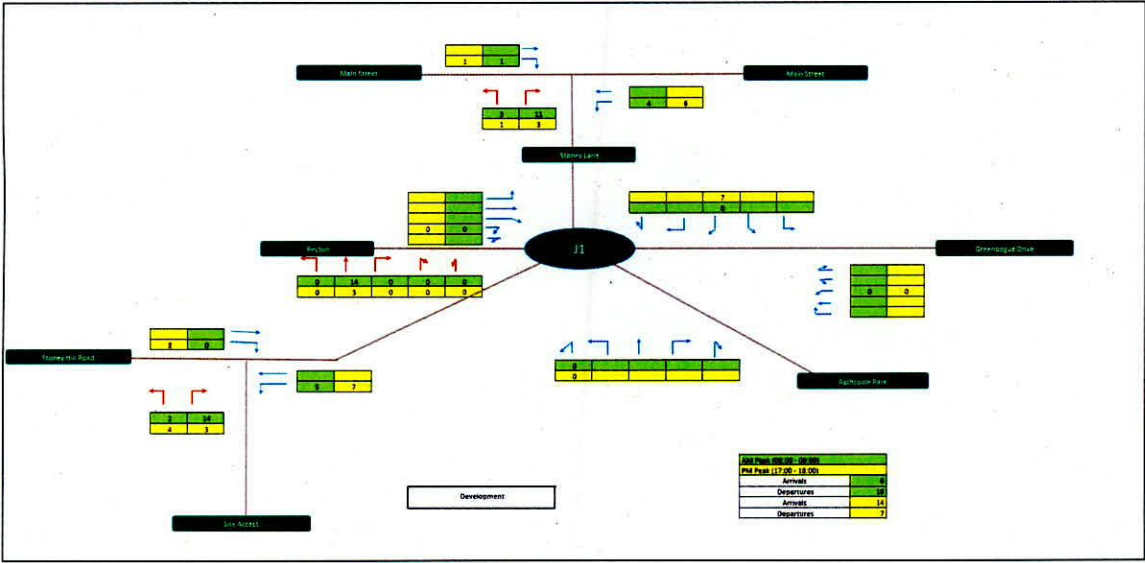


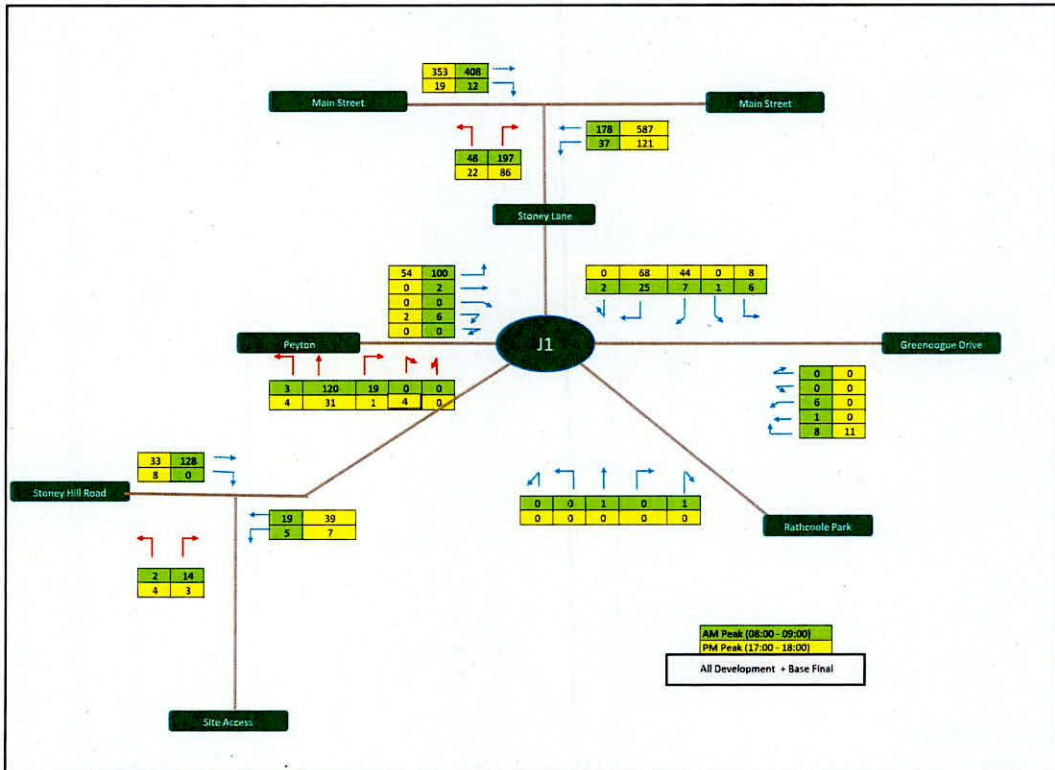


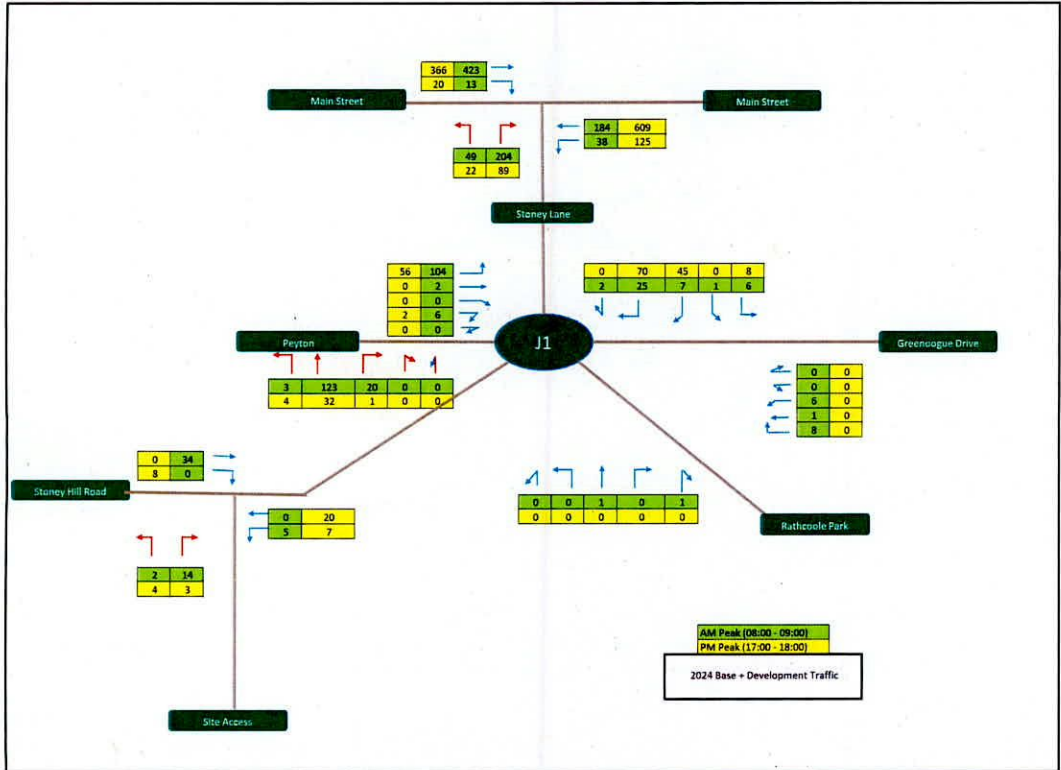


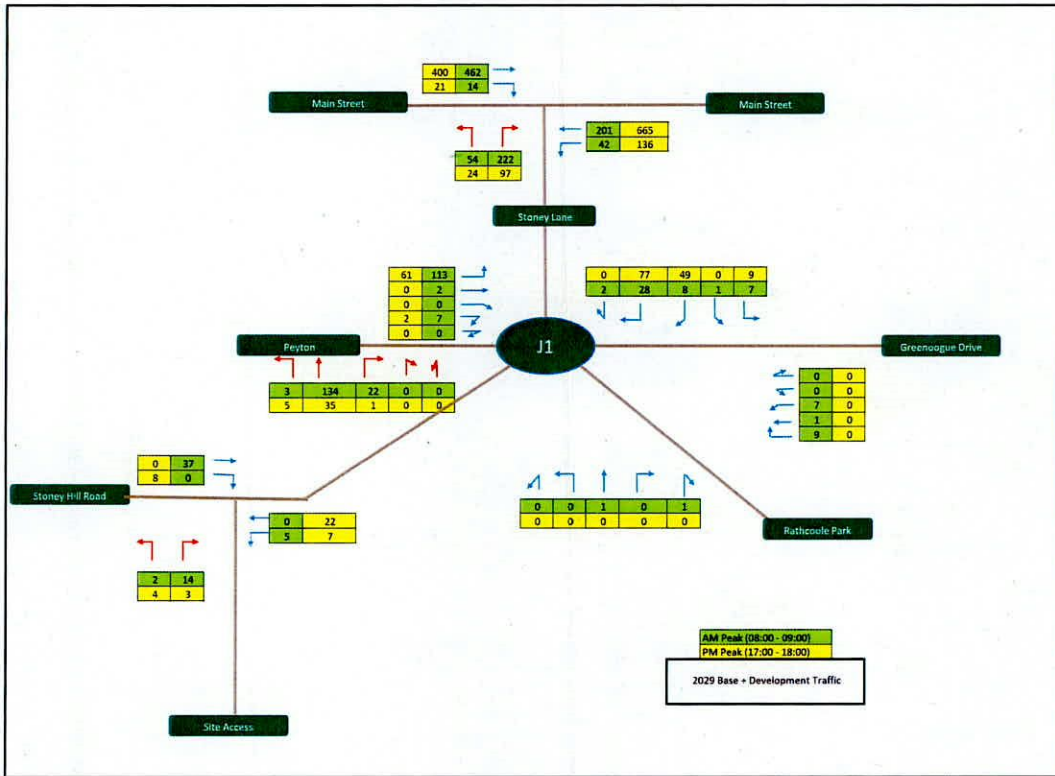


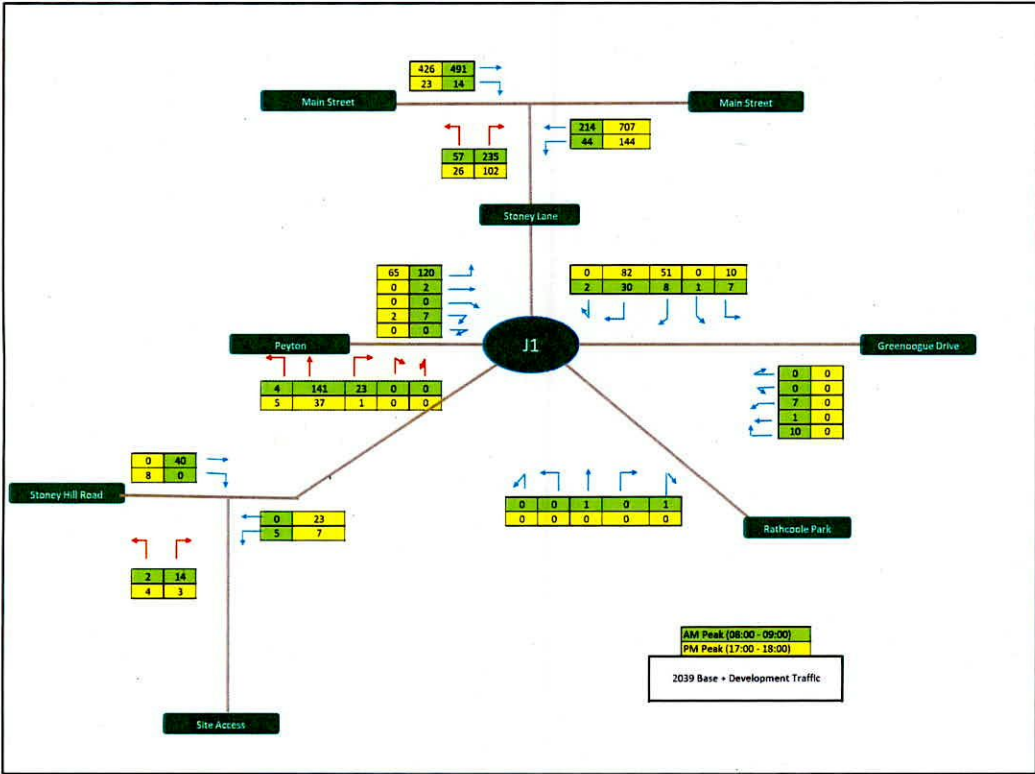












Appendix B Junctions 10 Outputs

Junctions 10
PICADY 10 - Priority Intersection Module
Version: 10.0.2.1574 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Stoney Hill Access Model.j10
Path: C:\Users\kim.burgess\OneDrive - AECOM Directory\Hilary J10 model
Report generation date: 19/07/2022 09:48:59

- »2024 , AM
- »2024 , PM
- »2029 , AM
- »2029 , PM
- »2039 , AM
- »2039 , PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2024										
Stream B-AC	D1	0.0	7.84	0.04	A	D2	0.0	6.73	0.01	A
Stream C-AB		0.0	0.00	0.00	A		0.0	6.08	0.02	A
2029										
Stream B-AC	D3	0.0	7.87	0.04	A	D4	0.0	6.74	0.01	A
Stream C-AB		0.0	0.00	0.00	A		0.0	6.07	0.02	A
2039										
Stream B-AC	D5	0.0	7.89	0.04	A	D6	0.0	6.74	0.01	A
Stream C-AB		0.0	0.00	0.00	A		0.0	6.05	0.02	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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	Stoney Hill Site Access
Location	
Site number	
Date	22/06/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NA\kim.burgess
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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024	AM	ONE HOUR	00:00	01:30	15	✓
D2	2024	PM	ONE HOUR	00:00	01:30	15	✓
D3	2029	AM	ONE HOUR	00:00	01:30	15	✓
D4	2029	PM	ONE HOUR	00:00	01:30	15	✓
D5	2039	AM	ONE HOUR	00:00	01:30	15	✓
D6	2039	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.81	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.81	A

Arms

Arms

Arm	Name	Description	Arm type
A	Stoney Hill Road East		Major
B	Site Access		Minor
C	Stoney Hill Road West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.20			20.0	✓	0.00

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	2.75	14	23

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	481	0.083	0.210	0.132	0.300
B-C	622	0.090	0.229	-	-
C-B	586	0.215	0.215	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)	Run automatically
D1	2024	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	5	100.000
B		ONE HOUR	✓	16	100.000
C		ONE HOUR	✓	133	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	5	0
	B	14	0	2
	C	133	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	7.84	0.0	A	15	22
C-AB	0.00	0.00	0.0	A	0	0
C-A					122	183
A-B					5	7
A-C					0	0

Main Results for each time segment
00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	482	0.025	12	0.0	0.0	7.649	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	100	25			100				
A-B	4	0.94			4				
A-C	0	0			0				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4	480	0.030	14	0.0	0.0	7.731	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	120	30			120				
A-B	4	1			4				
A-C	0	0			0				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	477	0.037	18	0.0	0.0	7.843	A
C-AB	0	0	584	0.000	0	0.0	0.0	0.000	A
C-A	146	37			146				
A-B	6	1			6				
A-C	0	0			0				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	477	0.037	18	0.0	0.0	7.843	A
C-AB	0	0	584	0.000	0	0.0	0.0	0.000	A
C-A	146	37			146				
A-B	6	1			6				
A-C	0	0			0				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4	480	0.030	14	0.0	0.0	7.732	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	120	30			120				
A-B	4	1			4				
A-C	0	0			0				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	482	0.025	12	0.0	0.0	7.653	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	100	25			100				
A-B	4	0.94			4				
A-C	0	0			0				

2024 , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		1.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.30	A

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)	Run automatically
D2	2024	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	27	100.000
B		ONE HOUR	✓	7	100.000
C		ONE HOUR	✓	42	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	7	20
	B	3	0	4
	C	34	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.01	6.73	0.0	A	6	10
C-AB	0.02	6.08	0.0	A	8	12
C-A					31	46
A-B					6	10
A-C					18	28

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	546	0.010	5	0.0	0.0	6.657	A
C-AB	6	2	599	0.011	6	0.0	0.0	6.078	A
C-A	25	6			25				
A-B	5	1			5				
A-C	15	4			15				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	545	0.012	6	0.0	0.0	6.686	A
C-AB	8	2	601	0.013	8	0.0	0.0	6.065	A
C-A	30	8			30				
A-B	6	2			6				
A-C	18	4			18				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	543	0.014	8	0.0	0.0	6.726	A
C-AB	9	2	605	0.016	9	0.0	0.0	6.048	A
C-A	37	9			37				
A-B	8	2			8				
A-C	22	6			22				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	543	0.014	8	0.0	0.0	6.726	A
C-AB	9	2	605	0.016	9	0.0	0.0	6.050	A
C-A	37	9			37				
A-B	8	2			8				
A-C	22	6			22				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	545	0.012	6	0.0	0.0	6.688	A
C-AB	8	2	601	0.013	8	0.0	0.0	6.065	A
C-A	30	8			30				
A-B	6	2			6				
A-C	18	4			18				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	546	0.010	5	0.0	0.0	6.659	A
C-AB	6	2	599	0.011	6	0.0	0.0	6.078	A
C-A	25	6			25				
A-B	5	1			5				
A-C	15	4			15				

2029, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.76	A

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)	Run automatically
D3	2029	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	5	100.000
B		ONE HOUR	✓	16	100.000
C		ONE HOUR	✓	145	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	5	0
	B	14	0	2
	C	145	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	7.87	0.0	A	15	22
C-AB	0.00	0.00	0.0	A	0	0
C-A					133	200
A-B					5	7
A-C					0	0

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	481	0.025	12	0.0	0.0	7.667	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	109	27			109				
A-B	4	0.94			4				
A-C	0	0			0				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4	479	0.030	14	0.0	0.0	7.753	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	130	33			130				
A-B	4	1			4				
A-C	0	0			0				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	475	0.037	18	0.0	0.0	7.871	A
C-AB	0	0	584	0.000	0	0.0	0.0	0.000	A
C-A	160	40			160				
A-B	6	1			6				
A-C	0	0			0				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	475	0.037	18	0.0	0.0	7.871	A
C-AB	0	0	584	0.000	0	0.0	0.0	0.000	A
C-A	160	40			160				
A-B	6	1			6				
A-C	0	0			0				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4	479	0.030	14	0.0	0.0	7.756	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	130	33			130				
A-B	4	1			4				
A-C	0	0			0				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	481	0.025	12	0.0	0.0	7.674	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	109	27			109				
A-B	4	0.94			4				
A-C	0	0			0				

2029, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		1.22	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.22	A

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)	Run automatically
D4	2029	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	29	100.000
B		ONE HOUR	✓	7	100.000
C		ONE HOUR	✓	45	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	7	22
	B	3	0	4
	C	37	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.01	6.74	0.0	A	6	10
C-AB	0.02	6.07	0.0	A	8	12
C-A					33	50
A-B					6	10
A-C					20	30

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	545	0.010	5	0.0	0.0	6.663	A
C-AB	6	2	600	0.011	6	0.0	0.0	6.066	A
C-A	28	7			28				
A-B	5	1			5				
A-C	17	4			17				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	544	0.012	6	0.0	0.0	6.693	A
C-AB	8	2	602	0.013	8	0.0	0.0	6.051	A
C-A	33	8			33				
A-B	6	2			6				
A-C	20	5			20				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	542	0.014	8	0.0	0.0	6.735	A
C-AB	9	2	606	0.016	9	0.0	0.0	6.030	A
C-A	40	10			40				
A-B	8	2			8				
A-C	24	6			24				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	542	0.014	8	0.0	0.0	6.735	A
C-AB	9	2	606	0.016	9	0.0	0.0	6.033	A
C-A	40	10			40				
A-B	8	2			8				
A-C	24	6			24				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	544	0.012	6	0.0	0.0	6.696	A
C-AB	8	2	602	0.013	8	0.0	0.0	6.051	A
C-A	33	8			33				
A-B	6	2			6				
A-C	20	5			20				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	545	0.010	5	0.0	0.0	6.666	A
C-AB	6	2	600	0.011	6	0.0	0.0	6.068	A
C-A	28	7			28				
A-B	5	1			5				
A-C	17	4			17				

2039, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.72	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.72	A

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)	Run automatically
D5	2039	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	5	100.000
B		ONE HOUR	✓	16	100.000
C		ONE HOUR	✓	154	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	5	0
	B	14	0	2
	C	154	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	7.89	0.0	A	15	22
C-AB	0.00	0.00	0.0	A	0	0
C-A					141	212
A-B					5	7
A-C					0	0

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	480	0.025	12	0.0	0.0	7.681	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	116	29			116				
A-B	4	0.94			4				
A-C	0	0			0				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4	478	0.030	14	0.0	0.0	7.770	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	138	35			138				
A-B	4	1			4				
A-C	0	0			0				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	474	0.037	18	0.0	0.0	7.892	A
C-AB	0	0	584	0.000	0	0.0	0.0	0.000	A
C-A	170	42			170				
A-B	6	1			6				
A-C	0	0			0				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	474	0.037	18	0.0	0.0	7.892	A
C-AB	0	0	584	0.000	0	0.0	0.0	0.000	A
C-A	170	42			170				
A-B	6	1			6				
A-C	0	0			0				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4	478	0.030	14	0.0	0.0	7.773	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	138	35			138				
AB	4	1			4				
AC	0	0			0				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3	480	0.025	12	0.0	0.0	7.685	A
C-AB	0	0	585	0.000	0	0.0	0.0	0.000	A
C-A	116	29			116				
AB	4	0.94			4				
AC	0	0			0				

2039, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		1.16	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.16	A

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)	Run automatically
D6	2039	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	30	100.000
B		ONE HOUR	✓	7	100.000
C		ONE HOUR	✓	48	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	7	23
	B	3	0	4
	C	40	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.01	6.74	0.0	A	6	10
C-AB	0.02	6.05	0.0	A	8	12
C-A					36	54
A-B					6	10
A-C					21	32

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	545	0.010	5	0.0	0.0	6.667	A
C-AB	6	2	601	0.011	6	0.0	0.0	6.052	A
C-A	30	7			30				
A-B	5	1			5				
A-C	17	4			17				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	544	0.012	6	0.0	0.0	6.698	A
C-AB	8	2	604	0.013	8	0.0	0.0	6.034	A
C-A	36	9			36				
A-B	6	2			6				
A-C	21	5			21				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	542	0.014	8	0.0	0.0	6.742	A
C-AB	9	2	608	0.016	9	0.0	0.0	6.011	A
C-A	43	11			43				
A-B	8	2			8				
A-C	25	6			25				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	542	0.014	8	0.0	0.0	6.742	A
C-AB	10	2	608	0.016	10	0.0	0.0	6.011	A
C-A	43	11			43				
A-B	8	2			8				
A-C	25	6			25				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	544	0.012	6	0.0	0.0	6.701	A
C-AB	8	2	604	0.013	8	0.0	0.0	6.035	A
C-A	35	9			35				
A-B	6	2			6				
A-C	21	5			21				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	545	0.010	5	0.0	0.0	6.667	A
C-AB	6	2	601	0.011	6	0.0	0.0	6.052	A
C-A	30	7			30				
A-B	5	1			5				
A-C	17	4			17				

Appendix C TRICS Outputs

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	4 days
	EX ESSEX	1 days
	HC HAMPSHIRE	8 days
	HF HERTFORDSHIRE	2 days
	KC KENT	7 days
	SC SURREY	3 days
	WS WEST SUSSEX	8 days
03	SOUTH WEST	
	DC DORSET	1 days
	DV DEVON	3 days
	SM SOMERSET	3 days
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	2 days
	NF NORFOLK	10 days
	SF SUFFOLK	4 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	LE LEICESTERSHIRE	1 days
	LN LINCOLNSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	ST STAFFORDSHIRE	1 days
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NE NORTH EAST LINCOLNSHIRE	1 days
	NY NORTH YORKSHIRE	2 days
08	NORTH WEST	
	CH CHESHIRE	4 days
09	NORTH	
	CB CUMBRIA	1 days
	DH DURHAM	3 days
10	WALES	
	PS POWYS	2 days
	VG VALE OF GLAMORGAN	1 days
11	SCOTLAND	
	HI HIGHLAND	1 days
12	CONNAUGHT	
	CS SLIGO	2 days
	LT LEITRIM	1 days
	RO ROSCOMMON	1 days
13	MUNSTER	
	TI TIPPERARY	1 days
	WA WATERFORD	1 days
14	LEINSTER	
	LU LOUTH	1 days
	WC WICKLOW	1 days
15	GREATER DUBLIN	
	DL DUBLIN	2 days
16	ULSTER (REPUBLIC OF IRELAND)	
	DN DONEGAL	4 days
	MG MONAGHAN	2 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 6 to 1817 (units:)
Range Selected by User: 4 to 1817 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 23/11/21

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

Selected survey days:

Monday	20 days
Tuesday	23 days
Wednesday	22 days
Thursday	21 days
Friday	11 days

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

Selected survey types:

Manual count	97 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	8
Suburban Area (PPS6 Out of Centre)	19
Edge of Town	51
Neighbourhood Centre (PPS6 Local Centre)	19

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

Selected Location Sub Categories:

Residential Zone	76
Village	17
Out of Town	4

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

Secondary Filtering selection:Use Class:

C3 97 days

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

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	4 days
1,001 to 5,000	16 days
5,001 to 10,000	24 days
10,001 to 15,000	25 days
15,001 to 20,000	11 days
20,001 to 25,000	9 days
25,001 to 50,000	8 days

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

Population within 5 miles:

5,000 or Less	3 days
5,001 to 25,000	19 days
25,001 to 50,000	13 days
50,001 to 75,000	16 days
75,001 to 100,000	13 days
100,001 to 125,000	1 days
125,001 to 250,000	24 days
250,001 to 500,000	7 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	19 days
1.1 to 1.5	68 days
1.6 to 2.0	9 days

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

Travel Plan:

Yes	33 days
No	64 days

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

PTAL Rating:

No PTAL Present	97 days
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This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

1	CA-03-A-05	DETACHED HOUSES		CAMBRIDGESHIRE
	EASTFIELD ROAD PETERBOROUGH			
	Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total No of Dwellings:	28		
	Survey date: MONDAY	17/10/16		Survey Type: MANUAL
2	CA-03-A-07	MIXED HOUSES		CAMBRIDGESHIRE
	FIELD END NEAR ELY WITCHFORD			
	Neighbourhood Centre (PPS6 Local Centre) Village			
	Total No of Dwellings:	32		
	Survey date: THURSDAY	27/05/21		Survey Type: MANUAL
3	CB-03-A-05	DETACHED/TERRACED HOUSING		CUMBRIA
	MACADAM WAY PENRITH			
	Edge of Town Centre Residential Zone			
	Total No of Dwellings:	50		
	Survey date: TUESDAY	21/06/16		Survey Type: MANUAL
4	CH-03-A-09	TERRACED HOUSES		CHESHIRE
	GREYSTOKE ROAD MACCLESFIELD HURDSFIELD			
	Edge of Town Residential Zone			
	Total No of Dwellings:	24		
	Survey date: MONDAY	24/11/14		Survey Type: MANUAL
5	CH-03-A-10	SEMI-DETACHED & TERRACED		CHESHIRE
	MEADOW DRIVE NORTHWICH BARNTON			
	Edge of Town Residential Zone			
	Total No of Dwellings:	40		
	Survey date: TUESDAY	04/06/19		Survey Type: MANUAL
6	CH-03-A-11	TOWN HOUSES		CHESHIRE
	LONDON ROAD NORTHWICH LEFTWICH			
	Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total No of Dwellings:	24		
	Survey date: THURSDAY	06/06/19		Survey Type: MANUAL
7	CH-03-A-12	SEMI DETACHED HOUSES		CHESHIRE
	MEADOW DRIVE NORTHWICH BARNTON			
	Neighbourhood Centre (PPS6 Local Centre) Village			
	Total No of Dwellings:	33		
	Survey date: FRIDAY	30/04/21		Survey Type: MANUAL
8	CS-03-A-03	MIXED HOUSES		SLIGO
	TOP ROAD STRANDHILL STRANDHILL			
	Neighbourhood Centre (PPS6 Local Centre) Village			
	Total No of Dwellings:	30		
	Survey date: THURSDAY	27/10/16		Survey Type: MANUAL

AECOM Clarence Street West Belfast

Licence No: 204602

LIST OF SITES relevant to selection parameters (Cont.)

9	CS-03-A-04	DETACHED & SEMI-DETACHED	SLIGO
	R292 STRANDHILL		
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total No of Dwellings:	63	
	Survey date: THURSDAY	27/10/16	Survey Type: MANUAL
10	DC-03-A-08	BUNGALOWS	DORSET
	HURSTDENE ROAD BOURNEMOUTH CASTLE LANE WEST Edge of Town Residential Zone		
	Total No of Dwellings:	28	
	Survey date: MONDAY	24/03/14	Survey Type: MANUAL
11	DH-03-A-01	SEMI DETACHED	DURHAM
	GREENFIELDS ROAD BISHOP AUCKLAND		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	50	
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL
12	DH-03-A-02	MIXED HOUSES	DURHAM
	LEAZES LANE BISHOP AUCKLAND ST HELEN AUCKLAND Neighbourhood Centre (PPS6 Local Centre) Residential Zone		
	Total No of Dwellings:	125	
	Survey date: MONDAY	27/03/17	Survey Type: MANUAL
13	DH-03-A-03	SEMI-DETACHED & TERRACED	DURHAM
	PILGRIMS WAY DURHAM		
	Edge of Town Residential Zone		
	Total No of Dwellings:	57	
	Survey date: FRIDAY	19/10/18	Survey Type: MANUAL
14	DL-03-A-10	SEMI DETACHED & DETACHED	DUBLIN
	R124 MALAHIDE SAINT HELENS Edge of Town Residential Zone		
	Total No of Dwellings:	65	
	Survey date: WEDNESDAY	20/06/18	Survey Type: MANUAL
15	DL-03-A-11	SEMI-DETACHED HOUSES	DUBLIN
	GRACE PARK ROAD DUBLIN WHITEHALL Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	19	
	Survey date: WEDNESDAY	19/05/21	Survey Type: MANUAL
16	DN-03-A-03	DETACHED/SEMI-DETACHED	DONEGAL
	THE GRANGE LETTERKENNY GLENCAR IRISH Edge of Town Residential Zone		
	Total No of Dwellings:	50	
	Survey date: MONDAY	01/09/14	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<p>17</p> <p>DN-03-A-04</p> <p>GORTLEE ROAD LETTERKENNY GORTLEE Edge of Town Residential Zone Total No of Dwellings: 83 Survey date: FRIDAY 26/09/14</p>	<p>SEMI-DETACHED</p>	<p>DONEGAL</p> <p><i>Survey Type: MANUAL</i></p>
<p>18</p> <p>DN-03-A-05</p> <p>GORTLEE ROAD LETTERKENNY GORTLEE Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 146 Survey date: WEDNESDAY 03/09/14</p>	<p>DETACHED/SEMI-DETACHED</p>	<p>DONEGAL</p> <p><i>Survey Type: MANUAL</i></p>
<p>19</p> <p>DN-03-A-06</p> <p>GLENFIN ROAD BALLYBOFEY</p> <p>Edge of Town Residential Zone Total No of Dwellings: 6 Survey date: WEDNESDAY 10/10/18</p>	<p>DETACHED HOUSING</p>	<p>DONEGAL</p> <p><i>Survey Type: MANUAL</i></p>
<p>20</p> <p>DS-03-A-02</p> <p>RADBOURNE LANE DERBY</p> <p>Edge of Town Residential Zone Total No of Dwellings: 371 Survey date: TUESDAY 10/07/18</p>	<p>MIXED HOUSES</p>	<p>DERBYSHIRE</p> <p><i>Survey Type: MANUAL</i></p>
<p>21</p> <p>DV-03-A-01</p> <p>BRONSHILL ROAD TORQUAY</p> <p>Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 37 Survey date: WEDNESDAY 30/09/15</p>	<p>TERRACED HOUSES</p>	<p>DEVON</p> <p><i>Survey Type: MANUAL</i></p>
<p>22</p> <p>DV-03-A-02</p> <p>MILLHEAD ROAD HONITON</p> <p>Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 116 Survey date: FRIDAY 25/09/15</p>	<p>HOUSES & BUNGALOWS</p>	<p>DEVON</p> <p><i>Survey Type: MANUAL</i></p>
<p>23</p> <p>DV-03-A-03</p> <p>LOWER BRAND LANE HONITON</p> <p>Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 70 Survey date: MONDAY 28/09/15</p>	<p>TERRACED & SEMI DETACHED</p>	<p>DEVON</p> <p><i>Survey Type: MANUAL</i></p>

LIST OF SITES relevant to selection parameters (Cont.)

24	ES-03-A-03 SHEPHAM LANE POLEGATE	MIXED HOUSES & FLATS		EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		212	
	Survey date: MONDAY		11/07/16	Survey Type: MANUAL
25	ES-03-A-04 NEW LYDD ROAD CAMBER	MIXED HOUSES & FLATS		EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		134	
	Survey date: FRIDAY		15/07/16	Survey Type: MANUAL
26	ES-03-A-05 RATTLE ROAD NEAR EASTBOURNE STONE CROSS	MIXED HOUSES & FLATS		EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		99	
	Survey date: WEDNESDAY		05/06/19	Survey Type: MANUAL
27	ES-03-A-06 BISHOPS LANE RINGMER	MIXED HOUSES		EAST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings:		12	
	Survey date: WEDNESDAY		16/06/21	Survey Type: MANUAL
28	EX-03-A-03 KESTREL GROVE RAYLEIGH	MIXED HOUSES		ESSEX
	Edge of Town Residential Zone Total No of Dwellings:		123	
	Survey date: MONDAY		27/09/21	Survey Type: MANUAL
29	HC-03-A-21 PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS	TERRACED & SEMI-DETACHED		HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		39	
	Survey date: TUESDAY		13/11/18	Survey Type: MANUAL
30	HC-03-A-22 BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE	MIXED HOUSES		HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		40	
	Survey date: WEDNESDAY		31/10/18	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

31	HC-03-A-23	HOUSES & FLATS	HAMPSHIRE
	CANADA WAY LIPHOOK		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	62	
	Survey date: TUESDAY	19/11/19	Survey Type: MANUAL
32	HC-03-A-24	MIXED HOUSES & FLATS	HAMPSHIRE
	STONEHAM LANE EASTLEIGH		
	Edge of Town Residential Zone		
	Total No of Dwellings:	243	
	Survey date: WEDNESDAY	10/11/21	Survey Type: MANUAL
33	HC-03-A-25	MIXED HOUSES & FLATS	HAMPSHIRE
	BARNFIELD WAY NEAR SOUTHAMPTON HEDGE END		
	Edge of Town Out of Town		
	Total No of Dwellings:	250	
	Survey date: TUESDAY	12/10/21	Survey Type: MANUAL
34	HC-03-A-26	MIXED HOUSES & FLATS	HAMPSHIRE
	BOTLEY ROAD WHITELEY		
	Edge of Town Out of Town		
	Total No of Dwellings:	270	
	Survey date: THURSDAY	24/06/21	Survey Type: MANUAL
35	HC-03-A-27	MIXED HOUSES	HAMPSHIRE
	DAIRY ROAD ANDOVER		
	Edge of Town Residential Zone		
	Total No of Dwellings:	73	
	Survey date: TUESDAY	16/11/21	Survey Type: MANUAL
36	HC-03-A-28	MIXED HOUSES & FLATS	HAMPSHIRE
	EAGLE AVENUE WATERLOOVILLE LOVEDEAN		
	Edge of Town Residential Zone		
	Total No of Dwellings:	125	
	Survey date: MONDAY	08/11/21	Survey Type: MANUAL
37	HF-03-A-03	MIXED HOUSES	HERTFORDSHIRE
	HARE STREET ROAD BUNTINGFORD		
	Edge of Town Residential Zone		
	Total No of Dwellings:	160	
	Survey date: MONDAY	08/07/19	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

38	HF-03-A-04	TERRACED HOUSES	HERTFORDSHIRE
	HOLMSIDE RISE		
	WATFORD		
	SOUTH OXHEY		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	8	
	Survey date: TUESDAY	08/06/21	Survey Type: MANUAL
39	HI-03-A-14	SEMI-DETACHED & TERRACED	HIGHLAND
	KING BRUDE ROAD		
	INVERNESS		
	SCORGUIE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	40	
	Survey date: WEDNESDAY	23/03/16	Survey Type: MANUAL
40	KC-03-A-03	MIXED HOUSES & FLATS	KENT
	HYPHE ROAD		
	ASHFORD		
	WILLESBOROUGH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	51	
	Survey date: THURSDAY	14/07/16	Survey Type: MANUAL
41	KC-03-A-04	SEMI-DETACHED & TERRACED	KENT
	KILN BARN ROAD		
	AYLESFORD		
	DITTON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	110	
	Survey date: FRIDAY	22/09/17	Survey Type: MANUAL
42	KC-03-A-05	DETACHED & SEMI-DETACHED	KENT
	ROCHESTER ROAD		
	NEAR CHATHAM		
	BURHAM		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	8	
	Survey date: FRIDAY	22/09/17	Survey Type: MANUAL
43	KC-03-A-06	MIXED HOUSES & FLATS	KENT
	MARGATE ROAD		
	HERNE BAY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	363	
	Survey date: WEDNESDAY	27/09/17	Survey Type: MANUAL
44	KC-03-A-07	MIXED HOUSES	KENT
	RECVLVER ROAD		
	HERNE BAY		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	288	
	Survey date: WEDNESDAY	27/09/17	Survey Type: MANUAL
45	KC-03-A-08	MIXED HOUSES	KENT
	MAIDSTONE ROAD		
	CHARING		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	159	
	Survey date: TUESDAY	22/05/18	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

46	KC-03-A-09	MIXED HOUSES & FLATS	KENT
	WESTERN LINK FAVERSHAM DAVINGTON Edge of Town Residential Zone Total No of Dwellings: 14 Survey date: WEDNESDAY 09/06/21		Survey Type: MANUAL
47	LE-03-A-02	DETACHED & OTHERS	LEICESTERSHIRE
	MELBOURNE ROAD IBSTOCK Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 85 Survey date: THURSDAY 28/06/18		Survey Type: MANUAL
48	LN-03-A-04	DETACHED & SEMI-DETACHED	LINCOLNSHIRE
	EGERTON ROAD LINCOLN Edge of Town Centre Residential Zone Total No of Dwellings: 30 Survey date: MONDAY 29/06/15		Survey Type: MANUAL
49	LT-03-A-01	SEMI-DETACHED & DETACHED	LEITRIM
	ARD NA SI CARRICK-ON-SHANNON ATTIRORY Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 90 Survey date: FRIDAY 24/04/15		Survey Type: MANUAL
50	LU-03-A-01	TERRACED & SEMI-DETACHED	LOUTH
	RATHMULLAN ROAD DROGHEDA Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings: 111 Survey date: TUESDAY 21/09/21		Survey Type: MANUAL
51	MG-03-A-01	SEMI-DETACHED HOUSES	MONAGHAN
	ORIEL WAY MONAGHAN Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 49 Survey date: TUESDAY 12/10/21		Survey Type: MANUAL
52	MG-03-A-02	MIXED HOUSES	MONAGHAN
	GLEN ROAD MONAGHAN Edge of Town Centre Residential Zone Total No of Dwellings: 76 Survey date: TUESDAY 12/10/21		Survey Type: MANUAL
53	NE-03-A-03	PRIVATE HOUSES	NORTH EAST LINCOLNSHIRE
	STATION ROAD SCUNTHORPE Edge of Town Centre Residential Zone Total No of Dwellings: 180 Survey date: TUESDAY 20/05/14		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

54	NF-03-A-03 HALING WAY THETFORD	DETACHED HOUSES	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 10 Survey date: WEDNESDAY 16/09/15		Survey Type: MANUAL
55	NF-03-A-04 NORTH WALSHAM ROAD NORTH WALSHAM	MIXED HOUSES	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 70 Survey date: WEDNESDAY 18/09/19		Survey Type: MANUAL
56	NF-03-A-05 HEATH DRIVE HOLT	MIXED HOUSES	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: THURSDAY 19/09/19		Survey Type: MANUAL
57	NF-03-A-06 BEAUFORT WAY GREAT YARMOUTH BRADWELL	MIXED HOUSES	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 275 Survey date: MONDAY 23/09/19		Survey Type: MANUAL
58	NF-03-A-08 SIR ALFRED MUNNINGS RD NEAR NORWICH COSTESSEY Neighbourhood Centre (PPS6 Local Centre) Village	MIXED HOUSES & FLATS	NORFOLK
	Total No of Dwellings: 1817 Survey date: THURSDAY 19/09/19		Survey Type: MANUAL
59	NF-03-A-09 ROUND HOUSE WAY NORWICH CRINGLEFORD	MIXED HOUSES & FLATS	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 984 Survey date: TUESDAY 24/09/19		Survey Type: MANUAL
60	NF-03-A-23 SILFIELD ROAD WYMONDHAM	MIXED HOUSES & FLATS	NORFOLK
	Edge of Town Out of Town Total No of Dwellings: 514 Survey date: WEDNESDAY 22/09/21		Survey Type: MANUAL
61	NF-03-A-25 WOODFARM LANE GORLESTON-ON-SEA	MIXED HOUSES & FLATS	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 55 Survey date: TUESDAY 21/09/21		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

62	NF-03-A-27	MIXED HOUSES & FLATS	NORFOLK
	YARMOUTH ROAD NEAR NORWICH BLOFIELD Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 93 Survey date: THURSDAY 16/09/21		Survey Type: MANUAL
63	NF-03-A-30	MIXED HOUSES	NORFOLK
	BRANDON ROAD SWAFFHAM Edge of Town Residential Zone Total No of Dwellings: 266 Survey date: THURSDAY 23/09/21		Survey Type: MANUAL
64	NT-03-A-08	DETACHED HOUSES	NOTTINGHAMSHIRE
	WIGHAY ROAD HUCKNALL Edge of Town Residential Zone Total No of Dwellings: 36 Survey date: MONDAY 18/10/21		Survey Type: MANUAL
65	NY-03-A-12	TOWN HOUSES	NORTH YORKSHIRE
	RACECOURSE LANE NORTHALLERTON Edge of Town Centre Residential Zone Total No of Dwellings: 47 Survey date: TUESDAY 27/09/16		Survey Type: MANUAL
66	NY-03-A-13	TERRACED HOUSES	NORTH YORKSHIRE
	CATTERICK ROAD CATTERICK GARRISON OLD HOSPITAL COMPOUND Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 10 Survey date: WEDNESDAY 10/05/17		Survey Type: MANUAL
67	PS-03-A-01	MIXED HOUSES	POWYS
	BRYN GLAS WELSHPOOL Edge of Town Centre Residential Zone Total No of Dwellings: 16 Survey date: MONDAY 11/05/15		Survey Type: MANUAL
68	PS-03-A-02	DETACHED/SEMI-DETACHED	POWYS
	GUNROG ROAD WELSHPOOL Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 28 Survey date: MONDAY 11/05/15		Survey Type: MANUAL
69	RO-03-A-04	SEMI DET. & BUNGALOWS	ROSCOMMON
	EAGLE COURT ROSCOMMON ARDNANAGH Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 39 Survey date: FRIDAY 26/09/14		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

70	SC-03-A-04	DETACHED & TERRACED	SURREY
	HIGH ROAD BYFLEET		
	Edge of Town Residential Zone		
	Total No of Dwellings:	71	
	Survey date: THURSDAY	23/01/14	Survey Type: MANUAL
71	SC-03-A-05	MIXED HOUSES	SURREY
	REIGATE ROAD HORLEY		
	Edge of Town Residential Zone		
	Total No of Dwellings:	207	
	Survey date: MONDAY	01/04/19	Survey Type: MANUAL
72	SC-03-A-06	MIXED HOUSES & FLATS	SURREY
	AMLETS LANE CRANLEIGH		
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total No of Dwellings:	116	
	Survey date: THURSDAY	08/10/20	Survey Type: MANUAL
73	SF-03-A-05	DETACHED HOUSES	SUFFOLK
	VALE LANE BURY ST EDMUNDS		
	Edge of Town Residential Zone		
	Total No of Dwellings:	18	
	Survey date: WEDNESDAY	09/09/15	Survey Type: MANUAL
74	SF-03-A-06	DETACHED & SEMI-DETACHED	SUFFOLK
	BURY ROAD KENTFORD		
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total No of Dwellings:	38	
	Survey date: FRIDAY	22/09/17	Survey Type: MANUAL
75	SF-03-A-09	MIXED HOUSES & FLATS	SUFFOLK
	FOXHALL ROAD IPSWICH		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	179	
	Survey date: THURSDAY	24/06/21	Survey Type: MANUAL
76	SF-03-A-10	TERRACED & SEMI-DETACHED	SUFFOLK
	LOVETOFTS DRIVE IPSWICH WHITEHOUSE		
	Edge of Town Residential Zone		
	Total No of Dwellings:	149	
	Survey date: TUESDAY	22/06/21	Survey Type: MANUAL
77	SH-03-A-06	BUNGALOWS	SHROPSHIRE
	ELLESMERE ROAD SHREWSBURY		
	Edge of Town Residential Zone		
	Total No of Dwellings:	16	
	Survey date: THURSDAY	22/05/14	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

86	WK-03-A-04	DETACHED HOUSES		WARWICKSHIRE
	DALEHOUSE LANE KENILWORTH			
	Edge of Town Residential Zone			
	Total No of Dwellings:	49		
	Survey date: FRIDAY	27/09/19		Survey Type: MANUAL
87	WL-03-A-02	SEMI DETACHED		WILTSHIRE
	HEADLANDS GROVE SWINDON			
	Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total No of Dwellings:	27		
	Survey date: THURSDAY	22/09/16		Survey Type: MANUAL
88	WM-03-A-04	TERRACED HOUSES		WEST MIDLANDS
	OSBORNE ROAD COVENTRY EARLSDON			
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone			
	Total No of Dwellings:	39		
	Survey date: MONDAY	21/11/16		Survey Type: MANUAL
89	WM-03-A-05	TERRACED & DETACHED		WEST MIDLANDS
	OUNDON ROAD COVENTRY			
	Edge of Town Centre Residential Zone			
	Total No of Dwellings:	89		
	Survey date: MONDAY	21/11/16		Survey Type: MANUAL
90	WS-03-A-04	MIXED HOUSES		WEST SUSSEX
	HILLS FARM LANE HORSHAM BROADBRIDGE HEATH			
	Edge of Town Residential Zone			
	Total No of Dwellings:	151		
	Survey date: THURSDAY	11/12/14		Survey Type: MANUAL
91	WS-03-A-07	BUNGALOWS		WEST SUSSEX
	EMMS LANE NEAR HORSHAM BROOKS GREEN			
	Neighbourhood Centre (PPS6 Local Centre) Village			
	Total No of Dwellings:	57		
	Survey date: THURSDAY	19/10/17		Survey Type: MANUAL
92	WS-03-A-08	MIXED HOUSES		WEST SUSSEX
	ROUNDSTONE LANE ANGMERING			
	Edge of Town Residential Zone			
	Total No of Dwellings:	180		
	Survey date: THURSDAY	19/04/18		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

93	WS-03-A-11	MIXED HOUSES	WEST SUSSEX
	ELLIS ROAD WEST HORSHAM S BROADBRIDGE HEATH Edge of Town Residential Zone Total No of Dwellings: 918 Survey date: TUESDAY 02/04/19		
			Survey Type: MANUAL
94	WS-03-A-12	MIXED HOUSES	WEST SUSSEX
	MADGWICK LANE CHICHESTER WESTHAMPNETT Edge of Town Village Total No of Dwellings: 152 Survey date: WEDNESDAY 16/06/21		
			Survey Type: MANUAL
95	WS-03-A-13	MIXED HOUSES & FLATS	WEST SUSSEX
	LITTLEHAMPTON ROAD WORTHING WEST DURRINGTON Edge of Town Residential Zone Total No of Dwellings: 197 Survey date: WEDNESDAY 23/06/21		
			Survey Type: MANUAL
96	WS-03-A-14	MIXED HOUSES	WEST SUSSEX
	TODDINGTON LANE LITTLEHAMPTON WICK Edge of Town Residential Zone Total No of Dwellings: 117 Survey date: WEDNESDAY 20/10/21		
			Survey Type: MANUAL
97	WS-03-A-15	MIXED HOUSES	WEST SUSSEX
	HILLAND ROAD BILLINGSHURST Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 380 Survey date: TUESDAY 23/11/21		
			Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLES

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.75

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.069	97	137	0.291	97	137	0.360
08:00 - 09:00	97	137	0.135	97	137	0.373	97	137	0.508
09:00 - 10:00	97	137	0.139	97	137	0.169	97	137	0.308
10:00 - 11:00	97	137	0.121	97	137	0.143	97	137	0.264
11:00 - 12:00	97	137	0.128	97	137	0.140	97	137	0.268
12:00 - 13:00	97	137	0.147	97	137	0.152	97	137	0.299
13:00 - 14:00	97	137	0.157	97	137	0.146	97	137	0.303
14:00 - 15:00	97	137	0.164	97	137	0.174	97	137	0.338
15:00 - 16:00	97	137	0.237	97	137	0.167	97	137	0.404
16:00 - 17:00	97	137	0.264	97	137	0.159	97	137	0.423
17:00 - 18:00	97	137	0.344	97	137	0.166	97	137	0.510
18:00 - 19:00	97	137	0.286	97	137	0.160	97	137	0.446
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.191			2.240			4.431

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

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

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Parameter summary

Trip rate parameter range selected: 6 - 1817 (units:)
 Survey date range: 01/01/14 - 23/11/21
 Number of weekdays (Monday-Friday): 97
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 8
 Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.002	97	137	0.002	97	137	0.004
08:00 - 09:00	97	137	0.004	97	137	0.004	97	137	0.008
09:00 - 10:00	97	137	0.002	97	137	0.002	97	137	0.004
10:00 - 11:00	97	137	0.002	97	137	0.002	97	137	0.004
11:00 - 12:00	97	137	0.001	97	137	0.002	97	137	0.003
12:00 - 13:00	97	137	0.002	97	137	0.001	97	137	0.003
13:00 - 14:00	97	137	0.001	97	137	0.001	97	137	0.002
14:00 - 15:00	97	137	0.001	97	137	0.001	97	137	0.002
15:00 - 16:00	97	137	0.004	97	137	0.003	97	137	0.007
16:00 - 17:00	97	137	0.003	97	137	0.003	97	137	0.006
17:00 - 18:00	97	137	0.002	97	137	0.002	97	137	0.004
18:00 - 19:00	97	137	0.002	97	137	0.002	97	137	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.026			0.025			0.051

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.001	97	137	0.002	97	137	0.003	
08:00 - 09:00	97	137	0.003	97	137	0.003	97	137	0.006	
09:00 - 10:00	97	137	0.003	97	137	0.003	97	137	0.006	
10:00 - 11:00	97	137	0.003	97	137	0.002	97	137	0.005	
11:00 - 12:00	97	137	0.002	97	137	0.003	97	137	0.005	
12:00 - 13:00	97	137	0.002	97	137	0.002	97	137	0.004	
13:00 - 14:00	97	137	0.002	97	137	0.002	97	137	0.004	
14:00 - 15:00	97	137	0.002	97	137	0.002	97	137	0.004	
15:00 - 16:00	97	137	0.002	97	137	0.002	97	137	0.004	
16:00 - 17:00	97	137	0.001	97	137	0.001	97	137	0.002	
17:00 - 18:00	97	137	0.002	97	137	0.001	97	137	0.003	
18:00 - 19:00	97	137	0.001	97	137	0.001	97	137	0.002	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.024				0.024	0.048		

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PSVS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.001	97	137	0.001	97	137	0.002
08:00 - 09:00	97	137	0.002	97	137	0.002	97	137	0.004
09:00 - 10:00	97	137	0.001	97	137	0.001	97	137	0.002
10:00 - 11:00	97	137	0.000	97	137	0.001	97	137	0.001
11:00 - 12:00	97	137	0.001	97	137	0.001	97	137	0.002
12:00 - 13:00	97	137	0.000	97	137	0.000	97	137	0.000
13:00 - 14:00	97	137	0.001	97	137	0.001	97	137	0.002
14:00 - 15:00	97	137	0.001	97	137	0.001	97	137	0.002
15:00 - 16:00	97	137	0.002	97	137	0.002	97	137	0.004
16:00 - 17:00	97	137	0.001	97	137	0.001	97	137	0.002
17:00 - 18:00	97	137	0.001	97	137	0.001	97	137	0.002
18:00 - 19:00	97	137	0.000	97	137	0.000	97	137	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.011			0.012			0.023

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CYCLISTS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.003	97	137	0.008	97	137	0.011
08:00 - 09:00	97	137	0.004	97	137	0.013	97	137	0.017
09:00 - 10:00	97	137	0.002	97	137	0.003	97	137	0.005
10:00 - 11:00	97	137	0.002	97	137	0.003	97	137	0.005
11:00 - 12:00	97	137	0.003	97	137	0.003	97	137	0.006
12:00 - 13:00	97	137	0.003	97	137	0.003	97	137	0.006
13:00 - 14:00	97	137	0.003	97	137	0.002	97	137	0.005
14:00 - 15:00	97	137	0.003	97	137	0.003	97	137	0.006
15:00 - 16:00	97	137	0.008	97	137	0.004	97	137	0.012
16:00 - 17:00	97	137	0.011	97	137	0.006	97	137	0.017
17:00 - 18:00	97	137	0.010	97	137	0.006	97	137	0.016
18:00 - 19:00	97	137	0.007	97	137	0.006	97	137	0.013
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.059			0.060			0.119

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.084	97	137	0.429	97	137	0.513
08:00 - 09:00	97	137	0.167	97	137	0.627	97	137	0.794
09:00 - 10:00	97	137	0.177	97	137	0.247	97	137	0.424
10:00 - 11:00	97	137	0.160	97	137	0.204	97	137	0.364
11:00 - 12:00	97	137	0.175	97	137	0.194	97	137	0.369
12:00 - 13:00	97	137	0.201	97	137	0.205	97	137	0.406
13:00 - 14:00	97	137	0.216	97	137	0.202	97	137	0.418
14:00 - 15:00	97	137	0.240	97	137	0.232	97	137	0.472
15:00 - 16:00	97	137	0.401	97	137	0.234	97	137	0.635
16:00 - 17:00	97	137	0.432	97	137	0.230	97	137	0.662
17:00 - 18:00	97	137	0.521	97	137	0.240	97	137	0.761
18:00 - 19:00	97	137	0.425	97	137	0.241	97	137	0.666
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.199			3.285			6.484

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.014	97	137	0.037	97	137	0.051
08:00 - 09:00	97	137	0.031	97	137	0.099	97	137	0.130
09:00 - 10:00	97	137	0.029	97	137	0.034	97	137	0.063
10:00 - 11:00	97	137	0.023	97	137	0.032	97	137	0.055
11:00 - 12:00	97	137	0.025	97	137	0.027	97	137	0.052
12:00 - 13:00	97	137	0.027	97	137	0.025	97	137	0.052
13:00 - 14:00	97	137	0.030	97	137	0.027	97	137	0.057
14:00 - 15:00	97	137	0.033	97	137	0.031	97	137	0.064
15:00 - 16:00	97	137	0.085	97	137	0.044	97	137	0.129
16:00 - 17:00	97	137	0.056	97	137	0.031	97	137	0.087
17:00 - 18:00	97	137	0.048	97	137	0.031	97	137	0.079
18:00 - 19:00	97	137	0.039	97	137	0.035	97	137	0.074
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.440			0.453			0.893

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.001	97	137	0.017	97	137	0.018
08:00 - 09:00	97	137	0.002	97	137	0.024	97	137	0.026
09:00 - 10:00	97	137	0.003	97	137	0.009	97	137	0.012
10:00 - 11:00	97	137	0.005	97	137	0.006	97	137	0.011
11:00 - 12:00	97	137	0.004	97	137	0.007	97	137	0.011
12:00 - 13:00	97	137	0.005	97	137	0.005	97	137	0.010
13:00 - 14:00	97	137	0.005	97	137	0.005	97	137	0.010
14:00 - 15:00	97	137	0.007	97	137	0.004	97	137	0.011
15:00 - 16:00	97	137	0.018	97	137	0.006	97	137	0.024
16:00 - 17:00	97	137	0.016	97	137	0.004	97	137	0.020
17:00 - 18:00	97	137	0.014	97	137	0.003	97	137	0.017
18:00 - 19:00	97	137	0.011	97	137	0.003	97	137	0.014
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.091			0.093			0.184

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.001	97	137	0.007	97	137	0.008	
08:00 - 09:00	97	137	0.000	97	137	0.008	97	137	0.008	
09:00 - 10:00	97	137	0.000	97	137	0.002	97	137	0.002	
10:00 - 11:00	97	137	0.001	97	137	0.001	97	137	0.002	
11:00 - 12:00	97	137	0.001	97	137	0.001	97	137	0.002	
12:00 - 13:00	97	137	0.001	97	137	0.001	97	137	0.002	
13:00 - 14:00	97	137	0.001	97	137	0.001	97	137	0.002	
14:00 - 15:00	97	137	0.001	97	137	0.000	97	137	0.001	
15:00 - 16:00	97	137	0.002	97	137	0.001	97	137	0.003	
16:00 - 17:00	97	137	0.003	97	137	0.000	97	137	0.003	
17:00 - 18:00	97	137	0.007	97	137	0.000	97	137	0.007	
18:00 - 19:00	97	137	0.008	97	137	0.001	97	137	0.009	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.026				0.023	0.049		

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL COACH PASSENGERS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.000	97	137	0.000	97	137	0.000
08:00 - 09:00	97	137	0.000	97	137	0.001	97	137	0.001
09:00 - 10:00	97	137	0.000	97	137	0.000	97	137	0.000
10:00 - 11:00	97	137	0.000	97	137	0.000	97	137	0.000
11:00 - 12:00	97	137	0.000	97	137	0.000	97	137	0.000
12:00 - 13:00	97	137	0.000	97	137	0.000	97	137	0.000
13:00 - 14:00	97	137	0.000	97	137	0.000	97	137	0.000
14:00 - 15:00	97	137	0.000	97	137	0.000	97	137	0.000
15:00 - 16:00	97	137	0.001	97	137	0.000	97	137	0.001
16:00 - 17:00	97	137	0.000	97	137	0.000	97	137	0.000
17:00 - 18:00	97	137	0.000	97	137	0.000	97	137	0.000
18:00 - 19:00	97	137	0.000	97	137	0.000	97	137	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.001			0.002

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.002	97	137	0.025	97	137	0.027	
08:00 - 09:00	97	137	0.002	97	137	0.033	97	137	0.035	
09:00 - 10:00	97	137	0.003	97	137	0.012	97	137	0.015	
10:00 - 11:00	97	137	0.006	97	137	0.008	97	137	0.014	
11:00 - 12:00	97	137	0.005	97	137	0.007	97	137	0.012	
12:00 - 13:00	97	137	0.007	97	137	0.007	97	137	0.014	
13:00 - 14:00	97	137	0.006	97	137	0.005	97	137	0.011	
14:00 - 15:00	97	137	0.009	97	137	0.005	97	137	0.014	
15:00 - 16:00	97	137	0.021	97	137	0.007	97	137	0.028	
16:00 - 17:00	97	137	0.020	97	137	0.004	97	137	0.024	
17:00 - 18:00	97	137	0.021	97	137	0.004	97	137	0.025	
18:00 - 19:00	97	137	0.018	97	137	0.003	97	137	0.021	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.120				0.120	0.240		

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.75

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.103	97	137	0.499	97	137	0.602
08:00 - 09:00	97	137	0.204	97	137	0.772	97	137	0.976
09:00 - 10:00	97	137	0.211	97	137	0.296	97	137	0.507
10:00 - 11:00	97	137	0.191	97	137	0.247	97	137	0.438
11:00 - 12:00	97	137	0.208	97	137	0.232	97	137	0.440
12:00 - 13:00	97	137	0.237	97	137	0.239	97	137	0.476
13:00 - 14:00	97	137	0.256	97	137	0.236	97	137	0.492
14:00 - 15:00	97	137	0.285	97	137	0.270	97	137	0.555
15:00 - 16:00	97	137	0.515	97	137	0.289	97	137	0.804
16:00 - 17:00	97	137	0.518	97	137	0.271	97	137	0.789
17:00 - 18:00	97	137	0.600	97	137	0.280	97	137	0.880
18:00 - 19:00	97	137	0.489	97	137	0.286	97	137	0.775
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.817			3.917			7.734

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CARS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.053	97	137	0.257	97	137	0.310
08:00 - 09:00	97	137	0.110	97	137	0.337	97	137	0.447
09:00 - 10:00	97	137	0.115	97	137	0.147	97	137	0.262
10:00 - 11:00	97	137	0.097	97	137	0.119	97	137	0.216
11:00 - 12:00	97	137	0.108	97	137	0.117	97	137	0.225
12:00 - 13:00	97	137	0.125	97	137	0.129	97	137	0.254
13:00 - 14:00	97	137	0.134	97	137	0.123	97	137	0.257
14:00 - 15:00	97	137	0.142	97	137	0.153	97	137	0.295
15:00 - 16:00	97	137	0.211	97	137	0.141	97	137	0.352
16:00 - 17:00	97	137	0.235	97	137	0.137	97	137	0.372
17:00 - 18:00	97	137	0.310	97	137	0.147	97	137	0.457
18:00 - 19:00	97	137	0.265	97	137	0.146	97	137	0.411
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.905			1.953			3.858

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL LGVS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.011	97	137	0.027	97	137	0.038
08:00 - 09:00	97	137	0.016	97	137	0.023	97	137	0.039
09:00 - 10:00	97	137	0.018	97	137	0.016	97	137	0.034
10:00 - 11:00	97	137	0.018	97	137	0.018	97	137	0.036
11:00 - 12:00	97	137	0.016	97	137	0.018	97	137	0.034
12:00 - 13:00	97	137	0.018	97	137	0.018	97	137	0.036
13:00 - 14:00	97	137	0.019	97	137	0.018	97	137	0.037
14:00 - 15:00	97	137	0.016	97	137	0.015	97	137	0.031
15:00 - 16:00	97	137	0.018	97	137	0.018	97	137	0.036
16:00 - 17:00	97	137	0.022	97	137	0.016	97	137	0.038
17:00 - 18:00	97	137	0.028	97	137	0.013	97	137	0.041
18:00 - 19:00	97	137	0.016	97	137	0.010	97	137	0.026
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.216			0.210			0.426

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL MOTOR CYCLES

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	97	137	0.001	97	137	0.002	97	137	0.003	
08:00 - 09:00	97	137	0.000	97	137	0.003	97	137	0.003	
09:00 - 10:00	97	137	0.000	97	137	0.000	97	137	0.000	
10:00 - 11:00	97	137	0.001	97	137	0.001	97	137	0.002	
11:00 - 12:00	97	137	0.001	97	137	0.001	97	137	0.002	
12:00 - 13:00	97	137	0.001	97	137	0.001	97	137	0.002	
13:00 - 14:00	97	137	0.001	97	137	0.001	97	137	0.002	
14:00 - 15:00	97	137	0.001	97	137	0.002	97	137	0.003	
15:00 - 16:00	97	137	0.001	97	137	0.001	97	137	0.002	
16:00 - 17:00	97	137	0.002	97	137	0.001	97	137	0.003	
17:00 - 18:00	97	137	0.002	97	137	0.001	97	137	0.003	
18:00 - 19:00	97	137	0.002	97	137	0.001	97	137	0.003	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.013				0.015	0.028		

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

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

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