USW Caerleon
Environmental Statement

Chapter D: Transport

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D1.0 Introduction

D1.1 This Environmental Statement has been prepared on behalf of Redrow Homes Ltd to accompany a full planning application for planning and listed building consent for residential development at the former USW Caerleon Campus.

D1.2 The development comprises:

- The development of 218 dwellings, including new build and the creation of apartments within the listed buildings that are to be converted/retained within the site.
- Landscaping (including re-grading) and sustainable drainage works.
- Access/Infrastructure works.
- Removal and translocation of specified TPO trees (the remainder of TPO trees will be retained).

D1.3 A full description of the proposed development is provided within ES Chapter C (Site and Scheme Description).

D1.4 This chapter describes the methods used to assess the effects: the mitigation measures required to prevent, reduce or offset any significant negative (adverse) effects; and any likely residual effects after these measures have been adopted.

D1.5 This chapter of the Environmental Statement (ES) considers the potential impacts on various means of transport associated with the proposed development at USW Caerleon Campus and the predicted associated effects on sensitive receptors in the area.

D1.6 The assessment follows the methodology set out in the IEMA Guidelines, which is considered the appropriate and accepted methodology for assessing the environmental impact of traffic and upon means of transport.

D1.7 It describes the methods used to assess the impacts: the relevant legislative and policy context (Chapter D2); the methodology (D3); baseline conditions currently existing at the site (D4); the potential effects during construction and operation (D5); the mitigation measures provided as part of the proposed development (D6); and, the likely residual effects (D7).

D1.8 This chapter should be read in conjunction with the Transport Assessment (TA) which contains a comprehensive set of plans, figures and data, and is provided at Appendix D1. A Travel Plan has also been prepared and is appended at Appendix D2.

About the Author

D1.9 Cerian Phillips is the principal author of the chapter. Cerian has over 8 years' transport consultancy experience having delivered Transport Assessments and ES Chapters to support the delivery of private sector developments in the residential and commercial sectors across the UK. Cerian is a Member of the Chartered Institution of Highways & Transportation.

D1.10 The chapter has been overseen by Matt Thomas, Director of Vectos, who has 20 years' experience in large-scale development projects and masterplans across the UK. Matt is a Fellow of both the Chartered Institution of Highways & Transportation and the Chartered Institute of Logistics and Transport.

D2.0 Policy Context

D2.1 The context for the proposed development is set out in national and planning policy, particularly the Newport Local Development Plan 2011-2026.

D2.2 The national and local policies that are relevant to the proposed development are set out below:

- Technical Advice Note 18 – Transport (TAN 18)
- Planning Policy Wales 10 (PPW 10)
- Active Travel (Wales) Act 2013
- Well-being of Future Generations (Wales) Act 2015
- Manual for Streets
- Technical Advice Note 12 – Design (TAN 12)
- Newport Local Development Plan 2011-2026

Technical Advice Note 18 – Transport (TAN 18)

D2.3 TAN 18 (Transport) seeks to;

- Promote housing development at locations with good access by walking and cycling to primary and secondary schools and public transport stops and by all modes to employment, further and higher education, services, shopping and leisure;
- Encourage residential developments that allow public transport to pass through easily;
- Ensure layouts and densities which encourage residents to walk and cycle to local facilities and public transport stops;
- Safeguard that where public transport facilities are proposed, ensure that there are effective arrangements for maintaining facilities and funding;
- Ensure walking is a main mode of transport for shorter trips;
- Support that new or improved public transport provision has the potential to provide alternatives to private vehicle use and change existing travel demands; and
- Encourage Local authorities to develop effective networks of cycle routes including safe routes to schools to encourage cycling.

D2.4 The Development promotes walking, cycling and public transport usage through a range of physical measures and substantial travel planning investment and complies with TAN 18.

Technical Advice Note 12 – Design (TAN 12)

D2.5 TAN 12 seeks to promote sustainable means of travel in new development by maximising;

- Safe and clear connections;
- The potential to cycle, walk and use public transport safely and reducing the reliance on the car;
- The connection to the existing transport infrastructure by integrating development with existing footpaths, cycle ways and public and private transport infrastructure;
- The ease of movement to, from and within development for sustainable forms of transport by creating a safe and attractive environment; and
- The provision of onsite facilities for sustainable forms of transport.

D2.6 The Development promotes walking, cycling and public transport usage and integration with the existing infrastructure and hence complies with the objectives of TAN 12.

Planning Policy Wales 10 (PPW 10)

D2.7 Planning Policy Wales Edition 10 (PPW) sets out the land use planning policies of the Welsh Government.

D2.8 With regards to Strategic and Spatial Choices, and specifically Accessibility, PPW states that:

- Spatial strategies should support the objectives of increasing walking, cycling and public transport use in place of private vehicles;
- Higher densities should be encouraged in urban centres to support services such as public transport, local shops and schools; and
- Previously developed land should, wherever possible, be used in preference to greenfield sites where it is suitable for development, with its re-use promoting sustainability principles.

D2.9 Section 4 of PPW 10 concerns Active and Social places. It asserts that Active and Social Places are those which provide well-connected cohesive communities. It further states that a 'Resilient Wales' is supported by promoting well-connected infrastructure.

D2.10 Within Section 4 PPW 10 stresses that:

- A Healthier Wales can be achieved through the reduction in emissions and air pollution by minimising the need to travel and maximising provision of sustainable forms of transport;
- To foster Cohesive Communities, development will need to be well-connected; and
- Globally Responsible Wales is promoted by locating and designing developments which reduce trip lengths for everyday journeys and supports sustainable modes of travel.

D2.11 Section 4 also acknowledges the importance of:

- improving sustainable access to services;
- reducing reliance on travel by private car; and
- ensuring our transportation infrastructure is adaptable.

D2.12 Policies within the Active and Social Places theme will:

- enable sustainable access to housing, employment, shopping, education, health, community, leisure and sports facilities and green infrastructure;
- develop sustainable transportation infrastructure; and
- require developments to encourage modal shift and be easily accessible by walking, cycling and public transport.

D2.13 Moving within and between places is a key theme within PPW. In relation to sustainable transport, PPW 10 advises facilitating developments which:

- are sited where they can be easily accessed by sustainable modes of travel and without the need for a car;
- are designed to integrate with existing land uses and neighbourhoods; and
- make it possible for all short journeys within and beyond the development to be easily made by walking and cycling.

D2.14 Regarding Active Travel, PPW10 states that Planning Authorities:

- Must support active travel by ensuring new development is fully accessible by walking and cycling; and
- Must ensure new housing, jobs, shopping, leisure and services are highly accessible by walking and cycling.

D2.15 With respect to Public Transport, PPW10 states that Planning authorities should consider whether public transport services are of a scale which makes public transport an attractive and practical travel option for occupiers and users travelling to and from development sites.

D2.16 PPW reiterates that it is Welsh Government policy to require the use of a sustainable transport hierarchy (PPW 10 - Figure 8) in relation to new development, which prioritises walking, cycling and public transport.

D2.17 The proposed development fully complies with all of the sustainable transportation and movement policies within PPW10 and the overarching objectives relating to the reuse of brownfield sites.

Active Travel (Wales) Act 2013

D2.18 The Active Travel (Wales) Act requires planning authorities to make provision for, map and promote 'Active Travel' routes for pedestrians and cyclists. It is a developer's responsibility to acknowledge the existing local Active Travel routes and ensure that there are sufficient connections from the development to the existing network, so that future residents have a clear, direct and a safe route from their homes to the wider Active Travel network.

D2.19 This Act seeks to enable more people to walk, cycle and generally travel by more active methods, so that:

- more people can experience the health benefits of active travel;
- we reduce our greenhouse gas emissions;
- we help address poverty and disadvantage, and
- we help our economy to grow by unlocking sustainable economic growth.

D2.20 The Development is compliant with the Active Travel (Wales) Act as it is promoting an integrated masterplan with linkages to the existing community and is supporting the provision, through a series of off-site improvements, of Active Travel Routes including linkage to the National Cycle Network 4.

Well-being of Future Generations (Wales) Act 2015

D2.21 The Well-being of Future Generations (Wales) Act is about improving the social, economic, environmental and cultural well-being of Wales.

D2.22 The Act puts in place seven well-being goals one of which is a healthier Wales and defines sustainable development which includes the four pillars of Social, Environmental, Cultural and Economy.

D2.23 The Development is proposing an investment in sustainable travel / behavioural change measures designed to reduce the amount of traffic / congestion but also to promote healthier lifestyles. In doing this, the Development addresses at least 3 of the 4 core principles of sustainable development from a transport perspective. From a social and cultural perspective, sustainable travel encourages more confidence and interaction for those people, including children, who walk and cycle. It assists with integrating the community. From an environmental perspective, sustainable transport from modes such as walking cycling and public transport generally means less pollution than from private cars.

Manual for Streets

D2.24 The Department for Transport's 'Manual for Streets' replaced their general road and street design guidance manual 'DB32' in 2007 and specifically focuses on lightly trafficked residential streets and highways.

D2.25 'A key consideration for achieving sustainable development is how the design can influence how people choose to travel. Designers and engineers need to respond to a wide range of policies aimed at making car use a matter of choice rather than habit or dependence. Local transport plans and movement strategies can directly inform the design process as part of the policy implementation process.'

D2.26 'By creating linkages between new housing and local facilities and community infrastructure, the public transport network and established walking and cycling routes are fundamental to achieving more sustainable patterns of movement and to reducing people's reliance on the car.'

D2.27 The Transport Strategy for the development seeks to promote an environment which is not dominated by the private car.

Local Policy

Newport Local Development Plan 2011-2026

D2.28 NCC Local Development Plan 2015 (LDP) sets the principal policy context from which to consider this application.

D2.29 To achieve the Council's vision, the LDP sets out 10 Objectives. Those that are relevant to transportation relate to sustainable use of land, climate change, economic growth, housing provision and health and well-being.

D2.30 The proposed development aligns well to these overarching policy objectives by proposing a mixed-use development on a prominent brownfield site, in a sustainable location with additional benefits to sustainable travel, health and well-being.

Local Plan Policy SP1 – Sustainability

D2.31 This Policy seeks to ensure that development makes positive contributions to sustainable development by concentrating development in sustainable locations on brownfield land within the settlement boundary.

D2.32 The purpose of Policy SP1 is to provide an over-arching framework that places sustainability at the heart of the plan. In this respect, one could not wish for a better site in Caerleon for residential development. The proposal:

- Provides mixed use development;
- Seeks to develop on brownfield land, which is accessible by all modes of transport;
- Makes a positive contribution toward sustainable development by virtue of the site's location adjacent to existing residential areas and its accessibility to number of existing local amenities and facilities including schools, shops, employment;
- Enhances mobility and promotes behavioural change; and
- Will provide electric car charging points for each dwelling.

Local Plan Policy SP2 – Health

D2.33 This Policy seeks to ensure that development makes positive contributions towards health and to minimise any negative effects to well-being by locating development in the most sustainable locations, close to public transport and providing efficient walking and cycling routes and other green infrastructure.

D2.34 The wording of the policy goes on to state that if development is located in areas which are only accessible by car, then the likelihood of people walking to destinations is greatly decreased. This is therefore likely to lead to more inactivity in the local population and is one good reason to allow development in the most sustainable locations possible.

D2.35 The proposed development meets all of the criteria within this policy.

D2.36 The central location of the site is within easy walking/cycle reach of amenities, leisure, education and employment. Moreover, the development proposes enhancements to public transport (new bus stops and shelters), improvements to existing PRoW and enhancements to the cycle network including improved connections to the National Cycle Network (NCN 4).

D2.37 In addition, the Travel Plan initiatives which will encompass personalised travel planning for future residents on the site and residents of Caerleon, local schools (notably NCC is part of a Welsh Network of Healthy School schemes1) and the hospital, seek to encourage behavioural change and modal shift on the site and in the local area.

D2.38 All of this fully supports the policy objectives relating to health.

Local Plan – GP4 - General Development Principles – Highways and Accessibility

D2.39 The purpose of this policy is to ensure that new development is highly accessible for all users and encourages walking, cycling and access to public transport in the first instance. Proposals should seek to enhance permeability and connectivity including the use of green infrastructure and should make reference to Policy T5 – Walking and Cycling.

D2.40 There are seven parts to this policy which states that development should:

- provide appropriate access for pedestrians, cyclists and public transport in accordance with national guidance;
- be accessible by a choice of means of transport;
- be designed to avoid or reduce transport severance, noise and air pollution;
- make adequate provision for car parking and cycle storage;
- provide suitable and safe access arrangements;
- design and build new roads within private development in accordance with the highway authority's design guide and relevant national guidance; and
- ensure that development would not be detrimental to highway or pedestrian safety or result in traffic generation exceeding the capacity of the highway network.

D2.41 The wording within Policy GP4 goes on to state that development must be of a scale that the adjacent road network has the capacity to serve, without detriment to the highway network or the environmental characteristics of the road and that development will be required to fund improvements to the highway network which are necessary to accommodate the development.

[1] http://www.newport.gov.uk/en/Schools-Education/Schools/Healthy-schools.aspx

D2.42 The proposed development fully complies with this policy by virtue of its sustainable location, measures to improve connectivity, accessibility and behavioural change to mobility and through seeking to provide capacity improvements to the highway network. In this context, it is important to note that the highway/road network is more than just an environment for peak hour commuting, rather it is a function of all types of movement including pedestrians and cyclists.

D2.43 The policy does not state that existing issues pertaining to localised congestion or air quality need to be remediated by development and nor does it state that providing additional traffic capacity is a means of pass or fail for a development.

D2.44 Whilst Policy GP4 does not explicitly prioritise one sub policy point over another, it is clear that in the context of adherence to other Local Plan Policies e.g. SP1, SP2, that walking, cycling and public transport accessibility are key priorities for evaluating development proposals from a transport perspective. The thrust of policy support for non-car modes is strongly supported in local and National policy, where the step-change emphasis clearly states that appropriate importance and weight must be given to walking, cycling, public transport and the reuse of brownfield sites over the out-dated predict and provide road capacity argument for private cars.

Summary

D2.45 As demonstrated in this ES chapter, the proposed development clearly aligns with Local and National Policy and fully accords with the Local Development Plan policies for the reuse of brownfield sites, sustainability and transport. This site can deliver housing growth based on a policy-compliant approach of providing development in a sustainable manner and not by prioritising the needs of car users to the detriment of social mobility and behavioural change.

D3.0 Assessment Methodology & Significance Criteria

Assessment Methodology

D3.1 To determine the potential environmental impacts of car and non-car traffic associated with the proposed development, and the effect the proposed development will have on existing levels of car and non-car traffic, a number of methodologies have been applied within this assessment. The methodologies have been informed by the IEMA Guidelines which provide guidance on a range of potential traffic related impacts arising from new development.

D3.2 Where no specific method is defined within the IEMA Guidance alternative means of assessment have been undertaken based on published transportation assessment guidance and best practice. Each of these, as appropriate to this assessment, has been considered in turn in the following paragraphs. In the absence of definitive guidance professional judgement has been applied.

Assessment Scenarios

D3.3 Within the TA, the following assessments were undertaken:

- Baseline Scenario 1 – 100% former use on the site;
- Future Baseline Scenario 2 – a Central scenario with a quantum of development on the site commensurate to about 50% of the former use traffic generation; and
- Baseline Scenario 3 – zero former use at the site; and
- 2024 (zero former use at the site) plus Development;

D3.4 A Design Year of 2024 has been assessed in the TA however the traffic forecasts for the base year traffic (2019) have not applied any background traffic growth between 2019-2024. Following a comparison of the ATC and MCC traffic data between 2016-2019 which demonstrate a trend of traffic levels stagnating and reducing (PM peak) in Caerleon, to apply traffic growth would be to buck the observed trend and so would have the effect of double counting. Therefore, the 2024 Future Baseline scenario is the same as the 2019 Baseline Scenario.

D3.5 For the purposes of assessment within this ES chapter, a Design Year of 2029 has been assessed which represents a future year of 10 years post application. However, as described in the paragraph above, growth has not been applied to the 2019 traffic flows and therefor the 2029 Future Baseline to be assessed in this ES chapter is the same as the 2019 Baseline Scenario.

D3.6 A number of sensitivity tests were also undertaken to consider the effects of the Travel Plan and sustainability measures proposed as part of the overall mitigation. The sensitivity tests are as follows:

- Test A – accounting for 12% modal shift for development traffic from the Travel Plan;
- Test B – applying a 2% reduction to background traffic flows at the junction to account for all the sustainability measures proposed including PTP, School Travel Planning, Hospital Travel Planning and improvements to infrastructure; and
- Test C – a combination of A&B above.

D3.7 The sensitivity assessment scenarios considered in the TA are:

- 2024 + Development (Test A);
- 2024 + Development (Test B);

- 2024 + Development (Test C).

D3.8 For the purposes of this ES assessment, the following worst case scenario has been assessed based on the Central Scenario (50% former use) and development trip generation not taking into account any modal shift reductions:

- 2029 Future Baseline (Scenario 2 – Central Scenario) + Development.

D3.9 This scenario has been assessed in the AM (08:00 – 09:00) and PM (16:45-17:45) peak periods (using network peak and development peak combined and a 24hr Average Annual Weekday period (AADT), which is reflective of off-peak periods and times of greatest potential impact.

Significance Criteria

D3.10 In all instances the significance of the proposed development's residual effects has been recorded as either 'beneficial', 'adverse' or 'neutral'. Where an effect has been recorded as:

- 'beneficial', the overall effect would be positive to sensitive receptors;
- 'neutral', the overall effect would result in no material change to sensitive receptors;
- 'adverse', the overall effect would be negative to sensitive receptors.

D3.11 There is no formal or published guidance for the assessment of a number of criteria assessed in the following section. Where this is the case, professional judgement has been used to determine the level of significance.

Traffic Impact

D3.12 The IEMA Guidelines provide two 'rules of thumb' as a screening process to limit the scale and extent of assessment of traffic impacts and to determine which traffic links require assessment. The rules are as follows:

- Rule 1: Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%); and
- Rule 2: include any other specifically sensitive areas where traffic flows have increased by more than 10%.

D3.13 To assist with assigning the magnitude of the impact, the IEMA Guidelines sets out consideration, and in some cases thresholds, in respect to changes in the volume and composition of traffic to facilitate judgement on the significance of traffic effects. Table D3.1 details the assessment framework adapted from the guidance used in this assessment.

Table D3.1 Magnitude of Impact Criteria

Impact	Magnitude of Impact			
	Very Low	**Low**	**Medium**	**High**
Severance	Change in hourly traffic flows of less than 30%	Change in hourly traffic flows of 30% - 60%.	Change in hourly traffic flows of 60%-90%.	Change in hourly traffic flows of over 90%
Pedestrian Delay	Two way traffic flow <1,400 vehicles per hour	A judgement based on the routes with two-way traffic flow exceeding 1,400 vph in the context of their individual characteristics.		
Pedestrian Amenity	Change in hourly traffic flow/HGV flows < 100%	A judgement based on the routes with > 100% change in hourly traffic /HGV flows in context of their individual characteristics.		

D3.14 To help define the value and sensitivity of receptors IEMA advice on affected groups and special

interests has been reviewed. Table D3.2 details the assessment framework adapted from the advice.

Table D3.2 Receptor Sensitivity Criteria

Receptor Type	Receptor Sensitivity
Receptors of greatest sensitivity to traffic flows: schools, colleges, playgrounds, accident clusters, retirement homes, roads without footways that are used by pedestrians	High
Traffic flows sensitive receptors: congested junctions/links, doctors surgeries, hospitals, shopping area with roadside frontage, roads with narrow footways, recreation facilities	Medium
Receptors with some sensitivity to traffic flow: places of worship, public open space, tourist attractions and residential areas with adequate footway provision	Low
Receptors with low sensitivity to traffic flows and those sufficiently distant from affected roads and junctions	Very Low

D3.15 Table D3.3 describes the significance criteria adopted based on receptor sensitivity and impact magnitude.

Table D3.3 Significance Criteria Matrix

Receptor Sensitivity	Magnitude of Impact			
	Very Low	Low	Medium	High
Very Low	None	Negligible	Minor	Minor-Moderate
Low	Negligible	Minor	Minor-Moderate	Moderate
Medium	Minor	Minor-moderate	Moderate	Moderate-major
High	Minor-moderate	Moderate	Moderate-major	Major

D3.16 In EIA terms, any effect greater than Minor is considered to be significant.

D3.17 The temporal scope of effects is described as short, medium or long term, or permanent, as shown below. For the Completed Development assessments, the impacts are permanent, whereas for construction they are likely to be short to long term and temporary.

- Short term: < 12 months.
- Medium term: 1 – 5 years.
- Long term: + 5 years.
- Permanent: effects that are considered to be long lasting.

Severance

D3.18 The IEMA Guidelines set out a range of indicators for determining the significance of impact on severance. Changes in traffic flow of 30%, 60% and 90% (Table D3.1) are regarded as producing 'slight', 'moderate' and 'substantial' changes respectively. These indicators, together with specific local conditions such as the provision of new pedestrian routes, crossing facilities and integration with existing communities, have been used to determine the significance of impact on severance.

Junction Delay/Driver Delay

D3.19 The impact in terms of assessing any junction delay / driver delay in respect of additional traffic from the proposed development has been completed using transport models, which report in terms of junction performance, queue lengths and delay.

D3.20 There is no formal or published guidance for the assessment of junction delay/ driver delay, therefore professional judgement has been used to assess the significance of impact, as detailed in the TA in ES Appendix D1.

Pedestrian Delay

D3.21 There is no formal or published guidance for the assessment of pedestrian delay. However, the IEMA Guidelines recommend assessors use their professional judgement to determine the significance of effects, and that is what has been done in the assessment.

D3.22 A range of local factors need to be taken into account when considering the significance of the likely effects the proposed development on pedestrian delay, including the provision of new routes, two-way traffic flows, and the provision of crossing facilities.

Hazardous Loads

D3.23 To assess the significance of the proposed development in terms of the transportation of hazardous loads the probability of an accident has been assessed based on the number of daily movements carrying hazardous loads.

Parking

D3.24 A total of 561 parking spaces are proposed at the proposed development in line with the maximum standards as per Newport City Council Parking Standards 2015 Supplementary Planning Guidance (SPG). As part of the development proposals, electric vehicle charging points will be provided for each home.

Accidents and Safety

D3.25 Professional judgement has been applied to assess the potential impact of the proposed development on accidents and safety.

Consultation

D3.26 A formal EIA scoping opinion has not been submitted to Newport County Council (NCC) on the basis that the EIA will be prepared based on the original scope of the previous application (as explained in ES Chapter B).

D3.27 Pre-application meetings have been held with NCC and the following transport matters were raised:

D3.28 *"There is a great opportunity to connect this site with existing and future active travel (walking and cycling) routes – this is a key aspect we will be looking for in the development application. As such, the proposed development site must:*

- *Provide efficient cycling and walking routes that connect with existing and proposed active travel routes (outlined in Newport City Council's Existing Route Maps and Integrated Network Maps), as per Newport's Local Development Plan (2015) and the Active Travel (Wales) Act 2013.*
- *Provide a comprehensive assessment, including a costs breakdown, of suitable active travel (walking and cycling) routes that connect the site to key destinations surrounding the site (local businesses, services, facilities, parks, green spaces, etc.).*
- *Contribute to section 106 to enhance connectivity for walkers and cyclists to key destinations including, but not limited to St Cadoc's Hospital and nearby businesses, services, facilities, and green spaces.*
- *Include cycle storage in dwelling design and cycle parking throughout the site, including near areas such as the possible changing rooms facilities. Please see NCC's Parking Standards SPG.*
- *Ensure all residential developments are accessible by cycle. Improve cycle and pedestrian access across the proposed development site and to green spaces and the wider natural environment, as per Newport's LDP, Well-being Plan and Parking Standards SPG.*

D3.29 *There are concerns from NCC regarding the proposals at St Cadoc's Close that the Close is too narrow for additional traffic and will require widening/improvements, including potentially at the junction. A quality audit in accordance with Manual for Streets should be provided to further inform considerations on this.*

D3.30 *NCC is concerned that the internal layout (of the proposed development) lacks permeability and the absence of a circular route for vehicles is of some concern.*

D3.31 *Opportunities for segregated pedestrian and cycle movements should be maximised and the layout would benefit from verges separating pedestrian and cycleways from the vehicular carriageway.*

D3.32 *Thought will need to be given in relation to electric vehicle charging points. A full scheme for this should be provided with any application and should include actual charging facilities at appropriate Kilowatt power along with other measures on site to encourage sustainable travel choices.*

D3.33 *Off site improvements to link sustainable travel routes to the site and environs will also need to be considered and may need to incorporate section 106 contributions.*

D3.34 *NCC also require clarification in relation to the junction of College Crescent and any changes proposed that may affect the listed piers, particularly having regard to proposals for two way traffic flow here."*

Study Area and Scope

D3.35 The study area for the assessment of transport effects considered in this ES chapter has been defined on the basis of the number and location of roads and streets that are likely to be affected by the Development, and where there is potential for members of the public or sensitive habitats to be affected.

D3.36 The study area includes nearby junctions on the local highway network and routes through Caerleon. The study area has been subject to detailed analysis within the TA, with further link analysis presented in this ES chapter.

D3.37 The geographical extent of the study area for the local highway network is shown in Figure D3.1 with Table D3.5 identifying each highway link.

Figure D3.1 Extent of TA Study Area (Highway Links Assessed)

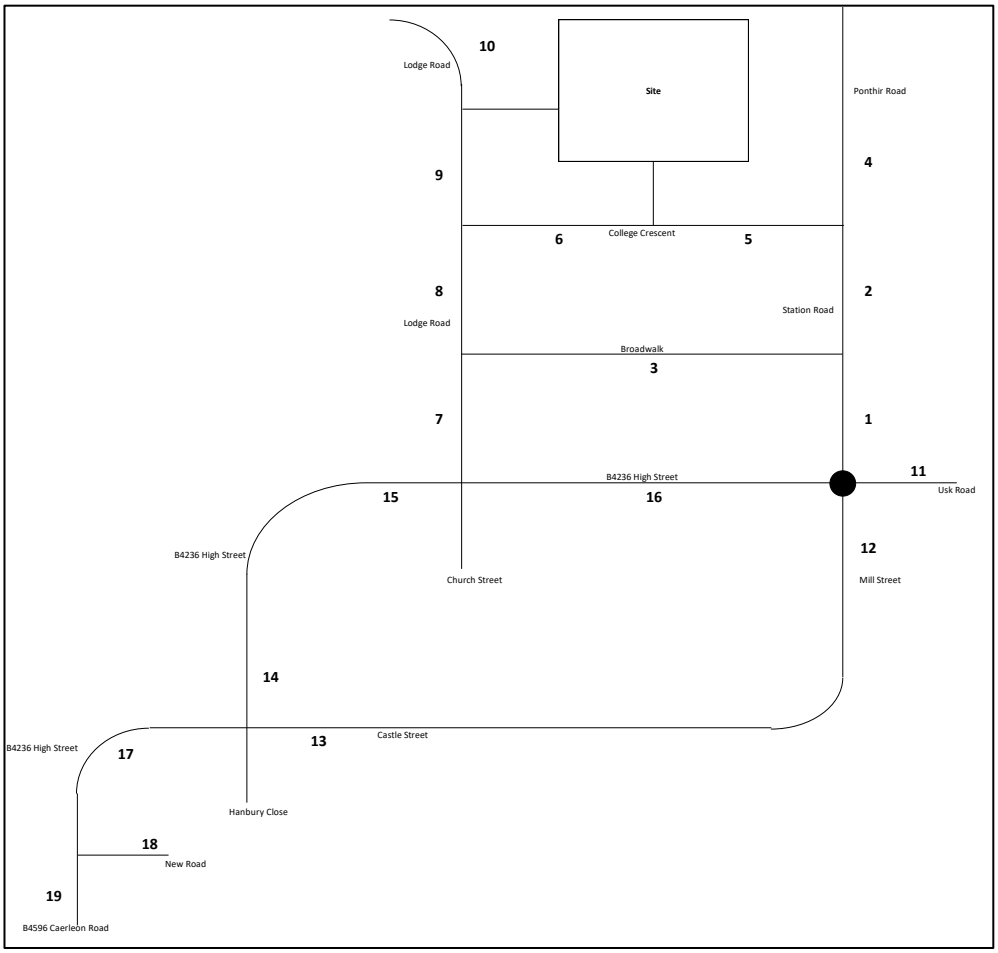


Table D3.5 Study Area Highway Links

Reference	Link
1	Station Road (College Crescent to Broadwalk)
2	Station Road (Broadwalk to Usk Road)
3	Broadwalk
4	Ponthir Road (College Crescent northwards)
5	College Crescent (College Road to Station Road)
6	College Crescent (Lodge Road to College Road)
7	Lodge Road (High Street to Broadwalk)
8	Lodge Road (Broadwalk to College Crescent)
9	Lodge Road (College Crescent to site access)
10	Lodge Road (site access northwards)

Reference	Link
11	Usk Road
12	Mill Street
13	Castle Street
14	High Street (Castle Street to Broadway)
15	High Street (Broadway to Lodge Road)
16	High Street (Lodge Road to Station Road)
17	High Street (Castle Street to New Road)
18	New Road
19	Caerleon Road

Assumptions and Limitations

D3.38 The construction traffic forecasts are based on worst case assumptions to determine the average construction vehicles for this site which has been used to determine the associated effects.

D3.39 For the purpose of assessment, the following assumptions have been made within the TA which is included at Appendix D1 of this ES chapter:

- The trip generation is based on 218 residential dwellings;
- There are two access points to the site, from Lodge Road and College Crescent;
- The trip generation and distribution calculations have been derived using information from TRICS and 2011 Census Data; and
- Based on an analysis of existing traffic flows within the study area, traffic growth has not been applied to the 2019 observed traffic data to derive the Future Baseline scenarios.

D3.40 The proposed development comprises 218 residential dwellings. Full details of the proposed development are proposed at ES Chapter C and in the TA which is included at Appendix D1.

D3.41 Full details of how trips from the Development were calculated are provided in Section 5 of the TA (Appendix D1).

D4.0 Baseline Conditions

D4.1 2019 is assumed as the baseline year as this is when the traffic surveys were undertaken. The baseline transport conditions have been established through a combination of traffic surveys on the local road network, desk-based audits and on-site observations undertaken in February and March 2019. These are detailed in the TA (Appendix D1) and summarised below.

D4.2 The following data sources have informed the assessment:

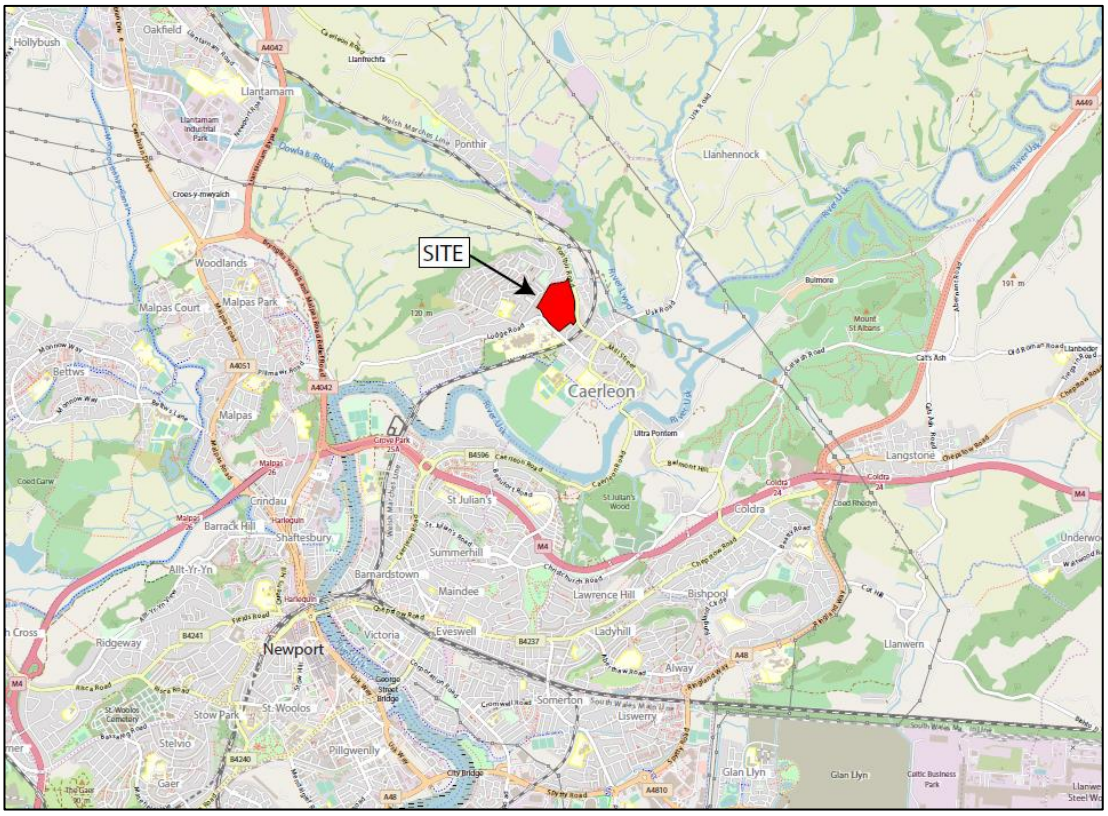
- Google Maps;
- Traveline Website (used for bus service information);
- Sustrans (used for cycle route information);
- Newport County Council website (used to obtain planning policy);
- Public Transport Operators (Rail and Bus Operators);
- TRICS (used to generate trip rates and trip generation for the proposed development); and
- Nomis website, to interrogate Census 2011 data.

Site Location

D4.3 The site is located near the centre of Caerleon, approximately 500m north of the High Street. It is in a built-up area, bounded by residential areas to the north and east, and by St Cadoc's Hospital to the southwest.

D4.4 By road, the site is located approximately 6km northeast of Newport, 8km southeast of Cwmbran and 12km northwest of Magor. The location of the site is shown below in Figure D4.1.

Figure D4.1 Site Location



D4.5 This is a brownfield site which previously accommodated a campus of the University of South Wales. The campus has been closed since July 2016 and, currently, the site is no longer in use aside from ad hoc uses, including as a set for filming.

Local Facilities

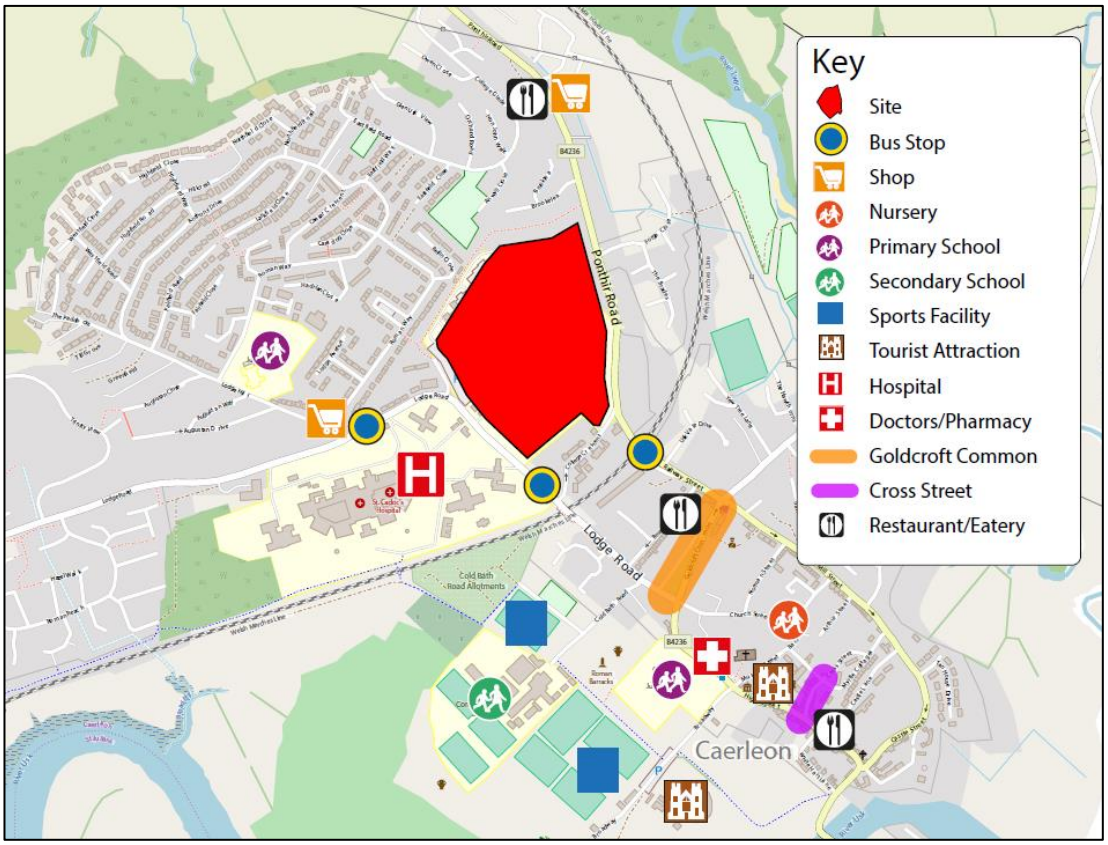
D4.6 The site is very well placed in terms of access to local facilities and services such as medical services, shops, schools and public transport. A summary of the local facilities which can be found within the vicinity of the site is set out in Table D4.1 and displayed in Figure D4.1.

Table D4.1 Local Facilities

Local Facility	Distance from site access (metres)	Cycling Time (mins)	Walking Time (mins)
Public Transport			
University Bus Stop	250	1	3
St Cadoc's Hospital Bus Stop	400	2	5
Old Station Bus Stop	400	2	4
Schools / Education			
Caerleon Lodge Hill Junior School	650	4	9
Caerleon Comprehensive School	800	4	10
Charles William Primary School	750	4	9
The Owl and Pussycat Nursery	850	4	10
Leisure / Sports Facilities			
Caerleon AFC	900	4	11
Caerleon Rugby Football Club	1200	4	14

Caerleon Amphitheatre	1100	4	13
Caerleon Roman Fortress	1400	6	12
Pub / Restaurants / Food			
Goldcroft Common (multiple facilities)	700	2	8
The Isca Arms	1000	4	12
Cross Street (multiple facilities)	1100	5	12
Local Shops			
McColl's	400	2	5
Goldcroft Common (multiple shops)	700	2	8
Medical Centres			
St Cadoc's Hospital	450	2	5
Isca Medical Centre	850	5	9
Well Pharmacy	850	5	2
Local Areas			
Ponthir	2300	28	8

Figure D4.2 Local Facilities



D4.7 As shown in Figure D4.2, numerous facilities and services are present within Caerleon, all of which are accessible by foot or by bike. Some streets and areas such as Cross Street and Goldcroft Common are home to multiple food and drink outlets and there are several school and medical facilities within the town.

Pedestrian and Cycle Provision

D4.8 The local area offers a good framework for non-motorised modes of travel and is served by good quality pedestrian routes.

D4.9 Development at this site is capable of being designed to encourage trips to be made by sustainable modes, including active travel (walking and cycling), by car sharing, and on public transport to maximise social inclusion and minimise the number of single occupancy private car trips. The location of the site is well suited to the promotion of sustainable travel.

Walking

D4.10 Due to the residential streets within close proximity to the proposed development, the site is well served by pedestrian facilities. Lodge Road connects the proposed western access of the site to High Street in the centre of Caerleon, and Station Road provides a route to the eastern end of High Street from the eastern side of the site.

D4.11 There are continuous footways along these routes as well as street lighting and crossing points for pedestrians. On Lodge Road there is a footway separate to the main road which provides a route

for pedestrian to cross over the railway line. This is shown in Photograph D1 and the Pelican crossing on Lodge Road is shown in Photograph D2.

Photograph D1



Photograph D2



D4.12 When adjacent to the site, Lodge Road curves around to the west and leads away from Caerleon. This route provides a link to Caerleon Lodge Hill School as well as the west of Caerleon. It includes a large pedestrianised area where the road curves from north to west, shown in Photograph D3, as well as pedestrian crossing points further west along the road shown in Photograph D4.

Photograph D3



Photograph D4



D4.13 Running along the northern border of the site is a footpath (PRoW) connecting Lodge Road to Ponthir Road. The footpath runs in a west-east direction. This route can currently be used by pedestrians travelling from west of Lodge Road to any of the services (including garages, shops and pubs) located on Ponthir Road.

D4.14 The western end of the footpath connects to Roman Way, providing a link from the residential area to the north to Lodge Road.

D4.15 The footpath is approximately 500m in length and is paved for some of its length. It does not benefit from consistent street lighting and as such is not likely to be used outside of daylight hours.

D4.16 There are some informal links connecting to the footpath such as from Bellin Close to the north indicating that current residents in the area use this footpath as a mode of travel for east-west connections.

D4.17 The condition of the footpath can be seen in Photograph D5 and in Photograph D6.

Photograph D5

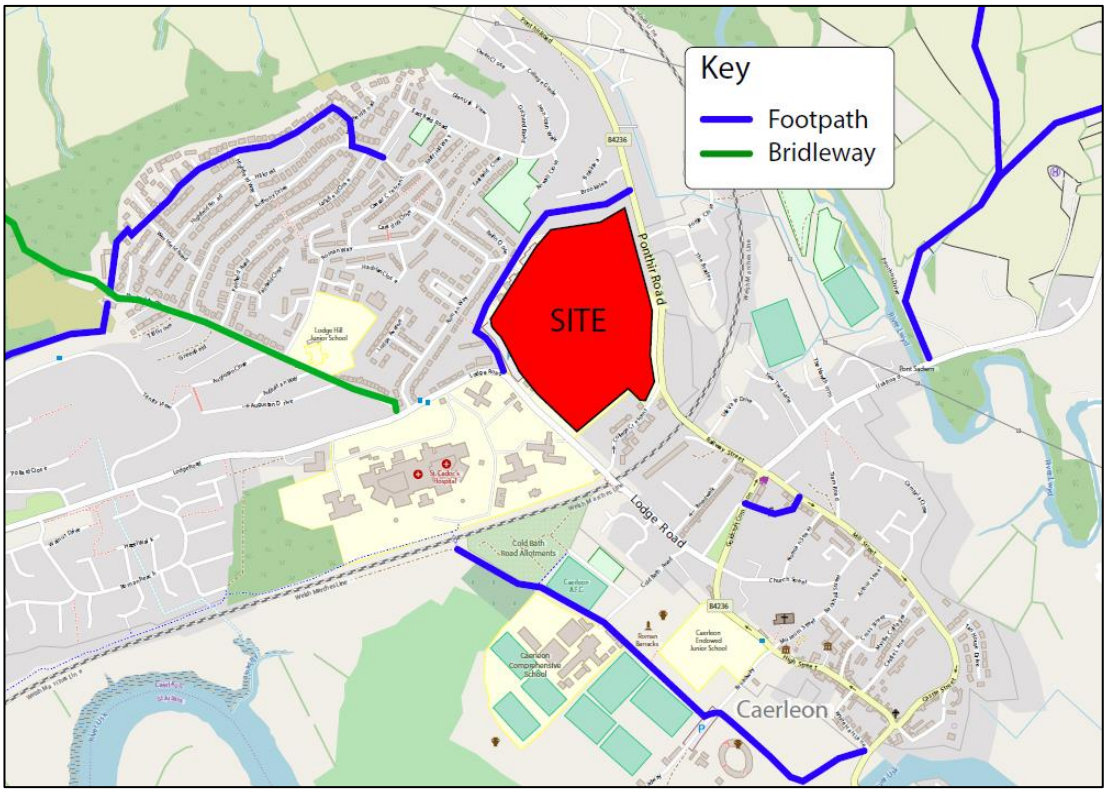


Photograph D6



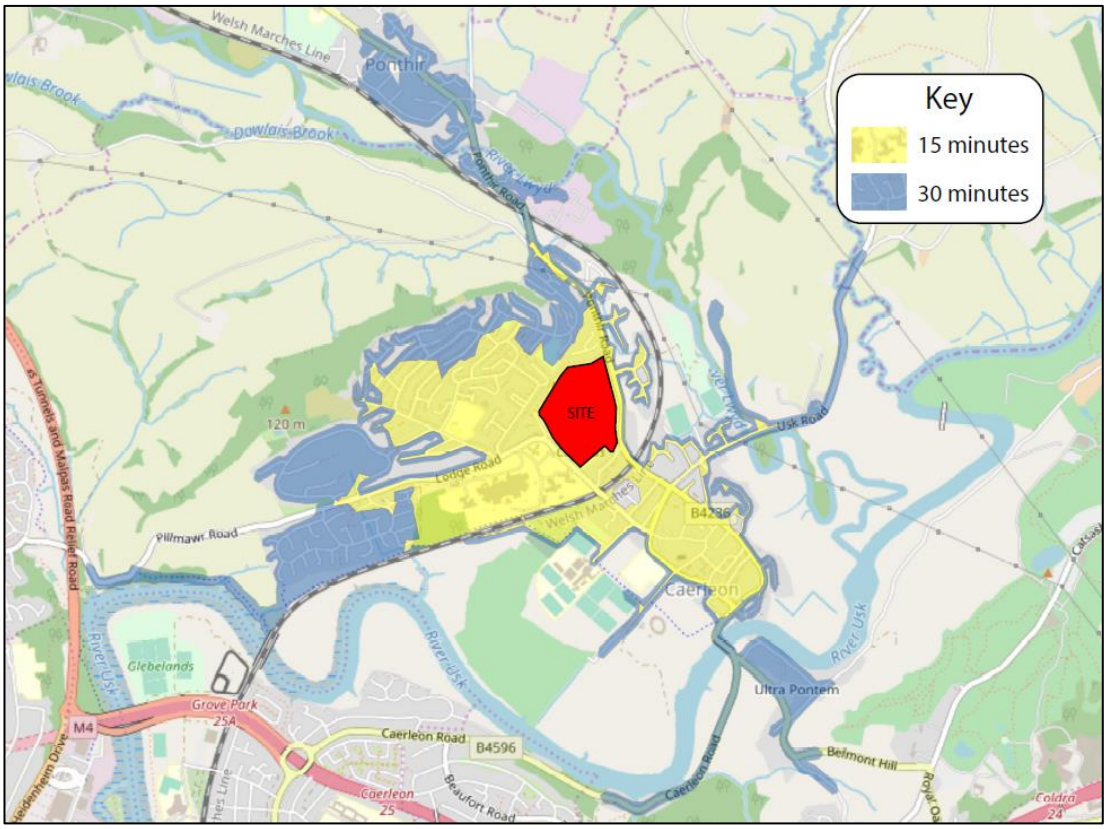
D4.18 There are several other footpaths in Caerleon recognised by the Newport City Council Definitive Map as being Public Rights of Way (PRoW). These are shown in Figure D4.3.

Figure D4.3 Public Rights of Way



D4.19 It is evident that much of Caerleon is accessible with a 15 or 30 minute walk of the site. Figure D4.4 demonstrates the indicative walking isochrones of 15 and 30 minutes from the site assuming a comfortable walking speed of approximately 5kph.

Figure D4.4 15 and 30 Minute Indicative Walking Isochrones



D4.20 As shown in Figure D4.4, much of the local area is accessible by foot. The High Street in Caerleon is accessible within 15 minutes, whereas the outskirts of Caerleon are accessible within a 30 minute walk.

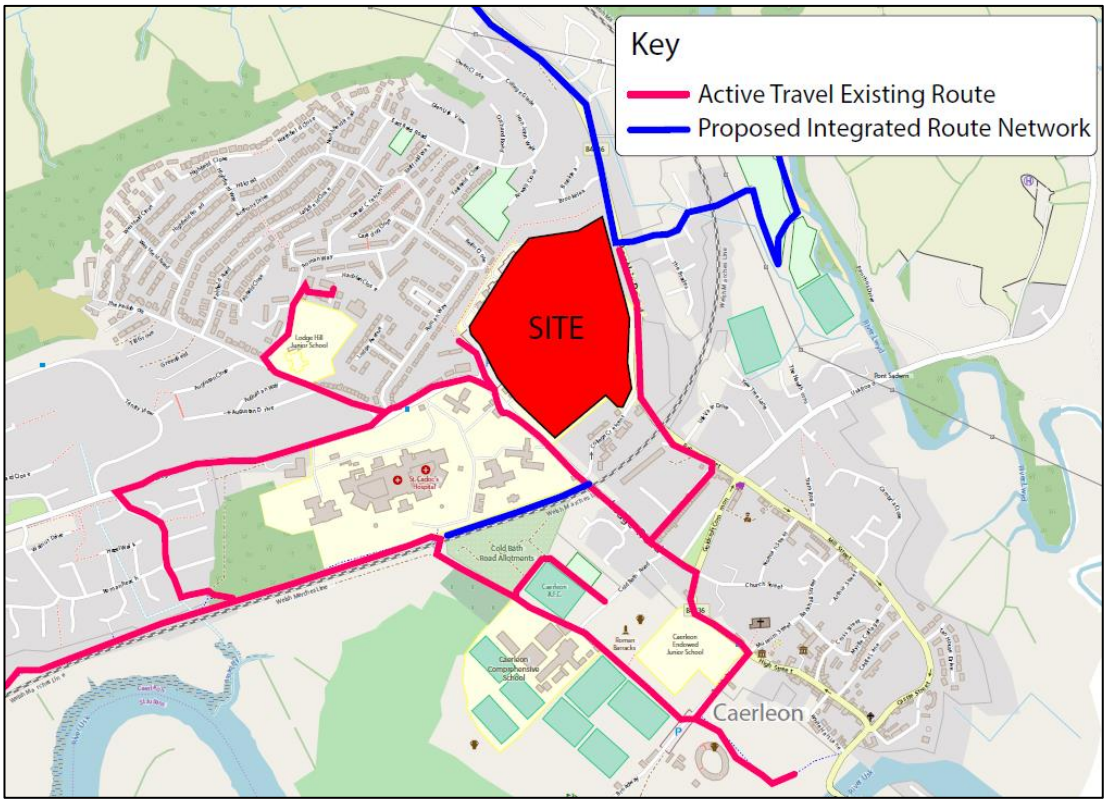
Cycling

D4.21 Cycling infrastructure within the vicinity of the site includes local roads conducive to cycling, active travel routes and a nearby National Cycle Network (NCN) route. These routes connect the site to the wider area.

D4.22 The Active Travel (Wales) Act 2013 aims to make walking and cycling the most attractive option for shorter journeys, connecting where people live to where they want to go. Councils in Wales have to produce Active Travel maps to identify existing suitable routes for pedestrians and cyclists, and suggest other potential routes that would help create an integrated network of active travel route.

D4.23 NSS has produced an 'Existing Route' map highlighting the current walking and cycling infrastructure in the Caerleon Area, as well as an Integrated Network Map showing both existing active travel routes and proposed integrated routes. The highlighted routes are shown in Figure D4.5.

Figure D4.5 Integrated Network Map and Cycling Routes



D4.24 The NCN route 88 runs through Caerleon, connecting to a cycle route near Malpas Road to the west. It is well signposted throughout Caerleon as shown in Photograph D7 and Photograph D8.

Photograph D7

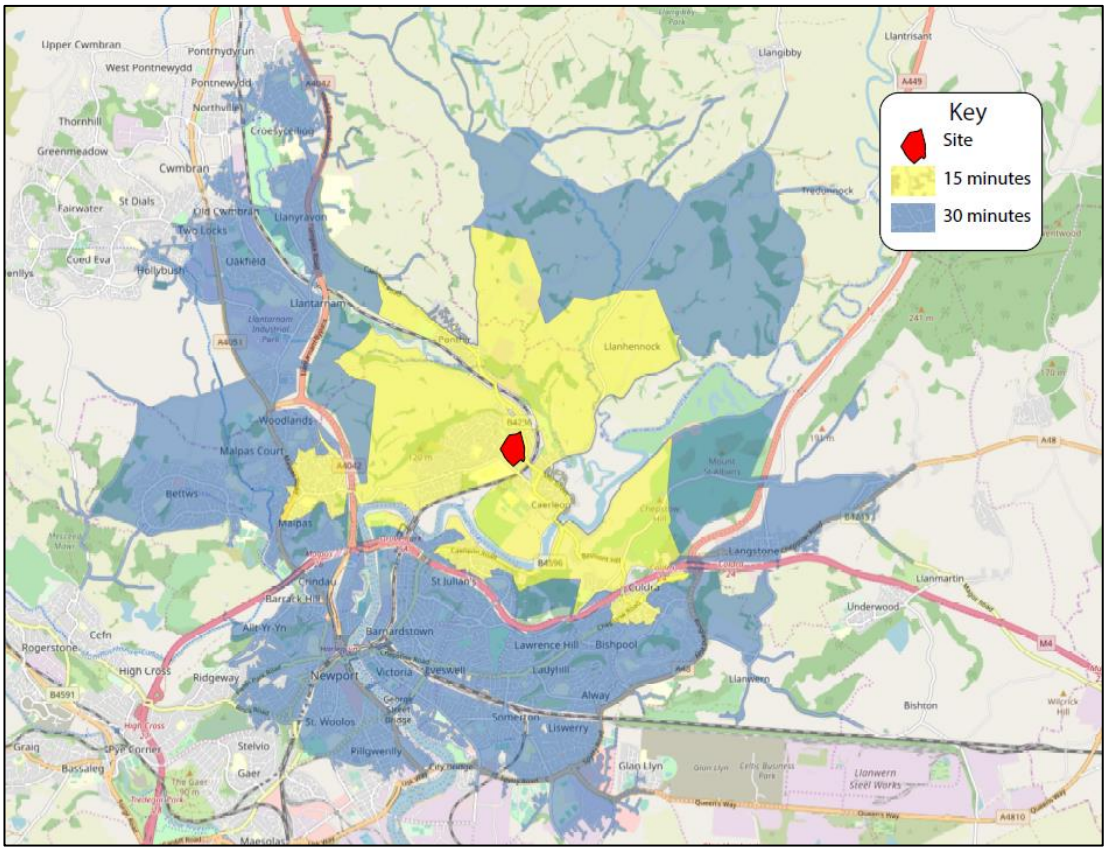


Photograph D8



D4.25 Figure D4.6 indicates the 15 & 30 minute cycling isochrones to/from the site, assuming a comfortable average cycle speed of 9 mph. Sustrans has suggested that up to 5 miles in an appropriate distance for cycle commuting. At 9mph, this equates to 33 minutes covering a wide area from the site.

Figure D4.6 15 and 30 Minute Indicative Cycling Isochrones



D4.26 Figure D4.6 demonstrates that local areas such as Ponthir are within a 15 minute commute of the site, with areas such as Croesyceiliog and Malpas, as well as Newport town centre, being accessible within a 30 minute cycle from the site.

Public Transport

Bus Services

D4.27 The nearest bus stop to the site is the University stop along Lodge Road. The St Cadoc's Hospital Bus stop is a similar distance from the site in the opposite direction along Lodge Road but benefits from far better facilities. Here there are laybys and bus shelters as well as crossing points for pedestrians and timetable information. The conditions of the St Cadoc's Hospital bus stop are shown in Photograph D9 and Photograph D10.

Photograph D9



Photograph D10



D4.28 A summary of the route information and frequency of services from bus stops surrounding the site is shown in Table D4.2.

Table D4.2 Bus Services

Number	Route	First Bus (M-F)	Last Bus (M-F)	Frequency (mins)			Provider
				M-F	S	S	
27	Newport – Caerleon Home Farm	05:55	21:30	60	60	120	Newport Bus
	Caerleon Home Farm – Newport	06:10	21:45				
28	Newport – Caerleon Eastfield Road	07:12	20:30	60	60	120	Newport Bus
	Caerleon Eastfield Road – Newport	07:35	20:48				
29B	Newport – Cwmbran via Caerleon Road, Caerleon, Ponthir	06:50	17:40	45	60	N/A	Newport Bus
	Cwmbran – Newport via Caerleon Road, Caerleon, Ponthir	07:00	18:20				
60	Newport – Monmouth	07:20	17:25	120	120	120	Newport Bus
	Monmouth – Newport	06:50	17:35				

D4.29 The number 27 and 28 bus routes operate adjacent to the proposed site along Lodge Road, each service running hourly with extra services added at peak hours. Bus route numbers 29B and 60 both go through Caerleon Town centre approximately 500m from the site.

D4.30 The site is served by a fairly regular bus service on weekdays but is more limited on a Sunday, with 3 services being provided each at 120 minute intervals.

D4.31 The quality, frequency and affordability of bus services are important factors which people evaluate as part of their selection process for mode of travel for day to day activities for example, commuting and social purposes.

Rail Services

D4.32 The nearest Railway station to the site is in Newport, approximately 5km from the site.

D4.33 Newport Station has multiple facilities including cycle stands for 42 bicycles, a car park with 246 spaces (14 accessible spaces), a taxi rank, ticket office, ticket machines, customer help points, ticket gates, refreshment facilities, shops, waiting rooms, and accessible platforms.

D4.34 The distance of Newport Railway Station from the site limits the opportunity for rail to be a realistic mode choice, although there is the opportunity for rail to form part of a multi-modal journey by cycling, public transport or car-sharing.

D4.35 A summary of rail services from Newport Station is set out in Table D4.3.

Table D4.3 Direct Rail Services from Newport Rail Station

Destination	Approximate Journey Time (mins)	Approximate Frequency (mins)
Cardiff Central	15	5-10
Bristol Parkway	20	30
Cheltenham	60	30
Swansea	70	30
London	120	30
Manchester	180	60
Portsmouth	180	60
Nottingham	180	60

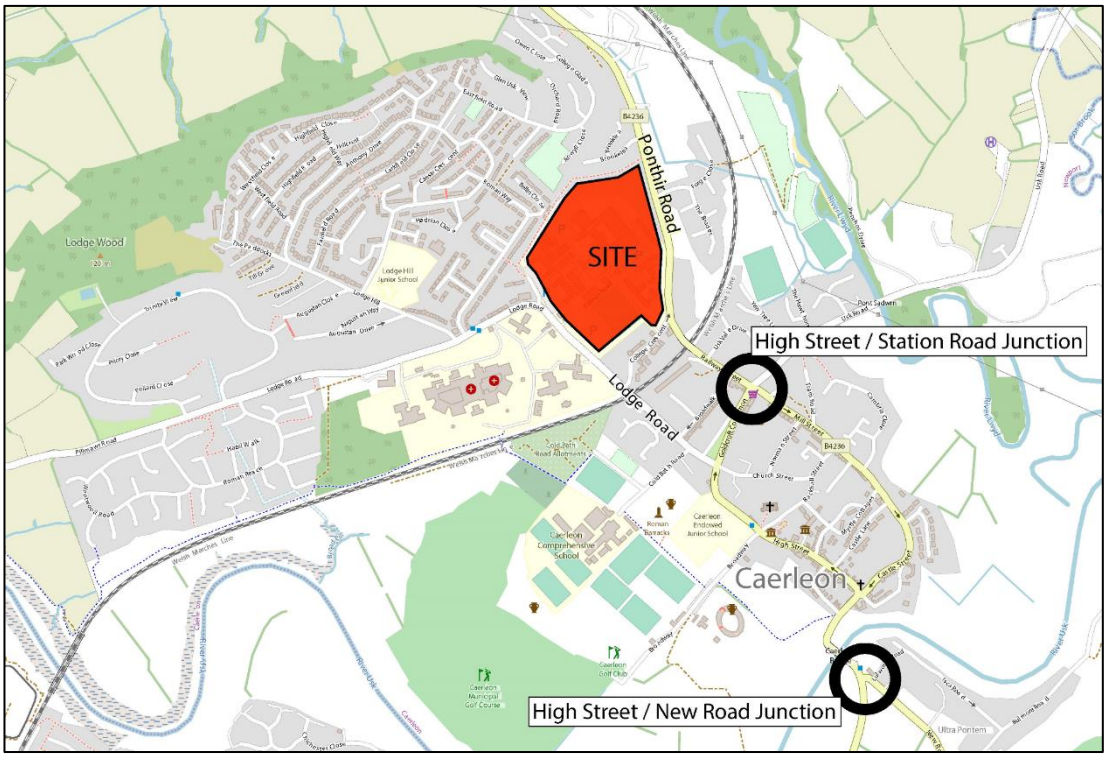
D4.36 Newport Station provides a good link to Cardiff Central. It also provides a link to Bristol Parkway from which further connecting services can be taken to destinations across the UK.

D4.37 Whilst there is no firm commitment in Policy or funding, NCC's Local Transport Plan (January 2015), refers to the Regional Railway Strategy which proposes a new railway station in Caerleon (the former station closing in the 1960s).

Local Highway Network

D4.38 The location of the site in the context of the local highway network is shown in Figure D4.7. This plan also shows the location of the High Street / Station Road and High Street / New Road junctions which are discussed later within this TA.

Figure D4.7 Local Highway Network



Lodge Road

D4.39 The site is bounded to the west by Lodge Road. From the site Lodge Road runs south towards Caerleon High Street and west towards Pillmawr Road, Malpas and the A4042. It is a dual single-lane highway with street lighting and footways on both sides.

D4.40 There are multiple crossing points for pedestrians along Lodge Road as well as traffic lights, and zebra crossings. There are also speed calming measures including Vehicle Activated Signs (VAS) displaying car speeds, bilingual road markings (SLOW/ARAF) as shown in diagram 1024 of Traffic Signs Regulations and General Directions (TSRGD).

D4.41 To the north and west of Lodge Road there is a 30mph speed limit in place. As the road heads south towards the centre of Caerleon this becomes a 20mph speed limit. This 20mph limit is in place through the centre of Caerleon.

Ponthir Road / Station Road

D4.42 Ponthir Road runs north-south to the east of the site, becoming Station Road as it approaches the centre of Caerleon to the south. It is a dual single-lane highway with street lighting and footways on both sides. The speed limit is 30mph on Ponthir Road which reduces to 20mph on Station Road just to the south of the railway bridge.

D4.43 Like Lodge Road, there are also speed calming measures including Vehicle Activated Signs (VAS) displaying car speeds, bilingual road markings (SLOW/ARAF) as shown in diagram 1024 of TSRGD.

High Street

D4.44 High Street runs through the centre of Caerleon. It is subject to a 20mph speed limit and for most of its length is subject to a one-way system. Along High Street there are footways, street lighting, pedestrian crossing points as well as good signage and traffic calming measures.

Existing Baseline Traffic Flows

D4.45 Baseline traffic flow data in the vicinity of the site was obtained from Manual Classified Count (MCC) and Automatic Traffic Count (ATC) surveys undertaken in February 2019 at the following key junctions/links:

- High Street ATC;
- Lodge Road ATC;
- High Street / Station Road MCC;
- High Street / New Road MCC;
- Station Road / College Crescent MCC; and
- High Street / Lodge Road MCC.

D4.46 To obtain Average Annual Daily Traffic (AADT) flows from these surveys, the survey profile from the ATC data was used to factor the peak hour flows.

D4.47 The baseline traffic flows for the highway network are shown in Tables D4.4 to D4.6 for the 24hr AADT, AM and PM peak hours. The AM and PM peak hour flows are based on the observed peak hour flow on the network.

Table D4.4 2019 Baseline 24hr AADT

Link Ref	Link	Total Vehicles	HGV	% HGV
1	Station Road (College Crescent to Broadwalk)	8748	233	6%
2	Station Road (Broadwalk to Usk Road)	7877	233	6%
3	Broadwalk	2237	10	0%
4	Ponthir Road (College Crescent northwards)	9395	223	5%
5	College Crescent (College Road to Station Road)	2279	5	0%
6	College Crescent (Lodge Road to College Road)	2279	5	0%
7	Lodge Road (High Street to Broadwalk)	7442	104	3%
8	Lodge Road (Broadwalk to College Crescent)	7883	114	3%
9	Lodge Road (College Crescent to site access)	8375	135	3%
10	Lodge Road (site access northwards)	8369	135	3%
11	Usk Road	3252	150	9%
12	Mill Street	8426	233	3%

Link Ref	Link	Total Vehicles	HGV	% HGV
13	Castle Street	8100	238	3%
14	High Street (Castle Street to Broadway)	8628	197	2%
15	High Street (Broadway to Lodge Road)	7753	238	3%
16	High Street (Lodge Road to Station Road)	8064	238	3%
17	High Street (Castle Street to New Road)	15019	445	6%
18	New Road	7323	129	4%
19	Caerleon Road	8494	290	7%

Table D4.5 2019 Baseline AM Peak Hour (08:00-09:00)

Link Ref	Link	Total Vehicles	HGV	% HGV
1	Station Road (College Crescent to Broadwalk)	864	26	6%
2	Station Road (Broadwalk to Usk Road)	707	26	7%
3	Broadwalk	279	2	1%
4	Ponthir Road (College Crescent northwards)	931	25	5%
5	College Crescent (College Road to Station Road)	266	1	0%
6	College Crescent (Lodge Road to College Road)	266	1	0%
7	Lodge Road (High Street to Broadwalk)	797	12	3%
8	Lodge Road (Broadwalk to College Crescent)	785	14	4%
9	Lodge Road (College Crescent to site access)	786	17	5%
10	Lodge Road (site access northwards)	786	17	5%
11	Usk Road	298	14	10%
12	Mill Street	958	31	3%
13	Castle Street	965	33	3%
14	High Street (Castle Street to Broadway)	812	22	3%
15	High Street (Broadway to Lodge Road)	685	24	4%
16	High Street (Lodge Road to Station Road)	745	24	3%
17	High Street (Castle Street to New Road)	1567	50	6%
18	New Road	709	15	4%

Link Ref	Link	Total Vehicles	HGV	% HGV
19	Caerleon Road	886	32	7%

Table D4.6 2019 Baseline PM Peak Hour (16:45-17:45)

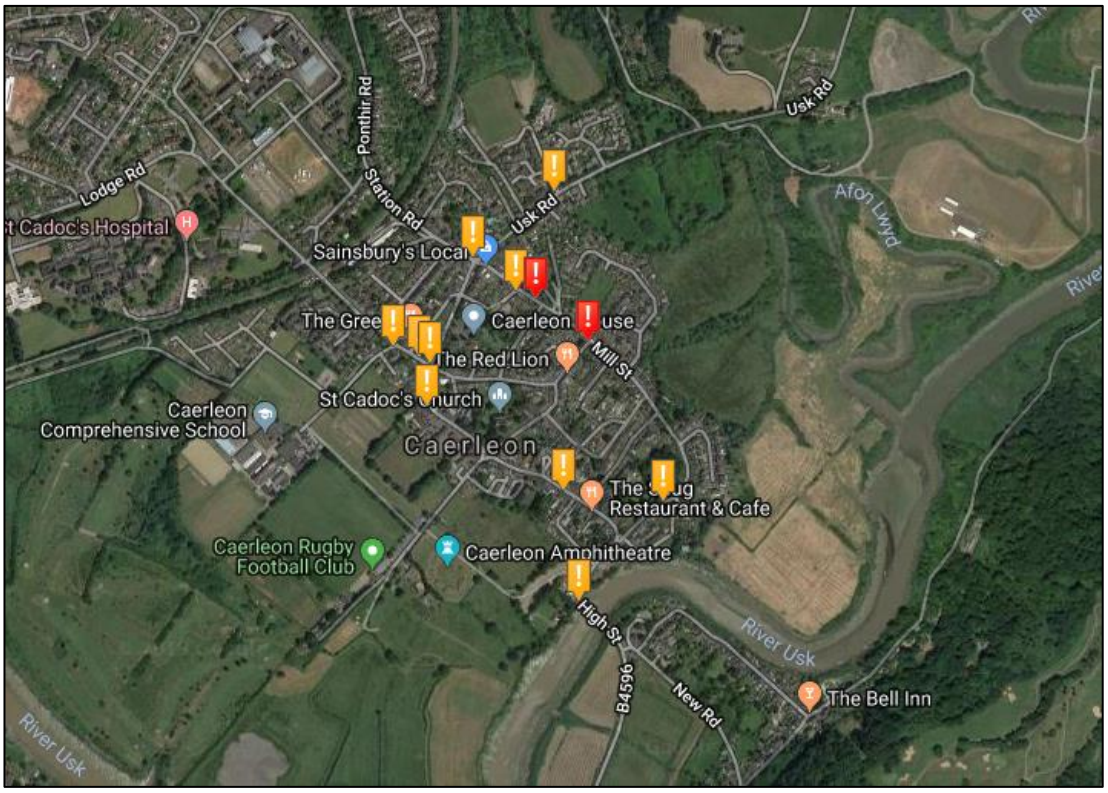
Link Ref	Link	Total Vehicles	HGV	% HGV
1	Station Road (College Crescent to Broadwalk)	825	19	5%
2	Station Road (Broadwalk to Usk Road)	814	19	5%
3	Broadwalk	152	0	0%
4	Ponthir Road (College Crescent northwards)	883	18	4%
5	College Crescent (College Road to Station Road)	174	0	0%
6	College Crescent (Lodge Road to College Road)	174	0	0%
7	Lodge Road (High Street to Broadwalk)	644	8	3%
8	Lodge Road (Broadwalk to College Crescent)	737	8	2%
9	Lodge Road (College Crescent to site access)	831	9	2%
10	Lodge Road (site access northwards)	830	9	2%
11	Usk Road	330	15	9%
12	Mill Street	669	14	2%
13	Castle Street	599	13	2%
14	High Street (Castle Street to Broadway)	854	16	2%
15	High Street (Broadway to Lodge Road)	812	22	3%
16	High Street (Lodge Road to Station Road)	811	22	3%
17	High Street (Castle Street to New Road)	1349	34	5%
18	New Road	705	10	3%
19	Caerleon Road	754	24	7%

Collision Data

D4.48 Collision data has been obtained from Crashmap for the area surrounding the site, which includes roads that form main transport routes to and from the development site. The data was obtained within the 5 year period of 2014 to 2018.

D4.49 The locations of the junctions for the recorded data are shown below in Figure D4.8.

Figure D4.8 Collision Data Locations



D4.50 Analysis of this accident data shows that:

- There were 13 recorded collisions recorded during the study period;
- Of these, 10 were recorded as slight and 3 were recorded as serious;
- There were 21 recorded vehicles involved in the 13 collisions and a total of 15 casualties.

D4.51 The breakdown of collisions is shown in Table D4.7.

Table D4.7 Collision Severity by Year

Severity	2014	2015	2016	2017	2018
Slight	3	2	3	1	1
Serious	1	0	1	0	1

D4.52 Of the 14 collisions that occurred, 5 of those involved cyclists and 2 involved pedestrians. This represents 50% of all collisions. Of the 2 incidents involving pedestrians, the pedestrians were in the carriageway at the time of the collision.

D4.53 Of the collisions involving cyclists, 2 collisions were 'slight' and 3 collisions were 'serious'. There is limited information available in terms of the descriptions of the collisions and the causation factors, however there is nothing to suggest that the collisions occurred as a result of any highway safety issues in Caerleon and it is likely that the collisions were caused by human error.

Determining Effect Significance

Identification of Sensitive Receptors

D4.54 The significance criteria within the IEMA Guidelines provide definitions of environmentally sensitive receptors, as well as affected groups and special interests. It further advises that the traffic effects from the development should be considered in respect of these receptors.

Summary of Receptors and Sensitivity

D4.55 A desktop exercise, augmented by a number of site visits, has been undertaken to identify the sensitivity of each receptor in the study area. All road links within the study area. All road links within the study area have been assessed and assigned sensitivity primarily based on the criteria set out in Table D3.2 and the assessors; experience and judgement. The results of the analysis are shown at Table D4.8.

Table D4.8 Summary of Receptor Sensitivity

Link Ref	Receptor/Link	Sensitivity
1	Station Road (College Crescent to Broadwalk)	Medium
2	Station Road (Broadwalk to Usk Road)	Low
3	Broadwalk	Low
4	Ponthir Road (College Crescent northwards)	Negligible
5	College Crescent (College Road to Station Road)	Low
6	College Crescent (Lodge Road to College Road)	Low
7	Lodge Road (High Street to Broadwalk)	Low
8	Lodge Road (Broadwalk to College Crescent)	Low
9	Lodge Road (College Crescent to site access)	Medium
10	Lodge Road (site access northwards)	Low
11	Usk Road	Low
12	Mill Street	Medium
13	Castle Street	Low
14	High Street (Castle Street to Broadway)	Medium
15	High Street (Broadway to Lodge Road)	High
16	High Street (Lodge Road to Station Road)	High
17	High Street (Castle Street to New Road)	Medium
18	New Road	Medium
19	Caerleon Road	Medium

Future Baseline

D4.56 The design year is 2029 however, a TEMPro traffic growth factor has not been applied to the base year flows (2019). The reason for this is explained in further in Paragraph D3.4 and in the TA (Appendix D1).

D4.57 On this basis, it is considered that the 2019 Future Baseline scenario (if the development does not come forward) is the same as the 2019 Baseline scenario, as set out in Tables D4.4, D4.5 and D4.6.

D5.0 Potential Effects

Introduction

D5.1 This section includes a prediction of impact magnitude, and provides an assessment of impact significance prior to mitigation.

During Construction

D5.2 All potential traffic effects during the construction phase of the development are considered to be temporary and long term. The anticipated build rate for the development is 40 dwellings per annum with a build period of just over 5 years. On this basis, the full development would be complete in 2027.

D5.3 This section considers the likely traffic effects of construction vehicles during the weekday commuter AM and PM peak periods.

D5.4 Construction vehicles will access the site via the proposed access junction on Lodge Road.

D5.5 For the purposes of assessment, it is expected that there would be an average of 40 two-way HGV movements per day with construction worker vehicles amounting to approximately 50-70 movements per day.

D5.6 A large number of construction worker trips would occur before 8:00am, and therefore outside of the AM peak period, similarly they would be made outside the PM peak period. Given the low quantum of construction worker vehicle movements expected, the overall impact on the local network would be **negligible**.

D5.7 Delivery of construction plant would occur during a limited period of time during the initial and final stages of the construction phase. This would generally involve the installation of temporary site offices and the mobilisation of earth moving equipment and alike. Whilst some changeover of plant can be anticipated during the construction phase, it is generally accepted that the mobilisation of plant is a one-off event and the impact on the local highway network would be **negligible**.

D5.8 The increase in the number of HGV movements on the surrounding network is not likely to exceed around 40 two-way movements per day. This level of change is well within any daily variation in traffic flows, and this additional level of traffic would not be a significant change in terms of total traffic flow or HGV proportion on any of the assessed highway links nor would it be noticeable to pedestrians and cyclists. Therefore, impacts in relation to HGV movements are considered to be **negligible**.

D5.9 Therefore, the overall significance for traffic effect and severance during the construction of the development is considered to be **Negligible**.

Other Receptors

D5.10 The small vehicle and HGV volumes associated with the construction phase of the development, particularly during the AM and PM peak hours, are not significant and these additional movements would not be noticeable to pedestrians/motorists/cyclists. Therefore, the significance of the construction traffic effect on sensitive receptors would be as follows:

- Pedestrian and Cyclist Amenity – (including fear and intimidation) – **Negligible**;
- Pedestrian and Cyclist Delay – **Negligible**;
- Junction/Driver Delay – **Negligible**;

- Accidents and Safety - **Negligible**; and,
- Public Transport – **Negligible**.

During Operation

D5.11 The following considers the likely significant effects during the operational phase of the development which would be permanent.

D5.12 The total unfettered traffic generated by the development once completed, operational and fully occupied across the weekday AM and PM peak periods is presented in Table D5.1. The trip generation in Table D5.1 does not include the central scenario.

D5.13 Vehicle access to the site will be via two locations. Lodge Road will be the primary means of access and a secondary access will be located on College Crescent.

Table D5.1 Forecast AM and PM Peak Development Vehicle Movements to and from the Site (218 dwellings)

Period	Total Vehicles (two way)
AM Peak Hour (08:00-09:00)	162
PM Peak Hour (17:00-18:00)	133

D5.14 24hr AADT flows have been calculated on each road link in the study area using daily factors derived from traffic flow information of the surrounding links.

D5.15 Tables D5.2 to D5.4 present a comparison of the total vehicle flows by link with and without the development in 2029 for the daily 24-hour AADT period, AM peak hour and PM peak hour, respectively.

Table D5.2 2029 Future Baseline Scenario 2 (50% Central Scenario) without Development vs 2029 Future Baseline Scenario 2 with Development Two Way Daily (24hr AADT) Total Vehicle Movements

Link Ref	Receptor/Link	2029 Without Development	2029 With Development	Net Change	% Change
1	Station Road (College Crescent to Broadwalk)	9128	9220	92	1%
2	Station Road (Broadwalk to Usk Road)	8159	8270	111	1%
3	Broadwalk	7126	7143	17	0%
4	Ponthir Road (College Crescent northwards)	9594	9599	5	0%
5	College Crescent (College Road to Station Road)	4924	5035	111	2%
6	College Crescent (Lodge Road to College Road)	6577	6607	29	0%
7	Lodge Road (High Street to Broadwalk)	7748	7777	29	0%
8	Lodge Road (Broadwalk to College Crescent)	8302	8336	35	0%
9	Lodge Road (College Crescent to site access)	8794	8828	35	0%
10	Lodge Road (site access northwards)	9014	8915	-99	-1%

Link Ref	Receptor/Link	2029 Without Development	2029 With Development	Net Change	% Change
11	Usk Road	3267	3292	26	1%
12	Mill Street	17061	17231	170	1%
13	Castle Street	17302	17416	114	1%
14	High Street (Castle Street to Broadway)	16993	17051	59	0%
15	High Street (Broadway to Lodge Road)	16123	16152	29	0%
16	High Street (Lodge Road to Station Road)	16174	16204	29	0%
17	High Street (Castle Street to New Road)	15592	15707	114	1%
18	New Road	7608	7688	81	1%
19	Caerleon Road	8782	8816	34	0%

Table D5.3 2029 Future Baseline Scenario 2 (50% Central Scenario) without Development vs 2029 Future Baseline Scenario 2 with Development Two Way AM Peak Hour (08:00-09:00) Total Vehicle Movements

Link Ref	Receptor/Link	2029 Without Development	2029 With Development	Net Change	% Change
1	Station Road (College Crescent to Broadwalk)	897	932	35	4%
2	Station Road (Broadwalk to Usk Road)	825	772	47	6%
3	Broadwalk	688	688	0	0%
4	Ponthir Road (College Crescent northwards)	953	953	1	0%
5	College Crescent (College Road to Station Road)	555	614	59	11%
6	College Crescent (Lodge Road to College Road)	713	682	-31	-4%
7	Lodge Road (High Street to Broadwalk)	843	812	-31	-4%
8	Lodge Road (Broadwalk to College Crescent)	848	805	-43	-5%
9	Lodge Road (College Crescent to site access)	849	806	-43	-5%
10	Lodge Road (site access northwards)	857	846	-11	-1%
11	Usk Road	300	302	3	1%
12	Mill Street	1957	2044	87	4%
13	Castle Street	1840	1853	13	1%
14	High Street (Castle Street to Broadway)	1589	1527	-62	-4%
15	High Street (Broadway to Lodge Road)	1476	1445	-31	-2%
16	High Street (Lodge Road to Station Road)	1515	1484	-31	-2%

Link Ref	Receptor/Link	2029 Without Development	2029 With Development	Net Change	% Change
17	High Street (Castle Street to New Road)	1630	1643	13	1%
18	New Road	740	749	9	1%
19	Caerleon Road	918	921	3	0%

Table D5.4 2029 Future Baseline Scenario 2 (50% Central Scenario) without Development vs 2029 Future Baseline Scenario 2 with Development Two Way PM Peak Hour (16:45-17:45) Total Vehicle Movements

Link Ref	Receptor/Link	2029 Without Development	2029 With Development	Net Change	% Change
1	Station Road (College Crescent to Broadwalk)	861	860	-1	0%
2	Station Road (Broadwalk to Usk Road)	845	840	-5	-1%
3	Broadwalk	687	691	4	1%
4	Ponthir Road (College Crescent northwards)	899	901	2	0%
5	College Crescent (College Road to Station Road)	389	378	-11	-3%
6	College Crescent (Lodge Road to College Road)	561	584	23	4%
7	Lodge Road (High Street to Broadwalk)	661	684	23	3%
8	Lodge Road (Broadwalk to College Crescent)	760	791	31	4%
9	Lodge Road (College Crescent to site access)	854	885	31	4%
10	Lodge Road (site access northwards)	882	879	-3	0%
11	Usk Road	331	334	2	1%
12	Mill Street	1328	1312	-16	-1%
13	Castle Street	1500	1515	15	1%
14	High Street (Castle Street to Broadway)	1699	1745	46	3%
15	High Street (Broadway to Lodge Road)	1640	1663	23	1%
16	High Street (Lodge Road to Station Road)	1609	1632	23	1%
17	High Street (Castle Street to New Road)	1396	1411	15	1%
18	New Road	728	738	10	1%
19	Caerleon Road	777	783	5	1%

D5.16 Tables D5.2 to D5.4 indicate that there are no links subject to a potential impact greater than 30% on the links within the study area compared with the Future Baseline scenario.

D5.17 Based on the sensitivity assessment framework in Table D3.2, Links 15 and 16 have been identified as links of high sensitivity due to their proximity to Charles Williams Church in Wales primary school, however, the increase in traffic on these links do not increase by more than 10%.

D5.18 Therefore, applying Rule 1 and Rule 2 of the IEMA Guidelines, there are no links that will be subject to a significant impact that would require further assessment. However, for robustness, detailed assessments have been undertaken for the following links:

- Link 5 – College Crescent (College Road to Station Road);
- Link 15 – High Street (Broadway to Lodge Road); and
- Link 16 – High Street (Lodge Road to Station Road).

D5.19 The detailed assessments are based on the criteria in Table D3.1 plus driver delay and accidents and safety and are set out in the paragraphs below.

Severance

D5.20 As shown in Table D4.8, Links 15 and 16 have been identified has having 'high' sensitivity due to their proximity to Charles Williams Church in Wales Primary School. However, Tables D5.2 to D5.4 indicate that the percentage change in these links is not greater than 10%. Therefore, as the percentage thresholds in Rule 2 of the IEMA Guidelines is not surpassed there is no further requirement for further assessment on these receptors/links.

D5.21 When the predicted increase in traffic flows is lower than the 30% and 10% thresholds in Rule 1 and Rule 2, the IEMA guidelines suggest the significance of the effects can be stated to be negligible and further detailed assessments are not warranted. Furthermore, increases in traffic flows below 10% are generally considered to be insignificant in environmental terms given that daily variations in background traffic flow may vary by this amount.

D5.22 The impact on traffic on the links within the study are considered to be negligible in the context of the 2029 Future Baseline Scenario 2 assessment. Therefore, the traffic effect and severance of the development is considered to be **Negligible**.

Driver Delay

D5.23 There are no specific thresholds for whether the magnitude of change associated with driver delay is classed as High, Medium, Low or Negligible. Therefore, a judgement-based analysis has been undertaken.

D5.24 The TA (included at Appendix D1 of this ES chapter) provides a detailed analysis of changes to delay and queuing on the highway network. In summary, the capacity assessment at both the High Street/Station Road and High Street/New Road junctions has demonstrated that the effect of traffic from the proposed development has a minor – not significant effect on junction performance irrespective of the former use position.

D5.25 If the effect of unfettered development on the highway network is considered against the Central Scenario (50% former use), then the net effect at the High Street/Station Road junction is +3 Passenger Car Units (PCUs) queuing on Station Road in one peak hour (AM). The net effect at the High Street/New Road junction is an additional 5 PCUs queueing during the PM peak hour.

D5.26 Therefore, it is considered that the effect of the fully built out development on Driver Delay on the highway network can be classified as **Minor Adverse** although the impact on the network will not be significant.

Pedestrian and Cyclist Delay

D5.27 As described in Table D3.1, the impact of additional traffic on pedestrian/cyclist delay should only be considered where traffic flows exceed 1,400 vehicles per hour, in the context of individual characteristics.

D5.28 Link 17 is the only link which has a two-way traffic flow exceeding 1,400 vehicles per hour in either the AM or PM peak hour. However, the traffic generated by the development on this link is below 10%, which is not considered to be significant enough for pedestrians and cyclists to notice and is likely to amount to less than the daily variation in background traffic, which is typically between 0-10%.

D5.29 Therefore, it is considered that the effect of the fully built out development on pedestrian and cyclist delay is **Negligible**.

Pedestrian and Cyclist Amenity

D5.30 As described in Table D3.1, the impact of additional traffic on pedestrian and cyclist amenity should only be considered where the change in traffic flows or HGV flows is more than 50% and 100%, respectively.

D5.31 As shown in Tables D5.2 to D5.4, there are no links which meet the threshold for further assessment of pedestrian and cyclist amenity. As such, it is considered that the likely significant effects on pedestrian and cyclist amenity within the study area are **Negligible**.

Accidents and Safety

D5.32 Accident records for the study area were reviewed as part of the TA (Appendix D1). The conclusions from the accident data are that there is no evidence to suggest that there are any exiting highway issues that could be compounded by development traffic. It is concluded therefore that there would be a **Negligible** effect.

D6.0 Mitigation and Monitoring

During Construction

D6.1 Although no significant adverse impacts have been identified, the effects of construction traffic will be minimised through the implementation of a Construction Traffic Management Plan (CTMP), which can be regarded as a standard control measure for applications of this scale and is expected to be secured by planning condition. Specific measures can be agreed with the highways authority when discharging the planning condition relating to the CTMP, however it is expected that the CTMP will include the following:

- Phasing of construction;
- Access arrangements for workers and for HGVs;
- Working hours are likely to be limited to 08.00-18.00 on weekdays, 08.00-13.00 on Saturdays, no working on Sunday or Bank Holidays without prior agreement with the highway and local planning authorities;
- Construction traffic routing will be generally confined to major highways, avoiding residential local villages such Caerleon. It is anticipated that most construction materials will arrive directly via Lodge Road;
- On-site HGV wheel wash facilities will be provided and engine idling whilst stopped will be minimised;
- Traffic management measures; and
- Parking and loading arrangements.

D6.2 It should be noted that routing restrictions, as noted above, will ensure that HGVs avoid inappropriate routes through villages or along narrow lanes which do not have the capacity to accommodate them.

D6.3 Effective implementation of the CTMP, would minimise effects associated with construction activity. On-going monitoring of construction traffic would form part of the CTMP.

During Operation

Residential Travel Plan

D6.4 Whilst no significant adverse impacts have been identified an Interim Residential Travel Plan (Travel Plan) has been prepared (Appendix D2) that targets sustainable travel to encourage and facilitate a sustainable modal split for travel from the development that is at a high level. The Travel Plan will be implemented to ensure that residents are informed of and encouraged to use sustainable travel options that are available to them when travelling to and from the site.

D6.5 The developer commits to providing a comprehensive Travel Plan, which will include Personalised Travel Planning (PTP) and travel planning for local schools and St Cadoc's Hospital.

D6.6 As part of the Travel Plan, the developer commits to a financial contribution towards a travel bond for a bus pass or cycle voucher.

D6.7 Ongoing monitoring will take place through the Travel Plan. Travel patterns will be monitored on a regular basis for a period of 5 years (throughout the life of the Travel Plan) and assessed against targets for modal shift.

School Travel Plan

D6.8 As part of the overall Travel Plan, the proposal is to provide school-specific travel planning which will encourage trips from the wider area to be undertaken by sustainable modes, which could deliver significant benefits in reducing peak hour congestion, particularly during the morning peaks.

D6.9 School Travel Planning measures could include the following:

- Setting up a walking bus scheme;
- Organised bike/scoot to school days;
- Providing secure/sheltered scooter and cycle parking; and
- Provision of high visibility gear for children and parents.

Off-site Highway Improvements

D6.10 The development proposes junction upgrades including lining and signing at the Station Road/High Street mini roundabout. The proposals are described in further detail in the TA at Appendix D1.

D6.11 The development also proposes the following:

- Improved pedestrian linkages from the site to Lodge Road;
- Improvement to the existing PRoW on/within the northern boundary of the site to provide a 3m wide footway/cycleway;
- A commitment to fund an enhanced on-road cycle link from the site via Lodge Road to Roman Reach, hence linking with the National Cycle Network;
- New bus stops outside the site with the southbound bus stop relocated on Lodge Road;
- Electric car charging points provided for each dwelling; and
- Removal of some parking spaces on High Street near the junction with Station Road.

D7.0 Residual Effects

During Construction

D7.1 Taking into account adherence to the CTMP and CEMP and the temporary nature of these effects, the residual effects are considered to be Negligible on all receptors. The residual effects are therefore the same as those stated within Section D5.0.

During Operation

Driver Delay

D7.2 The modelling outputs from the three sensitivity tests at the High Street/New Street junction demonstrate that:

- There is a beneficial effect in improved capacity and less queuing;
- With a 12% reduction in development traffic from Travel Planning initiatives, the net change in queue length with development compared to the Future Baseline Scenario is -5 and +3 PCUs in the AM and PM peaks respectively on New Road;
- With a 2% reduction in background traffic at this junction, the net change in queuing with development compared to the Future Baseline Scenario is -6 and -2 PCUs in the AM and PM peaks respectively; and
- With both travel planning at the site and the other sustainable transport measures proposed having an effect on the background traffic levels i.e. sensitivity tests A&B, the beneficial effect is more pronounced, with a net change in queuing with development compared to the Future Baseline Scenario of -7 and -4 PCUs in the AM and PM peaks respectively.

D7.3 The residual effect on driver delay as a result of the mitigation measures is therefore considered to be **minor, beneficial**.

Pedestrian and Cyclist Amenity, Delay and Severance

D7.4 The Travel Plan and off-site highway mitigation measures may have a future effect in reducing the number of vehicles on the network and also improving facilities for pedestrians and cyclists.

D7.5 Therefore, the residual effect on pedestrian and cyclist amenity, delay and severance would be **minor, beneficial**.

Accidents and Safety

D7.6 No effects from the development in terms of accidents and safety have been identified, however, the mitigation measures could result in a reduced number of vehicles on the network and safer facilities for pedestrians and cyclists.

D7.7 The residual effect on accidents and safety would be **minor, beneficial**.

D8.0 Summary & Conclusions

Summary

D8.1 The methodology as set out in the IEMA Guidelines has been followed in the assessment of the potential impacts of the proposed development, with professional judgement made where appropriate.

D8.2 The evaluation of the various impacts has been arrived at by consideration of the policy documents, all of which set out to promote sustainability by reducing car use and promoting non-car modes of travel.

D8.3 The site is accessible by a number of non-car modes, including walking, cycling and bus. Prior to mitigation, the proposed development will have a minor adverse effect on driver delay and a negligible effect on the walking and cycling networks. No impacts are predicted to be significant.

Conclusions

D8.4 There is a negligible effect during construction and a negligible effect in the completed development on severance, pedestrian and cyclist delay, pedestrian and cyclist amenity and accidents and safety. Prior to the implementation of mitigation there is a minor, adverse effect on driver delay for the completed development.

D8.5 To address the effects of the proposed development, the proposed mitigation includes the following:

- Improved pedestrian linkages from the site to Lodge Road;
- Improvement to the existing PRoW on the northern boundary of the site to provide a 3m footway/cycleway;
- A commitment to fund an enhanced on-road cycle link from the site via Lodge Road to Roman Reach, hence linking with the National Cycle Network;
- New bus stops outside the site with the southbound bus stop relocated on Lodge Road;
- Electric charging points provided for each dwelling; and
- Removal of some parking spaces on High Street near the junction with Station Road.

D8.6 The introduction of a Travel Plan and a CTMP will also contribute towards mitigating the impact of the development.

D8.7 Following the implementation of the proposed mitigation, there will be residual minor beneficial effects on severance, driver delay, pedestrian and cyclist delay, pedestrian and cyclist amenity and accidents and safety.

D8.8 Table D8.1 contains a summary of the likely significant effects of the development.

Table D8.1 Summary of Effects

Receptor	Effects	Mitigation	Residual Effects
During Construction			
Impact on road users	Negligible	CTMP	Negligible
Impact on pedestrians and cyclists	Negligible	CTMP	Negligible
During Operation			
Severance	Negligible		Minor Beneficial

Receptor	Effects	Mitigation	Residual Effects
Driver Delay	Minor Adverse	Travel Plan, Sustainable Travel Initiatives and off-site highway improvements	Minor Beneficial
Pedestrian and Cyclist Delay	Negligible		Minor Beneficial
Pedestrian and Cyclist Amenity	Negligible		Minor Beneficial
Accidents and Safety	Negligible		Minor Beneficial

D9.0 Abbreviations & Definitions

1 NCC – Newport County Council
2 CTMP – Construction Traffic Management Plan
3 ES – Environmental Statement
4 HGV – Heavy Goods Vehicle
5 IEMA – Institute of Environmental Management & Assessment
6 TA – Transport Assessment
7 TP – Travel Plan
8 TRICS – Trip Rate Information Computer System
9 PTP – Personalised Travel Planning

D10.0 References

1 Welsh Government (2007) Technical Advice Note 18 – Transport (TAN 18)

2 Welsh Government (2018) Planning Policy Wales 10 (PPW 10)

3 National Assembly for Wales (2013) Active Travel (Wales) Act

4 Future Generations Commissioner for Wales (2015) Well-being of Future Generations (Wales) Act

5 Department for Transport and Department for Communities and Local Government (2007) Manual for Streets

6 Welsh Government (2016) Technical Advice Note 12 – Design (TAN 12)

7 Newport County Council (2015) Newport Local Development Plan 2011-2026

8 Institute of Environmental Management and Assessment (1993) Guidelines on the Environmental Assessment of Road Traffic

Redrow Homes

USW Caerleon ES Chapter D Transport Appendix
D1 Transport Assessment

November 2019

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1 INTRODUCTION

1.1 Vectos is retained by Redrow Homes to provide traffic and transport advice in relation to a full planning application for the proposed development of 218 dwellings at the former University of South Wales' Caerleon Campus in Caerleon.

1.2 The development is located on a brownfield site with a former use (university campus) which would have generated significant volumes of traffic throughout the day and during the peak hours. The university closed in July 2016.

1.3 A planning application was submitted in 2017 for a mixed use development on a brownfield site, comprising some 310 residential dwellings (267 houses and 43 flats) through redevelopment/retention of some existing buildings on site and new development, together with 4000m^2 of B1a/D1 non-residential floorspace (application reference: 17/0781).

1.4 The previous application was for circa 100 more residential dwellings (and commercial use) than the proposed development and therefore the proposed development results in a significant betterment in terms of traffic generation in the AM and PM peak periods compared to the previous proposal.

1.5 The key objectives of this TA are to:

- Identify opportunities for non-car based travel and socially inclusive transport links in line with current best practice and local and national policy;
- Encourage behavioural choice;
- Establish the quantum of traffic generated by the proposed development;
- Measure the effect of development related traffic on the local highway network based on percentage traffic demand change using the modelling software ARCADY, PICADY and LinSig where appropriate; and
- Present suitable mitigation measures to maximise the development's accessibility and connectivity and to maximise the residual effects of the development.

1.6 Following this introductory chapter, the remainder of this report is structured as follows:

- **Section 2** – provides a description of the application site, its proximity to local community facilities and the existing highway infrastructure and transportation networks;
- **Section 3** – provides a brief overview of national and local policy;
- **Section 4** – describes the proposed development, access arrangements for pedestrians, cyclists and motorised vehicles and off site mitigation;
- **Section 5** – sets out the trip generation of the proposed development and the distribution of development traffic on the local highway network;
- **Section 6** – provides an analysis of the impact of the proposed development on the local highway network; and
- **Section 7** – summarises and concludes.

2 EXISTING SITUATION

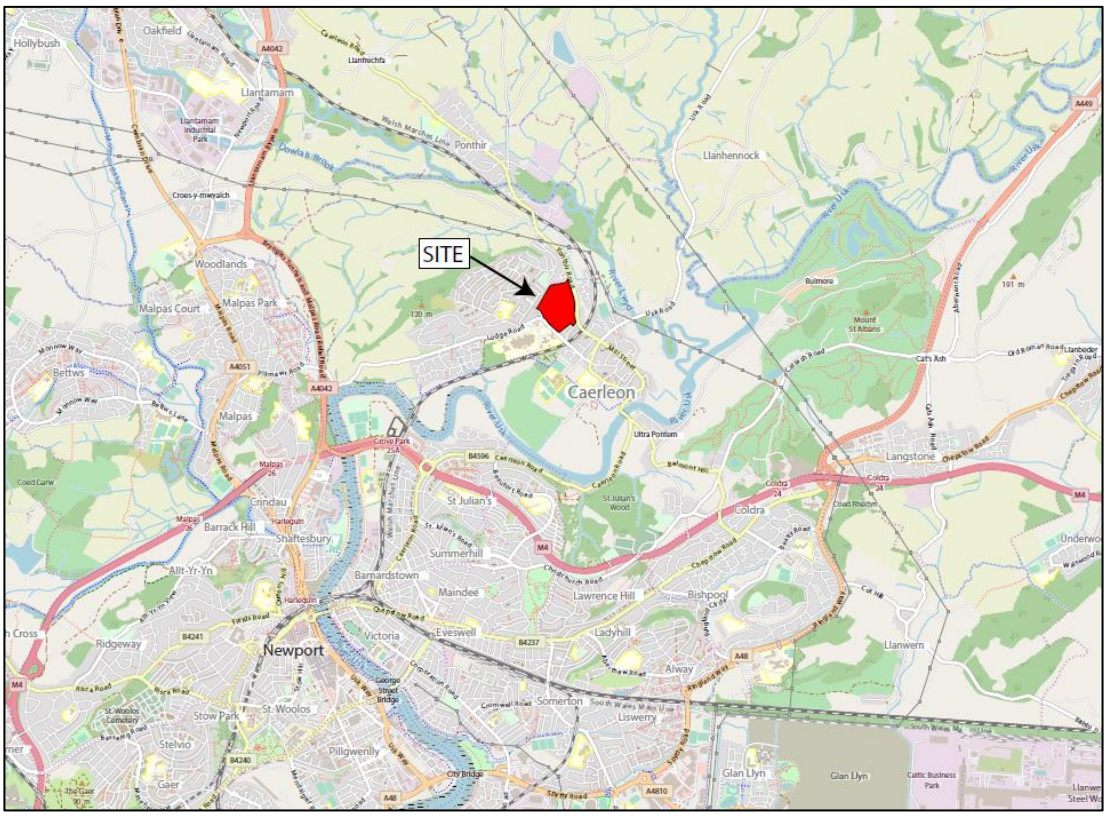
2.1 This section of the report includes a detailed description of the site, the surrounding highway network and the general traffic and transportation characteristics of the surrounding area.

Site Location

2.2 The site is located near the centre of Caerleon, approximately 500m north of the High Street. It is in a built-up area, bounded by residential areas to the north and east, and by St Cadoc's Hospital to the southwest.

2.3 By road, the site is located approximately 6km northeast of Newport, 8km southeast of Cwmbran and 12km northwest of Magor. The location of the site is shown below in **Figure 2.1**.

Figure 2.1 – Site Location



2.4 This is a brownfield site which previously accommodated a campus of the University of South Wales. The campus has been closed since July 2016 and, currently, the site is no longer in use aside from ad hoc uses, including as a set for filming.

Planning History

2.5 A planning application was submitted in 2017 for a mixed use development on a brownfield site, comprising some 310 residential dwellings (267 houses and 43 flats) through redevelopment/retention of some existing buildings on site and new development, together with 4000m^2 of B1a/D1 non-residential floorspace (application reference: 17/0781).

2.6 This application was refused for the following reasons:

The proposal will have a significant adverse effect upon interests of acknowledged importance namely:

- *Highway safety;*
- *Free flow of traffic; and*
- *Residential amenity and human health.*

2.7 An appeal was lodged and then subsequently withdrawn by the University of South Wales and Redrow Homes.

Local Facilities

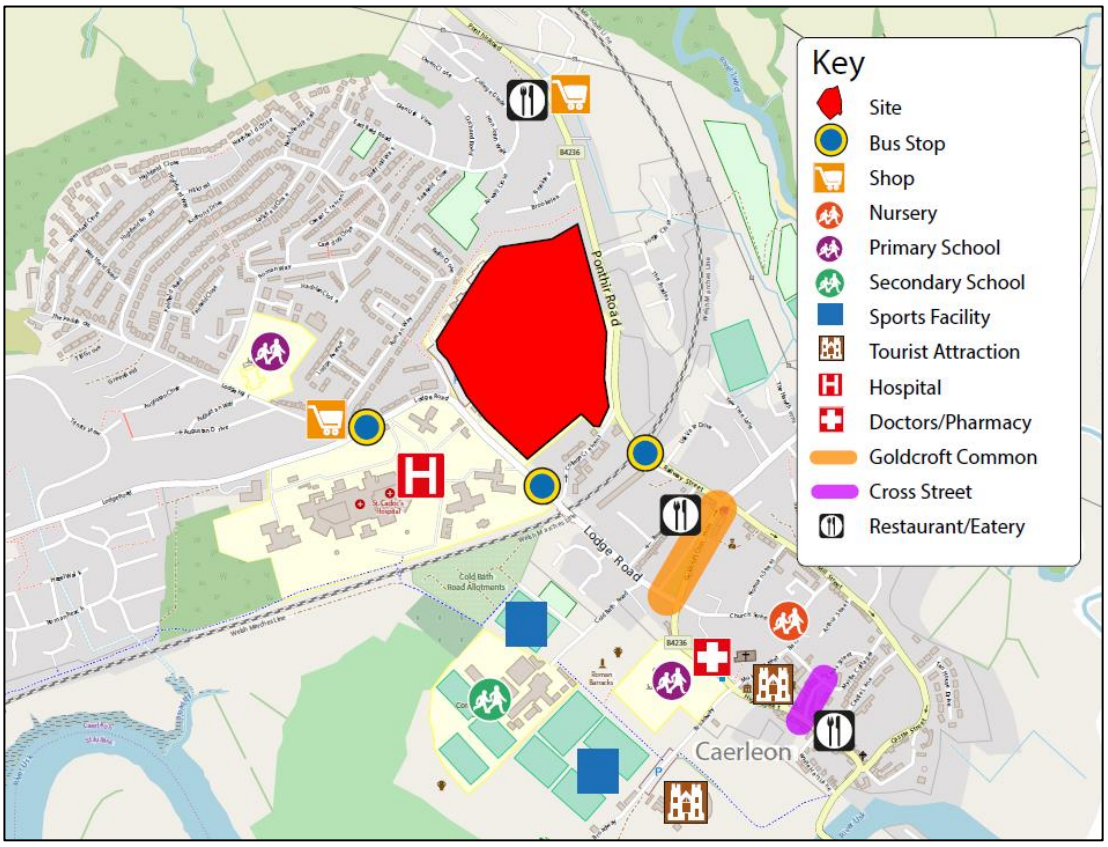
2.8 The site is very well placed in terms of access to local facilities and services such as medical services, shops, schools and public transport via Public Rights of Way and Active Travel Routes. A summary of the local facilities which can be found within the vicinity of the site is set out in **Table 2.1** and displayed in **Figure 2.2**.

Table 2.1 – Local Facilities

Local Facility	Distance from site access (metres)	Cycling Time (mins)	Walking Time (mins)
Public Transport			
University Bus Stop	250	1	3
St Cadoc's Hospital Bus Stop	400	2	5
Old Station Bus Stop	400	2	4
Schools / Education			
Caerleon Lodge Hill Junior School	650	4	9
Caerleon Comprehensive School	800	4	10
Charles William Primary School	750	4	9
The Owl and Pussycat Nursery	850	4	10
Leisure / Sports Facilities			

Caerleon AFC	900	4	11
Caerleon Rugby Football Club	1200	4	14
Caerleon Amphitheatre	1100	4	13
Caerleon Roman Fortress	1400	6	12
Pub / Restaurants / Food			
Goldcroft Common (multiple facilities)	700	2	8
The Isca Arms	1000	4	12
Cross Street (multiple facilities)	1100	5	12
Local Shops			
McColl's	400	2	5
Goldcroft Common (multiple shops)	700	2	8
Medical Centres			
St Cadoc's Hospital	450	2	5
Isca Medical Centre	850	5	9
Well Pharmacy	850	5	2
Local Areas			
Ponthir	2300	28	8

Figure 2.2 – Local Facilities



2.9 As shown in **Figure 2.2**, numerous facilities and services are present within Caerleon, all of which are accessible by foot or by bike via existing infrastructure. Some streets and areas such as Cross Street and Goldcroft Common are home to multiple food and drink outlets and there are several school and medical facilities within the town.

Pedestrian and Cycle Provision

2.10 The local area offers a good framework for non-motorised modes of travel and is served by good quality pedestrian routes.

2.11 Development at this site is capable of being designed to encourage trips to be made by sustainable modes, including active travel (walking and cycling), by car sharing, and on public transport to maximise social inclusion and minimise the number of single occupancy private car trips. The location of the site is well suited to the promotion of sustainable travel.

Walking

2.12 The Active Travel (Wales) Act 2013 aims to make walking and cycling the most attractive option for shorter journeys, connecting where people live to where they want to go.

2.13 Due to the residential streets within close proximity to the proposed development, the site is well served by pedestrian facilities. Lodge Road connects the proposed western access of the site to High Street in the centre of Caerleon, and Station Road provides a route to the eastern end of High Street from the eastern side of the site. The topography in Caerleon is conducive for the majority of people to walk and cycle from the site.

2.14 There are continuous footways along these routes as well as street lighting and crossing points for pedestrians. On Lodge Road there is a footway separate to the main road which provides a route for pedestrian to cross over the railway line. This is shown in **Photograph 2.1** and the Pelican crossing on Lodge Road is shown in **Photograph 2.2**.

Photograph 2.1



Photograph 2.2



2.15 When adjacent to the site, Lodge Road curves around to the west and leads away from Caerleon. This route provides a link to Caerleon Lodge Hill School as well as the west of Caerleon. It includes a large pedestrianised area where the road curves from north to west, shown in **Photograph 2.3,** as well as pedestrian crossing points further west along the road shown in **Photograph 2.4**.

Photograph 2.3



Photograph 2.4



2.16 Running along the northern border of the site is a footpath (PRoW) connecting Lodge Road to Ponthir Road. The footpath runs in a west-east direction. This route can currently be used by pedestrians travelling from west of Lodge Road to any of the services (including garages, shops and pubs) located on Ponthir Road.

2.17 The western end of the footpath connects to Roman Way, providing a link from the residential area to the north to Lodge Road.

2.18 The footpath is approximately 500m in length and is paved for some of its length. It does not benefit from consistent street lighting and as such is not likely to be used outside of daylight hours.

2.19 There are some informal links connecting to the footpath such as from Bellin Close to the north indicating that current residents in the area use this footpath as a mode of travel for east-west connections.

2.20 The condition of the footpath can be seen in **Photograph 2.5** and in **Photograph 2.6**.

Photograph 2.5

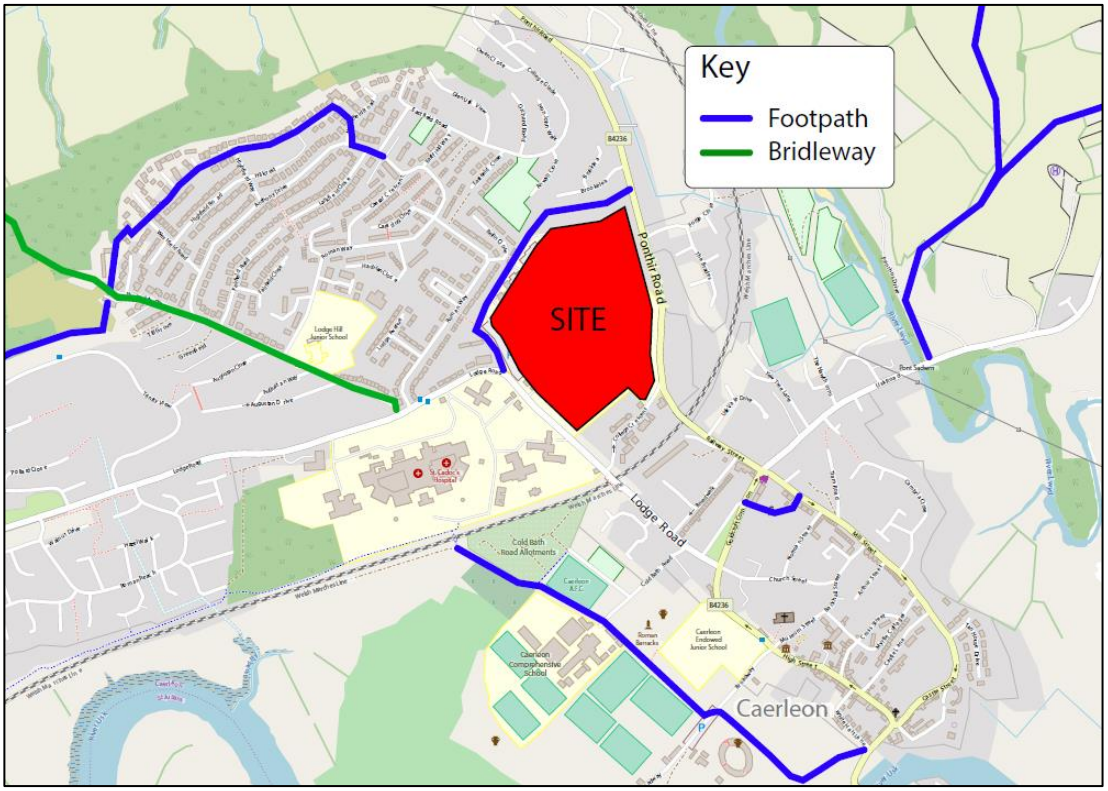


Photograph 2.6



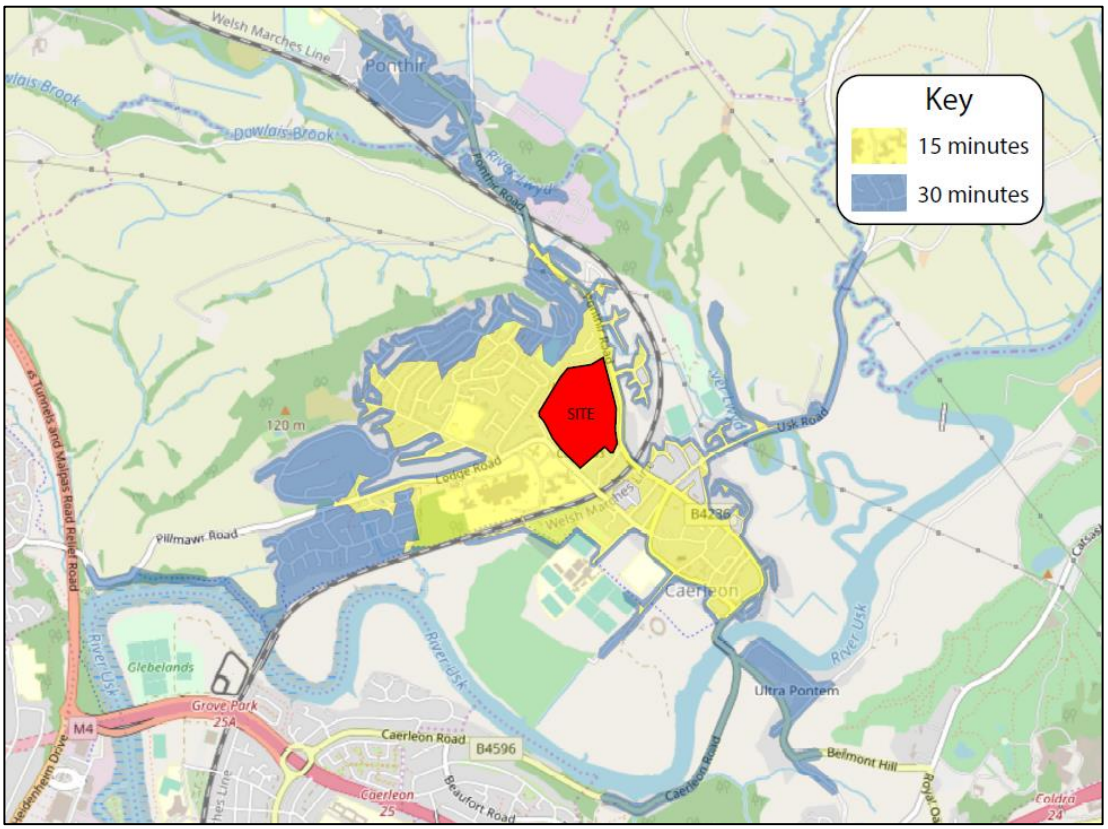
2.21 There are several other footpaths in Caerleon recognised by the Newport City Council Definitive Map as being Public Rights of Way (PRoW). These are shown in **Figure 2.3**.

Figure 2.3 – Public Rights of Way



2.22 It is evident that much of Caerleon is accessible with a 15 or 30 minute walk of the site. **Figure 2.4** demonstrates the indicative walking isochrones of 15 and 30 minutes from the site assuming a comfortable walking speed of approximately 5kph.

Figure 2.4 – 15 and 30 Minute Indicative Walking Isochrones



2.23 As shown in **Figure 2.4**, much of the local area is accessible by foot. The High Street in Caerleon is accessible within 15 minutes, whereas the outskirts of Caerleon are accessible within a 30 minute walk.

Cycling

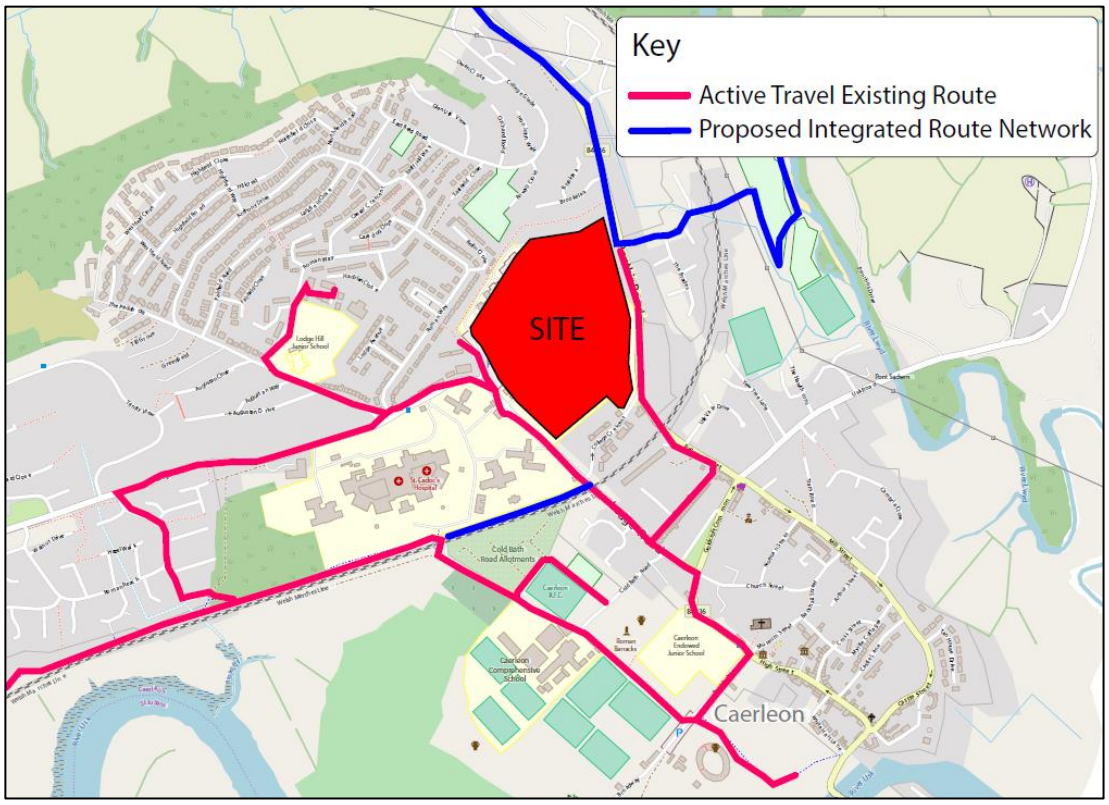
2.24 Cycling infrastructure within the vicinity of the site includes local roads conducive to cycling, active travel routes and a nearby National Cycle Network (NCN) route. These routes connect the site to the wider area.

2.25 The Active Travel (Wales) Act 2013 aims to make walking and cycling the most attractive option for shorter journeys, connecting where people live to where they want to go. Councils in Wales have to produce Active Travel maps to identify existing suitable routes for pedestrians

and cyclists, and suggest other potential routes that would help create an integrated network of active travel route.

2.26 Newport City Council have produced an 'Existing Route' map highlighting the current walking and cycling infrastructure in the Caerleon Area, as well as an Integrated Network Map showing both existing active travel routes and proposed integrated routes. The highlighted routes are shown in **Figure 2.5** and this demonstrates the site is already well located in respect of Active Travel.

Figure 2.5 – Integrated Network Map and Cycling Routes



2.27 The NCN route 88 runs through Caerleon, connecting to a cycle route near Malpas Road to the west. It is well signposted throughout Caerleon as shown in **Photograph 2.7** and **Photograph 2.8**.

Photograph 2.7

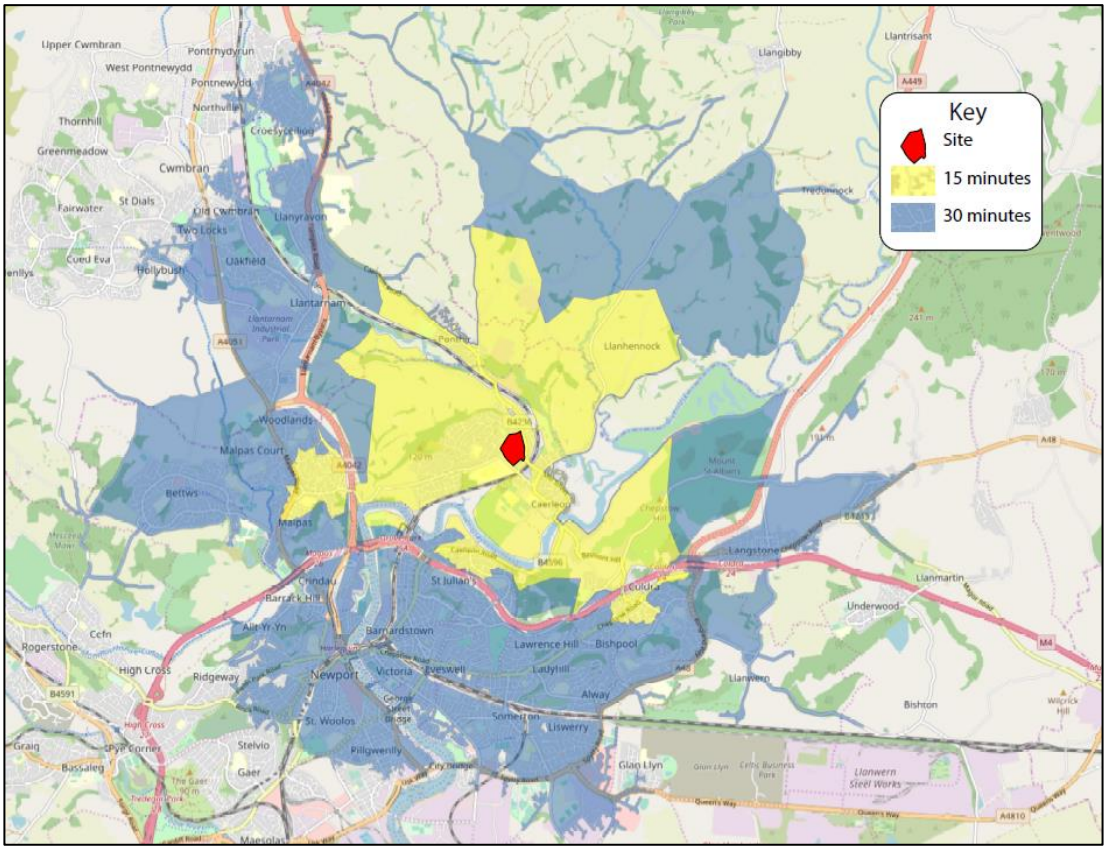


Photograph 2.8



2.28 **Figure 2.6** indicates the 15 & 30 minute cycling isochrones to/from the site, assuming a comfortable average cycle speed of 9 mph. Sustrans has suggested that up to 5 miles in an appropriate distance for cycle commuting. At 9mph, this equates to 33 minutes covering a wide area from the site.

Figure 2.6 – 15 and 30 Minute Indicative Cycling Isochrones



2.29 **Figure 2.6** demonstrates that local areas such as Ponthir are within a 15 minute commute of the site, with areas such as Croesyceiliog and Malpas, as well as Newport town centre, being accessible within a 30 minute cycle from the site.

Public Transport

Bus Services

2.30 The nearest bus stop to the site is the University stop along Lodge Road. The St Cadoc's Hospital Bus stop is a similar distance from the site in the opposite direction along Lodge Road but benefits from better facilities. Here there are laybys and bus shelters as well as crossing points for pedestrians and timetable information. The conditions of the St Cadoc's Hospital bus stop are shown in **Photograph 2.9** and **Photograph 2.10**.

Photograph 2.9



Photograph 2.10



2.31 A summary of the route information and frequency of services from bus stops surrounding the site is shown in **Table 2.2.**

Table 2.2 – Local Bus Services

Number	Route	First Bus (M-F)	Last Bus (M-F)	Frequency (mins)			Provider
				M-F	S	S	
27	Newport – Caerleon Home Farm	05:55	21:30	60	60	120	Newport Bus
	Caerleon Home Farm – Newport	06:10	21:45				
28	Newport – Caerleon Eastfield Road	07:12	20:30	60	60	120	Newport Bus
	Caerleon Eastfield Road – Newport	07:35	20:48				
29B	Newport – Cwmbran via Caerleon Road, Caerleon, Ponthir	06:50	17:40	45	60	N/A	Newport Bus
	Cwmbran – Newport via Caerleon Road, Caerleon, Ponthir	07:00	18:20				
60	Newport – Monmouth	07:20	17:25	120	120	120	Newport Bus
	Monmouth – Newport	06:50	17:35				

2.32 The number 27 and 28 bus routes operate adjacent to the proposed site along Lodge Road, each service running hourly with extra services added at peak hours. Bus route numbers 29B and 60 both go through Caerleon Town centre approximately 500m from the site.

2.33 The site is served by a fairly regular bus service on weekdays and Saturdays but is more limited in a Sunday, with 3 services being provided each at 120 minute intervals.

2.34 The quality, frequency and affordability of bus services are important factors which people evaluate as part of their selection process for mode of travel for day to day activities for example, commuting and social purposes.

Rail Services

2.35 The nearest Railway station to the site is in Newport, approximately 5km from the site.

2.36 Newport Station has multiple facilities including cycle stands for 42 bicycles, a car park with 246 spaces (14 accessible spaces), a taxi rank, ticket office, ticket machines, customer help points, ticket gates, refreshment facilities, shops, waiting rooms, and accessible platforms.

2.37 The distance of Newport Railway Station from the site limits the opportunity for rail to be a realistic mode choice, although there is the opportunity for rail to form part of a multi-modal journey by cycling, public transport or car-sharing.

2.38 A summary of rail services from Newport Station is set out in **Table 2.3.**

Table 2.3 – Direct Rail Services from Newport Rail Station

Destination	Approximate Journey Time (mins)	Approximate Frequency (mins)
Cardiff Central	15	5-10
Bristol Parkway	20	30
Bristol Temple Meads	35	30
Cheltenham	60	30
Swansea	70	30
London	120	30
Manchester	180	60
Portsmouth	180	60
Nottingham	180	60

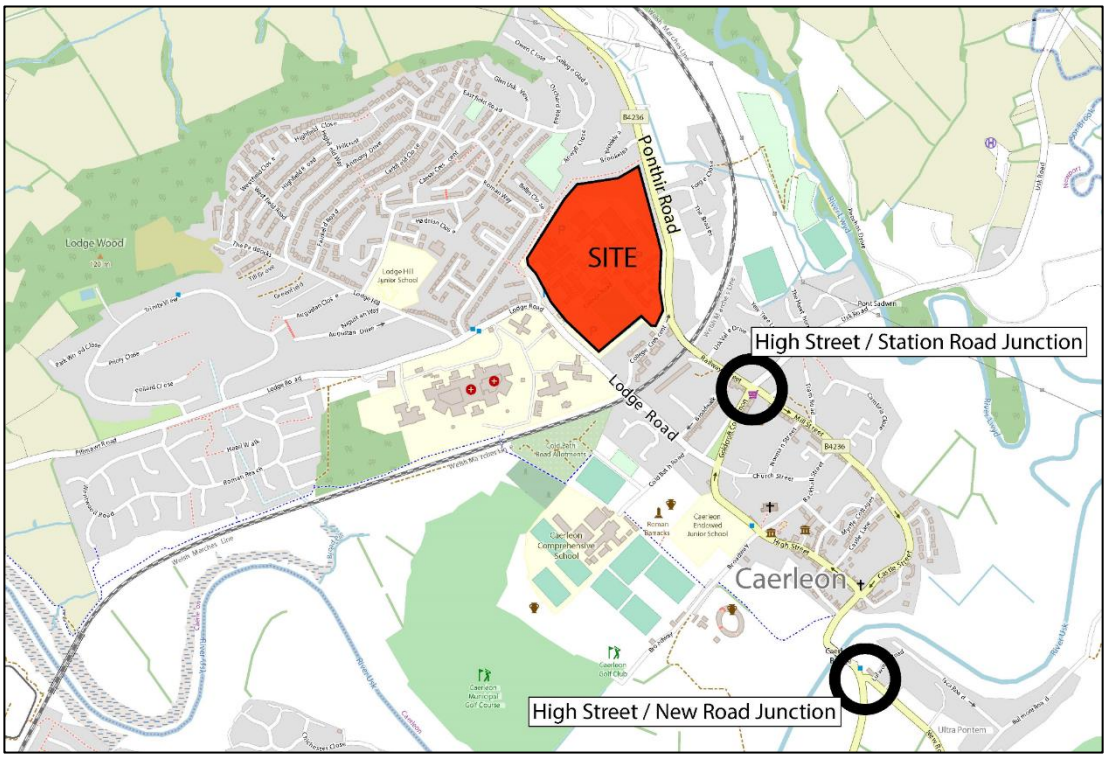
2.39 Newport Station provides a good link to Cardiff Central. It also provides a link to Bristol Parkway from which further connecting services can be taken.

2.40 Whilst there is no firm commitment in Policy or funding, Newport City Council's Local Transport Plan (January 2015), refers to the Regional Railway Strategy which proposes a new railway station in Caerleon (the former station closing in the 1960s).

Local Highway Network

2.41 The location of the site in the context of the local highway network is shown in **Figure 2.7**. This plan also shows the location of the High Street / Station Road and High Street / New Road junctions which are discussed later within this TA.

Figure 2.7 – Local Highway Network



Lodge Road

2.42 The site is bounded to the west by Lodge Road. From the site Lodge Road runs south towards Caerleon High Street and west towards Pillmawr Road, Malpas and the A4042. It is a dual single-lane highway with street lighting and footways on both sides.

2.43 There are multiple crossing points for pedestrians along Lodge Road as well as traffic lights, and zebra crossings. There are also speed calming measures including Vehicle Activated Signs (VAS) displaying car speeds, bilingual road markings (SLOW/ARAF) as shown in diagram 1024 of Traffic Signs Regulations and General Directions (TSRGD).

2.44 To the north and west of Lodge Road there is a 30mph speed limit in place. As the road heads south towards the centre of Caerleon this becomes a 20mph speed limit. This 20mph limit is in place through the centre of Caerleon.

Ponthir Road / Station Road

2.45 Ponthir Road runs north-south to the east of the site, becoming Station Road as it approaches the centre of Caerleon to the south. It is a dual single-lane highway with street lighting and footways on both sides.

2.46 Like Lodge Road, there are also speed calming measures including Vehicle Activated Signs (VAS) displaying car speeds, bilingual road markings (SLOW/ARAF) as shown in diagram 1024 of TSRGD.

High Street

2.47 High Street runs through the centre of Caerleon. It is subject to a 20mph speed limit and for most of its length is subject to a one-way system. Along High Street there are footways, street lighting, pedestrian crossing points as well as good signage and traffic calming measures.

Existing Travel Characteristics

Background Traffic Flows

2.48 Manual Classified Count (MCC) and Automatic Traffic Count (ATC) surveys were undertaken in February 2019 at the following key junctions/links:

- High Street ATC;
- Lodge Road ATC;
- High Street / Station Road MCC;
- High Street / New Road MCC;
- Station Road / College Crescent MCC; and
- High Street / Lodge Road MCC.

2.49 The surveys were undertaken between 18th-24th of February 2019 and whilst they were undertaken a week prior to school half term (for timing reasons pertaining to the withdrawn appeal), they are considered to be neutral and representative in the context of DfT guidance.

2.50 The 2019 observed traffic flows are included at **Appendix A** and the full traffic survey data is included at **Appendix B.** The 2019 data has been compared against the 2016 traffic data used by Calibro for the previous application on this site. The 2016 data is also summarised within **Appendix A.**

2.51 A comparison between the trends in traffic data from 2016 - 2019 is set out in the following but the general pattern is one of stagnating traffic growth within the town.

Comparison between Calibro 2016 data and Vectos February 2019 data.

2.52 Analysis of the Automatic Traffic Count (ATC) data between 2016 – 2019 shows that:

- the daily traffic (ATC) in Caerleon has decreased between 2016 and 2019 – about 7% on both High Street and Lodge Road;
- Peak hour traffic has also decreased on High Street by 18% in the AM peak and 7% in the PM peak; and
- On Station Road there has been a 3% decrease in the traffic from 2016-2019 in both peaks.

2.53 Analysis of the Manual Classified Count (MCC) data between 2016 – 2019 shows that:

- Traffic levels at the High Street / Station Road junction have decreased in both the AM (-2.4%) and PM (-6.7%) peaks between 2016-2019;
- Traffic levels at the High Street / Lodge Road junction have decreased in both the AM (-3.7%) and PM (-3.6%) peaks between 2016-2019;
- At the High Street New Road junction there has been a small increase (+2.5%) in traffic from 2016-2019 in the AM peak and a larger decrease (-6.2%) of traffic in the PM peak between 2016-2019;
- At the Station Road / College Crescent junction there has been a small increase (+2.9%) in traffic from 2016-2019 in the AM peak and a larger decrease (-7.2%) of traffic in the PM peak between 2016-2019;
- In the AM peak hour 2019 traffic levels at all of the junctions (averaged) have remained at 2016 levels (5083 compared to 5071) whereas in the PM peak, traffic has decreased (4992 compared to 4700) in Caerleon.
- During the 3 hr (0700-1000) morning peak period there has been an increase of traffic between 2%- 4% at all four junctions; and
- During the 3hr PM peak there has been a reduction in traffic levels of between 5-7% at all four junctions.

2.54 The comparison between the 2016-2019 ATC data demonstrates that overall traffic levels in Caerleon have reduced since 2016 suggesting evidence of modal shift.

2.55 During the AM peak hour, a comparison between the 2016 -2019 MCC data shows that the amount of traffic is about the same – i.e., no growth. However, there is also a trend (within

the MCC counts) of peak spreading during in the morning. It would appear that motorists are acting to minimise their inconvenience by avoiding travelling (by car) during the morning peak hour with traffic levels increasing on the shoulders (before and after) of the peak.

2.56 During the PM peak hour there has been a reduction of traffic from 2016 to 2019.

2.57 In 2016, the use of the site by USW generated only a small amount of traffic. Therefore, the reduction in traffic from 2016 to 2019 has not arisen by virtue of the use of the site as a University campus ceasing. At the time of the June 2016 traffic surveys, most courses had been wound down or finished in the period leading to the final closure of the campus.

2.58 To further understand and substantiate this trend in traffic volumes, additional historic traffic data in / near Caerleon has been sourced from two other areas; The Caerleon AQMA Source Apportionment and Transport Intervention Study – AECOM 2015 and a Manual Traffic counter point 952051 on the B4236, Caerleon Road, Llanfechfa. The AECOM AQMA study has traffic data for 2014 within Caerleon and the fixed traffic counter on the B4236 has AADT between 2009 and 2018. However, NCC expressed concerns over the validity of the February 2019 data and therefore further traffic surveys (MCC and ATC) were undertaken in November 2019 to help validate this data.

Comparison between the 2014 AECOM traffic data, June 2016 data and Feb 2019 data

2.59 **Table 2.4** sets out a comparison of traffic data at various junctions in 2014, 2016 and 2019 based on the availability of corresponding data. The 2014 data is shown in full in **Appendix A**.

Table 2.4 comparison of traffic data by junction in Caerleon 2014-2019

Peak	High St/ Station Rd mini roundabout			Lodge Rd / High St / Church St			High St / Castle St / Hanbury Cl		
	Nov 14	Jun 16	Feb 19	Nov 14	Jun 16	Feb 19	Nov 14	Jun 16	Feb 19
AM 8-9	1366	1387	1354	1227	1168	1125	1659	1622	1656
PM 5-6	1258	1306	1287	1149	1198	1137	1349	1414	1392

2.60 The comparison between 2014, 2016 and 2019 traffic data shown in **Table 2.4** demonstrates that there has been no growth within the town over this period and specifically total traffic movements within the various junctions including the most recent February 2019 surveys are commensurate with 2014 data obtained on behalf of the Council. This profile of traffic is also shown in **Charts 2.1/2.2.**

Chart 2.1 – Traffic profiles within Caerleon by junction 2014,2016 & 2019 AM peak

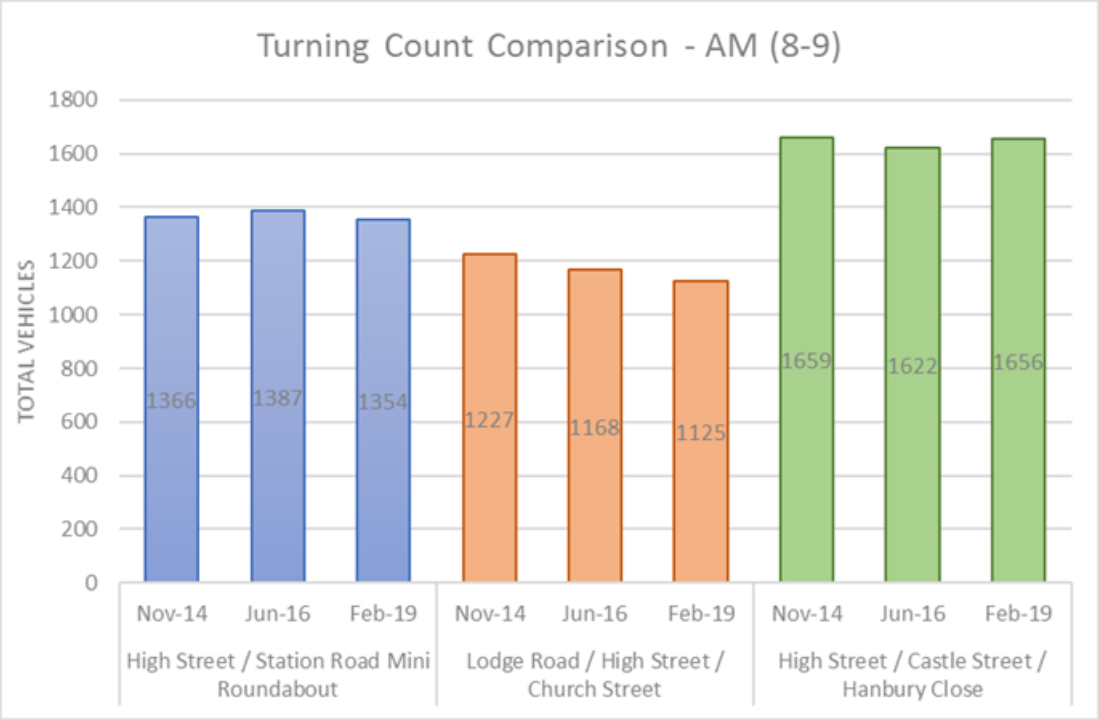
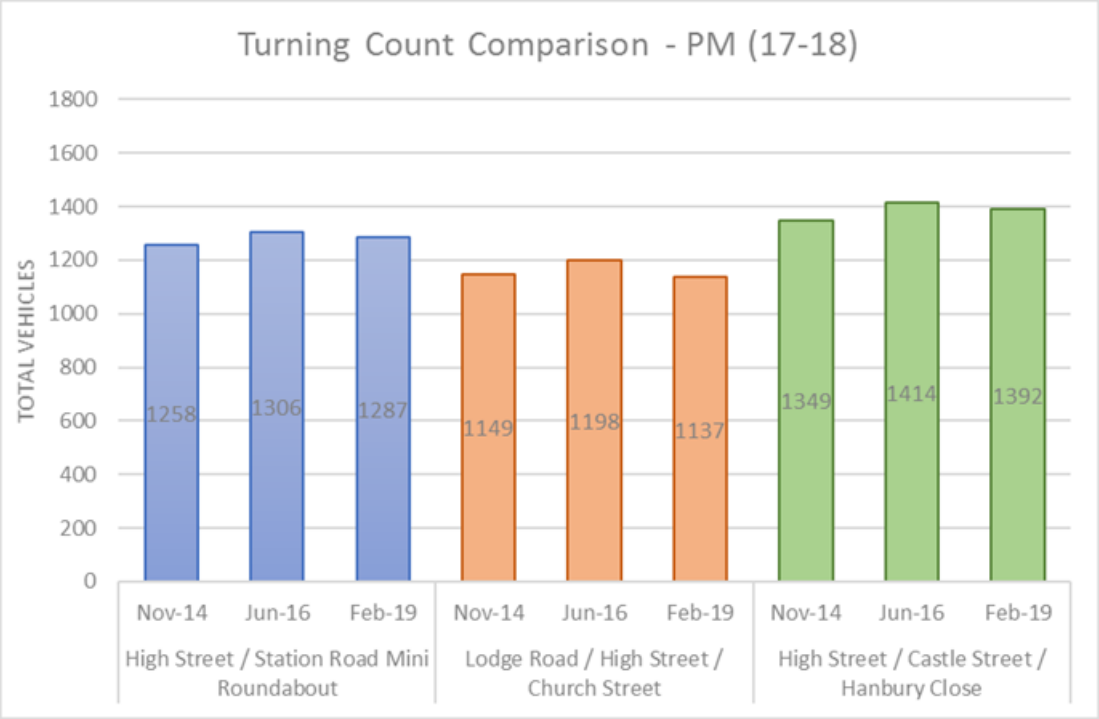


Chart 2.2 – Traffic profiles within Caerleon by junction 2014,2016 & 2019 PM peak



Review of DfT Counter Site 952051, B4236 Llanfrechfa

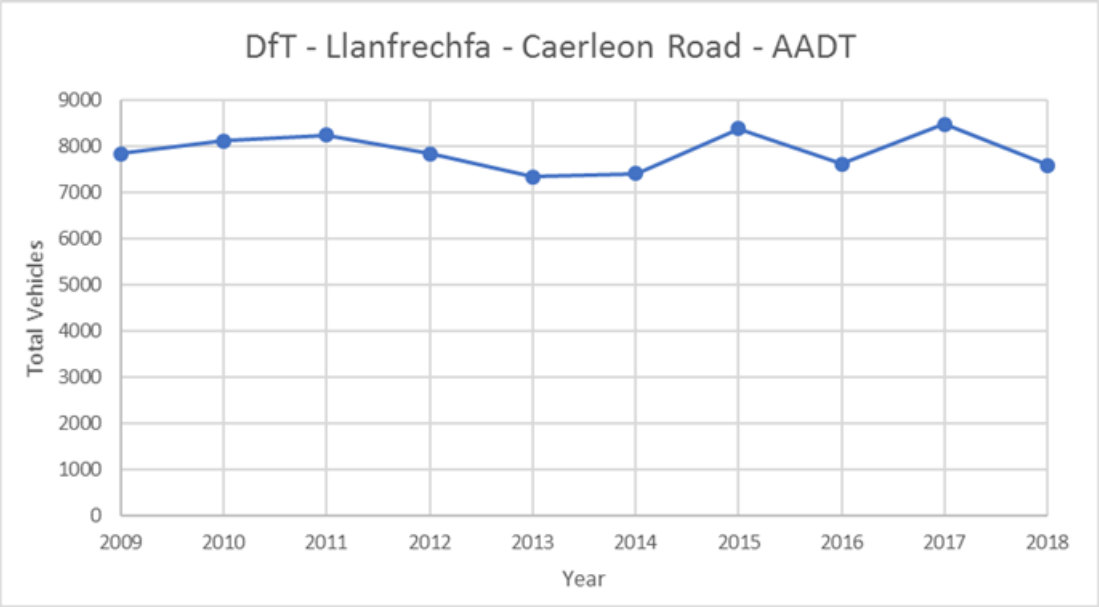
2.61 AADT has also been obtained north of Caerleon on Caerleon Road near Llanfrechfa. Whilst this fixed counter is north of Caerleon itself, it is useful in the context of supporting a trend of stagnating traffic growth between 2009-2018 on the main road to/from Caerleon. The data is summarised in **Table 2.5 and Chart 2.3**.

Table 2.5 DfT Traffic Counter information – AADT, Caerleon Road.

Year	AADT
2009	7843
2010	8122
2011	8241
2012	7845
2013	7343

2014	7416
2015	8392
2016	7627
2017	8478
2018	7592

Chart 2.3 – DfT Traffic Counter information – AADT, Caerleon Road



November 2019 traffic data

2.62 NCC expressed concerns over the February 2019 data being representative and requested that further surveys should be undertaken to provide clarity on growth and traffic movements within Caerleon. Accordingly, one-week ATC was undertaken between the 8th and 14th November 2019 and three-day MCC surveys were undertaken on the 12th, 13th and 14th November 2019 at the key links and junctions as follows:

- High Street ATC;
- Lodge Road ATC;
- Mill Street/Castle Street ATC;

- High Street / Station Road MCC; and
- High Street / New Road MCC.

2.63 The full November traffic data can be found in **Appendix C**.

2.64 The results of the ATC comparisons are summarised in **Charts 2.4-2.6**.

Chart 2.4 – High Street ATC Comparison between Jun 2016, Feb 2019 and Nov 2019

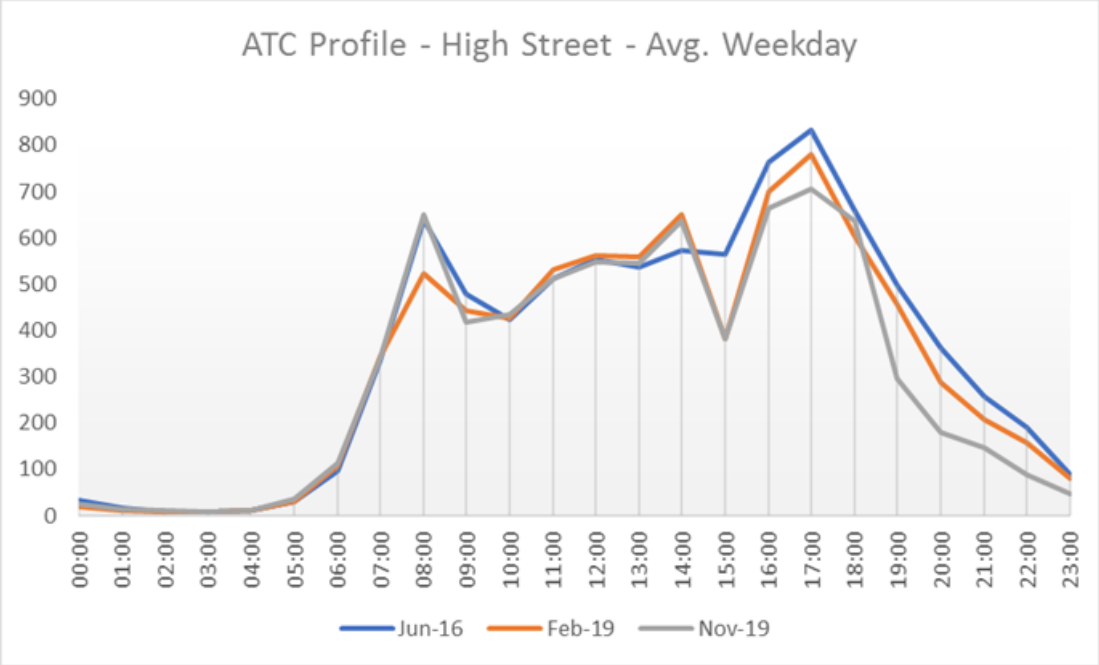


Chart 2.5 – Lodge Road ATC Comparison between Jun 2016, Feb 2019 and Nov 2019

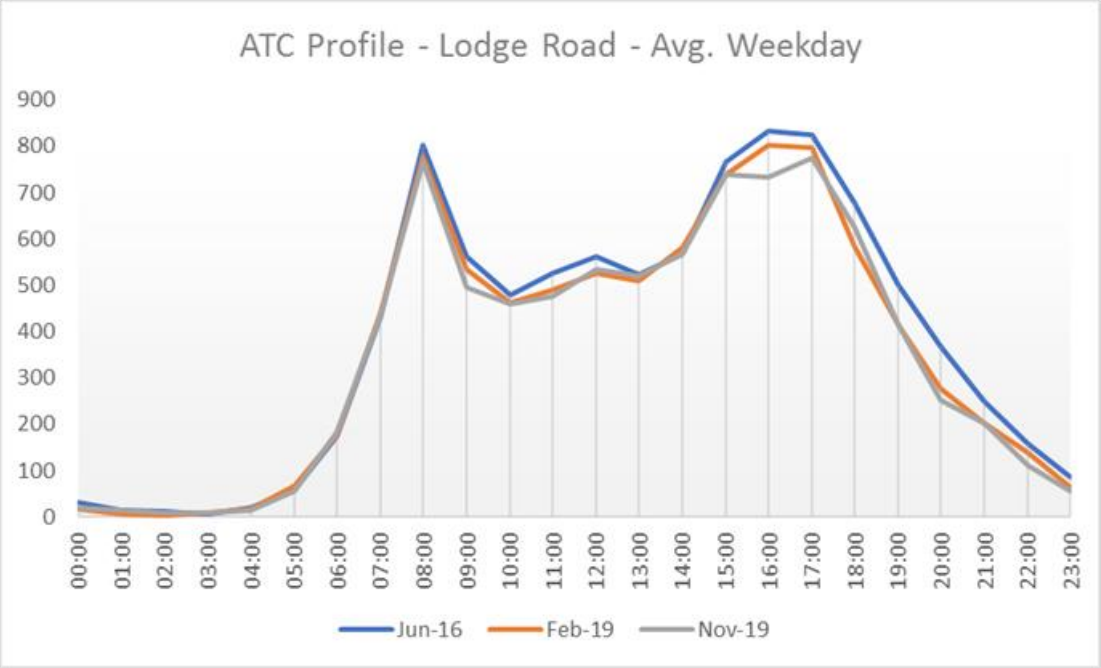
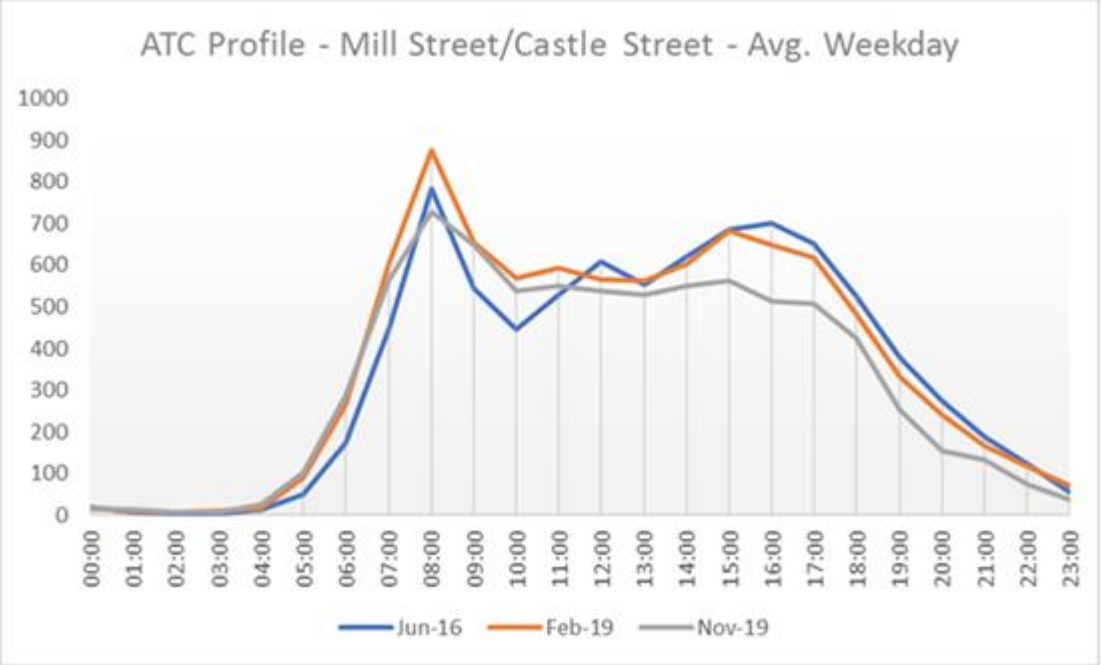


Chart 2.6 – Mill Street / Castle Street ATC Comparison between Jun 2016, Feb 2019 and Nov 2019



2.65 The ATC data demonstrates that between 2016 to present day there has been no growth in traffic on all links and hence, the February data used within this Transport Assessment is suitable for assessment purposes.

2.66 A summary of the results for the MCC data are shown in **Charts 2.7-2.8**. The full comparison across the AM peak period (0700-1000) and PM peak period (1600-1900) is shown in **Appendix A**.

Chart 2.7 – MCC comparison between Nov 2014, Jun 2016, Feb 2019 & Nov 2019 – AM (8-9)

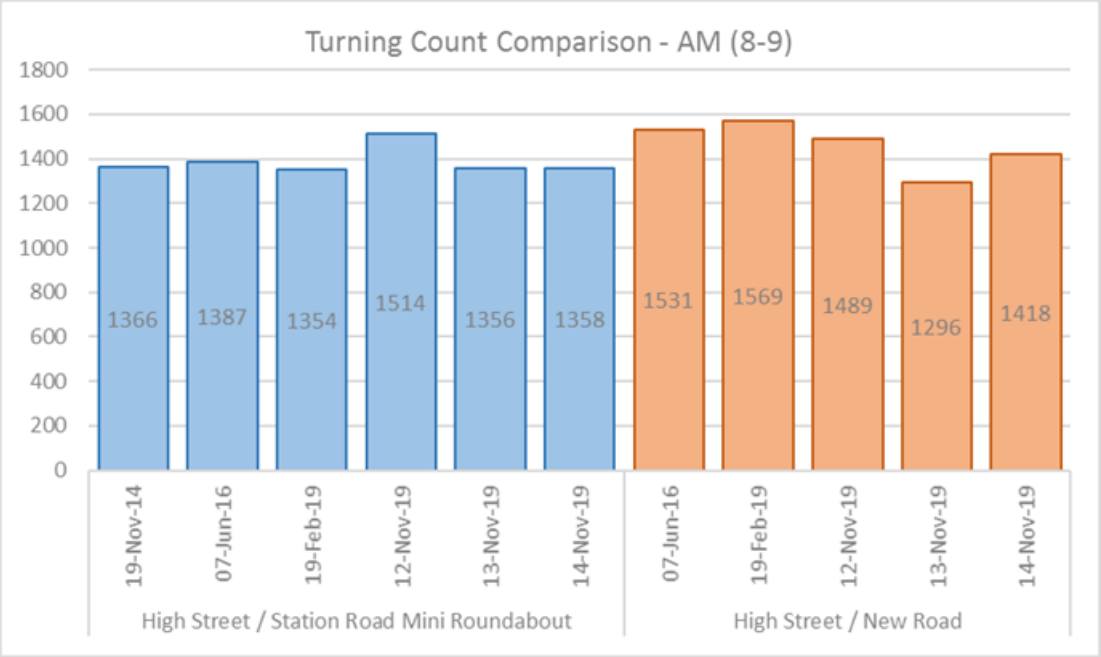
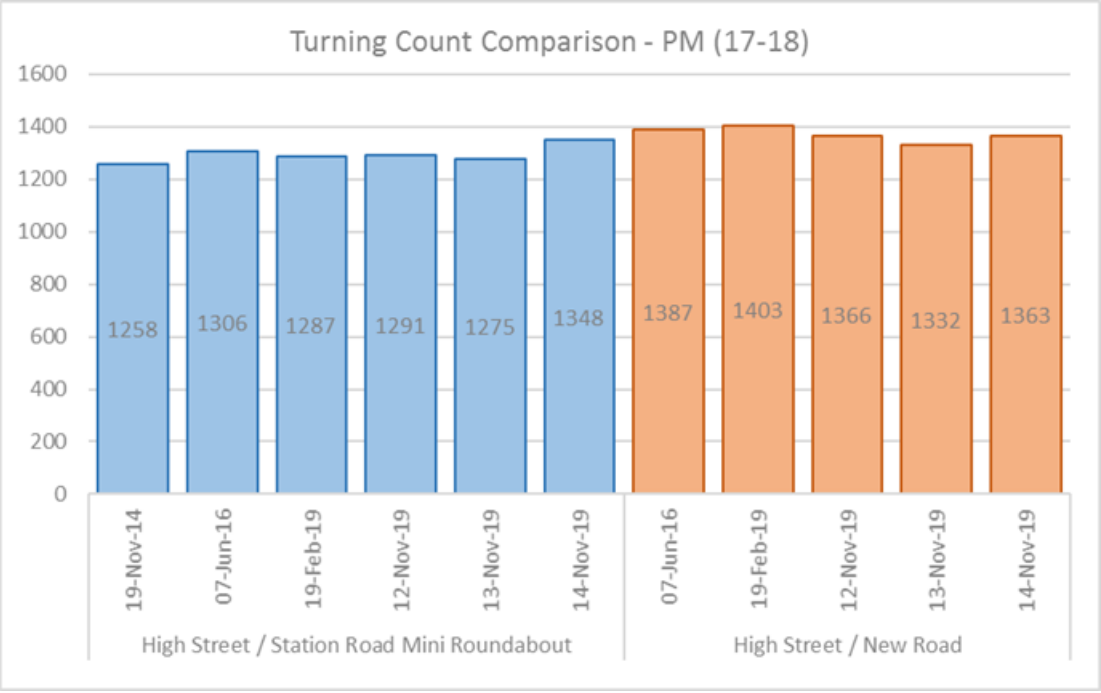


Chart 2.8 – MCC comparison between Nov 2014, Jun 2016, Feb 2019 & Nov 2019 – PM (17-18)



2.67 Again, the comparison of MCC data shows that whilst there is some variation in traffic which is to be expected, it is limited and that there is no indication of growth within Caerleon between 2016-2019. As such, the February traffic counts are considered to be reliable and robust for assessment purposes.

Summary of existing traffic data

2.68 Traffic data has been obtained from various sources including the most recent ATC and MCC surveys undertaken on behalf of Vectos in February 2019. Newport City Council have expressed concerns over the validity of this February 2019 data and the traffic data prior to 2016 from various sources.

2.69 The February 2019 surveys were undertaken during a neutral month and were not undertaken during school holidays and are therefore considered to be representative. However, further surveys were undertaken in November 2019 to validate the February 2019 data. The results indicate that there has been no growth within Caerleon and that the February 2019 data is suitable for assessment. There will always be daily variations in traffic due to seasonality and to some degree weather conditions and heuristics and this can be seen when comparing the various datasets but ultimately makes very little difference. For example, the February 2019 data was collected during a reasonable dry spell in weather conditions, whereby the November 2019 traffic surveys were undertaken during torrential rain storms / flooding

Mode Split

2.70 The existing travel patterns for journey to work have been investigated for the ward of Caerleon. This useful data provides a snapshot of the existing travel behaviour of residents in the area. **Table 2.6** shows the 2011 mode splits for the ward of Caerleon and includes the mode splits for Newport and Wales as a comparison.

Table 2.6 – Method of Travel to Work (2011 Census)

Mode	Caerleon	Newport	Wales
Work mainly at or from home	6%	4%	5%
Underground, metro, light rail, tram	0%	0%	0%
Train	2%	2%	2%
Bus, minibus or coach	4%	8%	5%
Taxi	0%	1%	0%
Motorcycle, scooter or moped	1%	1%	1%
Driving a car or van	76%	66%	67%
Passenger in a car or van	5%	7%	7%
Bicycle	1%	1%	1%
On foot	6%	9%	11%
Other method of travel to work	1%	1%	1%

2.71 The data shown in **Table 2.6** illustrates that the residents of Caerleon are currently heavily dependent on private cars for travel to work.

2.72 It follows therefore, that new residents in Caerleon would be expected to have similar travel habits unless alternative provision/choice for travel is created.

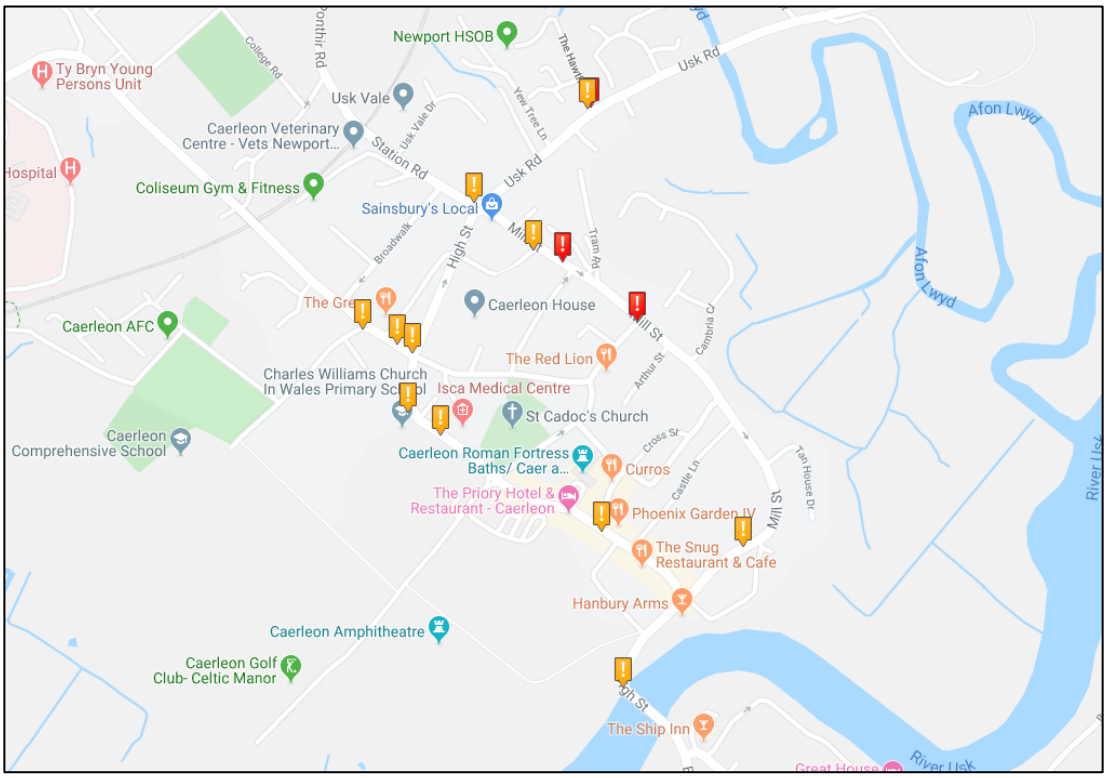
2.73 As such, there is scope to influence and alter the travel habits of existing and future residents in this area by improving travel choice and creating a culture of travel as a viable alternative to the car. This is discussed within Section 4.

Collision Data

2.74 Collision data has been obtained from Crashmap for the area surrounding the site, which includes roads that form main transport routes to and from the development site. The data was obtained within the 5 year period of 2014 to 2018**.** The collision reports from Crashmap are included at **Appendix D.**

2.75 The locations of the junctions for the recorded data are shown below in **Figure 2.8**.

Figure 2.8 – Collision Data Locations



2.76 Analysis of this accident data shows that:

- There were 14 recorded collisions recorded during the study period;
- Of these, 11 were recorded as slight and 3 were recorded as serious;
- There were 23 recorded vehicles involved in the 14 collisions and a total of 16 casualties.

2.77 The breakdown of collisions is shown in **Table 2.7**.

Table 2.7 – Collision Severity by Year

Severity	2014	2015	2016	2017	2018
Slight	3	2	3	1	2
Serious	1	0	1	0	1
Total	4	2	4	1	3

2.78 Of the 14 collisions that occurred, 5 of those involved cyclists and 2 involved pedestrians. This represents 50% of all collisions. Of the 2 incidents involving pedestrians, the pedestrians were in the carriageway at the time of the collision.

2.79 Of the collisions involving cyclists, 2 collisions were 'slight' and 3 collisions were 'serious'. There is limited information available in terms of the descriptions of the collisions and the causation factors, however there is nothing to suggest that the collisions occurred as a result of any highway safety issues in Caerleon and it is likely that the collisions were caused by human error.

Summary

2.80 The analysis of the collision data available from Crashmap does not identify any abnormal trends or patterns in the collisions recorded, nor does it identify any specific highway safety issues in the vicinity of the site.

3 POLICY CONTEXT

Local Policy

Newport Local Development Plan 2011-2026

3.1 NCC Local Development Plan 2015 (LDP) sets the principal policy context from which to consider this application.

3.2 To achieve the Council's vision, the LDP sets out 10 Objectives. Those that are relevant to transportation relate to sustainable use of land, climate change, economic growth, housing provision and health and well-being.

3.3 The proposed development aligns well to these overarching policy objectives by proposing a mixed-use development on a prominent brownfield site, in a sustainable location with additional benefits to sustainable travel, health and well-being.

Local Plan Policy SP1 – Sustainability

3.4 This Policy seeks to ensure that development makes positive contributions to sustainable development by concentrating development in sustainable locations on brownfield land within the settlement boundary.

3.5 The purpose of Policy SP1 is to provide an over-arching framework that places sustainability at the heart of the plan. In this respect, one could not wish for a better site in Caerleon for residential development. The proposal:

1. Provides mixed use development;
2. Seeks to develop on brownfield land, which is accessible by all modes of transport;
3. Makes a positive contribution toward sustainable development by virtue of the site's location adjacent to existing residential areas and its accessibility to number of existing local amenities and facilities including schools, shops, employment;
4. Enhances mobility and promotes behavioural change; and
5. Will provide electric car charging points for each dwelling.

Local Plan Policy SP2 – Health

3.6 This Policy seeks to ensure that development makes positive contributions towards health and to minimise any negative effects to well-being by locating development in the most sustainable locations, close to public transport and providing efficient walking and cycling routes and other green infrastructure.

3.7 The wording of the policy goes on to state that if development is located in areas which are only accessible by car, then the likelihood of people walking to destinations is greatly decreased. This is therefore likely to lead to more inactivity in the local population and is one good reason to allow development in the most sustainable locations possible.

3.8 The proposed development meets all of the criteria within this policy.

3.9 The central location of the site is within easy walking/cycle reach of amenities, leisure, education and employment. Moreover, the development proposes enhancements to public transport (new bus stops and shelters), improvements to existing PRoW and enhancements to the cycle network including improved connections to the National Cycle Network (NCN 4).

3.10 In addition, the Travel Plan initiatives which will encompass personalised travel planning for future residents on the site and residents of Caerleon, local schools (notably NCC is part of a Welsh Network of Healthy School schemes[1]) and the hospital, seek to encourage behavioural change and modal shift on the site and in the local area.

3.11 All of this fully supports the policy objectives relating to health.

Local Plan – GP4 - General Development Principles – Highways and Accessibility

3.12 The purpose of this policy is to ensure that new development is highly accessible for all users and encourages walking, cycling and access to public transport in the first instance. Proposals should seek to enhance permeability and connectivity including the use of green infrastructure and should make reference to Policy T5 – Walking and Cycling.

3.13 There are seven parts to this policy which states that development should:

[1] http://www.newport.gov.uk/en/Schools-Education/Schools/Healthy-schools.aspx

1. provide appropriate access for pedestrians, cyclists and public transport in accordance with national guidance;
2. be accessible by a choice of means of transport;
3. be designed to avoid or reduce transport severance, noise and air pollution;
4. make adequate provision for car parking and cycle storage;
5. provide suitable and safe access arrangements;
6. design and build new roads within private development in accordance with the highway authority's design guide and relevant national guidance; and
7. ensure that development would not be detrimental to highway or pedestrian safety or result in traffic generation exceeding the capacity of the highway network.

3.14 The wording within Policy GP4 goes on to state that development must be of a scale that the adjacent road network has the capacity to serve, without detriment to the highway network or the environmental characteristics of the road and that development will be required to fund improvements to the highway network which are necessary to accommodate the development.

3.15 The proposed development fully complies with this policy by virtue of its sustainable location, measures to improve connectivity, accessibility and behavioural change to mobility and through seeking to provide capacity improvements to the highway network. In this context, it is important to note that the highway/road network is more than just an environment for peak hour commuting, rather it is a function of all types of movement including pedestrians and cyclists.

3.16 The policy does not state that existing issues pertaining to localised congestion or air quality need to be remediated by development and nor does it state that providing additional traffic capacity is a means of pass or fail for a development.

3.17 Whilst Policy GP4 does not explicitly prioritise one sub policy point over another, it is clear that in the context of adherence to other Local Plan Policies e.g. SP1, SP2, that walking, cycling and public transport accessibility are key priorities for evaluating development proposals from a transport perspective. The thrust of policy support for non-car modes is strongly supported in local and National policy, where the step-change emphasis clearly states that appropriate

importance and weight must be given to walking, cycling, public transport and the reuse of brownfield sites over the out-dated predict and provide road capacity argument for private cars.

National Policy

Planning Policy Wales 10 (PPW 10)

3.18 Planning Policy Wales Edition 10 (PPW) sets out the land use planning policies of the Welsh Government.

3.19 With regards to Strategic and Spatial Choices, and specifically Accessibility, PPW states that:

- Spatial strategies should support the objectives of increasing walking, cycling and public transport use in place of private vehicles;
- Higher densities should be encouraged in urban centres to support services such as public transport, local shops and schools; and
- Previously developed land should, wherever possible, be used in preference to greenfield sites where it is suitable for development, with its re-use promoting sustainability principles.

3.20 Section 4 of PPW 10 concerns Active and Social places. It asserts that Active and Social Places are those which provide well-connected cohesive communities. It further states that a 'Resilient Wales' is supported by promoting well-connected infrastructure.

3.21 Within Section 4 PPW 10 stresses that:

- A Healthier Wales can be achieved through the reduction in emissions and air pollution by minimising the need to travel and maximising provision of sustainable forms of transport;
- To foster Cohesive Communities, development will need to be well-connected; and
- Globally Responsible Wales is promoted by locating and designing developments which reduce trip lengths for everyday journeys and supports sustainable modes of travel.

3.22 Section 4 also acknowledges the importance of:

- improving sustainable access to services;
- reducing reliance on travel by private car; and
- ensuring our transportation infrastructure is adaptable.

3.23 Policies within the Active and Social Places theme will:

- enable sustainable access to housing, employment, shopping, education, health, community, leisure and sports facilities and green infrastructure;
- develop sustainable transportation infrastructure; and
- require developments to encourage modal shift and be easily accessible by walking, cycling and public transport.

3.24 Moving within and between places is a key theme within PPW. In relation to sustainable transport, PPW 10 advises facilitating developments which:

- are sited where they can be easily accessed by sustainable modes of travel and without the need for a car;
- are designed to integrate with existing land uses and neighbourhoods; and
- make it possible for all short journeys within and beyond the development to be easily made by walking and cycling.

3.25 Regarding Active Travel, PPW10 states that Planning Authorities:

- Must support active travel by ensuring new development is fully accessible by walking and cycling; and
- Must ensure new housing, jobs, shopping, leisure and services are highly accessible by walking and cycling.

3.26 With respect to Public Transport, PPW10 states that Planning authorities should consider whether public transport services are of a scale which makes public transport an attractive and practical travel option for occupiers and users travelling to and from development sites.

3.27 PPW reiterates that it is Welsh Government policy to require the use of a sustainable transport hierarchy (PPW 10 - Figure 8) in relation to new development, which prioritises walking, cycling and public transport.

3.28 The proposed development fully complies with all of the sustainable transportation and movement policies within PPW10 particularly in respect of Active Travel and the overarching objectives relating to the reuse of brownfield sites.

Technical Advice Note 18 – Transport (TAN 18)

3.29 TAN 18 (Transport) seeks to;

- Promote housing development at locations with good access by walking and cycling to primary and secondary schools and public transport stops and by all modes to employment, further and higher education, services, shopping and leisure;
- Encourage residential developments that allow public transport to pass through easily;
- Ensure layouts and densities which encourage residents to walk and cycle to local facilities and public transport stops;
- Safeguard that where public transport facilities are proposed, ensure that there are effective arrangements for maintaining facilities and funding;
- Ensure walking is a main mode of transport for shorter trips;
- Support that new or improved public transport provision has the potential to provide alternatives to private vehicle use and change existing travel demands; and
- Encourage Local authorities to develop effective networks of cycle routes including safe routes to schools to encourage cycling.

3.30 The Development promotes walking, cycling and public transport usage through a range of physical measures and substantial travel planning investment and complies with TAN 18.

Active Travel (Wales) Act 2013

3.31 The Active Travel (Wales) Act requires planning authorities to make provision for, map and promote 'Active Travel' routes for pedestrians and cyclists. It is a developer's responsibility to acknowledge the existing local Active Travel routes and ensure that there are sufficient connections from the development to the existing network, so that future residents have a clear, direct and a safe route from their homes to the wider Active Travel network.

3.32 This Act seeks to enable more people to walk, cycle and generally travel by more active methods, so that:

- more people can experience the health benefits of active travel;
- we reduce our greenhouse gas emissions;
- we help address poverty and disadvantage, and
- we help our economy to grow by unlocking sustainable economic growth.

3.33 The Development is compliant with the Active Travel (Wales) Act as it is promoting an integrated masterplan with linkages to the existing community and is supporting the provision, through a series of off-site improvements, of Active Travel Routes including linkage to the National Cycle Network 4.

Well-being of Future Generations (Wales) Act 2015

3.34 The Well-being of Future Generations (Wales) Act is about improving the social, economic, environmental and cultural well-being of Wales.

3.35 The Act puts in place seven well-being goals one of which is a healthier Wales and defines sustainable development which includes the four pillars of Social, Environmental, Cultural and Economy.

3.36 The Development is proposing an investment in sustainable travel / behavioural change measures designed to reduce the amount of traffic / congestion but also to promote healthier lifestyles. In doing this, the Development addresses at least 3 of the 4 core principles of sustainable development from a transport perspective. From a social and cultural perspective, sustainable travel encourages more confidence and interaction for those people, including children, who walk and cycle. It assists with integrating the community. From an environmental perspective, sustainable transport from modes such as walking cycling and public transport generally means less pollution than from private cars.

Manual for Streets (CD 15)

3.37 The Department for Transport's 'Manual for Streets' replaced their general road and street design guidance manual 'DB32' in 2007 and specifically focuses on lightly trafficked residential streets and highways.

3.38 ‘A key consideration for achieving sustainable development is how the design can influence how people choose to travel. Designers and engineers need to respond to a wide range of policies aimed at making car use a matter of choice rather than habit or dependence. Local transport plans and movement strategies can directly inform the design process as part of the policy implementation process.’

3.39 ‘By creating linkages between new housing and local facilities and community infrastructure, the public transport network and established walking and cycling routes are fundamental to achieving more sustainable patterns of movement and to reducing people’s reliance on the car.’

3.40 The Transport Strategy for the development seeks to promote an environment which is not dominated by the private car.

Technical Advice Note 12 – Design (TAN 12)

3.41 TAN 12 seeks to promote sustainable means of travel in new development by maximising;

1. Safe and clear connections;
2. The potential to cycle, walk and use public transport safely and reducing the reliance on the car;
3. The connection to the existing transport infrastructure by integrating development with existing footpaths, cycle ways and public and private transport infrastructure;
4. The ease of movement to, from and within development for sustainable forms of transport by creating a safe and attractive environment; and
5. The provision of onsite facilities for sustainable forms of transport.

3.42 The Development promotes walking, cycling and public transport usage and integration with the existing infrastructure and hence complies with the objectives of TAN 12.

Summary

3.43 The proposed development clearly aligns with Local and National Policy and fully accords with the Local Development Plan policies for the reuse of brownfield sites, sustainability and transport. This site can deliver housing growth based on a policy-compliant approach of

providing development in a sustainable manner and not by prioritising the needs of car users to the detriment of social mobility and behavioural change.

4 DEVELOPMENT PROPOSAL

Overview

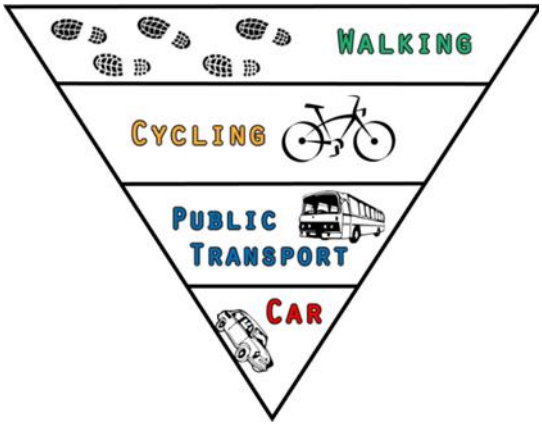
4.1 The proposal is for a residential development on a brownfield site, comprising 218 residential dwellings through the redevelopment/retention of some existing buildings on site and new development.

4.2 The site is well connected to a range of amenities in Caerleon including schools, bus stops, leisure facilities, local shops and medical centres.

4.3 The transport related aspects of the Development are:

- **Design** - Good design to encourage local living and interaction;
- **Choice** - Infrastructure, providing travel options;
- **Behaviour** - Education promoting social and efficient mobility; and
- **Network Management** - Prioritising the user hierarchy of movement.

Movement Hierarchy



4.4 This is also replicated in Planning Policy Wales Edition 10, Figure 8.

Design

4.5 The Masterplan and Transport Strategy for the Development have been developed in such a way as to provide for a liveable attractive community. The Masterplan provides infrastructure

within the site for a walkable and cyclable neighbourhood, linking to the adjacent community and strategic cycle routes.

4.6 The Transport Strategy takes the approach of not seeking to fix the existing peak hour, localised congestion, which we do not think is significant, on the highway network. In so far as traffic capacity and the free flow of traffic on the network are considered to be important by NCC, improvements are proposed at the Station Road/High street roundabout junction through road markings.

4.7 Therefore, the Transport Strategy focuses on the important issues of providing travel choice and behavioural change options which are fully compliant with contemporary transport policy.

4.8 A major source of observed localised peak hour congestion is related to the traffic and pedestrian movements associated with Charles Williams Church in Wales Primary school on High Street. Indiscriminate parent parking for drop off/pick up on the High Street creates congestion and the uncontrolled zebra crossing is a constant disruption during school times to the free flow of traffic on High Street. This is not untypical of environments and road networks adjacent to schools.

4.9 It is proposed that measures will be provided to encourage modal shift for school journeys. Such measures include improved Travel Planning and less reliance on the private car for school journeys.

4.10 As part of the overall sustainable strategy of the site, it is important to consider journeys made for education purposes. National Statistics[2] suggest that some 50% of all journeys during the morning peak hour are related to education. Of these education trips, travel by car accounts for 46% and 23% of journeys to primary and secondary schools respectively for all distances.

4.11 As such, targeting modal shift in journeys made for education purposes can have significant benefits in reducing peak hour congestion, particularly during the morning peaks. This is particularly relevant in the existing issues outside of the Charles Williams Church in Wales Primary School. In this context, Newport City Council are part of a Welsh Network of Healthy School schemes[3].

[2] National Travel Survey 2010/14

[3] http://www.newport.gov.uk/en/Schools-Education/Schools/Healthy-schools.aspx

Choice

4.12 The Development's transport initiatives can be ring fenced in Conditions and Obligations that could provide;

- A residential masterplan which reflects the user movement hierarchy with pedestrians and cyclists at the forefront of design;
- Improved pedestrian linkages from the site to Lodge Road;
- Improvement to the existing PRoW on the northern boundary of the site to provide a 3m footway/cycleway;
- A commitment to fund an enhanced on-road cycle link from the site via Lodge Road to Roman Reach, hence linking with the National Cycle Network;
- New bus stops outside of the site with the southbound bus stop relocated on Lodge Road; and
- Electric charging points for at least each newly erected building including 4 charging points in the communal parking area for the flats;
- Subsidised bus and cycle vouchers for each dwelling;
- Provision of a car club scheme
- Inclusive Travel Planning comprising:
    - A residential travel plan;
    - Personalised Travel Planning (PTP) for new residents and also existing residents in Caerleon;
    - School travel planning for the primary schools (which aligns with the Council and Welsh Government's aspirations for Welsh Network of Healthy School schemes and
    - working with St Cadocs Hospital to provide travel planning as part of a comprehensive package of sustainable benefits for Caerleon; and
- Removing some of the parking on High Street near the junction with Station Road.

4.13 The development can secure investment into sustainable and behavioural change initiatives for a development comprising 218 residential dwellings.

Behaviour

4.14 Considerable evidence exists in relation to the effectiveness of these initiatives in terms of engendering behavioural change through travel choice and reducing the dependence of the private car. This evidence includes;

4.15 As part of the TravelSmart PTP programme (2005-2014), 14,000 households were contacted in Caerphilly. The results from this exercise concluded that sustainable travel would be used more often with;

- 11% increase in cycling;
- 21% increase in walking; and
- 35% increase in public transport.

4.16 In Cardiff (2011-2013), 85,000 people were engaged in a travel/behavioural change survey. By raising people's awareness, the PTP project in Cardiff realised;

- 12% reduction in single occupancy car journeys;
- 13% increase in public transport use;
- 21% increase in walking and trebling in cycling levels; and
- A reduction in miles driven by car equating to an average saving of £150 / home.

4.17 In Peterborough (2013 -4800 households) and Stockton (2014 – 8000 households) as part of the Sustrans PTP Programme. Both reported beneficial changes in travel behaviour in terms of trips under 5 miles as follows;

<u>Stockton</u>

- 35% decrease in car driver;
- 11% increase in cycling;
- 41% increase in walking; and
- 22% increase in bus.

<u>Peterborough</u>

- 34% decrease in car driver;
- 26% increase in cycling;

- 35% increase in walking; and
- 7% increase in bus.

4.18 Recent results from the Liftshare organisation (www. Liftshare.com) suggests that where PTP has been implemented for the office population, it has achieved mode shifts of up to 26% away from car driver with an average mode shift of 17%.

4.19 Sustrans[4] has provided behavioural change information from primary school travel planning projects (2015-2016) involving some 65 schools in Wales. The data shows that:

- The percentage of pupils being driven to school decreased by 13%.
- This decrease in travel by car was a consequence of a corresponding increase in Active Travel for School Children – cycling, scooting, park and stride;
- Children who ride bikes or scooters outside of school have a strong desire to ride to school, but only a small proportion actually ride to school for a number of reasons. These barriers to active travel are primarily because of a general lack of awareness / training, inadequacy of safe routes and then the mind-sets of parents, primarily due to safety.

4.20 This evidence relating to behavioural change is very positive and shows what can be achieved through investment such as PTP and by providing people with travel choice. They are real examples in neighbouring authorities, where the mind-set of people with respect to travel has been, and can continue to be influenced to impact travel choices. The measures that can be secured as part of this development could make a significant difference to the way in which people in this part of Caerleon travel to and from work and school. This is particularly relevant when information from the census (2011) shows that;

- 14% of people who live in Caerleon work in Caerleon (all modes); and
- An additional 41% of people who live in Caerleon work in Newport.

4.21 As such, there is an opportunity to influence commuting journeys contained within Caerleon which will generally be made over relatively short distances and provide an opportunity to consider alternative modes of transport.

[4] Sustrans Active Journeys Wales 2015/2016

4.22 The change in travel behaviour associated with schools is profound following the input and support from organisations such as Sustrans by travel planning and breaking the barriers and changing the attitude towards Active Travel and helping to tackle pressing health issues of obesity and mental health. The Development proposes to do this in a number of ways by creating improved active travel routes to the schools and through funding other initiatives e.g. travel planning including scoot to school, walking buses etc.

4.23 Sustrans confirms that promoting behavioural change in primary schools by introducing measures such as cycling and scooting to school encourages responsibility and decision making in young people, makes them fitter, more confident and healthier. This clearly aligns to Local Plan Policy SP2.

4.24 The applicant is committed to providing significant funding for PTP, School Travel Planning and Travel Planning measures with St Cadoc's Hospital – the intention that as one of the largest employers in the area, that any changes made to modal shift could have significant benefit in the local area. Following various discussions and meetings, St Cadoc's Hospital are supportive of such an approach / initiative and are keen to benefit from travel planning on their site as part of NHS commitment to improvement / health and well being.

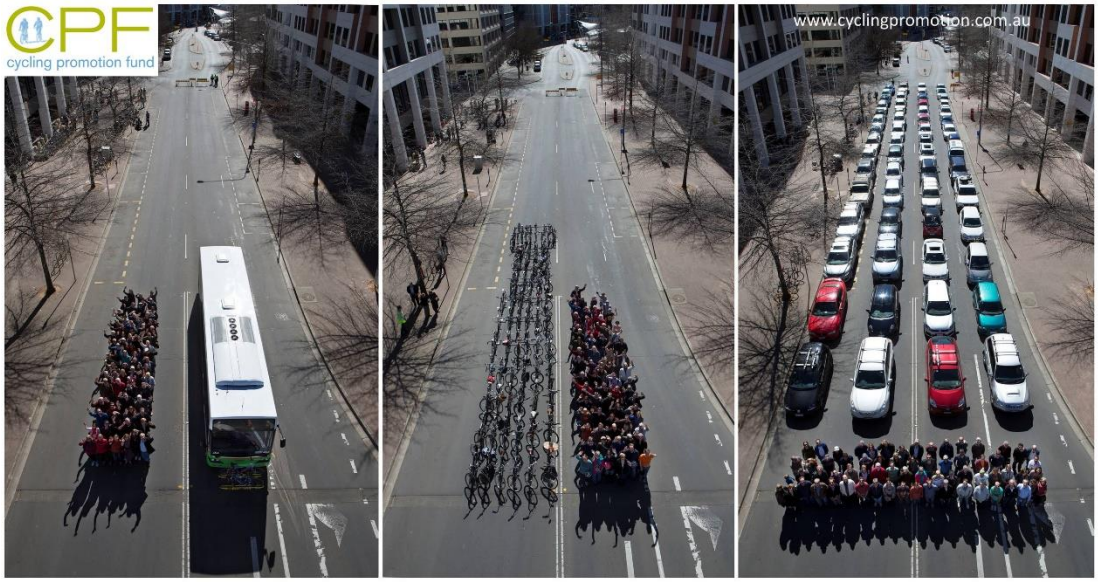
4.25 This would not be a Travel Plan which simply is designed to comply with a Planning Condition and hence has no weight or benefit. This is a philosophy to be implemented at the site, within the local primary school and the major employer in Caerleon to bring about change in attitude toward travel with resultant benefits. As such, it is fully anticipated that the Section 106 for the proposed development will ring fence contributions towards travel planning which can then be controlled by the planning authority.

4.26 The transport strategy and sustainable initiatives proposed comply with LDP Policies SP1 and SP2 and GP 4 and National Policy which are designed to promote the interests of pedestrians, cyclists and public transport before that of the private car.

Network Management

4.27 This relates to managing the road network in accordance with the user hierarchy preferred by the Council in its Local Policy, whereby car travel is the lowest capacity network in terms of space occupied per person as shown below.

4.28 This means, for instance, prioritising the reliability and speed of bus and cycle movement over that of cars in the commuter peaks.



4.29 To continue to provide the capacity benefits which the Council require to resolve peak hour congestion and air quality issues in Caerleon is not sustainable.

4.30 There is also no suggestion in modern policy – local or national, that we should predict and provide, i.e. to provide road space so that drivers can travel where and when they wish with no inconvenience, aggravation or delay.

4.31 In this context, the development proposes relatively low cost, yet effective capacity benefits on High Street through relocating the position of the Zebra crossing further away from the junction to improve efficiency.

4.32 This does not mean that off site mitigation / funding from the development can provide the panacea to all of the existing congestion and air quality issues within Caerleon.

4.33 The development is also proposing physical alternations to the College Crescent / Ponthir Road junction in order to improve upon existing visibility.

Site Plan

4.1 The principles of Manual for Streets (MfS) and Manual for Streets 2 (MfS2) have been embodied within the masterplan shaping the layout of the streets serving the development.

In particular, the focus on the movement hierarchy within MfS2 affording priority to pedestrians, cyclists and other vulnerable road users.

4.2 The proposed site plan for the site is shown in **Figure 4.1** and a scale drawing is included at **Appendix E.**

Figure 4.1 – Proposed Site Plan



Proposed Access Arrangements

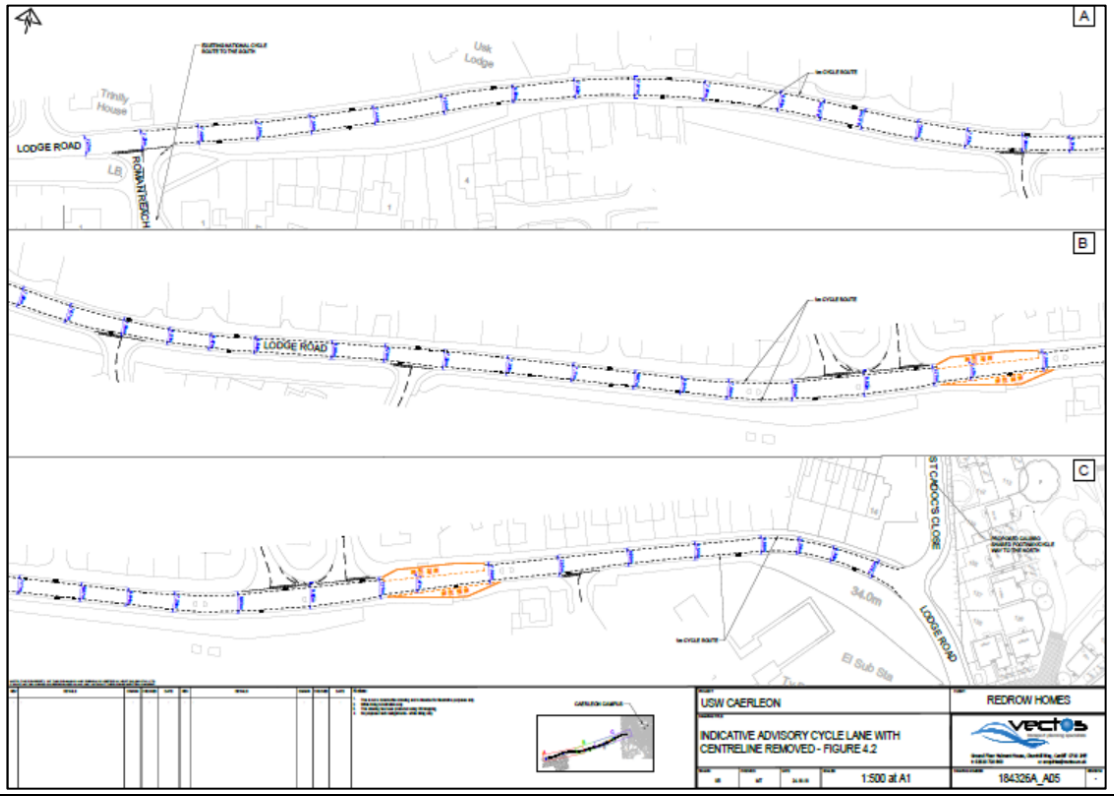
Pedestrian and Cycle Access

4.3 The aim is to provide an environment in which pedestrians and cyclists feel as though they are afforded highest priority. Pedestrian routes from the site to the existing pedestrian network will be direct, convenient and attractive. The development will seek to maximise and enhance the permeability of the site to cyclists and aim to encourage cycling as a mode of transport for short trips.

4.4 Pedestrian and cycle access to the site will be from Lodge Road, College Crescent and St Cadoc's Close and also from the PRoW to the northwest of the site which will be retained and widened to 3m to provide a shared footway/cycleway facility. This PRoW provides a direct link to Ponthir Road to the east of the site.

4.5 A financial contribution (via Section 106) can be provided from the developer towards an upgraded on-road cycle link from the development to Roman Reach, via Lodge Road and National Cycle Network (NCN) Route 88 and an indicative on road shared use cycle lane is shown in **Figure 4.2** and in **Appendix F**.

Figure 4.2 – Indicative On Road Cycle Lane



Public Transport Access

4.6 The bus stops on Lodge Road (northbound/southbound) can be upgraded to include a bus shelter, raised kerbs adjacent to the site on Lodge Road and localised footway widening within the site and a pedestrian crossing to access the bus stops.

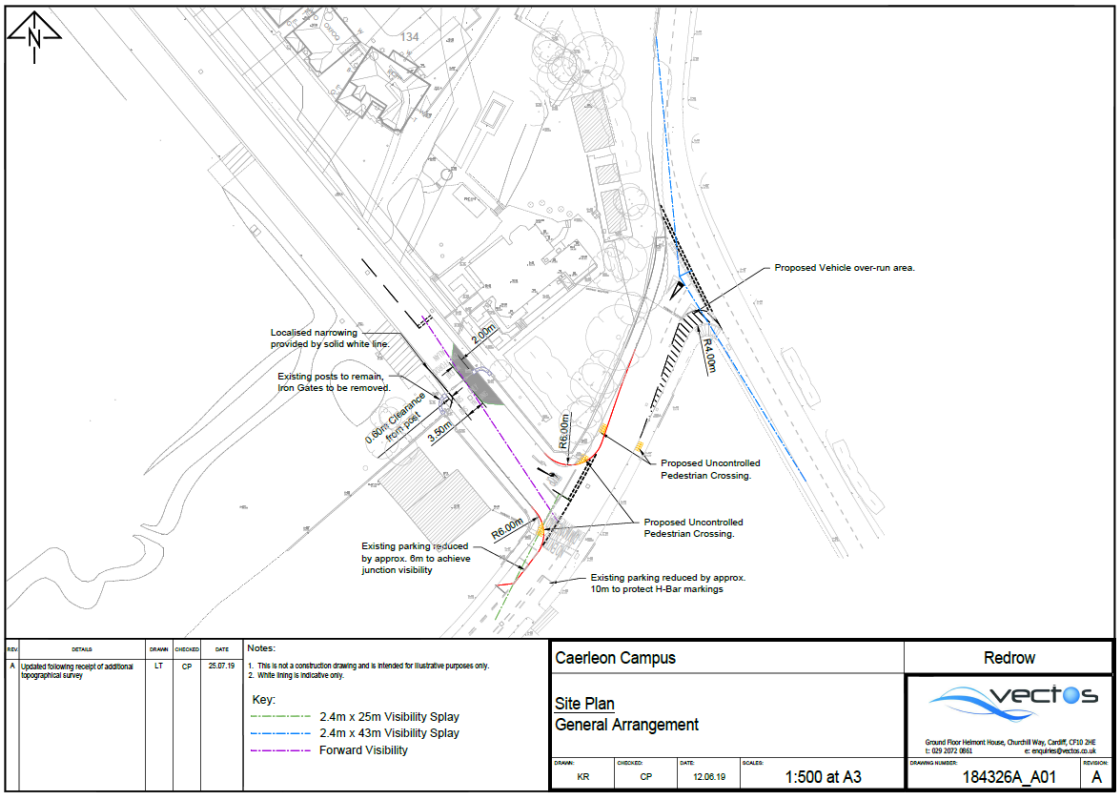
Vehicle Access

4.7 Vehicular access to the site is currently via two locations. The primary means of vehicular access is onto Lodge Road at the site's western boundary via an all-movement priority T-junction. A secondary access is located on College Crescent at the site's southern boundary.

4.8 There are no improvements or alterations proposed to the existing site access junction from Lodge Road.

4.9 Improvements are proposed in respect of the junction with College Crescent and Ponthir Road. This is shown in **Figure 4.3** and reproduced in **Appendix G.**

Figure 4.3 – Proposed Upgrade to College Crescent and Ponthir Road



4.10 These improvements are designed to improve pedestrian and cycle connectivity, whilst maximising junction visibility at the Ponthir Road/College Crescent junction.

4.11 The carriageway of College Crescent would be narrowed via hatching to the east of the site access to provide a single lane entry to the junction with Ponthir Road. The single lane entry would be located at the northern limits of the approach to achieve visibility over a distance of 43m to the south: currently the achievable visibility is circa 20m from a 2.4m, which would be considered substandard and hence the proposal would be a significant benefit.

4.12 It is proposed to provide an inbound priority access into the site from College Crescent. There will be a pedestrian footway on the eastern side of the carriageway through the priority narrowing and a pedestrian crossing at the junction to provide continuous pedestrian routes into the site from College Crescent.

4.13 To support the proposed changes to the highway network an independent Stage 1 Road Safety Audit has been undertaken. This is shown in **Appendix H** and confirms that the proposed improvements are considered to be safe and suitable for existing and forecast road users.

Internal Layout

4.14 The majority of the internal road layout within the site has been designed to adoptable standards and has been subject to a detailed review in terms of visibility, parking arrangements, turning heads for refuse vehicle movements and distance from bin stores. Some areas of the internal layout will be private drives and therefore will not be adopted.

4.15 Swept path analysis is shown in **Appendix I.**

4.16 In order to provide traffic calming within the site, raised tables are proposed at the internal junctions. These are shown in on the proposed site plan.

Parking

Car Parking

4.17 A total of 561 car parking spaces are proposed at the proposed development in line with the maximum standards as per Newport City Council Parking Standards 2015 Supplementary Planning Guidance (SPG). The maximum car parking standards are shown in **Table 4.1.**

Table 4.1 – Newport City Council – Maximum Car Parking Standards

Type of development	Residents	Visitors
General-purpose houses and apartments		
Houses	1 space per bedroom (maximum requirement 3 spaces)	1 space per 5 units
Apartments	1 space per bedroom (maximum requirement 3 spaces)	1 space per 5 units

4.18 As part of the development proposals, an electric vehicle charging point will be provided for new individually built dwellings and within shared parking areas, subject to infrastructure provision and adoptions. Four charging points will also be provided within the communal parking area for the flats.

Cycle Parking

4.19 Cycle parking standards are also contained within the 2015 SPG and state that all residential developments must be accessible by cycles and cycle storage must be a factor of dwelling design. In appropriate circumstances, convenient communal cycle parking facilities may be provided.

4.20 The cycle parking standards for apartments is shown in **Table 4.2**.

Table 4.2 – Newport City Council – Cycle Parking Standards

Type of development	Residents	Visitors
Residential		?
Houses	n/a	n/a
Apartments	1 stand per 5 bedrooms	No requirement

4.21 In line with the cycle parking standards, a total of 12 cycle parking stands will be provided to serve the apartments (based on 62 bedrooms).

4.22 Newport's parking standards do not include any cycle parking standards for houses. It is considered that cycle parking for the houses will be accommodated within the garage/shed for each individual dwelling.

4.23 The development will also provide a bike share scheme for residents to use communal bikes. The details of this scheme will need to be developed with the Council.

Travel Plan

4.24 The proposed development can deliver significant physical infrastructure that can influence travel choice through the Travel Plan, which seeks to encourage behavioural change.

4.25 The development would commit to providing a comprehensive Travel Plan, which will include Personalised Travel Planning (PTP) and travel planning for local primary schools and St Cadoc's Hospital.

4.26 As part the Travel Plan, the developer will commit to a financial contribution towards a travel bond for a bus pass or cycle voucher.

4.27 Whilst there is limited specific information available on modal shift relevant to sustainable transport initiatives implemented from the outset within new residential development, there is a wealth of evidence relating to PTP and the positive effects that this can have in terms of influencing people's travel choice/habits.

4.28 A summary of some of the results from the Sustrans PTP schemes across the UK is shown in **Table 4.3.** There is significant scope for modal shift through promoting and delivering a comprehensive Travel Plan including PTP.

Table 4.3 – Sustrans PTP Results

Location (date)	Households	Car-Driver Mode Shift
Gloucester (2005)	4,000	-13%
Worcester (2005 – 07)	23,500	-10%
Peterborough (2005 – 07)	30,000	-11%
Preston & South Ribble (2007)	25,000	-10%
Lancaster & Morecambe (2007)	25,000	-14%
Watford (2009)	25,000	-13%
Exeter (2009)	25,000	-12%
Lowestoft (2009)	25,000	-13%
Broxbourne (2010)	8,000	-10%
Ipswich (2010)	17,000	-11%
Cardiff (2011 – 12)	63,000	-12%
St Albans (2013)	12,000	-12%
Peterborough (2013)	4,759	-34%
Stockton (2014)	8,000	-35%

4.29 There is compelling evidence across the UK, including Sustrans research relating to real examples, to suggest that both physical measures and behavioural change interventions can give rise to significant changes in modal shift and travel choice in the context of urban mobility.

4.30 With positive and active promotion, the Travel Plan for the proposed development can bring about modal shift and behavioural change in line with some of the examples (as above) across the UK.

School Travel Plan

4.31 As part of the overall Travel Plan, the proposal is to provide school-specific travel planning which will encourage trips from the wider area to be undertaken by sustainable modes, which could deliver significant benefits in reducing peak hour congestion, particularly during the morning peaks.

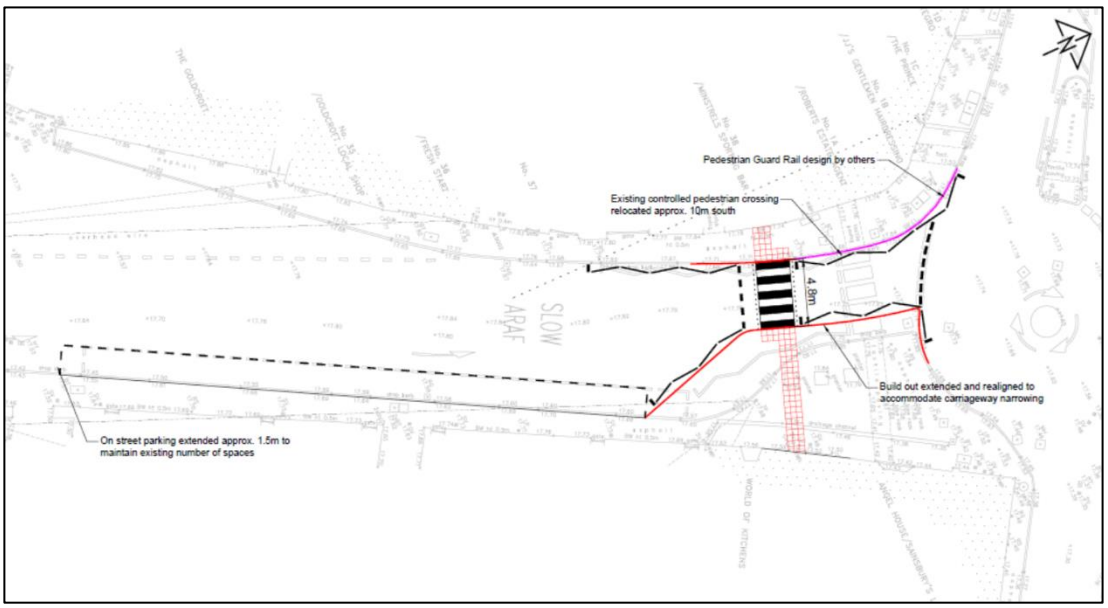
4.32 School Travel Planning measures could include the following:

- Setting up a walking bus scheme;
- Organised bike/scoot to school days;
- Providing secure/sheltered scooter and cycle parking; and
- Provision of high visibility gear for children and parents.

Off Site Mitigation

4.33 The development proposes junction upgrades via lining and signing at the Station Road/High Street mini roundabout as shown in **Figure 4.4** and reproduced in **Appendix J**. This proposed mitigation includes repositioning the existing Zebra Crossing on High Street further from the junction.

Figure 4.4 - Proposed Junction Improvement High St/Station Road



Summary

4.34 The Development proposes the following:

1. A residential masterplan which reflects the user movement hierarchy with pedestrians and cyclists at the forefront of design;
2. Improved pedestrian linkages from the site to Lodge Road;
3. Improvement to the existing PRoW on the northern boundary of the site to provide a 3m footway/cycleway;
4. A commitment to fund an enhanced on-road cycle link from the site via Lodge Road to Roman Reach, hence linking with the National Cycle Network;
5. New bus stops outside of the site with the southbound bus stop relocated on Lodge Road; and
6. Electric charging points for at least each newly erected building;
7. Inclusive Travel Planning comprising:

    - A residential travel plan;
    - Personalised Travel Planning (PTP) for new residents and also existing residents in Caerleon;

- School travel planning for the primary schools (which aligns with the Council and Welsh Government's aspirations for Welsh Network of Healthy School schemes5) and
- working with St Cadocs Hospital to provide travel planning as part of a comprehensive package of sustainable benefits for Caerleon; and

8. Removing some of the parking on High Street near the junction with Station Road and relocating the existing Zebra Crossing further west away from the junction.

[5] http://www.newport.gov.uk/en/Schools-Education/Schools/Healthy-schools.aspx

5 TRIP FORECAST

5.1 This section contains information on the unfettered trip generation and distribution of trips associated with the proposed development and the former use of the site.

5.2 The same methodology used in the previous planning application (Calibro TA Addendum) has been applied to the proposed development as this was considered to be acceptable by the Council previously.

Proposed Use

Trip Generation

5.3 The agreed total people trip rates that were used in the Calibro TA Addendum have been used for forecasting purposes. The trip rates are shown in **Table 5.1**. The TRICS output file is located in **Appendix K**.

Table 5.1 – Agreed Trip Rates – Houses Privately Owned – Total People

Time Period	Arrivals	Departures	Total
AM (08:00-09:00)	0.184	0.738	0.922
PM (17:00-18:00)	0.482	0.270	0.753

5.4 Applying these people trip rates to 218 dwellings provides the total people trip generation for the site as shown in **Table 5.2**.

Table 5.2 – Total People Trip Generation – 218 Dwellings

Tim Period	Arrivals	Departures	Total
AM (08:00-09:00)	40	161	201
PM (17:00-18:00)	105	59	164

5.5 The total people generation forecast has then been factored using a local mode split for Caerleon (MSOA Newport 001) using 2011 Census dataset 'WU03EW – Location of Usual Residence and Place of Work by Method of Travel to Work (MSOA Level)'. This mode split is shown below in **Table 5.3**.

Table 5.3 – Mode Split – MSOA Newport 001

Mode	Proportion
Work mainly at or from home	0.0%
Underground	0.2%
Train	1.6%
Bus, Minibus or Coach	4.5%
Taxi	0.2%
Motorcycle, Scooter or Moped	0.7%
Driving a Car or Van	80.8%
Passenger in a Car or Van	5.2%
Cycling	0.6%
Walking	5.8%
Other Method of Travel to Work	0.3%
Total	100%

5.6 As such, the forecast vehicular trip generation for the proposed site is shown in **Table 5.4**.

Table 5.4 – Vehicular Trip Generation – 218 Dwellings

Time Period	Arrivals	Departures	Total
AM (08:00-09:00)	32	130	162
PM (17:00-18:00)	85	48	133

Distribution

5.7 The agreed distribution from the Calibro TA Addendum has also been used in this assessment. This was derived from the same dataset as the modal split in **Table 5.3**, and only considered the origin/destination for 'Driving Car/Van' journeys. The agreed distribution is shown in **Table 5.5**.

Table 5.5 – Residential Trip Distribution

Origin / Destination	Residential
Ponthir Road	13.8%
Usk Road	2.7%
New Road	24.7%
Caerleon Road	0.0%
Beaufort Road	3.5%
Bettws Lane	0.6%
Graig Park Road	0.0%
Malpas Road North	3.7%
Pilton Vale	1.5%
Rowan Way	0.0%
M4 Junction 26	31.1%
M4 Junction 25	18.3%
TOTAL	100.0%

Former Use

5.8 There are 3 Baseline scenarios for which it is necessary to test the net effect of the proposed development on the highway network:

- Scenario 1 - 100% former use on the site;
- Scenario 2 – a Future Baseline with a quantum of development on the site commensurate to about 50% of the former use traffic generation; and
- Scenario 3 – zero former use on the site.

Scenario 1 – 100% former use on the site

5.9 In 2014 the University had 580 staff and 4428 students. The existing site has some 820 car parking spaces and so it would not be unreasonable to expect a comparable number of car trips to the number of parking spaces provided, noting that all journeys may not have been mode during peak periods.

5.10 The traffic generation from the former use on the site as estimated within in the Calibro TA Addendum as being 335 two-way trips in both peaks i.e. greater than the traffic from the proposed development (**Table 5.4**). As such, the proposed development would have a net beneficial effect on the local highway network i.e. less trips than the former University campus use.

5.11 The Council's position is that whilst the site was used as a University, and benefits from the established associated land use, the likelihood of a similar use be reintroduced on all of the site is low and hence it does not agree with Scenario 1. There are no historic traffic surveys records to support or dismiss this Scenario.

Scenario 2 – Future Baseline

5.12 Scenario 2 seeks to establish a 'middle ground' position whereby the former traffic generating characteristics of the site are somewhere between the 100% former use (Scenario 1) and the zero former use Scenario 3.

5.13 The hypothesis is that the Future Baseline Scenario is based on use of the site consistent with the existing lawful use and without any application for a change of use on the site.

5.14 To put this in context, the existing land uses and floor areas by building are shown in **Table 5.6**, noting that the existing academic university buildings are considered to be D1 use class, the existing sports facility to be D2 use class and the purpose-built halls of residence is Sui Generis or C2 class.

Table 5.6 - Existing floor areas/building

Building	Floor Area (GIA) m²
Edward Anwyl	2,334
Felthorpe House	239
Kegie	1,600
Kegie Phase II (not built but extant)	2,400
Library	1,710
Main Building	7,298
Rathmell & extension	11,061
Accommodation Office	186
TJ Webley	322
Ty Hywel	187
Academic sub-total	27,337
Sport centre	3,205
Rugby Pitch	N/A
Assembly and Leisure sub-total	3,205
Abergavenny - Dolaucothi (A-D) Halls of residence (Built 1974)	3,798
Ebbw - Skenfrith (E-S) Halls of residence (Built 1989)	8,499
Sui Generis sub-total	12,297
Total	**42,839**

5.15 In this Scenario (2) the existing Main Teaching building could be used for as a conference centre (1,125m^2), the Kegie office building comprising 1600m^2 could be subdivided into a dentist (400m^2), clinic (400m^2) and nursey (800m^2), the sports centre could be used as a gym (600m^2) and Felthorpe House as a doctors surgery (200m^2). Clearly some of the buildings are already currently used on an ad-hoc basis for a number of different uses, however the above approach has been agreed with NCC in a note explaining the Future Baseline scenario which is attached in **Appendix L**.

5.16 This hypothesis is considered to be realistic of what could be developed on the site in terms of a mix of uses and equates to only a small proportion – 3,525m^2, or 8% of the existing floor space on the site. Hence, this is a conservative estimate of how the site could be redeveloped without requiring an application for planning permission. In addition, the hypothesis does not include the extant permission for 2400m^2 of additional D1 land use on the site, which in planning terms, could generate further peak hour traffic in Caerleon. This relates to Phase 2 of the Kegie building which was granted planning consent in September 2005 but which has never been constructed.

5.17 On this basis, Scenario 2, the Future Baseline Scenario is considered to be realistic and a strong sensitivity test of what traffic could be generated within the existing planning consent on the former University Campus.

5.18 The consequential traffic effect of the Future Baseline Scenario based on the TRICS (**Appendix K**) database is set out in **Table 5.7** and equates to about 50% of the traffic generated from the site in Scenario 1 – i.e. a full university campus.

Table 5.7 – Forecast traffic generation (Scenario 2) of reuse of former buildings on site.

Time Period	Arrivals	Departures	Total
0800-0900	115	42	157
1700-1800	41	75	116

Scenario 3 – Zero former use on the site

5.19 Scenario 3 assumes zero traffic from the former university campus.

5.20 The probability of the site remaining fallow with no uses is clearly a very pessimistic (and unrealistic) position, particularly as the operational costs of the site are substantial. Indeed,

the site is already being used for alternative uses e.g. filming etc and hence is generating traffic volumes on the local network.

Distribution

5.21 The agreed distribution of the former use site used in the Calibro TA addendum has been used for expediency. This is shown in **Table 5.8**.

Table 5.8 – Student Trip Distribution

Origin / Destination	Student
Ponthir Road	13.9%
Usk Road	1.0%
New Road	19.9%
Caerleon Road	0.0%
Beaufort Road	5.4%
Bettws Lane	0.8%
Graig Park Road	0.0%
Malpas Road North	4.0%
Pilton Vale	0.0%
Rowan Way	1.3%
M4 Junction 26	39.0%
M4 Junction 25	14.8%
TOTAL	100.0%

Net Effect

5.22 The net effect of the proposed development is dependent on which former use scenario the proposed development trip generation is compared to. The Future Baseline Scenario (Scenario 2) is considered to be the most realistic and appropriate scenario to consider the net effect of the development, noting that this is still conservative (8%) estimate compared to total amount of existing floorspace on the site.

5.23 A summary of the total two-way trips for each scenario for the site is shown below in **Table 5.9**.

Table 5.9 – Total Two-Way Trip Generation by Site Use

Scenario	AM	PM
Scenario 1 (100% Former Use)	335	335
Scenario 2 (Future Baseline)	157	116
Scenario 3 (Zero Former Use)	0	0
Calibro TA Addendum	294	237
Proposed Development (218 dwellings)	**162**	**133**

5.24 **Table 5.9** shows that the proposed development has +5 and +17 vehicular trips in the AM and PM peaks respectively when comparing to the Future Baseline. In other words, the traffic effect is very similar and hence the effect is minimal.

5.25 The proposed development also has 40% less traffic forecast compared to the previous application as set out in the Calibro TA as there is less development proposed for the site.

Committed development

5.26 In terms of committed development, this assessment has considered the effect from Llanfrechfa Hospital. The forecast effects of the Hospital are set out in the WSP Transport Assessment (July 2012) and subsequent forecasts suggest that the two way effect on Caerleon Road during peak periods was some 45 trips (both peaks). In the context of this application and given the origin / destination of these trips in Caerleon or otherwise is unknown, this level of forecast traffic is considered to be negligible.

6 HIGHWAY NETWORK ASSESSMENT

6.1 This section assesses the effect of the development on the local highway network.

6.2 Based on the lower vehicular demand from the proposed development compared to the previous application the effect of unfettered traffic from the site on the local highway network will be lower than assessed in the Calibro TA Addendum.

6.3 Therefore, the following junctions have not been assessed in terms of highway capacity as the Council considered these to operate within capacity with the higher traffic generation as part of the previous application:

- College Crescent/Ponthir Road
- Ponthir Road/College Glade
- Station Road/Broadwalk
- High Street/Castle Street
- High Street/Lodge Road
- Lodge Road/Broadwalk
- Lodge Road/Roman Way
- Pillmawr Road/Pilton Vale
- Pillmawr Road/Malpas Road

6.4 The junctions that were considered unacceptable by the Council as part of the previous application and have been considered further include:

- Station Road/High Street Mini Roundabout (existing & proposed); and
- Caerleon Road/New Road.

6.5 A Design Year of 2024 has been assessed at these junctions, however the traffic forecasts for the base year traffic (2019) have not applied any background traffic growth between 2019-2024. Following a comparison of the ATC and MCC traffic data between 2016-2019 and other sources of historic traffic data which demonstrate a trend of traffic levels stagnating in Caerleon, to apply traffic growth would be to buck the observed trend and so would have the effect of double counting. Hence, the Design Year of 2024 is shown for comparison between the Scenarios with/without development.

6.6 The output files for each model is located in **Appendix M**.

6.7 A comparison between the 2016 Calibro assessment and results within the previous application for a mix of uses of this site has not been undertaken as the quantum of development and hence effect is different to what is now proposed.

6.8 Furthermore, the level of calibration, validation and interpretation of results within the 2016 assessment is not known as this was undertaken by another consultant acting on a different scheme. As such, the 2016 application and results cannot be used as a comparison to the results shown in the foregoing.

Station Road/High Street mini Roundabout

Existing Junction

6.9 The ARCADY results for the existing mini roundabout are summarised below in **Table 6.1**. Measured geometries for the assessment have been based on the topographical survey.

Table 6.1 – Station Road / High Street Mini Roundabout – Existing configuration

Arm	AM peak		PM peak	
	RFC	Q (PCU)	RFC	Q (PCU)
	2024 (Scenario 1 - 100% former use)			
High St	0.85	5	0.75	5
Station Rd	0.87	6	0.94	10
Usk Rd	0.58	2	0.64	2
	2024 (Scenario 2 – Future Baseline)			
High St	0.85	5	0.75	5
Station Rd	0.87	6	0.87	6
Usk Rd	0.57	2	0.60	2
	2024 (Scenario 3 - 0% former use)			
High St	0.85	5	0.75	5
Station Rd	0.84	5	0.75	4
Usk Rd	0.55	2	0.54	2
	2024 + Development			
High St	0.85	5	0.75	5
Station Rd	0.95	9	0.79	4
Usk Rd	0.62	2	0.56	2

6.10 The results in **Table 6.1** indicate that there are no issues with capacity at this junction based on the existing layout of the junction. The highest RFC is 0.95 on Station Road in AM peak for

the development scenario, with a maximum queue of 9 Passenger Car Units (PCUs). This not considered to be a severe impact on the junction.

Proposed Junction (relocation of Zebra crossing further west along High Street)

6.11 The ARCADY results for the mini roundabout with the proposed mitigation are summarised below in **Table 6.2**.

Table 6.2 – Station Road/High Street Mini Roundabout – Proposed

Arm	AM peak		PM peak	
	RFC	Q (PCU)	RFC	Q (PCU)
	2024 (Scenario 1 - 100% former use)			
High St	0.78	4	0.70	4
Station Rd	0.87	6	0.94	10
Usk Rd	0.63	2	0.72	3
	2024 (Scenario 2 – Future Baseline)			
High St	0.78	4	0.70	4
Station Rd	0.87	6	0.80	5
Usk Rd	0.62	2	0.62	2
	2024 (Scenario 3 - 0% former use)			
High St	0.78	4	0.70	4
Station Rd	0.84	5	0.74	4
Usk Rd	0.60	2	0.59	2
	2024 + Development			
High St	0.78	4	0.70	4
Station Rd	0.95	9	0.79	4
Usk Rd	0.69	3	0.62	2

6.12 The results in **Table 6.2** indicate that there are no issues with capacity at this junction with improvements to the High Street arm caused by the proposed mitigation. The highest RFC is 0.95 on Station Road in AM peak for the development scenario, with a max queue of 9 PCUs which is an additional queue of 3 PCUs compared to the future baseline scenario. This not considered to be a severe impact at the junction.

High Street/New Road Priority

6.13 The PICADY results for the High Street / New Road priority junction are summarised in **Table 6.3**.

Table 6.3 – High Street/New Road Priority

Arm	AM peak		PM peak	
	RFC	Q (PCU)	RFC	Q (PCU)
	2024 (Scenario 1 - 100% former use)			
B-C	1.23	3	1.14	3
B-A	1.23	30	1.14	40
C-AB	0.07	1	0.17	1
	2024 (Scenario 2 – Future Baseline)			
B-C	1.16	2	1.10	3
B-A	1.16	18	1.10	28
C-AB	0.07	1	0.16	1
	2024 (Scenario 3 - 0% former use)			
B-C	1.02	1	1.04	3
B-A	1.02	10	1.04	18
C-AB	0.07	1	0.16	1
	2024 + Development			
B-C	1.08	2	1.12	3
B-A	1.08	13	1.12	33
C-AB	0.07	1	0.16	1

(A = High Street, B = New Road, C = Caerleon Road)

6.14 The results in **Table 6.3** indicate that the junction is already at capacity with the Scenario 3 (0% former use). The results for Scenario 2, which provide a more realistic scenario of the former use, show that the junction would also operate over capacity in the AM and PM peak periods.

6.15 The level of queuing in the 2024 + Development scenario compared to Scenario 2 results in -5 and +5 PCUs in the AM and PM peaks respectively on New Road. This increase in queuing is not considered to be severe and it should be noted that the assessment does not take into account any mitigation or behaviour change as a result of the Travel Plan measures.

Sensitivity Test – High Street/New Road Priority

6.16 Three additional sensitivity tests have been undertaken at the High Street/New Road priority junction to consider the effects of the Travel Plan and sustainability measures proposed as part of the overall mitigation. These sensitivity tests are as follows:

- Test A – accounting for 12% modal shift for development traffic from the travel plan;

- Test B – applying a 2% reduction to background traffic flows at the junction to account for all of the sustainability measures proposed including PTP, School Travel Planning, Hospital Travel Planning, improvements to infrastructure; and
- Test C – a combination of A&B above.

6.17 The PICADY results for these tests for the High Street / New Road priority junction are summarised below in **Table 6.4**.

Table 6.4 – High Street/New Road Priority - Sensitivity

Arm	AM peak		PM peak	
	RFC	Q (PCU)	RFC	Q (PCU)
	2024 + Development (Test A)			
B-C	1.07	2	1.11	3
B-A	1.07	13	1.11	31
C-AB	0.07	1	0.16	1
	2024 + Development (Test B)			
B-C	1.05	1	1.09	3
B-A	1.05	12	1.09	26
C-AB	0.07	1	0.16	1
	2024 + Development (Test C)			
B-C	1.04	1	1.08	3
B-A	1.04	11	1.08	24
C-AB	0.07	1	0.15	1

(A = High Street, B = New Road, C = Caerleon Road)

6.18 The modelling outputs from the three sensitivity tests at the High Street / New Street junction demonstrate that:

- There is a beneficial effect in improved capacity and less queuing;
- With a 12% reduction in development traffic from Travel Planning initiatives, the net change in queue length with development compared to the Future Baseline Scenario is -5 and +3 PCUs in the AM and PM peaks respectively on New Road;
- With a 2% reduction in background traffic at this junction, the net change in queuing with development compared to the Future Baseline Scenario is -6 and -2 PCUs in the AM and PM peaks respectively; and
- With both travel planning at the site and the other sustainable transport measures proposed having an effect on the background traffic levels i.e. sensitivity tests A&B, the beneficial effect is more pronounced, with a net change

in queuing with development compared to the Future Baseline Scenario of -7 and -4 PCUs in the AM and PM peaks respectively.

Summary

6.19 The capacity assessment at both the High Street/Station Road and High Street/New Road junctions has demonstrated that the effect of traffic from the proposed development has a minor – non significant effect on junction performance irrespective of the former use position.

6.20 When seeking to form a judgement about what is a reasonable 'test' relating to the former use position on the site, the Future Baseline Scenario is considered to be a robust sensitivity test, particularly when it only refers to about 8% of the former overall floorspace on site.

6.21 If the effect of unfettered development on the highway network is considered against the Future Baseline Scenario, then the net effect at the High Street/Station Road junction is +3 PCUs queuing on Station Road in one peak hour (AM). The net effect at the High Street/New Road junction is an additional 5 PCUs queuing during the PM peak. Clearly the effect of the development at both junctions would reduce compared to Scenario 1 – the 100% former use, or somewhere in between this and the Future Baseline scenario.

6.22 The effect of this development traffic in absolute terms, is broadly comparable to the reduction in traffic flows at these junctions observed during peak times between 2016-2019.

6.23 The net effect of development traffic is further reduced, as evidenced within the sensitivity tests, which seek to show the beneficial effect of sustainable transportation measures. If the outputs of sensitivity test 3 (12% modal shift at source + 2% reduction in background traffic) are compared to the Future Baseline Scenario, then the change in forecast queue from the Development is -7 & -4 PCUs in the AM and PM peaks respectively.

6.24 This demonstrates that with the proposed investment in sustainable transportation measures, the effect of the development can be appropriately mitigated. These sustainable transportation measures will also have greater longevity benefits of continuing to provide mobility and travel choice in Caerleon.

6.25 As such, the conclusion is that the effect of development, in terms of highway capacity, is not significant.

7 SUMMARY AND CONCLUSION

7.1 Vectos is retained by Redrow Homes to provide traffic and transport advice in relation to a full planning application for the proposed development of 218 residential dwellings at the former University of South Wales Caerleon Campus in Caerleon.

7.2 The development is located on a brownfield site with a former use (university campus) which would have generated significant volumes of traffic throughout the day and during the peak hours. In this respect the forecast traffic from 218 dwellings is commensurate with the Future Baseline scenario and significantly lower than the forecast traffic from the previous application/appeal.

7.3 The net effect of the proposals are +5 and +17 vehicles in the AM and PM peaks respectively compared to the agreed Future Baseline Scenario.

7.4 The proposed development complies with relevant national and local policies, as it is a brownfield site and is located in close proximity to existing public transport services, cycle infrastructure and pedestrian networks

7.5 The primary means of vehicular access is from Lodge Road at the site's western boundary. A secondary access is located on College Crescent at the site's southern boundary. It is proposed to provide an inbound priority access from College Crescent to access the site. Improvements are proposed at the Ponthir Road/College Crescent junction which will improve pedestrian and cycle connectivity, whilst maximising junction visibility.

7.6 Pedestrians and cyclists will access the site from Lodge Road, College Crescent and the PRoW at the northern boundary of the site which will be retained and widened to 3m to provide a shared footway/cycleway. Within the site, cyclists will be accommodated on the carriageway. Direct pedestrian links will be provided from the site to access the improved bus stops on Lodge Road.

7.7 The design of the proposed development, the travel planning and the location advantages, means there is a benefit for existing and new residents, significantly improving travel choice, for commuting, leisure and social journeys and hence social inclusion.

7.8 Off-site mitigation measures can include:

- Improved pedestrian linkages from the site to Lodge Road;
- Improvement to the existing PRoW on the northern boundary of the site to provide a 3m footway/cycleway;
- A commitment to fund an enhanced on-road cycle link from the site via Lodge Road to Roman Reach, hence linking with the National Cycle Network;
- New bus stops outside of the site with the southbound bus stop relocated on Lodge Road; and
- Electric charging points for at least each newly erected building;
- Inclusive Travel Planning comprising:
    - A residential travel plan;
    - Personalised Travel Planning (PTP) for new residents and also existing residents in Caerleon;
    - School travel planning for the primary schools (which aligns with the Council and Welsh Government's aspirations for Welsh Network of Healthy School schemes[6]) and
    - working with St Cadocs Hospital to provide travel planning as part of a comprehensive package of sustainable benefits for Caerleon; and
- Removing some of the parking on High Street near the junction with Station Road and relocating the existing Zebra Crossing on High Street further west for pedestrian benefits.

7.9 The capacity assessment at both the High Street/Station Road and High Street/New Road junctions has demonstrated that the effect of traffic from the proposed development has a minor – non significant effect on junction performance irrespective of the former use position.

Conclusion

7.10 In conclusion, the proposed development is acceptable in transport policy terms, and is supportive of the principles in Newport's adopted LDP in relation to masterplanning and

[6] http://www.newport.gov.uk/en/Schools-Education/Schools/Healthy-schools.aspx

movement. Development is proposed on a prominent, accessible, brownfield site and so should be encouraged as per local / national policy.

7.11 The development is designed to maximise social inclusion and effect a step change in sustainable travel thinking. It has transport sustainability benefits for the existing local community, and no significant traffic impact.

7.12 There is good reason to encourage this scheme, and no good reason to resist this on transport grounds.

APPENDIX A

2016 and 2019 Traffic Flows

APPENDIX B

February 2019 Traffic Survey Data

APPENDIX C

November 2019 Traffic Survey Data

APPENDIX D

Crashmap Collision Reports

APPENDIX E

Proposed Site Plan

APPENDIX F

Indicative On Road Cycle Lane on Lodge Road

APPENDIX G

Proposed Upgrade to College Crescent and Ponthir Road

APPENDIX H

Stage 1 RSA

APPENDIX I

Swept Path Analysis

APPENDIX J

Proposed Junction Improvement High Street/Station Road

APPENDIX K

TRICS Output

APPENDIX L

Future Baseline Note

APPENDIX M

Junction Modelling Output Files

Average Weekday - ATC (Two-Way)

Hour Starting	High Street				Lodge Road				Mill Street / Castle Street		
	Jun-16	Feb-19	Nov-19		Jun-16	Feb-19	Nov-19		Jun-16	Feb-19	Nov-19
00:00	33	21	25		31	18	20		19	17	17
01:00	16	12	13		14	7	15		6	10	12
02:00	9	7	10		11	3	9		4	8	7
03:00	8	8	9		6	8	7		3	9	7
04:00	11	12	11		20	18	13		14	16	25
05:00	29	31	36		59	67	57		50	90	102
06:00	97	109	113		173	178	183		172	263	285
07:00	335	344	341		431	439	435		449	605	566
08:00	638	524	649		803	777	766		784	876	730
09:00	477	441	418		563	534	496		543	654	650
10:00	424	427	435		479	462	461		445	569	538
11:00	512	532	511		526	491	475		528	592	551
12:00	554	561	547		562	526	535		610	566	539
13:00	538	558	544		522	508	521		554	562	530
14:00	571	650	638		568	581	566		622	602	551
15:00	565	381	383		767	740	738		686	682	564
16:00	764	701	665		834	803	734		701	648	514
17:00	834	779	705		824	797	774		652	619	506
18:00	660	604	636		677	583	626		527	483	426
19:00	497	456	296		500	414	414		378	332	252
20:00	363	289	180		368	276	252		274	239	154
21:00	258	209	148		249	201	202		189	166	132
22:00	190	157	87		157	137	110		123	118	73
23:00	87	81	47		87	64	55		55	71	38
Daily	8469	7895	7447		9230	8632	8464		8389	8799	7768

Weekday - Junction Counts (All Movements)

Peak Period	High Street / Station Road Mini Roundabout						High Street / New Road				
	19-Nov-14	07-Jun-16	19-Feb-19	12-Nov-19	13-Nov-19	14-Nov-19	07-Jun-16	19-Feb-19	12-Nov-19	13-Nov-19	14-Nov-19
AM (7-8)		814	896	991	951	1065	884	981	986	996	1001
AM (8-9)	1366	1387	1354	1514	1356	1358	1531	1569	1489	1296	1418
AM (9-10)		1027	1116	1309	1090	1123	1070	1090	1155	1158	1203
AM 3hr		3228	3366	3814	3397	3546	3485	3640	3630	3450	3622
PM (16-17)		1337	1295	1283	1335	1412	1417	1344	1208	1225	1406
PM (17-18)	1258	1306	1287	1291	1275	1348	1387	1403	1366	1332	1363
PM (18-19)		1056	925	1109	988	1000	1171	957	1203	1158	1113
PM 3hr		3699	3507	3683	3598	3760	3975	3704	3777	3715	3882

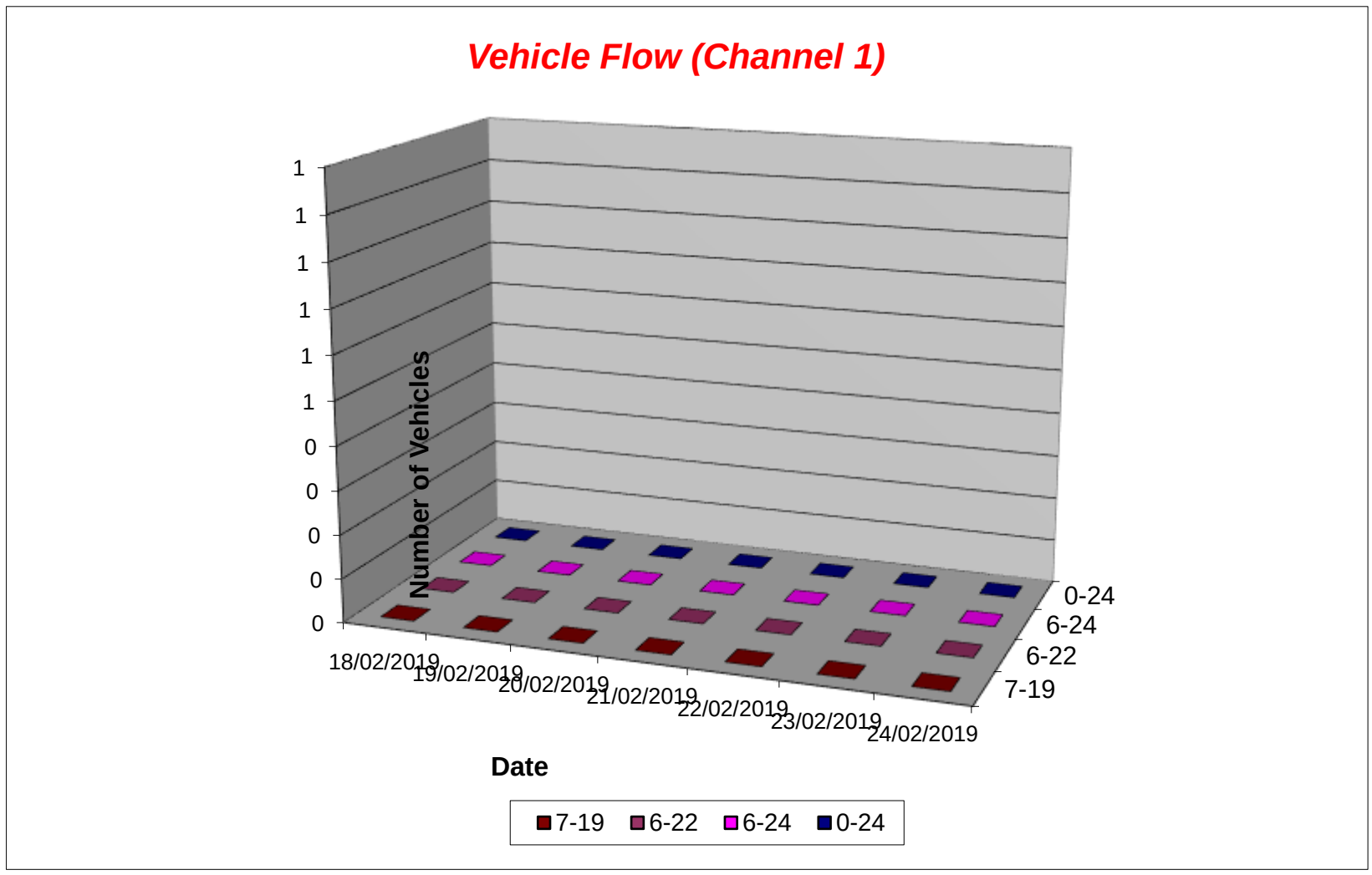
Peak Period	Station Road / College Crescent		High Street / Lodge Road	
	07-Jun-16	19-Feb-19	07-Jun-16	19-Feb-19
AM (7-8)	550	511	623	631
AM (8-9)	997	1023	1168	1125
AM (9-10)	669	747	800	886
AM 3hr	2216	2281	2591	2642
PM (16-17)	906	841	1245	1202
PM (17-18)	891	905	1198	1137
PM (18-19)	642	561	995	843
PM 3hr	2439	2307	3438	3182

Caerleon, Newport ATC, High Street

Produced by Streetwise Services Ltd.

Channel 1 - Eastbound **Vehicle Flow** **Week 1**

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday	5 Day Ave	7 Day Ave
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
7-19	0	0	0	0	0	0	0	0	0
6-22	0	0	0	0	0	0	0	0	0
6-24	0	0	0	0	0	0	0	0	0
0-24	0	0	0	0	0	0	0	0	0



Caerleon, Newport ATC, High Street

Produced by Streetwise Services Ltd.

Channel 1 - Eastbound **Average Speed** **Week 1**

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-
10-12	-	-	-	-	-	-	-
14-16	-	-	-	-	-	-	-
0-24	-	-	-	-	-	-	-

7 Day Ave	-

85th Percentile

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-
10-12	-	-	-	-	-	-	-
14-16	-	-	-	-	-	-	-
0-24	-	-	-	-	-	-	-

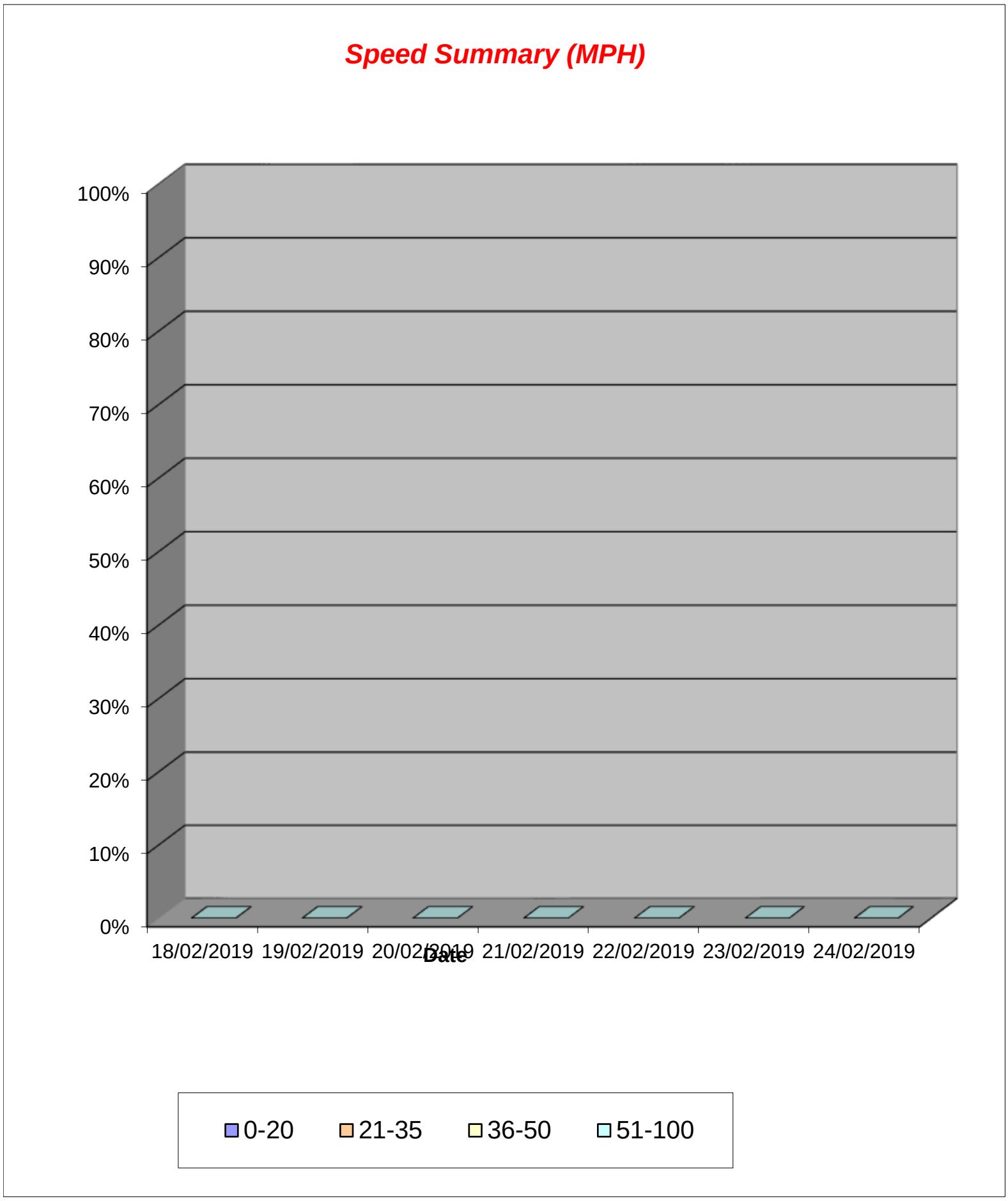
7 Day Ave	-

Caerleon, Newport ATC, High Street

Produced by Streetwise Services Ltd.

Channel 1 - Eastbound **Speed Summary** **Week 1**

Speed (MPH)	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
0-20	0	0	0	0	0	0	0
21-35	0	0	0	0	0	0	0
36-50	0	0	0	0	0	0	0
51-100	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**



Caerleon, Newport ATC, High Street

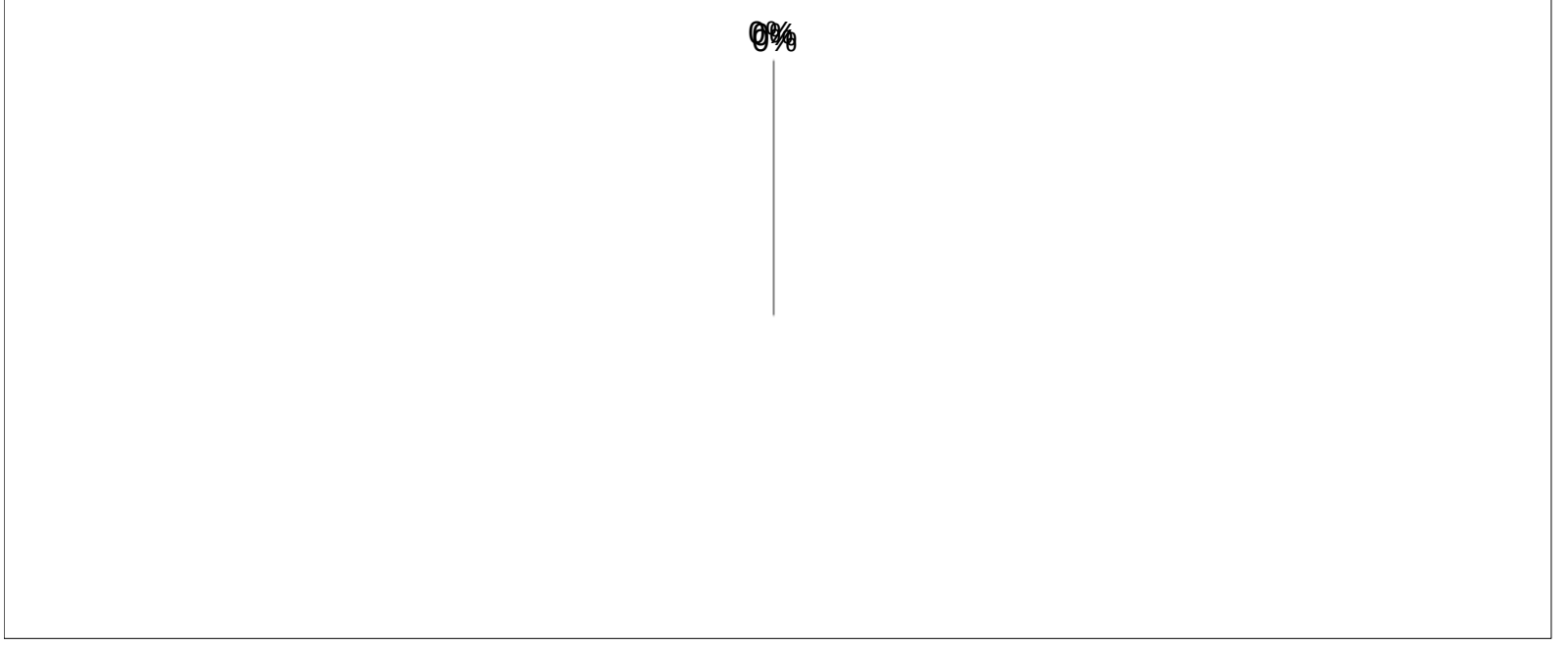
Produced by Streetwise Services Ltd.

Channel 1 - Eastbound **Vehicle Class** **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
18/02/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
19/02/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
20/02/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
21/02/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
22/02/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
23/02/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
24/02/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0

Average				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0

Total Vehicle Class Distribution

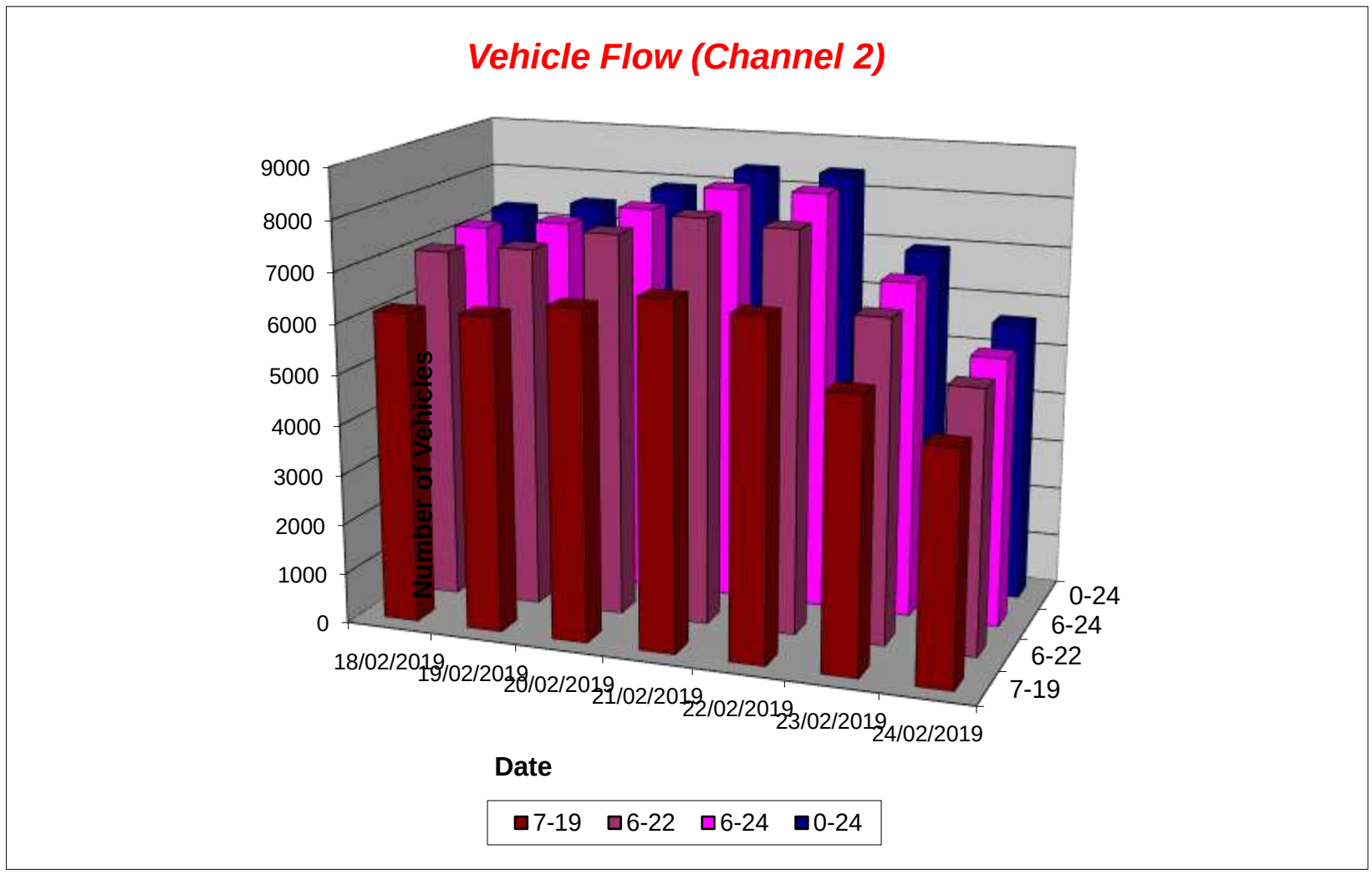


Caerleon, Newport ATC, High Street

Produced by Streetwise Services Ltd.

Channel 2 - Westbound **Vehicle Flow** **Week 1**

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday	5 Day Ave	7 Day Ave
1	20	14	21	23	26	109	107	21	46
2	11	6	21	8	14	46	56	12	23
3	2	11	9	5	9	26	34	7	14
4	11	12	5	8	4	19	25	8	12
5	13	9	13	15	10	28	22	12	16
6	29	33	34	29	32	26	21	31	29
7	106	104	108	125	103	146	49	109	106
8	337	351	388	349	293	122	80	344	274
9	508	501	581	526	505	158	116	524	414
10	424	448	413	467	455	331	220	441	394
11	408	433	401	446	446	506	330	427	424
12	465	534	514	629	516	628	414	532	529
13	537	547	540	579	604	702	559	561	581
14	520	548	587	553	584	694	631	558	588
15	633	580	677	672	690	553	543	650	621
16	410	356	237	407	494	550	493	381	421
17	633	662	767	717	725	532	474	701	644
18	773	757	800	813	751	321	430	779	664
19	530	536	640	696	618	295	296	604	516
20	341	389	461	509	581	372	256	456	416
21	227	270	279	310	359	284	207	289	277
22	182	182	223	240	217	214	128	209	198
23	110	150	123	189	215	176	95	157	151
24	58	52	62	70	163	122	48	81	82
7-19	6178	6253	6545	6854	6681	5392	4586	6502	6070
6-22	7034	7198	7616	8038	7941	6408	5226	7565	7066
6-24	7202	7400	7801	8297	8319	6706	5369	7804	7299
0-24	7288	7485	7904	8385	8414	6960	5634	7895	7439



Caerleon, Newport ATC, High Street

Produced by Streetwise Services Ltd.

Channel 2 - Westbound **Average Speed** **Week 1**

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
1	25.0	24.1	25.1	26.3	25.3	24.9	23.7
2	26.2	26.3	24.7	24.9	26.2	25.4	24.7
3	25.5	26.2	30.2	24.0	24.1	25.5	26.1
4	27.5	25.5	30.0	26.1	26.8	25.1	28.4
5	26.5	28.0	26.5	27.3	24.5	27.3	25.3
6	26.1	25.3	25.1	26.1	26.4	26.7	25.6
7	23.3	23.7	24.4	23.6	24.9	24.8	24.5
8	20.6	20.7	20.2	20.5	21.7	23.6	25.2
9	11.5	15.7	14.1	12.0	15.3	22.6	23.6
10	19.3	19.4	18.7	17.2	19.2	21.1	22.3
11	19.7	18.1	19.2	18.6	19.4	19.6	22.0
12	18.3	18.6	17.2	16.9	16.6	18.7	20.4
13	18.7	18.0	17.8	18.7	18.7	16.8	20.0
14	19.2	17.4	17.9	18.0	17.4	17.3	19.1
15	19.0	15.5	13.8	18.4	17.5	18.8	19.7
16	15.5	10.2	10.8	14.9	13.1	18.8	20.2
17	18.9	17.6	17.5	18.8	15.1	20.1	20.7
18	19.1	19.6	18.7	19.8	18.5	21.5	21.0
19	21.0	20.5	20.5	20.0	19.7	21.3	21.7
20	21.8	21.2	20.9	21.2	20.7	20.7	22.2
21	22.6	21.9	22.0	21.6	21.3	20.6	22.5
22	22.8	21.5	22.0	22.2	21.9	22.2	23.6
23	23.3	23.3	23.5	22.3	22.6	21.9	23.0
24	25.2	25.3	23.6	23.4	22.4	23.9	24.7
10-12	18.9	18.4	18.1	17.6	17.9	19.1	21.1
14-16	17.6	13.5	13.0	17.1	15.7	18.8	20.0
0-24	19.1	18.5	18.2	18.7	18.4	19.9	21.1

7 Day Ave	19.1

85th Percentile

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
1	33.7	28.6	29.0	28.7	33.9	28.7	28.2
2	33.5	33.3	28.4	28.9	28.7	28.9	28.5
3	28.6	38.3	38.3	28.8	28.5	33.5	28.3
4	33.3	28.8	38.2	28.0	33.4	33.1	33.3
5	33.3	33.8	33.2	33.5	28.1	33.8	28.0
6	28.8	28.6	28.6	33.9	28.8	33.4	28.5
7	28.0	29.0	28.4	28.4	28.5	28.5	28.2
8	23.8	23.9	23.4	23.7	23.8	28.5	28.9
9	18.8	23.2	18.7	18.5	23.6	28.2	28.6
10	23.7	23.7	23.3	23.5	23.8	23.3	23.8
11	23.0	24.0	23.6	23.5	23.0	23.1	28.9
12	23.4	23.2	23.2	23.4	23.2	23.6	23.3
13	23.9	23.5	23.2	23.4	23.1	23.2	23.5
14	23.8	23.1	23.6	23.3	23.1	23.9	23.1
15	23.4	19.0	18.1	23.1	23.3	23.1	23.6
16	19.0	18.7	18.5	18.2	18.1	23.4	23.4
17	23.9	23.0	23.9	24.0	23.0	23.3	24.0
18	23.1	23.6	23.3	23.1	23.5	23.9	23.1
19	23.9	23.1	23.8	23.4	23.7	23.8	23.9
20	23.4	23.1	23.4	23.4	23.5	23.3	28.6
21	28.5	23.8	23.3	23.5	23.8	23.7	28.3
22	28.8	23.3	28.9	23.2	23.1	28.3	28.1
23	28.1	28.0	28.6	23.5	23.2	23.1	28.5
24	28.6	28.3	28.6	28.3	28.7	28.0	28.2
10-12	23.5	23.4	23.4	23.6	23.5	23.3	24.0
14-16	23.3	18.3	18.1	23.5	18.4	23.8	23.1
0-24	23.6	23.9	23.6	23.2	23.1	23.3	23.0

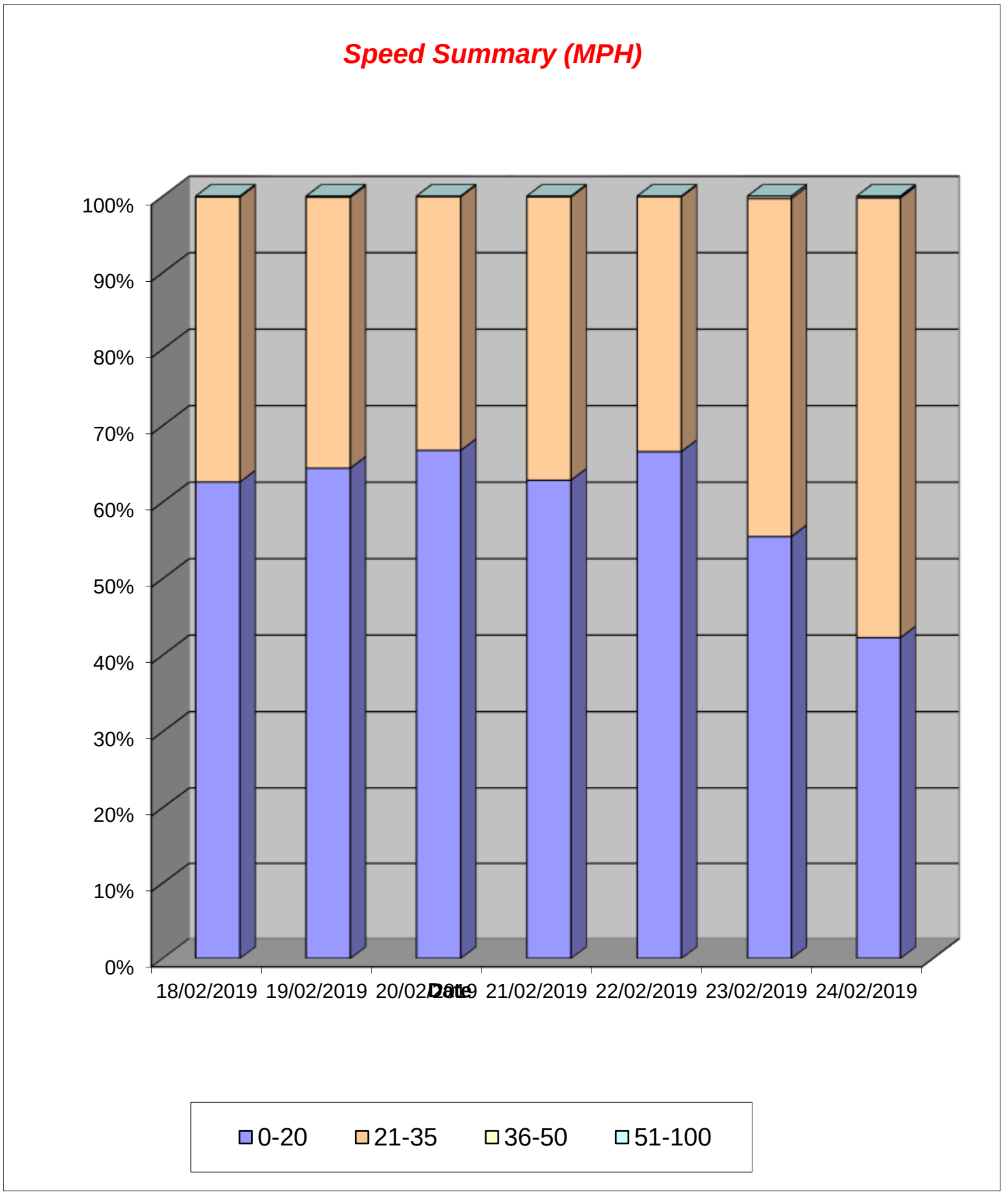
7 Day Ave	23.4

Caerleon, Newport ATC, High Street

Produced by Streetwise Services Ltd.

Channel 2 - Westbound **Speed Summary** **Week 1**

Speed (MPH)	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
0-20	4566	4824	5277	5272	5605	3863	2382
21-35	2714	2651	2622	3106	2803	3075	3239
36-50	8	9	5	7	6	22	12
51-100	0	1	0	0	0	0	1
TOTAL	**7288**	**7485**	**7904**	**8385**	**8414**	**6960**	**5634**



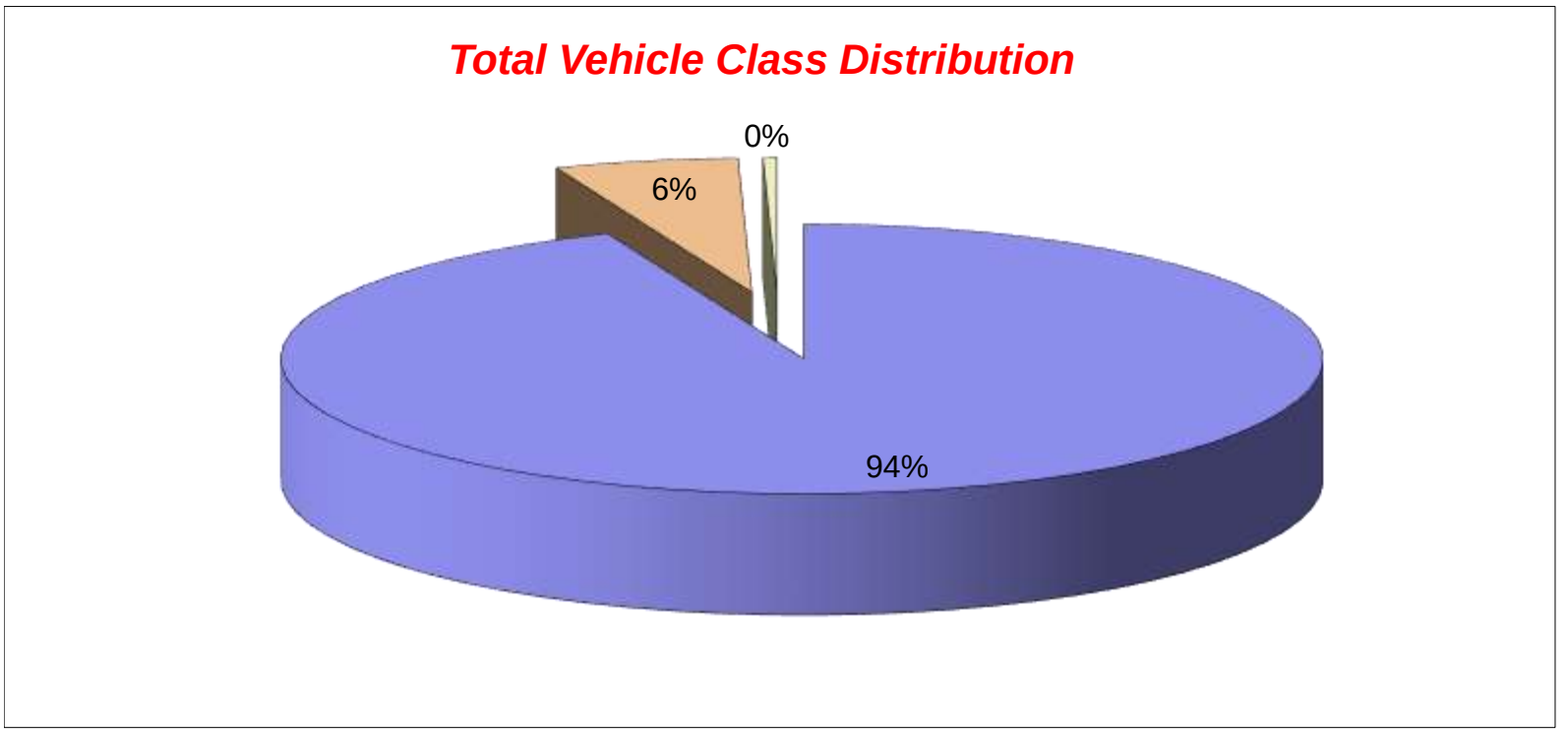
Caerleon, Newport ATC, High Street

Produced by Streetwise Services Ltd.

Channel 2 - Westbound **Vehicle Class** **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
18/02/2019				
7-19	5738	400	40	6178
6-22	6557	435	42	7034
6-24	6720	440	42	7202
0-24	6792	454	42	7288
19/02/2019				
7-19	5842	374	37	6253
6-22	6752	405	41	7198
6-24	6944	414	42	7400
0-24	7020	423	42	7485
20/02/2019				
7-19	6041	486	18	6545
6-22	7057	534	25	7616
6-24	7236	540	25	7801
0-24	7328	551	25	7904
21/02/2019				
7-19	6339	497	18	6854
6-22	7472	545	21	8038
6-24	7723	553	21	8297
0-24	7799	565	21	8385
22/02/2019				
7-19	6243	404	34	6681
6-22	7453	449	39	7941
6-24	7822	457	40	8319
0-24	7911	462	41	8414
23/02/2019				
7-19	5117	250	25	5392
6-22	6092	289	27	6408
6-24	6379	300	27	6706
0-24	6618	314	28	6960
24/02/2019				
7-19	4400	165	21	4586
6-22	5027	177	22	5226
6-24	5165	181	23	5369
0-24	5414	197	23	5634

Average				
7-19	5674	368	28	6070
6-22	6630	405	31	7066
6-24	6856	412	31	7299
0-24	6983	424	32	7439



Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - (North) B4236 Ponthir Road / B - (South) B4326 Ponthir Road / C - College Glade**

Approach: **A - (North) B4236 Ponthir Road**

	A to B							A to C							A to A						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	41	0	2	0	1	**46.0**	**44**	8	1	0	0	0	**9.0**	**9**	0	0	0	0	0	**0.0**	**0**
07:15 - 07:30	29	4	0	0	1	**35.0**	**34**	4	2	0	0	0	**6.0**	**6**	0	0	0	0	0	**0.0**	**0**
07:30 - 07:45	63	6	0	0	1	**71.0**	**70**	6	0	1	0	0	**7.5**	**7**	0	0	0	0	0	**0.0**	**0**
07:45 - 08:00	59	11	1	0	0	**71.5**	**71**	15	3	0	0	0	**18.0**	**18**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**192**	**21**	**3**	**0**	**3**	**224**	**219**	**33**	**6**	**1**	**0**	**0**	**41**	**40**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	102	8	4	0	1	**118.0**	**115**	17	0	0	0	0	**17.0**	**17**	0	0	0	0	0	**0.0**	**0**
08:15 - 08:30	95	11	1	0	0	**107.5**	**107**	20	0	0	0	0	**20.0**	**20**	0	0	0	0	0	**0.0**	**0**
08:30 - 08:45	101	10	5	0	2	**122.5**	**118**	20	3	0	0	0	**23.0**	**23**	0	0	0	0	0	**0.0**	**0**
08:45 - 09:00	100	7	3	1	0	**113.8**	**111**	23	5	0	0	0	**28.0**	**28**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**398**	**36**	**13**	**1**	**3**	**462**	**451**	**80**	**8**	**0**	**0**	**0**	**88**	**88**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	68	8	3	0	0	**80.5**	**79**	22	3	1	0	0	**26.5**	**26**	0	0	0	0	0	**0.0**	**0**
09:15 - 09:30	72	14	3	1	1	**94.8**	**91**	9	2	0	0	0	**11.0**	**11**	0	0	0	0	0	**0.0**	**0**
09:30 - 09:45	45	9	4	0	0	**60.0**	**58**	4	2	2	0	0	**9.0**	**8**	0	0	0	0	0	**0.0**	**0**
09:45 - 10:00	46	7	1	0	0	**54.5**	**54**	5	2	0	0	0	**7.0**	**7**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**231**	**38**	**11**	**1**	**1**	**290**	**282**	**40**	**9**	**3**	**0**	**0**	**54**	**52**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**821**	**95**	**27**	**2**	**7**	**976**	**952**	**153**	**23**	**4**	**0**	**0**	**183**	**180**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	66	11	1	3	0	**85.4**	**81**	19	0	0	0	0	**19.0**	**19**	0	0	0	0	0	**0.0**	**0**
15:15 - 15:30	57	7	4	1	2	**76.3**	**71**	11	3	0	0	0	**14.0**	**14**	0	0	0	0	0	**0.0**	**0**
15:30 - 15:45	60	12	1	2	0	**78.1**	**75**	22	2	0	0	0	**24.0**	**24**	0	0	0	0	0	**0.0**	**0**
15:45 - 16:00	66	7	1	0	0	**74.5**	**74**	22	4	1	0	0	**27.5**	**27**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**249**	**37**	**7**	**6**	**2**	**315**	**301**	**74**	**9**	**1**	**0**	**0**	**85**	**84**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	74	8	2	0	1	**87.0**	**85**	26	2	0	0	0	**28.0**	**28**	0	0	0	0	0	**0.0**	**0**
16:15 - 16:30	71	8	1	0	0	**80.5**	**80**	18	3	0	0	0	**21.0**	**21**	0	0	0	0	0	**0.0**	**0**
16:30 - 16:45	66	8	0	0	0	**74.0**	**74**	13	3	0	0	0	**16.0**	**16**	0	0	0	0	0	**0.0**	**0**
16:45 - 17:00	63	9	0	0	1	**74.0**	**73**	20	4	0	0	0	**24.0**	**24**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**274**	**33**	**3**	**0**	**2**	**316**	**312**	**77**	**12**	**0**	**0**	**0**	**89**	**89**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	68	8	2	0	0	**79.0**	**78**	26	2	0	0	0	**28.0**	**28**	0	0	0	0	0	**0.0**	**0**
17:15 - 17:30	69	10	1	0	0	**80.5**	**80**	27	2	0	0	0	**29.0**	**29**	0	0	0	0	0	**0.0**	**0**
17:30 - 17:45	77	6	2	0	1	**88.0**	**86**	13	0	0	0	0	**13.0**	**13**	0	0	0	0	0	**0.0**	**0**
17:45 - 18:00	59	6	0	0	0	**65.0**	**65**	24	0	0	0	0	**24.0**	**24**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**273**	**30**	**5**	**0**	**1**	**313**	**309**	**90**	**4**	**0**	**0**	**0**	**94**	**94**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	56	1	0	0	0	**57.0**	**57**	21	2	0	0	0	**23.0**	**23**	0	0	0	0	0	**0.0**	**0**
18:15 - 18:30	52	5	0	0	0	**57.0**	**57**	28	2	1	0	0	**31.5**	**31**	0	0	0	0	0	**0.0**	**0**
18:30 - 18:45	44	3	1	0	1	**50.5**	**49**	9	0	0	0	0	**9.0**	**9**	0	0	0	0	0	**0.0**	**0**
18:45 - 19:00	32	2	0	0	0	**34.0**	**34**	13	1	0	0	0	**14.0**	**14**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**184**	**11**	**1**	**0**	**1**	**199**	**197**	**71**	**5**	**1**	**0**	**0**	**78**	**77**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**980**	**111**	**16**	**6**	**6**	**1143**	**1119**	**312**	**30**	**2**	**0**	**0**	**346**	**344**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - (North) B4236 Ponthir Road / B - (South) B4326 Ponthir Road / C - College Glade**

Approach: **B - (South) B4326 Ponthir Road**

	B to C							B to A							B to B						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	0	0	0	0	0	0.0	0	27	2	1	0	1	32.5	31	0	0	0	0	0	0.0	0
07:15 - 07:30	3	1	0	0	0	4.0	4	37	9	1	0	2	51.5	49	0	0	0	0	0	0.0	0
07:30 - 07:45	1	1	0	0	1	4.0	3	41	5	1	2	0	52.1	49	0	0	0	0	0	0.0	0
07:45 - 08:00	1	0	0	0	0	1.0	1	67	15	0	0	0	82.0	82	0	0	0	0	0	0.0	0
Hourly Total	**5**	**2**	**0**	**0**	**1**	**9**	**8**	**172**	**31**	**3**	**2**	**3**	**219**	**211**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	6	2	0	0	1	10.0	9	97	9	2	1	2	115.3	111	0	0	0	0	0	0.0	0
08:15 - 08:30	6	1	0	0	0	7.0	7	74	12	1	0	1	89.5	88	0	0	0	0	0	0.0	0
08:30 - 08:45	8	1	0	0	0	9.0	9	89	10	0	0	1	101.0	100	0	0	0	0	0	0.0	0
08:45 - 09:00	9	1	0	0	0	10.0	10	64	10	1	0	1	77.5	76	0	0	0	0	0	0.0	0
Hourly Total	**29**	**5**	**0**	**0**	**1**	**36**	**35**	**324**	**41**	**4**	**1**	**5**	**383**	**375**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	8	0	0	0	1	10.0	9	68	16	1	1	0	87.8	86	0	0	0	0	0	0.0	0
09:15 - 09:30	6	2	0	0	0	8.0	8	52	14	2	0	2	73.0	70	0	0	0	0	0	0.0	0
09:30 - 09:45	6	0	1	0	1	9.5	8	44	16	3	2	0	69.1	65	0	0	0	0	0	0.0	0
09:45 - 10:00	4	0	0	0	0	4.0	4	53	9	2	0	0	65.0	64	0	0	0	0	0	0.0	0
Hourly Total	**24**	**2**	**1**	**0**	**2**	**32**	**29**	**217**	**55**	**8**	**3**	**2**	**295**	**285**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**58**	**9**	**1**	**0**	**4**	**77**	**72**	**713**	**127**	**15**	**6**	**10**	**897**	**871**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	17	1	0	0	0	18.0	18	59	11	2	0	0	73.0	72	0	0	0	0	0	0.0	0
15:15 - 15:30	15	0	0	0	0	15.0	15	96	5	1	0	0	102.5	102	0	0	0	0	0	0.0	0
15:30 - 15:45	11	2	0	0	1	15.0	14	85	14	0	1	1	103.3	101	0	0	0	0	0	0.0	0
15:45 - 16:00	13	0	1	0	1	16.5	15	78	10	2	1	0	93.3	91	0	0	0	0	0	0.0	0
Hourly Total	**56**	**3**	**1**	**0**	**2**	**65**	**62**	**318**	**40**	**5**	**2**	**1**	**373**	**366**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	13	1	0	0	0	14.0	14	83	5	2	0	0	91.0	90	0	0	0	0	0	0.0	0
16:15 - 16:30	23	0	0	0	0	23.0	23	82	13	0	0	2	99.0	97	0	0	0	0	0	0.0	0
16:30 - 16:45	21	2	0	0	0	23.0	23	93	10	2	0	1	108.0	106	0	0	0	0	0	0.0	0
16:45 - 17:00	10	0	0	0	1	12.0	11	99	7	2	0	1	111.0	109	0	0	0	0	0	0.0	0
Hourly Total	**67**	**3**	**0**	**0**	**1**	**72**	**71**	**357**	**35**	**6**	**0**	**4**	**409**	**402**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	17	1	0	0	1	20.0	19	103	7	5	0	0	117.5	115	0	0	0	0	0	0.0	0
17:15 - 17:30	13	0	0	0	0	13.0	13	101	10	2	0	0	114.0	113	0	0	0	0	0	0.0	0
17:30 - 17:45	12	2	0	0	0	14.0	14	104	6	0	0	0	110.0	110	0	0	0	0	0	0.0	0
17:45 - 18:00	19	0	0	0	1	21.0	20	84	8	0	0	0	92.0	92	0	0	0	0	0	0.0	0
Hourly Total	**61**	**3**	**0**	**0**	**2**	**68**	**66**	**392**	**31**	**7**	**0**	**0**	**434**	**430**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	20	1	0	0	0	21.0	21	70	7	0	0	1	79.0	78	0	0	0	0	0	0.0	0
18:15 - 18:30	13	0	0	0	0	13.0	13	59	7	0	0	0	66.0	66	0	0	0	0	0	0.0	0
18:30 - 18:45	9	0	0	0	0	9.0	9	49	6	1	0	0	56.5	56	0	0	0	0	0	0.0	0
18:45 - 19:00	9	0	0	0	1	11.0	10	57	3	0	0	0	60.0	60	0	0	0	0	0	0.0	0
Hourly Total	**51**	**1**	**0**	**0**	**1**	**54**	**53**	**235**	**23**	**1**	**0**	**1**	**262**	**260**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**235**	**10**	**1**	**0**	**6**	**259**	**252**	**1302**	**129**	**19**	**2**	**6**	**1478**	**1458**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - (North) B4236 Ponthir Road / B - (South) B4326 Ponthir Road / C - College Glade**

Approach: **C - College Glade**

	C to A							C to B							C to C						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	8	1	0	0	0	**9.0**	**9**	13	1	0	0	0	**14.0**	**14**	0	0	0	0	0	**0.0**	**0**
07:15 - 07:30	7	1	0	0	0	**8.0**	**8**	10	0	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
07:30 - 07:45	17	1	0	0	0	**18.0**	**18**	13	3	0	0	0	**16.0**	**16**	0	0	0	0	0	**0.0**	**0**
07:45 - 08:00	25	3	1	0	0	**29.5**	**29**	17	1	0	0	0	**18.0**	**18**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**57**	**6**	**1**	**0**	**0**	**65**	**64**	**53**	**5**	**0**	**0**	**0**	**58**	**58**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	23	0	0	0	0	**23.0**	**23**	20	1	0	0	0	**21.0**	**21**	0	0	0	0	0	**0.0**	**0**
08:15 - 08:30	28	2	1	0	0	**31.5**	**31**	14	1	1	0	0	**16.5**	**16**	0	0	0	0	0	**0.0**	**0**
08:30 - 08:45	18	0	0	0	0	**18.0**	**18**	25	0	0	0	0	**25.0**	**25**	0	0	0	0	0	**0.0**	**0**
08:45 - 09:00	21	2	0	0	0	**23.0**	**23**	13	2	0	0	0	**15.0**	**15**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**90**	**4**	**1**	**0**	**0**	**96**	**95**	**72**	**4**	**1**	**0**	**0**	**78**	**77**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	22	4	1	0	0	**27.5**	**27**	22	0	0	0	0	**22.0**	**22**	0	0	0	0	0	**0.0**	**0**
09:15 - 09:30	10	1	1	0	0	**12.5**	**12**	10	0	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
09:30 - 09:45	12	1	0	0	0	**13.0**	**13**	12	0	0	0	0	**12.0**	**12**	0	0	0	0	0	**0.0**	**0**
09:45 - 10:00	14	4	0	0	0	**18.0**	**18**	11	1	0	0	0	**12.0**	**12**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**58**	**10**	**2**	**0**	**0**	**71**	**70**	**55**	**1**	**0**	**0**	**0**	**56**	**56**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**205**	**20**	**4**	**0**	**0**	**232**	**229**	**180**	**10**	**1**	**0**	**0**	**192**	**191**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	6	3	0	0	0	**9.0**	**9**	11	2	0	0	0	**13.0**	**13**	0	0	0	0	0	**0.0**	**0**
15:15 - 15:30	15	0	1	0	0	**16.5**	**16**	8	0	0	0	0	**8.0**	**8**	0	0	0	0	0	**0.0**	**0**
15:30 - 15:45	14	4	0	0	0	**18.0**	**18**	12	0	0	0	0	**12.0**	**12**	0	0	0	0	0	**0.0**	**0**
15:45 - 16:00	14	1	0	0	0	**15.0**	**15**	8	0	0	0	0	**8.0**	**8**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**49**	**8**	**1**	**0**	**0**	**59**	**58**	**39**	**2**	**0**	**0**	**0**	**41**	**41**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	11	3	0	0	0	**14.0**	**14**	8	0	0	0	0	**8.0**	**8**	0	0	0	0	0	**0.0**	**0**
16:15 - 16:30	11	1	0	0	0	**12.0**	**12**	10	0	1	0	0	**11.5**	**11**	0	0	0	0	0	**0.0**	**0**
16:30 - 16:45	9	1	0	0	0	**10.0**	**10**	10	0	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
16:45 - 17:00	14	3	0	0	0	**17.0**	**17**	4	0	0	0	0	**4.0**	**4**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**45**	**8**	**0**	**0**	**0**	**53**	**53**	**32**	**0**	**1**	**0**	**0**	**34**	**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	10	2	0	0	0	**12.0**	**12**	4	1	0	0	0	**5.0**	**5**	0	0	0	0	0	**0.0**	**0**
17:15 - 17:30	13	2	0	0	0	**15.0**	**15**	9	0	0	0	0	**9.0**	**9**	0	0	0	0	0	**0.0**	**0**
17:30 - 17:45	13	1	0	0	0	**14.0**	**14**	8	1	0	0	0	**9.0**	**9**	0	0	0	0	0	**0.0**	**0**
17:45 - 18:00	8	1	1	0	0	**10.5**	**10**	15	0	0	0	0	**15.0**	**15**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**44**	**6**	**1**	**0**	**0**	**52**	**51**	**36**	**2**	**0**	**0**	**0**	**38**	**38**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	21	2	0	0	0	**23.0**	**23**	12	0	0	0	0	**12.0**	**12**	0	0	0	0	0	**0.0**	**0**
18:15 - 18:30	5	1	0	0	0	**6.0**	**6**	11	1	0	0	0	**12.0**	**12**	0	0	0	0	0	**0.0**	**0**
18:30 - 18:45	7	2	0	0	0	**9.0**	**9**	7	1	0	0	0	**8.0**	**8**	0	0	0	0	0	**0.0**	**0**
18:45 - 19:00	9	0	0	0	0	**9.0**	**9**	9	1	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**42**	**5**	**0**	**0**	**0**	**47**	**47**	**39**	**3**	**0**	**0**	**0**	**42**	**42**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**180**	**27**	**2**	**0**	**0**	**211**	**209**	**146**	**7**	**1**	**0**	**0**	**155**	**154**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - Lodge Hill / B - (East) Lodge Road / C - (West) Lodge Road**

Approach: **A - Lodge Hill**

	A to B							A to C							A to A						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	15	1	0	0	0	**16.0**	**16**	11	0	0	0	0	**11.0**	**11**	0	0	0	0	0	**0.0**	**0**
07:15 - 07:30	16	0	0	0	1	**18.0**	**17**	7	2	0	0	0	**9.0**	**9**	0	0	0	0	0	**0.0**	**0**
07:30 - 07:45	25	5	0	0	1	**32.0**	**31**	15	2	0	0	0	**17.0**	**17**	0	0	0	0	0	**0.0**	**0**
07:45 - 08:00	20	2	1	0	0	**23.5**	**23**	9	0	0	0	0	**9.0**	**9**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**76**	**8**	**1**	**0**	**2**	**90**	**87**	**42**	**4**	**0**	**0**	**0**	**46**	**46**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	25	4	2	0	1	**34.0**	**32**	11	1	1	0	0	**13.5**	**13**	0	0	0	0	0	**0.0**	**0**
08:15 - 08:30	28	2	0	0	1	**32.0**	**31**	17	0	0	0	0	**17.0**	**17**	0	0	0	0	0	**0.0**	**0**
08:30 - 08:45	40	2	0	0	0	**42.0**	**42**	6	1	1	0	0	**8.5**	**8**	0	0	0	0	0	**0.0**	**0**
08:45 - 09:00	37	5	0	0	1	**44.0**	**43**	27	3	0	0	0	**30.0**	**30**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**130**	**13**	**2**	**0**	**3**	**152**	**148**	**61**	**5**	**2**	**0**	**0**	**69**	**68**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	28	2	0	0	1	**32.0**	**31**	20	1	0	0	0	**21.0**	**21**	0	0	0	0	0	**0.0**	**0**
09:15 - 09:30	22	2	0	0	1	**26.0**	**25**	5	3	0	0	0	**8.0**	**8**	0	0	0	0	0	**0.0**	**0**
09:30 - 09:45	13	3	2	0	1	**21.0**	**19**	2	1	0	0	0	**3.0**	**3**	0	0	0	0	0	**0.0**	**0**
09:45 - 10:00	15	4	0	0	0	**19.0**	**19**	11	0	1	0	0	**12.5**	**12**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**78**	**11**	**2**	**0**	**3**	**98**	**94**	**38**	**5**	**1**	**0**	**0**	**45**	**44**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**284**	**32**	**5**	**0**	**8**	**340**	**329**	**141**	**14**	**3**	**0**	**0**	**160**	**158**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	23	0	0	0	1	**25.0**	**24**	5	2	0	0	0	**7.0**	**7**	0	0	0	0	0	**0.0**	**0**
15:15 - 15:30	14	0	0	0	0	**14.0**	**14**	13	1	0	0	0	**14.0**	**14**	0	0	0	0	0	**0.0**	**0**
15:30 - 15:45	28	5	0	0	1	**35.0**	**34**	20	0	0	0	0	**20.0**	**20**	0	0	0	0	0	**0.0**	**0**
15:45 - 16:00	12	3	0	0	2	**19.0**	**17**	5	0	0	0	0	**5.0**	**5**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**77**	**8**	**0**	**0**	**4**	**93**	**89**	**43**	**3**	**0**	**0**	**0**	**46**	**46**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	15	3	0	0	0	**18.0**	**18**	8	2	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
16:15 - 16:30	14	0	0	0	0	**14.0**	**14**	11	0	0	0	0	**11.0**	**11**	0	0	0	0	0	**0.0**	**0**
16:30 - 16:45	19	2	0	0	1	**23.0**	**22**	10	1	0	0	0	**11.0**	**11**	0	0	0	0	0	**0.0**	**0**
16:45 - 17:00	17	0	0	0	2	**21.0**	**19**	4	3	0	0	0	**7.0**	**7**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**65**	**5**	**0**	**0**	**3**	**76**	**73**	**33**	**6**	**0**	**0**	**0**	**39**	**39**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	16	2	0	0	0	**18.0**	**18**	8	4	0	0	0	**12.0**	**12**	0	0	0	0	0	**0.0**	**0**
17:15 - 17:30	7	1	0	0	1	**10.0**	**9**	6	1	0	0	0	**7.0**	**7**	0	0	0	0	0	**0.0**	**0**
17:30 - 17:45	27	0	0	0	1	**29.0**	**28**	8	0	0	0	0	**8.0**	**8**	0	0	0	0	0	**0.0**	**0**
17:45 - 18:00	20	0	0	0	1	**22.0**	**21**	6	0	0	0	0	**6.0**	**6**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**70**	**3**	**0**	**0**	**3**	**79**	**76**	**28**	**5**	**0**	**0**	**0**	**33**	**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	18	0	0	0	0	**18.0**	**18**	8	0	0	0	0	**8.0**	**8**	0	0	0	0	0	**0.0**	**0**
18:15 - 18:30	16	1	0	0	1	**19.0**	**18**	8	1	0	0	0	**9.0**	**9**	0	0	0	0	0	**0.0**	**0**
18:30 - 18:45	25	1	0	0	0	**26.0**	**26**	12	1	0	0	0	**13.0**	**13**	0	0	0	0	0	**0.0**	**0**
18:45 - 19:00	15	1	1	0	1	**19.5**	**18**	5	0	0	0	0	**5.0**	**5**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**74**	**3**	**1**	**0**	**2**	**83**	**80**	**33**	**2**	**0**	**0**	**0**	**35**	**35**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**286**	**19**	**1**	**0**	**12**	**331**	**318**	**137**	**16**	**0**	**0**	**0**	**153**	**153**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - Lodge Hill / B - (East) Lodge Road / C - (West) Lodge Road**

Approach: **B - (East) Lodge Road**

	B to C							B to A							B to B						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	23	5	0	0	1	**30.0**	**29**	3	2	0	0	0	**5.0**	**5**	0	0	0	0	0	**0.0**	**0**
07:15 - 07:30	17	4	0	0	0	**21.0**	**21**	5	0	0	0	0	**5.0**	**5**	0	0	0	0	0	**0.0**	**0**
07:30 - 07:45	20	2	0	0	0	**22.0**	**22**	7	0	1	0	0	**8.5**	**8**	0	0	0	0	0	**0.0**	**0**
07:45 - 08:00	33	1	0	0	1	**36.0**	**35**	8	1	1	0	0	**10.5**	**10**	1	0	0	0	1	**3.0**	**2**
Hourly Total	**93**	**12**	**0**	**0**	**2**	**109**	**107**	**23**	**3**	**2**	**0**	**0**	**29**	**28**	**1**	**0**	**0**	**0**	**1**	**3**	**2**
08:00 - 08:15	47	6	1	0	0	**54.5**	**54**	8	2	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
08:15 - 08:30	41	3	1	0	0	**45.5**	**45**	19	4	0	0	0	**23.0**	**23**	0	0	0	0	0	**0.0**	**0**
08:30 - 08:45	39	3	1	0	1	**45.5**	**44**	32	3	1	0	0	**36.5**	**36**	0	0	0	0	0	**0.0**	**0**
08:45 - 09:00	47	2	2	0	0	**52.0**	**51**	23	2	0	0	0	**25.0**	**25**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**174**	**14**	**5**	**0**	**1**	**198**	**194**	**82**	**11**	**1**	**0**	**0**	**95**	**94**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	46	5	1	0	0	**52.5**	**52**	8	1	0	0	0	**9.0**	**9**	0	0	0	0	0	**0.0**	**0**
09:15 - 09:30	27	6	2	0	1	**38.0**	**36**	7	3	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
09:30 - 09:45	26	3	1	0	0	**30.5**	**30**	16	0	1	0	0	**17.5**	**17**	0	0	0	0	0	**0.0**	**0**
09:45 - 10:00	31	7	0	0	1	**40.0**	**39**	14	1	2	0	0	**18.0**	**17**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**130**	**21**	**4**	**0**	**2**	**161**	**157**	**45**	**5**	**3**	**0**	**0**	**55**	**53**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**397**	**47**	**9**	**0**	**5**	**468**	**458**	**150**	**19**	**6**	**0**	**0**	**179**	**175**	**1**	**0**	**0**	**0**	**1**	**3**	**2**
15:00 - 15:15	57	1	0	0	0	**58.0**	**58**	31	1	0	0	0	**32.0**	**32**	0	0	0	0	0	**0.0**	**0**
15:15 - 15:30	72	5	0	0	0	**77.0**	**77**	30	2	0	0	0	**32.0**	**32**	0	0	0	0	0	**0.0**	**0**
15:30 - 15:45	76	5	1	0	1	**84.5**	**83**	36	3	0	0	0	**39.0**	**39**	0	0	0	0	0	**0.0**	**0**
15:45 - 16:00	49	6	0	0	0	**55.0**	**55**	24	4	0	0	0	**28.0**	**28**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**254**	**17**	**1**	**0**	**1**	**275**	**273**	**121**	**10**	**0**	**0**	**0**	**131**	**131**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	77	10	0	0	0	**87.0**	**87**	25	1	0	0	0	**26.0**	**26**	0	0	0	0	0	**0.0**	**0**
16:15 - 16:30	56	9	0	0	1	**67.0**	**66**	31	4	1	0	0	**36.5**	**36**	0	0	0	0	0	**0.0**	**0**
16:30 - 16:45	71	7	0	0	0	**78.0**	**78**	32	2	0	0	0	**34.0**	**34**	0	0	0	0	0	**0.0**	**0**
16:45 - 17:00	57	8	0	0	2	**69.0**	**67**	39	4	0	0	0	**43.0**	**43**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**261**	**34**	**0**	**0**	**3**	**301**	**298**	**127**	**11**	**1**	**0**	**0**	**140**	**139**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	86	6	1	0	0	**93.5**	**93**	36	1	0	0	0	**37.0**	**37**	0	0	0	0	0	**0.0**	**0**
17:15 - 17:30	82	5	0	0	0	**87.0**	**87**	32	1	0	0	0	**33.0**	**33**	0	0	0	0	0	**0.0**	**0**
17:30 - 17:45	59	3	0	0	1	**64.0**	**63**	32	2	0	0	0	**34.0**	**34**	1	0	0	0	0	**1.0**	**1**
17:45 - 18:00	84	4	0	0	0	**88.0**	**88**	29	2	0	0	0	**31.0**	**31**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**311**	**18**	**1**	**0**	**1**	**333**	**331**	**129**	**6**	**0**	**0**	**0**	**135**	**135**	**1**	**0**	**0**	**0**	**0**	**1**	**1**
18:00 - 18:15	65	5	0	0	1	**72.0**	**71**	27	2	0	0	0	**29.0**	**29**	0	0	0	0	0	**0.0**	**0**
18:15 - 18:30	31	3	0	0	0	**34.0**	**34**	25	2	0	0	0	**27.0**	**27**	0	0	0	0	0	**0.0**	**0**
18:30 - 18:45	39	1	0	0	0	**40.0**	**40**	21	2	0	0	0	**23.0**	**23**	0	0	0	0	0	**0.0**	**0**
18:45 - 19:00	40	4	0	0	0	**44.0**	**44**	21	3	0	0	0	**24.0**	**24**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**175**	**13**	**0**	**0**	**1**	**190**	**189**	**94**	**9**	**0**	**0**	**0**	**103**	**103**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**1001**	**82**	**2**	**0**	**6**	**1099**	**1091**	**471**	**36**	**1**	**0**	**0**	**509**	**508**	**1**	**0**	**0**	**0**	**0**	**1**	**1**

Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - Lodge Hill / B - (East) Lodge Road / C - (West) Lodge Road**

Approach: **C - (West) Lodge Road**

	C to A							C to B							C to C						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	2	0	0	0	1	4.0	3	33	3	0	0	0	36.0	36	0	0	0	0	0	0.0	0
07:15 - 07:30	1	1	0	0	0	2.0	2	44	3	0	0	0	47.0	47	0	0	0	0	0	0.0	0
07:30 - 07:45	7	0	0	0	0	7.0	7	46	5	0	0	0	51.0	51	0	0	0	0	0	0.0	0
07:45 - 08:00	6	4	0	0	1	12.0	11	66	12	0	0	0	78.0	78	0	0	0	0	0	0.0	0
Hourly Total	**16**	**5**	**0**	**0**	**2**	**25**	**23**	**189**	**23**	**0**	**0**	**0**	**212**	**212**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	9	0	0	0	0	9.0	9	87	6	0	0	0	93.0	93	0	0	0	0	0	0.0	0
08:15 - 08:30	11	1	0	0	0	12.0	12	86	7	0	0	0	93.0	93	0	0	0	0	0	0.0	0
08:30 - 08:45	9	1	0	0	1	12.0	11	79	2	0	0	0	81.0	81	1	0	0	0	0	1.0	1
08:45 - 09:00	24	3	0	0	0	27.0	27	65	7	2	0	1	77.0	75	0	1	0	0	0	1.0	1
Hourly Total	**53**	**5**	**0**	**0**	**1**	**60**	**59**	**317**	**22**	**2**	**0**	**1**	**344**	**342**	**1**	**1**	**0**	**0**	**0**	**2**	**2**
09:00 - 09:15	5	3	0	0	0	8.0	8	51	5	0	0	0	56.0	56	1	0	0	0	0	1.0	1
09:15 - 09:30	4	1	1	0	1	8.5	7	41	6	0	0	0	47.0	47	0	0	0	0	0	0.0	0
09:30 - 09:45	3	1	0	0	0	4.0	4	63	6	1	0	0	70.5	70	0	0	0	0	0	0.0	0
09:45 - 10:00	6	3	0	0	0	9.0	9	37	6	2	0	0	46.0	45	0	0	0	0	0	0.0	0
Hourly Total	**18**	**8**	**1**	**0**	**1**	**30**	**28**	**192**	**23**	**3**	**0**	**0**	**220**	**218**	**1**	**0**	**0**	**0**	**0**	**1**	**1**
Session Total	**87**	**18**	**1**	**0**	**4**	**115**	**110**	**698**	**68**	**5**	**0**	**1**	**776**	**772**	**2**	**1**	**0**	**0**	**0**	**3**	**3**
15:00 - 15:15	11	1	0	0	0	12.0	12	57	3	0	0	0	60.0	60	0	0	0	0	0	0.0	0
15:15 - 15:30	13	4	0	0	0	17.0	17	31	6	0	0	0	37.0	37	0	0	0	0	0	0.0	0
15:30 - 15:45	13	0	0	0	1	15.0	14	40	2	0	0	0	42.0	42	0	0	0	0	0	0.0	0
15:45 - 16:00	3	1	0	0	0	4.0	4	39	4	0	0	0	43.0	43	0	0	0	0	0	0.0	0
Hourly Total	**40**	**6**	**0**	**0**	**1**	**48**	**47**	**167**	**15**	**0**	**0**	**0**	**182**	**182**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	9	1	0	0	0	10.0	10	44	2	0	0	0	46.0	46	0	0	0	0	0	0.0	0
16:15 - 16:30	11	0	0	0	1	13.0	12	44	4	0	0	0	48.0	48	0	0	0	0	0	0.0	0
16:30 - 16:45	12	0	0	0	0	12.0	12	45	5	0	0	0	50.0	50	0	0	0	0	0	0.0	0
16:45 - 17:00	11	2	0	0	1	15.0	14	43	6	0	0	0	49.0	49	0	0	0	0	0	0.0	0
Hourly Total	**43**	**3**	**0**	**0**	**2**	**50**	**48**	**176**	**17**	**0**	**0**	**0**	**193**	**193**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	8	3	0	0	0	11.0	11	39	6	0	0	0	45.0	45	0	0	0	0	0	0.0	0
17:15 - 17:30	9	2	0	0	0	11.0	11	46	5	0	0	0	51.0	51	0	0	0	0	0	0.0	0
17:30 - 17:45	11	1	0	0	1	14.0	13	53	4	0	0	0	57.0	57	0	0	0	0	0	0.0	0
17:45 - 18:00	16	0	0	0	0	16.0	16	42	6	0	0	0	48.0	48	0	0	0	0	0	0.0	0
Hourly Total	**44**	**6**	**0**	**0**	**1**	**52**	**51**	**180**	**21**	**0**	**0**	**0**	**201**	**201**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	12	1	0	0	1	15.0	14	41	2	0	0	0	43.0	43	0	0	0	0	0	0.0	0
18:15 - 18:30	13	1	0	0	0	14.0	14	52	2	0	0	0	54.0	54	0	0	0	0	0	0.0	0
18:30 - 18:45	8	1	0	0	0	9.0	9	31	4	0	0	0	35.0	35	0	0	0	0	0	0.0	0
18:45 - 19:00	7	1	0	0	0	8.0	8	35	0	0	0	0	35.0	35	0	0	0	0	0	0.0	0
Hourly Total	**40**	**4**	**0**	**0**	**1**	**46**	**45**	**159**	**8**	**0**	**0**	**0**	**167**	**167**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**167**	**19**	**0**	**0**	**5**	**196**	**191**	**682**	**61**	**0**	**0**	**0**	**743**	**743**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - Roman Way / B - (East) Lodge Road / C - (West) Lodge Road**

Approach: **A - Roman Way**

	A to B							A to C							A to A						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	10	1	0	0	0	**11.0**	**11**	11	5	0	0	0	**16.0**	**16**	0	0	0	0	0	**0.0**	**0**
07:15 - 07:30	11	1	0	0	0	**12.0**	**12**	4	0	0	0	0	**4.0**	**4**	0	0	0	0	0	**0.0**	**0**
07:30 - 07:45	21	3	0	0	0	**24.0**	**24**	5	0	0	0	0	**5.0**	**5**	0	0	0	0	0	**0.0**	**0**
07:45 - 08:00	22	3	2	0	0	**28.0**	**27**	7	1	0	0	0	**8.0**	**8**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**64**	**8**	**2**	**0**	**0**	**75**	**74**	**27**	**6**	**0**	**0**	**0**	**33**	**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	23	1	0	0	0	**24.0**	**24**	13	1	0	0	0	**14.0**	**14**	0	0	0	0	0	**0.0**	**0**
08:15 - 08:30	26	1	0	0	0	**27.0**	**27**	10	2	0	0	0	**12.0**	**12**	0	0	0	0	0	**0.0**	**0**
08:30 - 08:45	21	1	0	1	0	**24.3**	**23**	12	1	0	0	0	**13.0**	**13**	0	0	0	0	0	**0.0**	**0**
08:45 - 09:00	19	1	0	0	0	**20.0**	**20**	10	0	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**89**	**4**	**0**	**1**	**0**	**95**	**94**	**45**	**4**	**0**	**0**	**0**	**49**	**49**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	29	1	0	0	0	**30.0**	**30**	10	1	0	0	0	**11.0**	**11**	0	0	0	0	0	**0.0**	**0**
09:15 - 09:30	10	3	0	0	0	**13.0**	**13**	6	1	0	0	0	**7.0**	**7**	0	0	0	0	0	**0.0**	**0**
09:30 - 09:45	13	1	0	0	0	**14.0**	**14**	8	1	0	0	0	**9.0**	**9**	0	0	0	0	0	**0.0**	**0**
09:45 - 10:00	13	2	0	0	0	**15.0**	**15**	4	1	1	0	0	**6.5**	**6**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**65**	**7**	**0**	**0**	**0**	**72**	**72**	**28**	**4**	**1**	**0**	**0**	**34**	**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**218**	**19**	**2**	**1**	**0**	**242**	**240**	**100**	**14**	**1**	**0**	**0**	**116**	**115**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	11	1	0	0	0	**12.0**	**12**	3	0	0	0	0	**3.0**	**3**	0	0	0	0	0	**0.0**	**0**
15:15 - 15:30	19	1	0	0	0	**20.0**	**20**	11	2	0	0	0	**13.0**	**13**	0	0	0	0	0	**0.0**	**0**
15:30 - 15:45	18	1	0	0	0	**19.0**	**19**	11	1	0	0	0	**12.0**	**12**	0	0	0	0	0	**0.0**	**0**
15:45 - 16:00	13	1	1	0	0	**15.5**	**15**	6	1	0	0	0	**7.0**	**7**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**61**	**4**	**1**	**0**	**0**	**67**	**66**	**31**	**4**	**0**	**0**	**0**	**35**	**35**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	11	2	0	0	0	**13.0**	**13**	9	0	0	0	0	**9.0**	**9**	0	0	0	0	0	**0.0**	**0**
16:15 - 16:30	8	0	0	0	0	**8.0**	**8**	4	2	0	0	0	**6.0**	**6**	0	0	0	0	0	**0.0**	**0**
16:30 - 16:45	6	0	1	0	0	**7.5**	**7**	8	0	0	0	0	**8.0**	**8**	0	0	0	0	0	**0.0**	**0**
16:45 - 17:00	10	1	0	0	0	**11.0**	**11**	4	0	0	0	0	**4.0**	**4**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**35**	**3**	**1**	**0**	**0**	**40**	**39**	**25**	**2**	**0**	**0**	**0**	**27**	**27**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	8	1	0	1	0	**11.3**	**10**	11	0	0	0	0	**11.0**	**11**	0	0	0	0	0	**0.0**	**0**
17:15 - 17:30	9	0	0	0	0	**9.0**	**9**	11	1	0	0	0	**12.0**	**12**	0	0	0	0	0	**0.0**	**0**
17:30 - 17:45	13	0	0	0	0	**13.0**	**13**	10	0	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
17:45 - 18:00	9	0	0	0	0	**9.0**	**9**	10	1	0	0	0	**11.0**	**11**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**39**	**1**	**0**	**1**	**0**	**42**	**41**	**42**	**2**	**0**	**0**	**0**	**44**	**44**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	6	1	0	0	0	**7.0**	**7**	10	1	0	0	0	**11.0**	**11**	0	0	0	0	0	**0.0**	**0**
18:15 - 18:30	1	0	0	0	0	**1.0**	**1**	4	1	0	0	0	**5.0**	**5**	0	0	0	0	0	**0.0**	**0**
18:30 - 18:45	6	0	0	0	0	**6.0**	**6**	6	1	0	0	0	**7.0**	**7**	0	0	0	0	0	**0.0**	**0**
18:45 - 19:00	10	1	0	0	0	**11.0**	**11**	9	1	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**23**	**2**	**0**	**0**	**0**	**25**	**25**	**29**	**4**	**0**	**0**	**0**	**33**	**33**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**158**	**10**	**2**	**1**	**0**	**174**	**171**	**127**	**12**	**0**	**0**	**0**	**139**	**139**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - Roman Way / B - (East) Lodge Road / C - (West) Lodge Road**

Approach: **B - (East) Lodge Road**

	B to C							B to A							B to B						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	15	2	0	0	1	**19.0**	**18**	1	1	0	0	0	**2.0**	**2**	0	0	0	0	0	**0.0**	**0**
07:15 - 07:30	18	4	0	0	0	**22.0**	**22**	5	1	1	0	0	**7.5**	**7**	0	0	0	0	0	**0.0**	**0**
07:30 - 07:45	22	2	1	0	0	**25.5**	**25**	1	1	0	0	0	**2.0**	**2**	2	0	0	0	0	**2.0**	**2**
07:45 - 08:00	35	1	1	0	2	**41.5**	**39**	3	2	2	0	0	**8.0**	**7**	0	1	0	0	0	**1.0**	**1**
Hourly Total	**90**	**9**	**2**	**0**	**3**	**108**	**104**	**10**	**5**	**3**	**0**	**0**	**20**	**18**	**2**	**1**	**0**	**0**	**0**	**3**	**3**
08:00 - 08:15	41	7	1	0	0	**49.5**	**49**	9	1	1	0	0	**11.5**	**11**	0	0	0	0	0	**0.0**	**0**
08:15 - 08:30	50	5	1	0	0	**56.5**	**56**	4	0	0	1	0	**6.3**	**5**	0	0	0	0	0	**0.0**	**0**
08:30 - 08:45	60	5	2	0	1	**70.0**	**68**	15	1	0	0	0	**16.0**	**16**	0	0	0	0	0	**0.0**	**0**
08:45 - 09:00	62	4	2	0	0	**69.0**	**68**	8	2	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**213**	**21**	**6**	**0**	**1**	**245**	**241**	**36**	**4**	**1**	**1**	**0**	**44**	**42**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	42	6	1	0	0	**49.5**	**49**	9	2	0	0	0	**11.0**	**11**	1	0	0	0	0	**1.0**	**1**
09:15 - 09:30	29	7	2	0	1	**41.0**	**39**	7	2	0	0	0	**9.0**	**9**	0	0	0	0	0	**0.0**	**0**
09:30 - 09:45	34	2	2	0	0	**39.0**	**38**	7	0	0	0	0	**7.0**	**7**	0	0	0	0	0	**0.0**	**0**
09:45 - 10:00	40	7	1	0	1	**50.5**	**49**	6	2	0	0	0	**8.0**	**8**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**145**	**22**	**6**	**0**	**2**	**180**	**175**	**29**	**6**	**0**	**0**	**0**	**35**	**35**	**1**	**0**	**0**	**0**	**0**	**1**	**1**
Session Total	**448**	**52**	**14**	**0**	**6**	**533**	**520**	**75**	**15**	**4**	**1**	**0**	**99**	**95**	**3**	**1**	**0**	**0**	**0**	**4**	**4**
15:00 - 15:15	86	2	0	0	0	**88.0**	**88**	17	0	0	0	0	**17.0**	**17**	0	0	0	0	0	**0.0**	**0**
15:15 - 15:30	90	5	0	0	0	**95.0**	**95**	21	1	0	0	0	**22.0**	**22**	0	0	0	0	0	**0.0**	**0**
15:30 - 15:45	101	8	1	0	1	**112.5**	**111**	13	2	0	0	0	**15.0**	**15**	0	0	0	0	0	**0.0**	**0**
15:45 - 16:00	68	8	0	0	0	**76.0**	**76**	15	1	0	0	0	**16.0**	**16**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**345**	**23**	**1**	**0**	**1**	**372**	**370**	**66**	**4**	**0**	**0**	**0**	**70**	**70**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	93	11	0	0	0	**104.0**	**104**	15	0	0	0	0	**15.0**	**15**	0	0	0	0	0	**0.0**	**0**
16:15 - 16:30	84	11	1	0	1	**98.5**	**97**	12	0	1	0	0	**13.5**	**13**	0	0	0	0	0	**0.0**	**0**
16:30 - 16:45	96	9	0	0	0	**105.0**	**105**	9	2	1	0	0	**12.5**	**12**	0	0	0	0	0	**0.0**	**0**
16:45 - 17:00	92	11	0	0	2	**107.0**	**105**	15	4	0	0	0	**19.0**	**19**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**365**	**42**	**1**	**0**	**3**	**415**	**411**	**51**	**6**	**2**	**0**	**0**	**60**	**59**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	112	7	1	0	0	**120.5**	**120**	22	2	0	0	0	**24.0**	**24**	0	0	0	0	0	**0.0**	**0**
17:15 - 17:30	101	6	0	0	0	**107.0**	**107**	18	0	0	0	0	**18.0**	**18**	0	0	0	0	0	**0.0**	**0**
17:30 - 17:45	82	4	0	0	1	**88.0**	**87**	9	1	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
17:45 - 18:00	102	5	0	0	0	**107.0**	**107**	10	1	0	0	0	**11.0**	**11**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**397**	**22**	**1**	**0**	**1**	**423**	**421**	**59**	**4**	**0**	**0**	**0**	**63**	**63**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	81	6	0	0	1	**89.0**	**88**	9	1	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
18:15 - 18:30	52	4	0	0	0	**56.0**	**56**	9	1	0	0	0	**10.0**	**10**	0	0	0	0	0	**0.0**	**0**
18:30 - 18:45	54	2	0	0	0	**56.0**	**56**	9	3	0	0	0	**12.0**	**12**	0	0	0	0	0	**0.0**	**0**
18:45 - 19:00	52	6	0	0	0	**58.0**	**58**	11	1	0	0	0	**12.0**	**12**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**239**	**18**	**0**	**0**	**1**	**259**	**258**	**38**	**6**	**0**	**0**	**0**	**44**	**44**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**1346**	**105**	**3**	**0**	**6**	**1469**	**1460**	**214**	**20**	**2**	**0**	**0**	**237**	**236**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - Roman Way / B - (East) Lodge Road / C - (West) Lodge Road**

Approach: **C - (West) Lodge Road**

	C to A							C to B							C to C						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	3	1	0	0	0	**4.0**	**4**	45	3	0	0	0	**48.0**	**48**	0	0	0	0	0	**0.0**	**0**
07:15 - 07:30	5	0	0	0	0	**5.0**	**5**	54	3	0	0	1	**59.0**	**58**	0	0	0	0	0	**0.0**	**0**
07:30 - 07:45	7	2	0	0	0	**9.0**	**9**	65	8	0	0	1	**75.0**	**74**	0	0	0	0	0	**0.0**	**0**
07:45 - 08:00	5	2	0	0	0	**7.0**	**7**	82	11	1	0	1	**96.5**	**95**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**20**	**5**	**0**	**0**	**0**	**25**	**25**	**246**	**25**	**1**	**0**	**3**	**279**	**275**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	9	0	1	0	0	**10.5**	**10**	101	11	1	0	1	**115.5**	**114**	0	0	0	0	0	**0.0**	**0**
08:15 - 08:30	7	2	0	0	0	**9.0**	**9**	108	7	0	0	1	**117.0**	**116**	0	0	0	0	0	**0.0**	**0**
08:30 - 08:45	3	0	0	0	0	**3.0**	**3**	117	4	0	0	0	**121.0**	**121**	1	0	0	0	0	**1.0**	**1**
08:45 - 09:00	9	2	0	0	0	**11.0**	**11**	93	10	2	0	2	**110.0**	**107**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**28**	**4**	**1**	**0**	**0**	**34**	**33**	**419**	**32**	**3**	**0**	**4**	**464**	**458**	**1**	**0**	**0**	**0**	**0**	**1**	**1**
09:00 - 09:15	4	1	0	0	0	**5.0**	**5**	75	6	0	0	1	**83.0**	**82**	0	0	0	0	0	**0.0**	**0**
09:15 - 09:30	3	0	0	0	0	**3.0**	**3**	60	8	0	0	1	**70.0**	**69**	0	0	0	0	0	**0.0**	**0**
09:30 - 09:45	8	2	0	0	0	**10.0**	**10**	68	7	3	0	1	**81.5**	**79**	0	0	0	0	0	**0.0**	**0**
09:45 - 10:00	3	1	1	0	0	**5.5**	**5**	48	9	1	0	0	**58.5**	**58**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**18**	**4**	**1**	**0**	**0**	**24**	**23**	**251**	**30**	**4**	**0**	**3**	**293**	**288**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**66**	**13**	**2**	**0**	**0**	**83**	**81**	**916**	**87**	**8**	**0**	**10**	**1036**	**1021**	**1**	**0**	**0**	**0**	**0**	**1**	**1**
15:00 - 15:15	11	0	0	0	0	**11.0**	**11**	69	3	0	0	1	**74.0**	**73**	0	0	0	0	0	**0.0**	**0**
15:15 - 15:30	6	0	0	0	0	**6.0**	**6**	39	6	0	0	0	**45.0**	**45**	0	0	0	0	0	**0.0**	**0**
15:30 - 15:45	9	1	0	0	0	**10.0**	**10**	59	6	0	0	1	**67.0**	**66**	0	0	0	0	0	**0.0**	**0**
15:45 - 16:00	2	2	0	0	0	**4.0**	**4**	49	5	0	0	2	**58.0**	**56**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**28**	**3**	**0**	**0**	**0**	**31**	**31**	**216**	**20**	**0**	**0**	**4**	**244**	**240**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	4	0	0	0	0	**4.0**	**4**	55	5	0	0	0	**60.0**	**60**	0	0	0	0	0	**0.0**	**0**
16:15 - 16:30	5	0	0	0	0	**5.0**	**5**	53	4	0	0	0	**57.0**	**57**	0	0	0	0	0	**0.0**	**0**
16:30 - 16:45	7	2	0	0	0	**9.0**	**9**	57	5	0	0	1	**64.0**	**63**	0	0	0	0	0	**0.0**	**0**
16:45 - 17:00	9	0	0	0	0	**9.0**	**9**	51	5	0	0	2	**60.0**	**58**	0	1	0	0	0	**1.0**	**1**
Hourly Total	**25**	**2**	**0**	**0**	**0**	**27**	**27**	**216**	**19**	**0**	**0**	**3**	**241**	**238**	**0**	**1**	**0**	**0**	**0**	**1**	**1**
17:00 - 17:15	4	0	0	0	0	**4.0**	**4**	51	8	0	0	0	**59.0**	**59**	0	0	0	0	0	**0.0**	**0**
17:15 - 17:30	13	1	0	0	0	**14.0**	**14**	40	5	0	0	1	**47.0**	**46**	0	0	0	0	0	**0.0**	**0**
17:30 - 17:45	12	1	0	0	0	**13.0**	**13**	69	3	0	0	1	**74.0**	**73**	0	0	0	0	0	**0.0**	**0**
17:45 - 18:00	9	3	0	0	0	**12.0**	**12**	52	3	0	0	1	**57.0**	**56**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**38**	**5**	**0**	**0**	**0**	**43**	**43**	**212**	**19**	**0**	**0**	**3**	**237**	**234**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	13	0	0	0	0	**13.0**	**13**	46	2	0	0	0	**48.0**	**48**	0	0	0	0	0	**0.0**	**0**
18:15 - 18:30	8	0	0	0	0	**8.0**	**8**	60	3	0	0	1	**65.0**	**64**	0	0	0	0	0	**0.0**	**0**
18:30 - 18:45	4	2	0	0	0	**6.0**	**6**	52	3	0	0	0	**55.0**	**55**	0	0	0	0	0	**0.0**	**0**
18:45 - 19:00	6	0	1	0	0	**7.5**	**7**	44	1	0	0	1	**47.0**	**46**	0	0	0	0	0	**0.0**	**0**
Hourly Total	**31**	**2**	**1**	**0**	**0**	**35**	**34**	**202**	**9**	**0**	**0**	**2**	**215**	**213**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**122**	**12**	**1**	**0**	**0**	**136**	**135**	**846**	**67**	**0**	**0**	**12**	**937**	**925**	**0**	**1**	**0**	**0**	**0**	**1**	**1**

Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - B436 Ponthir Road / B - B436 Station Road / C - College Crescent**

Approach: **A - B436 Ponthir Road**

	A to B							A to C							A to A						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	x	0	3	0	1	#VALUE!	4	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
07:15 - 07:30	52	5	0	1	1	61.3	59	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
07:30 - 07:45	76	8	0	0	0	84.0	84	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
07:45 - 08:00	90	10	4	0	1	108.0	105	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
Hourly Total	**218**	**23**	**7**	**1**	**3**	#VALUE!	**252**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	130	11	3	1	1	149.8	146	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
08:15 - 08:30	118	9	0	1	0	129.3	128	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
08:30 - 08:45	138	9	6	1	2	162.3	156	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
08:45 - 09:00	106	7	2	0	0	116.0	115	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
Hourly Total	**492**	**36**	**11**	**3**	**3**	558	**545**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	90	6	3	0	0	100.5	99	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
09:15 - 09:30	79	16	5	0	1	104.5	101	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
09:30 - 09:45	66	11	3	0	0	81.5	80	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
09:45 - 10:00	60	8	1	1	0	71.8	70	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
Hourly Total	**295**	**41**	**12**	**1**	**1**	358	350	**0**	**0**	**0**	**0**	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**1005**	**100**	**30**	**5**	**7**	#VALUE!	**1147**	**0**	**0**	**0**	**0**	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	77	9	0	2	0	90.6	88	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
15:15 - 15:30	71	6	1	1	2	84.8	81	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
15:30 - 15:45	59	12	2	0	0	74.0	73	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
15:45 - 16:00	77	12	1	0	0	90.5	90	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
Hourly Total	**284**	**39**	**4**	**3**	**2**	340	332	**0**	**0**	**0**	**0**	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	79	9	3	0	1	94.5	92	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
16:15 - 16:30	81	8	2	0	0	92.0	91	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
16:30 - 16:45	72	8	0	0	0	80.0	80	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
16:45 - 17:00	66	10	0	0	1	78.0	77	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
Hourly Total	**298**	**35**	**5**	**0**	**2**	345	340	**0**	**0**	**0**	**0**	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	81	12	0	0	0	93.0	93	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
17:15 - 17:30	89	11	1	0	0	101.5	101	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
17:30 - 17:45	83	8	2	0	1	96.0	94	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
17:45 - 18:00	72	4	0	0	0	76.0	76	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
Hourly Total	**325**	**35**	**3**	**0**	**1**	367	364	**0**	**0**	**0**	**0**	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	77	4	0	0	0	81.0	81	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
18:15 - 18:30	62	3	1	0	0	66.5	66	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
18:30 - 18:45	45	3	1	0	1	51.5	50	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
18:45 - 19:00	49	2	0	0	0	51.0	51	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0
Hourly Total	**233**	**12**	**2**	**0**	**1**	250	248	**0**	**0**	**0**	**0**	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**1140**	**121**	**14**	**3**	**6**	1302	1284	**0**	**0**	**0**	**0**	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - B436 Ponthir Road / B - B436 Station Road / C - College Crescent**

Approach: **B - B436 Station Road**

	B to C							B to A							B to B						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	0	0	0	0	0	0.0	0	20	2	1	0	1	25.5	24	0	0	0	0	0	0.0	0
07:15 - 07:30	0	0	0	0	0	0.0	0	33	10	1	1	3	52.8	48	0	0	0	0	0	0.0	0
07:30 - 07:45	0	0	0	0	0	0.0	0	29	4	1	0	0	34.5	34	0	0	0	0	0	0.0	0
07:45 - 08:00	0	0	0	0	0	0.0	0	53	7	0	0	1	62.0	61	0	0	0	0	0	0.0	0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**135**	**23**	**3**	**1**	**5**	**175**	**167**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	0	0	0	0	0	0.0	0	53	9	1	1	1	67.8	65	0	0	0	0	0	0.0	0
08:15 - 08:30	0	0	0	0	0	0.0	0	42	8	1	0	1	53.5	52	0	0	0	0	0	0.0	0
08:30 - 08:45	0	0	0	0	0	0.0	0	39	8	0	1	1	51.3	49	0	0	0	0	0	0.0	0
08:45 - 09:00	0	0	0	0	0	0.0	0	39	6	0	0	1	47.0	46	0	0	0	0	0	0.0	0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**173**	**31**	**2**	**2**	**4**	**220**	**212**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	0	0	0	0	0	0.0	0	63	19	3	0	1	88.5	86	0	0	0	0	0	0.0	0
09:15 - 09:30	0	0	0	0	0	0.0	0	42	8	1	2	3	62.1	56	0	0	0	0	0	0.0	0
09:30 - 09:45	0	0	0	0	0	0.0	0	41	12	4	1	0	61.3	58	0	0	0	0	0	0.0	0
09:45 - 10:00	0	0	0	0	0	0.0	0	58	10	1	1	0	71.8	70	0	0	0	0	0	0.0	0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**204**	**49**	**9**	**4**	**4**	**284**	**270**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**512**	**103**	**14**	**7**	**13**	**679**	**649**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	0	0	0	0	0	0.0	0	51	6	2	0	0	60.0	59	0	0	0	0	0	0.0	0
15:15 - 15:30	0	0	0	0	0	0.0	0	46	2	2	0	1	53.0	51	0	0	0	0	0	0.0	0
15:30 - 15:45	0	0	0	0	0	0.0	0	53	10	1	1	1	68.8	66	0	0	0	0	0	0.0	0
15:45 - 16:00	0	0	0	0	0	0.0	0	72	8	1	0	1	83.5	82	0	0	0	0	0	0.0	0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**222**	**26**	**6**	**1**	**3**	**265**	**258**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	0	0	0	0	0	0.0	0	56	7	3	0	0	67.5	66	0	0	0	0	0	0.0	0
16:15 - 16:30	0	0	0	0	0	0.0	0	60	9	1	0	2	74.5	72	0	0	0	0	0	0.0	0
16:30 - 16:45	0	0	0	0	0	0.0	0	65	8	2	0	1	78.0	76	0	0	0	0	0	0.0	0
16:45 - 17:00	0	0	0	0	0	0.0	0	70	5	3	0	2	83.5	80	0	0	0	0	0	0.0	0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**251**	**29**	**9**	**0**	**5**	**304**	**294**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	0	0	0	0	0	0.0	0	75	10	5	0	1	94.5	91	0	0	0	0	0	0.0	0
17:15 - 17:30	0	0	0	0	0	0.0	0	108	7	1	0	0	116.5	116	0	0	0	0	0	0.0	0
17:30 - 17:45	0	0	0	0	0	0.0	0	95	6	1	0	0	102.5	102	0	0	0	0	0	0.0	0
17:45 - 18:00	0	0	0	0	0	0.0	0	64	7	0	0	2	75.0	73	0	0	0	0	0	0.0	0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**342**	**30**	**7**	**0**	**3**	**389**	**382**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	0	0	0	0	0	0.0	0	59	6	0	0	0	65.0	65	0	0	0	0	0	0.0	0
18:15 - 18:30	0	0	0	0	0	0.0	0	55	5	0	1	0	62.3	61	0	0	0	0	0	0.0	0
18:30 - 18:45	0	0	0	0	0	0.0	0	54	3	1	0	0	58.5	58	0	0	0	0	0	0.0	0
18:45 - 19:00	0	0	0	0	0	0.0	0	50	2	0	0	1	54.0	53	0	0	0	0	0	0.0	0
Hourly Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**218**	**16**	**1**	**1**	**1**	**240**	**237**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1033**	**101**	**23**	**2**	**12**	**1198**	**1171**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Caerleon, Newport - Manual Traffic Survey: Tuesday, 19 February 2019

Produced by Streetwise Services Ltd.

Junction: **A - B436 Ponthir Road / B - B436 Station Road / C - College Crescent**

Approach: **C - College Crescent**

	C to A							C to B							C to C						
TIME	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL	CAR	LGV	OGV1	OGV2	BUS	PCU	TOTAL
07:00 - 07:15	13	2	0	0	0	15.0	15	1	0	0	0	0	1.0	1	0	0	0	0	0	0.0	0
07:15 - 07:30	10	2	0	0	0	12.0	12	3	0	0	0	0	3.0	3	0	0	0	0	0	0.0	0
07:30 - 07:45	13	2	0	0	0	15.0	15	6	0	0	0	0	6.0	6	0	0	0	0	0	0.0	0
07:45 - 08:00	25	5	1	0	1	33.5	32	7	1	0	0	0	8.0	8	0	0	0	0	0	0.0	0
Hourly Total	**61**	**11**	**1**	**0**	**1**	**76**	**74**	**17**	**1**	**0**	**0**	**0**	**18**	**18**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
08:00 - 08:15	32	3	0	0	0	35.0	35	13	4	0	0	0	17.0	17	0	0	0	0	0	0.0	0
08:15 - 08:30	38	3	0	0	0	41.0	41	19	2	0	0	0	21.0	21	0	0	0	0	0	0.0	0
08:30 - 08:45	52	3	0	0	0	55.0	55	26	1	0	0	0	27.0	27	0	0	0	0	0	0.0	0
08:45 - 09:00	38	5	0	0	0	43.0	43	24	2	0	0	1	28.0	27	0	0	0	0	0	0.0	0
Hourly Total	**160**	**14**	**0**	**0**	**0**	**174**	**174**	**82**	**9**	**0**	**0**	**1**	**93**	**92**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
09:00 - 09:15	32	4	0	0	0	36.0	36	23	1	0	0	0	24.0	24	0	0	0	0	0	0.0	0
09:15 - 09:30	15	3	0	0	0	18.0	18	7	0	0	0	0	7.0	7	0	0	0	0	0	0.0	0
09:30 - 09:45	18	3	0	0	0	21.0	21	3	1	0	0	0	4.0	4	0	0	0	0	0	0.0	0
09:45 - 10:00	10	2	0	0	0	12.0	12	4	1	0	0	0	5.0	5	0	0	0	0	0	0.0	0
Hourly Total	**37**	**3**	**0**	**0**	**0**	**87**	**40**	**37**	**3**	**0**	**0**	**0**	**40**	**40**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**136**	**13**	**0**	**0**	**1**	**337**	**288**	**136**	**13**	**0**	**0**	**1**	**151**	**150**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
15:00 - 15:15	32	3	0	0	0	35.0	35	16	1	0	0	0	17.0	17	0	0	0	0	0	0.0	0
15:15 - 15:30	56	8	0	0	0	64.0	64	17	0	1	0	0	18.5	18	0	0	0	0	0	0.0	0
15:30 - 15:45	62	3	0	0	0	65.0	65	20	0	0	0	0	20.0	20	0	0	0	0	0	0.0	0
15:45 - 16:00	32	3	1	0	0	36.5	36	16	3	0	0	0	19.0	19	0	0	0	0	0	0.0	0
Hourly Total	**182**	**17**	**1**	**0**	**0**	**201**	**200**	**69**	**4**	**1**	**0**	**0**	**75**	**74**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16:00 - 16:15	51	0	0	0	0	51.0	51	18	0	0	0	0	18.0	18	0	0	0	0	0	0.0	0
16:15 - 16:30	38	2	0	0	0	40.0	40	4	0	0	0	0	4.0	4	0	0	0	0	0	0.0	0
16:30 - 16:45	39	3	0	0	0	42.0	42	9	0	0	0	0	9.0	9	0	0	0	0	0	0.0	0
16:45 - 17:00	33	3	0	0	0	36.0	36	6	1	0	0	0	7.0	7	0	0	0	0	0	0.0	0
Hourly Total	**161**	**8**	**0**	**0**	**0**	**169**	**169**	**37**	**1**	**0**	**0**	**0**	**38**	**38**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17:00 - 17:15	36	3	0	0	0	39.0	39	15	1	0	0	0	16.0	16	0	0	0	0	0	0.0	0
17:15 - 17:30	25	1	0	0	0	26.0	26	9	1	0	0	0	10.0	10	0	0	0	0	0	0.0	0
17:30 - 17:45	27	1	0	0	0	28.0	28	12	0	0	0	0	12.0	12	0	0	0	0	0	0.0	0
17:45 - 18:00	24	0	0	0	0	24.0	24	4	0	0	0	0	4.0	4	0	0	0	0	0	0.0	0
Hourly Total	**112**	**5**	**0**	**0**	**0**	**117**	**117**	**40**	**2**	**0**	**0**	**0**	**42**	**42**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18:00 - 18:15	21	0	0	0	0	21.0	21	5	0	0	0	0	5.0	5	0	0	0	0	0	0.0	0
18:15 - 18:30	17	0	0	0	0	17.0	17	5	0	0	0	0	5.0	5	0	0	0	0	0	0.0	0
18:30 - 18:45	10	1	0	0	0	11.0	11	3	0	0	0	0	3.0	3	0	0	0	0	0	0.0	0
18:45 - 19:00	10	1	0	0	0	11.0	11	3	0	0	0	0	3.0	3	0	0	0	0	0	0.0	0
Hourly Total	**58**	**2**	**0**	**0**	**0**	**60**	**60**	**16**	**0**	**0**	**0**	**0**	**16**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Session Total	**513**	**32**	**1**	**0**	**0**	**547**	**546**	**162**	**7**	**1**	**0**	**0**	**171**	**170**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

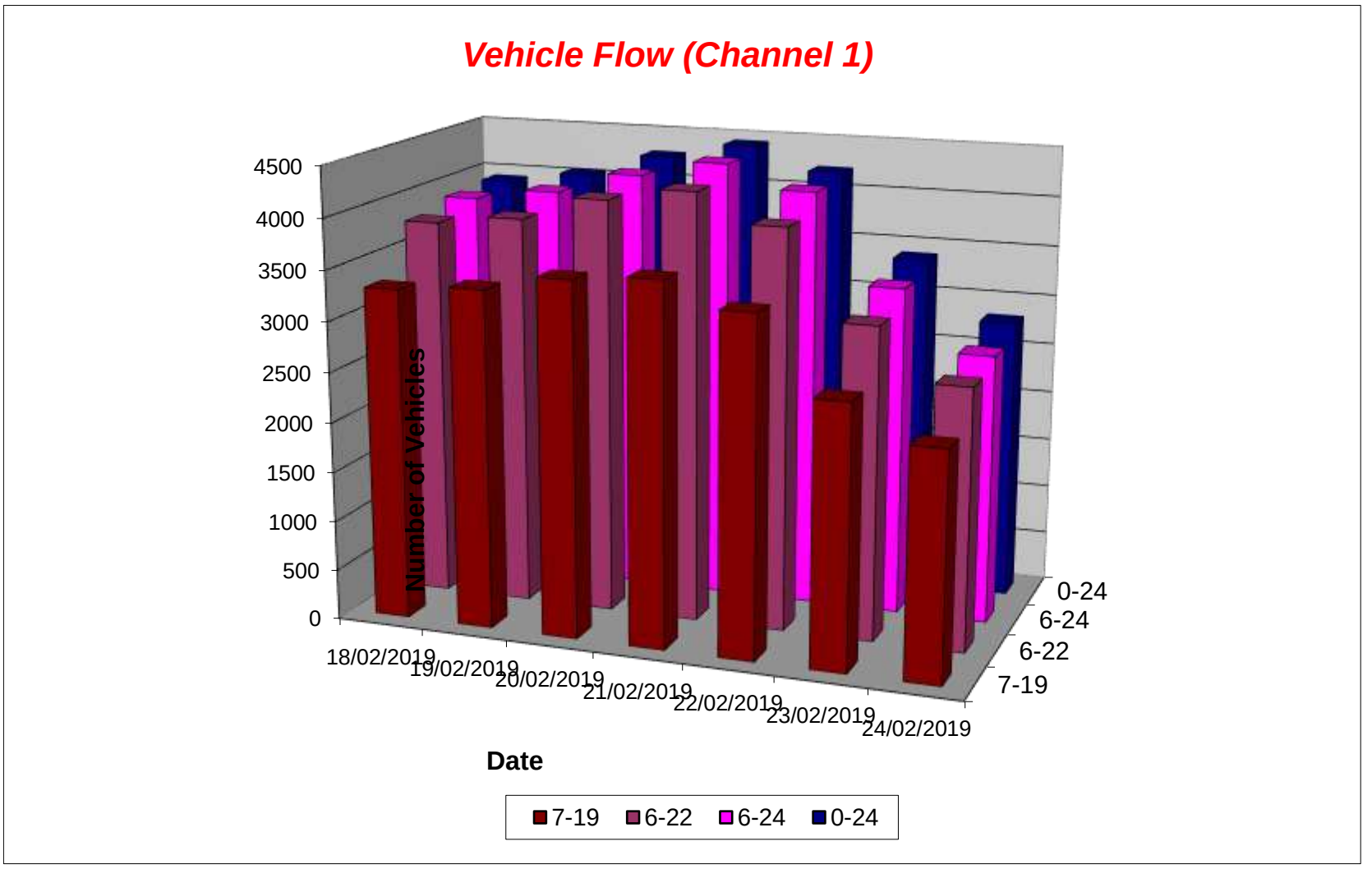
Caerleon, Newport ATC, Lodge Road

Produced by Streetwise Services Ltd.

Channel 1 - Northbound **Vehicle Flow** **Week 1**

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday	5 Day Ave	7 Day Ave
1	12	11	12	12	11	55	49	12	23
2	1	1	9	2	2	17	31	3	9
3	2	2	3	0	6	8	16	3	5
4	6	4	1	3	5	7	11	4	5
5	7	4	13	8	6	11	10	8	8
6	9	17	14	19	18	10	9	15	14
7	54	49	58	53	57	34	36	54	49
8	133	131	132	121	107	63	30	125	102
9	289	290	323	300	202	67	35	281	215
10	218	212	214	255	206	158	87	221	193
11	179	194	188	200	198	235	136	192	190
12	211	238	203	272	235	291	217	232	238
13	244	239	280	287	291	306	252	268	271
14	239	231	237	260	282	330	274	250	265
15	250	248	309	280	266	279	245	271	268
16	420	412	392	408	422	263	231	411	364
17	392	438	446	406	433	303	301	423	388
18	425	445	459	435	414	164	263	436	372
19	304	290	347	369	300	152	189	322	279
20	192	214	253	264	266	194	130	238	216
21	138	148	158	200	177	154	111	164	155
22	106	106	127	149	122	118	69	122	114
23	75	89	65	95	114	103	60	88	86
24	21	32	33	36	71	68	24	39	41

7-19	3304	3368	3530	3593	3356	2611	2260	3430	3146
6-22	3794	3885	4126	4259	3978	3111	2606	4008	3680
6-24	3890	4006	4224	4390	4163	3282	2690	4135	3806
0-24	3927	4045	4276	4434	4211	3390	2816	4179	3871



Caerleon, Newport ATC, Lodge Road

Produced by Streetwise Services Ltd.

Channel 1 - Northbound **Average Speed** **Week 1**

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
1	37.8	34.4	34.7	35.9	34.5	33.4	33.5
2	33.0	33.0	31.3	38.0	35.5	36.1	33.7
3	35.5	30.5	45.5	-	32.2	36.4	31.8
4	36.3	30.5	38.0	43.0	37.0	36.6	36.2
5	34.4	35.5	34.5	34.2	37.2	38.2	32.5
6	35.2	33.0	31.9	31.9	32.7	34.8	34.7
7	33.9	32.8	33.0	33.2	34.1	34.5	31.1
8	31.7	32.3	32.7	32.3	33.3	35.2	34.6
9	30.2	31.1	30.5	30.4	31.3	33.7	33.0
10	31.2	31.0	31.5	31.0	31.4	32.8	33.2
11	30.6	31.0	31.2	30.5	31.4	32.7	33.2
12	31.2	31.2	30.9	31.4	30.8	32.8	32.7
13	30.8	31.3	31.1	31.5	31.3	31.9	32.1
14	31.0	31.9	31.3	31.6	32.2	31.9	32.2
15	31.8	30.3	30.9	32.0	32.6	32.3	32.2
16	30.6	29.9	29.7	30.7	30.7	32.0	33.0
17	30.4	31.0	30.2	31.0	31.7	31.5	32.6
18	31.0	31.1	30.6	31.0	30.8	32.8	31.8
19	29.7	31.0	30.6	30.7	31.0	31.5	31.8
20	30.8	31.2	31.4	30.8	31.2	32.2	32.2
21	31.7	31.6	31.8	30.4	32.0	31.4	33.0
22	31.1	31.6	32.1	31.4	31.9	32.5	33.0
23	31.5	32.5	33.1	32.2	32.3	32.3	33.9
24	36.6	33.2	32.1	33.1	33.2	32.9	32.2
10-12	30.9	31.1	31.1	31.0	31.1	32.7	32.9
14-16	31.1	30.1	30.2	31.2	31.5	32.2	32.6
0-24	31.0	31.1	31.0	31.2	31.6	32.4	32.5

7 Day Ave	31.5

85th Percentile

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
1	43.7	38.6	39.0	43.7	48.2	38.1	38.3
2	33.5	33.3	33.4	48.9	38.9	43.7	38.2
3	38.6	33.3	55.8	-	38.7	38.9	38.5
4	43.3	33.8	38.2	48.8	43.5	48.5	43.3
5	48.3	43.8	43.2	38.0	48.4	48.1	38.3
6	38.8	38.6	38.6	38.5	38.1	38.8	43.0
7	38.0	39.0	38.4	38.9	38.8	38.4	38.5
8	33.8	38.9	38.4	38.4	38.5	43.5	38.2
9	33.8	33.2	33.7	33.7	33.8	38.5	38.9
10	33.7	33.7	33.3	38.5	33.6	38.2	38.6
11	33.0	34.0	38.6	33.5	33.8	38.3	38.8
12	33.4	33.2	33.2	38.5	33.0	38.1	38.9
13	33.9	38.5	33.2	38.4	38.2	33.6	33.3
14	33.8	38.1	38.6	33.4	38.1	38.2	38.5
15	38.4	34.0	33.1	38.3	38.1	38.9	38.1
16	34.0	33.7	33.5	33.1	33.3	38.1	38.6
17	33.9	33.0	33.9	33.2	38.1	38.4	38.4
18	33.1	33.6	33.3	34.0	33.0	38.3	39.0
19	33.9	33.1	33.8	33.1	33.5	38.9	38.1
20	33.4	33.1	33.4	33.4	33.7	38.8	38.9
21	38.5	38.8	38.3	33.4	38.5	38.3	38.6
22	38.8	38.3	38.9	38.5	33.8	38.7	38.3
23	38.1	38.0	38.6	38.2	38.1	38.3	38.1
24	43.6	38.3	38.6	38.5	38.2	38.1	33.5
10-12	33.5	33.4	33.4	33.3	33.7	38.0	38.2
14-16	33.3	33.3	33.1	38.6	33.5	38.3	39.0
0-24	33.6	33.9	33.6	33.5	38.4	38.8	38.1

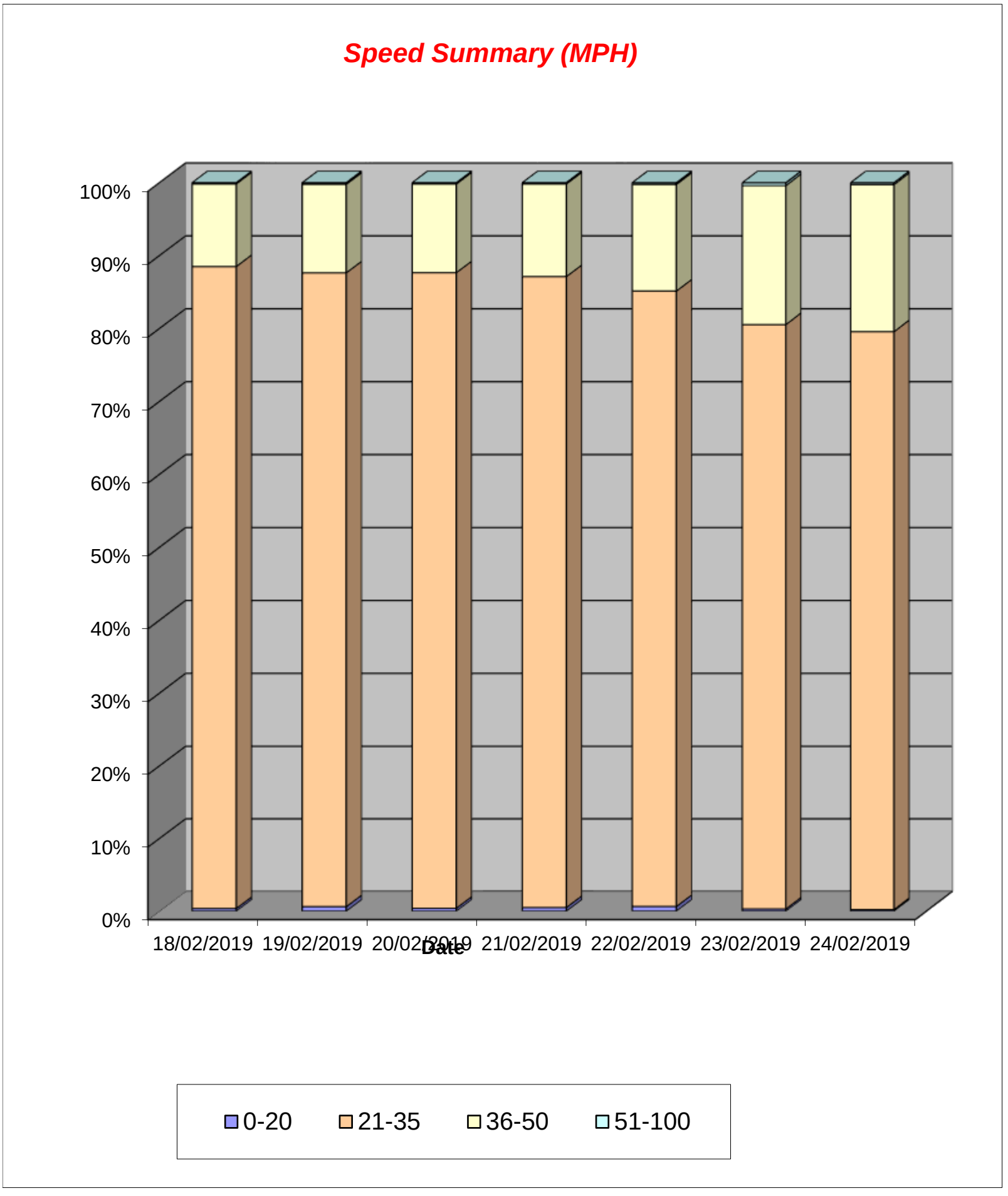
7 Day Ave	35.7

Caerleon, Newport ATC, Lodge Road

Produced by Streetwise Services Ltd.

Channel 1 - Northbound **Speed Summary** **Week 1**

Speed (MPH)	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
0-20	14	25	17	22	27	10	6
21-35	3462	3521	3732	3842	3559	2721	2235
36-50	445	491	520	563	616	646	568
51-100	6	8	7	7	9	13	7
TOTAL	**3927**	**4045**	**4276**	**4434**	**4211**	**3390**	**2816**



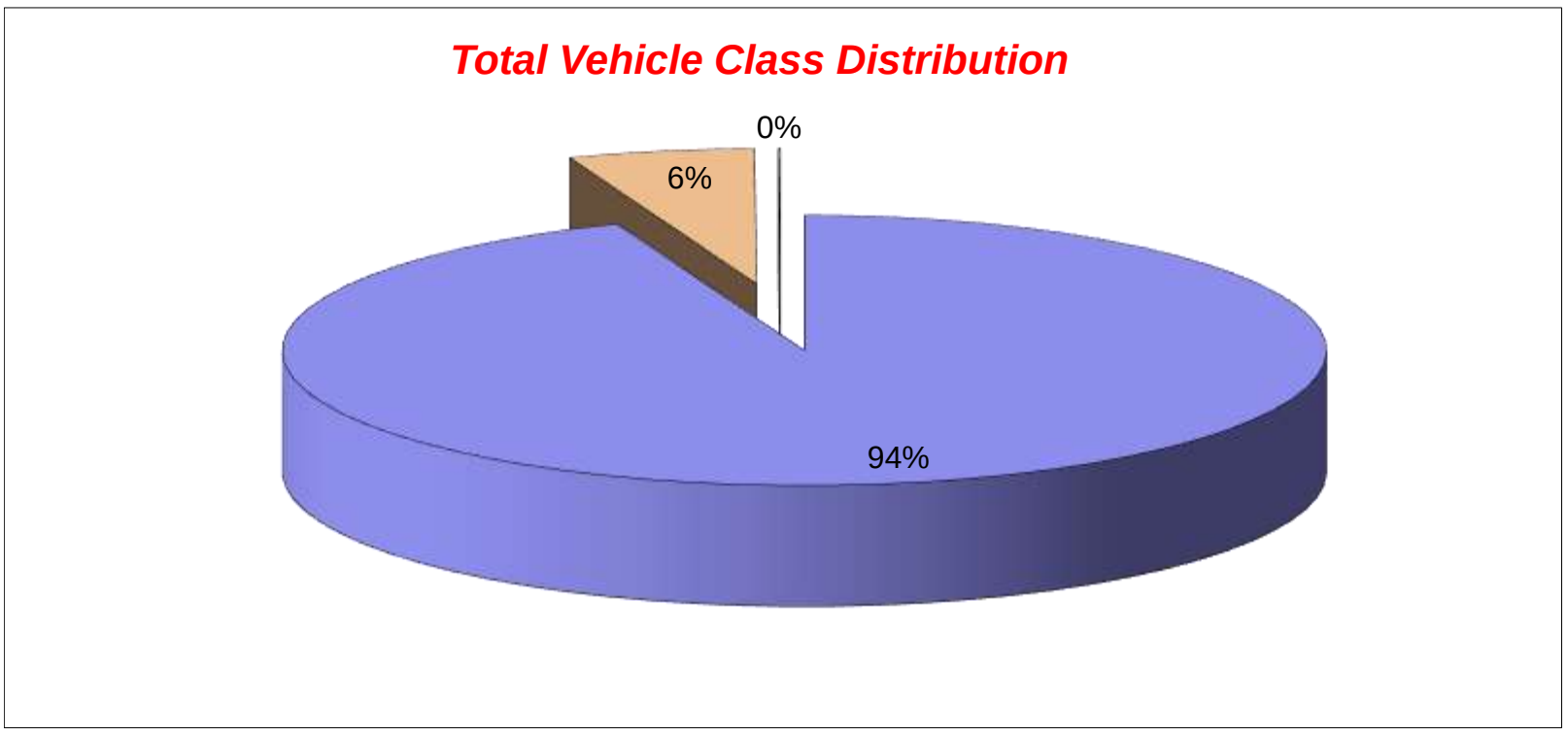
Caerleon, Newport ATC, Lodge Road

Produced by Streetwise Services Ltd.

Channel 1 - Northbound **Vehicle Class** **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
18/02/2019				
7-19	3090	214	0	**3304**
6-22	3558	236	0	**3794**
6-24	3652	238	0	**3890**
0-24	3683	244	0	**3927**
19/02/2019				
7-19	3166	201	1	**3368**
6-22	3667	217	1	**3885**
6-24	3782	223	1	**4006**
0-24	3811	233	1	**4045**
20/02/2019				
7-19	3269	257	4	**3530**
6-22	3844	278	4	**4126**
6-24	3941	279	4	**4224**
0-24	3983	289	4	**4276**
21/02/2019				
7-19	3353	235	5	**3593**
6-22	3989	265	5	**4259**
6-24	4112	273	5	**4390**
0-24	4149	280	5	**4434**
22/02/2019				
7-19	3150	203	3	**3356**
6-22	3759	216	3	**3978**
6-24	3937	223	3	**4163**
0-24	3975	233	3	**4211**
23/02/2019				
7-19	2486	124	1	**2611**
6-22	2973	137	1	**3111**
6-24	3135	145	2	**3282**
0-24	3234	154	2	**3390**
24/02/2019				
7-19	2144	115	1	**2260**
6-22	2484	121	1	**2606**
6-24	2565	124	1	**2690**
0-24	2681	134	1	**2816**

Average				
7-19	2951	193	2	**3146**
6-22	3468	210	2	**3680**
6-24	3589	215	2	**3806**
0-24	3645	224	2	**3871**



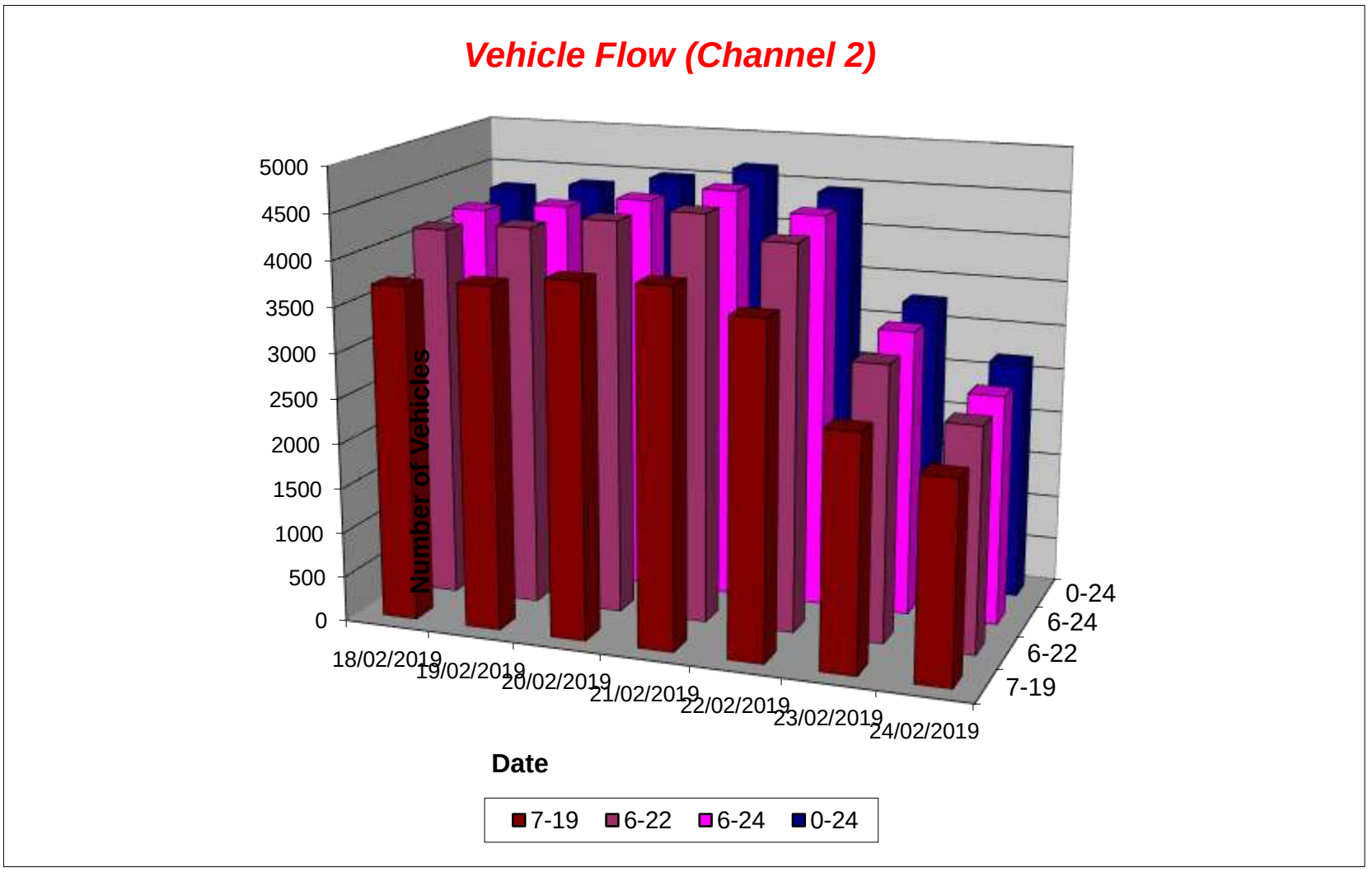
Caerleon, Newport ATC, Lodge Road

Produced by Streetwise Services Ltd.

Channel 2 - Southbound **Vehicle Flow** **Week 1**

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday	5 Day Ave	7 Day Ave
1	7	6	3	6	8	41	38	6	16
2	7	3	3	3	4	13	26	4	8
3	0	1	1	1	1	9	16	1	4
4	5	3	4	3	4	7	9	4	5
5	9	11	15	7	9	4	15	10	10
6	53	47	51	58	48	22	14	51	42
7	126	127	120	134	113	67	24	124	102
8	299	323	344	311	293	95	65	314	247
9	488	491	515	545	444	204	54	497	392
10	292	330	310	318	316	278	182	313	289
11	247	273	243	311	279	293	266	271	273
12	268	235	255	273	265	276	264	259	262
13	248	257	257	265	262	291	252	258	262
14	246	247	305	229	266	243	241	259	254
15	324	284	312	308	324	227	233	310	287
16	349	358	306	333	298	222	143	329	287
17	364	378	412	387	360	201	178	380	326
18	360	365	398	350	333	151	198	361	308
19	232	256	260	312	246	121	149	261	225
20	141	157	148	209	225	180	114	176	168
21	94	84	113	134	132	111	84	111	107
22	68	64	69	89	105	103	57	79	79
23	36	51	37	50	75	67	36	50	50
24	14	15	22	29	45	58	26	25	30

7-19	3717	3797	3917	3942	3686	2602	2225	3812	3412
6-22	4146	4229	4367	4508	4261	3063	2504	4302	3868
6-24	4196	4295	4426	4587	4381	3188	2566	4377	3948
0-24	4277	4366	4503	4665	4455	3284	2684	4453	4033



Caerleon, Newport ATC, Lodge Road

Produced by Streetwise Services Ltd.

Channel 2 - Southbound **Average Speed** **Week 1**

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
1	36.2	36.8	29.7	33.8	37.1	34.1	33.3
2	30.1	34.7	34.7	31.3	33.0	33.4	31.5
3	-	23.0	33.0	28.0	38.0	35.8	29.9
4	38.0	33.0	34.2	38.0	33.0	37.3	35.2
5	33.0	34.4	31.0	36.6	32.4	36.8	32.3
6	33.7	33.1	32.1	32.1	33.1	34.8	31.6
7	30.8	31.0	30.7	31.0	31.5	34.1	31.8
8	29.9	29.8	29.9	30.0	30.7	32.7	31.4
9	27.3	28.7	28.2	26.5	28.7	30.9	31.2
10	29.5	29.3	29.3	29.4	29.1	31.2	30.1
11	29.3	29.4	29.4	29.7	29.2	30.5	30.2
12	29.4	30.3	30.1	30.0	29.0	30.5	31.4
13	29.5	29.2	29.4	29.1	29.9	30.5	31.0
14	29.6	30.4	29.0	29.9	30.4	31.3	30.8
15	29.9	29.9	28.9	29.4	30.1	31.1	31.3
16	29.0	28.1	28.4	28.8	30.0	30.9	31.7
17	29.7	29.3	29.0	29.5	29.8	32.0	31.7
18	29.5	29.4	29.1	29.6	29.6	32.5	30.7
19	29.3	30.0	29.4	29.0	29.6	31.2	30.3
20	30.5	30.4	30.2	30.1	30.3	30.9	31.8
21	31.8	30.9	31.7	30.8	31.2	30.9	30.1
22	32.6	30.3	31.1	31.5	30.5	29.9	31.7
23	33.7	31.3	31.8	31.4	32.1	32.8	31.9
24	36.6	35.2	33.0	32.5	30.9	35.0	30.7
10-12	29.3	29.8	29.8	29.9	29.1	30.5	30.8
14-16	29.4	28.9	28.7	29.1	30.0	31.0	31.4
0-24	29.6	29.6	29.4	29.4	29.9	31.3	31.0

7 Day Ave	30.0

85th Percentile

Hr Ending	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
1	55.5	56.4	33.2	38.9	43.7	38.1	38.0
2	33.3	48.4	38.0	38.1	38.5	38.3	38.7
3	-	23.3	33.7	28.6	38.2	38.6	38.8
4	43.5	38.3	38.5	43.3	38.2	38.8	43.3
5	38.9	43.2	33.6	38.1	38.3	38.5	38.7
6	43.5	38.5	38.2	38.2	38.8	38.2	38.4
7	33.4	38.2	33.5	38.1	38.1	38.9	38.8
8	33.8	33.6	33.7	33.4	33.5	38.4	38.7
9	33.8	33.4	33.8	34.0	33.8	33.3	38.4
10	33.7	33.9	33.4	33.5	33.8	33.8	33.1
11	33.7	33.5	33.9	33.5	33.3	33.2	33.4
12	34.0	33.2	33.7	34.0	34.0	33.4	33.3
13	33.3	33.7	33.1	33.2	33.8	33.2	33.7
14	33.5	33.7	33.6	33.4	33.7	33.9	33.3
15	33.4	33.6	33.7	33.4	33.9	33.6	33.8
16	33.7	33.8	33.0	33.3	33.9	33.4	38.2
17	33.2	33.2	33.4	33.5	33.4	38.4	38.6
18	33.4	33.8	33.4	33.1	33.1	38.9	39.0
19	33.5	33.2	33.3	33.5	34.0	38.6	33.2
20	33.8	39.0	34.0	34.0	38.8	33.9	38.9
21	38.5	33.1	38.8	38.6	33.7	33.5	33.1
22	38.4	33.1	33.7	38.9	38.4	33.3	39.0
23	38.5	38.8	38.4	33.7	38.0	38.9	43.6
24	43.2	48.4	38.7	38.4	38.2	38.3	33.6
10-12	33.6	33.5	33.3	33.7	33.2	33.3	33.9
14-16	33.5	33.1	33.4	33.1	33.5	33.2	33.6
0-24	33.7	33.1	33.4	33.8	33.4	38.3	33.2

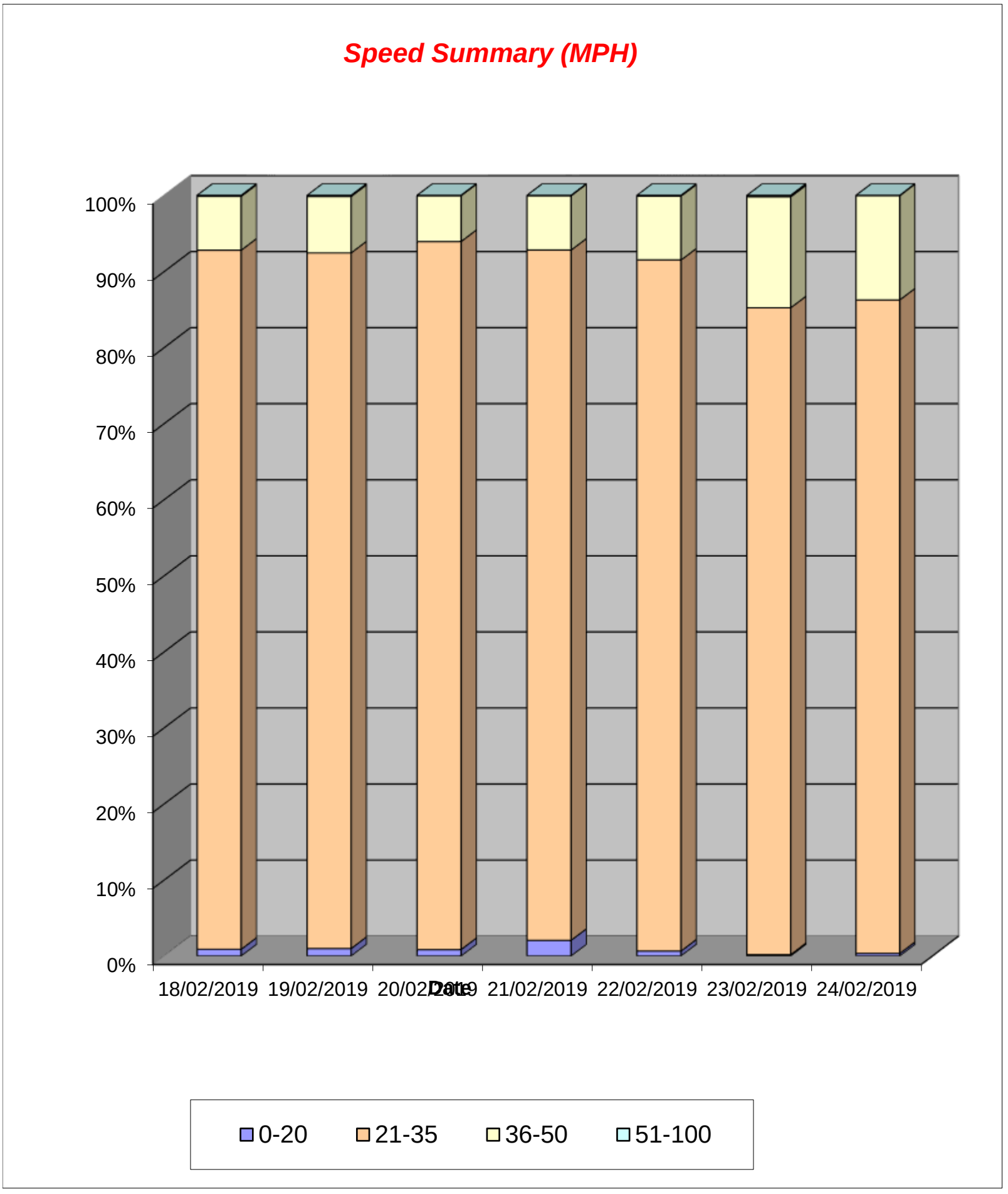
7 Day Ave	34.1

Caerleon, Newport ATC, Lodge Road

Produced by Streetwise Services Ltd.

Channel 2 - Southbound **Speed Summary** **Week 1**

Speed (MPH)	18/02/2019 Monday	19/02/2019 Tuesday	20/02/2019 Wednesday	21/02/2019 Thursday	22/02/2019 Friday	23/02/2019 Saturday	24/02/2019 Sunday
0-20	38	43	38	96	29	6	9
21-35	3931	3993	4192	4234	4048	2793	2306
36-50	303	324	271	333	374	479	368
51-100	5	6	2	2	4	6	1
TOTAL	**4277**	**4366**	**4503**	**4665**	**4455**	**3284**	**2684**



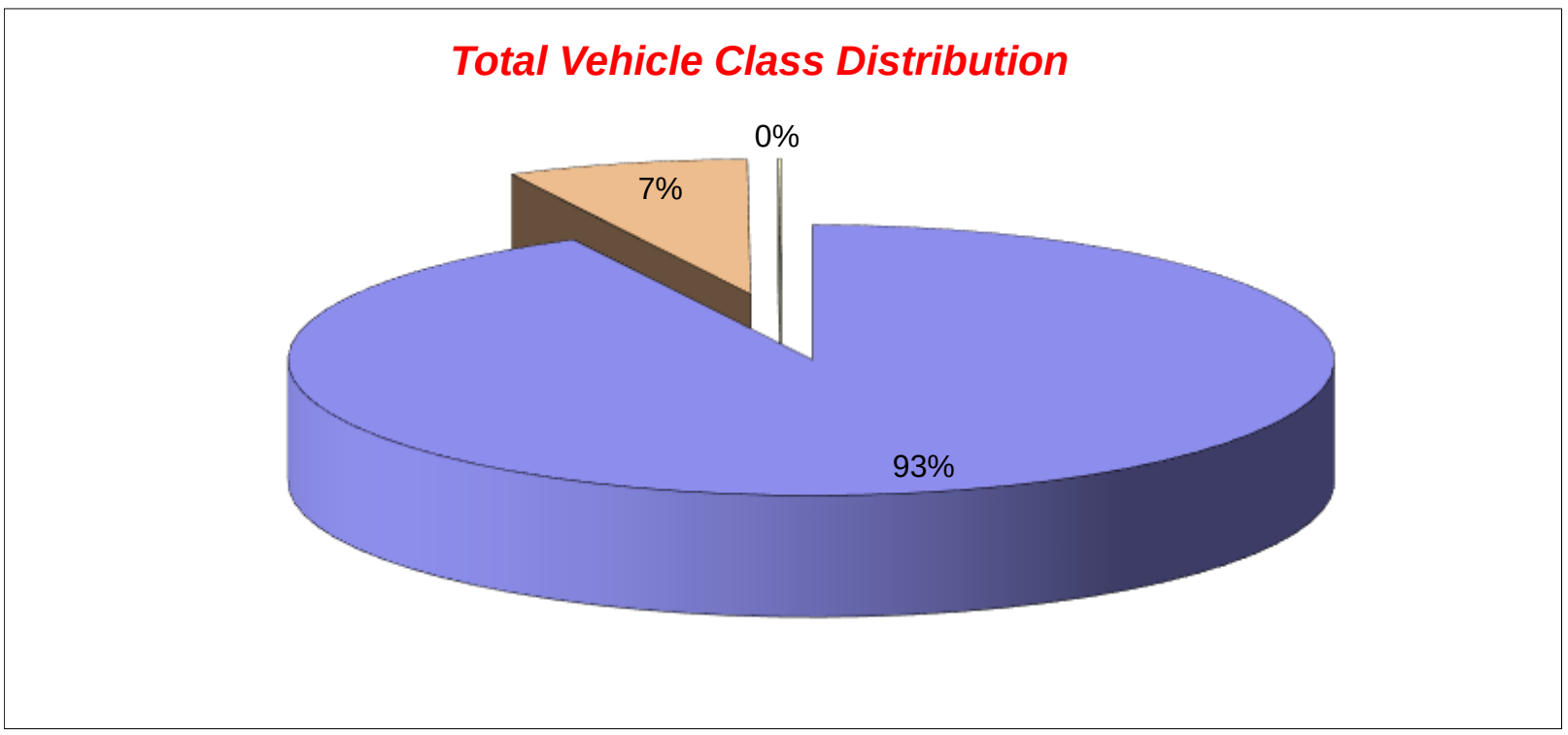
Caerleon, Newport ATC, Lodge Road

Produced by Streetwise Services Ltd.

Channel 2 - Southbound **Vehicle Class** **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
18/02/2019				
7-19	3415	296	6	**3717**
6-22	3805	335	6	**4146**
6-24	3854	336	6	**4196**
0-24	3928	343	6	**4277**
19/02/2019				
7-19	3505	288	4	**3797**
6-22	3905	320	4	**4229**
6-24	3967	324	4	**4295**
0-24	4034	328	4	**4366**
20/02/2019				
7-19	3580	335	2	**3917**
6-22	4001	364	2	**4367**
6-24	4058	366	2	**4426**
0-24	4129	372	2	**4503**
21/02/2019				
7-19	3630	307	5	**3942**
6-22	4158	345	5	**4508**
6-24	4233	349	5	**4587**
0-24	4304	356	5	**4665**
22/02/2019				
7-19	3350	328	8	**3686**
6-22	3895	358	8	**4261**
6-24	4009	364	8	**4381**
0-24	4074	373	8	**4455**
23/02/2019				
7-19	2452	149	1	**2602**
6-22	2890	172	1	**3063**
6-24	3005	182	1	**3188**
0-24	3089	194	1	**3284**
24/02/2019				
7-19	2115	107	3	**2225**
6-22	2384	117	3	**2504**
6-24	2445	118	3	**2566**
0-24	2547	134	3	**2684**

Average				
7-19	3150	259	4	**3412**
6-22	3577	287	4	**3868**
6-24	3653	291	4	**3948**
0-24	3729	300	4	**4033**

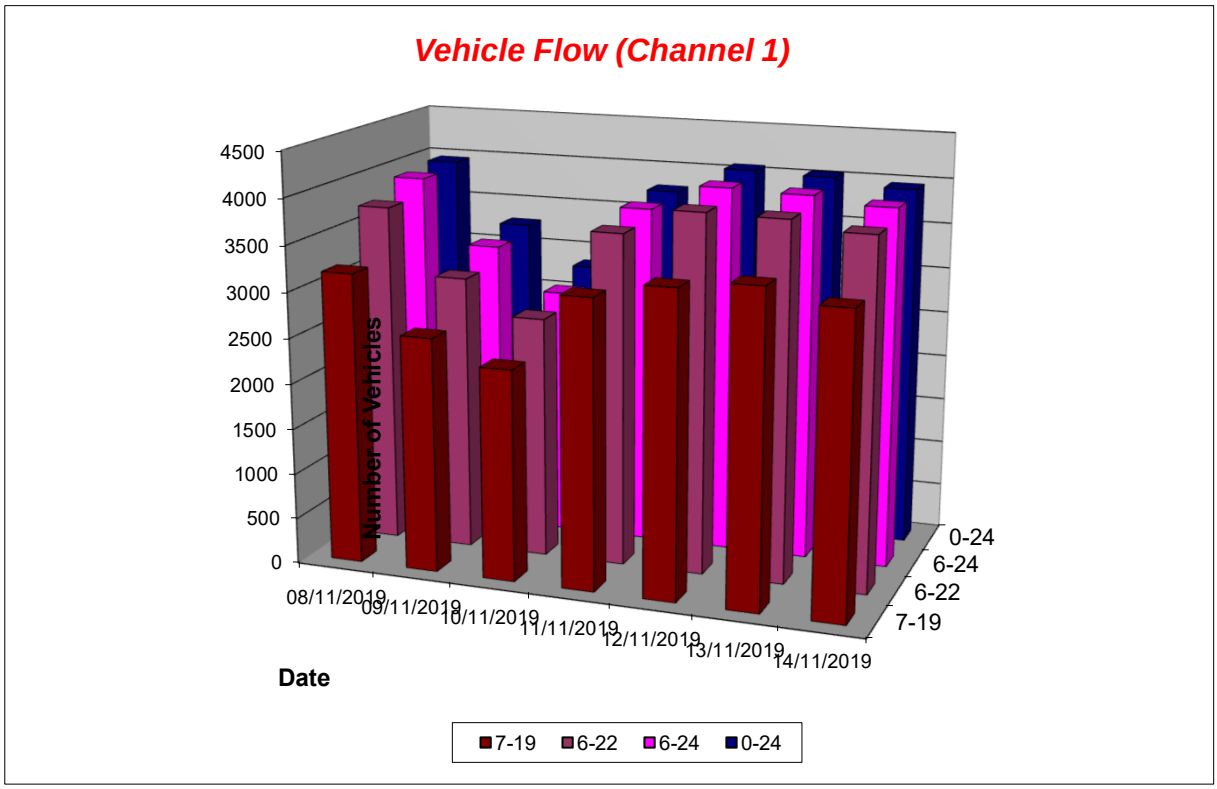


Caerleon ATC 1, Lodge Road

Channel 1 - Northwestbound **Vehicle Flow** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday	5 Day Ave	7 Day Ave
1	16	44	53	12	10	14	8	12	22
2	3	17	29	6	9	6	10	7	11
3	4	10	16	3	3	7	3	4	7
4	7	2	4	3	5	2	6	5	4
5	5	4	5	6	2	6	2	4	4
6	14	5	5	11	18	9	12	13	11
7	48	43	38	51	35	50	49	47	45
8	126	36	34	110	122	123	123	121	96
9	298	68	40	241	283	278	272	274	211
10	203	137	98	235	183	199	167	197	175
11	157	249	158	163	227	174	179	180	187
12	225	272	224	202	224	221	194	213	223
13	235	305	307	250	254	280	245	253	268
14	254	264	269	197	246	246	255	240	247
15	252	226	218	240	223	299	268	256	247
16	370	246	276	360	419	415	385	390	353
17	434	280	269	412	391	406	369	402	366
18	326	245	244	424	428	419	417	403	358
19	309	240	173	313	318	344	380	333	297
20	238	186	139	174	257	223	216	222	205
21	133	134	100	151	172	121	174	150	141
22	126	85	55	110	132	104	113	117	104
23	89	89	55	62	73	59	76	72	72
24	84	87	30	37	30	32	37	44	48

7-19	3189	2568	2310	3147	3318	3404	3254	3262	3027
6-22	3734	3016	2642	3633	3914	3902	3806	3798	3521
6-24	3907	3192	2727	3732	4017	3993	3919	3914	3641
0-24	3956	3274	2839	3773	4064	4037	3960	3958	3700



Caerleon ATC 1, Lodge Road

Channel 1 - Northwestbound **Average Speed** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	34.6	34.6	33.0	33.8	30.0	35.1	32.4
2	41.3	34.2	34.4	30.9	34.1	33.0	36.5
3	38.0	38.0	35.2	31.3	41.3	35.9	36.3
4	35.1	33.0	38.0	28.8	35.0	30.5	37.2
5	31.0	40.5	35.0	31.3	30.5	33.0	33.0
6	34.1	36.0	38.0	33.9	36.6	35.8	37.2
7	35.2	34.4	34.1	32.9	33.4	33.2	33.7
8	33.4	35.4	34.0	32.4	33.8	33.2	32.0
9	31.2	34.6	33.6	31.8	31.2	31.6	30.6
10	32.0	32.7	33.8	32.6	30.7	31.9	31.6
11	32.6	31.4	33.1	32.5	30.8	31.5	31.3
12	32.2	32.7	33.0	32.2	31.4	30.7	31.5
13	32.5	32.4	31.6	32.5	31.4	31.0	31.3
14	32.5	32.8	33.1	32.3	30.4	31.6	31.6
15	32.1	32.3	33.7	32.7	31.5	31.4	31.0
16	31.0	32.4	32.9	30.4	30.0	29.6	30.2
17	31.0	31.6	31.8	30.7	30.7	30.1	30.1
18	31.2	31.3	31.0	29.9	30.4	30.4	30.8
19	31.6	31.5	32.2	26.5	30.9	31.0	31.1
20	31.5	32.0	32.2	31.8	31.8	31.6	32.0
21	32.9	33.3	34.0	32.6	32.2	33.7	32.2
22	31.5	33.1	33.4	33.9	31.3	32.1	33.0
23	32.7	33.2	32.9	32.9	32.5	33.0	34.8
24	33.3	33.4	31.5	33.9	32.8	33.3	35.2
10-12	32.3	32.1	33.0	32.3	31.1	31.1	31.4
14-16	31.5	32.4	33.2	31.3	30.5	30.4	30.5
0-24	31.9	32.4	32.7	31.3	31.1	31.2	31.3

Average	31.7

Channel 1 - Northwestbound **85th Percentile**

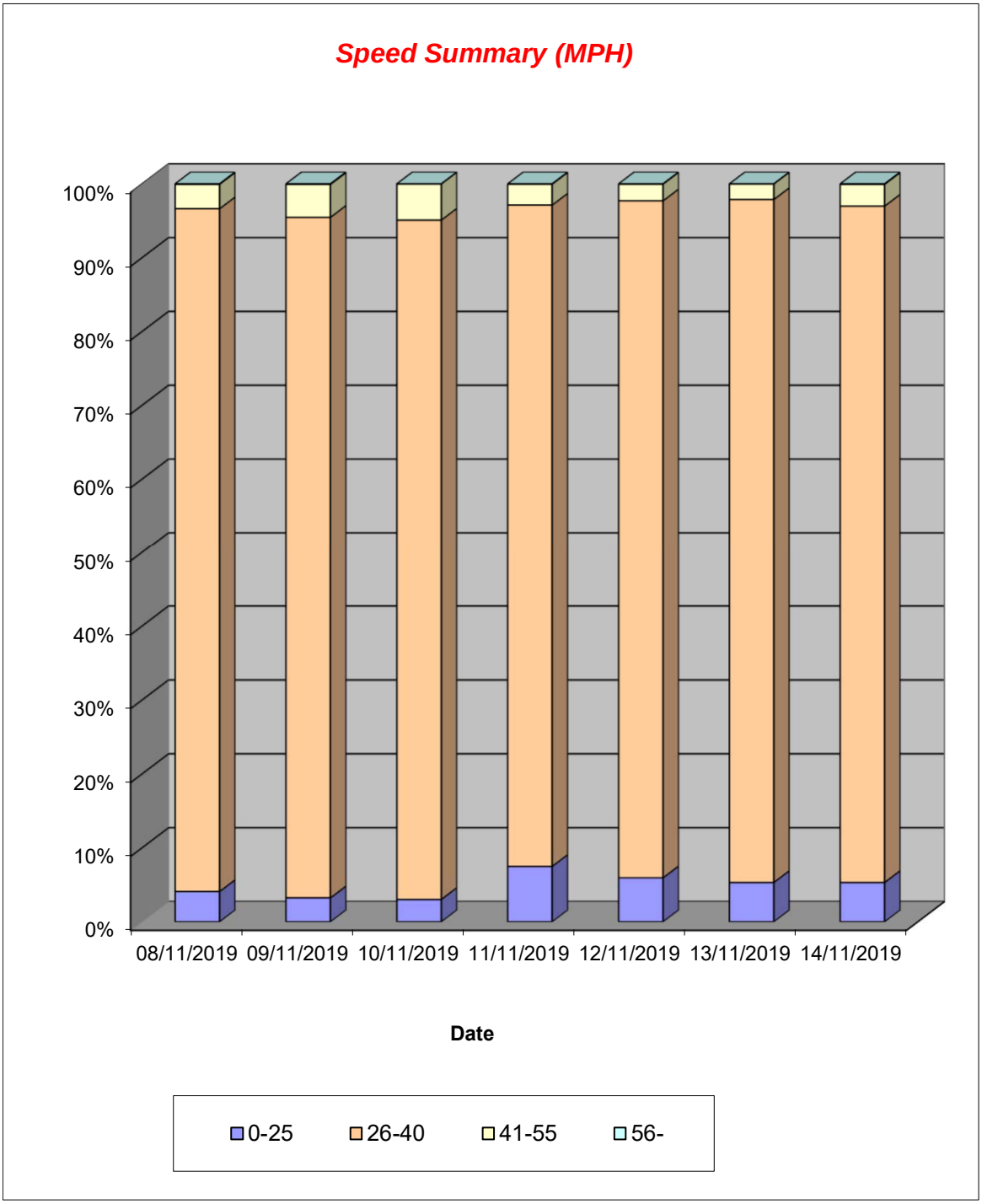
Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	38.7	38.6	39.0	38.7	38.9	43.7	38.2
2	48.5	43.3	38.4	38.9	38.7	38.9	48.5
3	48.6	53.3	43.3	33.8	53.5	43.5	38.3
4	38.3	33.8	43.2	38.0	43.4	33.1	48.3
5	38.3	43.8	43.2	38.5	33.1	38.8	33.0
6	43.8	53.6	43.6	43.9	43.8	43.4	53.5
7	38.0	39.0	38.4	38.4	38.5	38.5	38.2
8	38.8	43.9	38.4	38.7	38.8	38.5	38.9
9	33.8	38.2	38.7	38.5	33.6	38.2	33.6
10	38.7	38.7	38.3	38.5	33.8	38.3	38.8
11	38.0	39.0	38.6	38.5	33.0	38.1	33.9
12	38.4	38.2	38.2	38.4	33.2	33.6	33.3
13	38.9	38.5	38.2	38.4	33.1	33.2	38.5
14	38.8	38.1	38.6	38.3	33.1	38.9	38.1
15	38.4	39.0	38.1	38.1	38.3	38.1	33.6
16	34.0	38.7	38.5	33.2	33.1	33.4	33.4
17	33.9	38.0	38.9	34.0	33.0	33.3	34.0
18	33.1	33.6	33.3	33.1	33.5	33.9	33.1
19	38.9	38.1	38.8	33.4	33.7	33.8	38.9
20	38.4	38.1	38.4	38.4	38.5	38.3	38.6
21	38.5	38.8	38.3	38.5	38.8	38.7	38.3
22	33.8	38.3	38.9	38.2	33.1	38.3	38.1
23	38.1	38.0	38.6	38.5	38.2	38.1	43.5
24	38.6	38.3	38.6	43.3	38.7	38.0	43.2
10-12	38.5	38.4	38.4	38.6	33.5	38.3	34.0
14-16	38.3	38.3	38.1	38.5	33.4	33.8	33.1
0-24	38.6	38.9	38.6	38.2	38.1	38.3	38.0

85th %ile	38.4

Caerleon ATC 1, Lodge Road

Channel 1 - Northwestbound **Speed Summary** **Week 1**

Speed (MPH)	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
0-25	162	106	86	283	242	215	211
26-40	3661	3020	2614	3382	3729	3737	3630
41-55	131	146	139	107	92	85	117
56-	2	2	0	1	1	0	2
TOTAL	**3956**	**3274**	**2839**	**3773**	**4064**	**4037**	**3960**



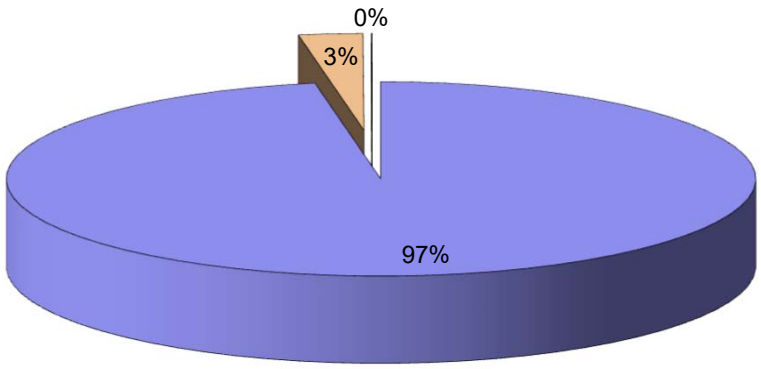
Caerleon ATC 1, Lodge Road

Channel 1 - Northwestbound | **Vehicle Class** | **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
08/11/2019				
7-19	3071	116	2	3189
6-22	3598	133	3	3734
6-24	3769	135	3	3907
0-24	3812	141	3	3956
09/11/2019				
7-19	2511	56	1	2568
6-22	2952	63	1	3016
6-24	3126	65	1	3192
0-24	3207	66	1	3274
10/11/2019				
7-19	2265	42	3	2310
6-22	2594	45	3	2642
6-24	2679	45	3	2727
0-24	2789	47	3	2839
11/11/2019				
7-19	3040	105	2	3147
6-22	3519	112	2	3633
6-24	3617	113	2	3732
0-24	3654	117	2	3773
12/11/2019				
7-19	3216	101	1	3318
6-22	3799	114	1	3914
6-24	3901	115	1	4017
0-24	3945	118	1	4064
13/11/2019				
7-19	3294	109	1	3404
6-22	3782	119	1	3902
6-24	3872	120	1	3993
0-24	3912	124	1	4037
14/11/2019				
7-19	3163	91	0	3254
6-22	3703	102	1	3806
6-24	3816	102	1	3919
0-24	3856	103	1	3960

Average				
7-19	2937	89	1	3027
6-22	3421	98	2	3521
6-24	3540	99	2	3641
0-24	3596	102	2	3700

Total Vehicle Class Distribution

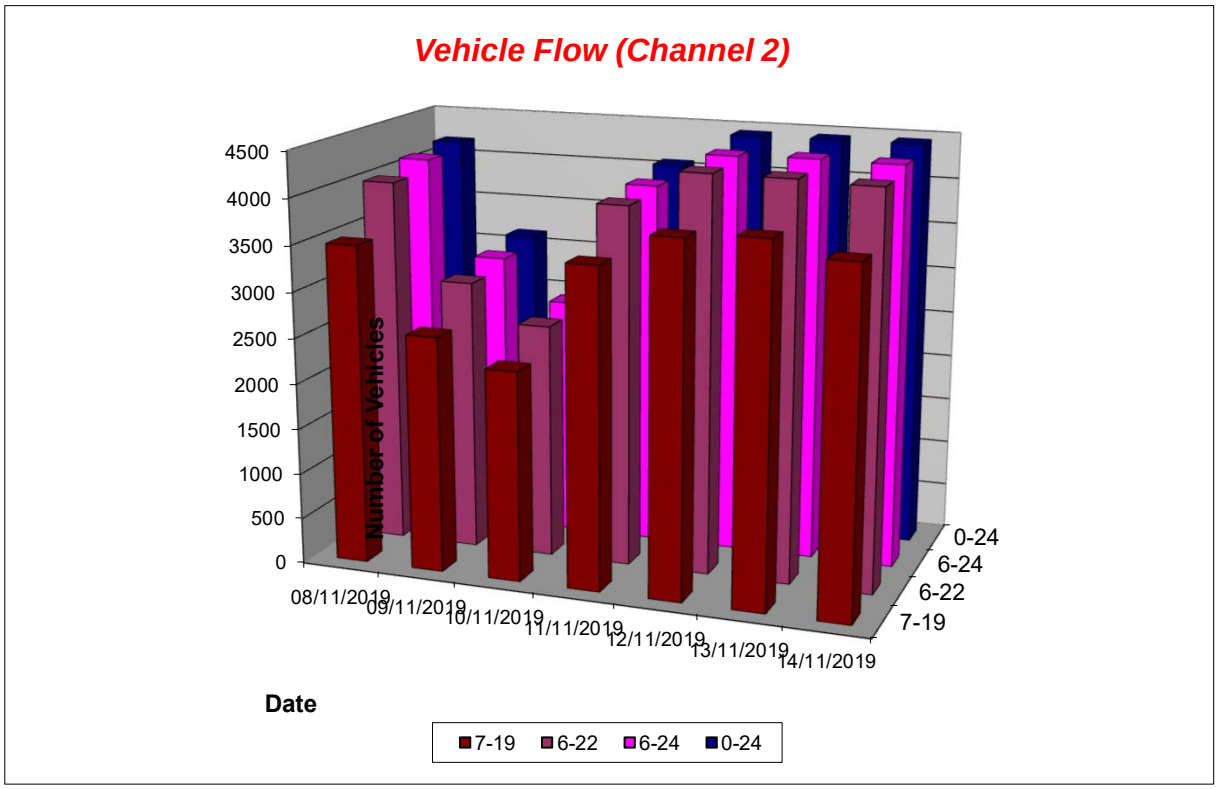


Caerleon ATC 1, Lodge Road

Channel 2 - Southeastbound **Vehicle Flow** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday	5 Day Ave	7 Day Ave
1	14	32	29	8	9	7	12	10	16
2	6	12	19	6	5	5	10	6	9
3	3	7	14	5	9	2	4	5	6
4	4	5	7	4	4	4	1	3	4
5	7	4	13	11	10	10	10	10	9
6	30	21	14	47	46	41	45	42	35
7	113	28	27	125	144	122	148	130	101
8	295	90	56	322	314	326	298	311	243
9	425	156	101	460	455	484	526	470	372
10	267	268	248	283	318	328	292	298	286
11	243	281	232	210	290	285	227	251	253
12	218	242	224	243	277	277	233	250	245
13	264	279	250	226	287	293	247	263	264
14	274	250	233	208	295	285	236	260	254
15	331	239	231	283	295	314	299	304	285
16	285	169	183	309	332	313	349	318	277
17	367	197	197	353	324	352	360	351	307
18	296	215	183	324	344	359	355	336	297
19	226	192	153	257	289	258	289	264	238
20	189	163	107	160	159	154	234	179	167
21	96	116	75	91	103	87	98	95	95
22	118	81	61	74	88	74	95	90	84
23	58	54	35	37	31	33	57	43	44
24	54	40	21	21	12	30	23	28	29

7-19	3491	2578	2291	3478	3820	3874	3711	3675	3320
6-22	4007	2966	2561	3928	4314	4311	4286	4169	3768
6-24	4119	3060	2617	3986	4357	4374	4366	4240	3840
0-24	4183	3141	2713	4067	4440	4443	4448	4316	3919



Caerleon ATC 1, Lodge Road

Channel 2 - Southeastbound **Average Speed** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	31.8	32.2	33.0	32.4	35.2	32.3	33.0
2	32.2	34.2	30.1	29.7	29.0	32.0	32.5
3	36.3	32.3	32.3	36.0	36.3	33.0	34.2
4	36.8	36.0	36.6	33.0	35.5	34.2	38.0
5	31.6	33.0	34.9	32.5	34.0	31.0	32.5
6	34.4	35.9	32.8	32.6	31.9	33.1	32.2
7	32.4	35.0	33.4	31.5	30.8	32.2	31.1
8	30.6	33.2	31.5	30.5	30.5	31.1	30.2
9	28.2	31.4	33.3	27.8	28.0	27.3	21.9
10	30.8	30.3	31.5	29.4	29.3	29.2	28.9
11	30.8	30.6	32.0	30.7	29.8	30.2	30.1
12	31.4	30.9	32.2	29.8	30.1	30.0	29.1
13	31.2	30.6	32.0	30.0	29.0	29.7	29.1
14	30.7	30.3	32.4	31.0	29.2	30.9	30.2
15	31.2	31.5	32.0	30.0	29.4	30.3	29.3
16	29.9	30.8	32.0	28.9	27.4	28.2	27.5
17	29.7	30.6	30.9	29.3	29.3	28.4	28.8
18	29.0	30.4	30.6	29.8	28.4	28.8	29.6
19	30.0	31.6	30.5	27.6	29.8	29.4	30.7
20	30.8	31.4	31.1	31.7	30.3	30.3	31.2
21	33.1	32.0	31.6	32.0	31.9	30.4	30.3
22	31.5	32.0	31.3	32.5	30.6	32.1	30.3
23	33.1	32.3	32.1	34.2	32.0	31.9	33.1
24	34.3	31.4	31.1	33.2	31.8	30.2	31.7

10-12	31.1	30.7	32.1	30.2	29.9	30.1	29.6
14-16	30.6	31.2	32.0	29.4	28.4	29.3	28.3
0-24	30.5	31.1	31.8	29.8	29.4	29.6	28.8

Average	30.1

Channel 2 - Southeastbound **85th Percentile**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	33.3	38.3	38.7	38.6	43.2	43.6	38.8
2	38.5	38.3	33.5	38.3	33.2	33.8	38.3
3	38.9	38.2	38.6	48.1	43.3	38.5	38.7
4	38.5	43.5	38.2	43.2	43.8	43.2	-
5	33.4	38.2	43.5	38.1	38.1	38.9	33.8
6	43.8	43.6	43.7	38.4	38.5	38.4	38.7
7	38.8	43.4	38.8	34.0	38.8	38.3	33.4
8	33.7	38.9	38.4	33.5	33.8	33.8	33.1
9	33.7	38.5	38.9	33.5	33.3	33.2	33.4
10	39.0	33.2	33.7	34.0	34.0	33.4	33.3
11	33.3	33.7	38.1	33.2	33.8	33.2	33.7
12	38.5	33.7	38.6	33.4	33.7	33.9	33.3
13	33.4	33.6	38.7	33.4	33.9	33.6	33.8
14	33.7	33.8	38.0	33.3	33.9	33.4	33.2
15	38.2	38.2	38.4	33.5	33.4	33.4	33.6
16	33.4	33.8	38.4	33.1	33.1	33.9	34.0
17	33.5	33.2	33.3	33.5	34.0	33.6	33.2
18	33.8	34.0	34.0	34.0	33.8	33.9	33.9
19	33.5	33.1	33.8	33.6	33.7	33.5	33.1
20	33.4	38.1	33.7	38.9	33.4	33.3	39.0
21	38.5	38.8	38.4	38.7	38.0	33.9	33.6
22	38.2	38.4	38.7	38.4	38.2	38.3	33.6
23	38.6	38.5	33.3	43.7	38.2	38.3	38.9
24	38.5	38.1	38.4	43.1	38.5	33.2	38.6

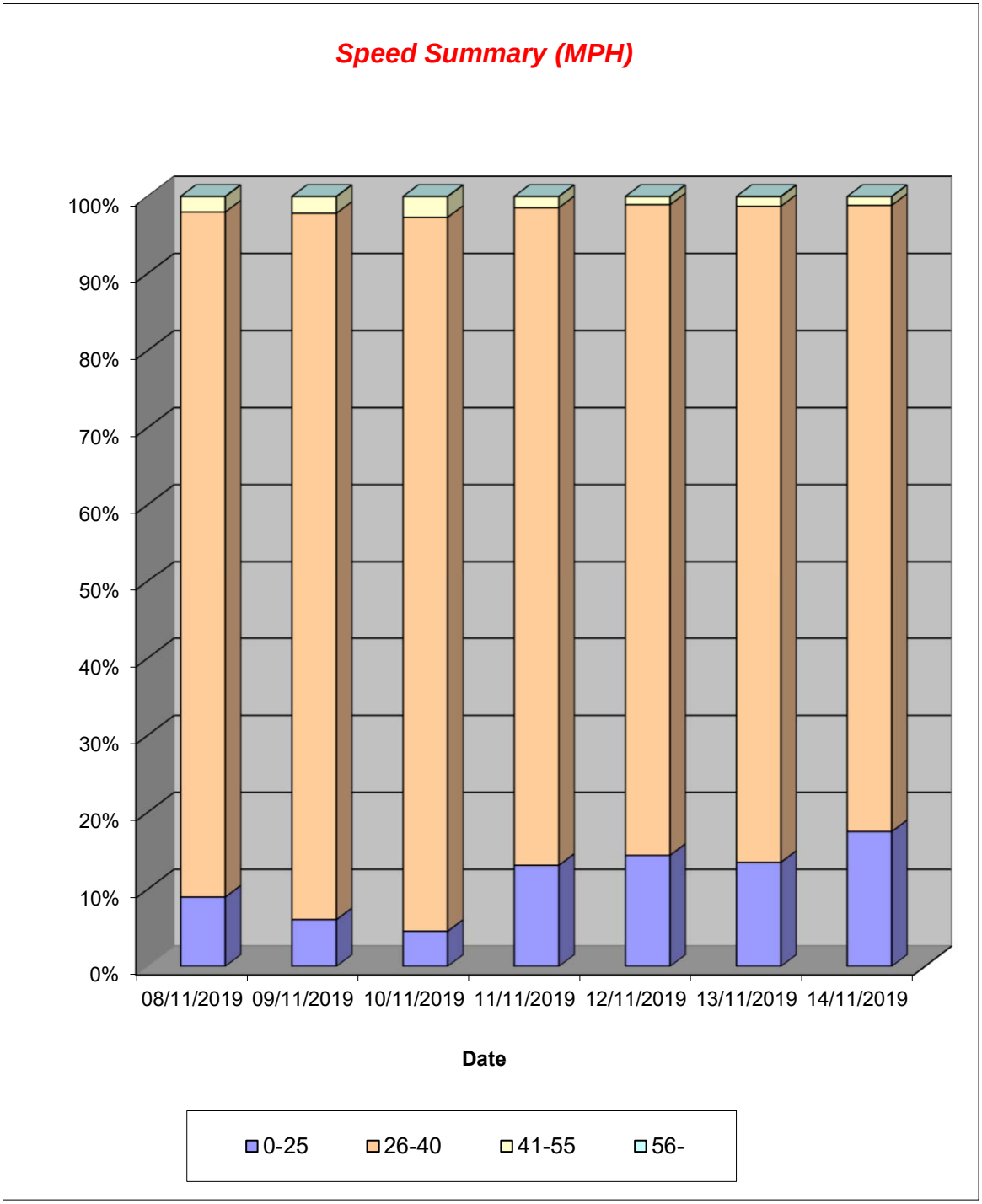
10-12	38.7	33.1	38.4	33.8	33.4	33.3	33.2
14-16	33.9	33.2	38.9	33.7	33.1	33.0	33.9
0-24	33.4	33.0	38.1	33.5	33.3	33.7	33.1

85th %ile	34.0

Caerleon ATC 1, Lodge Road

Channel 2 - Southeastbound **Speed Summary** **Week 1**

Speed (MPH)	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
0-25	377	191	124	534	641	601	779
26-40	3722	2882	2516	3474	3752	3786	3618
41-55	84	68	73	59	47	55	51
56-	0	0	0	0	0	1	0
TOTAL	**4183**	**3141**	**2713**	**4067**	**4440**	**4443**	**4448**

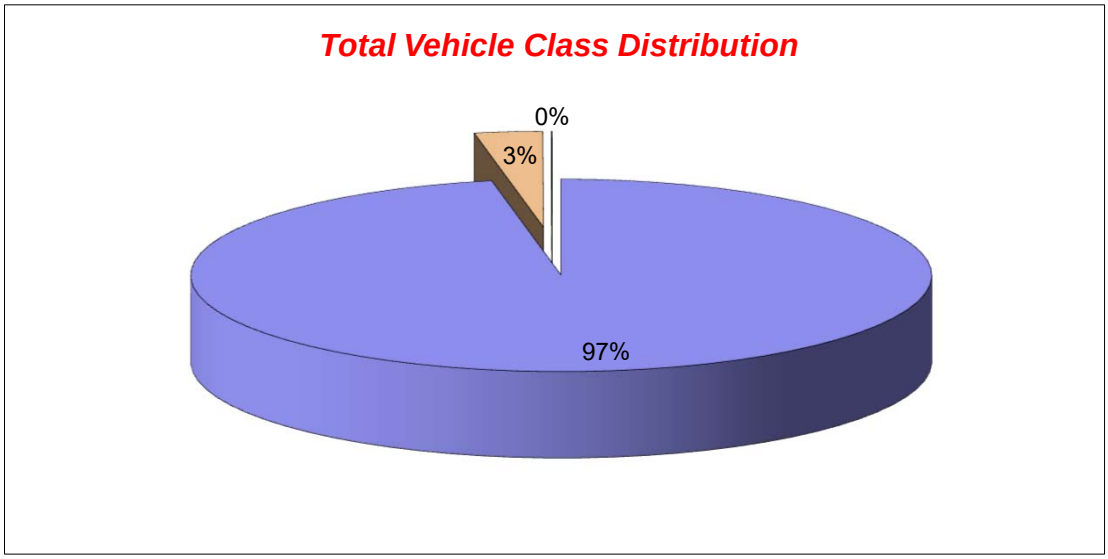


Caerleon ATC 1, Lodge Road

Channel 2 - Southeastbound | **Vehicle Class** | **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
08/11/2019				
7-19	3367	124	0	3491
6-22	3875	132	0	4007
6-24	3986	133	0	4119
0-24	4046	137	0	4183
09/11/2019				
7-19	2526	51	1	2578
6-22	2907	58	1	2966
6-24	2999	60	1	3060
0-24	3078	62	1	3141
10/11/2019				
7-19	2248	43	0	2291
6-22	2514	47	0	2561
6-24	2570	47	0	2617
0-24	2664	49	0	2713
11/11/2019				
7-19	3348	129	1	3478
6-22	3788	139	1	3928
6-24	3846	139	1	3986
0-24	3925	141	1	4067
12/11/2019				
7-19	3684	133	3	3820
6-22	4167	144	3	4314
6-24	4210	144	3	4357
0-24	4291	146	3	4440
13/11/2019				
7-19	3730	142	2	3874
6-22	4154	155	2	4311
6-24	4217	155	2	4374
0-24	4283	158	2	4443
14/11/2019				
7-19	3602	106	3	3711
6-22	4165	118	3	4286
6-24	4244	119	3	4366
0-24	4324	121	3	4448

Average				
7-19	3215	104	1	3320
6-22	3653	113	1	3768
6-24	3725	114	1	3840
0-24	3802	116	1	3919

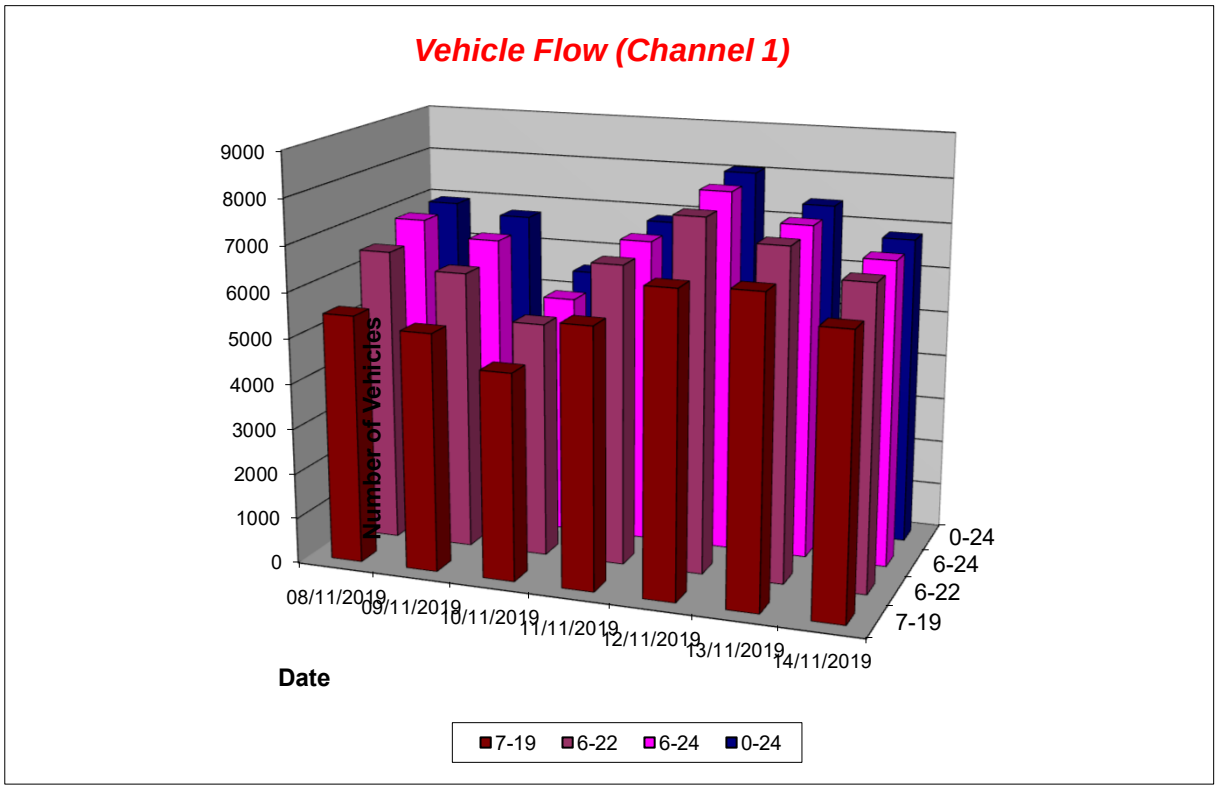


Caerleon ATC 2, High Street

Channel 1 - Northwestbound **Vehicle Flow** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday	5 Day Ave	7 Day Ave
1	17	131	119	29	23	26	26	24	53
2	5	30	54	11	15	8	16	11	20
3	7	21	20	4	9	15	6	8	12
4	4	8	9	7	8	5	13	7	8
5	8	5	11	10	12	11	10	10	10
6	32	14	14	30	44	37	26	34	28
7	89	62	59	108	110	115	114	107	94
8	322	116	83	288	362	332	330	327	262
9	556	209	127	422	669	675	603	585	466
10	364	460	292	346	438	399	417	393	388
11	396	457	318	377	470	421	414	416	408
12	496	522	354	420	516	523	495	490	475
13	511	528	561	480	546	553	542	526	532
14	536	558	565	478	527	571	535	529	539
15	568	503	509	551	628	660	625	606	578
16	192	463	501	483	375	380	394	365	398
17	440	502	525	626	687	702	605	612	584
18	580	482	408	693	741	762	612	678	611
19	509	443	312	544	666	721	522	592	531
20	421	378	244	350	444	226	218	332	326
21	280	287	183	248	303	119	118	214	220
22	229	177	129	185	252	98	93	171	166
23	215	196	98	105	143	63	56	116	125
24	168	183	61	51	81	28	33	72	86

7-19	5470	5243	4555	5708	6625	6699	6094	6119	5771
6-22	6489	6147	5170	6599	7734	7257	6637	6943	6576
6-24	6872	6526	5329	6755	7958	7348	6726	7132	6788
0-24	6945	6735	5556	6846	8069	7450	6823	7227	6918



Caerleon ATC 2, High Street

Channel 1 - Northwestbound **Average Speed** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	26.2	23.2	21.9	25.8	22.8	24.5	24.7
2	23.0	25.2	23.3	25.7	25.7	25.5	26.1
3	24.4	26.8	26.0	26.8	26.3	26.7	27.2
4	24.2	24.9	24.1	25.9	28.6	25.0	24.5
5	24.9	29.0	27.1	24.5	24.7	25.7	25.0
6	24.6	30.9	27.3	25.8	25.4	25.6	25.9
7	22.6	25.7	24.5	23.8	23.6	23.3	24.1
8	21.0	22.1	23.8	21.1	21.4	21.8	21.7
9	18.6	22.7	22.7	15.3	16.7	15.8	13.3
10	19.5	20.4	21.3	15.9	20.4	19.3	19.0
11	19.2	20.1	19.7	18.5	19.4	18.8	19.5
12	19.3	18.8	19.4	19.4	19.9	18.8	19.7
13	19.4	18.7	19.5	19.6	19.6	18.0	19.8
14	19.4	18.8	19.9	19.4	19.6	19.2	20.1
15	18.8	18.9	20.0	18.7	18.4	17.0	15.8
16	13.5	19.3	20.1	17.8	17.3	17.5	18.4
17	18.0	19.7	20.1	19.5	19.9	18.9	19.2
18	20.0	19.7	20.5	20.0	19.8	19.6	20.1
19	20.1	20.1	21.2	20.8	20.5	19.7	20.0
20	20.4	19.9	22.0	21.9	20.9	21.5	21.6
21	22.0	20.0	22.2	22.2	21.6	21.6	21.5
22	21.1	21.2	22.5	22.4	21.8	22.4	22.5
23	21.4	20.4	24.0	23.1	22.4	23.5	23.1
24	22.2	21.4	22.2	25.0	23.6	24.1	23.8
10-12	19.2	19.4	19.6	19.0	19.7	18.8	19.6
14-16	17.5	19.1	20.0	18.3	18.0	17.2	16.8
0-24	19.6	20.0	20.7	19.6	19.8	19.0	19.1

Average	19.7

Channel 1 - Northwestbound **85th Percentile**

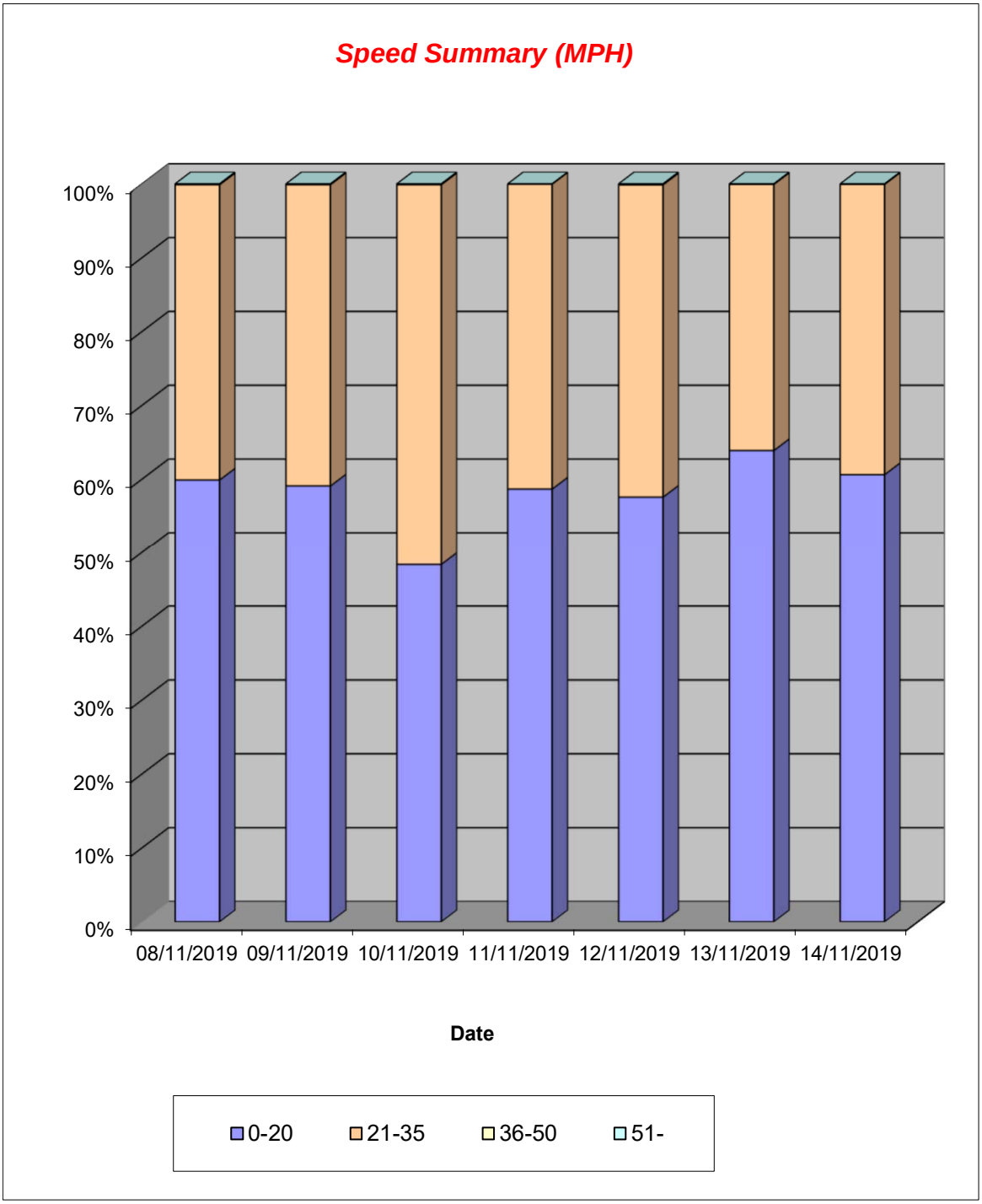
Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	28.7	28.6	24.0	28.7	28.9	28.7	28.2
2	28.5	33.3	28.4	28.9	28.7	33.9	33.5
3	33.6	33.3	33.3	28.8	33.5	33.5	33.3
4	28.3	28.8	28.2	28.0	33.4	28.1	28.3
5	28.3	38.8	28.2	28.5	28.1	28.8	28.0
6	33.8	33.6	33.6	28.9	28.8	33.4	33.5
7	28.0	29.0	28.4	28.4	28.5	28.5	28.2
8	23.8	23.9	28.4	23.7	23.8	23.5	23.9
9	23.8	23.2	28.7	23.5	23.6	23.2	18.6
10	23.7	23.7	23.3	23.5	23.8	23.3	23.8
11	23.0	24.0	23.6	23.5	23.0	23.1	23.9
12	23.4	23.2	23.2	23.4	23.2	23.6	23.3
13	23.9	23.5	23.2	23.4	23.1	23.2	23.5
14	23.8	23.1	23.6	23.3	23.1	23.9	23.1
15	23.4	24.0	23.1	23.1	23.3	23.1	23.6
16	24.0	23.7	23.5	23.2	23.1	23.4	23.4
17	23.9	23.0	23.9	24.0	23.0	23.3	24.0
18	23.1	23.6	23.3	23.1	23.5	23.9	23.1
19	23.9	23.1	23.8	23.4	23.7	23.8	23.9
20	23.4	23.1	23.4	23.4	23.5	23.3	23.6
21	23.5	23.8	23.3	28.5	23.8	23.7	23.3
22	23.8	23.3	23.9	28.2	23.1	28.3	28.1
23	23.1	23.0	28.6	28.5	28.2	28.1	28.5
24	28.6	23.3	28.6	33.3	28.7	33.0	28.2
10-12	23.5	23.4	23.4	23.6	23.5	23.3	24.0
14-16	23.3	23.3	23.1	23.5	23.4	23.8	23.1
0-24	23.6	23.9	23.6	23.2	23.1	23.3	23.0

85th %ile	23.4

Caerleon ATC 2, High Street

Channel 1 - Northwestbound **Speed Summary** **Week 1**

Speed (MPH)	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
0-20	4159	3979	2687	4016	4645	4759	4136
21-35	2778	2749	2863	2828	3414	2686	2683
36-50	8	7	6	2	10	5	4
51-	0	0	0	0	0	0	0
TOTAL	**6945**	**6735**	**5556**	**6846**	**8069**	**7450**	**6823**

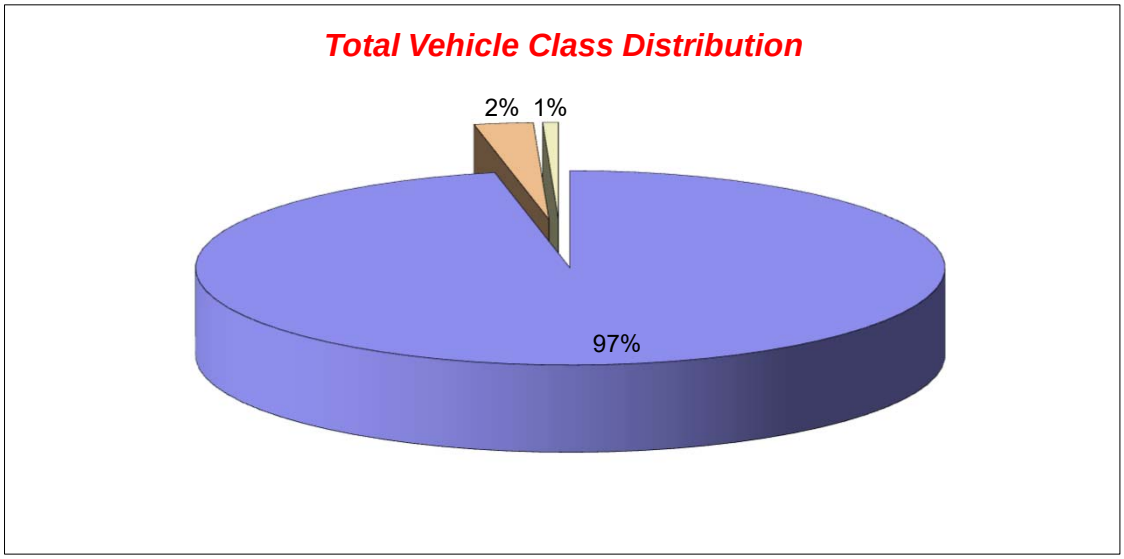


Caerleon ATC 2, High Street

Channel 1 - Northwestbound | **Vehicle Class** | **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
08/11/2019				
7-19	5264	152	54	5470
6-22	6256	163	70	6489
6-24	6635	164	73	6872
0-24	6705	166	74	6945
09/11/2019				
7-19	5128	74	41	5243
6-22	6013	90	44	6147
6-24	6387	95	44	6526
0-24	6591	100	44	6735
10/11/2019				
7-19	4462	74	19	4555
6-22	5069	82	19	5170
6-24	5228	82	19	5329
0-24	5451	86	19	5556
11/11/2019				
7-19	5502	181	25	5708
6-22	6375	195	29	6599
6-24	6529	196	30	6755
0-24	6614	201	31	6846
12/11/2019				
7-19	6361	235	29	6625
6-22	7446	254	34	7734
6-24	7667	257	34	7958
0-24	7774	260	35	8069
13/11/2019				
7-19	6428	244	27	6699
6-22	6968	252	37	7257
6-24	7058	253	37	7348
0-24	7152	260	38	7450
14/11/2019				
7-19	5869	147	78	6094
6-22	6400	154	83	6637
6-24	6488	155	83	6726
0-24	6580	158	85	6823

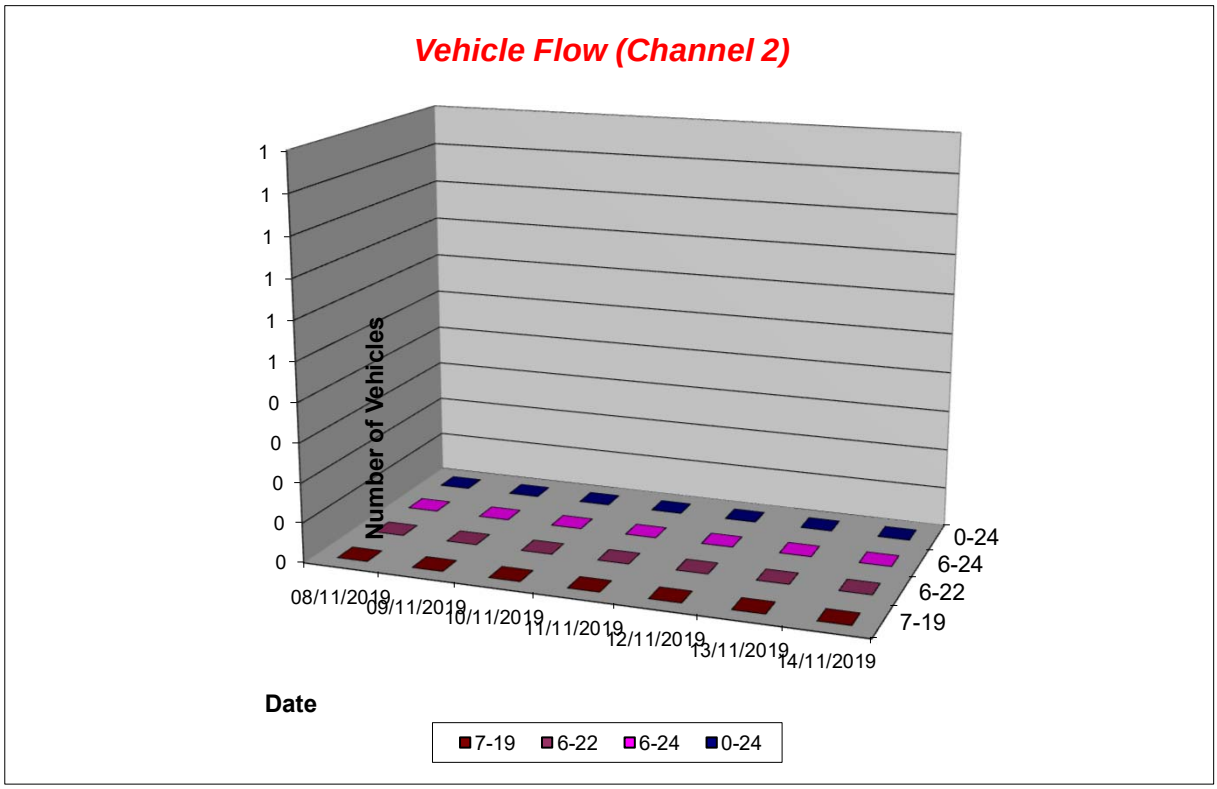
Average				
7-19	5573	158	39	5771
6-22	6361	170	45	6576
6-24	6570	172	46	6788
0-24	6695	176	47	6918



Caerleon ATC 2, High Street

Channel 2 - Southeastbound **Vehicle Flow** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday	5 Day Ave	7 Day Ave
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
7-19	0	0	0	0	0	0	0	0	0
6-22	0	0	0	0	0	0	0	0	0
6-24	0	0	0	0	0	0	0	0	0
0-24	0	0	0	0	0	0	0	0	0



Caerleon ATC 2, High Street

Channel 2 - Southeastbound **Average Speed** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-

10-12	-	-	-	-	-	-	-
14-16	-	-	-	-	-	-	-
0-24	-	-	-	-	-	-	-

Average	-

Channel 2 - Southeastbound **85th Percentile**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-

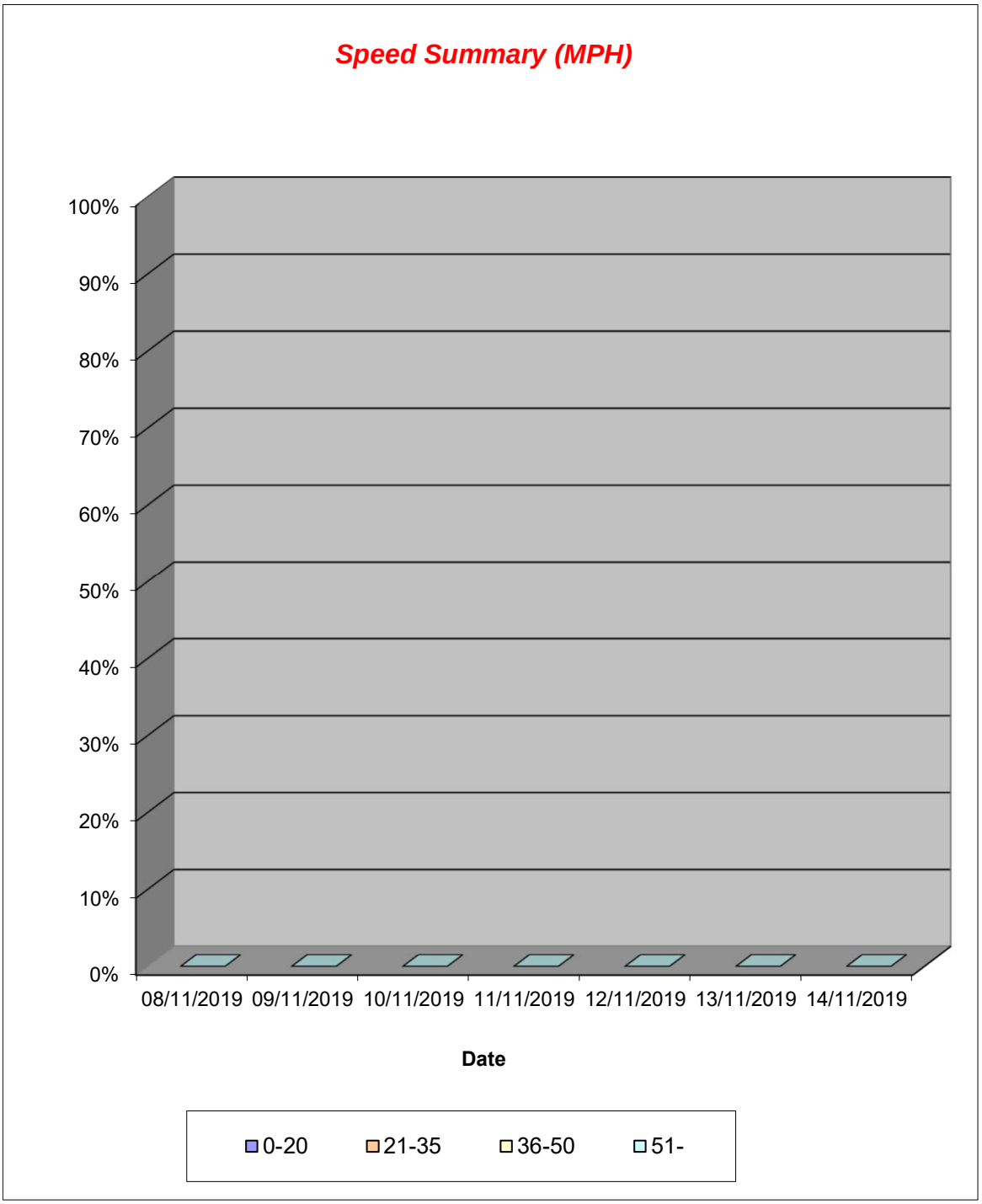
10-12	-	-	-	-	-	-	-
14-16	-	-	-	-	-	-	-
0-24	-	-	-	-	-	-	-

85th %ile	-

Caerleon ATC 2, High Street

Channel 2 - Southeastbound **Speed Summary** **Week 1**

Speed (MPH)	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
0-20	0	0	0	0	0	0	0
21-35	0	0	0	0	0	0	0
36-50	0	0	0	0	0	0	0
51-	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**

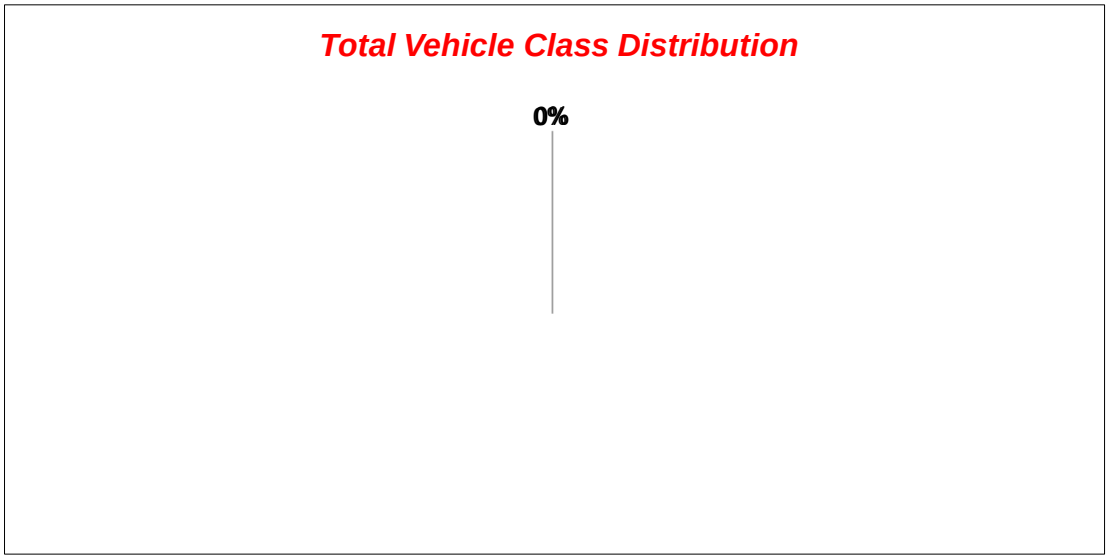


Caerleon ATC 2, High Street

Channel 2 - Southeastbound | **Vehicle Class** | **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
08/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
09/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
10/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
11/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
12/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
13/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
14/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0

Average				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0

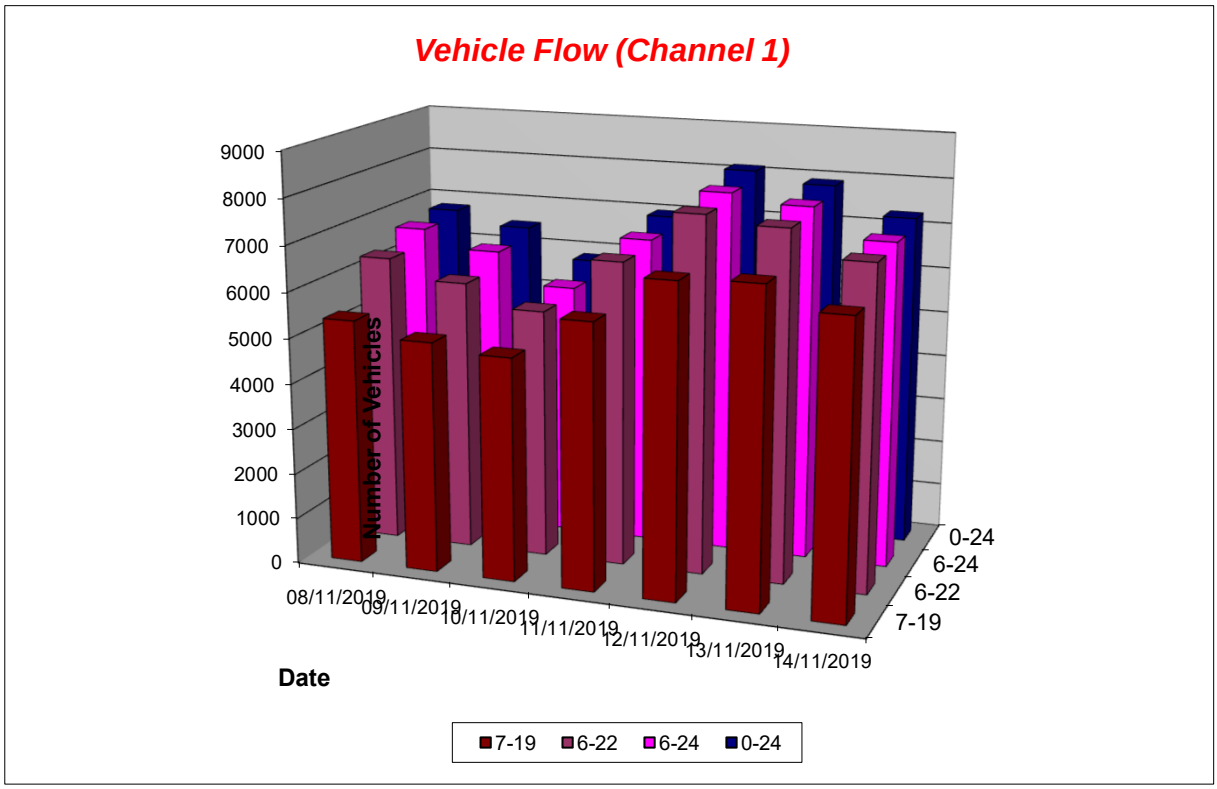


Caerleon ATC 3, Mill Street

Channel 1 - Southbound **Vehicle Flow** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday	5 Day Ave	7 Day Ave
1	15	119	119	21	14	15	23	18	47
2	6	31	41	7	8	9	18	10	17
3	3	8	23	7	15	2	5	6	9
4	7	11	19	7	8	9	4	7	9
5	15	11	19	30	32	23	19	24	21
6	68	34	26	107	108	90	107	96	77
7	187	75	57	274	300	285	270	263	207
8	508	168	93	571	567	565	566	555	434
9	435	331	180	421	738	722	729	609	508
10	474	509	362	465	620	640	689	578	537
11	465	467	482	453	539	559	517	507	497
12	493	439	530	502	550	579	525	530	517
13	467	487	526	447	541	570	506	506	506
14	493	502	539	450	542	584	463	506	510
15	481	474	544	480	555	557	542	523	519
16	276	419	472	570	587	543	562	508	490
17	443	408	452	570	541	572	430	511	488
18	427	415	379	507	520	526	472	490	464
19	401	426	320	358	478	435	365	407	398
20	388	354	219	262	314	213	228	281	283
21	204	280	165	177	207	137	117	168	184
22	205	176	132	157	189	138	68	151	152
23	179	173	83	80	97	77	46	96	105
24	142	171	48	45	47	46	20	60	74

7-19	5363	5045	4879	5794	6778	6852	6366	6231	5868
6-22	6347	5930	5452	6664	7788	7625	7049	7095	6694
6-24	6668	6274	5583	6789	7932	7748	7115	7250	6873
0-24	6782	6488	5830	6968	8117	7896	7291	7411	7053



Caerleon ATC 3, Mill Street

Channel 1 - Southbound **Average Speed** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	28.0	26.3	26.6	27.0	27.3	23.7	26.3
2	24.7	27.4	27.0	25.1	26.1	29.1	26.3
3	29.7	26.8	25.6	25.1	26.7	25.5	28.0
4	28.0	27.5	26.9	26.6	21.8	25.2	29.2
5	26.3	26.6	25.1	25.2	25.8	24.3	24.6
6	25.3	26.2	26.1	24.4	25.1	25.1	25.3
7	25.5	26.3	26.3	24.1	23.8	24.2	25.1
8	21.6	25.0	24.9	20.4	21.7	23.0	21.5
9	13.8	24.3	24.6	14.4	22.2	19.7	17.7
10	16.4	20.1	23.9	15.7	22.6	20.7	21.6
11	21.9	14.0	23.0	22.1	23.4	22.4	22.6
12	22.5	12.5	22.9	21.9	21.5	21.4	22.2
13	22.7	12.8	23.4	19.8	22.3	22.6	22.7
14	21.5	17.6	23.2	23.0	22.1	21.6	22.8
15	15.3	22.5	22.6	22.6	22.4	21.8	22.6
16	11.2	22.2	23.1	20.5	20.8	20.3	18.2
17	13.5	21.8	23.1	22.2	22.0	22.1	22.9
18	21.1	22.8	23.6	23.0	22.6	22.3	11.7
19	24.0	22.8	24.2	23.2	22.8	22.1	18.1
20	23.7	23.3	24.2	24.7	23.2	22.4	24.6
21	25.9	24.3	24.8	24.5	24.0	21.4	24.2
22	24.7	24.6	24.3	24.8	23.9	22.0	24.8
23	25.6	25.4	25.1	25.1	24.0	22.7	25.8
24	25.6	25.2	24.0	26.3	26.1	23.5	25.8
10-12	22.2	13.3	22.9	22.0	22.5	21.9	22.4
14-16	13.8	22.4	22.8	21.5	21.6	21.0	20.3
0-24	20.3	20.5	23.6	21.4	22.5	21.8	21.0

Average	21.6

Channel 1 - Southbound **85th Percentile**

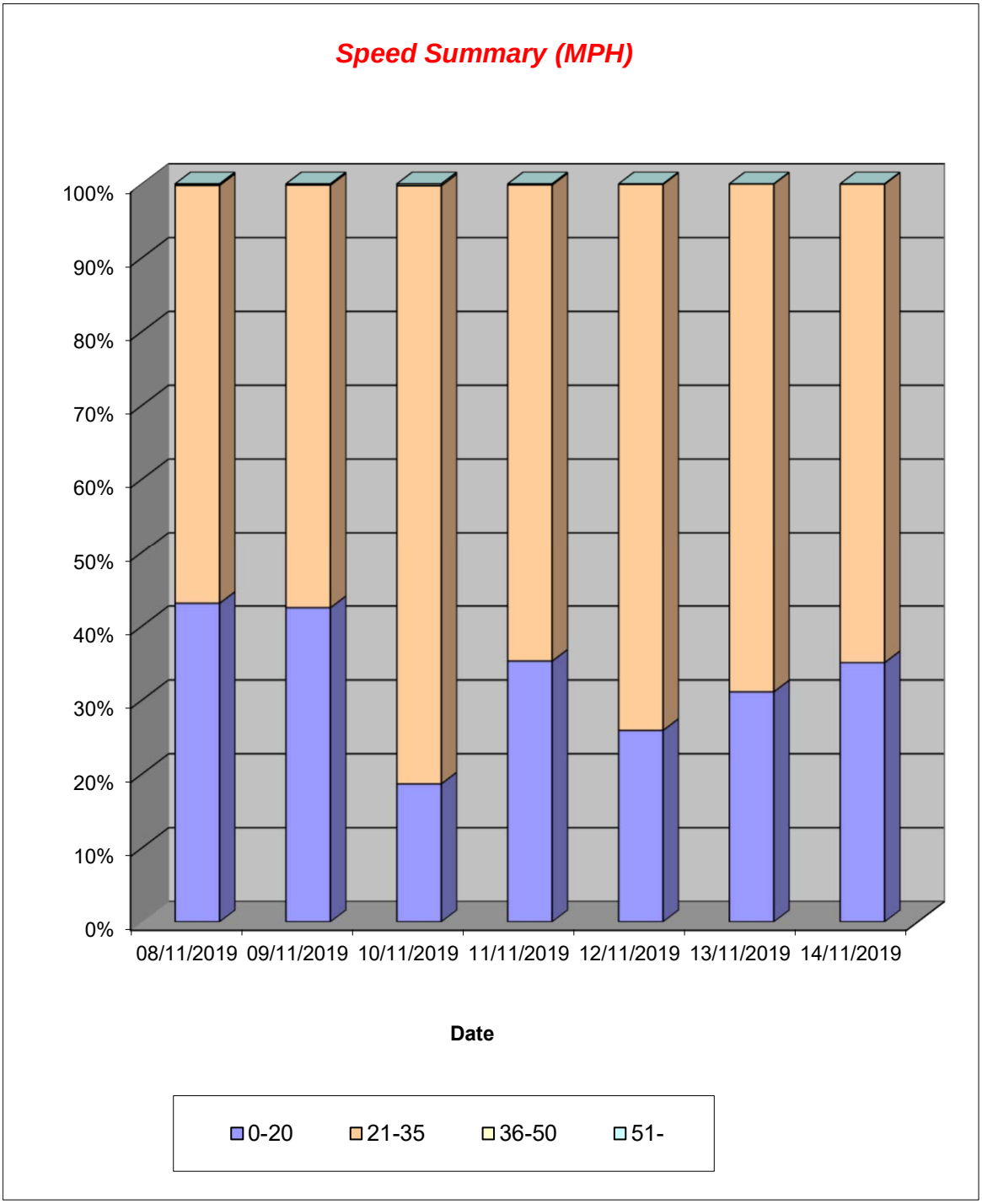
Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	33.7	28.6	34.0	33.7	33.9	23.7	28.2
2	28.5	33.3	28.4	28.9	28.7	29.1	28.5
3	33.6	28.3	28.3	28.8	28.5	28.5	33.3
4	28.3	28.8	33.2	28.0	28.4	33.1	33.3
5	28.3	28.8	28.2	28.5	28.1	28.8	28.0
6	28.8	28.6	28.6	28.9	28.8	28.4	28.5
7	28.0	29.0	28.4	28.4	28.5	28.5	28.2
8	28.8	28.9	28.4	23.7	28.8	28.5	28.9
9	18.8	28.2	28.7	18.5	23.6	23.2	23.6
10	23.7	23.7	28.3	23.5	28.8	23.3	23.8
11	28.0	19.0	28.6	28.5	28.0	28.1	28.9
12	28.4	18.2	28.2	23.4	28.2	23.6	28.3
13	28.9	18.5	28.2	23.4	28.1	28.2	28.5
14	28.8	23.1	28.6	28.3	28.1	28.9	28.1
15	23.4	29.0	28.1	28.1	28.3	28.1	28.6
16	19.0	28.7	28.5	23.2	23.1	23.4	23.4
17	18.9	28.0	28.9	29.0	28.0	28.3	29.0
18	28.1	28.6	28.3	28.1	28.5	28.9	13.1
19	28.9	28.1	28.8	28.4	28.7	28.8	28.9
20	28.4	28.1	28.4	28.4	28.5	28.3	28.6
21	28.5	28.8	28.3	28.5	28.8	28.7	28.3
22	28.8	28.3	28.9	28.2	28.1	23.3	28.1
23	28.1	28.0	28.6	33.5	28.2	28.1	28.5
24	28.6	28.3	28.6	33.3	28.7	28.0	28.2
10-12	28.5	18.4	28.4	28.6	28.5	28.3	29.0
14-16	18.3	28.3	28.1	28.5	28.4	23.8	23.1
0-24	28.6	28.9	28.6	28.2	28.1	28.3	28.0

85th %ile	28.4

Caerleon ATC 3, Mill Street

Channel 1 - Southbound **Speed Summary** **Week 1**

Speed (MPH)	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
0-20	2922	2757	1088	2458	2102	2457	2557
21-35	3846	3720	4727	4500	6010	5438	4731
36-50	14	11	15	10	5	1	3
51-	0	0	0	0	0	0	0
TOTAL	**6782**	**6488**	**5830**	**6968**	**8117**	**7896**	**7291**



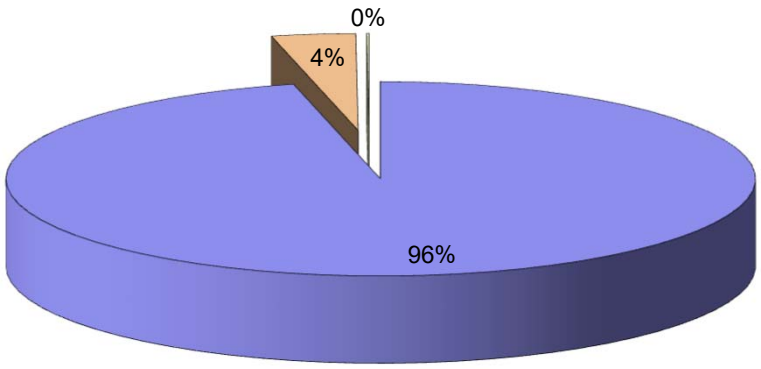
Caerleon ATC 3, Mill Street

Channel 1 - Southbound | **Vehicle Class** | **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
08/11/2019				
7-19	5129	226	8	5363
6-22	6086	252	9	6347
6-24	6399	258	11	6668
0-24	6508	263	11	6782
09/11/2019				
7-19	4930	113	2	5045
6-22	5796	132	2	5930
6-24	6132	140	2	6274
0-24	6341	145	2	6488
10/11/2019				
7-19	4773	100	6	4879
6-22	5338	108	6	5452
6-24	5468	109	6	5583
0-24	5711	113	6	5830
11/11/2019				
7-19	5508	281	5	5794
6-22	6354	302	8	6664
6-24	6477	304	8	6789
0-24	6650	310	8	6968
12/11/2019				
7-19	6456	315	7	6778
6-22	7441	340	7	7788
6-24	7582	343	7	7932
0-24	7763	346	8	8117
13/11/2019				
7-19	6508	337	7	6852
6-22	7257	360	8	7625
6-24	7376	364	8	7748
0-24	7521	367	8	7896
14/11/2019				
7-19	6131	228	7	6366
6-22	6800	241	8	7049
6-24	6865	242	8	7115
0-24	7038	245	8	7291

Average				
7-19	5634	229	6	5868
6-22	6439	248	7	6694
6-24	6614	251	7	6873
0-24	6790	256	7	7053

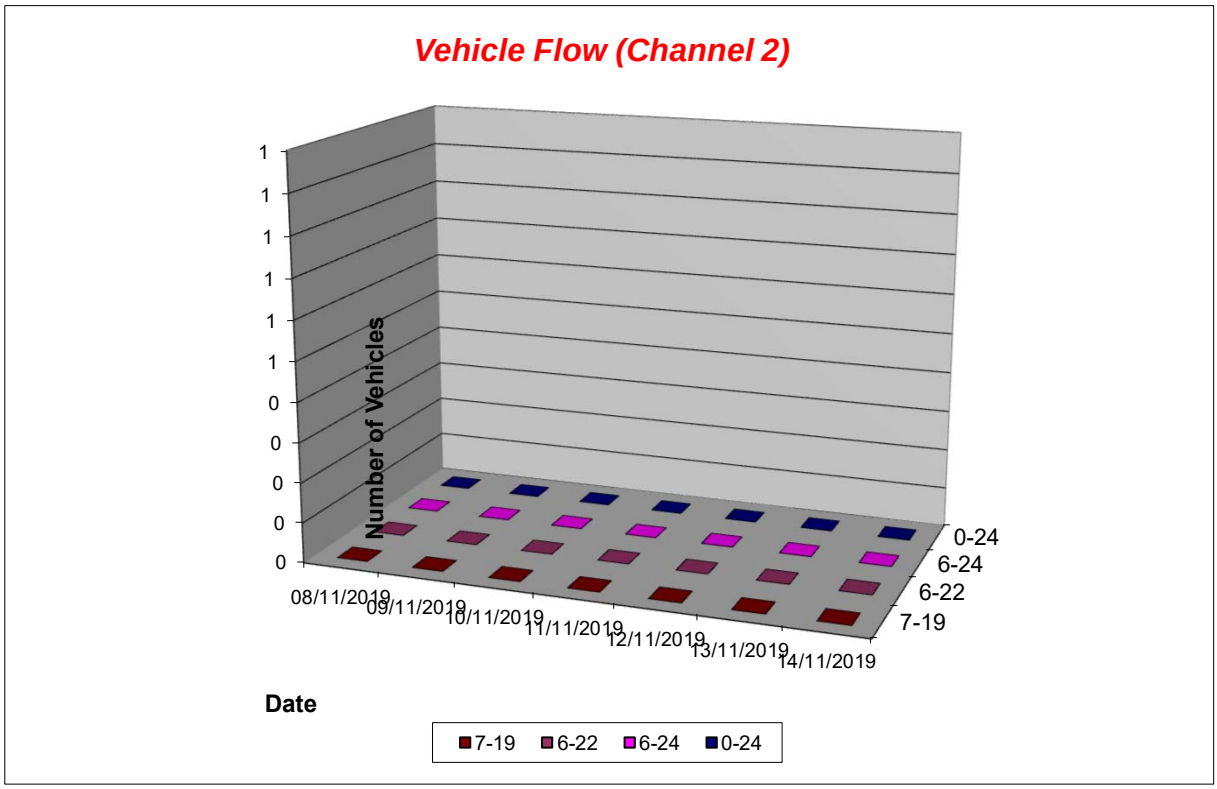
Total Vehicle Class Distribution



Caerleon ATC 3, Mill Street

Channel 2 - Northbound **Vehicle Flow** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday	5 Day Ave	7 Day Ave
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
7-19	0	0	0	0	0	0	0	0	0
6-22	0	0	0	0	0	0	0	0	0
6-24	0	0	0	0	0	0	0	0	0
0-24	0	0	0	0	0	0	0	0	0



Caerleon ATC 3, Mill Street

Channel 2 - Northbound **Average Speed** **Week 1**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-

10-12	-	-	-	-	-	-	-
14-16	-	-	-	-	-	-	-
0-24	-	-	-	-	-	-	-

Average	-

Channel 2 - Northbound **85th Percentile**

Hr Ending	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-

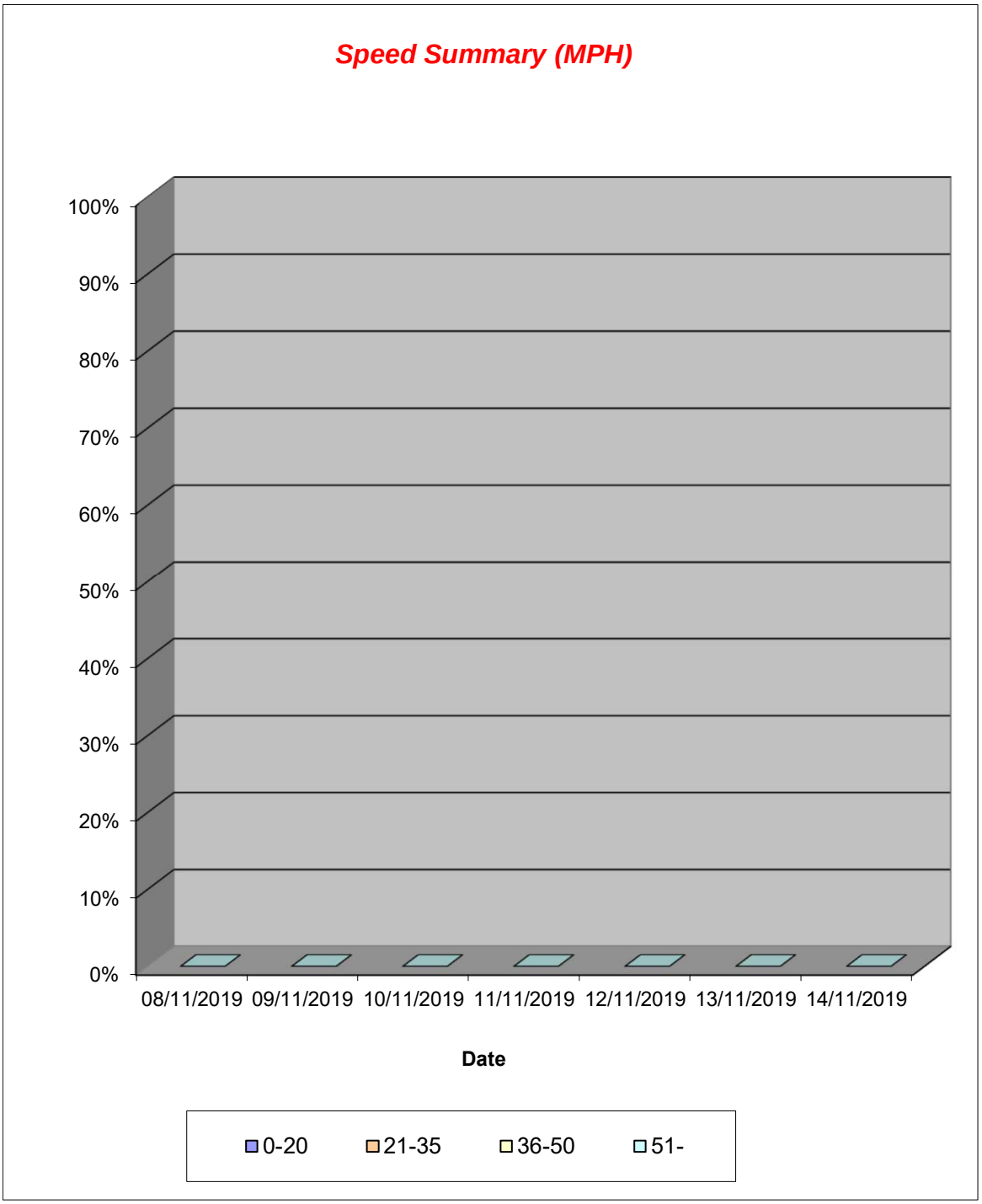
10-12	-	-	-	-	-	-	-
14-16	-	-	-	-	-	-	-
0-24	-	-	-	-	-	-	-

85th %ile	-

Caerleon ATC 3, Mill Street

Channel 2 - Northbound **Speed Summary** **Week 1**

Speed (MPH)	08/11/2019 Friday	09/11/2019 Saturday	10/11/2019 Sunday	11/11/2019 Monday	12/11/2019 Tuesday	13/11/2019 Wednesday	14/11/2019 Thursday
0-20	0	0	0	0	0	0	0
21-35	0	0	0	0	0	0	0
36-50	0	0	0	0	0	0	0
51-	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**



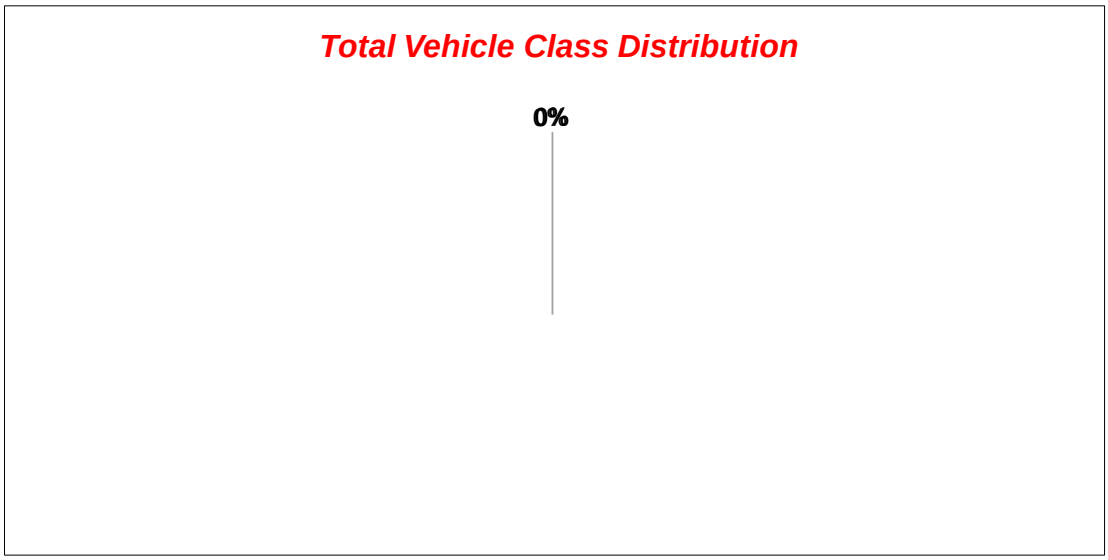
Caerleon ATC 3, Mill Street

Channel 2 - Northbound | **Vehicle Class** | **Week 1**

Classes / Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
08/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
09/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
10/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
11/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
12/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
13/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0
14/11/2019				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0

Average				
7-19	0	0	0	0
6-22	0	0	0	0
6-24	0	0	0	0
0-24	0	0	0	0

Total Vehicle Class Distribution



Caerleon - Thursday 14th November 2019

Junction: New Road/B4596/High Street

Approach: New Road

	Left Turn				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	3	0	0	**3**	39	0	0	**39**
0715 - 0730	1	0	0	**1**	41	1	0	**42**
0730 - 0745	1	0	0	**1**	52	0	1	**53**
0745 - 0800	6	0	0	**6**	57	1	0	**58**
Hourly Total	**11**	**0**	**0**	**11**	**189**	**2**	**1**	**192**
0800 - 0815	3	0	0	**3**	62	1	0	**63**
0815 - 0830	2	0	0	**2**	66	0	0	**66**
0830 - 0845	7	0	0	**7**	72	1	0	**73**
0845 - 0900	4	0	0	**4**	70	0	1	**71**
Hourly Total	**16**	**0**	**0**	**16**	**270**	**2**	**1**	**273**
0900 - 0915	3	0	0	**3**	59	0	0	**59**
0915 - 0930	3	0	0	**3**	51	0	1	**52**
0930 - 0945	4	0	0	**4**	38	0	0	**38**
0945 - 1000	3	0	0	**3**	37	0	0	**37**
Hourly Total	**13**	**0**	**0**	**13**	**185**	**0**	**1**	**186**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**40**	**0**	**0**	**40**	**644**	**4**	**3**	**651**

	Left Turn				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	8	0	0	**8**	67	1	0	**68**
1515 - 1530	6	0	0	**6**	88	0	0	**88**
1530 - 1545	9	0	0	**9**	83	1	0	**84**
1545 - 1600	11	0	0	**11**	102	0	0	**102**
Hourly Total	**34**	**0**	**0**	**34**	**340**	**2**	**0**	**342**
1600 - 1615	10	0	0	**10**	92	0	0	**92**
1615 - 1630	7	0	0	**7**	89	1	0	**90**
1630 - 1645	10	0	0	**10**	102	0	0	**102**
1645 - 1700	13	0	0	**13**	111	0	0	**111**
Hourly Total	**40**	**0**	**0**	**40**	**394**	**1**	**0**	**395**
1700 - 1715	10	0	0	**10**	94	0	0	**94**
1715 - 1730	7	0	0	**7**	91	0	0	**91**
1730 - 1745	9	0	0	**9**	78	0	0	**78**
1745 - 1800	5	0	0	**5**	85	0	0	**85**
Hourly Total	**31**	**0**	**0**	**31**	**348**	**0**	**0**	**348**
1800 - 1815	8	0	0	**8**	102	0	0	**102**
1815 - 1830	4	0	0	**4**	87	0	0	**87**
1830 - 1845	3	0	0	**3**	77	0	0	**77**
1845 - 1900	2	0	0	**2**	72	0	0	**72**
Hourly Total	**17**	**0**	**0**	**17**	**338**	**0**	**0**	**338**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**122**	**0**	**0**	**122**	**1420**	**3**	**0**	**1423**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	0
705	0
710	3
715	2
720	3
725	3
730	4
735	5
740	4
745	6
750	4
755	0
800	4
805	5
810	11
815	6
820	8
825	9
830	8
835	11
840	15
845	13
850	12
855	7
900	7
905	3
910	2
915	0
920	4
925	3
930	2
935	3
940	2
945	0
950	2
955	2
1000	2

	Queue Lengths (Vehicles)
TIME	Stationary
1500	3
1505	2
1510	6
1515	4
1520	2
1525	2
1530	3
1535	4
1540	7
1545	6
1550	4
1555	4
1600	9
1605	10
1610	7
1615	7
1620	10
1625	6
1630	4
1635	7
1640	4
1645	4
1650	3
1655	7
1700	9
1705	11
1710	6
1715	5
1720	12
1725	9
1730	12
1735	16
1740	15
1745	11
1750	19
1755	21
1800	15
1805	18
1810	9
1815	10
1820	6
1825	6
1830	5
1835	6
1840	3
1845	4
1850	3
1855	2
1900	2



Caerleon - Thursday 14th November 2019

Junction: New Road/B4596/High Street

Approach: B4596

	Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	49	1	1	**51**	3	0	0	**3**
0715 - 0730	58	1	0	**59**	2	0	0	**2**
0730 - 0745	52	0	2	**54**	5	0	0	**5**
0745 - 0800	57	2	1	**60**	1	0	0	**1**
Hourly Total	**216**	**4**	**4**	**224**	**11**	**0**	**0**	**11**
0800 - 0815	74	0	2	**76**	5	0	0	**5**
0815 - 0830	79	1	1	**81**	6	0	0	**6**
0830 - 0845	94	1	2	**97**	7	0	0	**7**
0845 - 0900	114	1	2	**117**	7	0	0	**7**
Hourly Total	**361**	**3**	**7**	**371**	**25**	**0**	**0**	**25**
0900 - 0915	104	2	2	**108**	4	0	0	**4**
0915 - 0930	70	1	1	**72**	2	0	0	**2**
0930 - 0945	62	0	1	**63**	5	0	0	**5**
0945 - 1000	49	0	1	**50**	3	0	0	**3**
Hourly Total	**285**	**3**	**5**	**293**	**14**	**0**	**0**	**14**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**862**	**10**	**16**	**888**	**50**	**0**	**0**	**50**

	Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	68	0	1	**69**	4	0	0	**4**
1515 - 1530	76	1	1	**78**	7	0	0	**7**
1530 - 1545	79	1	1	**81**	3	0	0	**3**
1545 - 1600	92	0	1	**93**	7	0	0	**7**
Hourly Total	**315**	**2**	**4**	**321**	**21**	**0**	**0**	**21**
1600 - 1615	95	1	1	**97**	9	0	0	**9**
1615 - 1630	118	0	2	**120**	5	0	0	**5**
1630 - 1645	99	1	1	**101**	3	0	0	**3**
1645 - 1700	94	2	1	**97**	7	0	0	**7**
Hourly Total	**406**	**4**	**5**	**415**	**24**	**0**	**0**	**24**
1700 - 1715	101	0	1	**102**	10	0	0	**10**
1715 - 1730	89	0	0	**89**	6	0	0	**6**
1730 - 1745	113	1	2	**116**	7	0	0	**7**
1745 - 1800	97	0	1	**98**	7	0	0	**7**
Hourly Total	**400**	**1**	**4**	**405**	**30**	**0**	**0**	**30**
1800 - 1815	87	0	2	**89**	7	0	0	**7**
1815 - 1830	79	0	1	**80**	4	0	0	**4**
1830 - 1845	74	0	1	**75**	5	0	0	**5**
1845 - 1900	63	0	2	**65**	4	0	0	**4**
Hourly Total	**303**	**0**	**6**	**309**	**20**	**0**	**0**	**20**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**1424**	**7**	**19**	**1450**	**95**	**0**	**0**	**95**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	0
705	0
710	0
715	0
720	0
725	0
730	0
735	0
740	0
745	0
750	0
755	0
800	0
805	2
810	0
815	2
820	0
825	4
830	0
835	3
840	2
845	2
850	3
855	5
900	2
905	3
910	0
915	4
920	0
925	2
930	0
935	0
940	0
945	0
950	0
955	0
1000	0

	Queue Lengths (Vehicles)
TIME	Stationary
1500	0
1505	0
1510	0
1515	0
1520	0
1525	0
1530	0
1535	2
1540	0
1545	0
1550	0
1555	0
1600	0
1605	0
1610	0
1615	2
1620	0
1625	0
1630	3
1635	4
1640	2
1645	0
1650	0
1655	0
1700	0
1705	0
1710	0
1715	0
1720	2
1725	0
1730	0
1735	2
1740	0
1745	0
1750	3
1755	2
1800	0
1805	0
1810	2
1815	2
1820	3
1825	2
1830	0
1835	0
1840	2
1845	0
1850	0
1855	0
1900	0



Caerleon - Thursday 14th November 2019

Junction: New Road/B4596/High Street

Approach: High Street

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Left Turn				Southbound			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	52	0	0	**52**	61	0	1	**62**
0715 - 0730	59	1	0	**60**	66	1	2	**69**
0730 - 0745	67	0	0	**67**	78	1	2	**81**
0745 - 0800	80	0	0	**80**	90	0	2	**92**
Hourly Total	**258**	**1**	**0**	**259**	**295**	**2**	**7**	**304**
0800 - 0815	83	0	0	**83**	85	0	1	**86**
0815 - 0830	89	0	0	**89**	87	1	2	**90**
0830 - 0845	102	1	0	**103**	92	0	1	**93**
0845 - 0900	89	0	0	**89**	99	0	1	**100**
Hourly Total	**363**	**1**	**0**	**364**	**363**	**1**	**5**	**369**
0900 - 0915	104	2	0	**106**	89	1	1	**91**
0915 - 0930	96	0	0	**96**	86	0	1	**87**
0930 - 0945	88	0	0	**88**	74	1	1	**76**
0945 - 1000	81	0	0	**81**	71	0	1	**72**
Hourly Total	**369**	**2**	**0**	**371**	**320**	**2**	**4**	**326**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**990**	**4**	**0**	**994**	**978**	**5**	**16**	**999**

	Left Turn				Southbound			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	42	0	0	**42**	40	1	1	**42**
1515 - 1530	47	1	0	**48**	44	0	1	**45**
1530 - 1545	49	0	0	**49**	49	0	1	**50**
1545 - 1600	55	0	0	**55**	51	0	0	**51**
Hourly Total	**193**	**1**	**0**	**194**	**184**	**1**	**3**	**188**
1600 - 1615	57	0	0	**57**	67	1	2	**70**
1615 - 1630	71	1	0	**72**	66	0	2	**68**
1630 - 1645	68	0	0	**68**	72	0	1	**73**
1645 - 1700	63	0	0	**63**	61	0	0	**61**
Hourly Total	**259**	**1**	**0**	**260**	**266**	**1**	**5**	**272**
1700 - 1715	77	0	0	**77**	72	0	1	**73**
1715 - 1730	60	0	0	**60**	69	0	1	**70**
1730 - 1745	62	0	0	**62**	75	0	1	**76**
1745 - 1800	59	0	0	**59**	71	1	0	**72**
Hourly Total	**258**	**0**	**0**	**258**	**287**	**1**	**3**	**291**
1800 - 1815	55	0	0	**55**	60	0	1	**61**
1815 - 1830	51	0	0	**51**	61	0	0	**61**
1830 - 1845	39	0	0	**39**	59	0	1	**60**
1845 - 1900	46	0	0	**46**	55	0	1	**56**
Hourly Total	**191**	**0**	**0**	**191**	**235**	**0**	**3**	**238**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**901**	**2**	**0**	**903**	**972**	**3**	**14**	**989**

	Queue Lengths (Vehicles)
TIME	Stationary
700	0
705	0
710	0
715	0
720	0
725	0
730	0
735	0
740	0
745	0
750	0
755	0
800	0
805	0
810	0
815	0
820	0
825	0
830	0
835	0
840	0
845	0
850	0
855	0
900	0
905	0
910	0
915	0
920	0
925	0
930	0
935	0
940	0
945	0
950	0
955	0
1000	0

	Queue Lengths (Vehicles)
TIME	Stationary
1500	0
1505	0
1510	0
1515	0
1520	0
1525	0
1530	0
1535	0
1540	0
1545	0
1550	0
1555	0
1600	0
1605	0
1610	0
1615	0
1620	0
1625	0
1630	0
1635	0
1640	0
1645	0
1650	0
1655	0
1700	0
1705	0
1710	0
1715	0
1720	0
1725	0
1730	0
1735	0
1740	0
1745	0
1750	0
1755	0
1800	0
1805	0
1810	0
1815	0
1820	0
1825	0
1830	0
1835	0
1840	0
1845	0
1850	0
1855	0
1900	0



Caerleon - Thursday 14th November 2019

Junction: High Street/Station Road/Usk Road/Mill Street

Approach: High Street

	Left Turn				Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	35	1	0	**36**	17	0	0	**17**	66	0	1	**67**
0715 - 0730	39	1	0	**40**	19	0	1	**20**	71	0	0	**71**
0730 - 0745	44	0	1	**45**	21	0	0	**21**	77	1	0	**78**
0745 - 0800	50	0	0	**50**	19	0	0	**19**	94	0	1	**95**
Hourly Total	**168**	**2**	**1**	**171**	**76**	**0**	**1**	**77**	**308**	**1**	**2**	**311**
0800 - 0815	51	0	0	**51**	22	0	1	**23**	102	0	1	**103**
0815 - 0830	49	0	1	**50**	26	0	1	**27**	115	0	1	**116**
0830 - 0845	52	0	0	**52**	27	0	0	**27**	109	0	2	**111**
0845 - 0900	56	1	0	**57**	19	0	0	**19**	114	0	1	**115**
Hourly Total	**208**	**1**	**1**	**210**	**94**	**0**	**2**	**96**	**440**	**0**	**5**	**445**
0900 - 0915	51	0	1	**52**	17	0	0	**17**	99	0	0	**99**
0915 - 0930	43	0	1	**44**	20	0	1	**21**	95	0	1	**96**
0930 - 0945	39	0	0	**39**	23	0	0	**23**	89	0	1	**90**
0945 - 1000	35	0	0	**35**	18	0	0	**18**	83	0	1	**84**
Hourly Total	**168**	**0**	**2**	**170**	**78**	**0**	**1**	**79**	**366**	**0**	**3**	**369**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**544**	**3**	**4**	**551**	**248**	**0**	**4**	**252**	**1114**	**1**	**10**	**1125**

	Left Turn				Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	60	0	0	**60**	19	0	0	**19**	99	0	1	**100**
1515 - 1530	61	0	0	**61**	24	0	1	**25**	91	0	0	**91**
1530 - 1545	67	1	1	**69**	26	0	0	**26**	95	0	1	**96**
1545 - 1600	66	0	1	**67**	31	0	1	**32**	104	0	0	**104**
Hourly Total	**254**	**1**	**2**	**257**	**100**	**0**	**2**	**102**	**389**	**0**	**2**	**391**
1600 - 1615	81	0	0	**81**	33	0	0	**33**	87	0	1	**88**
1615 - 1630	78	0	0	**78**	36	0	0	**36**	103	0	0	**103**
1630 - 1645	75	1	1	**77**	39	0	0	**39**	112	0	0	**112**
1645 - 1700	73	0	1	**74**	34	0	0	**34**	91	0	0	**91**
Hourly Total	**307**	**1**	**2**	**310**	**142**	**0**	**0**	**142**	**393**	**0**	**1**	**394**
1700 - 1715	83	1	0	**84**	36	0	0	**36**	87	0	1	**88**
1715 - 1730	88	1	0	**89**	35	0	1	**36**	84	0	1	**85**
1730 - 1745	81	0	1	**82**	29	0	1	**30**	71	0	1	**72**
1745 - 1800	79	0	0	**79**	34	0	0	**34**	70	0	2	**72**
Hourly Total	**331**	**2**	**1**	**334**	**134**	**0**	**2**	**136**	**312**	**0**	**5**	**317**
1800 - 1815	69	0	1	**70**	28	0	1	**29**	65	0	1	**66**
1815 - 1830	59	0	0	**59**	30	0	0	**30**	55	0	0	**55**
1830 - 1845	51	0	0	**51**	26	0	0	**26**	59	0	1	**60**
1845 - 1900	55	0	0	**55**	21	0	0	**21**	48	0	1	**49**
Hourly Total	**234**	**0**	**1**	**235**	**105**	**0**	**1**	**106**	**227**	**0**	**3**	**230**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**1126**	**4**	**6**	**1136**	**481**	**0**	**5**	**486**	**1321**	**0**	**11**	**1332**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	4
705	3
710	5
715	4
720	3
725	6
730	6
735	8
740	5
745	0
750	5
755	6
800	7
805	0
810	6
815	7
820	0
825	7
830	5
835	0
840	4
845	5
850	6
855	7
900	9
905	6
910	8
915	8
920	11
925	6
930	5
935	0
940	6
945	5
950	0
955	5
1000	3

	Queue Lengths (Vehicles)
TIME	Stationary
1500	3
1505	4
1510	2
1515	6
1520	3
1525	2
1530	0
1535	4
1540	5
1545	0
1550	3
1555	0
1600	4
1605	3
1610	0
1615	4
1620	5
1625	7
1630	4
1635	3
1640	6
1645	0
1650	5
1655	5
1700	12
1705	0
1710	5
1715	6
1720	5
1725	8
1730	3
1735	2
1740	5
1745	3
1750	0
1755	2
1800	2
1805	3
1810	2
1815	0
1820	3
1825	3
1830	2
1835	0
1840	3
1845	4
1850	0
1855	2
1900	2



Caerleon - Thursday 14th November 2019

Junction: High Street/Station Road/Usk Road/Mill Street

Approach: Station Road

	Left Turn				Eastbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	4	0	0	**4**	68	0	0	**68**	0	0	0	**0**
0715 - 0730	6	0	0	**6**	77	1	1	**79**	0	0	0	**0**
0730 - 0745	7	1	0	**8**	79	1	1	**81**	0	0	0	**0**
0745 - 0800	9	1	0	**10**	84	0	0	**84**	0	0	0	**0**
Hourly Total	**26**	**2**	**0**	**28**	**308**	**2**	**2**	**312**	**0**	**0**	**0**	**0**
0800 - 0815	6	0	0	**6**	89	0	0	**89**	0	0	0	**0**
0815 - 0830	9	0	0	**9**	91	2	0	**93**	0	0	0	**0**
0830 - 0845	14	0	0	**14**	94	1	0	**95**	0	0	0	**0**
0845 - 0900	11	0	0	**11**	89	0	1	**90**	0	0	0	**0**
Hourly Total	**40**	**0**	**0**	**40**	**363**	**3**	**1**	**367**	**0**	**0**	**0**	**0**
0900 - 0915	8	1	0	**9**	83	1	0	**84**	0	0	0	**0**
0915 - 0930	12	0	0	**12**	88	1	0	**89**	0	0	0	**0**
0930 - 0945	7	0	0	**7**	71	1	1	**73**	0	0	0	**0**
0945 - 1000	5	0	0	**5**	70	0	0	**70**	0	0	0	**0**
Hourly Total	**32**	**1**	**0**	**33**	**312**	**3**	**1**	**316**	**0**	**0**	**0**	**0**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**98**	**3**	**0**	**101**	**983**	**8**	**4**	**995**	**0**	**0**	**0**	**0**

	Left Turn				Eastbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	11	0	0	**11**	61	0	1	**62**	0	0	0	**0**
1515 - 1530	15	0	0	**15**	66	0	0	**66**	0	0	0	**0**
1530 - 1545	19	0	0	**19**	73	1	0	**74**	0	0	0	**0**
1545 - 1600	12	0	0	**12**	88	0	1	**89**	0	0	0	**0**
Hourly Total	**57**	**0**	**0**	**57**	**288**	**1**	**2**	**291**	**0**	**0**	**0**	**0**
1600 - 1615	16	0	0	**16**	83	1	0	**84**	0	0	0	**0**
1615 - 1630	11	0	0	**11**	91	0	0	**91**	0	0	0	**0**
1630 - 1645	9	0	0	**9**	87	1	0	**88**	0	0	0	**0**
1645 - 1700	14	0	0	**14**	78	0	0	**78**	0	0	0	**0**
Hourly Total	**50**	**0**	**0**	**50**	**339**	**2**	**0**	**341**	**0**	**0**	**0**	**0**
1700 - 1715	10	0	0	**10**	79	1	0	**80**	0	0	0	**0**
1715 - 1730	11	0	0	**11**	81	1	0	**82**	0	0	0	**0**
1730 - 1745	13	0	0	**13**	72	0	1	**73**	0	0	0	**0**
1745 - 1800	15	0	0	**15**	77	1	1	**79**	0	0	0	**0**
Hourly Total	**49**	**0**	**0**	**49**	**309**	**3**	**2**	**314**	**0**	**0**	**0**	**0**
1800 - 1815	16	0	0	**16**	66	0	0	**66**	0	0	0	**0**
1815 - 1830	9	0	0	**9**	61	0	0	**61**	0	0	0	**0**
1830 - 1845	9	0	0	**9**	59	0	0	**59**	0	0	0	**0**
1845 - 1900	7	0	0	**7**	60	0	0	**60**	0	0	0	**0**
Hourly Total	**41**	**0**	**0**	**41**	**246**	**0**	**0**	**246**	**0**	**0**	**0**	**0**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**197**	**0**	**0**	**197**	**1182**	**6**	**4**	**1192**	**0**	**0**	**0**	**0**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	2
705	3
710	2
715	0
720	2
725	2
730	3
735	4
740	0
745	2
750	0
755	3
800	3
805	4
810	3
815	4
820	3
825	5
830	3
835	3
840	4
845	6
850	3
855	5
900	3
905	3
910	4
915	3
920	5
925	0
930	5
935	4
940	0
945	6
950	6
955	5
1000	3

	Queue Lengths (Vehicles)
TIME	Stationary
1500	0
1505	3
1510	0
1515	2
1520	3
1525	3
1530	4
1535	2
1540	5
1545	2
1550	0
1555	3
1600	3
1605	3
1610	4
1615	4
1620	0
1625	3
1630	0
1635	2
1640	2
1645	0
1650	3
1655	0
1700	4
1705	2
1710	0
1715	0
1720	2
1725	2
1730	0
1735	5
1740	2
1745	0
1750	3
1755	3
1800	2
1805	2
1810	2
1815	3
1820	2
1825	0
1830	2
1835	2
1840	3
1845	0
1850	0
1855	2
1900	0



Caerleon - Thursday 14th November 2019

Junction: High Street/Station Road/Usk Road/Mill Street

Approach: Usk Road

	Left Turn				Southbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	19	0	0	**19**	0	0	0	**0**	18	0	0	**18**
0715 - 0730	22	0	1	**23**	0	0	0	**0**	19	0	0	**19**
0730 - 0745	17	0	0	**17**	0	0	0	**0**	21	0	0	**21**
0745 - 0800	26	0	1	**27**	0	0	0	**0**	22	0	0	**22**
Hourly Total	**84**	**0**	**2**	**86**	**0**	**0**	**0**	**0**	**80**	**0**	**0**	**80**
0800 - 0815	24	0	1	**25**	0	0	0	**0**	25	0	0	**25**
0815 - 0830	27	0	1	**28**	0	0	0	**0**	27	0	0	**27**
0830 - 0845	29	0	0	**29**	0	0	0	**0**	19	0	0	**19**
0845 - 0900	21	0	0	**21**	0	0	0	**0**	26	0	0	**26**
Hourly Total	**101**	**0**	**2**	**103**	**0**	**0**	**0**	**0**	**97**	**0**	**0**	**97**
0900 - 0915	19	0	0	**19**	0	0	0	**0**	22	0	0	**22**
0915 - 0930	22	0	1	**23**	0	0	0	**0**	21	0	0	**21**
0930 - 0945	21	0	0	**21**	0	0	0	**0**	18	0	0	**18**
0945 - 1000	18	0	1	**19**	0	0	0	**0**	13	0	0	**13**
Hourly Total	**80**	**0**	**2**	**82**	**0**	**0**	**0**	**0**	**74**	**0**	**0**	**74**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**265**	**0**	**6**	**271**	**0**	**0**	**0**	**0**	**251**	**0**	**0**	**251**

	Left Turn				Southbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	17	0	1	**18**	0	0	0	**0**	13	0	0	**13**
1515 - 1530	19	0	0	**19**	0	0	0	**0**	19	0	0	**19**
1530 - 1545	20	0	1	**21**	0	0	0	**0**	11	0	0	**11**
1545 - 1600	24	0	0	**24**	0	0	0	**0**	16	0	0	**16**
Hourly Total	**80**	**0**	**2**	**82**	**0**	**0**	**0**	**0**	**59**	**0**	**0**	**59**
1600 - 1615	22	0	1	**23**	0	0	0	**0**	21	0	0	**21**
1615 - 1630	21	0	0	**21**	0	0	0	**0**	25	0	0	**25**
1630 - 1645	26	0	0	**26**	0	0	0	**0**	22	0	0	**22**
1645 - 1700	18	0	1	**19**	0	0	0	**0**	18	0	0	**18**
Hourly Total	**87**	**0**	**2**	**89**	**0**	**0**	**0**	**0**	**86**	**0**	**0**	**86**
1700 - 1715	23	0	0	**23**	0	0	0	**0**	24	0	0	**24**
1715 - 1730	27	0	0	**27**	0	0	0	**0**	28	0	0	**28**
1730 - 1745	22	0	0	**22**	0	0	0	**0**	23	0	0	**23**
1745 - 1800	25	0	0	**25**	0	0	0	**0**	26	0	0	**26**
Hourly Total	**97**	**0**	**0**	**97**	**0**	**0**	**0**	**0**	**101**	**0**	**0**	**101**
1800 - 1815	18	0	0	**18**	0	0	0	**0**	18	0	0	**18**
1815 - 1830	18	0	1	**19**	0	0	0	**0**	20	0	0	**20**
1830 - 1845	17	0	0	**17**	0	0	0	**0**	21	0	0	**21**
1845 - 1900	15	0	0	**15**	0	0	0	**0**	14	0	0	**14**
Hourly Total	**68**	**0**	**1**	**69**	**0**	**0**	**0**	**0**	**73**	**0**	**0**	**73**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**332**	**0**	**5**	**337**	**0**	**0**	**0**	**0**	**319**	**0**	**0**	**319**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	0
705	2
710	0
715	0
720	0
725	2
730	0
735	0
740	2
745	0
750	3
755	0
800	2
805	0
810	0
815	2
820	2
825	3
830	2
835	0
840	2
845	3
850	0
855	3
900	3
905	0
910	2
915	0
920	0
925	2
930	3
935	2
940	0
945	2
950	2
955	2
1000	0

	Queue Lengths (Vehicles)
TIME	Stationary
1500	3
1505	0
1510	2
1515	2
1520	2
1525	3
1530	0
1535	2
1540	2
1545	3
1550	0
1555	0
1600	2
1605	2
1610	0
1615	3
1620	0
1625	3
1630	4
1635	0
1640	2
1645	0
1650	2
1655	2
1700	2
1705	0
1710	3
1715	4
1720	2
1725	0
1730	4
1735	2
1740	0
1745	2
1750	2
1755	0
1800	0
1805	0
1810	3
1815	2
1820	2
1825	4
1830	2
1835	0
1840	2
1845	2
1850	0
1855	2
1900	0



Carleon - Tuesday 15th October 2019

Junction: New Road/B4596/High Street

Approach: New Road

	Left Turn				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	1	0	0	**1**	31	0	0	**31**
0715 - 0730	2	0	0	**2**	32	0	0	**32**
0730 - 0745	2	0	0	**2**	47	0	0	**47**
0745 - 0800	2	0	0	**2**	62	0	0	**62**
Hourly Total	**7**	**0**	**0**	**7**	**172**	**0**	**0**	**172**
0800 - 0815	2	0	0	**2**	68	0	0	**68**
0815 - 0830	6	0	0	**6**	78	1	0	**79**
0830 - 0845	4	0	0	**4**	63	0	1	**64**
0845 - 0900	6	0	0	**6**	62	0	1	**63**
Hourly Total	**18**	**0**	**0**	**18**	**271**	**1**	**2**	**274**
0900 - 0915	4	0	0	**4**	55	0	0	**55**
0915 - 0930	3	0	0	**3**	49	0	0	**49**
0930 - 0945	4	0	0	**4**	43	0	0	**43**
0945 - 1000	2	0	0	**2**	50	1	0	**51**
Hourly Total	**13**	**0**	**0**	**13**	**197**	**1**	**0**	**198**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**38**	**0**	**0**	**38**	**640**	**2**	**2**	**644**

	Left Turn				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	4	0	0	**4**	78	0	0	**78**
1515 - 1530	6	0	0	**6**	94	0	0	**94**
1530 - 1545	8	0	0	**8**	92	1	0	**93**
1545 - 1600	7	0	0	**7**	101	0	0	**101**
Hourly Total	**25**	**0**	**0**	**25**	**365**	**1**	**0**	**366**
1600 - 1615	9	0	0	**9**	80	0	0	**80**
1615 - 1630	6	0	0	**6**	96	0	0	**96**
1630 - 1645	9	0	0	**9**	86	0	0	**86**
1645 - 1700	11	0	0	**11**	90	1	0	**91**
Hourly Total	**35**	**0**	**0**	**35**	**352**	**1**	**0**	**353**
1700 - 1715	5	0	0	**5**	80	1	0	**81**
1715 - 1730	10	0	0	**10**	93	0	0	**93**
1730 - 1745	4	0	0	**4**	100	1	0	**101**
1745 - 1800	2	0	0	**2**	100	0	0	**100**
Hourly Total	**21**	**0**	**0**	**21**	**373**	**2**	**0**	**375**
1800 - 1815	2	0	0	**2**	84	0	0	**84**
1815 - 1830	9	0	0	**9**	95	0	0	**95**
1830 - 1845	5	0	0	**5**	91	0	0	**91**
1845 - 1900	4	0	0	**4**	67	0	0	**67**
Hourly Total	**20**	**0**	**0**	**20**	**337**	**0**	**0**	**337**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**101**	**0**	**0**	**101**	**1427**	**4**	**0**	**1431**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	2
705	0
710	3
715	3
720	3
725	5
730	0
735	4
740	4
745	0
750	5
755	3
800	5
805	7
810	5
815	4
820	5
825	10
830	12
835	11
840	14
845	20
850	16
855	8
900	5
905	3
910	3
915	3
920	2
925	2
930	2
935	3
940	2
945	0
950	4
955	2
1000	0

	Queue Lengths (Vehicles)
TIME	Stationary
1500	2
1505	3
1510	5
1515	3
1520	4
1525	4
1530	5
1535	6
1540	8
1545	8
1550	7
1555	8
1600	9
1605	8
1610	10
1615	6
1620	7
1625	6
1630	6
1635	2
1640	4
1645	5
1650	5
1655	5
1700	6
1705	4
1710	7
1715	13
1720	11
1725	17
1730	19
1735	19
1740	15
1745	18
1750	20
1755	24
1800	16
1805	11
1810	8
1815	6
1820	5
1825	5
1830	4
1835	5
1840	6
1845	4
1850	3
1855	3
1900	4



Carleon - Tuesday 15th October 2019

Junction: New Road/B4596/High Street

Approach: B4596

	Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	44	0	1	**45**	1	0	0	**1**
0715 - 0730	41	0	1	**42**	2	0	0	**2**
0730 - 0745	48	1	1	**50**	2	0	0	**2**
0745 - 0800	66	0	1	**67**	4	0	0	**4**
Hourly Total	**199**	**1**	**4**	**204**	**9**	**0**	**0**	**9**
0800 - 0815	85	2	1	**88**	5	0	0	**5**
0815 - 0830	82	1	2	**85**	9	0	0	**9**
0830 - 0845	116	2	2	**120**	10	0	0	**10**
0845 - 0900	129	1	1	**131**	4	0	0	**4**
Hourly Total	**412**	**6**	**6**	**424**	**28**	**0**	**0**	**28**
0900 - 0915	91	1	1	**93**	3	0	0	**3**
0915 - 0930	66	0	1	**67**	3	0	0	**3**
0930 - 0945	55	1	1	**57**	3	0	0	**3**
0945 - 1000	52	0	1	**53**	6	0	0	**6**
Hourly Total	**264**	**2**	**4**	**270**	**15**	**0**	**0**	**15**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**875**	**9**	**14**	**898**	**52**	**0**	**0**	**52**

	Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	59	0	2	**61**	3	0	0	**3**
1515 - 1530	66	1	0	**67**	2	0	0	**2**
1530 - 1545	82	0	1	**83**	7	0	0	**7**
1545 - 1600	89	0	1	**90**	4	0	0	**4**
Hourly Total	**296**	**1**	**4**	**301**	**16**	**0**	**0**	**16**
1600 - 1615	102	1	1	**104**	3	0	0	**3**
1615 - 1630	95	0	1	**96**	3	0	0	**3**
1630 - 1645	93	0	1	**94**	3	0	0	**3**
1645 - 1700	97	0	2	**99**	7	0	0	**7**
Hourly Total	**387**	**1**	**5**	**393**	**16**	**0**	**0**	**16**
1700 - 1715	107	0	2	**109**	9	0	0	**9**
1715 - 1730	107	1	0	**108**	4	0	0	**4**
1730 - 1745	97	0	1	**98**	8	0	0	**8**
1745 - 1800	85	0	1	**86**	7	0	0	**7**
Hourly Total	**396**	**1**	**4**	**401**	**28**	**0**	**0**	**28**
1800 - 1815	107	0	2	**109**	4	0	0	**4**
1815 - 1830	76	0	1	**77**	7	0	0	**7**
1830 - 1845	78	0	1	**79**	3	0	0	**3**
1845 - 1900	67	0	0	**67**	6	0	0	**6**
Hourly Total	**328**	**0**	**4**	**332**	**20**	**0**	**0**	**20**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**1407**	**3**	**17**	**1427**	**80**	**0**	**0**	**80**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	0
705	0
710	0
715	0
720	0
725	0
730	0
735	0
740	0
745	0
750	0
755	0
800	0
805	0
810	0
815	2
820	6
825	4
830	5
835	4
840	2
845	7
850	3
855	2
900	3
905	2
910	0
915	2
920	0
925	0
930	0
935	0
940	0
945	0
950	0
955	0
1000	0

Caused By Right Turns

	Queue Lengths (Vehicles)
TIME	Stationary
1500	0
1505	0
1510	0
1515	3
1520	0
1525	0
1530	0
1535	0
1540	0
1545	2
1550	0
1555	2
1600	0
1605	2
1610	0
1615	0
1620	0
1625	0
1630	0
1635	0
1640	0
1645	3
1650	0
1655	0
1700	3
1705	0
1710	2
1715	3
1720	0
1725	2
1730	3
1735	3
1740	0
1745	4
1750	2
1755	0
1800	0
1805	2
1810	0
1815	2
1820	3
1825	0
1830	0
1835	0
1840	2
1845	0
1850	2
1855	0
1900	0



Carleon - Tuesday 15th October 2019

Junction: New Road/B4596/High Street

Approach: High Street

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Left Turn				Southbound			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	60	0	0	**60**	53	1	1	**55**
0715 - 0730	70	0	0	**70**	91	0	0	**91**
0730 - 0745	77	0	0	**77**	80	1	2	**83**
0745 - 0800	82	0	0	**82**	74	1	1	**76**
Hourly Total	**289**	**0**	**0**	**289**	**298**	**3**	**4**	**305**
0800 - 0815	90	0	0	**90**	72	0	2	**74**
0815 - 0830	97	0	0	**97**	77	0	2	**79**
0830 - 0845	113	0	0	**113**	87	2	3	**92**
0845 - 0900	102	0	0	**102**	96	1	1	**98**
Hourly Total	**402**	**0**	**0**	**402**	**332**	**3**	**8**	**343**
0900 - 0915	84	0	0	**84**	91	2	1	**94**
0915 - 0930	95	1	0	**96**	81	1	1	**83**
0930 - 0945	84	1	0	**85**	74	0	1	**75**
0945 - 1000	74	1	0	**75**	66	0	1	**67**
Hourly Total	**337**	**3**	**0**	**340**	**312**	**3**	**4**	**319**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**1028**	**3**	**0**	**1031**	**942**	**9**	**16**	**967**

	Left Turn				Southbound			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	39	0	0	**39**	39	0	1	**40**
1515 - 1530	44	0	0	**44**	47	0	0	**47**
1530 - 1545	45	0	0	**45**	50	1	1	**52**
1545 - 1600	48	0	0	**48**	53	1	2	**56**
Hourly Total	**176**	**0**	**0**	**176**	**189**	**2**	**4**	**195**
1600 - 1615	41	0	0	**41**	44	0	1	**45**
1615 - 1630	50	0	0	**50**	50	0	1	**51**
1630 - 1645	53	0	0	**53**	59	0	1	**60**
1645 - 1700	56	0	0	**56**	54	0	1	**55**
Hourly Total	**200**	**0**	**0**	**200**	**207**	**0**	**4**	**211**
1700 - 1715	58	0	0	**58**	74	0	1	**75**
1715 - 1730	68	0	0	**68**	76	1	1	**78**
1730 - 1745	69	0	0	**69**	74	0	1	**75**
1745 - 1800	64	0	0	**64**	53	0	1	**54**
Hourly Total	**259**	**0**	**0**	**259**	**277**	**1**	**4**	**282**
1800 - 1815	55	0	0	**55**	57	0	1	**58**
1815 - 1830	72	0	0	**72**	75	0	0	**75**
1830 - 1845	68	0	0	**68**	58	0	0	**58**
1845 - 1900	57	0	0	**57**	51	0	0	**51**
Hourly Total	**252**	**0**	**0**	**252**	**241**	**0**	**1**	**242**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**887**	**0**	**0**	**887**	**914**	**3**	**13**	**930**

	Queue Lengths (Vehicles)
TIME	Stationary
700	0
705	0
710	0
715	0
720	0
725	0
730	0
735	0
740	0
745	0
750	0
755	0
800	0
805	0
810	0
815	0
820	0
825	0
830	0
835	0
840	0
845	0
850	0
855	0
900	0
905	0
910	0
915	0
920	0
925	0
930	0
935	0
940	0
945	0
950	0
955	0
1000	0

	Queue Lengths (Vehicles)
TIME	Stationary
1500	0
1505	0
1510	0
1515	0
1520	0
1525	0
1530	0
1535	0
1540	0
1545	0
1550	0
1555	0
1600	0
1605	0
1610	0
1615	0
1620	0
1625	0
1630	0
1635	0
1640	0
1645	0
1650	0
1655	0
1700	0
1705	0
1710	0
1715	0
1720	0
1725	0
1730	0
1735	0
1740	0
1745	0
1750	0
1755	0
1800	0
1805	0
1810	0
1815	0
1820	0
1825	0
1830	0
1835	0
1840	0
1845	0
1850	0
1855	0
1900	0



Carleon - Wednesday 13th November 2019

Junction: New Road/B4596/High Street

Approach: New Road

	Left Turn				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	4	0	0	**4**	36	0	0	**36**
0715 - 0730	2	0	0	**2**	38	0	0	**38**
0730 - 0745	3	0	0	**3**	49	0	0	**49**
0745 - 0800	2	0	0	**2**	57	0	0	**57**
Hourly Total	**11**	**0**	**0**	**11**	**180**	**0**	**0**	**180**
0800 - 0815	6	0	0	**6**	65	1	0	**66**
0815 - 0830	4	0	0	**4**	81	0	2	**83**
0830 - 0845	7	0	0	**7**	59	0	1	**60**
0845 - 0900	8	0	0	**8**	39	0	0	**39**
Hourly Total	**25**	**0**	**0**	**25**	**244**	**1**	**3**	**248**
0900 - 0915	5	0	0	**5**	36	1	0	**37**
0915 - 0930	4	0	0	**4**	46	2	0	**48**
0930 - 0945	4	0	0	**4**	38	0	0	**38**
0945 - 1000	3	0	0	**3**	40	0	0	**40**
Hourly Total	**16**	**0**	**0**	**16**	**160**	**3**	**0**	**163**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**52**	**0**	**0**	**52**	**584**	**4**	**3**	**591**

	Left Turn				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	3	0	0	**3**	48	0	0	**48**
1515 - 1530	5	0	0	**5**	55	0	0	**55**
1530 - 1545	8	0	0	**8**	56	0	0	**56**
1545 - 1600	5	0	0	**5**	61	0	0	**61**
Hourly Total	**21**	**0**	**0**	**21**	**220**	**0**	**0**	**220**
1600 - 1615	6	0	0	**6**	65	0	0	**65**
1615 - 1630	8	0	0	**8**	73	0	0	**73**
1630 - 1645	10	0	0	**10**	68	0	0	**68**
1645 - 1700	11	0	0	**11**	71	0	0	**71**
Hourly Total	**35**	**0**	**0**	**35**	**277**	**0**	**0**	**277**
1700 - 1715	7	0	0	**7**	95	0	0	**95**
1715 - 1730	9	0	0	**9**	78	0	0	**78**
1730 - 1745	10	0	0	**10**	84	0	0	**84**
1745 - 1800	6	0	0	**6**	89	0	0	**89**
Hourly Total	**32**	**0**	**0**	**32**	**346**	**0**	**0**	**346**
1800 - 1815	4	0	0	**4**	107	0	0	**107**
1815 - 1830	3	0	0	**3**	109	0	0	**109**
1830 - 1845	4	0	0	**4**	98	0	0	**98**
1845 - 1900	2	0	0	**2**	94	0	0	**94**
Hourly Total	**13**	**0**	**0**	**13**	**408**	**0**	**0**	**408**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**101**	**0**	**0**	**101**	**1251**	**0**	**0**	**1251**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	3
705	2
710	0
715	3
720	2
725	0
730	2
735	4
740	3
745	5
750	5
755	5
800	3
805	7
810	12
815	6
820	8
825	5
830	5
835	11
840	7
845	6
850	0
855	3
900	0
905	0
910	0
915	4
920	0
925	8
930	2
935	0
940	3
945	3
950	4
955	2
1000	0

	Queue Lengths (Vehicles)
TIME	Stationary
1500	2
1505	3
1510	0
1515	2
1520	2
1525	4
1530	0
1535	2
1540	2
1545	6
1550	5
1555	4
1600	5
1605	6
1610	5
1615	8
1620	8
1625	6
1630	5
1635	6
1640	7
1645	11
1650	6
1655	13
1700	15
1705	9
1710	10
1715	9
1720	9
1725	10
1730	15
1735	11
1740	16
1745	18
1750	19
1755	12
1800	14
1805	12
1810	16
1815	15
1820	15
1825	18
1830	12
1835	15
1840	11
1845	9
1850	10
1855	6
1900	6



Carleon - Wednesday 13th November 2019

Junction: New Road/B4596/High Street

Approach: B4596

	Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	44	0	1	**45**	3	0	0	**3**
0715 - 0730	49	0	1	**50**	1	0	0	**1**
0730 - 0745	56	0	1	**57**	2	0	0	**2**
0745 - 0800	68	0	1	**69**	4	0	0	**4**
Hourly Total	**217**	**0**	**4**	**221**	**10**	**0**	**0**	**10**
0800 - 0815	66	0	1	**67**	5	0	0	**5**
0815 - 0830	57	1	2	**60**	3	0	0	**3**
0830 - 0845	84	1	1	**86**	5	0	0	**5**
0845 - 0900	61	0	2	**63**	6	0	0	**6**
Hourly Total	**268**	**2**	**6**	**276**	**19**	**0**	**0**	**19**
0900 - 0915	47	1	2	**50**	3	0	0	**3**
0915 - 0930	49	1	1	**51**	8	0	0	**8**
0930 - 0945	39	0	2	**41**	6	0	0	**6**
0945 - 1000	33	0	1	**34**	2	0	0	**2**
Hourly Total	**168**	**2**	**6**	**176**	**19**	**0**	**0**	**19**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**653**	**4**	**16**	**673**	**48**	**0**	**0**	**48**

	Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	76	0	1	**77**	3	0	0	**3**
1515 - 1530	77	0	1	**78**	6	0	0	**6**
1530 - 1545	83	1	1	**85**	2	0	0	**2**
1545 - 1600	88	0	2	**90**	3	0	0	**3**
Hourly Total	**324**	**1**	**5**	**330**	**14**	**0**	**0**	**14**
1600 - 1615	81	1	1	**83**	3	0	0	**3**
1615 - 1630	89	0	1	**90**	3	0	0	**3**
1630 - 1645	81	0	1	**82**	6	0	0	**6**
1645 - 1700	106	1	2	**109**	4	0	0	**4**
Hourly Total	**357**	**2**	**5**	**364**	**16**	**0**	**0**	**16**
1700 - 1715	86	1	1	**88**	4	0	0	**4**
1715 - 1730	114	0	1	**115**	5	0	0	**5**
1730 - 1745	96	1	2	**99**	4	0	0	**4**
1745 - 1800	102	0	1	**103**	3	0	0	**3**
Hourly Total	**398**	**2**	**5**	**405**	**16**	**0**	**0**	**16**
1800 - 1815	87	0	1	**88**	6	0	0	**6**
1815 - 1830	91	0	1	**92**	2	0	0	**2**
1830 - 1845	77	0	1	**78**	3	0	0	**3**
1845 - 1900	72	0	1	**73**	2	0	0	**2**
Hourly Total	**327**	**0**	**4**	**331**	**13**	**0**	**0**	**13**
	Lights	HGV	Bus/Coach	**TOTAL**	Lights	HGV	Bus/Coach	**TOTAL**
TOTAL	**1406**	**5**	**19**	**1430**	**59**	**0**	**0**	**59**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	0
705	0
710	0
715	0
720	0
725	0
730	0
735	0
740	0
745	0
750	0
755	0
800	0
805	4
810	0
815	0
820	0
825	0
830	3
835	0
840	2
845	2
850	0
855	3
900	0
905	0
910	0
915	0
920	0
925	0
930	0
935	0
940	0
945	0
950	0
955	0
1000	0

	Queue Lengths (Vehicles)
TIME	Stationary
1500	0
1505	0
1510	0
1515	0
1520	0
1525	0
1530	0
1535	0
1540	0
1545	0
1550	0
1555	0
1600	0
1605	0
1610	0
1615	0
1620	0
1625	0
1630	0
1635	0
1640	0
1645	0
1650	0
1655	0
1700	0
1705	0
1710	0
1715	0
1720	0
1725	0
1730	0
1735	0
1740	0
1745	0
1750	0
1755	0
1800	0
1805	0
1810	0
1815	0
1820	0
1825	0
1830	0
1835	0
1840	0
1845	0
1850	0
1855	0
1900	0



Carleon - Wednesday 13th November 2019

Junction: New Road/B4596/High Street

Approach: High Street

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Left Turn				Southbound			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	62	0	0	**62**	58	0	0	**58**
0715 - 0730	79	1	0	**80**	66	0	0	**66**
0730 - 0745	85	0	0	**85**	65	0	0	**65**
0745 - 0800	83	0	0	**83**	74	1	0	**75**
Hourly Total	**309**	**1**	**0**	**310**	**263**	**1**	**0**	**264**
0800 - 0815	97	0	0	**97**	72	0	2	**74**
0815 - 0830	106	0	0	**106**	80	0	2	**82**
0830 - 0845	94	0	0	**94**	82	0	1	**83**
0845 - 0900	91	0	0	**91**	98	1	2	**101**
Hourly Total	**388**	**0**	**0**	**388**	**332**	**1**	**7**	**340**
0900 - 0915	107	2	0	**109**	115	1	1	**117**
0915 - 0930	95	0	0	**95**	100	2	1	**103**
0930 - 0945	88	0	0	**88**	95	0	0	**95**
0945 - 1000	87	1	0	**88**	89	0	0	**89**
Hourly Total	**377**	**3**	**0**	**380**	**399**	**3**	**2**	**404**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**1074**	**4**	**0**	**1078**	**994**	**5**	**9**	**1008**

	Left Turn				Southbound			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	45	0	0	**45**	48	0	1	**49**
1515 - 1530	49	0	0	**49**	45	1	1	**47**
1530 - 1545	52	0	0	**52**	51	0	0	**51**
1545 - 1600	47	0	0	**47**	50	1	0	**51**
Hourly Total	**193**	**0**	**0**	**193**	**194**	**2**	**2**	**198**
1600 - 1615	63	0	0	**63**	56	0	0	**56**
1615 - 1630	75	0	0	**75**	59	1	1	**61**
1630 - 1645	82	0	0	**82**	63	0	1	**64**
1645 - 1700	63	0	0	**63**	65	1	3	**69**
Hourly Total	**283**	**0**	**0**	**283**	**243**	**2**	**5**	**250**
1700 - 1715	73	0	0	**73**	90	2	2	**94**
1715 - 1730	67	0	0	**67**	65	0	1	**66**
1730 - 1745	59	0	0	**59**	63	0	1	**64**
1745 - 1800	45	0	0	**45**	62	0	3	**65**
Hourly Total	**244**	**0**	**0**	**244**	**280**	**2**	**7**	**289**
1800 - 1815	54	0	0	**54**	64	0	2	**66**
1815 - 1830	46	0	0	**46**	50	0	1	**51**
1830 - 1845	44	0	0	**44**	48	0	1	**49**
1845 - 1900	38	0	0	**38**	44	0	1	**45**
Hourly Total	**182**	**0**	**0**	**182**	**206**	**0**	**5**	**211**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**902**	**0**	**0**	**902**	**923**	**6**	**19**	**948**

	Queue Lengths (Vehicles)
TIME	Stationary
700	0
705	0
710	0
715	0
720	0
725	0
730	0
735	0
740	0
745	0
750	0
755	0
800	0
805	0
810	0
815	0
820	0
825	0
830	0
835	0
840	0
845	0
850	0
855	0
900	0
905	0
910	0
915	0
920	0
925	0
930	0
935	0
940	0
945	0
950	0
955	0
1000	0

	Queue Lengths (Vehicles)
TIME	Stationary
1500	0
1505	0
1510	0
1515	0
1520	0
1525	0
1530	0
1535	0
1540	0
1545	0
1550	0
1555	0
1600	0
1605	0
1610	0
1615	0
1620	0
1625	0
1630	0
1635	0
1640	0
1645	0
1650	0
1655	0
1700	0
1705	0
1710	0
1715	0
1720	0
1725	0
1730	0
1735	0
1740	0
1745	0
1750	0
1755	0
1800	0
1805	0
1810	0
1815	0
1820	0
1825	0
1830	0
1835	0
1840	0
1845	0
1850	0
1855	0
1900	0



Carleon - Tuesday 12th November 2019

Junction: High Street/Station Road/Usk Road/Mill Street

Approach: High Street

	Left Turn				Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	31	1	0	**32**	8	0	1	**9**	66	0	1	**67**
0715 - 0730	39	2	1	**42**	11	0	0	**11**	73	0	0	**73**
0730 - 0745	44	0	1	**45**	15	0	1	**16**	69	0	1	**70**
0745 - 0800	46	1	0	**47**	9	0	0	**9**	89	1	2	**92**
Hourly Total	**160**	**4**	**2**	**166**	**43**	**0**	**2**	**45**	**297**	**1**	**4**	**302**
0800 - 0815	61	0	1	**62**	16	0	1	**17**	102	0	0	**102**
0815 - 0830	70	0	1	**71**	21	0	0	**21**	111	0	1	**112**
0830 - 0845	77	1	0	**78**	19	0	1	**20**	124	1	2	**127**
0845 - 0900	74	1	0	**75**	24	0	1	**25**	121	0	1	**122**
Hourly Total	**282**	**2**	**2**	**286**	**80**	**0**	**3**	**83**	**458**	**1**	**4**	**463**
0900 - 0915	83	0	2	**85**	22	0	0	**22**	116	0	0	**116**
0915 - 0930	67	1	1	**69**	17	0	0	**17**	120	0	1	**121**
0930 - 0945	49	0	2	**51**	16	0	1	**17**	95	0	1	**96**
0945 - 1000	51	0	1	**52**	19	0	0	**19**	103	0	1	**104**
Hourly Total	**250**	**1**	**6**	**257**	**74**	**0**	**1**	**75**	**434**	**0**	**3**	**437**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**692**	**7**	**10**	**709**	**197**	**0**	**6**	**203**	**1189**	**2**	**11**	**1202**

	Left Turn				Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	58	0	0	**58**	19	0	0	**19**	99	0	1	**100**
1515 - 1530	55	0	1	**56**	22	0	1	**23**	104	0	1	**105**
1530 - 1545	49	1	0	**50**	26	0	0	**26**	111	0	0	**111**
1545 - 1600	67	1	1	**69**	21	0	0	**21**	106	0	1	**107**
Hourly Total	**229**	**2**	**2**	**233**	**88**	**0**	**1**	**89**	**420**	**0**	**3**	**423**
1600 - 1615	63	0	2	**65**	28	0	0	**28**	99	0	0	**99**
1615 - 1630	68	1	1	**70**	25	0	1	**26**	85	0	1	**86**
1630 - 1645	69	0	1	**70**	24	0	0	**24**	71	0	1	**72**
1645 - 1700	87	1	0	**88**	35	0	0	**35**	74	0	1	**75**
Hourly Total	**287**	**2**	**4**	**293**	**112**	**0**	**1**	**113**	**329**	**0**	**3**	**332**
1700 - 1715	78	0	1	**79**	35	0	1	**36**	65	0	1	**66**
1715 - 1730	68	1	1	**70**	33	0	0	**33**	86	0	0	**86**
1730 - 1745	87	0	1	**88**	38	0	0	**38**	66	0	1	**67**
1745 - 1800	89	0	1	**90**	25	0	0	**25**	67	0	1	**68**
Hourly Total	**322**	**1**	**4**	**327**	**131**	**0**	**1**	**132**	**284**	**0**	**3**	**287**
1800 - 1815	78	0	1	**79**	30	0	1	**31**	70	0	1	**71**
1815 - 1830	72	0	0	**72**	31	0	0	**31**	80	0	0	**80**
1830 - 1845	67	0	1	**68**	28	0	0	**28**	77	0	1	**78**
1845 - 1900	61	0	0	**61**	24	0	0	**24**	62	0	1	**63**
Hourly Total	**278**	**0**	**2**	**280**	**113**	**0**	**1**	**114**	**289**	**0**	**3**	**292**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**1116**	**5**	**12**	**1133**	**444**	**0**	**4**	**448**	**1322**	**0**	**12**	**1334**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	3
705	3
710	2
715	5
720	4
725	3
730	2
735	5
740	4
745	3
750	6
755	3
800	3
805	3
810	2
815	3
820	3
825	4
830	2
835	2
840	2
845	4
850	6
855	3
900	2
905	3
910	2
915	0
920	2
925	2
930	3
935	2
940	3
945	3
950	2
955	2
1000	2

	Queue Lengths (Vehicles)
TIME	Stationary
1500	2
1505	3
1510	3
1515	2
1520	4
1525	3
1530	4
1535	2
1540	2
1545	5
1550	5
1555	3
1600	6
1605	5
1610	2
1615	3
1620	0
1625	2
1630	2
1635	7
1640	3
1645	5
1650	0
1655	2
1700	2
1705	4
1710	2
1715	0
1720	3
1725	2
1730	2
1735	5
1740	2
1745	3
1750	2
1755	0
1800	2
1805	3
1810	2
1815	0
1820	3
1825	2
1830	2
1835	2
1840	5
1845	2
1850	3
1855	2
1900	0



Carleon - Tuesday 12th November 2019

Junction: High Street/Station Road/Usk Road/Mill Street

Approach: Station Road

	Left Turn				Eastbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	8	0	0	**8**	68	0	0	**68**	0	0	0	**0**
0715 - 0730	11	1	0	**12**	77	1	0	**78**	0	0	0	**0**
0730 - 0745	9	0	0	**9**	74	0	1	**75**	0	0	0	**0**
0745 - 0800	10	1	0	**11**	98	2	1	**101**	0	0	0	**0**
Hourly Total	**38**	**2**	**0**	**40**	**317**	**3**	**2**	**322**	**0**	**0**	**0**	**0**
0800 - 0815	7	0	0	**7**	104	1	0	**105**	0	0	0	**0**
0815 - 0830	14	0	0	**14**	118	1	1	**120**	0	0	0	**0**
0830 - 0845	16	1	0	**17**	106	0	1	**107**	0	0	0	**0**
0845 - 0900	13	0	0	**13**	129	3	0	**132**	0	0	0	**0**
Hourly Total	**50**	**1**	**0**	**51**	**457**	**5**	**2**	**464**	**0**	**0**	**0**	**0**
0900 - 0915	13	0	0	**13**	95	0	1	**96**	0	0	0	**0**
0915 - 0930	9	1	0	**10**	90	1	0	**91**	0	0	0	**0**
0930 - 0945	15	0	0	**15**	77	2	0	**79**	0	0	0	**0**
0945 - 1000	12	0	0	**12**	82	1	1	**84**	0	0	0	**0**
Hourly Total	**49**	**1**	**0**	**50**	**344**	**4**	**2**	**350**	**0**	**0**	**0**	**0**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**137**	**4**	**0**	**141**	**1118**	**12**	**6**	**1136**	**0**	**0**	**0**	**0**

	Left Turn				Eastbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	12	0	0	**12**	68	0	0	**68**	0	0	0	**0**
1515 - 1530	19	0	0	**19**	77	1	1	**79**	0	0	0	**0**
1530 - 1545	11	0	0	**11**	72	0	0	**72**	0	0	0	**0**
1545 - 1600	16	0	0	**16**	74	1	1	**76**	0	0	0	**0**
Hourly Total	**58**	**0**	**0**	**58**	**291**	**2**	**2**	**295**	**0**	**0**	**0**	**0**
1600 - 1615	13	0	0	**13**	81	1	0	**82**	0	0	0	**0**
1615 - 1630	17	0	0	**17**	84	0	1	**85**	0	0	0	**0**
1630 - 1645	15	0	0	**15**	79	0	1	**80**	0	0	0	**0**
1645 - 1700	15	0	0	**15**	74	1	0	**75**	0	0	0	**0**
Hourly Total	**60**	**0**	**0**	**60**	**318**	**2**	**2**	**322**	**0**	**0**	**0**	**0**
1700 - 1715	14	0	0	**14**	67	0	1	**68**	0	0	0	**0**
1715 - 1730	15	0	0	**15**	81	1	0	**82**	0	0	0	**0**
1730 - 1745	29	0	0	**29**	69	0	0	**69**	0	0	0	**0**
1745 - 1800	13	0	0	**13**	57	0	1	**58**	0	0	0	**0**
Hourly Total	**71**	**0**	**0**	**71**	**274**	**1**	**2**	**277**	**0**	**0**	**0**	**0**
1800 - 1815	7	0	0	**7**	67	0	0	**67**	0	0	0	**0**
1815 - 1830	15	0	0	**15**	61	0	0	**61**	0	0	0	**0**
1830 - 1845	11	0	0	**11**	58	0	1	**59**	0	0	0	**0**
1845 - 1900	7	0	0	**7**	54	0	0	**54**	0	0	0	**0**
Hourly Total	**40**	**0**	**0**	**40**	**240**	**0**	**1**	**241**	**0**	**0**	**0**	**0**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**229**	**0**	**0**	**229**	**1123**	**5**	**7**	**1135**	**0**	**0**	**0**	**0**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	2
705	4
710	3
715	4
720	4
725	4
730	0
735	3
740	4
745	0
750	3
755	2
800	3
805	4
810	7
815	4
820	4
825	4
830	5
835	2
840	6
845	3
850	8
855	0
900	3
905	4
910	2
915	0
920	3
925	3
930	2
935	0
940	3
945	3
950	4
955	3
1000	2

	Queue Lengths (Vehicles)
TIME	Stationary
1500	0
1505	2
1510	4
1515	0
1520	3
1525	0
1530	0
1535	0
1540	2
1545	2
1550	2
1555	0
1600	3
1605	0
1610	0
1615	2
1620	0
1625	0
1630	2
1635	0
1640	4
1645	0
1650	3
1655	5
1700	4
1705	6
1710	3
1715	3
1720	4
1725	3
1730	0
1735	3
1740	3
1745	4
1750	6
1755	0
1800	2
1805	2
1810	0
1815	2
1820	0
1825	3
1830	2
1835	2
1840	2
1845	2
1850	3
1855	0
1900	0



Carleon - Tuesday 12th November 2019

Junction: High Street/Station Road/Usk Road/Mill Street

Approach: Usk Road

	Left Turn				Southbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	18	0	0	**18**	0	0	0	**0**	4	0	0	**4**
0715 - 0730	19	0	1	**20**	0	0	0	**0**	9	0	0	**9**
0730 - 0745	21	1	0	**22**	0	0	0	**0**	11	0	0	**11**
0745 - 0800	25	0	1	**26**	0	0	0	**0**	6	0	0	**6**
Hourly Total	**83**	**1**	**2**	**86**	**0**	**0**	**0**	**0**	**30**	**0**	**0**	**30**
0800 - 0815	27	0	0	**27**	0	0	0	**0**	18	0	0	**18**
0815 - 0830	22	1	1	**24**	0	0	0	**0**	10	0	0	**10**
0830 - 0845	29	0	1	**30**	0	0	0	**0**	16	0	0	**16**
0845 - 0900	21	0	0	**21**	0	0	0	**0**	21	0	0	**21**
Hourly Total	**99**	**1**	**2**	**102**	**0**	**0**	**0**	**0**	**65**	**0**	**0**	**65**
0900 - 0915	17	1	0	**18**	0	0	0	**0**	17	0	0	**17**
0915 - 0930	28	1	0	**29**	0	0	0	**0**	19	0	0	**19**
0930 - 0945	17	0	1	**18**	0	0	0	**0**	14	0	0	**14**
0945 - 1000	14	0	0	**14**	0	0	0	**0**	11	0	0	**11**
Hourly Total	**76**	**2**	**1**	**79**	**0**	**0**	**0**	**0**	**61**	**0**	**0**	**61**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**258**	**4**	**5**	**267**	**0**	**0**	**0**	**0**	**156**	**0**	**0**	**156**

	Left Turn				Southbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	18	1	1	**20**	0	0	0	**0**	9	0	0	**9**
1515 - 1530	15	0	0	**15**	0	0	0	**0**	11	1	0	**12**
1530 - 1545	19	0	1	**20**	0	0	0	**0**	12	0	0	**12**
1545 - 1600	21	0	0	**21**	0	0	0	**0**	17	0	0	**17**
Hourly Total	**73**	**1**	**2**	**76**	**0**	**0**	**0**	**0**	**49**	**1**	**0**	**50**
1600 - 1615	16	0	1	**17**	0	0	0	**0**	21	0	0	**21**
1615 - 1630	19	0	0	**19**	0	0	0	**0**	18	0	0	**18**
1630 - 1645	17	0	1	**18**	0	0	0	**0**	24	1	0	**25**
1645 - 1700	21	0	0	**21**	0	0	0	**0**	24	0	0	**24**
Hourly Total	**73**	**0**	**2**	**75**	**0**	**0**	**0**	**0**	**87**	**1**	**0**	**88**
1700 - 1715	22	0	0	**22**	0	0	0	**0**	26	0	0	**26**
1715 - 1730	23	1	1	**25**	0	0	0	**0**	31	0	0	**31**
1730 - 1745	24	0	1	**25**	0	0	0	**0**	25	0	0	**25**
1745 - 1800	22	0	0	**22**	0	0	0	**0**	21	0	0	**21**
Hourly Total	**91**	**1**	**2**	**94**	**0**	**0**	**0**	**0**	**103**	**0**	**0**	**103**
1800 - 1815	13	0	0	**13**	0	0	0	**0**	21	0	0	**21**
1815 - 1830	24	0	0	**24**	0	0	0	**0**	19	0	0	**19**
1830 - 1845	18	0	1	**19**	0	0	0	**0**	17	0	0	**17**
1845 - 1900	16	0	0	**16**	0	0	0	**0**	12	1	0	**13**
Hourly Total	**71**	**0**	**1**	**72**	**0**	**0**	**0**	**0**	**69**	**1**	**0**	**70**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**308**	**2**	**7**	**317**	**0**	**0**	**0**	**0**	**308**	**3**	**0**	**311**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	0
705	2
710	0
715	0
720	0
725	2
730	0
735	0
740	0
745	0
750	2
755	0
800	3
805	0
810	2
815	0
820	2
825	2
830	2
835	0
840	0
845	0
850	2
855	0
900	0
905	0
910	0
915	0
920	0
925	0
930	0
935	0
940	0
945	0
950	0
955	0
1000	0

	Queue Lengths (Vehicles)
TIME	Stationary
1500	0
1505	0
1510	0
1515	0
1520	2
1525	2
1530	0
1535	0
1540	3
1545	2
1550	2
1555	3
1600	0
1605	0
1610	2
1615	3
1620	0
1625	0
1630	2
1635	2
1640	3
1645	2
1650	3
1655	0
1700	2
1705	0
1710	0
1715	3
1720	0
1725	4
1730	0
1735	0
1740	2
1745	2
1750	0
1755	0
1800	0
1805	0
1810	2
1815	0
1820	0
1825	3
1830	2
1835	0
1840	2
1845	0
1850	0
1855	2
1900	0



Carleon - Wednesday 13th November 2019

Junction: High Street/Station Road/Usk Road/Mill Street

Approach: High Street

	Left Turn				Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	28	0	1	**29**	14	0	0	**14**	57	0	1	**58**
0715 - 0730	31	0	0	**31**	17	0	0	**17**	70	0	1	**71**
0730 - 0745	36	0	0	**36**	17	0	2	**19**	73	0	0	**73**
0745 - 0800	54	0	1	**55**	16	0	0	**16**	76	0	1	**77**
Hourly Total	**149**	**0**	**2**	**151**	**64**	**0**	**2**	**66**	**276**	**0**	**3**	**279**
0800 - 0815	56	0	1	**57**	21	0	0	**21**	115	0	1	**116**
0815 - 0830	58	0	0	**58**	15	0	0	**15**	125	0	3	**128**
0830 - 0845	48	1	1	**50**	13	0	1	**14**	90	0	0	**90**
0845 - 0900	45	1	0	**46**	24	0	0	**24**	124	0	2	**126**
Hourly Total	**207**	**2**	**2**	**211**	**73**	**0**	**1**	**74**	**454**	**0**	**6**	**460**
0900 - 0915	40	0	0	**40**	19	0	0	**19**	103	0	1	**104**
0915 - 0930	46	0	1	**47**	22	0	0	**22**	91	0	1	**92**
0930 - 0945	53	0	1	**54**	17	0	1	**18**	87	0	2	**89**
0945 - 1000	38	0	0	**38**	16	0	0	**16**	68	0	1	**69**
Hourly Total	**177**	**0**	**2**	**179**	**74**	**0**	**1**	**75**	**349**	**0**	**5**	**354**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**533**	**2**	**6**	**541**	**211**	**0**	**4**	**215**	**1079**	**0**	**14**	**1093**

	Left Turn				Northbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	53	1	0	**54**	20	0	1	**21**	83	0	0	**83**
1515 - 1530	54	0	1	**55**	19	0	0	**19**	88	0	1	**89**
1530 - 1545	60	0	1	**61**	24	0	0	**24**	104	0	1	**105**
1545 - 1600	62	0	0	**62**	26	0	1	**27**	99	0	0	**99**
Hourly Total	**229**	**1**	**2**	**232**	**89**	**0**	**2**	**91**	**374**	**0**	**2**	**376**
1600 - 1615	67	0	1	**68**	29	0	0	**29**	109	0	1	**110**
1615 - 1630	68	1	0	**69**	31	0	0	**31**	96	0	1	**97**
1630 - 1645	71	0	0	**71**	33	0	1	**34**	99	0	0	**99**
1645 - 1700	77	0	1	**78**	37	0	0	**37**	74	0	0	**74**
Hourly Total	**283**	**1**	**2**	**286**	**130**	**0**	**1**	**131**	**378**	**0**	**2**	**380**
1700 - 1715	64	0	0	**64**	28	0	0	**28**	67	0	0	**67**
1715 - 1730	86	0	1	**87**	24	0	0	**24**	84	0	2	**86**
1730 - 1745	88	0	0	**88**	30	0	1	**31**	73	0	0	**73**
1745 - 1800	83	1	0	**84**	31	0	0	**31**	77	0	1	**78**
Hourly Total	**321**	**1**	**1**	**323**	**113**	**0**	**1**	**114**	**301**	**0**	**3**	**304**
1800 - 1815	68	0	0	**68**	26	0	0	**26**	71	0	1	**72**
1815 - 1830	51	0	1	**52**	29	0	0	**29**	65	0	0	**65**
1830 - 1845	59	0	0	**59**	22	0	1	**23**	60	0	1	**61**
1845 - 1900	54	0	0	**54**	23	0	0	**23**	53	0	0	**53**
Hourly Total	**232**	**0**	**1**	**233**	**100**	**0**	**1**	**101**	**249**	**0**	**2**	**251**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**1065**	**3**	**6**	**1074**	**432**	**0**	**5**	**437**	**1302**	**0**	**9**	**1311**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

TIME	Queue Lengths (Vehicles) Stationary
700	4
705	4
710	3
715	6
720	5
725	6
730	7
735	7
740	7
745	0
750	6
755	5
800	4
805	0
810	4
815	5
820	3
825	0
830	3
835	2
840	3
845	7
850	9
855	12
900	10
905	9
910	9
915	6
920	8
925	5
930	5
935	6
940	3
945	4
950	5
955	6
1000	4

TIME	Queue Lengths (Vehicles) Stationary
1500	3
1505	3
1510	3
1515	2
1520	4
1525	2
1530	0
1535	3
1540	4
1545	4
1550	3
1555	2
1600	5
1605	2
1610	0
1615	3
1620	4
1625	3
1630	6
1635	5
1640	7
1645	7
1650	4
1655	0
1700	3
1705	5
1710	4
1715	3
1720	6
1725	0
1730	3
1735	3
1740	3
1745	4
1750	5
1755	2
1800	3
1805	0
1810	3
1815	2
1820	2
1825	0
1830	2
1835	0
1840	3
1845	3
1850	2
1855	3
1900	2



Carleon - Wednesday 13th November 2019

Junction: High Street/Station Road/Usk Road/Mill Street

Approach: Station Road

	Left Turn				Eastbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	4	0	0	**4**	61	1	0	**62**	0	0	0	**0**
0715 - 0730	3	1	0	**4**	66	0	0	**66**	0	0	0	**0**
0730 - 0745	4	0	0	**4**	72	1	1	**74**	0	0	0	**0**
0745 - 0800	6	1	0	**7**	82	1	1	**84**	0	0	0	**0**
Hourly Total	**17**	**2**	**0**	**19**	**281**	**3**	**2**	**286**	**0**	**0**	**0**	**0**
0800 - 0815	9	1	0	**10**	90	1	0	**91**	0	0	0	**0**
0815 - 0830	17	0	0	**17**	95	0	0	**95**	0	0	0	**0**
0830 - 0845	11	0	0	**11**	95	2	1	**98**	0	0	0	**0**
0845 - 0900	11	1	0	**12**	81	1	0	**82**	0	0	0	**0**
Hourly Total	**48**	**2**	**0**	**50**	**361**	**4**	**1**	**366**	**0**	**0**	**0**	**0**
0900 - 0915	13	0	0	**13**	79	0	1	**80**	0	0	0	**0**
0915 - 0930	9	0	0	**9**	75	0	0	**75**	0	0	0	**0**
0930 - 0945	6	0	0	**6**	76	0	1	**77**	0	0	0	**0**
0945 - 1000	6	0	0	**6**	67	1	0	**68**	0	0	0	**0**
Hourly Total	**34**	**0**	**0**	**34**	**297**	**1**	**2**	**300**	**0**	**0**	**0**	**0**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**99**	**4**	**0**	**103**	**939**	**8**	**5**	**952**	**0**	**0**	**0**	**0**

	Left Turn				Eastbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	9	0	0	**9**	60	2	0	**62**	0	0	0	**0**
1515 - 1530	14	0	0	**14**	66	0	1	**67**	0	0	0	**0**
1530 - 1545	11	0	0	**11**	73	1	1	**75**	0	0	0	**0**
1545 - 1600	16	1	0	**17**	69	0	0	**69**	0	0	0	**0**
Hourly Total	**50**	**1**	**0**	**51**	**268**	**3**	**2**	**273**	**0**	**0**	**0**	**0**
1600 - 1615	19	0	0	**19**	83	0	0	**83**	0	0	0	**0**
1615 - 1630	14	0	0	**14**	74	0	0	**74**	0	0	0	**0**
1630 - 1645	17	0	0	**17**	80	1	0	**81**	0	0	0	**0**
1645 - 1700	20	0	0	**20**	82	0	1	**83**	0	0	0	**0**
Hourly Total	**70**	**0**	**0**	**70**	**319**	**1**	**1**	**321**	**0**	**0**	**0**	**0**
1700 - 1715	13	0	0	**13**	75	0	0	**75**	0	0	0	**0**
1715 - 1730	8	0	0	**8**	71	0	0	**71**	0	0	0	**0**
1730 - 1745	16	0	0	**16**	68	0	1	**69**	0	0	0	**0**
1745 - 1800	17	0	0	**17**	73	0	0	**73**	0	0	0	**0**
Hourly Total	**54**	**0**	**0**	**54**	**287**	**0**	**1**	**288**	**0**	**0**	**0**	**0**
1800 - 1815	15	0	0	**15**	63	0	1	**64**	0	0	0	**0**
1815 - 1830	9	0	0	**9**	52	0	1	**53**	0	0	0	**0**
1830 - 1845	10	0	0	**10**	57	0	0	**57**	0	0	0	**0**
1845 - 1900	14	0	0	**14**	53	0	0	**53**	0	0	0	**0**
Hourly Total	**48**	**0**	**0**	**48**	**225**	**0**	**2**	**227**	**0**	**0**	**0**	**0**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**222**	**1**	**0**	**223**	**1099**	**4**	**6**	**1109**	**0**	**0**	**0**	**0**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	3
705	2
710	2
715	4
720	3
725	3
730	0
735	2
740	0
745	2
750	4
755	2
800	2
805	2
810	3
815	4
820	3
825	6
830	3
835	3
840	5
845	4
850	0
855	3
900	4
905	3
910	4
915	7
920	8
925	0
930	8
935	7
940	4
945	5
950	4
955	4
1000	5

	Queue Lengths (Vehicles)
TIME	Stationary
1500	2
1505	3
1510	3
1515	3
1520	2
1525	0
1530	0
1535	6
1540	2
1545	3
1550	4
1555	3
1600	0
1605	5
1610	2
1615	0
1620	3
1625	3
1630	4
1635	2
1640	3
1645	4
1650	0
1655	0
1700	3
1705	2
1710	0
1715	2
1720	2
1725	3
1730	2
1735	0
1740	3
1745	0
1750	0
1755	2
1800	2
1805	0
1810	3
1815	3
1820	4
1825	0
1830	0
1835	2
1840	5
1845	0
1850	2
1855	0
1900	0



Carleon - Wednesday 13th November 2019

Junction: High Street/Station Road/Usk Road/Mill Street

Approach: Usk Road

	Left Turn				Southbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
0700 - 0715	18	0	0	**18**	0	0	0	**0**	14	0	0	**14**
0715 - 0730	22	0	1	**23**	0	0	0	**0**	18	0	0	**18**
0730 - 0745	21	0	1	**22**	0	0	0	**0**	16	0	0	**16**
0745 - 0800	21	0	0	**21**	0	0	0	**0**	18	0	0	**18**
Hourly Total	**82**	**0**	**2**	**84**	**0**	**0**	**0**	**0**	**66**	**0**	**0**	**66**
0800 - 0815	27	0	1	**28**	0	0	0	**0**	16	0	0	**16**
0815 - 0830	34	0	1	**35**	0	0	0	**0**	21	0	0	**21**
0830 - 0845	22	0	0	**22**	0	0	0	**0**	32	0	0	**32**
0845 - 0900	24	0	0	**24**	0	0	0	**0**	17	0	0	**17**
Hourly Total	**107**	**0**	**2**	**109**	**0**	**0**	**0**	**0**	**86**	**0**	**0**	**86**
0900 - 0915	21	0	0	**21**	0	0	0	**0**	20	0	0	**20**
0915 - 0930	19	0	0	**19**	0	0	0	**0**	18	0	0	**18**
0930 - 0945	19	0	1	**20**	0	0	0	**0**	19	0	0	**19**
0945 - 1000	16	0	0	**16**	0	0	0	**0**	15	0	0	**15**
Hourly Total	**75**	**0**	**1**	**76**	**0**	**0**	**0**	**0**	**72**	**0**	**0**	**72**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**264**	**0**	**5**	**269**	**0**	**0**	**0**	**0**	**224**	**0**	**0**	**224**

	Left Turn				Southbound				Right Turn			
TIME	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
1500 - 1515	16	0	0	**16**	0	0	0	**0**	9	0	0	**9**
1515 - 1530	19	0	0	**19**	0	0	0	**0**	15	0	0	**15**
1530 - 1545	22	0	1	**23**	0	0	0	**0**	17	1	0	**18**
1545 - 1600	25	1	0	**26**	0	0	0	**0**	7	0	0	**7**
Hourly Total	**82**	**1**	**1**	**84**	**0**	**0**	**0**	**0**	**48**	**1**	**0**	**49**
1600 - 1615	21	0	0	**21**	0	0	0	**0**	12	0	0	**12**
1615 - 1630	16	0	1	**17**	0	0	0	**0**	16	0	0	**16**
1630 - 1645	19	0	0	**19**	0	0	0	**0**	19	0	0	**19**
1645 - 1700	22	0	0	**22**	0	0	0	**0**	21	0	0	**21**
Hourly Total	**78**	**0**	**1**	**79**	**0**	**0**	**0**	**0**	**68**	**0**	**0**	**68**
1700 - 1715	25	1	0	**26**	0	0	0	**0**	22	0	0	**22**
1715 - 1730	19	0	0	**19**	0	0	0	**0**	26	0	0	**26**
1730 - 1745	22	0	1	**23**	0	0	0	**0**	19	0	0	**19**
1745 - 1800	27	0	0	**27**	0	0	0	**0**	30	0	0	**30**
Hourly Total	**93**	**1**	**1**	**95**	**0**	**0**	**0**	**0**	**97**	**0**	**0**	**97**
1800 - 1815	18	0	1	**19**	0	0	0	**0**	25	0	0	**25**
1815 - 1830	15	0	0	**15**	0	0	0	**0**	18	0	0	**18**
1830 - 1845	8	0	0	**8**	0	0	0	**0**	17	0	0	**17**
1845 - 1900	11	0	0	**11**	0	0	0	**0**	15	0	0	**15**
Hourly Total	**52**	**0**	**1**	**53**	**0**	**0**	**0**	**0**	**75**	**0**	**0**	**75**
	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL	Lights	HGV	Bus/Coach	TOTAL
TOTAL	**305**	**2**	**4**	**311**	**0**	**0**	**0**	**0**	**288**	**1**	**0**	**289**

Queues Measured as Stationary Vehicles (Snapshot at 5 Min Period)

	Queue Lengths (Vehicles)
TIME	Stationary
700	2
705	0
710	2
715	0
720	0
725	0
730	0
735	0
740	0
745	3
750	0
755	2
800	3
805	4
810	6
815	0
820	2
825	4
830	2
835	2
840	5
845	0
850	2
855	4
900	3
905	2
910	2
915	0
920	2
925	2
930	0
935	3
940	2
945	0
950	2
955	2
1000	3

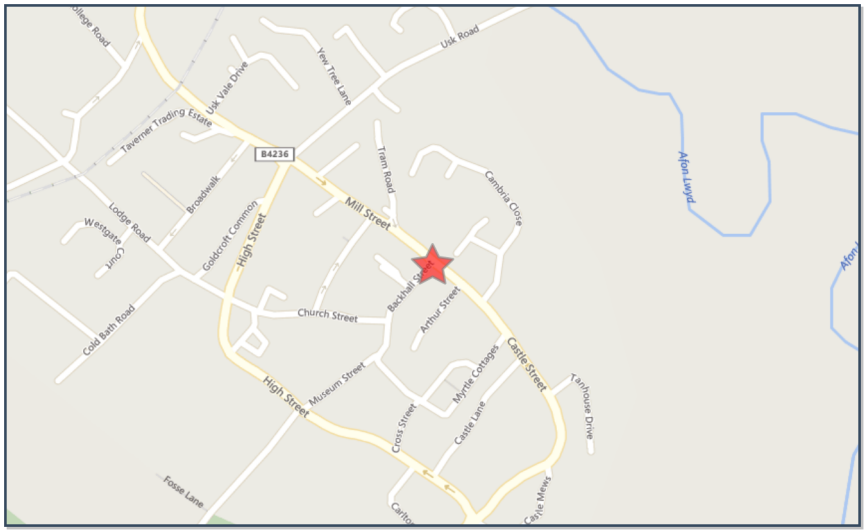
	Queue Lengths (Vehicles)
TIME	Stationary
1500	0
1505	0
1510	2
1515	0
1520	0
1525	0
1530	2
1535	0
1540	0
1545	2
1550	0
1555	3
1600	0
1605	2
1610	0
1615	2
1620	0
1625	2
1630	2
1635	2
1640	3
1645	0
1650	5
1655	2
1700	0
1705	3
1710	4
1715	2
1720	3
1725	0
1730	0
1735	2
1740	0
1745	2
1750	2
1755	0
1800	0
1805	0
1810	0
1815	3
1820	2
1825	3
1830	0
1835	2
1840	0
1845	0
1850	0
1855	2
1900	2



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Crash Date:	Thursday, January 30, 2014	**Time of Crash:**	9:49:00 AM	**Crash Reference:**	**2014610014014**

Highest Injury Severity:	Serious	**Road Number:**	B4236	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	2
Local Authority:	Newport			**OS Grid Reference:**	334114 190796
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Pedal cycle	-1	Male	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Other	None	None
1	Car (excluding private hire)	3	Male	Unknown	Vehicle is in the act of turning right	Offside	Commuting to/from work	None	None

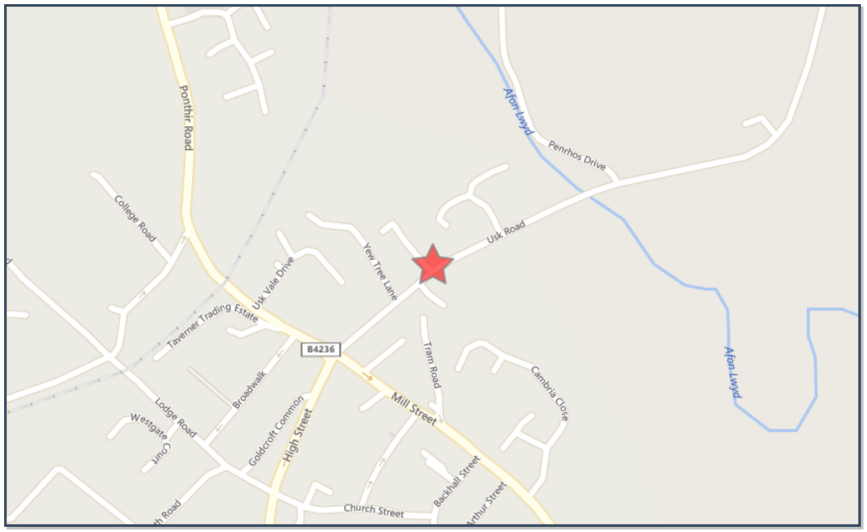
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Serious	Driver or rider	Male	36 - 45	Unknown or other	Unknown or other

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Crash Date:	Monday, June 02, 2014	**Time of Crash:**	4:20:00 PM	**Crash Reference:**	**2014610029614**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	2
Local Authority:	Newport			**OS Grid Reference:**	334050 191088
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Other junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Car (excluding private hire)	11	Male	56 - 65	Vehicle is in the act of turning left	Back	Other	None	None
1	Pedal cycle	-1	Male	11 - 15	Vehicle is in the act of turning left	Front	Pupil riding to/from school	None	None

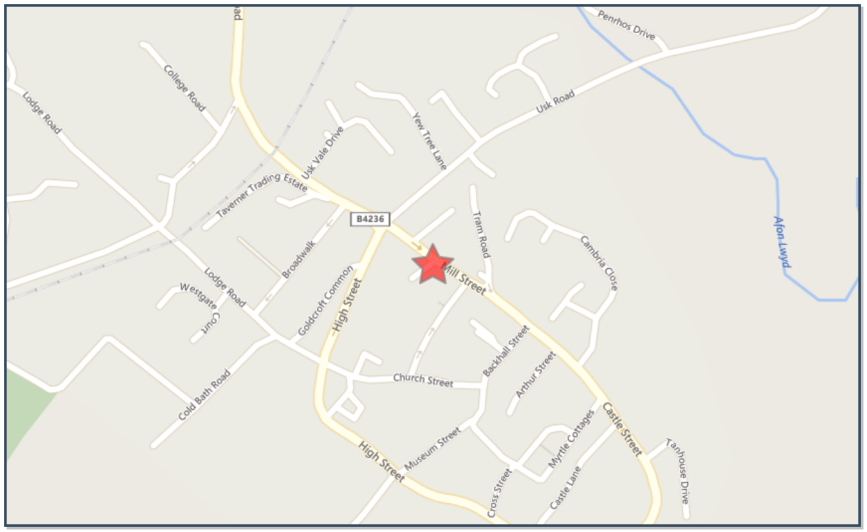
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	11 - 15	Unknown or other	Unknown or other

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Crash Date:	Saturday, October 25, 2014	**Time of Crash:**	12:17:00 PM	**Crash Reference:**	**2014610062914**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	1
Local Authority:	Newport			**OS Grid Reference:**	333973 190895
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	One way street				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	7	Male	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Other	None	None

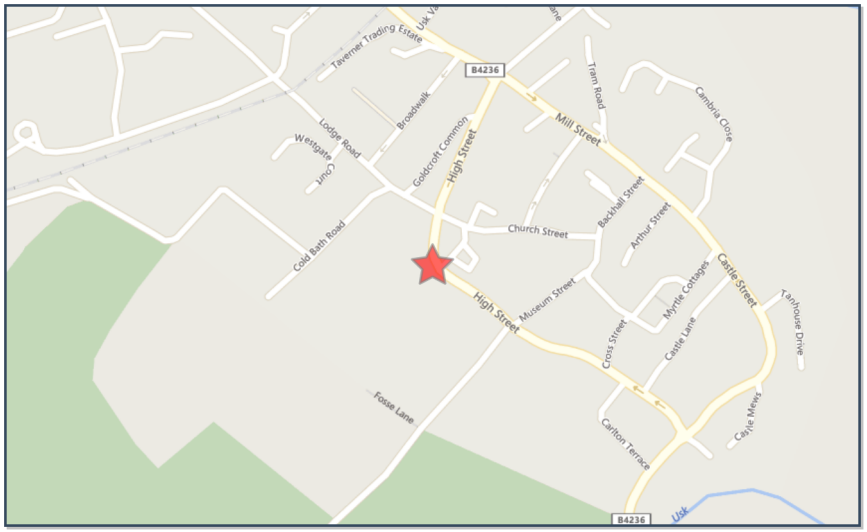
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Pedestrian	Female	Over 75	In carriageway, crossing elsewhere	Crossing from driver's offside

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Crash Date:	Tuesday, April 29, 2014	**Time of Crash:**	2:11:00 PM	**Crash Reference:**	**2014610087714**

Highest Injury Severity:	Slight	**Road Number:**	B4236	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	1
Local Authority:	Newport			**OS Grid Reference:**	333798 190675
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	Zebra crossing				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Minibus (8 - 16 passenger seats)	1	Male	66 - 75	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Journey as part of work	Kerb	Other permanent object

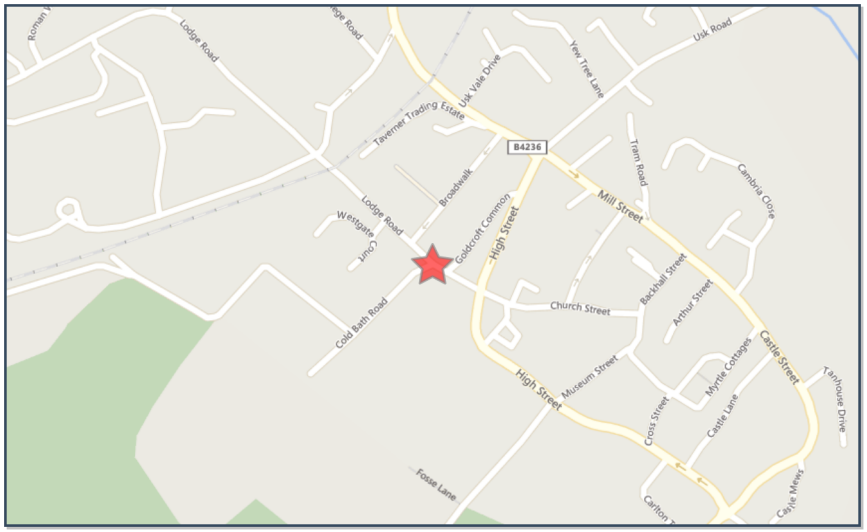
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	66 - 75	Unknown or other	Unknown or other

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Crash Date:	Tuesday, March 17, 2015	**Time of Crash:**	1:39:00 PM	**Crash Reference:**	**2015610012515**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	1
Local Authority:	Newport			**OS Grid Reference:**	333734 190786
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	20				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	66 - 75	Vehicle proceeding normally along the carriageway, not on a bend	Did not impact	Other	None	None

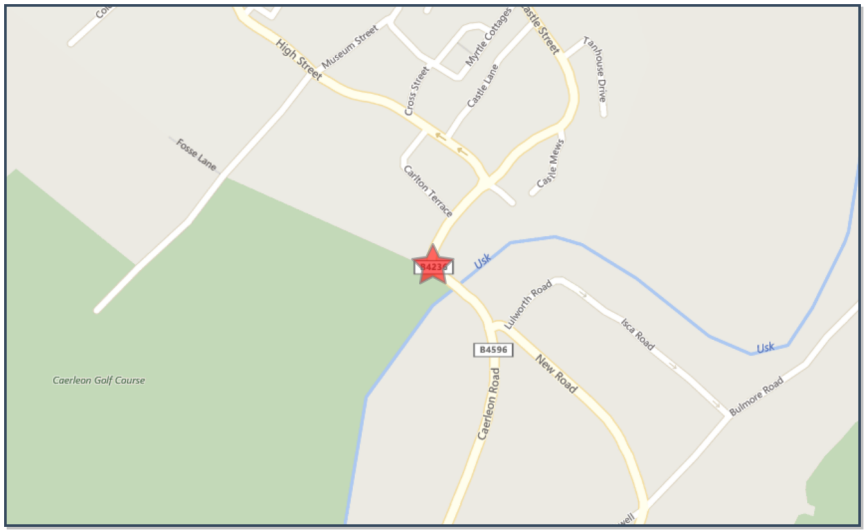
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Pedestrian	Male	11 - 15	In carriageway, not crossing	Unknown or other

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Crash Date:	Saturday, January 03, 2015	**Time of Crash:**	5:30:00 AM	**Crash Reference:**	**2015610058715**

Highest Injury Severity:	Slight	**Road Number:**	B4236	**Number of Casualties:**	2
Highway Authority:	Newport			**Number of Vehicles:**	2
Local Authority:	Newport			**OS Grid Reference:**	334086 190290
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	30				
Light Conditions:	Darkness: street lights present and lit				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Taxi/Private hire car	-1	Male	46 - 55	Vehicle proceeding normally along the carriageway, on a left hand bend	Front	Journey as part of work	None	None
1	Car (excluding private hire)	-1	Male	16 - 20	Vehicle proceeding normally along the carriageway, on a right hand bend	Front	Other	None	None

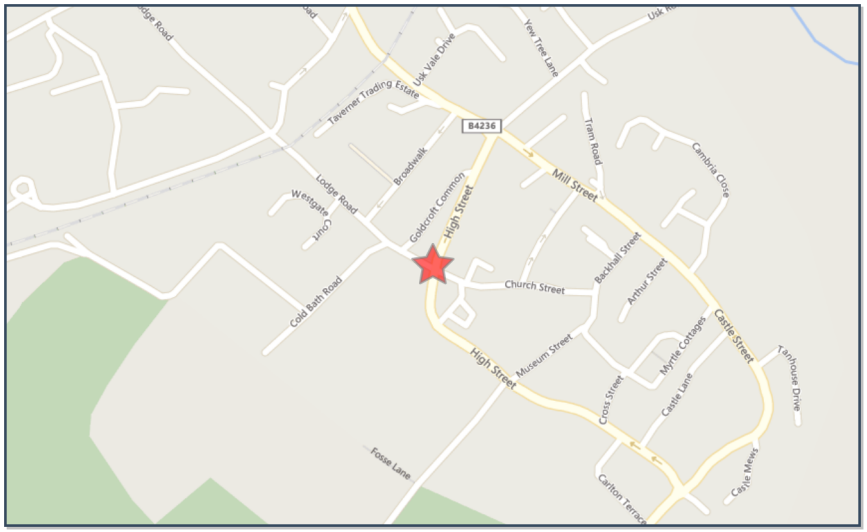
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	16 - 20	Unknown or other	Unknown or other
2	2	Slight	Driver or rider	Male	46 - 55	Unknown or other	Unknown or other

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Crash Date:	Wednesday, March 16, 2016	**Time of Crash:**	9:00:00 AM	**Crash Reference:**	**2016610016116**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	2
Local Authority:	Newport City			**OS Grid Reference:**	333802 190752
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Crossroads				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Car (excluding private hire)	1	Male	56 - 65	Vehicle is moving off	Front	Other	None	None
1	Pedal cycle	-1	Male	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Commuting to/from work	None	None

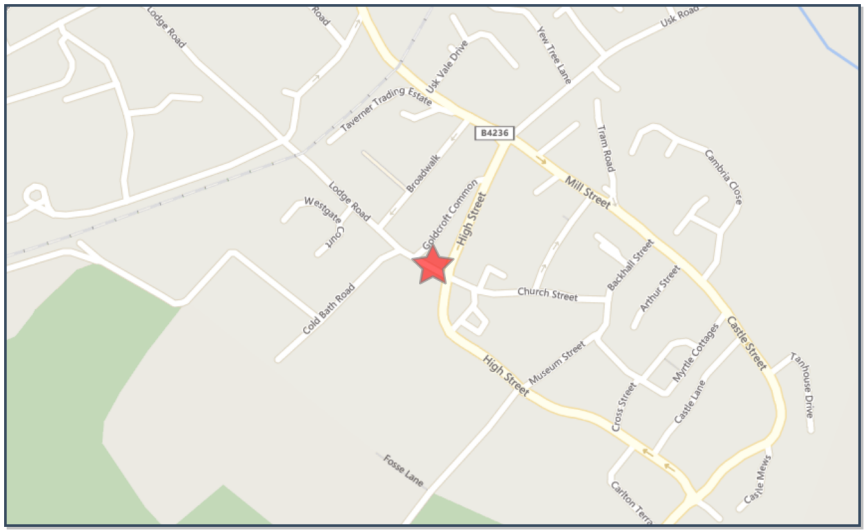
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	36 - 45	Unknown or other	Unknown or other

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Crash Date:	Tuesday, June 21, 2016	**Time of Crash:**	4:24:00 PM	**Crash Reference:**	**2016610026516**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	1
Local Authority:	Newport City			**OS Grid Reference:**	333782 190764
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	Unknown	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

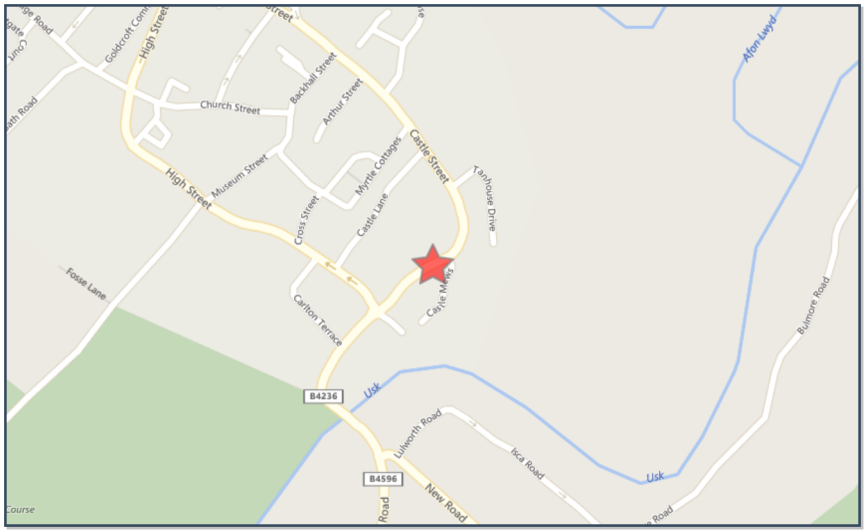
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Pedestrian	Male	11 - 15	In carriageway, crossing elsewhere	Crossing from driver's nearside

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Crash Date:	Sunday, October 09, 2016	**Time of Crash:**	4:05:00 AM	**Crash Reference:**	**2016610048016**

Highest Injury Severity:	Slight	**Road Number:**	B4236	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	1
Local Authority:	Newport City			**OS Grid Reference:**	334253 190480
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	20				
Light Conditions:	Darkness: street lights present and lit				
Carriageway Hazards:	None				
Junction Detail:	Other junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	One way street				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	7	Male	16 - 20	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

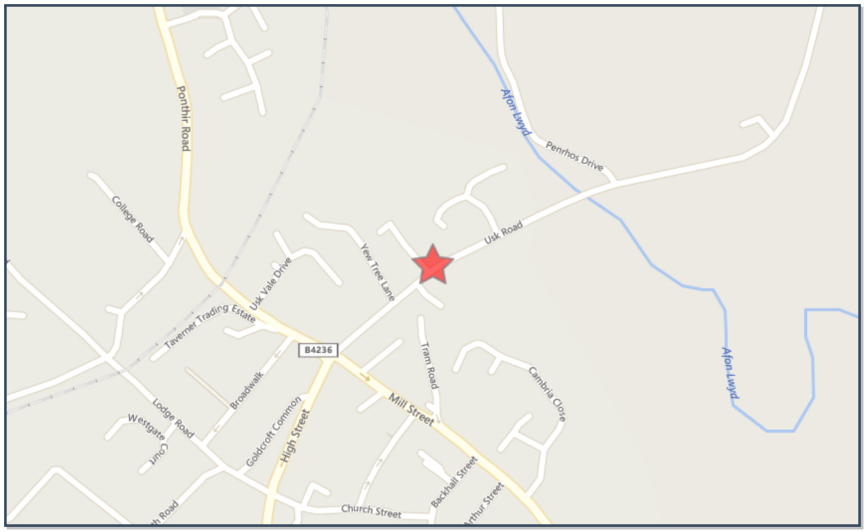
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Vehicle or pillion passenger	Female	16 - 20	Unknown or other	Unknown or other

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Crash Date:	Saturday, December 17, 2016	**Time of Crash:**	9:14:00 AM	**Crash Reference:**	**2016610058916**

Highest Injury Severity:	Serious	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	2
Local Authority:	Newport City			**OS Grid Reference:**	334052 191085
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

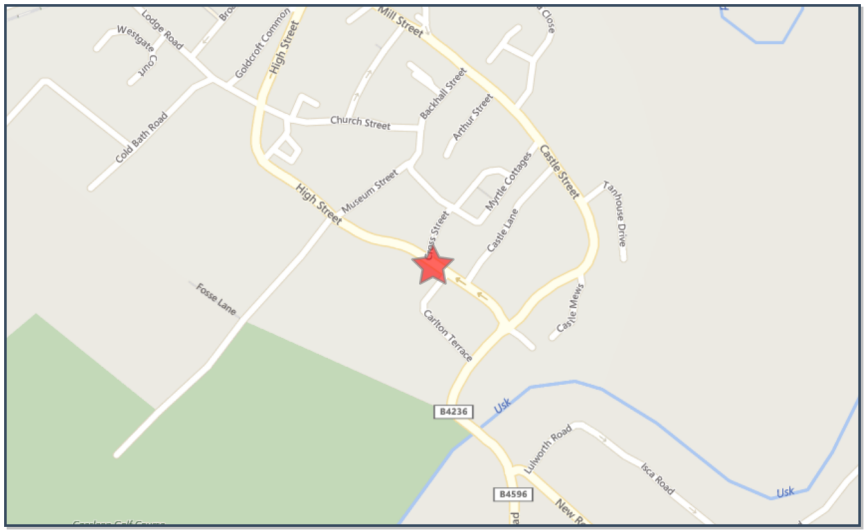
Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Pedal cycle	-1	Male	Over 75	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
1	Car (excluding private hire)	11	Female	36 - 45	Vehicle is in the act of turning right	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Serious	Driver or rider	Male	Over 75	Unknown or other	Unknown or other

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Crash Date:	Wednesday, September 13, 2017	**Time of Crash:**	8:22:00 AM	**Crash Reference:**	**2017610034917**
Highest Injury Severity:	Slight	**Road Number:**	B4	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	2
Local Authority:	Newport City			**OS Grid Reference:**	334059 190503
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	20				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	Zebra crossing				
Road Type:	One way street				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Car (excluding private hire)	-1	Male	Unknown	Vehicle is waiting to proceed normally but is held up	Front	Other	None	None
1	Car (excluding private hire)	-1	Female	36 - 45	Vehicle is waiting to proceed normally but is held up	Back	Commuting to/from work	None	None

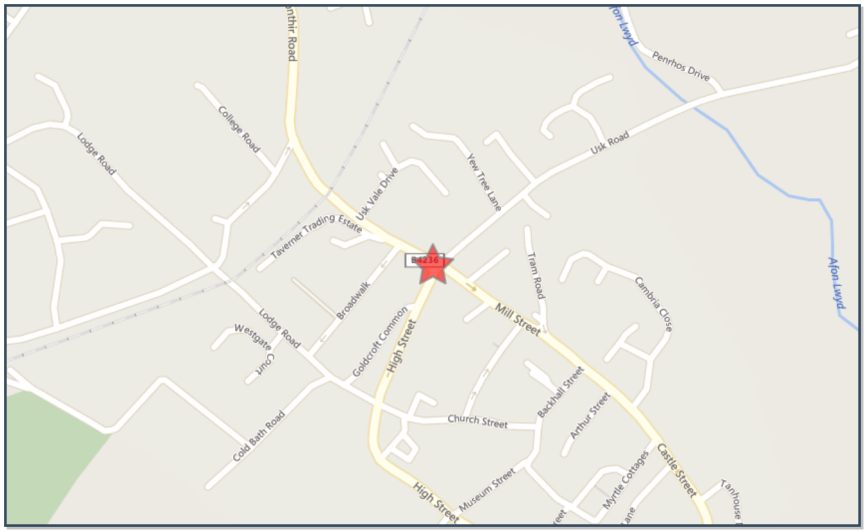
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	36 - 45	Unknown or other	Unknown or other

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Crash Date:	Monday, January 08, 2018	**Time of Crash:**	6:57:00 PM	**Crash Reference:**	**2018610001118**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	2
Highway Authority:	Newport			**Number of Vehicles:**	2
Local Authority:	Newport City			**OS Grid Reference:**	333890 190956
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	40				
Light Conditions:	Darkness: street lights present and lit				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Car (excluding private hire)	6	Female	21 - 25	Vehicle proceeding normally along the carriageway, not on a bend	Back	Other	None	None
1	Car (excluding private hire)	2	Female	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

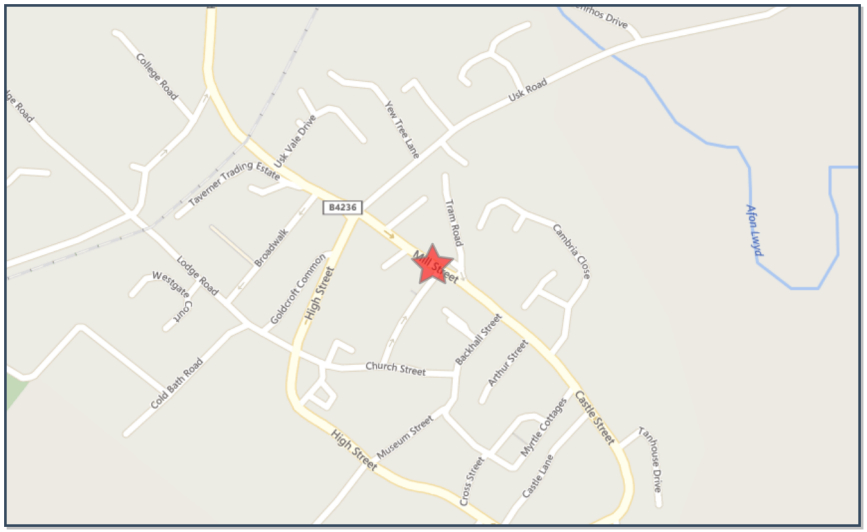
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	26 - 35	Unknown or other	Unknown or other
2	2	Slight	Driver or rider	Female	21 - 25	Unknown or other	Unknown or other

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Crash Date:	Sunday, June 03, 2018	**Time of Crash:**	1:39:00 PM	**Crash Reference:**	**2018610026418**

Highest Injury Severity:	Serious	**Road Number:**	B4236	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	2
Local Authority:	Newport City			**OS Grid Reference:**	334011 190874
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	20				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	One way street				
Junction Control:	Not Applicable				



For more information about the data please visit: *www.crashmap.co.uk/home/Faq*
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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Pedal cycle	-1	Male	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Other	None	None
1	Car (excluding private hire)	-1	Unknown	Unknown	Vehicle is passing another vehicle (moving or stationary) on its nearside	Offside	Other	None	None

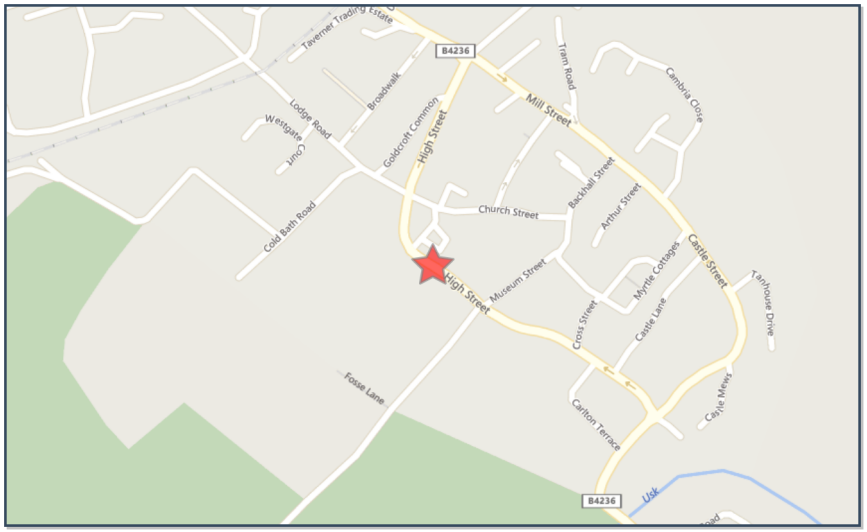
Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Serious	Driver or rider	Male	46 - 55	Unknown or other	Unknown or other

crashmap.co.uk

Crash Date:	Friday, September 14, 2018	**Time of Crash:**	2:46:00 PM	**Crash Reference:**	**2018610049018**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Newport			**Number of Vehicles:**	2
Local Authority:	Newport City			**OS Grid Reference:**	333840 190638
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	One way street				
Junction Control:	Give way or uncontrolled				



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Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
2	Motorcycle over 50cc and up to 125cc	-1	Male	56 - 65	Vehicle is slowing down or stopping	Front	Other	None	None
1	Car (excluding private hire)	7	Female	16 - 20	Vehicle is moving off	Offside	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Male	56 - 65	Unknown or other	Unknown or other

Area of open space incorporating exercise trail and landscaping.
(Please refer to EDP plans for details)

Listed Building

Listed Building Outbuilding

TJ Webley

Ty Hywell

LEAP

Public Open Space

Elec Sub Station

7 spaces

20 spaces

6 spaces

4 spaces

32 spaces

Sinks

Issues

3m footway/cyclewAy

BROOKLEA

BELLIN CLOSE

ST CADOC'S CLOSE

LODGE ROAD

COLLEGE CRES

Ty Lyn House

Cottage

Felthorpe

Spring

Pollards Well

Ponds

Westbury

Killarney

West Hill

The Grove

Woodlands

14.1m

46.0m

32.4m

31.6m

33.4m

31.3m

32.0m

Scale 1:500

0 10 20 50

NORTH

SCHEDULE OF ACCOMMODATION 11.11.19

No. of Units	%	House Description	storey height	beds
12		LETCHWORTH (TOOLBOX)	2 st	3 bed
18	13%	WARWICK	2 st	3 bed
12	9%	AMBERLEY	2 st	4 Bed
22	16%	STRATFORD	2 st	4 Bed
17	13%	OXFORD+	2 st	4 bed
14	10%	OXFORD Lifestyle	2 st	3 bed
16	12%	CAMBRIDGE	2 st	4 Bed
17	13%	WELWYN+	2 st	4 Bed
13	10%	HENLEY+	2 st	4 Bed
1		HARROGATE (MSU)	2 st	4 bed
5	4%	RICHMOND+	2 st	4 bed
sub total				
147				
Affordable				
8		2.1.3 Flat	2 St	1Bed
8		4.2.2 House	2 St	2 Bed
6		5.3.3 House	2 St	3 Bed
sub total				
22				
SUMMARY TOTAL				
169				
NUMBER OF UNITS				
COVERAGE				
Net Developable Area		**5.8**	**hectares**	
		14.30	**acres**	
Density/coverage		**14,992.52**	**Sq ft/acre**	
		29.14	**uph**	

CAERLEON CAMPUS: CONVERSIONS WITHIN EXISTING BUILDINGS

No. of Units	%	House Description	storey height	beds
MAIN BUILDING				
23		1 bed flats		
18		2 bed flats		
1		3 bed flats		
Listed Building Outbuilding				
2		2 bed flats		
sub total				
44				
T J WEBLEY				
1		2 bed house		
1		3 bed house		
sub total				
2				
Ty HYWEL				
1		1 bed flat		
1		4 bed house		
sub total				
2				
FELTHORPE HOUSE				
1		5 bed house		
TOTAL				
49				
SUMMARY TOTAL NEW BUILD AND CONVERTED UNITS				
OPENMARKET	CONVERTED UNITS			49
	REDROW HERITAGE			147
AFFORDABLE	REDROW AFFORDABLE		10%	22
NUMBER OF UNITS				**218 Units**

This drawing must not be scaled.
Figured dimensions and levels to be used.
Any inaccuracies must be notified to the architect.
Detail drawings and large scale drawings take precedence over smaller drawings.

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Rev:			Chk'd:	Rev:		Chk'd:	Rev:		Chk'd:
A	Plots 27-28 interchanged. Plot 22 Rotated	AF 14.10.2019	-						
B	Highway visibility splays added and minor corresponding amendments	AF 23.10.2019							
C	Plot 04 handed; Private drive reduced in length to only serve plots 90-94 ; Parking allocated to apartments in Listed Building and Listed Building Outbuilding,	art 31.10.2019							
D	Water main easement added	art 06.11.2019							
E	Redesign to accommodate water main as per client mark up	AF 11.11.2019							
F	Plot 112 rear garden fence repositioned away from RPA; Steps & retaining walls added; Accommodation Schedule added.	art 21.11.2019							
G	Attenuation Updated. TJ Webley & TY Hywell proposals added.	AF 25.11.2019							
H	Pond position amended. Engineering info removed.	AF 26.11.2019							

PRELIMINARY	
PLANNING	✓
DESIGN	
TENDER	
CONSTRUCTION	

powelldobson ARCHITECTS
Cardiff Office: Suite 1F, Building One, Eastern Business Park, Wern Fawr Lane, Old St Mellons, Cardiff CF3 5EA
Tel:+44 (0)33 33 201 001 www.powelldobson.com

Drawing No. 18137(05) 1101 Rev. H

Contract: Redrow Homes
Caerleon Campus Redevelopment

Title: Proposed Site Plan

Scale: 1:500@A0
Date: 09/10/2019
Drawn: AF
Checked: BK

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A

B

C

EXISTING NATIONAL CYCLE ROUTE TO THE SOUTH

1m CYCLE ROUTE

PROPOSED CALIBRO SHARED FOOTWAY/CYCLE WAY TO THE NORTH

LODGE ROAD

ROMAN REACH

ST CADOC'S CLOSE

Trinity House

Usk Lodge

LB

El Sub Sta

34.0m

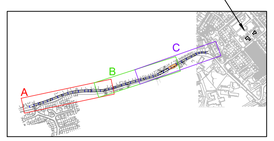
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.	.	.	.	.	.	.	.	.	.

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.
3. This drawing has been produced using OS Mapping.
4. No proposed kerb realignments - white lining only.

CAERLEON CAMPUS



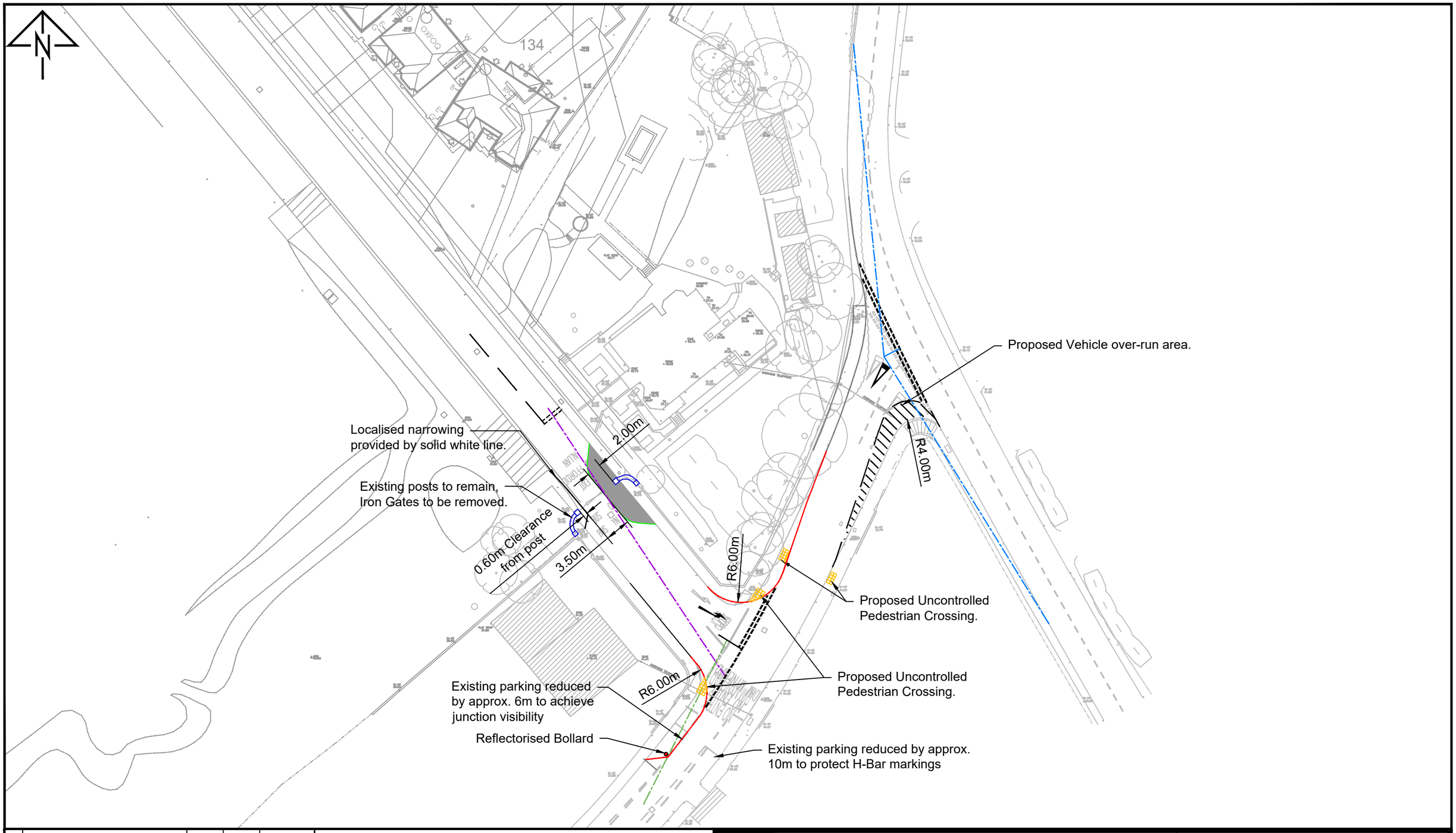
PROJECT: USW CAERLEON

CLIENT: REDROW HOMES

DRAWING TITLE: INDICATIVE ADVISORY CYCLE LANE WITH CENTRELINE REMOVED - FIGURE 4.2

vectos transport planning specialists
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A	Updated following receipt of additional topographical survey	LT	CP	25.07.19

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Key:

- 2.4m x 25m Visibility Splay
- 2.4m x 43m Visibility Splay
- Forward Visibility

Caerleon Campus

Redrow

Site Plan
General Arrangement

DRAWN:	CHECKED:	DATE:	SCALES:
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DRAWING NUMBER:	REVISION:
184326A_A01	A

Redrow Homes Ltd

Caerleon Campus

Stage 1 Road Safety Audit

October 2019

Network Building, 97 Tottenham Court Road, London W1T 4TP www.vectos.co.uk
Registered address: Vectos (South) Limited, Network Building, 97 Tottenham Court Road, London W1T 4TP. Company no. 7591661

Contents

1 INTRODUCTION 1

Departures from Standards 2

2 MATTERS ARISING FROM THIS AUDIT 3

Drawing No. 184326A A01 – Rev A – GA Junction Design 3

3 AUDIT TEAM STATEMENT 4

Appendices

Appendix A - Site Location Plan

Appendix B - List of Documents and Drawings Provided

Appendix C - General Arrangement Plan

1 INTRODUCTION

1.1 This report results from a Stage 1 Road Safety Audit (RSA) carried out on Tuesday 28th of October. The audit was carried out under the instruction of the Vectos South planning team based in London on behalf of Redrow Homes Ltd. The overseeing organisation is Newport County Council.

1.2 This Road Safety Audit team was as follows:

A PIKE, MICE, MCIHT, MSoRSA, HE Approved Cert. Comp.
Audit Team Leader
Head of Road Safety
Vectos

IAN MEDD, MCIHT, FSoRSA
Audit Team Member
Independent Road Safety Auditor

D THOMAS
Audit Team Observer
Transport Planner
Vectos

1.3 A site visit was undertaken by the Audit Team on Tuesday 28th of October at 12:00 – 13:00 The weather was fine and sunny and the carriageway surface dry.

1.4 Traffic levels along College Crescent were considered to be light. During the site visit pedestrians were observed utilising the footways.

1.5 A site location plan can be found at **Appendix A** of this report.

1.6 The terms of reference of the Road Safety Audit are as described in the Design Manual for Roads and Bridges (DMRB) Standard, GG 119 Road Safety Audit.

1.7 The Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard without touching on technical audit.

1.8 Proposals seek to amend an existing junction in order to provide access to a residential development of 219 new homes. Access to the site will be via two junctions. The Audit Team

have been requested to look at only the arrangements from, College Crescent. The proposal is to make College Crescent / College Road junction two-way i.e. in /out and there are no plans to change the one-way system on College Crescent.

1.9 Design proposals include kerb build outs into College Crescent in order to bring the give way road markings further forwards. An existing on street parking bay will be removed in order to protect the visibility envelope. Additional uncontrolled crossing facilities are proposed to assist pedestrian movements across College Crescent. Existing double yellow lining arrangements are to be removed.

1.10 The Audit Team was provided with an Audit Brief document in accordance with GG119, and design drawings which show the completed scheme.

1.11 A list of the documents and drawings submitted for the Stage 1 Audit can be found in **Appendix B**.

1.12 Whilst recommendations have been made within this report, there may be equally satisfactory alternatives. The Audit Team will be pleased to consider alternatives if required.

Departures from Standards

1.13 The Audit Team were not informed of any departures from standards.

2 MATTERS ARISING FROM THIS AUDIT

Drawing No. 184326A A01 – Rev A – GA Junction Design

2.1 The Audit Team raised no problems with the current Stage 1 Design Proposals.

3 AUDIT TEAM STATEMENT

3.1 We certify that this Audit has been carried out in accordance with the requirements of GG119

Road Safety Audit Team Leader

Name: Alastair Pike

Signed: 

Position: Head of Road Safety
Organisation: Vectos South Ltd
Date: 29th of October 2019

Road Safety Audit Team Member

Name: Ian Medd

Signed: 

Position: Consultant
Organisation: Independent Road Safety Consultant
Date: 29th of October 2019

Road Safety Audit Team Observer

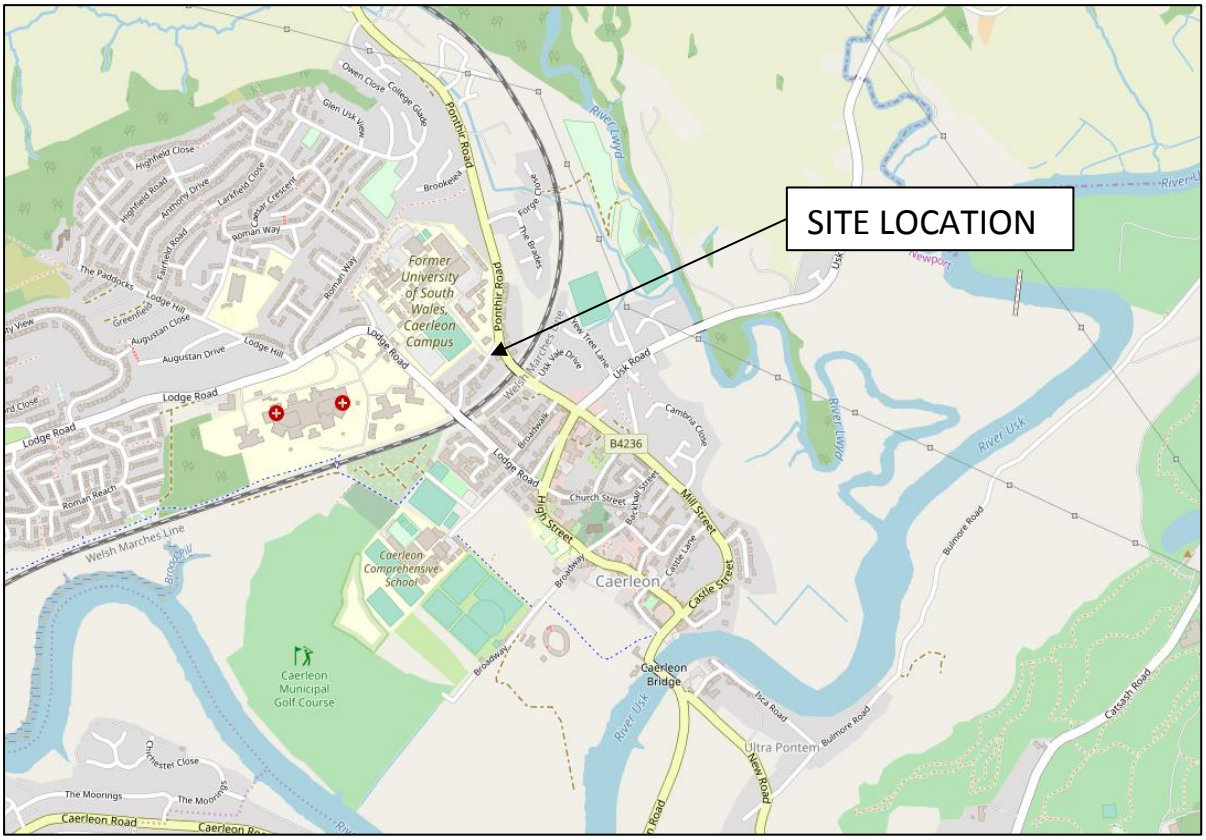
Name: Dafydd Thomas

Signed: 

Position: Transport Planner
Organisation: Vectos South Ltd
Date: 29th of October 2019

APPENDIX A

Site Location Plan


SITE LOCATION
Former University of South Wales, Caerleon Campus
Ponthir Road
Lodge Road
B4236
High Street
Mill Street
Castle Street
Caerleon
Caerleon Comprehensive School
Caerleon Municipal Golf Course
Caerleon Bridge
Welsh Marches Line
River Usk
River Llwyd
Usk Road
Broadway
Church Street
Bulmore Road
New Road
Ultra Pontem
Caerleon Road
The Moorings
Chichester Close
Roman Way
Roman Reach
Augustan Drive
Augustan Close
Lodge Hill
Lodge Hay
Greenfield
The Paddocks
Fairfield Road
Highfield Road
Highfield Close
Ammony Drive
Larkfield Close
Caesar Crescent
Owen Close
College Glade
Glen Usk View
Brookfield
Forge
The Bradles
Usk Vale Drive
View Tree Lane
Cambrai Close
Back Lane Street
Castle Lane
Broadwalk
Jica Road
Catsash Road

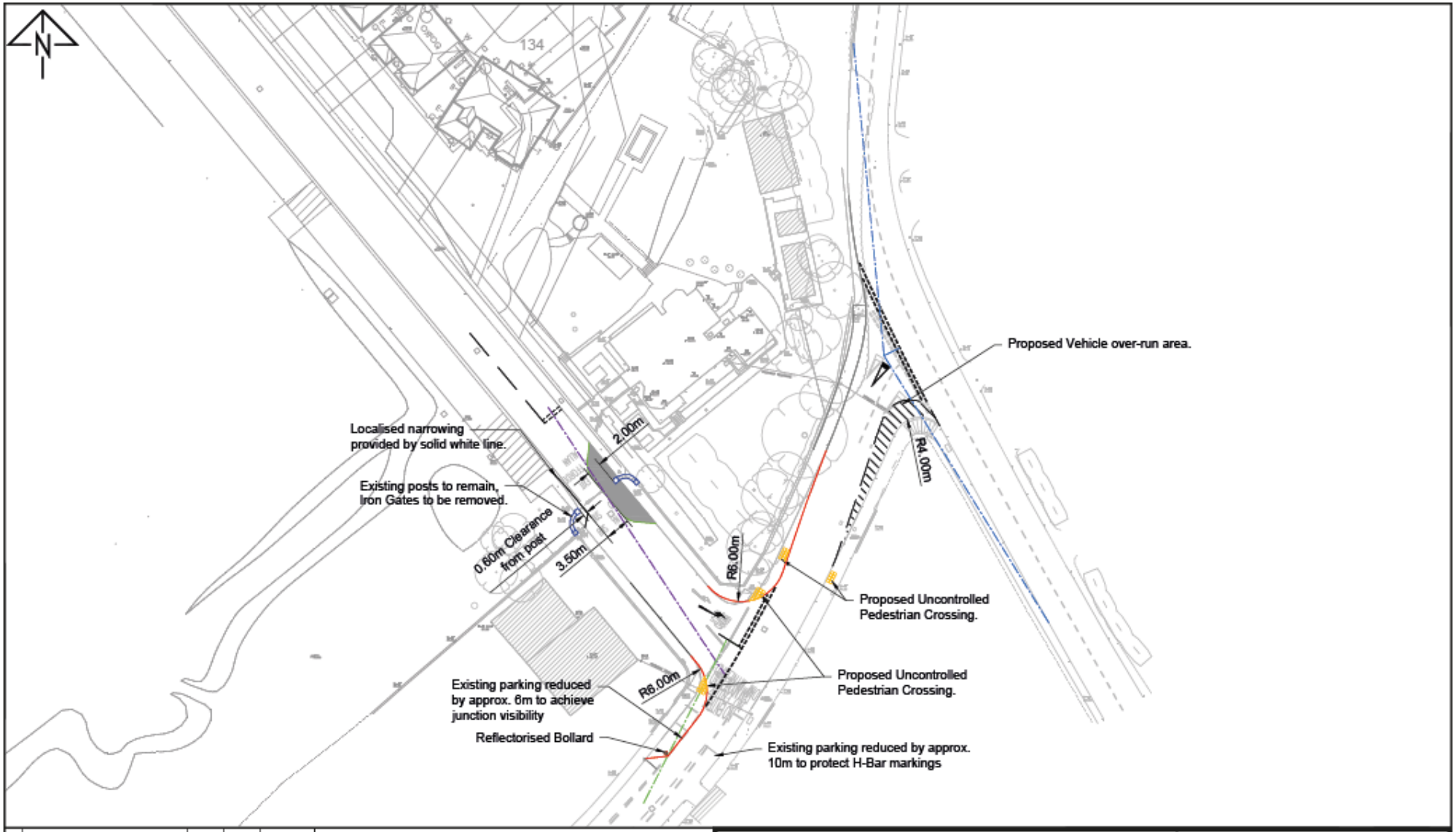
APPENDIX B

List of Documents and Drawings Submitted for Audit

DOCUMENT	***DOCUMENT TITLE / DATE***
Audit Brief	Stage 1 Road Safety Audit Brief – 28.10.19
Design Drawing	184326A -A01-Rev A – GA Junction Design
Design Drawing	184326A-AT_A01-Rev A – 11.2m Refuse Inbound SPA
Design Drawing	184326A-AT_A02-Rev A – 11.2m Refuse Outbound SPA

APPENDIX C

General Arrangement Plan



REV.	DETAILS	DRAWN	CHECKED	DATE
A	Updated following receipt of additional topographical survey	LT	CP	25.07.19

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Key:

- 2.4m x 25m Visibility Splay
- 2.4m x 43m Visibility Splay
- Forward Visibility

Caerleon Campus

Redrow

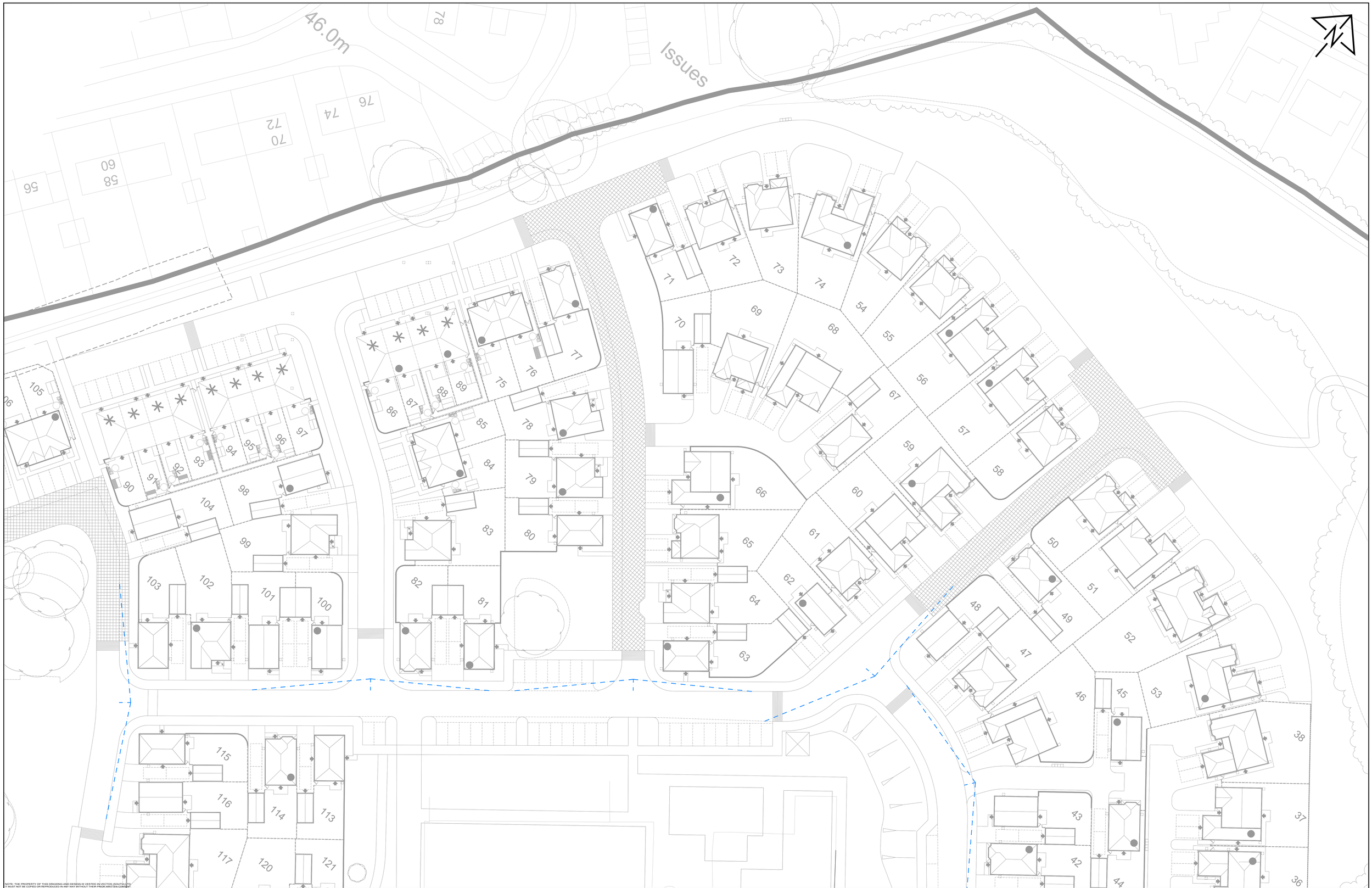
Site Plan
General Arrangement

DRAWN:	CHECKED:	DATE:	SCALES:
KR	CP	12.06.19	1:500 at A3

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t: 029 2072 0861 e: enquiries@vectos.co.uk

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REVISION: A



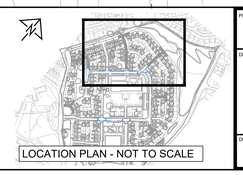
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A	Amended to suit latest Architects layout	LT	CP	08.10.19
B	Architects layout updated	KR	CP	17.10.19
C	Amended to suit latest Architects layout	KR	CP	23.10.19
D	Amended to suit latest Architects layout	KR	CP	27.11.19

INFORMATION ONLY

Note
Residents should not be required to carry waste more than 30 m (excluding any vertical distance) to the storage point; waste collection vehicles should be able to get to within 25 m of the storage point (note, BS 5906: 200518 recommends shorter distances) and the gradient between the two should not exceed 1:12. There should be a maximum of three steps for waste

Legend
2.4m x 25m Visibility Splay (20mph)


LOCATION PLAN - NOT TO SCALE

PROJECT: USW Caerleon Redevelopment

CLIENT: Redrow Homes

DRAWING TITLE: Internal Layout - General Arrangement Sheet 1 of 3

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e: enquiries@vectos.co.uk

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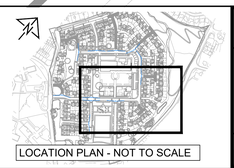
REV	DETAILS	DRAWN	CHECKED	DATE
A	Amended to suit latest Architects layout	LT	CP	08.10.19
B	Architects layout updated	KR	CP	17.10.19
C	Amended to suit latest Architects layout	KR	CP	23.10.19
D	Amended to suit latest Architects layout	KR	CP	27.11.19

STATUS:

INFORMATION ONLY

Note
Residents should not be required to carry waste more than 30 m (excluding any vertical distance) to the storage point; waste collection vehicles should be able to get to within 25 m of the storage point (note, BS 5906: 200518 recommends shorter distances) and the gradient between the two should not exceed 1:12. There should be a maximum of three steps for waste

Legend
- - - 2.4m x 25m Visibility Splay (20mph)



LOCATION PLAN - NOT TO SCALE

PROJECT:
USW Caerleon Redevelopment

DRAWING TITLE:
Internal Layout -
General Arrangement
Sheet 2 of 3

CLIENT:
Redrow Homes

vectos
transport planning specialists
Broad Quay House, Prince Street, Bristol, BS1 4DJ
t: 0117 905 8888 e: enquiries@vectos.co.uk

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B	Architects layout updated	KR	CP	17.10.19
C	Amended to suit latest Architects layout	KR	CP	23.10.19
D	Amended to suit latest Architects layout	KR	CP	27.11.19

STATUS:
INFORMATION ONLY

Note
Residents should not be required to carry waste more than 30 m (excluding any vertical distance) to the storage point; waste collection vehicles should be able to get to within 25 m of the storage point (note, BS 5906: 200518 recommends shorter distances) and the gradient between the two should not exceed 1:12. There should be a maximum of three steps for waste

Legend
2.4m x 25m Visibility Splay (20mph)


LOCATION PLAN - NOT TO SCALE

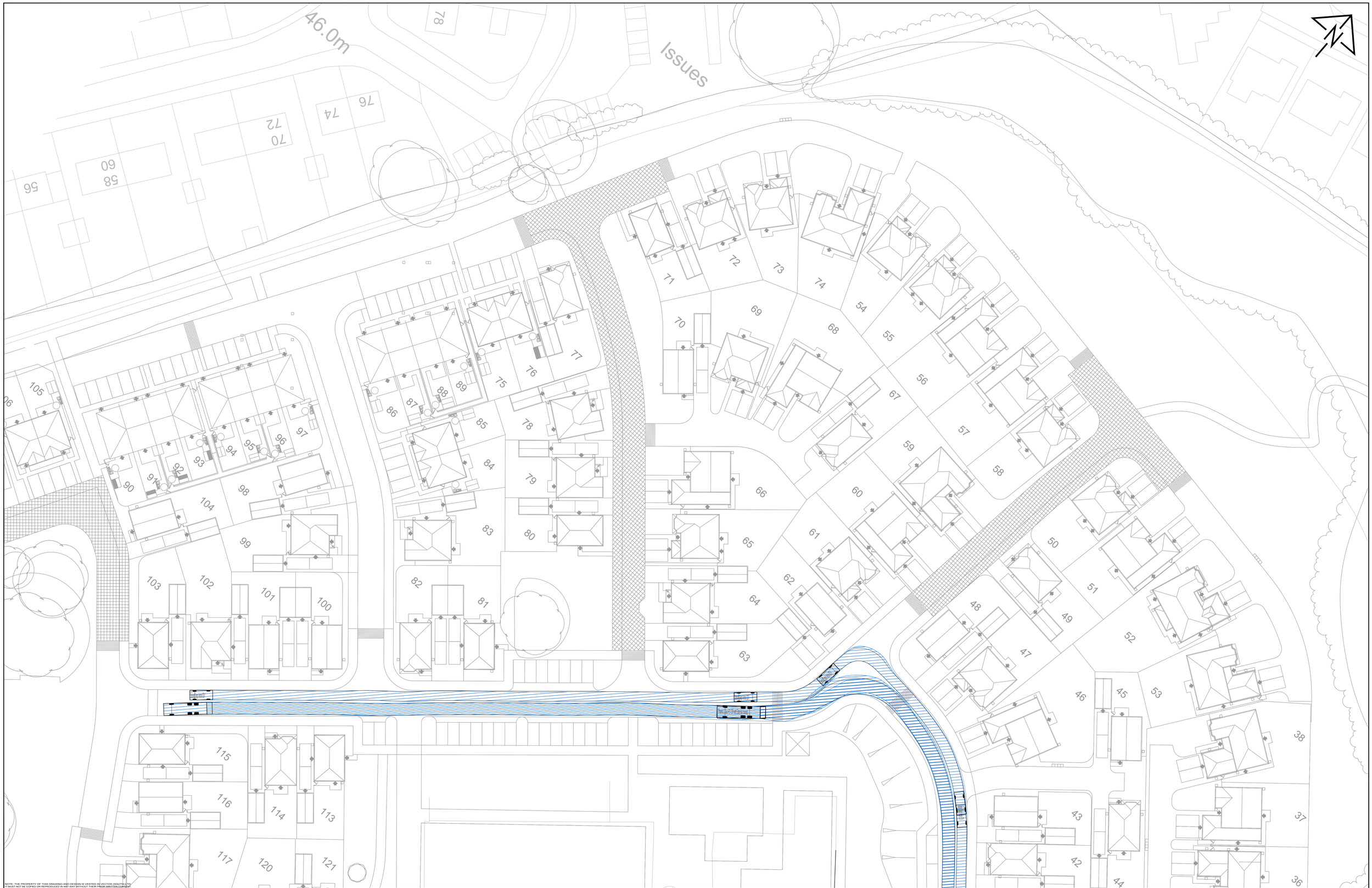
PROJECT:
USW Caerleon Redevelopment

DRAWING TITLE:
Internal Layout -
General Arrangement
Sheet 3 of 3

CLIENT:
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transport planning specialists
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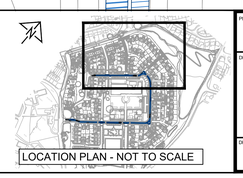
Note
Residents should not be required to carry waste more than 30 m (excluding any vertical distance) to the storage point; waste collection vehicles should be able
to get to within 25 m of the storage point (note, BS 5906: 200518 recommends shorter distances) and the gradient between the two should not exceed 1:12. There should be a maximum of three steps for waste

Phoenix 2 Duo Recycler (P2-12W with Elite 6x4 chassis)

Overall Length	10.320m
Overall Width	2.500m
Overall Body Height	3.756m
Min Body Ground Clearance	0.309m
Track Width	2.530m
Lock to lock time	4.90s
Kerb to Kerb Turning Radius	9.450m

Standard Design Vehicle (SDV)

Overall Length	4.800m
Overall Width	2.000m
Overall Body Height	1.950m
Min Body Ground Clearance	0.100m
Track Width	2.000m
Lock to lock time	4.00s
Wall to Wall Turning Radius	6.000m


LOCATION PLAN - NOT TO SCALE

PROJECT:	USW Caerleon Redevelopment
DRAWING TITLE:	Swept Path Analysis - Two Way Working Standard Design Vehicle and 10.3m Refuse Vehicle Sheet 1 of 3
CLIENT:	Redrow Homes

vectos transport planning specialists

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e: enquiries@vectos.co.uk

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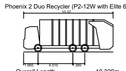
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REV	DETAILS	DRAWN	CHECKED	DATE
A	Updated to suit Architects latest layout	KR	CP	27.11.19

INFORMATION ONLY

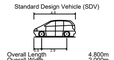
Note
Residents should not be required to carry waste more than 30 m (excluding any vertical distance) to the storage point; waste collection vehicles should be able
to get to within 25 m of the storage point (note, BS 5906: 200518 recommends shorter distances) and the gradient between the two should not exceed 1:12. There should be a maximum of three steps for waste

Phoenix 2 Duo Recycler (P2-12W with Elite 6x4 chassis)

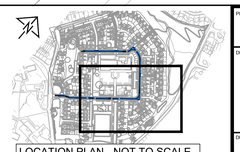


Overall Length	10.320m
Overall Width	2.530m
Overall Body Height	3.370m
Min Body Ground Clearance	0.309m
Track Width	2.530m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.450m

Standard Design Vehicle (SDV)



Overall Length	4.800m
Overall Width	2.000m
Overall Body Height	1.950m
Min Body Ground Clearance	0.100m
Track Width	2.000m
Lock to lock time	4.00s
Wall to Wall Turning Radius	6.000m

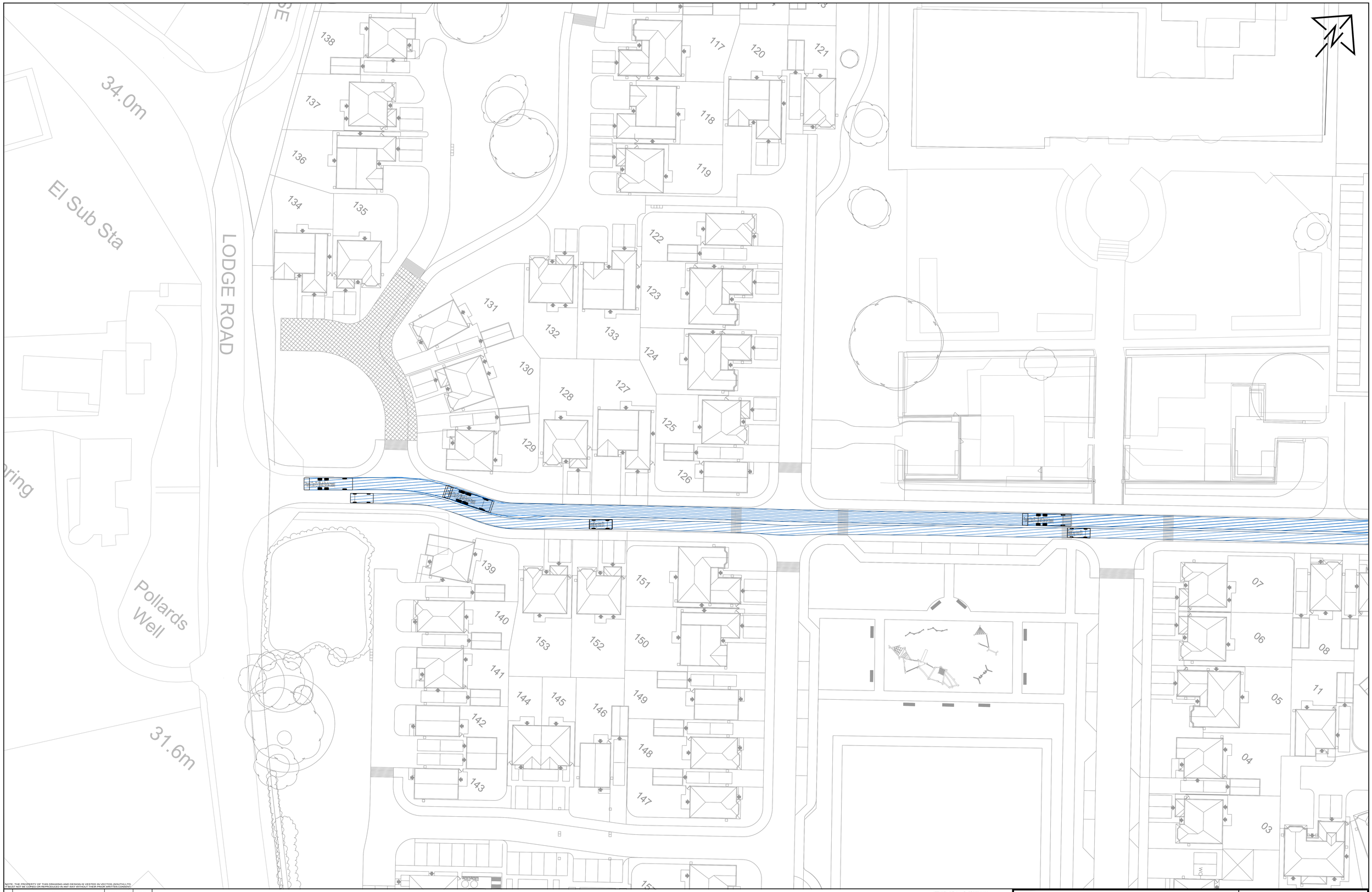


LOCATION PLAN - NOT TO SCALE

PROJECT:	USW Caerleon Redevelopment
DRAWING TITLE:	Swept Path Analysis - Two Way Working Standard Design Vehicle and 10.3m Refuse Vehicle Sheet 2 of 3
CLIENT:	Redrow Homes

vectos transport planning specialists
Ground Floor, Helmont House, Churchill Way, Cardiff, CF10 2HE
t: 029 2072 0870 e: enquiries@vectos.co.uk

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REV	DETAILS	DRAWN	CHECKED	DATE
A	Updated to suit Architects latest layout	KR	CP	27.11.19

INFORMATION ONLY

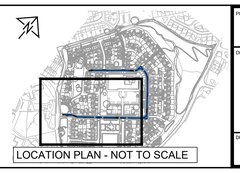
Note
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Phoenix 2 Duo Recycler (P2-12W with Elite 6x4 chassis)

Overall Length	10.320m
Overall Width	2.530m
Overall Body Height	3.756m
Min Body Ground Clearance	0.309m
Track Width	2.530m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	9.450m

Standard Design Vehicle (SDV)

Overall Length	4.800m
Overall Width	2.000m
Overall Body Height	1.950m
Min Body Ground Clearance	0.100m
Track Width	2.000m
Lock to lock time	4.00s
Wall to Wall Turning Radius	6.000m



LOCATION PLAN - NOT TO SCALE

PROJECT:
USW Caerleon Redevelopment

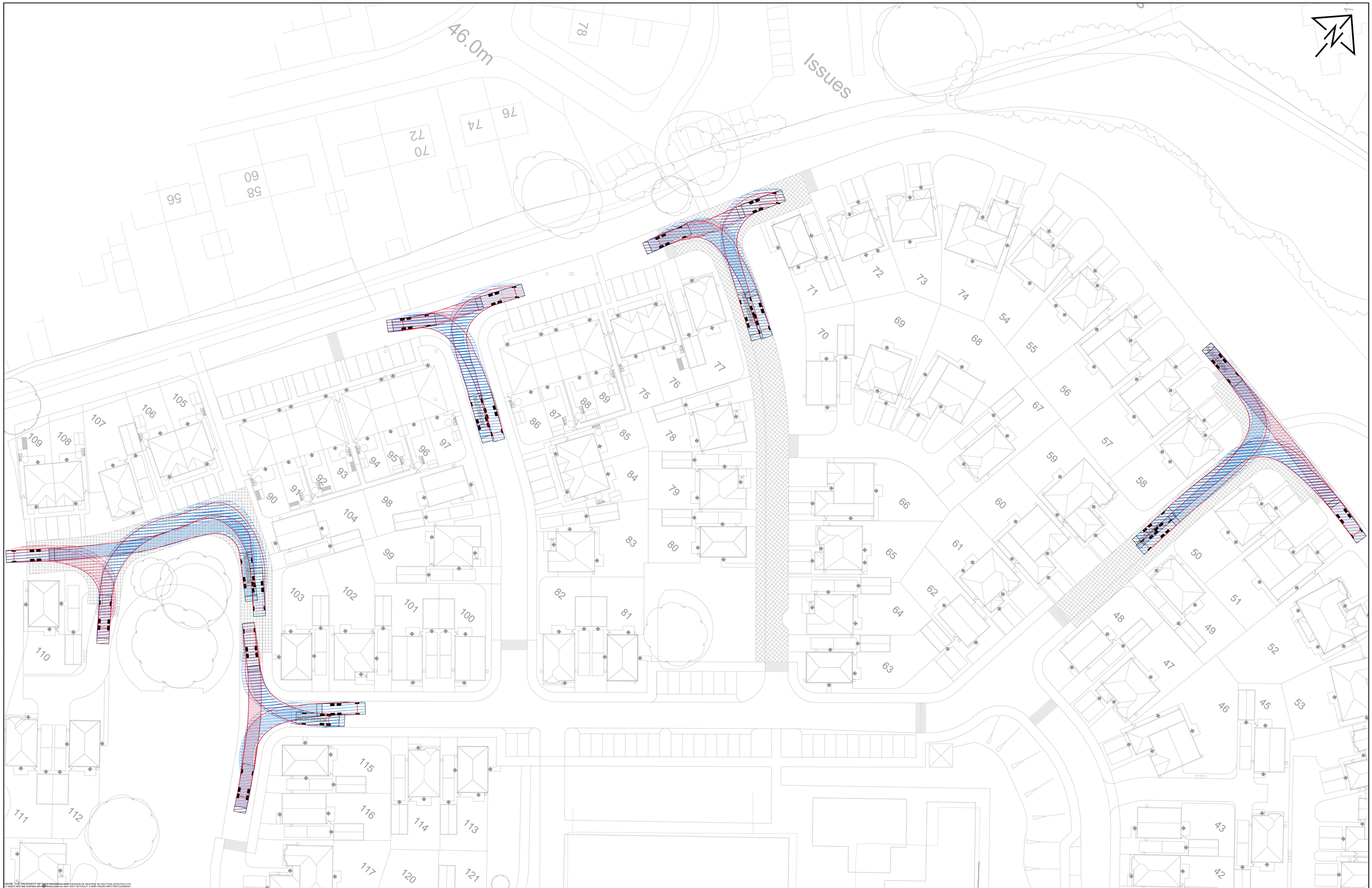
DRAWING TITLE:
Swept Path Analysis - Two Way Working
Standard Design Vehicle and 10.3m Refuse Vehicle
Sheet 3 of 3

DRAWN:	CHECKED:	DATE:	SCALES:
LT	CP	30/07/19	1:250 @ A0

CLIENT:
Redrow Homes

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t: 029 2072 0870 e: enquiries@vectos.co.uk

DRAWING NUMBER: 184326A-AT_A05
REVISION: A



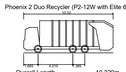
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REV	DETAILS	DRAWN	CHECKED	DATE
A	Amended to suit latest Architects layout	LT	CP	08.10.19
B	Amended to suit latest Architects layout	KR	CP	23.10.19
C	Amended to suit latest Architects layout	KR	CP	27.11.19

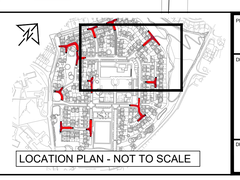
INFORMATION ONLY

Note
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Phoenix 2 Duo Recycler (P2-12W with Elite 6x4 chassis)



Overall Length	10.320m
Overall Width	2.530m
Overall Body Height	3.756m
Min Body Ground Clearance	0.309m
Track Width	2.050m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.450m



LOCATION PLAN - NOT TO SCALE

PROJECT:	USW Caerleon Redevelopment
DRAWING TITLE:	Swept Path Analysis - Turning Head 10.3m Refuse Vehicle Sheet 1 of 3
CLIENT:	Redrow Homes

vectos transport planning specialists
Ground Floor, Helmont House, Churchill Way, Cardiff, CF10 2HE
t: 029 2072 0870 e: enquiries@vectos.co.uk

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
LT	CP	30/07/19	1:250 @ A0	184326A-AT_A06	C

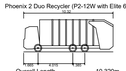
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REV	DETAILS	DRAWN	CHECKED	DATE
A	Amended to suit latest Architects layout	LT	CP	08.10.19
B	Amended to suit latest Architects layout	KR	CP	23.10.19
C	Amended to suit latest Architects layout	KR	CP	27.11.19

INFORMATION ONLY

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Phoenix 2 Duo Recycler (P2-12W with Elite 6x4 chassis)



Overall Length	10.320m
Overall Width	2.530m
Overall Body Height	3.756m
Min Body Ground Clearance	0.309m
Track Width	2.330m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.450m

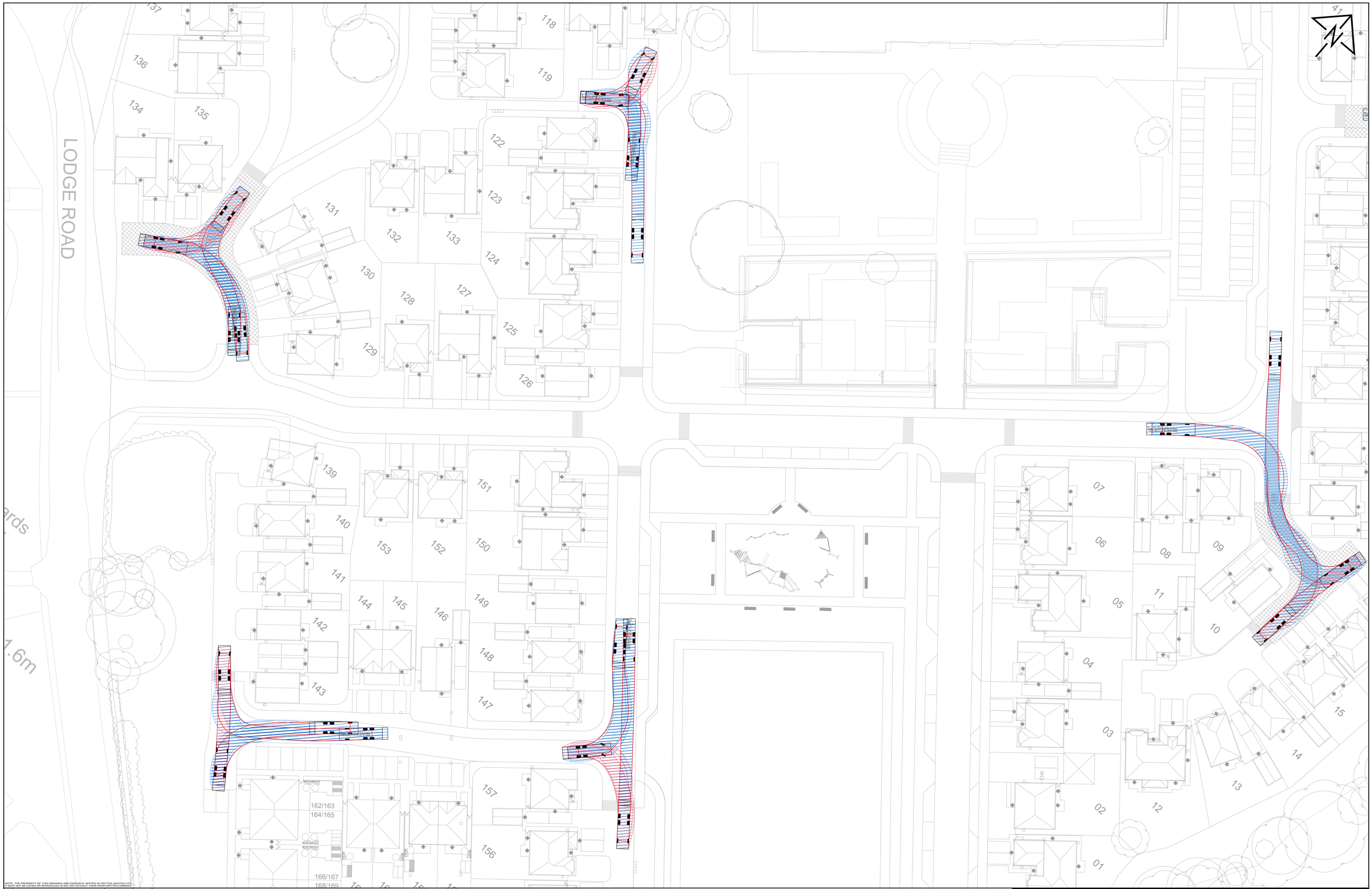


LOCATION PLAN - NOT TO SCALE

PROJECT:	USW Caerleon Redevelopment
DRAWING TITLE:	Swept Path Analysis - Turning Head 10.3m Refuse Vehicle Sheet 2 of 3
CLIENT:	Redrow Homes

vectos transport planning specialists
Ground Floor, Helmont House, Churchill Way, Cardiff, CF10 2HE
t: 029 2072 0870 e: enquiries@vectos.co.uk

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
LT	CP	30/07/19	1:250 @ A0	184326A-AT_A07	C



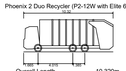
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REV	DETAILS	DRAWN	CHECKED	DATE
A	Amended to suit latest Architects layout	LT	CP	08.10.19
B	Amended to suit latest Architects layout	KR	CP	23.10.19
C	Amended to suit latest Architects layout	KR	CP	27.11.19

INFORMATION ONLY

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Phoenix 2 Duo Recycler (P2-12W with Elite 6x4 chassis)



Overall Length	10.320m
Overall Width	2.530m
Min Body Ground Height	0.306m
Max Grad Ground Clearance	0.306m
Track Width	2.530m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.450m



LOCATION PLAN - NOT TO SCALE

PROJECT:	USW Caerleon Redevelopment
DRAWING TITLE:	Swept Path Analysis - Turning Head 10.3m Refuse Vehicle Sheet 3 of 3
CLIENT:	Redrow Homes

vectos transport planning specialists
Ground Floor, Helmont House, Churchill Way, Cardiff, CF10 2HE
t: 029 2072 0870
e: enquiries@vectos.co.uk

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REV	DETAILS	DRAWN	CHECKED	DATE
A	Amended to suit latest Architects layout	LT	CP	08.10.19
B	Amended to suit latest Architects layout	KR	CP	24.10.19
C	Amended to suit latest Architects layout	KR	CP	27.11.19

INFORMATION ONLY

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LOCATION PLAN - NOT TO SCALE

PROJECT:	USW Caerleon Redevelopment
CLIENT:	Redrow Homes
DRAWING TITLE:	Swept Path Analysis - Fire Tender Sheet 1 of 3

vectos transport planning specialists
Ground Floor, Helmont House, Churchill Way, Cardiff, CF10 2HE
t: 029 2072 0870
e: enquiries@vectos.co.uk

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REV	DETAILS	DRAWN	CHECKED	DATE
A	Amended to suit latest Architects layout	LT	CP	08.10.19
B	Amended to suit latest Architects layout	KR	CP	24.10.19
C	Amended to suit latest Architects layout	KR	CP	27.11.19

STATUS:
INFORMATION ONLY

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Dennis Sabre Fire Tender (LWB)



Overall Length	7.700m
Overall Width	2.530m
Overall Body Height	3.432m
Min Body Ground Clearance	0.397m
Track Width	2.380m
Lock to lock time	5.00s
Kerb to Kerb Turning Radius	7.400m



LOCATION PLAN - NOT TO SCALE

PROJECT:	USW Caerleon Redevelopment
DRAWING TITLE:	Swept Path Analysis - Fire Tender Sheet 2 of 3
DRAWN:	LT
CHECKED:	CP
DATE:	30/07/19
SCALES:	1:250 @ A0
CLIENT:	Redrow Homes
DRAWING NUMBER:	184326A-AT_A10
REVISION:	C

vectos transport planning specialists
Broad Quay House, Prince Street, Bristol, BS1 4DJ
t: 0117 905 8888 e: enquiries@vectos.co.uk



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REV	DETAILS	DRAWN	CHECKED	DATE
A	Amended to suit latest Architects layout	LT	CP	08.10.19
B	Amended to suit latest Architects layout	KR	CP	24.10.19
C	Amended to suit latest Architects layout	KR	CP	27.11.19

STATUS:

INFORMATION ONLY

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Dennis Sabre Fire Tender (LWB)

Overall Length	7.700m
Overall Width	2.430m
Overall Body Height	3.512m
Min Body Ground Clearance	0.309m
Track Width	2.380m
Lock to lock time	5.00s
Kerb to Kerb Turning Radius	7.400m

LOCATION PLAN - NOT TO SCALE

PROJECT:
USW Caerleon Redevelopment

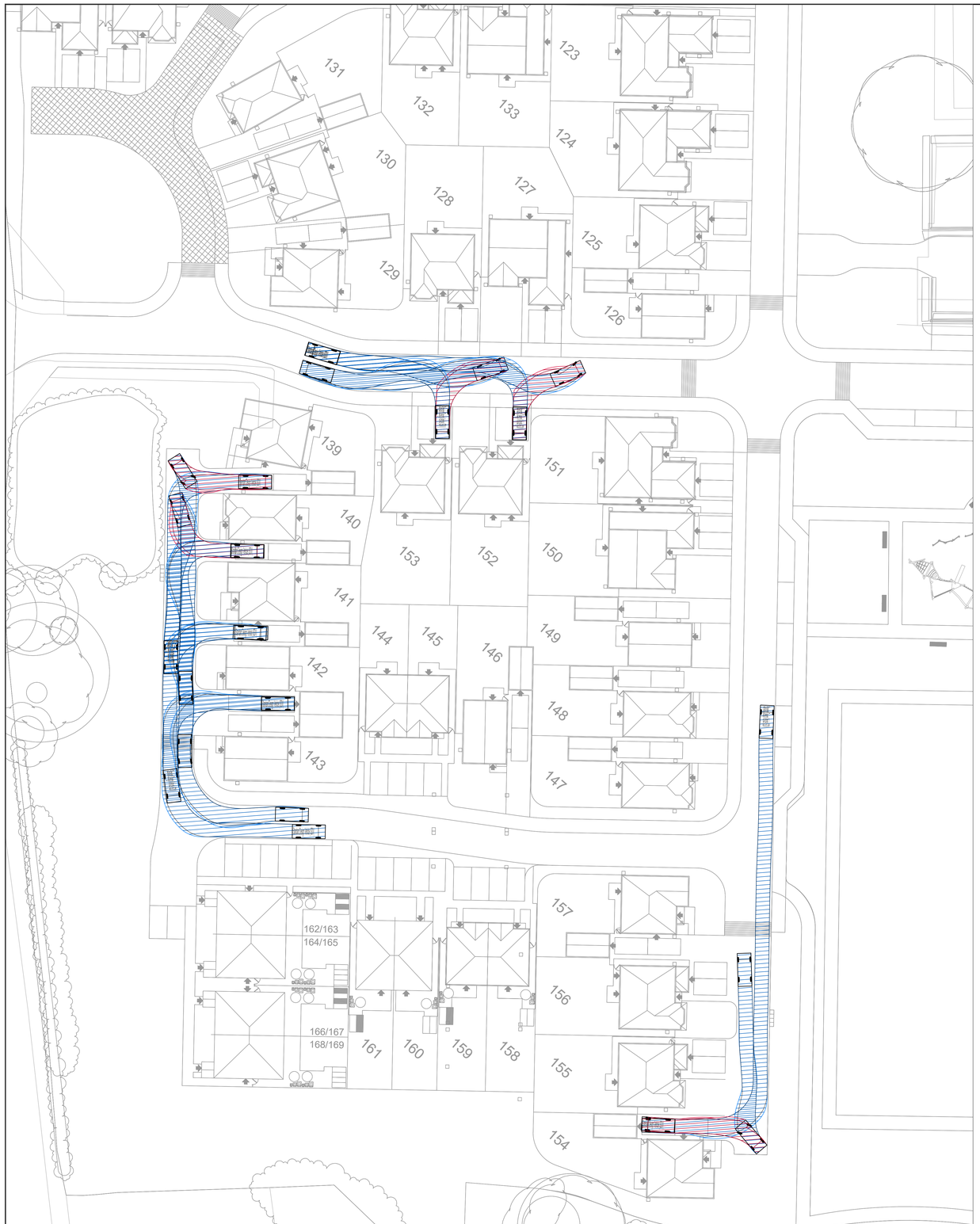
DRAWING TITLE:
Swept Path Analysis -
Fire Tender
Sheet 3 of 3

CLIENT:
Redrow Homes

vectos transport planning specialists
Broad Quay House, Prince Street, Bristol, BS1 4DJ
t: 0117 905 8888 e: enquiries@vectos.co.uk

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LT	CP	30/07/19	1:250 @ A0

DRAWING NUMBER: 184326A-AT_A11 C



ACCESSING THE PARKING BAYS



EGRESSING THE PARKING BAYS

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B	Amended to suit latest Architects layout	KR	CP	24.10.19
C	Amended to suit latest Architects layout	KR	CP	27.11.19

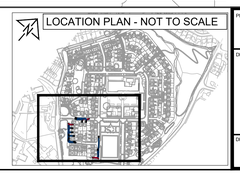
INFORMATION ONLY

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Standard Design Vehicle (SDV)

Overall Length	4.800m
Overall Width	2.000m
Overall Body Height	1.950m
Min Body Ground Clearance	0.150m
Track Width	2.000m
Lock to lock time	4.00s
Wall to Wall Turning Radius	6.000m

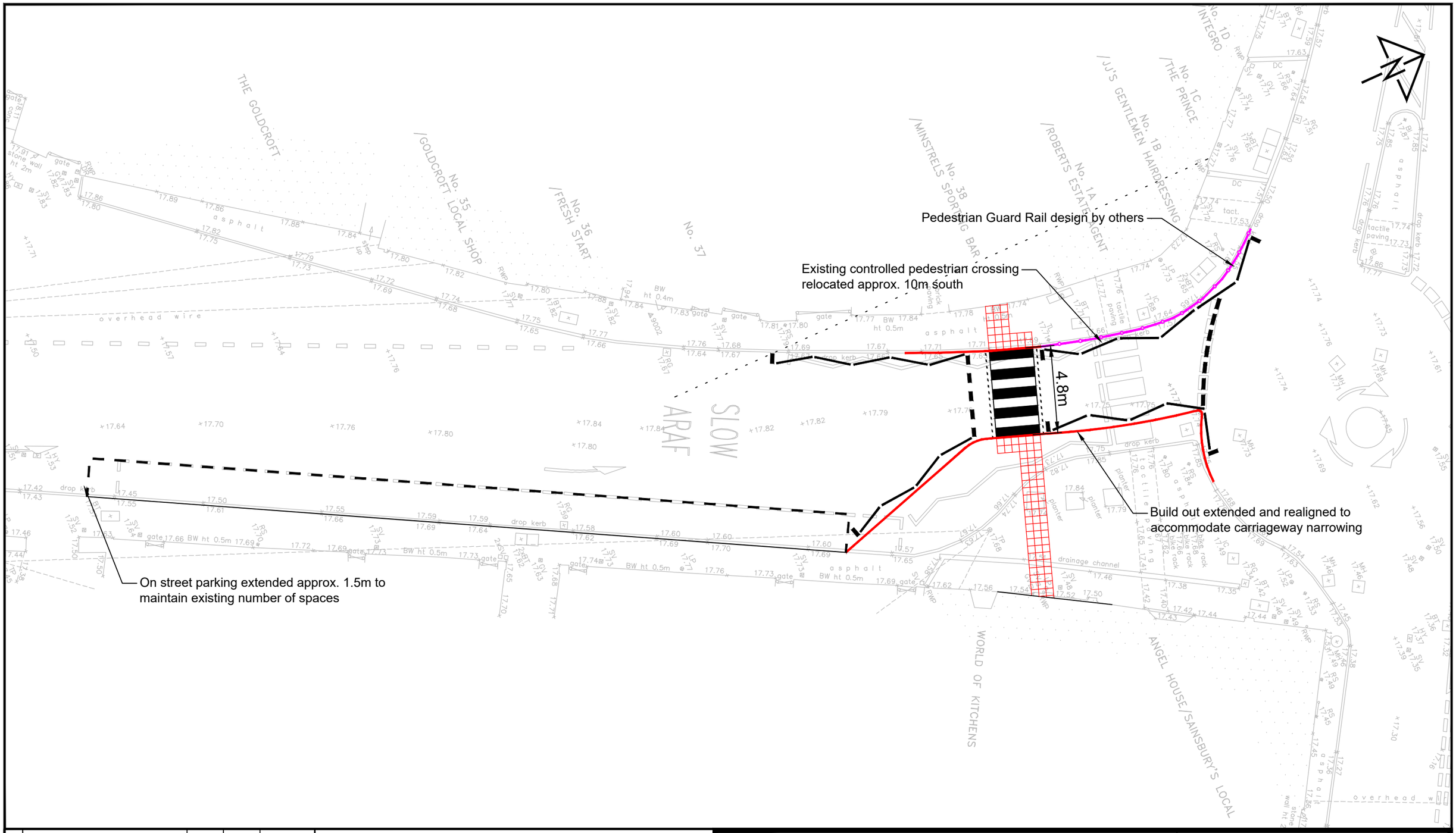
LOCATION PLAN - NOT TO SCALE



PROJECT:	USW Caerleon Redevelopment
DRAWING TITLE:	Swept Path Analysis Parking Bay Assessment Standard Design Vehicle
CLIENT:	Redrow Homes

vectos transport planning specialists
Ground Floor, Helmont House, Churchill Way, Cardiff, CF10 2HE
t: 029 2072 0870
e: enquiries@vectos.co.uk

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
LT	CP	30/07/19	1:250 @ A0	184326A-AT_A12	C



REV.	DETAILS	DRAWN	CHECKED	DATE
.	.	.	.	.

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Caerleon Campus

Redrow

High Street Mini Roundabout Improvements

vectos

Ground Floor Helmont House, Churchill Way, Cardiff, CF10 2HE
t: 029 2072 0861 e: enquiries@vectos.co.uk

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
LT	MT	30.10.2019	1:200 at A3	184326A_A06	·

Calculation Reference: AUDIT-861401-180322-0343

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
	KC	KENT	1 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	2 days
03	SOUTH WEST		
	DV	DEVON	2 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	3 days
	SY	SOUTH YORKSHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days
	DH	DURHAM	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 50 to 805 (units:)
Range Selected by User: 50 to 805 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/09 to 27/11/17

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	5 days
Tuesday	2 days
Wednesday	1 days
Thursday	6 days
Friday	3 days

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

Selected survey types:

Manual count	17 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 undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	10
Edge of Town	7

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	13
No Sub Category	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	17 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 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	7 days
10,001 to 15,000	5 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days

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

Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	3 days
50,001 to 75,000	1 days
75,001 to 100,000	7 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	14 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	3 days
No	14 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	17 days

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

LIST OF SITES relevant to selection parameters

1 CB-03-A-04 SEMI DETACHED CUMBRIA
MOORCLOSE ROAD
SALTERBACK
WORKINGTON
Edge of Town
No Sub Category
Total Number of dwellings: 82
Survey date: FRIDAY *24/04/09* *Survey Type: MANUAL*

2 DH-03-A-01 SEMI DETACHED DURHAM
GREENFIELDS ROAD

BISHOP AUCKLAND
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 50
Survey date: TUESDAY *28/03/17* *Survey Type: MANUAL*

3 DV-03-A-02 HOUSES & BUNGALOWS DEVON
MILLHEAD ROAD

HONITON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 116
Survey date: FRIDAY *25/09/15* *Survey Type: MANUAL*

4 DV-03-A-03 TERRACED & SEMI DETACHED DEVON
LOWER BRAND LANE

HONITON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 70
Survey date: MONDAY *28/09/15* *Survey Type: MANUAL*

5 HC-03-A-19 HOUSES & FLATS HAMPSHIRE
CANADA WAY

LIPHOOK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 62
Survey date: MONDAY *27/11/17* *Survey Type: MANUAL*

6 KC-03-A-03 MIXED HOUSES & FLATS KENT
HYTHE ROAD
WILLESBOROUGH
ASHFORD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 51
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

7 NE-03-A-02 SEMI DETACHED & DETACHED NORTH EAST LINCOLNSHIRE
HANOVER WALK

SCUNTHORPE
Edge of Town
No Sub Category
Total Number of dwellings: 432
Survey date: MONDAY *12/05/14* *Survey Type: MANUAL*

8 NF-03-A-02 HOUSES & FLATS NORFOLK
DEREHAM ROAD

NORWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 98
Survey date: MONDAY *22/10/12* *Survey Type: MANUAL*

9 NY-03-A-06 BUNGALOWS & SEMI DET. NORTH YORKSHIRE
HORSEFAIR

BOROUGHBRIDGE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 115
Survey date: FRIDAY *14/10/11* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 NY-03-A-09 MIXED HOUSING NORTH YORKSHIRE
GRAMMAR SCHOOL LANE

NORTHALLERTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 52
Survey date: MONDAY *16/09/13* *Survey Type: MANUAL*

11 NY-03-A-10 HOUSES AND FLATS NORTH YORKSHIRE
BOROUGHBRIDGE ROAD

RIPON
Edge of Town
No Sub Category
Total Number of dwellings: 71
Survey date: TUESDAY *17/09/13* *Survey Type: MANUAL*

12 SC-03-A-04 DETACHED & TERRACED SURREY
HIGH ROAD

BYFLEET
Edge of Town
Residential Zone
Total Number of dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

13 SH-03-A-04 TERRACED SHROPSHIRE
ST MICHAEL'S STREET

SHREWSBURY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 108
Survey date: THURSDAY *11/06/09* *Survey Type: MANUAL*

14 SH-03-A-05 SEMI-DETACHED/TERRACED SHROPSHIRE
SANDCROFT
SUTTON HILL
TELFORD
Edge of Town
Residential Zone
Total Number of dwellings: 54
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

15 SY-03-A-01 SEMI DETACHED HOUSES SOUTH YORKSHIRE
A19 BENTLEY ROAD
BENTLEY RISE
DONCASTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 54
Survey date: WEDNESDAY *18/09/13* *Survey Type: MANUAL*

16 WS-03-A-04 MIXED HOUSES WEST SUSSEX
HILLS FARM LANE
BROADBRIDGE HEATH
HORSHAM
Edge of Town
Residential Zone
Total Number of dwellings: 151
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

17 WS-03-A-06 MIXED HOUSES WEST SUSSEX
ELLIS ROAD
S BROADBRIDGE HEATH
WEST HORSHAM
Edge of Town
Residential Zone
Total Number of dwellings: 805
Survey date: THURSDAY *02/03/17* *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 VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.073	17	144	0.289	17	144	0.362
08:00 - 09:00	17	144	0.133	17	144	0.395	17	144	0.528
09:00 - 10:00	17	144	0.152	17	144	0.165	17	144	0.317
10:00 - 11:00	17	144	0.126	17	144	0.159	17	144	0.285
11:00 - 12:00	17	144	0.139	17	144	0.152	17	144	0.291
12:00 - 13:00	17	144	0.154	17	144	0.152	17	144	0.306
13:00 - 14:00	17	144	0.153	17	144	0.153	17	144	0.306
14:00 - 15:00	17	144	0.149	17	144	0.179	17	144	0.328
15:00 - 16:00	17	144	0.251	17	144	0.178	17	144	0.429
16:00 - 17:00	17	144	0.261	17	144	0.160	17	144	0.421
17:00 - 18:00	17	144	0.330	17	144	0.163	17	144	0.493
18:00 - 19:00	17	144	0.283	17	144	0.170	17	144	0.453
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.204			2.315			4.519

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:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.002	17	144	0.002	17	144	0.004
08:00 - 09:00	17	144	0.001	17	144	0.001	17	144	0.002
09:00 - 10:00	17	144	0.003	17	144	0.002	17	144	0.005
10:00 - 11:00	17	144	0.002	17	144	0.003	17	144	0.005
11:00 - 12:00	17	144	0.001	17	144	0.001	17	144	0.002
12:00 - 13:00	17	144	0.001	17	144	0.001	17	144	0.002
13:00 - 14:00	17	144	0.000	17	144	0.000	17	144	0.000
14:00 - 15:00	17	144	0.002	17	144	0.002	17	144	0.004
15:00 - 16:00	17	144	0.005	17	144	0.004	17	144	0.009
16:00 - 17:00	17	144	0.001	17	144	0.002	17	144	0.003
17:00 - 18:00	17	144	0.001	17	144	0.001	17	144	0.002
18:00 - 19:00	17	144	0.001	17	144	0.000	17	144	0.001
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.020			0.019			0.039

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:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.000	17	144	0.000	17	144	0.000
08:00 - 09:00	17	144	0.000	17	144	0.000	17	144	0.000
09:00 - 10:00	17	144	0.002	17	144	0.002	17	144	0.004
10:00 - 11:00	17	144	0.002	17	144	0.002	17	144	0.004
11:00 - 12:00	17	144	0.002	17	144	0.002	17	144	0.004
12:00 - 13:00	17	144	0.001	17	144	0.001	17	144	0.002
13:00 - 14:00	17	144	0.002	17	144	0.002	17	144	0.004
14:00 - 15:00	17	144	0.001	17	144	0.002	17	144	0.003
15:00 - 16:00	17	144	0.001	17	144	0.001	17	144	0.002
16:00 - 17:00	17	144	0.001	17	144	0.000	17	144	0.001
17:00 - 18:00	17	144	0.000	17	144	0.000	17	144	0.000
18:00 - 19:00	17	144	0.000	17	144	0.000	17	144	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.012			0.012			0.024

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:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.000	17	144	0.000	17	144	0.000
08:00 - 09:00	17	144	0.000	17	144	0.000	17	144	0.000
09:00 - 10:00	17	144	0.000	17	144	0.000	17	144	0.000
10:00 - 11:00	17	144	0.000	17	144	0.000	17	144	0.000
11:00 - 12:00	17	144	0.001	17	144	0.001	17	144	0.002
12:00 - 13:00	17	144	0.000	17	144	0.000	17	144	0.000
13:00 - 14:00	17	144	0.000	17	144	0.000	17	144	0.000
14:00 - 15:00	17	144	0.000	17	144	0.000	17	144	0.000
15:00 - 16:00	17	144	0.000	17	144	0.000	17	144	0.000
16:00 - 17:00	17	144	0.000	17	144	0.000	17	144	0.000
17:00 - 18:00	17	144	0.000	17	144	0.000	17	144	0.000
18:00 - 19:00	17	144	0.000	17	144	0.000	17	144	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.*

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Parameter summary

Trip rate parameter range selected:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.005	17	144	0.010	17	144	0.015
08:00 - 09:00	17	144	0.002	17	144	0.012	17	144	0.014
09:00 - 10:00	17	144	0.001	17	144	0.005	17	144	0.006
10:00 - 11:00	17	144	0.003	17	144	0.005	17	144	0.008
11:00 - 12:00	17	144	0.003	17	144	0.003	17	144	0.006
12:00 - 13:00	17	144	0.003	17	144	0.003	17	144	0.006
13:00 - 14:00	17	144	0.004	17	144	0.004	17	144	0.008
14:00 - 15:00	17	144	0.003	17	144	0.003	17	144	0.006
15:00 - 16:00	17	144	0.008	17	144	0.005	17	144	0.013
16:00 - 17:00	17	144	0.011	17	144	0.009	17	144	0.020
17:00 - 18:00	17	144	0.014	17	144	0.009	17	144	0.023
18:00 - 19:00	17	144	0.007	17	144	0.004	17	144	0.011
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.064			0.072			0.136

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:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.089	17	144	0.351	17	144	0.440
08:00 - 09:00	17	144	0.156	17	144	0.580	17	144	0.736
09:00 - 10:00	17	144	0.174	17	144	0.208	17	144	0.382
10:00 - 11:00	17	144	0.148	17	144	0.197	17	144	0.345
11:00 - 12:00	17	144	0.166	17	144	0.191	17	144	0.357
12:00 - 13:00	17	144	0.185	17	144	0.189	17	144	0.374
13:00 - 14:00	17	144	0.191	17	144	0.192	17	144	0.383
14:00 - 15:00	17	144	0.186	17	144	0.230	17	144	0.416
15:00 - 16:00	17	144	0.390	17	144	0.216	17	144	0.606
16:00 - 17:00	17	144	0.366	17	144	0.216	17	144	0.582
17:00 - 18:00	17	144	0.428	17	144	0.215	17	144	0.643
18:00 - 19:00	17	144	0.346	17	144	0.227	17	144	0.573
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.825			3.012			5.837

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:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.018	17	144	0.046	17	144	0.064
08:00 - 09:00	17	144	0.025	17	144	0.136	17	144	0.161
09:00 - 10:00	17	144	0.045	17	144	0.050	17	144	0.095
10:00 - 11:00	17	144	0.044	17	144	0.045	17	144	0.089
11:00 - 12:00	17	144	0.032	17	144	0.026	17	144	0.058
12:00 - 13:00	17	144	0.038	17	144	0.033	17	144	0.071
13:00 - 14:00	17	144	0.034	17	144	0.037	17	144	0.071
14:00 - 15:00	17	144	0.043	17	144	0.050	17	144	0.093
15:00 - 16:00	17	144	0.127	17	144	0.055	17	144	0.182
16:00 - 17:00	17	144	0.082	17	144	0.040	17	144	0.122
17:00 - 18:00	17	144	0.078	17	144	0.048	17	144	0.126
18:00 - 19:00	17	144	0.045	17	144	0.033	17	144	0.078
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.611			0.599			1.210

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:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.001	17	144	0.009	17	144	0.010
08:00 - 09:00	17	144	0.001	17	144	0.007	17	144	0.008
09:00 - 10:00	17	144	0.001	17	144	0.006	17	144	0.007
10:00 - 11:00	17	144	0.002	17	144	0.005	17	144	0.007
11:00 - 12:00	17	144	0.002	17	144	0.002	17	144	0.004
12:00 - 13:00	17	144	0.003	17	144	0.002	17	144	0.005
13:00 - 14:00	17	144	0.005	17	144	0.002	17	144	0.007
14:00 - 15:00	17	144	0.003	17	144	0.003	17	144	0.006
15:00 - 16:00	17	144	0.007	17	144	0.002	17	144	0.009
16:00 - 17:00	17	144	0.006	17	144	0.004	17	144	0.010
17:00 - 18:00	17	144	0.011	17	144	0.002	17	144	0.013
18:00 - 19:00	17	144	0.006	17	144	0.000	17	144	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.048			0.044			0.092

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:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.000	17	144	0.008	17	144	0.008
08:00 - 09:00	17	144	0.000	17	144	0.002	17	144	0.002
09:00 - 10:00	17	144	0.000	17	144	0.001	17	144	0.001
10:00 - 11:00	17	144	0.000	17	144	0.000	17	144	0.000
11:00 - 12:00	17	144	0.000	17	144	0.000	17	144	0.000
12:00 - 13:00	17	144	0.000	17	144	0.000	17	144	0.000
13:00 - 14:00	17	144	0.000	17	144	0.000	17	144	0.000
14:00 - 15:00	17	144	0.000	17	144	0.000	17	144	0.000
15:00 - 16:00	17	144	0.000	17	144	0.001	17	144	0.001
16:00 - 17:00	17	144	0.000	17	144	0.000	17	144	0.000
17:00 - 18:00	17	144	0.002	17	144	0.000	17	144	0.002
18:00 - 19:00	17	144	0.003	17	144	0.000	17	144	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.005			0.012			0.017

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:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.000	17	144	0.000	17	144	0.000
08:00 - 09:00	17	144	0.000	17	144	0.000	17	144	0.000
09:00 - 10:00	17	144	0.000	17	144	0.000	17	144	0.000
10:00 - 11:00	17	144	0.000	17	144	0.000	17	144	0.000
11:00 - 12:00	17	144	0.000	17	144	0.000	17	144	0.000
12:00 - 13:00	17	144	0.000	17	144	0.000	17	144	0.000
13:00 - 14:00	17	144	0.000	17	144	0.000	17	144	0.000
14:00 - 15:00	17	144	0.000	17	144	0.000	17	144	0.000
15:00 - 16:00	17	144	0.001	17	144	0.000	17	144	0.001
16:00 - 17:00	17	144	0.000	17	144	0.000	17	144	0.000
17:00 - 18:00	17	144	0.000	17	144	0.000	17	144	0.000
18:00 - 19:00	17	144	0.000	17	144	0.000	17	144	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			0.000			0.001

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:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.001	17	144	0.017	17	144	0.018
08:00 - 09:00	17	144	0.001	17	144	0.009	17	144	0.010
09:00 - 10:00	17	144	0.001	17	144	0.007	17	144	0.008
10:00 - 11:00	17	144	0.002	17	144	0.005	17	144	0.007
11:00 - 12:00	17	144	0.002	17	144	0.003	17	144	0.005
12:00 - 13:00	17	144	0.003	17	144	0.003	17	144	0.006
13:00 - 14:00	17	144	0.005	17	144	0.002	17	144	0.007
14:00 - 15:00	17	144	0.003	17	144	0.003	17	144	0.006
15:00 - 16:00	17	144	0.007	17	144	0.004	17	144	0.011
16:00 - 17:00	17	144	0.007	17	144	0.004	17	144	0.011
17:00 - 18:00	17	144	0.014	17	144	0.002	17	144	0.016
18:00 - 19:00	17	144	0.009	17	144	0.000	17	144	0.009
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.055			0.059			0.114

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:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	17	144	0.112	17	144	0.424	17	144	0.536
08:00 - 09:00	17	144	0.184	17	144	0.738	17	144	0.922
09:00 - 10:00	17	144	0.220	17	144	0.269	17	144	0.489
10:00 - 11:00	17	144	0.196	17	144	0.251	17	144	0.447
11:00 - 12:00	17	144	0.204	17	144	0.223	17	144	0.427
12:00 - 13:00	17	144	0.229	17	144	0.228	17	144	0.457
13:00 - 14:00	17	144	0.234	17	144	0.235	17	144	0.469
14:00 - 15:00	17	144	0.235	17	144	0.285	17	144	0.520
15:00 - 16:00	17	144	0.533	17	144	0.280	17	144	0.813
16:00 - 17:00	17	144	0.465	17	144	0.269	17	144	0.734
17:00 - 18:00	17	144	0.534	17	144	0.274	17	144	0.808
18:00 - 19:00	17	144	0.406	17	144	0.263	17	144	0.669
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.552			3.739			7.291

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:	50 - 805 (units:)
Survey date date range:	01/01/09 - 27/11/17
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

LICHFIELDS

Memo

Our ref 60230/01/GW/AE
Date 26 November 2019
To Newport County Council
From Lichfields

Subject USW Caerleon Site – Fallback / Baseline Position

1.0 Purpose of Note

1.1 This note considers the fallback position that exists at the former University of South Wales campus, Caerleon. It has been prepared so that there is common ground between the applicant and the Council with regard to the baseline position and how this is used when considering a planning application for residential development on the site.

2.0 What is a Fallback Position?

2.1 The case of Zurich Assurance v North Lincolnshire Council v Simons Developments Limited (2012) clarifies what a fall-back position is and when it can be taken into consideration as a material planning consideration:

"The prospect of the fall-back position does not have to be probable or even have a high chance of occurring; it has to be only more than a merely theoretical prospect. Where the possibility of the fall-back position happening is "very slight indeed", or merely "an outside chance", that is sufficient to make the position a material consideration (see Samuel Smith Old Brewery (Tadcaster) v Secretary of State for Communities and Local Government [2009] EWCA Civ 333 at [20]-[21] per Sullivan LJ). Weight is, then, a matter for the planning committee."

3.0 The Baseline Position

3.1 The site currently accommodates 42,839 sqm of floorspace and has been used for a significant number of years as a university campus, most recently by the University of South Wales. The site's established lawful use is therefore a university campus. The use class of the site is as follows:

1 Existing Academic Buildings - D1 (non-residential institution);

2 Existing Sports Facility - D2 (assembly and leisure);

3 Purpose Built Halls of Residence – Sui Generis or C2 (Residential Institutions).

3.2 The floorspace is broken down as follows:

Table 1 Breakdown of existing floorspace

Building	Floor Area (GIA) m^2
Edward Anwyl	2,334
Felthorpe House	239
Kegie	1,600
Kegie Phase 2 (not built but extant)	2,400

Building	Floor Area (GIA) m^2
Library	1,710
Main Building	7,298
Rathmell & Extension	11,061
Accommodation Office	186
TJ Webley	322
Ty Hywel	187
Academic sub-total	27,337
Sports Centre	3,205
Rugby Pitch	N/A
Assembly and Leisure sub-total	3,205
Abergavenny – Dolaucothi (A-D) Halls of residence (Built 1974)	3,798
Ebbw – Skenfrith (E-S) Halls of residence (Built 1989)	8,499
Sui Generis sub total	12,297
Total	42,839

3.3 It is agreed between the applicant and the Council that a complete re-use of the site as a university campus is not a reasonable fallback position for assessing a planning application for the redevelopment of the site. This is because the likelihood of a university campus being re-introduced on the site is low. This position is reached notwithstanding the aforementioned case law that a fall-back position *"does not have to be probable or even have a high chance of occurring"*.

3.4 It has also been agreed with the Council that a zero-former use at the site is not a reasonable fallback position. This is because the site is in a sustainable location, within the settlement boundary as defined by the development plan and has the potential to be used for a number of uses, either via uses within the same use class as present or via new planning permission(s). Indeed, the site has already been used for alternative uses e.g. filming and the Council has confirmed (application reference 19/0299) that the alternative use of the site, albeit on a temporary basis, is acceptable. Listed Building consent has also been given for the conversion of the existing building on site to flats. The officer report for the previous application on site indicated that this would be an acceptable re-use of the building. Given the size of the site and the operational cost of maintaining it, it would not be appropriate or feasible to leave the site vacant. Not re-using this brownfield site within the settlement boundary would also conflict with the Newport LDP Policy SP1 and Planning Policy Wales (paragraph 3.7) which seeks to make efficient use of land.

3.5 The applicant has therefore discussed in detail and agreed with the Council as to what a suitable baseline position would entail for assessing a planning application. The baseline position has been devised based on fallback uses that could be introduced into the buildings without the need to apply for planning permission. These are as follows:

Table 2 Agreed Fallback Uses

Building	Potential Use (gross floorspace sqm)
Main Teaching Building (D1)	Conference Centre – 1,125 sqm
Kegie Building (D1)	Dental Surgery – 400 sqm Health Clinic – 400 sqm Nursery – 800 sqm

Building	Potential Use (gross floorspace sqm)
Sports Centre (D2)	Gym – 600 sqm
Felthorpe House (D1)	Doctors Surgery – 200 sqm
Total	3,525 sqm

3.6 Theoretically the above uses could commence at any moment and therefore the baseline position is considered a genuine proposition. The quantum of floorspace is considered a reasonable assumption. The floorspace only accounts for around 8% of the total floorspace and in our opinion could reasonably be considered an underestimation of the former use on the site.

3.7 The LPA Planning Officer is satisfied that the uses identified would be lawful uses of the building(s) and, as a fallback, are a material consideration. The likelihood of the sports centre reopening was questioned by the Planning Officer and the weight that may be afforded this may be affected. The ability to re-open a smaller area (less than 20%) of floorspace for a gym use is considered a reasonable consideration in the sense of a lawful fall-back use and to be a factor within a baseline position for associated traffic generation. All parties agree that the quantum of floorspace considered as part of the fallback is low/conservative. Therefore, the traffic generation associated with these uses is a reasonable baseline for transport assessment purposes, particularly having regard to officer support for the conversion of the listed buildings which has not been factored into the baseline.

3.8 The above scenario and its associated impacts have therefore been used as a baseline in assessing the impact of this planning application. The appended 'Future Baseline Scenario' (November 2019) note produced by Vectos sets out the forecast trip generation based on the TRICS database. The TRICS data presented in the note (Table 1 – Total Future Baseline Trip Generation) has been accepted by the Council Highway Officer.

Appendix 1 – Future Baseline Scenario – Vectos

Former Caerleon Campus, Lodge Road, Caerleon

Future Baseline Scenario

November 2019

184326A/N01

Introduction

1. The potential lawful planning use within the Future Baseline Scenario has been considered as follows:

- Main Teaching Building
  - Conference Centre - 1,125sqm
- Kegie Building
  - Dental Surgery - 400sqm
  - Health Clinic - 400sqm
  - Nursery - 800sqm
- Sports Centre
  - Gym - 600sqm
- Felthorpe House
  - Doctors Surgery – 200sqm

2. Whilst the above land uses are considered realistic from in lawful planning use terms, this only accounts for 8% of the total existing floorspace (42,839sqm) of the former Caerleon Campus and so could reasonably be considered to be an underestimation of the former use on the site.

3. This Future Baseline Scenario will be used to inform both the Transport Assessment and the Air Quality Assessment for the proposed development.

Forecast Trip Generation

4. The forecast trip generation has been based on the TRICS database for the various land uses described and Newport City Council (NCC) has confirmed that this is acceptable for the land proposed.

5. In relation to the conference centre, NCC has provided details of sites from within TRICS that it considers to be acceptable for forecasting traffic from a conference centre on the former USW site.

6. Therefore, using TRICS for all of the lawful planning land uses, the total vehicular trip generation for the Future Baseline Scenario is shown in **Table 1**.

Table 1 – Total Future Baseline Trip Generation

Land Use	AM		PM		Daily	
	Arrivals	**Departures**	**Arrivals**	**Departures**	**Arrivals**	**Departures**
Conference Centre	31	1	0	6	50	47
Dental Surgery	29	6	4	25	192	176
Health Clinic	4	0	0	3	24	15
Nursery	37	28	25	30	357	335
Gym	5	3	9	5	79	46
Doctors Surgery	7	4	3	5	61	49
Total	**115**	**42**	**41**	**75**	**762**	**667**

7. The details of the specific sites from TRICS for each of the land uses are provided within **Appendix A**.

APPENDIX A

Calculation Reference: AUDIT-152302-190213-0237

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION
Category : D - NURSERY
VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS		
	LE	LEICESTERSHIRE	1 days
	LN	LINCOLNSHIRE	1 days
	NR	NORTHAMPTONSHIRE	1 days
09	NORTH		
	TV	TEES VALLEY	1 days
	TW	TYNE & WEAR	1 days
10	WALES		
	BG	BRIDGEND	1 days
11	SCOTLAND		
	DU	DUNDEE CITY	1 days
	SR	STIRLING	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 150 to 600 (units: sqm)
Range Selected by User: 120 to 2350 (units: sqm)

Parking Spaces Range: Selected: 0 to 60 Actual: 0 to 60

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 31/10/17

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	3 days
Tuesday	2 days
Wednesday	2 days
Thursday	2 days
Friday	1 days

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

Selected survey types:

Manual count	10 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 undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	6
Edge of Town	4

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:

Industrial Zone	1
Residential Zone	8
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

D1	10 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 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	4 days

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

Population within 5 miles:

75,001 to 100,000	4 days
125,001 to 250,000	4 days
250,001 to 500,000	2 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	3 days
1.1 to 1.5	6 days

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

Travel Plan:

No	10 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	10 days

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

LIST OF SITES relevant to selection parameters

1 BG-04-D-01 NURSERY BRIDGEND
GEORGE STREET
BRIDGEND
BRIDGEND IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 210 sqm
Survey date: MONDAY *13/10/14* *Survey Type: MANUAL*

2 CA-04-D-02 NURSERY CAMBRIDGESHIRE
EASTFIELD ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 400 sqm
Survey date: TUESDAY *18/10/16* *Survey Type: MANUAL*

3 DU-04-D-01 NURSERY DUNDEE CITY
LONGTOWN TERRACE
DUNDEE

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 325 sqm
Survey date: MONDAY *24/04/17* *Survey Type: MANUAL*

4 LE-04-D-01 NURSERY LEICESTERSHIRE
WIGSTON ROAD
LEICESTER
OADBY
Edge of Town
Residential Zone
Total Gross floor area: 375 sqm
Survey date: THURSDAY *30/10/14* *Survey Type: MANUAL*

5 LN-04-D-01 NURSERY LINCOLNSHIRE
NEWARK ROAD
LINCOLN
SWALLOW BECK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 600 sqm
Survey date: TUESDAY *31/10/17* *Survey Type: MANUAL*

6 NR-04-D-02 NURSERY NORTHAMPTONSHIRE
PARK AVENUE
KETTERING

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 182 sqm
Survey date: WEDNESDAY *26/09/12* *Survey Type: MANUAL*

7 SR-04-D-01 NURSERY STIRLING
HENDERSON STREET
STIRLING
BRIDGE OF ALLAN
Edge of Town
No Sub Category
Total Gross floor area: 250 sqm
Survey date: MONDAY *16/06/14* *Survey Type: MANUAL*

8 TV-04-D-01 NURSERY TEES VALLEY
COTSWOLD DRIVE
REDCAR

Edge of Town
Residential Zone
Total Gross floor area: 150 sqm
Survey date: FRIDAY *19/05/17* *Survey Type: MANUAL*

9 TW-04-D-02 NURSERY TYNE & WEAR
ETTRICK GROVE
SUNDERLAND
HIGH BARNES
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 500 sqm
Survey date: WEDNESDAY *28/11/12* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 WL-04-D-01 NURSERY WILTSHIRE
SHREWSBURY ROAD
SWINDON
WALCOT
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 500 sqm
Survey date: THURSDAY *22/09/16* *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 04 - EDUCATION/D - NURSERY
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	400	0.000	1	400	0.000	1	400	0.000
07:00 - 08:00	10	349	2.176	10	349	1.231	10	349	3.407
08:00 - 09:00	10	349	4.668	10	349	3.551	10	349	8.219
09:00 - 10:00	10	349	1.804	10	349	1.604	10	349	3.408
10:00 - 11:00	10	349	0.830	10	349	0.430	10	349	1.260
11:00 - 12:00	10	349	0.888	10	349	0.830	10	349	1.718
12:00 - 13:00	10	349	1.346	10	349	1.718	10	349	3.064
13:00 - 14:00	10	349	1.060	10	349	1.661	10	349	2.721
14:00 - 15:00	10	349	0.773	10	349	0.859	10	349	1.632
15:00 - 16:00	10	349	1.375	10	349	1.489	10	349	2.864
16:00 - 17:00	10	349	2.234	10	349	2.520	10	349	4.754
17:00 - 18:00	10	349	3.179	10	349	3.809	10	349	6.988
18:00 - 19:00	9	371	0.269	9	371	0.808	9	371	1.077
19:00 - 20:00	1	400	0.000	1	400	0.000	1	400	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			20.602			20.510			41.112

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:	150 - 600 (units: sqm)
Survey date date range:	01/01/10 - 31/10/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	400	0.000	1	400	0.000	1	400	0.000
07:00 - 08:00	10	349	0.057	10	349	0.057	10	349	0.114
08:00 - 09:00	10	349	0.115	10	349	0.057	10	349	0.172
09:00 - 10:00	10	349	0.029	10	349	0.086	10	349	0.115
10:00 - 11:00	10	349	0.029	10	349	0.029	10	349	0.058
11:00 - 12:00	10	349	0.029	10	349	0.029	10	349	0.058
12:00 - 13:00	10	349	0.029	10	349	0.029	10	349	0.058
13:00 - 14:00	10	349	0.000	10	349	0.000	10	349	0.000
14:00 - 15:00	10	349	0.029	10	349	0.029	10	349	0.058
15:00 - 16:00	10	349	0.000	10	349	0.000	10	349	0.000
16:00 - 17:00	10	349	0.000	10	349	0.000	10	349	0.000
17:00 - 18:00	10	349	0.029	10	349	0.029	10	349	0.058
18:00 - 19:00	9	371	0.000	9	371	0.000	9	371	0.000
19:00 - 20:00	1	400	0.000	1	400	0.000	1	400	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.346			0.345			0.691

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

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TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	400	0.000	1	400	0.000	1	400	0.000
07:00 - 08:00	10	349	0.029	10	349	0.029	10	349	0.058
08:00 - 09:00	10	349	0.000	10	349	0.000	10	349	0.000
09:00 - 10:00	10	349	0.086	10	349	0.086	10	349	0.172
10:00 - 11:00	10	349	0.029	10	349	0.000	10	349	0.029
11:00 - 12:00	10	349	0.029	10	349	0.057	10	349	0.086
12:00 - 13:00	10	349	0.057	10	349	0.057	10	349	0.114
13:00 - 14:00	10	349	0.029	10	349	0.029	10	349	0.058
14:00 - 15:00	10	349	0.000	10	349	0.000	10	349	0.000
15:00 - 16:00	10	349	0.000	10	349	0.000	10	349	0.000
16:00 - 17:00	10	349	0.000	10	349	0.000	10	349	0.000
17:00 - 18:00	10	349	0.000	10	349	0.000	10	349	0.000
18:00 - 19:00	9	371	0.000	9	371	0.000	9	371	0.000
19:00 - 20:00	1	400	0.000	1	400	0.000	1	400	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.259			0.258			0.517

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

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TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	400	0.000	1	400	0.000	1	400	0.000
07:00 - 08:00	10	349	0.000	10	349	0.000	10	349	0.000
08:00 - 09:00	10	349	0.029	10	349	0.029	10	349	0.058
09:00 - 10:00	10	349	0.000	10	349	0.000	10	349	0.000
10:00 - 11:00	10	349	0.000	10	349	0.000	10	349	0.000
11:00 - 12:00	10	349	0.000	10	349	0.000	10	349	0.000
12:00 - 13:00	10	349	0.000	10	349	0.000	10	349	0.000
13:00 - 14:00	10	349	0.000	10	349	0.000	10	349	0.000
14:00 - 15:00	10	349	0.000	10	349	0.000	10	349	0.000
15:00 - 16:00	10	349	0.000	10	349	0.000	10	349	0.000
16:00 - 17:00	10	349	0.000	10	349	0.000	10	349	0.000
17:00 - 18:00	10	349	0.000	10	349	0.000	10	349	0.000
18:00 - 19:00	9	371	0.000	9	371	0.000	9	371	0.000
19:00 - 20:00	1	400	0.000	1	400	0.000	1	400	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.029			0.029			0.058

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 04 - EDUCATION/D - NURSERY
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	400	0.000	1	400	0.000	1	400	0.000
07:00 - 08:00	10	349	0.000	10	349	0.000	10	349	0.000
08:00 - 09:00	10	349	0.115	10	349	0.086	10	349	0.201
09:00 - 10:00	10	349	0.000	10	349	0.000	10	349	0.000
10:00 - 11:00	10	349	0.000	10	349	0.000	10	349	0.000
11:00 - 12:00	10	349	0.000	10	349	0.000	10	349	0.000
12:00 - 13:00	10	349	0.029	10	349	0.000	10	349	0.029
13:00 - 14:00	10	349	0.000	10	349	0.000	10	349	0.000
14:00 - 15:00	10	349	0.000	10	349	0.000	10	349	0.000
15:00 - 16:00	10	349	0.000	10	349	0.000	10	349	0.000
16:00 - 17:00	10	349	0.029	10	349	0.029	10	349	0.058
17:00 - 18:00	10	349	0.057	10	349	0.115	10	349	0.172
18:00 - 19:00	9	371	0.000	9	371	0.000	9	371	0.000
19:00 - 20:00	1	400	0.000	1	400	0.000	1	400	0.000
20:00 - 21:00	1	400	0.000	1	400	0.000	1	400	0.000
21:00 - 22:00	1	400	0.000	1	400	0.000	1	400	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.230			0.230			0.460

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.*

Calculation Reference: AUDIT-152302-190213-0254

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : K - FITNESS CLUB (PRIVATE)
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	1 days
05	EAST MIDLANDS		
	LE	LEICESTERSHIRE	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
09	NORTH		
	TW	TYNE & WEAR	1 days
10	WALES		
	PS	POWYS	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 404 to 9000 (units: sqm)
Range Selected by User: 404 to 15000 (units: sqm)

Parking Spaces Range: Selected: 0 to 339 Actual: 0 to 339

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 27/09/17

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	1 days
Tuesday	3 days
Wednesday	2 days
Thursday	2 days

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

Selected survey types:

Manual count	8 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 undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	6

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:

Development Zone	1
Residential Zone	4
Out of Town	1
No Sub Category	2

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:

D2	8 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 1 mile:

5,001 to 10,000	3 days
10,001 to 15,000	3 days
15,001 to 20,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:

5,001 to 25,000	2 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	3 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:

0.6 to 1.0	3 days
1.1 to 1.5	5 days

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

Travel Plan:

No	8 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	8 days

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

LIST OF SITES relevant to selection parameters

1 ES-07-K-02 CORAL FITNESS EAST SUSSEX
ORCHARD ROAD
BRIGHTON
HOVE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1600 sqm
Survey date: WEDNESDAY 27/09/17 Survey Type: MANUAL

2 GM-07-K-02 VIRGIN ACTIVE GREATER MANCHESTER
HEYWOOD OLD ROAD
MIDDLETON

Edge of Town
Out of Town
Total Gross floor area: 9000 sqm
Survey date: THURSDAY 22/10/15 Survey Type: MANUAL

3 HC-07-K-01 VIRGIN ACTIVE HAMPSHIRE
BOTLEY ROAD
SOUTHAMPTON
WEST END
Edge of Town
No Sub Category
Total Gross floor area: 8000 sqm
Survey date: TUESDAY 24/11/15 Survey Type: MANUAL

4 LE-07-K-01 DAVID LLOYD CLUB LEICESTERSHIRE
CARLTON PARK
LEICESTER
NARBOROUGH
Edge of Town
Residential Zone
Total Gross floor area: 8200 sqm
Survey date: TUESDAY 04/11/14 Survey Type: MANUAL

5 NY-07-K-01 FITNESS CLUB NORTH YORKSHIRE
RIVER VIEW ROAD
RIPON

Edge of Town
No Sub Category
Total Gross floor area: 404 sqm
Survey date: TUESDAY 27/09/16 Survey Type: MANUAL

6 PS-07-K-01 SPORTS CENTRE POWYS
BROOK STREET
WELSHPOOL

Edge of Town
Residential Zone
Total Gross floor area: 950 sqm
Survey date: MONDAY 11/05/15 Survey Type: MANUAL

7 SH-07-K-01 FITNESS, TENNIS & LEISURE SHROPSHIRE
SUNDORNE ROAD
SHREWSBURY

Edge of Town
Residential Zone
Total Gross floor area: 4500 sqm
Survey date: WEDNESDAY 21/05/14 Survey Type: MANUAL

8 TW-07-K-01 DW SPORTS FITNESS TYNE & WEAR
TIMBER BEACH ROAD
SUNDERLAND
CASTLETOWN
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 1380 sqm
Survey date: THURSDAY 06/04/17 Survey Type: MANUAL

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

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	8	4254	0.641	8	4254	0.029	8	4254	0.670
07:00 - 08:00	8	4254	0.461	8	4254	0.432	8	4254	0.893
08:00 - 09:00	8	4254	0.879	8	4254	0.458	8	4254	1.337
09:00 - 10:00	8	4254	1.211	8	4254	0.476	8	4254	1.687
10:00 - 11:00	8	4254	0.896	8	4254	0.670	8	4254	1.566
11:00 - 12:00	8	4254	0.532	8	4254	0.920	8	4254	1.452
12:00 - 13:00	8	4254	0.411	8	4254	0.761	8	4254	1.172
13:00 - 14:00	8	4254	0.473	8	4254	0.585	8	4254	1.058
14:00 - 15:00	8	4254	0.511	8	4254	0.526	8	4254	1.037
15:00 - 16:00	8	4254	0.755	8	4254	0.652	8	4254	1.407
16:00 - 17:00	8	4254	1.128	8	4254	0.911	8	4254	2.039
17:00 - 18:00	8	4254	1.431	8	4254	0.879	8	4254	2.310
18:00 - 19:00	8	4254	1.404	8	4254	1.310	8	4254	2.714
19:00 - 20:00	8	4254	0.870	8	4254	1.475	8	4254	2.345
20:00 - 21:00	8	4254	0.502	8	4254	0.978	8	4254	1.480
21:00 - 22:00	8	4254	0.097	8	4254	0.740	8	4254	0.837
22:00 - 23:00	2	1002	0.050	2	1002	0.200	2	1002	0.250
23:00 - 24:00									
Total Rates:			12.252			12.002			24.254

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:	404 - 9000 (units: sqm)
Survey date date range:	01/01/10 - 27/09/17
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	8	4254	0.003	8	4254	0.003	8	4254	0.006
07:00 - 08:00	8	4254	0.003	8	4254	0.003	8	4254	0.006
08:00 - 09:00	8	4254	0.003	8	4254	0.003	8	4254	0.006
09:00 - 10:00	8	4254	0.006	8	4254	0.003	8	4254	0.009
10:00 - 11:00	8	4254	0.009	8	4254	0.009	8	4254	0.018
11:00 - 12:00	8	4254	0.006	8	4254	0.006	8	4254	0.012
12:00 - 13:00	8	4254	0.006	8	4254	0.009	8	4254	0.015
13:00 - 14:00	8	4254	0.006	8	4254	0.006	8	4254	0.012
14:00 - 15:00	8	4254	0.006	8	4254	0.006	8	4254	0.012
15:00 - 16:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
16:00 - 17:00	8	4254	0.009	8	4254	0.009	8	4254	0.018
17:00 - 18:00	8	4254	0.003	8	4254	0.003	8	4254	0.006
18:00 - 19:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
19:00 - 20:00	8	4254	0.006	8	4254	0.006	8	4254	0.012
20:00 - 21:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
21:00 - 22:00	8	4254	0.003	8	4254	0.003	8	4254	0.006
22:00 - 23:00	2	1002	0.000	2	1002	0.000	2	1002	0.000
23:00 - 24:00									
Total Rates:			0.069			0.069			0.138

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 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
07:00 - 08:00	8	4254	0.003	8	4254	0.003	8	4254	0.006
08:00 - 09:00	8	4254	0.006	8	4254	0.003	8	4254	0.009
09:00 - 10:00	8	4254	0.003	8	4254	0.000	8	4254	0.003
10:00 - 11:00	8	4254	0.006	8	4254	0.003	8	4254	0.009
11:00 - 12:00	8	4254	0.006	8	4254	0.006	8	4254	0.012
12:00 - 13:00	8	4254	0.000	8	4254	0.006	8	4254	0.006
13:00 - 14:00	8	4254	0.003	8	4254	0.000	8	4254	0.003
14:00 - 15:00	8	4254	0.003	8	4254	0.003	8	4254	0.006
15:00 - 16:00	8	4254	0.000	8	4254	0.006	8	4254	0.006
16:00 - 17:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
17:00 - 18:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
18:00 - 19:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
19:00 - 20:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
20:00 - 21:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
21:00 - 22:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
22:00 - 23:00	2	1002	0.000	2	1002	0.000	2	1002	0.000
23:00 - 24:00									
Total Rates:			0.030			0.030			0.060

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 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
07:00 - 08:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
08:00 - 09:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
09:00 - 10:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
10:00 - 11:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
11:00 - 12:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
12:00 - 13:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
13:00 - 14:00	8	4254	0.003	8	4254	0.000	8	4254	0.003
14:00 - 15:00	8	4254	0.006	8	4254	0.000	8	4254	0.006
15:00 - 16:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
16:00 - 17:00	8	4254	0.000	8	4254	0.006	8	4254	0.006
17:00 - 18:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
18:00 - 19:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
19:00 - 20:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
20:00 - 21:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
21:00 - 22:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
22:00 - 23:00	2	1002	0.000	2	1002	0.000	2	1002	0.000
23:00 - 24:00									
Total Rates:			0.009			0.006			0.015

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 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	8	4254	0.009	8	4254	0.003	8	4254	0.012
07:00 - 08:00	8	4254	0.000	8	4254	0.006	8	4254	0.006
08:00 - 09:00	8	4254	0.024	8	4254	0.006	8	4254	0.030
09:00 - 10:00	8	4254	0.029	8	4254	0.015	8	4254	0.044
10:00 - 11:00	8	4254	0.021	8	4254	0.012	8	4254	0.033
11:00 - 12:00	8	4254	0.018	8	4254	0.032	8	4254	0.050
12:00 - 13:00	8	4254	0.012	8	4254	0.006	8	4254	0.018
13:00 - 14:00	8	4254	0.021	8	4254	0.021	8	4254	0.042
14:00 - 15:00	8	4254	0.009	8	4254	0.018	8	4254	0.027
15:00 - 16:00	8	4254	0.026	8	4254	0.015	8	4254	0.041
16:00 - 17:00	8	4254	0.012	8	4254	0.024	8	4254	0.036
17:00 - 18:00	8	4254	0.041	8	4254	0.041	8	4254	0.082
18:00 - 19:00	8	4254	0.035	8	4254	0.026	8	4254	0.061
19:00 - 20:00	8	4254	0.009	8	4254	0.021	8	4254	0.030
20:00 - 21:00	8	4254	0.003	8	4254	0.012	8	4254	0.015
21:00 - 22:00	8	4254	0.012	8	4254	0.012	8	4254	0.024
22:00 - 23:00	2	1002	0.000	2	1002	0.150	2	1002	0.150
23:00 - 24:00									
Total Rates:			0.281			0.420			0.701

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 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	8	4254	0.529	8	4254	0.015	8	4254	0.544
07:00 - 08:00	8	4254	0.385	8	4254	0.332	8	4254	0.717
08:00 - 09:00	8	4254	0.720	8	4254	0.361	8	4254	1.081
09:00 - 10:00	8	4254	0.923	8	4254	0.382	8	4254	1.305
10:00 - 11:00	8	4254	0.752	8	4254	0.535	8	4254	1.287
11:00 - 12:00	8	4254	0.426	8	4254	0.679	8	4254	1.105
12:00 - 13:00	8	4254	0.323	8	4254	0.643	8	4254	0.966
13:00 - 14:00	8	4254	0.370	8	4254	0.464	8	4254	0.834
14:00 - 15:00	8	4254	0.347	8	4254	0.403	8	4254	0.750
15:00 - 16:00	8	4254	0.505	8	4254	0.455	8	4254	0.960
16:00 - 17:00	8	4254	0.876	8	4254	0.702	8	4254	1.578
17:00 - 18:00	8	4254	1.119	8	4254	0.658	8	4254	1.777
18:00 - 19:00	8	4254	1.166	8	4254	1.064	8	4254	2.230
19:00 - 20:00	8	4254	0.761	8	4254	1.228	8	4254	1.989
20:00 - 21:00	8	4254	0.461	8	4254	0.837	8	4254	1.298
21:00 - 22:00	8	4254	0.076	8	4254	0.626	8	4254	0.702
22:00 - 23:00	2	1002	0.000	2	1002	0.100	2	1002	0.100
23:00 - 24:00									
Total Rates:			9.739			9.484			19.223

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 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	8	4254	0.026	8	4254	0.009	8	4254	0.035
07:00 - 08:00	8	4254	0.012	8	4254	0.009	8	4254	0.021
08:00 - 09:00	8	4254	0.026	8	4254	0.015	8	4254	0.041
09:00 - 10:00	8	4254	0.041	8	4254	0.029	8	4254	0.070
10:00 - 11:00	8	4254	0.021	8	4254	0.018	8	4254	0.039
11:00 - 12:00	8	4254	0.026	8	4254	0.047	8	4254	0.073
12:00 - 13:00	8	4254	0.024	8	4254	0.021	8	4254	0.045
13:00 - 14:00	8	4254	0.038	8	4254	0.035	8	4254	0.073
14:00 - 15:00	8	4254	0.044	8	4254	0.035	8	4254	0.079
15:00 - 16:00	8	4254	0.044	8	4254	0.026	8	4254	0.070
16:00 - 17:00	8	4254	0.038	8	4254	0.059	8	4254	0.097
17:00 - 18:00	8	4254	0.068	8	4254	0.032	8	4254	0.100
18:00 - 19:00	8	4254	0.047	8	4254	0.050	8	4254	0.097
19:00 - 20:00	8	4254	0.032	8	4254	0.041	8	4254	0.073
20:00 - 21:00	8	4254	0.009	8	4254	0.044	8	4254	0.053
21:00 - 22:00	8	4254	0.006	8	4254	0.032	8	4254	0.038
22:00 - 23:00	2	1002	0.000	2	1002	0.050	2	1002	0.050
23:00 - 24:00									
Total Rates:			0.502			0.552			1.054

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 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
MOTOR CYCLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	8	4254	0.006	8	4254	0.000	8	4254	0.006
07:00 - 08:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
08:00 - 09:00	8	4254	0.003	8	4254	0.000	8	4254	0.003
09:00 - 10:00	8	4254	0.003	8	4254	0.003	8	4254	0.006
10:00 - 11:00	8	4254	0.000	8	4254	0.006	8	4254	0.006
11:00 - 12:00	8	4254	0.003	8	4254	0.000	8	4254	0.003
12:00 - 13:00	8	4254	0.003	8	4254	0.003	8	4254	0.006
13:00 - 14:00	8	4254	0.003	8	4254	0.003	8	4254	0.006
14:00 - 15:00	8	4254	0.012	8	4254	0.003	8	4254	0.015
15:00 - 16:00	8	4254	0.003	8	4254	0.012	8	4254	0.015
16:00 - 17:00	8	4254	0.009	8	4254	0.000	8	4254	0.009
17:00 - 18:00	8	4254	0.009	8	4254	0.006	8	4254	0.015
18:00 - 19:00	8	4254	0.009	8	4254	0.009	8	4254	0.018
19:00 - 20:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
20:00 - 21:00	8	4254	0.000	8	4254	0.006	8	4254	0.006
21:00 - 22:00	8	4254	0.000	8	4254	0.000	8	4254	0.000
22:00 - 23:00	2	1002	0.050	2	1002	0.050	2	1002	0.100
23:00 - 24:00									
Total Rates:			0.113			0.101			0.214

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.*

Calculation Reference: AUDIT-152302-190213-0224

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : G - GP SURGERIES
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	BU	BUCKINGHAMSHIRE	1 days
	SC	SURREY	1 days
03	SOUTH WEST		
	GS	GLOUCESTERSHIRE	1 days
	SM	SOMERSET	1 days
05	EAST MIDLANDS		
	LE	LEICESTERSHIRE	1 days
	NT	NOTTINGHAMSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
08	NORTH WEST		
	CH	CHESHIRE	1 days
09	NORTH		
	TW	TYNE & WEAR	1 days
10	WALES		
	CF	CARDIFF	3 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 310 to 1592 (units: sqm)
Range Selected by User: 143 to 1592 (units: sqm)

Parking Spaces Range: Selected: 0 to 62 Actual: 0 to 62

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 14/03/18

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

Selected survey days:

Tuesday	3 days
Wednesday	5 days
Thursday	1 days
Friday	3 days

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

Selected survey types:

Manual count	12 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 undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	7
Edge of Town	5

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	12

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

Secondary Filtering selection:

Use Class:

D1	12 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 1 mile:

5,001 to 10,000	2 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
20,001 to 25,000	4 days
25,001 to 50,000	3 days

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

Population within 5 miles:

25,001 to 50,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	2 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	6 days
1.1 to 1.5	5 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:

Not Known	1 days
Yes	1 days
No	10 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	12 days

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

LIST OF SITES relevant to selection parameters

1 BU-05-G-02 GP SURGERY BUCKINGHAMSHIRE
HINDHEAD KNOLL
MILTON KEYNES
WALNUT TREE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 601 sqm
Survey date: TUESDAY *19/10/10* *Survey Type: MANUAL*

2 CF-05-G-01 GP SURGERY CARDIFF
CAMBRIDGE STREET
CARDIFF

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1200 sqm
Survey date: FRIDAY *05/05/17* *Survey Type: MANUAL*

3 CF-05-G-02 GP SURGERY CARDIFF
PARK ROAD
CARDIFF
WHITCHURCH
Edge of Town
Residential Zone
Total Gross floor area: 450 sqm
Survey date: WEDNESDAY *05/10/16* *Survey Type: MANUAL*

4 CF-05-G-03 GP SURGERY CARDIFF
DARTINGTON DRIVE
CARDIFF
PONTPRENNAU
Edge of Town
Residential Zone
Total Gross floor area: 1243 sqm
Survey date: WEDNESDAY *14/03/18* *Survey Type: MANUAL*

5 CH-05-G-03 GP SURGERY CHESHIRE
HEATH LANE
CHESTER
BOUGHTON HEATH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 800 sqm
Survey date: TUESDAY *29/05/12* *Survey Type: MANUAL*

6 GS-05-G-01 GP SURGERY GLOUCESTERSHIRE
ABBOTSWOOD ROAD
GLOUCESTER
BROCKWORTH
Edge of Town
Residential Zone
Total Gross floor area: 475 sqm
Survey date: TUESDAY *27/04/10* *Survey Type: MANUAL*

7 LE-05-G-01 GP SURGERY LEICESTERSHIRE
GLEN ROAD
LEICESTER
OADBY
Edge of Town
Residential Zone
Total Gross floor area: 550 sqm
Survey date: THURSDAY *30/10/14* *Survey Type: MANUAL*

8 NT-05-G-01 GP SURGERY NOTTINGHAMSHIRE
MANSFIELD ROAD
NOTTINGHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 460 sqm
Survey date: WEDNESDAY *24/06/15* *Survey Type: MANUAL*

9 SC-05-G-02 GP SURGERY SURREY
ESHER GREEN DRIVE
ESHER
SANDOWN PARK
Edge of Town
Residential Zone
Total Gross floor area: 310 sqm
Survey date: WEDNESDAY *22/06/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10	SM-05-G-01	GP SURGERY		SOMERSET
	MANTLE STREET			
	NEAR TAUNTON			
	WELLINGTON			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		1592 sqm	
	Survey date: FRIDAY		*06/07/12*	*Survey Type: MANUAL*
11	TW-05-G-01	GP SURGERY		TYNE & WEAR
	DURHAM ROAD			
	SUNDERLAND			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		600 sqm	
	Survey date: FRIDAY		*30/11/12*	*Survey Type: MANUAL*
12	WY-05-G-01	GP SURGERY		WEST YORKSHIRE
	BURLEY ROAD			
	LEEDS			
	BURLEY			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		940 sqm	
	Survey date: WEDNESDAY		*09/06/10*	*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 05 - HEALTH/G - GP SURGERIES
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	796	0.959	11	796	0.194	11	796	1.153
08:00 - 09:00	12	768	3.741	12	768	2.017	12	768	5.758
09:00 - 10:00	12	768	3.741	12	768	3.405	12	768	7.146
10:00 - 11:00	12	768	3.948	12	768	3.904	12	768	7.852
11:00 - 12:00	12	768	3.178	12	768	3.590	12	768	6.768
12:00 - 13:00	12	768	2.440	12	768	2.961	12	768	5.401
13:00 - 14:00	12	768	1.854	12	768	1.779	12	768	3.633
14:00 - 15:00	12	768	2.917	12	768	2.690	12	768	5.607
15:00 - 16:00	12	768	2.711	12	768	2.592	12	768	5.303
16:00 - 17:00	12	768	2.299	12	768	2.928	12	768	5.227
17:00 - 18:00	12	768	1.605	12	768	2.321	12	768	3.926
18:00 - 19:00	12	768	0.466	12	768	1.291	12	768	1.757
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			29.859			29.672			59.531

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

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Parameter summary

Trip rate parameter range selected:	310 - 1592 (units: sqm)
Survey date date range:	01/01/10 - 14/03/18
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	796	0.023	11	796	0.000	11	796	0.023
08:00 - 09:00	12	768	0.043	12	768	0.065	12	768	0.108
09:00 - 10:00	12	768	0.130	12	768	0.087	12	768	0.217
10:00 - 11:00	12	768	0.130	12	768	0.152	12	768	0.282
11:00 - 12:00	12	768	0.141	12	768	0.108	12	768	0.249
12:00 - 13:00	12	768	0.022	12	768	0.065	12	768	0.087
13:00 - 14:00	12	768	0.065	12	768	0.076	12	768	0.141
14:00 - 15:00	12	768	0.022	12	768	0.022	12	768	0.044
15:00 - 16:00	12	768	0.033	12	768	0.033	12	768	0.066
16:00 - 17:00	12	768	0.022	12	768	0.022	12	768	0.044
17:00 - 18:00	12	768	0.000	12	768	0.000	12	768	0.000
18:00 - 19:00	12	768	0.022	12	768	0.022	12	768	0.044
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.653			0.652			1.305

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 05 - HEALTH/G - GP SURGERIES
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	796	0.000	11	796	0.000	11	796	0.000
08:00 - 09:00	12	768	0.011	12	768	0.011	12	768	0.022
09:00 - 10:00	12	768	0.000	12	768	0.000	12	768	0.000
10:00 - 11:00	12	768	0.000	12	768	0.000	12	768	0.000
11:00 - 12:00	12	768	0.000	12	768	0.000	12	768	0.000
12:00 - 13:00	12	768	0.000	12	768	0.000	12	768	0.000
13:00 - 14:00	12	768	0.000	12	768	0.000	12	768	0.000
14:00 - 15:00	12	768	0.000	12	768	0.000	12	768	0.000
15:00 - 16:00	12	768	0.000	12	768	0.000	12	768	0.000
16:00 - 17:00	12	768	0.000	12	768	0.000	12	768	0.000
17:00 - 18:00	12	768	0.000	12	768	0.000	12	768	0.000
18:00 - 19:00	12	768	0.000	12	768	0.000	12	768	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			0.011			0.022

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

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TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	796	0.000	11	796	0.000	11	796	0.000
08:00 - 09:00	12	768	0.000	12	768	0.000	12	768	0.000
09:00 - 10:00	12	768	0.000	12	768	0.000	12	768	0.000
10:00 - 11:00	12	768	0.000	12	768	0.000	12	768	0.000
11:00 - 12:00	12	768	0.000	12	768	0.000	12	768	0.000
12:00 - 13:00	12	768	0.000	12	768	0.000	12	768	0.000
13:00 - 14:00	12	768	0.000	12	768	0.000	12	768	0.000
14:00 - 15:00	12	768	0.000	12	768	0.000	12	768	0.000
15:00 - 16:00	12	768	0.011	12	768	0.000	12	768	0.011
16:00 - 17:00	12	768	0.000	12	768	0.011	12	768	0.011
17:00 - 18:00	12	768	0.000	12	768	0.000	12	768	0.000
18:00 - 19:00	12	768	0.000	12	768	0.000	12	768	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			0.011			0.022

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

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TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	796	0.023	11	796	0.000	11	796	0.023
08:00 - 09:00	12	768	0.065	12	768	0.022	12	768	0.087
09:00 - 10:00	12	768	0.098	12	768	0.054	12	768	0.152
10:00 - 11:00	12	768	0.043	12	768	0.033	12	768	0.076
11:00 - 12:00	12	768	0.033	12	768	0.065	12	768	0.098
12:00 - 13:00	12	768	0.033	12	768	0.043	12	768	0.076
13:00 - 14:00	12	768	0.011	12	768	0.033	12	768	0.044
14:00 - 15:00	12	768	0.022	12	768	0.022	12	768	0.044
15:00 - 16:00	12	768	0.033	12	768	0.033	12	768	0.066
16:00 - 17:00	12	768	0.011	12	768	0.022	12	768	0.033
17:00 - 18:00	12	768	0.011	12	768	0.033	12	768	0.044
18:00 - 19:00	12	768	0.000	12	768	0.022	12	768	0.022
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.383			0.382			0.765

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.*

Calculation Reference: AUDIT-152302-190213-0257

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : J - DENTAL SURGERY
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	RE	READING	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 60 to 225 (units: sqm)
Range Selected by User: 60 to 500 (units: sqm)

Parking Spaces Range: Selected: 0 to 28 Actual: 0 to 28

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 08/11/17

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

Selected survey days:

Tuesday	1 days
Friday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2

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	2

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

Secondary Filtering selection:

Use Class:

D1	2 days

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

25,001 to 50,000	2 days

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

Population within 5 miles:

250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	1 days

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

Travel Plan:

No	2 days

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

PTAL Rating:

No PTAL Present	2 days

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

LIST OF SITES relevant to selection parameters

1	GM-05-J-01 ROCH VALLEY WAY ROCHDALE	DENTAL SURGERY		GREATER MANCHESTER
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: *Survey date: TUESDAY*		225 sqm *20/10/15*	 *Survey Type: MANUAL*
2	RE-05-J-01 WOKINGHAM ROAD READING EARLEY	DENTAL SURGERY		READING
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: *Survey date: FRIDAY*		60 sqm *20/11/15*	 *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 05 - HEALTH/J - DENTAL SURGERY
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	143	1.754	2	143	0.000	2	143	1.754
08:00 - 09:00	2	143	7.368	2	143	1.404	2	143	8.772
09:00 - 10:00	2	143	5.263	2	143	5.263	2	143	10.526
10:00 - 11:00	2	143	6.316	2	143	6.316	2	143	12.632
11:00 - 12:00	2	143	4.561	2	143	5.263	2	143	9.824
12:00 - 13:00	2	143	3.158	2	143	5.263	2	143	8.421
13:00 - 14:00	2	143	3.158	2	143	1.754	2	143	4.912
14:00 - 15:00	2	143	2.807	2	143	2.456	2	143	5.263
15:00 - 16:00	2	143	4.912	2	143	4.211	2	143	9.123
16:00 - 17:00	2	143	2.105	2	143	4.211	2	143	6.316
17:00 - 18:00	2	143	1.053	2	143	6.316	2	143	7.369
18:00 - 19:00	2	143	0.000	2	143	0.000	2	143	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			42.455			42.457			84.912

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

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Parameter summary

Trip rate parameter range selected:	60 - 225 (units: sqm)
Survey date date range:	01/01/10 - 08/11/17
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. 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 05 - HEALTH/J - DENTAL SURGERY
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	143	0.000	2	143	0.000	2	143	0.000
08:00 - 09:00	2	143	0.000	2	143	0.000	2	143	0.000
09:00 - 10:00	2	143	0.351	2	143	0.000	2	143	0.351
10:00 - 11:00	2	143	0.351	2	143	0.702	2	143	1.053
11:00 - 12:00	2	143	0.702	2	143	0.702	2	143	1.404
12:00 - 13:00	2	143	0.351	2	143	0.351	2	143	0.702
13:00 - 14:00	2	143	0.000	2	143	0.000	2	143	0.000
14:00 - 15:00	2	143	0.000	2	143	0.000	2	143	0.000
15:00 - 16:00	2	143	0.000	2	143	0.000	2	143	0.000
16:00 - 17:00	2	143	0.000	2	143	0.000	2	143	0.000
17:00 - 18:00	2	143	0.000	2	143	0.000	2	143	0.000
18:00 - 19:00	2	143	0.000	2	143	0.000	2	143	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.755			1.755			3.510

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

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TRIP RATE for Land Use 05 - HEALTH/J - DENTAL SURGERY
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	143	0.000	2	143	0.000	2	143	0.000
08:00 - 09:00	2	143	0.000	2	143	0.000	2	143	0.000
09:00 - 10:00	2	143	0.000	2	143	0.000	2	143	0.000
10:00 - 11:00	2	143	0.351	2	143	0.351	2	143	0.702
11:00 - 12:00	2	143	0.000	2	143	0.000	2	143	0.000
12:00 - 13:00	2	143	0.000	2	143	0.000	2	143	0.000
13:00 - 14:00	2	143	0.000	2	143	0.000	2	143	0.000
14:00 - 15:00	2	143	0.000	2	143	0.000	2	143	0.000
15:00 - 16:00	2	143	0.000	2	143	0.000	2	143	0.000
16:00 - 17:00	2	143	0.000	2	143	0.000	2	143	0.000
17:00 - 18:00	2	143	0.000	2	143	0.000	2	143	0.000
18:00 - 19:00	2	143	0.000	2	143	0.000	2	143	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.351			0.351			0.702

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

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TRIP RATE for Land Use 05 - HEALTH/J - DENTAL SURGERY
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	143	0.000	2	143	0.000	2	143	0.000
08:00 - 09:00	2	143	0.000	2	143	0.000	2	143	0.000
09:00 - 10:00	2	143	0.000	2	143	0.000	2	143	0.000
10:00 - 11:00	2	143	0.000	2	143	0.000	2	143	0.000
11:00 - 12:00	2	143	0.000	2	143	0.000	2	143	0.000
12:00 - 13:00	2	143	0.000	2	143	0.000	2	143	0.000
13:00 - 14:00	2	143	0.000	2	143	0.000	2	143	0.000
14:00 - 15:00	2	143	0.000	2	143	0.000	2	143	0.000
15:00 - 16:00	2	143	0.351	2	143	0.000	2	143	0.351
16:00 - 17:00	2	143	0.000	2	143	0.351	2	143	0.351
17:00 - 18:00	2	143	0.000	2	143	0.000	2	143	0.000
18:00 - 19:00	2	143	0.000	2	143	0.000	2	143	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.351			0.351			0.702

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 05 - HEALTH/J - DENTAL SURGERY
CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	143	1.754	2	143	0.000	2	143	1.754
08:00 - 09:00	2	143	7.368	2	143	1.404	2	143	8.772
09:00 - 10:00	2	143	4.912	2	143	5.263	2	143	10.175
10:00 - 11:00	2	143	4.912	2	143	4.561	2	143	9.473
11:00 - 12:00	2	143	3.509	2	143	4.211	2	143	7.720
12:00 - 13:00	2	143	2.807	2	143	4.912	2	143	7.719
13:00 - 14:00	2	143	3.158	2	143	1.754	2	143	4.912
14:00 - 15:00	2	143	2.807	2	143	2.456	2	143	5.263
15:00 - 16:00	2	143	4.912	2	143	4.211	2	143	9.123
16:00 - 17:00	2	143	2.105	2	143	4.211	2	143	6.316
17:00 - 18:00	2	143	1.053	2	143	6.316	2	143	7.369
18:00 - 19:00	2	143	0.000	2	143	0.000	2	143	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			39.297			39.299			78.596

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

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TRIP RATE for Land Use 05 - HEALTH/J - DENTAL SURGERY
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	143	0.000	2	143	0.000	2	143	0.000
08:00 - 09:00	2	143	0.000	2	143	0.000	2	143	0.000
09:00 - 10:00	2	143	0.000	2	143	0.000	2	143	0.000
10:00 - 11:00	2	143	0.702	2	143	0.702	2	143	1.404
11:00 - 12:00	2	143	0.351	2	143	0.351	2	143	0.702
12:00 - 13:00	2	143	0.000	2	143	0.000	2	143	0.000
13:00 - 14:00	2	143	0.000	2	143	0.000	2	143	0.000
14:00 - 15:00	2	143	0.000	2	143	0.000	2	143	0.000
15:00 - 16:00	2	143	0.000	2	143	0.000	2	143	0.000
16:00 - 17:00	2	143	0.000	2	143	0.000	2	143	0.000
17:00 - 18:00	2	143	0.000	2	143	0.000	2	143	0.000
18:00 - 19:00	2	143	0.000	2	143	0.000	2	143	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.053			1.053			2.106

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.*

Calculation Reference: AUDIT-152302-191112-1117

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : S - EXHIBITION CENTRE
VEHICLES

Selected regions and areas:

08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
10	WALES		
	RC	RHONDDA CYNON TAFF	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 2100 to 2500 (units: sqm)
Range Selected by User: 250 to 30000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 22/10/14

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

Selected survey days:

Wednesday	1 days
Friday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	1
Free Standing (PPS6 Out of Town)	1

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

Selected Location Sub Categories:

Industrial Zone	1
Out of Town	1

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

Secondary Filtering selection:

Use Class:

D1	2 days

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

Secondary Filtering selection (Cont.):

Population within 1 mile:
1,001 to 5,000 2 days

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

Population within 5 miles:
125,001 to 250,000 2 days

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

Car ownership within 5 miles:
1.1 to 1.5 2 days

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

Travel Plan:
No 2 days

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

PTAL Rating:
No PTAL Present 2 days

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

LIST OF SITES relevant to selection parameters

1 GM-07-S-01 CONFERENCE CENTRE GREATER MANCHESTER
HUDDERSFIELD ROAD
OLDHAM
SCOUTHEAD
Edge of Town
Out of Town
Total Gross floor area: 2100 sqm
Survey date: FRIDAY *24/05/13* *Survey Type: MANUAL*

2 RC-07-S-01 CONFERENCE CENTRE RHONDDA CYNON TAFF
CEFN COED
NEAR CAERPHILLY
NANTGARW
Free Standing (PPS6 Out of Town)
Industrial Zone
Total Gross floor area: 2500 sqm
Survey date: WEDNESDAY *22/10/14* *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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
HE-07-S-01	matching another TRICS assessment

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	2500	0.680	1	2500	0.040	1	2500	0.720
08:00 - 09:00	2	2300	2.761	2	2300	0.087	2	2300	2.848
09:00 - 10:00	2	2300	0.087	2	2300	0.043	2	2300	0.130
10:00 - 11:00	2	2300	0.087	2	2300	0.174	2	2300	0.261
11:00 - 12:00	2	2300	0.087	2	2300	0.174	2	2300	0.261
12:00 - 13:00	2	2300	0.130	2	2300	0.217	2	2300	0.347
13:00 - 14:00	2	2300	0.217	2	2300	0.239	2	2300	0.456
14:00 - 15:00	2	2300	0.174	2	2300	0.630	2	2300	0.804
15:00 - 16:00	2	2300	0.152	2	2300	0.652	2	2300	0.804
16:00 - 17:00	2	2300	0.022	2	2300	1.087	2	2300	1.109
17:00 - 18:00	2	2300	0.000	2	2300	0.565	2	2300	0.565
18:00 - 19:00	1	2500	0.040	1	2500	0.240	1	2500	0.280
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.437			4.148			8.585

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:	2100 - 2500 (units: sqm)
Survey date date range:	01/01/11 - 22/10/14
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

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

Calculation Reference: AUDIT-152302-190213-0204

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : E - CLINICS
VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	CW	CORNWALL	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
10	WALES		
	CF	CARDIFF	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 17 to 295 (units: sqm)
Range Selected by User: 17 to 4000 (units: sqm)

Parking Spaces Range: Selected: 2 to 75 Actual: 2 to 75

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 09/05/18

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	1 days
Wednesday	1 days
Thursday	1 days

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

Selected survey types:

Manual count	3 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 undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	1

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

Selected Location Sub Categories:

Residential Zone	3

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

Secondary Filtering selection:

Use Class:

D1	3 days

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

10,001 to 15,000	2 days
15,001 to 20,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	1 days

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

Travel Plan:

No	3 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	3 days

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

LIST OF SITES relevant to selection parameters

1 CF-05-E-01 PHYSIO CLINIC CARDIFF
WINCHAT CLOSE
CARDIFF

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 17 sqm
Survey date: THURSDAY *11/11/10* *Survey Type: MANUAL*

2 CW-05-E-01 CHIROPRACTIC CLINIC CORNWALL
FALMOUTH ROAD
TRURO

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 75 sqm
Survey date: MONDAY *10/10/11* *Survey Type: MANUAL*

3 NF-05-E-01 FOOT CLINIC NORFOLK
27 BERESFORD ROAD
GREAT YARMOUTH

Edge of Town
Residential Zone
Total Gross floor area: 295 sqm
Survey date: WEDNESDAY *09/05/18* *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 05 - HEALTH/E - CLINICS
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	17	5.882	1	17	5.882	1	17	11.764
07:00 - 08:00	2	156	0.321	2	156	0.321	2	156	0.642
08:00 - 09:00	3	129	1.034	3	129	0.000	3	129	1.034
09:00 - 10:00	3	129	1.550	3	129	1.809	3	129	3.359
10:00 - 11:00	3	129	2.067	3	129	1.292	3	129	3.359
11:00 - 12:00	3	129	2.067	3	129	1.809	3	129	3.876
12:00 - 13:00	3	129	1.809	3	129	1.809	3	129	3.618
13:00 - 14:00	3	129	0.517	3	129	1.292	3	129	1.809
14:00 - 15:00	2	156	1.282	2	156	0.962	2	156	2.244
15:00 - 16:00	2	156	0.641	2	156	0.962	2	156	1.603
16:00 - 17:00	2	156	0.641	2	156	1.282	2	156	1.923
17:00 - 18:00	2	156	0.000	2	156	0.641	2	156	0.641
18:00 - 19:00	2	156	0.321	2	156	0.000	2	156	0.321
19:00 - 20:00	1	17	5.882	1	17	5.882	1	17	11.764
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			24.014			23.943			47.957

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

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Parameter summary

Trip rate parameter range selected:	17 - 295 (units: sqm)
Survey date date range:	01/01/10 - 09/05/18
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 05 - HEALTH/E - CLINICS
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	17	0.000	1	17	0.000	1	17	0.000
07:00 - 08:00	2	156	0.000	2	156	0.000	2	156	0.000
08:00 - 09:00	3	129	0.000	3	129	0.000	3	129	0.000
09:00 - 10:00	3	129	0.000	3	129	0.000	3	129	0.000
10:00 - 11:00	3	129	0.000	3	129	0.000	3	129	0.000
11:00 - 12:00	3	129	0.258	3	129	0.258	3	129	0.516
12:00 - 13:00	3	129	0.000	3	129	0.000	3	129	0.000
13:00 - 14:00	3	129	0.000	3	129	0.000	3	129	0.000
14:00 - 15:00	2	156	0.321	2	156	0.321	2	156	0.642
15:00 - 16:00	2	156	0.000	2	156	0.000	2	156	0.000
16:00 - 17:00	2	156	0.000	2	156	0.000	2	156	0.000
17:00 - 18:00	2	156	0.000	2	156	0.000	2	156	0.000
18:00 - 19:00	2	156	0.000	2	156	0.000	2	156	0.000
19:00 - 20:00	1	17	0.000	1	17	0.000	1	17	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.579			0.579			1.158

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 05 - HEALTH/E - CLINICS
CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	17	0.000	1	17	0.000	1	17	0.000
07:00 - 08:00	2	156	0.000	2	156	0.000	2	156	0.000
08:00 - 09:00	3	129	0.000	3	129	0.000	3	129	0.000
09:00 - 10:00	3	129	0.000	3	129	0.000	3	129	0.000
10:00 - 11:00	3	129	0.258	3	129	0.000	3	129	0.258
11:00 - 12:00	3	129	0.000	3	129	0.258	3	129	0.258
12:00 - 13:00	3	129	0.000	3	129	0.000	3	129	0.000
13:00 - 14:00	3	129	0.258	3	129	0.000	3	129	0.258
14:00 - 15:00	2	156	0.000	2	156	0.000	2	156	0.000
15:00 - 16:00	2	156	0.000	2	156	0.321	2	156	0.321
16:00 - 17:00	2	156	0.000	2	156	0.000	2	156	0.000
17:00 - 18:00	2	156	0.000	2	156	0.000	2	156	0.000
18:00 - 19:00	2	156	0.000	2	156	0.000	2	156	0.000
19:00 - 20:00	1	17	0.000	1	17	0.000	1	17	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.516			0.579			1.095

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.*

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
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Filename: 180404_Caerleon Road_New Road v2.j9
Path: H:\Projects\W180000\184326 - Caerleon Campus - Public Inquiry\184326A\Technical\A - Transport Assessment\Modelling\Picady\New Road - Caerleon Road
Report generation date: 26/11/2019 14:58:00

»Caerleon Road / New Road - 2019 (Scenario 1), AM
»Caerleon Road / New Road - 2019 (Scenario 1), PM
»Caerleon Road / New Road - 2019 (Scenario 3), AM
»Caerleon Road / New Road - 2019 (Scenario 3), PM
»Caerleon Road / New Road - 2019 (Scenario 2), AM
»Caerleon Road / New Road - 2019 (Scenario 2), PM
»Caerleon Road / New Road - 2024 (Scenario 1), AM
»Caerleon Road / New Road - 2024 (Scenario 1), PM
»Caerleon Road / New Road - 2024 (Scenario 3), AM
»Caerleon Road / New Road - 2024 (Scenario 3), PM
»Caerleon Road / New Road - 2024 (Scenario 2), AM
»Caerleon Road / New Road - 2024 (Scenario 2), PM
»Caerleon Road / New Road - 2024 + Development, AM
»Caerleon Road / New Road - 2024 + Development, PM
»Caerleon Road / New Road - 2024 + Development (TEST A), AM
»Caerleon Road / New Road - 2024 + Development (TEST A), PM
»Caerleon Road / New Road - 2024 + Development (TEST B), AM
»Caerleon Road / New Road - 2024 + Development (TEST B), PM
»Caerleon Road / New Road - 2024 + Development (TEST C), AM
»Caerleon Road / New Road - 2024 + Development (TEST C), PM

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
	Caerleon Road / New Road - 2019 (Scenario 1)							
Stream B-C	2.2	1001.60	1.23	F	3.0	769.08	1.14	F
Stream B-A	29.2	322.23	1.23	F	39.1	369.81	1.14	F
Stream C-AB	0.1	5.75	0.07	A	0.4	5.61	0.17	A
	Caerleon Road / New Road - 2019 (Scenario 3)							
Stream B-C	1.0	438.94	1.02	F	2.3	587.93	1.04	F
Stream B-A	10.0	81.89	1.02	F	17.5	174.28	1.04	F
Stream C-AB	0.1	6.14	0.07	A	0.4	5.52	0.16	A

	Caerleon Road / New Road - 2019 (Scenario 2)							
Stream B-C	1.9	901.28	1.16	F	2.7	662.79	1.10	F
Stream B-A	17.6	192.38	1.16	F	27.9	267.60	1.10	F
Stream C-AB	0.1	5.90	0.07	A	0.4	5.59	0.16	A
	Caerleon Road / New Road - 2024 (Scenario 1)							
Stream B-C	2.2	1001.60	1.23	F	3.0	769.08	1.14	F
Stream B-A	29.2	322.23	1.23	F	39.1	369.81	1.14	F
Stream C-AB	0.1	5.75	0.07	A	0.4	5.61	0.17	A
	Caerleon Road / New Road - 2024 (Scenario 3)							
Stream B-C	1.0	438.94	1.02	F	2.3	587.93	1.04	F
Stream B-A	10.0	81.89	1.02	F	17.5	174.28	1.04	F
Stream C-AB	0.1	6.14	0.07	A	0.4	5.52	0.16	A
	Caerleon Road / New Road - 2024 (Scenario 2)							
Stream B-C	1.7	893.93	1.11	F	2.5	626.75	1.08	F
Stream B-A	14.8	145.80	1.11	F	24.3	233.68	1.08	F
Stream C-AB	0.1	5.99	0.07	A	0.4	5.53	0.16	A
	Caerleon Road / New Road - 2024 + Development							
Stream B-C	1.6	584.32	1.08	F	2.8	701.18	1.11	F
Stream B-A	12.9	119.18	1.08	F	32.7	303.48	1.11	F
Stream C-AB	0.1	6.20	0.07	A	0.4	5.47	0.16	A
	Caerleon Road / New Road - 2024 + Development (TEST A)							
Stream B-C	1.4	563.73	1.07	F	2.7	680.36	1.11	F
Stream B-A	12.5	113.33	1.07	F	30.4	283.60	1.11	F
Stream C-AB	0.1	6.19	0.07	A	0.4	5.48	0.16	A
	Caerleon Road / New Road - 2024 + Development (TEST B)							
Stream B-C	1.0	467.52	1.05	F	2.5	639.32	1.08	F
Stream B-A	11.1	94.19	1.05	F	25.4	240.14	1.08	F
Stream C-AB	0.1	6.20	0.07	A	0.4	5.46	0.16	A
	Caerleon Road / New Road - 2024 + Development (TEST C)							
Stream B-C	1.0	457.93	1.04	F	2.5	624.68	1.08	F
Stream B-A	10.7	89.56	1.04	F	23.5	224.27	1.08	F
Stream C-AB	0.1	6.20	0.07	A	0.4	5.47	0.15	A

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

File summary

File Description

Title	Caerleon Road/New Road
Location	
Site number	
Date	30/04/2019
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	Ben Stone
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	mph	PCU	PCU	perTimeSegment	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2019 (Scenario 1)	AM		08:00	09:00	60	15	✓	Advanced	D3+D11
D2	2019 (Scenario 1)	PM		16:45	17:45	60	15	✓	Advanced	D4+D12
D3	2019 (Scenario 3)	AM	DIRECT	08:00	09:00	60	15	✓		
D4	2019 (Scenario 3)	PM	DIRECT	16:45	17:45	60	15	✓		
D5	2019 (Scenario 2)	AM		08:00	09:00	60	15	✓	Advanced	D3+D9
D6	2019 (Scenario 2)	PM		16:45	17:45	60	15	✓	Advanced	D4+D10
D7	Development	AM	DIRECT	08:00	09:00	60	15			
D8	Development	PM	DIRECT	16:45	17:45	60	15			
D9	Future Baseline Scenario	AM	DIRECT	08:00	09:00	60	15			
D10	Future Baseline Scenario	PM	DIRECT	16:45	17:45	60	15			
D11	Former Use (100%)	AM	DIRECT	08:00	09:00	60	15			
D12	Former Use (100%)	PM	DIRECT	16:45	17:45	60	15			
D13	2024 (Scenario 1)	AM		08:00	09:00	60	15	✓	Advanced	D3+D11
D14	2024 (Scenario 1)	PM		16:45	17:45	60	15	✓	Advanced	D4+D12
D15	2024 (Scenario 3)	AM		08:00	09:00	60	15	✓	Advanced	D3
D16	2024 (Scenario 3)	PM		16:45	17:45	60	15	✓	Advanced	D4
D17	2024 (Scenario 2)	AM		08:00	09:00	60	15	✓	Advanced	D3+D9
D18	2024 (Scenario 2)	PM		16:45	17:45	60	15	✓	Advanced	D4+D10
D21	2024 + Development	AM		08:00	09:00	60	15	✓	Advanced	D3+D7
D22	2024 + Development	PM		16:45	17:45	60	15	✓	Advanced	D4+D8
D23	2024 + Development (TEST A)	AM		08:00	09:00	60	15	✓	Advanced	D3+D7*0.88
D24	2024 + Development (TEST A)	PM		16:45	17:45	60	15	✓	Advanced	D4+D8*0.88
D25	2024 + Development (TEST B)	AM		08:00	09:00	60	15	✓	Advanced	D3*0.98+D7
D2	2024 + Development (TEST	PM		16:45	17:45	60	15	✓	Advanced	D4*0.98+D8

6	B)									
D27	2024 + Development (TEST C)	AM		08:00	09:00	60	15	✓	Advanced	D3*0.98+D7*0.88
D28	2024 + Development (TEST C)	PM		16:45	17:45	60	15	✓	Advanced	D4*0.98+D8*0.88

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Caerleon Road / New Road	✓	100.000	100.000

Caerleon Road / New Road - 2019 (Scenario 1), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		69.97	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	High Street		Major
B	New Road		Minor
C	Caerleon Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Caerleon Road	7.54			58.8	✓	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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - New Road	One lane plus flare	10.00	5.01	4.15	3.75	3.42	✓	1.00	21	27

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	140.025	0.095	0.241	0.151	0.344
B-C	153.022	0.088	0.221	-	-
C-B	152.005	0.220	0.220	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2019 (Scenario 1)	AM	08:00	09:00	60	15	✓	Advanced	D3+D11

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	110.69	112.22
	B - New Road	102.28	0.00	2.00
	C - Caerleon Road	122.70	3.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	108.69	115.82
	B - New Road	76.48	0.00	4.00
	C - Caerleon Road	156.00	5.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	110.19	114.02
	B - New Road	80.48	0.00	1.00
	C - Caerleon Road	160.20	3.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	90.69	96.82
	B - New Road	80.98	0.00	5.00
	C - Caerleon Road	77.70	3.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	5
	B - New Road	3	0	0
	C - Caerleon Road	4	0	0

HV %s

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	7	0	0
	C - Caerleon Road	3	12	0

HV %s

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	4
	B - New Road	2	0	0
	C - Caerleon Road	2	20	0

HV %s

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	2	0	0
	C - Caerleon Road	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.23	1001.60	2.2	F	3.00	12.00
B-A	1.23	322.23	29.2	F	85.06	340.22
C-AB	0.07	5.75	0.1	A	10.13	40.53
C-A					122.52	490.07
A-B					105.07	420.26
A-C					109.72	438.88

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	1.62	1.235	0.86	0.0	1.1	671.587	F
B-A	102.28	102.28	82.85	1.235	79.30	0.0	23.0	152.707	F
C-AB	7.91	7.91	197.61	0.040	7.86	0.0	0.1	4.848	A
C-A	117.79	117.79			117.79				
A-B	110.69	110.69			110.69				
A-C	112.22	112.22			112.22				

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	3.93	1.017	3.02	1.1	2.1	802.918	F
B-A	76.48	76.48	76.11	1.005	75.42	23.0	24.0	286.630	F
C-AB	16.68	16.68	223.09	0.075	16.60	0.1	0.1	4.551	A
C-A	144.32	144.32			144.32				
A-B	108.69	108.69			108.69				
A-C	115.82	115.82			115.82				

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.00	1.00	2.29	0.437	1.56	2.1	1.6	1001.602	F
B-A	80.48	80.48	76.67	1.050	75.26	24.0	29.2	322.230	F
C-AB	10.37	10.37	226.42	0.046	10.44	0.1	0.1	4.418	A
C-A	152.83	152.83			152.83				
A-B	110.19	110.19			110.19				
A-C	114.02	114.02			114.02				

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5.00	5.00	5.64	0.887	4.34	1.6	2.2	501.857	F
B-A	80.98	80.98	94.64	0.856	91.41	29.2	18.8	241.105	F
C-AB	5.56	5.56	169.39	0.033	5.59	0.1	0.0	5.750	A
C-A	75.14	75.14			75.14				
A-B	90.69	90.69			90.69				
A-C	96.82	96.82			96.82				

Caerleon Road / New Road - 2019 (Scenario 1), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		103.02	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D2	2019 (Scenario 1)	PM	16:45	17:45	60	15	✓	Advanced	D4+D12

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	74.99	90.18
	B - New Road	108.13	0.00	7.00
	C - Caerleon Road	94.69	4.00	0.00

Demand (PCU/TS)

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	79.49	84.48
	B - New Road	98.13	0.00	2.00
	C - Caerleon Road	115.19	6.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	84.99	83.68
	B - New Road	91.43	0.00	6.00
	C - Caerleon Road	114.69	12.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	88.49	93.18
	B - New Road	97.13	0.00	4.00
	C - Caerleon Road	109.69	14.00	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	6
	B - New Road	1	0	0
	C - Caerleon Road	4	0	0

HV %s

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	3
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	3
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	2
	B - New Road	0	0	0
	C - Caerleon Road	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.14	769.08	3.0	F	4.75	19.00
B-A	1.14	369.81	39.1	F	98.71	394.82
C-AB	0.17	5.61	0.4	A	20.67	82.67
C-A					96.90	387.59
A-B					81.99	327.96
A-C					87.88	351.52

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7.00	7.00	6.13	1.141	4.42	0.0	2.6	443.900	F
B-A	108.13	108.13	94.75	1.141	89.81	0.0	18.3	112.134	F
C-AB	8.15	8.15	186.04	0.044	8.08	0.0	0.1	5.169	A
C-A	90.54	90.54			90.54				
A-B	74.99	74.99			74.99				
A-C	90.18	90.18			90.18				

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	3.63	0.551	2.68	2.6	1.9	688.200	F
B-A	98.13	98.13	92.33	1.063	91.03	18.3	25.4	236.678	F
C-AB	14.05	14.05	201.49	0.070	14.00	0.1	0.1	4.890	A
C-A	107.14	107.14			107.14				
A-B	79.49	79.49			79.49				
A-C	84.48	84.48			84.48				

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6.00	6.00	6.05	0.991	5.00	1.9	2.9	589.875	F
B-A	91.43	91.43	89.59	1.021	88.30	25.4	28.6	291.503	F
C-AB	28.15	28.15	200.38	0.140	27.91	0.1	0.4	5.302	A
C-A	98.54	98.54			98.54				
A-B	84.99	84.99			84.99				
A-C	83.68	83.68			83.68				

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	4.78	0.836	3.87	2.9	3.0	769.080	F
B-A	97.13	97.13	87.21	1.114	86.60	28.6	39.1	369.809	F
C-AB	32.33	32.33	194.59	0.166	32.27	0.4	0.4	5.613	A
C-A	91.36	91.36			91.36				

A-B	88.49	88.49			88.49				
A-C	93.18	93.18			93.18				

Caerleon Road / New Road - 2019 (Scenario 3), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		17.79	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2019 (Scenario 3)	AM	DIRECT	08:00	09:00	60	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT	✓	100.000
B - New Road		DIRECT	✓	100.000
C - Caerleon Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

From	To			
		A - High Street	**B - New Road**	**C - Caerleon Road**
	A - High Street	0.00	108.50	110.00
	B - New Road	87.80	0.00	2.00
	C - Caerleon Road	108.00	3.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	106.50	113.60
	B - New Road	62.00	0.00	4.00
	C - Caerleon Road	141.30	5.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	108.00	111.80
	B - New Road	66.00	0.00	1.00
	C - Caerleon Road	145.50	3.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	88.50	94.60
	B - New Road	66.50	0.00	5.00
	C - Caerleon Road	63.00	3.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	5
	B - New Road	3	0	0
	C - Caerleon Road	4	0	0

HV %s

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	9	0	0
	C - Caerleon Road	3	13	0

HV %s

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	4
	B - New Road	3	0	0
	C - Caerleon Road	2	20	0

HV %s

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	2	0	0
	C - Caerleon Road	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.02	438.94	1.0	F	3.00	12.00
B-A	1.02	81.89	10.0	F	70.58	282.30
C-AB	0.07	6.14	0.1	A	9.09	36.38
C-A					108.86	435.42
A-B					102.88	411.50
A-C					107.50	430.00

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	1.95	1.024	0.98	0.0	1.0	438.943	F
B-A	87.80	87.80	85.78	1.024	77.77	0.0	10.0	81.886	F
C-AB	7.10	7.10	187.02	0.038	7.05	0.0	0.1	5.118	A
C-A	103.90	103.90			103.90				
A-B	108.50	108.50			108.50				
A-C	110.00	110.00			110.00				

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	26.20	0.153	4.83	1.0	0.2	43.480	E
B-A	62.00	62.00	78.90	0.786	68.24	10.0	3.8	78.349	F
C-AB	14.99	14.99	212.41	0.071	14.91	0.1	0.1	4.776	A
C-A	131.31	131.31			131.31				
A-B	106.50	106.50			106.50				
A-C	113.60	113.60			113.60				

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.00	1.00	31.53	0.032	1.16	0.2	0.0	29.771	D
B-A	66.00	66.00	79.76	0.827	65.25	3.8	4.5	66.878	F

C-AB	9.31	9.31	215.72	0.043	9.37	0.1	0.1	4.650	A
C-A	139.19	139.19			139.19				
A-B	108.00	108.00			108.00				
A-C	111.80	111.80			111.80				

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5.00	5.00	65.77	0.076	4.95	0.0	0.1	14.788	B
B-A	66.50	66.50	97.68	0.681	68.65	4.5	2.4	33.784	D
C-AB	4.98	4.98	159.14	0.031	5.00	0.1	0.0	6.136	A
C-A	61.02	61.02			61.02				
A-B	88.50	88.50			88.50				
A-C	94.60	94.60			94.60				

Caerleon Road / New Road - 2019 (Scenario 3), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		54.23	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2019 (Scenario 3)	PM	DIRECT	16:45	17:45	60	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT	✓	100.000
B - New Road		DIRECT	✓	100.000
C - Caerleon Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	62.50	77.50
	B - New Road	104.00	0.00	7.00
	C - Caerleon Road	90.50	4.00	0.00

Demand (PCU/TS)

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	67.00	71.80
	B - New Road	94.00	0.00	2.00
	C - Caerleon Road	111.00	6.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	72.50	71.00
	B - New Road	87.30	0.00	6.00
	C - Caerleon Road	110.50	12.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	76.00	80.50
	B - New Road	93.00	0.00	4.00
	C - Caerleon Road	105.50	14.00	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	8
	B - New Road	1	0	0
	C - Caerleon Road	5	0	0

HV %s

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	2
	B - New Road	0	0	0
	C - Caerleon Road	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.04	587.93	2.3	F	4.75	19.00
B-A	1.04	174.28	17.5	F	94.58	378.30
C-AB	0.16	5.52	0.4	A	19.57	78.29
C-A					93.80	375.21
A-B					69.50	278.00
A-C					75.20	300.80

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7.00	7.00	6.70	1.045	4.68	0.0	2.3	380.421	F
B-A	104.00	104.00	99.53	1.045	91.87	0.0	12.1	80.611	F
C-AB	7.74	7.74	187.35	0.041	7.68	0.0	0.1	5.118	A
C-A	86.76	86.76			86.76				
A-B	62.50	62.50			62.50				
A-C	77.50	77.50			77.50				

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	3.95	0.506	2.74	2.3	1.6	587.931	F
B-A	94.00	94.00	97.17	0.967	92.54	12.1	13.6	137.925	F
C-AB	13.31	13.31	202.54	0.066	13.26	0.1	0.1	4.843	A
C-A	103.69	103.69			103.69				
A-B	67.00	67.00			67.00				

A-C	71.80	71.80			71.80				

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6.00	6.00	7.08	0.848	5.37	1.6	2.2	425.936	F
B-A	87.30	87.30	94.28	0.926	87.33	13.6	13.6	137.651	F
C-AB	26.66	26.66	201.42	0.132	26.45	0.1	0.3	5.225	A
C-A	95.84	95.84			95.84				
A-B	72.50	72.50			72.50				
A-C	71.00	71.00			71.00				

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	5.35	0.747	3.94	2.2	2.3	559.481	F
B-A	93.00	93.00	92.00	1.011	89.10	13.6	17.5	174.283	F
C-AB	30.58	30.58	195.66	0.156	30.53	0.3	0.4	5.518	A
C-A	88.92	88.92			88.92				
A-B	76.00	76.00			76.00				
A-C	80.50	80.50			80.50				

Caerleon Road / New Road - 2019 (Scenario 2), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		42.59	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D5	2019 (Scenario 2)	AM	08:00	09:00	60	15	✓	Advanced	D3+D9

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time

✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	110.58	112.11
	B - New Road	93.51	0.00	2.00
	C - Caerleon Road	113.80	3.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	108.58	115.71
	B - New Road	67.71	0.00	4.00
	C - Caerleon Road	147.10	5.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	110.08	113.91
	B - New Road	71.71	0.00	1.00
	C - Caerleon Road	151.30	3.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	90.58	96.71
	B - New Road	72.21	0.00	5.00
	C - Caerleon Road	68.80	3.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0	1	5
	B - New Road	3	0	0
	C - Caerleon Road	4	0	0

HV %s

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	8	0	0
	C - Caerleon Road	3	12	0

HV %s

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	4
	B - New Road	2	0	0
	C - Caerleon Road	2	20	0

HV %s

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	2	0	0
	C - Caerleon Road	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.16	901.28	1.9	F	3.00	12.00
B-A	1.16	192.38	17.6	F	79.52	318.06
C-AB	0.07	5.90	0.1	A	9.74	38.96
C-A					117.28	469.12
A-B					104.91	419.62
A-C					109.56	438.24

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	1.73	1.155	0.90	0.0	1.1	626.112	F
B-A	96.74	96.74	83.74	1.155	79.12	0.0	17.6	123.354	F
C-AB	7.61	7.61	193.33	0.039	7.55	0.0	0.1	4.954	A
C-A	112.46	112.46			112.46				
A-B	110.53	110.53			110.53				
A-C	112.06	112.06			112.06				

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	4.43	0.904	3.24	1.1	1.9	652.267	F
B-A	70.94	70.94	76.94	0.922	76.64	17.6	11.9	192.376	F
C-AB	16.04	16.04	218.79	0.073	15.96	0.1	0.1	4.640	A
C-A	139.33	139.33			139.33				
A-B	108.53	108.53			108.53				
A-C	115.66	115.66			115.66				

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.00	1.00	2.55	0.392	1.67	1.9	1.2	901.276	F
B-A	74.94	74.94	77.54	0.966	73.10	11.9	13.8	170.460	F
C-AB	9.97	9.97	222.12	0.045	10.04	0.1	0.1	4.508	A
C-A	147.60	147.60			147.60				
A-B	110.03	110.03			110.03				
A-C	113.86	113.86			113.86				

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5.00	5.00	22.86	0.219	5.89	1.2	0.3	55.221	F
B-A	75.44	75.44	95.45	0.790	84.32	13.8	4.9	92.342	F
C-AB	5.34	5.34	165.21	0.032	5.36	0.1	0.0	5.902	A
C-A	69.73	69.73			69.73				
A-B	90.53	90.53			90.53				
A-C	96.66	96.66			96.66				

Caerleon Road / New Road - 2019 (Scenario 2), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		77.04	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D6	2019 (Scenario 2)	PM	16:45	17:45	60	15	✓	Advanced	D4+D10

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	66.21	81.27
	B - New Road	106.06	0.00	7.00
	C - Caerleon Road	92.59	4.00	0.00

Demand (PCU/TS)

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	70.71	75.57
	B - New Road	96.06	0.00	2.00
	C - Caerleon Road	113.09	6.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	76.21	74.77
	B - New Road	89.36	0.00	6.00
	C - Caerleon Road	112.59	12.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	79.71	84.27
	B - New Road	95.06	0.00	4.00
	C - Caerleon Road	107.59	14.00	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	7
	B - New Road	1	0	0
	C - Caerleon Road	5	0	0

HV %s

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	2
	B - New Road	0	0	0
	C - Caerleon Road	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.10	662.79	2.7	F	4.75	19.00
B-A	1.10	267.60	27.9	F	96.64	386.54
C-AB	0.16	5.59	0.4	A	20.19	80.75
C-A					95.28	381.11
A-B					77.67	310.68
A-C					83.49	333.96

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-C	7.00	7.00	6.37	1.099	4.53	0.0	2.5	415.570	F
B-A	106.06	106.06	96.50	1.099	90.59	0.0	15.5	97.769	F
C-AB	7.96	7.96	186.00	0.043	7.90	0.0	0.1	5.164	A
C-A	88.63	88.63			88.63				
A-B	70.67	70.67			70.67				
A-C	85.79	85.79			85.79				

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	3.77	0.531	2.72	2.5	1.8	642.601	F
B-A	96.06	96.06	94.10	1.021	91.85	15.5	19.7	190.637	F
C-AB	13.73	13.73	201.36	0.068	13.67	0.1	0.1	4.885	A
C-A	105.36	105.36			105.36				
A-B	75.17	75.17			75.17				
A-C	80.09	80.09			80.09				

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6.00	6.00	6.49	0.924	5.18	1.8	2.6	510.817	F
B-A	89.36	89.36	91.30	0.979	88.47	19.7	20.6	215.716	F
C-AB	27.49	27.49	200.25	0.137	27.27	0.1	0.3	5.286	A
C-A	97.10	97.10			97.10				
A-B	80.67	80.67			80.67				
A-C	79.29	79.29			79.29				

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	5.06	0.791	3.91	2.6	2.7	662.792	F
B-A	95.06	95.06	88.95	1.069	87.72	20.6	27.9	267.599	F
C-AB	31.56	31.56	194.46	0.162	31.51	0.3	0.4	5.593	A
C-A	90.03	90.03			90.03				
A-B	84.17	84.17			84.17				
A-C	88.79	88.79			88.79				

Caerleon Road / New Road - 2024 (Scenario 1), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		69.97	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	2024 (Scenario 1)	AM	08:00	09:00	60	15	✓	Advanced	D3+D11

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	110.69	112.22
	B - New Road	102.28	0.00	2.00
	C - Caerleon Road	122.70	3.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	108.69	115.82
	B - New Road	76.48	0.00	4.00
	C - Caerleon Road	156.00	5.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	110.19	114.02
	B - New Road	80.48	0.00	1.00
	C - Caerleon Road	160.20	3.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	90.69	96.82
	B - New Road	80.98	0.00	5.00
	C - Caerleon Road	77.70	3.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	5
	B - New Road	3	0	0
	C - Caerleon Road	4	0	0

HV %s

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	7	0	0
	C - Caerleon Road	3	12	0

HV %s

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	4
	B - New Road	2	0	0
	C - Caerleon Road	2	20	0

HV %s

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	2	0	0
	C - Caerleon Road	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.23	1001.60	2.2	F	3.00	12.00
B-A	1.23	322.23	29.2	F	85.06	340.22
C-AB	0.07	5.75	0.1	A	10.13	40.53
C-A					122.52	490.07
A-B					105.07	420.26
A-C					109.72	438.88

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	1.62	1.235	0.86	0.0	1.1	671.587	F
B-A	102.28	102.28	82.85	1.235	79.30	0.0	23.0	152.707	F
C-AB	7.91	7.91	197.61	0.040	7.86	0.0	0.1	4.848	A
C-A	117.79	117.79			117.79				
A-B	110.69	110.69			110.69				
A-C	112.22	112.22			112.22				

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	3.93	1.017	3.02	1.1	2.1	802.918	F
B-A	76.48	76.48	76.11	1.005	75.42	23.0	24.0	286.630	F
C-AB	16.68	16.68	223.09	0.075	16.60	0.1	0.1	4.551	A
C-A	144.32	144.32			144.32				
A-B	108.69	108.69			108.69				
A-C	115.82	115.82			115.82				

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.00	1.00	2.29	0.437	1.56	2.1	1.6	1001.602	F
B-A	80.48	80.48	76.67	1.050	75.26	24.0	29.2	322.230	F
C-AB	10.37	10.37	226.42	0.046	10.44	0.1	0.1	4.418	A
C-A	152.83	152.83			152.83				
A-B	110.19	110.19			110.19				
A-C	114.02	114.02			114.02				

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5.00	5.00	5.64	0.887	4.34	1.6	2.2	501.857	F
B-A	80.98	80.98	94.64	0.856	91.41	29.2	18.8	241.105	F
C-AB	5.56	5.56	169.39	0.033	5.59	0.1	0.0	5.750	A
C-A	75.14	75.14			75.14				
A-B	90.69	90.69			90.69				
A-C	96.82	96.82			96.82				

Caerleon Road / New Road - 2024 (Scenario 1), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		103.02	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	2024 (Scenario 1)	PM	16:45	17:45	60	15	✓	Advanced	D4+D12

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	74.99	90.18
	B - New Road	108.13	0.00	7.00
	C - Caerleon Road	94.69	4.00	0.00

Demand (PCU/TS)

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	79.49	84.48
	B - New Road	98.13	0.00	2.00
	C - Caerleon Road	115.19	6.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	84.99	83.68
	B - New Road	91.43	0.00	6.00
	C - Caerleon Road	114.69	12.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	88.49	93.18
	B - New Road	97.13	0.00	4.00
	C - Caerleon Road	109.69	14.00	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	6
	B - New Road	1	0	0
	C - Caerleon Road	4	0	0

HV %s

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	3
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	3
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	2
	B - New Road	0	0	0
	C - Caerleon Road	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.14	769.08	3.0	F	4.75	19.00
B-A	1.14	369.81	39.1	F	98.71	394.82
C-AB	0.17	5.61	0.4	A	20.67	82.67
C-A					96.90	387.59
A-B					81.99	327.96
A-C					87.88	351.52

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7.00	7.00	6.13	1.141	4.42	0.0	2.6	443.900	F
B-A	108.13	108.13	94.75	1.141	89.81	0.0	18.3	112.134	F
C-AB	8.15	8.15	186.04	0.044	8.08	0.0	0.1	5.169	A
C-A	90.54	90.54			90.54				
A-B	74.99	74.99			74.99				
A-C	90.18	90.18			90.18				

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	3.63	0.551	2.68	2.6	1.9	688.200	F
B-A	98.13	98.13	92.33	1.063	91.03	18.3	25.4	236.678	F
C-AB	14.05	14.05	201.49	0.070	14.00	0.1	0.1	4.890	A
C-A	107.14	107.14			107.14				
A-B	79.49	79.49			79.49				
A-C	84.48	84.48			84.48				

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6.00	6.00	6.05	0.991	5.00	1.9	2.9	589.875	F
B-A	91.43	91.43	89.59	1.021	88.30	25.4	28.6	291.503	F
C-AB	28.15	28.15	200.38	0.140	27.91	0.1	0.4	5.302	A
C-A	98.54	98.54			98.54				
A-B	84.99	84.99			84.99				
A-C	83.68	83.68			83.68				

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	4.78	0.836	3.87	2.9	3.0	769.080	F
B-A	97.13	97.13	87.21	1.114	86.60	28.6	39.1	369.809	F
C-AB	32.33	32.33	194.59	0.166	32.27	0.4	0.4	5.613	A
C-A	91.36	91.36			91.36				

A-B	88.49	88.49			88.49				
A-C	93.18	93.18			93.18				

Caerleon Road / New Road - 2024 (Scenario 3), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		17.79	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	2024 (Scenario 3)	AM	08:00	09:00	60	15	✓	Advanced	D3

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	108.50	110.00
	B - New Road	87.80	0.00	2.00
	C - Caerleon Road	108.00	3.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	106.50	113.60
	B - New Road	62.00	0.00	4.00
	C - Caerleon Road	141.30	5.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	108.00	111.80
	B - New Road	66.00	0.00	1.00
	C - Caerleon Road	145.50	3.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	88.50	94.60
	B - New Road	66.50	0.00	5.00
	C - Caerleon Road	63.00	3.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	5
	B - New Road	3	0	0
	C - Caerleon Road	4	0	0

HV %s

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	9	0	0
	C - Caerleon Road	3	12	0

HV %s

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	4
	B - New Road	3	0	0
	C - Caerleon Road	2	20	0

HV %s

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	2	0	0
	C - Caerleon Road	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.02	438.94	1.0	F	3.00	12.00
B-A	1.02	81.89	10.0	F	70.58	282.30
C-AB	0.07	6.14	0.1	A	9.09	36.38
C-A					108.86	435.42
A-B					102.88	411.50
A-C					107.50	430.00

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	1.95	1.024	0.98	0.0	1.0	438.943	F
B-A	87.80	87.80	85.78	1.024	77.77	0.0	10.0	81.886	F
C-AB	7.10	7.10	187.02	0.038	7.05	0.0	0.1	5.118	A
C-A	103.90	103.90			103.90				
A-B	108.50	108.50			108.50				
A-C	110.00	110.00			110.00				

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	26.20	0.153	4.83	1.0	0.2	43.478	E
B-A	62.00	62.00	78.90	0.786	68.24	10.0	3.8	78.349	F
C-AB	14.99	14.99	212.41	0.071	14.91	0.1	0.1	4.776	A
C-A	131.31	131.31			131.31				
A-B	106.50	106.50			106.50				
A-C	113.60	113.60			113.60				

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.00	1.00	31.53	0.032	1.16	0.2	0.0	29.771	D
B-A	66.00	66.00	79.76	0.827	65.25	3.8	4.5	66.878	F

C-AB	9.31	9.31	215.72	0.043	9.37	0.1	0.1	4.650	A
C-A	139.19	139.19			139.19				
A-B	108.00	108.00			108.00				
A-C	111.80	111.80			111.80				

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5.00	5.00	65.77	0.076	4.95	0.0	0.1	14.788	B
B-A	66.50	66.50	97.68	0.681	68.65	4.5	2.4	33.784	D
C-AB	4.98	4.98	159.14	0.031	5.00	0.1	0.0	6.138	A
C-A	61.02	61.02			61.02				
A-B	88.50	88.50			88.50				
A-C	94.60	94.60			94.60				

Caerleon Road / New Road - 2024 (Scenario 3), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		54.23	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D16	2024 (Scenario 3)	PM	16:45	17:45	60	15	✓	Advanced	D4

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	62.50	77.50
	B - New Road	104.00	0.00	7.00
	C - Caerleon Road	90.50	4.00	0.00

Demand (PCU/TS)

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	67.00	71.80
	B - New Road	94.00	0.00	2.00
	C - Caerleon Road	111.00	6.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	72.50	71.00
	B - New Road	87.30	0.00	6.00
	C - Caerleon Road	110.50	12.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	76.00	80.50
	B - New Road	93.00	0.00	4.00
	C - Caerleon Road	105.50	14.00	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	8
	B - New Road	1	0	0
	C - Caerleon Road	5	0	0

HV %s

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	2
	B - New Road	0	0	0
	C - Caerleon Road	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.04	587.93	2.3	F	4.75	19.00
B-A	1.04	174.28	17.5	F	94.58	378.30
C-AB	0.16	5.52	0.4	A	19.57	78.29
C-A					93.80	375.21
A-B					69.50	278.00
A-C					75.20	300.80

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7.00	7.00	6.70	1.045	4.68	0.0	2.3	380.421	F
B-A	104.00	104.00	99.53	1.045	91.87	0.0	12.1	80.611	F
C-AB	7.74	7.74	187.35	0.041	7.68	0.0	0.1	5.118	A
C-A	86.76	86.76			86.76				
A-B	62.50	62.50			62.50				
A-C	77.50	77.50			77.50				

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	3.95	0.506	2.74	2.3	1.6	587.931	F
B-A	94.00	94.00	97.17	0.967	92.54	12.1	13.6	137.925	F
C-AB	13.31	13.31	202.54	0.066	13.26	0.1	0.1	4.843	A
C-A	103.69	103.69			103.69				
A-B	67.00	67.00			67.00				

A-C	71.80	71.80			71.80				

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6.00	6.00	7.08	0.848	5.37	1.6	2.2	425.936	F
B-A	87.30	87.30	94.28	0.926	87.33	13.6	13.6	137.651	F
C-AB	26.66	26.66	201.42	0.132	26.45	0.1	0.3	5.225	A
C-A	95.84	95.84			95.84				
A-B	72.50	72.50			72.50				
A-C	71.00	71.00			71.00				

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	5.35	0.747	3.94	2.2	2.3	559.481	F
B-A	93.00	93.00	92.00	1.011	89.10	13.6	17.5	174.283	F
C-AB	30.58	30.58	195.66	0.156	30.53	0.3	0.4	5.515	A
C-A	88.92	88.92			88.92				
A-B	76.00	76.00			76.00				
A-C	80.50	80.50			80.50				

Caerleon Road / New Road - 2024 (Scenario 2), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		33.19	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D17	2024 (Scenario 2)	AM	08:00	09:00	60	15	✓	Advanced	D3+D9

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time

✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	110.58	112.11
	B - New Road	93.51	0.00	2.00
	C - Caerleon Road	113.80	3.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	108.58	115.71
	B - New Road	67.71	0.00	4.00
	C - Caerleon Road	147.10	5.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	110.08	113.91
	B - New Road	71.71	0.00	1.00
	C - Caerleon Road	151.30	3.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	90.58	96.71
	B - New Road	72.21	0.00	5.00
	C - Caerleon Road	68.80	3.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0	1	5
	B - New Road	3	0	0
	C - Caerleon Road	4	0	0

HV %s

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	8	0	0
	C - Caerleon Road	3	12	0

HV %s

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	4
	B - New Road	2	0	0
	C - Caerleon Road	2	20	0

HV %s

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	2	0	0
	C - Caerleon Road	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.11	893.93	1.7	F	3.00	12.00
B-A	1.11	145.80	14.8	F	76.29	305.14
C-AB	0.07	5.99	0.1	A	9.52	38.09
C-A					114.23	456.91
A-B					104.96	419.82
A-C					109.61	438.44

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	1.80	1.110	0.93	0.0	1.1	600.913	F
B-A	93.51	93.51	84.21	1.110	78.73	0.0	14.8	108.147	F
C-AB	7.43	7.43	190.79	0.039	7.38	0.0	0.1	5.019	A
C-A	109.37	109.37			109.37				
A-B	110.58	110.58			110.58				
A-C	112.11	112.11			112.11				

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	4.75	0.841	3.37	1.1	1.7	578.530	F
B-A	67.71	67.71	77.37	0.875	74.83	14.8	7.7	145.801	F
C-AB	15.69	15.69	216.25	0.073	15.61	0.1	0.1	4.694	A
C-A	136.41	136.41			136.41				
A-B	108.58	108.58			108.58				
A-C	115.71	115.71			115.71				

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.00	1.00	2.66	0.377	1.66	1.7	1.0	893.929	F
B-A	71.71	71.71	78.01	0.919	70.56	7.7	8.8	117.164	F
C-AB	9.75	9.75	219.58	0.044	9.81	0.1	0.1	4.562	A
C-A	144.55	144.55			144.55				
A-B	110.08	110.08			110.08				
A-C	113.91	113.91			113.91				

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5.00	5.00	43.37	0.115	5.91	1.0	0.1	24.556	C
B-A	72.21	72.21	95.95	0.753	77.39	8.8	3.6	56.968	F
C-AB	5.21	5.21	162.72	0.032	5.24	0.1	0.0	5.994	A
C-A	66.59	66.59			66.59				
A-B	90.58	90.58			90.58				
A-C	96.71	96.71			96.71				

Caerleon Road / New Road - 2024 (Scenario 2), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		69.56	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D18	2024 (Scenario 2)	PM	16:45	17:45	60	15	✓	Advanced	D4+D10

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	66.21	81.27
	B - New Road	106.06	0.00	7.00
	C - Caerleon Road	92.59	4.00	0.00

Demand (PCU/TS)

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	70.71	75.57
	B - New Road	96.06	0.00	2.00
	C - Caerleon Road	113.09	6.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	76.21	74.77
	B - New Road	89.36	0.00	6.00
	C - Caerleon Road	112.59	12.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	79.71	84.27
	B - New Road	95.06	0.00	4.00
	C - Caerleon Road	107.59	14.00	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	7
	B - New Road	1	0	0
	C - Caerleon Road	5	0	0

HV %s

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	2
	B - New Road	0	0	0
	C - Caerleon Road	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.08	626.75	2.5	F	4.75	19.00
B-A	1.08	233.68	24.3	F	96.64	386.54
C-AB	0.16	5.53	0.4	A	20.00	80.00
C-A					95.47	381.86
A-B					73.21	292.84
A-C					78.97	315.88

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-C	7.00	7.00	6.47	1.082	4.58	0.0	2.4	404.530	F
B-A	106.06	106.06	97.99	1.082	91.60	0.0	14.5	92.023	F
C-AB	7.90	7.90	187.57	0.042	7.84	0.0	0.1	5.117	A
C-A	88.69	88.69			88.69				
A-B	66.21	66.21			66.21				
A-C	81.27	81.27			81.27				

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	3.83	0.523	2.73	2.4	1.7	625.304	F
B-A	96.06	96.06	95.61	1.005	92.80	14.5	17.7	173.139	F
C-AB	13.60	13.60	202.84	0.067	13.55	0.1	0.1	4.843	A
C-A	105.49	105.49			105.49				
A-B	70.71	70.71			70.71				
A-C	75.57	75.57			75.57				

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6.00	6.00	6.67	0.900	5.25	1.7	2.5	482.750	F
B-A	89.36	89.36	92.78	0.963	88.98	17.7	18.1	188.844	F
C-AB	27.23	27.23	201.72	0.135	27.02	0.1	0.3	5.233	A
C-A	97.36	97.36			97.36				
A-B	76.21	76.21			76.21				
A-C	74.77	74.77			74.77				

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	5.16	0.776	3.93	2.5	2.5	626.749	F
B-A	95.06	95.06	90.45	1.051	88.83	18.1	24.3	233.682	F
C-AB	31.26	31.26	195.96	0.160	31.21	0.3	0.4	5.531	A
C-A	90.33	90.33			90.33				
A-B	79.71	79.71			79.71				
A-C	84.27	84.27			84.27				

Caerleon Road / New Road - 2024 + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		24.86	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D21	2024 + Development	AM	08:00	09:00	60	15	✓	Advanced	D3+D7

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	116.53	117.09
	B - New Road	89.80	0.00	2.00
	C - Caerleon Road	109.77	3.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	114.53	120.69
	B - New Road	64.00	0.00	4.00
	C - Caerleon Road	143.07	5.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	116.03	118.89
	B - New Road	68.00	0.00	1.00
	C - Caerleon Road	147.27	3.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	96.53	101.69
	B - New Road	68.50	0.00	5.00
	C - Caerleon Road	64.77	3.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	5
	B - New Road	3	0	0
	C - Caerleon Road	4	0	0

HV %s

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	9	0	0
	C - Caerleon Road	3	12	0

HV %s

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	3
	B - New Road	3	0	0
	C - Caerleon Road	2	20	0

HV %s

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	2	0	0
	C - Caerleon Road	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.08	584.32	1.6	F	3.00	12.00
B-A	1.08	119.18	12.9	F	72.58	290.30
C-AB	0.07	6.20	0.1	A	9.40	37.58
C-A					110.32	441.30
A-B					110.91	443.62
A-C					114.59	458.36

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	1.85	1.081	0.95	0.0	1.1	584.322	F
B-A	89.80	89.80	83.05	1.081	76.90	0.0	12.9	99.660	F
C-AB	7.33	7.33	185.86	0.039	7.27	0.0	0.1	5.158	A
C-A	105.44	105.44			105.44				
A-B	116.53	116.53			116.53				
A-C	117.09	117.09			117.09				

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	5.00	0.799	3.45	1.1	1.6	387.869	F
B-A	64.00	64.00	76.17	0.840	71.26	12.9	5.6	119.176	F
C-AB	15.51	15.51	211.50	0.073	15.43	0.1	0.1	4.808	A
C-A	132.56	132.56			132.56				
A-B	114.53	114.53			114.53				
A-C	120.69	120.69			120.69				

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.00	1.00	13.06	0.077	2.51	1.6	0.1	93.911	F
B-A	68.00	68.00	76.85	0.885	67.03	5.6	6.6	94.646	F
C-AB	9.64	9.64	214.86	0.045	9.71	0.1	0.1	4.671	A
C-A	140.63	140.63			140.63				
A-B	116.03	116.03			116.03				
A-C	118.89	118.89			118.89				

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5.00	5.00	52.96	0.094	4.99	0.1	0.1	18.756	C
B-A	68.50	68.50	94.95	0.721	72.12	6.6	3.0	44.824	E
C-AB	5.11	5.11	157.63	0.032	5.13	0.1	0.0	6.198	A
C-A	62.66	62.66			62.66				
A-B	96.53	96.53			96.53				
A-C	101.69	101.69			101.69				

Caerleon Road / New Road - 2024 + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		90.49	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D22	2024 + Development	PM	16:45	17:45	60	15	✓	Advanced	D4+D8

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	65.44	80.09
	B - New Road	109.24	0.00	7.00
	C - Caerleon Road	95.13	4.00	0.00

Demand (PCU/TS)

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	69.94	74.39
	B - New Road	99.24	0.00	2.00
	C - Caerleon Road	115.63	6.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	75.44	73.59
	B - New Road	92.54	0.00	6.00
	C - Caerleon Road	115.13	12.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	78.94	83.09
	B - New Road	98.24	0.00	4.00
	C - Caerleon Road	110.13	14.00	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	7
	B - New Road	1	0	0
	C - Caerleon Road	4	0	0

HV %s

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	2
	B - New Road	0	0	0
	C - Caerleon Road	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.11	701.18	2.8	F	4.75	19.00
B-A	1.11	303.48	32.7	F	99.82	399.26
C-AB	0.16	5.47	0.4	A	20.30	81.20
C-A					97.71	390.82
A-B					72.44	289.76
A-C					77.79	311.16

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7.00	7.00	6.28	1.115	4.49	0.0	2.5	426.009	F
B-A	109.24	109.24	98.01	1.115	92.45	0.0	16.8	102.135	F
C-AB	8.02	8.02	189.77	0.042	7.96	0.0	0.1	5.057	A
C-A	91.11	91.11			91.11				
A-B	65.44	65.44			65.44				
A-C	80.09	80.09			80.09				

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	3.72	0.538	2.70	2.5	1.8	659.821	F
B-A	99.24	99.24	95.60	1.038	93.79	16.8	22.2	206.405	F
C-AB	13.80	13.80	205.02	0.067	13.75	0.1	0.1	4.792	A
C-A	107.83	107.83			107.83				
A-B	69.94	69.94			69.94				
A-C	74.39	74.39			74.39				

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6.00	6.00	6.31	0.950	5.11	1.8	2.7	540.524	F
B-A	92.54	92.54	92.82	0.997	90.77	22.2	24.0	242.882	F
C-AB	27.64	27.64	203.91	0.136	27.42	0.1	0.3	5.179	A
C-A	99.49	99.49			99.49				
A-B	75.44	75.44			75.44				
A-C	73.59	73.59			73.59				

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	4.96	0.807	3.90	2.7	2.8	701.180	F
B-A	98.24	98.24	90.46	1.086	89.53	24.0	32.7	303.482	F
C-AB	31.74	31.74	198.17	0.160	31.68	0.3	0.4	5.472	A
C-A	92.39	92.39			92.39				

A-B	78.94	78.94			78.94				
A-C	83.09	83.09			83.09				

Caerleon Road / New Road - 2024 + Development (TEST A), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		23.77	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D23	2024 + Development (TEST A)	AM	08:00	09:00	60	15	✓	Advanced	D3+D7*0.88

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	115.57	116.24
	B - New Road	89.56	0.00	2.00
	C - Caerleon Road	109.56	3.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	113.57	119.84
	B - New Road	63.76	0.00	4.00
	C - Caerleon Road	142.86	5.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	115.07	118.04
	B - New Road	67.76	0.00	1.00
	C - Caerleon Road	147.06	3.00	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	95.57	100.84
	B - New Road	68.26	0.00	5.00
	C - Caerleon Road	64.56	3.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	5
	B - New Road	3	0	0
	C - Caerleon Road	4	0	0

HV %s

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	9	0	0
	C - Caerleon Road	3	12	0

HV %s

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	3
	B - New Road	3	0	0
	C - Caerleon Road	2	20	0

HV %s

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	2	0	0
	C - Caerleon Road	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.07	563.73	1.4	F	3.00	12.00
B-A	1.07	113.33	12.5	F	72.34	289.34
C-AB	0.07	6.19	0.1	A	9.36	37.44
C-A					110.15	440.60
A-B					109.94	439.77
A-C					113.74	454.96

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	1.86	1.074	0.95	0.0	1.0	563.734	F
B-A	89.56	89.56	83.38	1.074	77.03	0.0	12.5	97.345	F
C-AB	7.30	7.30	186.00	0.039	7.24	0.0	0.1	5.153	A
C-A	105.26	105.26			105.26				
A-B	115.57	115.57			115.57				
A-C	116.24	116.24			116.24				

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	5.72	0.700	3.68	1.0	1.4	331.845	F
B-A	63.76	63.76	76.49	0.834	70.94	12.5	5.3	113.331	F
C-AB	15.44	15.44	211.61	0.073	15.36	0.1	0.1	4.804	A
C-A	132.42	132.42			132.42				
A-B	113.57	113.57			113.57				
A-C	119.84	119.84			119.84				

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.00	1.00	15.63	0.064	2.30	1.4	0.1	72.540	F
B-A	67.76	67.76	77.21	0.878	66.83	5.3	6.3	90.229	F

C-AB	9.60	9.60	214.96	0.045	9.66	0.1	0.1	4.668	A
C-A	140.46	140.46			140.46				
A-B	115.07	115.07			115.07				
A-C	118.04	118.04			118.04				

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5.00	5.00	54.75	0.091	4.98	0.1	0.1	18.072	C
B-A	68.26	68.26	95.28	0.716	71.63	6.3	2.9	42.988	E
C-AB	5.09	5.09	157.81	0.032	5.12	0.1	0.0	6.189	A
C-A	62.46	62.46			62.46				
A-B	95.57	95.57			95.57				
A-C	100.84	100.84			100.84				

Caerleon Road / New Road - 2024 + Development (TEST A), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		84.84	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D24	2024 + Development (TEST A)	PM	16:45	17:45	60	15	✓	Advanced	D4+D8*0.88

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	65.09	79.78
	B - New Road	108.61	0.00	7.00
	C - Caerleon Road	94.57	4.00	0.00

Demand (PCU/TS)

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	69.59	74.08
	B - New Road	98.61	0.00	2.00
	C - Caerleon Road	115.07	6.00	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	75.09	73.28
	B - New Road	91.91	0.00	6.00
	C - Caerleon Road	114.57	12.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	78.59	82.78
	B - New Road	97.61	0.00	4.00
	C - Caerleon Road	109.57	14.00	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	7
	B - New Road	1	0	0
	C - Caerleon Road	4	0	0

HV %s

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	2
	B - New Road	0	0	0
	C - Caerleon Road	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.11	680.36	2.7	F	4.75	19.00
B-A	1.11	283.60	30.4	F	99.19	396.74
C-AB	0.16	5.48	0.4	A	20.21	80.84
C-A					97.24	388.95
A-B					72.09	288.35
A-C					77.48	309.92

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7.00	7.00	6.33	1.106	4.51	0.0	2.5	420.327	F
B-A	108.61	108.61	98.19	1.106	92.42	0.0	16.2	99.348	F
C-AB	7.99	7.99	189.48	0.042	7.92	0.0	0.1	5.064	A
C-A	90.59	90.59			90.59				
A-B	65.09	65.09			65.09				
A-C	79.78	79.78			79.78				

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2.00	2.00	3.74	0.534	2.71	2.5	1.8	650.675	F
B-A	98.61	98.61	95.78	1.030	93.76	16.2	21.0	197.343	F
C-AB	13.74	13.74	204.72	0.067	13.69	0.1	0.1	4.798	A
C-A	107.33	107.33			107.33				
A-B	69.59	69.59			69.59				

A-C	74.08	74.08			74.08				

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6.00	6.00	6.40	0.937	5.15	1.8	2.6	524.835	F
B-A	91.91	91.91	93.00	0.988	90.59	21.0	22.4	227.968	F
C-AB	27.52	27.52	203.61	0.135	27.30	0.1	0.3	5.185	A
C-A	99.06	99.06			99.06				
A-B	75.09	75.09			75.09				
A-C	73.28	73.28			73.28				

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.00	4.00	5.01	0.798	3.91	2.6	2.7	680.363	F
B-A	97.61	97.61	90.64	1.077	89.57	22.4	30.4	283.597	F
C-AB	31.59	31.59	197.87	0.160	31.54	0.3	0.4	5.476	A
C-A	91.98	91.98			91.98				
A-B	78.59	78.59			78.59				
A-C	82.78	82.78			82.78				

Caerleon Road / New Road - 2024 + Development (TEST B), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		19.71	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D25	2024 + Development (TEST B)	AM	08:00	09:00	60	15	✓	Advanced	D3*0.98+D7

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time

✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	114.36	114.89
	B - New Road	88.04	0.00	1.96
	C - Caerleon Road	107.61	2.94	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	112.40	118.42
	B - New Road	62.76	0.00	3.92
	C - Caerleon Road	140.24	4.90	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	113.87	116.65
	B - New Road	66.68	0.00	0.98
	C - Caerleon Road	144.36	2.94	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0.00	94.76	99.80
	B - New Road	67.17	0.00	4.90
	C - Caerleon Road	63.51	2.94	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To		
		A - High Street	**B - New Road**	**C - Caerleon Road**
From	**A - High Street**	0	1	4
	B - New Road	3	0	0
	C - Caerleon Road	4	0	0

HV %s

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	9	0	0
	C - Caerleon Road	3	12	0

HV %s

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	3
	B - New Road	3	0	0
	C - Caerleon Road	2	20	0

HV %s

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	2	0	0
	C - Caerleon Road	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.05	467.52	1.0	F	2.94	11.76
B-A	1.05	94.19	11.1	F	71.16	284.65
C-AB	0.07	6.20	0.1	A	9.00	35.98
C-A					108.37	433.46
A-B					108.85	435.39
A-C					112.44	449.76

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.96	1.96	1.87	1.046	0.94	0.0	1.0	467.521	F
B-A	88.04	88.04	84.13	1.046	76.97	0.0	11.1	88.913	F
C-AB	7.03	7.03	184.92	0.038	6.98	0.0	0.1	5.175	A
C-A	103.52	103.52			103.52				
A-B	114.36	114.36			114.36				
A-C	114.89	114.89			114.89				

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3.92	3.92	16.26	0.241	4.59	1.0	0.4	80.323	F
B-A	62.76	62.76	77.39	0.811	69.33	11.1	4.5	94.191	F
C-AB	14.81	14.81	209.97	0.071	14.73	0.1	0.1	4.830	A
C-A	130.34	130.34			130.34				
A-B	112.40	112.40			112.40				
A-C	118.42	118.42			118.42				

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.98	0.98	23.36	0.042	1.28	0.4	0.0	41.241	E
B-A	66.68	66.68	78.21	0.853	65.89	4.5	5.3	77.479	F
C-AB	9.20	9.20	213.25	0.043	9.26	0.1	0.1	4.701	A
C-A	138.10	138.10			138.10				
A-B	113.87	113.87			113.87				
A-C	116.65	116.65			116.65				

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.90	4.90	59.64	0.082	4.86	0.0	0.1	16.417	C
B-A	67.17	67.17	95.80	0.701	69.80	5.3	2.7	38.309	E
C-AB	4.95	4.95	157.36	0.031	4.97	0.1	0.0	6.203	A
C-A	61.50	61.50			61.50				
A-B	94.76	94.76			94.76				
A-C	99.80	99.80			99.80				

Caerleon Road / New Road - 2024 + Development (TEST B), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		72.74	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D26	2024 + Development (TEST B)	PM	16:45	17:45	60	15	✓	Advanced	D4*0.98+D8

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	64.19	78.54
	B - New Road	107.16	0.00	6.86
	C - Caerleon Road	93.32	3.92	0.00

Demand (PCU/TS)

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	68.60	72.95
	B - New Road	97.36	0.00	1.96
	C - Caerleon Road	113.41	5.88	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	73.99	72.17
	B - New Road	90.79	0.00	5.88
	C - Caerleon Road	112.92	11.76	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	77.42	81.48
	B - New Road	96.38	0.00	3.92
	C - Caerleon Road	108.02	13.72	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	7
	B - New Road	1	0	0
	C - Caerleon Road	4	0	0

HV %s

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	2
	B - New Road	0	0	0
	C - Caerleon Road	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.08	639.32	2.5	F	4.66	18.62
B-A	1.08	240.14	25.4	F	97.92	391.69
C-AB	0.16	5.46	0.4	A	19.55	78.21
C-A					96.18	384.74
A-B					71.05	284.20
A-C					76.29	305.14

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

B-C	6.86	6.86	6.32	1.085	4.46	0.0	2.4	411.111	F
B-A	107.16	107.16	98.79	1.085	92.45	0.0	14.7	92.437	F
C-AB	7.75	7.75	188.93	0.041	7.69	0.0	0.1	5.071	A
C-A	89.49	89.49			89.49				
A-B	64.19	64.19			64.19				
A-C	78.54	78.54			78.54				

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.96	1.96	3.75	0.523	2.67	2.4	1.7	633.339	F
B-A	97.36	97.36	96.44	1.010	93.77	14.7	18.3	175.776	F
C-AB	13.29	13.29	203.85	0.065	13.24	0.1	0.1	4.807	A
C-A	106.00	106.00			106.00				
A-B	68.60	68.60			68.60				
A-C	72.95	72.95			72.95				

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5.88	5.88	6.50	0.904	5.12	1.7	2.5	494.481	F
B-A	90.79	90.79	93.68	0.969	90.22	18.3	18.9	194.428	F
C-AB	26.61	26.61	202.76	0.131	26.40	0.1	0.3	5.182	A
C-A	98.07	98.07			98.07				
A-B	73.99	73.99			73.99				
A-C	72.17	72.17			72.17				

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3.92	3.92	5.05	0.776	3.85	2.5	2.5	639.317	F
B-A	96.38	96.38	91.39	1.055	89.88	18.9	25.4	240.144	F
C-AB	30.56	30.56	197.12	0.155	30.51	0.3	0.4	5.465	A
C-A	91.18	91.18			91.18				
A-B	77.42	77.42			77.42				
A-C	81.48	81.48			81.48				

Caerleon Road / New Road - 2024 + Development (TEST C), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		18.89	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D27	2024 + Development (TEST C)	AM	08:00	09:00	60	15	✓	Advanced	D3*0.98+D7*0.88

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	113.40	114.04
	B - New Road	87.80	0.00	1.96
	C - Caerleon Road	107.40	2.94	0.00

Demand (PCU/TS)

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	111.44	117.57
	B - New Road	62.52	0.00	3.92
	C - Caerleon Road	140.03	4.90	0.00

Demand (PCU/TS)

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	112.91	115.80
	B - New Road	66.44	0.00	0.98
	C - Caerleon Road	144.15	2.94	0.00

Demand (PCU/TS)

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	93.80	98.95
	B - New Road	66.93	0.00	4.90
	C - Caerleon Road	63.30	2.94	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	5
	B - New Road	3	0	0
	C - Caerleon Road	4	0	0

HV %s

08:15 - 08:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	9	0	0
	C - Caerleon Road	3	12	0

HV %s

08:30 - 08:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	1	3
	B - New Road	3	0	0
	C - Caerleon Road	2	20	0

HV %s

08:45 - 09:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	2	3
	B - New Road	2	0	0
	C - Caerleon Road	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.04	457.93	1.0	F	2.94	11.76
B-A	1.04	89.56	10.7	F	70.92	283.69
C-AB	0.07	6.20	0.1	A	8.96	35.84
C-A					108.19	432.75
A-B					107.88	431.54
A-C					111.59	446.36

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.96	1.96	1.89	1.040	0.95	0.0	1.0	457.935	F
B-A	87.80	87.80	84.46	1.040	77.06	0.0	10.7	86.831	F
C-AB	7.01	7.01	185.06	0.038	6.95	0.0	0.1	5.170	A
C-A	103.33	103.33			103.33				
A-B	113.40	113.40			113.40				
A-C	114.04	114.04			114.04				

08:15 - 08:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3.92	3.92	19.00	0.206	4.65	1.0	0.3	65.189	F
B-A	62.52	62.52	77.72	0.804	68.96	10.7	4.3	89.562	F
C-AB	14.74	14.74	210.08	0.070	14.67	0.1	0.1	4.826	A
C-A	130.19	130.19			130.19				
A-B	111.44	111.44			111.44				
A-C	117.57	117.57			117.57				

08:30 - 08:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.98	0.98	25.54	0.038	1.22	0.3	0.0	37.328	E
B-A	66.44	66.44	78.55	0.846	65.67	4.3	5.1	74.455	F
C-AB	9.16	9.16	213.35	0.043	9.22	0.1	0.1	4.697	A
C-A	137.93	137.93			137.93				
A-B	112.91	112.91			112.91				
A-C	115.80	115.80			115.80				

08:45 - 09:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4.90	4.90	61.11	0.080	4.86	0.0	0.1	15.998	C
B-A	66.93	66.93	96.13	0.696	69.41	5.1	2.6	37.104	E
C-AB	4.93	4.93	157.54	0.031	4.95	0.1	0.0	6.198	A
C-A	61.31	61.31			61.31				
A-B	93.80	93.80			93.80				
A-C	98.95	98.95			98.95				

Caerleon Road / New Road - 2024 + Development (TEST C), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Caerleon Road / New Road	T-Junction	Two-way		68.26	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D28	2024 + Development (TEST C)	PM	16:45	17:45	60	15	✓	Advanced	D4*0.98+D8*0.88

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A - High Street		DIRECT		100.000
B - New Road		DIRECT		100.000
C - Caerleon Road		DIRECT		100.000

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	63.84	78.23
	B - New Road	106.53	0.00	6.86
	C - Caerleon Road	92.76	3.92	0.00

Demand (PCU/TS)

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	68.25	72.64
	B - New Road	96.73	0.00	1.96
	C - Caerleon Road	112.85	5.88	0.00

Demand (PCU/TS)

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	73.64	71.86
	B - New Road	90.17	0.00	5.88
	C - Caerleon Road	112.36	11.76	0.00

Demand (PCU/TS)

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0.00	77.07	81.17
	B - New Road	95.75	0.00	3.92
	C - Caerleon Road	107.46	13.72	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	7
	B - New Road	1	0	0
	C - Caerleon Road	4	0	0

HV %s

17:00 - 17:15

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:15 - 17:30

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	4
	B - New Road	1	0	0
	C - Caerleon Road	3	0	0

HV %s

17:30 - 17:45

		To		
		A - High Street	B - New Road	C - Caerleon Road
From	A - High Street	0	0	2
	B - New Road	0	0	0
	C - Caerleon Road	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
B-C	1.08	624.68	2.5	F	4.66	18.62
B-A	1.08	224.27	23.5	F	97.29	389.18
C-AB	0.15	5.47	0.4	A	19.47	77.87
C-A					95.71	382.85
A-B					70.70	282.79
A-C					75.98	303.90

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6.86	6.86	6.37	1.076	4.48	0.0	2.4	405.586	F
B-A	106.53	106.53	98.97	1.076	92.38	0.0	14.1	89.848	F
C-AB	7.71	7.71	188.64	0.041	7.65	0.0	0.1	5.078	A
C-A	88.97	88.97			88.97				
A-B	63.84	63.84			63.84				
A-C	78.23	78.23			78.23				

17:00 - 17:15

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	1.96	1.96	3.78	0.519	2.67	2.4	1.7	624.677	F
B-A	96.73	96.73	96.63	1.001	93.64	14.1	17.2	167.507	F
C-AB	13.24	13.24	203.55	0.065	13.18	0.1	0.1	4.813	A
C-A	105.50	105.50			105.50				
A-B	68.25	68.25			68.25				
A-C	72.64	72.64			72.64				

17:15 - 17:30

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5.88	5.88	6.59	0.892	5.15	1.7	2.4	480.546	F
B-A	90.17	90.17	93.86	0.961	89.83	17.2	17.6	181.584	F
C-AB	26.50	26.50	202.46	0.131	26.29	0.1	0.3	5.188	A
C-A	97.63	97.63			97.63				
A-B	73.64	73.64			73.64				
A-C	71.86	71.86			71.86				

17:30 - 17:45

Stream	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3.92	3.92	5.10	0.768	3.85	2.4	2.5	621.986	F
B-A	95.75	95.75	91.58	1.046	89.83	17.6	23.5	224.273	F
C-AB	30.43	30.43	196.82	0.155	30.38	0.3	0.4	5.470	A
C-A	90.76	90.76			90.76				

A-B	77.07	77.07			77.07				
A-C	81.17	81.17			81.17				

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: 180409_High Street_Mini-Roundabout_PM_Existing v2.j9
Path: H:\Projects\W180000\184326 - Caerleon Campus - Public Inquiry\184326A\Technical\A - Transport Assessment\Modelling\Arcady\High Street - Station Road Mini Roundabout
Report generation date: 26/11/2019 14:19:12

»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1, PM
»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3), PM
»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2), PM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1), PM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3), PM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2), PM
»Station Road / Usk Road / Mill Street / High Street - 2024 + Development, PM

Summary of junction performance

	PM		
	Q (PCU)	Delay (s)	RFC
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	5.0	21.13	0.75
3 - Station Road	9.6	70.19	0.94
4 - Usk Road	1.9	38.30	0.64
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	5.0	21.11	0.75
3 - Station Road	3.3	32.44	0.75
4 - Usk Road	1.3	24.92	0.54
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	5.0	21.12	0.75
3 - Station Road	5.9	47.34	0.87
4 - Usk Road	1.7	32.31	0.60
	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	5.0	21.13	0.75
3 - Station Road	9.6	70.19	0.94
4 - Usk Road	1.9	38.30	0.64

	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	5.0	21.11	0.75
3 - Station Road	3.3	32.44	0.75
4 - Usk Road	1.3	24.92	0.54
	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	5.0	21.13	0.75
3 - Station Road	4.1	37.27	0.80
4 - Usk Road	1.4	27.91	0.56
	Station Road / Usk Road / Mill Street / High Street - 2024 + Development		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	5.0	21.20	0.75
3 - Station Road	3.9	35.96	0.79
4 - Usk Road	1.4	27.36	0.56

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 Av. delay per arriving vehicle.

File summary

File Description

Title	High Street Mini Roundabout
Location	
Site number	
Date	30/04/2019
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	Ben Stone
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perTimeSegment	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2019 (Scenario 1	PM		16:45	17:45	60	15	✓	Advanced	D2+D6
D2	2019 (Scenario 3)	PM	DIRECT	16:45	17:45	60	15	✓		

D3	2019 (Scenario 2)	PM		16:45	17:45	60	15	✓	Advanced	D2+D5
D4	Development	PM	DIRECT	16:45	17:45	60	15			
D5	Future Baseline Scenario	PM	DIRECT	16:45	17:45	60	15			
D6	Former Use (100%)	PM	DIRECT	16:45	17:45	60	15			
D7	2024 (Scenario 1)	PM		16:45	17:45	60	15	✓	Advanced	D2+D6
D8	2024 (Scenario 3)	PM		16:45	17:45	60	15	✓	Advanced	D2
D9	2024 (Scenario 2)	PM		16:45	17:45	60	15	✓	Advanced	D2+D5
D11	2024 + Development	PM		16:45	17:45	60	15	✓	Advanced	D8+D4

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Station Road / Usk Road / Mill Street / High Street	✓	100.000	100.000

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 89% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 73% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	38.27	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	Mill Street	One-Way
2	High Street	One-Way
3	Station Road	
4	Usk Road	

Mini Roundabout Geometry

Arm	Approach	Minimum	Entry	Effective	Distance to	Entry corner	Gradient	Kerbed

	road half-width (m)	approach road half-width (m)	width (m)	flare length (m)	next arm (m)	kerb line distance (m)	over 50m (%)	central island
1 - Mill Street	3.00	3.00	3.00	0.0	13.84	14.22	2.0	
2 - High Street	6.22	3.49	3.49	0.0	12.93	8.33	0.0	
3 - Station Road	4.57	3.96	3.96	0.0	13.84	10.99	-2.0	✓
4 - Usk Road	3.33	3.33	7.91	11.4	8.71	7.20	4.0	

Zebra Crossings

Arm	VGAP (PCU)	Vehs queueing on exit (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)
2 - High Street	1.00	1.00		Time	5.60	4.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/TS)
1 - Mill Street	None		
2 - High Street	Direct		125.00
3 - Station Road	Direct		-65.00
4 - Usk Road	Direct		-105.00

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1 - Mill Street	0.583	200.322
2 - High Street	0.610	295.909
3 - Station Road	0.543	191.859
4 - Usk Road	0.631	181.811

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2019 (Scenario 1	PM	16:45	17:45	60	15	✓	Advanced	D2+D6

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	

4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	83.16	0.00	0.00	6.63
	4 - Usk Road	20.00	0.00	17.21	0.00

Demand (PCU/TS)

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	89.16	0.00	0.00	17.63
	4 - Usk Road	22.00	0.00	18.71	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	103.66	0.00	0.00	18.63
	4 - Usk Road	19.00	0.00	29.21	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	106.66	0.00	1.00	18.63
	4 - Usk Road	23.00	0.00	19.21	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	44	0	0	5
	4 - Usk Road	29	0	17	0

HV %s

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	43	0	0	11
	4 - Usk Road	24	0	15	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	44	0	0	15
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.75	21.13	5.0	C	207.30	829.20
3 - Station Road	0.94	70.19	9.6	F	111.29	445.16
4 - Usk Road	0.64	38.30	1.9	E	42.09	168.34

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.72		190.57	0.000	0.00	183.00	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.72	15.00	284.26	0.751	208.52	0.00	0.0	5.0	20.336	C
3 - Station Road	89.79	89.79	113.30		130.36	0.689	86.97	111.95	0.0	2.8	27.636	D

4 - Usk Road	37.21	37.21	163.57		78.60	0.473	36.16	36.70	0.0	1.1	25.595	D

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.55		189.51	0.000	0.00	193.92	0.0	0.0	0.000	A
2 - High Street	206.30	206.30	18.55	18.00	282.75	0.730	206.37	0.00	5.0	4.9	21.131	C
3 - Station Road	106.79	106.79	109.40		132.47	0.806	104.90	115.52	2.8	4.7	41.440	E
4 - Usk Road	40.71	40.71	172.11		73.21	0.556	40.36	42.19	1.1	1.4	32.327	D

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.68		183.60	0.000	0.00	188.44	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.68	17.00	276.86	0.722	200.05	0.00	4.9	4.8	20.845	C
3 - Station Road	122.29	122.29	100.61		137.24	0.891	119.29	128.13	4.7	7.7	59.751	F
4 - Usk Road	48.21	48.21	169.45		74.89	0.644	47.68	50.46	1.4	1.9	37.904	E

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.52		188.36	0.000	0.00	205.42	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.52	18.00	283.04	0.740	211.31	0.00	4.8	2.9	13.032	B
3 - Station Road	126.29	126.29	104.93		134.90	0.936	124.37	126.91	7.7	9.6	70.186	F
4 - Usk Road	42.21	42.21	183.52		66.01	0.639	42.42	45.77	1.9	1.7	38.296	E

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 79% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	24.48	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2019 (Scenario 3)	PM	DIRECT	16:45	17:45	60	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT	✓	100.000
2 - High Street		DIRECT	✓	100.000
3 - Station Road		DIRECT	✓	100.000
4 - Usk Road		DIRECT	✓	100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	58.00	0.00	0.00	6.00
	4 - Usk Road	20.00	0.00	17.00	0.00

17:00 - 17:15

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	64.00	0.00	0.00	17.00
	4 - Usk Road	22.00	0.00	18.50	0.00

17:15 - 17:30

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	78.50	0.00	0.00	18.00
	4 - Usk Road	19.00	0.00	29.00	0.00

17:30 - 17:45

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	81.50	0.00	1.00	18.00
	4 - Usk Road	23.00	0.00	19.00	0.00

Vehicle Mix

16:45 - 17:00

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	79	0	0	6
	4 - Usk Road	29	0	18	0

17:00 - 17:15

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	72	0	0	11
	4 - Usk Road	24	0	15	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	68	0	2	16
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.75	21.11	5.0	C	207.30	829.20
3 - Station Road	0.75	32.44	3.3	D	85.50	342.00
4 - Usk Road	0.54	24.92	1.3	C	41.88	167.50

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.64		190.62	0.000	0.00	159.20	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.64	15.00	284.31	0.751	208.53	0.00	0.0	5.0	20.325	C
3 - Station Road	64.00	64.00	113.30		130.36	0.491	62.46	111.87	0.0	1.5	21.806	C
4 - Usk Road	37.00	37.00	139.62		93.71	0.395	36.22	36.13	0.0	0.8	19.101	C

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.41		189.59	0.00	0.00	169.77	0.0	0.0	0.000	A

						0						
2 - High Street	206.30	206.30	18.41	18.00	282.83	0.729	206.37	0.00	5.0	4.9	21.109	C
3 - Station Road	81.00	81.00	109.40		132.47	0.611	80.27	115.38	1.5	2.3	26.135	D
4 - Usk Road	40.50	40.50	147.88		88.50	0.458	40.31	41.79	0.8	1.0	22.234	C

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.67		183.61	0.000	0.00	165.00	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.67	17.00	276.87	0.722	200.05	0.00	4.9	4.8	20.839	C
3 - Station Road	96.50	96.50	100.61		137.24	0.703	95.45	128.11	2.3	3.3	32.439	D
4 - Usk Road	48.00	48.00	145.98		89.70	0.535	47.69	50.08	1.0	1.3	24.925	C

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.25		188.52	0.000	0.00	182.33	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.25	18.00	283.21	0.740	211.32	0.00	4.8	2.9	13.004	B
3 - Station Road	100.50	100.50	104.93		134.90	0.745	100.96	126.64	3.3	2.9	26.871	D
4 - Usk Road	42.00	42.00	160.39		80.61	0.521	42.19	45.50	1.3	1.1	23.595	C

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 77% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	30.09	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D3	2019 (Scenario 2)	PM	16:45	17:45	60	15	✓	Advanced	D2+D5

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	65.48	0.00	0.00	6.19
	4 - Usk Road	20.00	0.00	17.10	0.00

Demand (PCU/TS)

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	71.48	0.00	0.00	17.19
	4 - Usk Road	22.00	0.00	18.60	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	85.98	0.00	0.00	18.19
	4 - Usk Road	19.00	0.00	29.10	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	88.98	0.00	1.00	18.19
	4 - Usk Road	23.00	0.00	19.10	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	64	0	0	6
	4 - Usk Road	29	0	18	0

HV %s

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	60	0	0	11
	4 - Usk Road	24	0	15	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	58	0	0	16
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.75	21.12	5.0	C	207.30	829.20
3 - Station Road	0.87	47.34	5.9	E	102.37	409.48
4 - Usk Road	0.60	32.31	1.7	D	41.98	167.90

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.67		190.61	0.000	0.00	174.91	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.67	15.00	284.29	0.751	208.53	0.00	0.0	5.0	20.329	C
3 - Station Road	80.87	80.87	113.30		130.36	0.620	78.63	111.90	0.0	2.2	24.659	C
4 - Usk Road	37.10	37.10	155.42		83.74	0.443	36.16	36.51	0.0	0.9	22.943	C

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.47		189.55	0.000	0.00	185.73	0.0	0.0	0.000	A
2 - High Street	206.30	206.30	18.47	18.00	282.80	0.730	206.37	0.00	5.0	4.9	21.119	C
3 - Station Road	97.87	97.87	109.40		132.47	0.739	96.56	115.44	2.2	3.5	33.940	D
4 - Usk Road	40.60	40.60	163.88		78.40	0.518	40.32	42.08	0.9	1.2	28.011	D

17:15 - 17:30

Arm	Total	Junctio	Circulatin	Ped	Capacit	RFC	Throughp	Throughp	Start	End	Delay	Unsignalis

	Demand (PCU/TS)	n Arrivals (PCU)	g flow (PCU/TS)	demand (Ped/TS)	y (PCU/TS)		ut (PCU/TS)	ut (exit) (PCU/TS)	queue (PCU)	queue (PCU)	(s)	ed level of service
1 - Mill Street	0.00	0.00	28.66		183.62	0.000	0.00	180.66	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.66	17.00	276.87	0.722	200.05	0.00	4.9	4.8	20.840	C
3 - Station Road	113.37	113.37	100.61		137.24	0.826	111.42	128.10	3.5	5.5	46.116	E
4 - Usk Road	48.10	48.10	161.66		79.81	0.603	47.66	50.37	1.2	1.7	32.315	D

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.39		188.43	0.000	0.00	198.07	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.39	18.00	283.12	0.740	211.32	0.00	4.8	2.9	13.018	B
3 - Station Road	117.37	117.37	104.93		134.90	0.870	117.01	126.78	5.5	5.9	47.343	E
4 - Usk Road	42.10	42.10	176.16		70.65	0.596	42.31	45.78	1.7	1.4	31.940	D

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 89% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 73% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	38.27	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D7	2024 (Scenario 1)	PM	16:45	17:45	60	15	✓	Advanced	D2+D6

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	83.16	0.00	0.00	6.63
	4 - Usk Road	20.00	0.00	17.21	0.00

Demand (PCU/TS)

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	89.16	0.00	0.00	17.63
	4 - Usk Road	22.00	0.00	18.71	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	103.66	0.00	0.00	18.63
	4 - Usk Road	19.00	0.00	29.21	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	106.66	0.00	1.00	18.63
	4 - Usk Road	23.00	0.00	19.21	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	44	0	0	5
	4 - Usk Road	29	0	17	0

HV %s

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	43	0	0	11
	4 - Usk Road	24	0	15	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	44	0	0	15
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00

2 - High Street	0.75	21.13	5.0	C	207.30	829.20
3 - Station Road	0.94	70.19	9.6	F	111.29	445.16
4 - Usk Road	0.64	38.30	1.9	E	42.09	168.34

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.72		190.57	0.000	0.00	183.00	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.72	15.00	284.26	0.751	208.52	0.00	0.0	5.0	20.336	C
3 - Station Road	89.79	89.79	113.30		130.36	0.689	86.97	111.95	0.0	2.8	27.636	D
4 - Usk Road	37.21	37.21	163.57		78.60	0.473	36.16	36.70	0.0	1.1	25.595	D

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.55		189.51	0.000	0.00	193.92	0.0	0.0	0.000	A
2 - High Street	206.30	206.30	18.55	18.00	282.75	0.730	206.37	0.00	5.0	4.9	21.131	C
3 - Station Road	106.79	106.79	109.40		132.47	0.806	104.90	115.52	2.8	4.7	41.440	E
4 - Usk Road	40.71	40.71	172.11		73.21	0.556	40.36	42.19	1.1	1.4	32.327	D

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.68		183.60	0.000	0.00	188.44	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.68	17.00	276.86	0.722	200.05	0.00	4.9	4.8	20.845	C
3 - Station Road	122.29	122.29	100.61		137.24	0.891	119.29	128.13	4.7	7.7	59.751	F
4 - Usk Road	48.21	48.21	169.45		74.89	0.644	47.68	50.46	1.4	1.9	37.904	E

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.52		188.36	0.00	0.00	205.42	0.0	0.0	0.000	A

						0						
2 - High Street	209.50	209.50	20.52	18.00	283.04	0.740	211.31	0.00	4.8	2.9	13.032	B
3 - Station Road	126.29	126.29	104.93		134.90	0.936	124.37	126.91	7.7	9.6	70.186	F
4 - Usk Road	42.21	42.21	183.52		66.01	0.639	42.42	45.77	1.9	1.7	38.296	E

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 79% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	24.48	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D8	2024 (Scenario 3)	PM	16:45	17:45	60	15	✓	Advanced	D2

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	58.00	0.00	0.00	6.00
	4 - Usk Road	20.00	0.00	17.00	0.00

Demand (PCU/TS)

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	64.00	0.00	0.00	17.00
	4 - Usk Road	22.00	0.00	18.50	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	78.50	0.00	0.00	18.00
	4 - Usk Road	19.00	0.00	29.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	81.50	0.00	1.00	18.00
	4 - Usk Road	23.00	0.00	19.00	0.00

Vehicle Mix

16:45 - 17:00

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	79	0	0	6
	4 - Usk Road	29	0	18	0

17:00 - 17:15

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	72	0	0	11
	4 - Usk Road	24	0	15	0

17:15 - 17:30

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	68	0	0	16
	4 - Usk Road	25	0	13	0

17:30 - 17:45

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.75	21.11	5.0	C	207.30	829.20
3 - Station Road	0.75	32.44	3.3	D	85.50	342.00
4 - Usk Road	0.54	24.92	1.3	C	41.88	167.50

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.64		190.62	0.000	0.00	159.20	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.64	15.00	284.31	0.751	208.53	0.00	0.0	5.0	20.325	C
3 - Station Road	64.00	64.00	113.30		130.36	0.491	62.46	111.87	0.0	1.5	21.806	C
4 - Usk Road	37.00	37.00	139.62		93.71	0.395	36.22	36.13	0.0	0.8	19.101	C

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.41		189.59	0.000	0.00	169.77	0.0	0.0	0.000	A
2 - High Street	206.30	206.30	18.41	18.00	282.83	0.729	206.37	0.00	5.0	4.9	21.112	C
3 - Station Road	81.00	81.00	109.40		132.47	0.611	80.27	115.38	1.5	2.3	26.135	D
4 - Usk Road	40.50	40.50	147.88		88.50	0.458	40.31	41.79	0.8	1.0	22.234	C

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.67		183.61	0.000	0.00	165.00	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.67	17.00	276.87	0.722	200.05	0.00	4.9	4.8	20.841	C
3 - Station Road	96.50	96.50	100.61		137.24	0.703	95.45	128.11	2.3	3.3	32.439	D
4 - Usk Road	48.00	48.00	145.98		89.70	0.535	47.69	50.08	1.0	1.3	24.925	C

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.25		188.52	0.000	0.00	182.33	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.25	18.00	283.21	0.740	211.32	0.00	4.8	2.9	13.004	B
3 - Station Road	100.50	100.50	104.93		134.90	0.745	100.96	126.64	3.3	2.9	26.870	D
4 - Usk Road	42.00	42.00	160.39		80.61	0.521	42.19	45.50	1.3	1.1	23.595	C

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 77% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	26.35	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D9	2024 (Scenario 2)	PM	16:45	17:45	60	15	✓	Advanced	D2+D5

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	65.48	0.00	0.00	6.19
	4 - Usk Road	20.00	0.00	17.10	0.00

Demand (PCU/TS)

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	71.48	0.00	0.00	17.19
	4 - Usk Road	22.00	0.00	18.60	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	85.98	0.00	0.00	18.19
	4 - Usk Road	19.00	0.00	29.10	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	88.98	0.00	1.00	18.19
	4 - Usk Road	23.00	0.00	19.10	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	64	0	0	6
	4 - Usk Road	29	0	18	0

HV %s

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	60	0	0	11
	4 - Usk Road	24	0	15	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	58	0	0	16
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.75	21.13	5.0	C	207.30	829.20
3 - Station Road	0.80	37.27	4.1	E	93.17	372.68
4 - Usk Road	0.56	27.91	1.4	D	41.98	167.90

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.71		190.58	0.000	0.00	166.39	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.71	15.00	284.27	0.751	208.52	0.00	0.0	5.0	20.334	C
3 - Station Road	71.67	71.67	113.30		130.36	0.550	69.86	111.94	0.0	1.8	22.682	C

4 - Usk Road	37.10	37.10	146.85		89.15	0.416	36.25	36.31	0.0	0.8	20.702	C

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.50		189.54	0.000	0.00	177.07	0.0	0.0	0.000	A
2 - High Street	206.30	206.30	18.50	18.00	282.78	0.730	206.37	0.00	5.0	4.9	21.125	C
3 - Station Road	88.67	88.67	109.40		132.47	0.669	87.73	115.46	1.8	2.7	28.911	D
4 - Usk Road	40.60	40.60	155.19		83.88	0.484	40.37	41.94	0.8	1.1	24.579	C

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.72		183.58	0.000	0.00	172.21	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.72	17.00	276.83	0.722	200.05	0.00	4.9	4.8	20.849	C
3 - Station Road	104.17	104.17	100.61		137.24	0.759	102.82	128.16	2.7	4.1	37.272	E
4 - Usk Road	48.10	48.10	153.20		85.14	0.565	47.74	50.23	1.1	1.4	27.908	D

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.37		188.45	0.000	0.00	189.63	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.37	18.00	283.13	0.740	211.32	0.00	4.8	2.9	13.016	B
3 - Station Road	108.17	108.17	104.93		134.90	0.802	108.42	126.76	4.1	3.9	33.800	D
4 - Usk Road	42.10	42.10	167.70		75.99	0.554	42.30	45.65	1.4	1.2	26.897	D

Station Road / Usk Road / Mill Street / High Street - 2024 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 78% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	25.92	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	2024 + Development	PM	16:45	17:45	60	15	✓	Advanced	D8+D4

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	63.53	0.00	0.00	6.32
	4 - Usk Road	20.00	0.00	17.57	0.00

17:00 - 17:15

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	69.53	0.00	0.00	17.32
	4 - Usk Road	22.00	0.00	19.07	0.00

17:15 - 17:30

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	84.03	0.00	0.00	18.32
	4 - Usk Road	19.00	0.00	29.57	0.00

17:30 - 17:45

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	87.03	0.00	1.00	18.32
	4 - Usk Road	23.00	0.00	19.57	0.00

Vehicle Mix

16:45 - 17:00

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	67	0	0	6
	4 - Usk Road	29	0	17	0

17:00 - 17:15

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	63	0	0	11
	4 - Usk Road	24	0	14	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	61	0	0	16
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.75	21.20	5.0	C	207.30	829.20
3 - Station Road	0.79	35.96	3.9	E	91.35	365.40
4 - Usk Road	0.56	27.36	1.4	D	42.45	169.78

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	17.18		190.31	0.000	0.00	164.51	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	17.18	15.00	283.99	0.752	208.51	0.00	0.0	5.0	20.399	C
3 - Station Road	69.85	69.85	113.29		130.36	0.536	68.11	112.40	0.0	1.7	22.408	C
4 - Usk Road	37.57	37.57	144.96		90.34	0.416	36.73	36.44	0.0	0.8	20.370	C

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.97		189.26	0.00	0.00	175.17	0.0	0.0	0.000	A

						0						
2 - High Street	206.30	206.30	18.97	18.00	282.50	0.730	206.37	0.00	5.0	4.9	21.201	C
3 - Station Road	86.85	86.85	109.40		132.47	0.656	85.97	115.93	1.7	2.6	28.151	D
4 - Usk Road	41.07	41.07	153.29		85.09	0.483	40.85	42.08	0.8	1.1	24.130	C

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	29.20		183.30	0.000	0.00	170.34	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	29.20	17.00	276.55	0.723	200.05	0.00	4.9	4.8	20.929	C
3 - Station Road	102.35	102.35	100.61		137.24	0.746	101.08	128.64	2.6	3.9	35.956	E
4 - Usk Road	48.57	48.57	151.32		86.33	0.563	48.21	50.37	1.1	1.4	27.355	D

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.84		188.17	0.000	0.00	187.73	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.84	18.00	282.85	0.741	211.32	0.00	4.8	2.9	13.072	B
3 - Station Road	106.35	106.35	104.93		134.90	0.788	106.66	127.23	3.9	3.6	31.888	D
4 - Usk Road	42.57	42.57	165.80		77.19	0.552	42.77	45.79	1.4	1.2	26.324	D

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: 180409_High Street_Mini-Roundabout_PM_Improvements(A06) v1.j9
Path: H:\Projects\W180000\184326 - Caerleon Campus - Public Inquiry\184326A\Technical\A - Transport Assessment\Modelling\Arcady\High Street - Station Road Mini Roundabout
Report generation date: 26/11/2019 14:54:42

»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1, PM
»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3), PM
»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2), PM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1), PM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3), PM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2), PM
»Station Road / Usk Road / Mill Street / High Street - 2024 + Development, PM

Summary of junction performance

	PM		
	Q (PCU)	Delay (s)	RFC
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.9	16.47	0.70
3 - Station Road	9.6	69.93	0.94
4 - Usk Road	2.6	55.93	0.72
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.9	16.46	0.70
3 - Station Road	3.3	32.43	0.74
4 - Usk Road	1.6	30.36	0.59
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.9	16.47	0.70
3 - Station Road	4.1	37.26	0.80
4 - Usk Road	1.8	34.89	0.62
	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.9	16.47	0.70
3 - Station Road	9.6	69.93	0.94
4 - Usk Road	2.6	55.93	0.72

	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.9	16.46	0.70
3 - Station Road	3.3	32.43	0.74
4 - Usk Road	1.6	30.36	0.59
	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.9	16.47	0.70
3 - Station Road	4.1	37.26	0.80
4 - Usk Road	1.8	34.89	0.62
	Station Road / Usk Road / Mill Street / High Street - 2024 + Development		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.9	16.52	0.70
3 - Station Road	3.9	35.94	0.79
4 - Usk Road	1.8	34.00	0.62

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 Av. delay per arriving vehicle.

File summary

File Description

Title	High Street Mini Roundabout
Location	
Site number	
Date	30/04/2019
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	Ben Stone
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perTimeSegment	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2019 (Scenario 1	PM		16:45	17:45	60	15	✓	Advanced	D2+D6
D2	2019 (Scenario 3)	PM	DIRECT	16:45	17:45	60	15	✓		

D3	2019 (Scenario 2)	PM		16:45	17:45	60	15	✓	Advanced	D2+D5
D4	Development	PM	DIRECT	16:45	17:45	60	15			
D5	Future Baseline Scenario	PM	DIRECT	16:45	17:45	60	15			
D6	Former Use (100%)	PM	DIRECT	16:45	17:45	60	15			
D7	2024 (Scenario 1)	PM		16:45	17:45	60	15	✓	Advanced	D2+D6
D8	2024 (Scenario 3)	PM		16:45	17:45	60	15	✓	Advanced	D2
D9	2024 (Scenario 2)	PM		16:45	17:45	60	15	✓	Advanced	D2+D5
D11	2024 + Development	PM		16:45	17:45	60	15	✓	Advanced	D8+D4

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Station Road / Usk Road / Mill Street / High Street	✓	100.000	100.000

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 89% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 73% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	37.57	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	Mill Street	One-Way
2	High Street	One-Way
3	Station Road	
4	Usk Road	

Mini Roundabout Geometry

Arm	Approach	Minimum	Entry	Effective	Distance to	Entry corner	Gradient	Kerbed

	road half-width (m)	approach road half-width (m)	width (m)	flare length (m)	next arm (m)	kerb line distance (m)	over 50m (%)	central island
1 - Mill Street	3.00	3.00	3.00	0.0	15.22	16.02	2.0	
2 - High Street	4.79	3.49	3.49	0.0	11.40	7.44	0.0	
3 - Station Road	4.57	3.96	3.96	0.0	13.84	10.99	-2.0	✓
4 - Usk Road	3.33	3.33	7.91	11.4	8.71	7.20	4.0	

Zebra Crossings

Arm	VGAP (PCU)	Vehs queueing on exit (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)
2 - High Street	1.50	1.00		Time	5.60	4.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/TS)
1 - Mill Street	None		
2 - High Street	Direct		125.00
3 - Station Road	Direct		-65.00
4 - Usk Road	Direct		-105.00

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1 - Mill Street	0.608	219.550
2 - High Street	0.609	317.544
3 - Station Road	0.543	191.859
4 - Usk Road	0.631	173.980

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2019 (Scenario 1	PM	16:45	17:45	60	15	✓	Advanced	D2+D6

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	

4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	83.16	0.00	0.00	6.63
	4 - Usk Road	20.00	0.00	17.21	0.00

Demand (PCU/TS)

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	89.16	0.00	0.00	17.63
	4 - Usk Road	22.00	0.00	18.71	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	103.66	0.00	0.00	18.63
	4 - Usk Road	19.00	0.00	29.21	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	106.66	0.00	1.00	18.63
	4 - Usk Road	23.00	0.00	19.21	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	44	0	0	5
	4 - Usk Road	29	0	17	0

HV %s

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	43	0	0	11
	4 - Usk Road	24	0	15	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	44	0	0	15
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.70	16.47	3.9	C	207.30	829.20
3 - Station Road	0.94	69.93	9.6	F	111.29	445.16
4 - Usk Road	0.72	55.93	2.6	F	42.09	168.34

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.62		209.45	0.000	0.00	183.28	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.62	15.00	305.97	0.698	209.57	0.00	0.0	3.9	16.279	C
3 - Station Road	89.79	89.79	113.87		130.05	0.690	86.95	112.32	0.0	2.8	27.806	D

4 - Usk Road	37.21	37.21	163.97		70.51	0.528	35.93	36.85	0.0	1.3	31.100	D

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.48		208.32	0.000	0.00	193.86	0.0	0.0	0.000	A
2 - High Street	206.30	206.30	18.48	18.00	304.38	0.678	206.38	0.00	3.9	3.8	16.469	C
3 - Station Road	106.79	106.79	109.40		132.47	0.806	104.91	115.47	2.8	4.7	41.474	E
4 - Usk Road	40.71	40.71	172.14		65.36	0.623	40.20	42.17	1.3	1.8	41.742	E

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.47		202.25	0.000	0.00	188.33	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.47	17.00	298.62	0.669	200.06	0.00	3.8	3.7	16.211	C
3 - Station Road	122.29	122.29	100.58		137.26	0.891	119.30	127.94	4.7	7.7	59.728	F
4 - Usk Road	48.21	48.21	169.38		67.10	0.718	47.42	50.50	1.8	2.6	51.219	F

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.58		207.05	0.000	0.00	205.20	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.58	18.00	304.79	0.687	210.95	0.00	3.7	2.2	9.851	A
3 - Station Road	126.29	126.29	104.74		135.00	0.935	124.41	126.79	7.7	9.6	69.925	F
4 - Usk Road	42.21	42.21	183.45		58.22	0.725	42.34	45.70	2.6	2.5	55.930	F

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 79% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	22.28	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2019 (Scenario 3)	PM	DIRECT	16:45	17:45	60	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT	✓	100.000
2 - High Street		DIRECT	✓	100.000
3 - Station Road		DIRECT	✓	100.000
4 - Usk Road		DIRECT	✓	100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	58.00	0.00	0.00	6.00
	4 - Usk Road	20.00	0.00	17.00	0.00

17:00 - 17:15

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	64.00	0.00	0.00	17.00
	4 - Usk Road	22.00	0.00	18.50	0.00

17:15 - 17:30

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	78.50	0.00	0.00	18.00
	4 - Usk Road	19.00	0.00	29.00	0.00

17:30 - 17:45

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	81.50	0.00	1.00	18.00
	4 - Usk Road	23.00	0.00	19.00	0.00

Vehicle Mix

16:45 - 17:00

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	79	0	0	6
	4 - Usk Road	29	0	18	0

17:00 - 17:15

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	72	0	0	11
	4 - Usk Road	24	0	15	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	68	0	2	16
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.70	16.46	3.9	C	207.30	829.20
3 - Station Road	0.74	32.43	3.3	D	85.50	342.00
4 - Usk Road	0.59	30.36	1.6	D	41.88	167.50

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.59		209.47	0.000	0.00	159.54	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.59	15.00	305.99	0.698	209.57	0.00	0.0	3.9	16.276	C
3 - Station Road	64.00	64.00	113.87		130.05	0.492	62.45	112.29	0.0	1.6	21.901	C
4 - Usk Road	37.00	37.00	140.03		85.62	0.432	36.10	36.28	0.0	0.9	22.050	C

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.39		208.38	0.00	0.00	169.76	0.0	0.0	0.000	A

						0						
2 - High Street	206.30	206.30	18.39	18.00	304.43	0.678	206.39	0.00	3.9	3.8	16.458	C
3 - Station Road	81.00	81.00	109.40		132.47	0.611	80.27	115.38	1.6	2.3	26.140	D
4 - Usk Road	40.50	40.50	147.90		80.65	0.502	40.25	41.77	0.9	1.1	26.451	D

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.59		202.18	0.000	0.00	164.92	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.59	17.00	298.55	0.670	200.05	0.00	3.8	3.7	16.221	C
3 - Station Road	96.50	96.50	100.58		137.26	0.703	95.45	128.06	2.3	3.3	32.428	D
4 - Usk Road	48.00	48.00	145.91		81.91	0.586	47.60	50.13	1.1	1.6	30.357	D

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.30		207.22	0.000	0.00	182.20	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.30	18.00	304.96	0.687	210.95	0.00	3.7	2.2	9.833	A
3 - Station Road	100.50	100.50	104.74		135.00	0.744	100.97	126.51	3.3	2.9	26.799	D
4 - Usk Road	42.00	42.00	160.29		72.84	0.577	42.21	45.42	1.6	1.3	29.580	D

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 77% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	24.38	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D3	2019 (Scenario 2)	PM	16:45	17:45	60	15	✓	Advanced	D2+D5

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	65.48	0.00	0.00	6.19
	4 - Usk Road	20.00	0.00	17.10	0.00

Demand (PCU/TS)

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	71.48	0.00	0.00	17.19
	4 - Usk Road	22.00	0.00	18.60	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	85.98	0.00	0.00	18.19
	4 - Usk Road	19.00	0.00	29.10	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	88.98	0.00	1.00	18.19
	4 - Usk Road	23.00	0.00	19.10	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	64	0	0	6
	4 - Usk Road	29	0	18	0

HV %s

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	60	0	0	11
	4 - Usk Road	24	0	15	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	58	0	0	16
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.70	16.47	3.9	C	207.30	829.20
3 - Station Road	0.80	37.26	4.1	E	93.17	372.68
4 - Usk Road	0.62	34.89	1.8	D	41.98	167.90

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.64		209.44	0.000	0.00	166.72	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.64	15.00	305.95	0.698	209.57	0.00	0.0	3.9	16.280	C
3 - Station Road	71.67	71.67	113.86		130.05	0.551	69.85	112.35	0.0	1.8	22.788	C
4 - Usk Road	37.10	37.10	147.26		81.06	0.458	36.11	36.46	0.0	1.0	24.235	C

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.47		208.33	0.000	0.00	177.05	0.0	0.0	0.000	A
2 - High Street	206.30	206.30	18.47	18.00	304.39	0.678	206.39	0.00	3.9	3.8	16.468	C
3 - Station Road	88.67	88.67	109.40		132.47	0.669	87.74	115.45	1.8	2.7	28.918	D
4 - Usk Road	40.60	40.60	155.22		76.04	0.534	40.30	41.92	1.0	1.3	29.808	D

17:15 - 17:30

Arm	Total	Junctio	Circulatin	Ped	Capacit	RFC	Throughp	Throughp	Start	End	Delay	Unsignalis

	Demand (PCU/TS)	n Arrivals (PCU)	g flow (PCU/TS)	demand (Ped/TS)	y (PCU/TS)		ut (PCU/TS)	ut (exit) (PCU/TS)	queue (PCU)	queue (PCU)	(s)	ed level of service
1 - Mill Street	0.00	0.00	28.62		202.16	0.000	0.00	172.12	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.62	17.00	298.53	0.670	200.05	0.00	3.8	3.7	16.224	C
3 - Station Road	104.17	104.17	100.58		137.26	0.759	102.82	128.09	2.7	4.1	37.260	E
4 - Usk Road	48.10	48.10	153.13		77.36	0.622	47.62	50.27	1.3	1.8	34.820	D

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.43		207.14	0.000	0.00	189.48	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.43	18.00	304.89	0.687	210.95	0.00	3.7	2.2	9.841	A
3 - Station Road	108.17	108.17	104.74		135.00	0.801	108.43	126.64	4.1	3.8	33.699	D
4 - Usk Road	42.10	42.10	167.60		68.22	0.617	42.30	45.57	1.8	1.6	34.895	D

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 89% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 73% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	37.57	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D7	2024 (Scenario 1)	PM	16:45	17:45	60	15	✓	Advanced	D2+D6

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	83.16	0.00	0.00	6.63
	4 - Usk Road	20.00	0.00	17.21	0.00

Demand (PCU/TS)

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	89.16	0.00	0.00	17.63
	4 - Usk Road	22.00	0.00	18.71	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	103.66	0.00	0.00	18.63
	4 - Usk Road	19.00	0.00	29.21	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	106.66	0.00	1.00	18.63
	4 - Usk Road	23.00	0.00	19.21	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	44	0	0	5
	4 - Usk Road	29	0	17	0

HV %s

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	43	0	0	11
	4 - Usk Road	24	0	15	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	44	0	0	15
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00

2 - High Street	0.70	16.47	3.9	C	207.30	829.20
3 - Station Road	0.94	69.93	9.6	F	111.29	445.16
4 - Usk Road	0.72	55.93	2.6	F	42.09	168.34

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.62		209.45	0.000	0.00	183.28	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.62	15.00	305.97	0.698	209.57	0.00	0.0	3.9	16.279	C
3 - Station Road	89.79	89.79	113.87		130.05	0.690	86.95	112.32	0.0	2.8	27.806	D
4 - Usk Road	37.21	37.21	163.97		70.51	0.528	35.93	36.85	0.0	1.3	31.100	D

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.48		208.32	0.000	0.00	193.86	0.0	0.0	0.000	A
2 - High Street	206.30	206.30	18.48	18.00	304.38	0.678	206.38	0.00	3.9	3.8	16.469	C
3 - Station Road	106.79	106.79	109.40		132.47	0.806	104.91	115.47	2.8	4.7	41.474	E
4 - Usk Road	40.71	40.71	172.14		65.36	0.623	40.20	42.17	1.3	1.8	41.742	E

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.47		202.25	0.000	0.00	188.33	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.47	17.00	298.62	0.669	200.06	0.00	3.8	3.7	16.211	C
3 - Station Road	122.29	122.29	100.58		137.26	0.891	119.30	127.94	4.7	7.7	59.728	F
4 - Usk Road	48.21	48.21	169.38		67.10	0.718	47.42	50.50	1.8	2.6	51.219	F

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.58		207.05	0.00	0.00	205.20	0.0	0.0	0.000	A

						0						
2 - High Street	209.50	209.50	20.58	18.00	304.79	0.687	210.95	0.00	3.7	2.2	9.851	A
3 - Station Road	126.29	126.29	104.74		135.00	0.935	124.41	126.79	7.7	9.6	69.925	F
4 - Usk Road	42.21	42.21	183.45		58.22	0.725	42.34	45.70	2.6	2.5	55.930	F

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 79% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	22.28	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D8	2024 (Scenario 3)	PM	16:45	17:45	60	15	✓	Advanced	D2

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	58.00	0.00	0.00	6.00
	4 - Usk Road	20.00	0.00	17.00	0.00

Demand (PCU/TS)

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	64.00	0.00	0.00	17.00
	4 - Usk Road	22.00	0.00	18.50	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	78.50	0.00	0.00	18.00
	4 - Usk Road	19.00	0.00	29.00	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	81.50	0.00	1.00	18.00
	4 - Usk Road	23.00	0.00	19.00	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	79	0	0	6
	4 - Usk Road	29	0	18	0

HV %s

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	72	0	0	11
	4 - Usk Road	24	0	15	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	68	0	0	16
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.70	16.46	3.9	C	207.30	829.20
3 - Station Road	0.74	32.43	3.3	D	85.50	342.00
4 - Usk Road	0.59	30.36	1.6	D	41.88	167.50

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.59		209.47	0.000	0.00	159.54	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.59	15.00	305.99	0.698	209.57	0.00	0.0	3.9	16.276	C
3 - Station Road	64.00	64.00	113.87		130.05	0.492	62.45	112.29	0.0	1.6	21.901	C
4 - Usk Road	37.00	37.00	140.03		85.62	0.432	36.10	36.28	0.0	0.9	22.050	C

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.39		208.38	0.000	0.00	169.76	0.0	0.0	0.000	A
2 - High Street	206.30	206.30	18.39	18.00	304.43	0.678	206.39	0.00	3.9	3.8	16.460	C
3 - Station Road	81.00	81.00	109.40		132.47	0.611	80.27	115.38	1.6	2.3	26.140	D
4 - Usk Road	40.50	40.50	147.90		80.65	0.502	40.25	41.77	0.9	1.1	26.451	D

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.59		202.18	0.000	0.00	164.92	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.59	17.00	298.55	0.670	200.05	0.00	3.8	3.7	16.223	C
3 - Station Road	96.50	96.50	100.58		137.26	0.703	95.45	128.06	2.3	3.3	32.428	D
4 - Usk Road	48.00	48.00	145.91		81.91	0.586	47.60	50.13	1.1	1.6	30.357	D

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.30		207.22	0.000	0.00	182.20	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.30	18.00	304.96	0.687	210.95	0.00	3.7	2.2	9.833	A
3 - Station Road	100.50	100.50	104.74		135.00	0.744	100.97	126.51	3.3	2.9	26.798	D
4 - Usk Road	42.00	42.00	160.29		72.84	0.577	42.21	45.42	1.6	1.3	29.580	D

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 77% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	24.38	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D9	2024 (Scenario 2)	PM	16:45	17:45	60	15	✓	Advanced	D2+D5

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	65.48	0.00	0.00	6.19
	4 - Usk Road	20.00	0.00	17.10	0.00

Demand (PCU/TS)

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	71.48	0.00	0.00	17.19
	4 - Usk Road	22.00	0.00	18.60	0.00

Demand (PCU/TS)

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	85.98	0.00	0.00	18.19
	4 - Usk Road	19.00	0.00	29.10	0.00

Demand (PCU/TS)

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	88.98	0.00	1.00	18.19
	4 - Usk Road	23.00	0.00	19.10	0.00

Vehicle Mix

HV %s

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	64	0	0	6
	4 - Usk Road	29	0	18	0

HV %s

17:00 - 17:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	60	0	0	11
	4 - Usk Road	24	0	15	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	58	0	0	16
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.70	16.47	3.9	C	207.30	829.20
3 - Station Road	0.80	37.26	4.1	E	93.17	372.68
4 - Usk Road	0.62	34.89	1.8	D	41.98	167.90

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	16.64		209.44	0.000	0.00	166.72	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	16.64	15.00	305.95	0.698	209.57	0.00	0.0	3.9	16.280	C
3 - Station Road	71.67	71.67	113.86		130.05	0.551	69.85	112.35	0.0	1.8	22.788	C

4 - Usk Road	37.10	37.10	147.26		81.06	0.458	36.11	36.46	0.0	1.0	24.235	C

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.47		208.33	0.000	0.00	177.05	0.0	0.0	0.000	A
2 - High Street	206.30	206.30	18.47	18.00	304.39	0.678	206.39	0.00	3.9	3.8	16.468	C
3 - Station Road	88.67	88.67	109.40		132.47	0.669	87.74	115.45	1.8	2.7	28.918	D
4 - Usk Road	40.60	40.60	155.22		76.04	0.534	40.30	41.92	1.0	1.3	29.808	D

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.62		202.16	0.000	0.00	172.12	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	28.62	17.00	298.53	0.670	200.05	0.00	3.8	3.7	16.224	C
3 - Station Road	104.17	104.17	100.58		137.26	0.759	102.82	128.09	2.7	4.1	37.260	E
4 - Usk Road	48.10	48.10	153.13		77.36	0.622	47.62	50.27	1.3	1.8	34.820	D

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.43		207.14	0.000	0.00	189.48	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.43	18.00	304.89	0.687	210.95	0.00	3.7	2.2	9.841	A
3 - Station Road	108.17	108.17	104.74		135.00	0.801	108.43	126.64	4.1	3.8	33.699	D
4 - Usk Road	42.10	42.10	167.60		68.22	0.617	42.30	45.57	1.8	1.6	34.895	D

Station Road / Usk Road / Mill Street / High Street - 2024 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 78% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, PM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	23.89	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	2024 + Development	PM	16:45	17:45	60	15	✓	Advanced	D8+D4

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

16:45 - 17:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	85.00	0.00	97.50	31.00
	3 - Station Road	63.53	0.00	0.00	6.32
	4 - Usk Road	20.00	0.00	17.57	0.00

17:00 - 17:15

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	84.30	0.00	97.00	25.00
	3 - Station Road	69.53	0.00	0.00	17.32
	4 - Usk Road	22.00	0.00	19.07	0.00

17:15 - 17:30

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	68.00	0.00	99.50	32.40
	3 - Station Road	84.03	0.00	0.00	18.32
	4 - Usk Road	19.00	0.00	29.57	0.00

17:30 - 17:45

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	77.00	0.00	105.50	27.00
	3 - Station Road	87.03	0.00	1.00	18.32
	4 - Usk Road	23.00	0.00	19.57	0.00

Vehicle Mix

16:45 - 17:00

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	100	0	79	47
	3 - Station Road	67	0	0	6
	4 - Usk Road	29	0	17	0

17:00 - 17:15

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	80	0	93	38
	3 - Station Road	63	0	0	11
	4 - Usk Road	24	0	14	0

HV %s

17:15 - 17:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	94	0	88	30
	3 - Station Road	61	0	0	16
	4 - Usk Road	25	0	13	0

HV %s

17:30 - 17:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	0	0	0	0
	3 - Station Road	0	0	0	0
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00
2 - High Street	0.70	16.52	3.9	C	207.30	829.20
3 - Station Road	0.79	35.94	3.9	E	91.35	365.40
4 - Usk Road	0.62	34.00	1.8	D	42.45	169.78

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	17.11		209.16	0.000	0.00	164.85	0.0	0.0	0.000	A
2 - High Street	213.50	213.50	17.11	15.00	305.67	0.698	209.56	0.00	0.0	3.9	16.103	C
3 - Station Road	69.85	69.85	113.86		130.05	0.537	68.10	112.81	0.0	1.7	22.512	C
4 - Usk Road	37.57	37.57	145.37		82.25	0.457	36.58	36.59	0.0	1.0	23.797	C

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	18.94		208.05	0.00	0.00	175.15	0.0	0.0	0.000	A

						0						
2 - High Street	206.30	206.30	18.94	18.00	304.11	0.678	206.39	0.00	3.9	3.9	16.515	C
3 - Station Road	86.85	86.85	109.40		132.47	0.656	85.97	115.92	1.7	2.6	28.159	D
4 - Usk Road	41.07	41.07	153.31		77.24	0.532	40.78	42.06	1.0	1.3	29.156	D

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	29.10		201.87	0.000	0.00	170.25	0.0	0.0	0.000	A
2 - High Street	199.90	199.90	29.10	17.00	298.24	0.670	200.05	0.00	3.9	3.7	16.272	C
3 - Station Road	102.35	102.35	100.58		137.26	0.746	101.08	128.57	2.6	3.9	35.944	E
4 - Usk Road	48.57	48.57	151.25		78.54	0.618	48.10	50.41	1.3	1.8	33.996	D

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.89		206.86	0.000	0.00	187.59	0.0	0.0	0.000	A
2 - High Street	209.50	209.50	20.89	18.00	304.60	0.688	210.95	0.00	3.7	2.2	9.873	A
3 - Station Road	106.35	106.35	104.74		135.00	0.788	106.67	127.10	3.9	3.6	31.794	D
4 - Usk Road	42.57	42.57	165.70		69.42	0.613	42.77	45.71	1.8	1.5	33.947	D

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: 180416_High Street_Mini-Roundabout_AM_Existing v2.j9
Path: H:\Projects\W180000\184326 - Caerleon Campus - Public Inquiry\184326A\Technical\A - Transport Assessment\Modelling\Arcady\High Street - Station Road Mini Roundabout
Report generation date: 26/11/2019 14:17:04

»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1), AM
»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3), AM
»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2), AM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1), AM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3), AM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2), AM
»Station Road / Usk Road / Mill Street / High Street - 2024 + Development, AM

Summary of junction performance

	AM		
	Q (PCU)	Delay (s)	RFC
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	4.9	19.35	0.85
3 - Station Road	5.3	38.00	0.87
4 - Usk Road	1.4	24.02	0.58
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	4.8	19.20	0.85
3 - Station Road	4.5	33.08	0.84
4 - Usk Road	1.3	22.03	0.55
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	4.9	19.26	0.85
3 - Station Road	5.3	37.73	0.87
4 - Usk Road	1.4	23.69	0.57
	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	4.9	19.35	0.85
3 - Station Road	5.3	38.00	0.87
4 - Usk Road	1.4	24.02	0.58

	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	4.8	19.20	0.85
3 - Station Road	4.5	33.08	0.84
4 - Usk Road	1.3	22.03	0.55
	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	4.9	19.26	0.85
3 - Station Road	5.3	37.73	0.87
4 - Usk Road	1.4	23.69	0.57
	Station Road / Usk Road / Mill Street / High Street - 2024 + Development		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	4.9	19.24	0.85
3 - Station Road	8.9	57.22	0.95
4 - Usk Road	1.6	28.93	0.62

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 Av. delay per arriving vehicle.

File summary

File Description

Title	High Street Mini Roundabout
Location	
Site number	
Date	30/04/2019
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	Ben Stone
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perTimeSegment	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
JUNCTIONS 9	5.75		✓		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2019 (Scenario 1)	AM		08:00	09:00	60	15	✓	Advanced	D2+D6
D2	2019 (Scenario 3)	AM	DIRECT	08:00	09:00	60	15	✓		

D3	2019 (Scenario 2)	AM		08:00	09:00	60	15	✓	Advanced	D2+D5
D4	Development	AM	DIRECT	08:00	09:00	60	15			
D5	Future Baseline Scenario	AM	DIRECT	08:00	09:00	60	15			
D6	Former Use (100%)	AM	DIRECT	08:00	09:00	60	15			
D7	2024 (Scenario 1)	AM		08:00	09:00	60	15	✓	Advanced	D2+D6
D8	2024 (Scenario 3)	AM		08:00	09:00	60	15	✓	Advanced	D2
D9	2024 (Scenario 2)	AM		08:00	09:00	60	15	✓	Advanced	D2+D5
D11	2024 + Development	AM		08:00	09:00	60	15	✓	Advanced	D8+D4

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Station Road / Usk Road / Mill Street / High Street	✓	100.000	100.000

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	26.25	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	Mill Street	One-Way
2	High Street	One-Way
3	Station Road	
4	Usk Road	

Mini Roundabout Geometry

Arm	Approach road half-	Minimum approach road	Entry width	Effective flare length	Distance to next arm (m)	Entry corner kerb line	Gradient over 50m	Kerbed central

	width (m)	half-width (m)	(m)	(m)		distance (m)	(%)	island
1 - Mill Street	3.00	3.00	3.00	0.0	13.84	14.22	2.0	
2 - High Street	6.22	3.49	3.49	0.0	12.93	8.33	0.0	
3 - Station Road	4.57	3.96	3.96	0.0	13.84	10.99	-2.0	✓
4 - Usk Road	3.33	3.33	7.91	11.4	8.71	7.20	4.0	

Zebra Crossings

Arm	VGAP (PCU)	Vehs queueing on exit (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)
2 - High Street	1.00	1.00		Time	5.60	4.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/TS)
1 - Mill Street	None		
2 - High Street	Direct		89.00
3 - Station Road	Direct		-34.00
4 - Usk Road	Direct		-55.00

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1 - Mill Street	0.583	200.322
2 - High Street	0.610	259.909
3 - Station Road	0.543	222.859
4 - Usk Road	0.631	231.811

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2019 (Scenario 1)	AM	08:00	09:00	60	15	✓	Advanced	D2+D6

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	

4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	108.91	0.00	0.00	11.11
	4 - Usk Road	31.00	0.00	13.73	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	89.71	0.00	1.00	15.11
	4 - Usk Road	33.30	0.00	20.73	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	115.21	0.00	0.00	13.61
	4 - Usk Road	34.30	0.00	9.73	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	91.41	0.00	0.00	10.11
	4 - Usk Road	19.50	0.00	28.73	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	6	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)	Total Qing Delay (PCU-min)	Av. Qing Delay (s)	Rate of Qing Delay (PCU-min/min)	Inclusive Total Qing Delay (PCU-min)	Inclusive Av. Qing Delay (s)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.85	19.35	4.9	C	178.85	715.40	184.88	15.51	3.08	184.92	15.51
3 - Station Road	0.87	38.00	5.3	E	114.05	456.18	201.22	26.47	3.35	201.42	26.49
4 - Usk Road	0.58	24.02	1.4	C	48.01	192.02	66.84	20.89	1.11	66.89	20.90

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	13.38		192.52	0.000	0.00	264.84	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	13.38	2.00	251.75	0.84	208.42	0.00	0.0	4.9	19.34	C

						7					8	
3 - Station Road	120.02	120.02	149.98		141.44	0.849	115.34	71.81	0.0	4.7	32.320	D
4 - Usk Road	44.73	44.73	234.62		83.77	0.534	43.60	30.71	0.0	1.1	22.798	C

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	21.52		187.78	0.000	0.00	251.67	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	21.52	21.00	246.43	0.757	187.91	0.00	4.9	3.5	16.654	C
3 - Station Road	105.82	105.82	135.02		149.57	0.708	107.89	74.41	4.7	2.6	22.505	C
4 - Usk Road	54.03	54.03	219.41		93.36	0.579	53.77	23.49	1.1	1.4	24.022	C

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	11.01		193.90	0.000	0.00	265.08	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	11.01	35.00	252.28	0.754	190.33	0.00	3.5	3.2	14.947	B
3 - Station Road	128.82	128.82	137.93		147.98	0.871	126.11	63.41	2.6	5.3	38.003	E
4 - Usk Road	45.03	45.03	230.83		86.16	0.523	45.26	33.22	1.4	1.2	22.484	C

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.51		183.70	0.000	0.00	216.50	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	28.51	37.00	241.66	0.519	127.63	0.00	3.2	1.1	8.160	A
3 - Station Road	101.52	101.52	123.77		155.67	0.652	104.81	32.37	5.3	2.0	19.251	C
4 - Usk Road	48.23	48.23	196.45		107.85	0.447	48.56	32.13	1.2	0.8	15.282	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	61.12	4.07	19.348	C
3 - Station Road	55.58	3.71	32.320	D
4 - Usk Road	15.18	1.01	22.798	C

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	55.39	3.69	16.654	C
3 - Station Road	44.31	2.95	22.505	C
4 - Usk Road	19.72	1.31	24.022	C

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	50.18	3.35	14.947	B
3 - Station Road	66.24	4.42	38.003	E
4 - Usk Road	18.65	1.24	22.484	C

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	18.19	1.21	8.160	A
3 - Station Road	35.09	2.34	19.251	C
4 - Usk Road	13.29	0.89	15.282	C

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 69% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	24.13	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2019 (Scenario 3)	AM	DIRECT	08:00	09:00	60	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT	✓	100.000
2 - High Street		DIRECT	✓	100.000
3 - Station Road		DIRECT	✓	100.000
4 - Usk Road		DIRECT	✓	100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	104.50	0.00	0.00	11.00
	4 - Usk Road	31.00	0.00	13.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	85.30	0.00	1.00	15.00
	4 - Usk Road	33.30	0.00	20.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	110.80	0.00	0.00	13.50
	4 - Usk Road	34.30	0.00	9.00	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	87.00	0.00	0.00	10.00
	4 - Usk Road	19.50	0.00	28.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	7	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals	Total Qing Delay	Av. Qing Delay	Rate of Qing Delay	Inclusive Total Qing Delay	Inclusive Av. Qing Delay (s)

						(PCU)	(PCU-min)	(s)	(PCU-min/min)	(PCU-min)	
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.85	19.20	4.8	C	178.85	715.40	183.53	15.39	3.06	183.57	15.40
3 - Station Road	0.84	33.08	4.5	D	109.53	438.10	172.69	23.65	2.88	172.84	23.67
4 - Usk Road	0.55	22.03	1.3	C	47.28	189.10	61.16	19.41	1.02	61.20	19.42

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	12.69		192.92	0.000	0.00	261.17	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	12.69	2.00	252.17	0.846	208.46	0.00	0.0	4.8	19.203	C
3 - Station Road	115.50	115.50	150.01		141.43	0.817	111.54	71.13	0.0	4.0	28.994	D
4 - Usk Road	44.00	44.00	230.90		86.11	0.511	42.96	30.66	0.0	1.0	21.310	C

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.81		188.19	0.000	0.00	246.93	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	20.81	21.00	246.86	0.755	187.90	0.00	4.8	3.4	16.520	C
3 - Station Road	101.30	101.30	135.01		149.57	0.677	103.02	73.70	4.0	2.2	19.964	C
4 - Usk Road	53.30	53.30	214.67		96.36	0.553	53.08	23.36	1.0	1.3	22.030	C

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	10.26		194.34	0.000	0.00	261.12	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	10.26	35.00	252.73	0.752	190.33	0.00	3.4	3.2	14.836	B
3 - Station Road	124.30	124.30	137.93		147.98	0.840	122.09	62.65	2.2	4.5	33.079	D
4 - Usk Road	44.30	44.30	226.87		88.66	0.500	44.51	33.15	1.3	1.1	20.806	C

08:45 - 09:00

Arm	Total Deman	Junction	Circulating flow	Ped deman	Capacity	RFC	Throughput	Throughput (exit)	Start queu	End queu	Delay (s)	Unsignalised level of

	d (PCU/TS)	Arrivals (PCU)	(PCU/TS)	d (Ped/TS)	(PCU/TS)		(PCU/TS)	(PCU/TS)	e (PCU)	e (PCU)		service
1 - Mill Street	0.00	0.00	27.78		184.13	0.000	0.00	211.47	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	27.78	37.00	242.10	0.518	127.61	0.00	3.2	1.1	8.125	A
3 - Station Road	97.00	97.00	123.76		155.68	0.623	99.67	31.64	4.5	1.8	17.277	C
4 - Usk Road	47.50	47.50	191.47		110.99	0.428	47.79	31.96	1.1	0.8	14.322	B

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	60.69	4.05	19.203	C
3 - Station Road	48.39	3.23	28.994	D
4 - Usk Road	14.04	0.94	21.310	C

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	54.94	3.66	16.520	C
3 - Station Road	37.72	2.51	19.964	C
4 - Usk Road	17.97	1.20	22.030	C

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	49.79	3.32	14.836	B
3 - Station Road	56.53	3.77	33.079	D
4 - Usk Road	16.93	1.13	20.806	C

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	18.11	1.21	8.125	A
3 - Station Road	30.05	2.00	17.277	C
4 - Usk Road	12.23	0.82	14.322	B

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total

			flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	26.06	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D3	2019 (Scenario 2)	AM	08:00	09:00	60	15	✓	Advanced	D2+D5

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	108.69	0.00	0.00	11.10
	4 - Usk Road	31.00	0.00	13.29	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	89.49	0.00	1.00	15.10
	4 - Usk Road	33.30	0.00	20.29	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	114.99	0.00	0.00	13.60
	4 - Usk Road	34.30	0.00	9.29	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	91.19	0.00	0.00	10.10
	4 - Usk Road	19.50	0.00	28.29	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	6	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)	Total Qing Delay (PCU-min)	Av. Qing Delay (s)	Rate of Qing Delay (PCU-min/min)	Inclusive Total Qing Delay (PCU-min)	Inclusive Av. Qing Delay (s)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.85	19.26	4.9	C	178.85	715.40	184.05	15.44	3.07	184.09	15.44
3 - Station Road	0.87	37.73	5.3	E	113.82	455.26	199.62	26.31	3.33	199.81	26.33
4 - Usk Road	0.57	23.69	1.4	C	47.57	190.26	65.42	20.63	1.09	65.47	20.65

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	12.96		192.77	0.000	0.00	264.68	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	12.96	2.00	252.01	0.84	208.44	0.00	0.0	4.9	19.26	C

						6					0	
3 - Station Road	119.79	119.79	150.00		141.43	0.847	115.15	71.40	0.0	4.6	32.145	D
4 - Usk Road	44.29	44.29	234.45		83.87	0.528	43.18	30.70	0.0	1.1	22.535	C

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	21.08		188.03	0.000	0.00	251.43	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	21.08	21.00	246.70	0.756	187.90	0.00	4.9	3.5	16.570	C
3 - Station Road	105.59	105.59	135.01		149.57	0.706	107.64	73.97	4.6	2.6	22.361	C
4 - Usk Road	53.59	53.59	219.17		93.51	0.573	53.34	23.48	1.1	1.4	23.690	C

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	10.57		194.16	0.000	0.00	264.88	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	10.57	35.00	252.55	0.753	190.33	0.00	3.5	3.2	14.884	B
3 - Station Road	128.59	128.59	137.93		147.98	0.869	125.91	62.96	2.6	5.3	37.726	E
4 - Usk Road	44.59	44.59	230.63		86.28	0.517	44.82	33.21	1.4	1.1	22.175	C

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.07		183.96	0.000	0.00	216.23	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	28.07	37.00	241.92	0.519	127.62	0.00	3.2	1.1	8.137	A
3 - Station Road	101.29	101.29	123.76		155.68	0.651	104.54	31.92	5.3	2.0	19.135	C
4 - Usk Road	47.79	47.79	196.19		108.02	0.442	48.11	32.11	1.1	0.8	15.122	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	60.85	4.06	19.260	C
3 - Station Road	55.19	3.68	32.145	D
4 - Usk Road	14.88	0.99	22.535	C

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	55.11	3.67	16.570	C
3 - Station Road	43.94	2.93	22.361	C
4 - Usk Road	19.30	1.29	23.690	C

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	49.95	3.33	14.884	B
3 - Station Road	65.69	4.38	37.726	E
4 - Usk Road	18.22	1.21	22.175	C

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	18.14	1.21	8.137	A
3 - Station Road	34.80	2.32	19.135	C
4 - Usk Road	13.03	0.87	15.122	C

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	26.25	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time	Start time	Finish time	Time	Time	Run	Relationship	Relationship

		Period name	(HH:mm)	(HH:mm)	period length (min)	segment length (min)	automatically	type	
D7	2024 (Scenario 1)	AM	08:00	09:00	60	15	✓	Advanced	D2+D6

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

08:00 - 08:15

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	108.91	0.00	0.00	11.11
	4 - Usk Road	31.00	0.00	13.73	0.00

08:15 - 08:30

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	89.71	0.00	1.00	15.11
	4 - Usk Road	33.30	0.00	20.73	0.00

08:30 - 08:45

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	115.21	0.00	0.00	13.61
	4 - Usk Road	34.30	0.00	9.73	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	91.41	0.00	0.00	10.11
	4 - Usk Road	19.50	0.00	28.73	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	6	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals	Total Qing Delay	Av. Qing Delay	Rate of Qing Delay	Inclusive Total Qing Delay	Inclusive Av. Qing Delay (s)

						(PCU)	(PCU-min)	(s)	(PCU-min/min)	(PCU-min)	
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.85	19.35	4.9	C	178.85	715.40	184.88	15.51	3.08	184.92	15.51
3 - Station Road	0.87	38.00	5.3	E	114.05	456.18	201.22	26.47	3.35	201.42	26.49
4 - Usk Road	0.58	24.02	1.4	C	48.01	192.02	66.84	20.89	1.11	66.89	20.90

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	13.38		192.52	0.000	0.00	264.84	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	13.38	2.00	251.75	0.847	208.42	0.00	0.0	4.9	19.348	C
3 - Station Road	120.02	120.02	149.98		141.44	0.849	115.34	71.81	0.0	4.7	32.320	D
4 - Usk Road	44.73	44.73	234.62		83.77	0.534	43.60	30.71	0.0	1.1	22.798	C

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	21.52		187.78	0.000	0.00	251.67	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	21.52	21.00	246.43	0.757	187.91	0.00	4.9	3.5	16.654	C
3 - Station Road	105.82	105.82	135.02		149.57	0.708	107.89	74.41	4.7	2.6	22.505	C
4 - Usk Road	54.03	54.03	219.41		93.36	0.579	53.77	23.49	1.1	1.4	24.022	C

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	11.01		193.90	0.000	0.00	265.08	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	11.01	35.00	252.28	0.754	190.33	0.00	3.5	3.2	14.947	B
3 - Station Road	128.82	128.82	137.93		147.98	0.871	126.11	63.41	2.6	5.3	38.003	E
4 - Usk Road	45.03	45.03	230.83		86.16	0.523	45.26	33.22	1.4	1.2	22.484	C

08:45 - 09:00

Arm	Total Deman	Junction	Circulating flow	Ped deman	Capacity	RFC	Throughput	Throughput (exit)	Start queu	End queu	Delay (s)	Unsignalised level of

	d (PCU/TS)	Arrivals (PCU)	(PCU/TS)	d (Ped/TS)	(PCU/TS)		(PCU/TS)	(PCU/TS)	e (PCU)	e (PCU)		service
1 - Mill Street	0.00	0.00	28.51		183.70	0.000	0.00	216.50	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	28.51	37.00	241.66	0.519	127.63	0.00	3.2	1.1	8.160	A
3 - Station Road	101.52	101.52	123.77		155.67	0.652	104.81	32.37	5.3	2.0	19.251	C
4 - Usk Road	48.23	48.23	196.45		107.85	0.447	48.56	32.13	1.2	0.8	15.282	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	61.12	4.07	19.348	C
3 - Station Road	55.58	3.71	32.320	D
4 - Usk Road	15.18	1.01	22.798	C

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	55.39	3.69	16.654	C
3 - Station Road	44.31	2.95	22.505	C
4 - Usk Road	19.72	1.31	24.022	C

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	50.18	3.35	14.947	B
3 - Station Road	66.24	4.42	38.003	E
4 - Usk Road	18.65	1.24	22.484	C

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	18.19	1.21	8.160	A
3 - Station Road	35.09	2.34	19.251	C
4 - Usk Road	13.29	0.89	15.282	C

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total

			flow for the roundabout for one or more time segments][Arms 2 and 4 have 69% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	24.13	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D8	2024 (Scenario 3)	AM	08:00	09:00	60	15	✓	Advanced	D2

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	104.50	0.00	0.00	11.00
	4 - Usk Road	31.00	0.00	13.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	85.30	0.00	1.00	15.00
	4 - Usk Road	33.30	0.00	20.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	110.80	0.00	0.00	13.50
	4 - Usk Road	34.30	0.00	9.00	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	87.00	0.00	0.00	10.00
	4 - Usk Road	19.50	0.00	28.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	7	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)	Total Qing Delay (PCU-min)	Av. Qing Delay (s)	Rate of Qing Delay (PCU-min/min)	Inclusive Total Qing Delay (PCU-min)	Inclusive Av. Qing Delay (s)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.85	19.20	4.8	C	178.85	715.40	183.53	15.39	3.06	183.57	15.40
3 - Station Road	0.84	33.08	4.5	D	109.53	438.10	172.69	23.65	2.88	172.84	23.67
4 - Usk Road	0.55	22.03	1.3	C	47.28	189.10	61.16	19.41	1.02	61.20	19.42

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	12.69		192.92	0.000	0.00	261.17	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	12.69	2.00	252.17	0.84	208.46	0.00	0.0	4.8	19.20	C

						6					3	
3 - Station Road	115.50	115.50	150.01		141.43	0.817	111.54	71.13	0.0	4.0	28.994	D
4 - Usk Road	44.00	44.00	230.90		86.11	0.511	42.96	30.66	0.0	1.0	21.310	C

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.81		188.19	0.000	0.00	246.93	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	20.81	21.00	246.86	0.755	187.90	0.00	4.8	3.4	16.520	C
3 - Station Road	101.30	101.30	135.01		149.57	0.677	103.02	73.70	4.0	2.2	19.964	C
4 - Usk Road	53.30	53.30	214.67		96.36	0.553	53.08	23.36	1.0	1.3	22.030	C

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	10.26		194.34	0.000	0.00	261.12	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	10.26	35.00	252.73	0.752	190.33	0.00	3.4	3.2	14.836	B
3 - Station Road	124.30	124.30	137.93		147.98	0.840	122.09	62.65	2.2	4.5	33.079	D
4 - Usk Road	44.30	44.30	226.87		88.66	0.500	44.51	33.15	1.3	1.1	20.808	C

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	27.78		184.13	0.000	0.00	211.47	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	27.78	37.00	242.10	0.518	127.61	0.00	3.2	1.1	8.123	A
3 - Station Road	97.00	97.00	123.76		155.68	0.623	99.67	31.64	4.5	1.8	17.277	C
4 - Usk Road	47.50	47.50	191.47		110.99	0.428	47.79	31.96	1.1	0.8	14.319	B

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	60.69	4.05	19.203	C
3 - Station Road	48.39	3.23	28.994	D
4 - Usk Road	14.04	0.94	21.310	C

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	54.94	3.66	16.520	C
3 - Station Road	37.72	2.51	19.964	C
4 - Usk Road	17.97	1.20	22.030	C

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	49.79	3.32	14.836	B
3 - Station Road	56.53	3.77	33.079	D
4 - Usk Road	16.93	1.13	20.808	C

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	18.11	1.21	8.123	A
3 - Station Road	30.05	2.00	17.277	C
4 - Usk Road	12.23	0.82	14.319	B

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	26.06	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time	Start time	Finish time	Time	Time	Run	Relationship	Relationship

		Period name	(HH:mm)	(HH:mm)	period length (min)	segment length (min)	automatically	type	
D9	2024 (Scenario 2)	AM	08:00	09:00	60	15	✓	Advanced	D2+D5

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	108.69	0.00	0.00	11.10
	4 - Usk Road	31.00	0.00	13.29	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	89.49	0.00	1.00	15.10
	4 - Usk Road	33.30	0.00	20.29	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	114.99	0.00	0.00	13.60
	4 - Usk Road	34.30	0.00	9.29	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	91.19	0.00	0.00	10.10
	4 - Usk Road	19.50	0.00	28.29	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	6	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals	Total Qing Delay	Av. Qing Delay	Rate of Qing Delay	Inclusive Total Qing Delay	Inclusive Av. Qing Delay (s)

						(PCU)	(PCU-min)	(s)	(PCU-min/min)	(PCU-min)	
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.85	19.26	4.9	C	178.85	715.40	184.05	15.44	3.07	184.09	15.44
3 - Station Road	0.87	37.73	5.3	E	113.82	455.26	199.62	26.31	3.33	199.81	26.33
4 - Usk Road	0.57	23.69	1.4	C	47.57	190.26	65.42	20.63	1.09	65.47	20.65

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	12.96		192.77	0.000	0.00	264.68	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	12.96	2.00	252.01	0.846	208.44	0.00	0.0	4.9	19.260	C
3 - Station Road	119.79	119.79	150.00		141.43	0.847	115.15	71.40	0.0	4.6	32.145	D
4 - Usk Road	44.29	44.29	234.45		83.87	0.528	43.18	30.70	0.0	1.1	22.535	C

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	21.08		188.03	0.000	0.00	251.43	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	21.08	21.00	246.70	0.756	187.90	0.00	4.9	3.5	16.570	C
3 - Station Road	105.59	105.59	135.01		149.57	0.706	107.64	73.97	4.6	2.6	22.361	C
4 - Usk Road	53.59	53.59	219.17		93.51	0.573	53.34	23.48	1.1	1.4	23.690	C

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	10.57		194.16	0.000	0.00	264.88	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	10.57	35.00	252.55	0.753	190.33	0.00	3.5	3.2	14.884	B
3 - Station Road	128.59	128.59	137.93		147.98	0.869	125.91	62.96	2.6	5.3	37.726	E
4 - Usk Road	44.59	44.59	230.63		86.28	0.517	44.82	33.21	1.4	1.1	22.175	C

08:45 - 09:00

Arm	Total Deman	Junctio n	Circulatin g flow	Ped deman	Capacit y	RFC	Throughp ut	Throughp ut (exit)	Start queu	End queu	Delay (s)	Unsignalis ed level of

	d (PCU/TS)	Arrivals (PCU)	(PCU/TS)	d (Ped/TS)	(PCU/TS)		(PCU/TS)	(PCU/TS)	e (PCU)	e (PCU)		service
1 - Mill Street	0.00	0.00	28.07		183.96	0.000	0.00	216.23	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	28.07	37.00	241.92	0.519	127.62	0.00	3.2	1.1	8.137	A
3 - Station Road	101.29	101.29	123.76		155.68	0.651	104.54	31.92	5.3	2.0	19.135	C
4 - Usk Road	47.79	47.79	196.19		108.02	0.442	48.11	32.11	1.1	0.8	15.122	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	60.85	4.06	19.260	C
3 - Station Road	55.19	3.68	32.145	D
4 - Usk Road	14.88	0.99	22.535	C

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	55.11	3.67	16.570	C
3 - Station Road	43.94	2.93	22.361	C
4 - Usk Road	19.30	1.29	23.690	C

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	49.95	3.33	14.884	B
3 - Station Road	65.69	4.38	37.726	E
4 - Usk Road	18.22	1.21	22.175	C

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	18.14	1.21	8.137	A
3 - Station Road	34.80	2.32	19.135	C
4 - Usk Road	13.03	0.87	15.122	C

Station Road / Usk Road / Mill Street / High Street - 2024 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total

			flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	34.10	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	2024 + Development	AM	08:00	09:00	60	15	✓	Advanced	D8+D4

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

08:00 - 08:15

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	119.62	0.00	0.00	11.88
	4 - Usk Road	31.00	0.00	13.22	0.00

08:15 - 08:30

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	100.42	0.00	1.00	15.88
	4 - Usk Road	33.30	0.00	20.22	0.00

08:30 - 08:45

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	125.92	0.00	0.00	14.38
	4 - Usk Road	34.30	0.00	9.22	1.00

08:45 - 09:00

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	102.12	0.00	0.00	10.88
	4 - Usk Road	19.50	0.00	28.22	0.00

Vehicle Mix

08:00 - 08:15

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	5	0	0	7
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	6	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)	Total Qing Delay (PCU-min)	Av. Qing Delay (s)	Rate of Qing Delay (PCU-min/min)	Inclusive Total Qing Delay (PCU-min)	Inclusive Av. Qing Delay (s)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.85	19.24	4.9	C	178.85	715.40	183.84	15.42	3.06	183.88	15.42
3 - Station Road	0.95	57.22	8.9	F	125.53	502.10	314.39	37.57	5.24	314.81	37.62
4 - Usk Road	0.62	28.93	1.6	D	47.50	189.98	76.41	24.13	1.27	76.48	24.15

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	12.84		192.84	0.000	0.00	272.90	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	12.84	2.00	252.08	0.84	208.45	0.00	0.0	4.9	19.23	C

						6					5	
3 - Station Road	131.50	131.50	150.01		141.43	0.930	124.01	71.28	0.0	7.5	43.853	E
4 - Usk Road	44.22	44.22	242.78		78.62	0.562	42.96	31.24	0.0	1.3	25.551	D

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.94		188.12	0.000	0.00	263.55	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	20.94	21.00	246.78	0.756	187.90	0.00	4.9	3.5	16.544	C
3 - Station Road	117.30	117.30	135.01		149.57	0.784	120.67	73.83	7.5	4.1	33.701	D
4 - Usk Road	53.52	53.52	231.36		85.82	0.624	53.13	24.32	1.3	1.6	28.931	D

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	10.57		194.16	0.000	0.00	273.87	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	10.57	35.00	252.54	0.753	190.32	0.00	3.5	3.2	14.879	B
3 - Station Road	140.30	140.30	137.93		147.99	0.948	135.49	62.97	4.1	8.9	57.223	F
4 - Usk Road	44.52	44.52	239.60		80.62	0.552	44.85	33.82	1.6	1.3	25.815	D

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	27.96		184.02	0.000	0.00	229.70	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	27.96	37.00	241.99	0.519	127.62	0.00	3.2	1.1	8.132	A
3 - Station Road	113.00	113.00	123.77		155.67	0.726	118.98	31.81	8.9	3.0	28.368	D
4 - Usk Road	47.72	47.72	209.58		99.57	0.479	48.09	33.17	1.3	1.0	17.634	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	60.78	4.05	19.235	C
3 - Station Road	81.05	5.40	43.853	E
4 - Usk Road	16.66	1.11	25.551	D

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	55.02	3.67	16.544	C
3 - Station Road	71.36	4.76	33.701	D
4 - Usk Road	23.01	1.53	28.931	D

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	49.91	3.33	14.879	B
3 - Station Road	104.94	7.00	57.223	F
4 - Usk Road	21.46	1.43	25.815	D

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	18.13	1.21	8.132	A
3 - Station Road	57.04	3.80	28.368	D
4 - Usk Road	15.29	1.02	17.634	C

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: 180416_High Street_Mini-Roundabout_AM_Improvements(A06) v1.j9
Path: H:\Projects\W180000\184326 - Caerleon Campus - Public Inquiry\184326A\Technical\A - Transport Assessment\Modelling\Arcady\High Street - Station Road Mini Roundabout
Report generation date: 26/11/2019 14:46:12

»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1), AM
»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3), AM
»Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2), AM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1), AM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3), AM
»Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2), AM
»Station Road / Usk Road / Mill Street / High Street - 2024 + Development, AM

Summary of junction performance

	AM		
	Q (PCU)	Delay (s)	RFC
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.4	13.75	0.78
3 - Station Road	5.3	37.93	0.87
4 - Usk Road	1.7	29.68	0.63
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.3	13.68	0.78
3 - Station Road	4.4	33.02	0.84
4 - Usk Road	1.5	26.71	0.60
	Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.3	13.71	0.78
3 - Station Road	5.3	37.65	0.87
4 - Usk Road	1.7	29.17	0.62
	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.4	13.75	0.78
3 - Station Road	5.3	37.93	0.87
4 - Usk Road	1.7	29.68	0.63

	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.3	13.68	0.78
3 - Station Road	4.4	33.02	0.84
4 - Usk Road	1.5	26.71	0.60
	Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2)		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.3	13.71	0.78
3 - Station Road	5.3	37.65	0.87
4 - Usk Road	1.7	29.17	0.62
	Station Road / Usk Road / Mill Street / High Street - 2024 + Development		
1 - Mill Street	0.0	0.00	0.00
2 - High Street	3.3	13.69	0.78
3 - Station Road	8.9	57.05	0.95
4 - Usk Road	2.1	37.39	0.69

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 Av. delay per arriving vehicle.

File summary

File Description

Title	High Street Mini Roundabout
Location	
Site number	
Date	30/04/2019
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	Ben Stone
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perTimeSegment	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
JUNCTIONS 9	5.75		✓		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2019 (Scenario 1)	AM		08:00	09:00	60	15	✓	Advanced	D2+D6
D2	2019 (Scenario 3)	AM	DIRECT	08:00	09:00	60	15	✓		

D3	2019 (Scenario 2)	AM		08:00	09:00	60	15	✓	Advanced	D2+D5
D4	Development	AM	DIRECT	08:00	09:00	60	15			
D5	Future Baseline Scenario	AM	DIRECT	08:00	09:00	60	15			
D6	Former Use (100%)	AM	DIRECT	08:00	09:00	60	15			
D7	2024 (Scenario 1)	AM		08:00	09:00	60	15	✓	Advanced	D2+D6
D8	2024 (Scenario 3)	AM		08:00	09:00	60	15	✓	Advanced	D2
D9	2024 (Scenario 2)	AM		08:00	09:00	60	15	✓	Advanced	D2+D5
D11	2024 + Development	AM		08:00	09:00	60	15	✓	Advanced	D8+D4

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Station Road / Usk Road / Mill Street / High Street	✓	100.000	100.000

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 1), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	24.08	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	Mill Street	One-Way
2	High Street	One-Way
3	Station Road	
4	Usk Road	

Mini Roundabout Geometry

Arm	Approach road half-	Minimum approach road	Entry width	Effective flare length	Distance to next arm (m)	Entry corner kerb line	Gradient over 50m	Kerbed central

	width (m)	half-width (m)	(m)	(m)		distance (m)	(%)	island
1 - Mill Street	3.00	3.00	3.00	0.0	15.22	16.02	2.0	
2 - High Street	4.79	3.49	3.49	0.0	11.40	7.44	0.0	
3 - Station Road	4.57	3.96	3.96	0.0	13.84	10.99	-2.0	✓
4 - Usk Road	3.33	3.33	7.91	11.4	8.71	7.20	4.0	

Zebra Crossings

Arm	VGAP (PCU)	Vehs queueing on exit (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)
2 - High Street	1.50	1.00		Time	5.60	4.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/TS)
1 - Mill Street	None		
2 - High Street	Direct		89.00
3 - Station Road	Direct		-34.00
4 - Usk Road	Direct		-55.00

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1 - Mill Street	0.608	219.550
2 - High Street	0.609	281.544
3 - Station Road	0.543	222.859
4 - Usk Road	0.631	223.980

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2019 (Scenario 1)	AM	08:00	09:00	60	15	✓	Advanced	D2+D6

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	

4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	108.91	0.00	0.00	11.11
	4 - Usk Road	31.00	0.00	13.73	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	89.71	0.00	1.00	15.11
	4 - Usk Road	33.30	0.00	20.73	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	115.21	0.00	0.00	13.61
	4 - Usk Road	34.30	0.00	9.73	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	91.41	0.00	0.00	10.11
	4 - Usk Road	19.50	0.00	28.73	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	6	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)	Total Qing Delay (PCU-min)	Av. Qing Delay (s)	Rate of Qing Delay (PCU-min/min)	Inclusive Total Qing Delay (PCU-min)	Inclusive Av. Qing Delay (s)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.78	13.75	3.4	B	178.85	715.40	134.80	11.31	2.25	134.83	11.31
3 - Station Road	0.87	37.93	5.3	E	114.05	456.18	201.59	26.51	3.36	201.79	26.54
4 - Usk Road	0.63	29.68	1.7	D	48.01	192.02	81.28	25.40	1.35	81.35	25.42

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	13.30		211.47	0.000	0.00	265.51	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	13.30	2.00	273.44	0.78	209.94	0.00	0.0	3.4	13.75	B

						0					2	
3 - Station Road	120.02	120.02	151.08		140.85	0.852	115.25	72.16	0.0	4.8	32.848	D
4 - Usk Road	44.73	44.73	235.49		75.38	0.593	43.32	30.85	0.0	1.4	28.209	D

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	21.48		206.50	0.000	0.00	251.47	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	21.48	21.00	268.22	0.695	187.36	0.00	3.4	2.5	11.885	B
3 - Station Road	105.82	105.82	134.62		149.78	0.707	107.99	74.22	4.8	2.6	22.482	C
4 - Usk Road	54.03	54.03	219.22		85.65	0.631	53.74	23.40	1.4	1.7	29.676	D

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	11.06		212.83	0.000	0.00	264.93	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	11.06	35.00	274.07	0.694	190.23	0.00	2.5	2.4	11.008	B
3 - Station Road	128.82	128.82	137.86		148.03	0.870	126.11	63.43	2.6	5.3	37.930	E
4 - Usk Road	45.03	45.03	230.71		78.40	0.574	45.29	33.26	1.7	1.4	27.865	D

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.50		202.23	0.000	0.00	216.26	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	28.50	37.00	263.47	0.476	126.93	0.00	2.4	0.9	6.760	A
3 - Station Road	101.52	101.52	123.32		155.92	0.651	104.81	32.11	5.3	2.0	19.156	C
4 - Usk Road	48.23	48.23	196.05		100.27	0.481	48.72	32.08	1.4	1.0	17.644	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	44.48	2.97	13.752	B
3 - Station Road	56.42	3.76	32.848	D
4 - Usk Road	18.43	1.23	28.209	D

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	39.01	2.60	11.885	B
3 - Station Road	44.14	2.94	22.482	C
4 - Usk Road	24.10	1.61	29.676	D

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	36.38	2.43	11.008	B
3 - Station Road	66.11	4.41	37.930	E
4 - Usk Road	23.24	1.55	27.865	D

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	14.94	1.00	6.760	A
3 - Station Road	34.92	2.33	19.156	C
4 - Usk Road	15.50	1.03	17.644	C

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 3), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments][Arms 2 and 4 have 69% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	21.83	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2019 (Scenario 3)	AM	DIRECT	08:00	09:00	60	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT	✓	100.000
2 - High Street		DIRECT	✓	100.000
3 - Station Road		DIRECT	✓	100.000
4 - Usk Road		DIRECT	✓	100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	104.50	0.00	0.00	11.00
	4 - Usk Road	31.00	0.00	13.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	85.30	0.00	1.00	15.00
	4 - Usk Road	33.30	0.00	20.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	110.80	0.00	0.00	13.50
	4 - Usk Road	34.30	0.00	9.00	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	87.00	0.00	0.00	10.00
	4 - Usk Road	19.50	0.00	28.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	7	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals	Total Qing Delay	Av. Qing Delay	Rate of Qing Delay	Inclusive Total Qing Delay	Inclusive Av. Qing Delay (s)

						(PCU)	(PCU-min)	(s)	(PCU-min/min)	(PCU-min)	
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.78	13.68	3.3	B	178.85	715.40	134.09	11.25	2.23	134.11	11.25
3 - Station Road	0.84	33.02	4.4	D	109.53	438.10	173.01	23.70	2.88	173.16	23.72
4 - Usk Road	0.60	26.71	1.5	D	47.28	189.10	73.26	23.24	1.22	73.32	23.26

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	12.62		211.88	0.000	0.00	261.88	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	12.62	2.00	273.85	0.779	209.96	0.00	0.0	3.3	13.676	B
3 - Station Road	115.50	115.50	151.10		140.84	0.820	111.47	71.49	0.0	4.0	29.433	D
4 - Usk Road	44.00	44.00	231.78		77.73	0.566	42.73	30.80	0.0	1.3	26.009	D

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.78		206.92	0.000	0.00	246.72	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	20.78	21.00	268.64	0.694	187.36	0.00	3.3	2.5	11.820	B
3 - Station Road	101.30	101.30	134.62		149.78	0.676	103.10	73.52	4.0	2.2	19.933	C
4 - Usk Road	53.30	53.30	214.45		88.66	0.601	53.06	23.27	1.3	1.5	26.709	D

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	10.30		213.29	0.000	0.00	260.98	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	10.30	35.00	274.53	0.692	190.23	0.00	2.5	2.4	10.947	B
3 - Station Road	124.30	124.30	137.86		148.02	0.840	122.08	62.67	2.2	4.4	33.024	D
4 - Usk Road	44.30	44.30	226.75		80.90	0.548	44.53	33.19	1.5	1.3	25.326	D

08:45 - 09:00

Arm	Total Deman	Junction	Circulating flow	Ped deman	Capacity	RFC	Throughput	Throughput (exit)	Start queu	End queu	Delay (s)	Unsignalised level of

	d (PCU/TS)	Arrivals (PCU)	(PCU/TS)	d (Ped/TS)	(PCU/TS)		(PCU/TS)	(PCU/TS)	e (PCU)	e (PCU)		service
1 - Mill Street	0.00	0.00	27.77		202.68	0.000	0.00	211.22	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	27.77	37.00	263.91	0.476	126.92	0.00	2.4	0.9	6.735	A
3 - Station Road	97.00	97.00	123.31		155.92	0.622	99.67	31.38	4.4	1.8	17.199	C
4 - Usk Road	47.50	47.50	191.08		103.41	0.459	47.91	31.90	1.3	0.9	16.360	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	44.24	2.95	13.676	B
3 - Station Road	49.06	3.27	29.433	D
4 - Usk Road	16.84	1.12	26.009	D

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	38.78	2.59	11.820	B
3 - Station Road	37.59	2.51	19.933	C
4 - Usk Road	21.61	1.44	26.709	D

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	36.18	2.41	10.947	B
3 - Station Road	56.44	3.76	33.024	D
4 - Usk Road	20.71	1.38	25.326	D

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	14.88	0.99	6.735	A
3 - Station Road	29.92	1.99	17.199	C
4 - Usk Road	14.10	0.94	16.360	C

Station Road / Usk Road / Mill Street / High Street - 2019 (Scenario 2), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total

			flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	23.88	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D3	2019 (Scenario 2)	AM	08:00	09:00	60	15	✓	Advanced	D2+D5

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	108.69	0.00	0.00	11.10
	4 - Usk Road	31.00	0.00	13.29	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	89.49	0.00	1.00	15.10
	4 - Usk Road	33.30	0.00	20.29	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	114.99	0.00	0.00	13.60
	4 - Usk Road	34.30	0.00	9.29	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	91.19	0.00	0.00	10.10
	4 - Usk Road	19.50	0.00	28.29	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	6	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)	Total Qing Delay (PCU-min)	Av. Qing Delay (s)	Rate of Qing Delay (PCU-min/min)	Inclusive Total Qing Delay (PCU-min)	Inclusive Av. Qing Delay (s)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.78	13.71	3.3	B	178.85	715.40	134.36	11.27	2.24	134.39	11.27
3 - Station Road	0.87	37.65	5.3	E	113.82	455.26	199.98	26.36	3.33	200.18	26.38
4 - Usk Road	0.62	29.17	1.7	D	47.57	190.26	79.34	25.02	1.32	79.41	25.04

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	12.88		211.73	0.000	0.00	265.36	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	12.88	2.00	273.70	0.77	209.95	0.00	0.0	3.3	13.70	B

						9					5	
3 - Station Road	119.79	119.79	151.09		140.84	0.851	115.07	71.74	0.0	4.7	32.664	D
4 - Usk Road	44.29	44.29	235.32		75.49	0.587	42.91	30.84	0.0	1.4	27.812	D

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	21.05		206.76	0.000	0.00	251.23	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	21.05	21.00	268.48	0.695	187.36	0.00	3.3	2.5	11.845	B
3 - Station Road	105.59	105.59	134.62		149.78	0.705	107.74	73.79	4.7	2.6	22.335	C
4 - Usk Road	53.59	53.59	218.98		85.81	0.625	53.30	23.38	1.4	1.7	29.174	D

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	10.62		213.10	0.000	0.00	264.74	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	10.62	35.00	274.34	0.693	190.23	0.00	2.5	2.4	10.972	B
3 - Station Road	128.59	128.59	137.86		148.03	0.869	125.91	62.99	2.6	5.3	37.653	E
4 - Usk Road	44.59	44.59	230.51		78.53	0.568	44.84	33.25	1.7	1.4	27.393	D

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	28.06		202.50	0.000	0.00	215.99	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	28.06	37.00	263.74	0.476	126.93	0.00	2.4	0.9	6.744	A
3 - Station Road	101.29	101.29	123.32		155.92	0.650	104.54	31.67	5.3	2.0	19.044	C
4 - Usk Road	47.79	47.79	195.80		100.43	0.476	48.26	32.06	1.4	0.9	17.429	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	44.33	2.96	13.705	B
3 - Station Road	56.02	3.73	32.664	D
4 - Usk Road	18.02	1.20	27.812	D

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	38.87	2.59	11.845	B
3 - Station Road	43.77	2.92	22.335	C
4 - Usk Road	23.53	1.57	29.174	D

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	36.26	2.42	10.972	B
3 - Station Road	65.57	4.37	37.653	E
4 - Usk Road	22.63	1.51	27.393	D

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	14.91	0.99	6.744	A
3 - Station Road	34.63	2.31	19.044	C
4 - Usk Road	15.17	1.01	17.429	C

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 1), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	24.08	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time	Start time	Finish time	Time	Time	Run	Relationship	Relationship

		Period name	(HH:mm)	(HH:mm)	period length (min)	segment length (min)	automatically	type	
D7	2024 (Scenario 1)	AM	08:00	09:00	60	15	✓	Advanced	D2+D6

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

08:00 - 08:15

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	108.91	0.00	0.00	11.11
	4 - Usk Road	31.00	0.00	13.73	0.00

08:15 - 08:30

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	89.71	0.00	1.00	15.11
	4 - Usk Road	33.30	0.00	20.73	0.00

08:30 - 08:45

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	115.21	0.00	0.00	13.61
	4 - Usk Road	34.30	0.00	9.73	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	91.41	0.00	0.00	10.11
	4 - Usk Road	19.50	0.00	28.73	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	6	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals	Total Qing Delay	Av. Qing Delay	Rate of Qing Delay	Inclusive Total Qing Delay	Inclusive Av. Qing Delay (s)

						(PCU)	(PCU-min)	(s)	(PCU-min/min)	(PCU-min)	
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.78	13.75	3.4	B	178.85	715.40	134.80	11.31	2.25	134.83	11.31
3 - Station Road	0.87	37.93	5.3	E	114.05	456.18	201.59	26.51	3.36	201.79	26.54
4 - Usk Road	0.63	29.68	1.7	D	48.01	192.02	81.28	25.40	1.35	81.35	25.42

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	13.30		211.47	0.000	0.00	265.51	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	13.30	2.00	273.44	0.780	209.94	0.00	0.0	3.4	13.752	B
3 - Station Road	120.02	120.02	151.08		140.85	0.852	115.25	72.16	0.0	4.8	32.848	D
4 - Usk Road	44.73	44.73	235.49		75.38	0.593	43.32	30.85	0.0	1.4	28.209	D

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	21.48		206.50	0.000	0.00	251.47	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	21.48	21.00	268.22	0.695	187.36	0.00	3.4	2.5	11.885	B
3 - Station Road	105.82	105.82	134.62		149.78	0.707	107.99	74.22	4.8	2.6	22.482	C
4 - Usk Road	54.03	54.03	219.22		85.65	0.631	53.74	23.40	1.4	1.7	29.676	D

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	11.06		212.83	0.000	0.00	264.93	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	11.06	35.00	274.07	0.694	190.23	0.00	2.5	2.4	11.008	B
3 - Station Road	128.82	128.82	137.86		148.03	0.870	126.11	63.43	2.6	5.3	37.930	E
4 - Usk Road	45.03	45.03	230.71		78.40	0.574	45.29	33.26	1.7	1.4	27.865	D

08:45 - 09:00

Arm	Total Deman	Junction	Circulating flow	Ped deman	Capacity	RFC	Throughput	Throughput (exit)	Start queu	End queu	Delay (s)	Unsignalised level of

	d (PCU/TS)	Arrivals (PCU)	(PCU/TS)	d (Ped/TS)	(PCU/TS)		(PCU/TS)	(PCU/TS)	e (PCU)	e (PCU)		service
1 - Mill Street	0.00	0.00	28.50		202.23	0.000	0.00	216.26	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	28.50	37.00	263.47	0.476	126.93	0.00	2.4	0.9	6.760	A
3 - Station Road	101.52	101.52	123.32		155.92	0.651	104.81	32.11	5.3	2.0	19.156	C
4 - Usk Road	48.23	48.23	196.05		100.27	0.481	48.72	32.08	1.4	1.0	17.644	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	44.48	2.97	13.752	B
3 - Station Road	56.42	3.76	32.848	D
4 - Usk Road	18.43	1.23	28.209	D

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	39.01	2.60	11.885	B
3 - Station Road	44.14	2.94	22.482	C
4 - Usk Road	24.10	1.61	29.676	D

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	36.38	2.43	11.008	B
3 - Station Road	66.11	4.41	37.930	E
4 - Usk Road	23.24	1.55	27.865	D

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	14.94	1.00	6.760	A
3 - Station Road	34.92	2.33	19.156	C
4 - Usk Road	15.50	1.03	17.644	C

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 3), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total

			flow for the roundabout for one or more time segments][Arms 2 and 4 have 69% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	21.83	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D8	2024 (Scenario 3)	AM	08:00	09:00	60	15	✓	Advanced	D2

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	104.50	0.00	0.00	11.00
	4 - Usk Road	31.00	0.00	13.00	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	85.30	0.00	1.00	15.00
	4 - Usk Road	33.30	0.00	20.00	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	110.80	0.00	0.00	13.50
	4 - Usk Road	34.30	0.00	9.00	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	87.00	0.00	0.00	10.00
	4 - Usk Road	19.50	0.00	28.00	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	7	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)	Total Qing Delay (PCU-min)	Av. Qing Delay (s)	Rate of Qing Delay (PCU-min/min)	Inclusive Total Qing Delay (PCU-min)	Inclusive Av. Qing Delay (s)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.78	13.68	3.3	B	178.85	715.40	134.09	11.25	2.23	134.11	11.25
3 - Station Road	0.84	33.02	4.4	D	109.53	438.10	173.01	23.70	2.88	173.16	23.72
4 - Usk Road	0.60	26.71	1.5	D	47.28	189.10	73.26	23.24	1.22	73.32	23.26

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	12.62		211.88	0.000	0.00	261.88	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	12.62	2.00	273.85	0.77	209.96	0.00	0.0	3.3	13.67	B

						9					6	
3 - Station Road	115.50	115.50	151.10		140.84	0.820	111.47	71.49	0.0	4.0	29.433	D
4 - Usk Road	44.00	44.00	231.78		77.73	0.566	42.73	30.80	0.0	1.3	26.009	D

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.78		206.92	0.000	0.00	246.72	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	20.78	21.00	268.64	0.694	187.36	0.00	3.3	2.5	11.820	B
3 - Station Road	101.30	101.30	134.62		149.78	0.676	103.10	73.52	4.0	2.2	19.931	C
4 - Usk Road	53.30	53.30	214.45		88.66	0.601	53.06	23.27	1.3	1.5	26.709	D

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	10.30		213.29	0.000	0.00	260.98	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	10.30	35.00	274.53	0.692	190.23	0.00	2.5	2.4	10.949	B
3 - Station Road	124.30	124.30	137.86		148.02	0.840	122.08	62.67	2.2	4.4	33.024	D
4 - Usk Road	44.30	44.30	226.75		80.90	0.548	44.53	33.19	1.5	1.3	25.326	D

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	27.77		202.68	0.000	0.00	211.22	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	27.77	37.00	263.91	0.476	126.92	0.00	2.4	0.9	6.737	A
3 - Station Road	97.00	97.00	123.31		155.92	0.622	99.67	31.38	4.4	1.8	17.199	C
4 - Usk Road	47.50	47.50	191.08		103.41	0.459	47.91	31.90	1.3	0.9	16.362	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	44.24	2.95	13.676	B
3 - Station Road	49.06	3.27	29.433	D
4 - Usk Road	16.84	1.12	26.009	D

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	38.78	2.59	11.820	B
3 - Station Road	37.59	2.51	19.931	C
4 - Usk Road	21.61	1.44	26.709	D

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	36.18	2.41	10.949	B
3 - Station Road	56.44	3.76	33.024	D
4 - Usk Road	20.71	1.38	25.326	D

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	14.88	0.99	6.737	A
3 - Station Road	29.92	1.99	17.199	C
4 - Usk Road	14.10	0.94	16.362	C

Station Road / Usk Road / Mill Street / High Street - 2024 (Scenario 2), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	23.88	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time	Start time	Finish time	Time	Time	Run	Relationship	Relationship

		Period name	(HH:mm)	(HH:mm)	period length (min)	segment length (min)	automatically	type	
D9	2024 (Scenario 2)	AM	08:00	09:00	60	15	✓	Advanced	D2+D5

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

Demand (PCU/TS)

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	108.69	0.00	0.00	11.10
	4 - Usk Road	31.00	0.00	13.29	0.00

Demand (PCU/TS)

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	89.49	0.00	1.00	15.10
	4 - Usk Road	33.30	0.00	20.29	0.00

Demand (PCU/TS)

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	114.99	0.00	0.00	13.60
	4 - Usk Road	34.30	0.00	9.29	1.00

Demand (PCU/TS)

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	91.19	0.00	0.00	10.10
	4 - Usk Road	19.50	0.00	28.29	0.00

Vehicle Mix

HV %s

08:00 - 08:15

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	6	0	0	8
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	6	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals	Total Qing Delay	Av. Qing Delay	Rate of Qing Delay	Inclusive Total Qing Delay	Inclusive Av. Qing Delay (s)

						(PCU)	(PCU-min)	(s)	(PCU-min/min)	(PCU-min)	
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.78	13.71	3.3	B	178.85	715.40	134.36	11.27	2.24	134.39	11.27
3 - Station Road	0.87	37.65	5.3	E	113.82	455.26	199.98	26.36	3.33	200.18	26.38
4 - Usk Road	0.62	29.17	1.7	D	47.57	190.26	79.34	25.02	1.32	79.41	25.04

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	12.88		211.73	0.000	0.00	265.36	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	12.88	2.00	273.70	0.779	209.95	0.00	0.0	3.3	13.705	B
3 - Station Road	119.79	119.79	151.09		140.84	0.851	115.07	71.74	0.0	4.7	32.664	D
4 - Usk Road	44.29	44.29	235.32		75.49	0.587	42.91	30.84	0.0	1.4	27.812	D

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	21.05		206.76	0.000	0.00	251.23	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	21.05	21.00	268.48	0.695	187.36	0.00	3.3	2.5	11.845	B
3 - Station Road	105.59	105.59	134.62		149.78	0.705	107.74	73.79	4.7	2.6	22.335	C
4 - Usk Road	53.59	53.59	218.98		85.81	0.625	53.30	23.38	1.4	1.7	29.174	D

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	10.62		213.10	0.000	0.00	264.74	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	10.62	35.00	274.34	0.693	190.23	0.00	2.5	2.4	10.972	B
3 - Station Road	128.59	128.59	137.86		148.03	0.869	125.91	62.99	2.6	5.3	37.653	E
4 - Usk Road	44.59	44.59	230.51		78.53	0.568	44.84	33.25	1.7	1.4	27.393	D

08:45 - 09:00

Arm	Total Deman	Junction	Circulating flow	Ped deman	Capacity	RFC	Throughput	Throughput (exit)	Start queu	End queu	Delay (s)	Unsignalised level of

	d (PCU/TS)	Arrivals (PCU)	(PCU/TS)	d (Ped/TS)	(PCU/TS)		(PCU/TS)	(PCU/TS)	e (PCU)	e (PCU)		service
1 - Mill Street	0.00	0.00	28.06		202.50	0.000	0.00	215.99	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	28.06	37.00	263.74	0.476	126.93	0.00	2.4	0.9	6.744	A
3 - Station Road	101.29	101.29	123.32		155.92	0.650	104.54	31.67	5.3	2.0	19.044	C
4 - Usk Road	47.79	47.79	195.80		100.43	0.476	48.26	32.06	1.4	0.9	17.429	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	44.33	2.96	13.705	B
3 - Station Road	56.02	3.73	32.664	D
4 - Usk Road	18.02	1.20	27.812	D

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	38.87	2.59	11.845	B
3 - Station Road	43.77	2.92	22.335	C
4 - Usk Road	23.53	1.57	29.174	D

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	36.26	2.42	10.972	B
3 - Station Road	65.57	4.37	37.653	E
4 - Usk Road	22.63	1.51	27.393	D

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	14.91	0.99	6.744	A
3 - Station Road	34.63	2.31	19.044	C
4 - Usk Road	15.17	1.01	17.429	C

Station Road / Usk Road / Mill Street / High Street - 2024 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 88% of the total

			flow for the roundabout for one or more time segments]
Warning	Demand Set Relationship	D11 - 2024 + Development, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Station Road / Usk Road / Mill Street / High Street	Mini-roundabout		1, 2, 3, 4	32.36	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	2024 + Development	AM	08:00	09:00	60	15	✓	Advanced	D8+D4

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - Mill Street		DIRECT		100.000
2 - High Street		DIRECT		100.000
3 - Station Road		DIRECT		100.000
4 - Usk Road		DIRECT		100.000

Demand overview (Pedestrians)

Arm	Profile type
1 - Mill Street	
2 - High Street	[DIRECT]
3 - Station Road	
4 - Usk Road	

Origin-Destination Data

08:00 - 08:15

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	133.00	0.00	59.80	20.50
	3 - Station Road	119.62	0.00	0.00	11.88
	4 - Usk Road	31.00	0.00	13.22	0.00

08:15 - 08:30

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	126.00	0.00	52.50	8.00
	3 - Station Road	100.42	0.00	1.00	15.88
	4 - Usk Road	33.30	0.00	20.22	0.00

08:30 - 08:45

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	117.80	0.00	53.30	19.00
	3 - Station Road	125.92	0.00	0.00	14.38
	4 - Usk Road	34.30	0.00	9.22	1.00

08:45 - 09:00

Demand (PCU/TS)

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0.00	0.00	0.00	0.00
	2 - High Street	101.00	0.00	3.00	21.50
	3 - Station Road	102.12	0.00	0.00	10.88
	4 - Usk Road	19.50	0.00	28.22	0.00

Vehicle Mix

08:00 - 08:15

HV %s

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	2	5
	3 - Station Road	5	0	0	7
	4 - Usk Road	6	0	0	0

HV %s

08:15 - 08:30

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	4	0	7	18
	3 - Station Road	0	0	0	0
	4 - Usk Road	11	0	0	0

HV %s

08:30 - 08:45

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	2	0	0	15
	3 - Station Road	3	0	0	0
	4 - Usk Road	0	0	6	0

HV %s

08:45 - 09:00

		To			
		1 - Mill Street	2 - High Street	3 - Station Road	4 - Usk Road
From	1 - Mill Street	0	0	0	0
	2 - High Street	1	0	5	3
	3 - Station Road	2	0	0	8
	4 - Usk Road	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/TS)	Total Junction Arrivals (PCU)	Total Qing Delay (PCU-min)	Av. Qing Delay (s)	Rate of Qing Delay (PCU-min/min)	Inclusive Total Qing Delay (PCU-min)	Inclusive Av. Qing Delay (s)
1 - Mill Street	0.00	0.00	0.0	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - High Street	0.78	13.69	3.3	B	178.85	715.40	134.23	11.26	2.24	134.26	11.26
3 - Station Road	0.95	57.05	8.9	F	125.53	502.10	314.70	37.61	5.24	315.11	37.66
4 - Usk Road	0.69	37.39	2.1	E	47.50	189.98	96.03	30.33	1.60	96.13	30.36

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	12.74		211.81	0.000	0.00	273.44	0.0	0.0	0.000	A
2 - High Street	213.30	213.30	12.74	2.00	273.78	0.77	209.96	0.00	0.0	3.3	13.68	B

						9					9	
3 - Station Road	131.50	131.50	151.10		140.84	0.934	123.83	71.60	0.0	7.7	44.666	E
4 - Usk Road	44.22	44.22	243.56		70.29	0.629	42.61	31.37	0.0	1.6	32.358	D

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	20.87		206.87	0.000	0.00	263.41	0.0	0.0	0.000	A
2 - High Street	186.50	186.50	20.87	21.00	268.59	0.694	187.36	0.00	3.3	2.5	11.828	B
3 - Station Road	117.30	117.30	134.62		149.78	0.783	120.87	73.61	7.7	4.1	33.800	D
4 - Usk Road	53.52	53.52	231.26		78.06	0.686	53.02	24.23	1.6	2.1	37.394	E

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	10.66		213.08	0.000	0.00	273.73	0.0	0.0	0.000	A
2 - High Street	190.10	190.10	10.66	35.00	274.31	0.693	190.22	0.00	2.5	2.4	10.976	B
3 - Station Road	140.30	140.30	137.85		148.03	0.948	135.49	63.03	4.1	8.9	57.050	F
4 - Usk Road	44.52	44.52	239.48		72.87	0.611	44.91	33.85	2.1	1.7	33.263	D

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Ped demand (Ped/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	27.95		202.57	0.000	0.00	229.54	0.0	0.0	0.000	A
2 - High Street	125.50	125.50	27.95	37.00	263.81	0.476	126.93	0.00	2.4	0.9	6.743	A
3 - Station Road	113.00	113.00	123.33		155.91	0.725	118.98	31.55	8.9	2.9	28.170	D
4 - Usk Road	47.72	47.72	209.18		91.99	0.519	48.31	33.13	1.7	1.1	20.917	C

Qing Delay Results for each time segment

08:00 - 08:15

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	44.28	2.95	13.689	B
3 - Station Road	82.47	5.50	44.666	E
4 - Usk Road	20.62	1.37	32.358	D

08:15 - 08:30

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	38.81	2.59	11.828	B
3 - Station Road	70.95	4.73	33.800	D
4 - Usk Road	29.14	1.94	37.394	E

08:30 - 08:45

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	36.24	2.42	10.976	B
3 - Station Road	104.61	6.97	57.050	F
4 - Usk Road	27.91	1.86	33.263	D

08:45 - 09:00

Arm	Qing total delay (PCU-min)	Qing rate of delay (PCU-min/min)	Av. delay per arriving vehicle (s)	Unsignalised level of service
1 - Mill Street	0.00	0.00	0.000	A
2 - High Street	14.90	0.99	6.743	A
3 - Station Road	56.67	3.78	28.170	D
4 - Usk Road	18.35	1.22	20.917	C

Redrow Homes

USW Caerleon ES Chapter D Transport Appendix
D2 Interim Residential Travel Plan

November 2019

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Appendix A - **Example of Residential Travel Survey**

1 INTRODUCTION

1.1 Vectos has been retained by Redrow Homes Ltd to provide transportation advice in relation to a full planning application for the proposed development of up to 218 dwellings at the former University of South Wales' Caerleon Campus in Caerleon.

1.2 For the purposes of assessment, 218 dwellings were assessed within the Transport Assessment (TA) and Environmental Statement (ES) Chapter D.

Introduction to the Travel Plan

1.3 One of the UK's top transport priorities is to reduce transport's emissions of carbon dioxide and other greenhouse gases with the desired outcome of tackling climate change. To do this our society must improve, and encourage the use of, sustainable (low carbon) transport, ensure that new development takes place in accessible locations which minimise the need for unsustainable travel, and adapt ways of living to minimise energy use.

1.4 Travel Plans encourage less travel, and where travel does occur, more sustainable journeys. They promote inclusive societies and mitigate the effects of activity arising from new development and existing communities.

1.5 Planning Policy Wales and TAN18 advises that planning policy should protect and exploit opportunities for the use of sustainable transport modes for the movement of people, and that a key tool to facilitate this will be a Travel Plan.

1.6 This Travel Plan (TP) sets out specific aims and measures for the proposed development at the former University of South Wales' Caerleon Campus in Caerleon. The objective is to integrate these aims and measures with other area Travel Plans to bring a collective community-wide benefit.

Aim of the Travel Plan

1.7 The main aim of this TP is to put in place management tools to enable future residents to make more informed decisions about their travel, which at the same time minimises the adverse impacts of their travel on the environment. This is achieved by setting out a strategy for reducing or eliminating the barriers which prevent or dissuade people from adopting a sustainable lifestyle.

1.8 The consequence of this is the management and minimised use of single-occupancy vehicle use.

1.9 The strategy needs to be long term as changing travel habits takes time and will only occur through a combination of incentives, improved facilities, government and local authority initiatives, and changes in individual attitudes.

1.10 This is an evolving TP and will change with input from Newport City Council (NCC), the developer, and other key stakeholders as necessary.

This Document

1.11 The measures identified within this TP will assist in promoting healthy and sustainable travel to, from and within the development, and elsewhere within the community, in line with local, regional and national policies.

1.12 The benefits for sustainable travel and social inclusion will apply to the wider communities and conurbation.

Structure of Report

1.13 The remainder of this document is structured as follows:

- **Section 2** – reviews relevant policy and guidance;
- **Section 3** – outlines the accessibility of the site and its location in relation to local services and facilities;
- **Section 4** –describes the site and the development proposal;
- **Section 5** – sets out the predicted travel demands of the site;
- **Section 6** – details the plan objectives and targets;
- **Section 7** – provides information on the sustainable transport measures as well as detailing appropriate measures that will be implemented to promote sustainable travel. This section also contains details of possible future measures which could be implemented, depending on the success of the Travel Plan;
- **Section 8** – outlines the monitoring and review programme;
- **Section 9** – contains a summary; and
- **Section 10** – sets out an Action Plan for the TP.

2 POLICY AND GUIDANCE

Local Policy

Newport Local Development Plan 2011-2026

2.1 NCC Local Development Plan 2015 (LDP) sets the principal policy context from which to consider this application.

2.2 To achieve the Council's vision, the LDP sets out 10 Objectives. Those that are relevant to transportation relate to sustainable use of land, climate change, economic growth, housing provision and health and well-being.

2.3 The proposed development aligns well to these overarching policy objectives by proposing a mixed-use development on a prominent brownfield site, in a sustainable location with additional benefits to sustainable travel, health and well-being.

Local Plan Policy SP1 – Sustainability

2.4 This Policy seeks to ensure that development makes positive contributions to sustainable development by concentrating development in sustainable locations on brownfield land within the settlement boundary.

2.5 The purpose of Policy SP1 is to provide an over-arching framework that places sustainability at the heart of the plan. In this respect, one could not wish for a better site in Caerleon for residential development. The proposal:

1. Provides mixed use development;
2. Seeks to develop on brownfield land, which is accessible by all modes of transport;
3. Makes a positive contribution toward sustainable development by virtue of the site's location adjacent to existing residential areas and its accessibility to number of existing local amenities and facilities including schools, shops, employment;
4. Enhances mobility and promotes behavioural change; and
5. Will provide electric car charging points for each dwelling.

Local Plan Policy SP2 – Health

2.6 This Policy seeks to ensure that development makes positive contributions towards health and to minimise any negative effects to well-being by locating development in the most sustainable locations, close to public transport and providing efficient walking and cycling routes and other green infrastructure.

2.7 The wording of the policy goes on to state that if development is located in areas which are only accessible by car, then the likelihood of people walking to destinations is greatly decreased. This is therefore likely to lead to more inactivity in the local population and is one good reason to allow development in the most sustainable locations possible.

2.8 The proposed development meets all of the criteria within this policy.

2.9 The central location of the site is within easy walking/cycle reach of amenities, leisure, education and employment. Moreover, the development proposes enhancements to public transport (new bus stops and shelters), improvements to existing PRoW and enhancements to the cycle network including improved connections to the National Cycle Network (NCN 4).

2.10 In addition, the Travel Plan initiatives which will encompass personalised travel planning for future residents on the site and residents of Caerleon, local schools (notably NCC is part of a Welsh Network of Healthy School schemes[1]) and the hospital, seek to encourage behavioural change and modal shift on the site and in the local area.

2.11 All of this fully supports the policy objectives relating to health.

Local Plan – GP4 - General Development Principles – Highways and Accessibility

2.12 The purpose of this policy is to ensure that new development is highly accessible for all users and encourages walking, cycling and access to public transport in the first instance. Proposals should seek to enhance permeability and connectivity including the use of green infrastructure and should make reference to Policy T5 – Walking and Cycling.

2.13 There are seven parts to this policy which states that development should:

[1] http://www.newport.gov.uk/en/Schools-Education/Schools/Healthy-schools.aspx

1. provide appropriate access for pedestrians, cyclists and public transport in accordance with national guidance;
2. be accessible by a choice of means of transport;
3. be designed to avoid or reduce transport severance, noise and air pollution;
4. make adequate provision for car parking and cycle storage;
5. provide suitable and safe access arrangements;
6. design and build new roads within private development in accordance with the highway authority's design guide and relevant national guidance; and
7. ensure that development would not be detrimental to highway or pedestrian safety or result in traffic generation exceeding the capacity of the highway network.

2.14 The wording within Policy GP4 goes on to state that development must be of a scale that the adjacent road network has the capacity to serve, without detriment to the highway network or the environmental characteristics of the road and that development will be required to fund improvements to the highway network which are necessary to accommodate the development.

2.15 The proposed development fully complies with this policy by virtue of its sustainable location, measures to improve connectivity, accessibility and behavioural change to mobility and through seeking to provide capacity improvements to the highway network. In this context, it is important to note that the highway/road network is more than just an environment for peak hour commuting, rather it is a function of all types of movement including pedestrians and cyclists.

2.16 The policy does not state that existing issues pertaining to localised congestion or air quality need to be remediated by development and nor does it state that providing additional traffic capacity is a means of pass or fail for a development.

2.17 Whilst Policy GP4 does not explicitly prioritise one sub policy point over another, it is clear that in the context of adherence to other Local Plan Policies e.g. SP1, SP2, that walking, cycling and public transport accessibility are key priorities for evaluating development proposals from a transport perspective. The thrust of policy support for non-car modes is strongly supported in local and National policy, where the step-change emphasis clearly states that appropriate

importance and weight must be given to walking, cycling, public transport and the reuse of brownfield sites over the out-dated predict and provide road capacity argument for private cars.

National Policy

Planning Policy Wales 10 (PPW 10)

2.18 Planning Policy Wales Edition 10 (PPW) sets out the land use planning policies of the Welsh Government.

2.19 With regards to Strategic and Spatial Choices, and specifically Accessibility, PPW states that:

- Spatial strategies should support the objectives of increasing walking, cycling and public transport use in place of private vehicles;
- Higher densities should be encouraged in urban centres to support services such as public transport, local shops and schools; and
- Previously developed land should, wherever possible, be used in preference to greenfield sites where it is suitable for development, with its re-use promoting sustainability principles.

2.20 Section 4 of PPW 10 concerns Active and Social places. It asserts that Active and Social Places are those which provide well-connected cohesive communities. It further states that a 'Resilient Wales' is supported by promoting well-connected infrastructure.

2.21 Within Section 4 PPW 10 stresses that:

- A Healthier Wales can be achieved through the reduction in emissions and air pollution by minimising the need to travel and maximising provision of sustainable forms of transport;
- To foster Cohesive Communities, development will need to be well-connected; and
- Globally Responsible Wales is promoted by locating and designing developments which reduce trip lengths for everyday journeys and supports sustainable modes of travel.

2.22 Section 4 also acknowledges the importance of:

- improving sustainable access to services;

- reducing reliance on travel by private car; and
- ensuring our transportation infrastructure is adaptable.

2.23 Policies within the Active and Social Places theme will:

- enable sustainable access to housing, employment, shopping, education, health, community, leisure and sports facilities and green infrastructure;
- develop sustainable transportation infrastructure; and
- require developments to encourage modal shift and be easily accessible by walking, cycling and public transport.

2.24 Moving within and between places is a key theme within PPW. In relation to sustainable transport, PPW 10 advises facilitating developments which:

- are sited where they can be easily accessed by sustainable modes of travel and without the need for a car;
- are designed to integrate with existing land uses and neighbourhoods; and
- make it possible for all short journeys within and beyond the development to be easily made by walking and cycling.

2.25 Regarding Active Travel, PPW10 states that Planning Authorities:

- Must support active travel by ensuring new development is fully accessible by walking and cycling; and
- Must ensure new housing, jobs, shopping, leisure and services are highly accessible by walking and cycling.

2.26 With respect to Public Transport, PPW10 states that Planning authorities should consider whether public transport services are of a scale which makes public transport an attractive and practical travel option for occupiers and users travelling to and from development sites.

2.27 PPW reiterates that it is Welsh Government policy to require the use of a sustainable transport hierarchy (PPW 10 - Figure 8) in relation to new development, which prioritises walking, cycling and public transport.

2.28 The proposed development fully complies with all of the sustainable transportation and movement policies within PPW10 and the overarching objectives relating to the reuse of brownfield sites.

Technical Advice Note 18 – Transport (TAN 18)

2.29 TAN 18 (Transport) seeks to;

- Promote housing development at locations with good access by walking and cycling to primary and secondary schools and public transport stops and by all modes to employment, further and higher education, services, shopping and leisure;
- Encourage residential developments that allow public transport to pass through easily;
- Ensure layouts and densities which encourage residents to walk and cycle to local facilities and public transport stops;
- Safeguard that where public transport facilities are proposed, ensure that there are effective arrangements for maintaining facilities and funding;
- Ensure walking is a main mode of transport for shorter trips;
- Support that new or improved public transport provision has the potential to provide alternatives to private vehicle use and change existing travel demands; and
- Encourage Local authorities to develop effective networks of cycle routes including safe routes to schools to encourage cycling.

2.30 The Development promotes walking, cycling and public transport usage through a range of physical measures and substantial travel planning investment and complies with TAN 18.

Active Travel (Wales) Act 2013

2.31 The Active Travel (Wales) Act requires planning authorities to make provision for, map and promote 'Active Travel' routes for pedestrians and cyclists. It is a developer's responsibility to acknowledge the existing local Active Travel routes and ensure that there are sufficient connections from the development to the existing network, so that future residents have a clear, direct and a safe route from their homes to the wider Active Travel network.

2.32 This Act seeks to enable more people to walk, cycle and generally travel by more active methods, so that:

- more people can experience the health benefits of active travel;
- we reduce our greenhouse gas emissions;

- we help address poverty and disadvantage, and
- we help our economy to grow by unlocking sustainable economic growth.

2.33 The Development is compliant with the Active Travel (Wales) Act as it is promoting an integrated masterplan with linkages to the existing community and is supporting the provision, through a series of off-site improvements, of Active Travel Routes including linkage to the National Cycle Network 4.

Well-being of Future Generations (Wales) Act 2015

2.34 The Well-being of Future Generations (Wales) Act is about improving the social, economic, environmental and cultural well-being of Wales.

2.35 The Act puts in place seven well-being goals one of which is a healthier Wales and defines sustainable development which includes the four pillars of Social, Environmental, Cultural and Economy.

2.36 The Development is proposing an investment in sustainable travel / behavioural change measures designed to reduce the amount of traffic / congestion but also to promote healthier lifestyles. In doing this, the Development addresses at least 3 of the 4 core principles of sustainable development from a transport perspective. From a social and cultural perspective, sustainable travel encourages more confidence and interaction for those people, including children, who walk and cycle. It assists with integrating the community. From an environmental perspective, sustainable transport from modes such as walking cycling and public transport generally means less pollution than from private cars.

Manual for Streets (CD 15)

2.37 The Department for Transport's 'Manual for Streets' replaced their general road and street design guidance manual 'DB32' in 2007 and specifically focuses on lightly trafficked residential streets and highways.

2.38 'A key consideration for achieving sustainable development is how the design can influence how people choose to travel. Designers and engineers need to respond to a wide range of policies aimed at making car use a matter of choice rather than habit or dependence. Local transport plans and movement strategies can directly inform the design process as part of the policy implementation process.'

2.39 'By creating linkages between new housing and local facilities and community infrastructure, the public transport network and established walking and cycling routes are fundamental to achieving more sustainable patterns of movement and to reducing people's reliance on the car.'

2.40 The Transport Strategy for the development seeks to promote an environment which is not dominated by the private car.

Technical Advice Note 12 – Design (TAN 12)

2.41 TAN 12 seeks to promote sustainable means of travel in new development by maximising;

1. Safe and clear connections;
2. The potential to cycle, walk and use public transport safely and reducing the reliance on the car;
3. The connection to the existing transport infrastructure by integrating development with existing footpaths, cycle ways and public and private transport infrastructure;
4. The ease of movement to, from and within development for sustainable forms of transport by creating a safe and attractive environment; and
5. The provision of onsite facilities for sustainable forms of transport.

2.42 The Development promotes walking, cycling and public transport usage and integration with the existing infrastructure and hence complies with the objectives of TAN 12.

Summary

2.43 The proposed development clearly aligns with Local and National Policy and fully accords with the Local Development Plan policies for the reuse of brownfield sites, sustainability and transport. This site can deliver housing growth based on a policy-compliant approach of providing development in a sustainable manner and not by prioritising the needs of car users to the detriment of social mobility and behavioural change.

3 EXISTING SITUATION

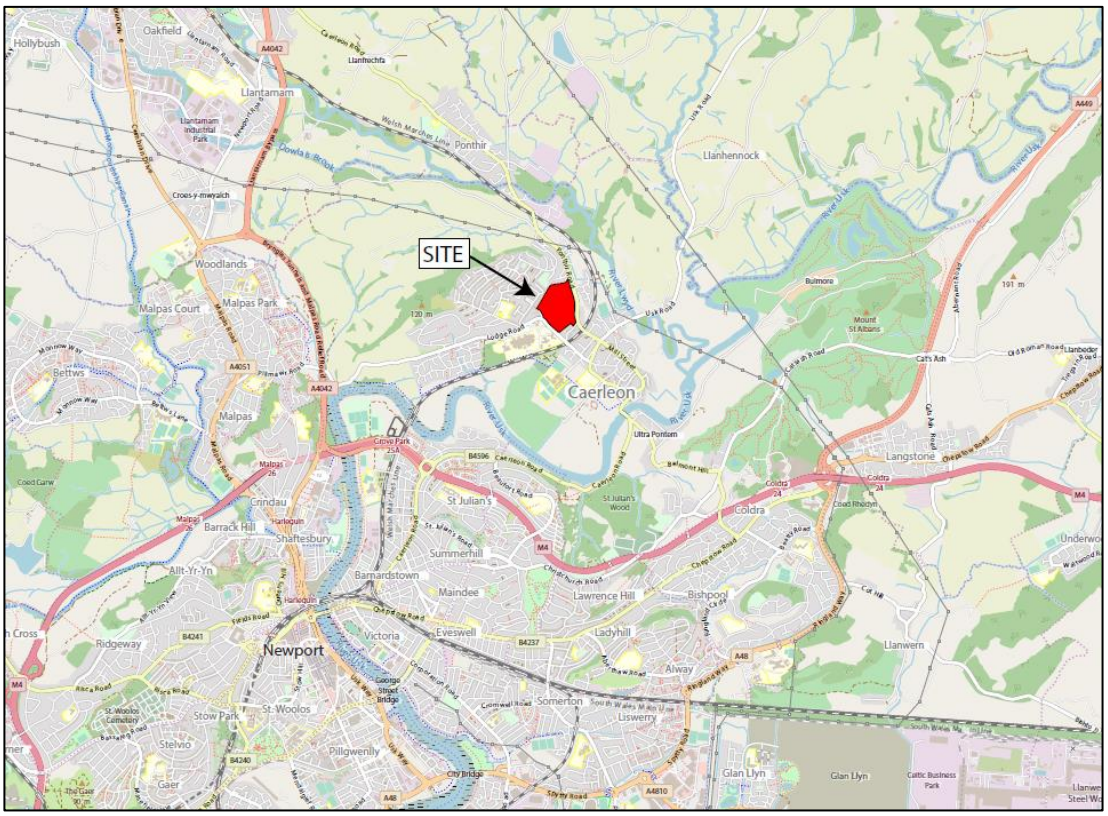
3.1 This section of the report includes a detailed description of the site, the surrounding highway network and the general traffic and transportation characteristics of the surrounding area.

Site Location

3.2 The site is located near the centre of Caerleon, approximately 500m north of the High Street. It is in a built-up area, bounded by residential areas to the north and east, and by St Cadoc's Hospital to the southwest.

3.3 By road, the site is located approximately 6km northeast of Newport, 8km southeast of Cwmbran and 12km northwest of Magor. The location of the site is shown below in **Figure 3.1**.

Figure 3.1 – Site Location



3.4 This is a brownfield site which previously accommodated a campus of the University of South Wales. The campus has been closed since July 2016 and, currently, the site is no longer in use aside from ad hoc uses, including as a set for filming.

Planning History

3.5 A planning application was submitted in 2017 for a mixed use development on a brownfield site, comprising some 310 residential dwellings (267 houses and 43 flats) through redevelopment/retention of some existing buildings on site and new development, together with 4000m^2 of B1a/D1 non-residential floorspace (application reference: 17/0781).

3.6 This application was refused for the following reasons:

The proposal will have a significant adverse effect upon interests of acknowledged importance namely:

- *Highway safety;*
- *Free flow of traffic; and*
- *Residential amenity and human health.*

3.7 An appeal has been lodged by the University of South Wales and Redrow Homes.

Local Facilities

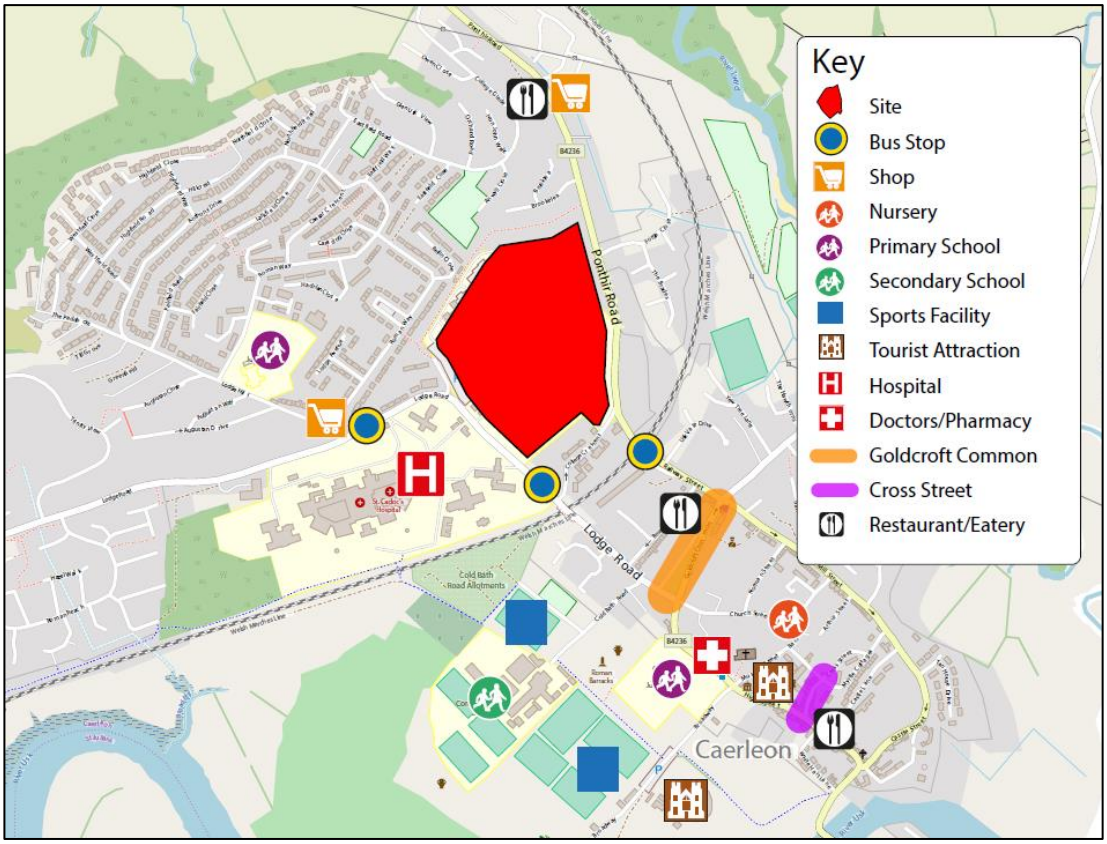
3.8 The site is very well placed in terms of access to local facilities and services such as medical services, shops, schools and public transport. A summary of the local facilities which can be found within the vicinity of the site is set out in **Table 3.1** and displayed in **Figure 3.2**.

Table 3.1 – Local Facilities

Local Facility	Distance from site access (metres)	Cycling Time (mins)	Walking Time (mins)
Public Transport			
University Bus Stop	250	1	3
St Cadoc's Hospital Bus Stop	400	2	5
Old Station Bus Stop	400	2	4
Schools / Education			
Caerleon Lodge Hill Junior School	650	4	9
Caerleon Comprehensive School	800	4	10
Charles William Primary School	750	4	9
The Owl and Pussycat Nursery	850	4	10
Leisure / Sports Facilities			
Caerleon AFC	900	4	11
Caerleon Rugby Football Club	1200	4	14
Caerleon Amphitheatre	1100	4	13
Caerleon Roman Fortress	1400	6	12

Pub / Restaurants / Food			
Goldcroft Common (multiple facilities)	700	2	8
The Isca Arms	1000	4	12
Cross Street (multiple facilities)	1100	5	12
Local Shops			
McColl's	400	2	5
Goldcroft Common (multiple shops)	700	2	8
Medical Centres			
St Cadoc's Hospital	450	2	5
Isca Medical Centre	850	5	9
Well Pharmacy	850	5	2
Local Areas			
Ponthir	2300	28	8

Figure 3.2 – Local Facilities



3.9 As shown in **Figure 3.2**, numerous facilities and services are present within Caerleon, all of which are accessible by foot or by bike. Some streets and areas such as Cross Street and Goldcroft Common are home to multiple food and drink outlets and there are several school and medical facilities within the town.

Pedestrian and Cycle Provision

3.10 The local area offers a good framework for non-motorised modes of travel and is served by good quality pedestrian routes.

3.11 Development at this site is capable of being designed to encourage trips to be made by sustainable modes, including active travel (walking and cycling), by car sharing, and on public transport to maximise social inclusion and minimise the number of single occupancy private car trips. The location of the site is well suited to the promotion of sustainable travel.

Walking

3.12 The Active Travel (Wales) Act 2013 aims to make walking and cycling the most attractive option for shorter journeys, connecting where people live to where they want to go.

3.13 Due to the residential streets within close proximity to the proposed development, the site is well served by pedestrian facilities. Lodge Road connects the proposed western access of the site to High Street in the centre of Caerleon, and Station Road provides a route to the eastern end of High Street from the eastern side of the site. The topography in Caerleon is conducive for the majority of people to walk and cycle from the site.

3.14 There are continuous footways along these routes as well as street lighting and crossing points for pedestrians. On Lodge Road there is a footway separate to the main road which provides a route for pedestrian to cross over the railway line. This is shown in **Photograph 3.1** and the Pelican crossing on Lodge Road is shown in **Photograph 3.2**.

Photograph 3.1



Photograph 3.2



3.15 When adjacent to the site, Lodge Road curves around to the west and leads away from Caerleon. This route provides a link to Caerleon Lodge Hill School as well as the west of Caerleon. It includes a large pedestrianised area where the road curves from north to west, shown in **Photograph 3.3,** as well as pedestrian crossing points further west along the road shown in **Photograph 3.4**.

Photograph 3.3



Photograph 3.4



3.16 Running along the northern border of the site is a footpath (PRoW) connecting Lodge Road to Ponthir Road. The footpath runs in a west-east direction. This route can currently be used by pedestrians travelling from west of Lodge Road to any of the services (including garages, shops and pubs) located on Ponthir Road.

3.17 The western end of the footpath connects to Roman Way, providing a link from the residential area to the north to Lodge Road.

3.18 The footpath is approximately 500m in length and is paved for some of its length. It does not benefit from consistent street lighting and as such is not likely to be used outside of daylight hours.

3.19 There are some informal links connecting to the footpath such as from Bellin Close to the north indicating that current residents in the area use this footpath as a mode of travel for east-west connections.

3.20 The condition of the footpath can be seen in **Photograph 3.5** and in **Photograph 3.6**.

Photograph 3.5

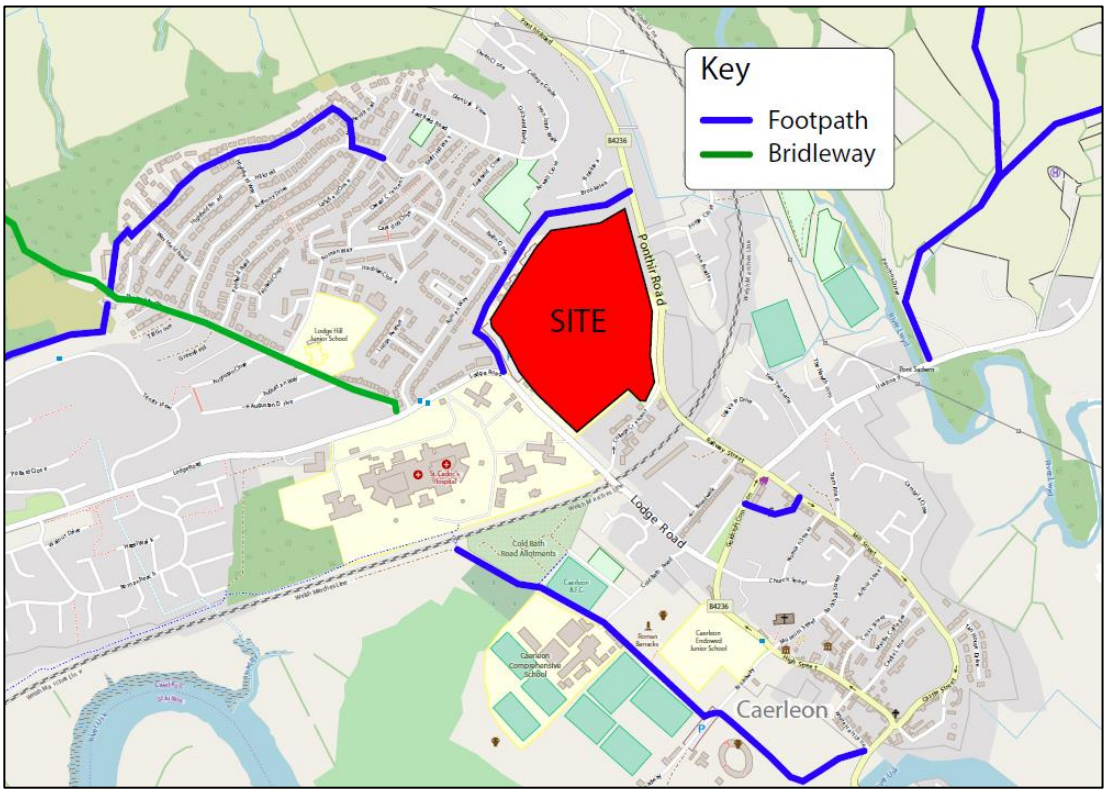


Photograph 3.6



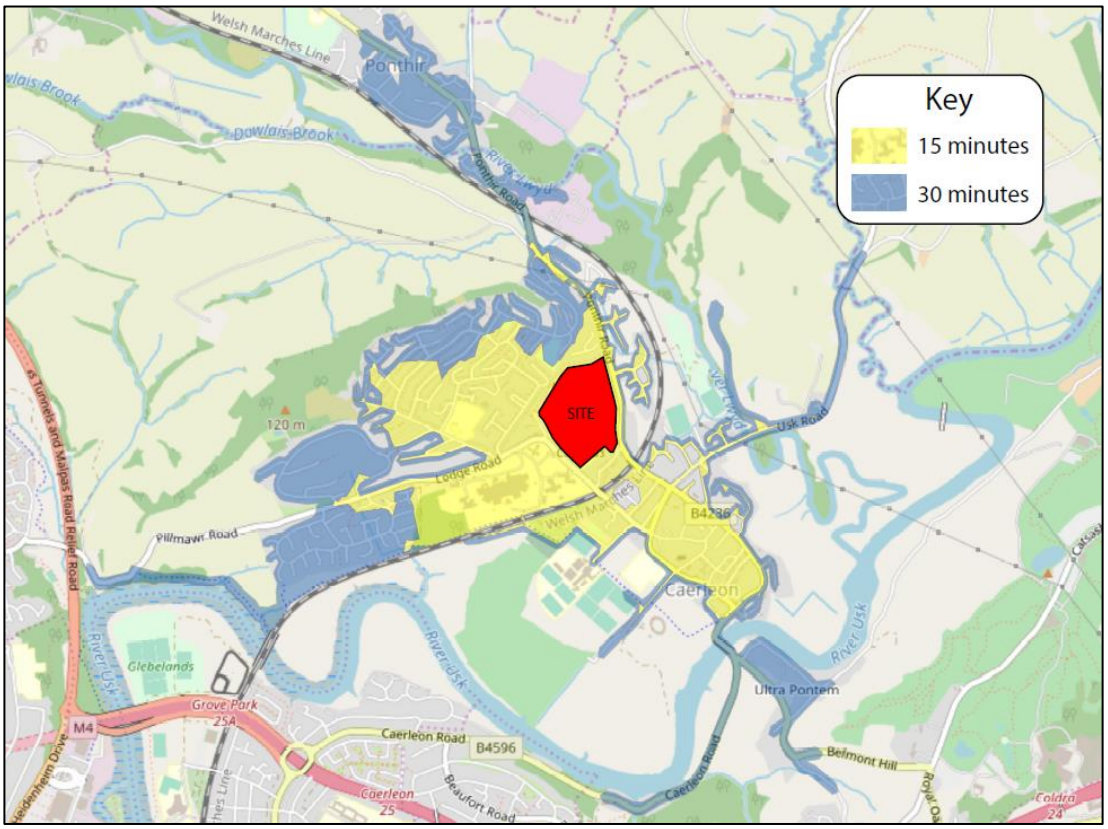
3.21 There are several other footpaths in Caerleon recognised by the Newport City Council Definitive Map as being Public Rights of Way (PRoW). These are shown in **Figure 3.3**.

Figure 3.3 – Public Rights of Way



3.22 It is evident that much of Caerleon is accessible with a 15 or 30 minute walk of the site. **Figure 3.4** demonstrates the indicative walking isochrones of 15 and 30 minutes from the site assuming a comfortable walking speed of approximately 5kph.

Figure 3.4 – 15 and 30 Minute Indicative Walking Isochrones



3.23 As shown in **Figure 3.4**, much of the local area is accessible by foot. The High Street in Caerleon is accessible within 15 minutes, whereas the outskirts of Caerleon are accessible within a 30 minute walk.

Cycling

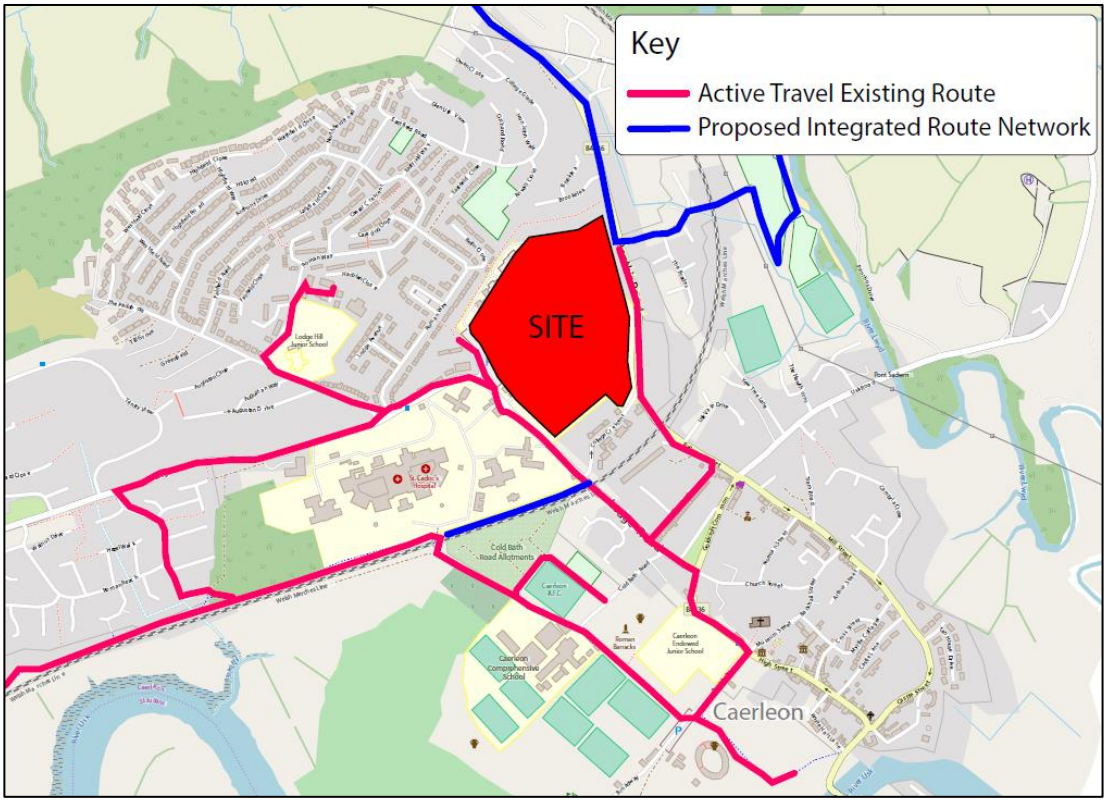
3.24 Cycling infrastructure within the vicinity of the site includes local roads conducive to cycling, active travel routes and a nearby National Cycle Network (NCN) route. These routes connect the site to the wider area.

3.25 The Active Travel (Wales) Act 2013 aims to make walking and cycling the most attractive option for shorter journeys, connecting where people live to where they want to go. Councils in Wales have to produce Active Travel maps to identify existing suitable routes for pedestrians and cyclists, and suggest other potential routes that would help create an integrated network of active travel route.

3.26 Newport City Council have produced an 'Existing Route' map highlighting the current walking and cycling infrastructure in the Caerleon Area, as well as an Integrated Network Map showing

both existing active travel routes and proposed integrated routes. The highlighted routes are shown in **Figure 3.5**.

Figure 3.5 – Integrated Network Map and Cycling Routes



3.27 The NCN route 88 runs through Caerleon, connecting to a cycle route near Malpas Road to the west. It is well signposted throughout Caerleon as shown in **Photograph 3.7** and **Photograph 3.8**.

Photograph 3.7

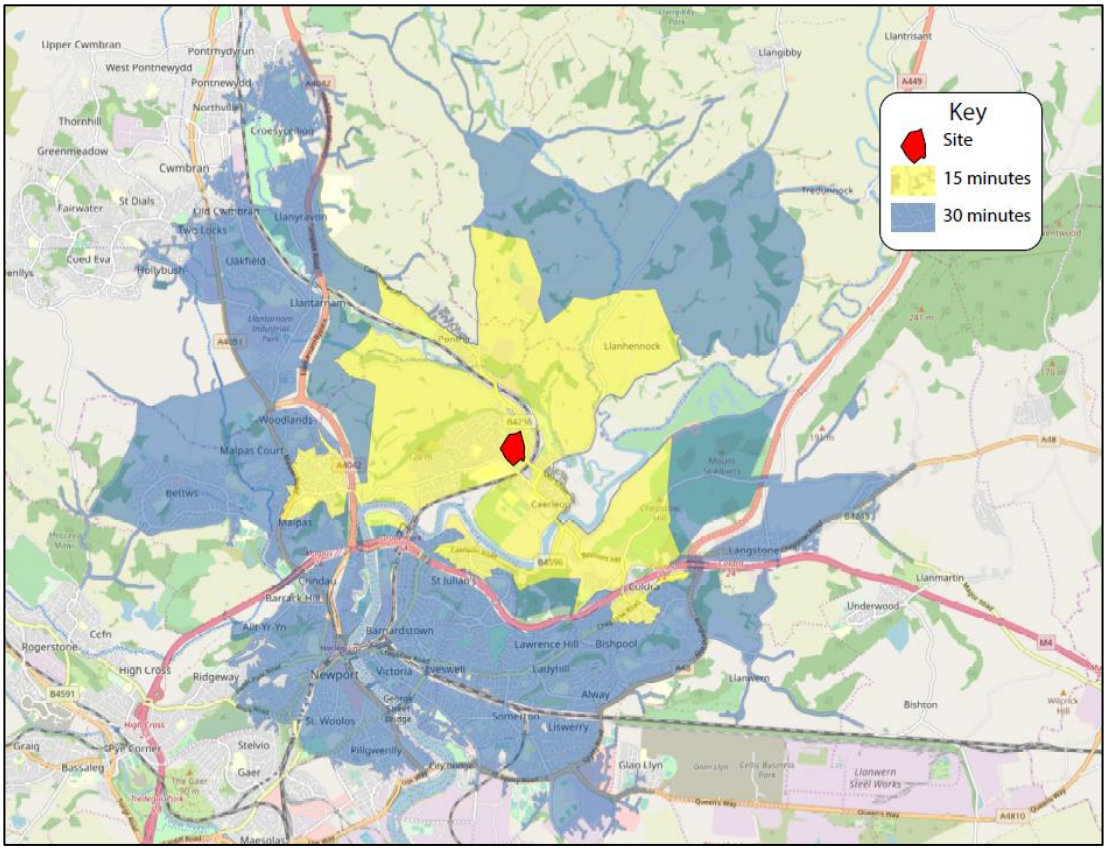


Photograph 3.8



3.28 **Figure 3.6** indicates the 15 & 30 minute cycling isochrones to/from the site, assuming a comfortable average cycle speed of 9 mph. Sustrans has suggested that up to 5 miles in an appropriate distance for cycle commuting. At 9mph, this equates to 33 minutes covering a wide area from the site.

Figure 3.6 – 15 and 30 Minute Indicative Cycling Isochrones



3.29 **Figure 3.6** demonstrates that local areas such as Ponthir are within a 15 minute commute of the site, with areas such as Croesyceiliog and Malpas, as well as Newport town centre, being accessible within a 30 minute cycle from the site.

Public Transport

Bus Services

3.30 The nearest bus stop to the site is the University stop along Lodge Road. The St Cadoc's Hospital Bus stop is a similar distance from the site in the opposite direction along Lodge Road but benefits from far better facilities. Here there are laybys and bus shelters as well as crossing points for pedestrians and timetable information. The conditions of the St Cadoc's Hospital bus stop are shown in **Photograph 3.9** and **Photograph 3.10**.

Photograph 3.9



Photograph 3.10



3.31 A summary of the route information and frequency of services from bus stops surrounding the site is shown in **Table 3.2.**

Table 3.2 – Local Bus Services

Number	Route	First Bus (M-F)	Last Bus (M-F)	Frequency (mins)			Provider
				M-F	S	S	
27	Newport – Caerleon Home Farm	05:55	21:30	60	60	120	Newport Bus
	Caerleon Home Farm – Newport	06:10	21:45				
28	Newport – Caerleon Eastfield Road	07:12	20:30	60	60	120	Newport Bus
	Caerleon Eastfield Road – Newport	07:35	20:48				
29B	Newport – Cwmbran via Caerleon Road, Caerleon, Ponthir	06:50	17:40	45	60	N/A	Newport Bus
	Cwmbran – Newport via Caerleon Road, Caerleon, Ponthir	07:00	18:20				
60	Newport – Monmouth	07:20	17:25	120	120	120	Newport Bus
	Monmouth – Newport	06:50	17:35				

3.32 The number 27 and 28 bus routes operate adjacent to the proposed site along Lodge Road, each service running hourly with extra services added at peak hours. Bus route numbers 29B and 60 both go through Caerleon Town centre approximately 500m from the site.

3.33 The site is served by a fairly regular bus service on weekdays and Saturdays but is more limited in a Sunday, with 3 services being provided each at 120 minute intervals.

3.34 The quality, frequency and affordability of bus services are important factors which people evaluate as part of their selection process for mode of travel for day to day activities for example, commuting and social purposes.

Rail Services

3.35 The nearest Railway station to the site is in Newport, approximately 5km from the site.

3.36 Newport Station has multiple facilities including cycle stands for 42 bicycles, a car park with 246 spaces (14 accessible spaces), a taxi rank, ticket office, ticket machines, customer help points, ticket gates, refreshment facilities, shops, waiting rooms, and accessible platforms.

3.37 The distance of Newport Railway Station from the site limits the opportunity for rail to be a realistic mode choice, although there is the opportunity for rail to form part of a multi-modal journey by cycling, public transport or car-sharing.

3.38 A summary of rail services from Newport Station is set out in **Table 3.3.**

Table 3.3 – Direct Rail Services from Newport Rail Station

Destination	Approximate Journey Time (mins)	Approximate Frequency (mins)
Cardiff Central	15	5-10
Bristol Parkway	20	30
Bristol Temple Meads	35	30
Cheltenham	60	30
Swansea	70	30
London	120	30
Manchester	180	60
Portsmouth	180	60
Nottingham	180	60

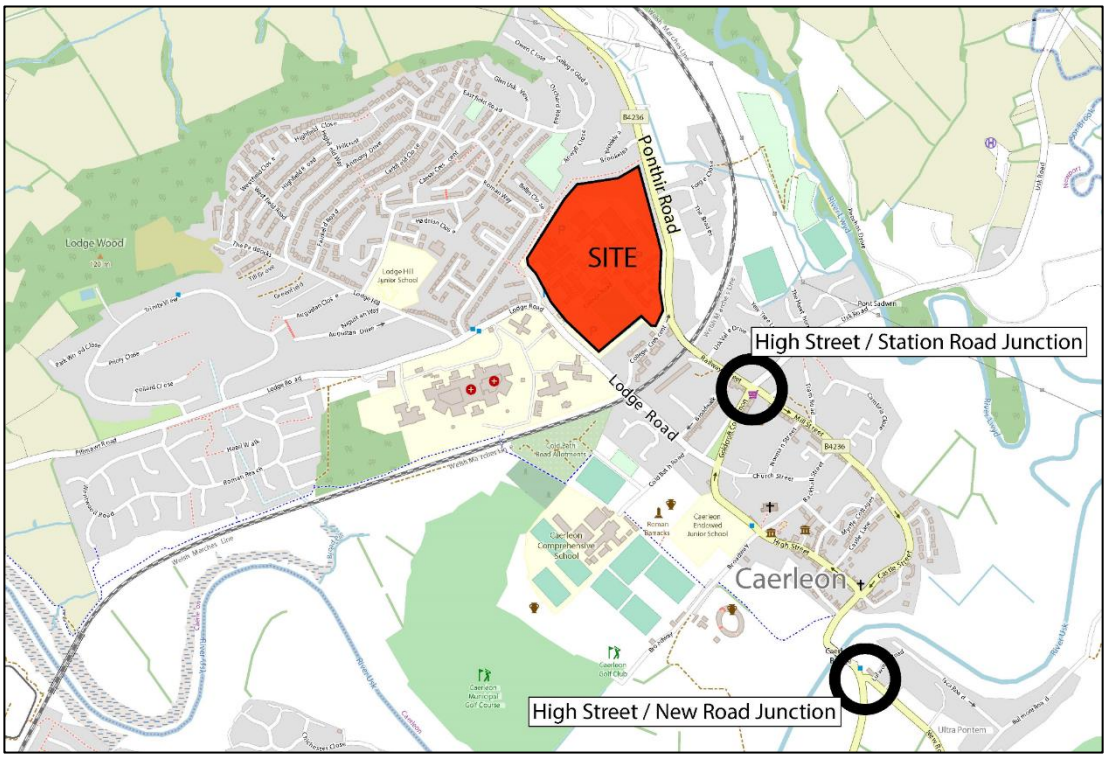
3.39 Newport Station provides a good link to Cardiff Central. It also provides a link to Bristol Parkway from which further connecting services can be taken.

3.40 Whilst there is no firm commitment in Policy or funding, Newport City Council's Local Transport Plan (January 2015), refers to the Regional Railway Strategy which proposes a new railway station in Caerleon (the former station closing in the 1960s).

Local Highway Network

3.41 The location of the site in the context of the local highway network is shown in **Figure 3.7**. This plan also shows the location of the High Street / Station Road and High Street / New Road junctions which are discussed later within this TA.

Figure 3.7 – Local Highway Network



Lodge Road

3.42 The site is bounded to the west by Lodge Road. From the site Lodge Road runs south towards Caerleon High Street and west towards Pillmawr Road, Malpas and the A4042. It is a dual single-lane highway with street lighting and footways on both sides.

3.43 There are multiple crossing points for pedestrians along Lodge Road as well as traffic lights, and zebra crossings. There are also speed calming measures including Vehicle Activated Signs (VAS) displaying car speeds, bilingual road markings (SLOW/ARAF) as shown in diagram 1024 of Traffic Signs Regulations and General Directions (TSRGD).

3.44 To the north and west of Lodge Road there is a 30mph speed limit in place. As the road heads south towards the centre of Caerleon this becomes a 20mph speed limit. This 20mph limit is in place through the centre of Caerleon.

Ponthir Road / Station Road

3.45 Ponthir Road runs north-south to the east of the site, becoming Station Road as it approaches the centre of Caerleon to the south. It is a dual single-lane highway with street lighting and

footways on both sides. The speed limit on Ponthir Road is 30mph in the vicinity of the site and reduces to 20mph on Station Road just south of the railway bridge.

3.46 Like Lodge Road, there are also speed calming measures including Vehicle Activated Signs (VAS) displaying car speeds, bilingual road markings (SLOW/ARAF) as shown in diagram 1024 of TSRGD.

High Street

3.47 High Street runs through the centre of Caerleon. It is subject to a 20mph speed limit and for most of its length is subject to a one-way system. Along High Street there are footways, street lighting, pedestrian crossing points as well as good signage and traffic calming measures.

4 DEVELOPMENT PROPOSALS

Overview

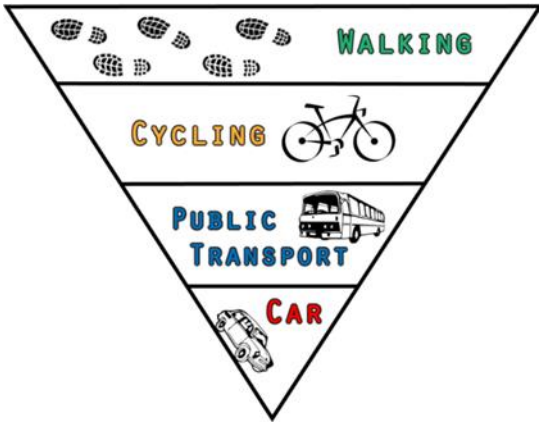
4.1 The proposal is for a residential development on a brownfield site, comprising 218 residential dwellings through the redevelopment/retention of some existing buildings on site and new development.

4.2 The site is well connected to a range of amenities in Caerleon including schools, bus stops, leisure facilities, local shops and medical centres.

4.3 The transport related aspects of the Development are:

- **Design** - Good design to encourage local living and interaction;
- **Choice** - Infrastructure, providing travel options;
- **Behaviour** - Education promoting social and efficient mobility; and
- **Network Management** - Prioritising the user hierarchy of movement.

Movement Hierarchy



4.4 This is also replicated in Planning Policy Wales Edition 10, Figure 8.

Design

4.5 The Masterplan and Transport Strategy for the Development have been developed in such a way as to provide for a liveable attractive community. The Masterplan provides infrastructure

within the site for a walkable and cyclable neighbourhood, linking to the adjacent community and strategic cycle routes.

4.6 The Transport Strategy takes the approach of not seeking to fix the existing peak hour, localised congestion, which we do not think is significant, on the highway network. In so far as traffic capacity and the free flow of traffic on the network are considered to be important by NCC, improvements are proposed at the Station Road/High street roundabout junction through road markings.

4.7 Therefore, the Transport Strategy focuses on the important issues of providing travel choice and behavioural change options which are fully compliant with contemporary transport policy.

4.8 A major source of observed localised peak hour congestion is related to the traffic and pedestrian movements associated with Charles Williams Church in Wales Primary school on High Street. Indiscriminate parent parking for drop off/pick up on the High Street creates congestion and the uncontrolled zebra crossing is a constant disruption during school times to the free flow of traffic on High Street. This is not untypical of environments and road networks adjacent to schools.

4.9 It is proposed that measures will be provided to encourage modal shift for school journeys. Such measures include improved Travel Planning and less reliance on the private car for school journeys.

4.10 As part of the overall sustainable strategy of the site, it is important to consider journeys made for education purposes. National Statistics[2] suggest that some 50% of all journeys during the morning peak hour are related to education. Of these education trips, travel by car accounts for 46% and 23% of journeys to primary and secondary schools respectively for all distances.

4.11 As such, targeting modal shift in journeys made for education purposes can have significant benefits in reducing peak hour congestion, particularly during the morning peaks. This is particularly relevant in the existing issues outside of the Charles Williams Church in Wales Primary School. In this context, Newport City Council are part of a Welsh Network of Healthy School schemes[3].

[2] National Travel Survey 2010/14

[3] http://www.newport.gov.uk/en/Schools-Education/Schools/Healthy-schools.aspx

Choice

4.12 The Development's transport initiatives can be ring fenced in Conditions and Obligations that could provide;

- A residential masterplan which reflects the user movement hierarchy with pedestrians and cyclists at the forefront of design;
- Improved pedestrian linkages from the site to Lodge Road;
- Improvement to the existing PRoW on the northern boundary of the site to provide a 3m footway/cycleway;
- A commitment to fund an enhanced on-road cycle link from the site via Lodge Road to Roman Reach, hence linking with the National Cycle Network;
- New bus stops outside of the site with the southbound bus stop relocated on Lodge Road; and
- Electric charging points for at least each newly erected building including 4 charging points in the communal parking area for the flats;
- Subsidised bus and cycle vouchers for each dwelling;
- Provision of a car club scheme
- Inclusive Travel Planning comprising:
    - A residential travel plan;
    - Personalised Travel Planning (PTP) for new residents and also existing residents in Caerleon;
    - School travel planning for the primary schools (which aligns with the Council and Welsh Government's aspirations for Welsh Network of Healthy School schemes and
    - working with St Cadocs Hospital to provide travel planning as part of a comprehensive package of sustainable benefits for Caerleon; and
- Removing some of the parking on High Street near the junction with Station Road.

4.13 The development can secure investment into sustainable and behavioural change initiatives for a development comprising 218 residential dwellings.

Behaviour

4.14 Considerable evidence exists in relation to the effectiveness of these initiatives in terms of engendering behavioural change through travel choice and reducing the dependence of the private car. This evidence includes;

4.15 As part of the TravelSmart PTP programme (2005-2014), 14,000 households were contacted in Caerphilly. The results from this exercise concluded that sustainable travel would be used more often with;

- 11% increase in cycling;
- 21% increase in walking; and
- 35% increase in public transport.

4.16 In Cardiff (2011-2013), 85,000 people were engaged in a travel/behavioural change survey. By raising people's awareness, the PTP project in Cardiff realised;

- 12% reduction in single occupancy car journeys;
- 13% increase in public transport use;
- 21% increase in walking and trebling in cycling levels; and
- A reduction in miles driven by car equating to an average saving of £150 / home.

4.17 In Peterborough (2013 -4800 households) and Stockton (2014 – 8000 households) as part of the Sustrans PTP Programme. Both reported beneficial changes in travel behaviour in terms of trips under 5 miles as follows;

<u>Stockton</u>

- 35% decrease in car driver;
- 11% increase in cycling;
- 41% increase in walking; and
- 22% increase in bus.

<u>Peterborough</u>

- 34% decrease in car driver;
- 26% increase in cycling;

- 35% increase in walking; and
- 7% increase in bus.

4.18 Recent results from the Liftshare organisation (www. Liftshare.com) suggests that where PTP has been implemented for the office population, it has achieved mode shifts of up to 26% away from car driver with an average mode shift of 17%.

4.19 Sustrans[4] has provided behavioural change information from primary school travel planning projects (2015-2016) involving some 65 schools in Wales. The data shows that:

- The percentage of pupils being driven to school decreased by 13%.
- This decrease in travel by car was a consequence of a corresponding increase in Active Travel for School Children – cycling, scooting, park and stride;
- Children who ride bikes or scooters outside of school have a strong desire to ride to school, but only a small proportion actually ride to school for a number of reasons. These barriers to active travel are primarily because of a general lack of awareness / training, inadequacy of safe routes and then the mind-sets of parents, primarily due to safety.

4.20 This evidence relating to behavioural change is very positive and shows what can be achieved through investment such as PTP and by providing people with travel choice. They are real examples in neighbouring authorities, where the mind-set of people with respect to travel has been, and can continue to be influenced to impact travel choices. The measures that can be secured as part of this development could make a significant difference to the way in which people in this part of Caerleon travel to and from work and school. This is particularly relevant when information from the census (2011) shows that;

- 14% of people who live in Caerleon work in Caerleon (all modes); and
- An additional 41% of people who live in Caerleon work in Newport.

4.21 As such, there is an opportunity to influence commuting journeys contained within Caerleon which will generally be made over relatively short distances and provide an opportunity to consider alternative modes of transport.

[4] Sustrans Active Journeys Wales 2015/2016

4.22 The change in travel behaviour associated with schools is profound following the input and support from organisations such as Sustrans by travel planning and breaking the barriers and changing the attitude towards Active Travel and helping to tackle pressing health issues of obesity and mental health. The Development proposes to do this in a number of ways by creating improved active travel routes to the schools and through funding other initiatives e.g. travel planning including scoot to school, walking buses etc.

4.23 Sustrans confirms that promoting behavioural change in primary schools by introducing measures such as cycling and scooting to school encourages responsibility and decision making in young people, makes them fitter, more confident and healthier. This clearly aligns to Local Plan Policy SP2.

4.24 The applicant is committed to providing significant funding for PTP, School Travel Planning and Travel Planning measures with St Cadoc's Hospital – the intention that as one of the largest employers in the area, that any changes made to modal shift could have significant benefit in the local area. Following various discussions and meetings, St Cadoc's Hospital are supportive of such an approach / initiative and are keen to benefit from travel planning on their site as part of NHS commitment to improvement / health and well being.

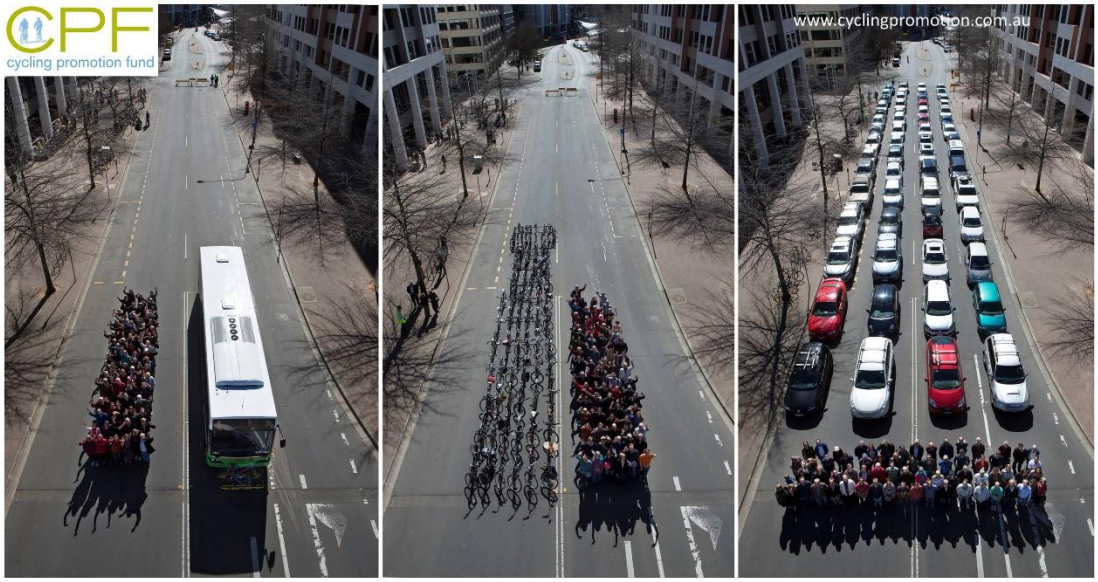
4.25 This would not be a Travel Plan which simply is designed to comply with a Planning Condition and hence has no weight or benefit. This is a philosophy to be implemented at the site, within the local primary school and the major employer in Caerleon to bring about change in attitude toward travel with resultant benefits. As such, it is fully anticipated that the Section 106 for the proposed development will ring fence contributions towards travel planning which can then be controlled by the planning authority.

4.26 The transport strategy and sustainable initiatives proposed comply with LDP Policies SP1 and SP2 and GP 4 and National Policy which are designed to promote the interests of pedestrians, cyclists and public transport before that of the private car.

Network Management

4.27 This relates to managing the road network in accordance with the user hierarchy preferred by the Council in its Local Policy, whereby car travel is the lowest capacity network in terms of space occupied per person as shown below.

4.28 This means, for instance, prioritising the reliability and speed of bus and cycle movement over that of cars in the commuter peaks.



4.29 To continue to provide the capacity benefits which the Council require to resolve peak hour congestion and air quality issues in Caerleon is not sustainable.

4.30 There is also no suggestion in modern policy – local or national, that we should predict and provide, i.e. to provide road space so that drivers can travel where and when they wish with no inconvenience, aggravation or delay.

4.31 In this context, the development proposes relatively low cost, yet effective capacity benefits on High Street through relocating the position of the Zebra crossing further away from the junction to improve efficiency.

4.32 This does not mean that off site mitigation / funding from the development can provide the panacea to all of the existing congestion and air quality issues within Caerleon.

4.33 The development is also proposing physical alternations to the College Crescent / Ponthir Road junction in order to improve upon existing visibility.

Site Plan

4.1 The principles of Manual for Streets (MfS) and Manual for Streets 2 (MfS2) have been embodied within the masterplan shaping the layout of the streets serving the development.

In particular, the focus on the movement hierarchy within MfS2 affording priority to pedestrians, cyclists and other vulnerable road users.

4.2 The proposed site plan for the site is shown in **Figure 4.1** and a scale drawing is included at Appendix E of the TA**.**

Figure 4.1 – Proposed Site Plan



Proposed Access Arrangements

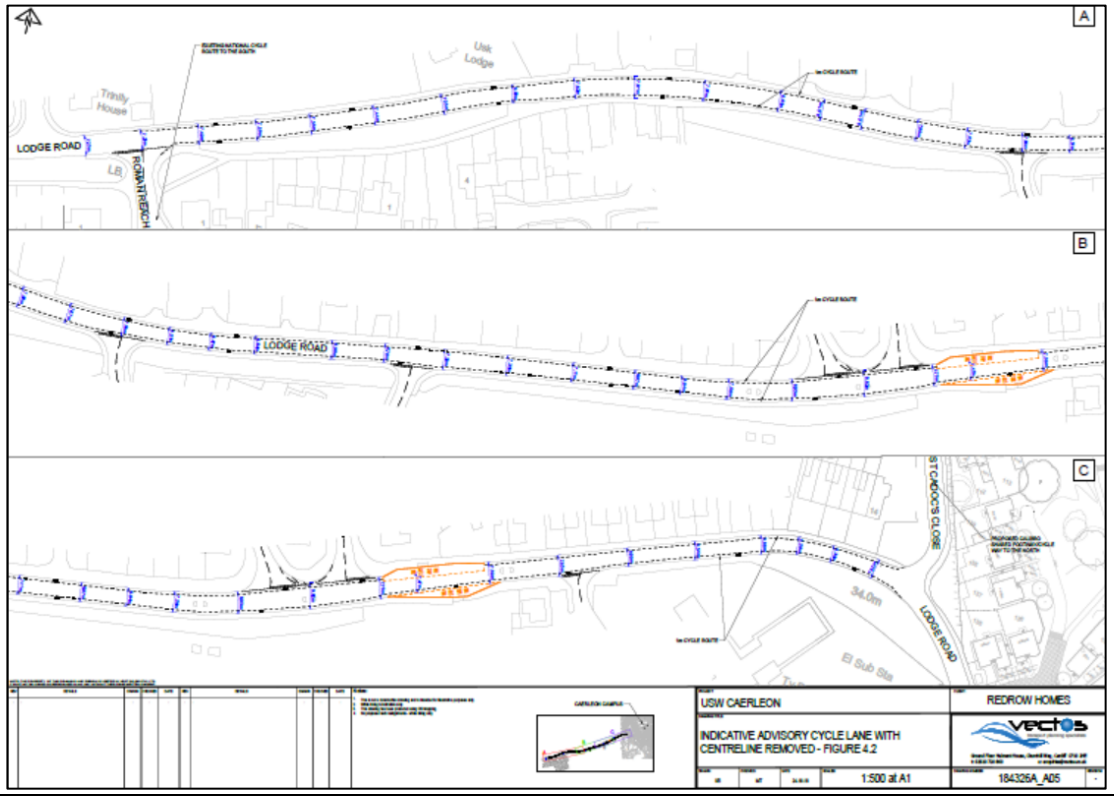
Pedestrian and Cycle Access

4.3 The aim is to provide an environment in which pedestrians and cyclists feel as though they are afforded highest priority. Pedestrian routes from the site to the existing pedestrian network will be direct, convenient and attractive. The development will seek to maximise and enhance the permeability of the site to cyclists and aim to encourage cycling as a mode of transport for short trips.

4.4 Pedestrian and cycle access to the site will be from Lodge Road, College Crescent and St Cadoc's Close and also from the PRoW to the northwest of the site which will be retained and widened to 3m to provide a shared footway/cycleway facility. This PRoW provides a direct link to Ponthir Road to the east of the site.

4.5 A financial contribution (via Section 106) can be provided from the developer towards an upgraded on-road cycle link from the development to Roman Reach, via Lodge Road and National Cycle Network (NCN) Route 88 and an indicative on road shared use cycle lane is shown in **Figure 4.2** and in Appendix F of the TA.

Figure 4.2 – Indicative On Road Cycle Lane



Public Transport Access

4.6 The bus stops on Lodge Road (northbound/southbound) can be upgraded to include a bus shelter, raised kerbs adjacent to the site on Lodge Road and localised footway widening within the site and a pedestrian crossing to access the bus stops.

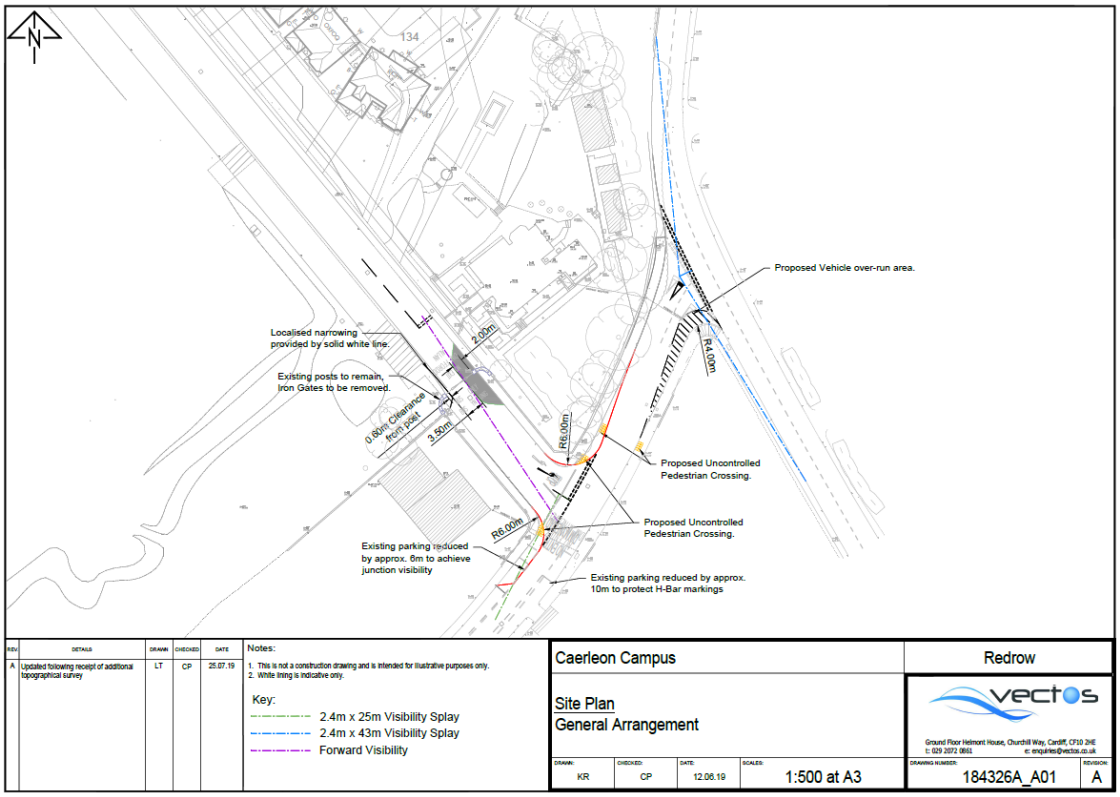
Vehicle Access

4.7 Vehicular access to the site is currently via two locations. The primary means of vehicular access is onto Lodge Road at the site's western boundary via an all-movement priority T-junction. A secondary access is located on College Crescent at the site's southern boundary.

4.8 There are no improvements or alterations proposed to the existing site access junction from Lodge Road.

4.9 Improvements are proposed in respect of the junction with College Crescent and Ponthir Road. This is shown in **Figure 4.3** and reproduced in Appendix G of the TA.

Figure 4.3 – Proposed Upgrade to College Crescent and Ponthir Road



4.10 These improvements are designed to improve pedestrian and cycle connectivity, whilst maximising junction visibility at the Ponthir Road/College Crescent junction.

4.11 The carriageway of College Crescent would be narrowed via hatching to the east of the site access to provide a single lane entry to the junction with Ponthir Road. The single lane entry would be located at the northern limits of the approach to achieve visibility over a distance of 43m to the south: currently the achievable visibility is circa 20m from a 2.4m, which would be considered substandard and hence the proposal would be a significant benefit.

4.12 It is proposed to provide an inbound priority access into the site from College Crescent. There will be a pedestrian footway on the eastern side of the carriageway through the priority narrowing and a pedestrian crossing at the junction to provide continuous pedestrian routes into the site from College Crescent.

4.13 To support the proposed changes to the highway network an independent Stage 1 Road Safety Audit has been undertaken. This is shown in Appendix H of the TA and confirms that the proposed improvements are considered to be safe and suitable for existing and forecast road users.

Internal Layout

4.14 The majority of the internal road layout within the site has been designed to adoptable standards and has been subject to a detailed review in terms of visibility, parking arrangements, turning heads for refuse vehicle movements and distance from bin stores. Some areas of the internal layout will be private drives and therefore will not be adopted.

4.15 Swept path analysis is shown in Appendix I of the TA.

4.16 In order to provide traffic calming within the site, raised tables are proposed at the internal junctions. These are shown in on the proposed site plan.

Parking

Car Parking

4.17 A total of 561 car parking spaces are proposed at the proposed development in line with the maximum standards as per Newport City Council Parking Standards 2015 Supplementary Planning Guidance (SPG). The maximum car parking standards are shown in **Table 4.1.**

Table 4.1 – Newport City Council – Maximum Car Parking Standards

Type of development	Residents	Visitors
General-purpose houses and apartments		
Houses	1 space per bedroom (maximum requirement 3 spaces)	1 space per 5 units
Apartments	1 space per bedroom (maximum requirement 3 spaces)	1 space per 5 units

4.18 As part of the development proposals, an electric vehicle charging point will be provided for new individually built dwellings and within shared parking areas, subject to infrastructure provision and adoptions. Four charging points will also be provided within the communal parking area for the flats.

Cycle Parking

4.19 Cycle parking standards are also contained within the 2015 SPG and state that all residential developments must be accessible by cycles and cycle storage must be a factor of dwelling design. In appropriate circumstances, convenient communal cycle parking facilities may be provided.

4.20 The cycle parking standards for apartments is shown in **Table 4.2**.

Table 4.2 – Newport City Council – Cycle Parking Standards

Type of development	Residents	Visitors
Residential		?
Houses	n/a	n/a
Apartments	1 stand per 5 bedrooms	No requirement

4.21 In line with the cycle parking standards, a total of 12 cycle parking stands will be provided to serve the apartments (based on 62 bedrooms).

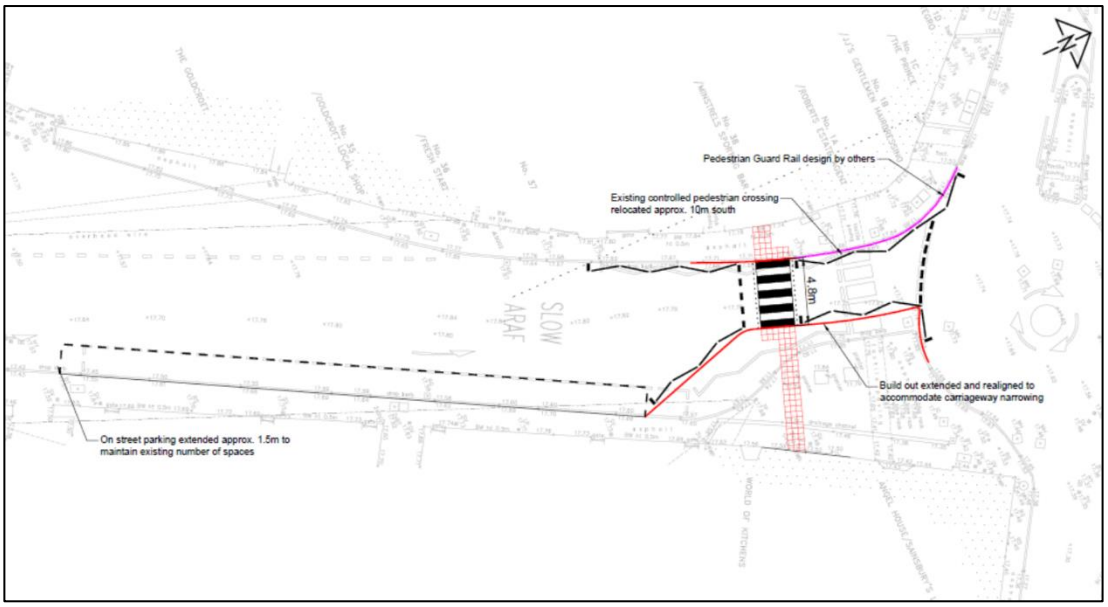
4.22 Newport's parking standards do not include any cycle parking standards for houses. It is considered that cycle parking for the houses will be accommodated within the garage/shed for each individual dwelling.

4.23 The development will also provide a bike share scheme for residents to use communal bikes. The details of this scheme will need to be developed with the Council.

Off Site Mitigation

4.24 The development proposes junction upgrades via lining and signing at the Station Road/High Street mini roundabout as shown in **Figure 4.4** and reproduced in Appendix J of the TA. This proposed mitigation includes repositioning the existing Zebra Crossing on High Street further from the junction.

Figure 4.4 - Proposed Junction Improvement High St/Station Road



Summary

4.25 The Development proposes the following:

1. A residential masterplan which reflects the user movement hierarchy with pedestrians and cyclists at the forefront of design;
2. Improved pedestrian linkages from the site to Lodge Road;
3. Improvement to the existing PRoW on the northern boundary of the site to provide a 3m footway/cycleway;
4. A commitment to fund an enhanced on-road cycle link from the site via Lodge Road to Roman Reach, hence linking with the National Cycle Network;
5. New bus stops outside of the site with the southbound bus stop relocated on Lodge Road; and

6. Electric charging points for at least each newly erected building;
7. Inclusive Travel Planning comprising:

    - A residential travel plan;
    - Personalised Travel Planning (PTP) for new residents and also existing residents in Caerleon;
    - School travel planning for the primary schools (which aligns with the Council and Welsh Government's aspirations for Welsh Network of Healthy School schemes5) and
    - working with St Cadocs Hospital to provide travel planning as part of a comprehensive package of sustainable benefits for Caerleon; and

8. Removing some of the parking on High Street near the junction with Station Road and relocating the existing Zebra Crossing further west away from the junction.

[5] http://www.newport.gov.uk/en/Schools-Education/Schools/Healthy-schools.aspx

5 TRAVEL DEMANDS

5.1 Local census data provides an indication of the mode share for current journeys to work from the site.

5.2 As the development does not yet exist, there is an absence of specific data relating to the site. Thus, this census data can be utilised to inform the setting and agreeing of indicative modal shift targets with the Local Authority, within the Travel Plan.

Baseline Mode Split

5.3 The existing travel patterns for journey to work have been investigated for the ward of Caerleon. This useful data provides a snapshot of the existing travel behaviour of residents in the area. **Table 5.1** shows the 2011 mode splits for the ward of Caerleon and includes the mode splits for Newport and Wales as a comparison.

Table 5.1 – Method of Travel to Work (2011 Census)

Mode	Caerleon	Newport	Wales
Work mainly at or from home	6%	4%	5%
Underground, metro, light rail, tram	0%	0%	0%
Train	2%	2%	2%
Bus, minibus or coach	4%	8%	5%
Taxi	0%	1%	0%
Motorcycle, scooter or moped	1%	1%	1%
Driving a car or van	76%	66%	67%
Passenger in a car or van	5%	7%	7%
Bicycle	1%	1%	1%
On foot	6%	9%	11%
Other method of travel to work	1%	1%	1%

* 'not in employment' figures have been excluded from this table

5.4 The data shown in **Table 5.1** illustrates that the residents of Caerleon are currently heavily dependent on private cars for travel to work (76%). A small proportion (6%) travel by public transport and (7%) of existing residents travel on foot or by bicycle.

5.5 It should be noted the data in **Table 5.1** relates only to journey to work and doesn't include journeys for the purpose of education, shopping or leisure.

5.6 Furthermore, the data does not take into account multi-modal trips to work (the census asks for method of travel to work for the longest part of the journey) i.e. park and ride or cycle and

ride. However, the data in **Table 5.1** provides an indication of existing travel patterns in the area.

5.7 There is scope to achieve a more sustainable mode split for the development and chance the existing mode split in the surrounding area through innovative and focused infrastructure improvements, behavioural change and sustainable travel measures.

5.8 Based on these mode splits, the judgement that this Interim Travel Plan starts with is that the baseline for travel to work is 76% by single occupancy private car.

6 OBJECTIVES, MEASURES, TARGETS

Aim and Objectives

6.1 The primary aim of this Travel Plan is that where travel occurs relative to the development or surrounding community, to facilitate and encourage modes of travel other than single occupancy car.

6.2 The objectives of this Travel Plan include:

- Encouraging less travel;
- Encouraging use of sustainable travel modes (which includes all non single car occupancy modes);
- Promoting healthy lifestyles;
- Encouraging social inclusion by identifying travel choice;
- Minimising the impact of vehicles on the environment; and
- Promoting sustainability by raising the awareness of environmental damage.

6.3 The more detailed objectives of the TP are to:

- Increase resident awareness of the advantages and availability of sustainable modes, but particularly active modes;
- Actively promote sustainable transport options for travel to and from the proposed residential development, to enable informed decisions about how to travel to be made by residents;
- Increase the use of active and sustainable travel modes (particularly for shorter trips), and to encourage residents to build active travel into their everyday routines to support and contribute to wider health benefits;
- Enhance as far as is practical the accessibility of the proposed residential development by active modes at all times; and
- Raise awareness of the impacts of travel choices on health and the local environment.

6.4 The Travel Plan Coordinator (TPC) will manage and control the travel plan initiatives, ensure that the Travel Plan evolves, predicts and reacts to change, and uses funds and resources wisely, and in consultation with the community and the Council, to achieve the aim and objectives.

6.5 This Plan expects that NCC will be supportive of the aim and objectives, and will work with the TPC to achieve them.

Benefits

6.6 The achievement of the objectives will bring about a wide range of benefits for residents and the wider community.

6.7 The resident benefits will be:

- Health benefits associated with walking and cycling, including reduced levels of stress;
- The opportunity to save money by using alternative modes of travel to the car; and,
- Improved quality and reliability of journeys.

6.8 The benefits to the wider community will be:

- A step-change in travel attitudes which should lead to reductions in vehicular generated traffic on the local highway network and a contribution towards overall reduction in travel emissions.

Targets

6.9 Targets can be set within the initial Travel plan and in conjunction with NCC, and may be modified once the initial baseline travel surveys have been undertaken (within 3 months of meaningful occupation), and after each new set of travel surveys following discussion with, and approval from, NCC. The targets will be 'SMART'. This means:

Site specific
Measurable
Achievable
Realistic and
Time related

6.10 There are two types of targets, namely: 'Action' and 'Aim' targets. Action targets set out specific commitments to implement measures to ensure delivery. Aim targets provide numerical goals for mode shift.

Action Targets

6.11 The key action targets are set out below. These will be included within an Action Plan to form part of the full Travel Plan:

- A TPC will be appointed prior to first occupation of the proposed residential development;
- The first travel plan survey will be undertaken within 3 months of meaningful occupation or the proposed residential development; and
- A Personalised Travel Planning (PTP) Service will be offered to residents of Caerleon, which will include travel advice and journey planning information and engagement with workplaces, schools and community groups.

6.12 As per Sustrans, PTP is an established approach that enables people to think about the way they currently travel and provides them with the information, advice and motivation to walk, cycle and use public transport more often.

6.13 Research has shown that many journeys, particularly shorter ones, could be made on foot, bike, or public transport, and without any infrastructure or service improvements. People often use their cars out of habit or are not aware of the alternative options available.

6.14 PTP is about breaking down the subjective barriers to using sustainable transport and providing attractive and reliable information on the alternatives. It can be delivered in a variety of settings including:

- Residential
- Workplaces
- Schools
- Further and higher education
- Public events
- Transport and community hubs

6.15 In this instance the delivery will have a residential focus and will be offered to new residents of the proposed development as well as existing residents in the local area.

7 SUSTAINABLE TRANSPORT MEASURES

7.1 This section details the measures which the interim Travel Plan considers could be most applicable to the proposed development.

7.2 These measures are not exhaustive, and the exact nature of the measures is dependent on the needs of the Travel Plan, and the results of Travel Surveys.

7.3 All of these measures are considered achievable because of the proximity of the site to a number of local facilities and availability of suitable routes.

7.4 Importantly, a Travel Plan should be a 'living document' which is continually updated and reviewed.

Travel Plan Coordinator

7.5 The Travel Plan will fund a Travel Plan Coordinator (TPC) for a period of 5 years from first beneficial occupation of the development. After 5 years, the development is expected to be complete with a significant proportion of dwellings sold and hence a critical mass of residents will have been exposed to the TPC and sustainable measures. At this point, it is considered that the ethos of green travel and its associated benefits will be supported by residents of the site and the local community.

7.6 The Travel Plan Coordinator (TPC) will be in post and take responsibility of the Travel Plan when the development is first marketed and work closely with the respective Travel Planning officers at NCC. The TPC post will remain for 5 years following first occupation.

7.7 At this stage, it has not been agreed who will take responsibility for the TPC role. This will follow as detailed design of the scheme is progressed. It may be that a separate Management Company or a suitably qualified transport planning consultant, or similar, is appointment to take on this role. The TPC, and the necessary costs for administering the Travel Plan, will be funded by the Developer.

7.8 In this interim period before a full Travel Plan is produced, or a TPC is appointment, the main contact for any queries relating to the Travel Plan will be Cerian Phillips at Vectos.

7.9 Cerian's contact details are:

Cerian Phillips
Vectos (South) Ltd
Helmont House
Churchill Way
Cardiff
CF10 2HE
Tel: 02920 720 862
E-mail: cerian.phillips@vectos.co.uk

7.10 The responsibilities of the TPC will include:

- The implementation of measures as set out in the Travel Plan;
- Providing development residents, and others within the local community, with details on how they can travel, including accessing their place of work, schools, shops and other facilities in a sustainable manner;
- Acting as a single point of contact for all transport, access and travel related issues for residential units within the development;
- Liaison with the local authorities;
- Liaison with public transport operators;
- The incorporation of sustainable travel options into marketing material for the development;
- Organisation of travel surveys;
- Promotion of sustainable transport measures to residents through a range of media, including for example newsletters, emails and websites;
- Organisation and administration of a car sharing scheme;
- Monitoring of car parking within the development;
- Promoting the benefits of home delivery services;
- Production, distribution and monitoring of Smarter Travel Information Packs;
- Scheduling of a Green Travel Users Forum or similar; and
- Maintenance of all necessary systems, data and paperwork for the development.

7.11 Increasing travel awareness so that people can make informed travel choices is a key role of the TPC. The TPC will work closely with Officers at NCC to promote any initiatives the Council may have.

7.12 The TPC will ensure that all occupiers of the development equally receive sustainable travel information and benefits from Travel Plan incentives.

7.13 The TPC will set up a Travel Plan Review Group for residents, to discuss travel issues and to facilitate ownership of the plan, with expertise being provided by the TPC. At the end of the 5 years, the objective is that this group will then be responsible for the ongoing management of the Travel Plan, fostering the idea of people in the community working for the community.

7.14 It is envisaged that the residents of the site will eventually take full ownership of the Travel Plan, with one or more individuals taking the role of TPC. The Travel Plan will be updated accordingly when this transition has taken place. The objective is to encourage people in the community to work for the community. However, until the transition is complete the appointed TPC will have the responsibility of funding, organising, promoting and organising the Travel Plan.

Marketing and Consultation

7.15 Prospective residents will, where possible, be encouraged to access the site via sustainable transport modes when attending viewings. Information will be provided to those enquiring about properties as to how to get to the site.

7.16 All residents will be made aware of the Travel Plan on the commencement of their residence on the site. The details of the Travel Plan, its objectives in enhancing the environment, and the role of individuals in achieving these objectives will be explained.

7.17 A 'Travel Information Pack' will be provided. This will contain the key element of the Travel Plan and sustainable transport information and other relevant travel information.

7.18 The TPC will utilise the information which NCC Officers are able to provide in terms of posters, leaflets and timetables for display on notice boards or display units in communal areas.

7.19 Contact details of the TPC will be advertised for residents who wish to discuss specific measures directly.

Travel Information Pack

7.20 A Travel Information Pack will be distributed to each household upon occupation, and may include:

- The name and contact details of the TPC;
- An explanation of the purpose and benefits of the Travel Plan;
- Maps of walking and cycling routes to key destinations;
- Timetables, route maps and ticketing information for public transport;
- Contact numbers and website details;
- Car Share Scheme information;
- Contact details for local taxi companies, and details of any special arrangements brokered by the TPC;
- Information about working from home;
- Promotion of the benefits of home delivery;
- Location of nearby services.

7.21 This list is not exhaustive and, within reason, any additional information which the community and NCC would like included can be accommodated.

7.22 Pedestrian and cycle route information, timetables for walking buses, cycle trains, buses and rail, and details of car free days organised either by the Council or the TPC, will be available. These will be updated on a regular basis by the TPC.

Personalised Travel Planning

7.23 The TPC will offer a personalised Travel Planning service for all residents. It is expected that this will be offered during induction sessions for residents.

7.24 The TPC will be able to draw on advice from journey planning websites such as Travel Line (https://www.traveline.info/).

7.25 Travel patterns in the area will change as a result of new developments, however there is no reason to suppose that this change will result in an increase in total movements or congestion, certainly where the highway network is already somewhat constrained.

7.26 The proposed development can deliver significant physical infrastructure that can influence travel choice (such as walking and cycling routes). It can also deliver behavioural change measures such as travel planning which, combined with the physical measures, seek to make a difference to travel patterns for the proposed new development and the existing community.

7.27 Whilst there is limited specific information available on modal shift relevant to sustainable transport initiatives implemented from the outset within new residential development, there is a wealth of evidence relating to Personalised Travel Planning and the positive effects that this can have in terms of influencing people's travel choice / habits.

7.28 Travel Planning, including personalised travel planning, together with a range of sustainable improvements to the bus, pedestrian and cycle network is exactly what can be proposed for the proposed development.

7.29 There is compelling evidence across the UK, including SUSTRANS research relating to real examples to suggest that both physical measures and behavioural change interventions can give rise to significant changes in modal shift and travel choice in the context of urban mobility. There is no reason to suppose that this will not happen at this development, and it would be fully supported by the requirements of the Council's development policy.

Walking and Cycling Facilities

7.30 The development will be designed to provide an environment in which pedestrians and cyclists feel as though they are afforded highest priority. Pedestrian routes from the site to the existing pedestrian network will be direct, convenient and attractive. The development will seek to maximise and enhance the permeability of the site to cyclists and aim to encourage cycling as a mode of transport for short trips.

7.31 Pedestrian and cycle access to the site will be from Lodge Road, College Crescent and St Cadoc's Close and also from the PRoW to the northwest of the site which will be retained and widened to 3m to provide a shared footway/cycleway facility. This PRoW provides a direct link to Ponthir Road to the east of the site.

7.32 A financial contribution (via Section 106) can be provided from the developer towards an upgraded on-road cycle link from the development to Roman Reach, via Lodge Road and National Cycle Network (NCN) Route 88.

Public Transport

7.33 The bus stops on Lodge Road (northbound/southbound) can be upgraded to include a bus shelter, raised kerbs adjacent to the site on Lodge Road and localised footway widening within the site and a pedestrian crossing to access the bus stops.

Travel Vouchers

7.34 As part the Travel Plan, the developer commits to a financial contribution towards a travel bond for a bus pass or cycle voucher.

Sustainable Travel to Schools

7.35 As part of the development's Travel Plan, it is proposed, with the assistance, support or lead of NCC, to encourage sustainable travel to local schools, which will benefit the wider community as well as the proposed development.

7.36 Travel Plan measures for schools could include:

- Walking buses;
- Cycling trains;
- Parents' shelters;
- Secure/sheltered scooter parking;
- Secure/sheltered cycle parking;
- Bike to school days;
- Bikeability days/cycle/scooter proficiency days/cycle festivals;
- Sustainable travel meal days; and
- Provision of high visibility gear.

St Cadoc's Hospital

7.37 The developer is proposing to work with St Cadoc's Hospital to provide travel planning as part of a comprehensive package of sustainable benefits for Caerleon.

Home Deliveries

7.38 The TPC will promote and raise awareness of the potential time, cost and environmental savings of home deliveries, including supermarket deliveries. Three of the big four supermarkets, Sainsbury's, Asda and Tesco, all offer home delivery services, as does Waitrose via Ocado, Morrisons and Iceland. Marks & Spencer will also have a home delivery service through Ocado in 2020. The majority of online retailers also now offer home delivery services.

Car Sharing

7.39 Car sharing aims to match commuting journeys allowing the individuals to benefit from the convenience of a shared car journey whilst reducing the cost of the journey and the number of vehicles on the network.

7.40 The TPC will promote and encourage car sharing where appropriate. The TPC will investigate the benefits of public and private car sharing schemes, liaise with NCC on the best way to promote car sharing schemes.

Broadband

7.41 The development will endeavour to provide each house with a facility for broadband connection.

8 MONITORING AND REVIEW

8.1 It is important a thorough Travel Plan monitoring system is put in place. The two main reasons for monitoring of the Travel Plan are:

- To provide feedback so the Travel Plan can be refined; and,
- To measure the level of success in meeting identified targets using key performance indicators.

8.2 A framework for the monitoring and review strategy is outlined in this section.

Monitoring

8.3 In general accord with the Department for Transport (DfT) Good Practice Guide 'Delivering Travel Plans through the Planning Process' an effective monitoring and review programme has been set out.

8.4 An initial development travel survey will be undertaken within 3 months of meaningful occupation of dwellings on the site, or until a tangible number (to be agreed with NCC) of units are occupied. Residents will be requested to complete a questionnaire in order to provide baseline travel data. The TPC will administer and collect the questionnaire, which will monitor the mode splits being achieved for single occupancy car trips, and those made by sustainable (other) modes, for journeys to work, journeys to school and other significant number journeys.

8.5 The initial development survey represents Year 0 in terms of the monitoring programme. The results of the travel survey will be used to set the Travel Plan targets for the development.

8.6 A subsequent travel survey of the development and local community will be undertaken 12 months after the initial survey. This subsequent travel survey represents the 1st Monitoring Survey. It is proposed that the first Monitoring Survey will take place in Year 1 and then annually throughout the duration of travel plan monitoring.

8.7 The initial survey and annual Monitoring Surveys will be undertaken using NCC's standard survey template (if available) or similar questionnaire. Any modifications to the questionnaire or questions will be discussed and agreed between the TPC and NCC's Officers. A prize draw could be offered as an incentive to residents for completing the surveys.

8.8 Additionally, the snapshot survey questionnaire will also be included in the annual surveys. An example snapshot survey questionnaire is included at **Appendix A.** The snapshot survey will also include questions on travel to work and travel to school trips in order that modal split can be reviewed.

8.9 The survey timetable is as proposed in **Table 8.1**.

Table 8.1 – Survey Timetable

Description		Timeframe
Travel Survey	Initial Survey for Baseline	Year 0
	1st Monitoring Survey	Year 1
Travel Survey	Monitoring + Snap Shot	Year 2
Travel Survey	Monitoring + Snap Shot	Year 3
Travel Survey	Monitoring + Snap Shot	Year 4
Travel Survey	Monitoring + Snap Shot	Year 5

8.10 Monitoring of the following is also useful to judge whether the implementation or proportion of certain measures needs to be modified. These factors should be monitored on a constant basis:

- Monitor the level and uptake of walking bus initiatives;
- Monitor usage of footways, footpaths and cycle facilities;
- Monitor parking spaces and the level of on-street parking within the development area;
- Monitor take up of car sharing amongst the community;
- Monitor the quality of routes;
- Record comments received from residents relating to the operation and implications of the Travel Plan.

8.11 A formalised programme of monitoring, which sets dates of surveys, will be established by the TPC in consultation with NCC once occupation occurs and will continue for 5 years.

Review

8.12 The Travel Plan will be reviewed annually for as long as a TPC is appointed as part of the monitoring process, which for clarity is a minimum of 5 years from first occupation.

8.13 The review will be undertaken by the TPC and representatives of NCC, and the appropriateness and success of travel targets will be reviewed as necessary, with any additional measures identified if the Travel Plan is failing to meet its targets.

Reporting

8.14 The TPC will report the results of monitoring in writing to NCC within three months of the completion of the monitoring surveys. The TPC will compile an annual Monitoring Report outlining the results of the monitoring survey and review. The report will also incorporate the results of on-going monitoring throughout the preceding period. The report will be issued to NCC and retained for records. A revised Action Plan will be submitted on an annual basis as part of the annual monitoring program and reporting.

8.15 The monitoring report will include the following aspects:

- Site name and address;
- A summary of the Travel Plan;
- How and when monitoring information was gathered;
- Whether travel patterns are meeting objectives and targets; and
- Proposals to further develop the Travel Plan and an update to the Action Plan.

8.16 A full comprehensive report will be issued at the last year of the Travel Plan.

Mitigation

8.17 The aim of the Travel Plan is to achieve the appropriate modal shift targets within the dates defined.

8.18 In the event that the monitoring and review process find any aspect of the Travel Plan is underperforming and targets are not being achieved, the TPC will instigate a meeting with NCC officers to discuss options available to increase the changes of meetings the targets. An action plan will be drawn up in order to get the Travel Plan back on track.

9 SUMMARY

9.1 This Interim Travel Plan forms the framework within which management of travel will occur for the proposed development. The purpose of the travel management is to maximise an energy efficient and socially inclusive environment in the context of the development of the site, and enhance and promote connectivity, amenity, and sustainable travel.

9.2 The development proposals will provide pedestrian and cycling links to the existing pedestrian and cycle networks in the area, providing safe and convenient routes. It is proposed to upgrade the northbound and southbound bus stops on Lodge Road to include a bus shelter, raised kerbs adjacent to the site on Lodge Road and localised footway widening within the site and a pedestrian crossing to access the bus stops.

9.3 Moreover, each household will be provided with a travel voucher designed to promote sustainable transport.

9.4 The development will work with the local schools to consider a package of sustainable travel measures.

9.5 Further initiatives that could be provided as part of the Travel Plan include the following:

- Provision of a TPC, with funding for day to day management of the Travel Plan;
- Personalised Travel Planning advice for all residents;
- A Welcome Pack with information on sustainable travel from the development;
- A sustainable travel voucher per household for first occupiers of the development to promote sustainable travel by walking, cycling and public transport;
- Walking and cycling infrastructure improvements, management and funding; and
- A suitable design of the site, in accordance with Manual for Streets, which places walking and cycling at the top of the transport hierarchy.

10 ACTION PLAN

Table 10.1: Action Plan				
Action Type	**Action**	**Responsibility**	**Timeframe**	**Notes**
Management	Appointment of Travel Plan Coordinator (TPC)	Redrow	Completed	Cerian Phillips at Vectos is the interim TPC
Baseline Travel Patterns	Initial travel survey	TPC	Within 3 months of first occupation.	
Travel Plan Document Progression	Finalisation of measures to be implemented	TPC and NCC officers	Within 3 months of the baseline survey.	The measures should be agreed with the Local Planning Authority during the application process. However, the baseline survey might reveal other possible measures to implement.
	Target setting	TPC and NCC officers	Within 3 months of the completion the baseline survey	Targets will need to be agreed with NCC.
	Travel Plan document completion	TPC	Within 3 months of the completion of the baseline survey Revised at Year 1 after full review	This should be completed before Travel Plan launch.
Monitoring, Review & Reporting	Monitoring of measures and initiative take-up	TPC	On-going	This will involve regular monitoring of cycle parking use, bus pass use, cycle voucher use and uptake of other measures implemented.
	First monitoring survey	TPC	At Year 1	On the first anniversary of the completion of the baseline survey. This will be completed in-house
	Review and reporting 1	TPC and NCC	Following Year 1 snapshot survey result analysis	This will be a review focusing on revision of targets and measures where necessary. The Travel Plan will be updated
	Second monitoring survey	TPC	At Year 2	On the second anniversary of the completion of the baseline survey.

	Review and reporting 2	TPC and NCC	Following Year 2 monitoring survey results analysis	This will be a review focusing on revision of targets and measures where necessary. The Travel Plan will be updated.
	Third monitoring survey	TPC	At Year 3	On the third anniversary of the completion of the baseline survey.
	Review and reporting 3	TPC and NCC	Following Year 3 monitoring survey results analysis	This will be a review focusing on revision of targets and measures where necessary. The Travel Plan will be updated
	Fourth monitoring survey	TPC	At Year 4	On the fourth anniversary of the completion of the baseline survey. This will be completed in-house
	Review and reporting 4	TPC and NCC	Following Year 4 monitoring survey results analysis	This will be a review focusing on revision of targets and measures where necessary. The Travel Plan will be updated
	Fifth monitoring survey	TPC	At Year 5	On the fifth anniversary of the completion of the baseline survey. This will be completed in-house
	Review and reporting 5	TPC and NCC	Following Year 5 monitoring survey results analysis	This will be a review focusing on revision of targets and measures where necessary. The Travel Plan will be updated
Implementation	Implementation of Infrastructure Improvements	TPC, Redrow and NCC	As per the trigger points in the S106	The details are set out in the S106 agreement
	Implementation of measures	TPC with liaison with Redrow and NCC	From the start of construction and on-going	Dependent on the nature of the measure. Physical measures such as cycle parking will be implemented during construction. Policy measures will be implemented on an on-going basis.
	Provision of Travel Packs to all residents	TPC	Upon occupation of each unit	Travel packs will contain up-to-date details of bus timetables, route maps and fare information, rail timetables and fare information, cycle and walking route maps, information on the benefits of sustainable travel and a brief overview of the Travel Plan. It will also include the TPC's details and their availability to provide personal travel planning services

	Promote cycling through awareness campaigns	TPC	On-going	The TPC will promote the benefits of cycling through campaigns such as National Bike Week and will organise group cycle rides
	Promote walking through awareness campaigns	TPC	On-going	The TPC will promote the benefits of walking through campaigns such as the '10,000 steps a day challenge' and will organise group walking activities

APPENDIX A

Example Residential Travel Survey

Residential Travel Survey

All information provided is anonymous. Thank you for your cooperation.

Q1 Full home postcode: ……

Q2 Gender:

- Male ☐
- Female ☐

Q3 Are you:

- Full Time ☐
- Part Time ☐

Q4 Age:

- Under 25 ☐
- 25 -34 ☐
- 35 – 44 ☐
- 45 – 54 ☐
- 55 or over ☐

Q5 Do you have any disability which affects your travel arrangements?

- Yes ☐
- No ☐

Q6 How do you usually travel to work?

- Bus ☐
- Bicycle ☐
- Car driver (on your own) ☐
- Car driver (with a passenger) ☐
- Car passenger ☐
- Walk ☐
- Motorcycle / Moped / Scooter ☐
- Train ☐
- Other …….

Q7 If you drive to work where do you normally park?

- On Site ☐
- Street ☐
- Other Car Park ☐

Q8 Which of the following do you occasionally use instead of your usual form of transport?

- Bus ☐
- Bicycle ☐
- Car driver (on your own) ☐
- Car driver (with a passenger) ☐

Car passenger ☐
Walk ☐
Motorcycle / Moped / Scooter ☐
Train ☐
Other ……..
No alternative used ☐

Q9 How long does it usually take for you to travel to and from work?

	To work	From work
0 – 15 min	☐	☐
16 – 30 min	☐	☐
31 – 60 min	☐	☐
61 – 90 min	☐	☐
Over 90 min	☐	☐

Q10 If you regularly travel to work by car what is your main reason?

Get a lift ☐
Health reasons ☐
Lack of an alternative ☐
Convenience ☐
Car essential to perform job ☐
Dropping off / collecting children ☐

Q11 Are you prepared to car share?

Yes, independently (or already do) ☐
Yes, should an in-house scheme be available ☐
No ☐

Q12 Which of the following changes would encourage you to cycle to work? (If you already do cycle which would you most like to see?)

Safer, better lit cycle routes ☐
Improved cycle parking on site ☐
Showers on site ☐
Discount or loan to buy a bike ☐
Cycle training to improve skills ☐
Other ……
Nothing ☐

Q14 Which of the following would encourage you to use the bus to travel to work? (If you already use the bus which would you most like to see?)

More frequent services ☐
More reliable services ☐

Improved public transport information ☐
Improved pedestrian conditions around bus station ☐
Bus stops within closer proximity of home / work ☐
Cleaner and more comfortable buses ☐
Improved facilities at bus stops ☐
Cheaper / subsidised fares ☐
Other ……
None ☐

Q15 Which of the following would encourage you to use the train to travel to work? (If you already use the train which would you most like to see?)

More frequent services ☐
More reliable services ☐
Improved public transport information ☐
Improved pedestrian conditions around train station ☐
Train stations within closer proximity of home ☐
Cleaner and more comfortable trains ☐
Improved facilities at train stations ☐
Cheaper / subsidised fares ☐
Other ……
None ☐

Q16 How many school aged children live in your house (including 6th form)?

……

Q17 What mode of transport do the children normally use for their journey to school?

Bus ☐
Bicycle ☐
Car Driver (drive themselves) ☐
Car (own children) ☐
Car sharing (giving lifts) ☐
Walk ☐
Motorcycle / Moped / Scooter ☐
Train ☐
Other ……..
No alternative used ☐

Q18 Do you have any comments about your travel patterns?

……

……

……

……

……