

# Land to the South East of Moreton Station

**High Level Transport Statement** 

On behalf of The Moreton Estate

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## **Document Control Sheet**

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## 1 Introduction

## 1.1 Background

- 1.1.1 Peter Brett Associates LLP (PBA) has been commissioned by The Moreton Estate to provide highway and transport advice in support of a mixed use development on land to the south east of Moreton Station, which currently comprises a caravan site and Redbridge Pit Quarry.
- 1.1.2 This High Level Transport Statement (HLTS) provides an overview of the proposed development, sets out an assessment of the transport issues associated with the site and identifies an indicative package of transport measures which are considered suitable to encourage sustainable travel on this site.
- 1.1.3 This HLTS is prepared, in order to identify the traffic and transport impacts of the site and to demonstrate the suitability of the site for future allocation within the Purbeck Local Plan Partial Review.
- 1.1.4 The scope of this HLTS has been informed by Dorset County Council (DCC) in their role as Local Highway Authority and Highways England (HE) in their role as Strategic Highway Authority. A copy of the various inputs to the HLTS scope provided by these three organisations is provided at **Appendix A**.
- 1.1.5 Whilst this document provides a high level assessment of the anticipated transport opportunities presented by the site and a possible mitigation strategy, it is recognised that any planning application for development of the site will need to be supported by a detailed Transport Assessment and corresponding accurately evidenced and detailed mitigation package.

## 1.2 Development Proposals

- 1.2.1 The potential development site is located on the border of Purbeck District and West Dorset, immediately east of the village of Crossways and south east of Moreton rail station. The village of Moreton is approximately 2km to the north east. The B3390 Station Road lies along the site's western edge and Redbridge Road along its southern edge. The proposals under consideration comprise the following mix of uses:
  - Up to 600 residential units;
  - Employment ;
  - Additional Car Parking provision for Moreton rail station (circa 20 spaces);
  - A Suitable Alternative Natural Greenspace (SANG); and
  - Primary School.
- 1.2.2 The site is identified as part of a potential large housing site within the Partial Review of the Purbeck Local Plan 'Issues and Options Consultation', January 2015 Option 4e. This Option also considers land to the north of Moreton Station, however this is not the focus of this HLTS; this report considers land identified to the south of Moreton Station only.
- 1.2.3 A copy of the Partial Review of the Purbeck Local Plan Part 1 Issues and Options, Option 4e: "consider new development around Moreton Station (including Redbridge Pit)" is contained at **Appendix B**.



1.2.4 The site currently comprises of Redbridge Pit, which is a quarry under restoration and a caravan park.

## 1.3 Content of High Level Transport Statement

- 1.3.1 This Statement includes the following sections:
  - Section 2 Policy Review, sets out both the relevant national and local policies as they relate to the transport implications of the proposed development.
  - Section 3 Existing Transport Conditions, considers the existing transport conditions within the vicinity of the site, its proximity to local facilities and amenities and accessibility by walking, cycling and public transport as well as a review of the operation and safety of the local road network.
  - Section 4 Development Proposals, summarises the development proposals considered as part of this assessment.
  - Section 5 Access and Movement Strategy, sets out a balanced package of measures which have been developed to maximise the potential for sustainable travel and mitigate the residual traffic impacts of the proposed development.
  - Section 6 Development Travel Demand, quantifies the vehicular traffic generation of the development proposals.
  - Section 7 Traffic Impact Assessment, considers the vehicular traffic impacts of the proposed development on the local road network and identifies locations where mitigation measures may be required and will need to be explored in more detail at the planning application stage,
  - Section 8 Summary and Conclusions, provides a summary of the Transport Statement and the conclusions which can be drawn in considering the site for allocation within the Purbeck Local Plan Partial Review.



## 2 Policy Review

## 2.1 Introduction - National Planning and Transport Policy Context

2.1.1 A review has been undertaken of the relevant national and local transport policy documents in order to inform the development proposals. This section of the report sets out the key relevant policies and demonstrates how the development proposals accord and comply with these policies.

## 2.2 National Planning Policy Framework (NPPF)

- 2.2.1 The National Planning Policy Framework (NPPF, Department for Communities and Local Government, 2012) sets out the Government's economic, environmental and social planning policies for the country. Taken together, these policies articulate the Government's vision of sustainable development, which should be interpreted and applied locally to meet local aspirations.
- 2.2.2 The NPPF sets out the Government's commitment to ensuring that the planning system does everything it can to support sustainable economic growth. A positive planning system is essential because, without growth, a sustainable future cannot be achieved. Planning must operate to encourage growth and not act as an impediment. Therefore, significant weight should be placed on the need to support economic growth through the planning system.
- 2.2.3 The NPPF sets out 12 Core Planning Principles at paragraph 17. These are the principles that underpin plan-making and decision-taking and state that planning should:

"3. Pro-actively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs. Every effort should be made objectively to identify and then meet the housing, business, and other development needs of an area, and respond positively to wider opportunities for growth.

9. Promote mixed use developments, and encourage multiple benefits from the use of land in urban and rural areas

11. Actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable".

- 2.2.4 With regards to preparing Local Plans, paragraph 30 states that "*Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport*".
- 2.2.1 The NPPF recognises the importance transport policies have in facilitating development but also in contributing to wider sustainability and health objectives. The Framework identifies at paragraph 32, that "all developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment... Plans and decisions should take account of whether:
  - The opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
  - Safe and suitable access to the site can be achieved for all people; and



- Improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe".
- 2.2.2 NPPF, in paragraphs 34 to 36, identifies that "Local Authority plans and decisions should ensure developments that generate significant movements are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised... Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods and people. Therefore, developments should be located and designed where practical to:
  - "Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
  - Create safe and secure layouts which minimise the conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;
  - Incorporate facilities for charging plug-in and other ultra-low emission vehicles; and
  - Consider the needs of people with disabilities by all modes of transport."
- 2.2.3 NPPF recognises that a key tool to facilitate this will be a Travel Plan such that all developments which generate significant amounts of movement should be required to provide a Travel Plan.

## 2.3 NPPG – Transport Assessment

2.3.1 The National Planning Practice Guidance provides the overarching framework within which the transport implications of development should be considered. It provides advice on the preparation of Transport Assessments, Transport Statements and Travel Plans. The key advice is as follows:

"Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements."

2.3.2 The key principles within which Transport Assessments should be undertaken are detailed as follows:

"Travel Plans, Transport Assessments and Statements should be:

- proportionate to the size and scope of the proposed development to which they relate and build on existing information wherever possible;
- established at the earliest practicable possible stage of a development proposal;
- be tailored to particular local circumstances (other locally-determined factors and information beyond those which are set out in this guidance may need to be considered in these studies provided there is robust evidence for doing so locally);



- be brought forward through collaborative ongoing working between the Local Planning Authority/ Transport Authority, transport operators, Rail Network Operators, Highways Agency where there may be implications for the network and other relevant bodies. Engaging communities and local businesses in Travel Plans, Transport Assessments and Statements can be beneficial in positively supporting higher levels of walking and cycling (which in turn can encourage greater social inclusion, community cohesion and healthier communities)".
- 2.3.3 The guidance emphasises the importance to consult the relevant local authority at the outset in order to scope the transport assessment work, on the basis of the principles highlighted above.

## 2.4 Local Planning and Transport Policy Context

#### The Bournemouth, Poole and Dorset Local Transport Plan

- 2.4.1 The Bournemouth, Poole and Dorset Local Transport Plan 3 (LTP 3) sets out the objectives, policies and targets for improving transport for the period 2011-2026. The LTP3 sets out seven key strategy measures which aim to overcome the key challenge for transport across the Plan area. They are:
  - Reducing the need to travel;
  - Managing and maintaining the existing network more efficiently;
  - Active travel and 'greener' travel choices;
  - Public Transport Alternatives to the car;
  - Car parking measures;
  - Travel Safety measures; and
  - Strategic infrastructure improvements.
- 2.4.2 These measures seek to deliver "a safe, reliable, accessible low carbon transport system that assists in the development of a strong low carbon economy, maximises the opportunities for sustainable transport and respects and protects the area's unique environmental assets".

#### **Purbeck Local Plan**

- 2.4.3 The Purbeck Local Plan Part 1 (PLP1) sets out the strategic vision and policies for Purbeck for the period 2006 2027. It was adopted in November 2012 to guide new development and determine planning applications.
- 2.4.4 The Local Plan contains the vision for the spatial distribution of development. Development in Moreton and Moreton Station lies within Policy SW: South West Purbeck.
- 2.4.5 The aims of transport improvements under Policy SW are to provide "alternative forms of transport to the car, reducing carbon emissions and traffic congestion and to improve and help minimise air quality impacts upon protected heathland".



- 2.4.6 Policy SW also states that "the role Moreton Station plays in facilitating strategic growth at Crossways will be explored with West Dorset District Council".
- 2.4.7 Spatial Objective 9 of the Local Plan is to "*Provide an integrated transport system and better accessibility to services from everyday needs*". Two policies support this objective: Policy IAT Improving Accessibility & Transport and Policy ATS: Implementing an Appropriate Transport Strategy for Purbeck.
- 2.4.8 Policy IAT sets out the following criteria against which development proposals are to be assessed:
  - The development should be located in the most accessible location and reduce the need to travel;
  - The development should maximise the use of alternative and sustainable forms of travel;
  - The development, where it is likely to result in significant transport implications, should be supported by a detailed transport assessment and a travel plan;
  - The development should provide for improved safety and convenience of travel, including improved access to local services and facilities by foot, cycle and public transport;
  - The development should provide safe access to the highway, and/or should provide towards new/improved access to the highway and improvement of the local highway.
  - The development should provide for adequate parking levels in line with the Bournemouth, Poole and Dorset Residential Car Parking Strategy.
- 2.4.9 Policy ATS states that "the cumulative impact of additional road trips from new development will be mitigated through financial contributions towards the implementation of the Purbeck Transportation Strategy". In the vicinity of the site, the Purbeck Transport Strategy includes Moreton Rail Station interchange improvements to encourage travel by rail, bus, cycling and walking.
- 2.4.10 A review of the Purbeck Local Plan has been initiated to fully explore all housing growth potential in the district. The Issue and Options Consultation document of the PLP1 Partial Review was published in January 2015, and the Consultation Report in June 2015.
- 2.4.11 Option 4e of the Consultation document considers new development around Moreton Station. The area of land identified for potential development goes beyond that first identified within PLP1 with the potential to deliver 200-900 new homes and other facilities. The focus of the document continues to be on the delivery of sustainable development within Purbeck.

### 2.5 Relevance to the Proposed Development

2.5.1 The proposed development takes full account of the planning and transport policies identified above and the rest of this Statement demonstrates how the proposed development responds positively to these policies.



## **3** Existing Transport Conditions

### 3.1 Introduction

3.1.1 This section considers the existing transport conditions in the vicinity of the development site. It provides details of the site's location, its proximity to local facilities and amenities and its accessibility by walking, cycling and public transport. Finally, it provides an overview of the operation of the local highway network and a review of local Personal Injury Collision data.

## 3.2 Site Location and Description

- 3.2.1 The site is located within Purbeck district on its border with West Dorset, immediately east of the village of Crossways and south east of Moreton rail station. The village of Moreton is approximately 2km to the north east. It lies approximately 9km east of Dorchester.
- 3.2.2 The site currently comprises of Redbridge Pit, which is a quarry under restoration, and a caravan park.
- 3.2.3 The site's location is illustrated in Figure 3.1

## 3.3 Local Highway Network

- 3.3.1 The site is bordered by B3390 Station Road to the west and Redbridge Road to the south.
- 3.3.2 Redbridge Road is single carriageway without road markings. It is approximately 6m in width and subject to the national (de-restricted) speed limit. Redbridge Road connects the site to the village of Moreton to the east.
- 3.3.3 The B3390 Station Road is also a single carriageway road subject to a 40mph speed limit in the area of the site frontage. B3390 Station Road is approximately 6m in width.
- 3.3.4 The B3390 continues north of the site to the A35, approximately 7.5km away, and south to the A352 and A353, approximately 4km away, which form key routes between Dorchester, Weymouth, Poole, and Bournemouth.

## 3.4 Existing Traffic Flows

- 3.4.1 In order to establish the baseline traffic conditions and to enable junction capacity analysis to be carried out, traffic flow information has been obtained.
- 3.4.2 Automatic Traffic Count (ATC) data for the following local links have been obtained from Dorset County Council (DCC) or via the Traffic Flow Data System (TRADS). Where available, data from a neutral month was requested for a period of two weeks, as identified below:
  - A35 15th 26th September 2014 (TRADS)
  - B3390 North of Waddock Cross 22nd April 2009 (DCC)
  - B3390 South of Moreton Station 30th September 13th October 2014 (DCC)
  - B3390 Warmwell Road 29th September 9th October 2014 (DCC)
  - Dick O' Th' Banks 29th May 11th June 2015 (DCC)



- A352 East 30th September 13th October 2014 (DCC)
- A353 3rd 16th November 2014 (DCC)
- A352 West 21st 27th October 2014, 2nd 8th December 2014 (DCC).
- 3.4.3 The surveys confirmed the following peak periods 0800-0900 (AM Peak) and 1700-1800 (PM Peak).
- 3.4.4 Where available, average midweek (Tuesday-Thursday) peak hour traffic flows have been calculated from the data supplied by DCC. These peak hour traffic flows are shown on **Figures 3.2 to 3.3.**

### 3.5 Local Facilities and Amenities

#### Local Amenities

3.5.1 The nearest GP surgery, which is within 1km of the site, is the Atrium Health Centre in Crossways. Crossways also has a public library and village hall.

#### Employment

3.5.2 Hybris Business Park is in Crossways within 1km of the site. It is home to a range of companies in services such as car mechanics, water, security, air conditioning, carpentry, fashion and baby products.

#### Education

3.5.3 Frome Valley First School in Crossways is a Church of England primary school with children currently in years Reception to Year 4. The school is within 1km of the site.

#### Leisure

- 3.5.4 Approximately 2.5km east of the site are the Moreton Gardens, Tea Rooms and Manor House. The Moreton Stables and Equestrian Centre are also nearby.
- 3.5.5 Immediately north of the development is the Frampton Arms public house and the Moreton Camping and Caravan site.
- 3.5.6 Within 1km of the site is the Crossways Youth & Community Centre providing social development support for 12-21 year olds.
- 3.5.7 The location of these local facilities and amenities is illustrated in **Figure 3.4**.

#### **Distances to Key Facilities**

- 3.5.8 In considering the proximity of these key facilities and amenities with regards to walking distances, the most recent transport statistics are set out within the DfT's 'National Travel Survey: 2014' (NTS). This indicates that 22% of all journeys and 76% of journeys under one mile (1.6km) are made on foot. Table NTS0306 within the NTS also indicates that the average walking trip length is 0.7miles (1.1km).
- 3.5.9 The NPPF now supersedes the Planning Policy Guidance (PPG), however PPG13 states that:

"Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres."



3.5.10 In addition, the most recent guidance on this issue is provided by Manual for Streets (MfS) which, at Paragraph 4.4.1, states that:

"Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' [up to about 800m] walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPG13 states that walking offers the greatest potential to replace short car trips, particularly those under 2km."

- 3.5.11 Again, this is reiterated and substantiated in the recent NTS, which identifies that the average trip length by bicycle is 3.1 miles (5km). Furthermore, Table NTS0308 identifies that 88% of all cycle trips are over 1 mile (1.6km) and 52% over 2 miles (3.2km). A total of 77% of all cycle journeys are made over distances less than 5 miles (8km).
- 3.5.12 These thresholds are recognised within the latest local transport policy. For example the Bournemouth Poole and Dorset LTP3 Policy LTP E-1 states that "*authorities will prioritise and promote walking for trips under 2km, and cycling for trips under 5km, for people of all ages*".
- 3.5.13 These statistics would indicate that trips to the majority of these facilities could reasonably be expected to be undertaken on foot or by bicycle, except where car use is an obvious prerequisite or indeed the reason for the trip.

## 3.6 Site Accessibility by Non-Car Modes

#### Walking and Cycling

- 3.6.1 There is currently no provision for pedestrians and cyclists along Redbridge Road.
- 3.6.2 There is a footway provided along the western side of the carriageway on the B3390 Station Road between Crossways and Moreton rail station. No footway is provided on the eastern side of the carriageway.
- 3.6.3 Crossing the B3390 Station Road, approximately 700m north of Moreton Station is National Cycle Route (NCR) 2. NCR 2, when complete, will link Dover in Kent with St. Austell in Cornwall. The route between Moreton and Dorchester is on a mixture of traffic free paths and quiet on-road schemes. Works are near completion to upgrade the NCR 2 along the West Stafford Bypass. Works include improvements such as cutting back of vegetation, erecting reflective markers and introducing cycleway symbols.

#### Public Transport

Bus

- 3.6.4 Crossways is served by two bus routes, both operated by Damory Coaches:
  - Service 101: Dorchester to Crossways, operates hourly Monday to Saturday; and
  - Service 103: Dorchester to Bovington via Crossways, Lulworth and Wool, operates one return journey on Wednesdays
- 3.6.5 **Table 3.1** provides further information on these bus services.



#### Table 3.1: Local Bus Route Summary

Bus Route/Operator	Frequency Mon- Sat	First/Last service Mon-Sat	Evening/ Sunday
101, Damory Coaches Dorchester to Crossways	Hourly,	First service Crossways - Dorchester 0739 Dorchester - Crossways 0829 Last service Crossways - Dorchester 1724 Dorchester - Crossways 1750	No service
103, Damory Coaches Dorchester to Bovington via Crossways, Lulworth and Wool	One return journey Wednesday only	Higher Woodsford - Dorchester 1013 Dorchester - Higher Woodsford 1307	No service

- 3.6.6 **Table 3.1** shows that there is some potential for commuting from the site to Dorchester on route 101 with a morning service running Monday-Saturday from Crossways at 0739. This journey would take approximately 20-30 minutes to the centre of Dorchester. The final return journey leaves Dorchester at 1750.
- 3.6.7 Both services are operated under contract to Dorset County Council. The nearest stop to the development on service 101, as listed on the timetable information, is at Fiveways junction; there are no stop facilities on either side of the B3390 nor footway provision to the stop on the east side of the B3390. The nearest stop with footway provision is located on Dick O' Th' Banks approximately 620m west of the southern site boundary on Redbridge Road. The nearest stop on service 103 is at Higher Woodsford.
- 3.6.8 At the Dorchester end of the route, most journeys start or finish at Poundbury with some commencing from the Dorset County Hospital. At the Crossways end of the route, buses operate in a clockwise loop via Dick O' Th' Banks Road, Warmwell Road and Mount Skippet Way, except one bus per day which continues to/from Owermoigne.

#### Rail

3.6.9 Moreton rail station is located immediately north of the site. The southernmost point of the site, which is furthest from the station, lies within 700m of the station. Moreton rail station provides a direct rail service to key destinations including Dorchester (in approx. 8 minutes), Weymouth, Poole, Bournemouth, Southampton and London Waterloo (2hrs, 30 mins). A summary of the service frequency is shown in **Table 3.1** below.



Table 3.1 – Local Rail Services and Fre
-----------------------------------------

Operator	Route	Frequency			
		Mon-Fri	Sat	Sun and Bank Holidays	
South West Trains	Weymouth – Dorchester South – <b>Moreton</b> – Poole – Bournemouth – Southampton Central – London Waterloo	Every 30 minutes 6-8AM. Hourly thereafter.	Hourly	Hourly	

Note: Rail service information correct as at August 2015.

- 3.6.10 Moreton station is unstaffed but ticket machines are available. There is step free access to both platforms. There is a level crossing across B3390 Station Road, south of the rail station vehicular entrance.
- 3.6.11 There is limited parking at the station with 8 spaces in total, including 1 accessible space, and 3 Sheffield type cycle stands providing parking for 6 bikes.
- 3.6.12 The station currently has no direct bus link with Crossways however there is a footway along the western edge of the B3390 between the station and the village.

### 3.7 Personal Injury Collision Data

- 3.7.1 In order to establish the existing highway safety record within the study area identified by DCC, an assessment has been carried out of Personal Injury Collision (PIC) data.
- 3.7.2 PIC data was obtained from DCC for the latest available five year period, this spanned from 01/06/2010 to 31/05/2015. The study area covers four distinct areas, as shown on Figure 3.5, and includes the local road network surrounding the site along with other locations on the wider network which were highlighted by DCC and which this HLTS indicates could see a material increase in traffic flows. The following section summarises the PIC data analysis.
- 3.7.3 The unrestricted set of PIC data received is available at **Appendix C.** When issuing the PIC data DCC stipulates that information relating specifically to an identifiable individual must not be made publicly available. This includes the likely contributory factor of each collision. Therefore this detailed information has been omitted from the following analysis of data.
- 3.7.4 The PIC data received shows that within the five year study period a total of 19 collisions were recorded. The following analysis has been split into the four areas of search, as shown on **Figure 3.5**.

#### B3390 Station Road/Redbridge Road and B3390 south of Railway Line

3.7.5 The nature of collisions at this location and the vehicles involved are summarised in **Table 3.2**.



Table 3.2 – Summary of PICs to the south of Railway Line

Medec Involved	Co	ollision Seve	Total	
Modes mvolved	Fatal	Serious	Slight	TOLAI
Cars or other 4-wheeled vehicles only			1	1
Cars and Pedal Cycles	1		1	2
Total	1		2	3

3.7.1 There were three collisions recorded on the B3390 to the south of the Railway Line within the five year review period. As shown in **Table 3.2** there were two incidents involving pedal cycles, one of which was fatal. The two incidents involving cyclists were different in nature and both were caused by different human factors, they do not present a pattern in this location. A single collision was recorded involving only cars and resulted in slight severity.

#### **B3390 Hurst Bridge**

3.7.2 The nature of collisions at this location and the vehicles involved are summarised in **Table 3.3**.

Table 3.3 – Summary of PICs on B3390 around Hurst Bridge

Modes Involved	Co	Total		
Modes Involved	Fatal	Serious	Slight	IOtai
Cars or other 4-wheeled vehicles			2	2
Cars and Pedal Cycles		1		1
Total		1	2	3

3.7.3 There were two slight and one serious collision recorded on B3390 between Moreton Rail Station and Hurst Bridge. The serious collision involved a pedal cyclist and did not occur for reasons relating to highway safety. The slight collisions were caused by different human and environmental factors and do not present a pattern in this location.

#### **B3390 Waddock Cross**

3.7.4 The nature of collisions at this location and the vehicles involved are summarised in **Table 3.4**.

#### Table 3.4 – Summary of PICs B3390 Waddock Cross

Modes Involved		Collision Seve	Total	
	Fatal	Serious	Slight	TOLAI
Cars or other 4-wheeled vehicles		1	6	7
Total		1	6	7

3.7.5 There were a total of seven collisions recorded at Waddock Cross involving 13 vehicles, all of which were cars. One collision was serious in severity and six slight. Two collisions were caused by environmental factors, while the others were due to human error, most notably a failure to give way at the junction. There is therefore no pattern of accidents at this location which could be attributed to unsafe highway design.



#### A353 / A352 Wareham Road / B3390 Roundabout

3.7.6 The nature of collisions at this location and the vehicles involved are summarised in **Table 3.5**.

Table 3.5 – Summary of PICs A353 / A352 Wareham Road / B3390 Roundabout

Modes Involved		Collision Seve	Total	
Modes moored	Fatal	Serious	Slight	TOLAI
Cars or other 4-wheeled vehicles		1	2	3
2-wheeled motor vehicles		2		2
Cars and Pedal Cycles			1	1
Total		3	3	6

3.7.7 Six collisions occurred at this location, involving 8 vehicles. Three collisions were serious in severity and three slight. One pedal cyclist was involved in a slight collision. The collisions were all caused by different human error and environmental factors. There is therefore no pattern of accidents at this location which could be attributed to unsafe highway design.

#### Conclusion

- 3.7.8 It is concluded that the local PIC records, which identified 19 incidents in the five year review period, do not indicate that there is any material highway safety pattern in the study area. Most of the collisions were due to environmental conditions or human error and there is no apparent pattern to the nature or location of these collisions.
- 3.7.9 Additional development traffic within the study area is not therefore anticipated to present a safety risk.



## **4** Development Proposals

## 4.1 The Proposals

- 4.1.1 The site is identified as part of a potential housing site within the Partial Review Purbeck Local Plan 'Issues and Options Consultation', January 2015 Option 4e.
- 4.1.2 The proposals under consideration for this site comprise the following mix of uses:
  - Up to 600 residential units;
  - Employment;
  - Car Parking provision for Moreton rail station of 20+ spaces;
  - A Suitable Alternative Natural Greenspace (SANG); and
  - Primary School.
- 4.1.3 Detailed design and assessment of the development proposals will be required, in consultation with Purbeck District Council and DCC, at the planning application stage.



## 5 Access and Movement Strategy

### 5.1 Site Access and Sustainable Transport Proposals

- 5.1.1 A set of transport proposals has been developed to demonstrate how development at the proposed site could maximise the potential for travel by modes other than the private car and hence limit the potential traffic impacts arising from the development. The transport proposals consist of the following packages of measures that are discussed in more detail within this section:
  - Residential, Workplace and School Travel Plans;
  - Walking and Cycling Proposals;
  - Public Transport Proposals;
  - Vehicle Access Proposals; and
  - Vehicle Parking Proposals.
- 5.1.2 The sustainable transport proposals are summarised on **Figure 5.1**.

### 5.2 Vehicular Access Strategy

- 5.2.1 A detailed site access strategy is not required to be explored in detail at this stage, however it is considered likely that two points of access would be appropriate to serve a development of this scale. These could be provided onto the B3390 Station Road and Redbridge Road, as the site benefits from having frontage onto both.
- 5.2.2 Site frontage onto Redbridge Road is broadly straight for almost 1km, which subject to design and assessment would allow sufficient land to deliver a viable access with visibilities up to 120m in either direction based on DMRB standards for a 40mph design speed.
- 5.2.3 Site frontage onto Station Road is broadly straight for approximately 300m, which subject to design and assessment would allow sufficient land to deliver a viable access with visibilities up to 120m in either direction based on DMRB standards for a 40mph design speed.
- 5.2.4 At application stage the site accesses should be designed in accordance with relevant guidance, to be determined in consultation with DCC as the Local Highway Authority.

### 5.3 Walking and Cycling Strategy

- 5.3.1 Pedestrian and cycle accessibility should be given a high priority in the proposed development. An appropriate strategy for the site would likely include the following:
  - Pedestrian and cycle access to the site via B3390 Station Road and Redbridge Road, likely to be at the locations of the vehicular accesses;
  - A new footway on the eastern side of the B3390 along the site frontage could be provided subject to involvement of third parties, however it is not considered that this would provide any real benefit to pedestrians as desire lines towards Moreton Station and Crossways both require crossing of the B3390 to the western footway. Therefore, instead of incorporating an eastern footway across a relatively limited length for no discernible benefit, informal crossing points including dropped kerbs and tactile paving at key



locations across the B3390 should be prioritised. This would likely include a crossing point immediately south of the railway line to allow access to Moreton Station and another south of the Station Road site access to provide a connection to Crossways; and

- Off-site cycling improvements should be considered to link the site with NCR 2. Cyclists to Dorchester would most likely join the NCR 2 route west of the site at Lewell, where the route continues via the newly upgraded West Stafford Bypass.
- 5.3.2 'Residential Car Parking Provision Local Guidance for Dorset' sets out that the level of cycle parking spaces for residential dwellings should be guided by Section 8.2 of Manual for Streets, March 2007. Cycle parking should be provided in secure and convenient locations and together with adequate storage facilities.
- 5.3.3 For non-residential land uses the cycle parking standards shown in **Table 5.1** should be applied, these have been taken from DCC's 'Non-Residential Parking Guidance'.
- 5.3.4 A selection of land uses are shown based on the uses currently under consideration for the development. The full list of land uses and parking standards can be found at **Appendix D**:

Use C	Cycle Parking	
B1	Business Offices	1 per 125m <sup>2</sup>
B2	General Industrial	1 per 500m <sup>2</sup>
D1 e & f	Schools	Individual assessment
A1 Retail	Food and non-food retail <500m <sup>2</sup>	1 per 250m <sup>2</sup>

Table 5.1: Cycle parking standards non-residential uses

## 5.4 Public Transport Strategy

- 5.4.1 As previously set out in **Section 3**, Crossways to the south west of the site, is served by two bus routes offering connections to Dorchester. The hourly Crossways to Dorchester service provides a sustainable travel opportunity for commuters, whilst there may be an opportunity to enhance the less frequent Dorchester to Bovington service if it is identified this would be of benefit to new residents or workers.
- 5.4.2 The nearest stop to the development on the hourly service 101, as listed on the timetable information, is at Fiveways junction approximately 400m from the southern site boundary on Redbridge Road. However there are no physical stop facilities or footway provision to the stop.
- 5.4.3 Subject to further works and consultation with third parties, it is proposed that an extension to service 101 be investigated. This could involve a spur into the site via Redbridge Road or an additional loop clockwise or anti-clockwise travelling through the site between the two site accesses; making a triangle with the Fiveways junction by utilising both the A3390 north of the junction and Redbridge Road east of the junction.
- 5.4.4 Whilst a route extension would result in some additional journey time for those boarding elsewhere in Crossways, there is the potential that a new stop located centrally within the site would have the greatest draw for new passengers.



- 5.4.5 If detailed work in support of an application does not conclude a route extension is necessary then improvement, and possible relocation, of stops on the existing route could be undertaken to provide a more attractive option than the existing facilities.
- 5.4.6 Notwithstanding the public transport service or routes solution for the site, bus stop facilities should be provided, such as flag and poles and timetable information, possibly with shelters (dependent on directional flow). The stops should also be linked to the pedestrian network by footpaths/ways and linked to the site by way of pedestrian crossings if off site. Details of the design and delivery of such improvements are subject to discussions with DCC and third parties at the planning application stage.
- 5.4.7 Moreton rail station, which is located immediately north west of the site, provides an opportunity for travel by train to key destinations including Dorchester, Weymouth, Poole, Bournemouth, Southampton and London Waterloo. Access to westbound trains, to Dorchester and Weymouth, would require crossing the B3390 only while access to eastbound trains would also require use of the level crossing.
- 5.4.8 The southernmost point of the site lies within 700m of the station, ensuring that rail travel will be a viable option for those living and working on site.

## 5.5 Vehicular Parking Strategy

5.5.1 Vehicular parking should be provided in accordance with the local car parking standards as set out in 'Residential Car Parking Provision Local Guidance for Dorset' and 'Non-Residential Parking Guidance'.

#### **Residential Parking**

- 5.5.2 With regards to residential land use, the car parking requirements which are set out in the guidance relate to the level of unallocated parking that must be provided by the development. The developer should determine the level of allocated parking provision for each dwelling type, this is not prescribed by the Local Planning or Local Highway, authorities.
- 5.5.3 The level of allocated parking set by the developer influences the level of unallocated parking to be provided, in accordance with the standards for houses and flats in Purbeck District (Appendix C Table B11 & B12), as illustrated in **Tables 5.2** and **5.2**.

	Allocated spaces set by developer							
Purbeck Houses	0	1	2	0	1	2		
	Unallocated demand figures							
No. bedrooms	Hamlet & Isolated Dwellings				Village			
1	1.5	0.6		1.2	0.3			
2	1.5	0.6	0.1	1.2	0.3	0.1		

Table 5.2: Unallocated Car parking standards Purbeck District Houses



3	1.9	1.0	0.3	1.7	0.7	0.2
4+	2.5	1.5	0.5	2.2	1.3	0.4

Table 5.3: Unallocated Car parking standards Purbeck District Flats

	Allocated spaces set by developer							
Purbeck Flats	0	1	2	0	1	2		
	Unallocated demand figures							
No. bedrooms	Hamlet & Isolated Dwellings				Village			
1	1.1	0.3		1.0	0.1			
2	1.0	0.3	0.2	1.5	0.6	0.2		
3+	1.9	1.0	0.6	1.7	0.7	0.2		

Note: the site is identified in the 'Residential Car Parking Provision Local Guidance for Dorset' as being located within the 'Hamlet & Isolated Dwellings' category, however the standards for 'Village' have been provided for information. The standards which are applied to the development will be determined following consultation with DCC and PDC at the planning application stage.

5.5.4 At this stage the number, type and size of dwellings is unknown and will be determined at the planning application stage, along with the level of allocated and unallocated parking spaces.

#### Non-Residential Parking

5.5.5 For non-residential land uses the car parking standards shown in **Table 5.4** and taken from DCC's 'Non-Residential Parking Guidance' should be used. As set out within the guidance, the specific level of parking provision should be agreed through joint discussions with the DCC and Purbeck District Council. A selection of land uses are shown based on the uses currently under consideration for the development. The full list of land uses and parking standards can be found at **Appendix D**:

Table 5.4: Car parking star	ndards non-residential uses
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Use C	Car & HGV Parking	
B1	Business Offices	1 per 30m <sup>2</sup>
B2	General Industrial	1 per 30m <sup>2</sup> + 1 HGV space per 250m <sup>2</sup>
D1 e & f	Schools	1 per 2 full-time staff + visitor + disabled provision



5.5.6 The parking strategy for the site should be developed to both meet PDC standards and cater for demand, to avoid parking blight within the new development, and to mitigate any overspill parking which might otherwise occur on the adjacent highway network.

### 5.6 Travel Plan

- 5.6.1 In the context of the above transport strategy, it is anticipated that site access can be achieved and that sustainable travel opportunities can be maximised. New residents and workers on the site will need to be made aware of, and encouraged to use, the sustainable travel modes which will be facilitated through the transport strategy. It is anticipated this could be achieved through planning conditions and or obligations for the site to deliver Travel Plans.
- 5.6.2 Residential, Workplace and School Travel Plans (TP) for the site should be developed in accordance with appropriate guidance such as the NPPG, the DfT's 'Good Practice Guidelines: Delivering Travel Plans through the Planning Process' and 'Making Residential Travel Plans Work: Good Practice Guidelines for New Development' (DfT, 2005)].
- 5.6.3 The key aim of the TPs will be to:

"Reduce the need to travel by car, focusing on single occupancy car trips associated with the development, by promoting more sustainable alternatives such as car sharing, public transport and walking and cycling."

- 5.6.4 This objective will be achieved through a combination of hard and soft measures aimed at discouraging single occupancy car use and facilitating the use of alternative modes of transport.
- 5.6.5 The result of the various Travel Plans will therefore be to increase the mode share of sustainable travel options, which will in turn have the benefit of reducing single occupancy car trips and the resultant traffic impact of the development; this will be achieved by ensuring the sustainable travel options, which will be available to new residents, pupils and workers, are well known to them.



## 6 Development Travel Demand

### 6.1 Introduction

- 6.1.1 This section provides an overview of the likely travel demand resulting from the proposed development. The predicted vehicle trip generation has been generated by land use.
- 6.1.2 The 0800-0900 (AM Peak) and 1700-1800 (PM Peak) hours have been assessed and, whilst it is recognised that these periods do not represent the entire travel demand resulting from development proposals, they do provide a recognised benchmark from which to consider the vehicular impacts of the site.

### 6.2 Development Proposals

- 6.2.1 The proposals under consideration for this site comprise the following mix of uses:
  - Up to 600 residential units;
  - Employment;
  - Car Parking provision for Moreton rail station of 20+ spaces;
  - A Suitable Alternative Natural Greenspace (SANG); and
  - Primary School.
- 6.2.2 Detailed design of development proposals will be required, in consultation with PDC and DCC, at the planning application stage. At this stage, the client team has advised that we incorporate the following development assumptions in this assessment:
  - 600 residential units;
  - 7,000m<sup>2</sup> B1 Office Employment ;
  - 20 Car Parking spaces for Moreton rail station; and
  - Primary School.

### 6.3 Development Vehicle Trip Generation

- 6.3.1 The TRICS database has been interrogated in order to derive vehicular trip rates for the residential and employment elements of the proposed development. Sites in the database were selected on the basis of a set of criteria that best reflect the development type, size and location.
- 6.3.2 Outputs from the TRICS database used in the assessment are presented in **Appendix E**.
- 6.3.3 The residential and employment peak hour trip rates are shown in **Table 6.1** below.



#### Table 6.1: Residential and Employment Vehicular Trip Rates

l and llse	AM Peak			PM Peak		
	In	Out	Total	In	Out	Total
Residential	0.1910	0.4490	0.6400	0.4090	0.2240	0.6330
B1 Office	1.8540	0.1870	2.0410	0.1330	1.6950	1.8280

- 6.3.4 In addition to residential and employment trips, and in order to provide a robust assessment, it has been assumed that 20 vehicles will enter the proposed rail station car park during the AM peak and exit during the PM peak.
- 6.3.5 It has been assumed that trips associated with the primary school will predominantly be internal to the development or incorporated within the residential trip generation. Separate trip generation for the school has not therefore been included in the trip generation calculations for this high level assessment.
- 6.3.6 **Table 6.2** provides the resulting vehicular trip generation predicted to arise from the development.

Land		AM Peak			PM Peak		
Use	GFA (m <sup>-</sup> )	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Resi	600	115	269	384	245	134	380
B1	7,000m <sup>2</sup>	130	13	143	9	119	128
Car Park	20 spaces	20	0	20	0	20	20
	Total	264	282	547	255	273	528

Table 6.2: Development Vehicular Trip Generation

6.3.7 The proposed development would be supported by Travel Plans which will aim to reduce private vehicle trips generated by the development and will set targets for modal shift away from the private car. The vehicular trip generation identified in **Table 6.2**, and the capacity assessment presented in **Section 7**, do not take account of the potential for reduced vehicular trip generation that the Travel Plans could lead to. In this respect the assessment presented is considered robust.



## 7 Traffic Impact Assessment

### 7.1 Introduction

7.1.1 This section of the TA considers the vehicular traffic impact of the proposed development on the local highway network. The assessment will quantify the severity of the traffic impact and identify locations which may require mitigation measures to be considered as part of more detailed study at planning application stage.

## 7.2 Turning Movements

- 7.2.1 The traffic flow data obtained from DCC and TRADS, as detailed within **Section 3** of this HLTS, are link counts rather than turning movement surveys. To undertake a traffic impact assessment it has therefore been necessary to estimate turning movements at junctions based on the available link data.
- 7.2.2 Where available, the two-way link count data has been used to determine movements 'in to' and 'out of' a particular arm at a junction. Where no data is available for a given link, for example along Redbridge Road and Moreton Road at Fiveways junction, the flows have been estimated to balance the total volume of vehicles travelling 'in to' and 'out of' of the junction, taking into account all of the arms for which data is available.
- 7.2.3 At the A35 data is available for the mainline only. Since no information is available for the slip roads, these flows have been estimated, using the link count along the B3390 Waddock Drove as a logic check.
- 7.2.4 For a robust assessment at planning application stage, full traffic count surveys will need to be undertaken at the necessary junctions. However, for the purpose of this high level assessment it is considered that the approach set out above is sufficient to provide a broad indication of the traffic impact of the development on the local highway network.

## 7.3 Assessment Years and Traffic Growth

- 7.3.1 The following assessment years have been used for traffic impact assessments:
  - 2015 base situation for comparison purposes;
  - 2027 This assessment year has been taken to account for the final year of the current Purbeck Local Plan. It is recognised that the emerging Local Plan will have a later final date however this has not yet been determined.
- 7.3.2 Background traffic growth factors have been derived using TEMPRO v6.2 which has been adjusted with National Road Traffic Forecasts (NRTF). The following criteria have been used in the analysis:
  - Tempro zone 19UG0 Rural Purbeck
  - Weekday AM peak period and Weekday PM peak period
  - All journey purposes
- 7.3.3 Since the raw data received from DCC and TRADS came from a range of years, growth factors were derived from TEMPRO to estimate the 2015 base year and a separate factor to growth to the 2027 future year.



#### 7.3.4 The calculated growth factors are detailed in **Table 7.1** below.

Baso Voar	Forecast Vear	Growth Factors		
Dase leai	i orecast rear	АМ	РМ	
2009	2015	1.008	1.014	
2013	2015	1.0003	1.002	
2014	2015	1.0002	1.001	
2015	2027	1.1929	1.2093	

Table 7.1: Tempro Growth Factors for Background Traffic

7.3.5 **Figures 7.1 to 7.2** show the peak hour traffic flows with turning movements estimated as described in **Section 7.2** and growthed to 2015. These have been adjusted using the growth factors above to form the base traffic flows for future year assessments. The resultant 2027 traffic flows are shown on **Figures 7.3 to 7.4**.

## 7.4 Committed Development

- 7.4.1 At this stage of high level analysis only one committed development has been incorporated in the analysis, this is the additional 500 dwellings which could come forward in Crossways. We have assumed this would be located south of Warmwell Road.
- 7.4.2 In order to incorporate the additional traffic which could be expected on the network as a result of the additional 500 houses at Crossways, development trip generation and distribution has been developed following the same methodology for the Land at Moreton site. This committed traffic has been added to the 2027 baseline traffic to form the future year reference case against which the impact of development should be considered.
- 7.4.3 The 2027 reference case traffic flows are shown on **Figures 7.5 to 7.6**.
- 7.4.4 At planning application stage full consideration would need to be taken of West Dorset District Council's proposals for development around Crossways should this progress through the planning process.
- 7.4.5 The extent of committed development sites to be included in a future traffic impact assessment would therefore be agreed with DCC in advance of the application.

### 7.5 Development Traffic Assignment and Distribution

- 7.5.1 The proposed residential and employment development traffic has been distributed across the local highway network based on the 2011 Census Journey to Work Data for the district authority of Purbeck.
- 7.5.2 Considering the high level nature of this assessment, prior to the availability of detailed development proposals and traffic flow information, the use of data from Purbeck district i.e. at local authority level, is considered appropriate. At detailed assessment stage a smaller sample at Middle Super Output Area (MSOA) level may be used.
- 7.5.3 For residential traffic, resident origin data has been used; and for employment traffic, worker origin data has been used.



- 7.5.4 The following assignment methodologies have been used in conjunction with the census data.
  - The employment land use is assumed to be located in the south of the site so that drivers access the site via Redbridge Road;
  - Residential trips have been split between the two accesses based on a 30:70 split between the B3390 Station Road and Redbridge Road;
  - Trips have been assigned to the notional centre of each local authority;
  - Drivers to destinations beyond the borders of Purbeck district have been assigned to the route which will take the shortest time; and
  - Since the level of Census data used is too high to determine the origin/destination of trips within Purbeck district, drivers to destinations within the district have been assigned from the site to the local highway network as shown in **Table 7.2**. This is based on an indicative gravity model using the broad location of towns/villages.

Assignment	Percentage
Unnamed road towards Clouds Hill via Waddock Cross and Bovington	40%
A35 East	30%
A352 East	15%
Redbridge Road	15%
Total	100%

Table 7.2: Assignment of trips within Purbeck District

7.5.5 Station car park trips have been assigned taking account of the location of other rail stations and the likely walk/cycle distance to the rail station. This results in the following assignment:

Table 7.3: Assignment of Station car park trips

Assignment	Percentage		
North of Waddock Cross	60%		
West of Waddock Cross	5%		
A352 East	10%		
A352 West	25%		
Total	100%		

- 7.5.6 The distribution of the development traffic is illustrated on **Figures 7.7 to 7.9** for residential, employment and station car park traffic respectively.
- 7.5.7 Applying these distributions to the estimated vehicular development traffic set out in Section
  6 results in the total predicted development flows shown on Figures 7.10 and 7.11 for the AM and PM peak periods, respectively.



7.5.8 The predicted development traffic flows have been added to the 2027 reference case traffic flows to derive 'with development' traffic scenario. **Figures 7.12 to 7.13** detail the 'with development' traffic flows in the AM and PM peak hours, respectively.

## 7.6 Quantification of Development Impact

- 7.6.1 This section of the TS considers the net change in traffic resulting from the development proposals and how that development is predicted to impact upon local routes and junctions within the study area. The study area is shown at **Figure 7.14**.
- 7.6.2 DCC has requested that the traffic impacts of the development be considered at the following local junctions/links:
  - A35 / B3390 priority junctions;
  - Fiveways priority junction B3390 Station Road / Dick O' Th' Banks / Redbridge Road / Moreton Road;
  - A352 Wareham Road / A353 / B3390 roundabout;
  - Dick O' Th' Banks Road;
  - B3390 through Affpuddle;
  - B3390 through Warmwell;
  - B3390 Hurst Bridge; and
  - Highgate Lane under Lewell Bridge.
- 7.6.3 A summary of development traffic impact at each of these locations is shown in Table 7.4.

#### Table 7.4: Development Traffic Impact Across Study Area

		АМ		PM			
Junction / Two Way Link	2027 Reference Case	Dev Flows	% Impact	2027 Reference Case	Dev Flows	% Impact	
A35 East of B3390	2767	314	11%	3035	304	10%	
A35 West of B3390	2422	0	0%	2660	0	0%	
Fiveways priority junction	977	418	43%	990	401	41%	
A352 Wareham Road / A353 / B3390 roundabout	1515	54	4%	1625	52	3%	
Dick O' Th' Banks Road	247	50	20%	273	48	18%	
B3390 through Affpuddle	447	350	78%	462	337	73%	
B3390 through Warmwell	466	55	12%	557	51	9%	
B3390 Hurst Bridge	718	411	57%	793	399	50%	
Highgate Lane under Lewell Bridge	500	50	10%	483	48	10%	



- 7.6.4 In order to consider whether additional development traffic is likely to have an impact at the locations identified above the following approach has been taken:
  - Fiveways priority junction B3390 Station Road / Dick O' Th' Banks / Redbridge Road / Moreton Road – has been capacity tested using the Picady software programme, for nonsignalised priority junctions;
  - A352 Wareham Road / A353 / B3390 roundabout has been capacity tested using the Arcady software programme, for non-signalised roundabouts;
  - A35 / B3390 A merge/diverge assessment has been undertaken to establish the suitability of the existing A35 arrangement to accommodate additional development traffic; and
  - B3390 Links Have been tested against national average link capacity figures to identify whether these routes will be reaching capacity as a result of development traffic. The review of accident data has also been used to identify whether there are any existing safety issues caused by design which could be exacerbated as a result of the proposals.

## 7.7 Junction Capacity Assessment

7.7.1 The traffic impact assessment has identified that, due to the volume of development traffic anticipated to have an impact, both the Fiveways Junction and A352 Wareham Road Roundabout should be given further consideration in this assessment. This section therefore presents the results of capacity assessment of these junctions.

#### Fiveways Junction - B3390 / Redbridge Rd/ Dick O' Th' Banks Road

- 7.7.2 The junction arrangement is non-standard, taking the form of a crossroad and a priority junction on B3390, with Dick O' Th' Banks Road and Redbridge Road forming a crossroads with the B3390 and Moreton Road forming a priority junction with B3390 immediately south of the crossroads.
- 7.7.3 The observed traffic flows on Moreton Road are low, the Moreton Road junction with B3390 has not therefore been separately modelled. The crossroad junction between B3390, Redbridge Road and Dick O' Th' Banks Road has been assessed using the industry standard Picady module in the Junctions 9 software, observing that Junctions 9 can only accommodate junctions with up to 4 arms. However, traffic flows to and from Moreton Road are added to the respective turning movements along B3390 South arm on a crossroad junction, to represent a robust assessment.
- 7.7.4 The above approach is considered appropriate for this high level assessment, to give an indication of future operating capacity, particularly as the assessment is based on limited link flow data and assumed traffic movements. For the purposes of full transport assessment at application stage it is therefore advised that a traffic movement survey, with queue survey, be undertaken in order to validate the base model; the use of more complex modelling software such as TRANSYT may also be required to reflect the combined junctions if flows on Moreton Road are proven to warrant this.
- 7.7.5 Since observed traffic flow data is not available at this junction it is not possible to calibrate the model. Nonetheless, a high level model has been prepared using Ordnance Survey (OS) mapping to estimate geometries.
- 7.7.6 The impact of the proposed development on the operation of the junction has been tested. Model results for the base case and 'with development' scenarios are presented in **Table 7.5** with detailed modelling reports attached at **Appendix F.**



B3390 / Redbridge Rd/ Dick O' Th' Banks Road Crossroad Junction							
	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)			
	Max RFC	MMQ	Delay (Secs)	Max RFC	MMQ	Delay (Secs)	
		2015 B	ase Year				
Redbridge Rd	0.08	0.1	9.16	0.06	0.1	9.67	
B3390 N	0.06	0.1	5.17	0.16	0.3	5.29	
Dick O' Th' Banks	0.13	0.2	9.47	0.10	0.1	9.48	
B3390 S	0.05	0.1	4.83	0.03	0.0	5.19	
		2027 Refe	erence Cas	e			
Redbridge Rd	0.13	0.1	13.40	0.13	0.1	15.14	
B3390 N	0.10	0.2	5.90	0.28	0.7	5.87	
Dick O' Th' Banks	0.21	0.3	15.25	0.15	0.2	14.71	
B3390 S	0.12	0.3	4.87	0.06	0.1	5.66	
2027 Reference case + Development Flows							
Redbridge Rd	0.81	3.5	67.35	0.90	5.3	118.89	
B3390 N	0.13	0.3	5.29	0.34	1.0	5.72	
Dick O' Th' Banks	0.29	0.4	19.30	0.21	0.3	17.91	
B3390 S	0.20	0.5	5.40	0.11	0.2	6.30	

#### Table 7.5 B3390 / A352 /A353 Roundabout Junction

RFC = Ratio of Flow to Capacity, MMQ = Maximum Mean Queue

- 7.7.7 **Table 7.5**, shows that the junction operates below capacity in the 2015 base and 2027 reference case, with no RFC's exceeding 0.85, the industry standard threshold for determining whether an arm is operating within capacity on a priority junction.
- 7.7.8 In the 2027 with development scenario, the junction is forecast to continue operate broadly within capacity, although on Redbridge Road a maximum RFC is recorded of 0.90 in the PM peak, meaning this arm is operating at capacity in this one scenario.
- 7.7.9 Given that the RFC exceeds 0.85 slightly on only one arm, in one peak hour, and that the traffic flows used to develop the model are estimates based on incomplete link flows it is advised that the junction be considered in more detail at application stage. It may be that capacity improvements are required on the Redbridge Road arm, or that through movements on site could be restricted to reduce the volume of traffic using Redbridge Road.

#### A352 Wareham Road / A353 / B3390 Roundabout

- 7.7.10 The A352 Wareham Road / A353 / B3390 junction is a 4-arm roundabout which has therefore been assessed using the industry standard Arcady module in the Junctions 9 software.
- 7.7.11 Since observed traffic flow data is not available at this junction it is not possible to calibrate the model. Nonetheless, a high level model has been prepared using Ordnance Survey (OS) mapping to estimate geometries.



# 7.7.12 The outputs of the 2015 base model are detailed in **Table 7.6** and detailed report is attached in **Appendix F**.

B3390/A352/A353 Roundabout Junction							
	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)			
	Max RFC	MMQ	Delay (Secs)	Max RFC	MMQ	Delay (Secs)	
		2015 B	ase Year				
A352 E	0.17	0.2	2.22	0.32	0.5	2.88	
A353	0.33	0.5	3.32	0.15	0.2	2.76	
A352 W	0.24	0.3	4.14	0.23	0.3	3.64	
B3390	0.20	0.3	3.76	0.27	0.4	3.72	
2027 Future Base Flows							
A352 E	0.21	0.3	2.38	0.41	0.7	3.43	
A353	0.40	0.7	3.86	0.19	0.2	3.05	
A352 W	0.30	0.4	4.76	0.29	0.4	4.06	
B3390	0.27	0.4	4.39	0.34	0.5	4.32	
2027 Future Base + Development Flows							
A352 E	0.22	0.3	2.41	0.42	0.7	3.53	
A353	0.41	0.7	3.97	0.19	0.2	3.10	
A352 W	0.31	0.4	4.92	0.29	0.4	4.12	
B3390	0.29	0.4	4.51	0.37	0.6	4.51	

Table 7.6 A352 Wareham Road / A353 / B3390 Roundabout Junction

RFC = Ratio of Flow to Capacity, MMQ = Maximum Mean Queue

- 7.7.13 **Table 7.6** demonstrates that the junction operates well within capacity in the base and reference case scenarios, with negligible queues and delays on all the approach arms.
- 7.7.14 In the 2027 with development scenario, the junction is forecast to operate with a maximum RFC of 0.41 on A353 approach arm during the AM peak and with a maximum RFC of 0.42 for A352 E during the PM peak period.

### 7.8 A35 Assessment

#### A35/B3390

- 7.8.1 The A35 / B3390 junction comprises east and west bound on and off slips linked by an underbridge on the local highway network. Merge Diverge analysis has been undertaken based on DMRB TD 22/06 'Layout of Grade Separated Junctions' using the TRADS mainline data growthed to 2027 along with committed and development traffic.
- 7.8.2 This analysis has been used to indicate whether the existing arrangement can be expected to accommodate forecast traffic levels in the future year with development.



- 7.8.3 As shown in **Figures 7.12** and **7.13**, the development is broadly anticipated to assign traffic to and from the A35 east only at this junction. Therefore, the analysis has considered the eastbound merge and westbound diverge only at this stage.
- 7.8.4 The merge/diverge analysis is shown in **Appendix G**. In summary the existing arrangement is anticipated to have sufficient capacity to accommodate forecast flows, with development, in 2027. In the worst case scenario (2027 Reference Case + Development PM peak) for both the eastbound merge and westbound diverge the requirement identified in DMRB, based on the forecast flows, is for one mainline lane through the junction and two mainline lanes upstream (diverge) and downstream (merge). At present there are two mainline lanes through, and either side of, the junction; such that the junction is predicted to operate within design capacity in 2027. For indicative purposes, the slip roads or mainline would need to receive in the order of 700 or 1500 more vehicles, respectively, to necessitate a change in the current slip road arrangement.

#### A35/A352

- 7.8.5 In scoping discussions with Highways England it was requested that impacts of the development be considered at the Max Gate A35/A352 junction. The two-way flow of development traffic estimated to reach this junction is 50 in the AM peak and 48 in the PM peak, with no more than 26 vehicles in any one direction. Since this is less than one vehicle every two minutes in any one direction, the impact is considered to be negligible at this location. However, when more detailed traffic flow and development quantum information is known at the stage of preparing a full transport assessment this impact could be reassessed.
- 7.8.6 It is considered that the above analysis provides sufficient evidence that the strategic network can accommodate the additional traffic generated by the development and that the proposals are unlikely to require any mitigation on the A35 junctions. Highways England may require additional or more detailed assessment at application stage, possibly including surveyed traffic flows on the slip roads.

### 7.9 Link Capacity Assessment

- 7.9.1 DCC has identified locations along the B3390 north of the site for consideration in this assessment. It has been identified that development traffic along this route could represent a proportional increase in two-way flows in 2027 of up to 57% at Hurst Bridge and 78% at Affpuddle, both in the AM peak. This would increase two-way traffic flow from approximately 447 vehicles to 797 at Affpuddle and from approximately 718 to 1,129 at Hurst Bridge between 0800 and 0900hrs.
- 7.9.2 The capacity of urban roads is identified in the Design Manual for Roads and Bridges TA79/99 based on road type, carriageway width and the number of lanes. The B3390 is a rural road, however, the same detailed classification is not provided for such a road and therefore TA79/99 has been used to provide an indication of the capacity of the aforementioned links along the B3390.
- 7.9.3 The road type classification which most closely matches the B3390 is 'UAP1' which is an urban all-purpose road "*carrying predominantly through traffic with limited access*". The B3390 is a two lane single carriageway which is approximately 6m in width along most of its length, therefore the capacity has been tested against figures given in DMRB for a 6.1m wide carriageway (the closest width for which capacity figures are identified).
- 7.9.4 The capacity of the appropriate classification under UAP1 is provided in Table 7.7 below. It suggests a capacity of 1,020 for the busiest direction of flow, assuming a 60/40 directional split. Consequently the two-way flow capacity is 1,700 vehicles.



#### Table 7.7 TA 79/99 Urban Road Capacity UAP1, 6.1m

Road Type	Two-way Single Carriageway – busiest direction flow (assumes a 60/40 directional split)
UAP1	1,020

# 7.9.5 Estimated 2027 Reference Case + Development peak hour flows along the B3390 corridor at Hurst Bridge and through Affpuddle are shown in Table 7.8.

Road Type	AM Peak			PM peak		
	Northbound	Southbound	Two-way	Northbound	Southbound	Two-way
B3390 Hurst Bridge	682	448	1,130	481	709	1,190
B3390 Affpuddle	475	322	797	367	433	800

Table 7.8 2027 Reference Case + Development flows along B3390

- 7.9.6 **Table 7.8** shows that at both locations along the B3390 and in both peak periods the estimated traffic flows lie well within the one-way capacity of 1,020 and two-way capacity of 1,700 vehicles. The introduction of development traffic is not therefore anticipated to present a capacity issue along this link in the future year.
- 7.9.7 It is recognised that the width of the B3390 over Hurst Bridge narrows to approximately 4m, which would likely reduce the capacity of the road from that set out in **Table 7.7** above, although specific figures are not provided in DMRB for roads of this width. It is suggested that more detailed assessment could be undertaken at the time of application, possibly including observations of existing traffic movements at this location, to enable a more thorough analysis of capacity; which could inform mitigation measures if necessary. It should be noted that forward visibility in this location appears good, allowing vehicles to stop in good time, this is supported by the analysis of PIC data at **Section 3**, which confirms that there is no pattern in collisions relating to highway safety at Hurst Bridge.
- 7.9.8 At Highgate Lane, under Lewell Bridge, traffic flows are only anticipated to increase by around 50 vehicles two-way in each peak hour. Whilst this does represent a 10% increase, it equates to fewer than one additional vehicle per minute on this link (fewer than one vehicle every two minutes in one direction), which is considered will have a negligible impact on the operation of the traffic signals which control the flow of traffic under the Bridge.
- 7.9.9 Furthermore the PIC data analysis set out in **Section 3** showed that no collisions have been recorded in the vicinity of Lewell Bridge in the last five years of available data, such that there are no highway safety concerns at this location.

## 7.10 Summary

7.10.1 This section has shown that there are not predicted to be any vehicular capacity issues at the junctions in the study area, such that no significant off-site highway mitigation is anticipated to be required to support development of the site.


- 7.10.2 One arm of the Fiveways junction indicates a possible capacity constraint which may need to be addressed through off-site design and/or on site development distribution and access strategy, depending on the results of more detailed investigation as part of the full Transport Assessment.
- 7.10.3 The traffic impact at the A35 and the A352 Wareham Road / A353 / B3390 junction is considered to be minimal, in the context that these locations have significant capacity, such that they will be unlikely to warrant more detailed investigation at the time of application. However, it is recognised the highway authorities may require more detailed analysis to be undertaken using full survey information, to corroborate the findings of this high level analysis.
- 7.10.4 Other links assessed in this study have proven to operate well within their theoretical capacity in the future, with development, and with no evidence of existing safety issues which might otherwise have been exacerbated.
- 7.10.5 None of the assessment presented in this section has benefitted from trip reductions which will be achieved through the sustainable transport strategy, site design linking to off-site sustainable networks and the Travel Plans. The impact of development is therefore anticipated to be lower than the negligible impacts identified in this assessment.
- 7.10.6 With the exception of site accesses, which will need to be designed and assessed, it is not therefore anticipated that development of this site would give rise to a need for any substantial off-site highway mitigation to address traffic impacts



## 8 Summary and Conclusions

## 8.1 Summary

- 8.1.1 This High Level Transport Statement (HLTS) has been prepared by Peter Brett Associates LLP on behalf of the Moreton Estate and presents a high level review of transport issues, constraints and opportunities associated with the potential development site at Redbridge Pit.
- 8.1.2 The scope of the HLTS has been informed by input from Dorset County Council and Highways England in their respective roles as Local and Strategic Highways Authorities.
- 8.1.3 The HLTS provides a review of local and national policy and of the surrounding area from a transport perspective, in order to determine baseline transport conditions and parameters for future transport mitigation.
- 8.1.4 The baseline review includes accident data analysis across the study area, which established that there is no pattern of accidents in the reviewed network which would indicate any highway design safety issues nor any recognisable safety problems in the vicinity of the site.
- 8.1.5 For a rural location, the site is very well located for encouraging sustainable travel, with all parts of the site falling within 700m of Moreton Station, local bus stops being located nearby in Crossways, the National Cycle Network passing close to the site and the pedestrian footway network linking to Moreton Station to the north and Crossways to the south.
- 8.1.6 Existing traffic link flow data has been used to estimate baseline and future baseline traffic conditions in the study area, including estimating traffic movements at key junctions.
- 8.1.7 The TRICS database has been used to establish development trip generation and Census data has been used to assign development traffic throughout the study area.
- 8.1.8 Capacity testing has been undertaken of those junctions which are anticipated to see an increase in traffic as a result of the development. The strategic A35 junction to the north has been assessed using merge and diverge assessment, whilst the A35 junction to the west is anticipated to be used by only a negligible volume of development traffic. Other links on the local highway network have been considered for capacity against national averages.
- 8.1.9 The result of the capacity analysis indicates that the only junction which may suffer a minor capacity issue could be the Fiveways junction, specifically on the Redbridge Road arm. It is anticipated that this could be addressed either through highway design or through onsite site layout design, to discourage or restrict traffic from using Redbridge Road.
- 8.1.10 No other locations on the local or strategic network are anticipated to suffer capacity issues, although more detailed analysis at application stage with the benefit of a defined development mix and traffic movement and queue surveys may be necessary to confirm this position
- 8.1.11 The HLTS identifies a sustainable transport strategy which includes a proposed approach to encouraging pedestrian, cycle and public transport use. This includes facilitating pedestrian connections between the site and Crossways village and public transport facilities including Moreton Station; providing for cyclists throughout the development and to connect to NCR 2; and improving public transport facilities by increasing Station parking and cycle parking and possibly extending local bus services to route through the development or alternatively enhancing existing provision.



- 8.1.12 Development of the site would also need to be supported by Travel Plans, likely to include Residential, Employment and School Travel Plans, all of which would serve to raise awareness of the sustainable transport opportunities and to encourage their uptake by future users of the site.
- 8.1.13 The Travel Plans have not been developed as part of the HLTS and a Travel Plan trip reduction has not therefore been assumed in the traffic impact analysis. It is anticipated that at application stage, with the benefit of greater detail of proposed development mix and more accurate baseline traffic data, the benefits of Travel Planning would be quantified and used to demonstrate that the already negligible traffic impact of the proposals would be further mitigated.

## 8.2 Conclusion

- 8.2.1 The analysis set out in this HLTS indicates that the traffic impacts of the proposed development on the local and strategic highway networks would be negligible and could be further mitigated through the development and implementation of Travel Plans.
- 8.2.2 The development could result in the need for design changes at the Fiveways junction, although it is anticipated that this issue might alternatively be mitigated through site layout design with restrictions built into the street network to limit the extent of through traffic movements.
- 8.2.3 An increase in traffic flows along the B3390 to the north of the development may result in the desire for contributions to improved pedestrian amenity or traffic calming in Affpuddle, although this is not considered a requirement in traffic capacity terms.
- 8.2.4 The site is very well located for encouraging the uptake of sustainable travel, being within a reasonable walking distance of Crossway's village, and the facilities therein, and significant public transport options, including Moreton Rail Station. A package of sustainable transport measures, including offsite pedestrian crossing/s of the B3390 Station Road, would facilitate movement to and from these key locations to the north west and south west via the existing footway along the northbound carriageway of Station Road.
- 8.2.5 As established earlier in this report, Local Plan Policy IAT sets out the following criteria against which development proposals are to be assessed:
  - The development should be located in the most accessible location and reduce the need to travel;
  - The development should maximise the use of alternative and sustainable forms of travel;
  - The development, where it is likely to result in significant transport implications, should be supported by a detailed transport assessment and a travel plan;
  - The development should provide for improved safety and convenience of travel, including improved access to local services and facilities by foot, cycle and public transport;
  - The development should provide safe access to the highway, and/or should provide towards new/improved access to the highway and improvement of the local highway.
  - The development should provide for adequate parking levels in line with the Bournemouth, Poole and Dorset Residential Car Parking Strategy.
- 8.2.6 The analysis in this report indicates that the site would satisfy all of these criteria, indeed the site responds particularly strongly to a number of points, especially those relating to



maximising the use of alternative and sustainable forms of travel and convenience of travel and improved access to local services and facilities.

- 8.2.7 Also as established earlier in this report, policy ATS of the Local Plan states that "the cumulative impact of additional road trips from new development will be mitigated through financial contributions towards the implementation of the Purbeck Transportation Strategy". In the vicinity of the site the Purbeck Transport Strategy includes Moreton Rail Station interchange improvements to encourage travel by rail, bus, cycling and walking. It is therefore anticipated that delivery of this site would require a financial contribution to facilitate delivery of these improvements.
- 8.2.8 On balance it is therefore considered that the transport impact of development at this location is unlikely to be severe and the site therefore provides a good opportunity for development.
- 8.2.9 From a transport perspective the site presents a good sustainable opportunity for a residential-led mixed-use development, which Purbeck District Council could allocate within their Local Plan.





## Figures

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J:\35340 Land at Moreton, Dorchester/Technical/Corel/Working Folder/PDF/Figure 3.1 - Local Site Context Plan.cdr







J:35340 Land at Moreton, Dorchester/Technical/Corel/Working Folder/PDF/Figure 3.4 - Local Facilities & Amenities.cdr



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J:\35340 Land at Moreton, Dorchester\Technical\Corel\Working Folder\PDF\Figure 7.14 - Study Area.cdr





# Appendix A Highway Authority Scoping Information

# **Elizabeth Keen**

From:	
Sent:	
To:	
Subject:	

Elizabeth Keen 21 September 2015 13:01 Elizabeth Keen FW: Moreton / Redbridge Pit

From: Elizabeth Keen Sent: 21 September 2015 12:59 To: Elizabeth Keen Subject: FW: Moreton / Redbridge Pit

From: "Tunks, Katherine" <<u>k.tunks@dorsetcc.gov.uk</u>>
Date: Friday, 17 July 2015 10:04
To: Martin Miller <<u>martin.miller@torltd.co.uk</u>>, "Brown, Dave" <<u>d.s.brown@dorsetcc.gov.uk</u>>
Cc: Anthony Fortescue <<u>awf@fowlerfortescue.co.uk</u>>
Subject: RE: Moreton / Redbridge Pit - Request for a meeting

Hi Martin,

This is what I'm sending to all consultants in response to queries regarding the sort of information we need from you.

We are also happy to meet with you, how about the afternoon of the 23rd or anytime on the 24th July?

We need a high level / strategic Transport Assessment for your development proposals. A good guide to the type of information required is contained in the old Guidance on Transport Assessment. It has been superseded officially by the National Planning Policy Framework and the accompanying National Planning Practice Guidance, but alongside this new guidance it still gives a good idea of the issues you need to consider. I include a list (not exhaustive) of the topic areas which you need to address (broadly at this stage) and the links to the guidance:

Development proposal and planning policy framework Existing conditions Proposed development - how sustainable is the location? Appraising the impact of the proposed development Development trip generation Environmental impact issues Promoting smarter choices via travel plans Transport impacts and mitigation measures

https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/263054/guidance-transportassessment.pdf http://planningguidance.planningportal.gov.uk/blog/guidance/transport-evidence-bases-in-plan-making/ https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/6077/2116950.pdf

I hope this helps.

Regards

Kate

Kate Tunks Transport Planning Team Leader Economy, Planning & Transport Group Dorset County Council

01305 228534 07920 503447

From: Martin Miller [mailto:martin.miller@torltd.co.uk]
Sent: 16 July 2015 10:09
To: Tunks, Kate; Brown, Dave
Cc: Anthony Fortescue
Subject: Moreton / Redbridge Pit - Request for a meeting

Hi Kate / David

We understand that the West Dorset Local Plan Examination Inspector's report is due to be sent to WDDC/WPBC for fact checking at some point later this month, so the earliest that it will be made public will be mid to late August. Given that Steve Tapscott at Purbeck DC has given all site promoters a deadline of 21 September to provide him with sufficient information on transport impacts / mitigation / sustainable travel measures etc to enable PDC officers to choose which sites to allocate in a draft local plan, if we wait until late August to meet with you, we will not meet Steve's deadline.

Please could we meet on the assumption that the Crossways allocation has been found sound, but also consider how your advice and what we might need to do would be different if it hasn't?

Regards

Martin

--Martin Miller Technical Director 07770 945519



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# **Elizabeth Keen**

From:	Elizabeth Keen
Sent:	21 September 2015 13:00
То:	Elizabeth Keen
Subject:	FW: Redbridge Pit - Quote for a high level transport statement

From: Elizabeth Keen
Sent: 21 September 2015 12:59
To: Elizabeth Keen
Subject: FW: Redbridge Pit - Quote for a high level transport statement

From: Martin Miller [mailto:martin.miller@torltd.co.uk]
Sent: 29 July 2015 12:56
To: Neil Thorne
Subject: Redbridge Pit - Quote for a high level transport statement

Hi Neil

Please find attached:

1) a copy of the Issues and Options report published earlier this year by Purbeck DC

2) a copy of Dorset County Council's response to it which sets out the scope of a potential TA, which will be required in due course.

We are acting (confidentially) on behalf of the landowner of option 4e. To date, he has been prepared to fund a number of surveys / studies that have been necessary to persuade Purbeck DC to identify the site in the attached issues and options report. On the whole, its potential redevelopment has not proved to be massively controversial given that it is currently a quarry under restoration (the public think it is brownfield), it sits at the far end of Purbeck DC away from significant levels of population within Purbeck and also lies adjacent to a mainline railway station that lacks facilities (such as car parking) that we can provide. We are also anticipating the West Dorset District Council examination inspector allocating land for 500 dwellings and some employment land just down the road at Crossways (the allocation is to the south of Warmwell Road on the attached CRS1 plan - the other two sites have been rejected to date but may still come forward speculatively).

The traffic and transport impacts of the site's development (in conjunction with the 500 at Crossways) need to be understood by mid September in order to give Purbeck DC the confidence to confirm its allocation in the next draft plan, and to identify the range and cost of mitigation measures associated with the site's development. There will also be some interesting negotiations with Network Rail concerning development close to the line and a potential footbridge over it.

Dorset CC seem relatively happy for the option 4e sites to be developed subject to an analysis of development on the junctions set out in their representation (attached). We met with Kate Tunks, David Brown and Colin Graham of Dorset County Highways last Thursday, the main points of which were as follows:

- DCC is positive about the sustainability benefits that could arise from the development of this site because of the opportunity that exists to increase rail patronage. We were advised to incorporate land within our site master plan for a railway car park comprising 20+ cars, which will encourage people from Crossways to park at the site and take the train in either direction. DCC consider it likely that Network Rail (as part of the site's development) will ask for full safety barriers across the level crossing, and/or a footbridge over the railway line to discourage people from walking / driving around the existing half barriers when they are down.
- David Brown confirmed that the deliverability of vehicular accesses into the caravan site from Station Road and into Redbridge Pit from Redbridge Road should not be complicated given that both roads were straight. However, there was a noticeable difference in ground levels between Station Road and the caravan site which would need to be considered, along with any retained trees. CG confirmed that

DCC was likely to reduce the speed limit along Station Road from 40mph to 30mph should the site be allocated for development.

- There is an existing footway running alongside the west side of Station Road which links Crossways to Moreton Station. However, in order to enhance links between the station, the proposed development and Crossways, DCC would be looking for a three metre wide footpath / cycle path along the eastern side of Station Road. It was accepted that the Moreton Estate did not own all of the land adjoining the highway and that some third party land was likely to be involved. MM was advised to contact the county Highways Information Unit (<u>HIU@dorsetcc.gov.uk</u>) and Stephen Metham (Community Highway Officer) to try and establish the extent of the highway verge along Station Road.
- Apart from the railway station car park, DCC confirmed that they would wish to see mixed-use development provided, which was likely to include housing, employment, a SANG, a primary school and potentially a local centre. Whilst the Issues and Options Report indicated development of up to 900 units split to the north and south of the railway line, in practice, Natural England was currently only onboard with 500 (600 at a push) in total, and by the time that land at the caravan site and pit was given over to the car park, primary school and employment uses, there may only be sufficient land for a lesser number of houses in any case.
- KT indicated that from a strategic master planning perspective, early contact should be made with the
  owner of the Crossways allocation (General Bond) to understand his development objectives and plans
  for disposing of the land and progressing a planning application. It was essential that the Redbridge Pit
  site was master planned in conjunction with plans at Crossways and that sustainable transport
  objectives (including bus routes) were incorporated into both.
- KT does not require a full-blown Transport Assessment by 21 September, just a high level in-principle transport statement setting out the likely highways impacts associated with the site's development on the junctions already identified, and a range of potential mitigation measures where necessary. Strategically, the assessment would need to consider the impacts on the junction of the B3390 with the A35 north of Affpuddle, and so Highways England would need to be invited to comment. DCC might also be seeking an off-site highways contribution towards the delivery of the West Stafford bypass, land for which has been safeguarded as part of the Silverlake planning permission. The completion of this road would potentially enable the Lewell level crossing west of Crossways to be closed, which was likely to be welcomed by Network Rail.

If you wish me to point out on a map the location of the junctions that DCC is interested in, please let me know. Otherwise, I hope that the above sets out what we need to do over the next 5 weeks and is sufficient for you to provide me with a quote. We will be looking to appoint consultants next week.

Any questions, please contact me.

Regards

Martin

Martin Miller Technical Director 07770 945519



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# **Elizabeth Keen**

From:	Hellier, Steve <steve.hellier@highwaysengland.co.uk></steve.hellier@highwaysengland.co.uk>
Sent:	15 September 2015 11:31
To:	Elizabeth Keen
Cc:	Roberts, Andrew; Gallacher, Gaynor
Subject:	HE Scope - Redbridge Pit Moreton
Follow Up Flag:	Follow up
Flag Status:	Flagged

Elizabeth,

Many thanks for your email of 9 September and your subsequent phone call yesterday.

I note that you are currently concerned with the southern part of the site at Moreton Station (including Redbridge Pit) shown under Option 4e which has the potential to deliver up to 600 residential units, employment, a primary school and other facilities.

This is one of a number of sites in the Purbeck Local Plan Partial Review Issues and Options Consultation, January 2015. Although some distance from the strategic road network, it is of a size that could potentially have an impact on the A35 trunk road. We are aware that not all sites will come forward and a number of sites are identified as being large but development will only take place on a small part of the site. In order to make further comments on this site more surety about the specific development needs to be identified in terms of size, numbers, and trip rates and distribution.

Notwithstanding this, a number of sites are located outside of built up areas and we have some concerns as to the sustainability of the sites and the assumed reliance on the use of the private car. Where appropriate, as a number of sites are in relative close proximity and not insignificant in size, where possible we would encourage developers to work together in the formulation of sustainable transport strategies and provision for new development coming forward.

We are not aware of any capacity issues at A35/B3390 junction and for now are happy with your approach to use TRADS data.

However, within the scope of the proposed works, your Transport Statement should also consider the impacts at the Max Gate junction (the A35/A352 junction). We are aware of a development at the Warmwell Quarry site that has planning consent for 1000 holiday units, a hotel and leisure club which has a Grampian condition for an improvement to the junction. This scheme includes banning right turning movements at the A35 Max Gate Junction.

In terms of capacity, Circular 02/2013 requires two assessment scenarios to be considered. The first is the initial opening year of the development, which is assumed to be the year when the first part of the development is open for occupation. This assessment must include traffic associated with the FULL development proposals, taking account of background traffic (TEMPRO NTEM), the potential for trip netting associated with extant land uses, travel planning and committed development traffic. The opening year test will determine whether the impact of the development on the SRN would be severe and if mitigating measures are warranted. A second opening year assessment which includes mitigation measures may also be necessary in order to demonstrate the suitability of the measures in rendering the development acceptable.

There is also a requirement to test a future horizon period of 10 years following the registration of the planning application, or the end of the relevant local plan review period, whichever is greater. There is however no requirement to provide mitigation for this assessment, as the information is to be used by Highways England for information purposes only.

The assessments will identify what mitigation is required to support the whole development site. Options for a phased mitigation approach is a consideration over a limited period, and no later than the end of the assessment horizon (10 years after registration of the application or the end of the Local Plan period whichever is greater).

I trust this helps but do contact me if there is anything you wish to discuss.

Best regards

Steve Steve Hellier, Asset Manager Somerset and Dorset Highways England | Ash House | Falcon Road, Sowton Ind. Estate | Exeter | EX2 7LB Tel: 01392 312502 | Mobile: 07917 068800 Web: http://www.highwaysengland.co.uk GTN: 1365 2502

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From: Elizabeth Keen [mailto:ekeen@peterbrett.com] Sent: 09 September 2015 13:44 To: Hellier, Steve Subject: HE Scope - Redbridge Pit Moreton

Steve,

We are in the process of preparing a high level transport statement in support of a large mixed-use development on the border of Purbeck district with West Dorset. The site is immediately south of Moreton rail station and included within the Partial Review of Purbeck Local Plan Part 1 Issues and Options under Option 4e. I have attached this for your information.

We are currently concerned with the southern part of the site shown under Option 4e only which has the potential to deliver up to 600 residential units, employment, a primary school and other facilities. The developer wishes to see this site allocated within the final Local Plan and we are working to this end.

We would appreciate your comments regarding any capacity issues you are aware of on the strategic highway network in the vicinity of the site – namely the A35, which you would like us to consider in the scope of our works.

A large proportion of our development traffic is predicted to join the A35 (eastbound) at the A35/B3390 junction. Due to the timescales of the work we have been unable to undertake our own traffic surveys so are reliant on TRADS data. We have undertaken a high level merge/diverge analysis of the A35/B3390 slips. Would you consider this approach appropriate in principle?

I spoke to your colleague Andy Roberts today and he said that you produced some feedback for the Issues and Options consultation. If you have any comments on this site it would be greatly appreciated.

We are working under very tight timescales so any comments you are able to provide on your return to work will be most appreciated.

I will not be in the office on Friday 11<sup>th</sup> but will return on Monday 14<sup>th</sup> if you wish to discuss this over the phone. My number is below.

Kind Regards,

Elizabeth Keen Engineer

For and on behalf of Peter Brett Associates LLP 10 Queen Square, Bristol, BS1 4NT t 01173327843 e <u>ekeen@peterbrett.com</u> w <u>www.peterbrett.com</u>

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# Appendix BPartial Review of the Purbeck LocalPlan Part 1 – Issues and Options, Option 4e

# Option 4e: consider new development around Moreton Station (including Redbridge Pit)

Developers consider that land at Redbridge Pit and land to the north of Moreton Station could potentially accommodate between 200 and 900 new homes, plus employment, open space, SANG and community facilities.

Facilities and services are limited at Moreton Station, but development here would be on the edge of Crossways. Therefore, with masterplanning in conjunction with West Dorset District Council, it may be able to link in with existing facilities and new development planned at Crossways. Development would not involve developing green belt or AONB land and it could tie in with investment at Dorset Green Technology Park.







# Appendix C Personal Injury Collision Data







Accidents between dates Selection:	01/06/2010 and 3	1/05/2015	(60) month Notes:	15			
A10D031500 22/07/2010 E:377710 N: 88847 Speed limit: 40 Junction Detail:	Time 2343 First Road: B 3 Not within 20m of j	Vehicles 390 I unction	s 2 Road Type S Not	Casualties ingle carriagewa applicable	1 ay	Fatal	
Crossing: Control None Darkness: street lights present and Special Conditions at Site None Place accident reported:	Facilities:	None wit	thin 50m Fine v Ca	without high win arriageway Hazaro	Road surfac Ids ds: None	e Dry	
C1 PEDAL CYCLIST WAS STR Occurred on B3390 APPROX	RUCK BY V2 FORE 400M SW UC QUE	OKA. C1 E ENS DRI	FATAL. D2 P VE, WARMW	OSITIVE BT. ELL ROAD, CI	ROSSWAY	S, DORCHES	TER.
Vehicle Reference 1 Vehicle movement from N	Car E to SW	No tow/	articulation	Going ahead ot	her		
On main carriageway Location at impact Not Hit object in road None	at, or within 20M of	Jct	No skidding, j First impact Off road:	ack-knifing or o Front None	werturning	Hit vehicle:	2
Did not leave carr Not hit and run	Breath test	Positive		Age of Dri	ver 34	Female	
Vehicle Reference 2 Vehicle movement from N	Pedal Cycle E <sup>to</sup> SW	No tow /	articulation	Going ahead ot	her		
On main carriageway Location at impact Not Hit object in road None	at, or within 20M of	Jct	No skidding, j First impact Off road:	ack-knifing or o Back None	overturning	Hit vehicle:	1
Did not leave carr				Age of Dri	ver 64	Male	

Casualty Reference:1Vehicle:2Age:64MaleDriver/riderSeverity:FatalNot a pupilSeatbelt

Not applicable

Breath test

Not hit and run

Run on: 10/ 09/2015

Accidents between dates Selection:	01/06	/2010 and	d 31	/05/2015	(60) r No	nonths o <b>tes:</b>					
A10D044429 09/10/2010 E:379948 N: 91077 Speed limit: 60 Junction Detai	Tim First R l: Cross	e 1650 oad: ] roads	B 33	Vehicles 90 R	2 oad Type	C e Sii Give	Casualties 4 ngle carriageway way or controlled		Slight		C C80
Crossing: Control None Daylight: no street lighting Special Conditions at Site None		Facilit	ies:	None with	nin 50m I	Fine wi Car	Road ithout high winds riageway Hazards:	l surface None	Dry		
Place accident reported: At	scene			DfT Special	Projects	:					
V1 OVERSHOT JUNCTION I Occurred on B3930 AT C80	DUE TO , WADE	SUN ANI OCK CR	D HI' OSS,	Г V2 TRA	VELLIY	NG ON	MAJOR ROAD.				
Vehicle Reference 1	Car	r				(	Going ahead other				
Vehicle movement from	E to	W		No tow / a	articulati	ion	-				
On main carriageway Location at impact M Hit object in road None	id Juncti	on - on roi	undał	Noout or 1	lo skidd First imj Off	ling, ja pact road:	ck-knifing or overtu Front None	ırning	Hit vehicle:	2	
Did not leave carr Not hit and run		Breath tes	st	Negative			Age of Driver	29	Male		
Vehicle Reference 2	Ca	r				(	Going ahead other				
Vehicle movement from	N to	S		No tow / a	articulati	ion	C				
On main carriageway Location at impact M Hit object in road None	id Juncti	on - on roi	undat	Nout or r	lo skidd First imj Off	ling, ja pact road:	ck-knifing or overtu Nearside None	ırning	Hit vehicle:	1	
Did not leave carr Not hit and run		Breath tes	st	Negative			Age of Driver	55	Male		
Casualty Reference: Not a pupil	1	Vehicle:	2	Age:	55 1	Male	Driver/rider	Seatbelt	Severity:	Slight	
Casualty Reference: Not a pupil Front seat	2	Vehicle:	2	Age:	46	Male	Passenger	Seatbelt	Severity:	Slight	
Casualty Reference: Not a pupil Back seat	3	Vehicle:	2	Age:	17 ]	Male	Passenger	Seatbelt	Severity:	Slight	
Casualty Reference: Not a pupil Back seat	4	Vehicle:	2	Age:	20	Female	Passenger	Seatbelt	Severity:	Slight	

Accidents between dates	01/06/2010 and 3	<b>31/05/2015</b> (60) m	onths		
Selection:		Not	es:		
A11D005824 08/02/2011	Time 0655	Vehicles 2	Casualties	1	Serious
E:378825 N: 89811	First Road: B 3	905 Road Type	Single carriagewa	ay	
Speed limit: 60 Junction Detail:	Not within 20m of	junction 1	Not applicable		
Crossing: Control None	Facilities:	None within 50m		Road surface	Wet/Damp
Darkness: no street lighting		Fi	ne without high wir	nds	
Special Conditions at Site None			Carriageway Hazar	ds: None	
Place accident reported: At s	cene	DfT Special Projects:			

### D1 STRUCK RECENTLY DECEASED DEER LAYING IN THE ROAD AND FELL OFF V1 BICYCLE. V2 SWERVED TO AVOID V1 AND LEFT ROAD TO THE OFFSIDE. Occurred on B3390 STATION ROAD APPROX 345M NE OF HURST CROSSROADS, MORETON.

Vehicle Reference 1	Pedal Cycle		Going ahead other			
Vehicle movement from SW	to NE	No tow / articulation				
On main carriageway Location at impact Not at, Hit object in road None	or within 20M of	No skidding, ja Jct First impact Off road:	ack-knifing or overtu Front None	rning	Hit vehicle:	
Did not leave carr Not hit and run	Breath test	Not applicable	Age of Driver	53	Male	
Casualty Reference: 1 Not a pupil	Vehicle: 1	Age: 53 Male	Driver/rider	Seatbel	Severity: S	Serious
Vehicle Reference 2 Vehicle movement from SW	Car to NE	No tow / articulation	Going ahead other			
On main carriageway Location at impact Not at, Hit object in road None	or within 20M of	No skidding, ja Jct First impact Off road:	ack-knifing or overtu Offside None	rning	Hit vehicle:	
Did not leave carr Not hit and run	Breath test	Not requested	Age of Driver	60	Female	

Accidents between dates	01/06/2010 and 3	<b>31/05/2015</b> (60) n	nonths		
Selection:		No	ites:		
A11D018603 27/04/2011	Time 1654	Vehicles 2	Casualties 4	Slight	
Speed limit: 40 Junction Detail:	T & Stag Jct	390 Koad Type	Give way or controlled		Unclassified UNCL
Crossing: Control None Daylight: no street lighting Special Conditions at Site None	Facilities:	None within 50m F	Rc ine without high winds Carriageway Hazards:	ad surface Dry None	7
Place accident reported: At sc	ene	DfT Special Projects	:		

# V1 LHD CAR COLLIDED WITH A LOW WALL OFFSIDE WHILST OVERTAKING V2 TRACTOR WHICH WAS SLOWING TO TURN LEFT. Occurred on B3390 STATION ROAD APPROX 50M SW UC HURST ROAD, DORCHESTER.

Vehicle Reference 1		Car				(	Overtaking moving	vehicle	O/S	
Vehicle movement from	NE	to SW		No tow /	articu	lation				
On main carriageway Location at impact J Hit object in road Nor	ct App ne	proach		(	Overt First	urned impact Off road:	Offside Oth perm objects		Hit vehicle:	
O/S Not hit and run		Breath te	st	Negative	;		Age of Driver	65	Male	
Casualty Reference: Not a pupil	1	Vehicle:	1	Age:	65	Male	Driver/ride	er Seatbelt	Severity:	Slight
Casualty Reference: Not a pupil Front seat	2	Vehicle:	1	Age:	43	Male	Passenger	Seatbelt	Severity:	Slight
Casualty Reference: Not a pupil Back seat	3	Vehicle:	1	Age:	63	Female	e Passenger	Seatbelt	Severity:	Slight
Casualty Reference: Not a pupil Back seat	4	Vehicle:	1	Age:	42	Female	e Passenger	Seatbelt	Severity:	Slight
Vehicle Reference 2		Agricultural	vehi	icle		S	Stopping			
Vehicle movement from	NE	to SE		No tow /	articu	lation				
On main carriageway Location at impact J Hit object in road Nor	ct App ne	proach		]	No sk First	idding, ja impact Off road:	ck-knifing or over Did not impact None	turning	Hit vehicle:	
Did not leave carr Not hit and run		Breath te	st	Negative	•		Age of Driver	20	Male	

Accidents between dates	01/06/2010 and	31/05/2015	(60) mc	onths		
Selection:						
A11D026705 15/06/2011	Time 1535	Vehicles	2	Casualties	3	Slight
E:379549 N: 90501	First Road: B	3390 Roa	d Type	Single carriag	eway	Singin
Speed limit: 60 Junction Detai	l: Not within 20m o	f junction	Ν	Not applicable	-	
Crossing: Control None	Facilitie	s: None within	50m		Road surface	Wet/Damp
Daylight: no street lighting			Ra	uning without hi	gh winds	
Special Conditions at Site None				Carriageway Ha	zards: None	
Place accident reported: At	scene	DfT Special P	ojects:			

## V1 AND V2 TRAVELLING SOUTH V1 SLOWED DOWN AND STOPPED TO GIVE WAY TO ONCOMING TRAFFIC AT NARROW BRIDGE V2 BRAKED SKIDDED ON WET ROAD AND COLLIDED WITH THE REAR OF V1 Occurred on B3390 AT NARROW BRIDGE ON WADDOCK DRIVE, PURBECK.

Vehicle Reference 1 V	an or Goods 3.	5 tonnes m	gw an	d under	Going ahead but he	eld up		
Vehicle movement from NE to	o SW	No tow /	articu	lation				
On main carriageway		]	No sk	idding, ja	ack-knifing or over	turning	Hit vahialat	2
Hit object in road None	within 20M of	Jct	First (	impact Off road:	None		fiit venicie.	Z
Did not leave carr					Age of Driver	33	Male	
Not hit and run	Breath test	Negative	•					
Casualty Reference: 1	Vehicle: 1	Age:	8	Femal	e Passenger		Severity:	Slight
Not a pupil						Seatbel	t	
Back seat								
Casualty Reference: 3	Vehicle: 1	Age.	33	Male	Driver/ride	er	Severity:	Slight
Not a pupil	veniele. 1	1150.	55	maie	Dirverina	Seatbel	t	Singin
Vehicle Reference 2 C	ar				Going ahead other			
Vehicle movement from NE to	SW	No tow /	articu	lation	Comp uneue outer			
On main carriageway		:	Skidd	ed				
Location at impact Not at, or	within 20M of	Jct	First	impact	Front		Hit vehicle:	1
Hit object in road None			(	Off road:	None			
Did not leave carr					Age of Driver	44	Male	
Not hit and run	Breath test	Negative	,					
Casualty Reference: 2	Vehicle: 2	Age:	44	Male	Driver/ride	er	Severity:	Slight
Not a pupil						Seatbel	t	

Run on: 10/ 09/2015

Accidents between dates Selection:	01/06/2010 and 3	1/05/2015 (60) mont Notes:	hs		
A11D045245 05/10/2011 E:379951 N: 91084 Speed limit: 60 Junction Detail:	Time 1616 First Road: B 33 Crossroads	Vehicles 2 390 Road Type S Giv	Casualties 1 Single carriageway e way or controlled	Slight	C 80 S
Crossing: Control None Daylight: no street lighting Special Conditions at Site None	Facilities:	None within 50m Fine C	Road surfa without high winds arriageway Hazards: None	ice Dry	
Place accident reported: At s	cene	DfT Special Projects:			
VI FAILED TO STOP AT JUN Occurred on B3390 WADDO DORCHESTER Vehicle Reference 1 Vehicle movement from	CTION FOR CROSSI OCK CROSS ROADS Car E to W	ROADS AND HIT V2 T AT JCN WITH C80 S No tow / articulation	TRAVELLING THROUG WADDOCK DROVE WA Going ahead other	H DDOCK	
On main carriageway Location at impact Mic Hit object in road None	d Junction - on rounda	No skidding, bout or r First impact Off road:	jack-knifing or overturning Front None	Hit vehicle: 2	
Did not leave carr Not hit and run	Breath test	Negative	Age of Driver 29	Male	
Vehicle Reference 2 Vehicle movement from	Car N to SW	No tow / articulation	Going ahead other		
On main carriageway Location at impact Mic Hit object in road None	d Junction - on rounda	No skidding, bout or 1 First impact Off road:	jack-knifing or overturning Offside None	Hit vehicle:	
Did not leave carr Not hit and run	Breath test	Negative	Age of Driver 58	Male	
Casualty Reference:	Vehicle: 2	Age: 58 Male	Driver/rider Seatbo	Severity: Slight elt	

Accidents between dates	01/06/2010 and 3	<b>31/05/2015</b> (60) months	
Selection:		Notes:	
A12D014804 12/04/2012 E:379951 N: 91080 Speed limit: 60 Junction Detail	Time 1555 First Road: B 33 : Crossroads	Vehicles 2 Casualties 1 Slight 390 Road Type Single carriageway Give way or controlled	C 80
Crossing: Control None Daylight: no street lighting Special Conditions at Site None	Facilities:	None within 50m Road surface Dry Fine without high winds Carriageway Hazards: None	
Place accident reported: At a	scene	DfT Special Projects:	
V2 WAS AT A GIVEWAY JU PATHWAY OF V1XXXVALI Occurred on B3390 WADDO Vehicle Reference 1	NCTION FAILED TO DATED UNSEEN AV OCK CROSS AT JUN Car	D SEE V1 ON-COMING SUBSEQUENTLY PULLED OUT INTO WAITING T1XXX ICTION WITH C80 DORCHESTER Going ahead other	
Vehicle movement from On main carriageway Location at impact Mi Hit object in road None	S to N d Junction - on rounda	No tow / articulation No skidding, jack-knifing or overturning about or 1 First impact Offside Hit vehicle: Off road: None	2
Did not leave carr Not hit and run	Breath test	Age of Driver 42 Female Negative	
Vehicle Reference 2 Vehicle movement from	Car E to W	Starting No tow / articulation	
Location at impact En Hit object in road None	tering main road	First impact Offside Hit vehicle: Off road: None	1
Did not leave carr Not hit and run	Breath test	Age of Driver 47 Male Negative	

Casualty Reference:1Vehicle:2Age:47MaleDriver/riderSeverity:SlightNot a pupilSeatbelt

Accidents between dates	01/06/2010 and 31	1/05/2015 (60) mon	ths	
Selection:		Notes:		
A12D040576 26/09/2012 E:377380 N: 88588 Speed limit: 40 Junction Detail:	Time 0702 First Road: B 33 T & Stag Jct	Vehicles 2 90 Road Type Gi <sup>*</sup>	Casualties 1 Single carriageway we way or controlled	Slight Unclassified UC
Crossing: Control None Darkness: street lights present bu Special Conditions at Site None	Facilities: t unlit	None within 50m Rain	Road surfa ing without high winds Carriageway Hazards: None	ce Wet/Damp
Place accident reported: At se	cene	DfT Special Projects:		
V1 WAS TRAVELLING SW F. INTO JUNCTION CAUSING C Occurred on B3390 WARMV DORCHESTER	AILED TO NOTICE ( OLLISION VELL ROAD AT JUN	CYCLIST TRAVELLI	NG NE TURNED ACROSS CK 'O' THE BANKS ROAI	S CYCLIST PATH D CROSSWAYS
Vehicle Reference 1	Car		Turning right	
Vehicle movement from	NE to NW	No tow / articulation		
On main carriageway Location at impact Jct Hit object in road None	Approach	No skidding, First impact Off road	jack-knifing or overturning Front : None	Hit vehicle: 2
Did not leave carr Not hit and run	Breath test	Not requested	Age of Driver 23	Male
Vehicle Reference 2 Vehicle movement from	Pedal Cycle SW to NE	No tow / articulation	Going ahead other	
On main carriageway Location at impact Mic Hit object in road None	I Junction - on rounda	No skidding, bout or 1 First impact Off road	jack-knifing or overturning Front : None	Hit vehicle: 1
Did not leave carr Not hit and run	Breath test	Not applicable	Age of Driver 37	Male
Casualty Reference: I Not a pupil	Vehicle: 2	Age: 37 Male	e Driver/rider Seatbe	Severity: Slight

Slight
e Dry

## V1 SWERVED TO AVOID DEER COLLIDED WITH VERGE Occurred on B3390 250M N OF WADDOCK CROSS DORCHESTER

Vehicle Reference 1	Car		Going ahead other		
Vehicle movement from N	to S	No tow / articulation			
On main carriageway		No skidding, j	ack-knifing or overtu	rning	
Location at impact Not	at, or within 20M of	f Jct First impact	Front		Hit vehicle:
Hit object in road None		Off road:	Oth perm objects		
O/S			Age of Driver	35	Male
Not hit and run	Breath test	Not requested			

Casualty Reference:	1	Vehicle:	1	Age:	35	Male	Driver/rider	Severity: Slight
Not a pupil							Seatbelt	

Accidents between dates	01/06/2010 and 3	<b>31/05/2015</b> (60) mo	onths		
Selection:		Not	es:		
A14D001593 12/01/2014	Time 1535	Vehicles 2	Casualties 2	Slight	
E:379933 N: 91019	First Road: B 3	390 Road Type	Single carriageway	,	
Speed limit: 60 Junction Detail:	Pri Drive	(	Give way or controlle	d Unclassified UC	
Crossing: Control None	Facilities:	None within 50m	R	toad surface Wet/Damp	
Daylight: no street lighting		Ra	aining without high w	inds	
Special Conditions at Site None			Carriageway Hazards	: None	
Place accident reported: At sc	ene	DfT Special Projects:			

### V1 WAS PULLING OUT OF WADDOCK FARM ENTRANCE TURNING TOWARDS AFFPUDDLE V2 WAS ON THE B3390 TOWARDS CROSSWAYS AS V1 PULLED OUT IT WAS HIT BY V2 Occurred on B3390 WADDOCK DROVE OUTSIDE WADDOCK FARM DORCHESTER

Vehicle Reference 1 Car	Turning right						
Vehicle movement from E to N	No tow / articulation						
On main carriageway Location at impact Entering main road Hit object in road None	No skidding, jack-knifing or overturning First impact Front Hit vehicle: 2 Off road: None						
Did not leave carrNot hit and runBreath test	Age of Driver 23 Female Negative						
Casualty Reference: 1 Vehicle: 1 Not a pupil	Age: 23 Female Driver/rider Severity: Slight Seatbelt						
Vehicle Reference 2 Car	Going ahead other						
Vehicle movement from N to S	No tow / articulation						
On main carriageway Location at impact Mid Junction - on roundal Hit object in road None	No skidding, jack-knifing or overturning bout or r First impact Front Hit vehicle: 1 Off road: None						
Did not leave carrNot hit and runBreath test	Age of Driver 25 Male Negative						
Casualty Reference: 2 Vehicle: 2 Not a pupil	Age: 25 Male Driver/rider Severity: Slight Seatbelt						
Accidents between dates	01/06/2010 and	31/05/2015	(60) mc	onths			
----------------------------------	----------------	--------------	-----------	-----------------	--------------	---------	------
Selection:			Note	es:			
A14D014788 13/04/2014	Time 1643	Vehicles	2	Casualties	3	Serious	
E:379947 N: 91077	First Road: B	3390 Ro	ad Type	Single carriag	eway		
Speed limit: 60 Junction Detail:	Crossroads		S	Stop sign			C 80
Crossing: Control None	Facilities	s: None with	in 50m		Road surface	bry	
Daylight: no street lighting			Fir	ne without high	winds	-	
Special Conditions at Site None				Carriageway Ha	zards: None		
Place accident reported: At s	cene	DfT Special	Projects:				

# V1 FAILS TO GIVE WAY AT JUNCTION COLLIDING WITH V2Occurred onB3390 WADDOCK CROSS AT JUNCTION WITH C80 MORETON DORCHESTER

Vehicle Reference 1	C	Car				(	Going ahead other			
Vehicle movement from	E t	o W		No tow / a	articu	lation				
On main carriageway Location at impact M Hit object in road Nor	/lid Junc	tion - on rou	ındal	N bout or r	No ski First C	dding, jao impact Off road:	ck-knifing or overt Front None	urning	Hit vehicle:	2
Did not leave carr Not hit and run		Breath tes	st	Negative			Age of Driver	75	Male	
Casualty Reference: Not a pupil	2	Vehicle:	1	Age:	75	Male	Driver/ride	r Seatbelt	Severity:	Slight
Casualty Reference: Not a pupil Front seat	3	Vehicle:	1	Age:	75	Female	Passenger	Seatbelt	Severity:	Serious
Vehicle Reference 2	C	Car				C	Going ahead other			
Vehicle movement from	S t	o N		No tow / a	articu	lation	-			
On main carriageway Location at impact M Hit object in road Nor	/lid Junc	tion - on rou	ındal	N bout or r	No ski First C	dding, jao impact Off road:	ck-knifing or overt Front Oth perm objects	urning	Hit vehicle:	1
Nearside Not hit and run		Breath tes	t	Negative			Age of Driver	73	Female	
Casualty Reference: Not a pupil	1	Vehicle:	2	Age:	73	Female	Driver/ride	r Seatbelt	Severity:	Slight

Accidents between dates	01/06/201	10 and 31	1/05/2015	(60) mo	nths		
Selection:				Note	s:		
۵ <i>14</i> D0 <i>4</i> 7883 17/11	/2014 Time	1145	Vehicles	3	Casualties	1	Slight
E:377879 N: 88995	First Road:	B 33	90 Roa	ad Type	Single carriag	eway	Slight
Speed limit: 40 Junction	Detail: Not within	n 20m of ju	inction	N	ot applicable		
Crossing: Control None		Facilities:	None within	n 50m		Road surface	Wet/Damp
Daylight: no street lighting	5			Rai	ining without hi	gh winds	1
Special Conditions at Site	None				Carriageway Har	zards: None	
Place accident reported:	At scene		DfT Special I	Projects:			

#### V1 AND V2 STATIONARY IN TRAFFIC AT LEVEL CROSSING V3 CAME UP OVER BROW OF HILL UNABLE TO BRAKE IN TIME HITTING REAR OF V2 WHICH IN TURN HIT V1XXXXVALIDATED UNSEENXXXX Occurred on B3390 137M SW MORTON LEVEL CROSSING MORETON DORCHESTER

Vehicle Reference 1 Car	Going ahead but held up	
Vehicle movement from SW to NE	No tow / articulation	
On main carriageway Location at impact Not at, or within 20M of J Hit object in road None	No skidding, jack-knifing or overturning Jct First impact Back Hit vehicle: 7 Off road: None	2
Did not leave carr	Age of Driver 76 Male	
Not hit and run Breath test	Negative	
Vehicle Reference 2 Car	Going ahead but held up	
Vehicle movement from SW to NE	No tow / articulation	
On main carriageway	No skidding, jack-knifing or overturning	
Location at impactNot at, or within 20M of JHit object in roadNone	Jet First impact Back Hit vehicle:	3
Did not leave carr	Age of Driver 41 Female	
Not hit and run Breath test	Negative	
Vehicle Reference 3 Car	Going ahead other	
Vehicle movement from SW to NE	No tow / articulation	
On main carriageway Location at impact Not at, or within 20M of J Hit object in road None	No skidding, jack-knifing or overturning Jct First impact Front Hit vehicle: 7 Off road: None	2
Did not leave carr	Age of Driver 18 Female	
Not hit and run Breath test	Negative	
Casualty Reference: 1 Vehicle: 3	Age: 18 Female Driver/rider Severity: Sl	ight
Not a pupil	Seatbelt	C

Accidents between dates	01/06/2010 and	<b>31/05/2015</b> (60) m	onths			
Selection:		Not	es:			
A 15D015076 15/04/2015	Time 1500	Vabicles 2	Cocuplties	2	Slight	
AI3D013970 13/04/2013			Casuallies	Z	Slight	
E:379944 N: 91075	First Road: B	Road Type	Single carriagev	way		
Speed limit: 60 Junction Detail:	Crossroads	(	Give way or contro	olled		C 80
Crossing: Control None	Facilities	None within 50m		Road surface	Dry	
Daylight: no street lighting		Fi	ne without high w	inds		
Special Conditions at Site None			Carriageway Haza	ards: None		
Place accident reported: At sc	cene	DfT Special Projects:				

### V2 TRAVELLING SOUTH ON B3390 AS IT HAS PASSED JUNCTION V1 HAS SHOT ACROSS JUNCTION WITHOUT STOPPING CAUSING V2 TO HIT V1XXXXVALIDATED UNSEENXXXX Occurred on B3390 WADDOCK CROSS JUNCTION WITH C80 DORCHESTER

Vehicle Reference 1 C	ar		Going ahead other			
Vehicle movement from E to	W W	No tow / articulation				
On main carriageway Location at impact Entering r Hit object in road None	nain road	No skidding First impact Off road	, jack-knifing or over Offside l: None	turning	Hit vehicle:	2
Did not leave carr Not hit and run	Breath test	Not requested	Age of Driver	67	Female	
Casualty Reference: 1 Not a pupil	Vehicle: 1	Age: 67 Fen	ale Driver/ride	er Seatbel	Severity:	Slight
Vehicle Reference 2 C	ar		Going ahead other			
Vehicle movement from N to	S S	No tow / articulation	C			
On main carriageway Location at impact Mid Junct Hit object in road None	tion - on rounda	No skidding bout or r First impact Off road	, jack-knifing or over Front <sup>l:</sup> None	turning	Hit vehicle:	1
Did not leave carr Not hit and run	Breath test	Not requested	Age of Driver	67	Female	
Casualty Reference: 2 Not a pupil	Vehicle: 2	Age: 67 Fen	ale Driver/ride	er Seatbel	Severity:	Slight

Accidents between dates

01/06

01/06/2010 and 31/05/2015

(60) months

Notes:

Accidents involving:

Selection:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	1	9	10
2-wheeled motor vehicles	0	0	0	0
Pedal cycles	1	1	1	3
Horses & other	0	0	0	0
Total	1	2	10	13

	Fatal	Fatal Serious		Total	
Vehicle driver	0	0	14	14	
Passenger	0	1	7	8	
Motorcycle rider	0	0	0	0	
Cyclist	1	1	1	3	
Pedestrian	0	0	0	0	
Other	0	0	0	0	
Total	1	2	22	25	

Dry

#### Accidents between dates 01/06/2010 and 31/05/2015 (60) months Selection: Notes: Selected using Manual Selection 25/07/2011 Time 2035 Vehicles 1 Casualties 2 Serious A11D033644 First Road: Road Type E:375329 N: 85345 A 352 Dual carriageway Speed limit: 60 Junction Detail: Not within 20m of junction Not applicable Crossing: Control None Facilities: Road surface None within 50m Fine without high winds Daylight: no street lighting Special Conditions at Site None Carriageway Hazards: None

Place accident reported: At scene

#### V1 IN LANE TWO OF DUAL CARRIAGE LOST CONTROL AND WENT INTO NEARSIDE VERGE ON RE-ENTERING ROAD BIKE DROPPED BOTH SUSTAINED SERIOUS INJURY Occurred on A352 335 EAST OF A353. DORCHESTER.

Vehicle Reference 1	Mo	otorcycle o	ver 500cc			Going ahead left bei	nd		
Vehicle movement from	E to	W	No to	ow / articu	lation				
On main carriageway Location at impact N Hit object in road Non-	ot at, or ve	within 20N	I of Jct	Overtu First	urned impact Off road:	Did not impact None	]	Hit vehicle:	
O/S onto cent res & rebo Not hit and run	ounded	Breath tes	t Nega	ative		Age of Driver	34	Male	
Casualty Reference: Not a pupil	1	Vehicle:	1 A	Age: 34	Male	Driver/rider	Seatbelt	Severity:	Serious
Casualty Reference: Not a pupil	2	Vehicle:	1 A	Age: 21	Male	Passenger	Seatbelt	Severity:	Serious

**DfT Special Projects:** 

Back seat

Notes:

### Accidents between dates 01/06/2010 and 31/05/2015 (60) months

Selection:		

Selected using Manual Selection

A11D057053	18/12/2011	Time 0	829	Vehicles	1	Casualties	1	Slight
E:374786 N:	85063	First Road:	A 35	3 Ro	ad Type	Single carriage	way	
Speed limit: 60	Junction Detail:	Not within	20m of ju	inction	Ν	ot applicable		
Crossing: Control	None	F	acilities:	None withi	n 50m		Road surface	Frost/Ice
Daylight: no stree	t lighting				Fin	e without high w	inds	
Special Conditions	at Site None					Carriageway Haza	ards: None	
Place accident repo	orted: At sc	ene		DfT Special	Projects:			

#### DRIVER LOST CONTROL ON ICY ROAD Occurred on A353 300M SOUTH WARMWELL CROSS RAB DORCHESTER

Vehicle Reference	1		Car				Going ahead other		
Vehicle movement fr	om	NE	to	S	]	No tow / articulation			
On main carriagew	ay					Skidded and o	verturned		
Location at impact	Ν	ot at,	or v	ithin 20M	of Jo	t First impact	Nearside		Hit vehicle:
Hit object in road	Non	e				Off road:	Oth perm objects		
Nearside							Age of Driver	36	Male
Not hit and run				Breath tes	t	Not requested			

Casualty Reference:	1	Vehicle:	1	Age:	36	Male	Driver/rider		Severity:	Slight
Not a pupil							5	Seatbelt		

Dry

#### Accidents between dates 01/06/2010 and 31/05/2015 (60) months Selection: Notes: Selected using Manual Selection 30/09/2012 Time 0644 Vehicles 1 Casualties 2 Serious A12D041199 First Road: B 3390 Road Type Single carriageway E:375251 N: 85752 Speed limit: 30 Junction Detail: Not within 20m of junction Not applicable Crossing: Control None Facilities: Road surface None within 50m Fine without high winds Darkness: no street lighting Special Conditions at Site None Carriageway Hazards: None

Place accident reported: At scene

#### MOTORCYCLIST HIT GRAVEL ON ROAD SURFACE ON BEND FALLS OF MOTORCYCLE WITH PILLION Occurred on B3390 WARMWELL, 420M NORTH OF A352 WAREHAM ROAD, DORSET

**DfT Special Projects:** 

Vehicle Reference 1	Mo	otor Cycle	over 12	25 cc and	d up	to 500cc (	Going ahead left be	nd		
Vehicle movement from	SW to	NE	N	lo tow / a	artic	ulation				
On main carriageway				5	Skide	led				
Location at impactNHit object in roadNon	lot at, or v e	within 20N	l of Jct		Firs	t impact Off road:	Front None	F	Hit vehicle:	
Did not leave carr Not hit and run		Breath tes	t N	Negative			Age of Driver	47	Male	
Casualty Reference: Not a pupil	1	Vehicle:	1	Age:	47	Male	Driver/ride	r Seatbelt	Severity:	Slight
Casualty Reference: Not a pupil Back seat	2	Vehicle:	1	Age:	29	Female	Passenger	Seatbelt	Severity:	Serious

#### Accidents between dates 01/06/2010 and 31/05/2015 (60) months Selection: Notes: Selected using Manual Selection A13D000587 04/01/2013 Time 1540 Vehicles 1 Casualties Serious 1 Road Type Single carriageway E:374493 N: 85584 First Road: A 352 Speed limit: 60 Junction Detail: Not within 20m of junction Not applicable Crossing: Control None Facilities: Road surface Dry None within 50m Fine without high winds Daylight: no street lighting Special Conditions at Site None Carriageway Hazards: None Place accident reported: **DfT Special Projects:** At scene

#### V1 HGV FOR UNKNOWN REASON HAS VEERED NEARSIDE INTO VERGE STRUCK TELEGRAPH POLE STRUCK HEDGEROW ENTERED FIELD AND OVERTURNED Occurred on A352 500 M W OF A353 BROADMAYNE DORCHESTER

Vehicle Reference 1	Goods 7.5 tonnes mgw a	nd over	Going ahead other		
Vehicle movement from SE	to NW No to	w / articulation			
On main carriageway		Overturned			
Location at impact Not at,	or within 20M of Jct	First impact	Front		Hit vehicle:
Hit object in road None		Off road:	Telegraph / Electri	city pol	e
Nearside			Age of Driver	41	Male
Not hit and run	Breath test Negat	tive			

Casualty Reference:	1	Vehicle:	1	Age: 4	41	Male	Driver/rider	Severity: Serious
Not a pupil							Seatbelt	

#### Accidents between dates 01/06/2010 and 31/05/2015 (60) months Selection: Notes: Selected using Manual Selection A14D033864 29/07/2014 Time 2055 Vehicles 2 Casualties 5 Slight First Road: B 3390 Road Type E:375034 N: 85497 Single carriageway Speed limit: 60 Junction Detail: Not within 20m of junction Not applicable Crossing: Control None Facilities: Road surface Dry None within 50m Fine without high winds Daylight: no street lighting Special Conditions at Site None Carriageway Hazards: None

# Place accident reported: Elsewhere DfT Special Projects:

### V1 V2 COLLIDED BUT UNKNOWN EXACTLY WHERE OR HOW THERE WERE 3 X REPORTS OF DANGEROUS DRIVING IN RELATION TO V1 V2 FTS V1 APPEARS TO BE GIVING A DISHONEST ACCOUNT Occurred on B3390 70M NE A352 WARMWELL CROSS DORCHESTER

Vehicle Reference 1	С	ar				(	Going ahead right b	bend		
Vehicle movement from	S to	• NE		No tow /	articu	lation	0 0			
On main carriageway Location at impact N Hit object in road Nor	lot at, or ie	within 20M	l of J	l ct	No sk First (	idding, ja impact Off road:	ack-knifing or overt Back None	urning	Hit vehicle:	2
Did not leave carr							Age of Driver	21	Male	
Not hit and run		Breath tes	st	Driver no	ot con	tacted				
Casualty Reference: Not a pupil	1	Vehicle:	1	Age:	21	Male	Driver/ride	r Seatbelt	Severity:	Slight
Casualty Reference: Not a pupil Front seat	2	Vehicle:	1	Age:	22	Male	Passenger	Seatbelt	Severity:	Slight
Casualty Reference: Not a pupil Back seat	3	Vehicle:	1	Age:	19	Male	Passenger	Seatbelt	Severity:	Slight
Casualty Reference: Not a pupil Back seat	4	Vehicle:	1	Age:	22	Male	Passenger	Seatbelt	Severity:	Slight
Casualty Reference: Not a pupil Back seat	5	Vehicle:	1	Age:	19	Male	Passenger	Seatbelt	Severity:	Slight
Vehicle Reference 2	C	ar					Starting			
Vehicle movement from	S to	• NE		No tow /	articu	lation				
Leaving lay-by or hard Location at impact N Hit object in road Nor	shoulder Jot at, or 1e	within 20N	l of J	lct	No sk First (	idding, ja impact Off road:	ick-knifing or overt Front None	urning	Hit vehicle:	1
Did not leave carr							Age of Driver	19	Female	
Hit and run		Breath tes	st	Driver no	ot con	tacted				

TRAFFMA	AP		
AccsMap -	Accident	Analysis	System

Run on: 10/ 09/2015

#### Accidents between dates 01/06/2010 and 31/05/2015 (60) months Notes:

Selection:

Selected using Manual Selection

A14D045239	30/10/2014	Time	1710	Vehicles	2	Casualties	1	Slight	
E:375002 N:	85374	First Road:	: A 35	2 Ro	oad Type	1			
Speed limit: 60	Junction Detail:	Roundabo	out		C	Give way or con	ntrolled		A 352
Crossing: Control	None		Facilities:	None with	in 50m		Road surfa	ace Wet/Damp	
Darkness: street l	ights present and	l lit			Ra	ining without h	igh winds		
Special Conditions	s at Site None					Carriageway H	azards: None		
Place accident repo	orted: At sc	ene		DfT Special	Projects:				

## V1 COLLIDED WITH CYCLIST ON ROUNDABOUT Occurred on A352 WARMWELL CROSS RAB JUNCTION WITH A352 BY-PASS DORCHESTER

Vehicle Reference 1 Car	Stopping
Vehicle movement from E to W	No tow / articulation
On main carriageway	No skidding, jack-knifing or overturning
Location at impact Entering roundabout	First impact Front Hit vehicle: 2
Hit object in road None	Off road: None
Did not leave carrNot hit and runBreath test	Age of Driver 58 Female Negative
Vehicle Reference 2 Pedal Cycle	Going ahead other
Vehicle movement from N to S	No tow / articulation
On main carriageway	No skidding, jack-knifing or overturning
Location at impact Leaving roundabout	First impact Nearside Hit vehicle: 1
Hit object in road None	Off road: None
Did not leave carrNot hit and runBreath test	Age of Driver 53 Male Not applicable
Casualty Reference: 1 Vehicle: 2	Age: 53 Male Driver/rider Severity: Slight
Not a pupil	Seatbelt

### Accidents between dates

Selection:

01/06/2010 and 31/05/2015

## (60) months

Notes:

Selected using Manual Selection

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	1	2	3
2-wheeled motor vehicles	0	2	0	2
Pedal cycles	0	0	1	1
Horses & other	0	0	0	0
Total	0	3	3	6

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	1	2	3
Passenger	0	2	4	6
Motorcycle rider	0	1	1	2
Cyclist	0	0	1	1
Pedestrian	0	0	0	0
Other	0	0	0	0
Total	0	4	8	12





# Appendix D DCC Non-residential Parking Standards

# NON-RESIDENTIAL PARKING GUIDANCE

These are the suggested car and cycle parking guidelines that will meet the likely and operational requirements of various establishments and business uses.

The figures should be interpreted as an initial, pragmatic, County-wide guide. The specific level of parking provision included in any development proposal should be agreed through joint discussions between the Local Highway Authority, Local Planning Authority, developer and his/her consultants. The agreed level of provision will take account of, amongst other things:

- The location of the proposed development and the area that it serves.
- The travel demand that is likely to be generated as a result.

Transport

Development Management

DN

- Off-site constraints and opportunities that influence the functionality of the site for the use(s) proposed.
- Mitigation measures proposed, including the delivery and implementation of Travel Planning and provisions.

[For larger sites, these factors should be explored and quantified in the transport appraisal or assessment submitted as part of the planning application for the proposed development.]

Use Class		Car and HGV Parking	Cycle Parking	
A1 Retail	Food and non-Food Retail < 500m <sup>2</sup> GFA	1 per 20m <sup>2</sup> + 1 per 100m <sup>2</sup> for staff	1 per 250m²	
A1a	Non-Food Retail > 500m² GFA	1 per 20m² + 1 per 2 Full-time staff + 1 HGV space per 1000m²	First 500 m <sup>2</sup> at 1 per 250m <sup>2</sup> , then 1 per 1000m <sup>2</sup>	
A1b	Food Retail > 500m² GFA	1 per 14m <sup>2</sup> + 1 per 2 Full-time staff + 1 HGV space per 1000m <sup>2</sup>	1 per 350m²	
A2	Financial & Professional Services/Banks/Estate Agents/Building Societies	1 per 30m²	1 per 125m²	
A3/A4/A5 Food and Drink	Restaurants/Cafes/Public Houses/Bars/Takeaways	1 per 15m² + 1 per 2 Full-time staff	1 per 100m²	
B1	Business Offices	1 per 30m²	1 per 125m²	
B2	General Industrial	1 per 30m <sup>2</sup> + 1 HGV space per 250m <sup>2</sup>	1 per 500m²	
B8	General Warehouse and Distribution	1 per 200m <sup>2</sup> + 1 HGV space per 250m <sup>2</sup>	1 per 500m²	



Use Class		Car and HGV Parking	Cycle Parking
C1	Hotels and Hostels	1 per bedroom + 1 per 2 Full-time staff	Individual assessment
C2 C2a	Residential Institutions and Hospitals	1 per 4 staff + 1 per 3 visitors	Individual assessment
C2b	Nursing Homes/Care Homes	1 per 4 beds + 1 per 2 Full-time staff	Individual assessment
D1 D1a	Non-Residential Institutions/Places of Worship/Church Halls/Public Halls	1 per 5m²	Individual assessment
D1b	Clinics/Health Centres/Surgeries	2 per consulting room + 1 for every Full-time staff	Individual assessment
D1c	Libraries	1 per 25m²	Individual assessment
D1d	Art Galleries and Museums	1 per 40m²	Individual assessment
D1e & f	Schools	1 per 2 Full-time staff + visitor + disabled provision	Individual assessment
D2 D2a	Assembly and Leisure Cinemas/Conference Halls	1 per 5 seats	Individual assessment
D2c	Function Rooms	1 per 20m²	Individual assessment
	Service stations	1 per 2 staff + 1 per 3 service bays	Individual assessment
	Car Dealerships (with external display)	1 per 2 staff + 1 per 10 forecourt cars (+ consider transporter provision)	Individual assessment
	Commercial Display Showrooms	1 per 100m <sup>2</sup> + 1 per 2 Full-time staff	Individual assessment

Motorcycle parking should be carefully considered in line with recommendations in **Manual for Streets** [Section 8.4 pages 112 and 113] - particularly in recognition of various accessibility initiatives of motor scooters for young people, etc.

# PLEASE NOTE

This guidance does not cover every potential use type or combination of mixed use development and the Highway Authority reserves the right to change, amend, or adjust these, or any other guidance figures to provide a sensible parking strategy.

DM Transport Development Management







# Appendix E TRICS Outputs

TRICS 7.2.2 160615 B17.20 (C) 2015 TRICS Consortiun	Ltd Wednesday 19/08/15 Page 1
Peter Brett Associates Queen Square Bristol	Licence No: 706710
TRIP RATE CALCULATION SELECTION PARAM	Calculation Reference: AUDIT-706710-150819-0813
Land Use : 03 - RESIDENTIAL Category : A - HOUSES PRIVATELY OWNED MULTI-MODAL VEHICLES	
Selected regions and areas: 02 SOUTH EAST EX ESSEX WS WEST SUSSEX	1 days 1 days
04 EAST ANGLIA SF SUFFOLK	1 days
05 EAST MIDLANDS LN LINCOLNSHIRE	1 days
Filtering Stage 2 selection:	
Parameter:Number of dwellingsActual Range:150 to 237 (units: )Range Selected by User:150 to 491 (units: )	
Public Transport Provision: Selection by:	Include all surveys
Date Range: 01/01/07 to 11/12/14	
<u>Selected survey days:</u> Tuesday Thursday	2 days 2 days
<u>Selected survey types:</u> Manual count Directional ATC Count	4 days 0 days
Selected Locations: Edge of Town	4
Selected Location Sub Categories: Residential Zone	4
Filtering Stage 3 selection:	
Use Class: C3	4 days
Population within 1 mile: 10,001 to 15,000 15,001 to 20,000 20,001 to 25,000	1 days 2 days 1 days

1 days 1 days 2 days

1 days 3 days

Population within 5 miles: 75,001 to 100,000 100,001 to 125,000 125,001 to 250,000

Car ownership within 5 miles: 0.6 to 1.0

1.1 to 1.5

Filtering Stage 3 selection (Cont.):

Travel Plan:	
Yes	1 days
No	3 days

## TRICS 7.2.2 160615 B17.20 (C) 2015 TRICS Consortium Ltd

### LIST OF SITES relevant to selection parameters

1	EX-03-A-01 MILTON ROAD CORRINGHAM STANFORD-LE-HOPE Edge of Town	SEMI-DET.		ESSEX
	Total Number of dwe	ellings:	237	
2	LN-03-A-01 BRANT ROAD BRACEBRIDGE LINCOLN Edge of Town Residential Zone	MIXED HOUSES	13/03/08	LINCOLNSHIRE
	Total Number of dwe	ellings:	150	
3	SF-03-A-02 STOKE PARK DRIVE MAIDENHALL IPSWICH Edge of Town Residential Zone	SEMI DET./TERRACEI	) )	SUFFOLK
	Total Number of dwe	ellings:	230	
4	WS-03-A-04 HILLS FARM LANE BROADBRIDGE HEAT HORSHAM Edge of Town Residential Zone	MIXED HOUSES	24703707	WEST SUSSEX
	Total Number of dwe Survey date:	ellings: THURSDAY	151 11/12/14	Survey Type: MANUAL

#### 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		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	4	192	0.109	4	192	0.322	4	192	0.431
08:00 - 09:00	4	192	0.191	4	192	0.449	4	192	0.640
09:00 - 10:00	4	192	0.185	4	192	0.206	4	192	0.391
10:00 - 11:00	4	192	0.152	4	192	0.221	4	192	0.373
11:00 - 12:00	4	192	0.199	4	192	0.174	4	192	0.373
12:00 - 13:00	4	192	0.184	4	192	0.193	4	192	0.377
13:00 - 14:00	4	192	0.201	4	192	0.169	4	192	0.370
14:00 - 15:00	4	192	0.190	4	192	0.186	4	192	0.376
15:00 - 16:00	4	192	0.365	4	192	0.250	4	192	0.615
16:00 - 17:00	4	192	0.307	4	192	0.202	4	192	0.509
17:00 - 18:00	4	192	0.409	4	192	0.224	4	192	0.633
18:00 - 19:00	4	192	0.262	4	192	0.210	4	192	0.472
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.754			2.806			5.560

#### Parameter summary

Trip rate parameter range selected:150 - 237Survey date date range:01/01/07Number of weekdays (Monday-Friday):4Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:0

150 - 237 (units: ) 01/01/07 - 11/12/14 4 0 0

#### 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		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	4	192	0.009	4	192	0.007	4	192	0.016
08:00 - 09:00	4	192	0.001	4	192	0.003	4	192	0.004
09:00 - 10:00	4	192	0.003	4	192	0.001	4	192	0.004
10:00 - 11:00	4	192	0.001	4	192	0.004	4	192	0.005
11:00 - 12:00	4	192	0.000	4	192	0.001	4	192	0.001
12:00 - 13:00	4	192	0.004	4	192	0.005	4	192	0.009
13:00 - 14:00	4	192	0.005	4	192	0.007	4	192	0.012
14:00 - 15:00	4	192	0.001	4	192	0.003	4	192	0.004
15:00 - 16:00	4	192	0.003	4	192	0.001	4	192	0.004
16:00 - 17:00	4	192	0.001	4	192	0.000	4	192	0.001
17:00 - 18:00	4	192	0.000	4	192	0.001	4	192	0.001
18:00 - 19:00	4	192	0.000	4	192	0.000	4	192	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.028			0.033			0.061

#### Parameter summary

#### 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		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	4	192	0.000	4	192	0.000	4	192	0.000
08:00 - 09:00	4	192	0.000	4	192	0.000	4	192	0.000
09:00 - 10:00	4	192	0.000	4	192	0.000	4	192	0.000
10:00 - 11:00	4	192	0.000	4	192	0.000	4	192	0.000
11:00 - 12:00	4	192	0.000	4	192	0.000	4	192	0.000
12:00 - 13:00	4	192	0.000	4	192	0.000	4	192	0.000
13:00 - 14:00	4	192	0.000	4	192	0.000	4	192	0.000
14:00 - 15:00	4	192	0.000	4	192	0.000	4	192	0.000
15:00 - 16:00	4	192	0.000	4	192	0.000	4	192	0.000
16:00 - 17:00	4	192	0.000	4	192	0.000	4	192	0.000
17:00 - 18:00	4	192	0.000	4	192	0.000	4	192	0.000
18:00 - 19:00	4	192	0.000	4	192	0.000	4	192	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

#### Parameter summary

#### 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	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	4	192	0.007	4	192	0.005	4	192	0.012
08:00 - 09:00	4	192	0.005	4	192	0.014	4	192	0.019
09:00 - 10:00	4	192	0.004	4	192	0.003	4	192	0.007
10:00 - 11:00	4	192	0.003	4	192	0.007	4	192	0.010
11:00 - 12:00	4	192	0.004	4	192	0.005	4	192	0.009
12:00 - 13:00	4	192	0.010	4	192	0.005	4	192	0.015
13:00 - 14:00	4	192	0.004	4	192	0.005	4	192	0.009
14:00 - 15:00	4	192	0.003	4	192	0.003	4	192	0.006
15:00 - 16:00	4	192	0.033	4	192	0.027	4	192	0.060
16:00 - 17:00	4	192	0.016	4	192	0.014	4	192	0.030
17:00 - 18:00	4	192	0.022	4	192	0.020	4	192	0.042
18:00 - 19:00	4	192	0.022	4	192	0.014	4	192	0.036
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.133			0.122			0.255

#### Parameter summary

#### 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	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	4	192	0.120	4	192	0.398	4	192	0.518
08:00 - 09:00	4	192	0.246	4	192	0.730	4	192	0.976
09:00 - 10:00	4	192	0.229	4	192	0.270	4	192	0.499
10:00 - 11:00	4	192	0.195	4	192	0.289	4	192	0.484
11:00 - 12:00	4	192	0.238	4	192	0.216	4	192	0.454
12:00 - 13:00	4	192	0.242	4	192	0.237	4	192	0.479
13:00 - 14:00	4	192	0.280	4	192	0.221	4	192	0.501
14:00 - 15:00	4	192	0.249	4	192	0.233	4	192	0.482
15:00 - 16:00	4	192	0.583	4	192	0.355	4	192	0.938
16:00 - 17:00	4	192	0.404	4	192	0.281	4	192	0.685
17:00 - 18:00	4	192	0.514	4	192	0.289	4	192	0.803
18:00 - 19:00	4	192	0.357	4	192	0.320	4	192	0.677
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.657			3.839			7.496

#### Parameter summary

#### 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		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	4	192	0.049	4	192	0.077	4	192	0.126
08:00 - 09:00	4	192	0.072	4	192	0.186	4	192	0.258
09:00 - 10:00	4	192	0.055	4	192	0.078	4	192	0.133
10:00 - 11:00	4	192	0.052	4	192	0.043	4	192	0.095
11:00 - 12:00	4	192	0.039	4	192	0.051	4	192	0.090
12:00 - 13:00	4	192	0.035	4	192	0.030	4	192	0.065
13:00 - 14:00	4	192	0.036	4	192	0.033	4	192	0.069
14:00 - 15:00	4	192	0.064	4	192	0.059	4	192	0.123
15:00 - 16:00	4	192	0.270	4	192	0.086	4	192	0.356
16:00 - 17:00	4	192	0.112	4	192	0.076	4	192	0.188
17:00 - 18:00	4	192	0.064	4	192	0.073	4	192	0.137
18:00 - 19:00	4	192	0.072	4	192	0.074	4	192	0.146
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.920			0.866			1.786

#### Parameter summary

#### 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	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	4	192	0.000	4	192	0.008	4	192	0.008
08:00 - 09:00	4	192	0.005	4	192	0.016	4	192	0.021
09:00 - 10:00	4	192	0.005	4	192	0.013	4	192	0.018
10:00 - 11:00	4	192	0.003	4	192	0.009	4	192	0.012
11:00 - 12:00	4	192	0.001	4	192	0.012	4	192	0.013
12:00 - 13:00	4	192	0.009	4	192	0.009	4	192	0.018
13:00 - 14:00	4	192	0.009	4	192	0.000	4	192	0.009
14:00 - 15:00	4	192	0.008	4	192	0.001	4	192	0.009
15:00 - 16:00	4	192	0.010	4	192	0.010	4	192	0.020
16:00 - 17:00	4	192	0.026	4	192	0.004	4	192	0.030
17:00 - 18:00	4	192	0.021	4	192	0.013	4	192	0.034
18:00 - 19:00	4	192	0.004	4	192	0.001	4	192	0.005
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.101			0.096			0.197

#### Parameter summary

#### 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	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	4	192	0.176	4	192	0.488	4	192	0.664
08:00 - 09:00	4	192	0.328	4	192	0.947	4	192	1.275
09:00 - 10:00	4	192	0.293	4	192	0.363	4	192	0.656
10:00 - 11:00	4	192	0.253	4	192	0.348	4	192	0.601
11:00 - 12:00	4	192	0.283	4	192	0.284	4	192	0.567
12:00 - 13:00	4	192	0.297	4	192	0.281	4	192	0.578
13:00 - 14:00	4	192	0.329	4	192	0.259	4	192	0.588
14:00 - 15:00	4	192	0.323	4	192	0.296	4	192	0.619
15:00 - 16:00	4	192	0.896	4	192	0.479	4	192	1.375
16:00 - 17:00	4	192	0.557	4	192	0.375	4	192	0.932
17:00 - 18:00	4	192	0.621	4	192	0.395	4	192	1.016
18:00 - 19:00	4	192	0.454	4	192	0.410	4	192	0.864
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.810			4.925			9.735

#### Parameter summary

TRICS 7.2.2 160615 B17.20 (C) 2015 TRICS Consortium Ltd	Wednesday 16/09/15
Employment	Page 1
Peter Brett Associates Queen Square Bristol	Licence No: 706710
	Calculation Reference: AUDIT-706710-150916-0958
TRIP RATE CALCULATION SELECTION PARAMETERS.	
Land Lica . 02 EMDLOV/MENT	
MULTI-MODAL VEHICLES	
Selected regions and areas	
02 SOUTH EAST	
HC HAIMPSHIKE I Udys	
KC KENT 3 days	
SC SURREY 1 days	
09 NORTH	
DH DURHAM 1 days	
TW TYNE & WEAR 2 days	
HI HIGHLAND I UAYS	
Filtering Stage 2 selection:	
Parameter: Gross floor area	
Actual Range 2000 to 19974 (units: sam)	
Pango Soloctod by Usor: 1000 to 20000 (units: sqm)	
Range Selected by User. 1000 to 20000 (units. sqift)	
Public Transport Provision:	
Selection by: Include all sur	veys
Date Range: 01/01/07 to 27/02/14	
Salactad survay days:	
Monday 2 days	
Turaday 5 uays	
Tuesday 4 days	
Wednesday 1 days	
Thursday 1 days	
Selected survey types:	
Manual count 9 days	
Directional ATC Count	
Directional ATC Count 0 days	
Selected Locations:	
Edge of Town 9	
Selected Location Sub Categories:	
Industrial Zone	
Commercial Zone 4	
Development Zone 1	
Development Zone	
Residential Zone 1	
Filtering Stage 3 selection:	
5 5	
Lise Class.	
R1 0 days	
Population within 1 mile:	
Not Known 1 days	
5,001 to 10,000 2 days	
10.001 to 15.000 4 days	
15 001 to 20 000 1 days	
25,001 to 50,000 1 days	

Filtering Stage 3 selection (Cont.):

Population within 5 miles:	
Not Known	1 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	3 days
Car ownership within 5 miles: 0.6 to 1.0 1.1 to 1.5	5 days 4 days
Travel Plan:	
Yes	5 days
No	4 days

TRICS 7.2.2 Employmen	2 160615 B17.20 (C) 2015 TRICS Consortium L	td	Wednesday 16/09/15 Page 3
Peter Brett A	ssociates Queen Square Bristol		Licence No: 706710
LIST	OF STIES relevant to selection parameters		
1	DH-02-A-02 DURHAM ROAD BOWBURN NEAR DURHAM	ANY DURHAM	
2	Edge of Town Industrial Zone Total Gross floor area: 20 Survey date: TUESDAY 2 HC-02-A-10 DI Y CO. HQ	00 sqm 7/11/12 Survey Type: MANL HAMPSHIRE	IAL
	TEMPLAR'S WAY HAMPSHIRE CORP. PARK CHANDLER'S FORD Edge of Town Commercial Zone Total Gross floor area: 159	75 sqm	
3	HI-02-A-03 OFFICE HIGHLANDER WAY	HIGHLAND	AL
4	INVERNESS Edge of Town Development Zone Total Gross floor area: 54 Survey date: WEDNESDAY 2 KC-02-A-06 LAND REGISTRY FOREST ROAD CAMDEN PARK TUNBRIDGE WELLS Edge of Town Residential Zone	00 sqm 0/05/09 Survey Type: MANL KENT	IAL
5	Total Gross floor area: 56 Survey date: TUESDAY 0 KC-02-A-07 KCC HI GHWAYS REG. KAVELIN WAY HENWOOD IND. ESTATE ASHFORD	77 sqm 1/12/09 Survey Type: MANL KENT	IAL
6	Edge of Town Commercial Zone Total Gross floor area: 25 Survey date: MONDAY 0 KC-02-A-08 KCC HI GHWAYS REG. O ST MICHAEL'S CLOSE CLAY WOOD AYLESFORD	25 sqm 5/12/11 Survey Type: MANL IFFICE KENT	IAL
	Edge of Town Industrial Zone Total Gross floor area: 31 Survey date: MONDAY 2	68 sqm 8/11/11 Survey Type: MANL	IAL

TRICS 7.2.2 Employment	160615 B17.20 (C) 2015 TRICS Cor t	nsortium Ltd	We	ednesday 16/09/15 Page 4
Peter Brett As	ssociates Queen Square Bristol			Licence No: 706710
LIST	OF STIES relevant to selection parameter	ers (Cont.)		
7	SC-02-A-14 UNILEVER SPRINGFIELD DRIVE		SURREY	
	LEATHERHEAD Edge of Town Commercial Zone Total Gross floor area: Survey date: TUESDAY	19974 sqm 10/03/09	Survey Type: MANUAL	
8	TW-02-A-03 DEVELOPMENT KINGFISHER BOULEVARD LEMINGTON NEWCASTLE UPON TYNE Edge of Town Commercial Zone	AGENCY	TYNE & WEAR	
	Total Gross floor area:	6480 sqm		
9	TW-02-A-04 HOUSING CO. EARLSWAY TEAM VALLEY TRAD. EST. GATESHEAD Edge of Town Industrial Zone	11/12/08	SURVEY TYPE: MANUAL TYNE & WEAR	
	Total Gross floor area: Survey date: TUESDAY	2500 sqm 29/09/09	Survey Type: MANUAL	

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL VEHICLES Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	19974	0.020	1	19974	0.010	1	19974	0.030
06:00 - 07:00	1	19974	0.175	1	19974	0.030	1	19974	0.205
07:00 - 08:00	9	7078	0.871	9	7078	0.102	9	7078	0.973
08:00 - 09:00	9	7078	1.854	9	7078	0.187	9	7078	2.041
09:00 - 10:00	9	7078	0.882	9	7078	0.184	9	7078	1.066
10:00 - 11:00	9	7078	0.330	9	7078	0.187	9	7078	0.517
11:00 - 12:00	9	7078	0.193	9	7078	0.207	9	7078	0.400
12:00 - 13:00	9	7078	0.259	9	7078	0.389	9	7078	0.648
13:00 - 14:00	9	7078	0.429	9	7078	0.256	9	7078	0.685
14:00 - 15:00	9	7078	0.245	9	7078	0.265	9	7078	0.510
15:00 - 16:00	9	7078	0.218	9	7078	0.462	9	7078	0.680
16:00 - 17:00	9	7078	0.179	9	7078	0.981	9	7078	1.160
17:00 - 18:00	9	7078	0.133	9	7078	1.695	9	7078	1.828
18:00 - 19:00	9	7078	0.049	9	7078	0.677	9	7078	0.726
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.837			5.632			11.469

#### Parameter summary

Trip rate parameter range selected: Survey date date range: Number of weekdays (Monday-Friday): Number of Saturdays: Number of Sundays: Surveys manually removed from selection: 2000 - 19974 (units: sqm) 01/01/07 - 27/02/14 9 0 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL PSVS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	19974	0.000	1	19974	0.000	1	19974	0.000
06:00 - 07:00	1	19974	0.010	1	19974	0.010	1	19974	0.020
07:00 - 08:00	9	7078	0.008	9	7078	0.006	9	7078	0.014
08:00 - 09:00	9	7078	0.014	9	7078	0.013	9	7078	0.027
09:00 - 10:00	9	7078	0.016	9	7078	0.014	9	7078	0.030
10:00 - 11:00	9	7078	0.013	9	7078	0.013	9	7078	0.026
11:00 - 12:00	9	7078	0.009	9	7078	0.009	9	7078	0.018
12:00 - 13:00	9	7078	0.014	9	7078	0.014	9	7078	0.028
13:00 - 14:00	9	7078	0.016	9	7078	0.014	9	7078	0.030
14:00 - 15:00	9	7078	0.013	9	7078	0.014	9	7078	0.027
15:00 - 16:00	9	7078	0.016	9	7078	0.016	9	7078	0.032
16:00 - 17:00	9	7078	0.011	9	7078	0.016	9	7078	0.027
17:00 - 18:00	9	7078	0.013	9	7078	0.009	9	7078	0.022
18:00 - 19:00	9	7078	0.006	9	7078	0.011	9	7078	0.017
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.159			0.159			0.318

#### Parameter summary

Trip rate parameter range selected: Survey date date range: Number of weekdays (Monday-Friday): Number of Saturdays: Number of Sundays: Surveys manually removed from selection: 2000 - 19974 (units: sqm) 01/01/07 - 27/02/14 9 0 0

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL CYCLISTS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	19974	0.000	1	19974	0.000	1	19974	0.000
06:00 - 07:00	1	19974	0.005	1	19974	0.000	1	19974	0.005
07:00 - 08:00	9	7078	0.025	9	7078	0.005	9	7078	0.030
08:00 - 09:00	9	7078	0.058	9	7078	0.000	9	7078	0.058
09:00 - 10:00	9	7078	0.016	9	7078	0.000	9	7078	0.016
10:00 - 11:00	9	7078	0.000	9	7078	0.000	9	7078	0.000
11:00 - 12:00	9	7078	0.000	9	7078	0.000	9	7078	0.000
12:00 - 13:00	9	7078	0.000	9	7078	0.005	9	7078	0.005
13:00 - 14:00	9	7078	0.006	9	7078	0.000	9	7078	0.006
14:00 - 15:00	9	7078	0.000	9	7078	0.002	9	7078	0.002
15:00 - 16:00	9	7078	0.000	9	7078	0.008	9	7078	0.008
16:00 - 17:00	9	7078	0.002	9	7078	0.011	9	7078	0.013
17:00 - 18:00	9	7078	0.000	9	7078	0.047	9	7078	0.047
18:00 - 19:00	9	7078	0.000	9	7078	0.019	9	7078	0.019
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.112			0.097			0.209

#### Parameter summary

Trip rate parameter range selected: Survey date date range: Number of weekdays (Monday-Friday): Number of Saturdays: Number of Sundays: Surveys manually removed from selection: 2000 - 19974 (units: sqm) 01/01/07 - 27/02/14 9 0 0

#### TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL VEHICLE OCCUPANTS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		]	DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	19974	0.035	1	19974	0.015	1	19974	0.050
06:00 - 07:00	1	19974	0.200	1	19974	0.030	1	19974	0.230
07:00 - 08:00	9	7078	0.948	9	7078	0.082	9	7078	1.030
08:00 - 09:00	9	7078	2.008	9	7078	0.144	9	7078	2.152
09:00 - 10:00	9	7078	0.931	9	7078	0.190	9	7078	1.121
10:00 - 11:00	9	7078	0.367	9	7078	0.204	9	7078	0.571
11:00 - 12:00	9	7078	0.228	9	7078	0.234	9	7078	0.462
12:00 - 13:00	9	7078	0.279	9	7078	0.446	9	7078	0.725
13:00 - 14:00	9	7078	0.502	9	7078	0.283	9	7078	0.785
14:00 - 15:00	9	7078	0.292	9	7078	0.289	9	7078	0.581
15:00 - 16:00	9	7078	0.231	9	7078	0.510	9	7078	0.741
16:00 - 17:00	9	7078	0.199	9	7078	1.075	9	7078	1.274
17:00 - 18:00	9	7078	0.116	9	7078	1.878	9	7078	1.994
18:00 - 19:00	9	7078	0.047	9	7078	0.752	9	7078	0.799
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.383			6.132			12.515

#### Parameter summary

Trip rate parameter range selected: Survey date date range: Number of weekdays (Monday-Friday): Number of Saturdays: Number of Sundays: Surveys manually removed from selection: 2000 - 19974 (units: sqm) 01/01/07 - 27/02/14 9 0 0
Peter Brett Associates Queen Square Bristol

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL PEDESTRIANS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[	DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	19974	0.000	1	19974	0.000	1	19974	0.000
06:00 - 07:00	1	19974	0.020	1	19974	0.000	1	19974	0.020
07:00 - 08:00	9	7078	0.042	9	7078	0.003	9	7078	0.045
08:00 - 09:00	9	7078	0.132	9	7078	0.009	9	7078	0.141
09:00 - 10:00	9	7078	0.066	9	7078	0.036	9	7078	0.102
10:00 - 11:00	9	7078	0.055	9	7078	0.074	9	7078	0.129
11:00 - 12:00	9	7078	0.066	9	7078	0.100	9	7078	0.166
12:00 - 13:00	9	7078	0.237	9	7078	0.322	9	7078	0.559
13:00 - 14:00	9	7078	0.276	9	7078	0.143	9	7078	0.419
14:00 - 15:00	9	7078	0.122	9	7078	0.078	9	7078	0.200
15:00 - 16:00	9	7078	0.046	9	7078	0.072	9	7078	0.118
16:00 - 17:00	9	7078	0.024	9	7078	0.121	9	7078	0.145
17:00 - 18:00	9	7078	0.016	9	7078	0.094	9	7078	0.110
18:00 - 19:00	9	7078	0.009	9	7078	0.014	9	7078	0.023
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.111			1.066			2.177

#### Parameter summary

Trip rate parameter range selected: Survey date date range: Number of weekdays (Monday-Friday): Number of Saturdays: Number of Sundays: Surveys manually removed from selection: 2000 - 19974 (units: sqm) 01/01/07 - 27/02/14 9 0 0

0

Peter Brett Associates Queen Square Bristol

#### TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL PUBLIC TRANSPORT USERS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[	DEPARTURES	;	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	19974	0.000	1	19974	0.000	1	19974	0.000
06:00 - 07:00	1	19974	0.025	1	19974	0.005	1	19974	0.030
07:00 - 08:00	9	7078	0.063	9	7078	0.002	9	7078	0.065
08:00 - 09:00	9	7078	0.265	9	7078	0.000	9	7078	0.265
09:00 - 10:00	9	7078	0.140	9	7078	0.003	9	7078	0.143
10:00 - 11:00	9	7078	0.017	9	7078	0.000	9	7078	0.017
11:00 - 12:00	9	7078	0.014	9	7078	0.005	9	7078	0.019
12:00 - 13:00	9	7078	0.019	9	7078	0.031	9	7078	0.050
13:00 - 14:00	9	7078	0.025	9	7078	0.013	9	7078	0.038
14:00 - 15:00	9	7078	0.006	9	7078	0.030	9	7078	0.036
15:00 - 16:00	9	7078	0.027	9	7078	0.025	9	7078	0.052
16:00 - 17:00	9	7078	0.000	9	7078	0.162	9	7078	0.162
17:00 - 18:00	9	7078	0.005	9	7078	0.237	9	7078	0.242
18:00 - 19:00	9	7078	0.000	9	7078	0.116	9	7078	0.116
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.606			0.629			1.235

#### Parameter summary

Trip rate parameter range selected: Survey date date range: Number of weekdays (Monday-Friday): Number of Saturdays: Number of Sundays: Surveys manually removed from selection: 2000 - 19974 (units: sqm) 01/01/07 - 27/02/14 9 0 0

0

Peter Brett Associates Queen Square Bristol

#### TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL TOTAL PEOPLE Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		]	DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	19974	0.035	1	19974	0.015	1	19974	0.050
06:00 - 07:00	1	19974	0.250	1	19974	0.035	1	19974	0.285
07:00 - 08:00	9	7078	1.079	9	7078	0.091	9	7078	1.170
08:00 - 09:00	9	7078	2.463	9	7078	0.154	9	7078	2.617
09:00 - 10:00	9	7078	1.152	9	7078	0.229	9	7078	1.381
10:00 - 11:00	9	7078	0.440	9	7078	0.278	9	7078	0.718
11:00 - 12:00	9	7078	0.308	9	7078	0.339	9	7078	0.647
12:00 - 13:00	9	7078	0.535	9	7078	0.804	9	7078	1.339
13:00 - 14:00	9	7078	0.810	9	7078	0.438	9	7078	1.248
14:00 - 15:00	9	7078	0.421	9	7078	0.399	9	7078	0.820
15:00 - 16:00	9	7078	0.303	9	7078	0.615	9	7078	0.918
16:00 - 17:00	9	7078	0.224	9	7078	1.369	9	7078	1.593
17:00 - 18:00	9	7078	0.137	9	7078	2.256	9	7078	2.393
18:00 - 19:00	9	7078	0.057	9	7078	0.901	9	7078	0.958
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			8.214			7.923			16.137

#### Parameter summary

Trip rate parameter range selected: Survey date date range: Number of weekdays (Monday-Friday): Number of Saturdays: Number of Sundays: Surveys manually removed from selection: 2000 - 19974 (units: sqm) 01/01/07 - 27/02/14 9 0 0

0





## Appendix F Junction Capacity Test Outputs





Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2015
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk
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Filename: Import of A352\_A353 RAB.j9 Path: J:\35340 Land at Moreton, Dorchester\Technical\Transport\Junction Assessments\ARCADY Report generation date: 16/09/2015 17:22:41

»(Default Analysis Set) - 2015, AM »(Default Analysis Set) - 2015, PM »(Default Analysis Set) - 2027 Ref Case, AM »(Default Analysis Set) - 2027 Ref Case, PM »(Default Analysis Set) - 2027 Ref Case + Dev, AM »(Default Analysis Set) - 2027 Ref Case + Dev, PM

## Summary of junction performance

		AM				PM		
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
				A1 - :	2015			
1 - A352 E	0.2	2.22	0.17	А	0.5	2.88	0.32	Α
2 - A353	0.5	3.32	0.33	А	0.2	2.76	0.15	А
3 - A352 W	0.3	4.14	0.24	А	0.3	3.64	0.23	А
4 - B3390	0.3	3.76	0.20	А	0.4	3.72	0.27	А
			A1 -	2027	Ref Case			
1 - A352 E	0.3	2.38	0.21	А	0.7	3.43	0.41	Α
2 - A353	0.7	3.86	0.40	А	0.2	3.05	0.19	А
3 - A352 W	0.4	4.76	0.30	А	0.4	4.06	0.29	А
4 - B3390	0.4	4.39	0.27	А	0.5	4.32	0.34	А
		A1	- 202	27 Re	f Case + Dev			
1 - A352 E	0.3	2.41	0.22	А	0.7	3.53	0.42	Α
2 - A353	0.7	3.97	0.41	А	0.2	3.10	0.19	А
3 - A352 W	0.4	4.92	0.31	А	0.4	4.12	0.29	А
4 - B3390	0.4	4.51	0.29	A	0.6	4.51	0.37	А

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

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



## File summary

## **File Description**

Title	A352 / A353
Location	Redbridge Pit Moreton
Site number	
Date	28/08/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	35340
Enumerator	PBA"ekeen
Description	

## Units

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

## **Analysis Options**

Vehicle length	Calculate Queue	Calculate detailed queueing delay	Calculate residual	RFC	Average Delay	Queue threshold
(m)	Percentiles		capacity	Threshold	threshold (s)	(PCU)
5.75				0.85	36.00	20.00

## **Demand Set Summary**

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
2015	AM	ONE HOUR	07:45	09:15	15	✓
2015	PM	ONE HOUR	16:45	18:15	15	✓
2027	AM	ONE HOUR	07:45	09:15	15	✓
2027	PM	ONE HOUR	16:45	18:15	15	✓
2027 + Dev	AM	ONE HOUR	07:45	09:15	15	✓
2027 + Dev	FM	ONE HOUR	16:45	18:15	15	✓
2027 Ref Case	AM	ONE HOUR	07:45	09:15	15	✓
2027 Ref Case	PM	ONE HOUR	16:45	18:15	15	✓
2027 Ref Case + Dev	AM	ONE HOUR	07:45	09:15	15	~
2027 Ref Case + Dev	PM	ONE HOUR	16:45	18:15	15	~



## (Default Analysis Set) - 2015, AM

## **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	2 - A353 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

### **Analysis Set Details**

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	~	~	D1,D2,D7,D8,D9,D10	100.000	100.000

## **Junction Network**

## **Junctions**

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - A352/A353/B3390	A352/A353/B3390	Standard Roundabout	1,2,3,4	3.29	А

## **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## Arms

#### Arms

Arm	Name	Description
1	A352 E	
2	A353	
3	A352 W	
4	B3390	

## **Capacity Options**

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Assume flat start profile	Initial queue (PCU)
1 - A352 E	0.00	99999.00		0.00
2 - A353	0.00	99999.00		0.00
3 - A352 W	0.00	99999.00		0.00
4 - B3390	0.00	99999.00		0.00



## **Roundabout Geometry**

Arm	V - Approach road half- width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A352 E	7.10	7.13	0.1	33.8	38.2	9.0	
2 - A353	3.68	6.86	34.5	24.9	38.2	10.0	
3 - A352 W	3.15	6.50	10.8	16.6	38.2	7.5	
4 - B3390	3.56	7.64	9.2	20.8	38.2	5.5	

## Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A352 E	0.806	2356.029
2 - A353	0.731	2005.994
3 - A352 W	0.639	1562.477
4 - B3390	0.678	1728.661

The slope and intercept shown above include any corrections and adjustments.

## **Traffic Demand**

### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Model start time	Model finish time	Time segment length	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	automatically
D1	2015	AM	ONE HOUR	07:45	09:15	15	✓

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A352 E		ONE HOUR	~	310.00	100.000
2 - A353		ONE HOUR	✓	475.00	100.000
3 - A352 W		ONE HOUR	~	243.00	100.000
4 - B3390		ONE HOUR	~	222.00	100.000

## **Origin-Destination Data**



## Demand (Veh/hr)

	То					
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390	
_	1 - A352 E	0.000	102.000	111.000	97.000	
From	2 - A353	275.000	0.000	169.000	31.000	
	3 - A352 W	141.000	80.000	0.000	22.000	
	4 - B3390	102.000	58.000	62.000	0.000	

**Proportions** 

	То					
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390	
	1 - A352 E	0.00	0.33	0.36	0.31	
From	2 - A353	0.58	0.00	0.36	0.07	
	3 - A352 W	0.58	0.33	0.00	0.09	
	4 - B3390	0.46	0.26	0.28	0.00	

## **Vehicle Mix**

**Heavy Vehicle proportion** 

	То					
From		1 - A352 E	2 - A353	3 - A352 W	4 - B3390	
	1 - A352 E	10	10	10	10	
	2 - A353	10	10	10	10	
	3 - A352 W	10	10	10	10	
	4 - B3390	10	10	10	10	

### Average PCU Per Veh

	То					
From		1 - A352 E	2 - A353	3 - A352 W	4 - B3390	
	1 - A352 E	1.100	1.100	1.100	1.100	
	2 - A353	1.100	1.100	1.100	1.100	
	3 - A352 W	1.100	1.100	1.100	1.100	
	4 - B3390	1.100	1.100	1.100	1.100	

## **Results**

## **Results Summary for whole modelled period**

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A352 E	0.17	2.22	0.2	A	284.46	426.69
2 - A353	0.33	3.32	0.5	A	435.87	653.80
3 - A352 W	0.24	4.14	0.3	A	222.98	334.47
4 - B3390	0.20	3.76	0.3	A	203.71	305.57



## Main Results for each time segment

### Main results: (07:45-08:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	233.38	58.35	150.03	2020.94	0.115	232.86	388.68	0.0	0.1	2.013	A
2 - A353	357.60	89.40	202.76	1675.34	0.213	356.52	180.13	0.0	0.3	2.727	A
3 - A352 W	182.94	45.74	302.54	1227.15	0.149	182.25	256.74	0.0	0.2	3.444	A
4 - B3390	167.13	41.78	372.15	1319.17	0.127	166.56	112.63	0.0	0.1	3.121	A

### Main results: (08:00-08:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	278.68	69.67	179.64	1997.08	0.140	278.56	465.30	0.1	0.2	2.094	A
2 - A353	427.02	106.75	242.59	1646.21	0.259	426.70	215.61	0.3	0.3	2.952	A
3 - A352 W	218.45	54.61	362.05	1189.13	0.184	218.25	307.25	0.2	0.2	3.707	A
4 - B3390	199.57	49.89	445.53	1269.41	0.157	199.41	134.77	0.1	0.2	3.364	A

### Main results: (08:15-08:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	341.32	85.33	219.95	1964.60	0.174	341.12	569.71	0.2	0.2	2.217	A
2 - A353	522.98	130.75	297.07	1606.37	0.326	522.46	264.00	0.3	0.5	3.319	A
3 - A352 W	267.55	66.89	443.31	1137.21	0.235	267.22	376.22	0.2	0.3	4.137	A
4 - B3390	244.43	61.11	545.50	1201.63	0.203	244.15	165.03	0.2	0.3	3.760	A

### Main results: (08:30-08:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	341.32	85.33	220.20	1964.39	0.174	341.32	570.32	0.2	0.2	2.217	A
2 - A353	522.98	130.75	297.27	1606.22	0.326	522.98	264.24	0.5	0.5	3.322	A
3 - A352 W	267.55	66.89	443.71	1136.96	0.235	267.54	376.55	0.3	0.3	4.140	A
4 - B3390	244.43	61.11	546.10	1201.22	0.203	244.42	165.15	0.3	0.3	3.761	A



### Main results: (08:45-09:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	278.68	69.67	180.05	1996.75	0.140	278.87	466.28	0.2	0.2	2.097	A
2 - A353	427.02	106.75	242.93	1645.97	0.259	427.53	215.99	0.5	0.4	2.955	A
3 - A352 W	218.45	54.61	362.68	1188.73	0.184	218.77	307.78	0.3	0.2	3.711	A
4 - B3390	199.57	49.89	446.49	1268.76	0.157	199.84	134.97	0.3	0.2	3.370	А

### Main results: (09:00-09:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	233.38	58.35	150.73	2020.38	0.116	233.51	390.35	0.2	0.1	2.014	A
2 - A353	357.60	89.40	203.40	1674.87	0.214	357.92	180.84	0.4	0.3	2.733	A
3 - A352 W	182.94	45.74	303.64	1226.44	0.149	183.14	257.68	0.2	0.2	3.453	A
4 - B3390	167.13	41.78	373.78	1318.06	0.127	167.30	113.01	0.2	0.1	3.128	A



## (Default Analysis Set) - 2015, PM

### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	2 - A353 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

#### **Analysis Set Details**

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	~	~	D1,D2,D7,D8,D9,D10	100.000	100.000

## **Junction Network**

### Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - A352/A353/B3390	A352/A353/B3390	Standard Roundabout	1,2,3,4	3.22	А

### **Junction Network Options**

[same as above]

## Arms

Arms [same as above]

**Capacity Options** 

[same as above]

## **Roundabout Geometry**

[same as above]

### Slope / Intercept / Capacity

[same as above]

# **Traffic Demand**

## **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Model start time	Model finish time	Time segment length	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	automatically
D2	2015	PM	ONE HOUR	16:45	18:15	15	✓



Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
~	$\checkmark$	✓	HV Percentages	2.00

## **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A352 E		ONE HOUR	~	534.00	100.000
2 - A353		ONE HOUR	✓	205.00	100.000
3 - A352 W		ONE HOUR	~	268.00	100.000
4 - B3390		ONE HOUR	~	318.00	100.000

# **Origin-Destination Data**

Demand (Veh/hr)

			То		
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
From	1 - A352 E	0.000	260.000	205.000	69.000
	2 - A353	90.000	0.000	79.000	36.000
	3 - A352 W	118.000	131.000	0.000	19.000
	4 - B3390	107.000	118.000	93.000	0.000

### Proportions

			То		
From		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
	1 - A352 E	0.00	0.49	0.38	0.13
	2 - A353	0.44	0.00	0.39	0.18
	3 - A352 W	0.44	0.49	0.00	0.07
	4 - B3390	0.34	0.37	0.29	0.00

## **Vehicle Mix**

### **Heavy Vehicle proportion**

			То		
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
From	1 - A352 E	10	10	10	10
From	2 - A353	10	10	10	10
	3 - A352 W	10	10	10	10
	4 - B3390	10	10	10	10

### Average PCU Per Veh

			То		
From		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
	1 - A352 E	1.100	1.100	1.100	1.100
	2 - A353	1.100	1.100	1.100	1.100
	3 - A352 W	1.100	1.100	1.100	1.100
	4 - B3390	1.100	1.100	1.100	1.100



## **Results**

## Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A352 E	0.32	2.88	0.5	A	490.01	735.01
2 - A353	0.15	2.76	0.2	A	188.11	282.17
3 - A352 W	0.23	3.64	0.3	A	245.92	368.88
4 - B3390	0.27	3.72	0.4	A	291.80	437.70

## Main Results for each time segment

### Main results: (16:45-17:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	402.02	100.51	256.58	1935.08	0.208	400.98	236.37	0.0	0.3	2.346	А
2 - A353	154.33	38.58	275.52	1622.13	0.095	153.92	382.04	0.0	0.1	2.452	A
3 - A352 W	201.76	50.44	146.41	1326.89	0.152	201.05	283.02	0.0	0.2	3.196	А
4 - B3390	239.41	59.85	254.37	1399.03	0.171	238.58	93.09	0.0	0.2	3.101	A

### Main results: (17:00-17:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	480.06	120.01	307.21	1894.28	0.253	479.75	282.97	0.3	0.3	2.545	A
2 - A353	184.29	46.07	329.70	1582.51	0.116	184.18	457.25	0.1	0.1	2.574	A
3 - A352 W	240.93	60.23	175.20	1308.51	0.184	240.74	338.69	0.2	0.2	3.371	A
4 - B3390	285.88	71.47	304.54	1365.02	0.209	285.64	111.40	0.2	0.3	3.335	A

### Main results: (17:15-17:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	587.94	146.99	376.15	1838.72	0.320	587.43	346.49	0.3	0.5	2.875	А
2 - A353	225.71	56.43	403.70	1528.39	0.148	225.54	559.88	0.1	0.2	2.762	A
3 - A352 W	295.07	73.77	214.53	1283.38	0.230	294.78	414.71	0.2	0.3	3.641	A
4 - B3390	350.12	87.53	372.90	1318.66	0.266	349.74	136.41	0.3	0.4	3.713	A



### Main results: (17:30-17:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	587.94	146.99	376.54	1838.40	0.320	587.94	346.82	0.5	0.5	2.878	А
2 - A353	225.71	56.43	404.07	1528.11	0.148	225.71	560.41	0.2	0.2	2.763	A
3 - A352 W	295.07	73.77	214.70	1283.27	0.230	295.07	415.08	0.3	0.3	3.642	A
4 - B3390	350.12	87.53	373.24	1318.43	0.266	350.12	136.53	0.4	0.4	3.716	A

## Main results: (17:45-18:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	480.06	120.01	307.84	1893.77	0.253	480.57	283.50	0.5	0.3	2.547	A
2 - A353	184.29	46.07	330.30	1582.07	0.116	184.45	458.11	0.2	0.1	2.575	A
3 - A352 W	240.93	60.23	175.47	1308.33	0.184	241.21	339.29	0.3	0.2	3.373	A
4 - B3390	285.88	71.47	305.09	1364.64	0.209	286.25	111.59	0.4	0.3	3.338	A

## Main results: (18:00-18:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	402.02	100.51	257.72	1934.16	0.208	402.33	237.36	0.3	0.3	2.350	A
2 - A353	154.33	38.58	276.52	1621.39	0.095	154.44	383.53	0.1	0.1	2.453	A
3 - A352 W	201.76	50.44	146.91	1326.58	0.152	201.95	284.05	0.2	0.2	3.200	A
4 - B3390	239.41	59.85	255.44	1398.31	0.171	239.64	93.43	0.3	0.2	3.106	A



# (Default Analysis Set) - 2027 Ref Case, AM

## **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	2 - A353 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

### **Analysis Set Details**

ID	Name Include in Ureport		Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)	
A1	(Default Analysis Set)	~	~	D1,D2,D7,D8,D9,D10	100.000	100.000	

## **Junction Network**

## **Junctions**

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS	
1 - A352/A353/B3390	A352/A353/B3390	Standard Roundabout	1,2,3,4	3.76	А	



## **Junction Network Options**

[same as above]

# Arms

Arms [same as above]

## **Capacity Options**

[same as above]

## **Roundabout Geometry**

[same as above]

## Slope / Intercept / Capacity

[same as above]

# **Traffic Demand**

## **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2027 Ref Case	AM	ONE HOUR	07:45	09:15	15	~

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

## **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A352 E		ONE HOUR	~	376.00	100.000
2 - A353		ONE HOUR	✓	568.00	100.000
3 - A352 W		ONE HOUR	✓	291.00	100.000
4 - B3390		ONE HOUR	~	280.00	100.000

# **Origin-Destination Data**



## Demand (Veh/hr)

	То									
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390					
_	1 - A352 E	0.000	122.000	132.000	122.000					
From	2 - A353	328.000	0.000	202.000	38.000					
	3 - A352 W	169.000	96.000	0.000	26.000					
	4 - B3390	134.000	71.000	75.000	0.000					

**Proportions** 

	То							
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390			
_	1 - A352 E	0.00	0.32	0.35	0.32			
From	2 - A353	0.58	0.00	0.36	0.07			
	3 - A352 W	0.58	0.33	0.00	0.09			
	4 - B3390	0.48	0.25	0.27	0.00			

## **Vehicle Mix**

### **Heavy Vehicle proportion**

	То									
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390					
	1 - A352 E	10	10	10	10					
From	2 - A353	10	10	10	10					
	3 - A352 W	10	10	10	10					
	4 - B3390	10	10	10	10					

### Average PCU Per Veh

	То								
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390				
	1 - A352 E	1.100	1.100	1.100	1.100				
From	2 - A353	1.100	1.100	1.100	1.100				
	3 - A352 W	1.100	1.100	1.100	1.100				
	4 - B3390	1.100	1.100	1.100	1.100				

## **Results**

## **Results Summary for whole modelled period**

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A352 E	0.21	2.38	0.3	A	345.02	517.54
2 - A353	0.40	3.86	0.7	A	521.21	781.81
3 - A352 W	0.30	4.76	0.4	A	267.03	400.54
4 - B3390	0.27	4.39	0.4	A	256.93	385.40



## Main Results for each time segment

### Main results: (07:45-08:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	283.07	70.77	181.48	1995.60	0.142	282.41	473.34	0.0	0.2	2.101	A
2 - A353	427.62	106.91	247.03	1642.97	0.260	426.22	216.86	0.0	0.4	2.956	A
3 - A352 W	219.08	54.77	366.28	1186.43	0.185	218.18	306.97	0.0	0.2	3.714	A
4 - B3390	210.80	52.70	444.81	1269.90	0.166	210.01	139.64	0.0	0.2	3.395	A

### Main results: (08:00-08:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	338.02	84.50	217.33	1966.71	0.172	337.85	566.71	0.2	0.2	2.210	А
2 - A353	510.62	127.66	295.58	1607.46	0.318	510.17	259.59	0.4	0.5	3.278	A
3 - A352 W	261.60	65.40	438.36	1140.38	0.229	261.32	367.40	0.2	0.3	4.094	A
4 - B3390	251.71	62.93	532.58	1210.39	0.208	251.46	167.10	0.2	0.3	3.754	A

### Main results: (08:15-08:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	413.98	103.50	266.05	1927.45	0.215	413.72	693.77	0.2	0.3	2.378	A
2 - A353	625.38	156.34	361.94	1558.93	0.401	624.57	317.83	0.5	0.7	3.849	A
3 - A352 W	320.40	80.10	536.69	1077.56	0.297	319.90	449.82	0.3	0.4	4.748	A
4 - B3390	308.29	77.07	651.99	1129.42	0.273	307.84	204.61	0.3	0.4	4.380	A

### Main results: (08:30-08:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	413.98	103.50	266.44	1927.13	0.215	413.98	694.73	0.3	0.3	2.378	A
2 - A353	625.38	156.34	362.23	1558.71	0.401	625.37	318.19	0.7	0.7	3.856	A
3 - A352 W	320.40	80.10	537.29	1077.17	0.297	320.39	450.31	0.4	0.4	4.756	A
4 - B3390	308.29	77.07	652.89	1128.81	0.273	308.28	204.79	0.4	0.4	4.387	А



### Main results: (08:45-09:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	338.02	84.50	217.94	1966.21	0.172	338.28	568.21	0.3	0.2	2.211	A
2 - A353	510.62	127.66	296.06	1607.11	0.318	511.42	260.16	0.7	0.5	3.287	A
3 - A352 W	261.60	65.40	439.30	1139.78	0.230	262.09	368.18	0.4	0.3	4.103	A
4 - B3390	251.71	62.93	534.00	1209.43	0.208	252.16	167.39	0.4	0.3	3.761	A

### Main results: (09:00-09:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	283.07	70.77	182.42	1994.84	0.142	283.24	475.60	0.2	0.2	2.104	А
2 - A353	427.62	106.91	247.87	1642.35	0.260	428.08	217.79	0.5	0.4	2.965	A
3 - A352 W	219.08	54.77	367.74	1185.49	0.185	219.37	308.21	0.3	0.2	3.726	A
4 - B3390	210.80	52.70	446.97	1268.44	0.166	211.05	140.14	0.3	0.2	3.404	A



# (Default Analysis Set) - 2027 Ref Case, PM

## **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	2 - A353 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

### **Analysis Set Details**

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	~	~	D1,D2,D7,D8,D9,D10	100.000	100.000

## **Junction Network**

## **Junctions**

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - A352/A353/B3390	A352/A353/B3390	Standard Roundabout	1,2,3,4	3.71	А



## **Junction Network Options**

[same as above]

# Arms

Arms [same as above]

## **Capacity Options**

[same as above]

## **Roundabout Geometry**

[same as above]

## Slope / Intercept / Capacity

[same as above]

# **Traffic Demand**

## **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2027 Ref Case	ΡM	ONE HOUR	16:45	18:15	15	✓

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

## **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A352 E		ONE HOUR	✓	659.00	100.000
2 - A353		ONE HOUR	✓	250.00	100.000
3 - A352 W		ONE HOUR	✓	324.00	100.000
4 - B3390		ONE HOUR	✓	392.00	100.000

# **Origin-Destination Data**



## Demand (Veh/hr)

			То		
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
_	1 - A352 E	0.000	315.000	248.000	96.000
From	2 - A353	109.000	0.000	95.000	46.000
	3 - A352 W	143.000	158.000	0.000	23.000
	4 - B3390	136.000	144.000	112.000	0.000

**Proportions** 

			То		
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
	1 - A352 E	0.00	0.48	0.38	0.15
From	2 - A353	0.44	0.00	0.38	0.18
	3 - A352 W	0.44	0.49	0.00	0.07
	4 - B3390	0.35	0.37	0.29	0.00

## **Vehicle Mix**

**Heavy Vehicle proportion** 

			То		
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
	1 - A352 E	10	10	10	10
From	2 - A353	10	10	10	10
	3 - A352 W	10	10	10	10
	4 - B3390	10	10	10	10

### Average PCU Per Veh

			То		
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
_	1 - A352 E	1.100	1.100	1.100	1.100
From	2 - A353	1.100	1.100	1.100	1.100
	3 - A352 W	1.100	1.100	1.100	1.100
•	4 - B3390	1.100	1.100	1.100	1.100

## **Results**

## **Results Summary for whole modelled period**

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A352 E	0.41	3.43	0.7	A	604.71	907.06
2 - A353	0.19	3.05	0.2	A	229.40	344.11
3 - A352 W	0.29	4.06	0.4	A	297.31	445.96
4 - B3390	0.34	4.32	0.5	A	359.71	539.56



## Main Results for each time segment

### Main results: (16:45-17:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	496.13	124.03	310.51	1891.61	0.262	494.71	291.08	0.0	0.4	2.575	A
2 - A353	188.21	47.05	342.25	1573.33	0.120	187.67	462.98	0.0	0.1	2.598	A
3 - A352 W	243.92	60.98	188.42	1300.06	0.188	243.00	341.49	0.0	0.2	3.402	A
4 - B3390	295.12	73.78	307.58	1362.95	0.217	294.02	123.85	0.0	0.3	3.365	A

### Main results: (17:00-17:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	592.43	148.11	371.83	1842.20	0.322	591.96	348.51	0.4	0.5	2.879	A
2 - A353	224.74	56.19	409.59	1524.08	0.147	224.60	554.19	0.1	0.2	2.770	A
3 - A352 W	291.27	72.82	225.48	1276.38	0.228	291.01	408.70	0.2	0.3	3.653	A
4 - B3390	352.40	88.10	368.28	1321.79	0.267	352.05	148.22	0.3	0.4	3.712	A

### Main results: (17:15-17:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	725.57	181.39	455.22	1775.00	0.409	724.71	426.69	0.5	0.7	3.424	A
2 - A353	275.26	68.81	501.44	1456.90	0.189	275.02	678.49	0.2	0.2	3.045	A
3 - A352 W	356.73	89.18	276.08	1244.05	0.287	356.31	500.38	0.3	0.4	4.053	A
4 - B3390	431.60	107.90	450.92	1265.76	0.341	430.99	181.47	0.4	0.5	4.310	A

### Main results: (17:30-17:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	725.57	181.39	455.81	1774.52	0.409	725.56	427.19	0.7	0.7	3.431	A
2 - A353	275.26	68.81	502.06	1456.45	0.189	275.25	679.32	0.2	0.2	3.047	A
3 - A352 W	356.73	89.18	276.35	1243.88	0.287	356.73	500.96	0.4	0.4	4.057	A
4 - B3390	431.60	107.90	451.41	1265.42	0.341	431.59	181.67	0.5	0.5	4.317	A



### Main results: (17:45-18:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	592.43	148.11	372.77	1841.44	0.322	593.28	349.30	0.7	0.5	2.887	A
2 - A353	224.74	56.19	410.55	1523.38	0.148	224.98	555.50	0.2	0.2	2.772	A
3 - A352 W	291.27	72.82	225.91	1276.10	0.228	291.68	409.62	0.4	0.3	3.657	A
4 - B3390	352.40	88.10	369.07	1321.26	0.267	353.00	148.53	0.5	0.4	3.722	A

### Main results: (18:00-18:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	496.13	124.03	312.04	1890.39	0.262	496.61	292.41	0.5	0.4	2.583	A
2 - A353	188.21	47.05	343.65	1572.30	0.120	188.36	464.99	0.2	0.1	2.601	A
3 - A352 W	243.92	60.98	189.13	1299.61	0.188	244.18	342.88	0.3	0.2	3.410	A
4 - B3390	295.12	73.78	308.98	1362.01	0.217	295.47	124.34	0.4	0.3	3.378	A



# (Default Analysis Set) - 2027 Ref Case + Dev, AM

## **Data Errors and Warnings**

Severity	Area	ltem	Description					
Warning	Geometry	2 - A353 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.					

### **Analysis Set Details**

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	~	~	D1,D2,D7,D8,D9,D10	100.000	100.000

## **Junction Network**

## **Junctions**

Junction Name		Junction Type	Arm order	Junction Delay (s)	Junction LOS	
1 - A352/A353/B3390	A352/A353/B3390	Standard Roundabout	1,2,3,4	3.86	А	



## **Junction Network Options**

[same as above]

# Arms

Arms [same as above]

## **Capacity Options**

[same as above]

## **Roundabout Geometry**

[same as above]

## Slope / Intercept / Capacity

[same as above]

# **Traffic Demand**

## **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2027 Ref Case + Dev	AM	ONE HOUR	07:45	09:15	15	$\checkmark$

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

## **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A352 E		ONE HOUR	✓	393.00	100.000
2 - A353		ONE HOUR	✓	579.00	100.000
3 - A352 W		ONE HOUR	✓	296.00	100.000
4 - B3390		ONE HOUR	✓	301.00	100.000

# **Origin-Destination Data**



## Demand (Veh/hr)

			То		
_		1 - A352 E	1 - A352 2 - E A353		4 - B3390
	1 - A352 E	0.000	122.000	132.000	139.000
From	2 - A353	328.000	0.000	202.000	49.000
	3 - A352 W	169.000	96.000	0.000	31.000
	4 - B3390	151.000	75.000	75.000	0.000

**Proportions** 

		То										
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390							
	1 - A352 E	0.00	0.31	0.34	0.35							
From	2 - A353	0.57	0.00	0.35	0.08							
	3 - A352 W	0.57	0.32	0.00	0.10							
	4 - B3390	0.50	0.25	0.25	0.00							

## **Vehicle Mix**

**Heavy Vehicle proportion** 

		То											
<b>F</b>		1 - A352 E	2 - A353	3 - A352 W	4 - B3390								
	1 - A352 E	10	10	10	10								
From	2 - A353	10	10	10	10								
	3 - A352 W	10	10	10	10								
	4 - B3390	10	10	10	10								

### Average PCU Per Veh

			То		
From		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
	1 - A352 E	1.100	1.100	1.100	1.100
	2 - A353	1.100	1.100	1.100	1.100
	3 - A352 W	1.100	1.100	1.100	1.100
	4 - B3390	1.100	1.100	1.100	1.100

## **Results**

## **Results Summary for whole modelled period**

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A352 E	0.22	2.41	0.3	A	360.62	540.94
2 - A353	0.41	3.97	0.7	A	531.30	796.95
3 - A352 W	0.31	4.92	0.4	A	271.61	407.42
4 - B3390	0.29	4.51	0.4	A	276.20	414.30



## Main Results for each time segment

### Main results: (07:45-08:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	295.87	73.97	184.47	1993.19	0.148	295.18	486.06	0.0	0.2	2.119	A
2 - A353	435.90	108.98	259.79	1633.63	0.267	434.45	219.85	0.0	0.4	2.997	A
3 - A352 W	222.84	55.71	387.28	1173.01	0.190	221.91	306.96	0.0	0.2	3.781	A
4 - B3390	226.61	56.65	444.79	1269.92	0.178	225.74	164.41	0.0	0.2	3.444	A

### Main results: (08:00-08:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	353.30	88.32	220.91	1963.82	0.180	353.12	581.96	0.2	0.2	2.234	A
2 - A353	520.51	130.13	310.85	1596.29	0.326	520.03	263.18	0.4	0.5	3.342	A
3 - A352 W	266.10	66.52	463.50	1124.32	0.237	265.80	367.39	0.2	0.3	4.192	A
4 - B3390	270.59	67.65	532.56	1210.40	0.224	270.31	196.74	0.2	0.3	3.829	A

### Main results: (08:15-08:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	432.70	108.18	270.43	1923.92	0.225	432.42	712.41	0.2	0.3	2.413	A
2 - A353	637.49	159.37	380.63	1545.26	0.413	636.63	322.21	0.5	0.7	3.959	A
3 - A352 W	325.90	81.48	567.46	1057.90	0.308	325.37	449.80	0.3	0.4	4.911	A
4 - B3390	331.41	82.85	651.94	1129.46	0.293	330.90	240.89	0.3	0.4	4.505	A

### Main results: (08:30-08:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	432.70	108.18	270.85	1923.58	0.225	432.70	713.45	0.3	0.3	2.414	А
2 - A353	637.49	159.37	380.95	1545.02	0.413	637.48	322.59	0.7	0.7	3.966	A
3 - A352 W	325.90	81.48	568.12	1057.48	0.308	325.89	450.31	0.4	0.4	4.920	A
4 - B3390	331.41	82.85	652.89	1128.81	0.294	331.40	241.12	0.4	0.4	4.514	А



### Main results: (08:45-09:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	353.30	88.32	221.57	1963.29	0.180	353.58	583.57	0.3	0.2	2.238	A
2 - A353	520.51	130.13	311.36	1595.92	0.326	521.36	263.78	0.7	0.5	3.352	A
3 - A352 W	266.10	66.52	464.53	1123.66	0.237	266.62	368.20	0.4	0.3	4.204	A
4 - B3390	270.59	67.65	534.05	1209.39	0.224	271.09	197.10	0.4	0.3	3.837	A

### Main results: (09:00-09:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	295.87	73.97	185.44	1992.40	0.149	296.05	488.44	0.2	0.2	2.122	А
2 - A353	435.90	108.98	260.68	1632.98	0.267	436.39	220.81	0.5	0.4	3.009	A
3 - A352 W	222.84	55.71	388.85	1172.01	0.190	223.15	308.22	0.3	0.2	3.794	A
4 - B3390	226.61	56.65	446.99	1268.42	0.179	226.89	165.01	0.3	0.2	3.456	A



# (Default Analysis Set) - 2027 Ref Case + Dev, PM

## **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	2 - A353 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## **Analysis Set Details**

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	~	~	D1,D2,D7,D8,D9,D10	100.000	100.000

## **Junction Network**

## **Junctions**

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - A352/A353/B3390	A352/A353/B3390	Standard Roundabout	1,2,3,4	3.83	А



## **Junction Network Options**

[same as above]

# Arms

Arms [same as above]

## **Capacity Options**

[same as above]

## **Roundabout Geometry**

[same as above]

## Slope / Intercept / Capacity

[same as above]

# **Traffic Demand**

## **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2027 Ref Case + Dev	PM	ONE HOUR	16:45	18:15	15	~

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

## **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A352 E		ONE HOUR	✓	673.00	100.000
2 - A353		ONE HOUR	✓	254.00	100.000
3 - A352 W		ONE HOUR	✓	324.00	100.000
4 - B3390		ONE HOUR	✓	425.00	100.000

# **Origin-Destination Data**



## Demand (Veh/hr)

			То		
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
_	1 - A352 E	0.000	315.000	248.000	110.000
From	2 - A353	109.000	0.000	95.000	50.000
	3 - A352 W	143.000	158.000	0.000	23.000
	4 - B3390	153.000	155.000	117.000	0.000

**Proportions** 

	То								
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390				
_	1 - A352 E	0.00	0.47	0.37	0.16				
From	2 - A353	0.43	0.00	0.37	0.20				
	3 - A352 W	0.44	0.49	0.00	0.07				
	4 - B3390	0.36	0.36	0.28	0.00				

## **Vehicle Mix**

### **Heavy Vehicle proportion**

			То		
		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
_	1 - A352 E	10	10	10	10
From	2 - A353	10	10	10	10
	3 - A352 W	10	10	10	10
	4 - B3390	10	10	10	10

### Average PCU Per Veh

			То		
From		1 - A352 E	2 - A353	3 - A352 W	4 - B3390
	1 - A352 E	1.100	1.100	1.100	1.100
	2 - A353	1.100	1.100	1.100	1.100
	3 - A352 W	1.100	1.100	1.100	1.100
	4 - B3390	1.100	1.100	1.100	1.100

## **Results**

## **Results Summary for whole modelled period**

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A352 E	0.42	3.53	0.7	A	617.56	926.33
2 - A353	0.19	3.10	0.2	A	233.07	349.61
3 - A352 W	0.29	4.12	0.4	A	297.31	445.96
4 - B3390	0.37	4.51	0.6	A	389.99	584.98



## Main Results for each time segment

### Main results: (16:45-17:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	506.67	126.67	322.49	1881.96	0.269	505.20	303.82	0.0	0.4	2.613	A
2 - A353	191.22	47.81	356.49	1562.91	0.122	190.67	471.21	0.0	0.1	2.621	A
3 - A352 W	243.92	60.98	201.93	1291.43	0.189	243.00	345.23	0.0	0.2	3.430	A
4 - B3390	319.96	79.99	307.57	1362.96	0.235	318.74	137.36	0.0	0.3	3.445	A

### Main results: (17:00-17:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	605.01	151.25	386.18	1830.64	0.330	604.52	363.76	0.4	0.5	2.934	A
2 - A353	228.34	57.09	426.64	1511.61	0.151	228.19	564.05	0.1	0.2	2.804	А
3 - A352 W	291.27	72.82	241.65	1266.05	0.230	291.01	413.18	0.2	0.3	3.692	A
4 - B3390	382.07	95.52	368.27	1321.80	0.289	381.67	164.38	0.3	0.4	3.826	A

### Main results: (17:15-17:30)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	740.99	185.25	472.77	1760.86	0.421	740.06	445.36	0.5	0.7	3.523	A
2 - A353	279.66	69.91	522.30	1441.65	0.194	279.41	690.54	0.2	0.2	3.097	A
3 - A352 W	356.73	89.18	295.87	1231.41	0.290	356.30	505.84	0.3	0.4	4.112	A
4 - B3390	467.93	116.98	450.91	1265.77	0.370	467.22	201.26	0.4	0.6	4.504	A

### Main results: (17:30-17:45)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	740.99	185.25	473.43	1760.33	0.421	740.98	445.91	0.7	0.7	3.530	A
2 - A353	279.66	69.91	522.98	1441.15	0.194	279.66	691.43	0.2	0.2	3.098	A
3 - A352 W	356.73	89.18	296.17	1231.22	0.290	356.73	506.46	0.4	0.4	4.116	A
4 - B3390	467.93	116.98	451.41	1265.43	0.370	467.92	201.48	0.6	0.6	4.513	A



### Main results: (17:45-18:00)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	605.01	151.25	387.22	1829.80	0.331	605.93	364.63	0.7	0.5	2.945	A
2 - A353	228.34	57.09	427.69	1510.84	0.151	228.59	565.45	0.2	0.2	2.809	A
3 - A352 W	291.27	72.82	242.13	1265.74	0.230	291.69	414.15	0.4	0.3	3.699	A
4 - B3390	382.07	95.52	369.08	1321.25	0.289	382.77	164.74	0.6	0.4	3.837	A

### Main results: (18:00-18:15)

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1 - A352 E	506.67	126.67	324.11	1880.65	0.269	507.17	305.23	0.5	0.4	2.623	А
2 - A353	191.22	47.81	357.98	1561.82	0.122	191.38	473.30	0.2	0.1	2.628	A
3 - A352 W	243.92	60.98	202.70	1290.94	0.189	244.19	346.67	0.3	0.2	3.439	A
4 - B3390	319.96	79.99	308.98	1362.00	0.235	320.36	137.90	0.4	0.3	3.459	А


Junctions 9							
PICADY 9 - Priority Intersection Module							
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2015							
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Filename: Crossroads.j9

Path: J:\35340 Land at Moreton, Dorchester\Technical\Transport\Junction Assessments\PICADY Report generation date: 16/09/2015 17:23:27

»(Default Analysis Set) - 2015, AM »(Default Analysis Set) - 2015, PM

»(Default Analysis Set) - 2027 Ref Case + Dev, AM

»(Default Analysis Set) - 2027 Ref Case + Dev, PM

»(Default Analysis Set) - 2027 Ref Case, AM

»(Default Analysis Set) - 2027 Ref Case, PM



## Summary of junction performance

		AM				PM		
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
				A1 - 3	2015			
Stream B-CD	0.1	7.86	0.09	А	0.1	7.46	0.07	А
Stream B-AD	0.1	10.39	0.07	В	0.1	10.99	0.05	В
Stream A-BCD	0.1	5.72	0.06	А	0.3	5.89	0.18	А
Stream A-B								
Stream A-C								
Stream D-AB	0.2	7.79	0.15	А	0.1	6.91	0.11	А
Stream D-BC	0.1	10.80	0.11	В	0.0	10.76	0.05	В
Stream C-ABD	0.1	5.29	0.05	А	0.0	5.73	0.03	А
Stream C-D								
Stream C-A								
		A1	- 202	27 Re	f Case + Dev			
Stream B-CD	1.3	48.56	0.58	E	3.4	118.89	0.85	F
Stream B-AD	3.5	67.35	0.81	F	5.3	107.85	0.90	F
Stream A-BCD	0.3	5.29	0.13	А	1.0	5.72	0.34	А
Stream A-B								
Stream A-C								
Stream D-AB	0.4	12.97	0.29	В	0.3	10.14	0.21	В
Stream D-BC	0.3	19.30	0.26	С	0.2	17.91	0.18	С
Stream C-ABD	0.5	5.40	0.20	А	0.2	6.30	0.11	А
Stream C-D								
Stream C-A								
	-	:	A1 -	2027	Ref Case	:		
Stream B-CD	0.1	8.96	0.13	A	0.1	8.85	0.13	А
Stream B-AD	0.1	13.40	0.11	В	0.1	15.14	0.08	С
Stream A-BCD	0.2	5.90	0.10	А	0.7	5.87	0.28	А
Stream A-B								
Stream A-C								
Stream D-AB	0.3	9.92	0.21	Α	0.2	8.28	0.15	А
Stream D-BC	0.2	15.25	0.19	С	0.2	14.71	0.13	В
Stream C-ABD	0.3	4.87	0.12	Α	0.1	5.66	0.06	А
Stream C-D								
Stream C-A								

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



### File summary

#### **File Description**

Title	Fiveways - Crossroads
Location	Moreton
Site number	
Date	28/08/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	35340
Enumerator	PBA"ekeen
Description	

#### Units

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

### **Analysis Options**

Vehicle length	Calculate Queue	Calculate detailed queueing delay	Calculate residual	RFC	Average Delay	Queue threshold
(m)	Percentiles		capacity	Threshold	threshold (s)	(PCU)
5.75				0.85	36.00	20.00

## **Demand Set Summary**

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
2015	AM	ONE HOUR	07:45	09:15	15	✓
2015	PM	ONE HOUR	16:45	18:15	15	✓
2027	AM	ONE HOUR	07:45	09:15	15	✓
2027	PM	ONE HOUR	16:45	18:15	15	✓
2027 Base+ Dev	AM	ONE HOUR	07:45	09:15	15	✓
2027 Base + Dev	PM	ONE HOUR	16:45	18:15	15	✓
2027 Ref Case + Dev	AM	ONE HOUR	07:45	09:15	15	~
2027 Ref Case + Dev	PM	ONE HOUR	16:45	18:15	15	~
2027 Ref Case	AM	ONE HOUR	07:45	09:15	15	~
2027 Ref Case	PM	ONE HOUR	16:45	18:15	15	~



# (Default Analysis Set) - 2015, AM

#### **Data Errors and Warnings**

No errors or warnings

#### **Analysis Set Details**

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	~	D1,D2,D7,D8,D9,D10	100.000	100.000

# **Junction Network**

#### **Junctions**

Junction	Junction Name Junction Type		Major road direction	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Crossroads	Two-way	3.58	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## Arms

#### Arms

Arm	Name	Description	Arm type
Α	B3390 N		Major
В	Redbridge Rd		Minor
С	B3390 S		Major
D	Dick O' Th' Banks		Minor

#### **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)
A - B3390 N	6.40			250.0	✓	0.00
C - B3390 S	6.40			250.0	~	0.00

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

#### **Minor Arm Geometry**

Arm	Minor arm type	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 - Redbridge Rd	One lane plus flare	10.00	5.20	4.60	4.00	4.00		1.00	25	18
D - Dick O' Th' Banks	One lane plus flare	10.00	4.50	4.00	3.80	3.80		1.00	27	14



#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	718.741	-	-	-	-	-	-	0.274	0.391	0.274	-	-	-
1	B-A	509.404	0.091	0.230	0.230	-	-	-	0.145	0.329	-	0.230	0.230	0.115
1	B-C	654.349	0.099	0.249	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	509.404	0.091	0.230	0.230	-	-	-	0.145	0.329	0.145	-	-	-
1	B-D, offside lane	509.404	0.091	0.230	0.230	-	-	-	0.145	0.329	0.145	-	-	-
1	C-B	718.741	0.274	0.274	0.391	-	-	-	-	-	-	-	-	-
1	D-A	687.838	-	-	-	-	-	-	0.262	-	0.104	-	-	-
1	D-B, nearside lane	536.170	0.153	0.153	0.346	-	-	-	0.243	0.243	0.096	-	-	-
1	D-B, offside lane	511.492	0.146	0.146	0.331	-	-	-	0.231	0.231	0.092	-	-	-
1	D-C	511.492	-	0.146	0.331	0.116	0.231	0.231	0.231	0.231	0.092	-	-	-

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	Time Period	Traffic profile	Model start time	Model finish time	Time segment length	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	automatically
D1	2015	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
~	~	$\checkmark$	HV Percentages	2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B3390 N		ONE HOUR	✓	153.00	100.000
B - Redbridge Rd		ONE HOUR	✓	66.00	100.000
C - B3390 S		ONE HOUR	✓	210.00	100.000
D - Dick O' Th' Banks		ONE HOUR	~	108.00	100.000

# **Origin-Destination Data**



#### Demand (Veh/hr)

			То			
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks	
	A - B3390 N	0.000	15.000	107.000	31.000	
From	B - Redbridge Rd	17.000	0.000	32.000	17.000	
	C - B3390 S	155.000	26.000	0.000	29.000	
	D - Dick O' Th' Banks	66.000	11.000	31.000	0.000	

#### Proportions

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
	A - B3390 N	0.00	0.10	0.70	0.20
From	B - Redbridge Rd	0.26	0.00	0.48	0.26
	C - B3390 S	0.74	0.12	0.00	0.14
	D - Dick O' Th' Banks	0.61	0.10	0.29	0.00

# **Vehicle Mix**

#### **Heavy Vehicle proportion**

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
	A - B3390 N	10	10	10	10
From	B - Redbridge Rd	10	10	10	10
	C - B3390 S	10	10	10	10
	D - Dick O' Th' Banks	10	10	10	10

#### Average PCU Per Veh

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
	A - B3390 N	1.100	1.100	1.100	1.100
From	B - Redbridge Rd	1.100	1.100	1.100	1.100
	C - B3390 S	1.100	1.100	1.100	1.100
	D - Dick O' Th' Banks	1.100	1.100	1.100	1.100

# **Results**

### **Results Summary for whole modelled period**

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.09	7.86	0.1	А	37.49	56.24
B-AD	0.07	10.39	0.1	В	23.07	34.60
A-BCD	0.06	5.72	0.1	А	34.20	51.30
A-B					13.06	19.58
A-C					93.14	139.71
D-AB	0.15	7.79	0.2	А	66.00	98.99
D-BC	0.11	10.80	0.1	В	33.11	49.66
C-ABD	0.05	5.29	0.1	А	31.09	46.63
C-D					25.47	38.21
C-A					136.14	204.21



### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	30.70	30.70	7.67	0.00	522.54	0.059	30.45	0.0	0.1	7.312	Α
B-AD	18.99	18.99	4.75	0.00	402.72	0.047	18.80	0.0	0.0	9.372	Α
A- BCD	26.98	26.98	6.75	0.00	665.40	0.041	26.77	0.0	0.1	5.636	A
A-B	10.84	10.84	2.71	0.00			10.84				
A-C	77.36	77.36	19.34	0.00			77.36				
D-AB	54.07	54.07	13.52	0.00	564.88	0.096	53.65	0.0	0.1	7.035	Α
D-BC	27.24	27.24	6.81	0.00	402.74	0.068	26.95	0.0	0.1	9.573	Α
C- ABD	24.16	24.16	6.04	0.00	704.69	0.034	23.98	0.0	0.0	5.287	A
C-D	21.11	21.11	5.28	0.00			21.11				
C-A	112.83	112.83	28.21	0.00			112.83				

#### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	36.71	36.71	9.18	0.00	514.46	0.071	36.66	0.1	0.1	7.534	Α
B-AD	22.62	22.62	5.65	0.00	390.69	0.058	22.57	0.0	0.1	9.778	Α
A- BCD	33.21	33.21	8.30	0.00	668.19	0.050	33.15	0.1	0.1	5.668	A
А-В	12.83	12.83	3.21	0.00			12.83				
A-C	91.51	91.51	22.88	0.00			91.51				
D-AB	64.63	64.63	16.16	0.00	555.02	0.116	64.53	0.1	0.1	7.337	А
D-BC	32.46	32.46	8.11	0.00	390.25	0.083	32.38	0.1	0.1	10.057	В
C- ABD	30.09	30.09	7.52	0.00	714.99	0.042	30.03	0.0	0.1	5.255	A
C-D	25.01	25.01	6.25	0.00			25.01				
C-A	133.69	133.69	33.42	0.00			133.69				

#### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	45.07	45.07	11.27	0.00	503.11	0.090	44.99	0.1	0.1	7.858	Α
B-AD	27.60	27.60	6.90	0.00	374.19	0.074	27.52	0.1	0.1	10.382	В
A- BCD	42.38	42.38	10.59	0.00	672.35	0.063	42.29	0.1	0.1	5.713	A
A-B	15.50	15.50	3.88	0.00			15.50				
A-C	110.58	110.58	27.64	0.00			110.58				
D-AB	79.28	79.28	19.82	0.00	541.20	0.146	79.12	0.1	0.2	7.788	Α
D-BC	39.63	39.63	9.91	0.00	372.89	0.106	39.52	0.1	0.1	10.795	В
C- ABD	38.97	38.97	9.74	0.00	729.42	0.053	38.88	0.1	0.1	5.215	A
C-D	30.30	30.30	7.57	0.00			30.30				
C-A	161.95	161.95	40.49	0.00			161.95				



#### Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	45.07	45.07	11.27	0.00	503.05	0.090	45.07	0.1	0.1	7.860	Α
B-AD	27.60	27.60	6.90	0.00	374.11	0.074	27.59	0.1	0.1	10.388	В
A- BCD	42.39	42.39	10.60	0.00	672.34	0.063	42.39	0.1	0.1	5.715	A
A-B	15.50	15.50	3.87	0.00			15.50				
A-C	110.56	110.56	27.64	0.00			110.56				
D-AB	79.28	79.28	19.82	0.00	541.11	0.147	79.28	0.2	0.2	7.794	Α
D-BC	39.63	39.63	9.91	0.00	372.82	0.106	39.62	0.1	0.1	10.803	В
C- ABD	38.99	38.99	9.75	0.00	729.42	0.053	38.99	0.1	0.1	5.215	A
C-D	30.30	30.30	7.57	0.00			30.30				
C-A	161.93	161.93	40.48	0.00			161.93				

#### Main results: (08:45-09:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	36.72	36.72	9.18	0.00	514.37	0.071	36.80	0.1	0.1	7.538	А
B-AD	22.62	22.62	5.65	0.00	390.55	0.058	22.68	0.1	0.1	9.789	Α
A- BCD	33.23	33.23	8.31	0.00	668.17	0.050	33.31	0.1	0.1	5.674	A
A-B	12.83	12.83	3.21	0.00			12.83				
A-C	91.49	91.49	22.87	0.00			91.49				
D-AB	64.64	64.64	16.16	0.00	554.87	0.116	64.79	0.2	0.1	7.349	А
D-BC	32.45	32.45	8.11	0.00	390.15	0.083	32.56	0.1	0.1	10.072	В
C- ABD	30.12	30.12	7.53	0.00	714.98	0.042	30.20	0.1	0.1	5.258	A
C-D	25.01	25.01	6.25	0.00			25.01				
C-A	133.66	133.66	33.42	0.00			133.66				

#### Main results: (09:00-09:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	30.70	30.70	7.67	0.00	522.38	0.059	30.76	0.1	0.1	7.325	А
B-AD	18.99	18.99	4.75	0.00	402.46	0.047	19.04	0.1	0.1	9.389	А
A- BCD	27.02	27.02	6.75	0.00	665.35	0.041	27.08	0.1	0.1	5.643	A
A-B	10.84	10.84	2.71	0.00			10.84				
A-C	77.33	77.33	19.33	0.00			77.33				
D-AB	54.07	54.07	13.52	0.00	564.60	0.096	54.18	0.1	0.1	7.056	А
D-BC	27.24	27.24	6.81	0.00	402.56	0.068	27.31	0.1	0.1	9.596	А
C- ABD	24.21	24.21	6.05	0.00	704.63	0.034	24.27	0.1	0.0	5.291	A
C-D	21.10	21.10	5.28	0.00			21.10				
C-A	112.79	112.79	28.20	0.00			112.79				



# (Default Analysis Set) - 2015, PM

#### **Data Errors and Warnings**

No errors or warnings

#### **Analysis Set Details**

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	~	D1,D2,D7,D8,D9,D10	100.000	100.000

# **Junction Network**

#### Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Crossroads	Two-way	3.22	А

#### **Junction Network Options**

[same as above]

## Arms

Arms [same as above]

#### **Major Arm Geometry**

[same as above]

#### **Minor Arm Geometry**

[same as above]

#### Slope / Intercept / Capacity

[same as above]

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Model start time	Model finish time	Time segment length	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	automatically
D2	2015	PM	ONE HOUR	16:45	18:15	15	~

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



### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B3390 N		ONE HOUR	✓	288.00	100.000
B - Redbridge Rd		ONE HOUR	✓	50.00	100.000
C - B3390 S		ONE HOUR	✓	142.00	100.000
D - Dick O' Th' Banks		ONE HOUR	✓	74.00	100.000

# **Origin-Destination Data**

Demand (Veh/hr)

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
	A - B3390 N	0.000	8.000	193.000	87.000
From	B - Redbridge Rd	12.000	0.000	30.000	8.000
	C - B3390 S	93.000	14.000	0.000	35.000
	D - Dick O' Th' Banks	56.000	7.000	11.000	0.000

#### **Proportions**

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
	A - B3390 N	0.00	0.03	0.67	0.30
From	B - Redbridge Rd	0.24	0.00	0.60	0.16
	C - B3390 S	0.65	0.10	0.00	0.25
	D - Dick O' Th' Banks	0.76	0.09	0.15	0.00

## **Vehicle Mix**

#### **Heavy Vehicle proportion**

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
	A - B3390 N	10	10	10	10
From	B - Redbridge Rd	10	10	10	10
	C - B3390 S	10	10	10	10
	D - Dick O' Th' Banks	10	10	10	10

#### Average PCU Per Veh

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
	A - B3390 N	1.100	1.100	1.100	1.100
From	B - Redbridge Rd	1.100	1.100	1.100	1.100
	C - B3390 S	1.100	1.100	1.100	1.100
	D - Dick O' Th' Banks	1.100	1.100	1.100	1.100



# **Results**

## Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.07	7.46	0.1	A	31.32	46.98
B-AD	0.05	10.99	0.1	В	14.56	21.85
A-BCD	0.18	5.89	0.3	A	107.45	161.17
A-B					6.24	9.36
A-C					150.59	225.88
D-AB	0.11	6.91	0.1	A	54.69	82.04
D-BC	0.05	10.76	0.0	В	13.21	19.82
C-ABD	0.03	5.73	0.0	A	15.72	23.57
C-D					31.33	47.00
C-A					83.25	124.88

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	25.67	25.67	6.42	0.00	544.54	0.047	25.47	0.0	0.0	6.934	Α
B-AD	11.97	11.97	2.99	0.00	377.97	0.032	11.84	0.0	0.0	9.830	А
A- BCD	82.24	82.24	20.56	0.00	715.90	0.115	81.58	0.0	0.2	5.671	A
A-B	5.36	5.36	1.34	0.00			5.36				
A-C	129.23	129.23	32.31	0.00			129.23				
D-AB	44.85	44.85	11.21	0.00	602.10	0.074	44.53	0.0	0.1	6.454	Α
D-BC	10.86	10.86	2.71	0.00	382.39	0.028	10.74	0.0	0.0	9.683	Α
C- ABD	12.33	12.33	3.08	0.00	648.02	0.019	12.24	0.0	0.0	5.662	A
C-D	25.86	25.86	6.46	0.00			25.86				
C-A	68.71	68.71	17.18	0.00			68.71				



#### Main results: (17:00-17:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	30.67	30.67	7.67	0.00	534.43	0.057	30.63	0.0	0.1	7.145	Α
B-AD	14.28	14.28	3.57	0.00	364.07	0.039	14.24	0.0	0.0	10.291	В
A- BCD	103.98	103.98	25.99	0.00	729.48	0.143	103.77	0.2	0.2	5.754	A
A-B	6.17	6.17	1.54	0.00			6.17				
A-C	148.76	148.76	37.19	0.00			148.76				
D-AB	53.57	53.57	13.39	0.00	595.49	0.090	53.50	0.1	0.1	6.642	Α
D-BC	12.95	12.95	3.24	0.00	368.89	0.035	12.92	0.0	0.0	10.113	В
C- ABD	15.24	15.24	3.81	0.00	647.57	0.024	15.21	0.0	0.0	5.692	A
C-D	30.74	30.74	7.68	0.00			30.74				
C-A	81.68	81.68	20.42	0.00			81.68				

#### Main results: (17:15-17:30)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	37.61	37.61	9.40	0.00	520.44	0.072	37.54	0.1	0.1	7.455	Α
B-AD	17.44	17.44	4.36	0.00	345.00	0.051	17.40	0.0	0.1	10.987	В
A- BCD	135.94	135.94	33.99	0.00	747.58	0.182	135.61	0.2	0.3	5.885	A
A-B	7.21	7.21	1.80	0.00			7.21				
A-C	173.94	173.94	43.49	0.00			173.94				
D-AB	65.65	65.65	16.41	0.00	586.27	0.112	65.54	0.1	0.1	6.911	А
D-BC	15.83	15.83	3.96	0.00	350.38	0.045	15.79	0.0	0.0	10.758	В
C- ABD	19.56	19.56	4.89	0.00	647.59	0.030	19.52	0.0	0.0	5.731	A
C-D	37.40	37.40	9.35	0.00			37.40				
C-A	99.38	99.38	24.85	0.00			99.38				

#### Main results: (17:30-17:45)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	37.61	37.61	9.40	0.00	520.33	0.072	37.61	0.1	0.1	7.456	Α
B-AD	17.44	17.44	4.36	0.00	344.92	0.051	17.44	0.1	0.1	10.992	В
A- BCD	136.02	136.02	34.01	0.00	747.65	0.182	136.02	0.3	0.3	5.893	A
A-B	7.21	7.21	1.80	0.00			7.21				
A-C	173.86	173.86	43.47	0.00			173.86				
D-AB	65.65	65.65	16.41	0.00	586.21	0.112	65.64	0.1	0.1	6.914	A
D-BC	15.83	15.83	3.96	0.00	350.28	0.045	15.83	0.0	0.0	10.763	В
C- ABD	19.57	19.57	4.89	0.00	647.50	0.030	19.56	0.0	0.0	5.733	A
C-D	37.40	37.40	9.35	0.00			37.40				
C-A	99.38	99.38	24.84	0.00			99.38				



#### Main results: (17:45-18:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	30.67	30.67	7.67	0.00	534.25	0.057	30.74	0.1	0.1	7.149	Α
B-AD	14.27	14.27	3.57	0.00	363.94	0.039	14.32	0.1	0.0	10.299	В
A- BCD	104.08	104.08	26.02	0.00	729.59	0.143	104.40	0.3	0.2	5.764	A
A-B	6.16	6.16	1.54	0.00			6.16				
A-C	148.66	148.66	37.16	0.00			148.66				
D-AB	53.58	53.58	13.39	0.00	595.39	0.090	53.68	0.1	0.1	6.648	Α
D-BC	12.95	12.95	3.24	0.00	368.74	0.035	12.99	0.0	0.0	10.122	В
C- ABD	15.25	15.25	3.81	0.00	647.41	0.024	15.29	0.0	0.0	5.697	A
C-D	30.74	30.74	7.68	0.00			30.74				
C-A	81.67	81.67	20.42	0.00			81.67				

#### Main results: (18:00-18:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	25.67	25.67	6.42	0.00	544.24	0.047	25.72	0.1	0.0	6.942	Α
B-AD	11.97	11.97	2.99	0.00	377.75	0.032	12.01	0.0	0.0	9.843	Α
A- BCD	82.41	82.41	20.60	0.00	716.00	0.115	82.62	0.2	0.2	5.689	A
A-B	5.35	5.35	1.34	0.00			5.35				
A-C	129.06	129.06	32.27	0.00			129.06				
D-AB	44.85	44.85	11.21	0.00	601.91	0.075	44.93	0.1	0.1	6.463	Α
D-BC	10.86	10.86	2.71	0.00	382.12	0.028	10.89	0.0	0.0	9.699	Α
C- ABD	12.35	12.35	3.09	0.00	647.73	0.019	12.38	0.0	0.0	5.668	A
C-D	25.85	25.85	6.46	0.00			25.85				
C-A	68.70	68.70	17.17	0.00			68.70				



# (Default Analysis Set) - 2027 Ref Case + Dev, AM

#### **Data Errors and Warnings**

No errors or warnings

#### **Analysis Set Details**

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	~	D1,D2,D7,D8,D9,D10	100.000	100.000

## **Junction Network**

#### Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS	
1 - (untitled)	(untitled)	Crossroads	Two-way	15.12	С	

#### **Junction Network Options**

[same as above]

## Arms

Arms [same as above]

#### **Major Arm Geometry**

[same as above]

#### **Minor Arm Geometry**

[same as above]

#### Slope / Intercept / Capacity

[same as above]

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2027 Ref Case + Dev	AM	ONE HOUR	07:45	09:15	15	~



Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	$\checkmark$	✓	HV Percentages	2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B3390 N		ONE HOUR	✓	425.00	100.000
B - Redbridge Rd		ONE HOUR	✓	274.00	100.000
C - B3390 S		ONE HOUR	✓	492.00	100.000
D - Dick O' Th' Banks		ONE HOUR	✓	162.00	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

			То			
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks	
	A - B3390 N	0.000	173.000	208.000	44.000	
From	B- Redbridge Rd		0.000	58.000	37.000	
	C - B3390 S	371.000	68.000	0.000	53.000	
	D - Dick O' Th' Banks 81.0		36.000	45.000	0.000	

#### Proportions

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
	A - B3390 N	0.00	0.41	0.49	0.10
From	B - Redbridge Rd	0.65	0.00	0.21	0.14
	C - B3390 S	0.75	0.14	0.00	0.11
	D - Dick O' Th' Banks	0.50	0.22	0.28	0.00

## **Vehicle Mix**

#### **Heavy Vehicle proportion**

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
	A - B3390 N	10	10	10	10
From	B - Redbridge Rd	10	10	10	10
	C - B3390 S	10	10	10	10
	D - Dick O' Th' Banks	10	10	10	10

#### Average PCU Per Veh

			То			
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks	
	A - B3390 N	1.100	1.100	1.100	1.100	
From	B - Redbridge Rd	1.100	1.100	1.100	1.100	
	C - B3390 S	1.100	1.100	1.100	1.100	
	D - Dick O' Th' Banks	1.100	1.100	1.100	1.100	



# **Results**

## Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.58	48.56	1.3	E	80.13	120.20
B-AD	0.81	67.35	3.5	F	171.29	256.94
A-BCD	0.13	5.29	0.3	A	75.88	113.83
A-B					142.62	213.94
A-C					171.48	257.22
D-AB	0.29	12.97	0.4	В	93.37	140.06
D-BC	0.26	19.30	0.3	С	55.28	82.92
C-ABD	0.20	5.40	0.5	A	123.70	185.55
C-D					40.97	61.46
C-A					286.79	430.19

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	63.08	63.08	15.77	0.00	364.75	0.173	62.26	0.0	0.2	11.870	В
B-AD	143.20	143.20	35.80	0.00	338.94	0.422	140.37	0.0	0.7	17.891	С
A- BCD	53.87	53.87	13.47	0.00	736.31	0.073	53.35	0.0	0.1	5.270	A
A-B	120.82	120.82	30.21	0.00			120.82				
A-C	145.27	145.27	36.32	0.00			145.27				
D-AB	75.94	75.94	18.98	0.00	462.36	0.164	75.16	0.0	0.2	9.279	А
D-BC	46.02	46.02	11.51	0.00	328.29	0.140	45.38	0.0	0.2	12.698	В
C- ABD	86.53	86.53	21.63	0.00	770.30	0.112	85.68	0.0	0.2	5.258	A
C-D	35.48	35.48	8.87	0.00			35.48				
C-A	248.39	248.39	62.10	0.00			248.39				



#### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	77.45	77.45	19.36	0.00	303.57	0.255	76.94	0.2	0.3	15.847	С
B-AD	168.87	168.87	42.22	0.00	305.93	0.552	167.04	0.7	1.2	25.569	D
A- BCD	71.64	71.64	17.91	0.00	755.99	0.095	71.39	0.1	0.2	5.263	A
A-B	140.96	140.96	35.24	0.00			140.96				
A-C	169.47	169.47	42.37	0.00			169.47				
D-AB	91.23	91.23	22.81	0.00	434.44	0.210	90.96	0.2	0.3	10.472	В
D-BC	54.40	54.40	13.60	0.00	297.37	0.183	54.17	0.2	0.2	14.787	В
C- ABD	115.59	115.59	28.90	0.00	796.23	0.145	115.24	0.2	0.3	5.291	A
C-D	40.84	40.84	10.21	0.00			40.84				
C-A	285.87	285.87	71.47	0.00			285.87				

#### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	99.18	99.18	24.79	0.00	187.03	0.530	96.37	0.3	1.0	38.620	E
B-AD	202.50	202.50	50.63	0.00	253.49	0.799	194.91	1.2	3.1	55.453	F
A- BCD	101.79	101.79	25.45	0.00	784.88	0.130	101.37	0.2	0.3	5.274	A
A-B	166.25	166.25	41.56	0.00			166.25				
A-C	199.89	199.89	49.97	0.00			199.89				
D-AB	112.88	112.88	28.22	0.00	391.37	0.288	112.34	0.3	0.4	12.875	В
D-BC	65.48	65.48	16.37	0.00	253.45	0.258	65.00	0.2	0.3	19.054	С
C- ABD	168.42	168.42	42.11	0.00	836.93	0.201	167.73	0.3	0.5	5.389	A
C-D	46.66	46.66	11.67	0.00			46.66				
C-A	326.62	326.62	81.66	0.00			326.62				

## Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	99.74	99.74	24.94	0.00	171.63	0.581	98.82	1.0	1.3	48.564	E
B-AD	201.94	201.94	50.48	0.00	250.39	0.806	200.20	3.1	3.5	67.352	F
A- BCD	101.98	101.98	25.50	0.00	784.91	0.130	101.97	0.3	0.3	5.281	А
A-B	166.17	166.17	41.54	0.00			166.17				
A-C	199.79	199.79	49.95	0.00			199.79				
D-AB	112.94	112.94	28.24	0.00	390.45	0.289	112.92	0.4	0.4	12.969	В
D-BC	65.42	65.42	16.36	0.00	251.84	0.260	65.40	0.3	0.3	19.303	С
C- ABD	168.73	168.73	42.18	0.00	837.16	0.202	168.71	0.5	0.5	5.401	A
C-D	46.62	46.62	11.66	0.00			46.62				
C-A	326.35	326.35	81.59	0.00			326.35				



#### Main results: (08:45-09:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	78.05	78.05	19.51	0.00	288.02	0.271	81.59	1.3	0.4	17.720	С
B-AD	168.28	168.28	42.07	0.00	303.56	0.554	176.96	3.5	1.3	30.094	D
A- BCD	71.87	71.87	17.97	0.00	756.02	0.095	72.27	0.3	0.2	5.275	А
A-B	140.85	140.85	35.21	0.00			140.85				
A-C	169.35	169.35	42.34	0.00			169.35				
D-AB	91.28	91.28	22.82	0.00	433.39	0.211	91.81	0.4	0.3	10.557	В
D-BC	54.35	54.35	13.59	0.00	295.08	0.184	54.81	0.3	0.2	15.011	С
C- ABD	115.93	115.93	28.98	0.00	796.52	0.146	116.60	0.5	0.3	5.307	A
C-D	40.80	40.80	10.20	0.00			40.80				
C-A	285.57	285.57	71.39	0.00			285.57				

#### Main results: (09:00-09:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	63.30	63.30	15.82	0.00	358.96	0.176	63.96	0.4	0.2	12.231	В
B-AD	142.98	142.98	35.75	0.00	337.93	0.423	145.24	1.3	0.8	18.893	С
A- BCD	54.16	54.16	13.54	0.00	736.20	0.074	54.42	0.2	0.1	5.287	A
A-B	120.69	120.69	30.17	0.00			120.69				
A-C	145.11	145.11	36.28	0.00			145.11				
D-AB	75.97	75.97	18.99	0.00	461.47	0.165	76.26	0.3	0.2	9.353	Α
D-BC	45.99	45.99	11.50	0.00	326.96	0.141	46.25	0.2	0.2	12.835	В
C- ABD	87.01	87.01	21.75	0.00	770.46	0.113	87.37	0.3	0.2	5.280	A
C-D	35.42	35.42	8.86	0.00			35.42				
C-A	247.97	247.97	61.99	0.00			247.97				



# (Default Analysis Set) - 2027 Ref Case + Dev, PM

#### **Data Errors and Warnings**

No errors or warnings

#### **Analysis Set Details**

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	~	D1,D2,D7,D8,D9,D10	100.000	100.000

# **Junction Network**

#### Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Crossroads	Two-way	25.09	D

#### **Junction Network Options**

[same as above]

## Arms

Arms [same as above]

#### **Major Arm Geometry**

[same as above]

#### **Minor Arm Geometry**

[same as above]

#### Slope / Intercept / Capacity

[same as above]

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2027 Ref Case + Dev	PM	ONE HOUR	16:45	18:15	15	✓



Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	$\checkmark$	✓	HV Percentages	2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B3390 N		ONE HOUR	✓	667.00	100.000
B - Redbridge Rd		ONE HOUR	✓	276.00	100.000
C - B3390 S		ONE HOUR	✓	296.00	100.000
D - Dick O' Th' Banks		ONE HOUR	✓	129.00	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

			То			
From		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks	
	A - B3390 N	0.000	153.000	405.000	109.000	
	B - Redbridge Rd	B- tedbridge Rd		72.000	32.000	
	C - B3390 S	206.000	37.000	0.000	53.000	
	D - Dick O' Th' Banks	74.000	25.000	30.000	0.000	

#### Proportions

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
From	A - B3390 N	0.00	0.23	0.61	0.16
	B- Redbridge 0.62 Rd		0.00	0.26	0.12
	C - B3390 S	0.70	0.13	0.00	0.18
	D - Dick O' Th' Banks	0.57	0.19	0.23	0.00

# **Vehicle Mix**

#### **Heavy Vehicle proportion**

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
From	A - B3390 N	10	10	10	10
	B - Redbridge Rd	10	10	10	10
	C - B3390 S	10	10	10	10
	D - Dick O' Th' Banks	10	10	10	10

#### Average PCU Per Veh

			То		
From		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
	A - B3390 N	1.100	1.100	1.100	1.100
	B - Redbridge Rd	1.100	1.100	1.100	1.100
	C - B3390 S	1.100	1.100	1.100	1.100
	D - Dick O' Th' Banks	1.100	1.100	1.100	1.100



# **Results**

## Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.85	118.89	3.4	F	89.80	134.70
B-AD	0.90	107.85	5.3	F	163.46	245.20
A-BCD	0.34	5.72	1.0	A	236.15	354.23
A-B					103.07	154.60
A-C					272.83	409.24
D-AB	0.21	10.14	0.3	В	80.59	120.89
D-BC	0.18	17.91	0.2	С	37.78	56.67
C-ABD	0.11	6.30	0.2	A	54.82	82.23
C-D					44.36	66.55
C-A					172.43	258.65

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	71.06	71.06	17.77	0.00	356.89	0.199	70.08	0.0	0.2	12.510	В
B-AD	136.73	136.73	34.18	0.00	319.95	0.427	133.85	0.0	0.7	19.069	С
A- BCD	157.44	157.44	39.36	0.00	854.60	0.184	155.90	0.0	0.4	5.151	A
A-B	94.52	94.52	23.63	0.00			94.52				
A-C	250.20	250.20	62.55	0.00			250.20				
D-AB	65.79	65.79	16.45	0.00	508.57	0.129	65.20	0.0	0.1	8.109	Α
D-BC	31.33	31.33	7.83	0.00	320.53	0.098	30.90	0.0	0.1	12.413	В
C- ABD	39.36	39.36	9.84	0.00	639.34	0.062	38.96	0.0	0.1	5.994	A
C-D	37.55	37.55	9.39	0.00			37.55				
C-A	145.94	145.94	36.48	0.00			145.94				



#### Main results: (17:00-17:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	86.83	86.83	21.71	0.00	289.36	0.300	86.14	0.2	0.4	17.652	С
B-AD	161.29	161.29	40.32	0.00	282.96	0.570	159.21	0.7	1.2	28.594	D
A- BCD	219.55	219.55	54.89	0.00	899.90	0.244	218.80	0.4	0.6	5.296	A
A-B	104.21	104.21	26.05	0.00			104.21				
A-C	275.86	275.86	68.96	0.00			275.86				
D-AB	78.83	78.83	19.71	0.00	486.90	0.162	78.66	0.1	0.2	8.814	Α
D-BC	37.14	37.14	9.28	0.00	290.23	0.128	36.99	0.1	0.1	14.206	В
C- ABD	52.16	52.16	13.04	0.00	641.91	0.081	51.97	0.1	0.1	6.104	A
C-D	43.78	43.78	10.94	0.00			43.78				
C-A	170.16	170.16	42.54	0.00			170.16				

#### Main results: (17:15-17:30)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	110.52	110.52	27.63	0.00	156.77	0.705	104.52	0.4	1.9	63.235	F
B-AD	193.36	193.36	48.34	0.00	222.01	0.871	182.06	1.2	4.1	75.231	F
A- BCD	329.99	329.99	82.50	0.00	962.57	0.343	328.41	0.6	1.0	5.693	A
A-B	110.88	110.88	27.72	0.00			110.88				
A-C	293.51	293.51	73.38	0.00			293.51				
D-AB	97.12	97.12	24.28	0.00	453.11	0.214	96.80	0.2	0.3	10.094	В
D-BC	44.92	44.92	11.23	0.00	248.29	0.181	44.63	0.1	0.2	17.650	С
C- ABD	72.69	72.69	18.17	0.00	645.77	0.113	72.37	0.1	0.2	6.285	A
C-D	51.81	51.81	12.95	0.00			51.81				
C-A	201.39	201.39	50.35	0.00			201.39				

#### Main results: (17:30-17:45)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	111.33	111.33	27.83	0.00	130.48	0.853	105.39	1.9	3.4	118.893	F
B-AD	192.55	192.55	48.14	0.00	214.93	0.896	187.59	4.1	5.3	107.849	F
A- BCD	330.93	330.93	82.73	0.00	963.27	0.344	330.88	1.0	1.0	5.724	А
A-B	110.62	110.62	27.66	0.00			110.62				
A-C	292.83	292.83	73.21	0.00			292.83				
D-AB	97.15	97.15	24.29	0.00	452.23	0.215	97.14	0.3	0.3	10.138	В
D-BC	44.88	44.88	11.22	0.00	245.82	0.183	44.86	0.2	0.2	17.912	С
C- ABD	72.84	72.84	18.21	0.00	645.51	0.113	72.83	0.2	0.2	6.296	A
C-D	51.79	51.79	12.95	0.00			51.79				
C-A	201.28	201.28	50.32	0.00			201.28				



#### Main results: (17:45-18:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	87.75	87.75	21.94	0.00	261.07	0.336	99.27	3.4	0.5	23.710	С
B-AD	160.36	160.36	40.09	0.00	275.80	0.581	175.55	5.3	1.5	40.168	E
A- BCD	220.51	220.51	55.13	0.00	900.89	0.245	222.06	1.0	0.6	5.331	A
A-B	103.95	103.95	25.99	0.00			103.95				
A-C	275.16	275.16	68.79	0.00			275.16				
D-AB	78.87	78.87	19.72	0.00	485.81	0.162	79.17	0.3	0.2	8.860	Α
D-BC	37.10	37.10	9.28	0.00	285.86	0.130	37.38	0.2	0.2	14.506	В
C- ABD	52.32	52.32	13.08	0.00	641.49	0.082	52.63	0.2	0.2	6.121	A
C-D	43.75	43.75	10.94	0.00			43.75				
C-A	170.03	170.03	42.51	0.00			170.03				

#### Main results: (18:00-18:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	71.29	71.29	17.82	0.00	349.91	0.204	72.34	0.5	0.3	13.019	В
B-AD	136.50	136.50	34.12	0.00	318.68	0.428	139.42	1.5	0.8	20.387	С
A- BCD	158.49	158.49	39.62	0.00	855.25	0.185	159.27	0.6	0.4	5.187	A
A-B	94.23	94.23	23.56	0.00			94.23				
A-C	249.43	249.43	62.36	0.00			249.43				
D-AB	65.81	65.81	16.45	0.00	507.72	0.130	65.99	0.2	0.2	8.154	Α
D-BC	31.31	31.31	7.83	0.00	319.03	0.098	31.47	0.2	0.1	12.528	В
C- ABD	39.54	39.54	9.89	0.00	638.80	0.062	39.73	0.2	0.1	6.015	А
C-D	37.51	37.51	9.38	0.00			37.51				
C-A	145.79	145.79	36.45	0.00			145.79				



# (Default Analysis Set) - 2027 Ref Case, AM

#### **Data Errors and Warnings**

No errors or warnings

#### **Analysis Set Details**

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	~	D1,D2,D7,D8,D9,D10	100.000	100.000

# **Junction Network**

#### Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Crossroads	Two-way	3.44	А

#### **Junction Network Options**

[same as above]

## Arms

Arms [same as above]

#### **Major Arm Geometry**

[same as above]

#### **Minor Arm Geometry**

[same as above]

#### Slope / Intercept / Capacity

[same as above]

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2027 Ref Case	AM	ONE HOUR	07:45	09:15	15	~



Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	$\checkmark$	✓	HV Percentages	2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B3390 N		ONE HOUR	✓	258.00	100.000
B - Redbridge Rd		ONE HOUR	✓	83.00	100.000
C - B3390 S		ONE HOUR	✓	459.00	100.000
D - Dick O' Th' Banks		ONE HOUR	~	136.00	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

			То		
From		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
	A - B3390 N	0.000	18.000	202.000	38.000
	B - Redbridge Rd	20.000	0.000	43.000	20.000
	C - B3390 S	362.000	44.000	0.000	53.000
	D - Dick O' Th' Banks	78.000	13.000	45.000	0.000

#### Proportions

		То							
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks				
From	A - B3390 N	0.00	0.07	0.78	0.15				
	B - Redbridge Rd	0.24	0.00	0.52	0.24				
	C - B3390 S	0.79	0.10	0.00	0.12				
	D - Dick O' Th' Banks	0.57	0.10	0.33	0.00				

# **Vehicle Mix**

#### **Heavy Vehicle proportion**

	То								
From		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks				
	A - B3390 N	10	10	10	10				
	B - Redbridge Rd	10	10	10	10				
	C - B3390 S	10	10	10	10				
	D - Dick O' Th' Banks	10	10	10	10				

#### Average PCU Per Veh

	То								
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks				
	A - B3390 N	1.100	1.100	1.100	1.100				
From	B - Redbridge Rd	1.100	1.100	1.100	1.100				
	C - B3390 S	1.100	1.100	1.100	1.100				
	D - Dick O' Th' Banks	1.100	1.100	1.100	1.100				



# **Results**

## Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.13	8.96	0.1	A	49.19	73.78
B-AD	0.11	13.40	0.1	В	26.97	40.46
A-BCD	0.10	5.90	0.2	A	50.23	75.35
A-B					15.26	22.89
A-C					171.25	256.88
D-AB	0.21	9.92	0.3	A	78.35	117.53
D-BC	0.19	15.25	0.2	С	46.44	69.66
C-ABD	0.12	4.87	0.3	A	75.22	112.83
C-D					44.18	66.28
C-A					301.78	452.67

### Main Results for each time segment

#### Main results: (07:45-08:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	40.23	40.23	10.06	0.00	498.53	0.081	39.88	0.0	0.1	7.844	Α
B-AD	22.26	22.26	5.56	0.00	352.22	0.063	21.99	0.0	0.1	10.892	В
A- BCD	37.66	37.66	9.42	0.00	663.41	0.057	37.31	0.0	0.1	5.750	A
A-B	12.81	12.81	3.20	0.00			12.81				
A-C	143.76	143.76	35.94	0.00			143.76				
D-AB	64.09	64.09	16.02	0.00	509.53	0.126	63.52	0.0	0.1	8.062	Α
D-BC	38.30	38.30	9.57	0.00	349.43	0.110	37.81	0.0	0.1	11.536	В
C- ABD	54.10	54.10	13.53	0.00	794.24	0.068	53.63	0.0	0.1	4.862	A
C-D	37.22	37.22	9.31	0.00			37.22				
C-A	254.24	254.24	63.56	0.00			254.24				



#### Main results: (08:00-08:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	48.15	48.15	12.04	0.00	483.25	0.100	48.06	0.1	0.1	8.270	Α
B-AD	26.47	26.47	6.62	0.00	330.71	0.080	26.39	0.1	0.1	11.827	В
A- BCD	47.78	47.78	11.95	0.00	667.07	0.072	47.66	0.1	0.1	5.813	A
A-B	15.07	15.07	3.77	0.00			15.07				
A-C	169.09	169.09	42.27	0.00			169.09				
D-AB	76.70	76.70	19.17	0.00	488.30	0.157	76.53	0.1	0.2	8.739	Α
D-BC	45.56	45.56	11.39	0.00	325.36	0.140	45.41	0.1	0.2	12.853	В
C- ABD	71.37	71.37	17.84	0.00	823.24	0.087	71.17	0.1	0.2	4.790	A
C-D	43.58	43.58	10.90	0.00			43.58				
C-A	297.68	297.68	74.42	0.00			297.68				

#### Main results: (08:15-08:30)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	59.18	59.18	14.80	0.00	461.16	0.128	59.04	0.1	0.1	8.950	А
B-AD	32.20	32.20	8.05	0.00	301.04	0.107	32.07	0.1	0.1	13.377	В
A- BCD	65.13	65.13	16.28	0.00	675.69	0.096	64.91	0.1	0.2	5.896	A
A-B	17.91	17.91	4.48	0.00			17.91				
A-C	201.02	201.02	50.26	0.00			201.02				
D-AB	94.26	94.26	23.56	0.00	457.29	0.206	93.97	0.2	0.3	9.900	А
D-BC	55.48	55.48	13.87	0.00	291.70	0.190	55.20	0.2	0.2	15.203	С
C- ABD	99.90	99.90	24.97	0.00	863.68	0.116	99.53	0.2	0.3	4.714	A
C-D	51.78	51.78	12.95	0.00			51.78				
C-A	353.69	353.69	88.42	0.00			353.69				

## Main results: (08:30-08:45)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	59.19	59.19	14.80	0.00	460.96	0.128	59.18	0.1	0.1	8.959	Α
B-AD	32.20	32.20	8.05	0.00	300.87	0.107	32.19	0.1	0.1	13.398	В
A- BCD	65.19	65.19	16.30	0.00	675.67	0.096	65.19	0.2	0.2	5.903	A
A-B	17.91	17.91	4.48	0.00			17.91				
A-C	200.96	200.96	50.24	0.00			200.96				
D-AB	94.27	94.27	23.57	0.00	456.97	0.206	94.26	0.3	0.3	9.925	А
D-BC	55.47	55.47	13.87	0.00	291.51	0.190	55.46	0.2	0.2	15.250	С
C- ABD	100.05	100.05	25.01	0.00	863.77	0.116	100.04	0.3	0.3	4.719	A
C-D	51.76	51.76	12.94	0.00			51.76				
C-A	353.56	353.56	88.39	0.00			353.56				



#### Main results: (08:45-09:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	48.15	48.15	12.04	0.00	482.93	0.100	48.29	0.1	0.1	8.286	Α
B-AD	26.46	26.46	6.62	0.00	330.45	0.080	26.59	0.1	0.1	11.853	В
A- BCD	47.86	47.86	11.96	0.00	667.01	0.072	48.06	0.2	0.1	5.823	A
A-B	15.06	15.06	3.77	0.00			15.06				
A-C	169.02	169.02	42.25	0.00			169.02				
D-AB	76.71	76.71	19.18	0.00	487.83	0.157	76.98	0.3	0.2	8.769	Α
D-BC	45.56	45.56	11.39	0.00	325.10	0.140	45.82	0.2	0.2	12.904	В
C- ABD	71.56	71.56	17.89	0.00	823.37	0.087	71.91	0.3	0.2	4.798	A
C-D	43.56	43.56	10.89	0.00			43.56				
C-A	297.51	297.51	74.38	0.00			297.51				

#### Main results: (09:00-09:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	40.23	40.23	10.06	0.00	498.09	0.081	40.32	0.1	0.1	7.865	Α
B-AD	22.25	22.25	5.56	0.00	351.86	0.063	22.33	0.1	0.1	10.927	В
A- BCD	37.77	37.77	9.44	0.00	663.29	0.057	37.90	0.1	0.1	5.759	A
A-B	12.80	12.80	3.20	0.00			12.80				
A-C	143.66	143.66	35.92	0.00			143.66				
D-AB	64.10	64.10	16.02	0.00	508.96	0.126	64.27	0.2	0.1	8.100	Α
D-BC	38.29	38.29	9.57	0.00	349.05	0.110	38.45	0.2	0.1	11.596	В
C- ABD	54.35	54.35	13.59	0.00	794.30	0.068	54.56	0.2	0.1	4.871	A
C-D	37.19	37.19	9.30	0.00			37.19				
C-A	254.02	254.02	63.50	0.00			254.02				



# (Default Analysis Set) - 2027 Ref Case, PM

#### **Data Errors and Warnings**

No errors or warnings

#### **Analysis Set Details**

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	~	D1,D2,D7,D8,D9,D10	100.000	100.000

# **Junction Network**

#### Junctions

Junction	Junction Name		Major road direction	Junction Delay (s)	Junction LOS	
1 - (untitled)	(untitled)	Crossroads	Two-way	3.34	А	

#### **Junction Network Options**

[same as above]

## Arms

Arms [same as above]

#### **Major Arm Geometry**

[same as above]

#### **Minor Arm Geometry**

[same as above]

#### Slope / Intercept / Capacity

[same as above]

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2027 Ref Case	PM	ONE HOUR	16:45	18:15	15	~



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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - B3390 N		ONE HOUR	✓	510.00	100.000
B - Redbridge Rd		ONE HOUR	✓	74.00	100.000
C - B3390 S		ONE HOUR	✓	277.00	100.000
D - Dick O' Th' Banks		ONE HOUR	✓	106.00	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

			То		
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks
From	A - B3390 N	0.000	9.000	395.000	106.000
	B- Redbridge 15.000 Rd		0.000	49.000	10.000
	C - B3390 S	201.000	23.000	0.000	53.000
	D - Dick O' Th' Banks	67.000	9.000	30.000	0.000

#### Proportions

			То				
		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks		
From	A - B3390 N	0.00	0.02	0.77	0.21		
	B - Redbridge Rd	0.20	0.00	0.66	0.14		
	C - B3390 S	0.73	0.08	0.00	0.19		
	D - Dick O' Th' Banks	0.63	0.08	0.28	0.00		

## **Vehicle Mix**

#### **Heavy Vehicle proportion**

			То				
From		A - B3390 N	B - Redbridge Rd	C - B3390 S	D - Dick O' Th' Banks		
	A - B3390 N	10	10	10	10		
	B - Redbridge Rd	10	10	10	10		
	C - B3390 S	10	10	10	10		
	D - Dick O' Th' Banks	10	10	10	10		

#### Average PCU Per Veh

			То			
		A - B3390 N	B - Redbridge Rd	C - D - Dic B3390 O' Th' S Banks		
From	A - B3390 N	1.100	1.100	1.100	1.100	
	B - Redbridge Rd	1.100	1.100	1.100	1.100	
	C - B3390 S	1.100	1.100	1.100	1.100	
	D - Dick O' Th' Banks	1.100	1.100	1.100	1.100	



# **Results**

## Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.13	8.85	0.1	A	49.79	74.68
B-AD	0.08	15.14	0.1	С	18.12	27.17
A-BCD	0.28	5.87	0.7	A	180.50	270.75
A-B					6.40	9.61
A-C					281.08	421.62
D-AB	0.15	8.28	0.2	A	66.00	99.00
D-BC	0.13	14.71	0.2	В	31.27	46.90
C-ABD	0.06	5.66	0.1	A	32.04	48.05
C-D					46.35	69.53
C-A					175.79	263.69

### Main Results for each time segment

#### Main results: (16:45-17:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	40.79	40.79	10.20	0.00	514.75	0.079	40.45	0.0	0.1	7.585	Α
B-AD	14.92	14.92	3.73	0.00	317.10	0.047	14.73	0.0	0.0	11.898	В
A- BCD	128.97	128.97	32.24	0.00	786.98	0.164	127.78	0.0	0.3	5.460	A
A-B	5.68	5.68	1.42	0.00			5.68				
A-C	249.31	249.31	62.33	0.00			249.31				
D-AB	54.05	54.05	13.51	0.00	551.33	0.098	53.62	0.0	0.1	7.227	Α
D-BC	25.75	25.75	6.44	0.00	340.37	0.076	25.43	0.0	0.1	11.419	В
C- ABD	23.88	23.88	5.97	0.00	665.67	0.036	23.69	0.0	0.0	5.606	A
C-D	38.53	38.53	9.63	0.00			38.53				
C-A	146.12	146.12	36.53	0.00			146.12				



#### Main results: (17:00-17:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	48.76	48.76	12.19	0.00	494.94	0.099	48.66	0.1	0.1	8.064	Α
B-AD	17.77	17.77	4.44	0.00	292.89	0.061	17.71	0.0	0.1	13.079	В
A- BCD	169.92	169.92	42.48	0.00	814.90	0.209	169.45	0.3	0.4	5.583	A
A-B	6.43	6.43	1.61	0.00			6.43				
A-C	282.13	282.13	70.53	0.00			282.13				
D-AB	64.63	64.63	16.16	0.00	536.43	0.120	64.51	0.1	0.1	7.626	Α
D-BC	30.66	30.66	7.67	0.00	315.93	0.097	30.56	0.1	0.1	12.611	В
C- ABD	30.64	30.64	7.66	0.00	670.06	0.046	30.57	0.0	0.1	5.631	A
C-D	45.57	45.57	11.39	0.00			45.57				
C-A	172.81	172.81	43.20	0.00			172.81				

#### Main results: (17:15-17:30)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	59.81	59.81	14.95	0.00	466.96	0.128	59.66	0.1	0.1	8.836	Α
B-AD	21.66	21.66	5.42	0.00	259.60	0.083	21.56	0.1	0.1	15.117	С
A- BCD	241.88	241.88	60.47	0.00	856.91	0.282	240.95	0.4	0.6	5.854	A
A-B	7.12	7.12	1.78	0.00			7.12				
A-C	312.52	312.52	78.13	0.00			312.52				
D-AB	79.31	79.31	19.83	0.00	514.40	0.154	79.13	0.1	0.2	8.267	Α
D-BC	37.40	37.40	9.35	0.00	282.30	0.132	37.22	0.1	0.2	14.679	В
C- ABD	41.49	41.49	10.37	0.00	677.46	0.061	41.35	0.1	0.1	5.662	A
C-D	54.98	54.98	13.75	0.00			54.98				
C-A	208.52	208.52	52.13	0.00			208.52				

#### Main results: (17:30-17:45)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	59.81	59.81	14.95	0.00	466.64	0.128	59.81	0.1	0.1	8.848	А
B-AD	21.66	21.66	5.42	0.00	259.35	0.084	21.66	0.1	0.1	15.144	С
A- BCD	242.29	242.29	60.57	0.00	857.27	0.283	242.26	0.6	0.7	5.872	A
A-B	7.11	7.11	1.78	0.00			7.11				
A-C	312.12	312.12	78.03	0.00			312.12				
D-AB	79.31	79.31	19.83	0.00	514.15	0.154	79.31	0.2	0.2	8.278	А
D-BC	37.39	37.39	9.35	0.00	282.05	0.133	37.39	0.1	0.2	14.713	В
C- ABD	41.54	41.54	10.38	0.00	677.26	0.061	41.53	0.1	0.1	5.664	A
C-D	54.97	54.97	13.74	0.00			54.97				
C-A	208.48	208.48	52.12	0.00			208.48				



#### Main results: (17:45-18:00)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	48.76	48.76	12.19	0.00	494.45	0.099	48.90	0.1	0.1	8.083	Α
B-AD	17.77	17.77	4.44	0.00	292.53	0.061	17.87	0.1	0.1	13.110	В
A- BCD	170.38	170.38	42.59	0.00	815.41	0.209	171.28	0.7	0.4	5.607	A
A-B	6.42	6.42	1.60	0.00			6.42				
A-C	281.68	281.68	70.42	0.00			281.68				
D-AB	64.63	64.63	16.16	0.00	536.06	0.121	64.80	0.2	0.1	7.644	Α
D-BC	30.66	30.66	7.67	0.00	315.56	0.097	30.83	0.2	0.1	12.652	В
C- ABD	30.70	30.70	7.68	0.00	669.73	0.046	30.83	0.1	0.1	5.636	A
C-D	45.55	45.55	11.39	0.00			45.55				
C-A	172.76	172.76	43.19	0.00			172.76				

#### Main results: (18:00-18:15)

Stream	Total Demand (Veh/hr)	Junction demand (Veh/hr)	Junction Arrivals (Veh)	Bypass demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-CD	40.79	40.79	10.20	0.00	514.17	0.079	40.89	0.1	0.1	7.610	Α
B-AD	14.92	14.92	3.73	0.00	316.64	0.047	14.98	0.1	0.1	11.935	В
A- BCD	129.59	129.59	32.40	0.00	787.37	0.165	130.08	0.4	0.3	5.489	A
A-B	5.67	5.67	1.42	0.00			5.67				
A-C	248.70	248.70	62.18	0.00			248.70				
D-AB	54.06	54.06	13.51	0.00	550.84	0.098	54.17	0.1	0.1	7.251	Α
D-BC	25.74	25.74	6.44	0.00	339.84	0.076	25.85	0.1	0.1	11.468	В
C- ABD	23.96	23.96	5.99	0.00	665.21	0.036	24.04	0.1	0.0	5.617	A
C-D	38.51	38.51	9.63	0.00			38.51				
C-A	146.06	146.06	36.52	0.00			146.06				





# Appendix G Merge/Diverge Analysis




## Land at Moreton, Dorcheser, High Level Transport Statement, A35 Eastbound Merge

\\BRI-PMFS-001\projects\35340 Land at Moreton, Dorchester\Technical\Transport\Excel\Merge\_diverge analysis.xlsx

Prepared by EK, Checked by PR, 16/09/15



## Land at Moreton, Dorcheser, High Level Transport Statement, A35 Westbound Diverge

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Prepared by EK, Checked by PR, 16/09/15