

Transport Assessment

Land at Britwell Road, Watlington



WB03178

Bloor Homes and Archstone Projects Ltd

Report No.

WB03178-TA01

Date.

30/08/17

Project

Land at Britwell Road, Watlington

Client Name

Bloor Homes Ltd and Archstone Projects Ltd

Issue Date/ Number	Status	Description of Amendments
26/07/17 - 01	Draft	Initial issue for comment
16/08/17 - 02	Final	Incorporating client comments
30/08/17 - 03	Final	Pyrton Lane mitigation added

Report Prepared by:

Alex Stephenson
Transport Planner



Christopher Brooke
Assistant Transport Planner



Approved for Issue by:

David Knight
Associate Director



Issuing Office

x

The Cocoa House, 129 Cumberland Road, Bristol, BS1 6UY
Tel: +44 (0)117 929 2244

GF Suite, Bickleigh House, Park Five Business Centre, Exeter, EX2 7HU
Tel: +44 (0)1392 369098

Unit 17.1, The Leathermarket, 11-13 Weston Street, London, SE1 3ER
Tel: +44(0)20 7939 0959

This report is provided for the benefit of the Client. We do not accept responsibility in the event that the report contents are used in whole or in part by a third party and we exercise no duty of care to any such third party.

© Clarkebond (UK) Limited

Contents

1	Introduction	8
1.1	Background	8
1.2	Overview	8
1.3	Structure of Report	9
1.4	Limitations	9
2	Relevant Policy and Guidance	10
2.1	Introduction	10
2.2	National Planning Policy Framework (2012).....	10
2.3	NPPF Planning Practice Guidance: Travel Plans, Transport Assessments and Statements in Decision Taking (2014).....	12
2.4	Connecting Oxfordshire: Local Transport Plan 2015-2031 - Volume 1: Policy & Overall Strategy (2015)	13
2.5	Connecting Oxfordshire: Local Transport Plan 2015-2031 - Volume 4: Cycle Strategy, Bus and Rapid Transit Strategy (2015)	14
2.6	Oxfordshire County Council - Transport for New Developments: Transport Assessment and Travel Plans (2014).....	15
2.7	Oxfordshire County Council Residential Road Design Guide (2003) - Second Edition (2015).....	15
2.8	South Oxfordshire District Council Core Strategy (2012)	16
2.9	South Oxfordshire Local Plan 2011 (2006)	17
2.10	South Oxfordshire Local Plan 2033 – Second Preferred Options (2017).....	19
2.11	Draft Watlington Neighbourhood Development Plan (2017)	21
2.12	Draft Air Quality Action Plan (2014)	25
2.13	Transport Assessment Guidance	26
2.14	Highway and Access Design Guidance.....	26
3	Development Context and the Alternative Route.....	27
3.1	Introduction	27
3.2	The Alternative Route.....	27
3.3	Watlington Traffic Study (2014).....	28
4	Existing Highway Conditions.....	33
4.1	Introduction	33
4.2	Highway Network	33
4.3	Existing Link Traffic Flows	34

4.4	Existing Link Traffic Speeds	35
4.5	Existing Junction Traffic Flows	36
4.6	Existing Junction Queues	37
4.7	Journey Time Survey	39
4.8	Existing Junction Operation	42
4.9	Highway Safety Record	48
5	Proposed Development.....	51
5.1	Introduction	51
5.2	Existing Site Use	51
5.3	Proposed Development	51
5.4	Proposed Access	52
5.5	Southern Section of the Alternative Route.....	53
5.6	Proposed Parking Arrangements	54
6	Accessibility.....	55
6.1	Introduction	55
6.2	Walking Network	55
6.3	Cycling Network.....	56
6.4	Walking and Cycling Accessibility Criteria.....	57
6.5	Walking and Cycling Distances and Times	58
6.6	Bus Services	61
6.7	Proposed Accessibility Improvements.....	62
7	Trip Generation and Distribution.....	63
7.1	Introduction	63
7.2	Mode Shares	63
7.3	Car Ownership	64
7.4	Trip Distribution.....	65
7.5	Trip Generation.....	66
8	Transport Impact of the Alternative Route	68
8.1	Introduction	68
8.2	Assessment Years	68
8.3	The Alternative Route Delivery Scenarios	68
8.4	Diversion Curves	69
8.5	Transport Impact of the Alternative Route – Junction Flows.....	70

8.6	The Alternative Route Delivery Scenarios – Link Flows.....	72
8.7	Alternative Route Transport Impact Summary.....	73
9	Transport Impact of the Proposed Development.....	74
9.1	Introduction	74
9.2	Assessed Junctions.....	74
9.3	Assessment Years	74
9.4	Committed Development	74
9.5	Development Scenarios for Junction Modelling.....	75
9.6	Junction Capacity Analysis	76
9.7	Link Flow Impact Analysis	83
9.8	Proposed Development Transport Impact Summary	87
10	Mitigation.....	88
10.1	Transport Impact	88
10.2	Accessibility Improvements	88
10.3	Pyrton Lane Improvements	88
10.4	Travel Plan	89
11	Summary and conclusions.....	90
11.1	Proposed Development	90
11.2	Policy and Guidance.....	90
11.3	Existing Highway Conditions.....	90
11.4	Proposed Access Arrangements	90
11.5	Accessibility.....	91
11.6	Trip Distribution and Generation.....	91
11.7	Transport Impact	91
11.8	Proposed Mitigation	92
11.9	Overall Conclusion	92

Tables

Table 3.1	Vehicle Movements in the AM Peak Hour (ANPR and Manual Count)	28
Table 3.2	Vehicle Route Proportions in the AM Peak Hour (ANPR and Manual Count)	29
Table 3.3	HGV Movements in the AM Peak Hour (ANPR and Manual Count)	29
Table 3.4	HGV Route Proportions in the AM Peak Hour (ANPR and Manual Count)	30
Table 3.5	Vehicle Movements in the PM Peak Hour (ANPR and Manual Count)	30
Table 3.6	Vehicle Route Proportions in the PM Peak Hour (ANPR and Manual Count)	31
Table 3.7	HGV Movements in the PM Peak Hour (ANPR and Manual Count)	31
Table 3.8	HGV Route Proportions in the PM Peak Hour (ANPR and Manual Count)	32
Table 4.1	Existing Traffic Flows on Britwell Road	34
Table 4.2	Existing Traffic Flows on Pyrton Lane	34
Table 4.3	Existing Traffic Flows on Couching Street	34
Table 4.4	Summary of Speed Survey Results on Britwell Road	35
Table 4.5	Summary of Speed Survey Results on Pyrton Lane	35
Table 4.6	Summary of Speed Survey Results on Couching Street	35
Table 4.7	Range and Mean of Maximum Recorded Peak Hour Queues	37
Table 4.8	Journey Time Survey Results	39
Table 4.9	Journey Time Survey Junction/ Obstacle Delay	40
Table 4.10	Britwell Road/ Cuxham Road Priority T-junction – Results of PICADY Modelling	42
Table 4.11	Cuxham Road/ Pyrton Lane Priority T-junction – Results of PICADY Modelling	43
Table 4.12	Brook Street/ Couching Street Priority T-junction – Results of PICADY Modelling	44
Table 4.13	Shirburn Street/ Couching Street/ Hill Road/ High Street Priority Crossroads – Results of PICADY Modelling	45
Table 4.14	Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane Priority Crossroads – Results of PICADY Modelling	46
Table 4.15	Cuxham Road/ Willow Close/ Industrial Estate Roundabout – Results of ARCADY Modelling	47
Table 4.16	Recorded Personal Injury Accidents (PIAs) 1st January 2011- 30th April 2016	48
Table 5.1	Car Parking Recommendations	54
Table 5.2	Cycle Parking Standards	54
Table 6.1	Suggested Walking Distances	57
Table 6.2	Local Facilities Including Distances and Walking and Cycling Times	58

Table 6.3	Summary of Existing Bus Services.....	61
Table 7.1	2011 Census ‘QS703EW - Method of Travel to Work’ – Watlington Residents	63
Table 7.2	2011 Census ‘QS416EW - Car or Van Availability’ – Watlington Residents.....	64
Table 7.3	2011 Census ‘WF01BEW - Location of Usual Residence and Place of Work’ - Watlington Residents	65
Table 7.4	Vehicle Trip Generation of the Proposed Development (183 dwellings).....	66
Table 7.5	Vehicle Trip Generation of the Proposed Development (450m ² B1a office space)	66
Table 7.6	Vehicle Trip Generation of the Proposed Development (whole development).....	67
Table 8.1	Diversion Take-up Proportions in the AM Peak Hour – All Vehicles	69
Table 8.2	Diversion Take-up Proportions in the PM Peak Hour – All Vehicles	69
Table 8.3	Number of Vehicles Diverted along the Southern Section of the Alternative Route in the AM Peak Hour (2022) – All Vehicles (HGVs).....	71
Table 8.4	Number of Vehicles Diverted along the Southern Section of the Alternative Route in the PM Peak Hour (2022) – All Vehicles (HGVs)	71
Table 8.5	Link Traffic Flow Impact for Scenario 2: Assessment Year (2022) ‘With No Development’	73
Table 9.1	Britwell Road/ Cuxham Road Priority T-junction – Results of PICADY Modelling	76
Table 9.2	Cuxham Road/ Pyrton Lane Priority T-junction – Results of PICADY Modelling	77
Table 9.3	Brook Street/ Couching Street Priority T-junction – Results of PICADY Modelling.....	78
Table 9.4	Shirburn Street/ Couching Street/ Hill Road/ High Street Priority Crossroads – Results of PICADY Modelling.....	79
Table 9.5	Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane Priority Crossroads – Results of PICADY Modelling.....	80
Table 9.6	Cuxham Road/ Willow Close/ Industrial Estate Roundabout – Results of ARCADY Modelling	81
Table 9.7	Cuxham Road/ Willow Close/ Industrial Estate Roundabout – Results of ARCADY Modelling	82
Table 9.8	Link Traffic Flow Impact for Scenario 2: Assessment Year (2022) ‘With Proposed Development’	84

Figures

Figure 1.1	Site Location Plan – Strategic Context
Figure 1.2	Site Location Plan – Local Context
Figure 4.1	Baseline Year (2017) Traffic Flows – AM
Figure 4.2	Baseline Year (2017) Traffic Flows – PM
Figure 6.1	Walking Isochrones
Figure 6.2	Cycling Isochrones
Figure 7.1	Proposed Development Trip Distribution – Partial Alternative Route – Inbound
Figure 7.2	Proposed Development Trip Distribution – Partial Alternative Route – Outbound
Figure 7.3	Proposed Development Trip Generation – Partial Alternative Route – AM
Figure 7.4	Proposed Development Trip Generation – Partial Alternative Route – PM
Figure 7.5	Proposed Development Trip Generation – Partial Alternative Route – 24hr Link
Figure 8.1	Scenario 1: Assessment Year (2022) ‘With No Dev’ – AM Junction Traffic Flows
Figure 8.2	Scenario 1: Assessment Year (2022) ‘With No Dev’ – PM Junction Traffic Flows
Figure 8.3	Scenario 2: Assessment Year (2022) ‘With No Dev’ – AM Junction Diverted Vehicles
Figure 8.4	Scenario 2: Assessment Year (2022) ‘With No Dev’ – AM Junction Diverted Vehicles
Figure 8.5	Scenario 2: Assessment Year (2022) ‘With No Dev’ – AM Junction Traffic Flows
Figure 8.6	Scenario 2: Assessment Year (2022) ‘With No Dev’ – PM Junction Traffic Flows
Figure 8.7	Scenario 1: Assessment Year (2022) ‘With No Dev’ – 24hr Link Traffic Flows
Figure 8.8	Scenario 2: Assessment Year (2022) ‘With No Dev’ – 24hr Link Traffic Flows
Figure 8.9	Scenario 2: Assessment Year (2022) ‘With No Dev’ – 24hr Link Traffic Impact
Figure 9.1	Scenario 2: Assessment Year (2022) ‘With Prop Dev’ – AM Junction Traffic Flows
Figure 9.2	Scenario 2: Assessment Year (2022) ‘With Prop Dev’ – PM Junction Traffic Flows
Figure 9.3	Scenario 2: Assessment Year (2022) ‘With Prop Dev’ – 24hr Link Traffic Flows
Figure 9.4	Scenario 2: Assessment Year (2022) ‘With Prop Dev’ – 24hr Link Traffic Impact

Drawings

WB03178/SK10	Proposed Britwell Road Access
WB03178/SK23	Proposed Britwell Road Access Tracking
WB03178/SK21	Proposed Southern Section of the Alternative Route
WB03178/SK24	Proposed Internal Link Road Junction
WB03178/SK03	Proposed Britwell Road Pedestrian Improvement Scheme
WB03178/SK17	Proposed Cuxham Road Cycle and Pedestrian Improvement Scheme
WB03178/SK19	Proposed Cuxham Road Cycle and Pedestrian Improvement Scheme Tracking
WB03178/SK26	Proposed Pyrton Lane Improvement Scheme
WB03178/SK27	Proposed Pyrton Lane Improvement Scheme Tracking

Appendices

Appendix A	Agreed Meeting Minutes
Appendix B	Approximate Alignment of the Alternative Route
Appendix C	Automatic Traffic Count Data Sheets
Appendix D	Manual Traffic Count Data Sheets
Appendix E	Queue Count Data Sheets
Appendix F	Details of Recorded Personal Injury Accidents
Appendix G	Proposed Development Layout
Appendix H	Public Rights of Way Plans
Appendix I	Local Bus Service Details
Appendix J	2011 Census 'QS703EW - Method of Travel to Work' Data
Appendix K	2011 Census 'QS416EW - Car or Van Availability' Data
Appendix L	2011 Census 'WF01BEW - Location of Usual Residence and Place of Work' Data
Appendix M	TRICS Output
Appendix N	TEMPRO Growth Rates

1 Introduction

1.1 Background

This Transport Assessment (TA) has been prepared by Clarkebond on behalf of Bloor Homes Limited and Archstone Projects Limited to support a planning application for a mixed use development on Land at Britwell Road, Watlington comprising 183 residential units and up to 650m² B1a employment floorspace.

The proposed development site is located to the west of Britwell Road and to the south of Cuxham Road, on the south western edge of Watlington, South Oxfordshire.

The proposed development site location is shown in its strategic context by **Figure 1.1** and in its local context by **Figure 1.2**.

The planning authority is South Oxfordshire District Council (SODC) and the highway authority is Oxfordshire County Council (OCC).

The TA has been scoped with OCC and the agreed scoping note, as well as agreed meeting minutes, are included at **Appendix A**.

1.2 Overview

This Transport Assessment has been prepared in accordance with relevant advice and guidance. It demonstrates that the site accords with national, regional and local transport policies.

Suitable access to the site can be achieved. The proposed development will be accessed from Britwell Road to its east via a new priority junction, and from Cuxham Road to its north via the extension of an existing industrial access road from the Cuxham Road roundabout.

The site is accessible by sustainable modes of transport including walking, cycling, and public transport. There is a good network of existing footways linking the site to the village centre and the surrounding area and a range of local facilities are within acceptable walking and cycling distances.

Junction modelling and link flow analysis shows that the level of traffic associated with the proposed development will not adversely affect the operation of the surrounding highway network.

Mitigation measures are proposed. These include a link road between Britwell Road and Cuxham Road (the Southern Section of the Alternative Route), accessibility improvements on Britwell Road and Cuxham Road, highway improvements on Pyrton Lane, and a Travel Plan.

It is concluded that the proposed development accords with national and local transport policy and there is no transport or highway reason why the planning application should not be granted.

1.3 Structure of Report

This Transport Assessment is set out as follows:

- Chapter 2 provides a summary of relevant national and local policy as well as Transport Assessment and other design guidance;
- Chapter 3 provides details of the context of the proposed development including details of the Alternative Route proposal;
- Chapter 4 describes the existing highway and transport conditions surrounding the site including an assessment of the safety of the local highway network;
- Chapter 5 describes the proposed development including details of the access arrangements and the internal layout;
- Chapter 6 assesses the accessibility of the proposed development including its accessibility by sustainable transport modes;
- Chapter 7 details the trip generation and distribution associated with the proposed development;
- Chapter 8 describes the transport impact of the Alternative Route on traffic flows on the highway network of interest
- Chapter 9 describes the transport impact of the proposed development including the results of junction modelling and link flow analysis;
- Chapter 10 outlines the mitigation measures that are included as part of the proposed development; and
- Chapter 11 provides a summary and conclusions.

1.4 Limitations

The information, views and conclusions drawn concerning the site are based, in part, on information supplied to Clarkebond by other parties. Clarkebond has proceeded in good faith on the assumption that this information is accurate. Clarkebond accepts no liability for any inaccurate conclusions, assumptions or actions taken resulting from any inaccurate information supplied to Clarkebond from others.

2 Relevant Policy and Guidance

2.1 Introduction

This chapter describes the national and local policy and guidance relevant to the proposed development which is as follows:

- National Planning Policy Framework (2012);
- NPPF Planning Practice Guidance: Travel plans, transport assessments and statements in decision taking (2014);
- Connecting Oxfordshire: Local Transport Plan 2015-2031 - Volume 1: Policy & Overall Strategy (2015);
- Connecting Oxfordshire: Local Transport Plan 2015-2031 - Volume 4: Cycle Strategy, Bus and Rapid Transit Strategy (2015);
- Oxfordshire County Council - Transport for New Developments: Transport Assessment and Travel Plans (2014);
- Oxfordshire County Council Residential Road Design Guide (2003) - Second Edition (2015);
- South Oxfordshire District Council Core Strategy (2012);
- South Oxfordshire Local Plan 2011 (2006);
- South Oxfordshire Local Plan 2033 (Unadopted);
- Watlington Neighbourhood Plan (Unadopted);
- Draft Air Quality Action Plan (2014);
- Transport Assessment Guidance; and
- Highway and Access Design Guidance.

2.2 National Planning Policy Framework (2012)

The National Planning Policy Framework (NPPF) was published in March 2012 and replaces the previous national planning policies that were set out in the various Planning Policy Guidance Notes and Statements. With regard to transport, the NPPF replaces policy contained within PPG13 (Transport).

The NPPF sets out a presumption in favour of sustainable development that recognises the importance of transport policies in facilitating sustainable development and that planning decisions should have regard to local circumstances. In promoting sustainable transport, the document identifies at paragraph 29 that:

The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas.

Moreover, paragraph 30 states that:

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.

With regard to new development, paragraph 32 of the *NPPF* states:

All developments that generate significant amounts of movements should be supported by a Transport Statement or Transport Assessment. Planning policies and decisions should consider 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 limits the impact of the development.*

Furthermore, paragraph 32 states that:

Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

Paragraph 34 states that:

Plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. However this needs to take account of policies set out elsewhere in this Framework, particularly in rural areas.

Paragraph 35 states that:

Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to:

- *accommodate the efficient delivery of goods and supplies;*
- *give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *create safe and secure layouts which minimise 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.*

Paragraph 36 sets out that all developments which generate significant amounts of transport movement should be required to provide a travel plan.

Paragraph 39 states that:

If setting local parking standards for residential and non-residential development, local planning authorities should take into account:

- *the accessibility of the development;*
- *the type, mix and use of development;*
- *the availability of and opportunities for public transport;*
- *local car ownership levels; and*
- *an overall need to reduce the use of high-emission vehicles.*

2.3 NPPF Planning Practice Guidance: Travel Plans, Transport Assessments and Statements in Decision Taking (2014)

Transport Assessments (TAs) and Transport Statements (TSs) are seen as ways of assessing the potential impacts or developments. TAs are thorough assessments of the transport implications of development and TSs are a 'lighter touch' evaluation to be used where this would be more proportionate to the potential impact of the development.

Travel Plans, Transport Assessments and Statements can positively contribute to:

- Encouraging sustainable travel;
- Lessening traffic generation and its detrimental impacts;
- Reducing carbon emissions and climate impacts;
- Creating accessible, connected, inclusive communities;
- Improving health outcomes and quality of life;
- Improving road safety; and
- Reducing the need for new development to increase existing road capacity or provide new roads.

This planning practice guidance identifies when a TA or TS is required and recommends that local planning authorities take into account a number of considerations including local plan policies on TA and TS, scale of development and existing intensity of transport use.

In determining whether a travel plan is required local planning authorities are asked to take account of a number of relevant matters including any travel plan policies in the local plan, the scale of the development, the intensity of transport use and the availability of public transport.

Travel plans should identify the specific required outcomes, targets and measures and set out clear future monitoring and management arrangements. They should be scoped at pre-application stage and address all journeys from the proposed development.

Travel plans should benchmark travel data, provide travel forecasts and include proposals to reduce the need to travel as well as proposals for improved public transport services and walking and cycling facilities. They should be monitored until the objectives and targets are met.

2.4 Connecting Oxfordshire: Local Transport Plan 2015-2031 - Volume 1: Policy & Overall Strategy (2015)

Oxfordshire's LTP4 sets out the County Council's policy and strategy for developing the transport system in Oxfordshire to 2031. The document has been developed with four principal transport goals:

- *To support jobs and housing growth and economic vitality;*
- *To reduce transport emissions and meet our obligations to Government;*
- *To protect, and where possible enhance Oxfordshire's environment and improve quality of life; and*
- *To improve public health, air quality, safety and individual wellbeing.*

These goals are supported by a series of policies, of which those relevant to the proposed development are as follows:

Policy 17: Oxfordshire County Council will seek to ensure through cooperation with the districts and city councils, that the location of development makes the best use of existing and planned infrastructure, provides new or improved infrastructure and reduces the need to travel and supports walking, cycling and public transport.

Policy 20: Oxfordshire County Council will carry out targeted safety improvements on walking and cycling routes to school, to encourage active travel and reduce pressure on school bus transport.

Policy 26: Oxfordshire County Council will aim to record, protect, maintain and improve the public rights of way network so that users are able to understand and enjoy their rights in a safe and responsible way.

Policy 34: Oxfordshire County Council will require the layout and design of new developments to proactively encourage walking and cycling, especially for local trips, and allow developments to be served by frequent, reliable and efficient public transport.

The plan sets out proposals for specific transport improvements within Oxfordshire however none are proposed either in the vicinity of the proposed development or that would materially affect the proposed development.

2.5 Connecting Oxfordshire: Local Transport Plan 2015-2031 - Volume 4: Cycle Strategy, Bus and Rapid Transit Strategy (2015)

Cycle Strategy

The Cycle Strategy sets out Oxfordshire County Council's vision to make cycling a major mode of travel in the county. Included are strategies for making cycling safe, simple and accessible for all, so that cycling becomes a part of everyday life for residents. Regarding new developments, the document states that:

It is essential that new developments are planned with cycling in mind and with facilities to make cycling both convenient and safe. Designing new developments so that cycling is the most convenient transport method for the majority of trips will naturally increase the proportion of journeys made in this way.

For large new or expanded housing development sites, we propose establishing the following principles:

- *Developers must demonstrate through masterplanning how their site has been planned to make cycling convenient and safe, for cyclists travelling to, from within and through the site;*
- *Site road network and junctions must be constructed with cycling in mind, including providing space for cycling on main/spine roads through the provision of, as a minimum, advisory cycle lanes; and*
- *We will ask developers to fund cyclability audits, so that the local user view is incorporated into new cycle facilities.*

Regarding how new cycle infrastructure will be funded, the Cycle Strategy states that:

We will work with developers to ensure that funding is used to provide high quality cycle infrastructure, designed-in to their own development plans and secure Section 106 money to improve cycle facilities in and around the site, to encourage people to cycle as soon as they move in to the development. Where appropriate, Community Infrastructure Levy (CIL) funding will be used to provide cycle schemes or create sections of the overall county cycling network, informed by cyclability audits.

Bus and Rapid Transit Strategy

The Bus and Rapid Transit Strategy sets out Oxfordshire County Council's (OCC) vision to continue its growth in bus patronage across the county. The strategy involves expanding the bus network as well as increasing the frequency of existing services as well as providing new infrastructure and tackling congestion on bus routes. Regarding new developments, the document states that:

Bus routes that run within new developments must be planned and designed in a way which minimises vehicle journey time, whilst aiming for a maximum walking distance from a bus stop of around 400 metres.

OCC will promote bus use through the planning process by encouraging development which is located alongside Rapid Transit and Premium bus routes and which provides good accessibility to bus stops. Developer contributions will be sought to fund the improvement of existing bus services or the introduction of new bus services. Developer contributions will also be sought to fund the necessary bus stop infrastructure to upgrade it to the desired standard, with cycle parking provided at busy stops.

2.6 Oxfordshire County Council - Transport for New Developments: Transport Assessment and Travel Plans (2014)

This guidance has been published by Oxfordshire County Council and establishes the thresholds for Transport Assessments and Travel Plans as well as what is expected of each document.

Transport Assessments and Full Travel Plans are required for residential developments of 80 dwellings and greater.

Paragraph 3.7 identifies details that need to be included in the Transport Assessment:

- *The extent and feasibility of the development access proposals, including plans showing any necessary highway improvements and the impact these and any additional traffic will have on the existing local environment;*
- *How the development can be accessed by walking, cycling, motorcycling, public transport, cars, service and delivery vehicles, and emergency vehicles;*
- *How encouragement will be given to travel by walking and cycling within the development;*
- *Proposals for new public transport provisions and details of any facilities related to these;*
- *How future travel patterns will be monitored and reviewed; and*
- *Parking provisions to be made for cars, cycles and motorcycles.*

Paragraph 5.8 identifies the objectives of the Travel Plan:

- *To ensure that locations are accessible by non-car travel modes;*
- *To identify ways of reducing the need to travel to and from a development;*
- *To minimise single occupancy car travel to and from a development, particularly through providing scope for journeys to be made by other modes;*
- *To identify which measures are needed to maximise the use of non-car travel modes; and*
- *Lead to a change in the travel behaviour of individuals to a sustainable mode of travel and maintaining that change once it has occurred.*

2.7 Oxfordshire County Council Residential Road Design Guide (2003) - Second Edition (2015)

Oxfordshire County Council's Residential Road Design Guide (RRDG) provides design guidance to housing developers with the aim of ensuring that developments contribute towards encouraging sustainable travel.

The main objective of the RRDG is to ensure that layouts minimise the need to use cars by being permeable, accessible and by providing quality facilities for pedestrians, cyclists and public transport users.

Also set out by this document are the car and cycle parking standards for different areas of Oxfordshire.

2.8 South Oxfordshire District Council Core Strategy (2012)

South Oxfordshire's Core Strategy forms part of the District's Local Plan which in turn forms part of the District's Development Plan. The Core Strategy establishes the policy framework for managing the development and use of land in the District up to 2027.

The Core Strategy sets out the desired amount of development for the District and the locations for it. Some strategic sites are specifically allocated whilst for other development a broad indication of their type and location is provided only.

A total of 1,154 housing units are to be provided by the Larger Villages within South Oxfordshire, of which Watlington is one, over the lifespan of the Core Strategy. However, specific locations or sites are not specified or allocated by the Core Strategy for this purpose. The proposed development site is not allocated for development by the Core Strategy.

As well as containing policies related to specific areas and sites, the Core Strategy contains generic and district wide policies of which the following are considered relevant to the proposed development:

Policy CS1 concerns *Presumption in favour of sustainable development* and states that:

Planning applications which accord with the policies in the Development Plan (including, where relevant, Neighbourhood Plans) will be approved without delay, unless material considerations indicate otherwise. Planning permission will also be granted where relevant policies in the Development Plan are out of date or silent unless:

- *any adverse impacts of the proposal would significantly and demonstrably outweigh its benefits when assessed against the policies in the National Planning Policy Framework taken as a whole;*
- *or specific policies in the Framework or other material considerations indicate that development should be restricted.*

Policy CSM1 concerns *Transport* and states that:

The council will work with Oxfordshire County Council and others to:

- (i) *in partnership with the Vale of White Horse District Council, actively seek to deliver the transport infrastructure and measures which improve movement in Didcot and within the Didcot/ Wantage and Grove corridor, in particular linking Didcot with the major employment sites at Harwell and Milton Park as identified in the County Council's LTP3 SVUK Area Strategy and Southern Central Oxfordshire Transport Study;*
- (ii) *actively seek to ensure that the impact of new development on the strategic and local road network, in particular the Milton, Chilton and Marcham junctions of the A34 and the road links and junctions identified in the Council's Evaluation of Transport Impact and County Council's Southern Central Oxfordshire Transport Study is adequately mitigated (see Policy CSM2);*
- (iii) *support improvements for accessing Oxford;*
- (iv) *work with the authorities affected by cross Thames travel in the Reading area to ensure that traffic and environmental conditions in South Oxfordshire are improved by the implementation of measures which also improve access to Reading;*
- (v) *support measures which enable modal shift to public transport, cycling and walking particularly where these support the network of settlements in the district;*
- (vi) *promote and support traffic management measures and environmental improvements which increase safety, improve air quality, encourage the use of sustainable modes of transport and/or make our towns and villages more attractive;*
- (vii) *adopt a comprehensive approach to car parking aimed at improving the attraction of our town and village centres;*

- (viii) encourage the use of sustainable modes of transport;
- (ix) promote electronic communications allowing businesses to operate throughout the district and to provide services and information which reduce the need to travel and encourage sustainable modes of transport; and
- (x) cater for the needs of all users.

Policy CSM2 concerns *Transport Assessments and Travel Plans* and states that:

Proposals for new developments which have transport implications that either arise from the development proposed or cumulatively with other proposals will need to submit a transport assessment. Appropriate provision for works and/or contributions will be required towards providing an adequate level of accessibility by all modes of transport and mitigating the impacts on the transport network.

The assessment should (notwithstanding OCC requirements):

- (i) illustrate accessibility to the site by all modes of transport;
- (ii) show the likely modal split of journeys to and from the site;
- (iii) detail the proposed measures to improve access by public transport, cycling and walking to reduce the need for parking and reduce transport impacts;
- (iv) illustrate the impact on the highway network and the impact of proposed mitigation measures where necessary; and
- (v) include a travel plan where appropriate.

Travel plans will be required, implemented and monitored (notwithstanding OCC requirements):

- (i) for all major developments comprising residential, employment, shopping or leisure uses or services; and
- (ii) for other small developments comprising residential, employment, shopping, leisure, or education facilities which would generate significant amounts of travel.

Policy CSI1 concerns *Infrastructure provision* and states that:

New development must be served and supported by appropriate on- and off-site infrastructure and services. Planning permission will only be granted when infrastructure and services to meet the needs of the new development, including that set out in the Infrastructure Delivery Plan, and/or mitigate the impact of the new development is already in place or will be provided to an agreed timescale.

Infrastructure and services required as a consequence of development, and provision for their maintenance, will be sought from developers and secured by the negotiation of planning obligations, by conditions attached to a planning permission, and/or other agreement, levy or undertaking, all to be agreed before planning permission is granted.

2.9 South Oxfordshire Local Plan 2011 (2006)

South Oxfordshire's Local Plan 2011 was adopted in 2006 and sets out policies which guide how and where development should take place in the District up to the year 2011. The document has now been superseded in large parts by the District's Core Strategy however a number of policies have been saved and are still used to inform planning decisions.

Policies related to *Promoting a sustainable transport strategy* are contained within Section 8 and of which the following are considered relevant to the proposed development:

Policy T1 concerns *Transport requirements for new developments* and states that:

Proposals for all types of development will, where appropriate:

- (i) provide for a safe and convenient access to the highway network;*
- (ii) provide safe and convenient routes for cyclists and pedestrians;*
- (iii) be accessible by public transport and have a safe walking route to nearby bus stops or new bus stops and appropriate infrastructure should be provided;*
- (iv) be served by an adequate road network which can accommodate traffic without creating traffic hazards or damage to the environment;*
- (v) where new roads, pedestrian routes, cycleways and street lighting are to be constructed as part of the development, be constructed to adoptable standards and be completed as soon as they are required to serve the development; and*
- (vi) make adequate provision for those whose mobility is impaired.*

Policy T2 also concerns *Transport requirements for new developments* and states that:

Proposals for development will, where appropriate, make provision for:

- (i) loading, unloading, circulation and turning space;*
- (ii) parking for people with disabilities;*
- (iii) the parking of vehicles in accordance with the Council's maximum parking standards;*
- (iv) measures to reduce the need for vehicle parking where appropriate; and*
- (v) cycle parking in accordance with the Council's standards.*

Policy T7 concerns *Cycling and walking* and states that:

Planning permission will be granted for proposals to improve and extend the footpath and cycleway network provided that there are no significant adverse effects on the environment or amenities of residents. Development that would prejudice pedestrian and cycle circulation or route provision will not be permitted.

Policy T8 concerns *Car parks and on-street parking* and states that:

A comprehensive approach will be adopted to the provision and management of car parking spaces in order to:

- (i) improve the attraction of existing town and village centres and seek to maintain and enhance their vitality and viability; and*
- (ii) encourage other transport modes as alternatives to car-borne travel.*

Current and planned levels of car parking in the towns and villages will be maintained until public transport services and safe cycle routes are sufficiently developed. Additional parking will only be provided where there is special justification.

Appendix 5 contains parking standards for the District. Car parking standards are provided as maximums whilst cycle parking standards are provided as minimums.

2.10 South Oxfordshire Local Plan 2033 – Second Preferred Options (2017)

South Oxfordshire's Local Plan is currently undergoing consultation and has not yet been finalised. The Local Plan 2033 is set to replace the Local Plan 2011 once it has been finalised and subsequently adopted which is hoped to be in 2017. A Second Preferred Options Local Plan has been produced in advance of this which outlines the District's preferred options for inclusion in the Local Plan in terms of development policies and allocated sites.

The Second Preferred Options Local Plan was issued in March 2017.

Policy STRAT2 concerns *The need for new Development in South Oxfordshire* and states that:

During the plan period, provision will be made to meet the need for at least 17,050 new homes and 30 hectares of employment land. This is to be delivered in accordance with the spatial strategy which seeks to strengthen the heart of South Oxfordshire.

The appropriate level of new housing and employment will be monitored and a review undertaken five years following the adoption of the Local Plan and periodically thereafter, taking into account the most up-to-date evidence available at that time.

Policy TRANS2 concerns *Promoting Sustainable Transport and Accessibility* and states that:

The Council will work with Oxfordshire County Council and others to:

- (i) Ensure that where new development is located close to, or along, existing strategic public transport corridors, bus and/or rail services can be strengthened in response to increases in demand for travel*
- (ii) Plan positively for rail improvements within the area that support improved connectivity to areas of new development*
- (iii) Ensure new development is designed to encourage walking and cycling, not only within the development, but also to nearby facilities, employment and public transport hubs*
- (iv) Support provision of measures which improve public transport (including Park & Ride), cycling and walking networks within and between towns and villages in the District*
- (v) Promote and support improvements to the transport network which increase safety, improve air quality, encourage use of sustainable modes of transport and/or make our towns and villages more attractive*
- (vi) Adopt a comprehensive approach to the provision and management of car parking aimed at improving the attraction of our town and village centres*
- (vii) Ensure the needs of all users, including those with impaired mobility are planned for in development of transport improvements.*

Policy TRANS3 concerns *Safeguarding of Land for Strategic Transport Schemes* and states that:

Land is safeguarded to support the delivery of the following identified transport schemes:

- Clifton Hampden bypass*
- Culham to Didcot Thames River Crossing*
- Didcot Northern Perimeter Road*
- Science Bridge, Didcot*
- (A4130/ B4493) Didcot Central transport corridor improvements*
- A4130 road safety improvements*
- A bypass for Stadhampton*
- A bypass for Watlington*
- A bypass for Benson*
- A bypass for Southern Abingdon*
- A new Park and Ride site at Sandford to the south-east of Oxford*

Policy TRANS4 concerns *Transport assessments, Transport Statements and Travel Plans* and states that:

Proposals for new developments which have transport implications that either arise from the development proposed or cumulatively with other proposals will need to submit a transport assessment or a transport statement, and where relevant a Travel Plan. These documents will need to take into account Oxfordshire County Council and Planning Practice Guidance¹⁷. Appropriate provision for works and/or contributions will be required towards providing an adequate level of accessibility by all modes of transport and mitigating the impacts on the transport network.

The transport assessment or transport statement should, where relevant:

- (i) Illustrate accessibility to the site by all modes of transport*
- (ii) Show the likely modal split of journeys to and from the site*
- (iii) Detail the proposed measures to improve access by public transport, cycling and walking to reduce the need for parking and reduce transport impacts*
- (iv) Illustrate the impact on the highway network and the impact of proposed mitigation measures where necessary*
- (v) Include a travel plan where appropriate; and*
- (vi) Outline the approach to parking provision.*

In accordance with the guidance, travel plans will be required, implemented and monitored:

- (i) For all major developments comprising residential, employment, shopping or leisure uses or services; and*
- (ii) For other small developments comprising residential, employment, shopping, leisure, or education facilities which would generate significant amounts of travel.*

Policy TRANS5 concerns *Consideration of development proposals* and states that:

Proposals for all types of development will, where appropriate:

- (i) Provide for a safe and convenient access for all users to the highway network*
- (ii) Provide safe and convenient routes for cyclists and pedestrians*
- (iii) Be accessible by public transport and have a safe walking route to nearby bus stops or new bus stops*
- (iv) Provide for appropriate public transport infrastructure*
- (v) Be served by an adequate road network which can accommodate traffic without creating traffic hazards or damage to the environment*
- (vi) Where new roads, pedestrian routes, cycleways and street lighting are to be constructed as part of the development, they should be constructed to adoptable standards and be completed as soon as they are required to serve the development; and*
- (vii) Make adequate provision for those whose mobility is impaired.*

Proposals for development will also, where appropriate, make provision for:

- (viii) Loading, unloading, circulation and turning space*
- (ix) The servicing of properties by refuse vehicles*
- (x) Parking for people with disabilities*
- (xi) The parking of vehicles in accordance with the County Council parking standards, unless specific evidence is provided to justify otherwise*
- (xii) Facilities to support the take up of electric and/ or low-emission vehicles, particularly where air quality issues in the area have been identified; and*
- (xiii) Covered, secure and safe cycle parking, complemented by other facilities to support cycling where relevant.*

Policy TRANS7 concerns *Development generating new lorry movements* and states that:

Proposals for development leading to significant increases in lorry movements, such as freight distribution depots should only be permitted in locations where:

- (i) Any increase in lorry movements can be appropriately accommodated on the surrounding road network*
- (ii) The opportunities for sustainable transport access have been maximised; and*
- (iii) The development does not result in serious and adverse environmental effects on the surrounding area.*

Policy EP1 concerns *Air Quality* and states that:

Air quality has been identified as a key consideration in South Oxfordshire. In order to protect public health from the impacts of poor air quality:

- Development must be compliant with the measures laid out in the Council's developer guidance document and the associated air quality action plan, as well as the national air quality guidance and any local transport plans*
- All development proposals should include measures to minimise air pollution at the design stage and incorporate best practice in the design, construction and operation of the development*
- Where a development has a negative impact on air quality, including cumulative impact, developers should identify mitigation measures that will sufficiently minimise emissions from the development. Where mitigation is not sufficient the impacts should be offset through planning obligations*
- Development that leads to the creation of an Air Quality Management Area will not be permitted.*

2.11 Draft Watlington Neighbourhood Development Plan (2017)

Watlington Parish Council is in the process of producing a neighbourhood plan for the village and its surrounding area which will allocate specific sites for development and set planning policies for the area which will be used in determining planning decisions. The neighbourhood plan area has been agreed by South Oxfordshire District Council and the proposed development site falls within this neighbourhood plan area.

A Draft Neighbourhood Development Plan has been produced for consultation and was issued on the 18th April 2017.

Policies in the Watlington Neighbourhood Development Plan are based on the following key objectives:

- *To provide a minimum number of 238 new homes to meet the housing needs identified by the WNDP and the requirements of the emerging South Oxfordshire Local Plan 2033.*
- *To provide a sufficient number of new homes for Watlington which are in proportion to the capacity, services and facilities of the town.*
- *To provide development which contributes positively to the environmental, social and economic sustainability of the WNDP area.*
- *To protect and enhance the surrounding landscape and the Chilterns Area of Outstanding Natural Beauty (AONB).*
- *To protect and enhance the historic centre of the town.*
- *To protect and enhance Watlington's chalk streams, ponds and springs and minimise the risk of flooding.*
- *To safeguard land for a re-aligned B4009 to the north and west of the town in order to reduce the flow of traffic through the town centre and to improve air quality.*

Policy 2 is to *Improve and Manage Road Traffic Issues* and states that:

- a) *Proposals for development sites will be required to safeguard a route for a realigned B4009 to the North and West of Watlington to link development sites and minimise through traffic from the centre of town.*
- b) *Development will only be permitted where it does not have a severe adverse impact on existing traffic pressures and air quality.*
- c) *Traffic management strategies will enhance the centre of the town. Contribution to costs will be met through developer contributions via Community Infrastructure Levy (CIL) and or Section 106 funding.*

Regarding the *Alternative Route*, the draft Neighbourhood Plan states that:

Traffic issues dominate residents' concerns about Watlington and the WNDP is expected to achieve an improved situation. Traffic emissions cause air pollution in the centre of the town, which is a designated Air Quality Management Area, and water spray and vibration from vehicles risk damaging the fabric of the town's historic buildings. Proposals in the WNDP for a re-aligned B4009 to the north and west of the town offer an opportunity to integrate new development without increasing traffic flows and congestion in the town centre. Air quality would be improved and damage to the historic core of Watlington would be reduced. This proposal is in line with provision for infrastructure included in the South Oxfordshire Local Plan Second Preferred Options 2017.

Policy 4 concerns *New Housing Development* and states that:

New housing development will be permitted where:

- a) *Development provides a well-balanced mix of housing, including needs identified in the most recent Watlington Housing Survey.*
- b) *Development includes, as appropriate, provision for older households seeking to downsize, growing families, home workers, self-builders, and people with physical and sensory disabilities.*
- c) *Provision is made for 40% affordable homes on sites of 11 or more dwellings, (except in the AONB), compliant with SODC policy and to meet the needs identified in the Housing Survey 2016.*
- d) *Development has high standards of design in accordance with local and national policies and the Watlington Design Guide 2017.*
- e) *There is effective connectivity between new housing, the town centre, schools and local facilities by safe pedestrian paths and cycle ways.*
- f) *A small site or sites are brought forward for park homes or other low cost homes in line with the findings of the Housing Survey 2016.*

Policy 6 concerns *Physical and Social Infrastructure* and states that:

Development will be expected to demonstrate how it contributes to:

- a) *Improving the quality and provision of local sport and recreation facilities*
- b) *New or improved community buildings and facilities*
- c) *Superfast broadband provision*
- d) *Transport connectivity via support for local initiatives*
- e) *Improved pedestrian and cycle safety*
- f) *New and improved footpaths and cycleways which offer access for all abilities*

The Draft Neighbourhood Development Plan identifies three sites to the north and west of the town as being the most suitable for residential development. The proposed development site is identified as Site A whilst Site B is immediately north of Cuxham Road and Site C is immediately west of Pyrton Lane. The remaining section of the bypass falls within Pyrton Parish, which is subject to a separate draft Neighbourhood Plan. Regarding the development sites, the draft Watlington Neighbourhood Plan states that:

The WNDP has allocated the 3 most suitable sites in an arc North and West of the Town. These 3 sites will:

- *Provide sufficient new homes to meet the requirements of the SODC Local Plan and the housing needs identified by the WNDP*
- *Allow growth proportionate to the capacity, services and facilities of the town*
- *Meet the policies and objectives of the WNDP*
- *Provide development which contributes positively to the environmental, social and economic sustainability of the town*
- *Have minimum impact on the Chilterns AONB and on the town centre Conservation Area*
- *Generate a neutral or positive impact on areas designated as being within Flood Zones 2 and 3*
- *Safeguard land for a re-aligned B4009 which will benefit Watlington by reducing the volume of traffic in the town centre, leading to an improvement in air quality*
- *Future proof Watlington town centre and the WNDP against increased through traffic from current and new B4009 'corridor' housing growth and potential large-scale housing development at Chalgrove Airfield*

The Draft Neighbourhood Development Plan sets out the preferred strategy for development on the three identified sites as follows:

The development strategy and associated site selection and housing developments will aim at providing a well-integrated extension of the town westward, with a similar approach to design, access points and provision of new amenities and environmental features. The possibility of a chain of mismatched developments along the route must be avoided.

In setting out this preference it is proposed that no planning permission shall be granted on any of the allocated development sites until and unless an agreed strategy (including funding), detailed plans and timetable for the re-aligned B4009 route is in place as approved by OCC, SODC and Watlington Parish Council; and that no infrastructure or housing construction shall be started on any such site unless the construction of the alternative route has been commenced to the agreed timetable. Watlington Parish Council will help facilitate the co-operation and consultation necessitated between land owners, agents, developers and builders to ensure this happens.

The re-aligned route should reflect the character of the existing B4009 road, and be a maximum of 6.5m in width, with verges on either side. There should be substantial screening in all sections of the route where it traverses or is close to residential areas, with large native trees especially on the countryside-facing sectors of the road and mixed native hedges on either side of the road for the majority of its length.

Footpaths and cycleways should be safe and have protected crossing points at regular intervals to encourage and enable safe transit to the town's facilities and access to the wider countryside.

The alternative route would be situated within the current 7.5 tonnes gross weight limit area, and provision should be provided at junctions with the B4009 at Shirburn Road and Britwell Road for non-permitted traffic to reverse their direction. The priorities at each of the junctions should be set to encourage use of the alternative road and discourage all through traffic from entering the town centre or use the B480 through Cuxham. Traffic calming measures should be installed on the town-side carriageway of the B4009 at Britwell Road and Shirburn Road.

Regarding the proposed development site, *Watlington Housing Policy: Site A* states that:

Site A has an indicative capacity for:

- *140 dwellings, of which 40% (indicative 56) should be affordable homes*
- *A small number of workshops and/or offices for small businesses or start ups*

The Planning Proposals prepared for this site should demonstrate how the proposed development:

- *Complies with the objectives and policies of the WNDP and the Sustainability Objectives*
- *Complies with the Watlington Design Guide*
- *Conserves and enhances the chalk stream*
- *Creates the best use of the Flood Zone area as a Local Green Space*
- *Provides sufficient space for informal recreation areas and sports areas*
- *Safeguards the route for a re-aligned B4009*
- *Provides connectivity with the town and countryside*
- *Contributes suitable traffic calming measures on Britwell Road and Cuxham Road*

The following text is provided by the document in support of the policy:

Site A represents in total an area of around 9.6ha. The SODC Landscape Capacity Assessment for sites on the edge of larger villages in South Oxfordshire (additional villages) 2015 (referred to as "Kirkham" report) recommended that, on visual and landscape grounds, a much-reduced area be used for development allowing for 65 dwellings. Initial plans shared by the potential developer suggested that up to 183 dwellings could be accommodated on 5.14ha of the available space.

The area on the Northern side of the site, adjoining Cuxham Road is affected by fluvial flooding. This area also includes a valued chalk stream and, therefore, should be set aside and landscaped as a 'green space' for the use of the Community and protection of the stream.

Space sufficient for informal recreation and sports should be provided, together with food growing areas such as allotments and a community orchard. At the Southern end of the site adjacent to Britwell Road green space and tree planting should mitigate issues around visibility from and intrusion on the AONB and the approach from Britwell Salome.

The design of the development should incorporate a link road between Britwell Road and Cuxham Road, to a location, specification, design and junctions approved by OCC Highways as part of the re-aligned B4009 road route.

The development should provide footpaths and cycle ways to optimise access to Watlington facilities, including schools and shops, and a footpath along the B480 from the new (Northern) site access road towards the existing roundabout access to the industrial estate and Willow Close.

2.12 Draft Air Quality Action Plan (2014)

South Oxfordshire's Draft Air Quality Action Plan identifies the actions that the District plans to take in order to address the issue of air pollution in the three areas of South Oxfordshire where air pollution levels exceed the European and UK regulations. District-wide as well as local measures are identified.

The centre of Watlington, formed by the Shirburn Street, Crouching Street and Brook Street corridors, has been designated as part of an Air Quality Management Area (AQMA) due to pollution caused principally by vehicular congestion.

The Action Plan states that 82% of traffic in the AQMA is made up of cars which are responsible for 44% of the NO_x levels, whilst HGVs and Buses make up just 4% of traffic but are also responsible for 44% of the NO_x levels.

Proposed Action C1 is a *Low Emission Zone Feasibility Study* which would:

Commission a low emission feasibility study to identify further actions to improve air quality in Watlington with a particular focus on HGVs and buses. Part of this study will look at the potential for a low emission zone that would mean vehicles could only enter the area if they meet required standards.

Proposed Action C2 is *Increased Enforcement and Review of the Weight Restriction Zone (WRZ)* which would:

Enforce the WRZ more rigorously. Review and, if necessary, improve signage at the entrance to the WRZ. Investigate the effects on air quality, of a reduction in the geographical area of the WRZ. Investigate the effects on air quality and congestion, of a reduction in the weight limit on the WRZ.

Proposed Action C3 is *Smoothing Traffic Flow* which would:

Investigate the potential impact of:

- *The removal of on-street parking along Crouching Street and part of Shirburn Street.*
- *Introducing measures based on the Dorset villages model, such as lowering speed limits, changing road markings and using different road surfaces.*

Regarding delivery of the proposed actions the Action Plan states that:

In order to deliver some of the more expensive actions in this plan, this council will need to secure external funding to supplement money that we allocate from our general funds. We will apply to grant giving organisations and seek contributions from developers through section 106 agreements, where appropriate. We will consider using funding gained through the Community Infrastructure Levy once this is in place. We will support OCC in applications for funding towards its transport actions.

The success of the action plan depends on all of the partners delivering their specific actions and contributing to joint ones. We have involved partners in drafting these actions to ensure their buy in. OCC has been heavily involved in this draft plan as by law they must put forward transport related actions they can implement, to work towards meeting the air quality standards.

2.13 Transport Assessment Guidance

The NPPF Planning Practice Guidance: Travel plans, transport assessments and statements in decision taking superseded the Department for Transport Guidance on Transport Assessment published in 2007. The DfT Guidance superseded the Chartered Institution of Highways and Transportation (CIHT) Traffic Impact Assessment Guidelines published in 1992. Although superseded, both of these previous guidance documents provide some detailed technical advice that is still relevant in carrying out Transport Assessments.

The CIHT prepared Guidelines for Planning for Public Transport in Developments in 1999. This provides relevant advice on examining public transport as part of development proposals.

2.14 Highway and Access Design Guidance

Manual for Streets 1 and 2 (MfS and MfS2)

The MfS provides the design guidance for development in residential areas, focussed upon function rather than absolute standards, allowing designers to approach highway and access provision in a less prescriptive manner. It is also based on a new set of technical and research reports considering in particular driver behaviour as it is affected by the travel environment, rather than allowing drivers to dominate the environment.

MfS2 is a 'companion guide' to the MfS that identifies how the principles of design set out in the MfS can be applied to other urban locations. It identifies the MfS as the starting point for all highway design affecting non-trunk roads, although its application on inter urban routes is less likely to provide acceptable arrangements.

Design Manual for Roads and Bridges (DMRB)

DMRB provides the design standards and guidance for highway arrangements for development outside built up areas. It is presented as a standard led set of Technical Advice (TA) and Technical Design (TD) documents and covers design of highways from minor County roads up to Motorways.

3 Development Context and the Alternative Route

3.1 Introduction

This chapter explains the development context in terms of the impact of the Alternative Route proposal and the impact of other potential developments which could affect its delivery.

3.2 The Alternative Route

Although Watlington's Neighbourhood Plan has not yet been adopted and although not mentioned by Oxfordshire's Local Transport Plan, there is a proposal to introduce a bypass around the west of Watlington in the form of what has come to be known as the Alternative Route.

Watlington Parish Council, and indeed Watlington residents, have expressed concern about the volume of traffic and particularly the volume of HGVs in the town centre. The historic town centre is made up of narrow streets with the Shirburn Street/ Hill Road/ Crouching Street/ High Street crossroads forming a particular pinch point which regularly experiences congestion caused by vehicular conflict or by HGVs struggling to navigate through it.

Furthermore, Shirburn Street, Crouching Street and Brook Street have been designated as part of an Air Quality Management Area (AQMA) by SODC in 2009 due principally to pollution caused by vehicular congestion.

Due to Watlington's location close to Junction 6 of the M40, and given that the B4009 (which passes through the centre of town) is the principal route towards Junction 6 for vehicles approaching it from the south, it is believed that a considerable proportion of the traffic passing through the town centre and the AQMA is through traffic. It is therefore believed that a bypass around the west of Watlington could help to relieve congestion in the town centre by diverting this through traffic away from the town centre and the AQMA.

The proposed Alternative Route would connect the B4009 Britwell Road to the B480 Howe Road which would in turn connect to Pyrton Lane and then to the B4009 Shirburn Road. This would in effect provide a bypass around the west of Watlington and could hence relieve traffic pressure on the centre of Watlington. The Alternative Route is supported in principle by the SODC Local Plan 2033 Second Preferred Options, which safeguards the route through draft Policy TRANS 3.

The Alternative Route will be delivered through development sites as identified in the Draft Watlington Neighbourhood Plan and will be funded through the Community Infrastructure Levy (CIL) given SODC's identification of the Routes as a strategic infrastructure scheme (through TRANS 3). The approximate alignment of the Alternative Route, as shown by the Draft Watlington Neighbourhood Development Plan, is shown at **Appendix B**.

To aid in the development of the Watlington Neighbourhood Plan and to explore the potential of the Alternative Route, the Watlington Neighbourhood Plan Core Committee (NPCC) commissioned the Watlington Traffic Study in 2014.

3.3 Watlington Traffic Study (2014)

The Watlington Traffic Study was commissioned by the NPCC in 2014, to be carried out by the Transport Planning Practice (TPP). The following brief was identified and agreed:

- Analyse what the traffic issues are currently;
- Without any additional development in Watlington itself, determine what the anticipated rise in traffic volumes generally in the region would mean for Watlington's roads;
- Assess which areas of Watlington would be better for development (without any additional road infrastructure) to minimise additional traffic flows within the town;
- If you could facilitate a relief road with new housing development, determine which roads it would be best to connect with;
- Establish how through traffic could be deterred, whilst still encouraging destination traffic which supports Watlington's shops and business community.

Part of the Traffic Survey's methodology involved conducting an Automatic Number Plate Recognition (ANPR) Survey. A cordon was identified around Watlington on the town's four principal access points which were:

- B4009 Shirburn Road
- B480 Howe Road
- B4009 Britwell Road
- B480 Cuxham Road

This ANPR Survey was able to 'match' vehicles entering and departing the town at each access point so as to identify the volume of through traffic. Manual Counts were conducted at each access point in conjunction with the ANPR survey to record the total number of vehicles approaching or departing Watlington at each access point.

The ANPR Survey along with the Manual Counts allows the volume of through traffic to be calculated as a percentage in relation to the total volume of traffic at each access point.

The volume of traffic at each access point in the AM peak hour, as recorded by the ANPR Survey and the Manual Counts, is shown by **Table 3.1**.

Table 3.1 Vehicle Movements in the AM Peak Hour (ANPR and Manual Count)

From	To				Total ANPR Count	Total Manual Count
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road		
B4009 Shirburn Road	22	127	151	30	330	482
B480 Howe Road	76	0	15	28	119	133
B4009 Britwell Road	160	24	2	42	228	266
B480 Cuxham Road	46	24	46	3	119	134
Total ANPR Count	304	175	214	103	1,592	1,015
Total Manual Count	318	192	241	124	875	1,890

A total of 1,015 vehicles were recorded approaching Watlington in the AM peak hour on the four principal routes whilst 875 were recorded as departing. Of the 1,890 total of approaching and departing vehicles, 1,592 were ‘matched’ on entry and exit to the cordoned area and are hence identified as through traffic. Consequently, a total of 84% of AM peak hour traffic approaching or departing Watlington is identified as through traffic.

The most popular route for the vehicles both approaching and departing from the town is the B4009 Shirburn Road. The second most popular route is the B4009 Britwell Road.

The split of routes taken by vehicles approaching the town in the AM peak hour, as recorded by the ANPR Survey and the Manual Counts, is shown by **Table 3.2**.

Table 3.2 Vehicle Route Proportions in the AM Peak Hour (ANPR and Manual Count)

From	To				Total ANPR Count	Total Manual Count
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road		
B4009 Shirburn Road	4.6%	26.3%	31.3%	6.2%	68.5%	100%
B480 Howe Road	57.1%	0.0%	11.3%	21.2%	89.5%	100%
B4009 Britwell Road	60.2%	9.0%	0.8%	15.8%	85.7%	100%
B480 Cuxham Road	34.3%	17.9%	34.3%	2.2%	88.8%	100%

A total of 68.5% of vehicles approaching the town on the most popular route, the B4009 Shirburn Road, are recorded as being through traffic. The proportion of vehicles on other approaches to the town being recorded as through traffic is between 85-90% for each approach.

The volume of HGVs at each access point in the AM peak hour, as recorded by the ANPR Survey and the Manual Counts, is shown by **Table 3.3**.

Table 3.3 HGV Movements in the AM Peak Hour (ANPR and Manual Count)

From	To				Total ANPR Count	Total Manual Count
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road		
B4009 Shirburn Road	0	17	12	3	32	33
B480 Howe Road	3	0	2	1	6	6
B4009 Britwell Road	13	1	0	2	16	17
B480 Cuxham Road	6	2	1	0	9	9
Total ANPR Count	22	20	15	6	126	65
Total Manual Count	25	21	16	6	68	133

A total of 65 HGVs were recorded approaching Watlington in the AM peak hour on the four principal routes whilst 68 were recorded as departing. Of the 133 total of approaching and departing HGVs, 126 were ‘matched’ on entry and exit to the cordoned area and are hence identified as through traffic. Consequently, a total of 95% of AM peak hour HGV traffic approaching or departing Watlington is identified as through traffic.

The most popular route for the HGVs both approaching and departing from the town is the B4009 Shirburn Road. The second most popular route is the B4009 Britwell Road.

The split of routes taken by HGVs approaching the town in the AM peak hour, as recorded by the ANPR Survey and the Manual Counts, is shown by **Table 3.4**.

Table 3.4 *HGV Route Proportions in the AM Peak Hour (ANPR and Manual Count)*

From	To				Total ANPR Count	Total Manual Count
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road		
B4009 Shirburn Road	0.0%	51.5%	36.4%	9.1%	97.0%	100%
B480 Howe Road	50.0%	0.0%	33.3%	16.7%	100%	100%
B4009 Britwell Road	76.5%	5.9%	0.0%	11.8%	94.1%	100%
B480 Cuxham Road	66.7%	22.2%	11.1%	0.0%	100%	100%

The proportion of HGVs on each approach to the town being recorded as through traffic is between 90-100% for each approach.

The volume of traffic at each access point in the PM peak hour, as recorded by the ANPR Survey and the Manual Counts, is shown by **Table 3.5**.

Table 3.5 *Vehicle Movements in the PM Peak Hour (ANPR and Manual Count)*

From	To				Total ANPR Count	Total Manual Count
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road		
B4009 Shirburn Road	11	122	156	19	308	461
B480 Howe Road	64	0	34	44	142	173
B4009 Britwell Road	200	22	3	34	259	290
B480 Cuxham Road	96	13	25	4	138	170
Total ANPR Count	371	157	218	101	1,694	1,094
Total Manual Count	413	167	251	136	967	2,061

A total of 1,094 vehicles were recorded approaching Watlington in the PM peak hour on the four principal routes whilst 967 were recorded as departing. Of the 2,061 total of approaching and departing vehicles, 1,694 were ‘matched’ on entry and exit to the cordoned area and are hence identified as through traffic. Consequently, a total of 82% of PM peak hour traffic approaching or departing Watlington is identified as through traffic.

The most popular route for the vehicles both approaching and departing from the town is the B4009 Shirburn Road. The second most popular route is the B4009 Britwell Road.

The split of routes taken by vehicles approaching the town in the PM peak hour, as recorded by the ANPR Survey and the Manual Counts, is shown by **Table 3.6**.

Table 3.6 Vehicle Route Proportions in the PM Peak Hour (ANPR and Manual Count)

From	To				Total ANPR Count	Total Manual Count
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road		
B4009 Shirburn Road	2.4%	26.5%	33.8%	4.1%	66.8%	100%
B480 Howe Road	37.0%	0.0%	19.7%	25.4%	82.1%	100%
B4009 Britwell Road	69.0%	7.6%	1.0%	11.7%	89.3%	100%
B480 Cuxham Road	56.5%	7.6%	14.7%	2.4%	81.2%	100%

A total of 66.8% of vehicles approaching the town on the most popular route, the B4009 Shirburn Road, are recorded as being through traffic. The proportion of vehicles on other approaches to the town being recorded as through traffic is between 80-90% for each approach.

The volume of HGVs at each access point in the PM peak hour, as recorded by the ANPR Survey and the Manual Counts, is shown by **Table 3.7**.

Table 3.7 HGV Movements in the PM Peak Hour (ANPR and Manual Count)

From	To				Total ANPR Count	Total Manual Count
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road		
B4009 Shirburn Road	0	1	5	0	6	8
B480 Howe Road	6	0	4	0	10	10
B4009 Britwell Road	5	1	0	0	6	6
B480 Cuxham Road	2	0	0	0	2	2
Total ANPR Count	13	2	9	0	48	26
Total Manual Count	15	2	10	0	27	53

A total of 26 HGVs were recorded approaching Watlington in the PM peak hour on the four principle routes whilst 27 were recorded as departing. Of the 53 total of approaching and departing HGVs, 48 were 'matched' on entry and exit to the cordoned area and are hence identified as through traffic. Consequently, a total of 91% of PM peak hour HGV traffic approaching or departing Watlington is identified as through traffic.

The most popular route for the HGVs both approaching and departing from the town is the B4009 Shirburn Road. The second most popular route is the B4009 Britwell Road.

The split of routes taken by HGVs approaching the town in the PM peak hour, as recorded by the ANPR Survey and the Manual Counts, is shown by **Table 3.8**.

Table 3.8 *HGV Route Proportions in the PM Peak Hour (ANPR and Manual Count)*

From	To				Total ANPR Count	Total Manual Count
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road		
B4009 Shirburn Road	0.0%	12.5%	62.5%	0.0%	75.0%	100%
B480 Howe Road	60.0%	0.0%	40.0%	0.0%	100%	100%
B4009 Britwell Road	83.3%	16.7%	0.0%	0.0%	100%	100%
B480 Cuxham Road	100%	0.0%	0.0%	0.0%	100%	100%

The proportion of HGVs on each approach to the town being recorded as through traffic is 75% for the B4009 Shirburn Road approach and 100% for all other approaches.

The Traffic Study identifies the most appropriate locations in and around Watlington for potential future residential development. The Study concludes that plots to the north and to the west of Watlington will deliver the least traffic impact on the town centre. The Study also explores the potential for the Alternative Route to be delivered in tandem with residential development to the north and west of town.

In the AM peak hour the proposed Alternative Route could result in as many as 387 (Table 3.1) fewer vehicle trips, and 34 fewer HGV trips (Table 3.2), being made through the town centre as trips between Shirburn Road and both Cuxham Road and Britwell Road could be diverted along the new bypass. A further reduction of 88 (Table 3.1) vehicle trips and 3 HGV trips (Table 3.2) could be realised at the junction between Cuxham Road and Britwell Road as trips between these two roads could also be diverted along the new bypass.

In the PM peak hour the Alternative Route could result in as many as 471 (Table 3.5) fewer vehicle trips, and 12 fewer HGV trips (Table 3.6), being made through the town centre as trips between Shirburn Road and both Cuxham Road and Britwell Road could be diverted along the new bypass. A further reduction of 59 (Table 3.5) vehicle trips and 0 HGV trips (Table 3.6) could be realised at the junction between Cuxham Road and Britwell Road as trips between these two roads could also be diverted along the new bypass.

The above figures assume that all traffic between the roads which are linked by the Alternative Route would use the new bypass which is unrealistic. However, the potential that the Alternative Route has for relieving traffic on the town centre is clear.

4 Existing Highway Conditions

4.1 Introduction

This chapter describes the existing transport and highway conditions in the local area surrounding the proposed development. It is divided into sub-sections that provide:

- A description of the local highway network;
- A review of traffic flows on relevant roads and streets;
- A review of traffic speeds on relevant roads and streets;
- A summary of existing traffic flows on the local highway network;
- A review of existing junction queues;
- The results of a journey time survey in Watlington;
- A discussion of existing junction performance; and
- A review of recorded Personal Injury Accidents on the highway network.

4.2 Highway Network

The proposed development will be accessed from both Britwell Road to its east and from Cuxham Road to its north (see Section 5.4 for details).

The B4009 Britwell Road approaches Watlington from the south, passing Cuxham Road as it becomes Brook Street, Couching Street, Shirburn Street, Shirburn Road and then Watlington Road. The B4009 Watlington Road then heads north towards the M40. The B4009 Britwell Road changes from a 50mph to a 30mph speed limit approximately 150m south of the proposed site access.

The B480 Cuxham Road approaches Watlington from the west, shares Brook Street with the B4009 before becoming the B480 Howe Road as it heads east from Watlington. Cuxham Road changes from a 50mph to a 30mph speed limit approximately 100m west of the Industrial Estate Access roundabout.

The M40 passes to the north of Watlington with Junction 6 located approximately 4.5km north of the town. The majority of traffic passing through Watlington is travelling either to or from the M40. The principal route heading away from the town in this direction is the B4009 Watlington Road which is used by M40 bound traffic from the east, south and west of Watlington. The majority of this traffic uses Couching Street and Shirburn Street through the town centre however some traffic uses Pyrton Lane to avoid the town centre, joining the B4009 Watlington Road to the north of the town.

Pyrton Lane is a narrow road, at times single track and unsuitable for heavy volumes of traffic. The speed limit on Pyrton Lane changes from national speed limit to 30mph as it passes to the west of Watlington Primary School.

4.3 Existing Link Traffic Flows

Automatic Traffic Count (ATC) surveys were carried out in the vicinity of the proposed development on Britwell Road, Pyrton Lane and Couching Street. The ATC surveys at Britwell Road and Pyrton Lane were carried out for a seven day period between the 2nd and 8th June 2015 whilst the ATC survey at Couching Street was carried out for a seven day period between the 23rd and 29th January 2017.

Summaries of the results of the ATC traffic flow surveys at Britwell Road, Pyrton Lane and Couching Street are shown by **Tables 4.1-4.3**.

Table 4.1 Existing Traffic Flows on Britwell Road

Time Period	N-bound traffic flow (vehicles)	S-bound traffic flow (vehicles)	Two-way traffic flow (vehicles)
AM Peak Hour (8am to 9am)	258	246	504
PM Peak Hour (5pm to 6pm)	236	277	513
Average 24hour weekday traffic flow	2818	2783	5601

Table 4.2 Existing Traffic Flows on Pyrton Lane

Time Period	N-bound traffic flow (vehicles)	S-bound traffic flow (vehicles)	Two-way traffic flow (vehicles)
AM Peak Hour (8am to 9am)	106	49	155
PM Peak Hour (5pm to 6pm)	75	67	142
Average 24hour weekday traffic flow	655	441	1069

Table 4.3 Existing Traffic Flows on Couching Street

Time Period	N-bound traffic flow (vehicles)	S-bound traffic flow (vehicles)	Two-way traffic flow (vehicles)
AM Peak Hour (8am to 9am)	428	348	776
PM Peak Hour (5pm to 6pm)	408	240	648
Average 24hour weekday traffic flow	4985	3197	8182

Two-way traffic flow on Britwell Road is approximately 5,500 vehicles per day. Peak hour flows are approximately 500 vehicles per hour two-way in the AM and in the PM which amounts to an average of 8-9 cars per minute in either direction.

Two-way traffic flow on Pyrton Lane is approximately 1,000 vehicles per day. Peak hour flows are approximately 150 vehicles per hour two-way in both the AM and PM peaks which amounts to an average of 2-3 cars per minute in either direction.

Two-way traffic flow on Couching Street is approximately 8,000 vehicles per day. Peak hour flows are approximately 800 vehicles per hour two-way in the AM which amounts to an average of 12-13 cars per minute in either direction.

Full ATC data sheets are included at **Appendix C**.

4.4 Existing Link Traffic Speeds

Speed surveys were also carried out by the ATCs at the same locations on Britwell Road, Pyrton Lane and Couching Street. Speeds were recorded north-bound/south-bound, under free flow conditions and with no exceptional weather conditions reported.

Summaries of the results of the ATC speed surveys at Britwell Road, Pyrton Lane and Couching Street are shown by **Tables 4.4-4.6**.

Table 4.4 *Summary of Speed Survey Results on Britwell Road*

Time Period	Average (mph)		85 th %ile (mph)	
	N-bound	S-bound	N-bound	S-bound
Weekday AM Peak Hour (8am-9am)	33.9	35.7	41.6	41.7
Weekday PM Peak Hour (5pm-6pm)	34.6	37.5	40.2	43.5
24hour Weekday	35.8	36.4	43.5	43.5
24hour Weekend	34.5	35.9	43.2	43.4
24hour Whole Week	34.8	36.3	43.4	43.5

Table 4.5 *Summary of Speed Survey Results on Pyrton Lane*

Time Period	Average (mph)		85 th %ile (mph)	
	N-bound	S-bound	N-bound	S-bound
Weekday AM Peak Hour (8am-9am)	33.5	32.7	38.5	38.4
Weekday PM Peak Hour (5pm-6pm)	34.1	33.0	41.8	39.5
24hour Weekday	33.6	32.3	38.2	38.5
24hour Weekend	32.5	31.7	38.4	38.8
24hour Whole Week	33.4	32.2	38.2	38.6

Table 4.6 *Summary of Speed Survey Results on Couching Street*

Time Period	Average (mph)		85 th %ile (mph)	
	N-bound	S-bound	N-bound	S-bound
Weekday AM Peak Hour (8am-9am)	15.0	15.9	19.1	19.5
Weekday PM Peak Hour (5pm-6pm)	15.8	17.2	19.7	20.7
24hour Weekday	18.3	18.8	23.0	23.0
24hour Weekend	19.3	19.5	23.5	23.5
24hour Whole Week	18.6	19.0	23.1	23.2

The average speed of traffic is around 35mph on Britwell Road, 30-35mph on Pyrton Lane and 15-20mph on Couching Street. The 85th percentile speeds of traffic on Britwell Road are 43.5mph for both north- and south-bound traffic.

The full ATC data sheets are included at **Appendix C**.

4.5 Existing Junction Traffic Flows

It has been agreed with Oxfordshire County Council (OCC) that the following junctions in the vicinity of the site would be assessed as part of the Transport Assessment:

- Britwell Road/ Cuxham Road priority T-junction;
- Cuxham Road/ Pyrton Lane priority T-junction;
- Brook Street/ Couching Street priority T-junction;
- Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads;
- Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads; and
- Cuxham Road/ Willow Close/ Industrial Estate roundabout.

Each of the identified junctions was surveyed on Tuesday 2nd June 2015 with the exception of the Brook Street/ Couching Street priority junction and the Shirburn Street/ Couching Street/ Hill Road/ High Street priority junction which were both assessed on Tuesday 24th January 2017.

Each of the junctions was assessed during the AM and PM peak periods with the peak hours found to be 07:30-08:30 and 17:30-18:30.

At the Britwell Road/ Cuxham Road priority junction the most popular movement is straight ahead on Britwell Road however a significant number of vehicles approach and depart the junction on Cuxham Road.

At the Cuxham Road/ Pyrton Lane priority junction most vehicles travel straight ahead on Cuxham Road however a significant number use Pyrton Lane and this is likely to be vehicles travelling to or from Watlington Road trying to avoid the congested town centre.

At the Brook Street/ Couching Street priority junction most vehicles approach or depart on Couching Street which is the minor arm. This is likely because of the high amount of through traffic in Watlington heading to or from the M40.

At the Shirburn Street/ Couching Street/Hill Road/ High Street priority crossroads the vast majority of traffic is straight through on Shirburn Street/ Couching Street. No vehicles approach the junction from Hill Road or the High Street as these roads are one-way away from the junction.

At the Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads the most popular movement is straight ahead on Watlington Road/ Shirburn Road however a significant number of vehicles approach or depart from the junction using Pyrton Lane.

At the Cuxham Road/ Willow Close/ Industrial Estate priority roundabout most traffic is straight ahead on Cuxham Road with a small amount approaching or departing on the Industrial Estate Access or Willow Close which is a small residential access.

Existing traffic flows on the local highway network for the AM and PM peak hours respectively are shown by **Figure 4.1** and **Figure 4.2**.

Traffic count data sheets for each junction are included at **Appendix D**.

4.6 Existing Junction Queues

In addition to traffic flow data, vehicle queue surveys were also undertaken at each of the assessed junctions over the same time period and for all relevant vehicle movements. These queue surveys recorded the maximum queue which was observed per 15-minute period (June 2015 counts) or 5-minute period (Jan 2017 counts) with a queue considered to have formed when vehicles were stationary or moving at walking pace or slower.

A summary of recorded peak hour queues showing the lowest and highest maximum queues recorded for each 5-minute period is shown by **Table 3.8**.

Table 4.7 Range and Mean of Maximum Recorded Peak Hour Queues

Junction	Movement/ Approach	Peak Hour Queues	
		AM	PM
Britwell Road/ Cuxham Road priority T-junction	Left or right turn out of Cuxham Road	2-3	1-3
	Right turn in to Cuxham Road	1-2	1-2
Cuxham Road/ Pyrton Lane priority T-junction	Left or right turn out of Pyrton Lane	0-2	0-2
	Right turn in to Pyrton Lane	0-2	0-2
Brook Street/ Couching Street priority T-junction ^[1]	Couching Street	1-6	0-4
	Brook Street E	1-5	1-6
	Brook Street W	1-9	1-6
Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads ^[1]	Shirburn Street	0-1	0-2
	Hill Road	0-0	0-0
	Couching Street	2-9	3-9
	High Street	0-0	0-0
Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads	Left or right turn out of Station Road	0-0	0-1
	Right turn in to Station Road	0-3	0-0
	Left or right turn out of Pyrton Lane	2-4	1-3
	Right turn in to Pyrton Lane	0-2	0-3
Cuxham Road/ Willow Close/ Industrial Estate roundabout	Cuxham Road E	0-2	0-3
	Industrial Estate	0-1	0-0
	Cuxham Road W	0-1	0-2
	Willow Close	0-1	0-0

Notes: 1. See text below

At the Brook Street/ Couching Street priority T-junction there are parked cars located at the southern end of Couching Street which can obstruct vehicles departing the junction. This means that although vehicles approaching the junction on Brook Street W have priority both for the straight ahead and left turn movements, they can be obstructed from departing the junction on Couching Street which can cause queueing on Brook Street W.

On Brook Street W queues of up to 9 vehicles were recorded in the AM peak hour with queues of up to 6 vehicles recorded in the PM peak hour. On Brook Street E and Couching Street queues of up to 6 vehicles were recorded across the AM and PM peak hours. However, for all junction approaches maximum queues of just 1 or fewer vehicles were recorded for at least one 5-minute time period which suggests significant fluctuation in queue lengths across the AM and PM peak hours.

At the Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads the narrow road layout means that vehicles travelling straight ahead on Couching Street must give way to oncoming vehicles on Shirburn Street. This can cause queueing on Couching Street.

On Couching Street queues of up to 9 vehicles were recorded in both the AM and PM peak hours. However, maximum queues of 3 vehicles were also recorded for at least one 5-minute time period which suggests significant fluctuation. An insignificant level of queueing was recorded on Shirburn Street whilst no queueing was recorded on Hill Road or the High Street as these are one-way streets away from the junction.

A small amount of queueing was recorded at the Britwell Road/ Cuxham Road priority T-junction.

An insignificant amount of queueing was recorded at the Cuxham Road/ Pyrton Lane priority T-junction.

An insignificant amount of queueing was recorded at the Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads with the exception of the Pyrton Lane approach where a small amount of queueing was recorded.

An insignificant amount of queueing was recorded at the Cuxham Road/ Willow Close/ Industrial Estate priority roundabout.

Full queue count data sheets for each junction and for all time periods are contained in **Appendix E**.

A journey time survey has been undertaken by Clarkebond in order to verify the results of the junction queue surveys and in order to better understand the causes of delay at the identified junctions (see Section 4.7 for detail).

4.7 Journey Time Survey

A journey time survey was conducted by Clarkebond in January 2017 in order to understand the delays currently experienced by drivers in Watlington and the factors which cause these delays.

This survey was conducted in the PM peak period of 04:30-06:30 on Wednesday 25th and in the AM peak period of 07:00-09:00 on Thursday 26th January 2017.

An inter-peak survey was also carried out at 12:00-13:00 on Thursday 26th January 2017 to provide journey times for a traffic free survey of the two routes.

Journey times for the following routes between cordon points were recorded by the survey:

- Britwell Road to Watlington Road;
- Watlington Road to Britwell Road;
- Howe Road to Watlington Road; and
- Watlington Road to Howe Road.

The exact positions of each cordon point are shown by **Figure 4.3**.

The average journey time for each route through Watlington is shown by **Table 4.8**.

Table 4.8 *Journey Time Survey Results*

Route	AM Peak (07:00-09:00)	PM Peak (04:30-06:30)	Inter-Peak (12:00-13:00)
	Time ¹	Time ¹	Time ¹
Britwell Rd to Watlington Rd and Watlington Rd to Britwell Rd	04:19	03:55	03:17
Howe Rd to Watlington Rd and Watlington Rd to Howe Rd	03:47	03:40	02:25

Notes: 1. The mean time taken to complete each route in either direction

The average journey time between Britwell Road and Watlington Road (in either direction) was 04:19 in the AM peak period with a range of 02:29. The average journey time in the PM peak period was 03:55 with a range of 02:22.

The average journey time between Howe Road and Watlington Road (in either direction) was 03:47 in the AM peak period with a range of 02:22. The average journey time in the PM peak period was 03:40 with a range of 03:55.

Comparing the peak period journey times to the inter-peak journey times shows that the additional congestion in the AM and PM peaks leads to a maximum increase of under 90s journey time for any route through the town.

There is also a significant range in journey times for both AM and PM routes through the town. Many journeys through the town in the AM and PM peak experience little or no delay.

As well as total journey times between cordon points the survey also recorded the delay experienced at the following junctions and obstructions:

- Britwell Road/ Cuxham Road priority T-junction;
- Brook Street/ Couching Street priority T-junction;
- Couching Street/ Shirburn Street/ Hill Road/ High Street priority crossroads;
- Shirburn Street/ Love Lane priority T-junction;
- Shirburn Road/ Watlington Road/ Station Road/ Pyrton Lane priority crossroads; and
- On-street parking at southern end of Couching Street.

The average delay recorded at each junction or obstacle is shown by **Table 4.9**.

Table 4.9 Journey Time Survey Junction/ Obstacle Delay

Junction/ Obstacle	AM Peak (XX:XX- XX:XX)	PM Peak (XX:XX- XX:XX)
	Delay ¹	Delay ¹
Britwell Road/ Cuxham Road priority T-junction	0s	0s
Brook Street/ Couching Street priority T-junction	8s	15s
Couching Street/ Shirburn Street/ Hill Road/ High Street priority crossroads	11s	11s
Shirburn Street/ Love Lane priority junction	0s	18s
Shirburn Road/ Watlington Road/ Station Road/ Pyrton Lane priority crossroads	0s	0s
On-street parking at southern end of Couching Street	12s	14s

Notes: 1. The mean delay recorded at each junction/ obstacle during journey time survey.

At the Britwell Road/ Cuxham Road priority T-junction and at the Shirburn Road/ Watlington Road/ Station Road/ Pyrton Lane priority crossroads no delays were recorded. The assessed routes involved only priority movements at these junctions.

At the Shirburn Street/ Love Lane priority junction average delays of 18s were recorded in the PM peak however this was a result of just one significant incident. All of the AM surveys at this junction and all but one PM survey recorded delays of 0s at this junction.

At the Couching Street/ Shirburn Street/ Hill Road/ High Street priority crossroads average delays of 11s were recorded for both the AM and PM peaks. Of all surveys across the AM and PM peak a little over half recorded no delay with the maximum delay recorded as 53s.

At the Brook Street/ Couching Street priority T-junction average delays of 8s in the AM peak and 15s in the PM peak were recorded. Delays were experienced during every run ranging from 2s to 76s across the AM and PM peaks.

At the one-way narrowing of Couching Street due to on-street parking at its southern end average delays of 12s in the AM peak and 14s in the PM peak were recorded. Delays ranged from 0s to 86s across the AM and PM peaks.

It is evident that the most significant delays caused to drivers in Watlington are caused at either the Couching Street/ Shirburn Street/ Hill Road/ High Street priority crossroads or at the Brook Street/ Couching Street priority T-junction including the one-way narrowing immediately north of the junction on Couching Street caused by parked cars.

One of the principal causes of delay in journeys through the town was from congestion caused by HGVs. On a number of occasions HGVs struggling to manoeuvre through junctions or along the narrow streets caused significant delay to a journey. The most significant delays which occurred during the survey periods occurred due to specific incidents involving HGVs which include:

- A bus became stuck on Shirburn Street by parked cars which forced oncoming vehicles to mount the kerb in order to pass;
- An HGV approaching Watlington on Shirburn Street caused traffic to stop in both directions for a significant period of time in order to navigate past parked cars;
- An HGV navigating past the on-street parking at the south of Couching Street blocked the road stopping traffic in both directions.

It is concluded that while the total volume of traffic on the roads in Watlington can cause congestion, that the most significant instances of congestion are caused by HGVs. These specific instances explain the large range of journey times recorded by the survey.

4.8 Existing Junction Operation

Each surveyed junction has been assessed for its existing performance using TRL Junctions 9 software for priority junctions and roundabouts. The capacity assessment results are shown by each section below.

4.8.1 Britwell Road/ Cuxham Road Priority T-junction

The performance of the Britwell Road/ Cuxham Road priority T-junction has been assessed using the TRL Junctions 9 software's PICADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 4.10**.

Table 4.10 Britwell Road/ Cuxham Road Priority T-junction – Results of PICADY Modelling

2015	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2017 Application Year 'with no development'						
Left/right out of Cuxham Road	0.4	9.49	0.27	0.4	9.13	0.31
Right into Cuxham Road	0.5	6.45	0.24	0.5	6.27	0.25
2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year 'with no development'						
Left/right out of Cuxham Road	0.4	9.69	0.28	0.5	9.33	0.32
Right into Cuxham Road	0.5	6.50	0.25	0.5	6.33	0.27

Notes: 1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The queues predicted by PICADY approximately correlate with those recorded by the queue survey therefore the model is considered to be validated and able to provide a good estimation of the capacity of the junction.

The Britwell Road/ Cuxham Road priority T-junction is shown to operate with significant reserve capacity and with acceptable levels of queuing and delay for all scenarios.

4.8.2 Cuxham Road/ Pyrton Lane Priority T-junction

The performance of the Cuxham Road/ Pyrton Lane priority T-junction has been assessed using the TRL Junctions 9 software’s PICADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 4.11**.

Table 4.11 Cuxham Road/ Pyrton Lane Priority T-junction – Results of PICADY Modelling

2015	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2017 Application Year ‘with no development’						
Left/right out of Pyrton Lane	0.1	8.45	0.12	0.1	8.68	0.13
Right into Pyrton Lane	0.2	6.21	0.11	0.1	6.09	0.09
2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year ‘with no development’						
Left/right out of Pyrton Lane	0.1	8.53	0.13	0.1	8.76	0.13
Right into Pyrton Lane	0.2	6.23	0.12	0.1	6.10	0.09

Notes: 1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The queues predicted by PICADY approximately correlate with those recorded by the queue survey therefore the model is considered to be validated and able to provide a good estimation of the capacity of the junction.

The Cuxham Road/ Pyrton Lane priority T-junction is shown to operate with significant reserve capacity and with acceptable levels of queuing and delay for all scenarios.

4.8.3 Brook Street/ Couching Street Priority T-junction

The performance of the Brook Street/ Couching Street priority T-junction has been assessed using the TRL Junctions 9 software’s PICADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 4.12**.

Table 4.12 Brook Street/ Couching Street Priority T-junction – Results of PICADY Modelling

2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year ‘with no development’						
Left/right out of Couching St	3.0	29.28	0.76	1.8	20.83	0.66
Right into Couching Street	0.4	8.02	0.26	0.4	7.62	0.28

Notes: 1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The queues predicted by PICADY approximately correlate with those recorded by the queue survey for the left or right movement out of the minor arm. Therefore the model is considered to be validated for this movement and able to provide a good estimation of its capacity.

However, the queues predicted by PICADY do not appear to correlate with those recorded by the queue survey for the right turn movement into the minor arm. This is due to the particular arrangement of the Brook Street/ Couching Street priority T-junction and the difficulty of modelling this arrangement using PICADY.

At the southern end of Couching Street there are parked cars in close proximity to the junction which create a pinch point which only allows vehicles to pass in one direction. This means that vehicles departing the junction on Couching Street must give way to vehicles approaching the junction on Couching Street. This in turn limits the number of vehicles able to turn into Couching Street from the Brook Street major arm and causes queuing on the major arm even for the left turn priority movement.

Essentially, the congestion issues experienced for the right turn into Couching Street at the Brook Street/ Couching Street priority T-junction, as recorded by the queue survey and by the journey time survey, are caused principally by the narrowing of Couching Street to a one way section rather than by the capacity of the junction itself.

This is a situation which cannot be modelled by PICADY therefore analysis of the impact of the proposed development on link flows at this location will be used to determine the impact of the proposed development on congestion at this junction/road narrowing for the right and left turn movements into Couching Street.

4.8.4 Shirburn Street/ Couching Street/ Hill Road/ High Street Priority Crossroads

The performance of the Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads has been assessed using the TRL Junctions 9 software’s PICADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 4.13**.

Table 4.13 Shirburn Street/ Couching Street/ Hill Road/ High Street Priority Crossroads – Results of PICADY Modelling

2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year ‘with no development’						
Out of Hill Road	0.0	0.00	0.00	0.0	0.00	0.00
Right into High Street	0.2	5.20	0.10	0.4	5.51	0.17
Out of High Street	0.0	0.00	0.00	0.0	0.00	0.00
Right into Hill Road	0.5	5.45	0.19	0.3	5.35	0.12

- Notes:
1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The queues predicted by PICADY do not appear to correlate with those recorded by the queue survey. This is due to the unique nature of the Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads and the difficulty of modelling this arrangement using PICADY.

The minor Hill Road and High Street approaches to the junction are one way away from the junction meaning that no vehicles make movements out of the minor arms. Only a small proportion of vehicles approaching the junction on the major Shirburn Street and Couching Street approaches make right turn movements to the minor arms. This means that the majority of vehicles using the junction make priority movements.

However, the major road is narrow and sections of it only allow vehicles to pass in one direction, particularly at the pinch point at the centre of the junction. This means that while most vehicles using the junction are making priority movements, they are in fact forced to give way to oncoming traffic at the pinch point. At this location northbound vehicles must give way to southbound vehicles as signposted.

Essentially, the congestion issues experienced at the Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads, as recorded by the queue survey and by the journey time survey, are caused principally by the narrowing of Shirburn Street/ Couching Street to a one way section rather than by capacity issues at the junction itself.

This is a situation which cannot be modelled by PICADY therefore analysis of the impact of the proposed development on link flows at this location will be used to determine the impact of the proposed development on congestion at this junction/road narrowing.

4.8.5 Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane Priority Crossroads

The performance of the Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads has been assessed using the TRL Junctions 9 software’s PICADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 4.14**.

Table 4.14 Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane Priority Crossroads – Results of PICADY Modelling

2015	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2017 Application Year ‘with no development’						
Out of Station Road	0.0	0.00	0.00	0.0	9.59	0.02
Right into Pyrton Lane	0.3	4.71	0.13	0.4	4.91	0.17
Out of Pyrton Lane	0.5	10.18	0.32	0.3	8.23	0.20
Right into Station Road	0.0	4.87	0.01	0.0	4.96	0.01
2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year ‘with no development’						
Out of Station Road	0.0	0.00	0.00	0.0	9.75	0.02
Right into Pyrton Lane	0.4	4.69	0.14	0.4	4.90	0.17
Out of Pyrton Lane	0.5	10.50	0.33	0.3	8.34	0.21
Right into Station Road	0.0	4.85	0.01	0.0	4.94	0.01

- Notes:
1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The queues predicted by PICADY approximately correlate with those recorded by the queue survey therefore the model is considered to be validated and able to provide a good estimation of the capacity of the junction.

The Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads is shown to operate with significant reserve capacity and with acceptable levels of queuing and delay for all scenarios.

4.8.6 Cuxham Road/ Willow Close/ Industrial Estate Roundabout

The performance of the Cuxham Road/ Willow Close/ Industrial Estate roundabout has been assessed using the TRL Junctions 9 software’s ARCADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 4.15**.

Table 4.15 Cuxham Road/ Willow Close/ Industrial Estate Roundabout – Results of ARCADY Modelling

2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2017 Application Year ‘with no development’						
Cuxham Road E	0.1	3.43	0.12	0.1	3.34	0.12
Industrial Estate Access	0.0	4.32	0.01	0.1	3.46	0.05
Cuxham Road W	0.2	3.57	0.13	0.2	3.72	0.15
Willow Close	0.0	3.21	0.04	0.0	3.22	0.02
2022	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year ‘with no development’						
Cuxham Road E	0.1	3.44	0.13	0.1	3.35	0.12
Industrial Estate Access	0.0	4.33	0.01	0.1	3.48	0.05
Cuxham Road W	0.2	3.58	0.13	0.2	3.74	0.15
Willow Close	0.0	3.22	0.04	0.0	3.23	0.02

- Notes:
1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The queues predicted by ARCADY approximately correlate with those recorded by the queue survey therefore the model is considered to be validated and able to provide a good estimation of the capacity of the junction.

The Cuxham Road/ Willow Close/ Industrial Estate roundabout is shown to operate with significant reserve capacity and with acceptable levels of queuing and delay for all scenarios.

4.9 Highway Safety Record

Recorded Personal Injury Accidents (PIAs) for the 5 year period 01/01/2011 to 30/09/2016 have been assessed for the highway network of interest. The highway network of interest is defined by the five assessed junctions and their approaches as well as the links which are contained by these junctions. These junctions and links are as follows:

- Junction – Brook Street/ Couching Street/ Howe Road
- Junction – Brook Street/ Britwell Road/ Cuxham Road
- Junction – Cuxham Road/ Pyrton Lane
- Junction – Cuxham Road/ Willow Close/ Industrial Estate Access roundabout
- Junction – Watlington Road/ Station Road/ Shirburn Road/ Pyrton Lane
- Link – Cuxham Road
- Link – Willow Close
- Link – Industrial Estate Access
- Link – Pyrton Lane
- Link – Britwell Road
- Link – Brook Street
- Link – Howe Road
- Link – Couching Street
- Link – Gorwell
- Link – High Street
- Link – Hill Road
- Link – Shirburn Street
- Link – Chapel Street
- Link – Love Lane
- Link – Station Road
- Link – Watlington Road

PIAs are classed as Fatal, Serious or Slight and comprise of one or more casualties. A summary of PIAs by junction and link is provided by **Table 4.16**.

Table 4.16 Recorded Personal Injury Accidents (PIAs) 1st January 2011- 30th April 2016

Reference Date	Description	Location	Casualties ¹		
			Fa	Se	Sl
Junction – B4009 Brook Street/ B4009 Couching Street/ B408 Howe Road					
-	-	-	-	-	-
Junction – B4009 Brook Street/ B4009 Britwell Road/ B480 Cuxham Road					
-	-	-	-	-	-
Junction – B480 Cuxham Road/ Pyrton Lane					
-	-	-	-	-	-
Junction – B480 Cuxham Road/ Willow Close/ Industrial Estate Access roundabout					
-	-	-	-	-	-
Junction – B4009 Watlington Road/ Station Road/ B4009 Shirburn Road/ Pyrton Lane					
10: P1171013 10/10/2013	Vehicle 1 distracted by satnav collided with rear of Vehicle 2.	Crossroads	-	-	1
Link – B480 Cuxham Road					
-	-	-	-	-	-

Link – Willow Close						
-	-	-	-	-	-	-
Link – Industrial Estate Access						
-	-	-	-	-	-	-
Link – Pyrton Lane						
7: P3001212 17/12/2012	Vehicle 1 failed to comply with stop signs and hit Pedestrian who attempted to stop the vehicle twice.	Knightsbridge Lane, Approximately 100m North West of Pyrton Lane.	-	-	-	1
Link – B4009 Brook Street						
5: P2460712 24/07/2012	Vehicle 1 attempted to overtake parked refuse lorry by driving onto the other side of the carriageway where Vehicle 1 collided with pedestrian.	Brook Street approximately 60m South East of Junction with Gorwell	-	-	-	1
8: P0610813 09/08/2013	Vehicle was crossing a lane of traffic to reach far lane when collided with front of vehicle attempting to overtake queue.	Brook Street Junction With Gorwell	-	-	-	1
9: P2420913 23/09/2013	Driver of Vehicle 1 intoxicated when vehicle left carriageway hitting a house, then reversed and collided with stationary Vehicle 2, after which Vehicle 1 attempted to leave and collided with a second house.	Brook Street house number 60	-	-	-	1
16: P1900716 20/07/2016	Vehicle 1 collided with pedal cyclist, no description provided	Inbetween junction with Cuxham Road and Gorwell	-	-	-	1
Link – B480 Howe Road						
1: P1630411 14/04/2011	Vehicle 1 speeding down the carriageway, lost control at the corner and overturned.	B480 Howe Road	-	-	-	1
Link – B4009 Couching Street						
4: P1520712 13/07/2012	Vehicle 1 failed to slow in time and collided with the rear of stationary Vehicle 2, who in turn collided with Vehicle 3.	Couching Street 80m South west of junction with High Street	-	-	-	3
6: P0351212 03/12/2012	Pedestrian stepped out from parked cars into path of Vehicle 1 where they collided.	Approximately 40m North East of junction with Brook Street	-	-	-	1
11: P1130514 11/05/2014	Motorcycle hit a cow that had escaped from adjacent field.	Couching Street approximately 100m North East of Junction with Love Lane	-	-	-	1
17: P2600716 21/07/2016	Pedal cyclist rode into Vehicle 1 injuring the rider.	Near cross road of Couching Street, Shirburn Street, High Street and Hill Road.	-	-	-	1
18: 160260397 13/09/2016	Driver failed to stop at zebra crossing, hitting child Pedestrian.	Zebra crossing approximately 20m South West of crossroad	-	-	-	1
Link – Gorwell						
-	-	-	-	-	-	-
Link – High Street						
-	-	-	-	-	-	-
Link – Hill Road						
12: P1400615 08/06/2015	Vehicle 1 performed poor turning manoeuvre at car park entrance and hit pedal cyclist slowing to enter car park.	Hill Road Junction with car park entrance/exit	-	-	-	1
13: P2161015 21/10/2015	HGV reversed into pedestrian at low speed	Hill Road near Watcombe Road	-	-	-	1
14: P3071115 29/11/2015	Vehicle 1 traveling north west when a tyre suffered a blow out which caused the vehicle to hit Vehicle 2	Hill Road adjacent to number 78	-	-	-	2

Link – B4009 Shirburn Street					
15: P3330116 13/01/2016	Vehicle 1 travelling north east swerved to near side for unknown reason colliding with line of 3 parked vehicles.	Shirburn Street outside number 31	-	-	2
Link – Chapel Street					
2: P3030411 26/04/2011	Pedal cyclist exits footway into carriageway and hits inside of Vehicle 1.	Chapel Street	-	-	1
Link – Love Lane					
-	-	-	-	-	-
Link – Station Road					
-	-	-	-	-	-
Link – Watlington Road					
3: P1580512 05/05/2012	Vehicle heading north east when collided with pedestrian walking on the side of the carriageway.	Watlington Road 230m North East of Junction With Pyrton Crossroads	-	1	-
Totals			-	1	21
			22		

Notes: 1. Fa = Fatal, Se = Serious, Sl = Slight

A total of 22 people have suffered personal injury as a result of 18 recorded accidents on the highway network of interest during the specified time period. Of these 22 casualties, 21 were slight whilst 1 was serious and 0 were fatal

The one serious incident occurred on Watlington Road when a driver hit an intoxicated pedestrian walking down the side of the carriageway late at night and dressed in dark clothing. All other recorded incidents have been minor.

There have been no accidents which are related to the existing site accesses. Accidents which have occurred in the vicinity of the site are considered to be the fault of human error rather than an inherent safety problem of the highway network which is supported by the low number of accidents recorded during the five year period.

Further details of the recorded PIAs are included at **Appendix F**.

5 Proposed Development

5.1 Introduction

This chapter considers the proposed development addressing the following matters:

- The existing nature and use of the site and any existing access arrangements;
- The development proposals and the proposed layout;
- The proposed access arrangements; and
- The proposed car and cycle parking arrangements.

5.2 Existing Site Use

The site is currently used for farming and contains a number of farm buildings surrounded by agricultural land and amounts to 9.67 hectares.

The site currently has two vehicular access points. The site can be accessed from the southern end of the Industrial Estate access which is itself accessed from the Willow Close roundabout on Cuxham Road, and from the farm track which runs adjacent to the site's southern boundary before heading north into the site itself.

5.3 Proposed Development

The proposed development consists of 183 dwellings of which 73 will be affordable, and up to 650m² B1a office employment area. The development land is 4.68 hectares of residential and 0.19 hectares of employment with 4.01 hectares of Public Open Space.

The proposed development includes the necessary infrastructure including access arrangements, parking areas and a link road through the site connecting Britwell Road to Cuxham Road (the Southern Section of the Alternative Route).

The proposed development layout is included at **Appendix G**.

5.4 Proposed Access

The proposed development will be accessed from both Britwell Road to its east and from Cuxham Road to its north.

A new priority T-junction will be introduced from Britwell Road to access the development from its east. This new priority T-junction will involve Britwell Road S being diverted into the development itself with Britwell Road N becoming the minor arm of the junction. Appropriate junction and forward visibility splays of 2.4x43m are provided.

The link road through the development between Britwell Road and Cuxham Road will form the Southern Section of the Alternative Route therefore the reason for changing priority at the Britwell Road access junction is to increase the attractiveness of the Alternative Route relative to the route through the town centre.

The proposed access arrangements accommodate the need for access to a number of private drives on Britwell Road by providing a new layby and dropped kerbs.

The existing Cuxham Road/ Willow Close/ Industrial Estate roundabout will be retained and used as access to the development from its north. The Industrial Estate Access currently terminates in a cul-de-sac at its southern end.

The proposed Britwell Road access arrangement is shown by **Drawing WB03178-SK10**.

Tracking of the proposed Britwell road access is shown by **Drawing WB03178-SK23**.

The proposed access arrangements have been agreed with the Highway Authority, Oxfordshire County Council.

5.5 Southern Section of the Alternative Route

The proposed development will deliver the Southern Section of the Alternative Route between Britwell Road and Cuxham Road.

Initially the Southern Section will connect the proposed Britwell Road access to the Willow Close roundabout while in the long term the Southern Section will connect to the next section of the Alternative Route the alignment of which is yet to be determined. The details of the long term solution will be determined by others at a later date.

5.5.1 Short Term Solution

The proposed development will connect the proposed Britwell Road access to the Willow Close roundabout via an internal link road. This link road will be 6.5m wide, accessible to HGVs and will provide appropriate forward visibility.

The proposed internal link road is shown by **Drawing WB03178-SK21**.

5.5.2 Long Term Solution

The proposed development safeguards the future introduction of the next section of the alternative route to and beyond Cuxham Road, west of the existing Willow Close roundabout. The southern arm of a new Cuxham Road junction would form the new primary access to the proposed development from Cuxham Road and would directly link Cuxham Road to Britwell Road. Details of the design of the remainder of the Alternative Route will be delivered by others at a later date.

5.5.3 Internal Link Road Junction

The T-junction in the centre of the proposed development will be designed so that in the short term the priority movement will be between Britwell Road and Willow Close roundabout but in the long term priority will be between Britwell Road and the new roundabout to be introduced on Cuxham Road.

In the short term the priority junction will have an overrun area on the inside of the bend to accommodate the necessary vehicle movements. In the long term this overrun area will become part of the footway.

The proposed internal link road junction arrangement is shown by **Drawing WB03178-SK24**.

The strategy and design of the internal layout has been agreed with the highway authority, Oxfordshire County Council.

5.6 Proposed Parking Arrangements

5.6.1 Car Parking

Car parking guidance for residential development is set out by OCC's *Residential Road Design Guide (RRDG)*. The RRDG provides recommendations for parking provision for areas in Oxfordshire other than Oxford or Cherwell Urban Areas which are shown by **Table 5.1**.

Table 5.1 Car Parking Recommendations

Bedrooms per Dwelling	Allocated Spaces	Unallocated Spaces
1	1	0.4
2	2	0.3
3	2	0.4
4+	2	0.6

All dwellings are provided with at least the required number of allocated car parking spaces. These are provided within garages, on driveways, in parking courtyards, or on road.

The proposed development provides 27 unallocated spaces.

5.6.2 Cycle Parking

Cycle parking standards for residential development are also set out by Oxfordshire CC's *RRDG*. For areas in Oxfordshire other than Oxford or Cherwell Urban Areas, the standards are as shown by **Table 5.2**.

Table 5.2 Cycle Parking Standards

Bedrooms per Dwelling	Allocated Spaces	Visitor
1	1	1 stand per two units
2+	2	

All dwellings are provided with at least the required number of allocated cycle parking spaces. These are provided within garages or by communal cycle parking for those dwellings without garages.

The proposed development provides 20 visitor spaces in convenient locations within the development.

6 Accessibility

6.1 Introduction

This chapter describes the accessibility of the proposed development. It is divided into sub-sections that provide:

- A description of the local walking network;
- A description of the local cycling network;
- Details of national walking and cycling accessibility criteria;
- A review of local facilities that are within walking and cycling distance; and
- Details of local bus services.

6.2 Walking Network

The street network in Watlington provides mostly good pedestrian facilities with the majority of streets providing footways of adequate width on both sides. There are also a number of pedestrian/cycle only links including a link which connects Britwell Road to Cuxham Road to Pyrton Lane to Church Street (which itself connects to the High Street). This link is a safe and amenable pedestrian route and is one of the principal pedestrian routes between the proposed development and the centre of Watlington.

However, pedestrian improvements are proposed in two locations to improve pedestrian accessibility to the town centre.

On Britwell Road in the vicinity of its junction with The Goggs, the footway width on both sides of the street is unacceptably narrow such that pedestrian safety and amenity is compromised. An improvement scheme at this location is proposed (see Section 6.7.1 for details).

Due to the existing pedestrian demand being very low, no footway is provided on the southern side of Cuxham Road east of its roundabout junction with Willow Close, and no formal crossing facilities are provided. Given that the proposed development will result in a significantly higher pedestrian demand along Cuxham Road from the site access it is considered that the existing pedestrian facilities at this location are inadequate and an improvement scheme is proposed (see Section 6.7.2 for details).

No Public Rights of Way (PRoWs) run through or adjacent to the site however there are a number of PRoWs in the vicinity of the site in Watlington itself and connecting Watlington to the surrounding countryside particularly to the Chiltern Hills Area of Natural Beauty to Watlington's east.

The network of Public Rights of Way is shown at **Appendix H**.

6.3 Cycling Network

Given the distances involved in making cycle trips to destinations beyond Watlington itself, it is considered that these trips will be made predominantly just by cycling enthusiasts. It is considered that the majority of cycling trips generated by the proposed development will be made to destinations within Watlington.

There are no dedicated facilities for cyclists on the street network of Watlington with cyclists expected to use the carriageway of the streets themselves. However on many roads in the town traffic volumes and speeds are low which provides a safe environment for cyclists. There are also a number of off-street links that cyclists can use including the pedestrian/cycle link between Pyrton Lane and Church Street.

To improve cycle accessibility to Watlington's town centre and to local schools a cycle improvement scheme is proposed along Cuxham Road (see Section 6.7.2 for details).

For cycle trips to destinations outside of Watlington the two closest National Cycle Network (NCN) Routes to the proposed development are Route 5 and Route 57.

NCN Route 5 passes approximately 8km south of the proposed development and connects to Didcot and Oxford heading west, and to Reading and Slough heading east. NCN Route 57 passes approximately 12km north of the proposed development and connects to Oxford and Bicester heading west, and to Chesham heading east. Both of these routes can be accessed using a local cycle route (identified by Sustrans but not part of the NCN) which itself can be accessed from the end of Hill Road, in the hamlet of Christmas Common.

6.4 Walking and Cycling Accessibility Criteria

When assessing the accessibility of a site for pedestrians an average walking speed of 1.4 m/s can be assumed, which equates to approximately 400 metres in 5 minutes, or 3 mph. (*CIHT Guidelines for Providing Journeys on Foot, 2000*). This document also contains a table of suggested walking distances for different purposes which is recreated by **Table 6.1**:

Table 6.1 Suggested Walking Distances

	Town Centres	Commuting / School	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1000m	800m
Maximum	800m	2000m	1200m

Source: CIHT 'Guidelines for Providing for Journeys on Foot'

The desirable maximum walking distance to the nearest bus stop is considered to be 400m (*CIHT Guidelines for Planning for Public Transport in Developments, 1999*).

The DfT Manual for Streets (2007) describes the walkable neighbourhood as such:

Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800 m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and walking offers the greatest potential to replace short car trips, particularly those under 2 km. MfS encourages a reduction in the need to travel by car through the creation of mixed-use neighbourhoods with interconnected street patterns, where daily needs are within walking distance of most residents.

The CIHT notes that three quarters of journeys by all modes are less than five miles (8km) and half are less than two miles (3.2km). These are distances that can be cycled comfortably by a reasonably fit person. Based on an average cycling speed of 4.0m/s (14.4kph), 8 kilometres can be cycled in just over half an hour and 3.2 kilometres can be cycled in less than 15 minutes. It is also generally accepted that cycling has the potential to substitute for short car trips, particularly those less than 5km.

6.5 Walking and Cycling Distances and Times

There are a variety of local facilities within walking and cycling distance of the development site. These key facilities as well as their distances and walking and cycling times from the proposed development are shown by **Table 6.2**.

Table 6.2 Local Facilities Including Distances and Walking and Cycling Times

Facility	Distance (metres)	Walking time (minutes)	Cycling Time (minutes)
Public Transport			
New Bus Stops on Cuxham Road	250	3	1
Bus Stops: 'Hurdlers Green' stops on Cuxham Road	440	5	2
Bus Stop: 'Gorwell' stop on Gorwell	730	9	3
Education			
Rainbow Corner Day Nursery (0-5yrs)	1000	12	4
Watlington Primary School (5-11yrs)	1060	13	4
Icknield Community College (11-16yrs)	1010	12	4
Employment			
Watlington Trading Estate	200	2	1
Health			
Watlington Pharmacy	1040	12	4
Watlington Dental Practice	1080	13	5
The Chiltern (GP) Surgery	1830	22	8
Leisure			
-Sport			
Watlington Memorial Club (tennis, squash, bowls)	950	11	4
Watlington Recreation Ground (football, basketball, play)	1370	16	6
Watlington Cricket Club	1370	16	6
-Food & Drink			
The Chequers (public house)	880	10	4
Kingfisher (fish & chips)	1040	12	4
House of Spice (Indian restaurant)	1060	13	4
The Fat Fox Inn	1120	13	5
The Carriers Arms (public house)	1220	15	5
-Other			
Watlington Library	890	11	4
The Parish Church of St Leonard Watlington	440	5	2
St Edmund Campion Catholic Church	1030	12	4
Watlington Methodist Church	1090	13	5
Shopping			
DG Homecare (hardware shop)	930	11	4
The Granary Delicatessen	960	11	4
Calnan Brothers (butchers)	980	12	4
Watlington Post Office	1000	12	4
Co-op (convenience store)	1050	13	4

Note: Assumes average walking speed of 1.4m/s and average cycling speed of 4.0m/s.

6.5.1 Education

The National Travel Survey (NTS) 2014 identifies the modal split of trips to school made by school age children. For the 5-10 year old group (primary school pupils) it has been identified that 46% walk to school, 46% travel by car and just 5% travel by bus. For the 11-16 year old group (secondary school pupils) it has been identified that 38% walk to school, 23% travel by car and 29% travel by bus. Walking is the main mode of transport for trips of under one mile for both primary and secondary school pupils, whereas for trips of over two miles the predominant mode of transport becomes the car for primary school children and the bus for secondary school children.

There are school facilities in Watlington for children of all ages which are accessible by foot and by cycle. The Icknield Community College, Watlington Primary School and Rainbow Corner Day Nursery are all located on Court Close approximately 1km walking distance from the proposed development.

6.5.2 Employment

The modal split of commuter trips is set out by NTS 2014. Car travel is the predominant mode and accounts for 65% of all commuter trips whilst rail accounts for 10%, walking for 10%, bus for 8% with 7% for other modes. Commuting trips typically take longer than trips for other purposes with the average commuter trip taking 29 minutes.

The Watlington Trading Estate is located immediately adjacent to the site and provides a range of employment opportunities. In the centre of Watlington approximately 1km walking distance from the proposed development are a number of retail, catering and professional services job opportunities.

6.5.3 Health

Trips for personal business and escort account for 19% of all trips (NTS 2014). Personal business includes visits to services or medical consultations whilst escort trips are those made to accompany somebody else.

Within Watlington are a pharmacy, GP surgery and dental practice which are all within walking and cycling distance of the proposed development. The Watlington Pharmacy is located on the High Street approximately 1km walking distance from the proposed development, the Watlington Dental Practice is located on Shirburn Street approximately 1.1km from the proposed development and The Chiltern (GP) Surgery is located on Hill Road approximately 1.8km from the proposed development.

6.5.4 Leisure

Leisure trips account for 30% of all trips with a higher proportion of all trips for leisure purposes on weekends than weekdays (NTS 2014). Half of all leisure trips are to visit friends whilst the remainder are for purposes such as entertainment, sport, holidays or day trips.

There are a number of sports facilities within Watlington including the Watlington Memorial Club, the Watlington Recreation Ground and the Watlington Cricket Club. There are also a number of places to eat and drink as well as a library and several churches. All of these facilities are within walking and cycling distance of the proposed development.

6.5.5 Shopping

Shopping trips account for 19% of all trips with 66% of these being made by car, 22% by walking and 9% by bus (NTS 2014). The average person makes between 3-4 shopping trips per week.

There are a number of retail facilities within Watlington including a hardware shop, a delicatessen, a butchers, a post office, and a mini-supermarket. These facilities are located around the High Street and Couching Street and are within walking distance of the proposed development.

6.5.6 Summary

In summary, it is evident that there are a wide range of destinations and facilities within walking and cycling distance of the proposed development. Future residents of the proposed development can be expected to walk and cycle to these local facilities.

The 400m, 800m and 2000m walking isochrones are shown by **Figure 6.1**.

The 3.2km and 5km cycling isochrones are shown by **Figure 6.2**.

6.6 Bus Services

There is one bus service which can be accessed from Watlington. The T1 service is operated by Thames Travel and provides route between Oxford and Watlington, via Garsington and Chalgrove. The T1 service loops through the centre of Watlington in an anti-clockwise direction along Cuxham Road, Brook Street, Couching Street, High Street, Gorwell and Cuxham Road.

The closest existing bus stops to the site are the ‘Hurdlers Green’ stops located on Cuxham Road approximately 500m walking distance from the centre of the proposed development. However, a pair of bus stops will be introduced on Cuxham Road to the east of the Willow Close roundabout which will be approximately 300m from the centre of the proposed development (see Section 6.7.2 for details).

In addition to the T1 service through Watlington, the Oxford Tube bus service can be accessed from the ‘Lewknor Turn M40 J6’ stops close to Lewknor approximately 5km north of the proposed development.

The Oxford Tube connects Oxford to London using the M40 as it passes Watlington and departs the motorway at Junction 6 to pick up passengers. From Junction 6 the Oxford Tube connects to Gloucester Green Bus Station in Oxford in 45 minutes or to London Victoria Train Station in 80 minutes.

The Oxford Tube can be accessed by car via a 7-8 minute car journey from Watlington with parking available at the side of the B4009 close to the ‘Lewknor Turn’ bus stops.

The existing bus services in the vicinity of the proposed development site are summarised by **Table 6.3**.

Table 6.3 Summary of Existing Bus Services

Service	Day	First Bus	Services per Day (approximate frequency ^[1])	Last Bus
T1 – Thames Travel				
Oxford – Garsington – Chalgrove – Watlington	Weekday	06:57	6 (irregular)	19:55
	Saturday	10:20	5 (120mins)	18:54
	Sunday	-	No service	-
Watlington – Chalgrove – Garsington – Oxford	Weekday	06:00	6 (irregular)	18:55
	Saturday	08:20	6 (120mins)	18:58
	Sunday	-	No service	-
Oxford Tube				
Oxford – Lewknor – London	Weekday	24hr	72 (20mins)	24hr
	Saturday	24hr	71 (20mins)	24hr
	Sunday	24hr	66 (25mins)	24hr
London – Lewknor – Oxford	Weekday	24hr	72 (20mins)	24hr
	Saturday	24hr	71 (20mins)	24hr
	Sunday	24hr	61 (25mins)	24hr

Notes: [1] Frequency may vary slightly through the day eg. during peak/ off-peak periods.
* Bank holiday services may vary.

Full details of the bus routes which serve Watlington are shown at **Appendix I**.

6.7 Proposed Accessibility Improvements

6.7.1 Britwell Road Pedestrian Scheme

On Britwell Road in the vicinity of its junction with The Goggs, the footway width on both sides of the street is unacceptably narrow such that pedestrian safety and amenity is compromised. This is a key route between the proposed development and the village centre and an improvement scheme is proposed.

The proposed improvement scheme includes:

- Kerb buildout on the south side of Britwell Road either side of The Goggs;
- One-way section introduced with eastbound traffic giving way; and
- Pedestrian crossing points introduced over Britwell Road and The Goggs.

The proposed Britwell Road improvement scheme is shown by **Drawing WB03178-SK03**.

6.7.2 Cuxham Road Pedestrian/ Cycle Scheme

No footway is provided on the southern side of Cuxham Road east of its roundabout junction with Willow Close, and no formal crossing facilities over Cuxham Road are provided. This is a key route between the proposed development and the village centre and an improvement scheme is proposed.

The proposed improvement scheme includes:

- Shared use footway/ cycleway introduced on south side of Cuxham Road;
- Existing footway on the Industrial Estate Access widened to become shared use footway/ cycleway;
- Kerb buildout at Pyrton Lane junction mouth;
- Crossing points introduced including splitter island on Cuxham Road East approach to Willow Close roundabout;
- Red surface texture changes re-instated or added to Cuxham Road/ Pyrton Lane junction approach; and
- Bus stops added on Cuxham Road.

The proposed Cuxham Road improvement scheme is shown by **Drawing WB03178-SK17** and **Drawing WB03178-SK19**.

6.7.3 Bus Service Improvements

The proposed development will provide a funding contribution to improving the Thames Travel T1 bus service.

7 Trip Generation and Distribution

7.1 Introduction

This chapter provides details of the anticipated travel behaviour of the future users of the proposed development with reference to existing travel patterns and trends. It is divided into sub-sections that provide:

- The anticipated modal split of trips originating from the proposed development;
- The anticipated car ownership levels at the proposed development;
- The anticipated trip distribution of the proposed development; and
- The anticipated trip generation of the proposed development.

7.2 Mode Shares

The 2011 Census 'QS703EW - Method of Travel to Work' data has been analysed for the seven Output Areas which make up the urban settlement of Watlington in order to determine the likely modal split of commuter trips from the proposed development. The results are summarised by **Table 7.1**.

Table 7.1 2011 Census 'QS703EW - Method of Travel to Work' – Watlington Residents

Mode of Travel	2011 output areas: E00146075, E00146077, E00146078, E00146079, E00146080, E00146081, E00146082		
	Persons	Percentage	Adjusted
Not in employment	495	29.6%	Discounted
Works mainly at or from home	211	12.6%	Discounted
Underground, metro, light rail or tram	8	0.5%	Added to Train
Train	23	1.4%	3.2%
Bus, minibus or coach	36	2.2%	3.7%
Taxi or minicab	0	0.0%	0.0%
Motorcycle, scooter or moped	6	0.4%	0.6%
Driving a car or van	703	42.0%	72.6%
Passenger in a car or van	36	2.2%	3.7%
Bicycle	24	1.4%	2.5%
On foot	130	7.8%	13.4%
Other	2	0.1%	0.2%
Total	1,674	100.0%	100.0%

The figures have been adjusted to remove those people who are either not in employment or work mainly at or from home in order to show the modal split of those who do commute to work.

The adjusted figures show that 72.6% of those who commute to work do so driving a car or van which is higher than the national average for England & Wales which is 60.7%. The sustainable modes of travel which are on foot, cycling (including motorcycles) and public transport equate to 23.4% of all journeys to work when combined which is lower than the England & Wales national average of 32.7%.

Full details of the 2011 Census 'QS703EW - Method of Travel to Work' query are included at **Appendix J**.

7.3 Car Ownership

The 2011 census 'QS416EW - Car or Van Availability' data has also been analysed for the seven Output Areas which make up the urban settlement of Watlington in order to determine the likely level of car ownership of residents of the proposed development. The results are summarised by **Table 7.2**.

Table 7.2 2011 Census 'QS416EW - Car or Van Availability' – Watlington Residents

Number of Vehicles	2011 output areas: E00146075, E00146077, E00146078, E00146079, E00146080, E00146081, E00146082	
	Count	Percentage
No car or van	127	12.2%
1 car or van	424	40.7%
2 cars or vans	374	35.9%
3 cars or vans	85	8.2%
4 or more cars or vans	31	3.0%
Total Households	1041	100.00%

The level of car or van ownership in Watlington is higher than the national average. The percentage of households without access to a car or van is 12.2% compared to 25.6% for England & Wales. Just under half (47.1%) of households have access to two or more cars or vans which is higher than the England & Wales national average (32.2%).

The average number of cars or vans per household in Watlington is 1.6.

Full details of the 2011 Census 'QS416EW - Car or Van Availability' query are included at **Appendix K**.

7.4 Trip Distribution

The 2011 Census ‘WF01BEW - Location of Usual Residence and Place of Work’ data has been analysed for the seven Output Areas which make up the urban settlement of Watlington in order to determine the likely route split of commuter trips to and from the proposed development. The results are summarised by **Table 7.3**.

Table 7.3 2011 Census ‘WF01BEW - Location of Usual Residence and Place of Work’ - Watlington Residents

Place of Work	2011 output areas: E00146075, E00146077, E00146078, E00146079, E00146080, E00146081, E00146082					
	Route Away From Local Highway Network					
	Watlington	B4009 Britwell Road	B480 Cuxham Road	B4009 Watlington Road	Hill Road	B480 Howe Road
All Destinations	21.7%	12.4%	25.0%	34.3%	0.0%	6.6%
Adjusted	-	15.9%	31.9%	43.8%	0.0%	8.4%

Given the compact nature of the town, it is considered that employment based trips made within Watlington will be made by non-car modes of transport therefore these trips have been discounted from the final distribution.

The majority of trips to and from the proposed development are expected to be approaching or departing using the B4009 Watlington Road, heading towards the M40. The B480 Cuxham Road heading towards Oxford is also a popular route.

The proposed development will deliver the Southern Section of the Alternative Route with the full Alternative Route to be delivered at a later date (see Section 8.3 for details). The introduction of the full Alternative Route will impact the trip distribution of the proposed development.

The anticipated distribution of inbound trips to the proposed development on the local highway network, for partial delivery of the Alternative Route, is shown by **Figure 7.1**.

The anticipated distribution of outbound trips from the proposed development on the local highway network, for partial delivery of the Alternative Route, is shown by **Figure 7.2**.

Full details of the 2011 Census ‘WF01BEW - Location of Usual Residence and Place of Work’ query are included at **Appendix L**.

The trip distribution has been agreed with the highway authority, Oxfordshire County Council.

7.5 Trip Generation

In order to determine the level of trips generated by the proposed development, TRICS (v7.3.3) has been used.

The proposed development is situated at the edge of a village in a rural location and consists of 183 dwellings which are both privately owned and affordably rented, as well as up to 650m² B1a office space. These criteria have been used to inform which parameters to use in selecting similar sites for analysis from the TRICS® database.

The anticipated vehicle trip generation of residential component of the proposed development, for the AM and PM peak hours as well as for the 12-hour (0700-1900) period, is shown by **Table 7.4**.

Table 7.4 Vehicle Trip Generation of the Proposed Development (183 dwellings)

Time Period	Trip Rate per Dwelling			Number of Trips		
	Arr	Dep	Tot	Arr	Dep	Tot
AM Peak Hour (0800-0900)	0.134	0.350	0.484	25	64	89
PM Peak Hour (1700-1800)	0.346	0.175	0.521	63	32	95
12- Hour (0700-1900)	2.166	2.180	4.346	396	399	795

The residential component of the proposed development is anticipated to generate 89 vehicle trips in the AM peak hour and 95 vehicle trips in the PM peak hour.

The proposed development provides up to 650m² B1a office space. This has been revised upwards slightly since the trip generation and subsequent junction modelling has been completed, as part of the design process, from 450m² B1a office space. The trip generation of the employment component of the proposed development has therefore been calculated for 450m² B1a office space not 650m² B1a office space.

However, the difference in trip generation between 450m² B1a office space and 650m² B1a office space is minimal and 650m² B1a office space represents the maximum amount of B1a office space to be provided by the development and is therefore a worst-case scenario.

The anticipated vehicle trip generation of employment component of the proposed development, for the AM and PM peak hours as well as for the 12-hour (0700-1900) period, is shown by **Table 7.5**.

Table 7.5 Vehicle Trip Generation of the Proposed Development (450m² B1a office space)

Time Period	Trip Rate per 100m ²			Number of Trips		
	Arr	Dep	Tot	Arr	Dep	Tot
AM Peak Hour (0800-0900)	2.044	0.170	2.214	9	1	10
PM Peak Hour (1700-1800)	0.283	2.424	2.707	1	11	12
12- Hour (0700-1900)	8.063	8.549	16.612	36	38	75

The employment component of the proposed development is anticipated to generate 10 vehicle trips in the AM peak hour and 12 vehicle trips in the PM peak hour.

The anticipated vehicle trip generation of whole proposed development, for the AM and PM peak hours as well as for the 12-hour (0700-1900) period, is shown by **Table 7.6**.

Table 7.6 *Vehicle Trip Generation of the Proposed Development (whole development)*

Time Period	Number of Trips		
	Arr	Dep	Tot
AM Peak Hour (0800-0900)	34	65	99
PM Peak Hour (1700-1800)	65	43	108
12- Hour (0700-1900)	433	437	870

The proposed development is anticipated to generate 99 vehicle trips in the AM peak hour and 108 vehicle trips in the PM peak hour.

It should be noted that the TRICS® database was interrogated for ‘Houses Privately Owned’ despite the fact that 40% of the proposed development’s dwellings will be ‘Affordable’ homes. It is therefore considered that the calculated trip generation provides a robust estimation of the trip generation of the proposed development.

The anticipated trip generation of the proposed development in the AM peak hour on the local highway network, for partial delivery of the Alternative Route, is shown by **Figure 7.5**.

The anticipated trip generation of the proposed development in the PM peak hour on the local highway network, for partial delivery of the Alternative Route, is shown by **Figure 7.6**.

The ATC on Britwell Road has been used to provide a factor which relates AM and PM peak hour flows to 24hr flows. This factor has been applied to the AM and PM peak hour trip generation of the proposed development to provide 24hr link flows on the highway network of interest.

The anticipated link trip generation of the proposed development for the 24hr period on the local highway network, for partial delivery of the Alternative Route, is shown by **Figure 7.7**.

Full TRICS output is included at **Appendix M**.

The trip generation estimates have been agreed with the highway authority, Oxfordshire County Council.

8 Transport Impact of the Alternative Route

8.1 Introduction

This chapter provides details of the assessment carried out of the impact of the delivery of the Alternative Route on traffic flows on the local highway network. It is divided into sub-sections that provide:

- The assessment years to be used for junction capacity analysis;
- The Alternative Route delivery scenarios;
- A summary of the transport impact of the Alternative Route on junction flows; and
- A summary of the transport impact of the Alternative Route on link flows.

8.2 Assessment Years

The assessment years have been agreed with Oxfordshire CC and are 2017 the Application Year and 2022 the Assessment Year.

Background traffic growth has been derived from TEMPRO 7.0 incorporating growth factors from the National Road Traffic Forecasts (Great Britain) 1997 as follows:

- 2015 to 2017 Weekday AM Peak = 1.0309;
- 2015 to 2017 Weekday PM Peak = 1.0317;
- 2017 to 2022 Weekday AM Peak = 1.0834; and
- 2017 to 2022 Weekday PM Peak = 1.0815.

The base data and calculations used in determining the above growth rates are shown by **Appendix N**.

8.3 The Alternative Route Delivery Scenarios

The proposed Alternative Route would connect the B4009 Britwell Road to the B480 Howe Road which would in turn connect to Pyrton Lane and then to the B4009 Shirburn Road. The Southern Section of the Alternative Route, between Britwell Road and Cuxham Road, will be delivered by the proposed development. Hence, the impact of the delivery of the Alternative Route on traffic flows in Watlington has been assessed for the following scenarios:

- Scenario 1 - No delivery of the Alternative Route; and
- Scenario 2 - Partial delivery of the Alternative Route (the Southern Section).

8.4 Diversion Curves

Whilst the Alternative Route will provide a link between Britwell Road, Cuxham Road and Shirburn Road, not all vehicles making journeys between these roads will be diverted. Only a proportion of traffic making each journey will use the Alternative Route whilst a proportion will continue to use the existing routes through the town.

Diversion Curves provide an approach for estimating the proportion of traffic which will travel along two competing routes. The method is set out by the Department for Transport’s (DfT’s) *Design Manual for Roads and Bridges (DMRB) within Section 1 - Traffic Appraisal Manual*. The anticipated split between two competing routes is dictated principally by both the route length and journey time between equal points.

The Watlington Traffic Study recorded the average time taken for journeys made between its four cordon points on the perimeter of the town. These average times have been used to calculate the average speed of each route whilst the distance of each route has been measured from satellite imagery. A design speed of 30mph has been used for the Alternative Route whilst the distances of each route have been measured from satellite imagery using the approximate proposed alignment of the Alternative Route.

The diversion take-up proportions as calculated by the Diversion Curve Analysis method, for the AM and PM peak hours, are shown respectively by **Table 8.1** and **Table 8.2**.

Table 8.1 *Diversion Take-up Proportions in the AM Peak Hour – All Vehicles*

From	To			
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road
B4009 Shirburn Road			0.88	0.98
B480 Howe Road				
B4009 Britwell Road	0.84			0.91
B480 Cuxham Road	1.00		0.87	

Table 8.2 *Diversion Take-up Proportions in the PM Peak Hour – All Vehicles*

From	To			
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road
B4009 Shirburn Road			0.70	0.97
B480 Howe Road				
B4009 Britwell Road	0.78			0.85
B480 Cuxham Road	0.96		1.00	

Given that (if designed appropriately) the Alternative Route would provide quicker journey times between cordon points, the take-up proportions for each journey are significantly greater than half and are as much as 1.00 (100%) for particular journeys.

8.5 Transport Impact of the Alternative Route – Junction Flows

Junction traffic flows on the highway network of interest have been calculated for the following scenarios (see Section 8.3 for detail):

- Scenario 1: Assessment Year (2022) 'With No Development'; and
- Scenario 2: Assessment Year (2022) 'With No Development'.

These scenarios do not include the impact of traffic generated by either committed development or by the proposed development and examine only what the impact of the Alternative Route would make to baseline traffic flows.

8.5.1 Scenario 1: Assessment Year (2022) 'With No Development'

Scenario 1 would result in no changes to the routes taken by drivers through Watlington.

Recorded junction turning movements from 2015 and 2017 have had growth factors applied in order to provide 2022 traffic flows.

Junction traffic flows on the highway network of interest for Scenario 1: Assessment Year (2022) 'With No Development' are shown for the AM peak hour by **Figure 8.1**.

Junction traffic flows on the highway network of interest for Scenario 1: Assessment Year (2022) 'With No Development' are shown for the PM peak hour by **Figure 8.2**.

8.5.2 Scenario 2: Assessment Year (2022) ‘With No Development’

Scenario 2 would result in some vehicles travelling between Britwell Road and Cuxham Road to be diverted along the southern section of the Alternative Route.

The Watlington Traffic Study sets out the proportion of vehicles arriving in Watlington taking particular routes through the town (see Section 3.3 for details) whilst the proportion of vehicles making a particular journey which are likely to divert their route has been determined using Diversion Curves (see Section 3.4 for details). The number of vehicles which would be diverted along the Southern Section of the Alternative Route can be calculated with reference to the Watlington Traffic Study, to the Diversion Curves and to the number of vehicles forecast to approach the town on Britwell Road or Cuxham Road in 2022.

The number of vehicles (including HGVs) that would be anticipated to divert their journeys along the Southern Section of the Alternative Route is shown by **Table 8.3** and **Table 8.4**.

Table 8.3 *Number of Vehicles Diverted along the Southern Section of the Alternative Route in the AM Peak Hour (2022) – All Vehicles (HGVs)*

From	To				Total
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road	
B4009 Shirburn Road					
B480 Howe Road					
B4009 Britwell Road				47 (1)	47 (1)
B480 Cuxham Road			46 (1)		
Total			46 (2)		93 (3)

Table 8.4 *Number of Vehicles Diverted along the Southern Section of the Alternative Route in the PM Peak Hour (2022) – All Vehicles (HGVs)*

From	To				Total
	B4009 Shirburn Road	B480 Howe Road	B4009 Britwell Road	B480 Cuxham Road	
B4009 Shirburn Road					
B480 Howe Road					
B4009 Britwell Road				27 (0)	27 (0)
B480 Cuxham Road			25 (0)		
Total			25 (0)		52 (0)

The delivery of the southern section of the Alternative Route between Britwell Road and Cuxham Road (Scenario 2) is anticipated to deliver a relief at the Britwell Road/ Cuxham Road priority junction of 93 vehicles in the AM peak hour and 52 vehicles in the PM peak hour.

It is also anticipated that vehicles travelling from Britwell Road to Brook Street would use the Southern Section of the Alternative Route to bypass the section of Britwell Road at which traffic calming measures have been implemented (see Section 5.4 and 6.7.1 for details).

The number of vehicles diverted along the Southern Section of the Alternative Route for Scenario 2: Assessment Year (2022) 'With No Development' is shown for the AM peak hour by **Figure 8.3**.

The number of vehicles diverted along the Southern Section of the Alternative Route for Scenario 2: Assessment Year (2022) 'With No Development' is shown for the PM peak hour by **Figure 8.4**.

The resulting traffic flows on the highway network of interest for Scenario 2: Assessment Year (2022) 'With no Development' is shown for the AM peak hour by **Figure 8.5**.

The resulting traffic flows on the highway network of interest for Scenario 2: Assessment Year (2022) 'With no Development' is shown for the PM peak hour by **Figure 8.6**.

8.6 The Alternative Route Delivery Scenarios – Link Flows

Recorded junction turning movements have been used to provide link flows approaching and departing from each junction. These have had a factor applied to them which relates the AM and PM peak hours to the 24hr period, provided by the ATC on Britwell Road. This provides 2022 24hr link traffic flows.

Link traffic flows on the highway network of interest have been calculated for the following scenarios (see Section 8.3 for detail):

- Scenario 1: Assessment Year (2022) 'With No Development'; and
- Scenario 2: Assessment Year (2022) 'With No Development'.

These scenarios do not include the impact of traffic generated by either committed development or by the proposed development and examine only what the impact of the Alternative Route would make to baseline traffic flows.

8.6.1 Scenario 1: Assessment Year (2022) 'With No Development'

Scenario 1 would result in no changes to the routes taken by drivers through Watlington.

Link traffic flows on the highway network of interest for Scenario 1: Assessment Year (2022) 'With No Development' are shown for the 24hr period by **Figure 8.7**.

8.6.2 Scenario 2: Assessment Year (2022) ‘With No Development’

Scenario 2 would result in some vehicles travelling between Britwell Road and Cuxham Road to be diverted along the southern section of the Alternative Route.

Link traffic flows on the highway network of interest for Scenario 2: Assessment Year (2022) ‘With No Development’ are shown for the 24hr period by **Figure 8.8**.

The percentage impact to link traffic flows from Scenario 1: Assessment Year (2022) ‘With No Development’ to Scenario 2: Assessment Year (2022) ‘With No Development’ is shown for the 24hr period by **Figure 8.9**.

The percentage impact on link traffic flows from Scenario 1: Assessment Year (2022) ‘With No Development’ to Scenario 2: Assessment Year (2022) ‘With No Development’ is shown for the 24hr period by **Table 8.5**.

Table 8.5 Link Traffic Flow Impact for Scenario 2: Assessment Year (2022) ‘With No Development’

Link	Link Flows		
	Scenario 1	Scenario 2	Impact
Cuxham Road west of future junction	2829	2829	0%
Cuxham Road between future junction and Willow Close	2829	2829	0%
Cuxham Road between Willow Close and Pyrton Lane	3487	3773	8%
Cuxham Road between Pyrton Lane and Britwell Road	3364	3650	8%
Britwell Road south of proposed site access	6221	6221	0%
Britwell Road between proposed site access and Cuxham Road	6221	4490	-28%
Brook Street between Cuxham Road and Gorwell	7655	7655	0%
Brook Street between Gorwell and Couching Street	6422	6422	0%
Howe Road east of Couching Street	3939	3939	0%
Couching Street	8262	8262	0%
Shirburn Street	7964	7964	0%
Shirburn Road	9162	9162	0%
Watlington Road	10819	10819	0%
Pyrton Lane north of Cuxham Road	1841	1841	0%
Pyrton Lane west of Watlington Road/ Shirburn Road	2059	2059	0%
Industrial Estate access south of Cuxham Road	569	2301	304%

Scenario 2: Assessment Year (2022) ‘With No Development’ is anticipated to reduce traffic on Britwell Road but increase it slightly on Cuxham Road and increase it significantly on the Industrial Estate access.

8.7 Alternative Route Transport Impact Summary

Assessment of the impact of the Alternative Route on traffic flows through Watlington shows that partial delivery will lead to small changes to traffic flows at the south-west of the village.

The traffic flows calculated in this section have not considered the impact of committed or the proposed development. They provide a baseline against which to assess the impact of committed and the proposed development.

9 Transport Impact of the Proposed Development

9.1 Introduction

This chapter provides details of the assessment carried out of the impact of the proposed development traffic on the local highway network. It is divided into sub-sections that provide:

- The junctions to be assessed;
- The assessment years to be used for junction capacity analysis;
- The committed development to be included by junction capacity analysis;
- The development scenarios to be used by junction capacity analysis;
- The results of junction capacity analysis;
- The results of link flow impact analysis; and
- A summary of the transport impact of the Proposed Development.

9.2 Assessed Junctions

It has been agreed with the highway authority, Oxfordshire County Council that the following junctions in the vicinity of the site are to be assessed:

- Britwell Road/ Cuxham Road priority T-junction;
- Cuxham Road/ Pyrton Lane priority T-junction;
- Brook Street/ Couching Street priority T-junction;
- Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads;
- Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads; and
- Cuxham Road/ Willow Close/ Industrial Estate roundabout.

9.3 Assessment Years

The assessment years have been agreed with Oxfordshire County Council and are 2017 the Application Year and 2022 the Assessment Year (see Section 8.2 for growth factors).

9.4 Committed Development

It has been agreed with Oxfordshire County Council that there are no committed developments in the vicinity of the proposed development that should be included in the junction capacity assessments.

9.5 Development Scenarios for Junction Modelling

Junction traffic flows on the highway network of interest have been calculated for the following scenarios (see Section 8.3 for detail):

- Scenario 1: No delivery of the Alternative Route
- Scenario 2: Partial delivery of the Alternative Route (the Southern Section)

The operation of the identified junctions has been assessed during the AM and PM peak hours for the following scenarios:

- Scenario 1: Application Year (2017) 'With No Development';
- Scenario 1: Assessment Year (2022) 'With No Development';
- Scenario 2: Assessment Year (2022) 'With Proposed Development'; and

Scenario 1 'With No Development' represents a baseline situation.

Scenario 2 'With Proposed Development' represents the situation where the proposed development is delivered, including the Southern Section of the Alternative Route, but the remainder of the Alternative Route is yet to be delivered.

Traffic flows on the highway network of interest for Scenario 1: Application Year (2017) 'With No Development' scenario are shown by **Figure 4.1** and **Figure 4.2**.

Traffic flows on the highway network of interest for Scenario 1: Assessment Year (2022) 'With No Development' scenario are shown by **Figure 8.1** and **Figure 8.2**.

Traffic flows on the highway network of interest for Scenario 2: Assessment Year (2022) 'With Proposed Development' scenario are shown by **Figure 9.1** and **Figure 9.2**.

9.6 Junction Capacity Analysis

Each surveyed junction has been assessed for its performance using TRL Junctions 9 software for priority junctions and roundabouts. The capacity assessment results are shown by each headed section below.

9.6.1 Britwell Road/ Cuxham Road Priority T-junction

The performance of the Britwell Road/ Cuxham Road priority T-junction has been assessed using the TRL Junctions 9 software’s PICADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 9.1**.

Table 9.1 Britwell Road/ Cuxham Road Priority T-junction – Results of PICADY Modelling

2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2017 Application Year ‘with no development’						
Left/right out of Cuxham Road	0.4	9.69	0.28	0.5	9.33	0.32
Right into Cuxham Road	0.5	6.50	0.25	0.5	6.33	0.27
2022	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year ‘with no development’						
Left/right out of Cuxham Road	0.5	10.38	0.32	0.5	9.95	0.35
Right into Cuxham Road	0.6	6.69	0.28	0.6	6.49	0.29
Scenario 2: 2022 Assessment Year ‘with proposed development’						
Left/right out of Cuxham Road	0.6	9.26	0.39	0.7	9.89	0.43
Right into Cuxham Road	0.5	6.30	0.27	0.6	6.33	0.30

Notes: 1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The Britwell Road/ Cuxham Road priority T-junction is shown to operate with significant reserve capacity and with acceptable levels of queuing and delay for all scenarios. The impact of the proposed development on the performance of this junction is negligible and therefore no mitigation measures are proposed at this location.

9.6.2 Cuxham Road/ Pyrton Lane Priority T-junction

The performance of the Cuxham Road/ Pyrton Lane priority T-junction has been assessed using the TRL Junctions 9 software's PICADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 9.2**.

Table 9.2 Cuxham Road/ Pyrton Lane Priority T-junction – Results of PICADY Modelling

2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2017 Application Year 'with no development'						
Left/right out of Pyrton Lane	0.1	8.53	0.13	0.1	8.76	0.13
Right into Pyrton Lane	0.2	6.23	0.12	0.1	6.10	0.09
2022	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year 'with no development'						
Left/right out of Pyrton Lane	0.2	8.71	0.14	0.2	9.02	0.14
Right into Pyrton Lane	0.2	6.28	0.13	0.1	6.14	0.10
Scenario 2: 2022 Assessment Year 'with proposed development'						
Left/right out of Pyrton Lane	0.2	9.46	0.16	0.2	10.16	0.19
Right into Pyrton Lane	0.2	6.86	0.13	0.1	6.47	0.10

Notes: 1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The Cuxham Road/ Pyrton Lane priority T-junction is shown to operate with significant reserve capacity and with acceptable levels of queuing and delay for all scenarios. The impact of the proposed development on the performance of this junction is negligible and therefore no mitigation measures are proposed at this location.

9.6.3 Brook Street/ Couching Street Priority T-junction

The performance of the Brook Street/ Couching Street priority T-junction has been assessed using the TRL Junctions 9 software’s PICADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 9.3**.

Table 9.3 Brook Street/ Couching Street Priority T-junction – Results of PICADY Modelling

2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2017 Application Year ‘with no development’						
Left/right out of Couching St	3.0	29.28	0.76	1.8	20.83	0.66
Right into Couching Street	0.4	8.02	0.26	0.4	7.62	0.28
2022	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year ‘with no development’						
Left/right out of Couching St	4.6	42.18	0.84	2.4	25.86	0.72
Right into Couching Street	0.4	8.40	0.29	0.5	7.95	0.30
Scenario 2: 2022 Assessment Year ‘with proposed development’						
Left/right out of Couching St	5.3	48.36	0.86	3.0	30.25	0.76
Right into Couching Street	0.5	8.48	0.29	0.5	7.99	0.31

Notes: 1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The junction capacity analysis results for the left or right turn from the Couching Street minor road have been validated against the queue survey and are to be relied upon for assessing the impact of the proposed development. However, for the right turn into Couching Street an analysis of the impact of the proposed development on link flows at this location will be used to determine the impact of the proposed development (see Section 4.8.3 for detail).

In Scenario 1: 2022 ‘with no development’ the left or right turn out of the minor arm at the Brook Street/ Couching Street priority T-junction is shown to operate with some reserve capacity. The critical time period is the AM peak hour.

In Scenario 2: 2022 ‘with proposed development’ the left or right turn out of the minor arm is shown to operate with reduced reserve capacity due to the traffic generated by the proposed development. The impact of the proposed development is small however, with RFC increasing by 0.2 for this movement during the critical time period. The partial delivery of the Alternative Route (the Southern Section) has no impact.

9.6.4 Shirburn Street/ Couching Street/ Hill Road/ High Street Priority Crossroads

The performance of the Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads has been assessed using the TRL Junctions 9 software's PICADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 9.4**.

Table 9.4 Shirburn Street/ Couching Street/ Hill Road/ High Street Priority Crossroads – Results of PICADY Modelling

2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2017 Application Year 'with no development'						
Out of Hill Road	0.0	0.00	0.00	0.0	0.00	0.00
Right into High Street	0.2	5.20	0.10	0.4	5.51	0.17
Out of High Street	0.0	0.00	0.00	0.0	0.00	0.00
Right into Hill Road	0.5	5.45	0.19	0.3	5.35	0.12
2022	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year 'with no development'						
Out of Hill Road	0.0	0.00	0.00	0.0	0.00	0.00
Right into High Street	0.3	5.16	0.11	0.4	5.55	0.19
Out of High Street	0.0	0.00	0.00	0.0	0.00	0.00
Right into Hill Road	0.6	5.48	0.22	0.3	5.31	0.13
Scenario 2: 2022 Assessment Year 'with proposed development'						
Out of Hill Road	0.0	0.00	0.00	0.0	0.00	0.00
Right into High Street	0.3	5.19	0.12	0.5	5.51	0.20
Out of High Street	0.0	0.00	0.00	0.0	0.00	0.00
Right into Hill Road	0.6	5.45	0.22	0.3	5.29	0.14

Notes: 1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

Congestion issues at the Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads are caused principally by the narrowing of Shirburn Street/ Couching Street to a one way section rather than by the capacity of the junction itself. Therefore an analysis of the impact of the proposed development on link flows at this location will be used to determine the impact of the proposed development on this junction (see Section 4.8.4 for detail).

9.6.5 Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane Priority Crossroads

The performance of the Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads has been assessed using the TRL Junctions 9 software’s PICADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 9.5**.

Table 9.5 Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane Priority Crossroads – Results of PICADY Modelling

2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2017 Application Year ‘with no development’						
Out of Station Road	0.0	0.00	0.00	0.0	9.75	0.02
Right into Pyrton Lane	0.4	4.69	0.14	0.4	4.90	0.17
Out of Pyrton Lane	0.5	10.50	0.33	0.3	8.34	0.21
Right into Station Road	0.0	4.85	0.01	0.0	4.94	0.01
2022	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year ‘with no development’						
Out of Station Road	0.0	0.00	0.00	0.0	10.21	0.02
Right into Pyrton Lane	0.4	4.66	0.16	0.5	4.88	0.20
Out of Pyrton Lane	0.6	11.32	0.37	0.3	8.78	0.23
Right into Station Road	0.0	4.79	0.01	0.0	4.89	0.01
Scenario 2: 2022 Assessment Year ‘with proposed development’						
Out of Station Road	0.0	0.00	0.00	0.0	10.50	0.03
Right into Pyrton Lane	0.5	4.71	0.18	0.6	5.10	0.24
Out of Pyrton Lane	0.7	11.95	0.40	0.3	9.04	0.25
Right into Station Road	0.0	4.76	0.01	0.0	4.89	0.01

- Notes:
1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads is shown to operate with significant reserve capacity and with acceptable levels of queuing and delay for all scenarios. The impact of the proposed development on the performance of this junction is negligible and therefore no mitigation measures are proposed at this location.

It should be noted that the full delivery of the Alternative Route will likely involve significant improvements to this junction including possible change of priorities. Nevertheless movements into and out of Pyrton Lane do not exceed capacity for the existing arrangement.

9.6.6 Cuxham Road/ Willow Close/ Industrial Estate Roundabout

The performance of the Cuxham Road/ Willow Close/ Industrial Estate roundabout has been assessed using the TRL Junctions 9 software’s ARCADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 9.6**.

Table 9.6 Cuxham Road/ Willow Close/ Industrial Estate Roundabout – Results of ARCADY Modelling

2017	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2017 Application Year ‘with no development’						
Cuxham Road E	0.1	3.44	0.13	0.1	3.35	0.12
Industrial Estate Access	0.0	4.33	0.01	0.1	3.48	0.05
Cuxham Road W	0.2	3.58	0.13	0.2	3.74	0.15
Willow Close	0.0	3.22	0.04	0.0	3.23	0.02
2022	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 1: 2022 Assessment Year ‘with no development’						
Cuxham Road E	0.2	3.49	0.14	0.2	3.39	0.13
Industrial Estate Access	0.0	4.30	0.01	0.1	3.52	0.06
Cuxham Road W	0.2	3.64	0.15	0.2	3.81	0.16
Willow Close	0.0	3.26	0.05	0.0	3.27	0.02
Scenario 2: 2022 Assessment Year ‘with proposed development’						
Cuxham Road E	0.1	3.48	0.11	0.2	3.47	0.13
Industrial Estate Access	0.3	4.12	0.21	0.3	4.05	0.20
Cuxham Road W	0.2	4.01	0.17	0.2	4.20	0.20
Willow Close	0.1	3.58	0.05	0.0	3.53	0.02

- Notes:
1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The Cuxham Road/ Willow Close/ Industrial Estate roundabout is shown to operate with significant reserve capacity and with acceptable levels of queuing and delay for both scenarios. The impact of the proposed development on the performance of this junction is negligible and therefore no mitigation measures are proposed at this location.

9.6.7 Britwell Road/ Site Access Priority T-junction

The performance of the Britwell Road/ Site Access priority T-junction has been assessed using the TRL Junctions 9 software’s PICADY module using the ONE-HOUR traffic profile type. The results are summarised by **Table 9.7**.

Table 9.7 Cuxham Road/ Willow Close/ Industrial Estate Roundabout – Results of ARCADY Modelling

2022	AM Peak (07:30-08:30)			PM Peak (17:30-18:30)		
	Queue ¹	Delay ²	RFC ³	Queue ¹	Delay ²	RFC ³
Scenario 2: 2022 Assessment Year ‘with proposed development’						
Left/right out of Britwell Rd N	1.0	11.32	0.49	1.1	11.72	0.53
Right into Britwell Rd N	0.6	7.59	0.34	0.5	7.21	0.29

- Notes:
1. The maximum mean queue predicted by the model for any 15-minute time period.
 2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
 3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The Britwell Road/ Site Access priority T-junction is shown to operate with significant reserve capacity and with acceptable levels of queuing and delay for all scenarios.

9.6.8 Junction Capacity Analysis Summary

The junction capacity analyses have shown that the assessed junctions all operate with significant reserve capacity and with acceptable levels of queuing and delay for all scenarios. This includes the site access from Britwell Road.

However, the Brook Street/ Couching Street priority T-junction and the Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads require further assessment given that the capacity of these junctions is restricted by one-way narrowings which cannot be modelled by PICADY. For these junctions an assessment of link flows will be used to complement the junction capacity assessments in determining the impact of the proposed development.

9.7 Link Flow Impact Analysis

Link traffic flows on the highway network of interest have been calculated for the following scenarios (see Section 8.3 for detail):

- Scenario 1 - No delivery of the Alternative Route; and
- Scenario 2 - Partial delivery of the Alternative Route (the southern section).

The impact of the proposed development on link flows has been assessed during the AM and PM peak hours for the following scenarios:

- Scenario 1: Assessment Year (2022) 'With No Development'; and
- Scenario 2: Assessment Year (2022) 'With Proposed Development'.

Scenario 1 'With No Development' represents the baseline situation.

Scenario 2 'With Proposed Development' represents the situation where the proposed development is delivered, including the Southern Section of the Alternative Route, but the remainder of the Alternative Route is yet to be delivered.

9.7.1 Scenario 1: Assessment Year (2022) 'With No Development'

Scenario 1 would result in no changes to the routes taken by drivers through Watlington.

Link traffic flows on the highway network of interest for Scenario 1: Assessment Year (2022) 'With No Development' are shown for the 24hr period by **Figure 8.7**.

9.7.2 Scenario 2: Assessment Year (2022) 'With Proposed Development'

Scenario 2 would result in some vehicles travelling between Britwell Road and Cuxham Road to be diverted along the southern section of the Alternative Route. There would also be an increase in traffic caused by the proposed development.

Link traffic flows on the highway network of interest for Scenario 2: Assessment Year (2022) 'With Proposed Development' are shown by **Figure 9.3**.

The percentage impact to link traffic flows from Scenario 1: Assessment Year (2022) 'With No Development' to Scenario 2: Assessment Year (2022) 'With Proposed Development' is shown for the 24hr period by **Figure 9.4**.

Table 9.8 Link Traffic Flow Impact for Scenario 2: Assessment Year (2022) 'With Proposed Development'

Link	Link Flows		
	Scenario 1	Scenario 2	Impact
Cuxham Road west of future junction	2829	3157	12%
Cuxham Road between future junction and Willow Close	2829	3157	12%
Cuxham Road between Willow Close and Pyrton Lane	3487	4154	19%
Cuxham Road between Pyrton Lane and Britwell Road	3364	3806	13%
Britwell Road south of proposed site access	6221	6385	3%
Britwell Road between proposed site access and Cuxham Road	6221	4646	-25%
Brook Street between Cuxham Road and Gorwell	7655	7967	4%
Brook Street between Gorwell and Couching Street	6422	6734	5%
Howe Road east of Couching Street	3939	4025	2%
Couching Street	8262	8487	3%
Shirburn Street	7964	8189	3%
Shirburn Road	9162	9387	2%
Watlington Road	10819	11270	4%
Pyrton Lane north of Cuxham Road	1841	2067	12%
Pyrton Lane west of Watlington Road/ Shirburn Road	2059	2285	11%
Industrial Estate access south of Cuxham Road	569	3011	429%

Scenario 2: Assessment Year (2022) 'With Proposed Development' is anticipated to increase traffic on most roads in Watlington with the exception of Britwell Road for the section between the site access and Cuxham Road.

The traffic increase on most links is minor and will not give rise to major increases in queues and delay. This includes Brook Street, Couching Street and Shirburn Street through the town centre where increases do not exceed 5% on any link.

Cuxham Road is anticipated to experience an increase of greater than 10% however baseline traffic flows on this link are low and the increase can be accommodated without significant increases in queues and delay.

Pyrton Lane is anticipated to experience an increase of greater than 10% however baseline traffic flows on this link are low and after the increase in traffic associated with the proposed development traffic flows on this link are still lower than on any other of the assessed links. Nevertheless, an improvement scheme is proposed at Pyrton Lane to mitigate the impact of the increase in traffic flows (see Section 9.9.1 for detail).

The Industrial Estate access is anticipated to experience an increase of over 400% however this is due to a low baseline traffic flow. The 24hr traffic flow on the Industrial Estate access is approximately 3,000 which can comfortably be accommodated. The Industrial Estate access has a 6.5m constant width.

9.7.3 Couching Street One-Way Road Narrowing

Junction modelling at the Brook Street/ Couching Street Priority T-junction shows that the junction operates with reserve capacity for the left and right turn movements into Couching Street (see Section 9.6.3 for details).

However the capacity of the left and right turn movements into Couching Street is constrained not by the junction itself but by the narrowing of Couching Street by parked cars which mean that northbound vehicles must give way to southbound vehicles. This creates a one-way section of road.

Consequently an analysis of the impact of the proposed development on link flows at this location will be used to determine the impact of the proposed development.

In Scenario 2: Assessment Year (2022) 'With Proposed Development' link flows on the Brook Street approach to the junction are anticipated to rise by 5%, on the Howe Road approach by 2% and on the critical Couching Street approach by 3%.

The proposed development will increase traffic on Couching Street however the increase will be just 3% which will have an insignificant impact on the performance of the one-way narrowing. The proposed development will not generate any HGV movements which have been identified as a particular cause of congestion at this location.

It is therefore concluded that the Brook Street/ Couching Street Priority T-junction and the associated Couching Street one-way road narrowing can accommodate the proposed development in the short term.

9.7.4 Shirburn Street/ Couching Street One-Way Road Narrowing

Junction modelling at the Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads shows that the junction operates with significant reserve capacity for all movements (see Section 9.6.4 for details).

However the capacity of the priority through movements on Shirburn Street and Couching Street is constrained by the formal one-way narrowing through the junction where northbound vehicles must give way to southbound vehicles as signposted.

Consequently an analysis of the impact of the proposed development on link flows at this location will be used to determine the impact of the proposed development.

In Scenario 2: Assessment Year (2022) 'With Proposed Development' link flows on the Shirburn Street and Couching Street approaches to the junction are anticipated to rise by 3%.

The proposed development will lead to an increase in traffic through the one-way section however the increase will be just 3% which will have an insignificant impact on the performance of the one-way narrowing. The proposed development will not generate any HGV movements which have been identified as a particular cause of congestion at this location.

It is therefore concluded that the Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads including the Shirburn Street/ Couching Street one-way road narrowing can accommodate the proposed development in the short term

9.8 Proposed Development Transport Impact Summary

Junction traffic flows on the highway network of interest have been calculated for the following scenarios (see Section 8.3 for detail):

- Scenario 1: No delivery of the Alternative Route; and
- Scenario 2: Partial delivery of the Alternative Route (the Southern Section).

The impact of the proposed development on the operation of the identified junctions, and on link flows, has been assessed during the AM and PM peak hours for the following scenarios:

- Scenario 1: Assessment Year (2022) 'With No Development'; and
- Scenario 2: Assessment Year (2022) 'With Proposed Development'.

Scenario 1 'With No Development' represents the situation if the proposed development is not delivered.

Scenario 2 'With Proposed Development' represents the situation where the proposed development is delivered, including the Southern Section of the Alternative Route, but the remainder of the Alternative Route is yet to be delivered.

Junction modelling has identified that the assessed local junctions can accommodate the proposed development in the short term (Scenario 2).

Link flow analysis has identified that the proposed development will have an insignificant impact on the identified one-way road narrowings in the town centre in the short term (Scenario 2).

The proposed development will have a significant impact on Pyrton Lane in the short term (Scenario 2) therefore a mitigation scheme is proposed which provides nil-detriment (see section 10.3 for detail).

10 Mitigation

10.1 Transport Impact

The proposed development will not have a significant adverse impact on the operation of the local highway network, including local junctions and local links (see Section 9 for details). This is with the exception of Pyrton Lane where a mitigation scheme is identified.

The proposed development also incorporates accessibility improvements to Britwell Road and Cuxham Road as well as a Travel Plan.

10.2 Accessibility Improvements

Accessibility improvements are proposed at Britwell Road and Cuxham Road (see Section 6.7 for detail). These accessibility measures will provide benefit to both occupiers of the proposed development and to existing local residents.

The proposed Cuxham Road scheme will help mitigate increases in traffic flow along this street in the short term.

The proposed development will provide a funding contribution to improving the Thames Travel T1 bus service.

10.3 Pyrton Lane Improvements

The proposed development will cause an increase in traffic along Pyrton Lane therefore a mitigation scheme is proposed further to discussion with the Highway Authority, Oxfordshire County Council (OCC).

Pyrton Lane is generally of a reasonable highway standard along much of its length; however at its southern end it has a narrow carriageway width and limited forward visibility. A set of minor improvement works to offset the impact of the proposed development have been agreed with OCC. The proposed mitigation scheme includes:

- Carriageway widening to 4.1m where possible along the southern section to allow two cars to pass;
- Carriageway widening on the existing 's' bend; and
- Repainting of road markings and visibility improvements at Knightsbridge Lane priority junction.

The proposed Pyrton Lane improvement scheme is shown by **Drawing WB03178-SK26** and **Drawing WB03178-SK27**.

It has been agreed with OCC that the mitigation scheme at Pyrton Lane will offset the short term impact of the proposed development prior to completion of the Alternative Route by others.

10.4 Travel Plan

The travel plan is a key tool for exploiting the use of sustainable modes at the proposed development. The NPPF defines a Travel Plan as:

A long term management strategy for an organisation or site that seeks to deliver sustainable transport objectives through action and is articulated in a document that is regularly reviewed.

An appropriate Residential Travel Plan has been prepared and is set out in a separate document. The Residential Travel Plan comprises of the following sections:

- Introduction including details of the proposed development;
- Travel Plan Policy and Guidance providing a summary of relevant national and local policy and travel planning guidance;
- Site Accessibility and Local Services and Facilities describing the accessibility of the site to local facilities by different sustainable travel modes;
- Travel Plan Management setting out how the travel planning process will be managed at the development;
- Objectives, Targets and Indicators;
- Travel Plan Measures identifying the walking and cycling, public transport, car travel and marketing and promotion measures to be implemented at the development; and
- Implementation, Monitoring and Evaluation providing details on the implementation of the travel plan and how it will be monitored and reviewed and including the Action Plan.

11 Summary and conclusions

11.1 Proposed Development

This Transport Assessment has been prepared by Clarkebond on behalf of Bloor Homes Limited and Archstone Projects Limited to support a planning application for a mixed use development on Land at Britwell Road, Watlington.

The proposed development consists of 183 dwellings of which 73 will be affordable housing, and up to 650m² B1a office employment floorspace.

The proposed development site is located to the west of Britwell Road and to the south of Cuxham Road, to the south west of Watlington, South Oxfordshire.

11.2 Policy and Guidance

This Transport Assessment has been prepared in accordance with relevant advice and guidance. It demonstrates that the site accords with national, regional and local transport policies. The Transport Assessment has been scoped with the highway authority, Oxfordshire County Council.

The proposed development provides the Southern Section of the Alternative Route, between Britwell Road and Cuxham Road, consistent with Oxfordshire Country Council and Watlington Parish Council policy.

11.3 Existing Highway Conditions

The local highway network has a good safety record and junction modelling indicates that local junctions are currently operating within capacity and with acceptable queues and delay.

A journey time survey has identified that issues of congestion in Watlington town centre are caused principally by HGVs.

11.4 Proposed Access Arrangements

The proposed development will be accessed from Britwell Road to its east via a new priority junction, and from Cuxham Road to its north via the extension of an existing access cul-de-sac.

The new priority junction from Britwell Road will involve Britwell Road S being diverted into the development itself with Britwell Road N becoming the minor arm of the junction. This is to encourage use of the Southern Section of the Alternative Route.

The existing access cul-de-sac from Cuxham Road is accessed from the existing Cuxham Road/Willow Close roundabout.

11.5 Accessibility

The site is accessible by sustainable modes of transport including walking, cycling, and public transport. There is a good network of existing footways linking the site to the surrounding area and a range of local facilities are within acceptable walking and cycling distances.

11.6 Trip Distribution and Generation

The 2011 Census has been used to determine the likely trip distribution of traffic associated with the proposed development.

The majority of trips to and from the proposed development are expected to be approaching or departing using the B4009 Watlington Road, heading towards the M40. The B480 Cuxham Road heading towards Oxford is also a popular route.

The TRICS database has been used to determine the likely trip generation associated with the proposed development.

The proposed development is anticipated to generate 99 vehicle trips in the AM peak hour and 108 vehicle trips in the PM peak hour.

11.7 Transport Impact

It has been agreed with the highway authority Oxfordshire County Council that the following junctions in the vicinity of the site are to be assessed:

- Britwell Road/ Cuxham Road priority T-junction;
- Cuxham Road/ Pyrton Lane priority T-junction;
- Brook Street/ Couching Street priority T-junction;
- Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads;
- Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads; and
- Cuxham Road/ Willow Close/ Industrial Estate roundabout.

The performance of each junction has been assessed using TRL Junctions 9 software, for the AM and PM peak hours in the agreed assessment years of 2017 and 2022.

These assessments show that each identified junction can accommodate future traffic growth in each assessment year, including the traffic impact of the proposed development.

The impact of the proposed development on relevant links has been assessed including particularly the narrow road sections on Couching Street and on Shirburn Street.

These assessments show that the impact of the proposed development is modest and can be accommodated by the existing street network without adverse increases in queues and delay.

The proposed development does not give rise to a severe highway impact.

11.8 Proposed Mitigation

The accessibility improvements to Britwell Road and Cuxham Road are provided as mitigation for the proposed development. These accessibility measures will provide benefit to both occupiers of the proposed development and to existing local residents.

Minor improvement works to Pyrton Lane are proposed to offset the short term impact of the proposed development prior to completion of the Alternative Route by others.

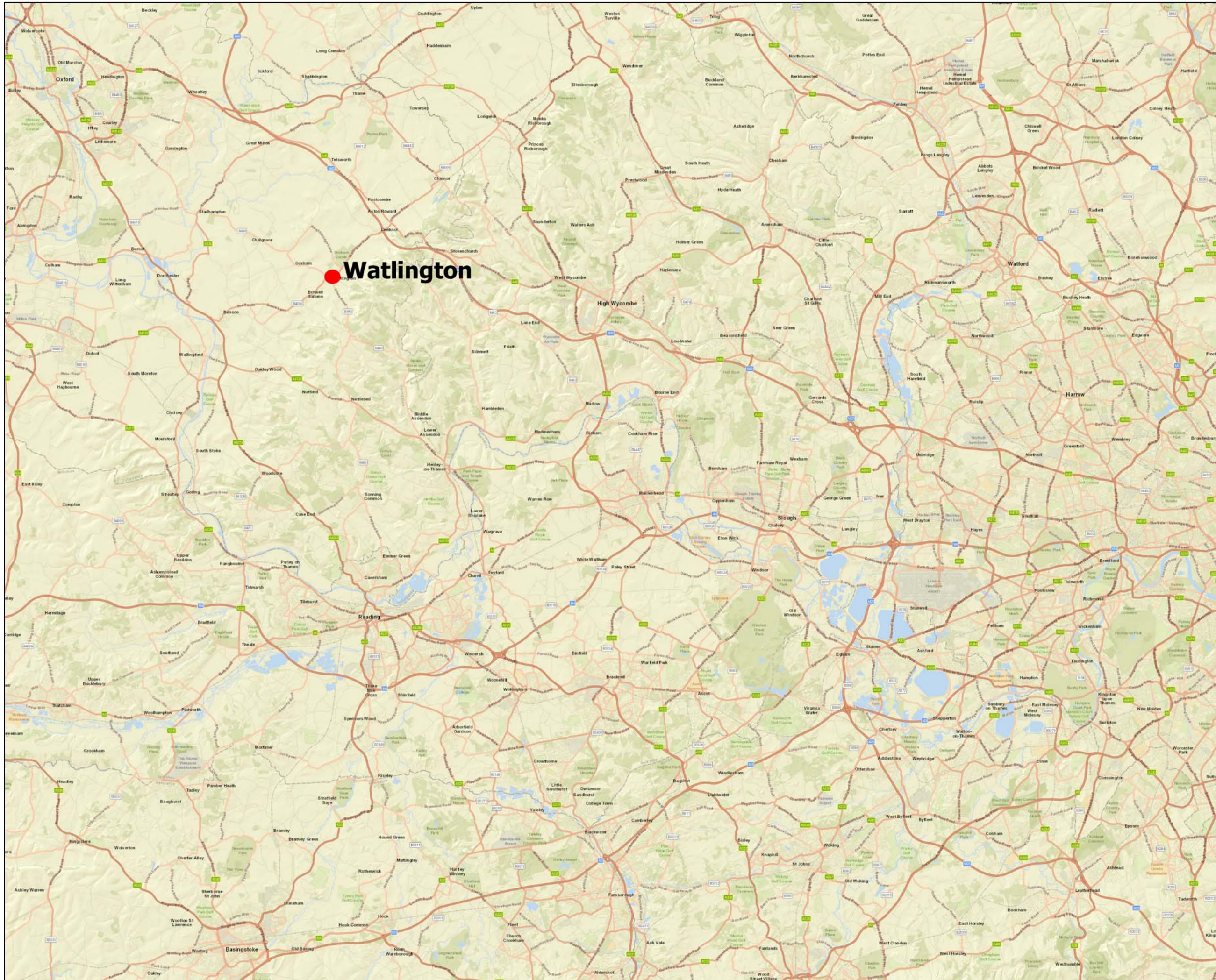
The proposed development will provide a funding contribution to improving the Thames Travel T1 bus service.

A Residential Travel Plan is provided as mitigation for the proposed development.

11.9 Overall Conclusion

The proposed development accords with national and local transport policy and can be provided with suitable access and without detriment to the safe operation of the local transport network. As such it is considered that there is no reason why planning permission for the proposed development should not be granted on highway and transport grounds.

Figures



CDM RESIDUAL RISKS
 The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.
 Risks are not considered significant.
 Relevant data is Included in the Pre-Construction Information Pack
 Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.
 CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

Rev	Detail	By	Chk	Date
-	PRELIMINARY FIRST ISSUE.	..	..	.....

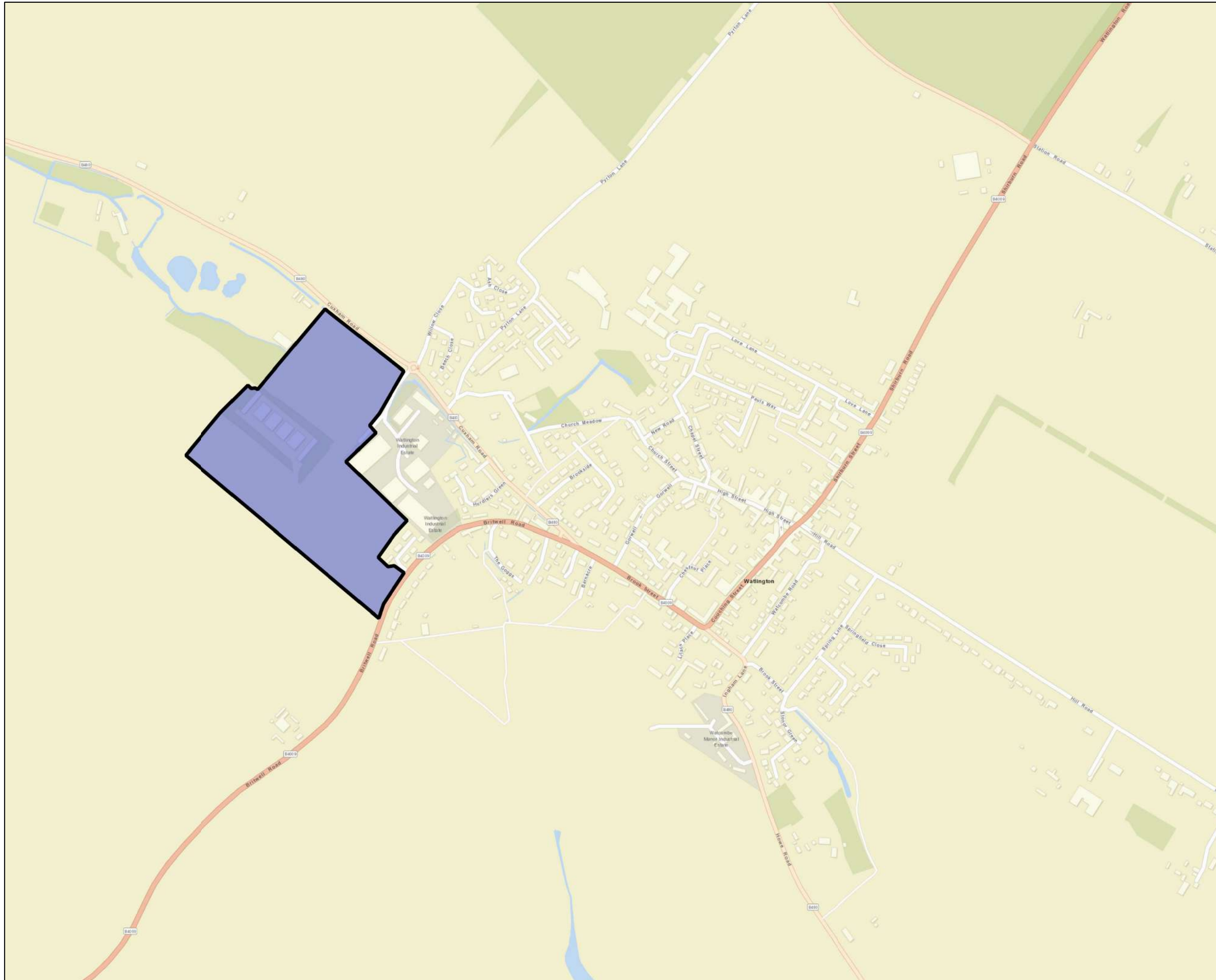
clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

Client
Archstone/Bloor Homes
 Project
**WINDMILL FARM
 WATLINGTON**

Drawing Title
**SITE LOCATION PLAN
 STRATEGIC CONTEXT**

Drawing Status
DRAFT

Project No.	Discipline	Drawing No.
WB03178	C	FIG 1.1
Scale	Date	Revision
1:360000	23.11.16	*
Drawn	Checked	Sheet Size
CWB	DAK	A3



CDM RESIDUAL RISKS
 The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.
 Risks are not considered significant.
 Relevant data is included in the Pre-Construction Information Pack
 Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.
 CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

Rev	Detail	By	Chk	Date
A	UPDATED SITE BOUNDARY	CWB	DAK	16.08.17
*	PRELIMINARY FIRST ISSUE.	..	..	.....

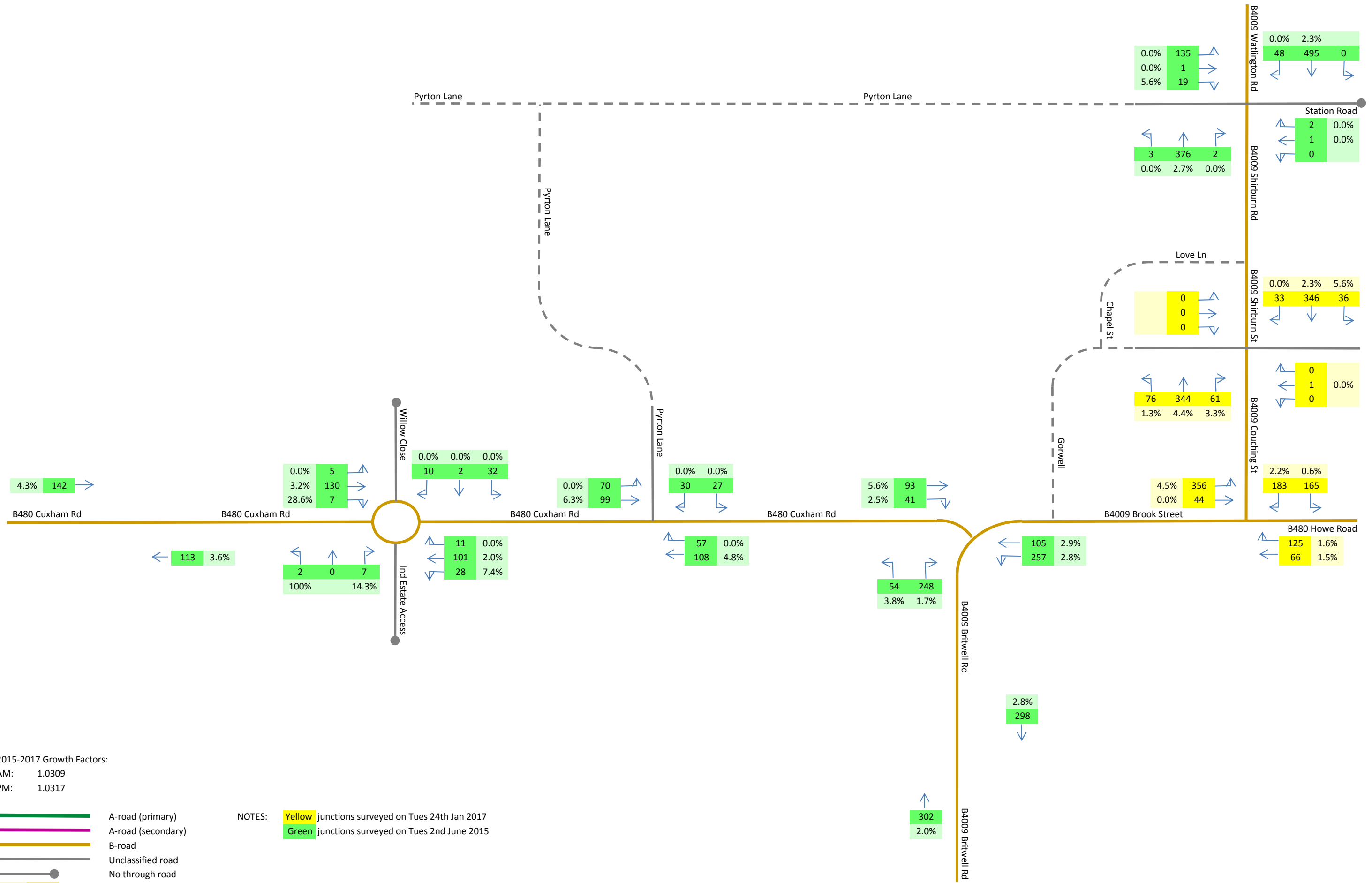
clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

Client
Archstone/Bloor Homes
 Project
**WINDMILL FARM
 WATLINGTON**

Drawing Title
**SIDE LOCTION PLAN
 LOCAL CONTEXT**

Drawing Status
DRAFT

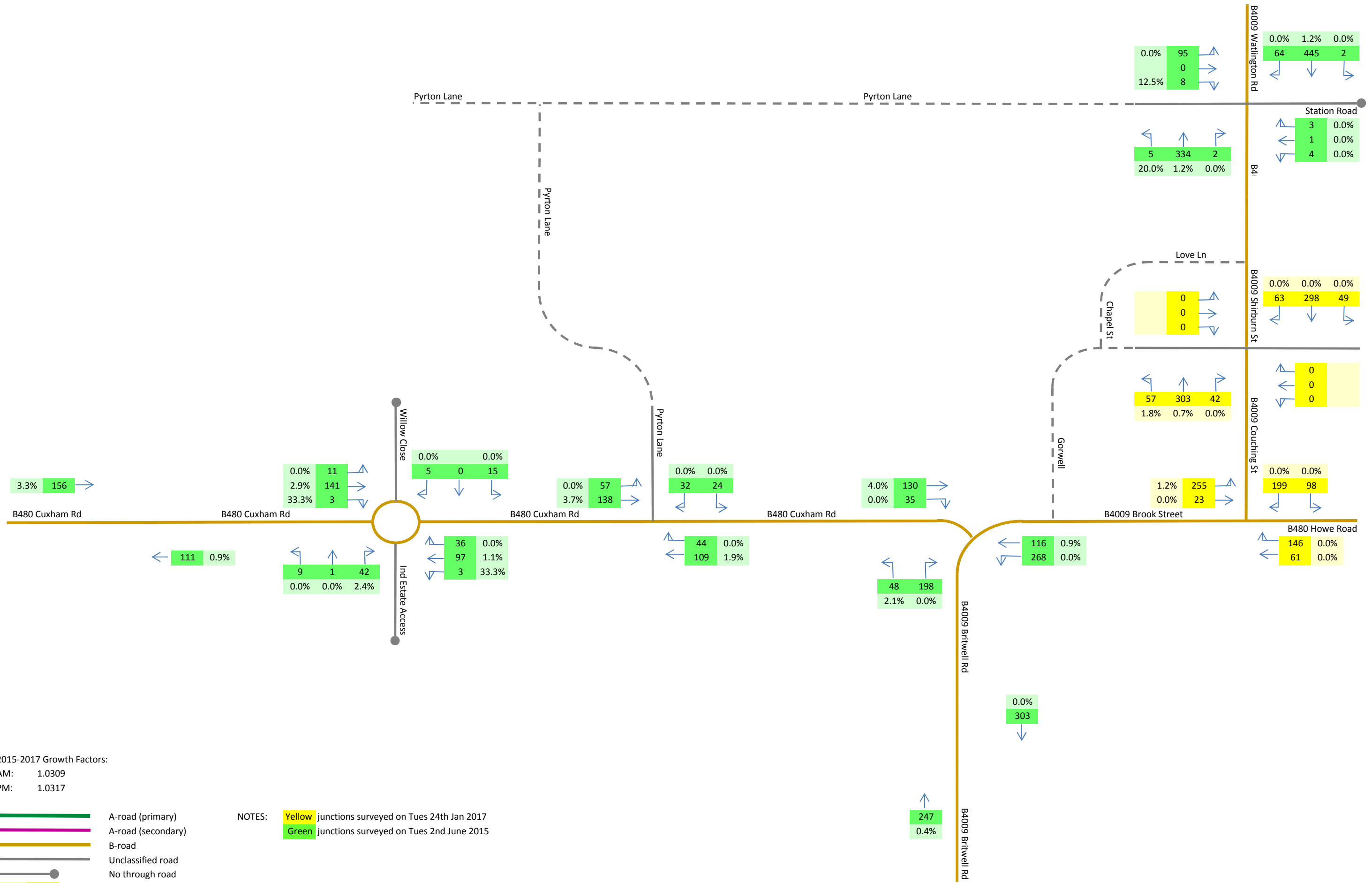
Project No. WB03178	Discipline C	Drawing No. FIG 1.2
Scale 1:4000	Date 23.11.16	Revision A
Drawn CWB	Checked DAK	Sheet Size A3



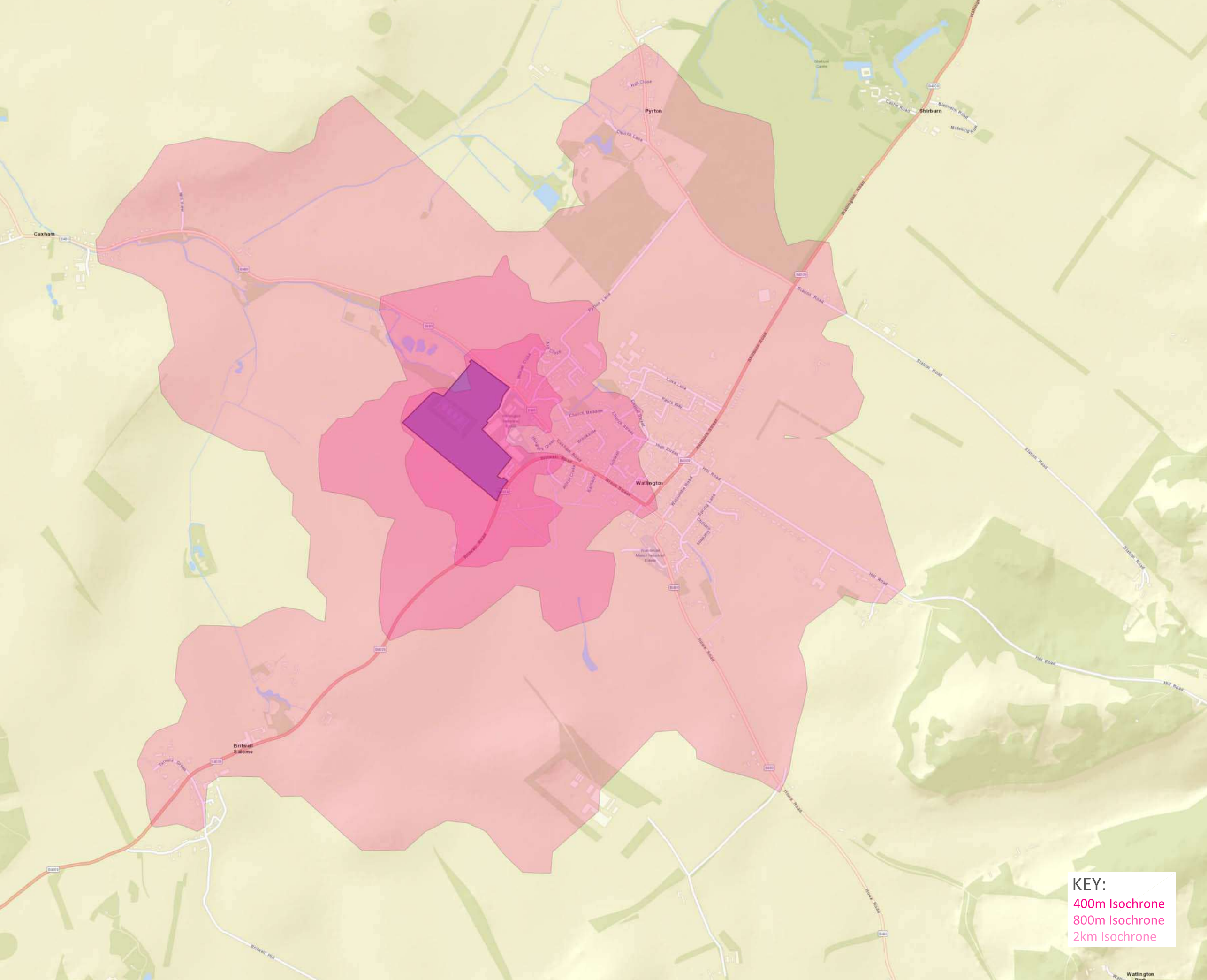
2015-2017 Growth Factors:
 AM: 1.0309
 PM: 1.0317

- A-road (primary)
- A-road (secondary)
- B-road
- Unclassified road
- No through road
- % X → Vehicles with %HGV

NOTES: Yellow junctions surveyed on Tues 24th Jan 2017
Green junctions surveyed on Tues 2nd June 2015



DWG INFO: M:\CLARKEBOND UK LIMITED\BRISTOL PROJECTS\WB03178 - WATLINGTON\REPORTS\TRANSPORT PLANNING\GIS\CAD\WALKING ISOCHRONES



KEY:
 400m Isochrone
 800m Isochrone
 2km Isochrone

CDM RESIDUAL RISKS
 The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.
 Risks are not considered significant.
 Relevant data is included in the Pre-Construction Information Pack
 Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.
 CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

Rev	Detail	By	Chk	Date
-	PRELIMINARY FIRST ISSUE.	..	..	.....

clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

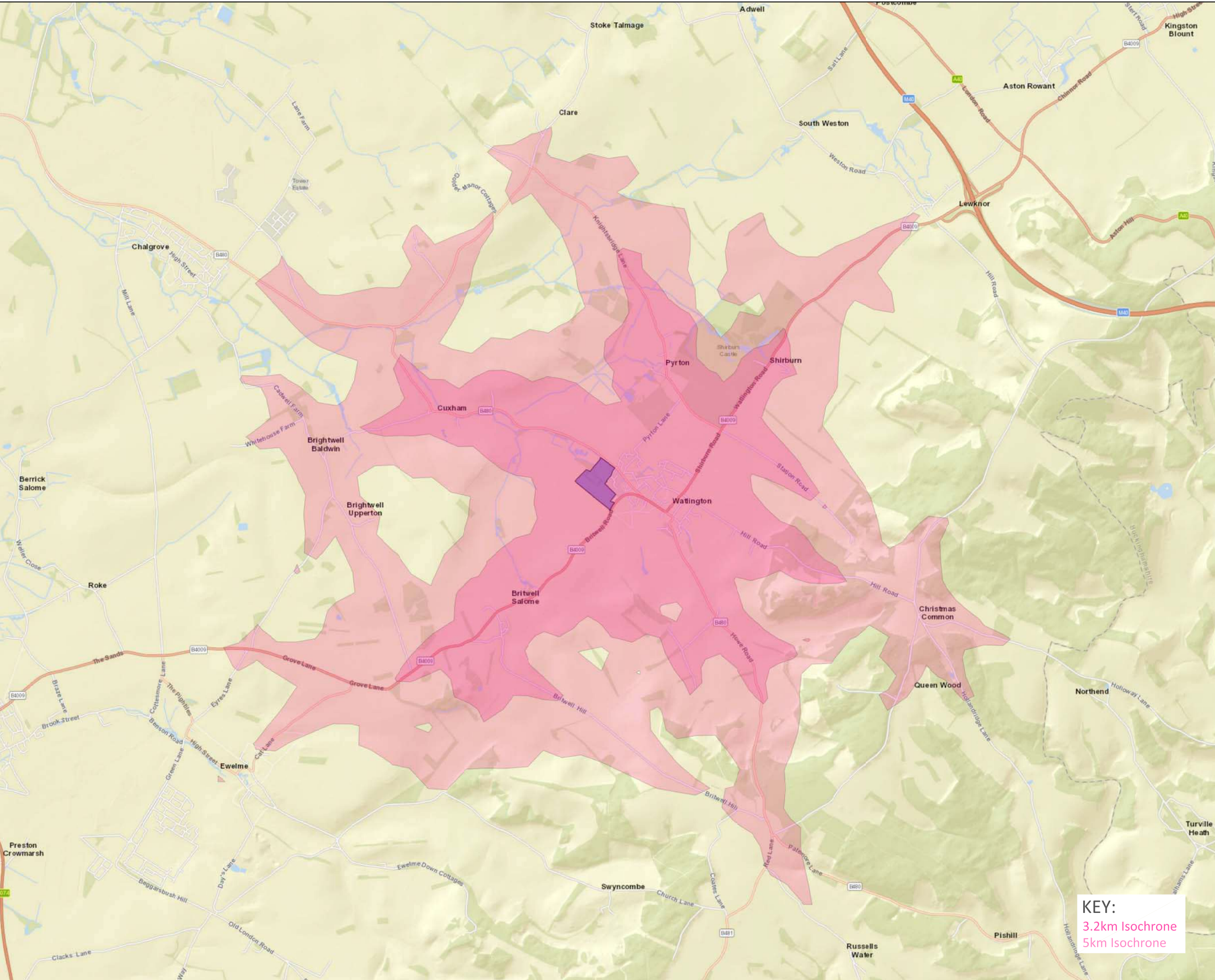
Client
Archstone/Bloor Homes
 Project
**WINDMILL FARM
 WATLINGTON**

Drawing Title
WALKING ISOCHRONES
 Drawing Status
DRAFT

Project No.	Discipline	Drawing No.
WB03178	C	FIG 6.1
Scale	Date	Revision
1:20000	25.11.16	*
Drawn	Checked	Sheet Size
CWB	DAK	A3

© This drawing may not be copied without prior written permission

DWG INFO: M:\CLARKEBOND UK LIMITED\BRISTOL PROJECTS\WB03178 - WATLINGTON\REPORTS\TRANSPORT PLANNING\GIS\CAD\CYCLING ISOCHRONES



KEY:
 3.2km Isochrone
 5km Isochrone

CDM RESIDUAL RISKS
 The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.
 Risks are not considered significant.
 Relevant data is included in the Pre-Construction Information Pack
 Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.

CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

Rev	Detail	By	Chk	Date
-	PRELIMINARY FIRST ISSUE.	..	..	.....

clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

Client
 Archstone/Bloor Homes

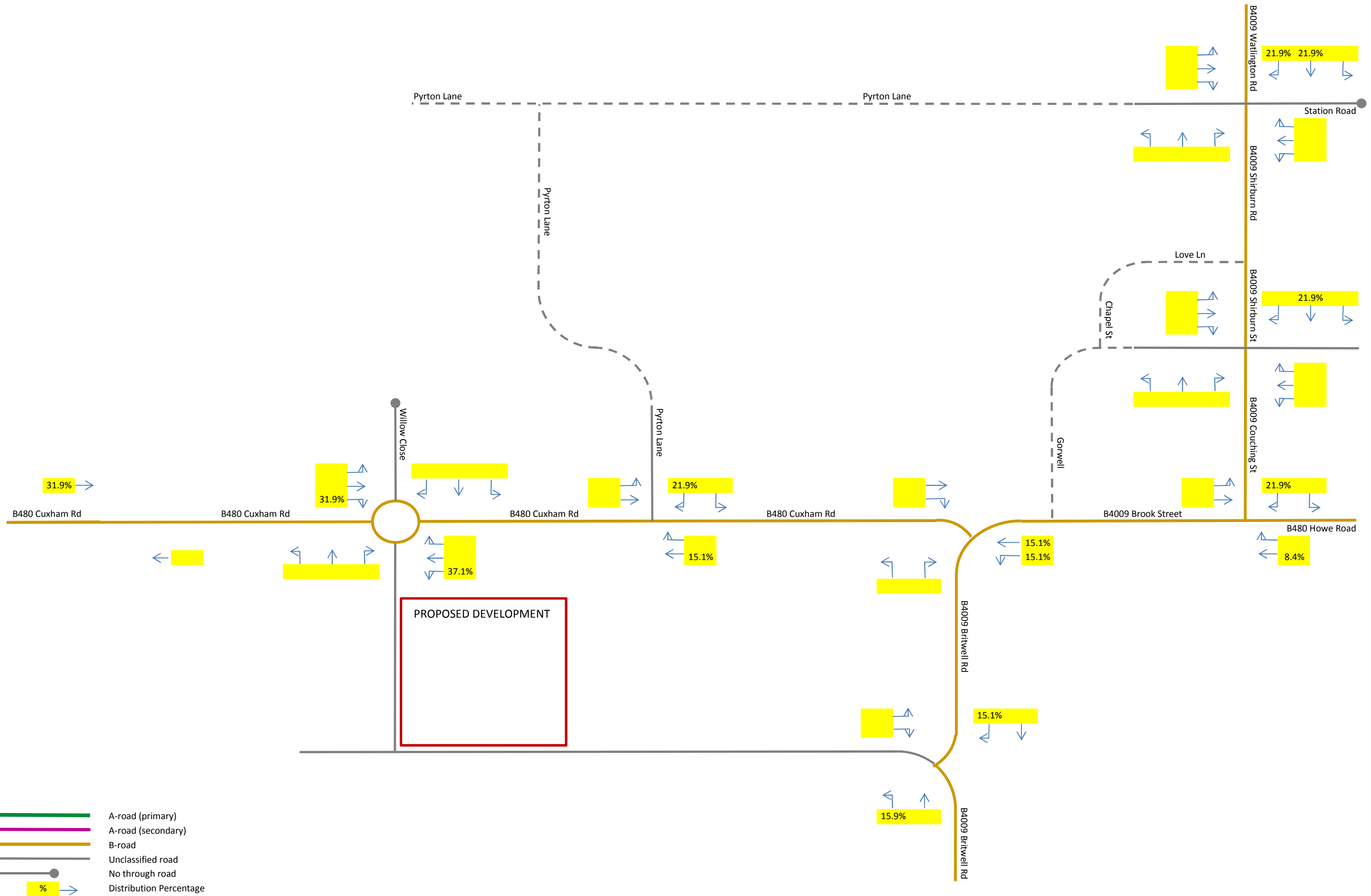
Project
 WINDMILL FARM
 WATLINGTON

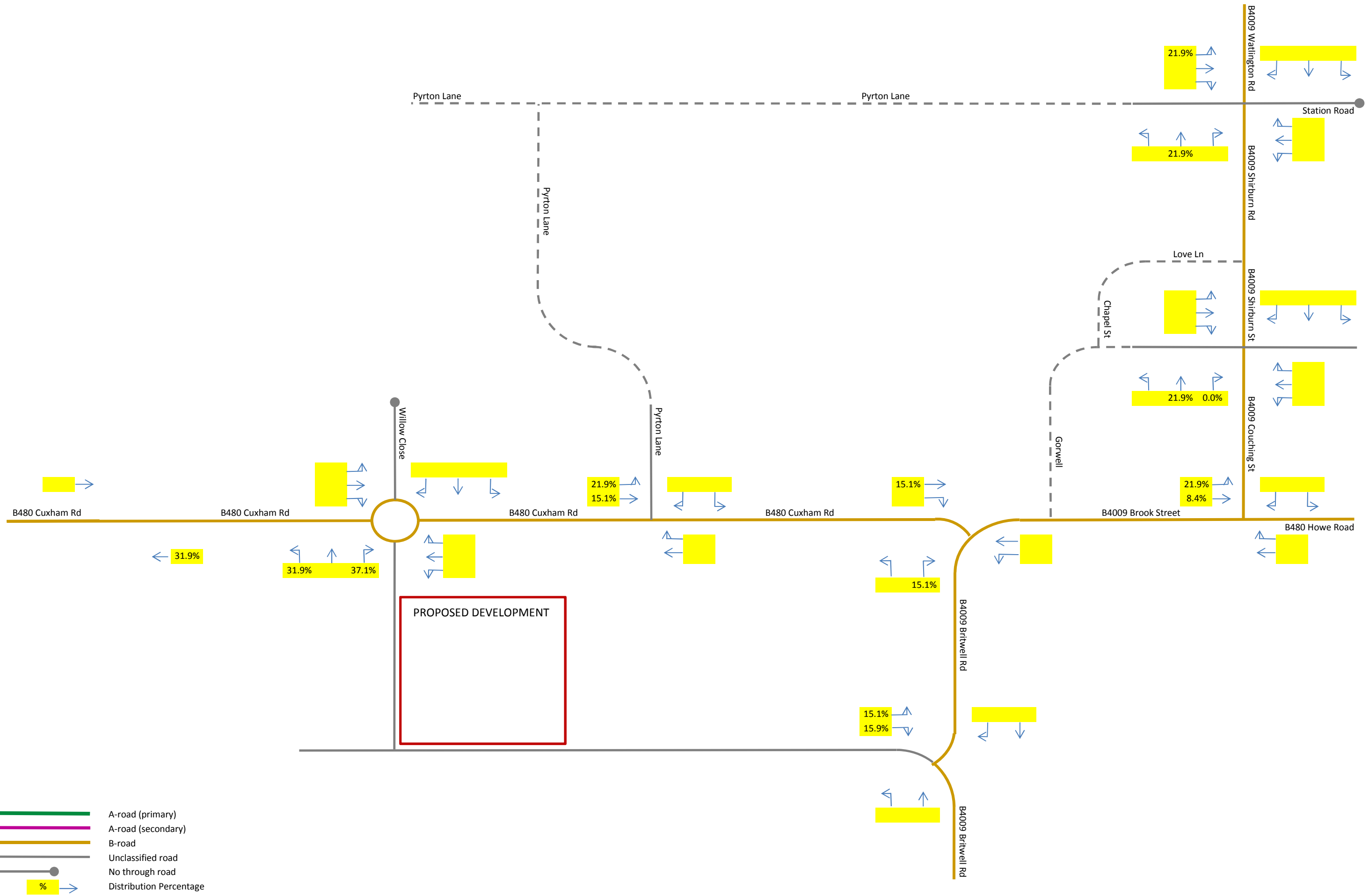
Drawing Title
 CYCLING ISOCHRONES

Drawing Status
DRAFT

Project No.	Discipline	Drawing No.
WB03178	C	FIG 6.2
Scale	Date	Revision
1:50000	25.11.16	*
Drawn	Checked	Sheet Size
CWB	DAK	A3

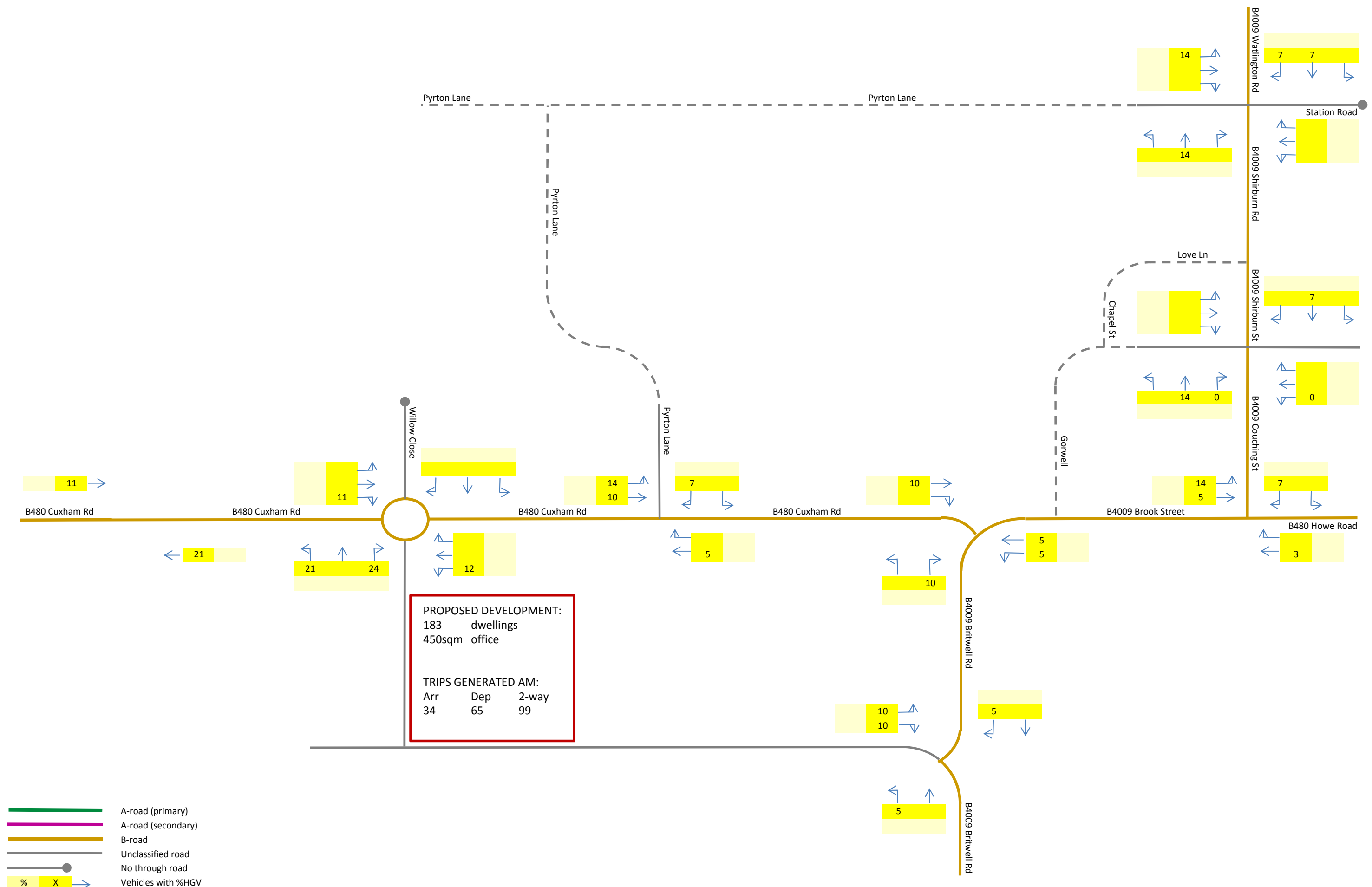
© This drawing may not be copied without prior written permission

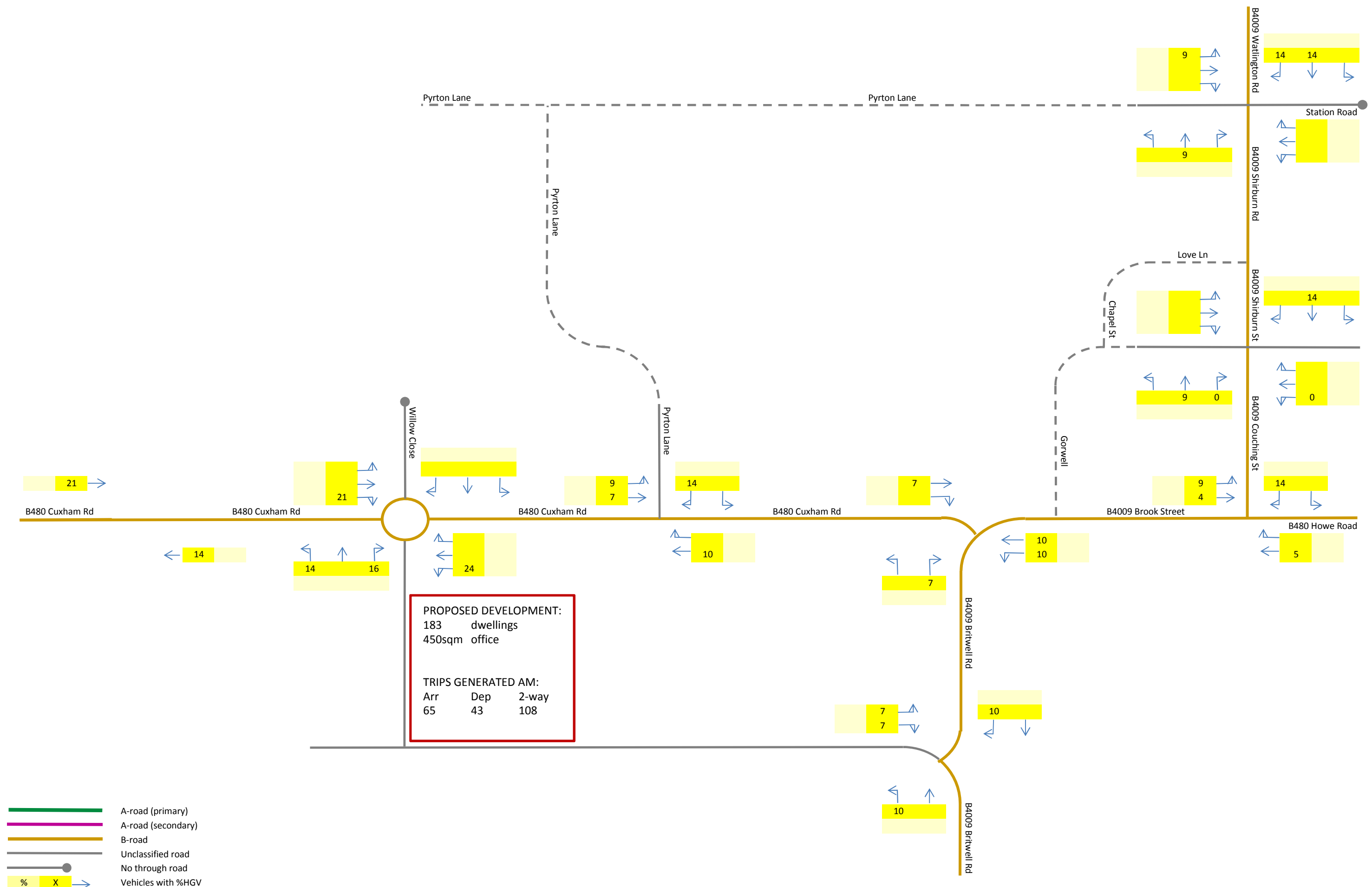


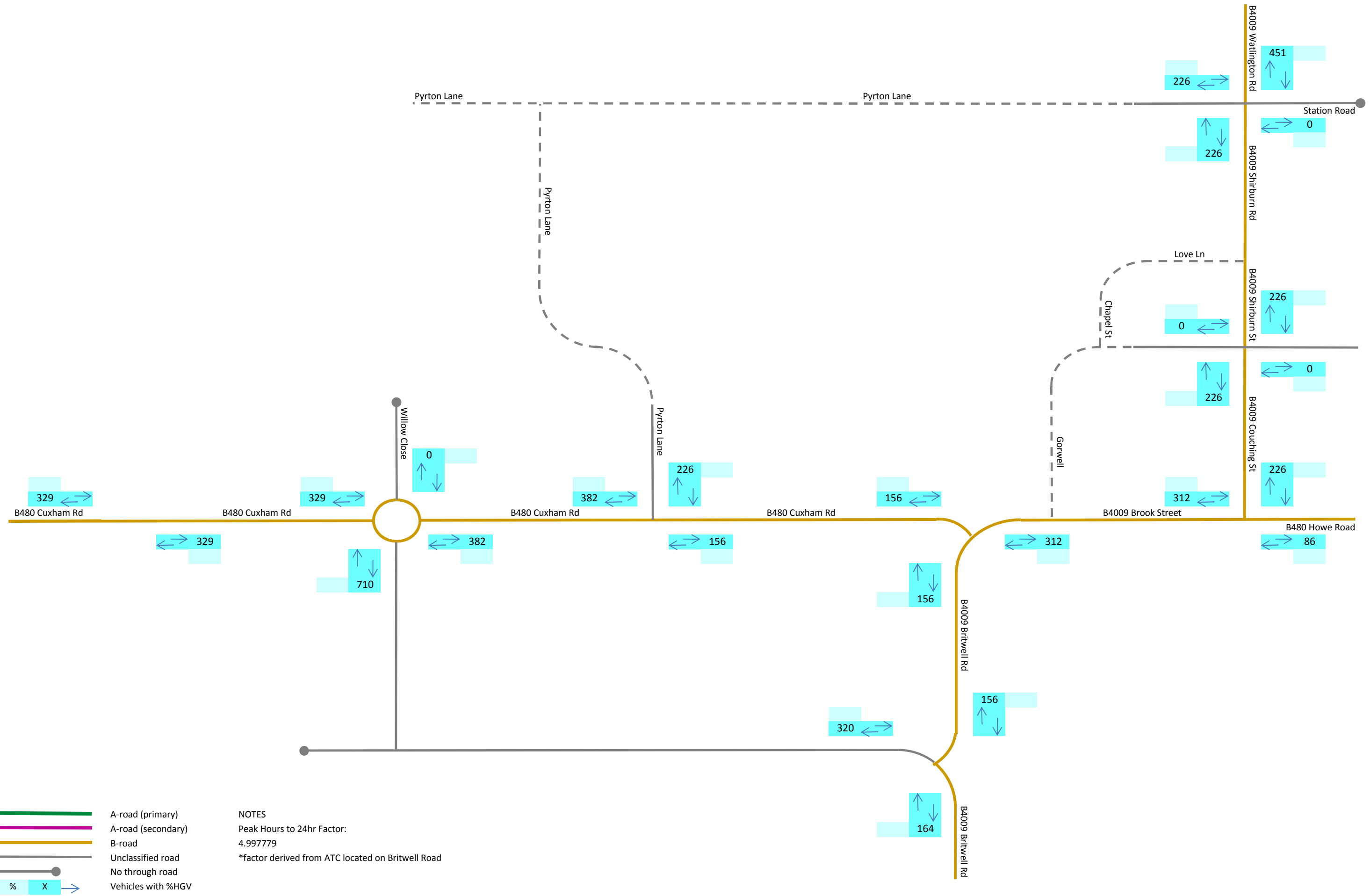


- A-road (primary)
- A-road (secondary)
- B-road
- Unclassified road
- No through road
- % → Distribution Percentage

<p>DRAWING TITLE ANTICIPATED VEHICLE DISTRIBUTION TO/FROM THE PROPOSED DEVELOPMENT WITH PARTIAL RELIEF ROAD (SCENARIO 2) - ALL VEHICLES</p> <p>PROJECT LAND AT BRITWELL ROAD, WATLINGTON</p>	<p>OUTBOUND</p>	<p>DRAWING NUMBER FIGURE 7.2</p> <p>PROJECT NUMBER WB03178</p> <p>CLIENT Bloor / Archstone</p>	<p>DRAWN BY AJS</p> <p>CHECKED BY DAK</p> <p>DATE 24.07.17</p>	<p>129 Cumberland Road, Bristol, BS1 6UY Tel: +44 (0) 117 929 2244 Email: bristol@clarkebond.com</p>
--	-----------------	---	---	--



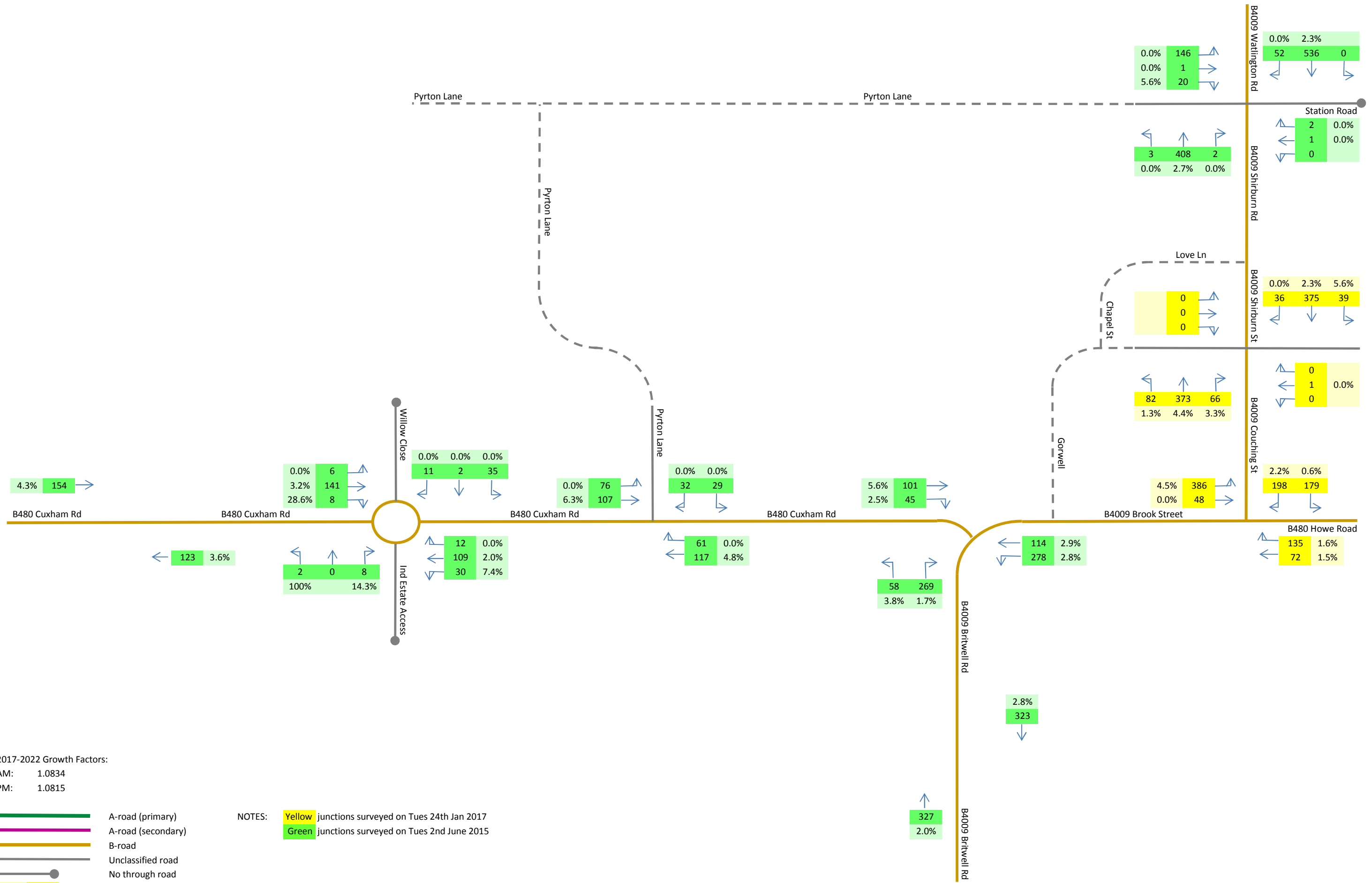




- A-road (primary)
- A-road (secondary)
- B-road
- Unclassified road
- No through road
- % X → Vehicles with %HGV

NOTES
 Peak Hours to 24hr Factor:
 4.997779
 *factor derived from ATC located on Britwell Road

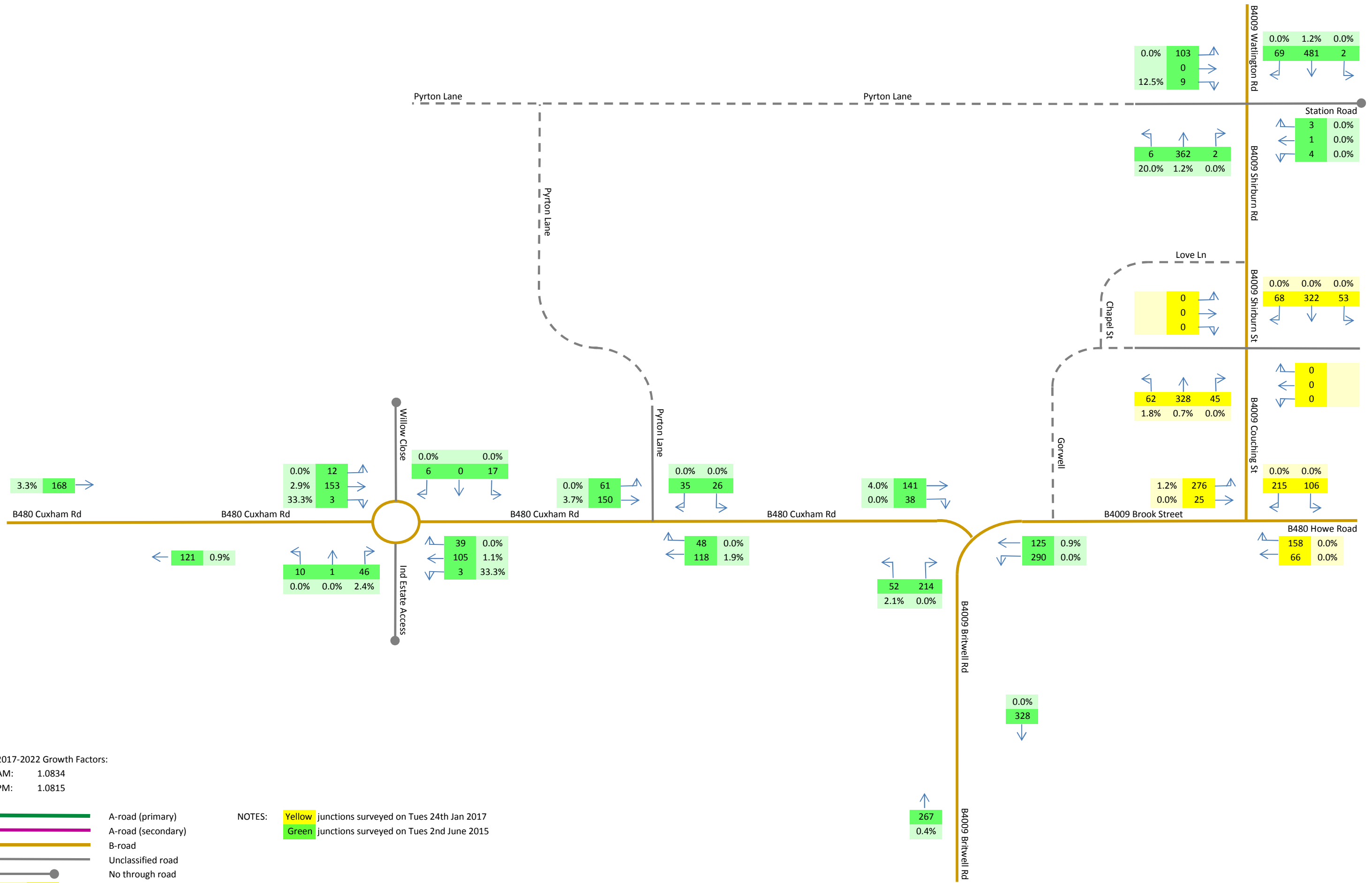
DRAWING TITLE	ANTICIPATED VEHICLE TRIP GENERATION OF PROPOSED DEVELOPMENT WITH PARTIAL RELIEF ROAD (SCENARIO 2) - ALL VEHICLES		DRAWING NUMBER	FIGURE 7.5		DRAWN BY	AJS	
	AADT (24hr)			PROJECT NUMBER	WB03178		CHECKED BY	DAK
PROJECT	LAND AT BRITWELL ROAD, WATLINGTON		CLIENT		Bloor / Archstone			DATE	24.07.17
						clarkebond <small>MULTIDISCIPLINARY ENGINEERING CONSULTANTS</small>	129 Cumberland Road, Bristol, BS1 6UY	
							Tel: +44 (0) 117 929 2244 Email: bristol@clarkebond.com	

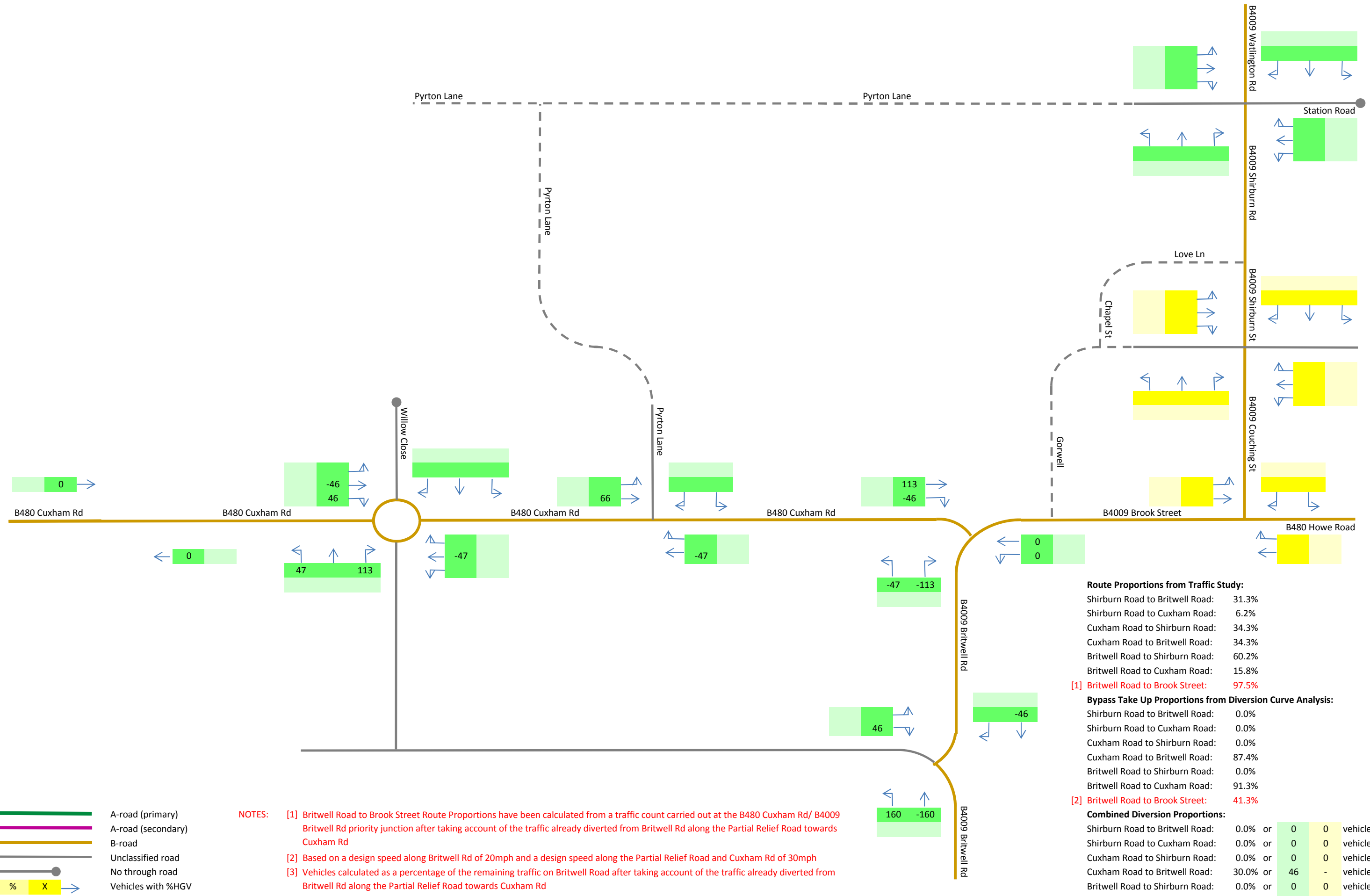


2017-2022 Growth Factors:
 AM: 1.0834
 PM: 1.0815

- A-road (primary)
- A-road (secondary)
- B-road
- Unclassified road
- No through road
- % X → Vehicles with %HGV

NOTES: Yellow junctions surveyed on Tues 24th Jan 2017
Green junctions surveyed on Tues 2nd June 2015





Route Proportions from Traffic Study:

Shirburn Road to Britwell Road:	31.3%
Shirburn Road to Cuxham Road:	6.2%
Cuxham Road to Shirburn Road:	34.3%
Cuxham Road to Britwell Road:	34.3%
Britwell Road to Shirburn Road:	60.2%
Britwell Road to Cuxham Road:	15.8%

[1] **Britwell Road to Brook Street:** 97.5%

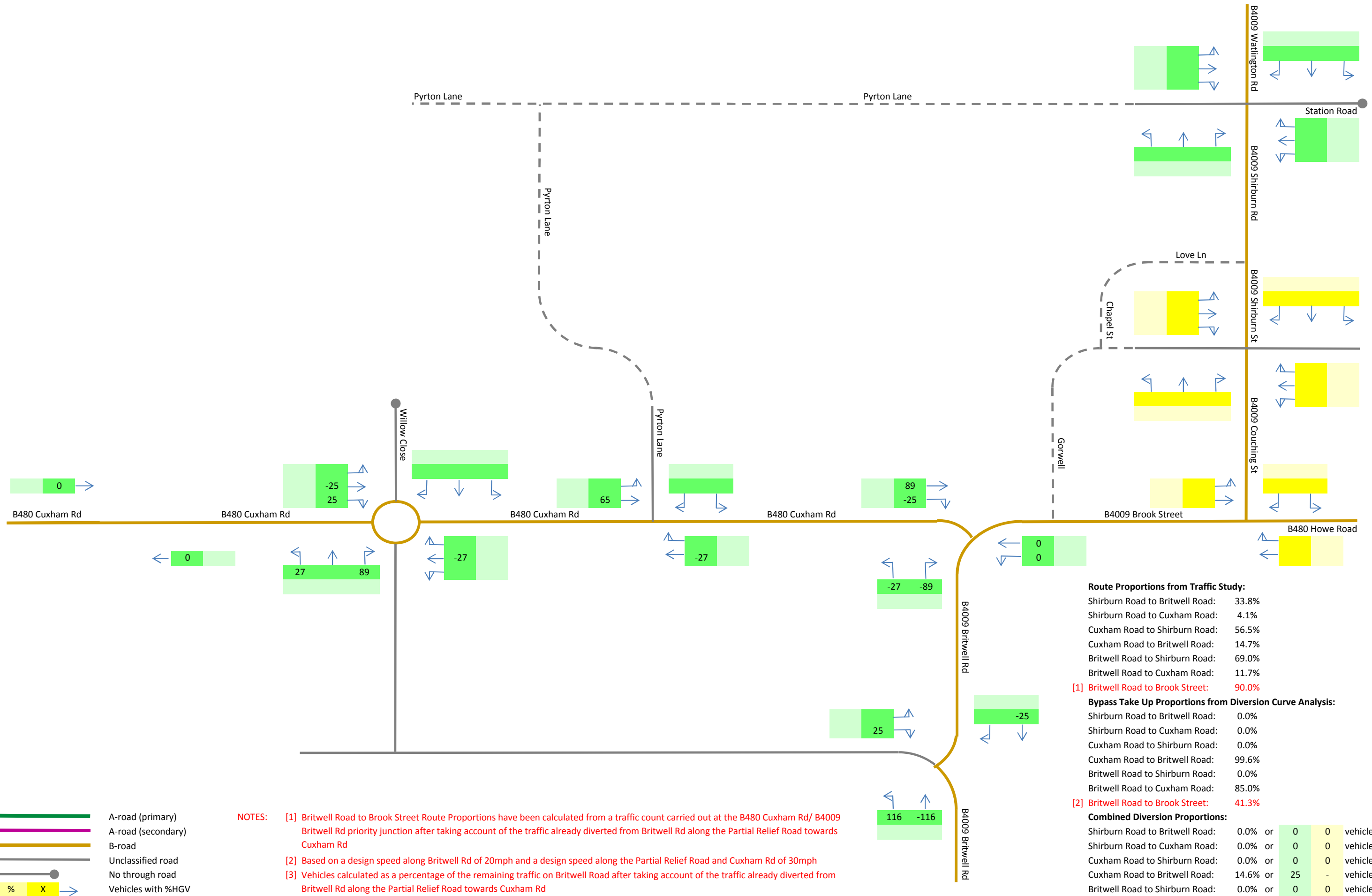
Bypass Take Up Proportions from Diversion Curve Analysis:

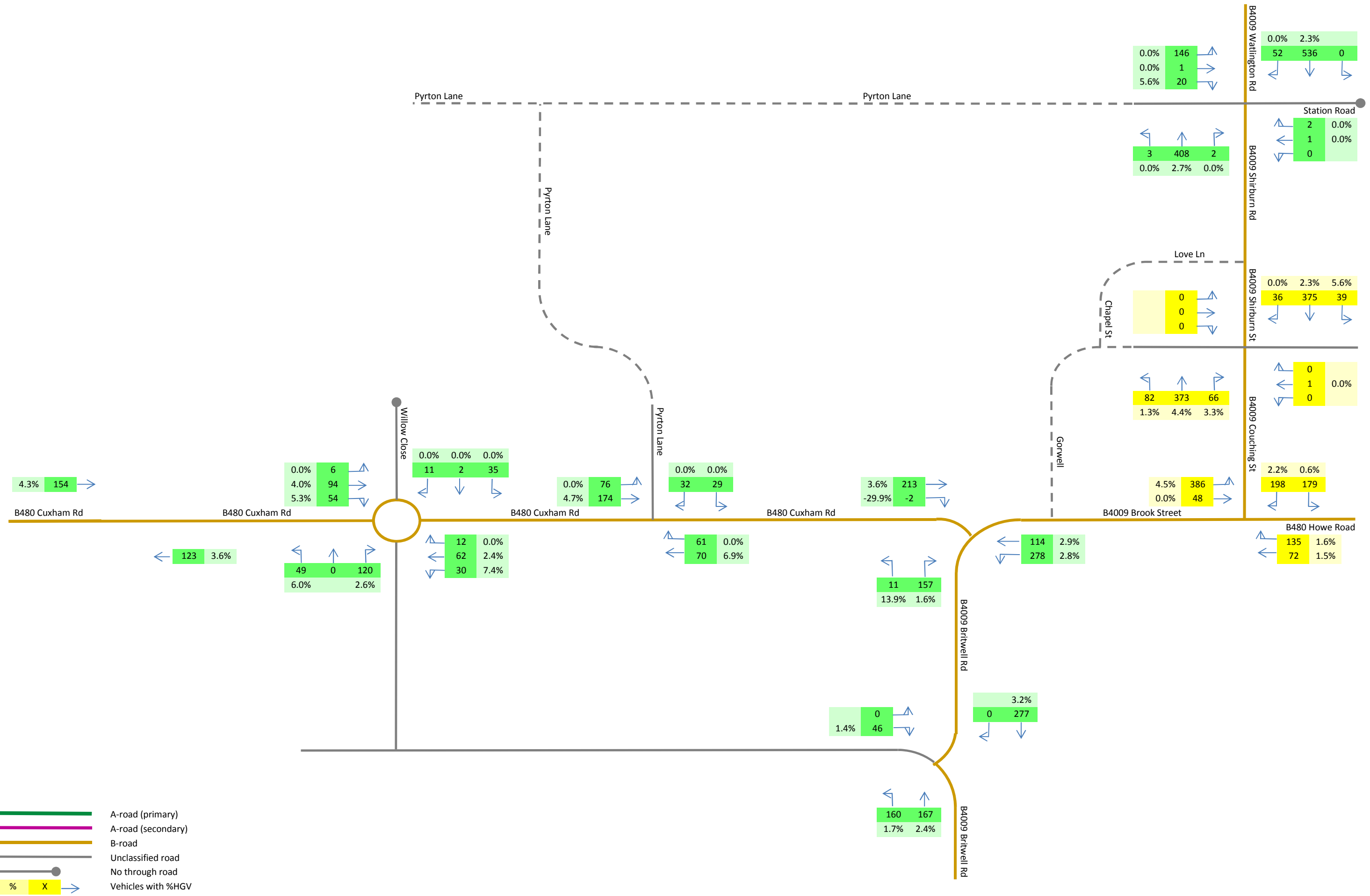
Shirburn Road to Britwell Road:	0.0%
Shirburn Road to Cuxham Road:	0.0%
Cuxham Road to Shirburn Road:	0.0%
Cuxham Road to Britwell Road:	87.4%
Britwell Road to Shirburn Road:	0.0%
Britwell Road to Cuxham Road:	91.3%

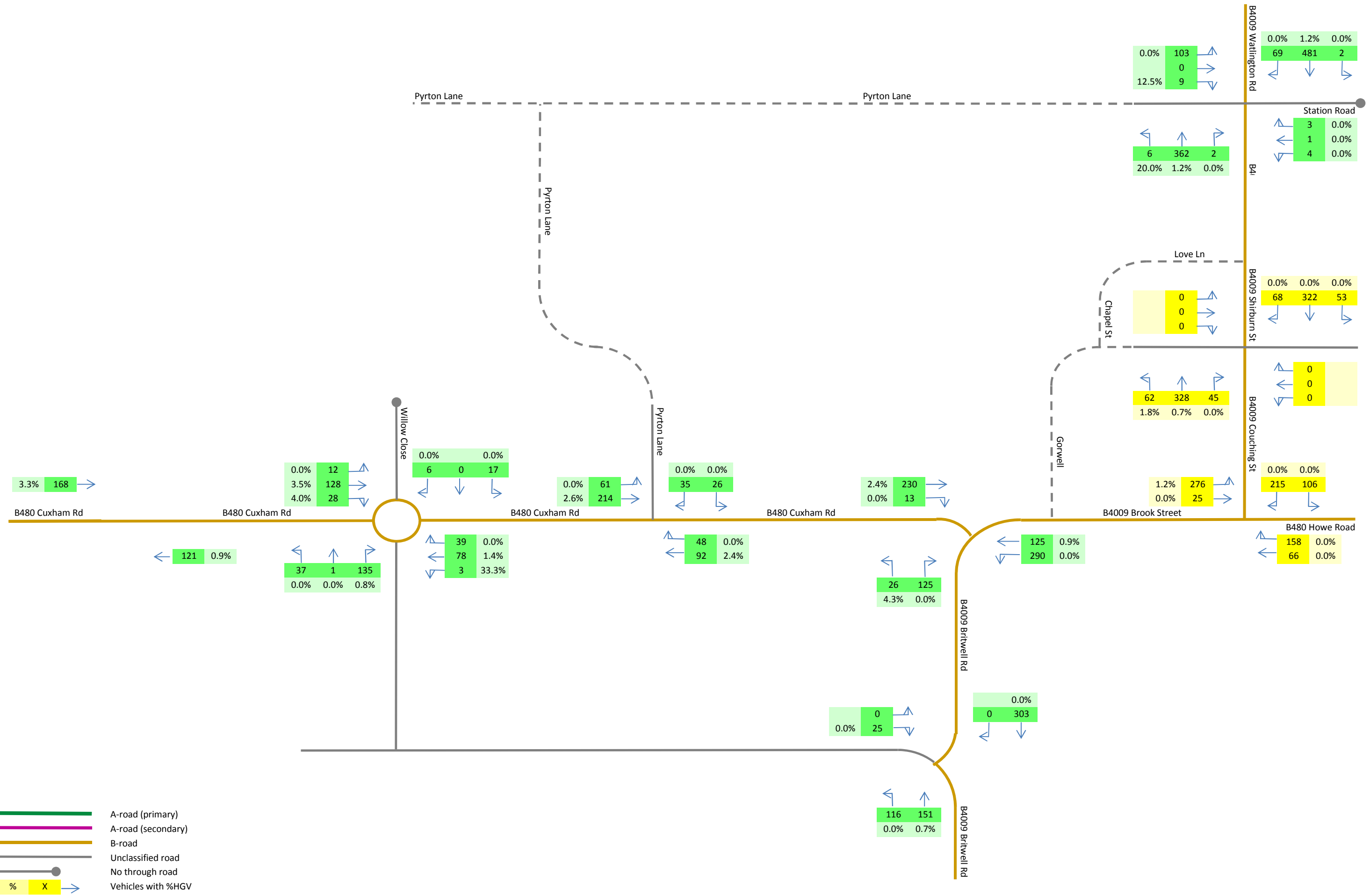
[2] **Britwell Road to Brook Street:** 41.3%

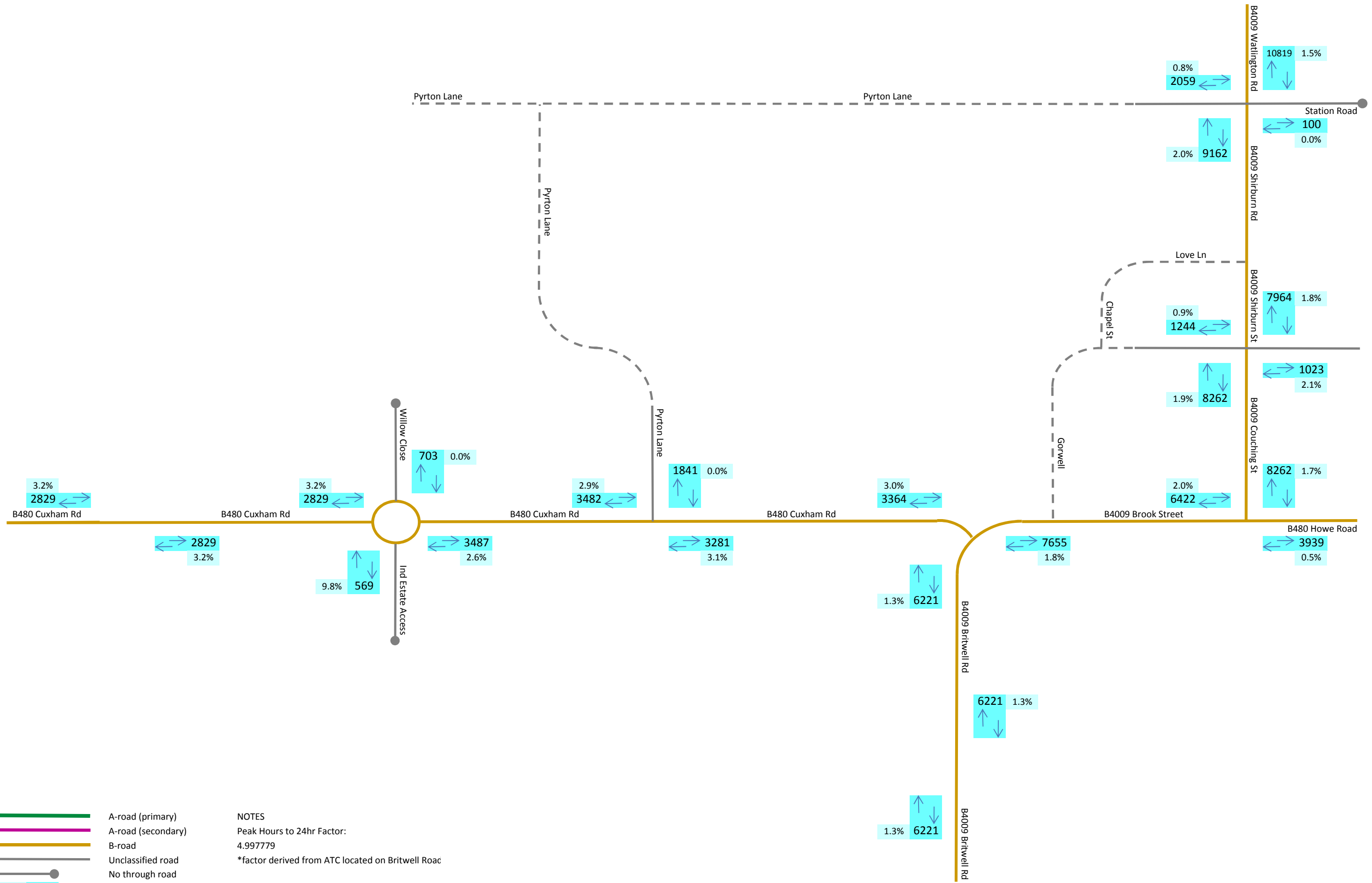
Combined Diversion Proportions:

Shirburn Road to Britwell Road:	0.0%	or	0	0	vehicles
Shirburn Road to Cuxham Road:	0.0%	or	0	0	vehicles
Cuxham Road to Shirburn Road:	0.0%	or	0	0	vehicles
Cuxham Road to Britwell Road:	30.0%	or	46	-	vehicles
Britwell Road to Shirburn Road:	0.0%	or	0	0	vehicles
Britwell Road to Cuxham Road:	14.4%	or	47	-	vehicles
[3] Britwell Road to Brook Street:	40.2%	or	113	-	vehicles



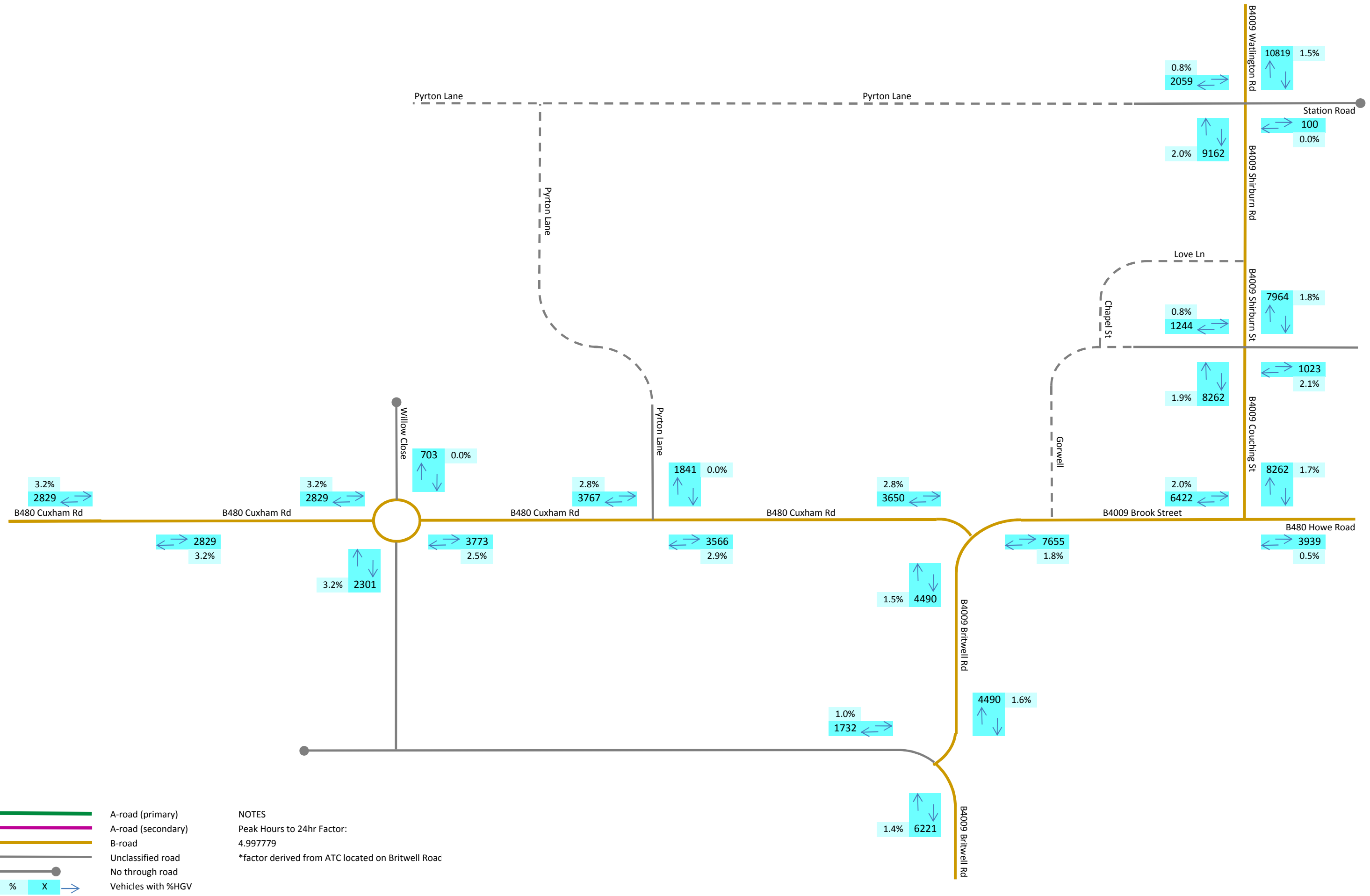






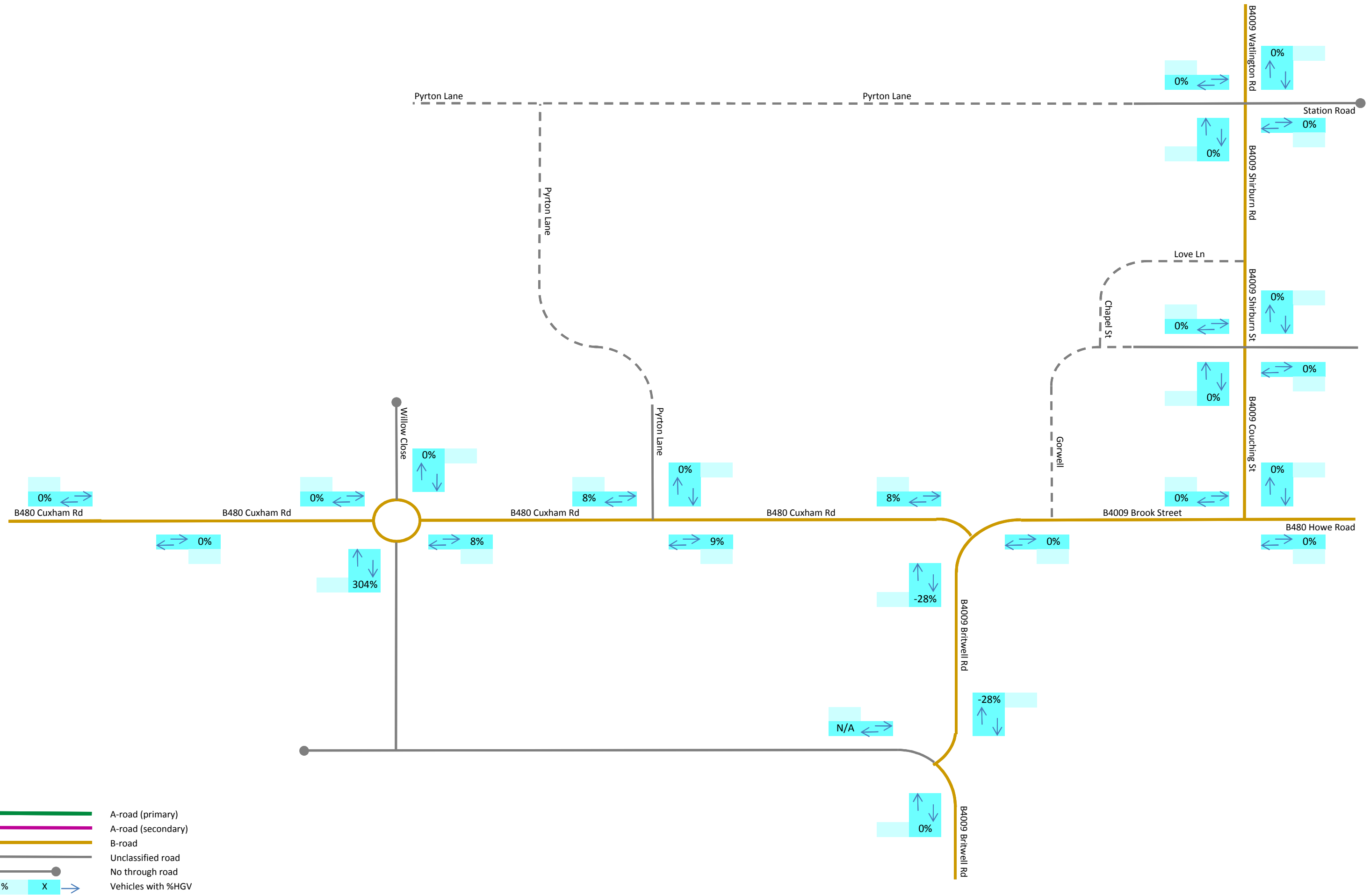
- A-road (primary)
- A-road (secondary)
- B-road
- Unclassified road
- No through road
- % X → Vehicles with %HGV

NOTES
 Peak Hours to 24hr Factor:
 4.997779
 *factor derived from ATC located on Britwell Roac

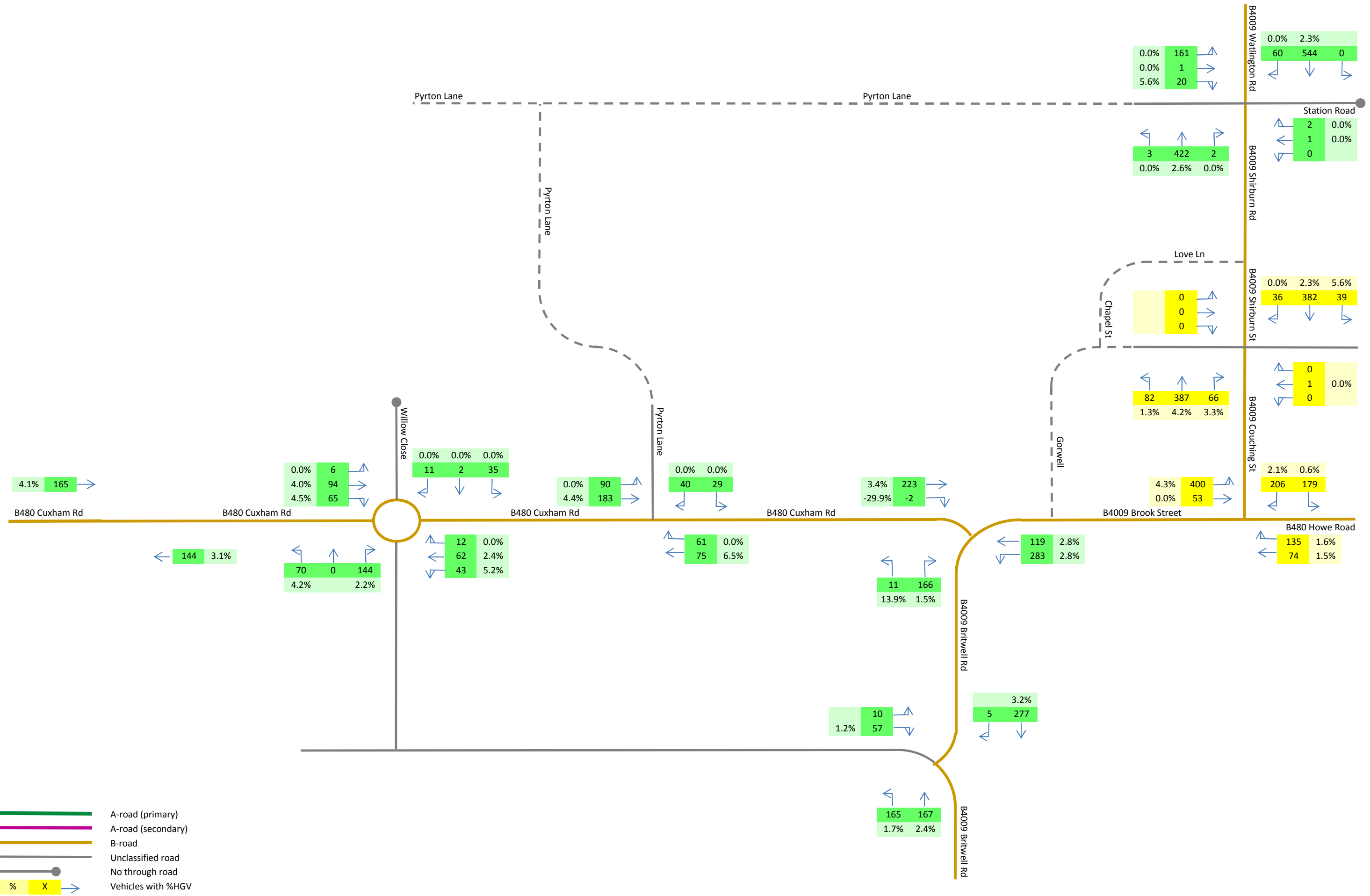


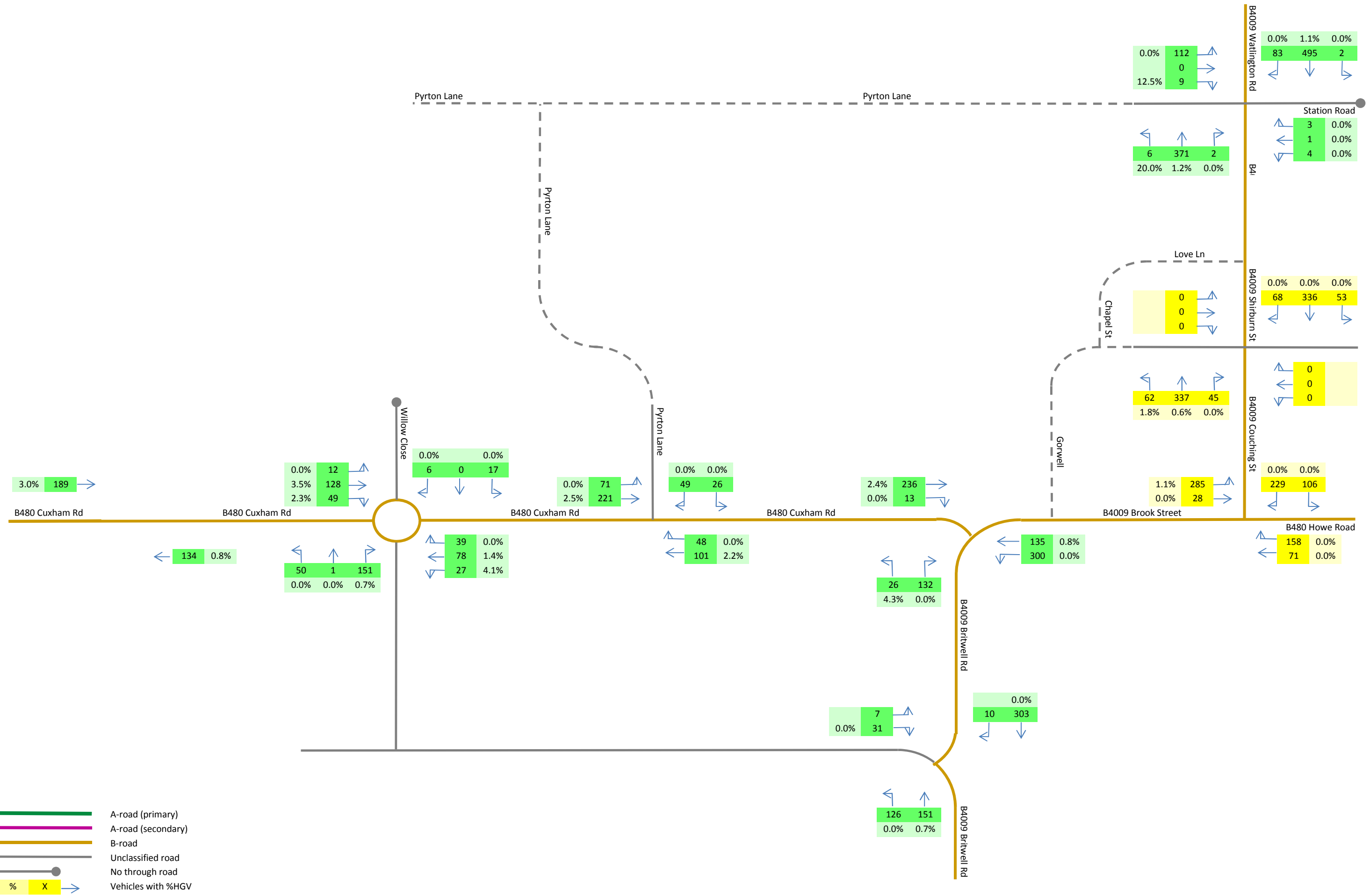
- A-road (primary)
- A-road (secondary)
- B-road
- Unclassified road
- No through road
- % X → Vehicles with %HGV

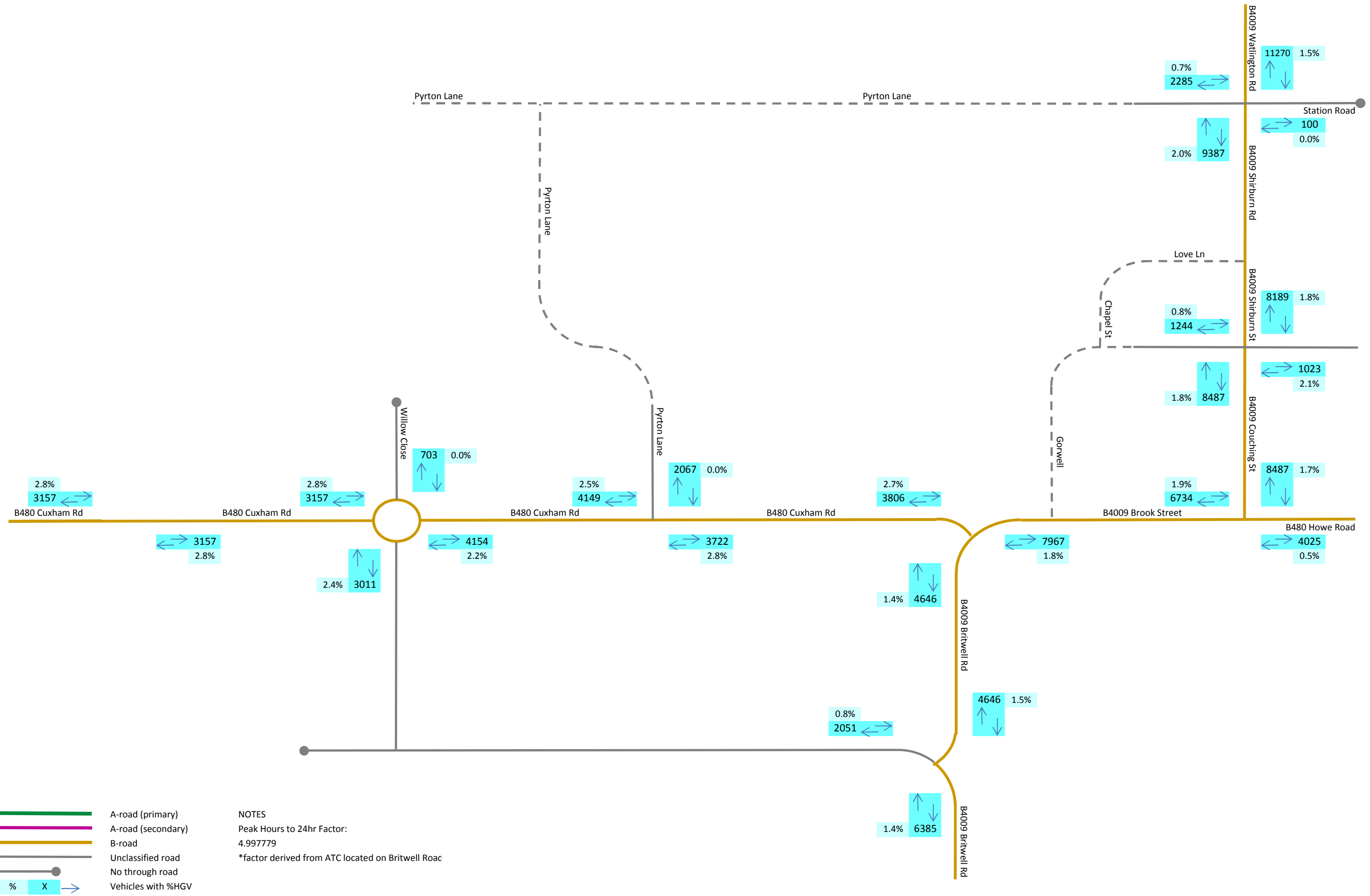
NOTES
 Peak Hours to 24hr Factor:
 4.997779
 *factor derived from ATC located on Britwell Roac



- A-road (primary)
- A-road (secondary)
- B-road
- Unclassified road
- No through road
- % X → Vehicles with %HGV

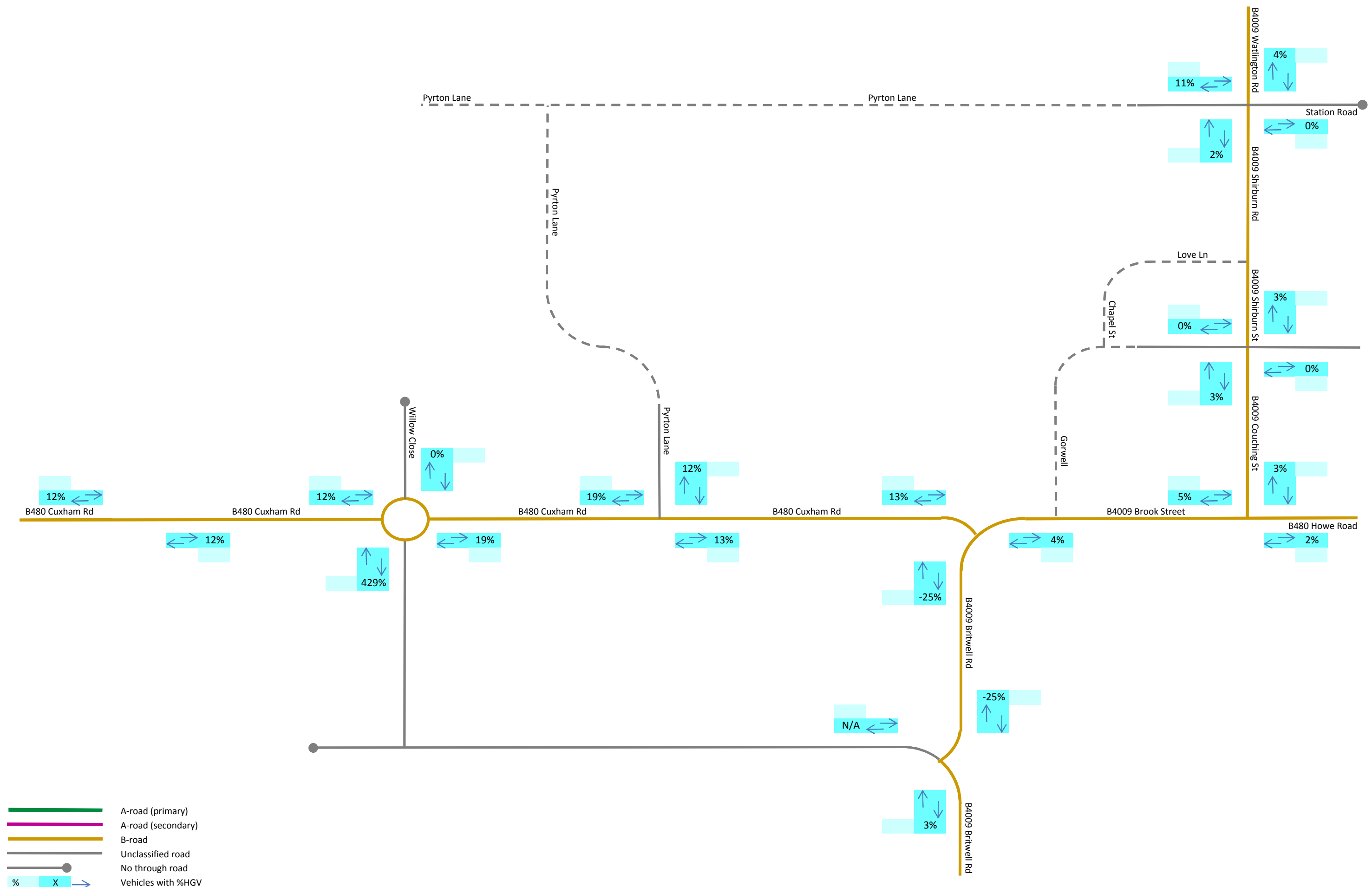






- A-road (primary)
- A-road (secondary)
- B-road
- Unclassified road
- No through road
- % X → Vehicles with %HGVS

NOTES
 Peak Hours to 24hr Factor:
 4.997779
 *factor derived from ATC located on Britwell Roac



Drawings



CDM RESIDUAL RISKS
 The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.
 Risks are not considered significant.
 Relevant data is included in the Pre-Construction Information Pack
 Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.
 CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

KEY

- LAND BOUNDARY
- EXTENT OF PUBLIC HIGHWAY
- PROPOSED ROAD
- PROPOSED VERGE
- PROPOSED FOOTWAY

STREET LIGHTING TO BE ASSESSED AT DETAILED DESIGN STAGE.

SERVICE COVERS TO BE COATED WITH ANTI-SLIP SURFACE.

Rev	Detail	By	Chk	Date
..

Rev	Description	By	Chk	Date
I	EXISTING FARM ACCESS AMENDED. VISIBILITIES AMENDED.	AJS	MT	17.07.17
H	EXISTING FARM ACCESS AMENDED. VISIBILITIES AMENDED.	CB	AJS	11.07.17
G	AMENDED FOR VEHICLE TRACKING AND STAGE 1 RSA	CB	MT	26.06.17
F	3m FOOTWAY/CYCLEWAY ADDED. KERBS ADDED TO FARM TRACK JUNCTION	PB	JDH	23.05.17
E	NEW SPEED HUMPS ADDED. ADDITIONAL DIMENSIONS AND VISIBILITY SPLAYS SHOWN	JLH	JDH	28.04.17
D	LAYOUT OF BRITWELL ROAD AMENDED. SHADING ADDED TO ROADS AND VERGE	KC	JDH	17.01.17
C	WINDMILL PIECE JUNCTION VISIBILITY ADDED	JP	JDH	06.12.16
B	SHADING AND ANNOTATION ADDED. PLAN INCREASED SCALE TO 1:200	GT	JDH	02.12.16
A	UPDATED JUNCTION DESIGN DUE TO LAND OWNERSHIP INFORMATION	JP	JDH	24.11.16
*	PRELIMINARY FIRST ISSUE.	..	..	.....

clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS

The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY

tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com

Bristol Exeter London

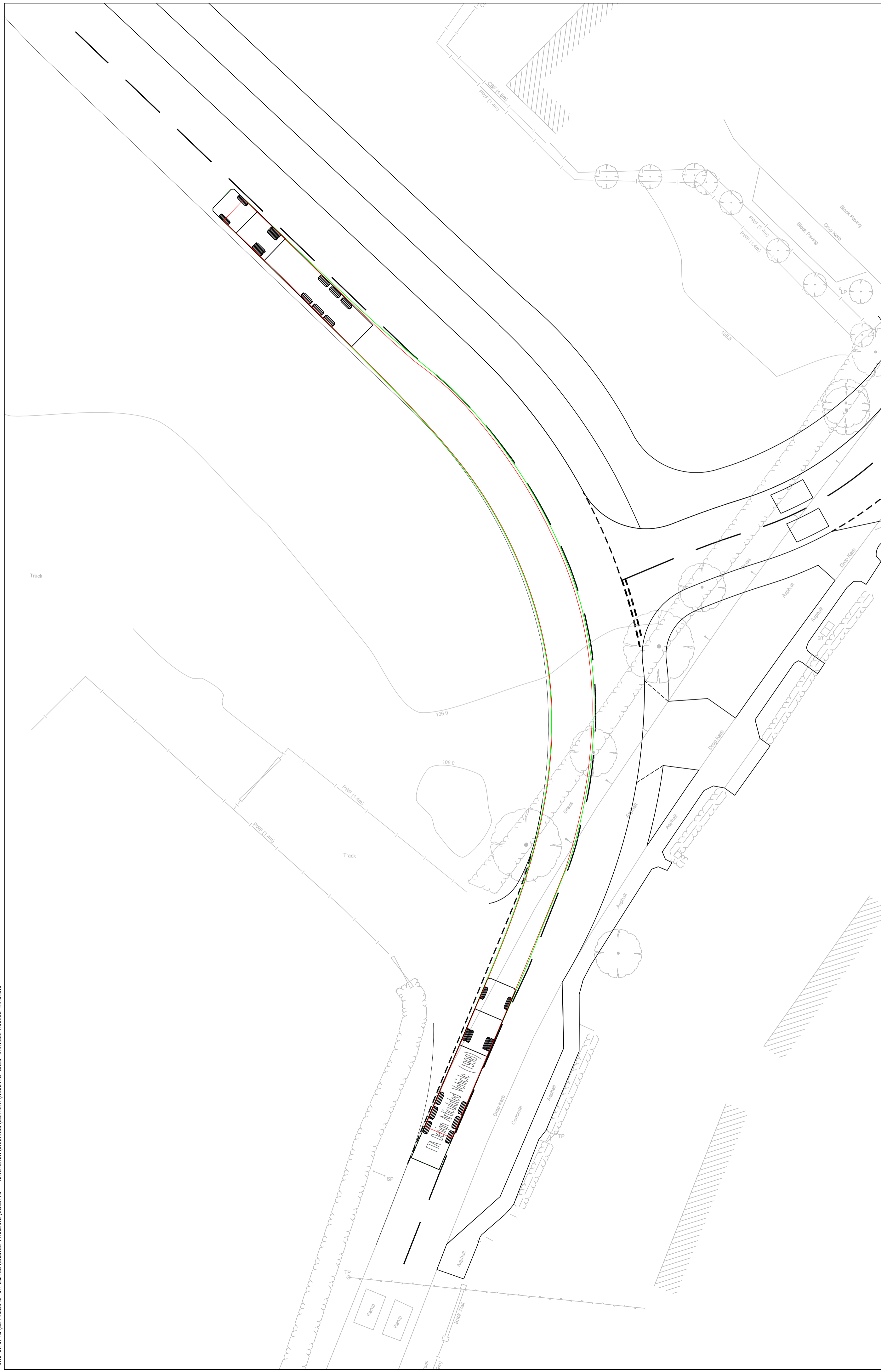
Client
Archstone Projects Ltd

Project
WATLINGTON

Drawing Title
PROPOSED BRITWELL ROAD JUNCTION LAYOUT

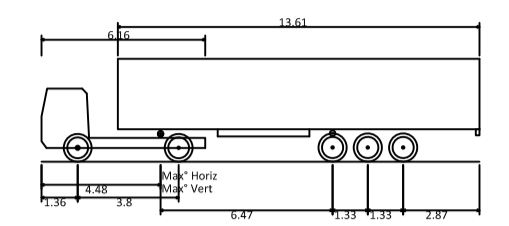
Drawing Status
FINAL

Project No. WB03178	Discipline C	Drawing No. SK10
Scale 1:200	Date 16.11.16	Revision 1
Drawn KC	Checked JDH	Sheet Size A1



CDM RESIDUAL RISKS
 The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.
 Risks are not considered significant.
 Relevant data is included in the Pre-Construction Information Pack
 Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.
 CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER



FTA Design Articulated Vehicle (1998)
 Overall Length 16.480m
 Overall Width 2.550m
 Overall Body Height 3.870m
 Min Body Ground Clearance 0.115m
 Max Track Width 2.470m
 Lock to lock time 3.00s
 Kerb to Kerb Turning Radius 6.550m

PRELIMINARY FIRST ISSUE.	..	..	.....
Rev	Detail	By	Chk Date

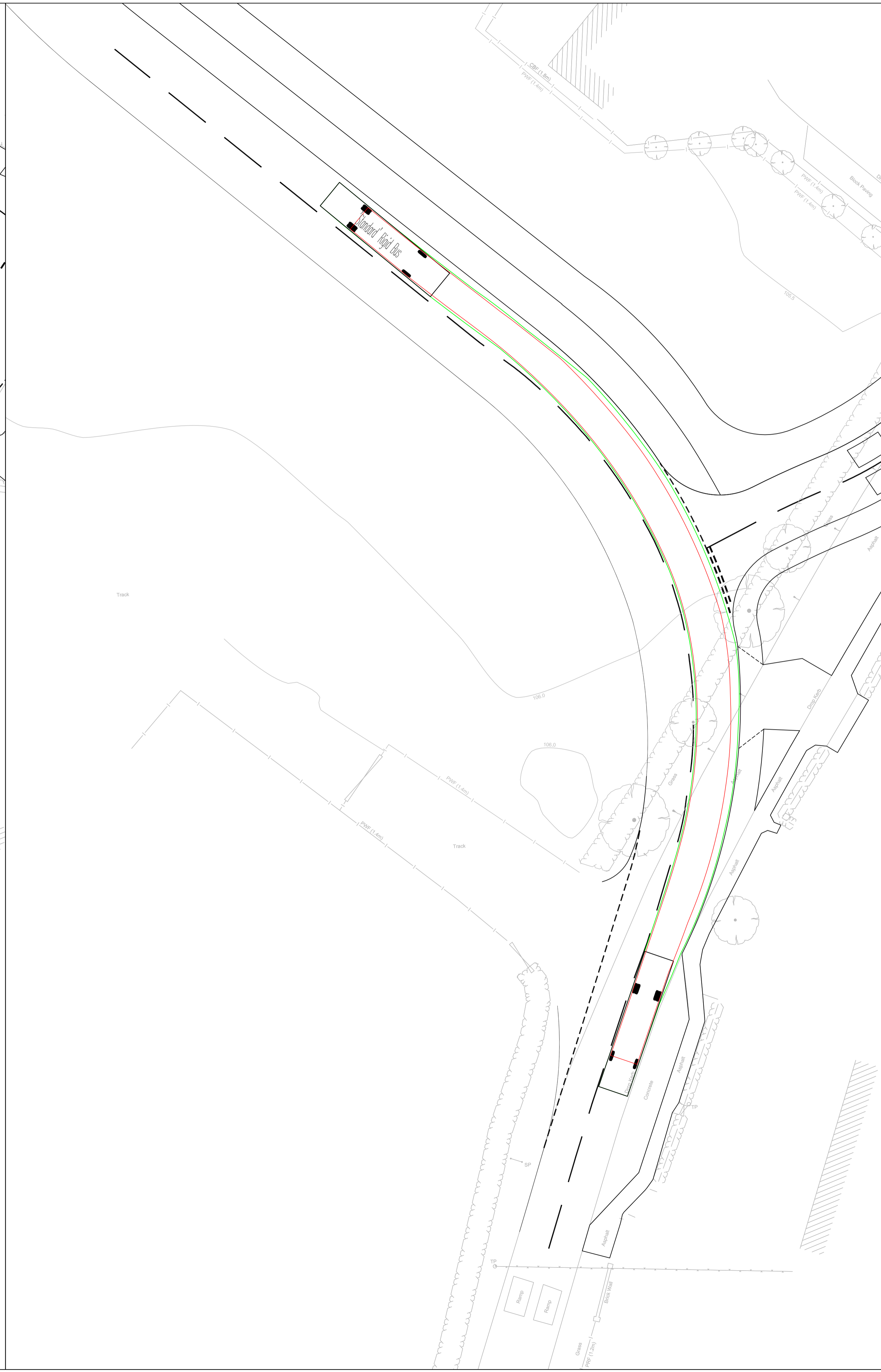
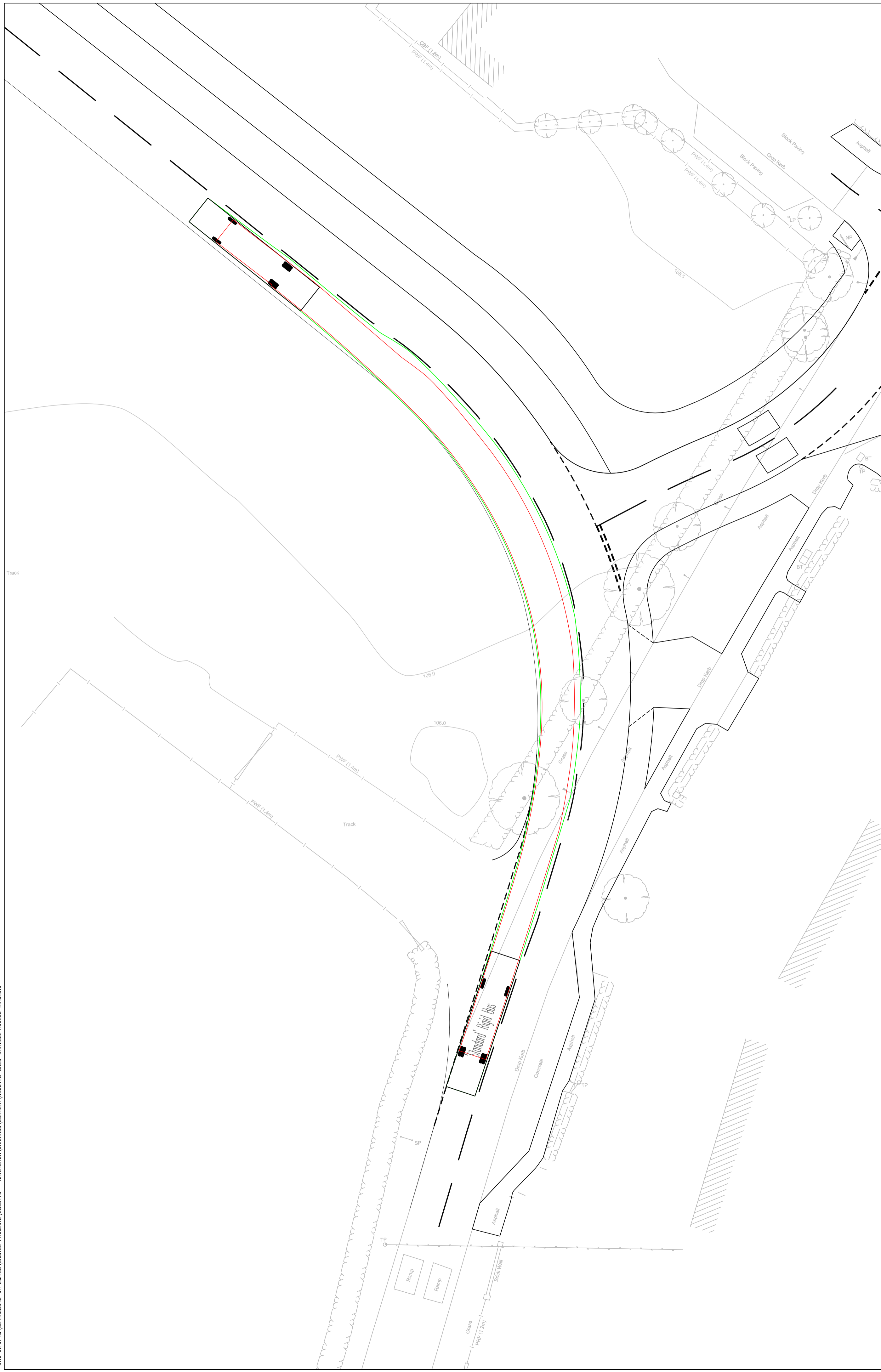
Revisions

clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

Client
Archstone Projects Ltd
 Project
WATLINGTON

Drawing Title
**BRITWELL ROAD ACCESS
 VEHICLE TRACKING
 (SHEET 1 OF 4)**

Drawing Status			
FINAL			
Project No.	Discipline	Drawing No.	
WB03178	C	SK23.1	
Scale	Date	Revision	
1:200	26.06.17	*	
Drawn	Checked	Sheet Size	
CWB	MT	A1	



CDM RESIDUAL RISKS
 The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.
 Risks are not considered significant.
 Relevant data is included in the Pre-Construction Information Pack
 Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.
 CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER



Rev	Detail	By	Chk	Date
1	PRELIMINARY FIRST ISSUE.	..	..	.....

Revisions

clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

Client
Archstone Projects Ltd
 Project
WATLINGTON

Drawing Title
**BRITWELL ROAD ACCESS
 VEHICLE TRACKING
 (SHEET 2 OF 4)**

Drawing Status FINAL	
Project No. WB03178	Discipline C
Scale 1:200	Date 26.06.17
Drawn CWB	Checked MT
Sheet Size A1	Revision *



CDM RESIDUAL RISKS

The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.

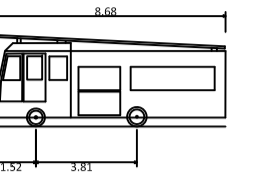
Risks are not considered significant.

Relevant data is included in the Pre-Construction Information Pack

Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.

CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER



DB32 Fire Appliance
 Overall Length 8.680m
 Overall Width 2.180m
 Overall Body Height 2.457m
 Min Body Ground Clearance 2.127m
 Max Track Width 2.127m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 7.910m

* PRELIMINARY FIRST ISSUE.			
Rev	Detail	By	Chk Date
Revisions			

clarkebond

MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

Client
Archstone Projects Ltd

Project
WATLINGTON

Drawing Title
**BRITWELL ROAD ACCESS
 VEHICLE TRACKING
 (SHEET 3 OF 4)**

Drawing Status
FINAL

Project No. WB03178	Discipline C	Drawing No. SK23.3
Scale 1:500	Date 26.06.17	Revision *
Drawn CWB	Checked MT	Sheet Size A1



CDM RESIDUAL RISKS
 The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.
 Risks are not considered significant.
 Relevant data is included in the Pre-Construction Information Pack
 Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.
 CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

Large Refuse Vehicle (4 axle)
 Overall Length 12.103m
 Overall Width 2.500m
 Overall Body Height 3.751m
 Min Body Ground Clearance 0.358m
 Track Width 2.500m
 Lock to lock time 6.00s
 Wall to Wall Turning Radius 11.250m

Rev	Detail	By	Chk	Date
1	PRELIMINARY FIRST ISSUE.	..	..	.....

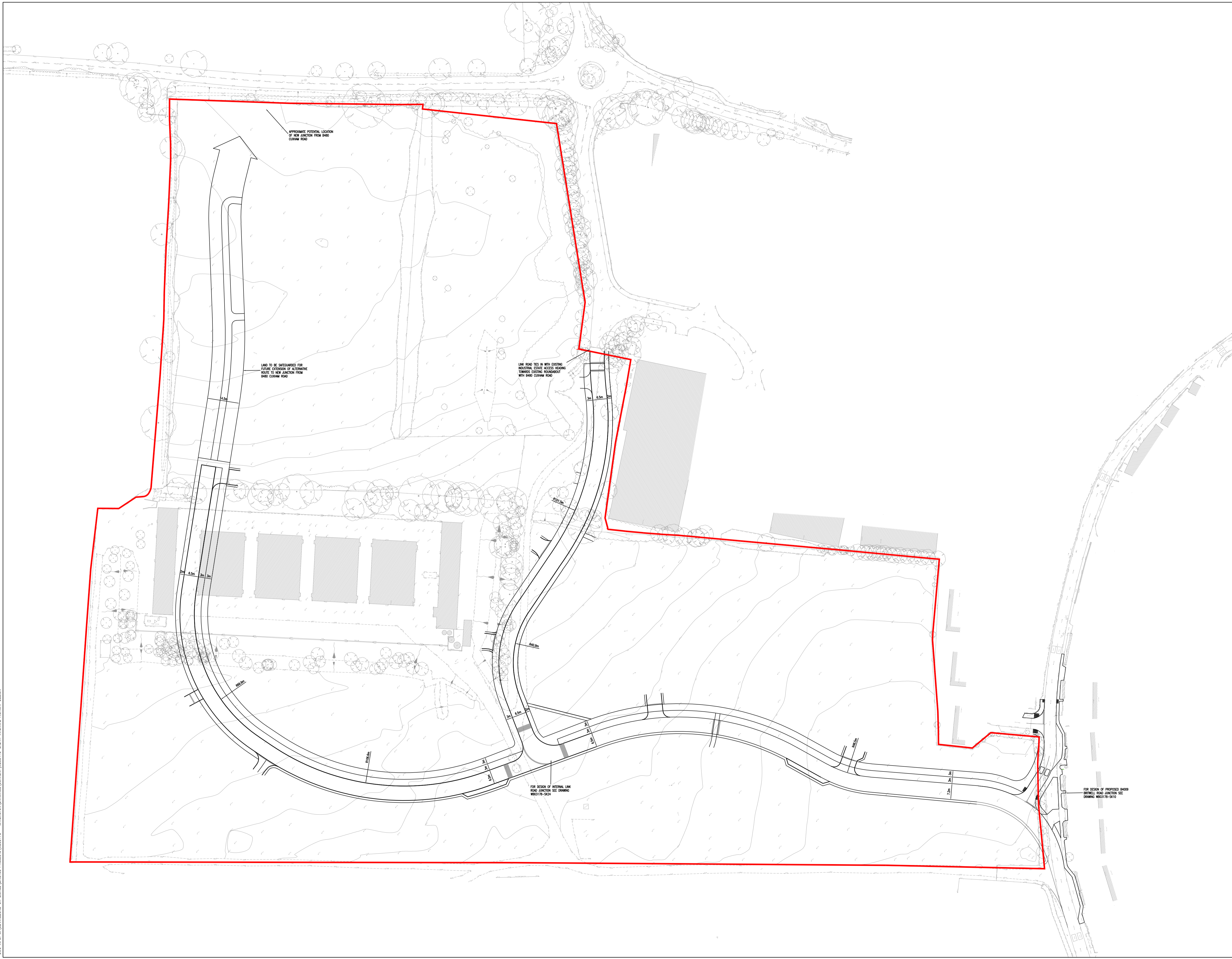
clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

Client
Archstone Projects Ltd

Project
WATLINGTON

Drawing Title
**BRITWELL ROAD ACCESS
 VEHICLE TRACKING
 (SHEET 4 OF 4)**

Drawing Status FINAL			
Project No. WB03178	Discipline C	Drawing No. SK23.4	Revision
Scale 1:500	Date 26.06.17	Sheet Size A1	*
Drawn CWB	Checked MT	Sheet Size A1	*



CDM RESIDUAL RISKS

The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.

Risks are not considered significant.

Relevant data is included in the Pre-Construction Information Pack

Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.

CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

Rev	Detail	By	Chk	Date
A	NEW ROAD ALIGNMENT	AJS	AJS	17.07.17
*	PRELIMINARY FIRST ISSUE.	..	..	.....

Revisions

clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

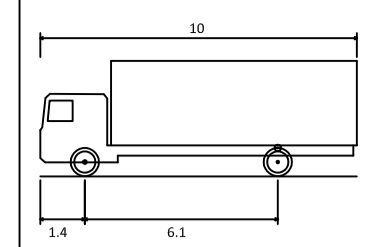
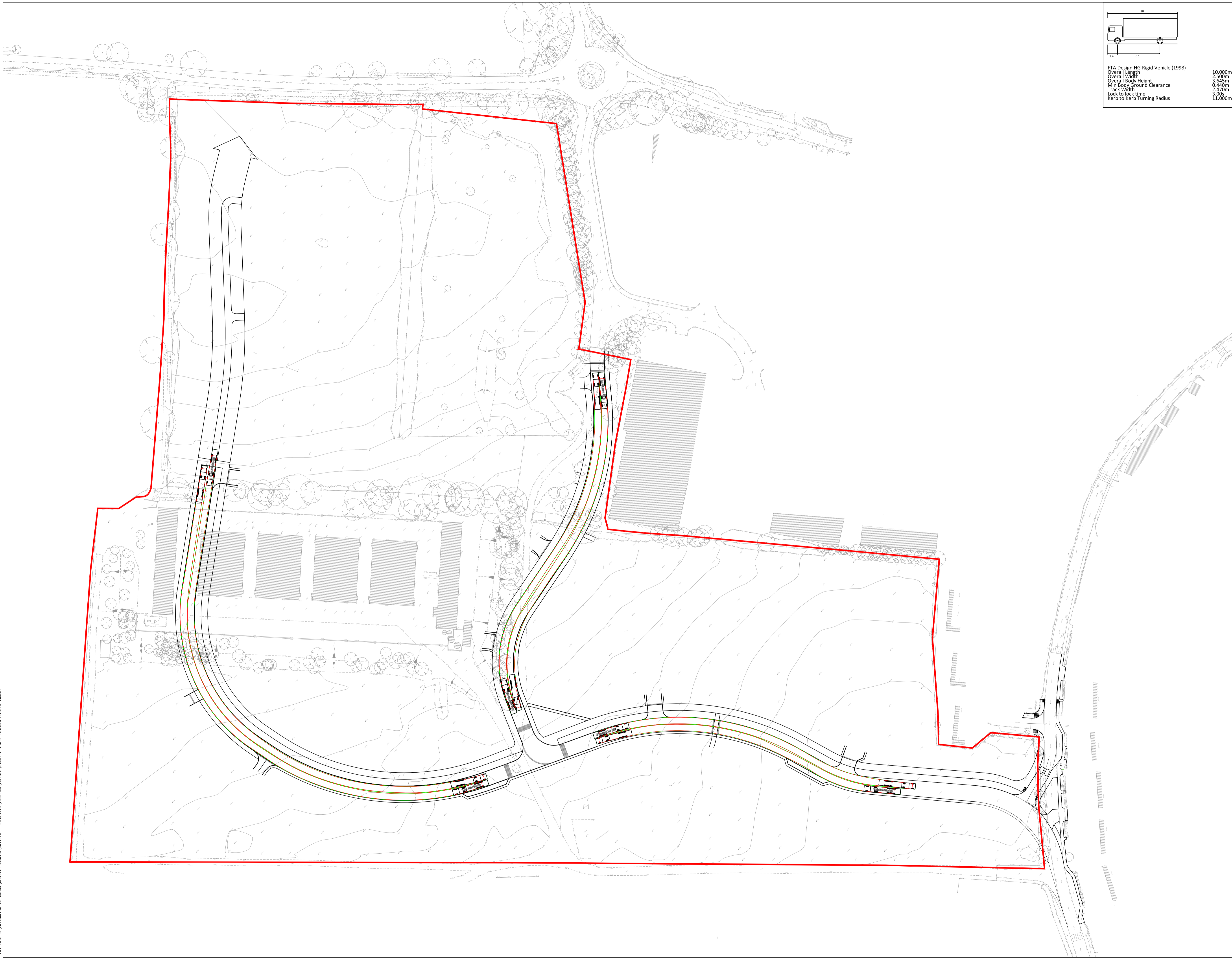
Client
Archstone Projects Ltd

Project
WATLINGTON

Drawing Title
BRITWELL ROAD TO CUXHAM ROAD LINK (SHEET 1 OF 3) GENERAL ARRANGEMENT

Drawing Status
FINAL

Project No. WB03178	Discipline C	Drawing No. SK21.1
Scale 1:750	Date 19.06.17	Revision A
Drawn AJS	Checked DAK	Sheet Size A1



FTA Design HG Rigid Vehicle (1998)
 Overall Length 10.000m
 Overall Width 2.500m
 Overall Body Height 3.643m
 Min Body Ground Clearance 0.440m
 Track Width 2.470m
 Lock to lock time 3.00s
 Kerb to Kerb Turning Radius 11.000m

CDM RESIDUAL RISKS
 The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.
 Risks are not considered significant.
 Relevant data is included in the Pre-Construction Information Pack
 Signed: .. Date: ..
 DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.
 CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

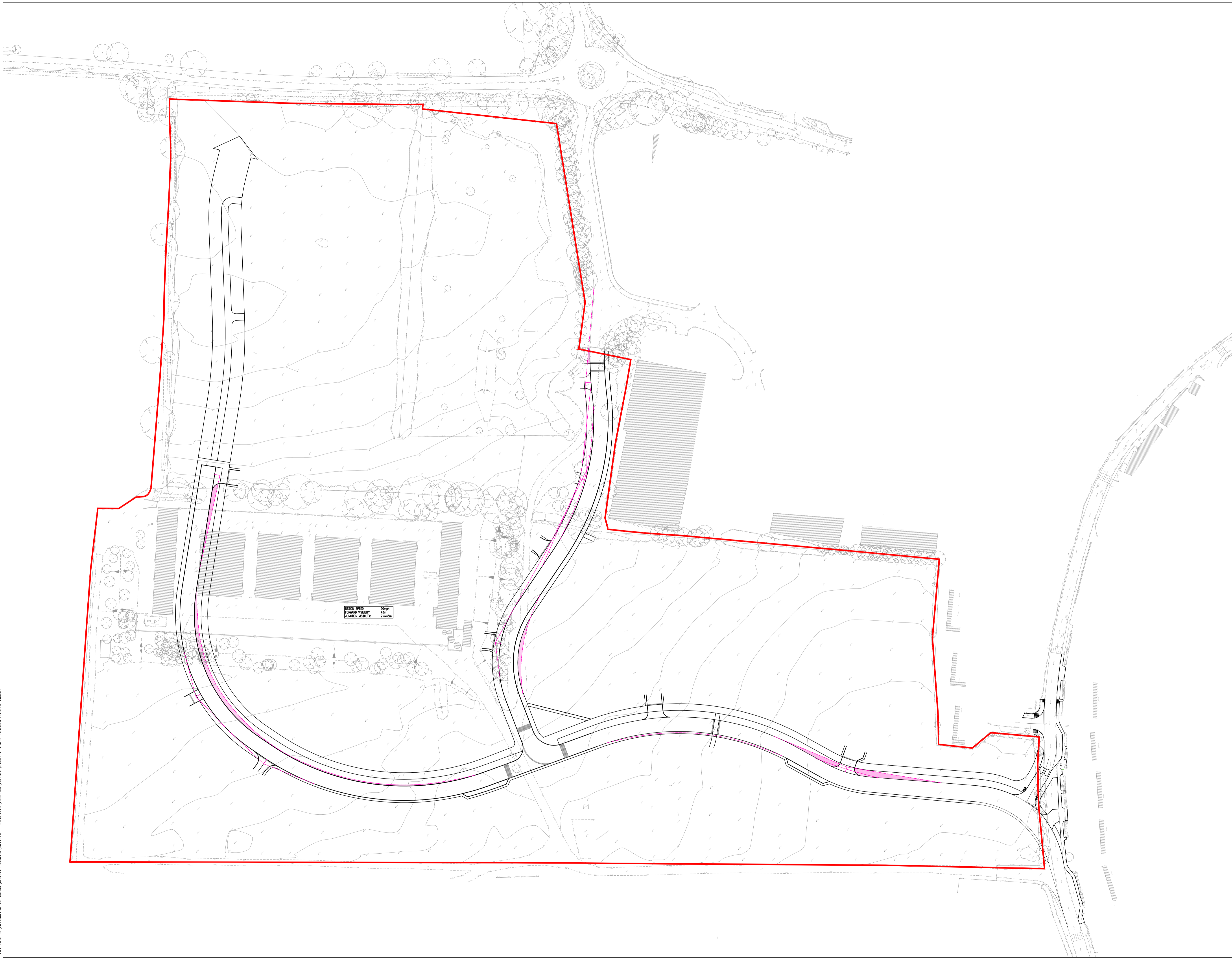
A	NEW ROAD ALIGNMENT	AJS	AJS	17.07.17
*	PRELIMINARY FIRST ISSUE.	..	..	.....
Rev	Detail	By	Chk	Date

clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

Client
Archstone Projects Ltd
 Project
WATLINGTON

Drawing Title
BRITWELL ROAD TO CUXHAM ROAD LINK (SHEET 2 OF 3) VEHICLE TRACKING

Drawing Status FINAL			
Project No. WB03178	Discipline C	Drawing No. SK21.2	Revision
Scale 1:750	Date 19.06.17	Sheet Size A1	A
Drawn AJS	Checked DAK	Sheet Size A1	A



DESIGN SPEED 30mph
 CRUISE VISIBILITY 4.5m
 JUNCTION VISIBILITY 2.643m

CDM RESIDUAL RISKS

The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.

Risks are not considered significant.

Relevant data is included in the Pre-Construction Information Pack

Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.

CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

A	NEW ROAD ALIGNMENT	AJS	AJS	17.07.17
*	PRELIMINARY FIRST ISSUE	..	..	.....
Rev	Detail	By	Chk	Date

Revisions

clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

Client
Archstone Projects Ltd

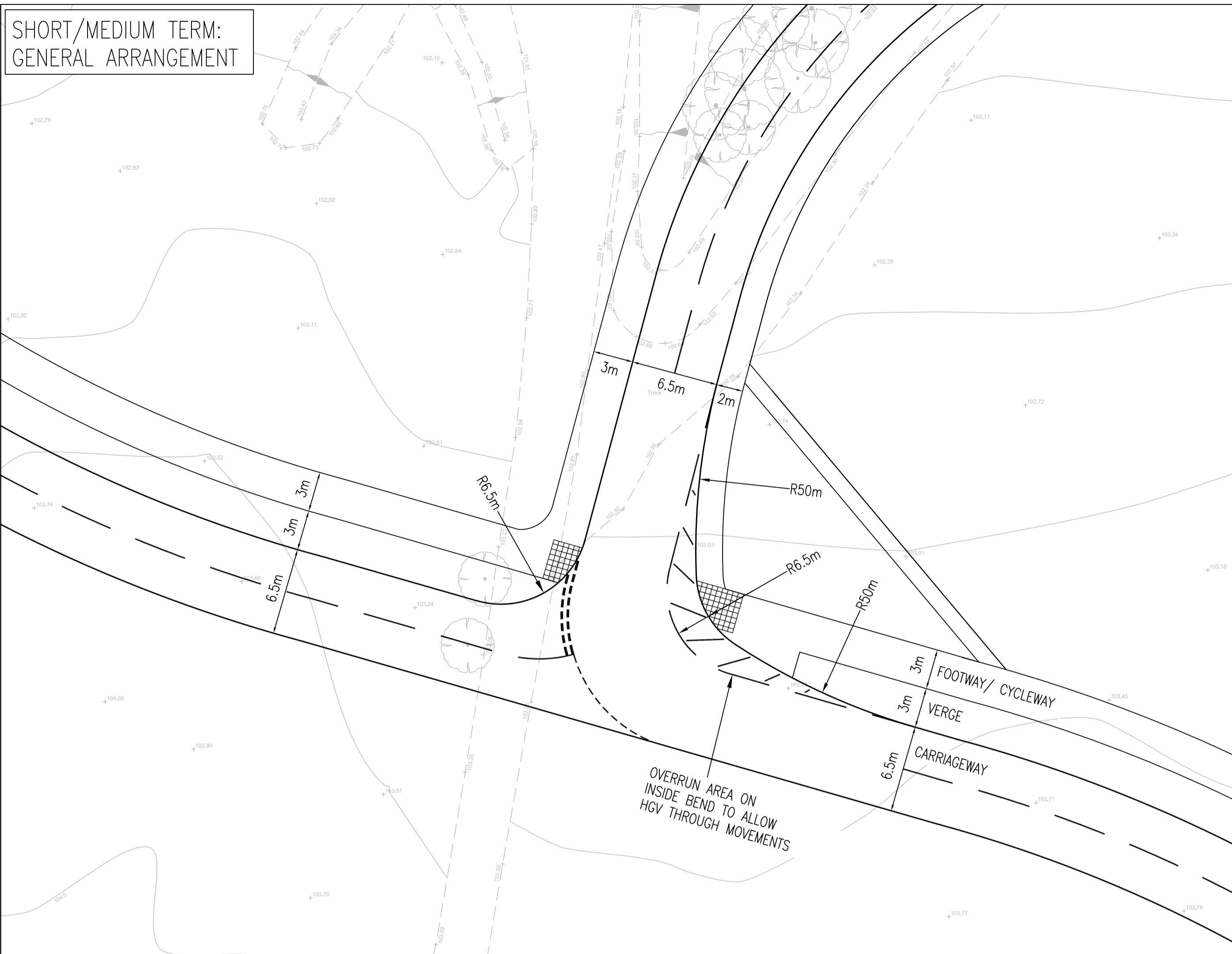
Project
WATLINGTON

Drawing Title
BRITWELL ROAD TO CUXHAM ROAD LINK (SHEET 3 OF 3) 30mph VISIBILITY SPLAYS

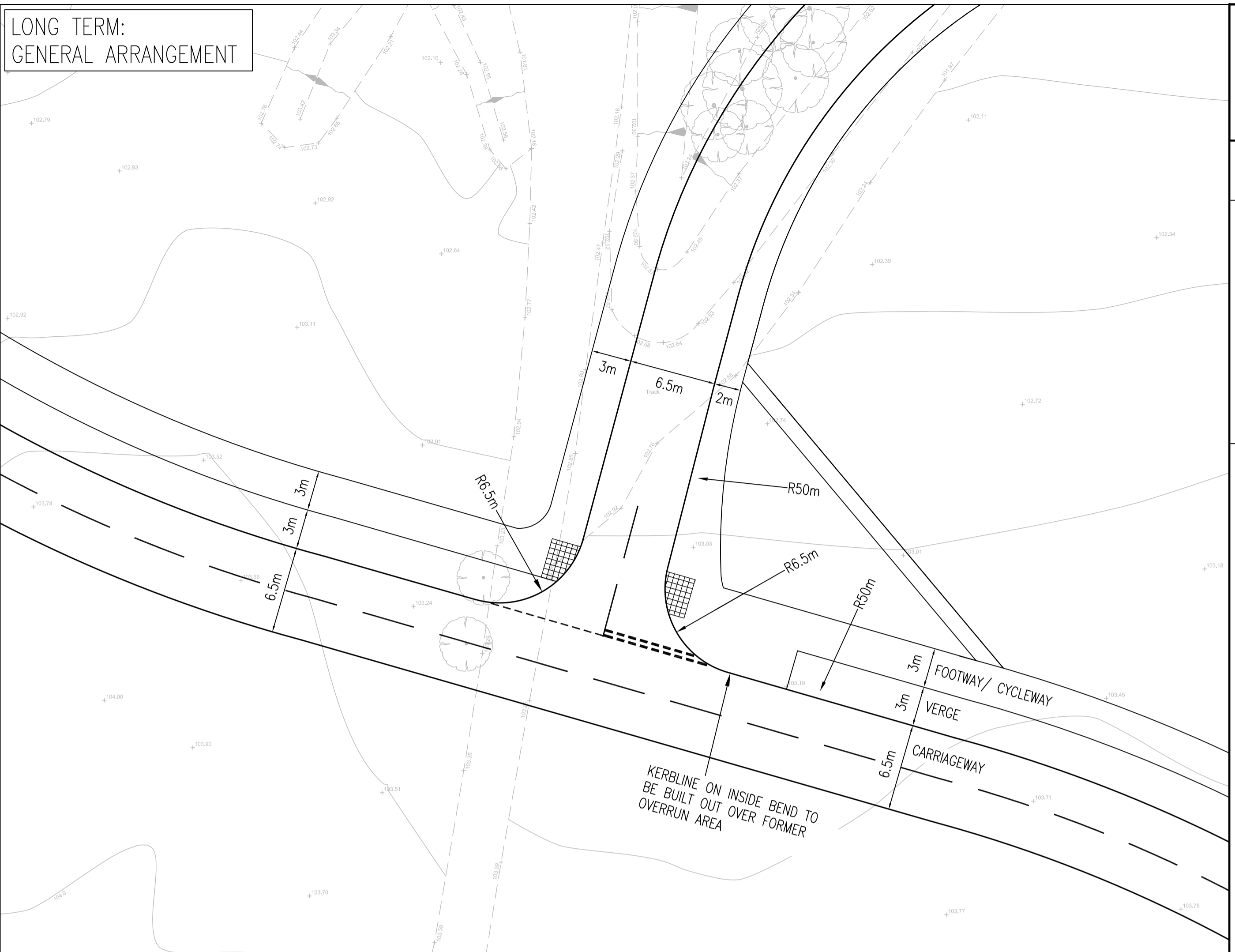
Drawing Status
FINAL

Project No.	WB03178	Discipline	C	Drawing No.	SK21.3
Scale	1:750	Date	19.06.17	Revision	A
Drawn	AJS	Checked	DAK	Sheet Size	A1

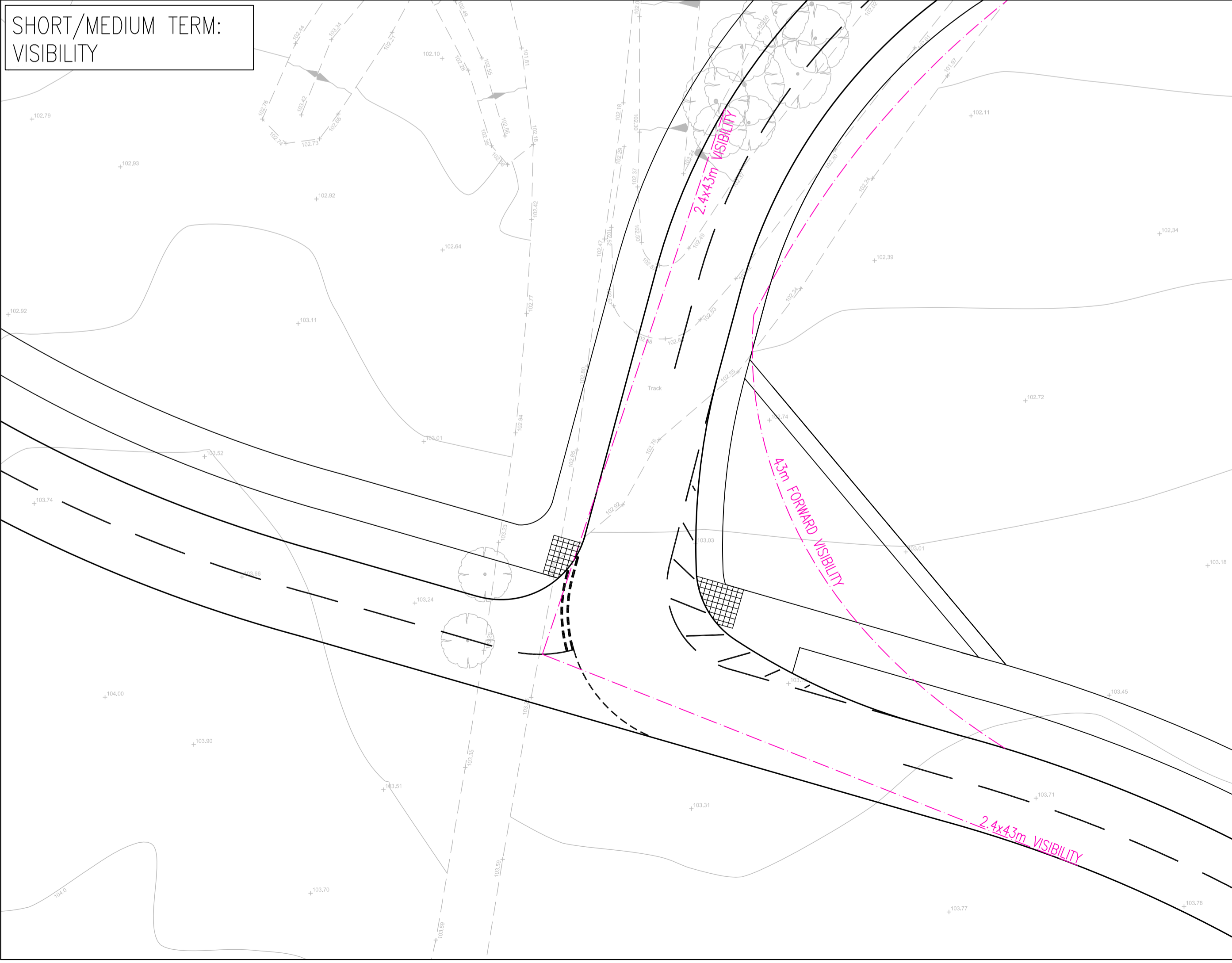
**SHORT/MEDIUM TERM:
GENERAL ARRANGEMENT**



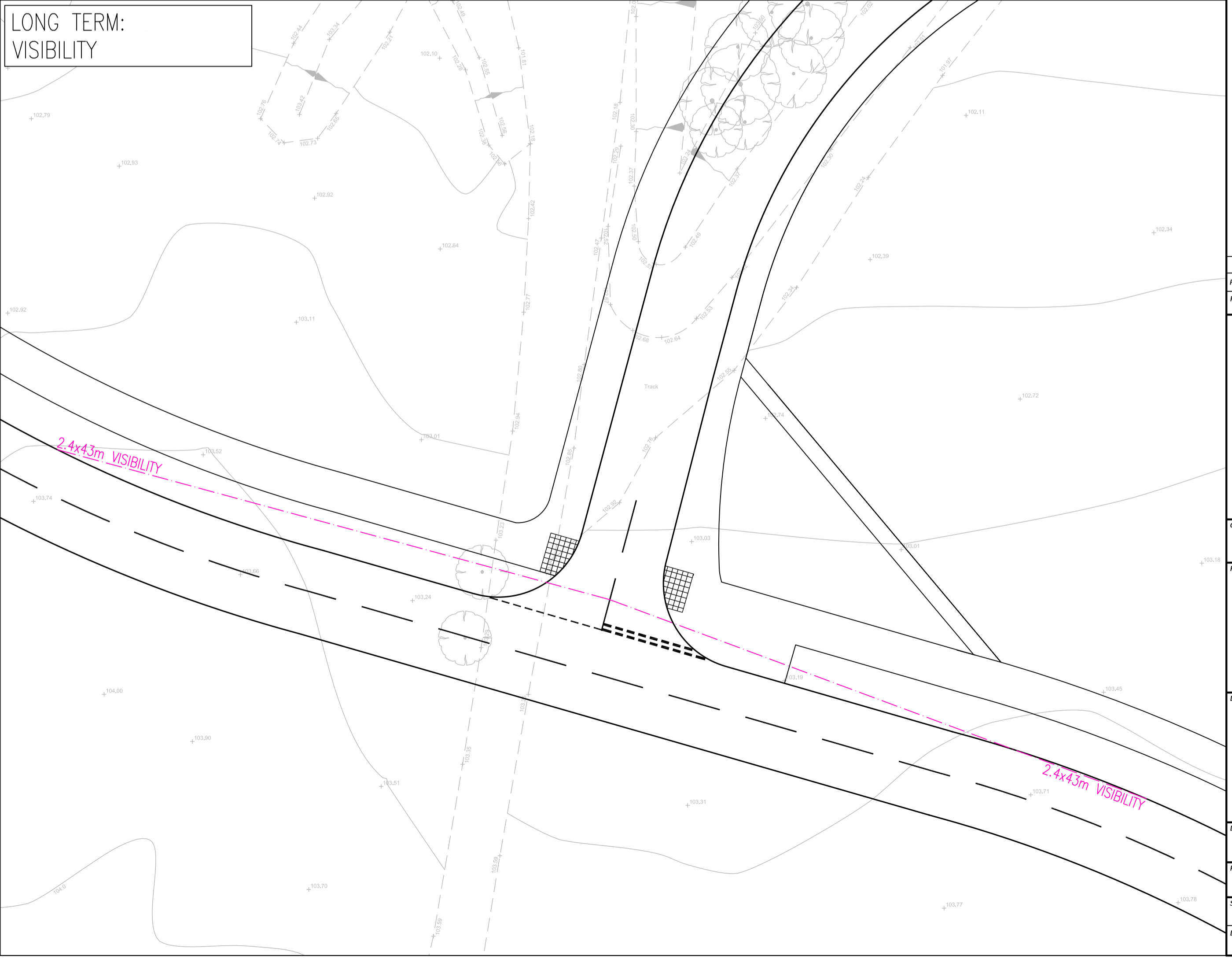
**LONG TERM:
GENERAL ARRANGEMENT**



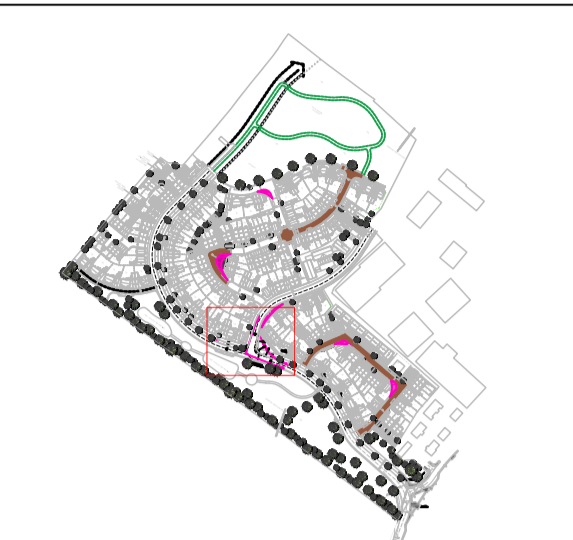
**SHORT/MEDIUM TERM:
VISIBILITY**



**LONG TERM:
VISIBILITY**



CDM RESIDUAL RISKS
 The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.
 Risks are not considered significant.
 Relevant data is included in the Pre-Construction Information Pack
 Signed: .. Date:



DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.
 CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

Rev	Detail	By	Chk	Date
1	PRELIMINARY FIRST ISSUE			

clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

Client: **Bloor Homes and Archstone Projects Ltd**
 Project: **WATLINGTON**

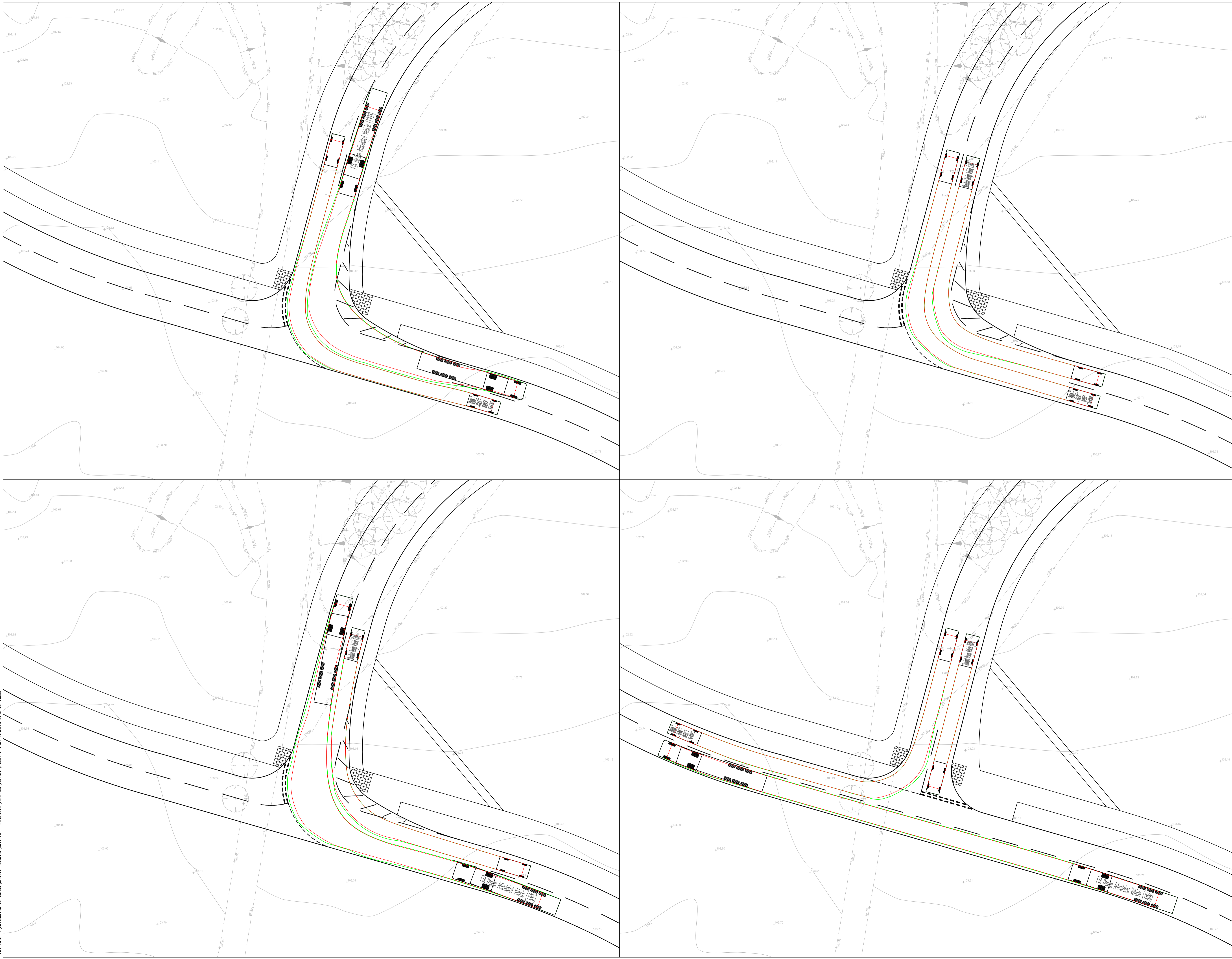
Drawing Title: **INTERNAL LINK ROAD JUNCTION DESIGN – SHORT AND LONG TERM (SHEET 1 OF 2)**

Drawing Status: **FINAL**

Project No. WB03178	Discipline C	Drawing No. SK24.1
Scale 1:250	Date 13.07.17	Revision *
Drawn AJS	Checked DAK	Sheet Size A1

DWG INFO: M:\CLARKEBOND UK LIMITED\BRISTOL PROJECTS\WB03178 - WATLINGTON\DRAWINGS\CURRENT\WB03178-SC24-INTERNAL JUNCTION DESIGN

© This drawing may not be copied without prior written permission



CDM RESIDUAL RISKS

The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.

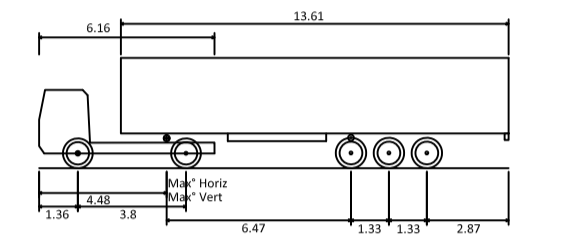
Risks are not considered significant.

Relevant data is included in the Pre-Construction Information Pack

Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.

CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER



FTA Design Articulated Vehicle (1998)
 Overall Length 16.480m
 Overall Width 2.550m
 Overall Body Height 3.870m
 Min Body Ground Clearance 0.151m
 Max Track Width 2.470m
 Lock to lock time 3.00s
 Kerb to Kerb Turning Radius 6.550m



Standard Design Vehicle (SDV)
 Overall Length 4.800m
 Overall Width 2.000m
 Overall Body Height 1.950m
 Min Body Ground Clearance 0.100m
 Track Width 2.000m
 Lock to lock time 4.00s
 Wall to Wall Turning Radius 6.000m

PRELIMINARY FIRST ISSUE.

Rev	Detail	By	Chk	Date

clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

Client **Bloor Homes and Archstone Projects Ltd**
 Project **WATLINGTON**

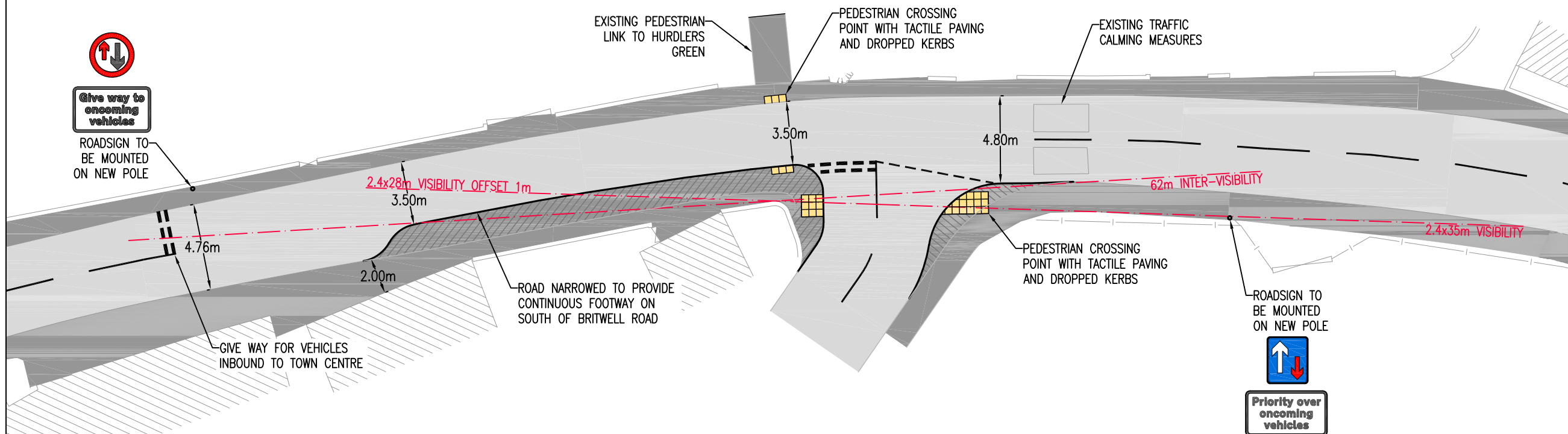
Drawing Title
**INTERNAL LINK ROAD
 JUNCTION DESIGN –
 SHORT AND LONG TERM
 (SHEET 2 OF 2)**

Drawing Status
FINAL

Project No. WB03178	Discipline C	Drawing No. SK24.2
-------------------------------	------------------------	------------------------------

Scale 1:250	Date 13.07.17	Revision *
Drawn AJS	Checked DAK	Sheet Size A1

DWG INFO: M:\CLARKEBOND UK LIMITED\BRISTOL PROJECTS\WB03178 - WATLINGTON\DRAWINGS\CURRENT\WB03178-SK03-BRITWELL ROAD PED SCHEME



CDM RESIDUAL RISKS
 The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.
 Risks are not considered significant.
 Relevant data is included in the Pre-Construction Information Pack
 Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.
 CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER

A	COLOUR ADDED	AJS	DAK	02.12.16
*	PRELIMINARY FIRST ISSUE.	..	..	.....
Rev	Detail	By	Chk	Date

clarkebond
 MULTIDISCIPLINARY ENGINEERING CONSULTANTS
 The Cocoa House
 129 Cumberland Road
 Bristol BS1 6UY
 tel +44 (0) 117 929 2244
 fax +44 (0) 117 929 3095
 e-mail bristol@clarkebond.com
 web www.clarkebond.com
 Bristol Exeter London

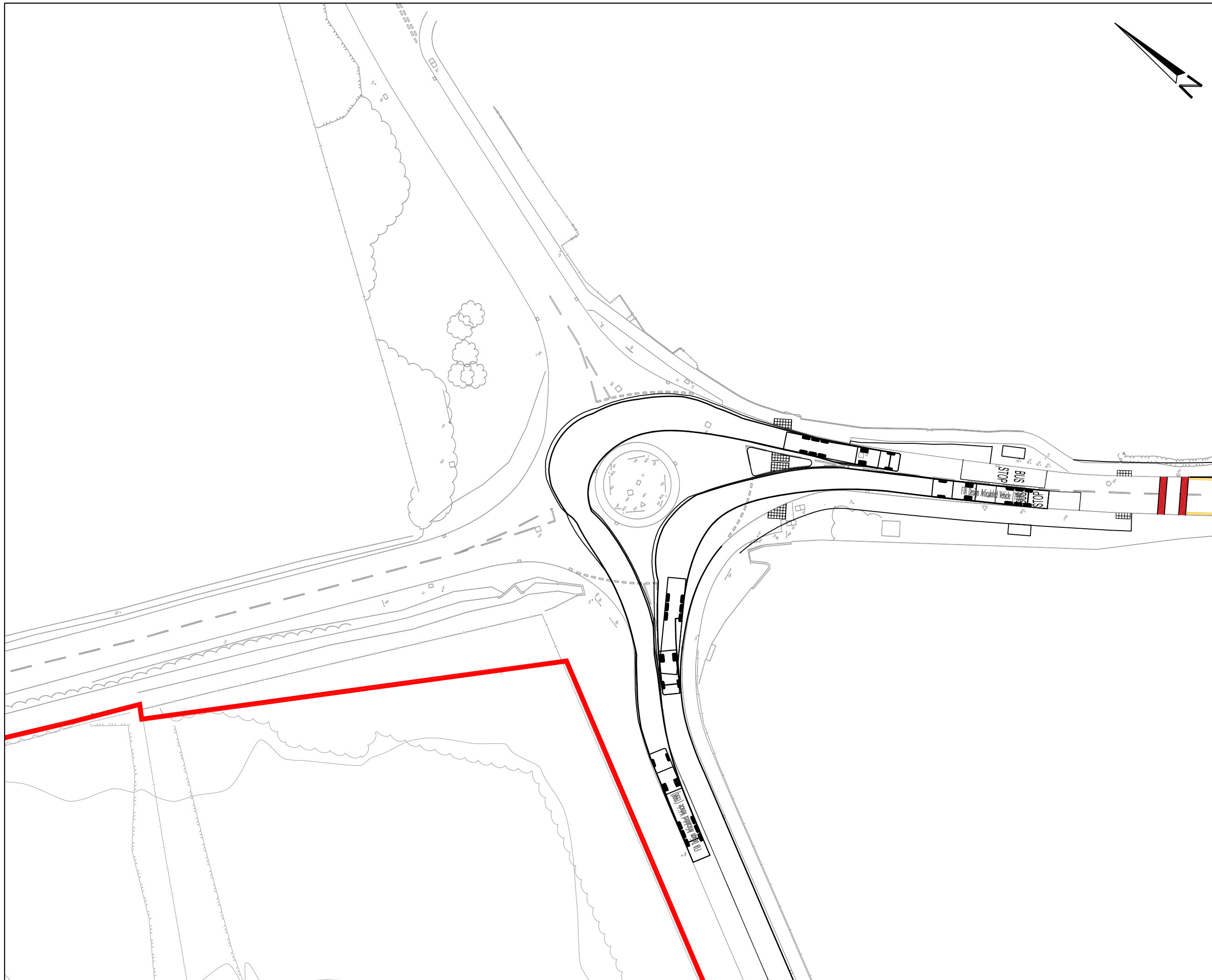
Client
Archstone Projects Ltd
 Project
WINDMILL FARM, WATLINGTON

Drawing Title
PEDESTRIAN IMPROVEMENT SCHEME FOR BRITWELL ROAD

Drawing Status
FINAL

Project No.	Discipline	Drawing No.
WB03178	C	SK03
Scale	Date	Revision
1:250	22/06/16	A
Drawn	Checked	Sheet Size
AJS	DAK	A3

© This drawing may not be copied without prior written permission



CDM RESIDUAL RISKS

The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.

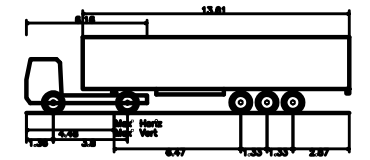
Risks are not considered significant.

Relevant data is included in the Pre-Construction Information Pack

Signed: .. Date:

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.

CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER



FTA Design Articulated Vehicle (1998)	
Overall Length	16.480m
Overall Width	2.500m
Overall Body Height	4.270m
Min Body Ground Clearance	0.515m
Max Track Width	2.470m
Lock to lock time	3.0s
Kerb to Kerb Turning Radius	8.530m

Rev	Detail	By	Chk	Date
C	AMENDMENT TO VIEWPORTS	AJS	DAK	30.08.17
B	UPDATED REVISION OF PROPOSED SCHEME	CWB	DAK	14.08.17
A	PROPOSED SCHEME	CWB	DAK	25.07.17
-	PRELIMINARY FIRST ISSUE.	..	..	.....

Revisions

clarkebond

MULTIDISCIPLINARY ENGINEERING CONSULTANTS

The Cocoa House
129 Cumberland Road
Bristol BS1 6UY
tel +44 (0) 117 929 2244
fax +44 (0) 117 929 3095
e-mail bristol@clarkebond.com
web www.clarkebond.com
Bristol Exeter London

Client
Bloor Homes & Archstone

Project
**LAND AT BRITWELL ROAD,
WATLINGTON**

Drawing Title
**PROPOSED ACCESSIBILITY
IMPROVEMENTS TO
CUXHAM ROAD
-VEHICLE TRACKING**

Drawing Status
FINAL

Project No.	Discipline	Drawing No.
WB03178	C	SK19
Scale	Date	Revision
1:500	19.01.17	C
Drawn	Checked	Sheet Size
CWB	DAK	A3

INSET: PYRTON LANE/KNIGHTSBRIDGE LANE JUNCTION

PROPOSED INCREASE TO VISIBILITY
ACHIEVED BY CUTTING BACK
VEGETATION AS CLOSE TO THE
HIGHWAY BOUNDARY AS POSSIBLE

ROAD MARKINGS AT
JUNCTION TO BE REPAINTED

10m + 2m



CDM RESIDUAL RISKS

The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.

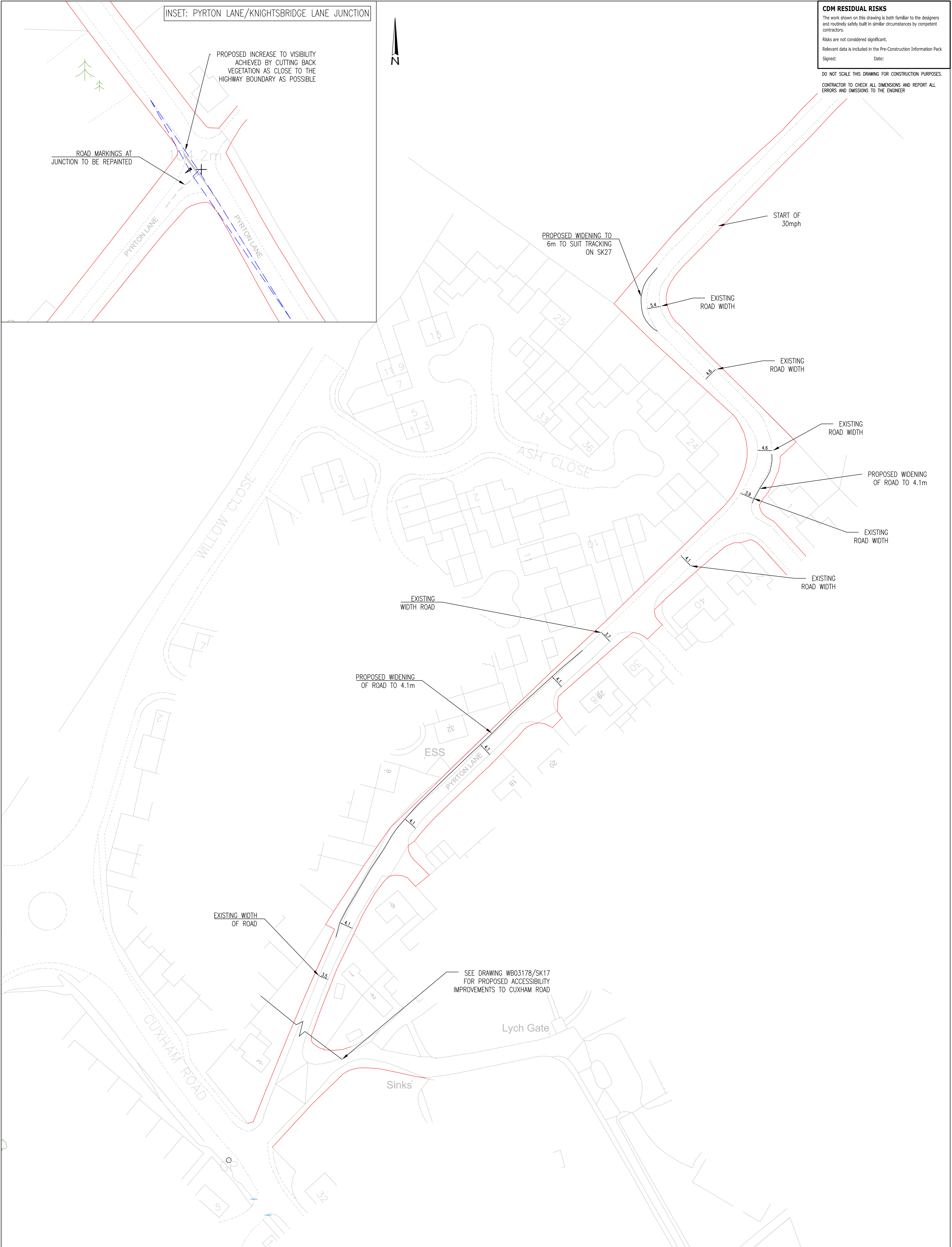
Risks are not considered significant.

Relevant data is included in the Pre-Construction Information Pack

Signed: _____ Date: _____

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.

CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER



— HIGHWAY BOUNDARY
— VISIBILITY SPY

0 10 20 30 40 50
SCALE 1:500 (A1) METRES

Rev	Detail	By	Chk	Date

Client BLOOR HOMES & ARCHSTONE PROJECTS LTD
Project LAND AT BRITWELL ROAD, WATLINGTON
Drawing Status FINAL

clarkebond
MULTIDISCIPLINARY ENGINEERING CONSULTANTS

The Cocoa House
129 Cumberland Road
Bristol BS1 6UY

tel +44 (0) 117 929 2244
fax +44 (0) 117 929 3095
e-mail bristol@clarkebond.com
web www.clarkebond.com

Bristol Exeter London

Drawing Title PYRTON LANE MITIGATION IMPROVEMENTS (SHEET 1 OF 2)			
Project No. WB03178	Discipline C	Drawing No. SK26	
Scale 1:500	Date 11.08.17	Sheet Size A1	Revision *
Drawn MK	Checked DAK		

DWG INFO: HA/CLARKEBOND UK LIMITED/BRISTOL PROJECTS/BRISTOL/WATLINGTON/ARCHSTONE/BRISTOL/178-SK26-PYRTON LANE MITIGATION IMPROVEMENTS

© This drawing may not be copied without prior written permission

Appendices

Appendix A: Agreed Meeting Minutes

SCOPING NOTE

Project: **Windmill Farm, Watlington**
Subject: Transport Assessment Scoping
Prepared by: David Knight (Associate Director)
Approved by: Max Thurgood (Director)

WB03178-SN01

Page 1 of 3

08-05-2017

1. Introduction

This Scoping Note summarises the requirements for the Transport Assessment and Travel Plan for the proposed development of land at Windmill Farm, Watlington. These requirements were identified in the submitted Scoping for Transport Assessment form submitted on 30th January 2017 or agreed at the site meeting between Ian Marshall of Oxfordshire County Council (OCC), Neil Cartwright of Bellway Homes and David Knight on 5th May 2017.

2. Proposed Development

Up to 200 residential units and 250m² of B1.

3. Relevant Guidance

- National Planning Policy Framework (NPPF) 2012;
- NPPF Planning Practice Guidance on *Travel plans, transport assessments and statements in decision taking* 2014; and
- Oxfordshire County Council *Transport for New Developments – Transport Assessments and Travel Plans* 2014.

4. Existing Traffic Conditions

Automatic Traffic Count (ATC) surveys were carried out in the vicinity of the proposed development on Britwell Road, Pyrton Lane and Couching Street. The ATC surveys at Britwell Road and Pyrton Lane were carried out for a seven day period between the 2nd and 8th June 2015 whilst the ATC survey at Couching Street was carried out for a seven day period between the 23rd and 29th January 2017.

The following junctions in and around Watlington are considered the most likely to observe some sort of impact from the proposed development:

- Britwell Road/ Cuxham Road priority T-junction;
- Cuxham Road/ Pyrton Lane priority T-junction;
- Brook Street/ Couching Street priority T-junction;
- Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads;
- Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads; and
- Cuxham Road/ Willow Close/ Industrial Estate roundabout.

Each of the identified junctions was surveyed on Tuesday 2nd June 2015 with the exception of the Brook Street/ Couching Street priority junction and the Shirburn Street/ Couching Street/ Hill Road/ High Street priority junction which were both assessed on Tuesday 24th January 2017.

Personal Injury Accident data for local highway network for last 5 years.

SCOPING NOTE

Project: **Windmill Farm, Watlington**
 Subject: Transport Assessment Scoping
 Prepared by: David Knight (Associate Director)
 Approved by: Max Thurgood (Director)

WB3178-SN01
 Page 2 of 3

08-05-2017

5. Access Proposals

Extension of Industrial Estate Access Road that connects to Cuxham Road roundabout.

New priority junction with Britwell Road. Drawing WB03178/SK10E showing change of priority to facilitate 'alternative route' submitted to OCC prior to site meeting. Layout is acceptable to OCC in principle. OCC will respond with detailed comments and then agreed scheme to be subject of a Stage 1 Road Safety Audit.

6. Internal Layout

It was agreed with OCC that new street layout facilitating the 'alternative route' will be subject to Manual for Streets (1 & 2) design guidance and designed to 30mph. Alternative route agreed to be 6.5m wide with 3.0m wide footway/cycleway.

The internal layout will provide 'alternative route' between Britwell Road and Cuxham Road. For proposed development the route will connect to the Cuxham Road roundabout via an extension to the Industrial Estate access road. The site design will allow for the longer term aspiration for the 'alternative route' to connect to Cuxham Road, west of the roundabout, to meet the next section.

CB to prepare preliminary layout design of alternative route for agreement by OCC in advance of the planning application submission.

CB to prepare Technical Note on impact of alternative route to OCC.

7. Bus Services

Proposed development to access T1 service that links Watlington to Oxford and runs along Cuxham Road. Proposed pedestrian and bus stop improvements on Cuxham Road (as shown in drawing WB03178/SK17 submitted to OCC prior to site meeting) agreed in principle with OCC. OCC will respond with detailed comments and then agreed scheme to be subject of a Stage 1 Road Safety Audit.

8. Walking and Cycling

Proposed Pedestrian Improvement Scheme for Britwell Road (as shown in drawing WB03178/SK03A submitted to OCC prior to site meeting) agreed in principle with OCC. OCC will respond with any detailed comments and then agreed scheme to be subject of a Stage 1 Road Safety Audit. Distances to local facilities to be calculated. Isochrone plans to be provided.

SCOPING NOTE

Project: **Windmill Farm, Watlington**
Subject: Transport Assessment Scoping
Prepared by David Knight (Associate Director)
Approved by Max Thurgood (Director)

WB3178-SN01
Page 3 of 3

08-05-2017

9. Trip Generation and Distribution

AM and PM Peak hour Assessments. Trip Generation from TRICS Database. Trip Distribution to be identified from 2011 census using information on where Watlington residents commute to for work – NOMIS.

CB to submit details in Technical Note for OCC agreement.

10. Assessment Years

Assessment years for junction capacity assessments agreed with OCC as follows:

- Base year – existing traffic data i.e. 2015.
- Opening year – 2017 (year of application).
- Future year – 2022 (year of application + 5 years).

Traffic Growth Estimates from TEMPRO.

11. Committed Development

OCC to advise.

12. Junction Modelling

The following junctions are to be modelled:

- Britwell Road/ Cuxham Road priority T-junction;
- Cuxham Road/ Pyrton Lane priority T-junction;
- Brook Street/ Couching Street priority T-junction;
- Shirburn Street/ Couching Street/ Hill Road/ High Street priority crossroads;
- Watlington Road/ Shirburn Road/ Station Road/ Pyrton Lane priority crossroads; and
- Cuxham Road/ Willow Close/ Industrial Estate roundabout.

13. Residential Travel Plan

Residential Travel Plan required in accordance with OCC Guidance.

MINUTES OF MEETING

Date: Thursday 20th July 2017

Project: Windmill Farm, Watlington Job No: WBO3178

Subject: Transport and Highways Progress Meeting Page 1 of 3

Location: County Hall, Oxford

Present: Ian Marshall (Oxfordshire County Council)
Katrina (OCC)
Julian Richardson (OCC)
David Joseph (Bloor Homes)
Neil Cartwright (Bloor Homes)
Jon Porter (Archstone)
David Knight (Clarkebond)

Distribution: Those present + Matthew Gough (Archstone), Mark Sitch (Barton Willmore), James Bonner (Barton Willmore), Darren Pratt (Bloor Homes), Edward Lindley (Bloor Homes), Simon Cash (Bloor Homes), Jacques Toerien (Barton Willmore), Tom Wigglesworth (EDP), Max Thurgood (Clarkebond)

Action

1. Consultations

JP confirmed that Archstone and Bloor have had ongoing consultations with the Neighbourhood Plan Group about the proposed planning application and the alternative route.

2. Programme

A full planning application will be submitted in mid-August.

Clarkebond

3. Proposed Development Masterplan

DK tabled a copy of the latest masterplan drawing – Drawing no. SM000-SL-001 Revision. DK explained that Bloor, Barton Willmore and Clarkebond had developed the scheme to allow to provide an interim and long term alternative route solution.

IM said that OCC welcomed the scheme delivering part of the Alternative route, however OCC were interested to understand about the impact of the development in the short term before the full route is completed. DJ said that further to IM's further written pre-application comments, discussions had been held with Peter Canavan at SODC which confirmed that CIL was the appropriate mechanism for gathering contributions from developments for this and other proposed strategic infrastructure. IM to confirm preferred mechanism for the transfer of the remaining on-site section of the safeguarded route when it is required.

DK tabled traffic diagrams identifying the impact of the proposed development on traffic routes in the short term (partial route) and the long term (with full route). DK explained that the full route would be very effective in reducing traffic levels in the town centre with reductions of around 50% predicted along Couching Street and Shirburn Road. In the short term, the partial route delivered by the proposed development site would reduce traffic on Britwell Road by 25% with increases of 10-15% on parts of Cuxham Road and Pyrton Lane. The impact on the town centre would be small at around 3%. IM agreed that the interim increases in traffic flows were relatively minor.

DK said that journey time surveys carried out in the town centre had shown that the existing delay was not great during peak periods and most problems had been observed to be caused by HGVs negotiating the historic street network. It was agreed that the proposed development would not be generating HGV traffic so the development would not worsen the situation in the centre significantly.

IM said that options to introduce minor interim improvements to Pyrton Lane should be explored to establish whether there were any superficial mitigation measures for the development prior to completion of the alternative route. It was agreed that a site meeting would be arranged between OCC, Bloor and Clarkebond to agree these measures.

4. Engineering Layout – Alternative Route

DK tabled draft drawings WB03178/SK21.1, 21.2 and 21.3 showing the General Arrangement, Vehicle Tracking and Visibility splays associated with the engineering layout for the alternative route to be delivered through the site between Britwell Road and Cuxham Road. DK noted the scheme delivered a 6.5m width carriageway and a 3m pedestrian/cycle route. IM confirmed that these were the drawings OCC were requiring in support of the application. It was agreed Clarkebond would submit these to OCC for detailed review.

Clarkebond

It was agreed JP would ask NP Group about thoughts on a lighting strategy for the main vehicular route and site generally.

Archstone

Barton Willmore/EDP to look to make the most of tree planting within the managed open space along the road/s as opposed to within the adopted highway which will be subject to a £2K per tree commuted sum.

Barton
Willmore/EDP

Adoption plans, drainage and tracking info to be provided to IM for him to forward to JR (OCC adoptions).

Clarkebond

DK tabled drawings WB03178/SK24.1 and SK24.2 showing the internal link road junction design for the short and long term scenarios. IM accepted these in principle and it was agreed that they would also be submitted for detailed review by OCC.

Clarkebond

DK tabled the latest Britwell Road access drawing. Minor changes had been made to improve the scheme beyond the version previously agreed with OCC and taken through RSA1.

5. S278 Works

DK noted that the Britwell Pedestrian Improvement scheme has not been amended further to the scheme agreed with OCC that went through RSA1.

DK tabled drawing WB03178/SK17 Revision D showing the Cuxham Road improvements. DK explained that this scheme had evolved further with the benefit of more detailed information. The industrial estate access road is 6.8m wide with a 1.9m footway on the easter side. It was proposed to move the eastern kerbline to achieve a consistent 6.5m carriageway and a 2.2m shared cycle footway. The shared 2.5m cycle footway on the southern side of Cuxham Road would now terminate short of the Pyrton Lane junction due to boundary constraints. DK to forward current Cuxham Road improvement scheme to OCC, but also show it in the wider context with surrounding lanes and cycle/walking strategy.

Clarkebond

DJ/JP would prefer the proposed works to be dealt with as a contribution. IM said OCC would not accept a contribution towards works because of concerns over costs and inability to give certainty on timing of implementation. It was agreed works would be delivered as part of S278 Agreement and that IM would approve the drawings submitted with the planning application to allow Bloor certainty about the extent of the works and their cost

6. Bus Services

JP was aware that the Thames Travel Bus Service (T1) was being reduced. IM confirmed that this was the case. It was suggested that if required the £1000/dwelling contribution from the development towards public transport could go toward improving this service. OCC to provide details of the contribution calculation and what improvements would be made.

OCC

7. Transport Assessment

IM agreed to provide a broad review of the draft Transport Assessment which would be issued to OCC the following week by Clarkebond.

Clarkebond/OCC

8. Junction Capacity Assessments

DK confirmed that junction capacity assessments had now been carried on the agreed local junctions with development in the assessment year. RFCs were generally low with the highest being 0.86. IM not concerned about this level of performance.

9. Residential Travel Plan

IM wants to see Travel Information Packs included in the Residential Travel Plan. IM agreed to provide examples.

OCC

10 Section 106 Agreement

JP considered the key items to be the public transport contribution (£1000/dwelling) and making provision of land for the alternative route. IM said that he could not think of any other contributions that might be required. It was agreed that SODC would be asked

11 whether a joint S106 could avoid the need for a separate OCC one for just a few items.

Any Other Business

DJ asked about progress with the Chalgrove Planning Application. OCC unaware of status of this.

MINUTES OF MEETING

Date: Thursday 24th August 2017

Project: Windmill Farm, Watlington Job No: WB03178

Subject: Transport and Highways Site Meeting Page 1 of 2

Location: Cuxham Road, Watlington

Present: Julian Richardson (Oxfordshire County Council)
David Knight (Clarkebond)
Matthew Knight (Clarkebond)
Warren Williams (Bloor Homes)

Distribution: Those present + Matthew Gough (Archstone), Mark Sitch (Barton Willmore), James Bonner (Barton Willmore), Darren Pratt (Bloor Homes), Edward Lindley (Bloor Homes), Simon Cash (Bloor Homes), Jacques Toerien (Barton Willmore), Tom Wigglesworth (EDP), Max Thurgood (Clarkebond)

1. Purpose of Meeting

Site meeting to discuss mitigation improvements along Pyrton Lane, Watlington. OCC had requested minor works be introduced to mitigate the impact of the proposed development on the town. The site meeting included walking the southern section of Pyrton Lane and driving the northern section together with discussions at other scheme locations.

2. Proposed Pyrton Lane Improvements

DK tabled draft drawings WB03178/SK26 and SK27 showing the proposed widening along Pyrton Lane and vehicle tracking along Pyrton Lane. JR agreed that the proposed widening would be possible to implement as shown and be beneficial to road users. JR agreed the 4.1m road width proposed and suggested that 1m at the side of the roadway would need to be resurfaced in order to strengthen the edge of the road and a CBR check would be of use to determine the mechanical strength of the ground. With this it was agreed that a kerb would not be necessary along this widening. JR mentioned that it would be useful to get a detail survey of the services on the western edge of Pyrton Lane to see if they would interfere with improvement works.

JR agreed that widening of the outer edge of the Southernmost corner of the S-bend would be beneficial; however the existing kerb would require realigning. JR also agreed that widening on the Northernmost corner of the S-bend would be beneficial but suggested that it shouldn't be widened too much in order to keep the entry speed into the corner low. Along with that JR agreed that he would find the accident records for Pyrton Lane as they would be useful supporting evidence.

OCC

OCC

JR identified that some road maintenance was required at points along the Pyrton Lane. OCC to synchronise improvements with S278 works.

Clarkebond

JR mentioned that the road markings would need to be repainted at the Pyrton Lane/Knightsbridge Lane T-junction and potential visibility improvements would be beneficial. It was agreed to include these suggestions in the proposed improvement works. Clarkebond to revise drawings accordingly.

3. Proposed Cuxham Road Pedestrian Improvements

DK tabled drawing WB03178/SK17 showing the proposed accessibility improvements to Cuxham Road. JR agreed that the kerb line at the junction of Pyrton Lane and Cuxham Road should be built out to reduce the crossing distance for pedestrians as shown. JR also agreed with DK that the proposed crossing point should be closer to Cuxham Road to allow pedestrians to cross in the safest way possible. JR agreed that the proposed 2.5m footpath/cyclepath on the South Western side of Cuxham Road is achievable. JR agreed that the vegetation along the North Eastern side of Cuxham Road needs to be cut back to maximise the available footway width. JR suggested this could be done by OCC maintenance team linking in with the proposed improvements.

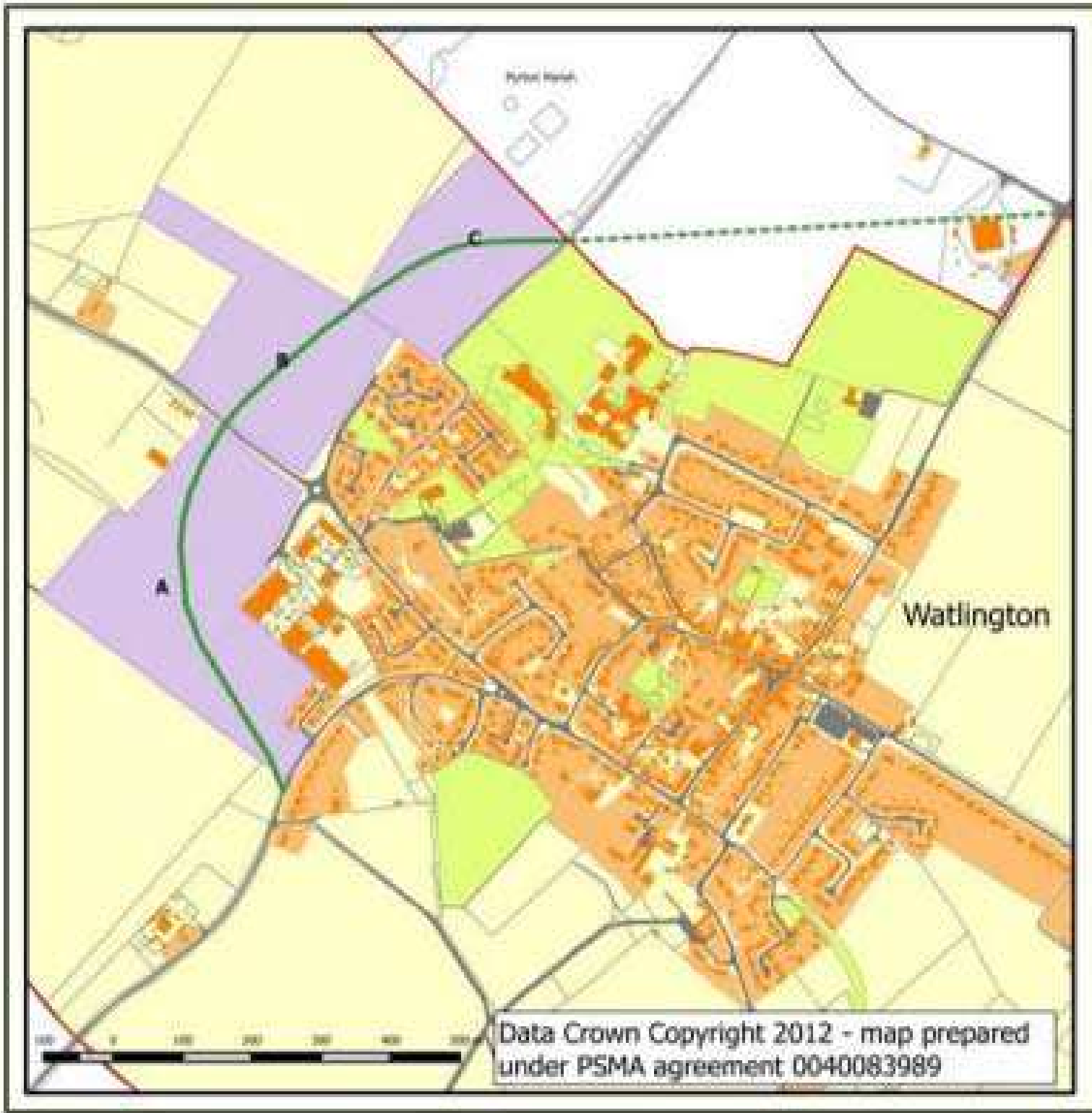
4. Pedestrian Improvement Scheme, Britwell Road

DK tabled the drawing WB03178/SK03 previously agreed with OCC showing the proposed pedestrian improvement scheme for Britwell Road. JR agreed that the priority build out would be useful as it will improve pedestrian conditions and increase visibility from The Goggs.

5. Proposed Site Access, Britwell Road

DK tabled drawing WB03178/SK10, previously agreed with OCC, showing the proposed Britwell Road junction layout. DK explained the proposed junction layout and JR was in agreement with it. JR agreed with the visibility standards to suit the design speed of the scheme, to Windmill Piece and to the Farm Track. DK noted that the junction had been moved further away from the existing houses on Britwell Road to suit the concerns of the residents.

Appendix B: Approximate Alignment of Alternative Route



Public Road

Watlington

Data Crown Copyright 2012 - map prepared under PSMA agreement 0040083989

Appendix C: Automatic Traffic Count Data Sheets

Watlington ATC, Britwell Road

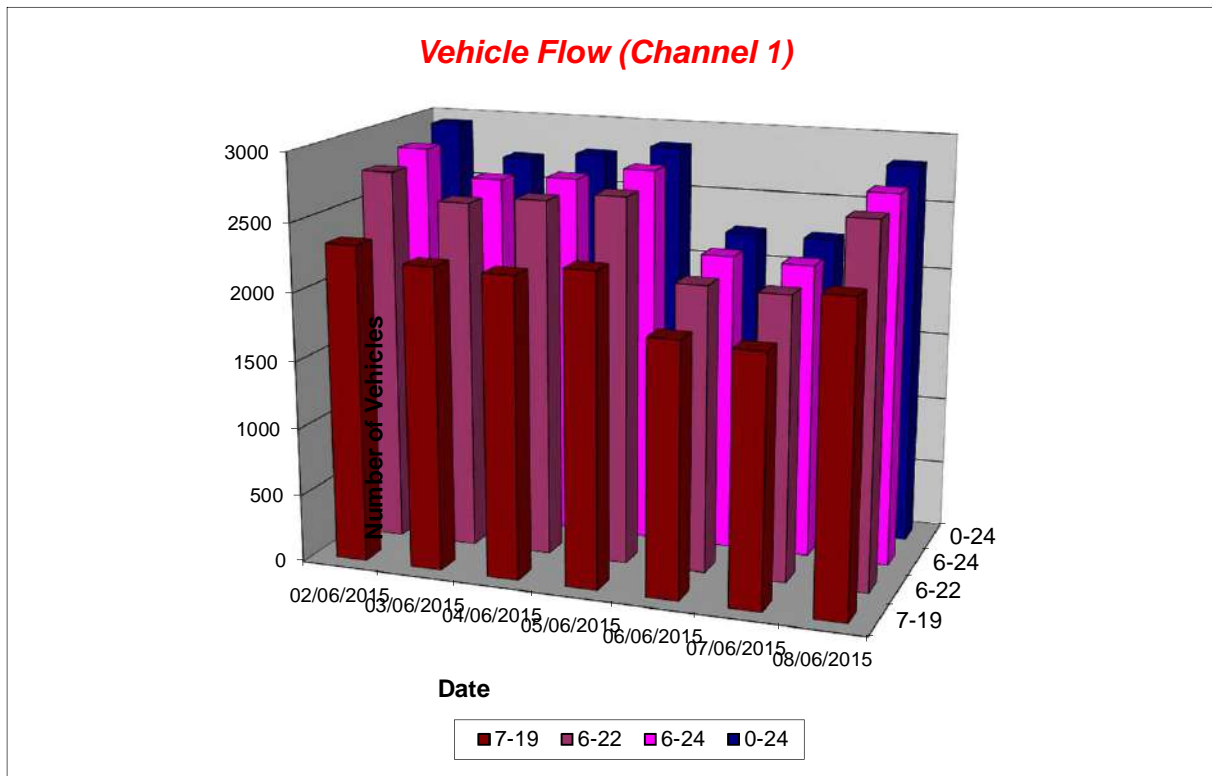
Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Northbound

Vehicle Flow

Week 1

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday	5 Day Ave	7 Day Ave
1	12	10	7	12	19	16	11	10	12
2	2	3	1	2	6	14	2	2	4
3	5	3	5	5	7	14	5	5	6
4	2	13	2	11	6	7	4	6	6
5	21	14	16	15	7	7	18	17	14
6	61	25	53	32	9	14	53	45	35
7	170	112	164	118	43	33	151	143	113
8	289	233	274	240	51	45	274	262	201
9	273	263	255	259	125	73	242	258	213
10	147	150	151	141	167	115	151	148	146
11	169	167	168	154	212	190	167	165	175
12	105	140	115	148	249	244	108	123	158
13	149	142	136	160	163	194	145	146	156
14	134	103	127	162	168	153	132	132	140
15	144	150	130	197	113	162	138	152	148
16	195	166	187	184	171	206	200	186	187
17	278	255	243	231	152	159	260	253	225
18	242	241	225	236	169	179	237	236	218
19	211	218	200	177	121	113	197	201	177
20	116	92	119	133	89	98	124	117	110
21	80	76	76	93	57	57	75	80	73
22	57	61	55	57	56	64	48	56	57
23	49	56	39	48	54	53	47	48	49
24	32	18	20	40	32	31	26	27	28
7-19	2336	2228	2211	2289	1861	1833	2251	2263	2144
6-22	2759	2569	2625	2690	2106	2085	2649	2658	2498
6-24	2840	2643	2684	2778	2192	2169	2722	2733	2575
0-24	2943	2711	2768	2855	2246	2241	2815	2818	2654



Watlington ATC, Britwell Road

Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Northbound

Average Speed

Week 1

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
1	40.5	39.0	41.6	39.7	36.9	40.3	41.6
2	48.0	41.3	48.0	43.0	43.8	38.7	48.0
3	43.0	38.0	43.0	40.0	38.7	38.4	43.0
4	38.0	44.2	40.5	44.4	44.7	41.6	40.5
5	41.8	38.5	42.4	38.2	41.6	41.6	41.3
6	43.6	41.9	43.9	42.1	48.8	37.8	43.8
7	39.4	38.2	40.0	38.8	40.1	41.7	39.8
8	38.0	32.9	37.8	33.0	39.9	38.6	38.1
9	35.0	32.3	34.5	32.6	38.2	37.6	35.1
10	34.1	33.7	33.8	33.9	33.5	34.1	33.8
11	33.6	34.1	33.7	34.2	30.2	33.4	33.5
12	31.8	32.4	33.0	32.7	30.9	32.3	32.7
13	32.4	33.1	33.0	33.1	33.4	33.2	32.9
14	33.8	33.0	33.3	33.1	33.4	33.3	33.4
15	33.2	33.4	33.2	33.8	36.0	32.7	33.6
16	32.6	34.2	32.6	33.7	34.6	33.4	32.8
17	34.1	33.5	34.8	33.3	35.0	34.9	34.6
18	34.4	34.2	34.3	35.6	34.7	35.0	34.4
19	34.2	35.2	34.4	35.0	35.4	34.8	34.1
20	36.7	34.1	36.6	34.3	36.7	35.4	36.2
21	36.9	38.3	37.3	35.6	36.3	35.9	37.4
22	36.8	36.0	38.2	36.4	35.2	36.0	38.6
23	36.9	35.9	36.2	39.9	38.4	39.0	35.7
24	36.0	39.7	37.1	35.8	39.2	39.7	36.2

10-12	32.9	33.4	33.4	33.5	30.6	32.8	33.2
14-16	32.8	33.8	32.9	33.7	35.2	33.1	33.2
0-24	35.2	34.2	35.3	34.4	34.5	34.6	35.2

7 Day Ave 34.8

Channel 1 - Northbound

85th Percentile

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
1	48.7	43.6	49.0	43.7	43.9	43.7	48.2
2	48.5	48.3	-	48.9	53.7	43.9	48.5
3	48.6	43.3	48.3	43.8	43.5	38.5	48.3
4	38.3	53.8	43.2	53.0	53.4	48.1	43.3
5	48.3	43.8	48.2	43.5	43.1	43.8	48.0
6	48.8	48.6	48.6	48.9	58.8	48.4	48.5
7	43.0	49.0	48.4	43.4	48.5	48.5	48.2
8	43.8	38.9	43.4	38.7	43.8	48.5	43.9
9	43.8	38.2	43.7	38.5	43.6	43.2	43.6
10	38.7	38.7	38.3	38.5	38.8	38.3	38.8
11	43.0	39.0	38.6	38.5	38.0	38.1	38.9
12	38.4	38.2	38.2	38.4	38.2	38.6	38.3
13	38.9	38.5	38.2	38.4	38.1	38.2	38.5
14	43.8	38.1	38.6	38.3	38.1	38.9	38.1
15	43.4	39.0	38.1	38.1	43.3	38.1	43.6
16	39.0	38.7	38.5	38.2	38.1	38.4	38.4
17	38.9	38.0	38.9	39.0	43.0	43.3	39.0
18	38.1	43.6	38.3	43.1	43.5	43.9	38.1
19	38.9	43.1	38.8	43.4	43.7	43.8	38.9
20	43.4	38.1	43.4	38.4	43.5	43.3	43.6
21	43.5	48.8	43.3	43.5	43.8	38.7	43.3
22	48.8	43.3	48.9	43.2	43.1	43.3	48.1
23	43.1	38.0	43.6	48.5	43.2	43.1	43.5
24	43.6	43.3	43.6	43.3	43.7	43.0	43.2

10-12	38.5	38.4	38.4	38.6	38.5	38.3	39.0
14-16	38.3	38.3	38.1	38.5	43.4	38.8	38.1
0-24	43.6	43.9	43.6	43.2	43.1	43.3	43.0

7 Day Ave 43.4

Watlington ATC, Britwell Road

Produced by PCC Traffic Information Consultancy Ltd.

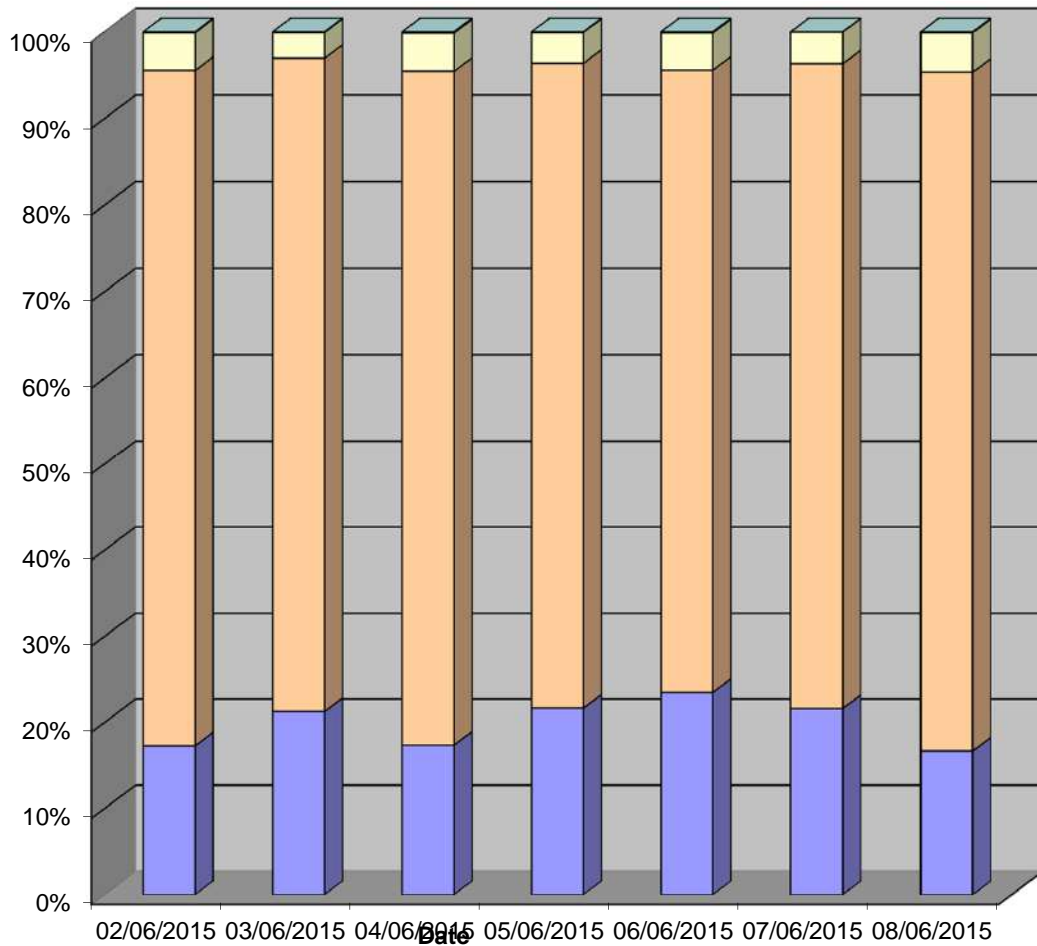
Channel 1 - Northbound

Speed Summary

Week 1

Speed (MPH)	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
0-30	509	577	481	619	528	485	470
31-45	2303	2052	2161	2133	1619	1674	2214
46-60	129	81	123	102	97	82	129
61-	2	1	3	1	2	0	2
TOTAL	2943	2711	2768	2855	2246	2241	2815

Speed Summary (MPH)

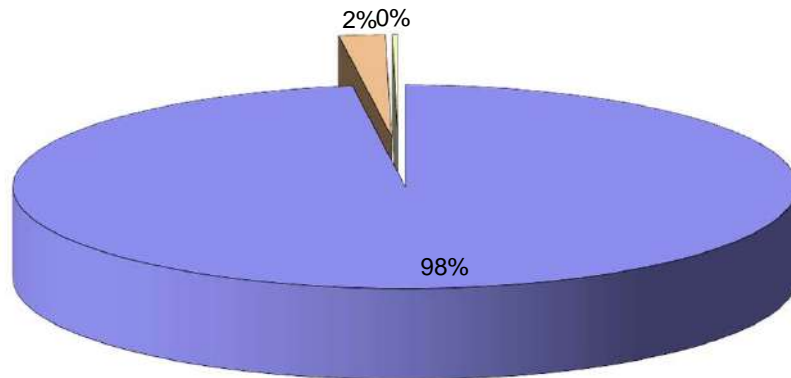


Watlington ATC, Britwell Road

Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Northbound		Vehicle Class			Week 1
Classes	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
Day / Time					
02/06/2015					
7-19	2279	56	1	2336	
6-22	2695	62	2	2759	
6-24	2776	62	2	2840	
0-24	2878	63	2	2943	
03/06/2015					
7-19	2162	63	3	2228	
6-22	2495	70	4	2569	
6-24	2569	70	4	2643	
0-24	2634	72	5	2711	
04/06/2015					
7-19	2155	51	5	2211	
6-22	2562	57	6	2625	
6-24	2621	57	6	2684	
0-24	2703	59	6	2768	
05/06/2015					
7-19	2234	51	4	2289	
6-22	2629	57	4	2690	
6-24	2717	57	4	2778	
0-24	2792	59	4	2855	
06/06/2015					
7-19	1831	23	7	1861	
6-22	2075	24	7	2106	
6-24	2161	24	7	2192	
0-24	2214	25	7	2246	
07/06/2015					
7-19	1807	16	10	1833	
6-22	2059	16	10	2085	
6-24	2143	16	10	2169	
0-24	2214	17	10	2241	
08/06/2015					
7-19	2191	53	7	2251	
6-22	2583	58	8	2649	
6-24	2656	58	8	2722	
0-24	2745	60	10	2815	
Average					
7-19	2094	45	5	2144	
6-22	2443	49	6	2498	
6-24	2520	49	6	2575	
0-24	2597	51	6	2654	

Total Vehicle Class Distribution



Watlington ATC, Britwell Road

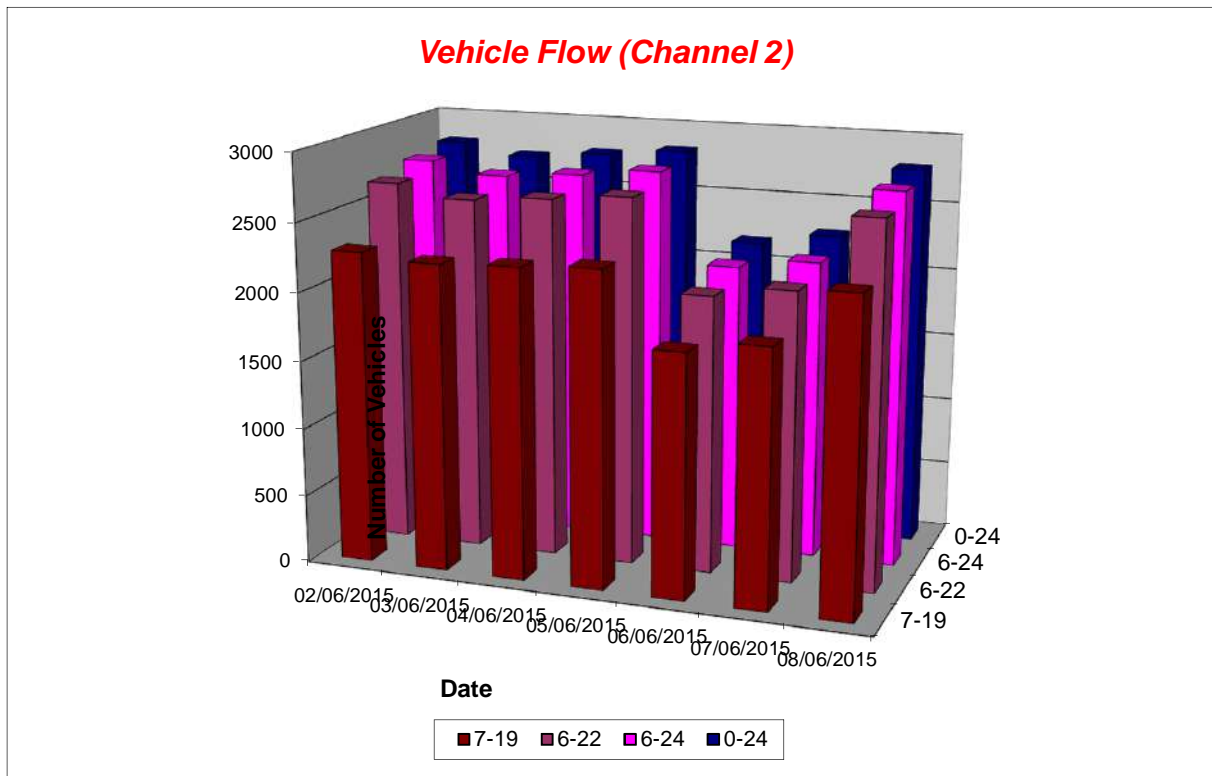
Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Southbound

Vehicle Flow

Week 1

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday	5 Day Ave	7 Day Ave
1	6	16	7	13	26	29	7	10	15
2	5	5	11	11	7	13	11	9	9
3	3	4	4	5	6	15	4	4	6
4	1	0	1	0	4	11	1	1	3
5	7	7	7	8	12	4	3	6	7
6	31	22	32	18	5	6	27	26	20
7	89	67	92	73	17	20	105	85	66
8	269	227	270	222	48	33	292	256	194
9	253	244	243	234	102	121	258	246	208
10	182	161	169	150	150	163	156	164	162
11	151	146	144	149	191	197	135	145	159
12	166	142	163	142	215	170	173	157	167
13	133	121	144	150	197	183	134	136	152
14	124	127	113	152	165	194	122	128	142
15	146	149	140	169	150	196	143	149	156
16	159	187	162	199	114	160	160	173	163
17	203	235	215	243	157	147	207	221	201
18	269	272	285	283	167	179	275	277	247
19	231	234	219	208	117	123	218	222	193
20	121	117	123	136	99	106	125	124	118
21	88	99	83	109	82	71	76	91	87
22	92	63	70	66	57	50	78	74	68
23	37	54	46	50	45	42	48	47	46
24	38	25	31	35	40	33	32	32	33
7-19	2286	2245	2267	2301	1773	1866	2273	2274	2144
6-22	2676	2591	2635	2685	2028	2113	2657	2649	2484
6-24	2751	2670	2712	2770	2113	2188	2737	2728	2563
0-24	2804	2724	2774	2825	2173	2266	2790	2783	2622



Watlington ATC, Britwell Road

Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Southbound

Average Speed

Week 1

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
1	40.5	35.7	40.9	35.9	38.1	38.5	40.9
2	40.0	37.0	41.6	36.0	40.1	39.9	40.3
3	38.0	38.0	38.0	38.0	41.3	37.0	38.0
4	38.0	-	38.0	-	43.0	43.9	38.0
5	38.7	37.3	39.4	37.4	39.7	38.0	36.3
6	40.3	40.7	39.6	41.9	42.0	42.2	38.7
7	38.9	38.4	38.5	38.4	39.5	42.2	37.8
8	37.7	36.7	37.7	36.6	37.8	36.6	37.6
9	35.3	35.5	36.0	35.5	39.0	37.8	36.2
10	36.3	36.0	36.1	36.4	34.4	35.2	36.3
11	35.9	35.3	35.2	35.1	34.6	35.4	35.3
12	34.1	33.4	34.6	33.3	34.7	34.0	34.4
13	32.9	33.1	34.0	35.2	34.9	34.6	33.4
14	35.9	33.2	37.0	34.2	34.8	34.1	36.3
15	33.6	32.9	34.1	35.3	35.2	33.1	33.8
16	35.4	35.3	35.7	34.4	35.4	34.4	35.5
17	36.9	35.5	36.9	36.3	36.8	37.0	37.1
18	37.7	37.4	37.9	37.0	35.7	35.4	37.6
19	38.4	37.0	38.6	38.7	35.9	34.7	38.4
20	38.7	37.7	39.3	36.3	37.7	38.1	38.9
21	38.0	39.5	37.9	38.0	38.0	38.1	38.1
22	36.6	40.2	36.1	37.5	39.3	39.4	36.8
23	35.3	36.7	36.1	37.4	37.9	38.4	35.6
24	35.6	40.8	36.9	39.1	39.8	40.7	37.1

10-12	35.0	34.4	34.9	34.2	34.7	34.7	34.8
14-16	34.6	34.3	35.0	34.8	35.3	33.7	34.7
0-24	36.5	36.0	36.7	36.2	36.1	35.7	36.6

7 Day Ave 36.3

Channel 2 - Southbound

85th Percentile

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
1	48.3	38.3	43.0	38.1	43.7	43.1	43.0
2	43.5	38.3	48.7	38.6	43.5	43.3	53.7
3	43.9	43.2	43.5	43.3	43.2	38.6	43.8
4	-	-	-	-	53.2	48.8	-
5	43.4	38.5	43.2	43.1	43.3	43.5	38.7
6	48.8	43.2	48.5	48.2	48.8	48.2	43.4
7	43.8	43.6	43.7	43.1	43.1	48.9	43.8
8	43.7	43.4	43.8	43.4	43.5	43.4	43.7
9	43.7	38.9	43.4	39.0	43.8	43.3	43.4
10	44.0	43.5	43.9	43.5	38.8	38.8	43.1
11	43.3	38.2	43.7	38.5	38.3	43.2	38.4
12	38.5	38.7	43.1	39.0	39.0	38.4	43.3
13	38.4	38.7	38.6	38.2	38.8	38.2	38.7
14	43.7	43.6	43.7	43.4	38.7	38.9	43.3
15	38.2	38.8	38.0	43.4	38.9	38.6	38.8
16	38.4	38.2	43.4	38.3	43.9	38.4	38.2
17	43.5	43.8	43.4	43.5	43.4	43.4	43.6
18	43.8	43.2	43.3	43.1	38.1	43.9	44.0
19	43.5	44.0	44.0	43.5	44.0	38.6	43.2
20	43.4	43.1	43.8	44.0	43.8	43.9	43.9
21	43.5	43.1	43.7	43.6	43.7	43.5	43.1
22	43.2	48.8	43.4	43.9	43.4	43.3	44.0
23	43.6	38.4	43.7	43.7	43.0	43.9	43.6
24	43.5	43.5	43.3	43.4	48.2	48.3	43.6

10-12	43.7	38.1	38.4	38.7	38.2	43.3	38.9
14-16	38.9	38.1	43.4	38.1	43.5	38.2	43.6
0-24	43.4	43.2	43.9	43.8	43.4	43.3	43.2

7 Day Ave 43.5

Watlington ATC, Britwell Road

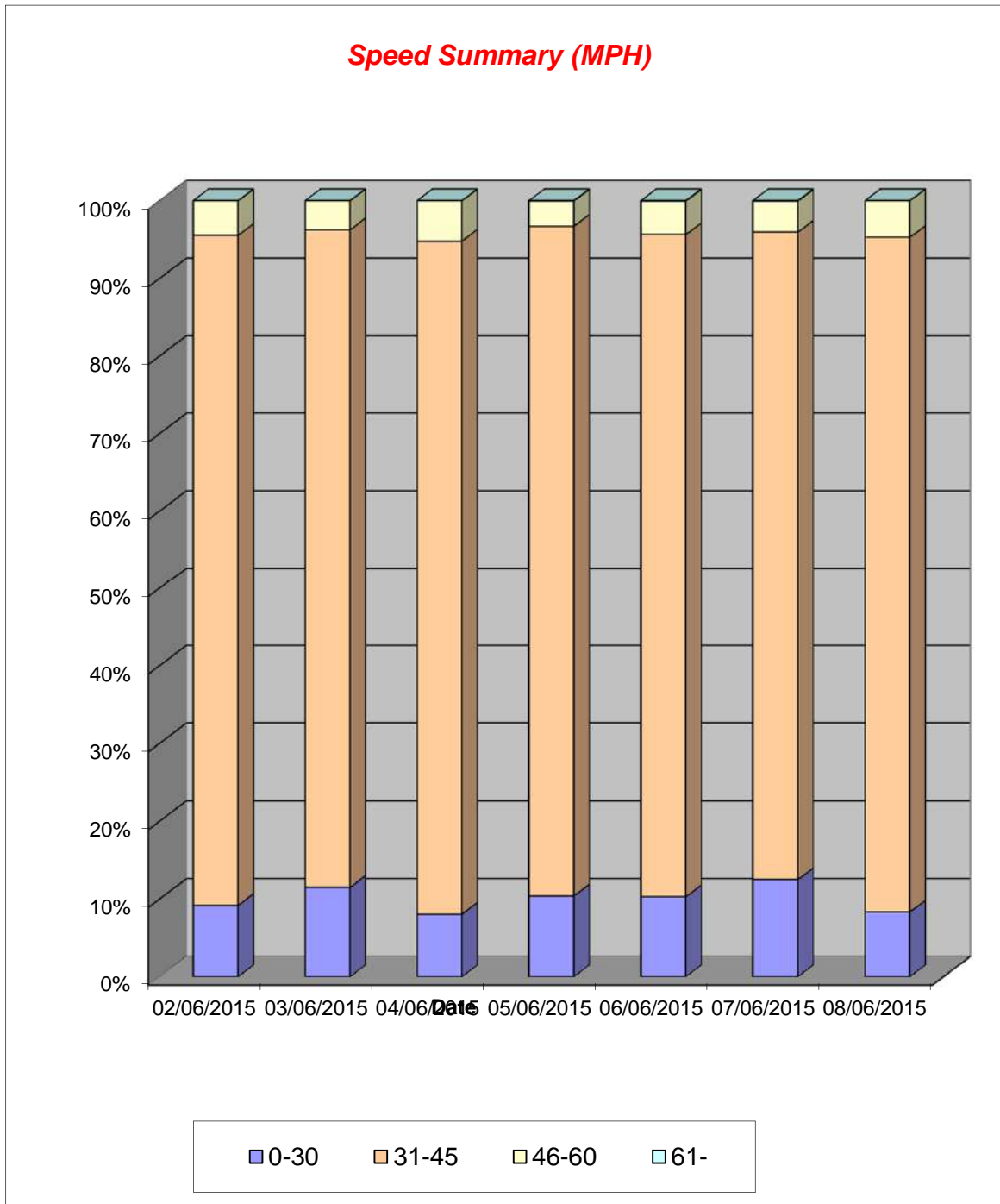
Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Southbound

Speed Summary

Week 1

Speed (MPH)	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
0-30	257	313	223	293	223	283	232
31-45	2422	2309	2407	2439	1855	1891	2426
46-60	125	102	144	92	94	91	132
61-	0	0	0	1	1	1	0
TOTAL	2804	2724	2774	2825	2173	2266	2790

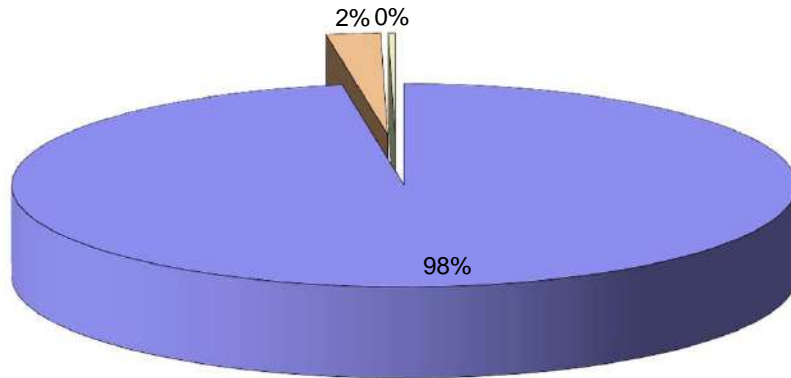


Watlington ATC, Britwell Road

Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Southbound		Vehicle Class			Week 1
Classes	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
Day / Time					
02/06/2015					
7-19	2219	64	3	2286	
6-22	2597	75	4	2676	
6-24	2672	75	4	2751	
0-24	2724	76	4	2804	
03/06/2015					
7-19	2172	68	5	2245	
6-22	2507	78	6	2591	
6-24	2586	78	6	2670	
0-24	2640	78	6	2724	
04/06/2015					
7-19	2201	58	8	2267	
6-22	2563	63	9	2635	
6-24	2640	63	9	2712	
0-24	2701	64	9	2774	
05/06/2015					
7-19	2230	64	7	2301	
6-22	2606	70	9	2685	
6-24	2690	71	9	2770	
0-24	2745	71	9	2825	
06/06/2015					
7-19	1742	26	5	1773	
6-22	1991	31	6	2028	
6-24	2076	31	6	2113	
0-24	2136	31	6	2173	
07/06/2015					
7-19	1837	21	8	1866	
6-22	2081	23	9	2113	
6-24	2156	23	9	2188	
0-24	2233	23	10	2266	
08/06/2015					
7-19	2205	60	8	2273	
6-22	2583	65	9	2657	
6-24	2663	65	9	2737	
0-24	2714	67	9	2790	
Average					
7-19	2087	52	6	2144	
6-22	2418	58	7	2484	
6-24	2498	58	7	2563	
0-24	2556	59	8	2622	

Total Vehicle Class Distribution



Watlington ATC, Pyrton Lane

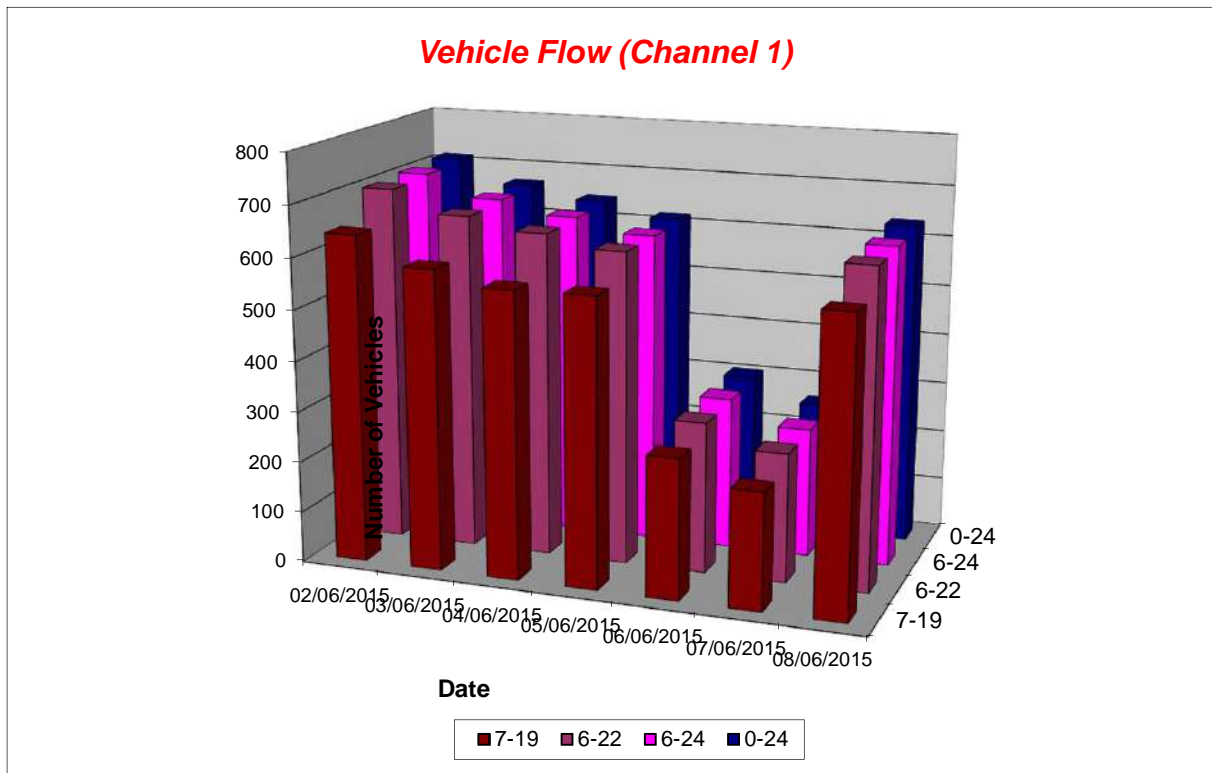
Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Northeastbound

Vehicle Flow

Week 1

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday	5 Day Ave	7 Day Ave
1	0	0	0	1	0	1	0	0	0
2	0	0	1	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	1	1	0	1	0	0	0	1	0
6	5	1	3	1	3	3	8	4	3
7	35	34	36	29	4	2	23	31	23
8	99	87	91	91	14	3	91	92	68
9	120	107	99	96	30	8	106	106	81
10	56	44	45	38	22	28	47	46	40
11	22	21	25	22	20	22	23	23	22
12	34	34	29	30	32	51	33	32	35
13	22	43	18	37	32	19	23	29	28
14	19	15	21	21	35	17	18	19	21
15	28	30	24	29	17	23	25	27	25
16	35	26	42	32	14	18	32	33	28
17	66	71	64	70	22	17	61	66	53
18	101	75	67	66	17	10	68	75	58
19	41	36	37	32	20	13	46	38	32
20	14	26	26	15	10	10	16	19	17
21	4	5	9	3	5	7	6	5	6
22	6	6	4	3	3	6	5	5	5
23	2	3	2	0	1	1	2	2	2
24	3	2	1	0	3	1	2	2	2
7-19	643	589	562	564	275	229	573	586	491
6-22	702	660	637	614	297	254	623	647	541
6-24	707	665	640	614	301	256	627	651	544
0-24	713	667	644	617	304	260	635	655	549



Watlington ATC, Pyrton Lane

Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Northeastbound

Average Speed

Week 1

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
1	-	-	-	38.0	-	38.0	-
2	-	-	38.0	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	48.0	48.0	-	48.0	-	-	-
6	44.0	38.0	32.2	38.0	33.0	35.5	40.5
7	37.4	37.2	37.6	38.3	31.1	38.0	37.8
8	36.7	33.5	36.0	33.4	38.9	29.7	35.3
9	32.4	34.4	33.2	34.2	34.2	32.1	33.6
10	31.5	31.2	33.3	31.2	32.9	30.1	32.4
11	32.4	34.0	32.7	33.1	33.0	32.0	32.8
12	31.5	30.9	31.5	31.8	32.9	29.7	32.6
13	32.8	31.7	33.3	33.3	31.2	31.2	32.8
14	30.8	32.3	33.6	33.5	33.6	32.4	31.2
15	30.2	29.5	32.9	34.6	33.4	31.8	31.1
16	30.0	30.3	34.4	34.5	34.8	32.4	30.3
17	32.3	34.1	33.4	34.3	32.7	30.1	33.4
18	32.6	34.8	34.7	35.9	35.5	35.2	33.0
19	34.0	34.6	32.9	35.1	32.9	35.1	34.1
20	32.3	33.4	30.2	33.7	31.2	31.0	33.8
21	31.8	32.0	38.3	37.2	35.0	29.8	30.9
22	33.4	34.2	32.4	30.5	33.0	28.4	37.5
23	33.0	28.0	34.2	-	33.0	38.0	33.0
24	34.7	29.2	25.5	-	32.2	25.5	35.5

10-12	31.8	32.1	32.1	32.3	33.0	30.4	32.7
14-16	30.1	29.9	33.8	34.5	34.0	32.1	30.7
0-24	33.1	33.4	33.9	34.1	33.4	31.4	33.5

7 Day Ave 33.3

Channel 1 - Northeastbound

85th Percentile

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	53.5	-	38.8	-	48.5	43.5	43.9
7	48.6	43.3	43.3	43.8	33.4	43.8	43.5
8	43.3	38.6	43.0	38.4	48.4	38.6	43.1
9	38.3	38.6	38.3	38.3	38.3	38.8	38.8
10	38.8	33.3	38.4	38.9	38.1	38.0	38.4
11	38.0	38.3	38.3	38.6	38.2	38.2	38.5
12	38.8	38.8	33.9	38.6	39.0	33.1	38.5
13	38.8	38.8	39.0	38.4	38.1	38.1	38.2
14	38.7	38.6	43.4	38.1	38.4	38.3	38.3
15	38.0	34.0	38.3	43.6	38.4	33.1	38.1
16	38.4	38.9	38.2	38.7	43.5	38.0	38.6
17	38.9	38.2	43.2	38.9	38.2	38.5	38.2
18	38.8	43.7	43.6	43.8	43.5	38.7	38.9
19	38.4	44.0	38.4	43.0	38.3	38.5	38.1
20	39.0	38.2	38.4	38.5	33.6	38.8	43.4
21	43.9	38.5	48.7	43.9	38.5	38.1	43.3
22	53.1	43.1	38.3	33.4	33.2	38.2	53.9
23	33.9	34.0	43.6	-	-	-	33.8
24	38.4	33.7	-	-	38.7	-	38.3

10-12	38.5	38.0	38.2	38.7	38.5	38.4	38.7
14-16	38.8	38.6	38.6	43.5	43.4	38.1	38.3
0-24	38.1	38.1	38.1	38.5	38.1	38.7	38.1

7 Day Ave 38.2

Watlington ATC, Pyrton Lane

Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Northeastbound

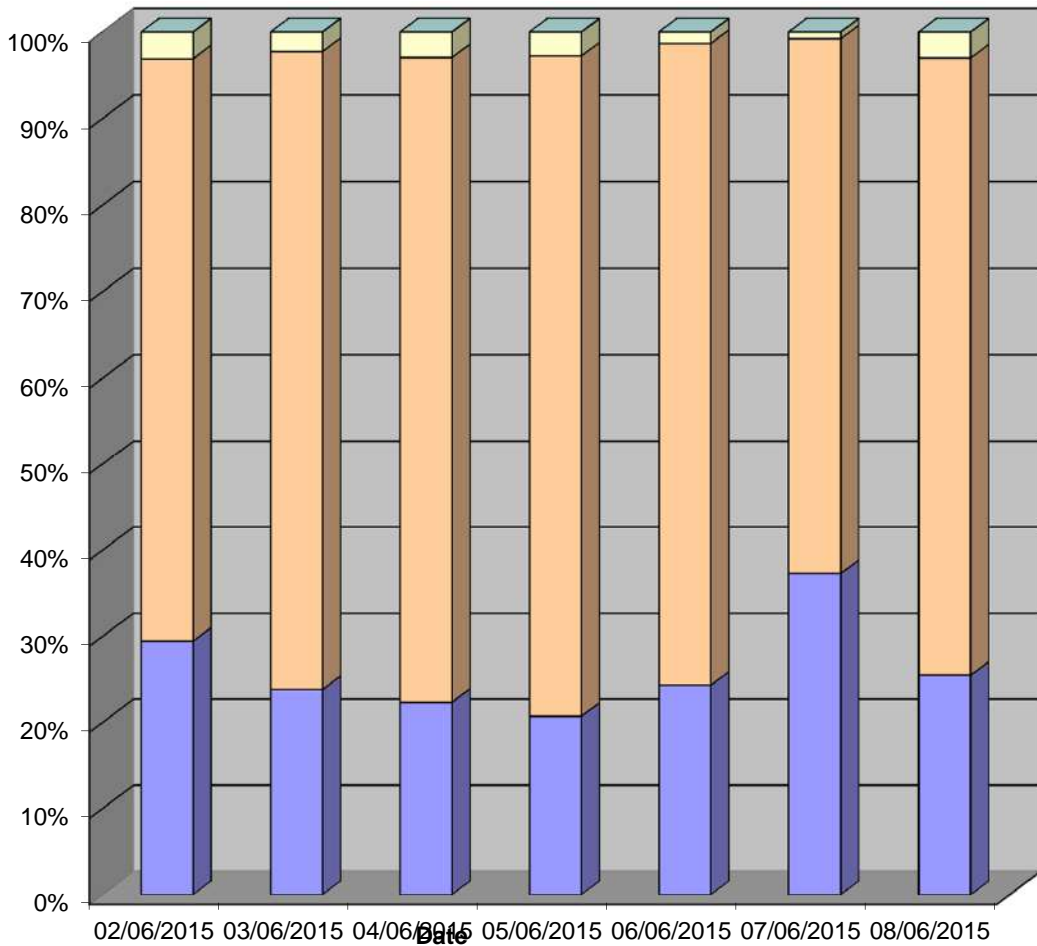
Speed Summary

Week 1

Speed (MPH)	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
0-30	210	159	144	128	74	97	162
31-45	481	493	481	472	226	161	454
46-60	22	15	19	17	4	2	19
61-	0	0	0	0	0	0	0

TOTAL	713	667	644	617	304	260	635
--------------	------------	------------	------------	------------	------------	------------	------------

Speed Summary (MPH)

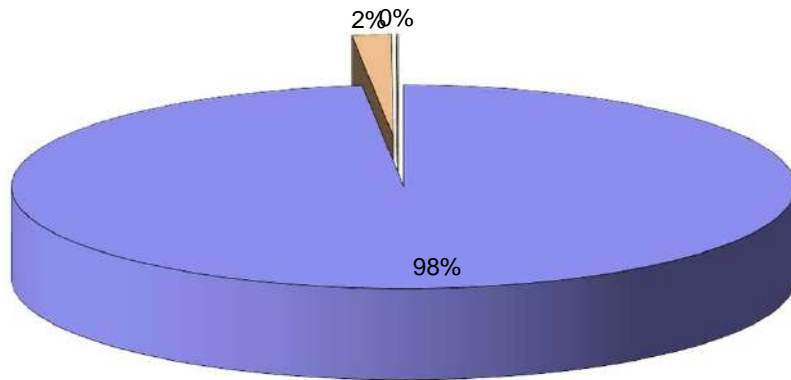


Watlington ATC, Pyrton Lane

Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Northeastbound		Vehicle Class			Week 1
Classes	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13	
Day / Time					
02/06/2015					
7-19	629	14	0	643	
6-22	687	14	1	702	
6-24	692	14	1	707	
0-24	698	14	1	713	
03/06/2015					
7-19	572	17	0	589	
6-22	641	19	0	660	
6-24	646	19	0	665	
0-24	648	19	0	667	
04/06/2015					
7-19	551	11	0	562	
6-22	626	11	0	637	
6-24	629	11	0	640	
0-24	633	11	0	644	
05/06/2015					
7-19	557	7	0	564	
6-22	606	8	0	614	
6-24	606	8	0	614	
0-24	609	8	0	617	
06/06/2015					
7-19	274	1	0	275	
6-22	296	1	0	297	
6-24	300	1	0	301	
0-24	303	1	0	304	
07/06/2015					
7-19	227	0	2	229	
6-22	252	0	2	254	
6-24	254	0	2	256	
0-24	258	0	2	260	
08/06/2015					
7-19	564	9	0	573	
6-22	614	9	0	623	
6-24	618	9	0	627	
0-24	626	9	0	635	
Average					
7-19	482	8	0	491	
6-22	532	9	0	541	
6-24	535	9	0	544	
0-24	539	9	0	549	

Total Vehicle Class Distribution



Watlington ATC, Pyrton Lane

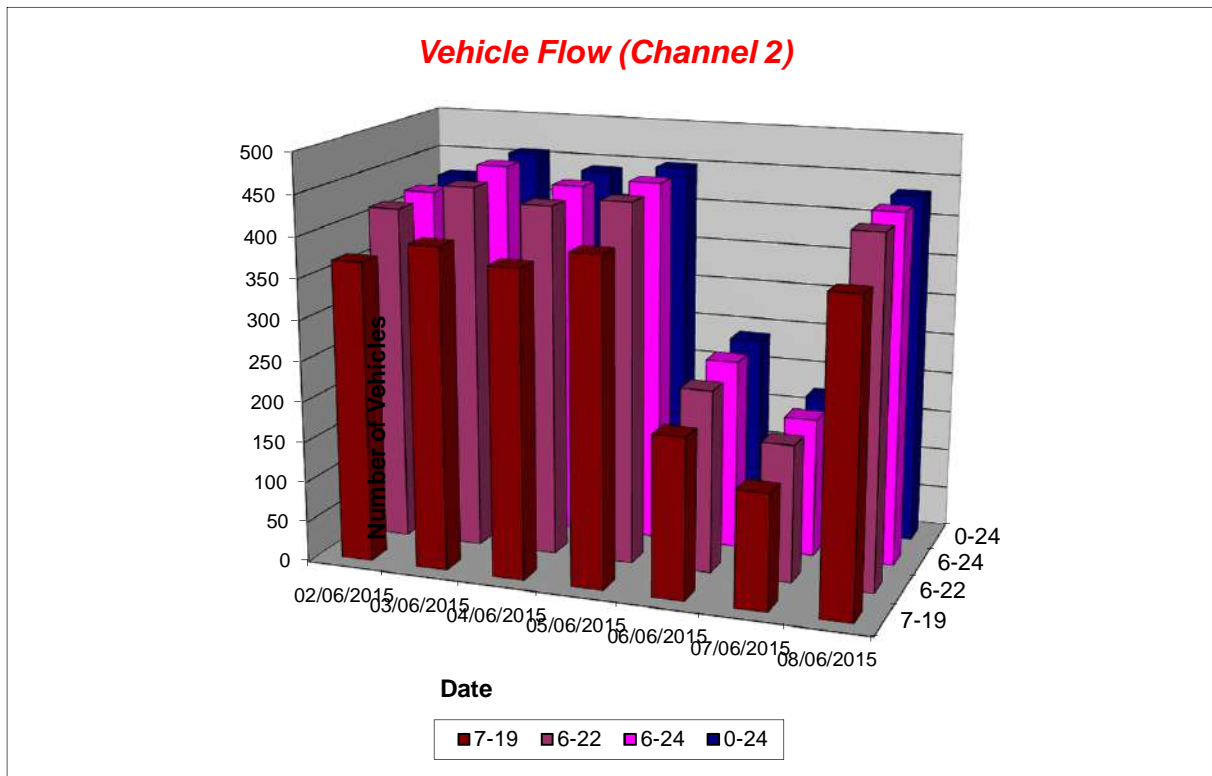
Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Southwestbound

Vehicle Flow

Week 1

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday	5 Day Ave	7 Day Ave
1	0	0	0	1	2	0	0	0	0
2	0	0	1	1	0	0	0	0	0
3	0	0	0	0	1	0	1	0	0
4	2	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	2	0	1	0	0	0	0	1	0
7	9	9	12	7	3	1	9	9	7
8	45	52	39	42	8	0	41	44	32
9	56	54	34	50	6	1	53	49	36
10	25	33	31	29	13	9	36	31	25
11	14	16	11	19	24	10	14	15	15
12	22	13	17	13	16	25	16	16	17
13	10	20	21	17	23	9	14	16	16
14	18	20	21	27	15	20	19	21	20
15	15	14	19	22	12	15	20	18	17
16	21	34	34	35	13	8	24	30	24
17	28	33	36	40	24	18	33	34	30
18	66	71	74	63	26	11	62	67	53
19	49	35	40	43	17	16	46	43	35
20	25	28	23	21	16	13	23	24	21
21	9	9	10	12	8	9	12	10	10
22	3	6	9	2	1	4	5	5	4
23	3	8	6	3	3	3	4	5	4
24	1	2	1	3	7	0	1	2	2
7-19	369	395	377	400	197	142	378	384	323
6-22	415	447	431	442	225	169	427	432	365
6-24	419	457	438	448	235	172	432	439	372
0-24	423	457	440	450	238	172	433	441	373



Watlington ATC, Pyrton Lane

Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Southwestbound

Average Speed

Week 1

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
1	-	-	-	48.0	34.2	-	-
2	-	-	38.0	25.5	-	-	-
3	-	-	-	-	43.0	-	33.0
4	43.0	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	31.8	-	33.0	-	-	-	-
7	33.3	33.3	36.8	33.0	38.0	38.0	38.3
8	33.6	32.3	33.9	32.0	35.5	-	33.4
9	31.0	33.3	33.1	33.9	33.4	33.0	32.6
10	33.6	30.1	34.3	30.0	31.7	30.5	32.5
11	33.5	28.8	32.8	29.6	31.8	31.2	33.5
12	29.8	29.0	29.0	31.5	30.0	29.8	29.1
13	33.8	29.8	32.6	29.3	32.0	33.8	32.3
14	29.1	31.1	33.0	31.2	30.8	30.4	29.6
15	28.5	28.0	30.5	30.7	31.8	31.3	29.9
16	28.7	29.8	32.4	30.4	29.3	33.0	30.1
17	32.0	31.8	31.6	33.2	33.8	29.2	32.4
18	32.3	33.6	33.4	33.4	29.2	29.8	32.4
19	34.0	33.5	32.8	34.6	33.0	34.9	33.8
20	31.9	33.3	31.4	34.4	32.2	31.5	32.3
21	29.9	30.2	33.8	32.0	30.5	33.8	31.1
22	28.0	35.5	33.8	31.8	33.0	26.1	29.5
23	34.7	31.4	33.0	32.2	26.3	37.2	36.8
24	25.5	35.5	25.5	36.3	40.9	-	25.5

10-12	31.3	28.9	30.5	30.3	31.1	30.2	31.2
14-16	28.6	29.2	31.7	30.5	30.5	31.9	30.0
0-24	32.0	31.9	32.8	32.4	32.0	31.3	32.3

7 Day Ave 32.1

Channel 2 - Southwestbound

85th Percentile

Hr Ending	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
1	-	-	-	-	43.7	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	48.0	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	38.3	-	-	-	-	-	-
7	38.8	38.6	38.4	38.7	38.4	-	43.4
8	38.3	38.3	38.5	38.6	38.9	-	43.7
9	38.2	38.1	38.8	38.8	43.7	-	38.1
10	38.5	38.5	43.5	38.2	43.1	38.2	38.8
11	38.3	33.2	38.4	38.8	38.6	38.1	38.7
12	33.3	39.0	33.5	38.2	33.7	38.4	33.5
13	38.0	38.1	38.2	39.0	38.0	39.0	38.2
14	33.5	38.0	38.6	38.1	38.4	38.5	38.2
15	33.2	33.3	38.5	38.1	43.4	38.5	38.3
16	38.9	38.5	38.7	38.8	38.3	39.0	38.8
17	38.6	38.9	38.9	38.4	44.0	33.2	38.1
18	38.8	38.5	38.4	43.5	38.8	33.4	38.5
19	38.9	38.4	38.3	38.1	38.7	38.4	38.8
20	38.3	43.8	38.3	43.1	38.4	38.3	38.8
21	38.5	33.8	43.2	43.2	38.7	43.5	38.3
22	33.1	53.7	38.5	38.0	-	38.1	39.0
23	38.6	38.7	38.2	38.7	38.4	48.5	43.8
24	-	39.0	-	38.5	58.4	-	-

10-12	34.0	33.3	38.4	38.6	33.9	39.0	33.9
14-16	33.1	33.5	38.9	38.2	38.1	38.6	38.9
0-24	38.9	38.4	38.5	38.5	38.6	38.9	38.4

7 Day Ave 38.6

Watlington ATC, Pyrton Lane

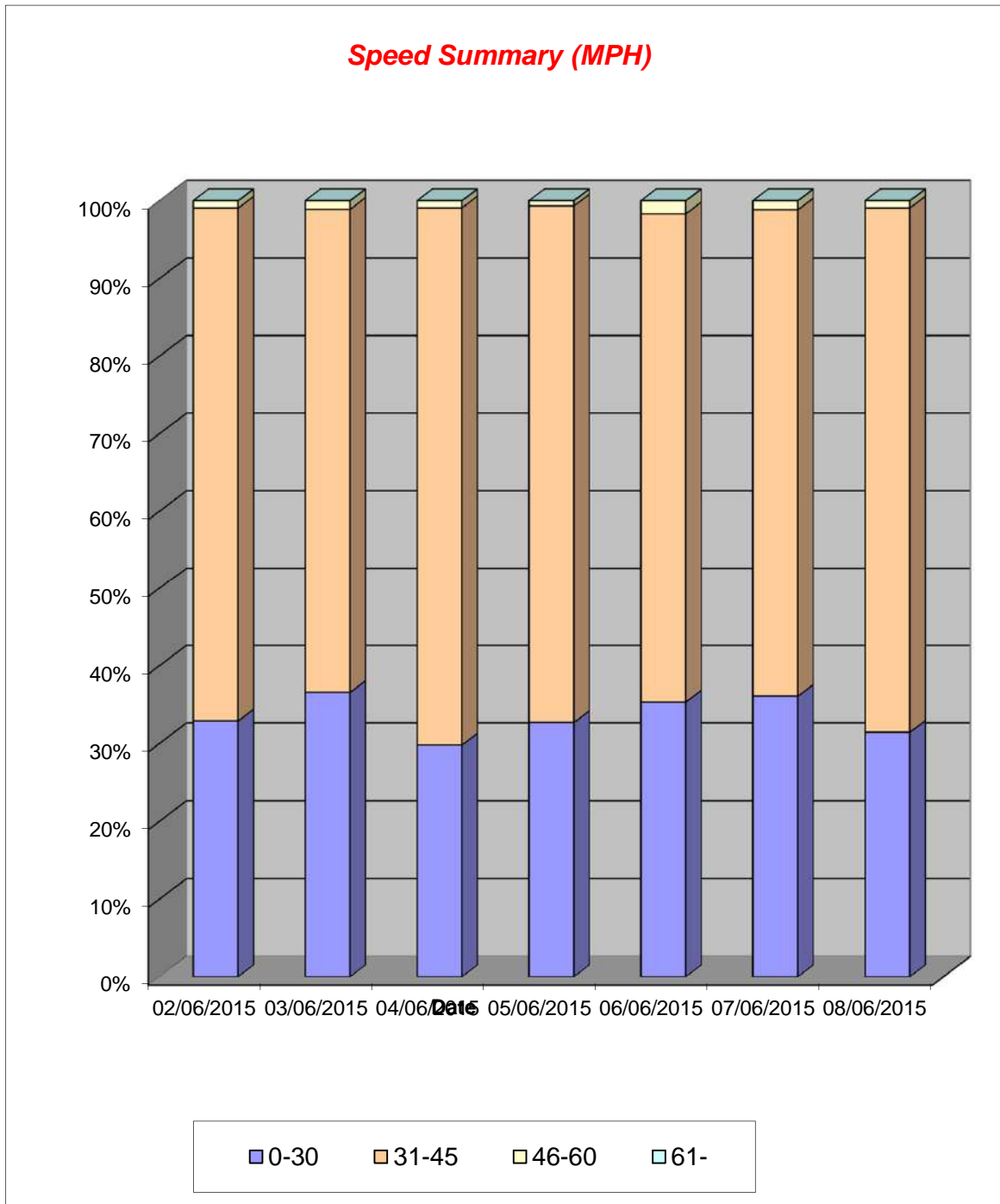
Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Southwestbound

Speed Summary

Week 1

Speed (MPH)	02/06/2015 Tuesday	03/06/2015 Wednesday	04/06/2015 Thursday	05/06/2015 Friday	06/06/2015 Saturday	07/06/2015 Sunday	08/06/2015 Monday
0-30	139	167	131	147	84	62	136
31-45	280	285	305	300	150	108	293
46-60	4	5	4	3	4	2	4
61-	0	0	0	0	0	0	0
TOTAL	423	457	440	450	238	172	433



Watlington ATC, Pyrton Lane

Produced by PCC Traffic Information Consultancy Ltd.

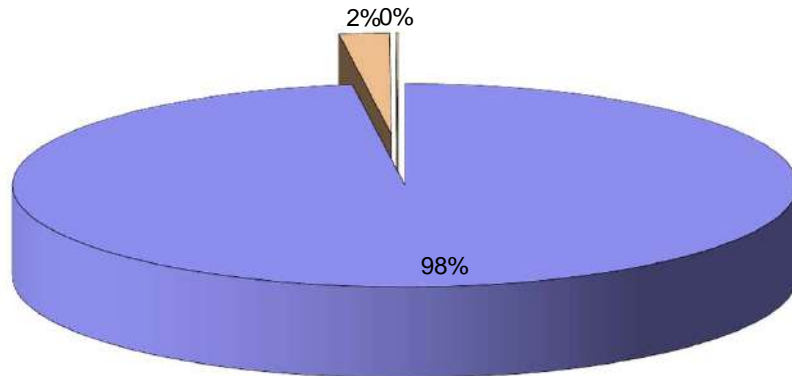
Channel 2 - Southwestbound

Vehicle Class

Week 1

Classes Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
02/06/2015				
7-19	352	16	1	369
6-22	395	18	2	415
6-24	399	18	2	419
0-24	403	18	2	423
03/06/2015				
7-19	384	11	0	395
6-22	436	11	0	447
6-24	446	11	0	457
0-24	446	11	0	457
04/06/2015				
7-19	370	7	0	377
6-22	422	9	0	431
6-24	429	9	0	438
0-24	431	9	0	440
05/06/2015				
7-19	393	7	0	400
6-22	435	7	0	442
6-24	441	7	0	448
0-24	443	7	0	450
06/06/2015				
7-19	197	0	0	197
6-22	225	0	0	225
6-24	235	0	0	235
0-24	238	0	0	238
07/06/2015				
7-19	141	1	0	142
6-22	168	1	0	169
6-24	171	1	0	172
0-24	171	1	0	172
08/06/2015				
7-19	370	8	0	378
6-22	419	8	0	427
6-24	424	8	0	432
0-24	425	8	0	433
Average				
7-19	315	7	0	323
6-22	357	8	0	365
6-24	364	8	0	372
0-24	365	8	0	373

Total Vehicle Class Distribution



Intelligent Data Collection Limited Watlington

Client:	Clarkebond
Project Number:	ID03046
Site Number:	Site 1
Week Commencing:	16/01/2017
Road Name:	B4009 Couching Street
Survey Type:	ATC
Direction AB	Flow from Watlington Garage (S) to High Street (N)
Direction BA	Flow from High Street (N) to Watlington Garage (S)

Intelligent Data - Automatic Traffic Count Output



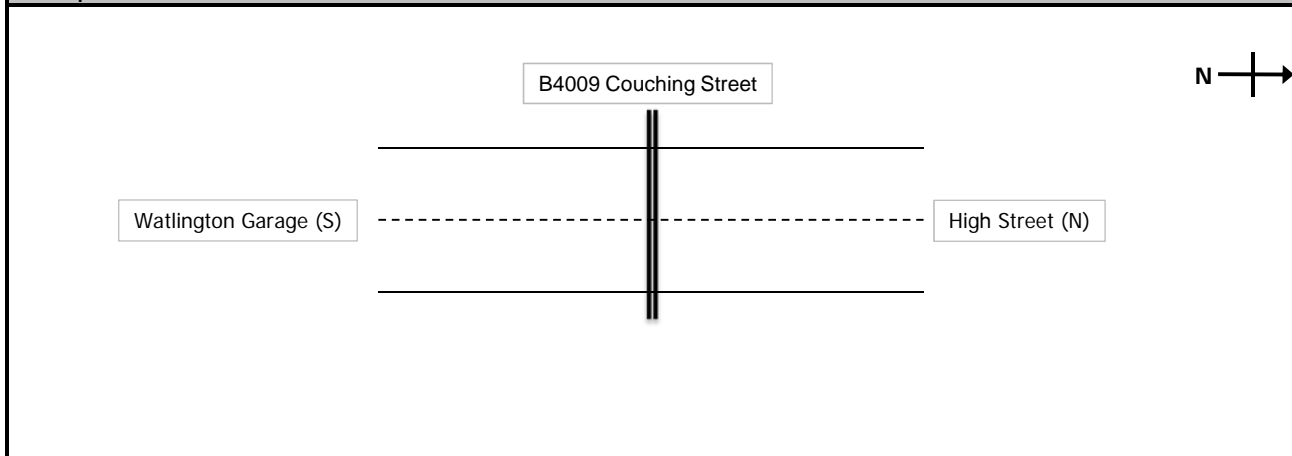
Road Name B4009 Couching Street
Direction AB Watlington Garage (S) **to:** High Street (N)
Direction BA High Street (N) **to:** Watlington Garage (S)

X Co-Ordinate	Y Co-Ordinate	ATC Start Date	ATC Finish Date	PSL
51.644332	-1.005374	22/01/2017	31/01/2017	30

Link to location on Google Maps (CTRL+Click)

<http://maps.google.co.uk/maps?hl=en&safe=off&q=51.644332,-1.005374&cr=countryUK|countryGB&um=1&ie=UTF-8&sa=N&tab=wl>

Site Map



Comments

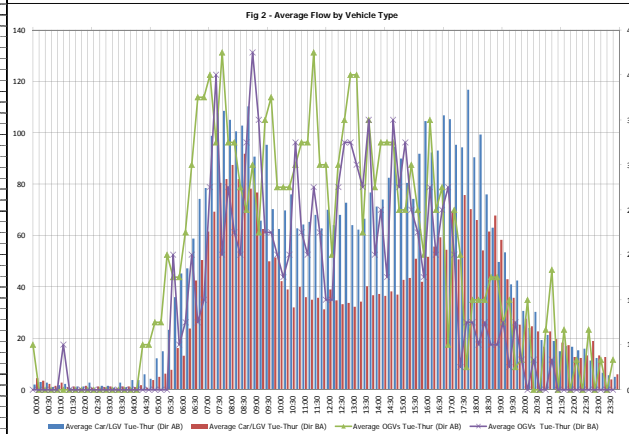
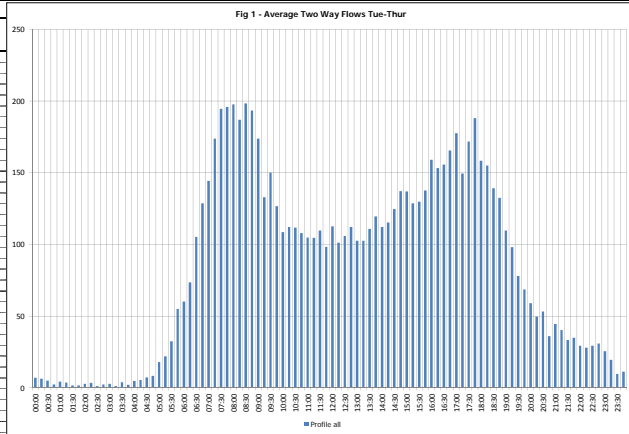
Comments section for additional information.

Prepared by	Richard Collins	Checked by	Luke Martin	Project Director	Paul O'Neill
--------------------	-----------------	-------------------	-------------	-------------------------	--------------

Clarkebond
Watlington

Flow Reporting

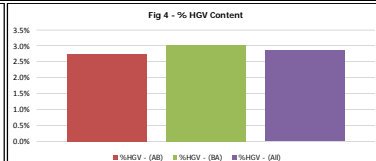
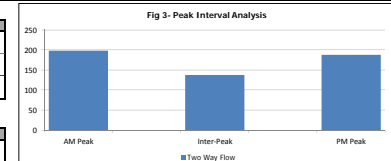
Time Interval	Average Car/LGV Tue-Thur (Dir AB)	Average Car/LGV Tue-Thur (Dir BA)	Average OGVs Tue-Thur (Dir AB)	Average OGVs Tue-Thur (Dir BA)	Profile all
00:00	2	5	1	0	7
00:15	3	4	0	0	7
00:30	3	2	0	0	5
00:45	1	2	0	0	3
01:00	2	3	0	0	5
01:15	2	1	0	1	4
01:30	1	1	0	0	2
01:45	1	1	0	0	2
02:00	1	2	0	0	3
02:15	3	1	0	0	4
02:30	0	1	0	0	1
02:45	2	1	0	0	3
03:00	2	1	0	0	3
03:15	1	1	0	0	1
03:30	3	1	0	0	4
03:45	1	1	0	0	2
04:00	4	1	0	0	5
04:15	4	2	0	0	6
04:30	6	1	1	0	7
04:45	4	4	1	0	9
05:00	12	5	1	0	18
05:15	15	6	1	0	22
05:30	23	8	2	0	31
05:45	36	16	1	2	55
06:00	45	13	1	1	60
06:15	47	24	2	1	74
06:30	59	43	3	2	105
06:45	74	51	3	1	129
07:00	79	62	4	2	144
07:15	99	69	4	2	174
07:30	108	81	3	4	195
07:45	109	82	3	2	196
08:00	105	88	3	2	198
08:15	101	82	3	2	187
08:30	103	92	2	2	198
08:45	110	78	2	3	193
09:00	91	77	3	4	174
09:15	66	63	2	3	133
09:30	59	59	3	2	150
09:45	70	52	3	2	127
10:00	63	42	2	2	109
10:15	70	39	2	1	112
10:30	76	32	2	2	112
10:45	63	40	3	3	108
11:00	64	36	3	3	105
11:15	65	35	3	2	105
11:30	68	36	4	2	110
11:45	63	31	3	1	98
12:00	70	39	3	1	113
12:15	64	35	2	1	101
12:30	68	32	4	2	106
12:45	73	34	3	3	112
13:00	64	32	4	3	103
13:15	62	24	4	3	103
13:30	67	40	2	2	111
13:45	77	37	3	3	120
14:00	77	37	2	2	112
14:15	74	37	3	2	115
14:30	83	38	3	1	125
14:45	95	37	3	3	137
15:00	90	43	2	2	137
15:15	81	44	2	3	129
15:30	74	51	3	2	130
15:45	92	42	2	2	138
16:00	105	52	2	1	159
16:15	92	56	3	2	153
16:30	93	59	2	2	156
16:45	107	55	2	2	166
17:00	105	70	1	2	178
17:15	95	53	2	2	160
17:30	94	76	2	0	172
17:45	117	70	0	1	188
18:00	91	66	1	1	158
18:15	99	54	1	1	155
18:30	76	62	1	1	139
18:45	63	68	1	1	133
19:00	50	58	1	1	110
19:15	54	43	1	1	98
19:30	41	36	1	0	78
19:45	43	25	0	1	69
20:00	31	28	0	0	59
20:15	24	25	1	0	50
20:30	30	23	0	0	53
20:45	19	17	0	0	36
21:00	21	23	1	0	45
21:15	19	20	1	0	40
21:30	15	18	0	0	33
21:45	17	17	1	0	35
22:00	17	13	0	0	29
22:15	15	12	0	0	28
22:30	16	13	0	0	29
22:45	11	19	1	0	31
23:00	12	13	0	0	26
23:15	7	13	0	0	20
23:30	6	4	0	0	10
23:45	5	6	0	0	11



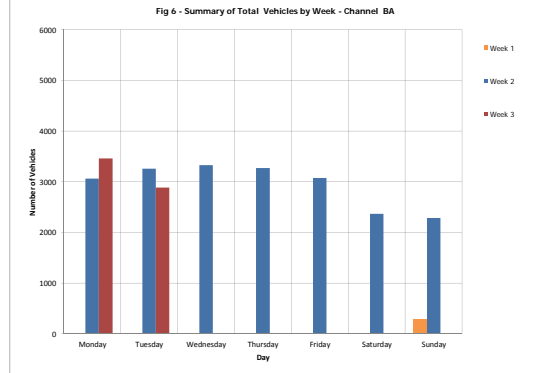
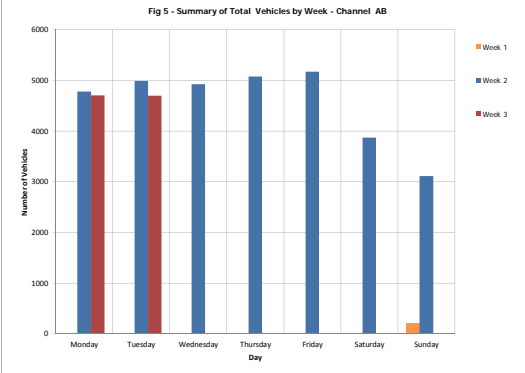
Peak Interval Analysis - Tue-Thurs

Peak	Time From	Time To	Two Way Flow
AM Peak	08:30:00	08:45:00	198
Inter-Peak	15:45:00	16:00:00	138
PM Peak	17:45:00	18:00:00	188

Category	%HGV - (AB)	%HGV - (BA)	%HGV - (All)
All	2.7%	3.0%	2.9%



Variation Analysis - Week on Week (By Direction)



Intelligent Data - Automatic Traffic Count Output



Period Commencing: 16/01/2017

Road Name: B4009 Couching Street

Flow from: Watlington Garage (S)

Vehicle Classification: All Vehicles

to: High Street (N)

Prepared by: Richard Collins

Checked by: Luke Martin

Hour Ending	Monday 16/01/2017	Tuesday 17/01/2017	Wednesday 18/01/2017	Thursday 19/01/2017	Friday 20/01/2017	Saturday 21/01/2017	Sunday 22/01/2017	Monday 23/01/2017	Tuesday 24/01/2017	Wednesday 25/01/2017	Thursday 26/01/2017	Friday 27/01/2017	Saturday 28/01/2017	Sunday 29/01/2017	Monday 30/01/2017	Tuesday 31/01/2017	Wednesday 01/02/2017	Thursday 02/02/2017	Friday 03/02/2017	Saturday 04/02/2017	Sunday 05/02/2017
01:00	*	*	*	*	*	*	*	6	7	14	12	17	26	18	11	4	*	*	*	*	*
02:00	*	*	*	*	*	*	*	7	4	5	7	9	8	14	1	7	*	*	*	*	*
03:00	*	*	*	*	*	*	*	3	3	8	5	8	10	13	6	6	*	*	*	*	*
04:00	*	*	*	*	*	*	*	13	4	4	11	4	6	1	10	5	*	*	*	*	*
05:00	*	*	*	*	*	*	*	22	19	15	19	19	11	18	14	22	*	*	*	*	*
06:00	*	*	*	*	*	*	*	100	104	89	78	77	21	13	104	92	*	*	*	*	*
07:00	*	*	*	*	*	*	*	256	208	233	249	207	49	31	265	251	*	*	*	*	*
08:00	*	*	*	*	*	*	*	373	416	399	395	361	123	77	325	423	*	*	*	*	*
09:00	*	*	*	*	*	*	*	438	450	374	444	435	215	107	278	466	*	*	*	*	*
10:00	*	*	*	*	*	*	*	332	311	365	349	344	320	221	337	318	*	*	*	*	*
11:00	*	*	*	*	*	*	*	298	308	262	280	274	344	269	285	282	*	*	*	*	*
12:00	*	*	*	*	*	*	*	271	276	279	260	306	315	293	299	282	*	*	*	*	*
13:00	*	*	*	*	*	*	*	275	312	278	282	325	357	305	309	279	*	*	*	*	*
14:00	*	*	*	*	*	*	*	244	272	301	298	371	353	243	248	263	*	*	*	*	*
15:00	*	*	*	*	*	*	*	332	342	366	312	399	291	263	337	323	*	*	*	*	*
16:00	*	*	*	*	*	*	*	304	348	382	339	396	254	254	323	322	*	*	*	*	*
17:00	*	*	*	*	*	*	*	392	396	392	434	427	285	287	402	409	*	*	*	*	*
18:00	*	*	*	*	*	*	*	392	443	411	431	411	279	193	402	391	*	*	*	*	*
19:00	*	*	*	*	*	*	*	335	333	291	341	304	181	164	329	374	*	*	*	*	*
20:00	*	*	*	*	*	*	*	164	168	184	239	207	143	134	161	178	*	*	*	*	*
21:00	*	*	*	*	*	*	*	88	97	107	115	113	110	99	117	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	60	63	80	73	62	67	51	73	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	34	39	52	59	71	50	53	30	44	*	*	*	*	*
00:00	*	*	*	*	*	*	*	24	21	31	33	29	42	48	23	*	*	*	*	*	*
Summary Data																					
0700-1900	0	0	0	0	0	0	0	3986	4207	4100	4165	4353	3317	2676	3874	4132	0	0	0	0	0
0600-2200	0	0	0	0	0	0	148	4566	4760	4697	4841	4942	3686	2991	4490	4561	0	0	0	0	0
0600-0000	0	0	0	0	0	0	206	4626	4843	4789	4941	5034	3787	3035	4557	4561	0	0	0	0	0
0000-0000	0	0	0	0	0	0	206	4777	4984	4924	5073	5168	3869	3112	4703	4697	0	0	0	0	0
0700-1000	0	0	0	0	0	0	0	1143	1177	1138	1188	1140	658	405	940	1207	0	0	0	0	0
1600-1900	0	0	0	0	0	0	0	1119	1172	1094	1206	1142	745	644	1133	1174	0	0	0	0	0
Peak Hour Analysis																					
07:00-10:00	0	0	0	0	0	0	0	438	450	399	444	435	320	221	337	466	0	0	0	0	0
10:00-16:00	0	0	0	0	0	0	0	332	348	382	339	399	357	305	337	323	0	0	0	0	0
16:00-19:00	0	0	0	0	0	0	0	392	443	411	434	427	285	287	402	409	0	0	0	0	0

Note: Peak Hour Analysis calculates and then highlights the highest flow within the period listed

Intelligent Data - Automatic Traffic Count Output



Period Commencing: 16/01/2017

Road Name: B4009 Couching Street

Flow from: High Street (N)

Vehicle Classification: All Vehicles

to: Watlington Garage (S)

Prepared by: Richard Collins

Checked by: Luke Martin

Hour Ending	Monday 16/01/2017	Tuesday 17/01/2017	Wednesday 18/01/2017	Thursday 19/01/2017	Friday 20/01/2017	Saturday 21/01/2017	Sunday 22/01/2017	Monday 23/01/2017	Tuesday 24/01/2017	Wednesday 25/01/2017	Thursday 26/01/2017	Friday 27/01/2017	Saturday 28/01/2017	Sunday 29/01/2017	Monday 30/01/2017	Tuesday 31/01/2017	Wednesday 01/02/2017	Thursday 02/02/2017	Friday 03/02/2017	Saturday 04/02/2017	Sunday 05/02/2017
01:00	*	*	*	*	*	*	*	15	12	14	12	21	21	30	22	9	*	*	*	*	*
02:00	*	*	*	*	*	*	*	15	4	8	10	7	16	18	9	3	*	*	*	*	*
03:00	*	*	*	*	*	*	*	3	4	2	10	6	2	8	3	2	*	*	*	*	*
04:00	*	*	*	*	*	*	*	5	4	4	6	6	5	3	7	3	*	*	*	*	*
05:00	*	*	*	*	*	*	*	10	6	11	7	4	5	3	10	5	*	*	*	*	*
06:00	*	*	*	*	*	*	*	51	36	44	33	30	19	5	59	34	*	*	*	*	*
07:00	*	*	*	*	*	*	*	169	137	125	136	100	35	14	179	137	*	*	*	*	*
08:00	*	*	*	*	*	*	*	357	296	304	292	278	71	32	452	323	*	*	*	*	*
09:00	*	*	*	*	*	*	*	387	352	420	318	261	89	39	412	304	*	*	*	*	*
10:00	*	*	*	*	*	*	*	264	252	289	252	158	119	87	260	214	*	*	*	*	*
11:00	*	*	*	*	*	*	*	168	150	163	154	159	174	126	167	177	*	*	*	*	*
12:00	*	*	*	*	*	*	*	141	152	147	144	141	163	181	142	140	*	*	*	*	*
13:00	*	*	*	*	*	*	*	148	160	155	145	175	243	195	144	133	*	*	*	*	*
14:00	*	*	*	*	*	*	*	131	142	144	170	186	197	188	132	163	*	*	*	*	*
15:00	*	*	*	*	*	*	*	143	156	145	181	174	181	178	148	148	*	*	*	*	*
16:00	*	*	*	*	*	*	*	175	200	176	202	208	182	188	172	178	*	*	*	*	*
17:00	*	*	*	*	*	*	*	145	232	237	221	274	191	211	226	228	*	*	*	*	*
18:00	*	*	*	*	*	*	*	166	277	235	283	241	177	193	268	292	*	*	*	*	*
19:00	*	*	*	*	*	*	*	175	259	268	250	206	145	152	239	235	*	*	*	*	*
20:00	*	*	*	*	*	*	*	149	175	158	174	167	122	138	177	153	*	*	*	*	*
21:00	*	*	*	*	*	*	*	117	106	88	88	101	109	67	98	98	*	*	*	*	*
22:00	*	*	*	*	*	*	*	82	71	77	75	85	68	56	100	67	*	*	*	*	*
23:00	*	*	*	*	*	*	*	51	45	51	75	46	51	38	65	39	*	*	*	*	*
00:00	*	*	*	*	*	*	*	31	24	33	39	45	45	30	26	*	*	*	*	*	*
Summary Data																					
0700-1900	0	0	0	0	0	0	0	2400	2628	2683	2612	2461	1932	1770	2742	2535	0	0	0	0	0
0600-2200	0	0	0	0	0	0	0	199	2895	3105	3108	2905	2212	2120	3283	2825	0	0	0	0	0
0600-0000	0	0	0	0	0	0	0	281	2964	3189	3243	3190	3001	2295	2215	3348	2825	0	0	0	0
0000-0000	0	0	0	0	0	0	0	281	3061	3255	3326	3268	3075	2363	2282	3458	2881	0	0	0	0
0700-1000	0	0	0	0	0	0	0	1008	900	1013	862	697	279	158	1124	841	0	0	0	0	0
1600-1900	0	0	0	0	0	0	0	486	768	740	754	721	513	556	733	755	0	0	0	0	0
Peak Hour Analysis																					
07:00-10:00	0	0	0	0	0	0	0	387	352	420	318	278	119	87	452	323	0	0	0	0	0
10:00-16:00	0	0	0	0	0	0	0	175	200	176	202	208	243	195	172	178	0	0	0	0	0
16:00-19:00	0	0	0	0	0	0	0	175	277	268	283	274	191	211	268	292	0	0	0	0	0

Note: Peak Hour Analysis calculates and then highlights the highest flow within the period listed

Intelligent Data - Automatic Traffic Count Output

Period Commencing: 16/01/2017
 Road Name: B4009 Couching Street

Prepared by: Richard Collins
 Checked by: Luke Martin



Speed Summary Data

A-B Direction

Date	Mean Speed (mph)	85%ile Speed (mph)
16/01/2017	-	-
17/01/2017	-	-
18/01/2017	-	-
19/01/2017	-	-
20/01/2017	-	-
21/01/2017	-	-
22/01/2017	22.5	28.4
23/01/2017	18.3	22.8
24/01/2017	17.8	22.6
25/01/2017	17.6	22.6
26/01/2017	20.0	24.2
27/01/2017	17.8	22.6
28/01/2017	18.8	23.3
29/01/2017	19.7	23.7
30/01/2017	17.9	22.8
31/01/2017	17.8	22.6
01/02/2017	-	-
02/02/2017	-	-
03/02/2017	-	-
04/02/2017	-	-
05/02/2017	-	-

B-A Direction

Date	Mean Speed (mph)	85%ile Speed (mph)
16/01/2017	-	-
17/01/2017	-	-
18/01/2017	-	-
19/01/2017	-	-
20/01/2017	-	-
21/01/2017	-	-
22/01/2017	22.7	26.4
23/01/2017	19.0	23.3
24/01/2017	18.2	22.6
25/01/2017	18.1	22.4
26/01/2017	20.5	24.5
27/01/2017	18.3	22.4
28/01/2017	19.0	23.3
29/01/2017	19.9	23.7
30/01/2017	18.3	23.0
31/01/2017	18.0	22.4
01/02/2017	-	-
02/02/2017	-	-
03/02/2017	-	-
04/02/2017	-	-
05/02/2017	-	-

These speeds represent those which are between 1%-10% above the posted speed limit

These speeds represent those which are between 10%-20% above the posted speed limit

These speeds represent those which are over 20% above the posted speed limit

Appendix D: Manual Traffic Count Data Sheets



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (1) Cuxham Road / Brook Street / Britwell Road

Approach: Cuxham Road

TIME	Left to Brook Street								Right to Britwell Road							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	16	2	0	0	1	19	0	0	7	0	0	0	0	7
0745 - 0800	0	0	16	2	0	0	0	18	0	0	14	1	0	0	0	15
Hourly Total	0	0	32	4	0	0	1	37	0	0	21	1	0	0	0	22
0800 - 0815	0	0	21	4	0	0	1	26	0	0	9	1	0	0	0	10
0815 - 0830	0	0	21	3	0	0	3	27	0	0	7	0	1	0	0	8
0830 - 0845	0	1	31	2	0	0	0	34	0	0	7	1	0	0	0	8
0845 - 0900	1	0	29	2	0	0	0	32	0	0	8	1	0	0	0	9
Hourly Total	1	1	102	11	0	0	4	119	0	0	31	3	1	0	0	35
0900 - 0915	0	0	12	0	0	0	1	13	0	0	5	0	0	0	0	5
0915 - 0930	0	0	19	3	0	0	0	22	0	0	8	3	0	0	0	11
Hourly Total	0	0	31	3	0	0	1	35	0	0	13	3	0	0	0	16
Session Total	1	1	165	18	0	0	6	191	0	0	65	7	1	0	0	73
1630 - 1645	0	0	15	5	0	0	0	20	0	0	6	1	0	0	0	7
1645 - 1700	0	0	15	3	0	0	0	18	0	0	2	2	1	0	1	6
Hourly Total	0	0	30	8	0	0	0	38	0	0	8	3	1	0	1	13
1700 - 1715	1	0	22	4	0	0	0	27	0	0	4	0	0	0	0	4
1715 - 1730	0	0	21	3	0	0	0	24	0	0	4	1	0	0	1	6
1730 - 1745	0	0	25	5	0	1	1	32	0	0	3	1	0	0	0	4
1745 - 1800	0	0	23	6	1	0	1	31	0	0	5	1	0	0	0	6
Hourly Total	1	0	91	18	1	1	2	114	0	0	16	3	0	0	1	20
1800 - 1815	0	1	26	3	0	0	1	31	0	0	11	1	0	0	0	12
1815 - 1830	0	1	30	1	0	0	0	32	0	0	11	1	0	0	0	12
Hourly Total	0	2	56	4	0	0	1	63	0	0	22	2	0	0	0	24
Session Total	1	2	177	30	1	1	3	215	0	0	46	8	1	0	2	57



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (1) Cuxham Road / Brook Street / Britwell Road

Approach: Brook Street

TIME	Ahead to Britwell Road								Right to Cuxham Road							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	1	0	50	5	0	0	2	58	0	0	21	4	0	0	1	26
0745 - 0800	1	1	57	9	1	0	0	69	0	0	25	4	0	0	0	29
Hourly Total	2	1	107	14	1	0	2	127	0	0	46	8	0	0	1	55
0800 - 0815	0	0	62	10	1	0	0	73	0	0	14	2	0	0	1	17
0815 - 0830	0	0	43	3	2	1	0	49	0	0	27	2	0	0	1	30
0830 - 0845	1	0	54	4	1	0	0	60	0	0	25	3	0	0	0	28
0845 - 0900	0	0	28	8	0	0	0	36	0	0	27	3	1	0	1	32
Hourly Total	1	0	187	25	4	1	0	218	0	0	93	10	1	0	3	107
0900 - 0915	0	0	37	8	0	0	1	46	0	0	23	2	0	0	0	25
0915 - 0930	0	0	22	5	2	0	0	29	0	0	29	2	0	0	1	32
Hourly Total	0	0	59	13	2	0	1	75	0	0	52	4	0	0	1	57
Session Total	3	1	353	52	7	1	3	420	0	0	191	22	1	0	5	219
1630 - 1645	0	0	37	9	0	0	0	46	0	0	26	3	0	0	0	29
1645 - 1700	0	0	39	16	0	0	0	55	0	0	19	4	2	0	1	26
Hourly Total	0	0	76	25	0	0	0	101	0	0	45	7	2	0	1	55
1700 - 1715	0	0	46	14	0	0	0	60	0	0	29	2	0	0	0	31
1715 - 1730	0	1	54	11	0	0	0	66	0	1	11	5	0	0	1	18
1730 - 1745	0	0	46	12	0	0	0	58	0	1	23	3	0	0	0	27
1745 - 1800	0	0	62	7	0	0	0	69	0	1	24	8	0	0	0	33
Hourly Total	0	1	208	44	0	0	0	253	0	3	87	18	0	0	1	109
1800 - 1815	0	1	63	8	0	0	0	72	0	0	22	1	0	0	1	24
1815 - 1830	0	0	58	3	0	0	0	61	1	1	25	1	0	0	0	28
Hourly Total	0	1	121	11	0	0	0	133	1	1	47	2	0	0	1	52
Session Total	0	2	405	80	0	0	0	487	1	4	179	27	2	0	3	216



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (1) Cuxham Road / Brook Street / Britwell Road

Approach: Britwell Road

TIME	Left to Cuxham Road								Ahead to Brook Street							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	13	1	0	0	1	15	0	0	51	5	0	0	0	56
0745 - 0800	0	0	14	0	0	1	0	15	1	0	62	5	2	0	0	70
Hourly Total	0	0	27	1	0	1	1	30	1	0	113	10	2	0	0	126
0800 - 0815	0	0	15	2	0	0	0	17	0	2	48	4	1	0	0	55
0815 - 0830	0	0	4	1	0	0	0	5	1	0	50	8	1	0	0	60
0830 - 0845	0	0	18	1	0	0	0	19	0	0	43	2	0	1	0	46
0845 - 0900	0	1	20	2	0	0	0	23	0	0	47	5	1	0	0	53
Hourly Total	0	1	57	6	0	0	0	64	1	2	188	19	3	1	0	214
0900 - 0915	0	0	13	2	0	0	0	15	0	0	26	5	0	0	0	31
0915 - 0930	0	0	4	2	0	0	0	6	0	0	32	5	1	0	0	38
Hourly Total	0	0	17	4	0	0	0	21	0	0	58	10	1	0	0	69
Session Total	0	1	101	11	0	1	1	115	2	2	359	39	6	1	0	409
1630 - 1645	0	0	4	2	0	0	0	6	0	0	33	5	0	0	0	38
1645 - 1700	0	0	6	1	0	0	0	7	2	0	48	3	0	0	0	53
Hourly Total	0	0	10	3	0	0	0	13	2	0	81	8	0	0	0	91
1700 - 1715	0	0	8	1	0	0	0	9	0	0	47	9	0	0	0	56
1715 - 1730	0	0	11	3	0	0	0	14	0	0	44	5	0	0	0	49
1730 - 1745	0	0	10	0	0	0	0	10	0	0	39	5	0	0	0	44
1745 - 1800	0	0	14	0	0	0	0	14	0	0	43	4	0	0	0	47
Hourly Total	0	0	43	4	0	0	0	47	0	0	173	23	0	0	0	196
1800 - 1815	0	0	13	1	1	0	0	15	1	1	47	6	0	0	0	55
1815 - 1830	0	0	8	0	0	0	0	8	0	1	42	3	0	0	0	46
Hourly Total	0	0	21	1	1	0	0	23	1	2	89	9	0	0	0	101
Session Total	0	0	74	8	1	0	0	83	3	2	343	40	0	0	0	388



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (2) Willow Close / Cuxham Road / Industrial Estate

Approach: Willow Close

TIME	Left to Cuxham Road (East)								Ahead to Industrial Estate								Right to Cuxham Road (West)							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	1	0	6	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
0745 - 0800	0	0	11	1	0	0	0	12	0	0	1	0	0	0	0	1	0	0	3	2	0	0	0	5
Hourly Total	1	0	17	1	0	0	0	19	0	0	1	0	0	0	1	0	0	5	2	0	0	0	7	
0800 - 0815	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
0815 - 0830	1	0	4	1	0	0	0	6	0	0	1	0	0	0	0	1	0	0	1	1	0	0	0	2
0830 - 0845	1	0	12	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0845 - 0900	3	0	7	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Hourly Total	5	0	29	1	0	0	0	35	0	0	1	0	0	0	1	0	0	4	1	0	0	0	5	
0900 - 0915	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
0915 - 0930	0	0	5	0	0	0	0	5	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
Hourly Total	0	0	7	0	0	0	0	7	0	0	1	0	0	0	1	0	0	0	2	0	0	0	2	
Session Total	6	0	53	2	0	0	0	61	0	0	3	0	0	0	3	0	0	9	5	0	0	0	14	
1630 - 1645	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1645 - 1700	0	0	4	1	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	5	1	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1700 - 1715	1	0	5	2	0	0	0	8	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
1715 - 1730	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1730 - 1745	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1745 - 1800	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Hourly Total	1	0	15	2	0	0	0	18	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	
1800 - 1815	1	0	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
1815 - 1830	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Hourly Total	1	0	5	0	0	0	0	6	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	
Session Total	2	0	25	3	0	0	0	30	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (2) Willow Close / Cuxham Road / Industrial Estate

Approach: Cuxham Road (East)

TIME	Left to Industrial Estate								Ahead to Cuxham Road (West)								Right to Willow Close								U-Turn							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	5	1	0	0	0	6	2	0	19	1	0	0	1	23	0	0	5	0	0	0	0	5	0	0	0	0	0	1	1	
0745 - 0800	0	0	5	1	0	1	0	7	0	0	21	4	0	0	0	25	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	
Hourly Total	0	0	10	2	0	1	0	13	2	0	40	5	0	0	1	48	0	0	8	0	0	0	0	8	0	0	0	0	1	1		
0800 - 0815	0	0	4	0	0	0	0	4	0	0	15	5	0	0	1	21	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	
0815 - 0830	0	0	9	0	0	0	1	10	0	0	27	2	0	0	0	29	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	
0830 - 0845	0	0	5	1	0	0	0	6	0	0	18	3	0	0	1	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0845 - 0900	0	0	3	0	0	0	0	3	0	0	25	3	0	0	0	28	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	
Hourly Total	0	0	21	1	0	0	1	23	0	0	85	13	0	0	2	100	0	0	5	2	0	0	0	7	0	0	0	0	0	0		
0900 - 0915	0	0	4	0	0	0	0	4	0	0	19	1	0	0	0	20	0	0	4	0	0	0	0	4	0	0	1	0	0	0	1	
0915 - 0930	0	0	0	2	1	0	0	3	0	0	20	3	0	0	1	24	0	0	8	0	0	0	0	8	0	0	1	0	0	0	1	
Hourly Total	0	0	4	2	1	0	0	7	0	0	39	4	0	0	1	44	0	0	12	0	0	0	0	12	0	0	2	0	0	2		
Session Total	0	0	35	5	1	1	1	43	2	0	164	22	0	0	4	192	0	0	25	2	0	0	0	27	0	0	2	0	0	3		
1630 - 1645	0	0	0	0	0	0	0	0	1	0	25	2	0	0	0	28	1	0	3	1	0	0	0	5	0	0	0	1	0	0	1	
1645 - 1700	0	0	0	0	1	0	0	1	2	0	15	2	1	0	1	21	0	0	6	1	0	0	0	7	0	0	1	0	0	0	1	
Hourly Total	0	0	0	0	1	0	0	1	3	0	40	4	1	0	1	49	1	0	9	2	0	0	0	12	0	0	1	1	0	2		
1700 - 1715	0	0	0	0	0	0	0	0	0	0	27	7	0	0	0	34	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	
1715 - 1730	0	0	0	0	0	0	0	0	0	0	21	6	0	0	0	27	0	0	2	1	0	0	0	3	0	0	0	0	0	1	1	
1730 - 1745	0	0	0	1	0	0	0	1	0	1	18	3	0	0	0	22	0	0	9	1	0	0	0	10	0	0	0	0	0	0	0	
1745 - 1800	0	0	1	0	0	0	0	1	1	0	20	4	0	0	0	25	0	0	4	3	0	0	0	7	0	0	0	0	0	0	0	
Hourly Total	0	0	1	1	0	0	0	2	1	1	86	20	0	0	0	108	0	0	24	5	0	0	0	29	0	0	0	0	1	1		
1800 - 1815	0	0	0	0	1	0	0	1	0	1	21	4	0	0	1	27	0	0	9	0	0	0	0	9	0	0	1	0	0	0	1	
1815 - 1830	0	0	0	0	0	0	0	0	0	1	19	0	0	0	0	20	0	0	8	1	0	0	0	9	0	0	0	0	0	0	0	
Hourly Total	0	0	0	0	1	0	0	1	0	2	40	4	0	0	1	47	0	0	17	1	0	0	0	18	0	0	1	0	0	1		
Session Total	0	0	1	1	2	0	0	4	4	3	166	28	1	0	2	204	1	0	50	8	0	0	0	59	0	0	2	1	0	4		



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (2) Willow Close / Cuxham Road / Industrial Estate

Approach: Industrial Estate

TIME	Left to Cuxham Road (West)								Ahead to Willow Close								Right to Cuxham Road (East)							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
Hourly Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
0800 - 0815	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4
0815 - 0830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
0830 - 0845	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
0845 - 0900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Hourly Total	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2	5	1	0	0	8
0900 - 0915	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0915 - 0930	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3
Session Total	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	4	8	1	0	0	13
1630 - 1645	0	0	1	0	1	0	0	2	0	0	1	0	0	0	0	1	1	0	4	3	0	0	0	8
1645 - 1700	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2
Hourly Total	0	0	1	2	1	0	0	4	0	0	1	0	0	0	0	1	1	0	5	3	1	0	0	10
1700 - 1715	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	4	0	0	0	0	4
1715 - 1730	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	5
1730 - 1745	0	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	18	0	0	1	0	19
1745 - 1800	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4
Hourly Total	0	0	5	1	0	0	0	6	0	0	1	0	0	0	0	1	0	0	29	2	0	1	0	32
1800 - 1815	0	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13
1815 - 1830	0	0	2	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	5	0	0	0	0	5
Hourly Total	0	0	4	1	0	0	0	5	0	0	1	0	0	0	0	1	0	0	17	1	0	0	0	18
Session Total	0	0	10	4	1	0	0	15	0	0	3	0	0	0	0	3	1	0	51	6	1	1	0	60



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (2) Willow Close / Cuxham Road / Industrial Estate

Approach: Cuxham Road (West)

TIME	Left to Willow Close								Ahead to Cuxham Road (East)								Right to Industrial Estate								U-Turn							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	0	1	0	0	0	1	0	0	22	5	0	0	0	27	0	0	2	0	1	0	0	3	0	0	0	0	0	0	0	
0745 - 0800	0	0	2	0	0	0	0	2	0	0	31	2	0	0	1	34	0	0	2	0	1	0	0	3	0	0	0	0	0	0	0	
Hourly Total	0	0	2	1	0	0	0	3	0	0	53	7	0	0	1	61	0	0	4	0	1	1	0	6	0	0	0	0	0	0		
0800 - 0815	0	0	1	1	0	0	0	2	0	0	26	7	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0815 - 0830	0	0	0	0	0	0	0	0	0	0	25	4	0	0	3	32	0	0	0	1	0	0	0	1	0	0	0	0	0	0		
0830 - 0845	0	0	0	0	0	0	0	0	2	1	27	5	0	0	0	35	0	0	1	0	0	0	0	1	0	0	0	0	0	0		
0845 - 0900	0	0	0	0	0	0	0	0	1	0	27	2	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	1	1	0	0	0	2	3	1	105	18	0	0	3	130	0	0	1	1	0	0	0	2	0	0	0	0	0	0		
0900 - 0915	0	0	0	0	0	0	0	0	0	1	16	1	0	0	1	19	0	0	0	1	0	0	0	1	0	0	0	0	0	0		
0915 - 0930	0	0	0	0	0	0	0	0	0	0	17	2	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hourly Total	0	0	0	0	0	0	0	0	0	1	33	3	0	0	1	38	0	0	0	1	0	0	0	1	0	0	0	0	0	0		
Session Total	0	0	3	2	0	0	0	5	3	2	191	28	0	0	5	229	0	0	5	2	1	1	0	9	0	0	0	0	0	0		
1630 - 1645	0	0	1	0	0	0	0	1	0	0	14	5	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	1	0	0		
1645 - 1700	0	0	1	0	0	0	0	1	0	0	14	5	0	0	1	20	0	0	0	0	1	0	0	1	0	0	0	0	0	0		
Hourly Total	0	0	2	0	0	0	0	2	0	0	33	10	0	0	1	44	0	0	0	0	1	0	0	1	0	0	0	1	0	0		
1700 - 1715	0	0	0	1	0	0	0	1	0	0	26	5	0	0	0	31	0	0	0	1	0	0	0	1	0	0	0	0	0	0		
1715 - 1730	0	0	2	0	0	0	0	2	1	0	35	5	0	0	0	40	0	0	0	1	0	1	0	2	0	0	0	0	0	0		
1730 - 1745	0	0	2	0	0	0	0	2	1	0	30	3	0	0	1	35	0	0	0	0	1	0	0	1	0	0	1	0	0	0		
1745 - 1800	0	0	3	1	0	0	0	4	0	0	25	6	1	0	1	33	0	0	1	0	0	0	0	1	0	0	0	0	0	0		
Hourly Total	0	0	5	3	0	0	0	8	1	0	116	19	1	0	2	139	0	0	1	2	1	1	0	5	0	0	1	0	0	1		
1800 - 1815	0	0	3	0	0	0	0	3	0	1	30	6	0	0	1	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1815 - 1830	0	0	2	0	0	0	0	2	0	1	29	1	0	0	0	31	0	0	1	0	0	0	0	1	0	0	0	0	0	0		
Hourly Total	0	0	5	0	0	0	0	5	0	2	59	7	0	0	1	69	0	0	1	0	0	0	0	1	0	0	0	0	0	0		
Session Total	0	0	12	3	0	0	0	15	1	2	208	36	1	0	4	252	0	0	2	2	2	1	0	7	0	0	1	1	0	0	2	



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (3) Pyrton Lane / Cuxham Road

Approach: Pyrton Lane

TIME	Left to Cuxham Road (East)								Right to Cuxham Road (West)							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	4	0	0	0	0	4	1	0	5	1	0	0	0	7
0745 - 0800	0	0	9	0	0	0	0	9	0	0	8	1	0	0	0	9
Hourly Total	0	0	13	0	0	0	0	13	1	0	13	2	0	0	0	16
0800 - 0815	0	0	8	0	0	0	0	8	0	0	4	2	0	0	0	6
0815 - 0830	0	0	5	0	0	0	0	5	0	0	6	1	0	0	0	7
0830 - 0845	0	0	4	0	0	0	0	4	0	0	5	1	0	0	0	6
0845 - 0900	0	0	11	0	0	0	0	11	0	0	12	0	0	0	0	12
Hourly Total	0	0	28	0	0	0	0	28	0	0	27	4	0	0	0	31
0900 - 0915	0	0	1	0	0	0	0	1	0	0	8	0	0	0	0	8
0915 - 0930	0	0	8	3	0	0	0	11	0	0	4	2	1	0	0	7
Hourly Total	0	0	9	3	0	0	0	12	0	0	12	2	1	0	0	15
Session Total	0	0	50	3	0	0	0	53	1	0	52	8	1	0	0	62
1630 - 1645	0	0	1	1	0	0	0	2	2	0	6	0	0	0	0	8
1645 - 1700	0	0	3	1	0	0	0	4	0	0	4	0	0	0	0	4
Hourly Total	0	0	4	2	0	0	0	6	2	0	10	0	0	0	0	12
1700 - 1715	0	0	7	1	0	0	0	8	0	0	6	2	0	0	0	8
1715 - 1730	0	0	4	0	0	0	0	4	0	0	7	1	0	0	0	8
1730 - 1745	0	0	5	0	0	0	0	5	0	0	8	2	0	0	0	10
1745 - 1800	0	0	6	2	0	0	0	8	1	0	3	0	0	0	0	4
Hourly Total	0	0	22	3	0	0	0	25	1	0	24	5	0	0	0	30
1800 - 1815	0	0	4	0	0	0	0	4	0	0	7	1	0	0	0	8
1815 - 1830	0	0	6	0	0	0	0	6	0	0	8	1	0	0	0	9
Hourly Total	0	0	10	0	0	0	0	10	0	0	15	2	0	0	0	17
Session Total	0	0	36	5	0	0	0	41	3	0	49	7	0	0	0	59



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (3) Pyrton Lane / Cuxham Road

Approach: Cuxham Road (East)

TIME	Ahead to Cuxham Road (West)								Right to Pyrton Lane							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	1	0	24	1	0	0	2	28	0	0	15	1	0	0	0	16
0745 - 0800	0	0	21	4	0	1	0	26	0	0	13	2	0	0	0	15
Hourly Total	1	0	45	5	0	1	2	54	0	0	28	3	0	0	0	31
0800 - 0815	0	0	15	2	0	0	1	18	0	0	15	1	0	0	0	16
0815 - 0830	0	0	28	4	0	0	1	33	0	0	8	0	0	0	0	8
0830 - 0845	0	0	18	2	0	0	1	21	0	0	25	1	0	0	0	26
0845 - 0900	0	0	21	4	0	0	0	25	0	1	26	3	1	0	0	31
Hourly Total	0	0	82	12	0	0	3	97	0	1	74	5	1	0	0	81
0900 - 0915	0	0	21	1	0	0	0	22	0	0	14	2	0	0	0	16
0915 - 0930	0	0	26	3	0	0	1	30	0	0	8	0	0	0	0	8
Hourly Total	0	0	47	4	0	0	1	52	0	0	22	2	0	0	0	24
Session Total	1	0	174	21	0	1	6	203	0	1	124	10	1	0	0	136
1630 - 1645	0	0	25	3	0	0	0	28	0	0	5	1	0	0	0	6
1645 - 1700	2	0	13	4	2	0	1	22	0	0	6	0	0	0	0	6
Hourly Total	2	0	38	7	2	0	1	50	0	0	11	1	0	0	0	12
1700 - 1715	0	0	34	4	0	0	0	38	0	0	6	0	0	0	0	6
1715 - 1730	0	0	13	5	0	0	1	19	0	1	9	1	0	0	0	11
1730 - 1745	0	1	23	3	0	0	0	27	0	0	10	0	0	0	0	10
1745 - 1800	0	1	17	7	0	0	0	25	0	0	15	0	0	0	0	15
Hourly Total	0	2	87	19	0	0	1	109	0	1	40	1	0	0	0	42
1800 - 1815	0	0	27	3	1	0	1	32	0	0	7	0	0	0	0	7
1815 - 1830	1	1	20	0	0	0	0	22	0	0	11	0	0	0	0	11
Hourly Total	1	1	47	3	1	0	1	54	0	0	18	0	0	0	0	18
Session Total	3	3	172	29	3	0	3	213	0	1	69	2	0	0	0	72



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (3) Pyrton Lane / Cuxham Road

Approach: Cuxham Road (West)

TIME	Left to Pyrton Lane								Ahead to Cuxham Road (East)							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	1	0	11	2	0	0	0	14	0	0	16	3	0	0	1	20
0745 - 0800	0	0	22	3	0	0	0	25	1	0	21	2	0	0	0	24
Hourly Total	1	0	33	5	0	0	0	39	1	0	37	5	0	0	1	44
0800 - 0815	0	0	15	6	0	0	0	21	0	0	18	4	0	0	1	23
0815 - 0830	1	0	5	2	0	0	0	8	0	0	22	3	1	0	3	29
0830 - 0845	3	0	10	2	0	0	0	15	0	1	33	3	0	0	0	37
0845 - 0900	4	0	9	1	0	0	0	14	0	0	25	2	0	0	0	27
Hourly Total	8	0	39	11	0	0	0	58	0	1	98	12	1	0	4	116
0900 - 0915	0	1	5	0	0	0	0	6	0	0	15	1	0	0	1	17
0915 - 0930	0	0	3	2	0	0	0	5	0	0	21	1	0	0	0	22
Hourly Total	0	1	8	2	0	0	0	11	0	0	36	2	0	0	1	39
Session Total	9	1	80	18	0	0	0	108	1	1	171	19	1	0	6	199
1630 - 1645	1	0	6	5	0	0	0	12	0	0	18	4	0	0	0	22
1645 - 1700	0	0	4	1	0	0	0	5	0	0	16	5	1	0	1	23
Hourly Total	1	0	10	6	0	0	0	17	0	0	34	9	1	0	1	45
1700 - 1715	0	0	17	4	0	0	0	21	1	0	20	4	0	0	0	25
1715 - 1730	0	0	13	3	0	0	0	16	0	0	28	2	0	0	1	31
1730 - 1745	1	0	20	0	0	0	0	21	0	0	27	4	0	1	1	33
1745 - 1800	0	0	10	1	0	0	0	11	0	1	25	5	1	0	1	33
Hourly Total	1	0	60	8	0	0	0	69	1	1	100	15	1	1	3	122
1800 - 1815	1	0	14	1	0	0	0	16	0	1	31	5	0	0	1	38
1815 - 1830	0	0	6	1	0	0	0	7	0	0	29	1	0	0	0	30
Hourly Total	1	0	20	2	0	0	0	23	0	1	60	6	0	0	1	68
Session Total	3	0	90	16	0	0	0	109	1	2	194	30	2	1	5	235



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (4) Watlington Road / Station Road / Shirburn Road / Pyrton Lane

Approach: Watlington Road

TIME	Left to Station Road								Ahead to Shirburn Road								Right to Pyrton Lane							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0	100	23	0	0	3	126	0	0	12	1	0	0	0	13
0745 - 0800	0	0	0	0	0	0	0	0	0	1	101	19	2	0	0	123	0	0	12	1	0	0	0	13
Hourly Total	0	0	0	0	0	0	0	0	0	1	201	42	2	0	3	249	0	0	24	2	0	0	0	26
0800 - 0815	0	0	0	0	0	0	0	0	0	0	89	14	1	0	1	105	0	0	9	2	0	0	0	11
0815 - 0830	0	0	0	0	0	0	0	0	0	1	106	15	2	0	2	126	0	0	8	2	0	0	0	10
0830 - 0845	0	0	0	0	0	0	0	0	0	0	80	12	0	0	0	92	0	0	10	2	0	0	0	12
0845 - 0900	0	0	0	0	0	0	0	0	0	0	77	14	0	0	1	92	0	0	22	0	0	0	0	22
Hourly Total	0	0	0	0	0	0	0	0	0	1	352	55	3	0	4	415	0	0	49	6	0	0	0	55
0900 - 0915	0	0	0	0	0	0	0	0	0	0	73	15	1	1	0	90	0	0	9	0	0	0	0	9
0915 - 0930	0	0	0	0	0	0	0	0	0	0	61	7	2	1	0	71	0	0	8	6	1	0	0	15
Hourly Total	0	0	0	0	0	0	0	0	0	0	134	22	3	2	0	161	0	0	17	6	1	0	0	24
Session Total	0	0	0	0	0	0	0	0	0	2	687	119	8	2	7	825	0	0	90	14	1	0	0	105
1630 - 1645	0	0	0	0	0	0	0	0	0	0	48	12	0	0	0	60	0	0	7	1	0	0	0	8
1645 - 1700	0	0	2	0	0	0	0	2	0	0	49	24	2	0	0	75	0	0	3	2	0	0	1	6
Hourly Total	0	0	2	0	0	0	0	2	0	0	97	36	2	0	0	135	0	0	10	3	0	0	1	14
1700 - 1715	0	0	0	1	0	0	0	1	0	0	65	18	0	0	0	83	0	0	10	3	0	0	0	13
1715 - 1730	0	0	0	1	0	0	0	1	0	1	67	14	2	1	0	85	0	0	13	1	0	0	0	14
1730 - 1745	0	0	1	0	0	0	0	1	0	1	82	13	1	0	0	97	0	0	11	4	0	0	0	15
1745 - 1800	0	0	0	0	0	0	0	0	0	1	97	13	0	0	0	111	0	0	12	1	0	0	0	13
Hourly Total	0	0	1	2	0	0	0	3	0	3	311	58	3	1	0	376	0	0	46	9	0	0	0	55
1800 - 1815	0	0	0	0	0	0	0	0	1	0	96	10	2	0	1	110	0	0	14	1	0	0	0	15
1815 - 1830	0	0	1	0	0	0	0	1	0	0	109	3	0	0	1	113	0	0	19	0	0	0	0	19
Hourly Total	0	0	1	0	0	0	0	1	1	0	205	13	2	0	2	223	0	0	33	1	0	0	0	34
Session Total	0	0	4	2	0	0	0	6	1	3	613	107	7	1	2	734	0	0	89	13	0	0	1	103



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (4) Watlington Road / Station Road / Shirburn Road / Pyrton Lane

Approach: Station Road

TIME	Left to Shirburn Road								Ahead to Pyrton Lane								Right to Watlington Road							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
0800 - 0815	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1
0815 - 0830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0830 - 0845	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0845 - 0900	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	4	0	0	0	0	4	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	
0900 - 0915	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
0915 - 0930	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	
Session Total	0	0	4	0	0	0	0	4	0	0	2	0	0	0	0	2	0	0	1	2	0	0	3	
1630 - 1645	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
1645 - 1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	
1700 - 1715	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
1715 - 1730	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1730 - 1745	0	0	1	1	0	0	0	2	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	2
1745 - 1800	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Hourly Total	0	0	4	1	0	0	0	5	0	0	1	1	0	0	0	2	0	3	1	0	0	0	4	
1800 - 1815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1815 - 1830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Session Total	0	0	5	1	0	0	0	6	0	0	1	1	0	0	0	2	0	5	1	0	0	0	6	



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (4) Watlington Road / Station Road / Shirburn Road / Pyrton Lane

Approach: Shirburn Road

TIME	Left to Pyrton Lane								Ahead to Watlington Road								Right to Station Road							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0	85	13	1	0	0	99	0	0	1	0	0	0	0	1
0745 - 0800	0	0	0	0	0	0	0	0	0	0	77	8	0	1	0	86	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	162	21	1	1	0	185	0	0	1	0	0	0	0	1
0800 - 0815	0	0	0	0	0	0	0	0	1	1	75	11	2	0	0	90	0	0	1	0	0	0	0	1
0815 - 0830	0	0	3	0	0	0	0	3	0	1	77	6	0	1	5	90	0	0	0	0	0	0	0	0
0830 - 0845	0	0	1	0	0	0	0	1	0	0	65	9	1	1	1	77	0	0	0	0	0	0	0	0
0845 - 0900	0	0	5	0	0	0	0	5	0	0	42	5	0	0	1	48	0	0	0	0	0	0	0	0
Hourly Total	0	0	9	0	0	0	0	9	1	2	259	31	3	2	7	305	0	0	1	0	0	0	0	1
0900 - 0915	0	0	3	0	0	0	0	3	0	0	64	9	0	0	0	73	0	0	2	1	0	0	0	3
0915 - 0930	0	0	2	0	0	0	0	2	0	0	47	6	0	0	1	54	0	0	0	0	0	0	0	0
Hourly Total	0	0	5	0	0	0	0	5	0	0	111	15	0	0	1	127	0	0	2	1	0	0	0	3
Session Total	0	0	14	0	0	0	0	14	1	2	532	67	4	3	8	617	0	0	4	1	0	0	0	5
1630 - 1645	0	0	1	0	0	0	0	1	0	0	54	19	0	0	0	73	0	0	1	0	0	0	0	1
1645 - 1700	0	0	1	0	0	0	0	1	0	0	70	11	1	0	1	83	0	0	0	0	0	0	0	0
Hourly Total	0	0	2	0	0	0	0	2	0	0	124	30	1	0	1	156	0	0	1	0	0	0	0	1
1700 - 1715	0	0	0	0	0	0	0	0	0	0	75	23	0	0	0	98	0	0	0	0	0	0	0	0
1715 - 1730	0	0	2	0	0	0	0	2	0	0	71	10	0	0	2	83	0	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0	0	0	2	70	11	0	0	1	84	0	0	0	0	0	0	0	0
1745 - 1800	0	0	2	1	1	0	0	4	0	0	74	8	1	1	0	84	0	0	1	0	0	0	0	1
Hourly Total	0	0	4	1	1	0	0	6	0	2	290	52	1	1	3	349	0	0	1	0	0	0	0	1
1800 - 1815	0	0	0	0	0	0	0	0	0	0	58	14	0	0	0	72	0	0	1	0	0	0	0	1
1815 - 1830	0	0	1	0	0	0	0	1	0	2	79	2	1	0	0	84	0	0	0	0	0	0	0	0
Hourly Total	0	0	1	0	0	0	0	1	0	2	137	16	1	0	0	156	0	0	1	0	0	0	0	1
Session Total	0	0	7	1	1	0	0	9	0	4	551	98	3	1	4	661	0	0	3	0	0	0	0	3



Watlington - Manual Traffic Survey, Tuesday 2nd June 2015

Junction: (4) Watlington Road / Station Road / Shirburn Road / Pyrton Lane

Approach: Pyrton Lane

TIME	Left to Watlington Road								Ahead to Station Road								Right to Shirburn Road							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0730 - 0745	0	0	25	2	0	0	0	27	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
0745 - 0800	2	0	39	10	0	0	0	51	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Hourly Total	2	0	64	12	0	0	0	78	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4
0800 - 0815	0	0	31	4	0	0	0	35	0	0	1	0	0	0	0	1	0	0	4	0	0	0	1	5
0815 - 0830	0	0	16	2	0	0	0	18	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9
0830 - 0845	0	0	28	4	0	0	0	32	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6
0845 - 0900	1	0	22	5	0	0	1	29	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12
Hourly Total	1	0	97	15	0	0	1	114	0	0	1	0	0	0	0	1	0	0	28	3	0	0	1	32
0900 - 0915	1	0	22	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6
0915 - 0930	0	0	8	1	0	0	0	9	0	0	1	0	0	0	0	1	0	0	3	0	0	0	0	3
Hourly Total	1	0	30	1	0	0	0	32	0	0	1	0	0	0	0	1	0	0	9	0	0	0	0	9
Session Total	4	0	191	28	0	0	1	224	0	0	2	0	0	0	0	2	0	0	41	3	0	0	1	45
1630 - 1645	0	0	12	5	0	0	0	17	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
1645 - 1700	0	0	9	2	0	0	0	11	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
Hourly Total	0	0	21	7	0	0	0	28	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5
1700 - 1715	0	0	18	2	0	0	0	20	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2
1715 - 1730	0	0	24	8	0	0	0	32	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	5
1730 - 1745	0	0	29	1	0	0	0	30	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
1745 - 1800	0	0	19	1	0	0	0	20	0	0	0	0	0	0	0	0	1	0	2	0	0	1	0	4
Hourly Total	0	0	90	12	0	0	0	102	0	0	0	0	0	0	0	0	1	0	8	2	1	1	0	13
1800 - 1815	0	0	23	2	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1815 - 1830	0	0	17	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Hourly Total	0	0	40	2	0	0	0	42	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Session Total	0	0	151	21	0	0	0	172	0	0	0	0	0	0	0	0	1	0	14	3	1	1	0	20

Intelligent Data Collection Limited Watlington

Client: Clarkebond
Project Number: ID03046
Junction Number: Site 1
Date of Survey: 24.01.2017
Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
Junction Type: Crossroads

Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A			
Date	01.02.2017			
Prepared by	Richard Collins			
Signature				
Checked by	Luke Martin			
Signature				
Project Director	Paul O'Neill			
Signature				
Project number	ID03046			
File Ref	ID03046 Watlington - MCC - Site 1			

Issue Sheet

Issued to	Date			
	01.02.2017			
Alex Stepenon	E-mail			

Contents Page

Location Plan & Summary
MCC Data
PCU Data
Movement Matrices

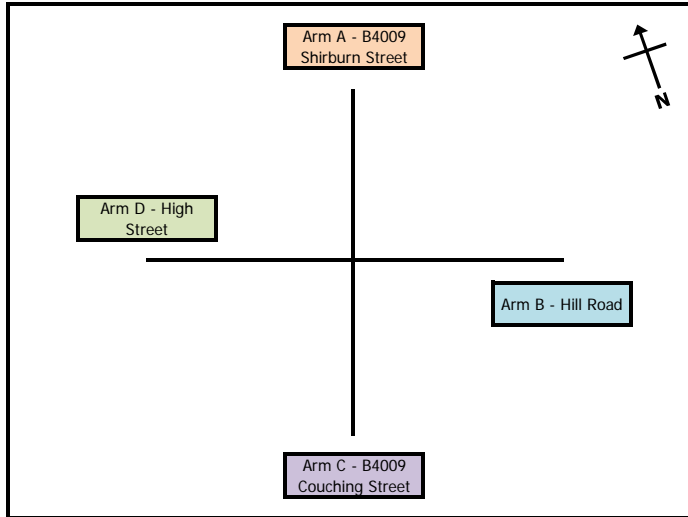
Intelligent Data Collection Limited



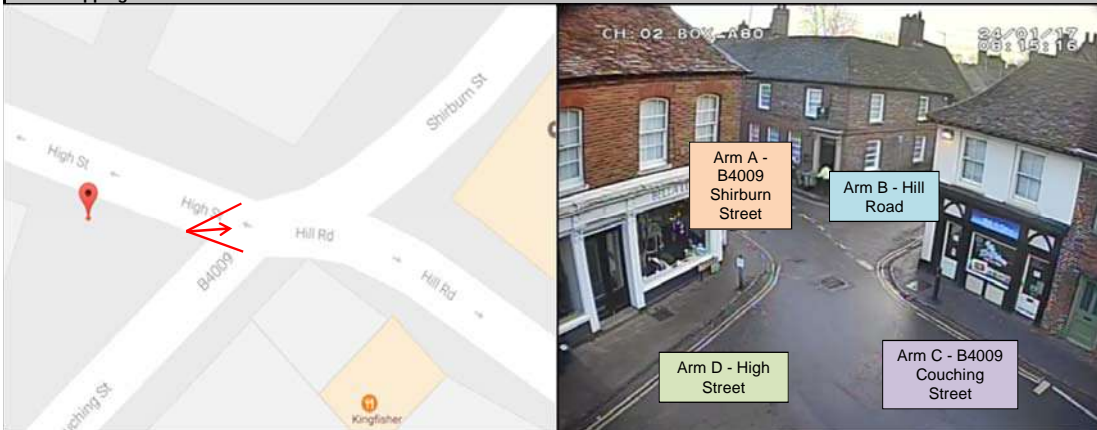
Client: Clarkebond **Date of Survey:** 24.01.2017
Project Number: ID03046 **Junction Name:** Shirburn Street/Hill Road/Couching Street/High Street
Junction Number: Site 1 **Junction Type:** Crossroads

X Coordinate	Y Coordinate	Google Maps Link
51.645015	-1.004496	Click Here
AM Peak Conditions	PM Peak Conditions	
Dry	Dry	

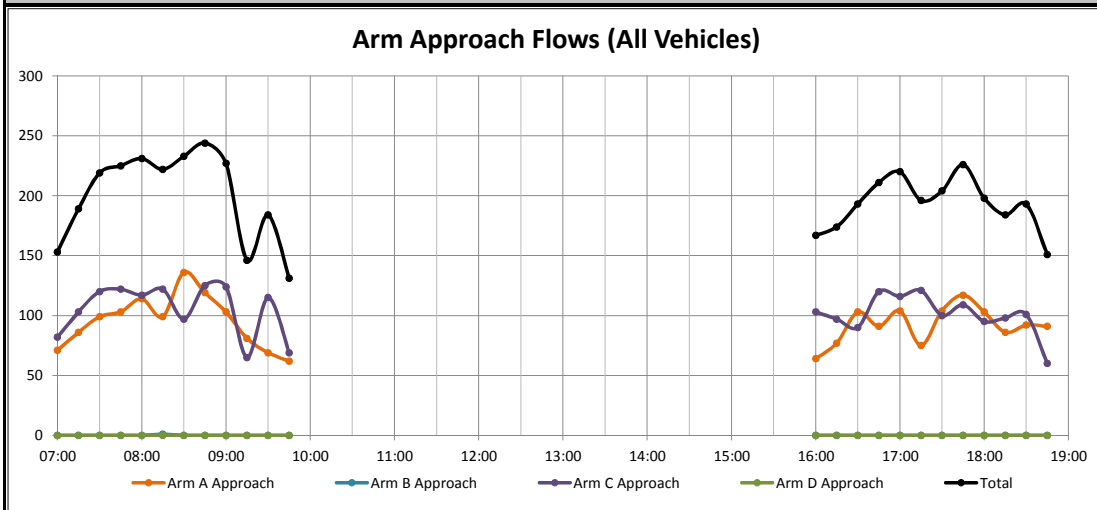
Junction Layout



Aerial Mapping and On-site Camera View



Junction Flow Profile



Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events):

As requested - Vehicle counts for movements along the High street slip road are counted as movements from Arm C to Arm D

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 1

Date of Survey: 24.01.2017
 Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
 Junction Type: Crossroads

Arm A: B4009 Shirburn Street
 Arm B: Hill Road

Arm C: B4009 Couching Street
 Arm D: High Street

Time	A to A							Total	A to D							Total	A to C							Total
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	
07:00	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	8	44	15	1	0	1	1	0	62
07:15	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7	52	20	0	0	1	0	0	73
07:30	0	0	0	0	0	0	0	0	5	2	0	0	0	0	0	7	65	17	0	0	1	1	0	84
07:45	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	6	72	15	0	0	0	0	0	87
08:00	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	8	84	12	2	0	0	0	0	98
08:15	0	0	0	0	0	0	0	0	9	3	0	0	0	0	0	12	55	16	4	0	1	1	0	77
08:30	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9	92	19	1	1	0	0	0	113
08:45	0	0	0	0	0	0	0	0	12	4	0	0	0	0	0	16	59	15	1	2	0	0	0	77
09:00	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	12	55	19	2	1	0	0	0	77
09:15	0	0	0	0	0	0	0	0	7	1	0	0	0	0	1	9	42	20	1	0	0	0	0	63
09:30	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	7	40	12	1	0	0	0	0	53
09:45	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	38	10	0	0	0	0	0	48
16:00	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	8	34	14	0	0	0	0	0	48
16:15	0	0	0	0	0	0	0	0	10	4	0	0	0	0	0	14	42	9	1	0	1	0	0	53
16:30	0	0	0	0	0	0	0	0	10	3	0	0	0	0	0	13	65	11	1	1	0	1	0	79
16:45	0	0	0	0	0	0	0	0	12	5	0	0	0	0	0	17	52	12	0	0	0	0	0	64
17:00	0	0	0	0	0	0	0	0	17	2	0	0	0	0	0	19	63	15	1	0	0	0	0	79
17:15	0	0	0	0	0	0	0	0	13	1	0	0	0	0	0	14	44	3	1	0	0	0	0	48
17:30	0	0	0	0	0	0	0	0	13	4	0	0	0	0	0	17	65	9	0	0	0	0	0	74
17:45	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	19	81	2	0	0	0	1	0	84
18:00	0	0	0	0	0	0	0	0	12	2	0	0	0	0	0	14	69	7	0	0	0	0	0	76
18:15	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13	61	3	0	0	0	0	0	64
18:30	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11	63	3	1	0	0	0	0	67
18:45	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	16	56	7	0	0	0	1	0	64
Start Time	Rolling Hour							Total	Rolling Hour							Total	Rolling Hour							Total
07:00	0	0	0	0	0	0	0	0	22	6	0	0	0	0	0	28	233	67	1	0	3	2	0	306
07:15	0	0	0	0	0	0	0	0	21	7	0	0	0	0	0	28	273	64	2	0	2	1	0	342
07:30	0	0	0	0	0	0	0	0	24	9	0	0	0	0	0	33	276	60	6	0	2	2	0	346
07:45	0	0	0	0	0	0	0	0	27	8	0	0	0	0	0	35	303	62	7	1	1	1	0	375
08:00	0	0	0	0	0	0	0	0	35	10	0	0	0	0	0	45	290	62	8	3	1	1	0	365
08:15	0	0	0	0	0	0	0	0	40	9	0	0	0	0	0	49	261	69	8	4	1	1	0	344
08:30	0	0	0	0	0	0	0	0	38	7	0	0	0	0	1	46	248	73	5	4	0	0	0	330
08:45	0	0	0	0	0	0	0	0	34	9	0	0	0	0	1	44	196	66	5	3	0	0	0	270
09:00	0	0	0	0	0	0	0	0	27	5	0	0	0	0	1	33	175	61	4	1	0	0	0	241
16:00	0	0	0	0	0	0	0	0	38	14	0	0	0	0	0	52	193	46	2	1	1	1	0	244
16:15	0	0	0	0	0	0	0	0	49	14	0	0	0	0	0	63	222	47	3	1	1	1	0	275
16:30	0	0	0	0	0	0	0	0	52	11	0	0	0	0	0	63	224	41	3	1	0	1	0	270
16:45	0	0	0	0	0	0	0	0	55	12	0	0	0	0	0	67	224	39	2	0	0	0	0	265
17:00	0	0	0	0	0	0	0	0	62	7	0	0	0	0	0	69	253	29	2	0	0	1	0	285
17:15	0	0	0	0	0	0	0	0	57	7	0	0	0	0	0	64	259	21	1	0	0	1	0	282
17:30	0	0	0	0	0	0	0	0	57	6	0	0	0	0	0	63	276	21	0	0	0	1	0	298
17:45	0	0	0	0	0	0	0	0	55	2	0	0	0	0	0	57	274	15	1	0	0	1	0	291
18:00	0	0	0	0	0	0	0	0	52	2	0	0	0	0	0	54	249	20	1	0	0	1	0	271

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 1

Date of Survey: 24.01.2017
 Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
 Junction Type: Crossroads

Arm A: B4009 Shirburn Street
 Arm B: Hill Road

Arm C: B4009 Couching Street
 Arm D: High Street

Time	A to B								B to B								B to A										
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total			
07:00	1	0	0	0	0	0	0	1								0	0	0	0	0	0	0	0	0			
07:15	4	2	0	0	0	0	0	6								0	0	0	0	0	0	0	0	0			
07:30	4	3	0	0	1	0	0	8								0	0	0	0	0	0	0	0	0			
07:45	7	2	0	0	1	0	0	10								0	0	0	0	0	0	0	0	0			
08:00	7	1	0	0	0	0	0	8								0	0	0	0	0	0	0	0	0			
08:15	8	2	0	0	0	0	0	10								0	0	0	0	0	0	0	0	0			
08:30	10	2	2	0	0	0	0	14								0	0	0	0	0	0	0	0	0			
08:45	24	2	0	0	0	0	0	26								0	0	0	0	0	0	0	0	0			
09:00	13	1	0	0	0	0	0	14								0	0	0	0	0	0	0	0	0			
09:15	8	1	0	0	0	0	0	9								0	0	0	0	0	0	0	0	0			
09:30	6	2	0	1	0	0	0	9								0	0	0	0	0	0	0	0	0			
09:45	7	2	0	0	0	0	0	9								0	0	0	0	0	0	0	0	0			
16:00	7	1	0	0	0	0	0	8								0	0	0	0	0	0	0	0	0			
16:15	7	2	0	0	0	0	1	10								0	0	0	0	0	0	0	0	0			
16:30	10	1	0	0	0	0	0	11								0	0	0	0	0	0	0	0	0			
16:45	7	3	0	0	0	0	0	10								0	0	0	0	0	0	0	0	0			
17:00	6	0	0	0	0	0	0	6								0	0	0	0	0	0	0	0	0			
17:15	11	2	0	0	0	0	0	13								0	0	0	0	0	0	0	0	0			
17:30	11	2	0	0	0	0	0	13								0	0	0	0	0	0	0	0	0			
17:45	14	0	0	0	0	0	0	14								0	0	0	0	0	0	0	0	0			
18:00	12	1	0	0	0	0	0	13								0	0	0	0	0	0	0	0	0			
18:15	8	1	0	0	0	0	0	9								0	0	0	0	0	0	0	0	0			
18:30	13	1	0	0	0	0	0	14								0	0	0	0	0	0	0	0	0			
18:45	11	0	0	0	0	0	0	11								0	0	0	0	0	0	0	0	0			
Start Time	Rolling Hour								Total	Rolling Hour								Total	Rolling Hour								Total
07:00	16	7	0	0	2	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
07:15	22	8	0	0	2	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
07:30	26	8	0	0	2	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
07:45	32	7	2	0	1	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
08:00	49	7	2	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
08:15	55	7	2	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
08:30	55	6	2	0	0	0	0	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
08:45	51	6	0	1	0	0	0	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
09:00	34	6	0	1	0	0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
16:00	31	7	0	0	0	0	1	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
16:15	30	6	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
16:30	34	6	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
16:45	35	7	0	0	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
17:00	42	4	0	0	0	0	0	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
17:15	48	5	0	0	0	0	0	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
17:30	45	4	0	0	0	0	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
17:45	47	3	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
18:00	44	3	0	0	0	0	0	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 1

Date of Survey: 24.01.2017
 Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
 Junction Type: Crossroads

Arm A: B4009 Shirburn Street
 Arm B: Hill Road

Arm C: B4009 Couching Street
 Arm D: High Street

Time	C to B							Total	C to A							Total	C to D							Total	
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		
07:00	2	0	0	0	0	0	0	2	64	12	1	0	0	0	0	77	2	1	0	0	0	0	0	0	3
07:15	6	1	1	0	0	0	0	8	69	15	3	0	0	1	0	88	6	1	0	0	0	0	0	0	7
07:30	7	1	0	0	0	0	0	8	77	12	2	0	0	0	0	91	15	6	0	0	0	0	0	0	21
07:45	14	5	0	0	1	0	0	20	78	8	2	0	0	0	0	88	12	2	0	0	0	0	0	0	14
08:00	12	3	1	0	0	0	0	16	69	11	3	0	1	2	0	86	14	1	0	0	0	0	0	0	15
08:15	15	2	0	0	0	0	0	17	65	7	3	0	4	0	0	79	24	1	0	0	1	0	0	0	26
08:30	9	2	0	0	0	0	0	11	53	12	1	0	0	1	0	67	19	0	0	0	0	0	0	0	19
08:45	14	1	1	0	0	0	0	16	70	9	1	0	0	0	0	80	24	5	0	0	0	0	0	0	29
09:00	15	6	0	0	0	0	0	21	76	9	1	0	1	1	0	88	13	2	0	0	0	0	0	0	15
09:15	5	6	2	0	0	0	0	13	36	6	2	0	0	0	0	44	7	1	0	0	0	0	0	0	8
09:30	15	2	1	0	1	0	0	19	64	11	1	1	1	1	1	80	13	3	0	0	0	0	0	0	16
09:45	13	0	0	0	0	0	0	13	43	6	0	0	0	0	0	49	4	2	1	0	0	0	0	0	7
16:00	11	3	0	0	0	0	0	14	54	19	0	0	0	0	0	73	14	2	0	0	0	0	0	0	16
16:15	11	3	0	0	0	0	0	14	53	20	0	0	0	1	0	74	9	0	0	0	0	0	0	0	9
16:30	13	2	0	0	0	0	0	15	53	14	1	0	0	0	0	68	6	1	0	0	0	0	0	0	7
16:45	3	1	0	0	0	0	0	4	73	23	0	0	1	0	0	97	17	2	0	0	0	0	0	0	19
17:00	12	1	0	0	0	0	0	13	66	12	0	0	0	0	0	78	23	2	0	0	0	0	0	0	25
17:15	7	2	0	0	0	0	0	9	82	14	0	0	0	2	0	98	12	2	0	0	0	0	0	0	14
17:30	7	0	0	0	0	0	0	7	71	9	0	0	0	0	0	80	11	1	0	0	1	0	0	0	13
17:45	11	2	0	0	0	0	0	13	62	13	0	0	1	0	0	76	17	3	0	0	0	0	0	0	20
18:00	5	4	0	0	0	0	0	9	64	12	0	0	0	0	0	76	10	0	0	0	0	0	0	0	10
18:15	11	2	0	0	0	0	0	13	66	4	1	0	0	0	0	71	14	0	0	0	0	0	0	0	14
18:30	10	2	0	0	0	0	0	12	73	8	0	0	0	0	0	81	8	0	0	0	0	0	0	0	8
18:45	6	1	0	0	0	0	0	7	37	2	0	0	1	0	0	40	13	0	0	0	0	0	0	0	13
Start Time	Rolling Hour							Total	Rolling Hour							Total	Rolling Hour							Total	
07:00	29	7	1	0	1	0	0	38	288	47	8	0	0	1	0	344	35	10	0	0	0	0	0	0	45
07:15	39	10	2	0	1	0	0	52	293	46	10	0	1	3	0	353	47	10	0	0	0	0	0	0	57
07:30	48	11	1	0	1	0	0	61	289	38	10	0	5	2	0	344	65	10	0	0	1	0	0	0	76
07:45	50	12	1	0	1	0	0	64	265	38	9	0	5	3	0	320	69	4	0	0	1	0	0	0	74
08:00	50	8	2	0	0	0	0	60	257	39	8	0	5	3	0	312	81	7	0	0	1	0	0	0	89
08:15	53	11	1	0	0	0	0	65	264	37	6	0	5	2	0	314	80	8	0	0	1	0	0	0	89
08:30	43	15	3	0	0	0	0	61	235	36	5	0	1	2	0	279	63	8	0	0	0	0	0	0	71
08:45	49	15	4	0	1	0	0	69	246	35	5	1	2	2	1	292	57	11	0	0	0	0	0	0	68
09:00	48	14	3	0	1	0	0	66	219	32	4	1	2	2	1	261	37	8	1	0	0	0	0	0	46
16:00	38	9	0	0	0	0	0	47	233	76	1	0	1	1	0	312	46	5	0	0	0	0	0	0	51
16:15	39	7	0	0	0	0	0	46	245	69	1	0	1	1	0	317	55	5	0	0	0	0	0	0	60
16:30	35	6	0	0	0	0	0	41	274	63	1	0	1	2	0	341	58	7	0	0	0	0	0	0	65
16:45	29	4	0	0	0	0	0	33	292	58	0	0	1	2	0	353	63	7	0	0	1	0	0	0	71
17:00	37	5	0	0	0	0	0	42	281	48	0	0	1	2	0	332	63	8	0	0	1	0	0	0	72
17:15	30	8	0	0	0	0	0	38	279	48	0	0	1	2	0	330	50	6	0	0	1	0	0	0	57
17:30	34	8	0	0	0	0	0	42	263	38	1	0	1	0	0	303	52	4	0	0	1	0	0	0	57
17:45	37	10	0	0	0	0	0	47	265	37	1	0	1	0	0	304	49	3	0	0	0	0	0	0	52
18:00	32	9	0	0	0	0	0	41	240	26	1	0	1	0	0	268	45	0	0	0	0	0	0	0	45

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 1

Date of Survey: 24.01.2017
 Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
 Junction Type: Crossroads

Arm A: B4009 Shirburn Street
 Arm B: Hill Road

Arm C: B4009 Couching Street
 Arm D: High Street

Time	D to D							D to C							D to B									
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Time	Rolling Hour							Total	Rolling Hour							Total	Rolling Hour							Total
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intelligent Data Collection Limited

Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 1
 Date of Survey: 24.01.2017
 Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
 Junction Type: Crossroads

Arm A: B4009 Shirburn Street
 Arm B: Hill Road

Arm C: B4009 Couching Street
 Arm D: High Street



D to A								
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
Start Time	Rolling Hour							Total
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 1

Date of Survey: 24.01.2017
 Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
 Junction Type: Crossroads

Time	Arm A Approach								Arm A Exit									
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total		
07:00	52	16	1	0	1	1	0	71	64	12	1	0	0	0	0	77		
07:15	62	23	0	0	1	0	0	86	69	15	3	0	0	1	0	88		
07:30	74	22	0	0	2	1	0	99	77	12	2	0	0	0	0	91		
07:45	83	19	0	0	1	0	0	103	78	8	2	0	0	0	0	88		
08:00	97	15	2	0	0	0	0	114	69	11	3	0	1	2	0	86		
08:15	72	21	4	0	1	1	0	99	65	7	3	0	4	0	0	79		
08:30	110	22	3	1	0	0	0	136	53	12	1	0	0	1	0	67		
08:45	95	21	1	2	0	0	0	119	70	9	1	0	0	0	0	80		
09:00	79	21	2	1	0	0	0	103	76	9	1	0	1	1	0	88		
09:15	57	22	1	0	0	0	1	81	36	6	2	0	0	0	0	44		
09:30	50	17	1	1	0	0	0	69	64	11	1	1	1	1	1	80		
09:45	50	12	0	0	0	0	0	62	43	6	0	0	0	0	0	49		
16:00	47	17	0	0	0	0	0	64	54	19	0	0	0	0	0	73		
16:15	59	15	1	0	1	0	1	77	53	20	0	0	0	1	0	74		
16:30	85	15	1	1	0	1	0	103	53	14	1	0	0	0	0	68		
16:45	71	20	0	0	0	0	0	91	73	23	0	0	1	0	0	97		
17:00	86	17	1	0	0	0	0	104	66	12	0	0	0	0	0	78		
17:15	68	6	1	0	0	0	0	75	82	14	0	0	0	2	0	98		
17:30	89	15	0	0	0	0	0	104	71	9	0	0	0	0	0	80		
17:45	114	2	0	0	0	1	0	117	62	13	0	0	1	0	0	76		
18:00	93	10	0	0	0	0	0	103	64	12	0	0	0	0	0	76		
18:15	82	4	0	0	0	0	0	86	66	4	1	0	0	0	0	71		
18:30	87	4	1	0	0	0	0	92	73	8	0	0	0	0	0	81		
18:45	83	7	0	0	0	1	0	91	37	2	0	0	1	0	0	40		
Start Time	Rolling Hour								Total	Rolling Hour								Total
07:00	271	80	1	0	5	2	0	359	288	47	8	0	0	1	0	344		
07:15	316	79	2	0	4	1	0	402	293	46	10	0	1	3	0	353		
07:30	326	77	6	0	4	2	0	415	289	38	10	0	5	2	0	344		
07:45	362	77	9	1	2	1	0	452	265	38	9	0	5	3	0	320		
08:00	374	79	10	3	1	1	0	468	257	39	8	0	5	3	0	312		
08:15	356	85	10	4	1	1	0	457	264	37	6	0	5	2	0	314		
08:30	341	86	7	4	0	0	1	439	235	36	5	0	1	2	0	279		
08:45	281	81	5	4	0	0	1	372	246	35	5	1	2	2	1	292		
09:00	236	72	4	2	0	0	1	315	219	32	4	1	2	2	1	261		
16:00	262	67	2	1	1	1	1	335	233	76	1	0	1	1	0	312		
16:15	301	67	3	1	1	1	1	375	245	69	1	0	1	1	0	317		
16:30	310	58	3	1	0	1	0	373	274	63	1	0	1	2	0	341		
16:45	314	58	2	0	0	0	0	374	292	58	0	0	1	2	0	353		
17:00	357	40	2	0	0	1	0	400	281	48	0	0	1	2	0	332		
17:15	364	33	1	0	0	1	0	399	279	48	0	0	1	2	0	330		
17:30	378	31	0	0	0	1	0	410	263	38	1	0	1	0	0	303		
17:45	376	20	1	0	0	1	0	398	265	37	1	0	1	0	0	304		
18:00	345	25	1	0	0	1	0	372	240	26	1	0	1	0	0	268		

Intelligent Data Collection Limited



Client: Clarkebond
Project Number: ID03046
Junction Number: Site 1
Date of Survey: 24.01.2017
Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
Junction Type: Crossroads

Time	Arm B Approach								Arm B Exit									
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total		
07:00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3		
07:15	0	0	0	0	0	0	0	0	10	3	1	0	0	0	0	14		
07:30	0	0	0	0	0	0	0	0	11	4	0	0	1	0	0	16		
07:45	0	0	0	0	0	0	0	0	21	7	0	0	2	0	0	30		
08:00	0	0	0	0	0	0	0	0	19	4	1	0	0	0	0	24		
08:15	0	0	0	0	0	0	1	1	23	4	0	0	0	0	0	27		
08:30	0	0	0	0	0	0	0	0	19	4	2	0	0	0	0	25		
08:45	0	0	0	0	0	0	0	0	38	3	1	0	0	0	0	42		
09:00	0	0	0	0	0	0	0	0	28	7	0	0	0	0	0	35		
09:15	0	0	0	0	0	0	0	0	13	7	2	0	0	0	0	22		
09:30	0	0	0	0	0	0	0	0	21	4	1	1	1	0	0	28		
09:45	0	0	0	0	0	0	0	0	20	2	0	0	0	0	0	22		
16:00	0	0	0	0	0	0	0	0	18	4	0	0	0	0	0	22		
16:15	0	0	0	0	0	0	0	0	18	5	0	0	0	0	1	24		
16:30	0	0	0	0	0	0	0	0	23	3	0	0	0	0	0	26		
16:45	0	0	0	0	0	0	0	0	10	4	0	0	0	0	0	14		
17:00	0	0	0	0	0	0	0	0	18	1	0	0	0	0	0	19		
17:15	0	0	0	0	0	0	0	0	18	4	0	0	0	0	0	22		
17:30	0	0	0	0	0	0	0	0	18	2	0	0	0	0	0	20		
17:45	0	0	0	0	0	0	0	0	25	2	0	0	0	0	0	27		
18:00	0	0	0	0	0	0	0	0	17	5	0	0	0	0	0	22		
18:15	0	0	0	0	0	0	0	0	19	3	0	0	0	0	0	22		
18:30	0	0	0	0	0	0	0	0	23	3	0	0	0	0	0	26		
18:45	0	0	0	0	0	0	0	0	17	1	0	0	0	0	0	18		
Start Time	Rolling Hour								Total	Rolling Hour								Total
07:00	0	0	0	0	0	0	0	0	45	14	1	0	3	0	0	63		
07:15	0	0	0	0	0	0	0	0	61	18	2	0	3	0	0	84		
07:30	0	0	0	0	0	0	1	1	74	19	1	0	3	0	0	97		
07:45	0	0	0	0	0	0	1	1	82	19	3	0	2	0	0	106		
08:00	0	0	0	0	0	0	1	1	99	15	4	0	0	0	0	118		
08:15	0	0	0	0	0	0	1	1	108	18	3	0	0	0	0	129		
08:30	0	0	0	0	0	0	0	0	98	21	5	0	0	0	0	124		
08:45	0	0	0	0	0	0	0	0	100	21	4	1	1	0	0	127		
09:00	0	0	0	0	0	0	0	0	82	20	3	1	1	0	0	107		
16:00	0	0	0	0	0	0	0	0	69	16	0	0	0	0	1	86		
16:15	0	0	0	0	0	0	0	0	69	13	0	0	0	0	1	83		
16:30	0	0	0	0	0	0	0	0	69	12	0	0	0	0	0	81		
16:45	0	0	0	0	0	0	0	0	64	11	0	0	0	0	0	75		
17:00	0	0	0	0	0	0	0	0	79	9	0	0	0	0	0	88		
17:15	0	0	0	0	0	0	0	0	78	13	0	0	0	0	0	91		
17:30	0	0	0	0	0	0	0	0	79	12	0	0	0	0	0	91		
17:45	0	0	0	0	0	0	0	0	84	13	0	0	0	0	0	97		
18:00	0	0	0	0	0	0	0	0	76	12	0	0	0	0	0	88		

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 1

Date of Survey: 24.01.2017
 Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
 Junction Type: Crossroads

Time	Arm C Approach								Arm C Exit									
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total		
07:00	68	13	1	0	0	0	0	82	44	15	1	0	1	1	0	62		
07:15	81	17	4	0	0	1	0	103	52	20	0	0	1	0	0	73		
07:30	99	19	2	0	0	0	0	120	65	17	0	0	1	1	0	84		
07:45	104	15	2	0	1	0	0	122	72	15	0	0	0	0	0	87		
08:00	95	15	4	0	1	2	0	117	84	12	2	0	0	0	0	98		
08:15	104	10	3	0	5	0	0	122	55	16	4	0	1	1	0	77		
08:30	81	14	1	0	0	1	0	97	92	19	1	1	0	0	0	113		
08:45	108	15	2	0	0	0	0	125	59	15	1	2	0	0	0	77		
09:00	104	17	1	0	1	1	0	124	55	19	2	1	0	0	0	77		
09:15	48	13	4	0	0	0	0	65	42	20	1	0	0	0	0	63		
09:30	92	16	2	1	2	1	1	115	40	12	1	0	0	0	0	53		
09:45	60	8	1	0	0	0	0	69	38	10	0	0	0	0	0	48		
16:00	79	24	0	0	0	0	0	103	34	14	0	0	0	0	0	48		
16:15	73	23	0	0	0	1	0	97	42	9	1	0	1	0	0	53		
16:30	72	17	1	0	0	0	0	90	65	11	1	1	0	1	0	79		
16:45	93	26	0	0	1	0	0	120	52	12	0	0	0	0	0	64		
17:00	101	15	0	0	0	0	0	116	63	15	1	0	0	0	0	79		
17:15	101	18	0	0	0	2	0	121	44	3	1	0	0	0	0	48		
17:30	89	10	0	0	1	0	0	100	65	9	0	0	0	0	0	74		
17:45	90	18	0	0	1	0	0	109	81	2	0	0	0	1	0	84		
18:00	79	16	0	0	0	0	0	95	69	7	0	0	0	0	0	76		
18:15	91	6	1	0	0	0	0	98	61	3	0	0	0	0	0	64		
18:30	91	10	0	0	0	0	0	101	63	3	1	0	0	0	0	67		
18:45	56	3	0	0	1	0	0	60	56	7	0	0	0	1	0	64		
Start Time	Rolling Hour								Total	Rolling Hour								Total
07:00	352	64	9	0	1	1	0	427	233	67	1	0	3	2	0	306		
07:15	379	66	12	0	2	3	0	462	273	64	2	0	2	1	0	342		
07:30	402	59	11	0	7	2	0	481	276	60	6	0	2	2	0	346		
07:45	384	54	10	0	7	3	0	458	303	62	7	1	1	1	0	375		
08:00	388	54	10	0	6	3	0	461	290	62	8	3	1	1	0	365		
08:15	397	56	7	0	6	2	0	468	261	69	8	4	1	1	0	344		
08:30	341	59	8	0	1	2	0	411	248	73	5	4	0	0	0	330		
08:45	352	61	9	1	3	2	1	429	196	66	5	3	0	0	0	270		
09:00	304	54	8	1	3	2	1	373	175	61	4	1	0	0	0	241		
16:00	317	90	1	0	1	1	0	410	193	46	2	1	1	1	0	244		
16:15	339	81	1	0	1	1	0	423	222	47	3	1	1	1	0	275		
16:30	367	76	1	0	1	2	0	447	224	41	3	1	0	1	0	270		
16:45	384	69	0	0	2	2	0	457	224	39	2	0	0	0	0	265		
17:00	381	61	0	0	2	2	0	446	253	29	2	0	0	1	0	285		
17:15	359	62	0	0	2	2	0	425	259	21	1	0	0	1	0	282		
17:30	349	50	1	0	2	0	0	402	276	21	0	0	0	1	0	298		
17:45	351	50	1	0	1	0	0	403	274	15	1	0	0	1	0	291		
18:00	317	35	1	0	1	0	0	354	249	20	1	0	0	1	0	271		

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 1

Date of Survey: 24.01.2017
 Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
 Junction Type: Crossroads

Time	Arm D Approach								Arm D Exit									
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total		
07:00	0	0	0	0	0	0	0	0	9	2	0	0	0	0	0	11		
07:15	0	0	0	0	0	0	0	0	12	2	0	0	0	0	0	14		
07:30	0	0	0	0	0	0	0	0	20	8	0	0	0	0	0	28		
07:45	0	0	0	0	0	0	0	0	16	4	0	0	0	0	0	20		
08:00	0	0	0	0	0	0	0	0	20	3	0	0	0	0	0	23		
08:15	0	0	0	0	0	0	0	0	33	4	0	0	1	0	1	39		
08:30	0	0	0	0	0	0	0	0	27	1	0	0	0	0	0	28		
08:45	0	0	0	0	0	0	0	0	36	9	0	0	0	0	0	45		
09:00	0	0	0	0	0	0	0	0	24	3	0	0	0	0	0	27		
09:15	0	0	0	0	0	0	0	0	14	2	0	0	0	0	1	17		
09:30	0	0	0	0	0	0	0	0	17	6	0	0	0	0	0	23		
09:45	0	0	0	0	0	0	0	0	9	2	1	0	0	0	0	12		
16:00	0	0	0	0	0	0	0	0	20	4	0	0	0	0	0	24		
16:15	0	0	0	0	0	0	0	0	19	4	0	0	0	0	0	23		
16:30	0	0	0	0	0	0	0	0	16	4	0	0	0	0	0	20		
16:45	0	0	0	0	0	0	0	0	29	7	0	0	0	0	0	36		
17:00	0	0	0	0	0	0	0	0	40	4	0	0	0	0	0	44		
17:15	0	0	0	0	0	0	0	0	25	3	0	0	0	0	0	28		
17:30	0	0	0	0	0	0	0	0	24	5	0	0	1	0	0	30		
17:45	0	0	0	0	0	0	0	0	36	3	0	0	0	0	0	39		
18:00	0	0	0	0	0	0	0	0	22	2	0	0	0	0	0	24		
18:15	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	27		
18:30	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	19		
18:45	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	29		
Start Time	Rolling Hour								Total	Rolling Hour								Total
07:00	0	0	0	0	0	0	0	0	57	16	0	0	0	0	0	73		
07:15	0	0	0	0	0	0	0	0	68	17	0	0	0	0	0	85		
07:30	0	0	0	0	0	0	0	0	89	19	0	0	1	0	1	110		
07:45	0	0	0	0	0	0	0	0	96	12	0	0	1	0	1	110		
08:00	0	0	0	0	0	0	0	0	116	17	0	0	1	0	1	135		
08:15	0	0	0	0	0	0	0	0	120	17	0	0	1	0	1	139		
08:30	0	0	0	0	0	0	0	0	101	15	0	0	0	0	1	117		
08:45	0	0	0	0	0	0	0	0	91	20	0	0	0	0	1	112		
09:00	0	0	0	0	0	0	0	0	64	13	1	0	0	0	1	79		
16:00	0	0	0	0	0	0	0	0	84	19	0	0	0	0	0	103		
16:15	0	0	0	0	0	0	0	0	104	19	0	0	0	0	0	123		
16:30	0	0	0	0	0	0	0	0	110	18	0	0	0	0	0	128		
16:45	0	0	0	0	0	0	0	0	118	19	0	0	1	0	0	138		
17:00	0	0	0	0	0	0	0	0	125	15	0	0	1	0	0	141		
17:15	0	0	0	0	0	0	0	0	107	13	0	0	1	0	0	121		
17:30	0	0	0	0	0	0	0	0	109	10	0	0	1	0	0	120		
17:45	0	0	0	0	0	0	0	0	104	5	0	0	0	0	0	109		
18:00	0	0	0	0	0	0	0	0	97	2	0	0	0	0	0	99		

Intelligent Data Collection Limited



Client: Clarkebond
Project Number: ID03046
Junction Number: Site 1
Date of Survey: 24.01.2017
Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
Junction Type: Crossroads

Total Junction Flow								
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
07:00	120	29	2	0	1	1	0	153
07:15	143	40	4	0	1	1	0	189
07:30	173	41	2	0	2	1	0	219
07:45	187	34	2	0	2	0	0	225
08:00	192	30	6	0	1	2	0	231
08:15	176	31	7	0	6	1	1	222
08:30	191	36	4	1	0	1	0	233
08:45	203	36	3	2	0	0	0	244
09:00	183	38	3	1	1	1	0	227
09:15	105	35	5	0	0	0	1	146
09:30	142	33	3	2	2	1	1	184
09:45	110	20	1	0	0	0	0	131
16:00	126	41	0	0	0	0	0	167
16:15	132	38	1	0	1	1	1	174
16:30	157	32	2	1	0	1	0	193
16:45	164	46	0	0	1	0	0	211
17:00	187	32	1	0	0	0	0	220
17:15	169	24	1	0	0	2	0	196
17:30	178	25	0	0	1	0	0	204
17:45	204	20	0	0	1	1	0	226
18:00	172	26	0	0	0	0	0	198
18:15	173	10	1	0	0	0	0	184
18:30	178	14	1	0	0	0	0	193
18:45	139	10	0	0	1	1	0	151
Start Time	Rolling Hour							Total
07:00	623	144	10	0	6	3	0	786
07:15	695	145	14	0	6	4	0	864
07:30	728	136	17	0	11	4	1	897
07:45	746	131	19	1	9	4	1	911
08:00	762	133	20	3	7	4	1	930
08:15	753	141	17	4	7	3	1	926
08:30	682	145	15	4	1	2	1	850
08:45	633	142	14	5	3	2	2	801
09:00	540	126	12	3	3	2	2	688
16:00	579	157	3	1	2	2	1	745
16:15	640	148	4	1	2	2	1	798
16:30	677	134	4	1	1	3	0	820
16:45	698	127	2	0	2	2	0	831
17:00	738	101	2	0	2	3	0	846
17:15	723	95	1	0	2	3	0	824
17:30	727	81	1	0	2	1	0	812
17:45	727	70	2	0	1	1	0	801
18:00	662	60	2	0	1	1	0	726

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 1

Date of Survey: 24.01.2017
 Junction Name: Shirburn Street/Hill Road/Couching Street/High Street
 Junction Type: Crossroads

Arm A: B4009 Shirburn Street

Arm B: Hill Road

Arm C: B4009 Couching Street

Arm D: High Street

PCU Summary																
Time	A to A	A to D	A to C	A to B	B to B	B to A	B to D	B to C	C to C	C to B	C to A	C to D	D to D	D to C	D to B	D to A
07:00	0	8	64	1	0	0	0	0	0	2	78	3	0	0	0	0
07:15	0	7	75	6	0	0	0	0	0	9	90	7	0	0	0	0
07:30	0	7	85	10	0	0	0	0	0	8	93	21	0	0	0	0
07:45	0	6	87	12	0	0	0	0	0	22	90	14	0	0	0	0
08:00	0	8	100	8	0	0	0	0	0	17	89	15	0	0	0	0
08:15	0	12	82	10	0	0	0	0	0	17	88	28	0	0	0	0
08:30	0	9	116	16	0	0	0	0	0	11	67	19	0	0	0	0
08:45	0	16	82	26	0	0	0	0	0	17	81	29	0	0	0	0
09:00	0	12	81	14	0	0	0	0	0	21	90	15	0	0	0	0
09:15	0	8	64	9	0	0	0	0	0	15	46	8	0	0	0	0
09:30	0	7	54	11	0	0	0	0	0	21	83	16	0	0	0	0
09:45	0	5	48	9	0	0	0	0	0	13	49	8	0	0	0	0
16:00	0	8	48	8	0	0	0	0	0	14	73	16	0	0	0	0
16:15	0	14	55	9	0	0	0	0	0	14	73	9	0	0	0	0
16:30	0	13	81	11	0	0	0	0	0	15	69	7	0	0	0	0
16:45	0	17	64	10	0	0	0	0	0	4	99	19	0	0	0	0
17:00	0	19	80	6	0	0	0	0	0	13	78	25	0	0	0	0
17:15	0	14	49	13	0	0	0	0	0	9	97	14	0	0	0	0
17:30	0	17	74	13	0	0	0	0	0	7	80	15	0	0	0	0
17:45	0	19	83	14	0	0	0	0	0	13	78	20	0	0	0	0
18:00	0	14	76	13	0	0	0	0	0	9	76	10	0	0	0	0
18:15	0	13	64	9	0	0	0	0	0	13	72	14	0	0	0	0
18:30	0	11	68	14	0	0	0	0	0	12	81	8	0	0	0	0
18:45	0	16	63	11	0	0	0	0	0	7	42	13	0	0	0	0
Start Time	Rolling Hour															
07:00	0	28	310	28	0	0	0	0	0	40	351	45	0	0	0	0
07:15	0	28	346	35	0	0	0	0	0	55	362	57	0	0	0	0
07:30	0	33	353	39	0	0	0	0	0	63	359	78	0	0	0	0
07:45	0	35	384	45	0	0	0	0	0	66	334	76	0	0	0	0
08:00	0	45	379	60	0	0	0	0	0	62	325	91	0	0	0	0
08:15	0	49	360	66	0	0	0	0	0	66	326	91	0	0	0	0
08:30	0	45	342	65	0	0	0	0	0	64	284	71	0	0	0	0
08:45	0	43	280	60	0	0	0	0	0	74	299	68	0	0	0	0
09:00	0	32	247	43	0	0	0	0	0	70	268	47	0	0	0	0
16:00	0	52	249	38	0	0	0	0	0	47	314	51	0	0	0	0
16:15	0	63	281	36	0	0	0	0	0	46	319	60	0	0	0	0
16:30	0	63	274	40	0	0	0	0	0	41	342	65	0	0	0	0
16:45	0	67	267	42	0	0	0	0	0	33	353	73	0	0	0	0
17:00	0	69	286	46	0	0	0	0	0	42	332	74	0	0	0	0
17:15	0	64	282	53	0	0	0	0	0	38	330	59	0	0	0	0
17:30	0	63	297	49	0	0	0	0	0	42	305	59	0	0	0	0
17:45	0	57	291	50	0	0	0	0	0	47	306	52	0	0	0	0
18:00	0	54	271	47	0	0	0	0	0	41	270	45	0	0	0	0

Intelligent Data Collection Limited Watlington

Client: Clarkebond
Project Number: ID03046
Junction Number: Site 2
Date of Survey: 24.01.2017
Junction Name: B480 Brook St/B4009 Couching St
Junction Type: T-Junction

Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A			
Date	01.02.2017			
Prepared by	Richard Collins			
Signature				
Checked by	Luke Martin			
Signature				
Project Director	Paul O'Neill			
Signature				
Project number	ID03046			
File Ref	ID03046 Watlington - MCC - Site 2			

Issue Sheet

Issued to	Date			
	01.02.2017			
Alex Stepenson	E-mail			

Contents Page

Location Plan & Summary
MCC Data
PCU Data
Movement Matrices

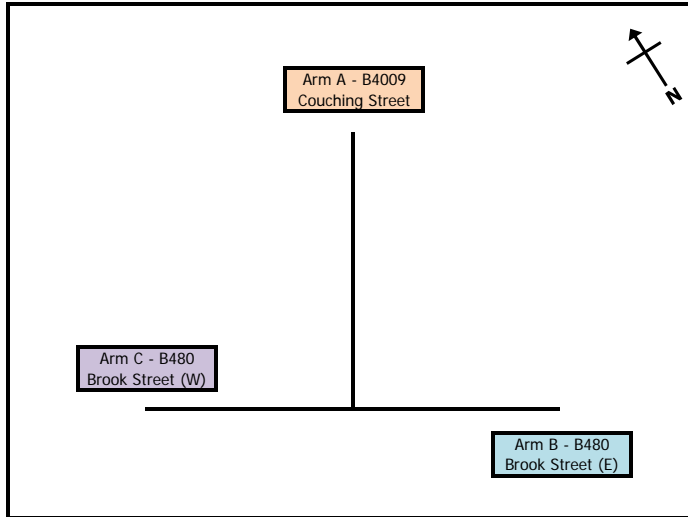
Intelligent Data Collection Limited



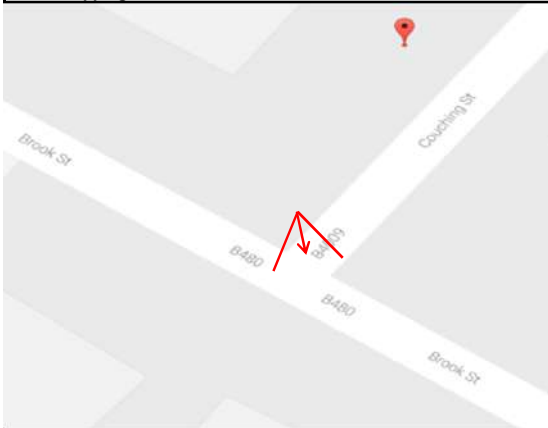
Client: Clarkebond **Date of Survey:** 24.01.2017
Project Number: ID03046 **Junction Name:** B480 Brook St/B4009 Couching St
Junction Number: Site 2 **Junction Type:** T-Junction

X Coordinate	Y Coordinate	Google Maps Link
51.643498	-1.006574	Click Here
AM Peak Conditions	PM Peak Conditions	
Dry	Dry	

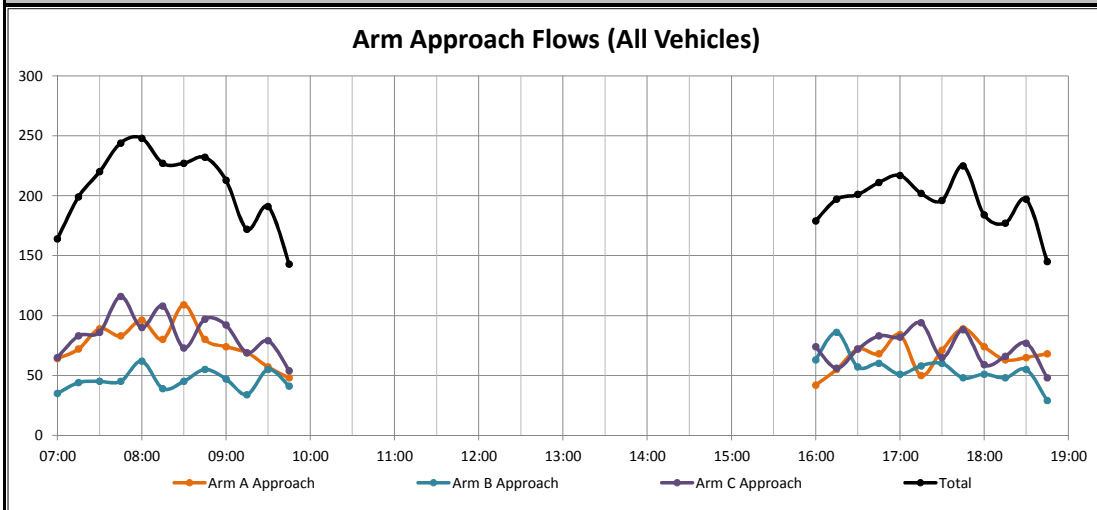
Junction Layout



Aerial Mapping and On-site Camera View



Junction Flow Profile



Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events):

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 2
 Date of Survey: 24.01.2017
 Junction Name: B480 Brook St/B4009 Couching St
 Junction Type: T-Junction

Arm A: B4009 Couching Street
 Arm B: B480 Brook Street (E)
 Arm C: B480 Brook Street (W)

Time	A to A							Total	A to C							Total	A to B							Total		
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle			
07:00	0	0	0	0	0	0	0	0	29	8	0	0	1	1	0	39	17	7	1	0	0	0	0	0	0	25
07:15	0	0	0	0	0	0	0	0	31	12	0	0	1	0	0	44	18	10	0	0	0	0	0	0	0	28
07:30	0	0	0	0	0	0	0	0	31	8	0	0	1	1	0	41	39	9	0	0	0	0	0	0	0	48
07:45	0	0	0	0	0	0	0	0	38	12	0	0	0	0	0	50	30	3	0	0	0	0	0	0	0	33
08:00	0	0	0	0	0	0	0	0	39	10	1	0	0	0	0	50	43	2	1	0	0	0	0	0	0	46
08:15	0	0	0	0	0	0	0	0	32	7	2	0	0	1	0	42	30	8	0	0	0	0	0	0	0	38
08:30	0	0	0	0	0	0	0	0	52	9	2	0	0	1	0	64	35	9	1	0	0	0	0	0	0	45
08:45	0	0	0	0	0	0	0	0	27	7	1	0	0	0	0	35	36	6	0	3	0	0	0	0	0	45
09:00	0	0	0	0	0	0	0	0	33	9	1	0	0	0	0	43	19	11	0	1	0	0	0	0	0	31
09:15	0	0	0	0	0	0	0	0	28	15	0	0	0	0	0	43	17	7	2	0	0	0	0	0	0	26
09:30	0	0	0	0	0	0	0	0	24	10	1	0	0	0	0	35	20	2	0	0	0	0	0	0	0	22
09:45	0	0	0	0	0	0	0	0	19	4	0	0	0	0	0	23	20	5	0	0	0	0	0	0	0	25
16:00	0	0	0	0	0	0	0	0	16	11	0	0	0	0	0	27	11	4	0	0	0	0	0	0	0	15
16:15	0	0	0	0	0	0	0	0	21	6	0	0	1	0	0	28	22	4	1	0	0	0	0	0	0	27
16:30	0	0	0	0	0	0	0	0	35	8	0	0	0	0	0	43	25	2	0	1	0	0	1	0	0	29
16:45	0	0	0	0	0	0	0	0	37	9	0	0	0	0	0	46	17	5	0	0	0	0	0	0	0	22
17:00	0	0	0	0	0	0	0	0	44	12	1	0	0	0	0	57	24	3	0	0	0	0	0	0	0	27
17:15	0	0	0	0	0	0	0	0	27	4	1	0	0	0	0	32	18	0	0	0	0	0	0	0	0	18
17:30	0	0	0	0	0	0	0	0	38	6	0	0	0	0	0	44	25	2	0	0	0	0	0	0	0	27
17:45	0	0	0	0	0	0	0	0	53	3	0	0	0	1	0	57	32	0	0	0	0	0	0	0	0	32
18:00	0	0	0	0	0	0	0	0	49	6	0	0	0	0	0	55	19	0	0	0	0	0	0	0	0	19
18:15	0	0	0	0	0	0	0	0	42	1	0	0	0	0	0	43	19	1	0	0	0	0	0	0	0	20
18:30	0	0	0	0	0	0	0	0	37	3	0	0	0	0	0	40	23	1	1	0	0	0	0	0	0	25
18:45	0	0	0	0	0	0	0	0	42	2	0	0	0	1	0	45	21	2	0	0	0	0	0	0	0	23
Start Time	Rolling Hour							Total	Rolling Hour							Total	Rolling Hour							Total		
07:00	0	0	0	0	0	0	0	0	129	40	0	0	3	2	0	174	104	29	1	0	0	0	0	0	0	134
07:15	0	0	0	0	0	0	0	0	139	42	1	0	2	1	0	185	130	24	1	0	0	0	0	0	0	155
07:30	0	0	0	0	0	0	0	0	140	37	3	0	1	2	0	183	142	22	1	0	0	0	0	0	0	165
07:45	0	0	0	0	0	0	0	0	161	38	5	0	1	1	0	206	138	22	2	0	0	0	0	0	0	162
08:00	0	0	0	0	0	0	0	0	150	33	6	0	1	1	0	191	144	25	2	3	0	0	0	0	0	174
08:15	0	0	0	0	0	0	0	0	144	32	6	0	1	1	0	184	120	34	1	4	0	0	0	0	0	159
08:30	0	0	0	0	0	0	0	0	140	40	4	0	1	0	0	185	107	33	3	4	0	0	0	0	0	147
08:45	0	0	0	0	0	0	0	0	112	41	3	0	0	0	0	156	92	26	2	4	0	0	0	0	0	124
09:00	0	0	0	0	0	0	0	0	104	38	2	0	0	0	0	144	76	25	2	1	0	0	0	0	0	104
16:00	0	0	0	0	0	0	0	0	109	34	0	0	1	0	0	144	75	15	1	1	0	1	0	1	0	93
16:15	0	0	0	0	0	0	0	0	137	35	1	0	1	0	0	174	88	14	1	1	0	1	0	1	0	105
16:30	0	0	0	0	0	0	0	0	143	33	2	0	0	0	0	178	84	10	0	1	0	1	0	1	0	96
16:45	0	0	0	0	0	0	0	0	146	31	2	0	0	0	0	179	84	10	0	0	0	0	0	0	0	94
17:00	0	0	0	0	0	0	0	0	162	25	2	0	0	1	0	190	99	5	0	0	0	0	0	0	0	104
17:15	0	0	0	0	0	0	0	0	167	19	1	0	0	1	0	188	94	2	0	0	0	0	0	0	0	96
17:30	0	0	0	0	0	0	0	0	182	16	0	0	0	1	0	199	95	3	0	0	0	0	0	0	0	98
17:45	0	0	0	0	0	0	0	0	181	13	0	0	0	1	0	195	93	2	1	0	0	0	0	0	0	96
18:00	0	0	0	0	0	0	0	0	170	12	0	0	0	1	0	183	82	4	1	0	0	0	0	0	0	87

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 2
 Date of Survey: 24.01.2017
 Junction Name: B480 Brook St/B4009 Couching St
 Junction Type: T-Junction

Arm A: B4009 Couching Street
 Arm B: B480 Brook Street (E)
 Arm C: B480 Brook Street (W)

Time	B to B							Total	B to A							Total	B to C							Total	
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		
07:00	0	0	0	0	0	0	0	0	24	2	0	0	0	0	0	0	26	6	2	0	0	1	0	0	9
07:15	0	0	0	0	0	0	0	0	29	4	1	0	0	0	0	0	34	7	3	0	0	0	0	0	10
07:30	0	0	0	0	0	0	0	0	24	6	1	0	0	0	0	0	31	11	3	0	0	0	0	0	14
07:45	0	0	0	0	0	0	0	0	24	2	0	0	0	0	0	0	26	14	4	0	1	0	0	0	19
08:00	0	0	0	0	0	0	0	0	33	6	1	0	0	1	0	0	41	19	2	0	0	0	0	0	21
08:15	0	0	0	0	0	0	0	0	25	2	0	0	0	0	0	0	27	10	2	0	0	0	0	0	12
08:30	0	0	0	0	0	0	0	0	29	3	0	0	0	0	0	0	32	13	0	0	0	0	0	0	13
08:45	0	0	0	0	0	0	0	0	39	3	0	0	0	0	0	0	42	10	2	1	0	0	0	0	13
09:00	0	0	0	0	0	0	0	0	24	6	1	0	0	0	0	0	31	13	3	0	0	0	0	0	16
09:15	0	0	0	0	0	0	0	0	12	1	2	0	0	0	0	0	15	13	6	0	0	0	0	0	19
09:30	0	0	0	0	0	0	0	0	33	4	0	1	0	1	0	0	39	12	3	0	0	1	0	0	16
09:45	0	0	0	0	0	0	0	0	16	2	1	0	0	0	0	0	19	17	4	0	0	0	0	1	22
16:00	0	0	0	0	0	0	0	0	27	10	0	0	0	0	0	0	37	22	3	0	0	0	1	0	26
16:15	0	0	0	0	0	0	0	0	42	11	0	0	0	0	0	0	53	29	3	0	0	0	1	0	33
16:30	0	0	0	0	0	0	0	0	30	5	0	0	0	0	0	0	35	18	3	0	0	1	0	0	22
16:45	0	0	0	0	0	0	0	0	30	8	0	0	1	0	0	0	39	17	4	0	0	0	0	0	21
17:00	0	0	0	0	0	0	0	0	30	8	0	0	0	0	0	0	38	11	2	0	0	0	0	0	13
17:15	0	0	0	0	0	0	0	0	28	6	0	0	0	0	0	0	34	21	3	0	0	0	0	0	24
17:30	0	0	0	0	0	0	0	0	40	2	0	0	0	0	0	0	42	16	2	0	0	0	0	0	18
17:45	0	0	0	0	0	0	0	0	27	4	0	0	0	0	0	0	31	15	2	0	0	0	0	0	17
18:00	0	0	0	0	0	0	0	0	34	7	0	0	0	0	0	0	41	10	0	0	0	0	0	0	10
18:15	0	0	0	0	0	0	0	0	28	4	0	0	0	0	0	0	32	15	1	0	0	0	0	0	16
18:30	0	0	0	0	0	0	0	0	32	2	0	0	0	0	0	0	34	19	1	0	0	0	1	0	21
18:45	0	0	0	0	0	0	0	0	17	2	0	0	0	0	0	0	19	10	0	0	0	0	0	0	10
Start Time	Rolling Hour							Total	Rolling Hour							Total	Rolling Hour							Total	
07:00	0	0	0	0	0	0	0	0	101	14	2	0	0	0	0	0	117	38	12	0	1	1	0	0	52
07:15	0	0	0	0	0	0	0	0	110	18	3	0	0	1	0	0	132	51	12	0	1	0	0	0	64
07:30	0	0	0	0	0	0	0	0	106	16	2	0	0	1	0	0	125	54	11	0	1	0	0	0	66
07:45	0	0	0	0	0	0	0	0	111	13	1	0	0	1	0	0	126	56	8	0	1	0	0	0	65
08:00	0	0	0	0	0	0	0	0	126	14	1	0	0	1	0	0	142	52	6	1	0	0	0	0	59
08:15	0	0	0	0	0	0	0	0	117	14	1	0	0	0	0	0	132	46	7	1	0	0	0	0	54
08:30	0	0	0	0	0	0	0	0	104	13	3	0	0	0	0	0	120	49	11	1	0	0	0	0	61
08:45	0	0	0	0	0	0	0	0	108	14	3	1	0	1	0	0	127	48	14	1	0	1	0	0	64
09:00	0	0	0	0	0	0	0	0	85	13	4	1	0	1	0	0	104	55	16	0	0	1	0	1	73
16:00	0	0	0	0	0	0	0	0	129	34	0	0	1	0	0	0	164	86	13	0	0	1	2	0	102
16:15	0	0	0	0	0	0	0	0	132	32	0	0	1	0	0	0	165	75	12	0	0	1	1	0	89
16:30	0	0	0	0	0	0	0	0	118	27	0	0	1	0	0	0	146	67	12	0	0	1	0	0	80
16:45	0	0	0	0	0	0	0	0	128	24	0	0	1	0	0	0	153	65	11	0	0	0	0	0	76
17:00	0	0	0	0	0	0	0	0	125	20	0	0	0	0	0	0	145	63	9	0	0	0	0	0	72
17:15	0	0	0	0	0	0	0	0	129	19	0	0	0	0	0	0	148	62	7	0	0	0	0	0	69
17:30	0	0	0	0	0	0	0	0	129	17	0	0	0	0	0	0	146	56	5	0	0	0	0	0	61
17:45	0	0	0	0	0	0	0	0	121	17	0	0	0	0	0	0	138	59	4	0	0	0	1	0	64
18:00	0	0	0	0	0	0	0	0	111	15	0	0	0	0	0	0	126	54	2	0	0	0	1	0	57

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 2
 Date of Survey: 24.01.2017
 Junction Name: B480 Brook St/B4009 Couching St
 Junction Type: T-Junction

Arm A: B4009 Couching Street
 Arm B: B480 Brook Street (E)
 Arm C: B480 Brook Street (W)

Time	C to C							Total	C to B							Total	C to A							Total
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle		Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	
07:00								0	5	2	0	0	0	0	0	7	46	10	1	0	0	1	0	58
07:15								0	9	2	0	0	0	1	0	12	55	13	3	0	0	0	0	71
07:30								0	7	2	0	0	0	0	0	9	65	11	1	0	0	0	0	77
07:45								0	8	5	0	0	0	0	0	13	85	15	2	0	1	0	0	103
08:00								0	8	1	0	0	0	1	0	10	65	10	3	0	1	1	0	80
08:15								0	9	3	0	0	0	0	0	12	80	8	3	0	5	0	0	96
08:30								0	6	0	0	0	0	0	0	6	55	10	1	0	0	1	0	67
08:45								0	7	4	0	0	0	0	0	11	73	11	2	0	0	0	0	86
09:00								0	7	1	0	0	0	0	0	8	70	12	0	0	1	1	0	84
09:15								0	10	1	1	0	0	0	0	12	40	14	3	0	0	0	0	57
09:30								0	5	1	1	0	0	0	1	8	57	10	1	0	2	0	1	71
09:45								0	4	2	0	0	0	0	0	6	41	7	0	0	0	0	0	48
16:00								0	10	0	0	0	0	0	0	10	51	13	0	0	0	0	0	64
16:15								0	6	1	0	0	0	0	0	7	35	13	0	0	0	1	0	49
16:30								0	11	4	0	0	0	0	0	15	44	13	0	0	0	0	0	57
16:45								0	7	1	0	0	0	0	0	8	59	16	0	0	0	0	0	75
17:00								0	2	1	1	0	0	0	0	4	71	7	0	0	0	0	0	78
17:15								0	4	0	0	0	1	0	0	5	76	11	0	0	0	2	0	89
17:30								0	3	0	0	0	0	0	0	3	52	9	0	0	1	0	0	62
17:45								0	9	0	0	0	0	0	0	9	65	13	0	0	1	0	0	79
18:00								0	5	0	0	0	0	0	0	5	46	8	0	0	0	0	0	54
18:15								0	6	0	0	0	0	0	0	6	55	4	1	0	0	0	0	60
18:30								0	7	0	0	0	0	0	0	7	62	8	0	0	0	0	0	70
18:45								0	7	0	0	0	0	0	0	7	38	2	0	0	1	0	0	41
Start Time	Rolling Hour							Total	Rolling Hour							Total	Rolling Hour							Total
07:00	0	0	0	0	0	0	0	0	29	11	0	0	0	1	0	41	251	49	7	0	1	1	0	309
07:15	0	0	0	0	0	0	0	0	32	10	0	0	0	2	0	44	270	49	9	0	2	1	0	331
07:30	0	0	0	0	0	0	0	0	32	11	0	0	0	1	0	44	295	44	9	0	7	1	0	356
07:45	0	0	0	0	0	0	0	0	31	9	0	0	0	1	0	41	285	43	9	0	7	2	0	346
08:00	0	0	0	0	0	0	0	0	30	8	0	0	0	1	0	39	273	39	9	0	6	2	0	329
08:15	0	0	0	0	0	0	0	0	29	8	0	0	0	0	0	37	278	41	6	0	6	2	0	333
08:30	0	0	0	0	0	0	0	0	30	6	1	0	0	0	0	37	238	47	6	0	1	2	0	294
08:45	0	0	0	0	0	0	0	0	29	7	2	0	0	0	1	39	240	47	6	0	3	1	1	298
09:00	0	0	0	0	0	0	0	0	26	5	2	0	0	0	1	34	208	43	4	0	3	1	1	260
16:00	0	0	0	0	0	0	0	0	34	6	0	0	0	0	0	40	189	55	0	0	0	1	0	245
16:15	0	0	0	0	0	0	0	0	26	7	1	0	0	0	0	34	209	49	0	0	0	1	0	259
16:30	0	0	0	0	0	0	0	0	24	6	1	0	1	0	0	32	250	47	0	0	0	2	0	299
16:45	0	0	0	0	0	0	0	0	16	2	1	0	1	0	0	20	258	43	0	0	1	2	0	304
17:00	0	0	0	0	0	0	0	0	18	1	1	0	1	0	0	21	264	40	0	0	2	2	0	308
17:15	0	0	0	0	0	0	0	0	21	0	0	0	1	0	0	22	239	41	0	0	2	2	0	284
17:30	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	23	218	34	1	0	2	0	0	255
17:45	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	27	228	33	1	0	1	0	0	263
18:00	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	25	201	22	1	0	1	0	0	225

Intelligent Data Collection Limited



Client: Clarkebond
Project Number: ID03046
Junction Number: Site 2
Date of Survey: 24.01.2017
Junction Name: B480 Brook St/B4009 Couching St
Junction Type: T-Junction

Time	Arm A Approach								Arm A Exit									
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total		
07:00	46	15	1	0	1	1	0	64	70	12	1	0	0	1	0	84		
07:15	49	22	0	0	1	0	0	72	84	17	4	0	0	0	0	105		
07:30	70	17	0	0	1	1	0	89	89	17	2	0	0	0	0	108		
07:45	68	15	0	0	0	0	0	83	109	17	2	0	1	0	0	129		
08:00	82	12	2	0	0	0	0	96	98	16	4	0	1	2	0	121		
08:15	62	15	2	0	0	1	0	80	105	10	3	0	5	0	0	123		
08:30	87	18	3	0	1	0	0	109	84	13	1	0	0	1	0	99		
08:45	63	13	1	3	0	0	0	80	112	14	2	0	0	0	0	128		
09:00	52	20	1	1	0	0	0	74	94	18	1	0	1	1	0	115		
09:15	45	22	2	0	0	0	0	69	52	15	5	0	0	0	0	72		
09:30	44	12	1	0	0	0	0	57	90	14	1	1	2	1	1	110		
09:45	39	9	0	0	0	0	0	48	57	9	1	0	0	0	0	67		
16:00	27	15	0	0	0	0	0	42	78	23	0	0	0	0	0	101		
16:15	43	10	1	0	1	0	0	55	77	24	0	0	0	1	0	102		
16:30	60	10	0	1	0	1	0	72	74	18	0	0	0	0	0	92		
16:45	54	14	0	0	0	0	0	68	89	24	0	0	1	0	0	114		
17:00	68	15	1	0	0	0	0	84	101	15	0	0	0	0	0	116		
17:15	45	4	1	0	0	0	0	50	104	17	0	0	0	2	0	123		
17:30	63	8	0	0	0	0	0	71	92	11	0	0	1	0	0	104		
17:45	85	3	0	0	0	1	0	89	92	17	0	0	1	0	0	110		
18:00	68	6	0	0	0	0	0	74	80	15	0	0	0	0	0	95		
18:15	61	2	0	0	0	0	0	63	83	8	1	0	0	0	0	92		
18:30	60	4	1	0	0	0	0	65	94	10	0	0	0	0	0	104		
18:45	63	4	0	0	0	1	0	68	55	4	0	0	1	0	0	60		
Start Time	Rolling Hour								Total	Rolling Hour								Total
07:00	233	69	1	0	3	2	0	308	352	63	9	0	1	1	0	426		
07:15	269	66	2	0	2	1	0	340	380	67	12	0	2	2	0	463		
07:30	282	59	4	0	1	2	0	348	401	60	11	0	7	2	0	481		
07:45	299	60	7	0	1	1	0	368	396	56	10	0	7	3	0	472		
08:00	294	58	8	3	1	1	0	365	399	53	10	0	6	3	0	471		
08:15	264	66	7	4	1	1	0	343	395	55	7	0	6	2	0	465		
08:30	247	73	7	4	1	0	0	332	342	60	9	0	1	2	0	414		
08:45	204	67	5	4	0	0	0	280	348	61	9	1	3	2	1	425		
09:00	180	63	4	1	0	0	0	248	293	56	8	1	3	2	1	364		
16:00	184	49	1	1	1	1	0	237	318	89	0	0	1	1	0	409		
16:15	225	49	2	1	1	1	0	279	341	81	0	0	1	1	0	424		
16:30	227	43	2	1	0	1	0	274	368	74	0	0	1	2	0	445		
16:45	230	41	2	0	0	0	0	273	386	67	0	0	2	2	0	457		
17:00	261	30	2	0	0	1	0	294	389	60	0	0	2	2	0	453		
17:15	261	21	1	0	0	1	0	284	368	60	0	0	2	2	0	432		
17:30	277	19	0	0	0	1	0	297	347	51	1	0	2	0	0	401		
17:45	274	15	1	0	0	1	0	291	349	50	1	0	1	0	0	401		
18:00	252	16	1	0	0	1	0	270	312	37	1	0	1	0	0	351		

Intelligent Data Collection Limited



Client: Clarkebond
Project Number: ID03046
Junction Number: Site 2
Date of Survey: 24.01.2017
Junction Name: B480 Brook St/B4009 Couching St
Junction Type: T-Junction

Time	Arm B Approach								Arm B Exit									
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total		
07:00	30	4	0	0	1	0	0	35	22	9	1	0	0	0	0	32		
07:15	36	7	1	0	0	0	0	44	27	12	0	0	0	1	0	40		
07:30	35	9	1	0	0	0	0	45	46	11	0	0	0	0	0	57		
07:45	38	6	0	1	0	0	0	45	38	8	0	0	0	0	0	46		
08:00	52	8	1	0	0	1	0	62	51	3	1	0	0	1	0	56		
08:15	35	4	0	0	0	0	0	39	39	11	0	0	0	0	0	50		
08:30	42	3	0	0	0	0	0	45	41	9	1	0	0	0	0	51		
08:45	49	5	1	0	0	0	0	55	43	10	0	3	0	0	0	56		
09:00	37	9	1	0	0	0	0	47	26	12	0	1	0	0	0	39		
09:15	25	7	2	0	0	0	0	34	27	8	3	0	0	0	0	38		
09:30	45	7	0	1	1	1	0	55	25	3	1	0	0	0	1	30		
09:45	33	6	1	0	0	0	1	41	24	7	0	0	0	0	0	31		
16:00	49	13	0	0	0	1	0	63	21	4	0	0	0	0	0	25		
16:15	71	14	0	0	0	1	0	86	28	5	1	0	0	0	0	34		
16:30	48	8	0	0	1	0	0	57	36	6	0	1	0	1	0	44		
16:45	47	12	0	0	1	0	0	60	24	6	0	0	0	0	0	30		
17:00	41	10	0	0	0	0	0	51	26	4	1	0	0	0	0	31		
17:15	49	9	0	0	0	0	0	58	22	0	0	0	1	0	0	23		
17:30	56	4	0	0	0	0	0	60	28	2	0	0	0	0	0	30		
17:45	42	6	0	0	0	0	0	48	41	0	0	0	0	0	0	41		
18:00	44	7	0	0	0	0	0	51	24	0	0	0	0	0	0	24		
18:15	43	5	0	0	0	0	0	48	25	1	0	0	0	0	0	26		
18:30	51	3	0	0	0	1	0	55	30	1	1	0	0	0	0	32		
18:45	27	2	0	0	0	0	0	29	28	2	0	0	0	0	0	30		
Start Time	Rolling Hour								Total	Rolling Hour								Total
07:00	139	26	2	1	1	0	0	169	133	40	1	0	0	1	0	175		
07:15	161	30	3	1	0	1	0	196	162	34	1	0	0	2	0	199		
07:30	160	27	2	1	0	1	0	191	174	33	1	0	0	1	0	209		
07:45	167	21	1	1	0	1	0	191	169	31	2	0	0	1	0	203		
08:00	178	20	2	0	0	1	0	201	174	33	2	3	0	1	0	213		
08:15	163	21	2	0	0	0	0	186	149	42	1	4	0	0	0	196		
08:30	153	24	4	0	0	0	0	181	137	39	4	4	0	0	0	184		
08:45	156	28	4	1	1	1	0	191	121	33	4	4	0	0	1	163		
09:00	140	29	4	1	1	1	1	177	102	30	4	1	0	0	1	138		
16:00	215	47	0	0	2	2	0	266	109	21	1	1	0	1	0	133		
16:15	207	44	0	0	2	1	0	254	114	21	2	1	0	1	0	139		
16:30	185	39	0	0	2	0	0	226	108	16	1	1	1	1	0	128		
16:45	193	35	0	0	1	0	0	229	100	12	1	0	1	0	0	114		
17:00	188	29	0	0	0	0	0	217	117	6	1	0	1	0	0	125		
17:15	191	26	0	0	0	0	0	217	115	2	0	0	1	0	0	118		
17:30	185	22	0	0	0	0	0	207	118	3	0	0	0	0	0	121		
17:45	180	21	0	0	0	1	0	202	120	2	1	0	0	0	0	123		
18:00	165	17	0	0	0	1	0	183	107	4	1	0	0	0	0	112		

Intelligent Data Collection Limited



Client: Clarkebond
Project Number: ID03046
Junction Number: Site 2
Date of Survey: 24.01.2017
Junction Name: B480 Brook St/B4009 Couching St
Junction Type: T-Junction

Time	Arm C Approach								Arm C Exit									
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total		
07:00	51	12	1	0	0	1	0	65	35	10	0	0	2	1	0	48		
07:15	64	15	3	0	0	1	0	83	38	15	0	0	1	0	0	54		
07:30	72	13	1	0	0	0	0	86	42	11	0	0	1	1	0	55		
07:45	93	20	2	0	1	0	0	116	52	16	0	1	0	0	0	69		
08:00	73	11	3	0	1	2	0	90	58	12	1	0	0	0	0	71		
08:15	89	11	3	0	5	0	0	108	42	9	2	0	0	1	0	54		
08:30	61	10	1	0	0	1	0	73	65	9	2	0	1	0	0	77		
08:45	80	15	2	0	0	0	0	97	37	9	2	0	0	0	0	48		
09:00	77	13	0	0	1	1	0	92	46	12	1	0	0	0	0	59		
09:15	50	15	4	0	0	0	0	69	41	21	0	0	0	0	0	62		
09:30	62	11	2	0	2	0	2	79	36	13	1	0	1	0	0	51		
09:45	45	9	0	0	0	0	0	54	36	8	0	0	0	0	1	45		
16:00	61	13	0	0	0	0	0	74	38	14	0	0	0	1	0	53		
16:15	41	14	0	0	0	1	0	56	50	9	0	0	1	1	0	61		
16:30	55	17	0	0	0	0	0	72	53	11	0	0	1	0	0	65		
16:45	66	17	0	0	0	0	0	83	54	13	0	0	0	0	0	67		
17:00	73	8	1	0	0	0	0	82	55	14	1	0	0	0	0	70		
17:15	80	11	0	0	1	2	0	94	48	7	1	0	0	0	0	56		
17:30	55	9	0	0	1	0	0	65	54	8	0	0	0	0	0	62		
17:45	74	13	0	0	1	0	0	88	68	5	0	0	0	1	0	74		
18:00	51	8	0	0	0	0	0	59	59	6	0	0	0	0	0	65		
18:15	61	4	1	0	0	0	0	66	57	2	0	0	0	0	0	59		
18:30	69	8	0	0	0	0	0	77	56	4	0	0	0	1	0	61		
18:45	45	2	0	0	1	0	0	48	52	2	0	0	0	1	0	55		
Start Time	Rolling Hour								Total	Rolling Hour								Total
07:00	280	60	7	0	1	2	0	350	167	52	0	1	4	2	0	226		
07:15	302	59	9	0	2	3	0	375	190	54	1	1	2	1	0	249		
07:30	327	55	9	0	7	2	0	400	194	48	3	1	1	2	0	249		
07:45	316	52	9	0	7	3	0	387	217	46	5	1	1	1	0	271		
08:00	303	47	9	0	6	3	0	368	202	39	7	0	1	1	0	250		
08:15	307	49	6	0	6	2	0	370	190	39	7	0	1	1	0	238		
08:30	268	53	7	0	1	2	0	331	189	51	5	0	1	0	0	246		
08:45	269	54	8	0	3	1	2	337	160	55	4	0	1	0	0	220		
09:00	234	48	6	0	3	1	2	294	159	54	2	0	1	0	1	217		
16:00	223	61	0	0	0	1	0	285	195	47	0	0	2	2	0	246		
16:15	235	56	1	0	0	1	0	293	212	47	1	0	2	1	0	263		
16:30	274	53	1	0	1	2	0	331	210	45	2	0	1	0	0	258		
16:45	274	45	1	0	2	2	0	324	211	42	2	0	0	0	0	255		
17:00	282	41	1	0	3	2	0	329	225	34	2	0	0	1	0	262		
17:15	260	41	0	0	3	2	0	306	229	26	1	0	0	1	0	257		
17:30	241	34	1	0	2	0	0	278	238	21	0	0	0	1	0	260		
17:45	255	33	1	0	1	0	0	290	240	17	0	0	0	2	0	259		
18:00	226	22	1	0	1	0	0	250	224	14	0	0	0	2	0	240		

Intelligent Data Collection Limited

Client: Clarkebond Date of Survey: 24.01.2017
 Project Number: ID03046 Junction Name: B480 Brook St/B4009 Couching St
 Junction Number: Site 2 Junction Type: T-Junction



Total Junction Flow								
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
07:00	127	31	2	0	2	2	0	164
07:15	149	44	4	0	1	1	0	199
07:30	177	39	2	0	1	1	0	220
07:45	199	41	2	1	1	0	0	244
08:00	207	31	6	0	1	3	0	248
08:15	186	30	5	0	5	1	0	227
08:30	190	31	4	0	1	1	0	227
08:45	192	33	4	3	0	0	0	232
09:00	166	42	2	1	1	1	0	213
09:15	120	44	8	0	0	0	0	172
09:30	151	30	3	1	3	1	2	191
09:45	117	24	1	0	0	0	1	143
16:00	137	41	0	0	0	1	0	179
16:15	155	38	1	0	1	2	0	197
16:30	163	35	0	1	1	1	0	201
16:45	167	43	0	0	1	0	0	211
17:00	182	33	2	0	0	0	0	217
17:15	174	24	1	0	1	2	0	202
17:30	174	21	0	0	1	0	0	196
17:45	201	22	0	0	1	1	0	225
18:00	163	21	0	0	0	0	0	184
18:15	165	11	1	0	0	0	0	177
18:30	180	15	1	0	0	1	0	197
18:45	135	8	0	0	1	1	0	145
Start Time	Rolling Hour							Total
07:00	652	155	10	1	5	4	0	827
07:15	732	155	14	1	4	5	0	911
07:30	769	141	15	1	8	5	0	939
07:45	782	133	17	1	8	5	0	946
08:00	775	125	19	3	7	5	0	934
08:15	734	136	15	4	7	3	0	899
08:30	668	150	18	4	2	2	0	844
08:45	629	149	17	5	4	2	2	808
09:00	554	140	14	2	4	2	3	719
16:00	622	157	1	1	3	4	0	788
16:15	667	149	3	1	3	3	0	826
16:30	686	135	3	1	3	3	0	831
16:45	697	121	3	0	3	2	0	826
17:00	731	100	3	0	3	3	0	840
17:15	712	88	1	0	3	3	0	807
17:30	703	75	1	0	2	1	0	782
17:45	709	69	2	0	1	2	0	783
18:00	643	55	2	0	1	2	0	703

Intelligent Data Collection Limited



Client: Clarkebond
 Project Number: ID03046
 Junction Number: Site 2

Date of Survey: 24.01.2017
 Junction Name: B480 Brook St/B4009 Couching St
 Junction Type: T-Junction

Arm A: B4009 Couching Street

Arm B: B480 Brook Street (E)

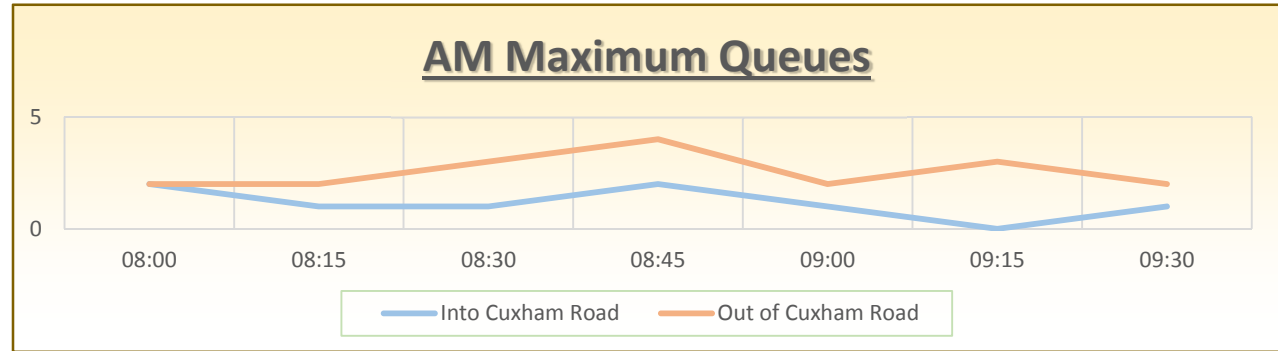
Arm C: B480 Brook Street (W)

PCU Summary									
Time	A to A	A to C	A to B	B to B	B to A	B to C	C to C	C to B	C to A
07:00	0	40	26	0	26	11	0	7	58
07:15	0	46	28	0	35	10	0	11	74
07:30	0	42	48	0	32	14	0	9	78
07:45	0	50	33	0	26	21	0	13	106
08:00	0	51	47	0	41	21	0	9	84
08:15	0	43	38	0	27	12	0	12	106
08:30	0	67	46	0	32	13	0	6	67
08:45	0	36	51	0	42	14	0	11	88
09:00	0	44	33	0	32	16	0	8	85
09:15	0	43	28	0	17	19	0	13	60
09:30	0	36	22	0	40	18	0	8	74
09:45	0	23	25	0	20	21	0	6	48
16:00	0	27	15	0	37	25	0	10	64
16:15	0	30	28	0	53	32	0	7	48
16:30	0	43	30	0	35	24	0	15	57
16:45	0	46	22	0	41	21	0	8	75
17:00	0	58	27	0	38	13	0	5	78
17:15	0	33	18	0	34	24	0	7	88
17:30	0	44	27	0	42	18	0	3	64
17:45	0	56	32	0	31	17	0	9	81
18:00	0	55	19	0	41	10	0	5	54
18:15	0	43	20	0	32	16	0	6	61
18:30	0	40	26	0	34	20	0	7	70
18:45	0	44	23	0	19	10	0	7	43
Start Time	Rolling Hour								
07:00	0	177	135	0	119	55	0	40	316
07:15	0	188	156	0	134	66	0	43	342
07:30	0	186	166	0	126	68	0	43	374
07:45	0	211	164	0	126	67	0	40	363
08:00	0	197	182	0	142	60	0	38	345
08:15	0	190	168	0	133	55	0	37	346
08:30	0	190	157	0	123	62	0	38	300
08:45	0	159	133	0	131	66	0	40	307
09:00	0	146	108	0	109	74	0	35	267
16:00	0	146	95	0	166	102	0	40	244
16:15	0	176	107	0	167	90	0	35	258
16:30	0	180	97	0	148	82	0	34	298
16:45	0	181	94	0	155	76	0	22	304
17:00	0	191	104	0	145	72	0	23	310
17:15	0	188	96	0	148	69	0	24	286
17:30	0	198	98	0	146	61	0	23	259
17:45	0	194	97	0	138	63	0	27	265
18:00	0	182	88	0	126	56	0	25	227

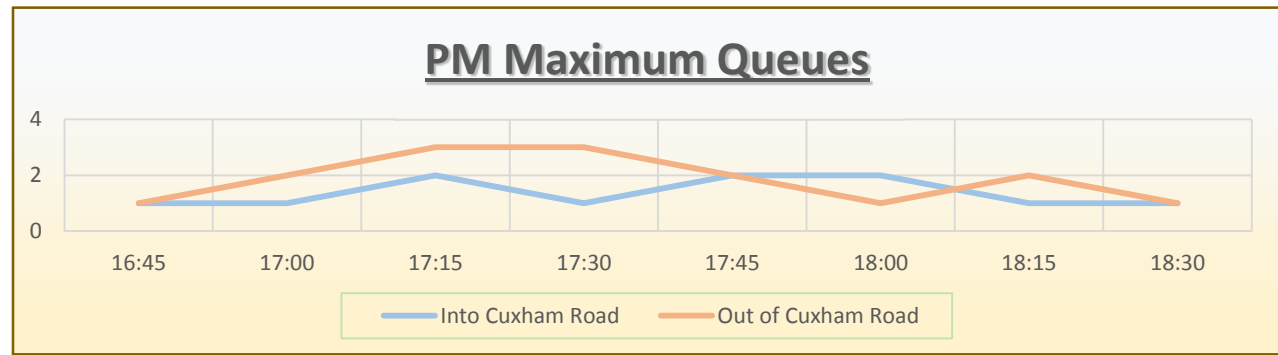
Appendix E: Queue Count Data Sheets

Junction 1

Time	Into Cuxham Road	Out of Cuxham Road
07:45	1	3
08:00	2	2
08:15	1	2
08:30	1	3
08:45	2	4
09:00	1	2
09:15	0	3
09:30	1	2

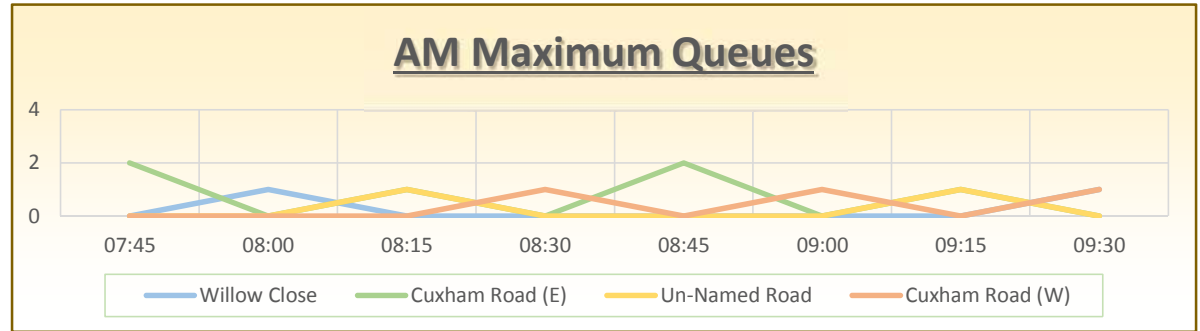


Time	Into Cuxham Road	Out of Cuxham Road
16:45	1	1
17:00	1	2
17:15	2	3
17:30	1	3
17:45	2	2
18:00	2	1
18:15	1	2
18:30	1	1

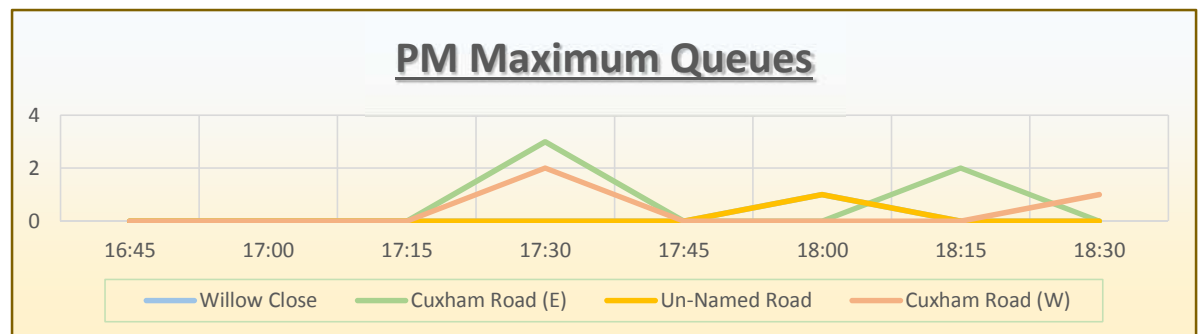


Junction 2

Time	Willow Close	Cuxham Road (E)	Un-Named Road	Cuxham Road (W)
07:45	0	2	0	0
08:00	1	0	0	0
08:15	0	1	1	0
08:30	0	0	0	1
08:45	0	2	0	0
09:00	0	0	0	1
09:15	0	1	1	0
09:30	1	0	0	1

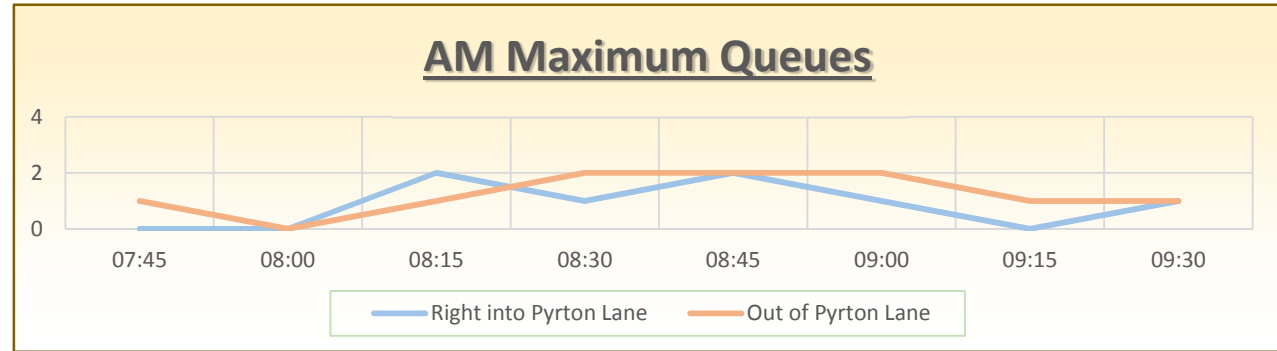


Time	Willow Close	Cuxham Road (E)	Un-Named Road	Cuxham Road (W)
16:45	0	0	0	0
17:00	0	0	0	0
17:15	0	0	0	0
17:30	0	3	0	2
17:45	0	0	0	0
18:00	1	0	1	0
18:15	0	2	0	0
18:30	0	0	0	1

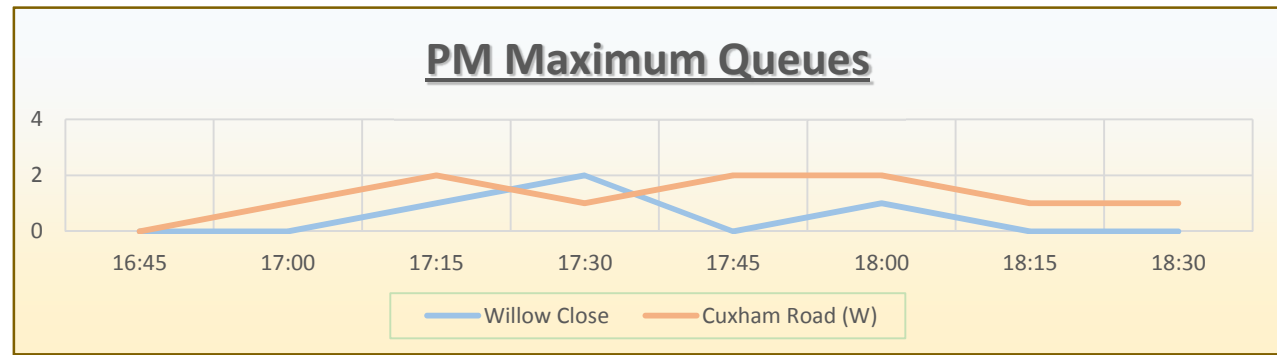


Junction 3

Time	Right into Pyrton Lane	Out of Pyrton Lane
07:45	0	1
08:00	0	0
08:15	2	1
08:30	1	2
08:45	2	2
09:00	1	2
09:15	0	1
09:30	1	1

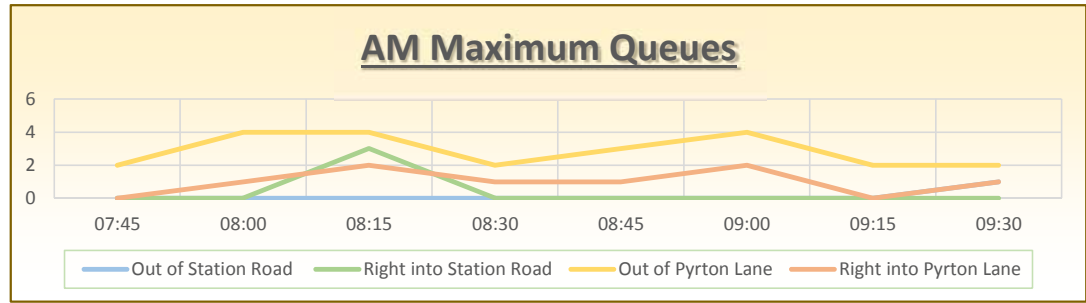


Time	Willow Close	Cuxham Road (W)
16:45	0	0
17:00	0	1
17:15	1	2
17:30	2	1
17:45	0	2
18:00	1	2
18:15	0	1
18:30	0	1

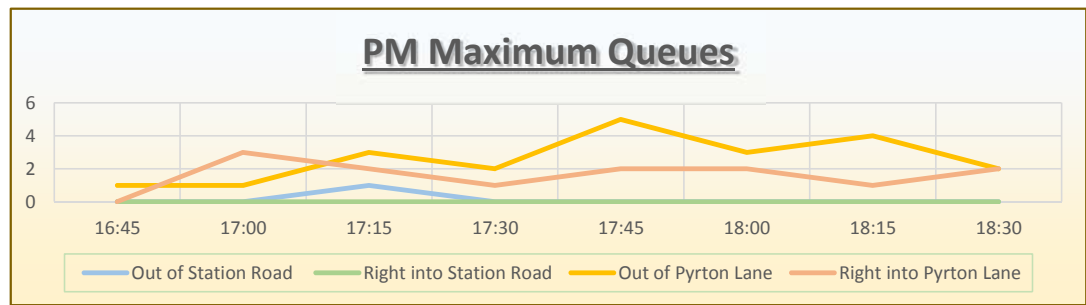


Junction 4

Time	Out of Station Road	Right into Station Road	Out of Pyrton Lane	Right into Pyrton Lane
07:45	0	0	2	0
08:00	0	0	4	1
08:15	0	3	4	2
08:30	0	0	2	1
08:45	0	0	3	1
09:00	0	0	4	2
09:15	0	0	2	0
09:30	1	0	2	1



Time	Out of Station Road	Right into Station Road	Out of Pyrton Lane	Right into Pyrton Lane
16:45	0	0	1	0
17:00	0	0	1	3
17:15	1	0	3	2
17:30	0	0	2	1
17:45	0	0	5	2
18:00	0	0	3	2
18:15	0	0	4	1
18:30	0	0	2	2



Intelligent Data Collection Limited Watlington

Client: Clarkebond
Project Number: ID03046
Junction Number: Site 1
Date of Survey: 24.01.2017
Junction Name: Couching Street/B4009/Hill Road/ High Street
Survey Type: Queue Length Survey

Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A			
Date	01.02.2017			
Prepared by	Richard Collins			
Signature				
Checked by	Luke Martin			
Signature				
Project Director	Paul O'Neill			
Signature				
Project number	ID03046			
File Ref	ID03046 Watlington - Queue Length Survey - Site 1			

Issue Sheet

Issued to	Date			
	01.02.2017			
Alex Stepenon	E-mail			

Contents Page

Location Plan
Queue Lengths

Intelligent Data Collection Limited



Client: Clarkebond
Project Number: ID03046
Junction Number: Site 1
Date of Survey: 24.01.2017
Junction Name: Couching Street/B4009/Hill Road/ High Street
Survey Type: Queue Length Survey

X Coordinate	Y Coordinate	Google Maps Link
51.645016	-1.004348	Click Here
AM Peak Conditions	PM Peak Conditions	
Dry	Dry	

Junction Layout



Queue Length Methodology

The maximum queue length, in vehicles, is reported by lane for each five-minute period.

These are broken down fully into the standard seven user classes, and then presented in Total Vehicles and also Total PCUs.

The PCU assumptions used can be updated by the user.

Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events)

Highlighted time bins indicate the maximum length of the camera view.

Intelligent Data Collection Limited Watlington

Client: Clarkebond
Project Number: ID03046
Junction Number: Site 2
Date of Survey: 24.01.2017
Junction Name: B480 Brook St/B4009 Couching St
Survey Type: Queue Length Survey

Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A			
Date	01.02.2017			
Prepared by	Richard Collins			
Signature				
Checked by	Luke Martin			
Signature				
Project Director	Paul O'Neill			
Signature				
Project number	ID03046			
File Ref	ID03046 Watlington - Queue Length Survey - Site 2			

Issue Sheet

Issued to	Date			
	01.02.2017			
Alex Stepenon	E-mail			

Contents Page

Location Plan
Queue Lengths

Intelligent Data Collection Limited



Client: Clarkebond
Project Number: ID03046
Junction Number: Site 2
Date of Survey: 24.01.2017
Junction Name: B480 Brook St/B4009 Couching St
Survey Type: Queue Length Survey

X Coordinate	Y Coordinate	Google Maps Link
51.643376	-1.00664	Click Here
AM Peak Conditions	PM Peak Conditions	
Dry	Dry	

Junction Layout



Queue Length Methodology

The maximum queue length, in vehicles, is reported by lane for each five-minute period.

These are broken down fully into the standard seven user classes, and then presented in Total Vehicles and also Total PCUs.

The PCU assumptions used can be updated by the user.

Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events)

Lane 2 is vehicles queued to turn right into Couching street, Lane 3 is vehicles queued to turn left into Couching street.

Intelligent Data Collection Limited



Client: Clarkebond
 Date: 24.01.2017
 Project Number: ID03046
 Junction Name: B460 Brook St/B4009 Coaching St

Input by: Richard Collins
 Checked by: Luke Martin

PCU Assumptions:

Car	LGV	OGV1	OGV2	Buses	M/C	Cycle
1.0	1.0	1.9	2.9	2.5	0.4	0.2

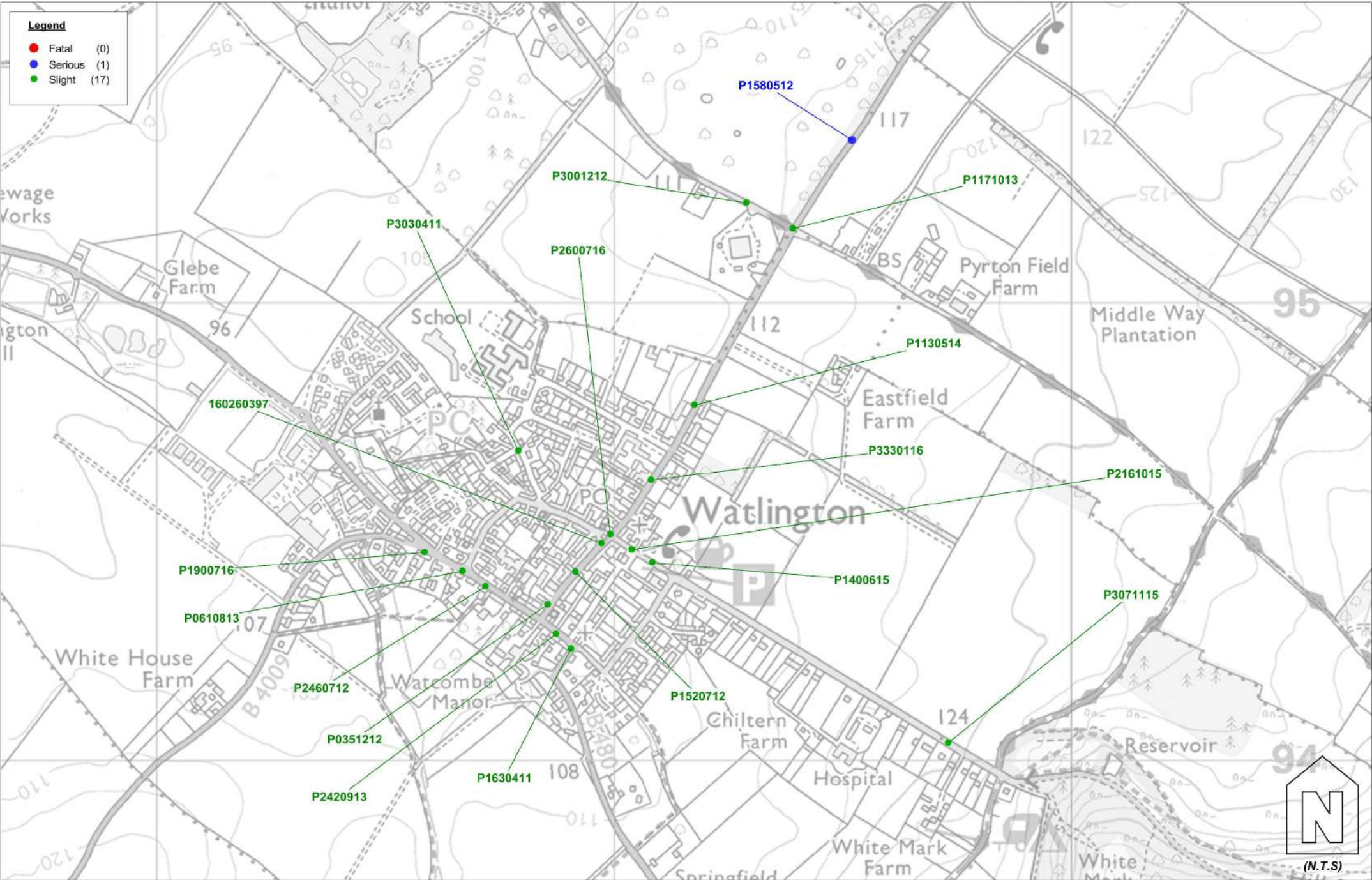
AM Peak Data:

Time	Lane 1								Lane 2								Lane 3											
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total Vehicles	Total PCUs	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total Vehicles	Total PCUs	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total Vehicles	Total PCUs	
07:00	4	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	
07:05	3	1	0	0	0	0	0	4	4	2	1	0	0	0	0	0	0	3	3	3	0	0	0	0	0	0	3	3
07:10	3	0	0	0	0	1	0	4	3	1	0	0	0	0	0	0	1	1	5	0	0	0	0	0	0	0	5	5
07:15	1	1	0	0	0	0	0	2	2	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
07:20	1	0	0	0	0	0	0	1	1	2	0	1	0	0	0	0	3	4	2	2	0	0	0	0	0	4	4	
07:25	1	1	0	0	0	0	0	2	2	1	2	0	0	0	0	0	3	3	3	0	0	0	0	0	0	0	3	3
07:30	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1
07:35	1	0	0	0	0	0	0	1	1	3	2	0	0	0	0	0	5	5	5	2	0	0	0	0	0	0	7	7
07:40	0	1	0	0	0	0	0	1	1	3	0	0	0	0	0	0	3	3	5	1	0	0	0	0	0	0	6	6
07:45	1	0	0	0	0	0	0	1	1	1	1	0	1	0	0	0	3	5	5	2	0	0	0	0	0	0	7	7
07:50	5	0	0	0	0	0	0	5	5	3	0	0	0	0	0	0	3	3	5	3	1	0	0	0	0	9	10	
07:55	3	1	0	0	0	0	0	4	4	2	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	1	1	
08:00	6	0	0	0	0	0	0	6	6	4	1	0	0	0	0	0	5	5	1	0	0	0	0	0	0	1	1	
08:05	1	0	0	0	0	0	0	1	1	4	1	0	0	0	0	0	5	5	5	0	0	0	0	0	0	0	5	5
08:10	1	0	1	0	0	0	0	2	3	2	1	0	0	0	0	0	3	3	4	0	0	0	0	0	0	0	4	4
08:15	2	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	1	1	7	0	0	0	0	0	0	0	8	10
08:20	1	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	4	4
08:25	3	0	0	0	0	0	0	3	3	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1
08:30	1	0	1	0	1	0	0	3	5	4	0	0	0	0	0	0	4	4	5	0	0	0	0	0	0	0	5	5
08:35	1	1	0	0	0	0	0	2	2	5	0	0	0	0	0	0	5	5	10	2	0	0	0	0	0	0	12	12
08:40	3	0	0	0	0	0	0	3	3	3	2	0	0	0	0	0	5	5	8	2	1	0	0	0	0	0	11	12
08:45	3	1	0	0	0	0	0	4	4	5	0	0	0	0	0	0	5	5	9	2	0	0	0	0	0	0	11	11
08:50	2	0	0	0	0	0	0	2	2	5	0	0	0	0	0	0	5	5	8	1	1	0	0	0	0	0	10	11
08:55	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6	6	10	3	0	0	0	0	0	0	13	13
09:00	2	0	0	0	0	0	0	2	2	2	1	0	0	0	0	0	4	5	3	2	0	0	0	0	0	0	5	5
09:05	1	0	0	0	0	0	0	1	1	4	0	0	0	0	0	0	4	4	10	1	0	0	0	0	0	0	11	11
09:10	1	2	0	0	0	0	0	3	3	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1
09:15	1	0	1	0	0	0	0	2	3	4	0	1	0	0	0	0	5	6	3	0	0	0	0	0	0	0	3	3
09:20	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	6	3	0	0	0	0	0	0	0	9	9
09:25	1	0	0	0	0	0	0	1	1	3	2	1	0	0	0	0	5	6	12	1	0	0	0	0	0	0	13	13
09:30	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6	6	11	1	0	0	1	0	0	0	13	15
09:35	4	0	0	0	0	0	0	4	4	5	0	0	0	0	0	0	5	2	2	0	0	0	0	0	0	0	2	2
09:40	2	0	0	0	0	0	0	2	2	2	0	0	0	0	0	0	2	2	3	0	0	0	0	0	0	0	3	3
09:45	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:50	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1
09:55	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	3	2	0	0	0	0	0	0	0	5	5

PM Peak Data:

Time	Lane 1								Lane 2								Lane 3											
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total Vehicles	Total PCUs	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total Vehicles	Total PCUs	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total Vehicles	Total PCUs	
16:00	1	2	0	0	0	0	0	3	3	3	1	0	0	0	0	0	4	4	5	0	0	0	0	0	0	0	5	5
16:05	2	1	0	0	0	0	0	3	3	3	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
16:10	0	2	0	0	0	0	0	2	2	2	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
16:15	1	1	0	0	0	0	0	2	2	2	1	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
16:20	2	1	0	0	0	0	0	3	3	2	2	0	0	0	0	0	4	4	1	1	0	0	0	0	0	0	1	1
16:25	3	1	0	0	0	0	0	4	4	4	0	0	0	0	0	0	4	4	2	0	0	0	0	0	0	0	2	2
16:30	2	1	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3	3
16:35	3	1	0	0	0	0	0	4	4	1	1	0	0	0	0	0	2	2	0	1	0	0	0	0	0	0	1	1
16:40	3	0	0	0	0	0	0	3	3	5	0	0	0	0	0	0	5	5	7	1	1	0	0	0	0	0	8	8
16:45	2	1	0	0	0	0	0	3	3	4	1	0	0	0	0	0	5	5	4	1	0	0	0	0	0	0	5	5
16:50	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	1	3	0	0	0	0	0	0	0	3	3
16:55	2	1	0	0	0	0	0	3	3	2	0	0	0	0	0	0	2	2	1	1	0	0	0	0	0	0	2	2
17:00	1	0	0	0	0	0	0	1	1	3	2	0	0	0	0	0	5	5	4	0	0	0	0	0	0	0	4	4
17:05	1	0	0	0	0	0	0	1	1	5	0	0	0	0	0	0	5	5	7	0	0	0	0	0	0	0	7	7
17:10	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	5	13	0	0	0	0	0	0	0	13	13
17:15	1	0	0	0	0	0	0	1	1	5	0	0	0	0	0	0	5	5	12	0	0	0	0	0	0	1	13	12
17:20	2	0	0	0	0	0	0	2	2	6	0	0	0	0	0	0	6	6	2	1	0	0	0	0	0	0	3	3
17:25	1	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	3	2
17:30	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	3	2	0	0	0	0	0	0	0	2	2
17:35	3	0	0	0	0	0	0	3	3	3	0	0	0	0	0	0	3	3	1	0	0	0	0	0	0	0	1	1
17:40	3	1	0	0	0	0	0	4	4	2	0	0	0	0	0	0	4	4	2	2	1	0	0	0	0	0	3	3
17:45	3	0	0	0	0	0	0	3	3	4	0	0	0	0	0	0	4	4	5	0	0	0	0	0	0	0	5	5
17:50	2	0	0	0	0	0	0	2	2	6	0	0	0	0	0	0	6	6	5	0	0	0	0	0	0	0	5	5
17:55	2	0	0	0	0	0	0	2	2	3	0	0	0	0	0	0	3	3	5	1	0	0	0	0	0	0	6	6
18:00	1	0	0	0	0	0	0	1	1	5	0	0	0	0	0	0	1	5	4	0	0	0	0	0	0	0	4	4
18:05	1	0	0	0	0	0	0	1	1	4	1	0	0	0	0													

Appendix F: Details of Recorded Personal Injury Accidents



Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Thursday 14/04/2011 Time 1746 Slight at B480 BROOK ST J/W INGHAM LANE WATLINGTON

E: 468906 N: 194244 Junction Detail: T or staggered junct Control: Give way or controlled

Fine without high winds Road surface Dry Darkness: street lights present and lit

C1 (DRIVER 22 YRS) TRAV NW ON B480 BROOK ST TURNED LT AT J/W INGHAM LN BUT FAILED TO NEGOTIATE TURN DUE TO EXCESS SPEED & C1 LOST CONTROL EXITED CWAY TO NSIDE & OVERTURNED

Road Type Single carriageway Vehicles 1 Casualties 1 Police Ref. P1630411 Speed limit 30

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority: South Oxfordshire Parish: 0397

Road Section: Accident Type(s) SG

Causation

	Factor:	Participant:	Confidence:
1st:	Inexperienced or learner driver/rider	Vehicle 1	Very Likely
2nd:	Poor turn or manoevre	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Moving from SE to S Turning left On main carriageway

Skidded and overturned

First point of impact Front Age of Driver 22 Sex of Driver Male Breath test Negative

Casualty Reference: 1 Age: 22 Male Driver/rider Severity: Slight Injured by vehicle: 1

Ped. Location Ped. Movement Ped. Direction

Ped. Injury Not applicable School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Tuesday 26/04/2011 Time 1730 Slight at CHAPEL ST J/W NEW RD WATLINGTON - SOME UNCERTAINTY OVER EXACT LOCATION

E: 468791 N: 194677 Junction Detail: T or staggered junct Control: Give way or controlled

Fine without high winds Road surface Dry Daylight:street lights present

PC1 (RIDER 15 YRS) THOUGHT TO BE TRAV NW ON FOOTWAY ADJACENT TO CHAPEL ST ENTERED CWAY & HIT NSIDE OF C2 TRAV NW ON CHAPEL ST-NO FURTHER DETAILS SUPPLIED

Road Type Single carriageway Vehicles 2 Casualties 1 Police Ref. P3030411 Speed limit 30

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority:South Oxfordshire Parish: 0397

Road Section: Accident Type(s) VB

Causation

Factor:	Participant:	Confidence:
1st:		
2nd:		
3rd:		
4th:		
5th:		
6th:		

Vehicle Reference 1 Pedal Cycle Moving from SE to N Going ahead other On main carriageway

No skidding, jack-knifing or overturning

First point of impact Offside Age of Driver 15 Sex of Driver Male Breath test Not applicable

Casualty Reference: 1 Age: 15 Male Driver/rider Severity: Slight Injured by vehicle: 1

Ped. Location Ped. Movement Ped. Direction

Ped. Injury Not applicable School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 2 Car Moving from SE to N Going ahead other On main carriageway

No skidding, jack-knifing or overturning

First point of impact Nearside Age of Driver Sex of Driver Male Breath test Driver not contacted

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Saturday 05/05/2012 Time 2129 Serious at B4009 APPROX 230M NE OF J/W PYRTON CROSSROADS PYRTON

E: 469521 N: 195357 Junction Detail: Not within 20m of j Control:

Fine without high winds Road surface Dry Darkness: no street lighting

C1 TRAV NE ON B4009 ON UNLIT STRETCH OF CWAY HIT PED (POSS INTOXICATED / WEARING DARK CLOTHING) WALKING TO NE ON NW SIDE OF ROAD WITH BACK TO TRAFFIC - PED SUSTAINED SERIOUS INJURY

Road Type Single carriageway Vehicles 1 Casualties 1 Police Ref. P1580512 Speed limit 50

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority: South Oxfordshire Parish: 0325

Road Section: Accident Type(s) PY

Causation

	Factor:	Participant:	Confidence:
1st:	Impaired by alcohol	Casualty 1	Possible
2nd:	Pedestrian wearing dark clothing at night	Casualty 1	Possible
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Moving from S to NE Going ahead other On main carriageway

Skidded

First point of impact Front Age of Driver 36 Sex of Driver Male Breath test Negative

Casualty Reference: 1 Age: 41 Female Pedestrian Severity: Serious Injured by vehicle: 1

Ped. Location In carr elsewhere Ped. Movement Movement U/K Ped. Direction NE

Ped. Injury Not applicable School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Friday 13/07/2012 Time 1533 Slight at B4009 COUCHING ST BY NO 34 APPROX 80M SW OF J/W SHIRBURN ST & HIGH ST & HILL RD
WATLINGTON

E: 468916 N: 194412 Junction Detail: Not within 20m of j Control:

Fine without high winds Road surface Dry Daylight:street lights present

C1 (DRIVER 69 YRS) TRAV SW ON B4009 HIT R OF C2 WHO IN TURN HIT R OF C3 BOTH TRAV SW AHEAD OF C1 STATIONARY TO ALLOW ONCOMING VEHS TO PASS
PARKED VEHS ON NW SIDE OF ROAD

Road Type Single carriageway Vehicles 3 Casualties 3 Police Ref. P1520712 Speed limit 30

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority:South Oxfordshire Parish: 0397

Road Section: Accident Type(s) NB QQ

Causation

Factor:	Participant:	Confidence:
1st: Careless/Reckless/In a hurry	Vehicle 1	Possible
2nd: Failed to judge other persons path or speed	Vehicle 1	Very Likely
3rd: Following too close	Vehicle 1	
4th:		
5th:		
6th:		

Vehicle Reference 1 Car Moving from NE to S Going ahead other On main carriageway

No skidding, jack-knifing or overturning

First point of impact Front Age of Driver 69 Sex of Driver Male Breath test Negative

Casualty Reference: 1 Age: 69 Male Driver/rider Severity: Slight Injured by vehicle: 1

Ped. Location Ped. Movement Ped. Direction

Ped. Injury Not applicable School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 2 Car Moving from NE to S Going ahead but held up On main carriageway

No skidding, jack-knifing or overturning

First point of impact Back Age of Driver 42 Sex of Driver Male Breath test Negative
Casualty Reference: 2 Age: 42 Male Driver/rider Severity: Slight Injured by vehicle: 2
Ped. Location Ped. Movement Ped. Direction
Ped. Injury Not applicable School pupil: Not a pupil

Vehicle Reference 3 Car Moving from NE to S Stopping On main carriageway

No skidding, jack-knifing or overturning

First point of impact Back Age of Driver 57 Sex of Driver Male Breath test Negative
Casualty Reference: 3 Age: 15 Female Passenger Severity: Slight Injured by vehicle: 3
Ped. Location Ped. Movement Ped. Direction
Ped. Injury Not applicable School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Tuesday 24/07/2012 Time 0930 Slight at B480 BROOK ST APPROX 60M SE OF J/W GORWELL WATLINGTON

E: 468719 N: 194380 Junction Detail: Not within 20m of j Control:

Fine without high winds Road surface Dry Daylight:street lights present

C1 TRAV NW ON B480 BROOK ST WENT TO OSIDE TO PASS OMV2 (REFUSE VEHICLE) STATIONARY TO NSIDE FACING NW BUT HIT PED (WASTE COLLECTION OPERATIVE) STOOD TO OSIDE R OF OMV2 - APEARS PARKED CAR TO SE OF OMV2 POSS MASKED VIEW OF PED

Road Type Single carriageway Vehicles 2 Casualties 1 Police Ref. P2460712 Speed limit 30

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority:South Oxfordshire Parish: 0397

Road Section: Accident Type(s) PY

Causation

Factor:	Participant:	Confidence:
1st: Passing too close to cyclist, horse rider or pedestrian	Vehicle 1	Very Likely
2nd: Failed to look properly	Vehicle 1	Very Likely
3rd:		
4th:		
5th:		
6th:		

Vehicle Reference 1 Car Moving from SE to N Overtaking stat vehicle O/S On main carriageway

No skidding, jack-knifing or overturning

First point of impact Nearside Age of Driver 25 Sex of Driver Male Breath test Driver not contacted

Casualty Reference: 1 Age: 20 Male Pedestrian Severity: Slight Injured by vehicle: 1

Ped. Location In carr not crossin Ped. Movement In carr not crossing Ped. Direction Sti

Ped. Injury Yes School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 2 Other motor vehicle Moving from SE to N Going ahead but held up On main carriageway

No skidding, jack-knifing or overturning

First point of impact Did not impact Age of Driver Sex of Driver Male Breath test Driver not contacted

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Monday 03/12/2012 Time 1623 Slight at B4009 COUCHING ST APPROX 40M NE OF J/W BROOK ST WATLINGTON

E: 468855 N: 194341 Junction Detail: Not within 20m of j Control:

Fine without high winds Road surface Wet/Damp Daylight:street lights present

C1 TRAV SW IN WET CONDITIONS ON B4009 WHEN PED (13 YRS) CROSSED FROM OSIDE FROM BETWEEN PARKED VEHS ON W SIDE OF COUCHING ST INTO PATH OF C1 & HIT OCCURRED

Road Type Single carriageway Vehicles 1 Casualties 1 Police Ref. P0351212 Speed limit 30

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority:South Oxfordshire Parish: 0397

Road Section: Accident Type(s) PY

Causation

Factor:	Participant:	Confidence:
1st: Crossed road masked by stationary veh	Casualty 1	Very Likely
2nd: Failed to look properly	Casualty 1	Very Likely
3rd: Careless/Reckless/In a hurry	Casualty 1	
4th:		
5th:		
6th:		

Vehicle Reference 1 Car Moving from NE to S Going ahead other On main carriageway

No skidding, jack-knifing or overturning

First point of impact Offside Age of Driver 72 Sex of Driver Male Breath test Negative

Casualty Reference: 1 Age: 13 Male Pedestrian Severity: Slight Injured by vehicle: 1

Ped. Location In carr elsewhere Ped. Movement Driver's offside masked Ped. Direction SE

Ped. Injury Not applicable School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Monday 17/12/2012 Time 1530 Slight at KNIGHTSBRIDGE LANE APPROX 100M NW OF J/W B4009 PYRTON - SOME UNCERTAINTY OVER EXACT LOCATION

E: 469290 N: 195219 Junction Detail: Not within 20m of j Control:

Fine without high winds Road surface Wet/Damp Daylight: no street lighting

C1 FAILED TO COMPLY (HAVING BECOME FRUSTRATED IN DELAY TO GET HOME) WITH STOP / GO BOARD CONTROL IN PLACE WHILE AUTHORISED FILMING IN PLACE - PED ASSISTING WITH TM ATTEMPTED TO STOP C1 BUT WAS KNOCKED OVER TWICE BY C1

Road Type Single carriageway Vehicles 1 Casualties 1 Police Ref. P3001212 Speed limit 60

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority: South Oxfordshire Parish: 0325

Road Section: Accident Type(s) PY ZZ

Causation

	Factor:	Participant:	Confidence:
1st:	Careless/Reckless/In a hurry	Vehicle 1	Very Likely
2nd:	Aggressive driving	Vehicle 1	Very Likely
3rd:	Disobeyed Give Way or Stop sign or markings	Vehicle 1	Possible
4th:	Temporary road layout (eg contraflow)	Vehicle 1	Possible
5th:	Road layout (eg bend, hill etc.)	Vehicle 1	Possible
6th:			

Vehicle Reference 1 Car Moving from N to SE Starting On main carriageway

No skidding, jack-knifing or overturning

First point of impact Front Age of Driver 67 Sex of Driver Male Breath test Driver not contacted

Casualty Reference: 1 Age: 30 Male Pedestrian Severity: Slight Injured by vehicle: 1

Ped. Location In carr not crossin Ped. Movement Movement U/K Ped. Direction Sti

Ped. Injury Yes School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Friday 09/08/2013 Time 0913 Slight at B480 BROOK STREET J/W GORWELL WATLINGTON

E: 468669 N: 194414 Junction Detail: T or staggered junct Control: Give way or controlled

Fine without high winds Road surface Dry Daylight

C1 TRAV SW ON GORWELL TURNED RT THROUGH GAP IN SEBOUND QUEUING TRAFFIC ON B480 HAVING BENE FLASHED TO TURN BY STAT VEH ONTO BROOK ST BUT HIT F OF MC2 TRAV SE ON B480 OVRTKG QUEUE

Road Type Single carriageway Vehicles 2 Casualties 1 Police Ref. P0610813 Speed limit 30

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority: South Oxfordshire Parish: 0397

Road Section: Accident Type(s) RD

Causation

Factor:	Participant:	Confidence:
1st: Poor turn or manoeuvre	Vehicle 1	Very Likely
2nd: Failed to look properly	Vehicle 1	Possible
3rd: Failed to look properly	Vehicle 2	
4th:		
5th:		
6th:		

Vehicle Reference 1 Car Moving from NE to N Turning right On main carriageway

No skidding, jack-knifing or overturning

First point of impact Front Age of Driver 29 Sex of Driver Male Breath test Negative

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 2 Motorcycle over 500 Moving from N to SE Overtaking stat vehicle O/S On main carriageway

No skidding, jack-knifing or overturning

First point of impact Front

Age of Driver 54 Sex of Driver Male

Breath test Negative

Casualty Reference: 1

Age: 54 Male

Driver/rider

Severity: Slight Injured by vehicle: 2

Ped. Location

Ped. Movement

Ped. Direction

Ped. Injury

School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Monday 23/09/2013 Time 1912 Slight at B480 BROOK ST O/S HOUSE NO 60 WATLINGTON

E: 468873 N: 194276 Junction Detail: Not within 20m of j Control:

Fine without high winds Road surface Dry Daylight

C1 (DRIVER POS BREATH TEST) TRAV IN U/K DIRECTION ON B480 EXITED CWAY & HIT HOUSE & REVERSED & HIT C2 PARKED FACING SE ON B480 & C1 EXITED CWAY AGAIN & HIT SECOND HOUSE

Road Type Single carriageway Vehicles 2 Casualties 1 Police Ref. P2420913 Speed limit 30

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority: South Oxfordshire Parish: 0397

Road Section: Accident Type(s) ZZ

Causation

Factor:	Participant:	Confidence:
1st: Impaired by alcohol	Vehicle 1	Very Likely
2nd:		
3rd:		
4th:		
5th:		
6th:		

Vehicle Reference 1 Car Moving from to Reversing On main carriageway

No skidding, jack-knifing or overturning

First point of impact Front Age of Driver 64 Sex of Driver Female Breath test Positive
Casualty Reference: 1 Age: 64 Female Driver/rider Severity: Slight Injured by vehicle: 1

Ped. Location Ped. Movement Ped. Direction
Ped. Injury School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 2 Car Moving from N to Parked On main carriageway

No skidding, jack-knifing or overturning

First point of impact Front Age of Driver Sex of Driver Not traced Breath test Not requested

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Thursday 10/10/2013 Time 1345 Slight at B4009 XRDS J/W STATION ROAD/ KNIGHTSBRIDGE LANE PYRTON

E: 469391 N: 195163 Junction Detail: Crossroads Control: Give way or controlled
Fine without high winds Road surface Dry Daylight

C1 TRAV NE ON B4009 HIT R OF STAT TX2 TRAV NE AHEAD AS IT BEGAN TO TURN RT TO STATION ROAD - APPEARS DRIVER C1 DISTRACTED BY SAT NAV

Road Type Single carriageway Vehicles 2 Casualties 1 Police Ref. P1171013 Speed limit 50
Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority: South Oxfordshire Parish: 0325
Road Section: Accident Type(s) NB IB

Causation

	Factor:	Participant:	Confidence:
1st:	Distraction in vehicle	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Moving from S to NE Going ahead other On main carriageway

No skidding, jack-knifing or overturning

First point of impact Front Age of Driver 25 Sex of Driver Male Breath test Negative

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 2 Taxi/Private hire car Moving from S to SE Turning right On main carriageway

No skidding, jack-knifing or overturning

First point of impact Back Age of Driver 23 Sex of Driver Female Breath test Negative
Casualty Reference: 1 Age: 23 Female Driver/rider Severity: Slight Injured by vehicle: 2
Ped. Location Ped. Movement Ped. Direction
Ped. Injury School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Sunday 11/05/2014 Time 0825 Slight at B4009 COUCHING STREET APPROX 100M NE OF J/W LOVE LANE WATLINGTON

E: 469176 N: 194777 Junction Detail: Not within 20m of j Control:

Fine without high winds Road surface Wet/Damp Daylight

MC1 TRAV SW IN WET CONDITIONS ON B4009 HIT COW (WHICH HAD ESCAPED FROM ADJACENT FIELD) ON CWAY CAUSING RIDER TO FALL

Road Type Single carriageway Vehicles 1 Casualties 1 Police Ref. P1130514 Speed limit 30

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority:South Oxfordshire Parish: 0397

Road Section: Accident Type(s) SG

Causation

	Factor:	Participant:	Confidence:
1st:	Animal or object in carriageway	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Motorcycle over 500 Moving from NE to S Going ahead other On main carriageway

No skidding, jack-knifing or overturning

First point of impact Front Age of Driver 59 Sex of Driver Male Breath test Negative

Casualty Reference: 1 Age: 59 Male Driver/rider Severity: Slight Injured by vehicle: 1

Ped. Location Ped. Movement Ped. Direction

Ped. Injury School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Monday 08/06/2015 Time 1707 Slight at HILL ROAD J/W CAR PARK ENTRANCE/EXIT 100M E OF J/W B4009 WATLINGTON

E: 469084 N: 194432 Junction Detail: T or staggered junct Control: Give way or controlled

Fine without high winds Road surface Dry Daylight

C1 (DRIVER 20 YRS) TRAV NE ON EXIT FROM CAR PARK TURNED RT TO J/W HILL RD HIT PC2 TRAV NW ON HILL RD (APPEARS PC2 WAS SLOWING TO TURN LT TO CAR PARK - HILL ROAD ONE WAY W TO E JUST W OF CAR PARK ACCESS

Road Type Single carriageway Vehicles 2 Casualties 1 Police Ref. P1400615 Speed limit 30

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority: South Oxfordshire Parish: 0397

Road Section: Accident Type(s) RD

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Poor turn or manoeuvre	Vehicle 1	Very Likely
3rd:	Careless/Reckless/In a hurry	Vehicle 1	
4th:			
5th:			
6th:			

Vehicle Reference 1 Car Moving from S to SE Turning right On main carriageway

No skidding, jack-knifing or overturning

First point of impact Front Age of Driver 20 Sex of Driver Male Breath test Negative

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 2 Pedal Cycle Moving from SE to N Stopping On main carriageway
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 57 Sex of Driver Male Breath test Not applicable
Casualty Reference: 1 Age: 57 Male Driver/rider Severity: Slight Injured by vehicle: 2
Ped. Location Ped. Movement Ped. Direction
Ped. Injury School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Wednesday 21/10/2015 Time 1600 Slight at HILL ROAD J/W WATCOMBE ROAD WATLINGTON

E: 469039 N: 194461 Junction Detail: Using private drive c Control: Give way or controlled
Fine without high winds Road surface Dry Daylight

HGV1 TRAV SW ON HILL RD REVERSING INTO WATCOMBE RD HIT AT LOW SPEED PED (86 YRS) ON GRAVEL AREA (NOT FOOTWAY) - NO FURTHER DETAILS SUPPLIED ON PED MOVEMENT

Road Type Single carriageway Vehicles 1 Casualties 1 Police Ref. P2161015 Speed limit 30
Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority: South Oxfordshire Parish: 0397
Road Section: Accident Type(s) PY

Causation

	Factor:	Participant:	Confidence:
1st:	Road layout (eg bend, hill etc.)	Vehicle 1	Very Likely
2nd:	Vehicle blind spot	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

Vehicle Reference 1 Goods 7.5 tonnes mg Moving from NE to S Reversing On main carriageway

No skidding, jack-knifing or overturning

First point of impact Back Age of Driver 28 Sex of Driver Male Breath test Driver not contacted
Casualty Reference: 1 Age: 86 Female Pedestrian Severity: Slight Injured by vehicle: 1
Ped. Location Location U/K Ped. Movement Movement U/K Ped. Direction Un
Ped. Injury School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Sunday 29/11/2015 Time 1940 Slight at HILL ROAD ADJACENT TO HOUSE NUMBER 78 WATLINGTON

E: 469732 N: 194038 Junction Detail: Not within 20m of j Control:

Fine without high winds Road surface Wet/Damp Darkness: no street lighting

C1 TRAV NW ON HILL RD WHEN APPEARS ONE OF TYRES SUFFERED BLOW OUT & LOST CONTROL & HIT C2 PARKED TO NSIDE OF HILL RD FACING SE

Road Type Single carriageway Vehicles 2 Casualties 2 Police Ref. P3071115 Speed limit 30

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority:South Oxfordshire Parish: 0397

Road Section: Accident Type(s) ZZ

Causation

	Factor:	Participant:	Confidence:
1st:	Loss of control	Vehicle 1	Very Likely
2nd:	Slippery road (due to weather)	Vehicle 1	Possible
3rd:	Tyres illegal, defective or under inflated	Vehicle 1	
4th:			
5th:			
6th:			

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 1	Car	Moving from SE to N	Going ahead other	On main carriageway
Skidded				
First point of impact	Nearside	Age of Driver 72	Sex of Driver Female	Breath test Negative
Casualty Reference:	1	Age: 72	Female	Driver/rider
				Severity: Slight
				Injured by vehicle: 1
Ped. Location		Ped. Movement		Ped. Direction
Ped. Injury		School pupil: Not a pupil		
Casualty Reference:	2	Age: 16	Female	Passenger
				Severity: Slight
				Injured by vehicle: 1
Ped. Location		Ped. Movement		Ped. Direction
Ped. Injury		School pupil: Not a pupil		
Vehicle Reference 2	Car	Moving from N to	Parked	On main carriageway
No skidding, jack-knifing or overturning				
First point of impact	Nearside	Age of Driver 53	Sex of Driver Female	Breath test Not requested

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Wednesday 13/01/2016 Time 0602 Slight at B4009 SHIRBURN STREET O/S HOUSE NUMBER 31 WATLINGTON

E: 469081 N: 194613 Junction Detail: Not within 20m of j Control:

Fine without high winds Road surface Wet/Damp Darkness: street lights present and lit

C1 TRAV NE ON B4009 SWERVED TO NSIDE FOR U/K REASON & HIT LINE OF PARKED VEHS C2 C3 & C4

Road Type Single carriageway Vehicles 5 Casualties 2 Police Ref. P3330116 Speed limit 30

Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority:South Oxfordshire Parish: 0397

Road Section: Accident Type(s) ZZ

Causation

	Factor:	Participant:	Confidence:
1st:	Travelling too fast for conditions	Vehicle 1	Possible
2nd:	Swerved	Vehicle 1	Possible
3rd:	Fatigue	Vehicle 1	
4th:			
5th:			
6th:			

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 1	Van or Goods 3.5 to	Moving from	S	to	NE	Going ahead other	On main carriageway
Skidded							
First point of impact	Nearside	Age of Driver	43	Sex of Driver	Male	Breath test	Negative
Casualty Reference:	1	Age:	43	Male	Driver/rider	Severity:	Slight Injured by vehicle: 1
Ped. Location		Ped. Movement				Ped. Direction	
Ped. Injury		School pupil:	Not a pupil				
Casualty Reference:	2	Age:	27	Male	Passenger	Severity:	Slight Injured by vehicle: 1
Ped. Location		Ped. Movement				Ped. Direction	
Ped. Injury		School pupil:	Not a pupil				
Vehicle Reference 2	Car	Moving from	S	to		Parked	On main carriageway
No skidding, jack-knifing or overturning							
First point of impact	Offside	Age of Driver		Sex of Driver	Female	Breath test	Not requested
Vehicle Reference 3	Car	Moving from	S	to		Parked	On main carriageway
No skidding, jack-knifing or overturning							
First point of impact	Offside	Age of Driver		Sex of Driver	Not traced	Breath test	Not requested
Vehicle Reference 4	Car	Moving from	S	to		Parked	On main carriageway
No skidding, jack-knifing or overturning							
First point of impact	Offside	Age of Driver		Sex of Driver	Not traced	Breath test	Not requested

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 5 Car Moving from S to Parked On main carriageway

No skidding, jack-knifing or overturning

First point of impact Offside Age of Driver Sex of Driver Not traced Breath test Not requested

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Wednesday 20/07/2016 Time 2030 Slight at B4009 BROOK STREET J/W CUXHAM ROAD/GORWELL WATLINGTON

E: 468586 N: 194455 Junction Detail: Other junction Control: Give way or controlled
Fine without high winds Road surface Dry Daylight

Road Type Single carriageway Vehicles 2 Casualties 1 Police Ref. P1900716 Speed limit 30
Crossing: Control None within 50 metres Facilities No physical crossing facility within 50 metres Local Authority: South Oxfordshire Parish: 0397
Road Section: Accident Type(s) ID

Causation

Factor:	Participant:	Confidence:
1st:		
2nd:		
3rd:		
4th:		
5th:		
6th:		

Vehicle Reference 1 Car Moving from SE to N Turning right On main carriageway

No skidding, jack-knifing or overturning

First point of impact Front Age of Driver 60 Sex of Driver Female Breath test Negative

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 2 Pedal Cycle Moving from N to SE Going ahead other On main carriageway
No skidding, jack-knifing or overturning
First point of impact Front Age of Driver 23 Sex of Driver Male Breath test Not applicable
Casualty Reference: 1 Age: 23 Male Driver/rider Severity: Slight Injured by vehicle: 2
Ped. Location Ped. Movement Ped. Direction
Ped. Injury School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Thursday 21/07/2016 Time 0757 Slight at B4009 COUCHING STREET XRDS J/W SHIRBURN ST & HIGH ST & HILL RD WATLINGTON

E: 468992 N: 194494 Junction Detail: Crossroads Control: Give way or controlled
Fine without high winds Road surface Dry Daylight

Road Type Single carriageway Vehicles 2 Casualties 1 Police Ref. P2600716 Speed limit 30
Crossing: Control None within 50 metres Facilities Zebra crossing Local Authority: South Oxfordshire Parish: 0397
Road Section: Accident Type(s) ID ON

Causation

Factor:	Participant:	Confidence:
1st:		
2nd:		
3rd:		
4th:		
5th:		
6th:		

Vehicle Reference 1 Car Moving from S to SE Turning right On main carriageway

No skidding, jack-knifing or overturning

First point of impact Front Age of Driver 44 Sex of Driver Female Breath test Negative

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Vehicle Reference 2 Pedal Cycle Moving from NE to S Overtaking nearside On main carriageway
No skidding, jack-knifing or overturning
First point of impact Offside Age of Driver 52 Sex of Driver Male Breath test Not applicable
Casualty Reference: 1 Age: 52 Male Driver/rider Severity: Slight Injured by vehicle: 2
Ped. Location Ped. Movement Ped. Direction
Ped. Injury School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Tuesday 13/09/2016 Time 0900 Slight at B4009 COUCHING STREET AT ZEBRA XING APPROX 20M SW OF XRDS J/W SHIRBURN ST & HIGH ST & HILL RD WATLINGTON

E: 468973 N: 194475 Junction Detail: Not within 20m of j Control: Fine without high winds Road surface Dry Daylight

Road Type Single carriageway Vehicles 1 Casualties 1 Police Ref. 160260397 Speed limit 30
 Crossing: Control None within 50 metres Facilities Zebra crossing Local Authority: South Oxfordshire Parish: 0397
 Road Section: Accident Type(s) PY

Causation

Factor:	Participant:	Confidence:
1st:		
2nd:		
3rd:		
4th:		
5th:		
6th:		

Vehicle Reference 1 Car Moving from NE to S Starting On main carriageway

No skidding, jack-knifing or overturning

First point of impact Nearside Age of Driver 75 Sex of Driver Female Breath test Driver not contacted
 Casualty Reference: 1 Age: 4 Male Pedestrian Severity: Slight Injured by vehicle: 1
 Ped. Location On footpath / verg Ped. Movement Movement U/K Ped. Direction Un
 Ped. Injury Not applicable School pupil: Not a pupil

Accidents between dates 01/01/2011 and 30/09/2016 (69) months

Selection: Notes:

Selected using Pre-defined Query :

CONFIDENTIAL ROAD ACCIDENT INFORMATION - NOT TO BE TRANSMITTED TO THIRD PARTIES:

The description of the accident circumstances (and causation factors if supplied) reflect the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation.

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	1	11	12
2-wheeled motor vehicles	0	0	2	2
Pedal cycles	0	0	4	4
Horses & other	0	0	0	0
Total	0	1	17	18

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	0	7	7
Passenger	0	0	3	3
Motorcycle rider	0	0	2	2
Cyclist	0	0	4	4
Pedestrian	0	1	5	6
Other	0	0	0	0
Total	0	1	21	22

Number of casualties meeting the criteria: 22

Appendix G: Proposed Development Layout

The scaling of this drawing cannot be assured

Revision	Date	Drn	Ckd
A	07.07.17	JT	NG
B	21.07.17	JK	JT
C	26.07.17	JK	JT
D	27.07.17	JK	JT
E	31.07.17	JK	JT

WATLINGTON

Schedule of Accommodation accounting for 40% affordable housing

House type	No's	Sq.ft	Sq.m	Stores	Beds	Total Sq.ft	Total Sq.m
Open market							
Houses							
MELROSE	6	549	51	2	1	2745	255
203	27	700	65	2	2	18900	1756
2B Bungalow	1	662	62	1	2	662	62
303	8	850	79	2	3	6800	632
305	6	896	83	2	3	5376	499
309	6	966	90	2	3	4530	449
313	4	961	89	2	3	3844	357
350	17	1160	108	2.5	3	19720	1832
360	9	1209	112	2.5	3	10881	1011
412	6	1400	130	2	4	8400	780
419	6	1500	139	2	4	9000	838
420	9	1551	144	2	4	13959	1297
435	3	1387	129	2	4	4161	387
450	4	1437	134	2.5	4	5748	534
Open market sub total	110					115026	10696
NET Open Market Area		8.16 acres	3.31 ha				
NET Open Market Coverage		14057 sq ft	3226.99 sq m				
Affordable Housing - RENTED							
Apartments							
1BF - A - GF/FF/IF	6	570	53	Flat	1	3420	318
1BF - B - GF	3	504	47	Flat	1	1512	140
1BF - B - FF	3	563	52	Flat	1	1689	157
2BF - B - GF/FF	12	658	61	Flat	2	7896	734
2BF - A - GF	1	614	57	Flat	2	614	57
2BF - A - FF	1	689	64	Flat	2	689	64
Houses							
2B4P	18	733	68	2	2	13194	1226
3B5P	8	884	82	2	3	7072	657
4B6P	1	1023	95	2	4	1023	95
Affordable Housing - SHARED OWNERSHIP							
Houses							
2B4P	14	733	68	2	2	10282	953
3B5P	6	884	82	2	3	5304	493
Affordable sub total	73					52675	4864
NET Affordable Area		3.37 acres	1.36 ha				
NET Affordable Coverage		15619 sq ft	3585.60 sq m				
TOTAL	183						
TOTAL AREA	167701	15680					
GROSS AREA (blue line)	23.89 acres	9.67 ha					
POSS/Landscaping/Buffer	9.91 acres	4.01 ha					
Employment	0.47 acres	0.19 ha					
Additional Road	1.79 acres	0.72 ha					
Additional Land	0.05 acres	0.02 ha					
Visibility Splays	0.07 acres	0.03 ha					
Sewer Easement	0.05 acres	0.02 ha					
NET SITE AREA	11.56 acres	4.68 ha					
(12.26) acres							
COVERAGE (net area)	14613 sq ft	3331.65 sq m					
(14947) sq ft							
DENSITY (net area)	15.8 no./acre	38.1 no./ha					

- ### LEGEND
- Site Boundary
 - Reserved Matters Boundary
 - Outline Employment Boundary
 - Flood Line - 1/100yr
 - Flood Line - 1/100yr
 - Rented Housing
 - Shared Ownership Housing
 - Hedge (Hedges Within 50m Splays to be below 450mm)
 - Railings 1.2m Estate Style Black Painted & 1.3m Hedge behind
 - Wall 0.75m Brick With Cress Tile & Grey Brick Top & 1.2m Hedge Behind
 - Wall 1.8m Screen Brick (to match adjoining dwelling)
 - Fence 1.8m Panel
 - Fence 1.8m Closeboard
 - Fence 0.9m Picket
 - Fence 1.2m Timber Post & 3 Rail Agricultural (With Sables)
 - Fence Acoustic - 2m
 - Fence Acoustic - 4m
 - Mown Grass POS Path
 - Timber Shed With Secure Lock For Cycles
 - Refuse Collection Point
 - Private Bin Storage (600mm sq. Paving Slabs)
 - Demarcation Strip - 8000 Tequila Cobble, Permanent Grey or similar approved
 - Highway Strip - 120 gauge Tequila Setts, Permanent Grey or similar approved
 - Porous Paving - Colour Grinds (or similar approved)
 - Indicative Tree Planting
 - Parking - Private / Visitor
 - 6m Sewer Easement

On behalf of

ARCHSTONE
& **BLOOR HOMES**

Project
Land at Britwell Road
Watlington

Drawing Title
Site Layout

Date
30.06.17

Scale
1:500@A0

Project No
25788

Drawn by
SM000-SL-001

Check by
JK

Drawn by
JK

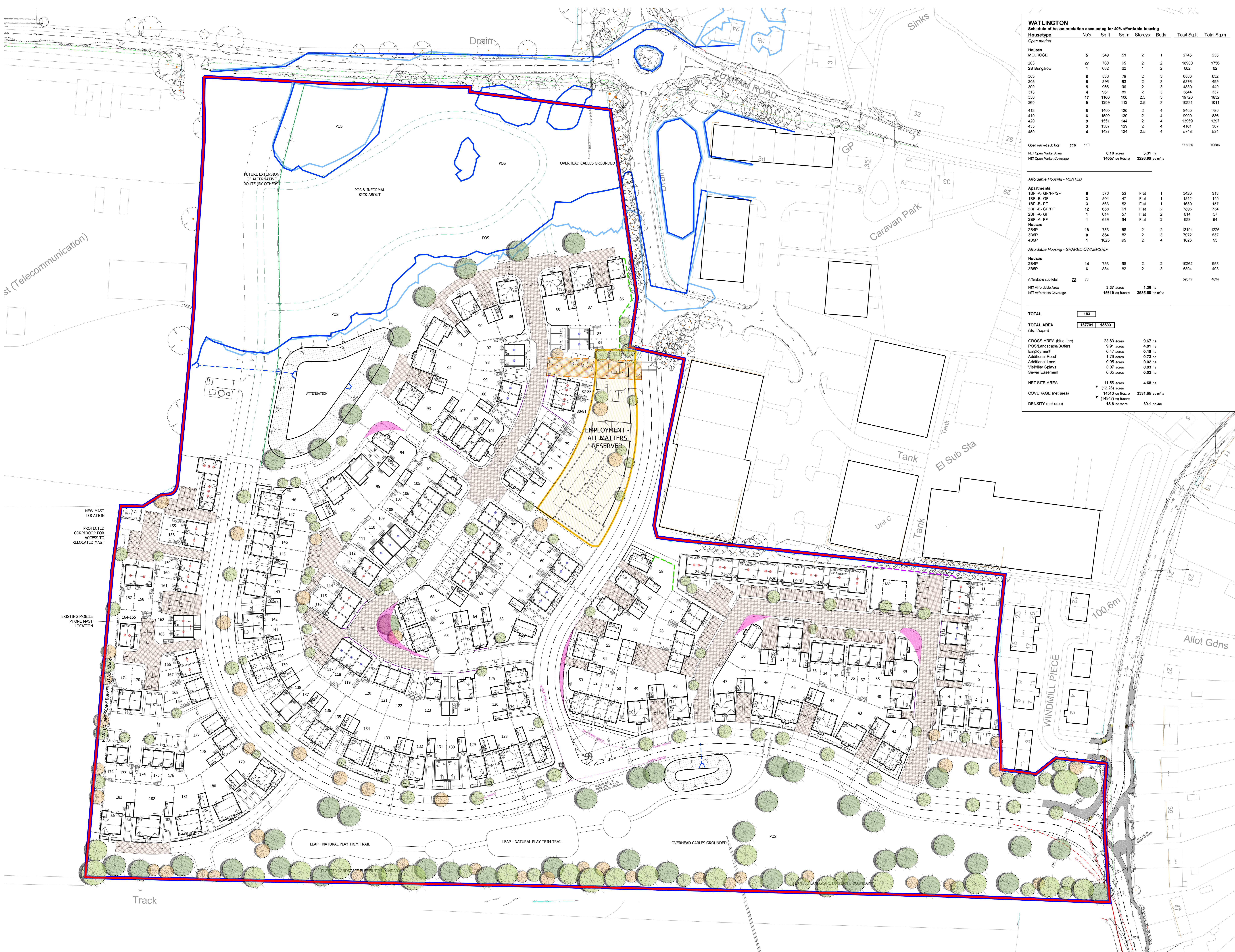
Check by
JT

Revision
E

BARTON WILLMORE

Planning • Master Planning & Urban Design • Architecture •
Landscape Planning & Design • Environmental Planning •
Graphic Communication • Public Engagement • Research

Office at Brentford: 020 8916 7000
London: 020 7461 1000
Leeds: 0113 275 1000
Newcastle: 0191 275 1000

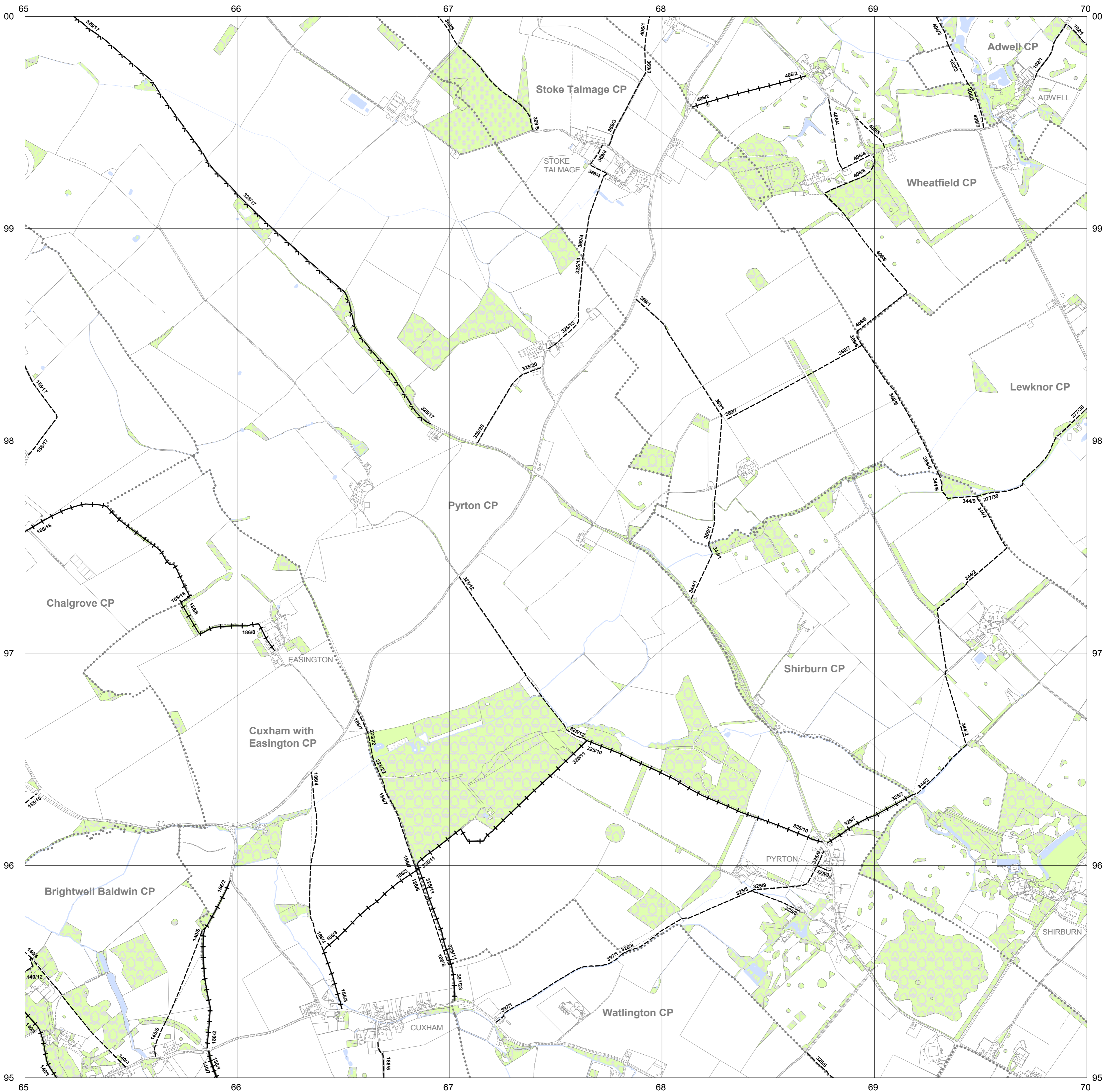


Appendix H: Public Rights of Way Plans

Definitive Map of Public Rights of Way for Oxfordshire

Relevant Date: 21st February 2006

SHEET SU 69 NE



SHEET SU 69 NE
Scale 1:10,000

To be read in conjunction with the Definitive Statement.
The Definitive Map and Statement is conclusive evidence in law that the rights shown on the Map existed at the relevant date, but this is without prejudice to the possible existence of other rights not shown on the Map (see s56 Wildlife & Countryside Act 1981).

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright.
Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. (LA076805) (2006).

Based on Ordnance Survey map data 2003.

KEY:	
	Public Footpath
	Public Bridleway
	Road Used as Public Path (To be redesignated under Countryside & Rights of Way Act 2000, section 47, to Restricted Byway.)
	Byway Open to all Traffic
	County Boundary
	District Boundary
	Parish Boundary
	(where shown) Right of Way either: crosses administrative boundary, reaches terminus or changes status.

SP 60 SW	SP 60 SE	SP 70 SW
SU 69 NW	SU 69 NE	SU 79 NW
SU 69 SW	SU 69 SE	SU 79 SW

For further information please contact:

Oxfordshire County Council
Environment and Economy
Rights of Way Office
Countryside Service



Telephone: 01865 810808



OXFORDSHIRE
COUNTY COUNCIL
www.oxfordshire.gov.uk

Definitive Map of Public Rights of Way for Oxfordshire

Relevant Date: 21st February 2006

SHEET SU 69 SE



SHEET SU 69 SE
Scale 1:10,000

To be read in conjunction with the Definitive Statement.
The Definitive Map and Statement is conclusive evidence in law that the rights shown on the Map existed at the relevant date, but this is without prejudice to the possible existence of other rights not shown on the Map (see s56 Wildlife & Countryside Act 1981).

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright.
Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. (LA076805) (2006).

Based on Ordnance Survey map data 2003.

KEY:

----- Public Footpath

----- Public Bridleway

----- Road Used as Public Path
(To be redesignated under Countryside & Rights of Way Act 2000, section 47, to Restricted Byway.)

----- Byway Open to all Traffic

----- County Boundary

----- District Boundary

----- Parish Boundary

----- (where shown) Right of Way either:
crosses administrative boundary,
reaches terminus or
changes status.

SU 69 NW	SU 69 NE	SU 79 NW
SU 69 SW	SU 69 SE	SU 79 SW
SU 68 NW	SU 68 NE	SU 78 NW

For further information please contact:

Oxfordshire County Council
Environment and Economy
Rights of Way Office
Countryside Service



Telephone: 01865 810808

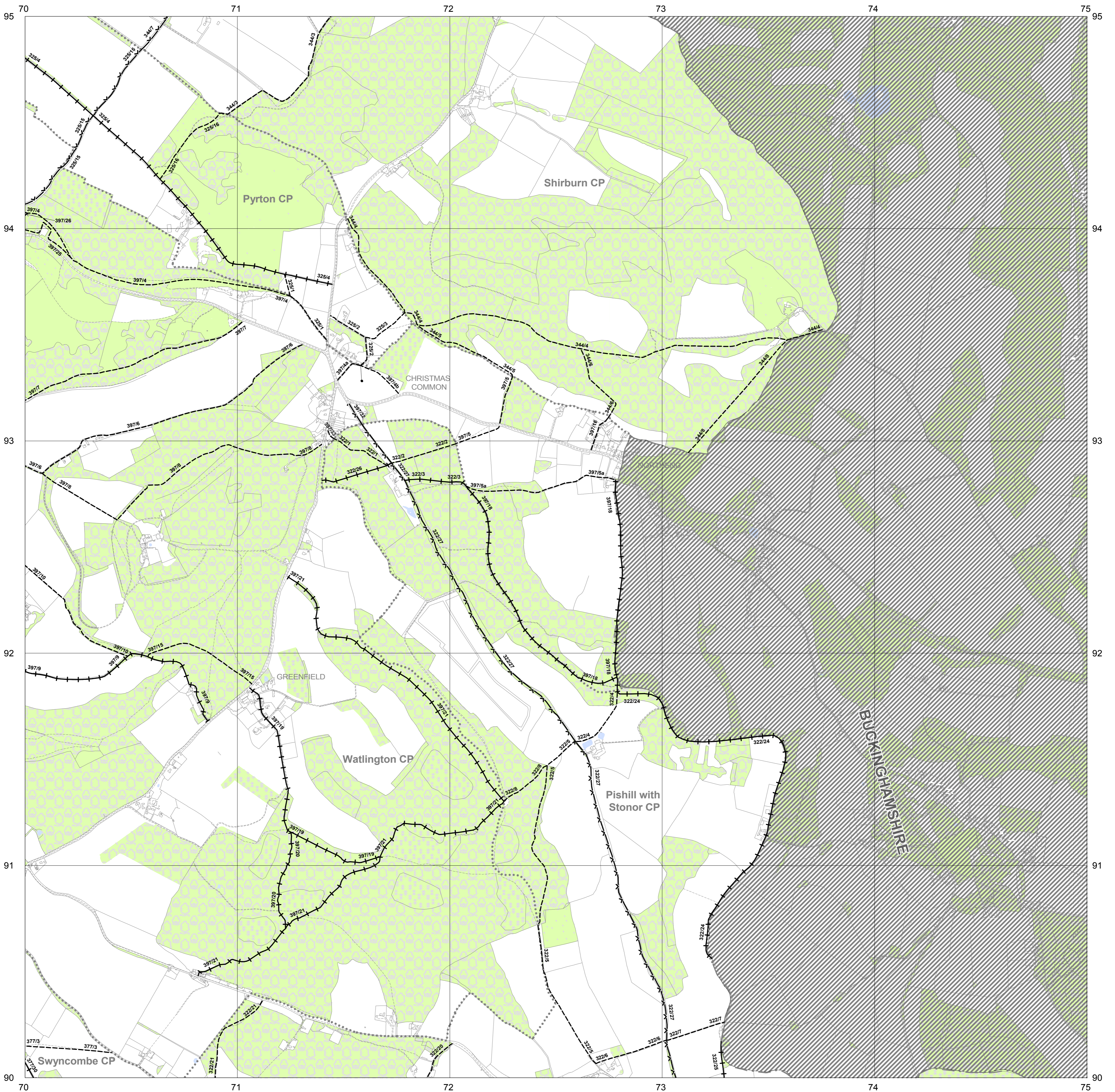


OXFORDSHIRE
COUNTY COUNCIL
www.oxfordshire.gov.uk

Definitive Map of Public Rights of Way for Oxfordshire

Relevant Date: 21st February 2006

SHEET SU 79 SW



SHEET SU 79 SW
Scale 1:10,000

To be read in conjunction with the Definitive Statement.

The Definitive Map and Statement is conclusive evidence in law that the rights shown on the Map existed at the relevant date, but this is without prejudice to the possible existence of other rights not shown on the Map (see s56 Wildlife & Countryside Act 1981).

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. (LA076805) (2006).

Based on Ordnance Survey map data 2003.

KEY:

----- Public Footpath

----- Public Bridleway

----- Road Used as Public Path
(To be redesignated under Countryside & Rights of Way Act 2000, section 47, to Restricted Byway.)

----- Byway Open to all Traffic

----- County Boundary

----- District Boundary

----- Parish Boundary

----- (where shown) Right of Way either:
crosses administrative boundary,
reaches terminus or
changes status.

SU 69 NE	SU 79 NW	SU 79 NE
SU 69 SE	SU 79 SW	
SU 68 NE	SU 78 NW	SU 78 NE

For further information please contact:

Oxfordshire County Council
Environment and Economy
Rights of Way Office
Countryside Service



Telephone: 01865 810808

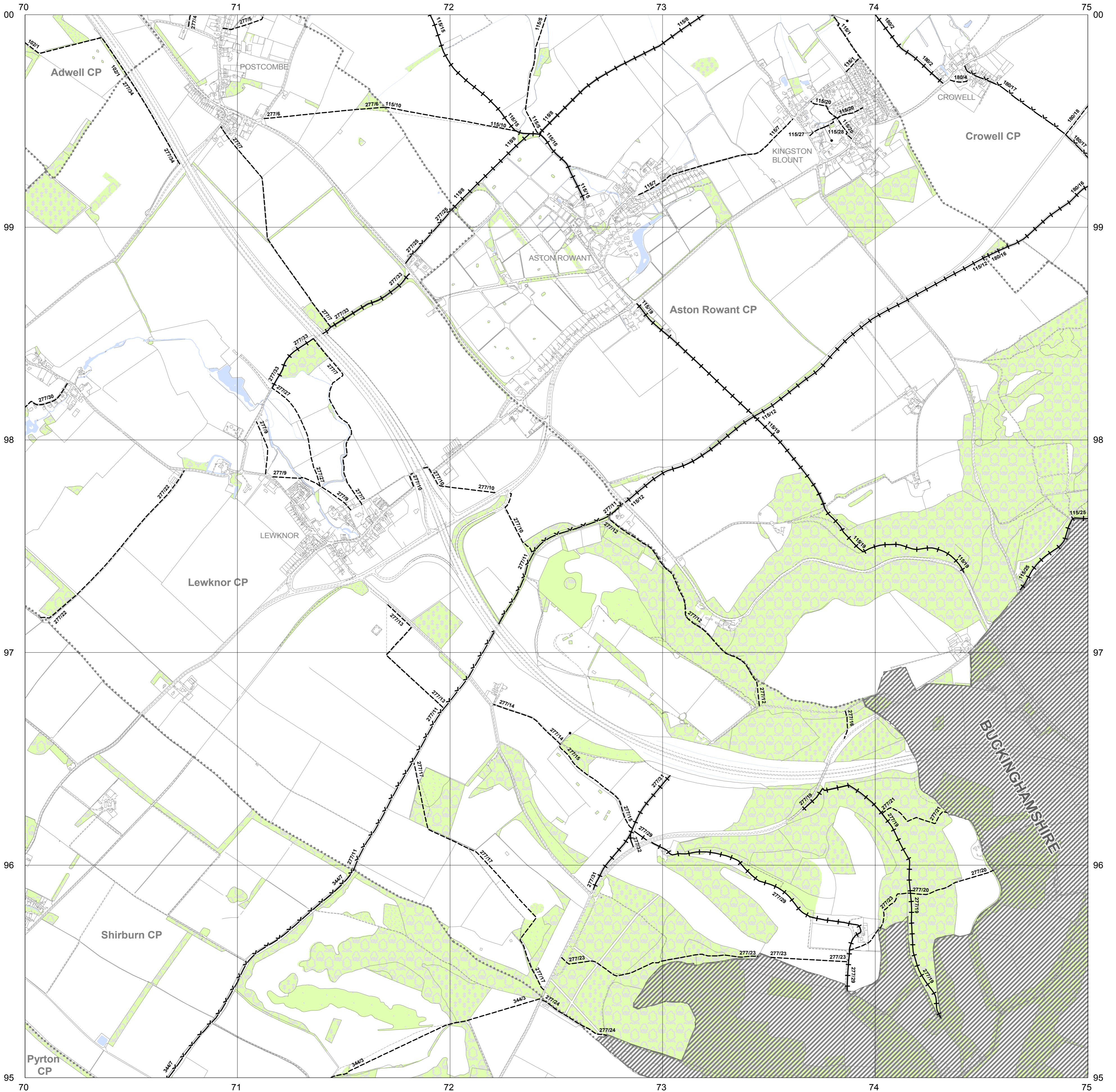


OXFORDSHIRE
COUNTY COUNCIL
www.oxfordshire.gov.uk

Definitive Map of Public Rights of Way for Oxfordshire

Relevant Date: 21st February 2006

SHEET SU 79 NW



SHEET SU 79 NW
Scale 1:10,000

To be read in conjunction with the Definitive Statement.
The Definitive Map and Statement is conclusive evidence in law that the rights shown on the Map existed at the relevant date, but this is without prejudice to the possible existence of other rights not shown on the Map (see s56 Wildlife & Countryside Act 1981).

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright.
Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. (LA076805) (2006).

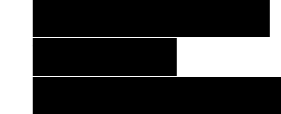
Based on Ordnance Survey map data 2003.

KEY:	
	Public Footpath
	Public Bridleway
	Road Used as Public Path (To be redesignated under Countryside & Rights of Way Act 2000, section 47, to Restricted Byway.)
	Byway Open to all Traffic
	County Boundary
	District Boundary
	Parish Boundary
	(where shown) Right of Way either: crosses administrative boundary, reaches terminus or changes status.

SP 60 SE	SP 70 SW	SP 70 SE
SU 69 NE	SU 79 NW	SU 79 NE
SU 69 SE	SU 79 SW	

For further information please contact:

Oxfordshire County Council
Environment and Economy
Rights of Way Office
Countryside Service



Telephone: 01865 810808

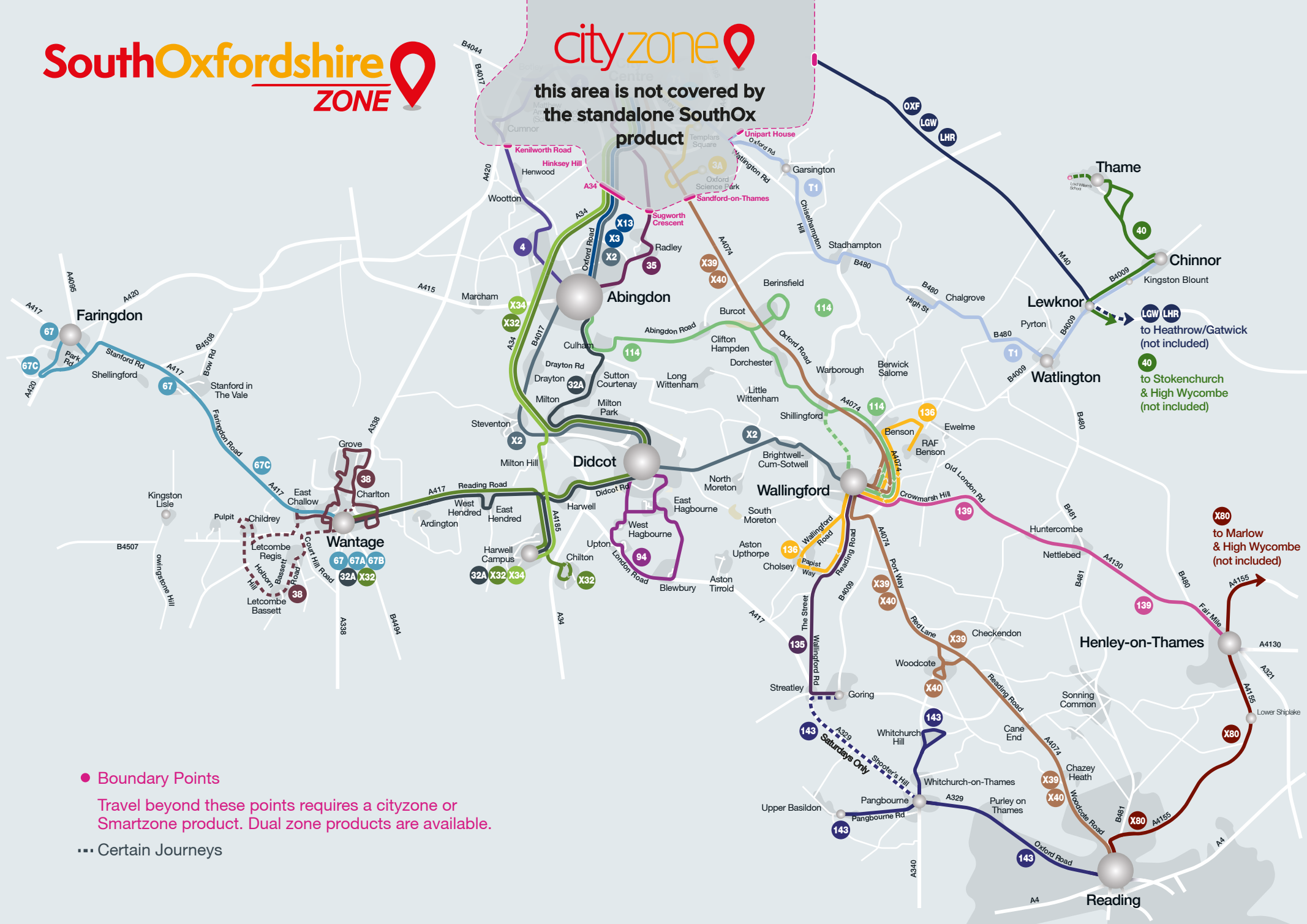
OXFORDSHIRE COUNTY COUNCIL
www.oxfordshire.gov.uk

Appendix I: Local Bus Service Details

SouthOxfordshire ZONE



this area is not covered by the standalone SouthOx product



● Boundary Points

Travel beyond these points requires a cityzone or Smartzone product. Dual zone products are available.

--- Certain Journeys

to Heathrow/Gatwick (not included)
to Stokenchurch & High Wycombe (not included)

to Marlow & High Wycombe (not included)

Appendix J: 2011 Census 'QS703EW – Method of Travel to Work' Data

QS703EW - Method of Travel to Work (2001 specification)

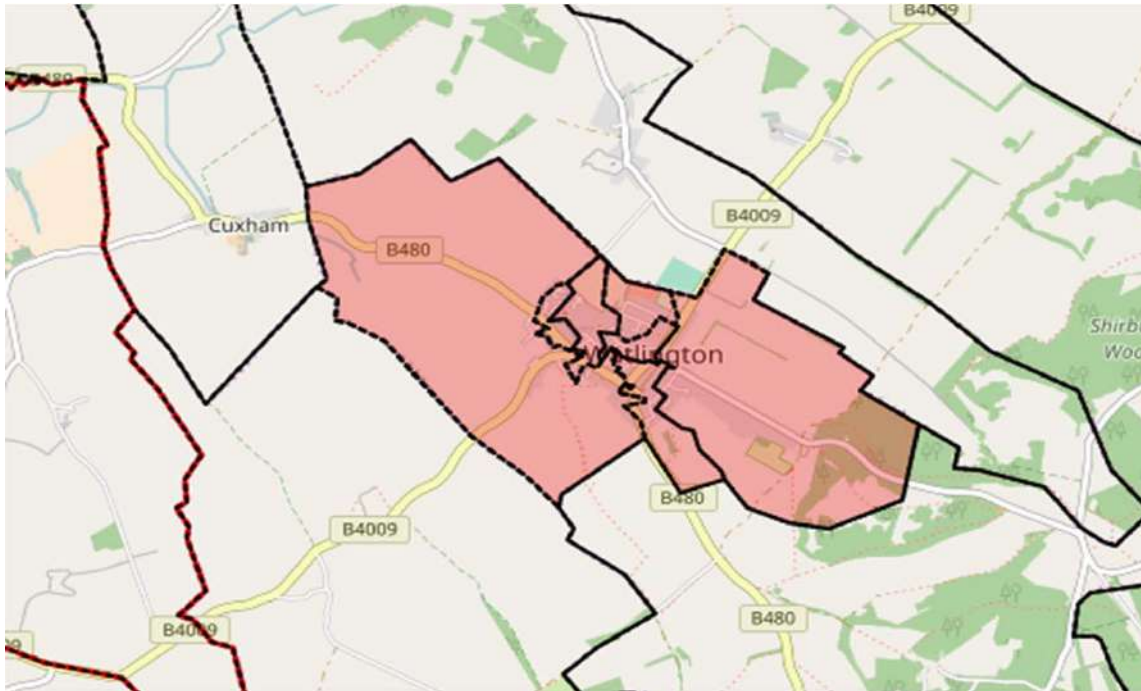
ONS Crown Copyright Reserved [from Nomis on 13 January 2017]

Population: All usual residents aged 16 to 74
 Units: Persons
 Date: 2011

Query Details

Usual residence:

2011 Output Areas: E00146075, E00146077, E00146078, E00146079, E00146080, E00146081, E00146082



Modal Split of Commuter Trips Made by Watlington Residents

Mode of Travel	All People	%	Adjusted	%
Not in employment	495	29.6%	Discounted	
Work mainly at or from home	211	12.6%	Discounted	
Underground, metro, light rail, tram	8	0.5%	Added to Train	
Train	23	1.4%	31	3.2%
Bus, minibus or coach	36	2.2%	36	3.7%
Taxi	0	0.0%	0	0.0%
Motorcycle, scooter or moped	6	0.4%	6	0.6%
Driving a car or van	703	42.0%	703	72.6%
Passenger in a car or van	36	2.2%	36	3.7%
Bicycle	24	1.4%	24	2.5%
On foot	130	7.8%	130	13.4%
Other method of travel to work	2	0.1%	2	0.2%
TOTAL	1,674	100.0%	968	100.0%

Appendix K: 2011 Census 'QS416EW – Car or Van Availability' Data

QS416EW - Car or van availability

ONS Crown Copyright Reserved [from Nomis on 1 December 2016]

Population: All households; All cars or vans

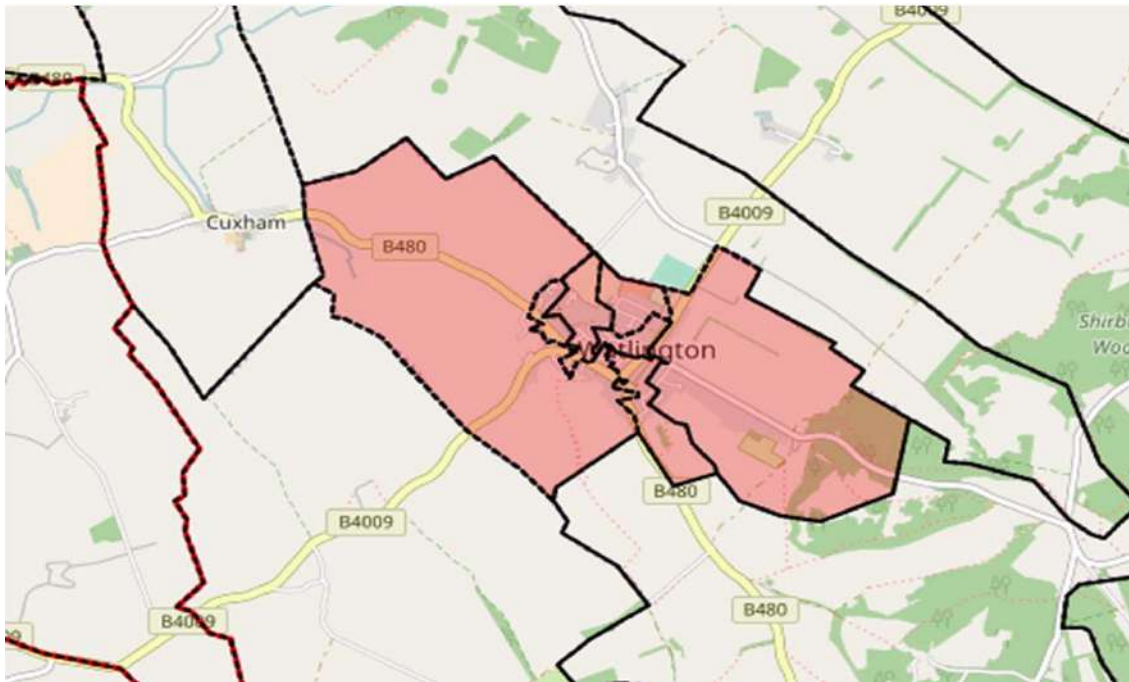
Units: Households

Date: 2011

Query Details

Households within:

2011 Output Areas: E00146075, E00146077, E00146078, E00146079, E00146080, E00146081, E00146082



Car or Van Availability of Watlington Households

Number of Cars or Vans	Households	%	Cars or Vans
No cars or vans in household	127	12.2%	0
1 car or van in household	424	40.7%	424
2 cars or vans in household	374	35.9%	748
3 cars or vans in household	85	8.2%	340
4 or more cars or vans in household	31	3.0%	155
TOTAL	1041	100%	1667

Average Cars or Vans per Household: 1.60

Appendix L: 2011 Census 'WF01BEW – Location of Usual Residence and Place of Work' Data

WF01BEW - Location of usual residence and place of work (OA level)

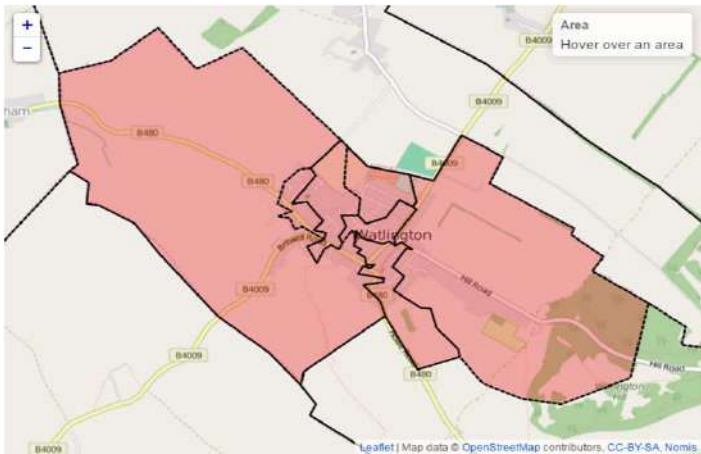
ONS Crown Copyright Reserved [from Nomis on 26 November 2015]

Population : All usual residents ages 16 and over in employment the week before the census
 Units : Persons
 Date : 2011

Query Details

Usual residence:

2011 Output Areas : E00146075, E00146077, E00146078, E00146079, E00146080, E00146081, E00146082



Place of work:

2011 Super Output Areas - Mid Layer : whole of UK

Usual residence to place of work matrix

Place of Work	People	Watlington	B4009 Britwell Road	B480 Cuxham Road	Route B4009 Watlington Road	Hill Road	B480 Howe Road
ALL DESTINATIONS	869	21.7%	12.4%	25.0%	34.3%	0.0%	6.6%
	680	-	15.9%	31.9%	43.8%	0.0%	8.4%
E02000001 : City of London 001	9				1.0%		
E02000050 : Barnet 027	1				0.1%		
E02000093 : Brent 001	1				0.1%		
E02000121 : Brent 029	1				0.1%		
E02000168 : Camden 003	1				0.1%		
E02000182 : Camden 017	1				0.1%		
E02000183 : Camden 018	1				0.1%		
E02000186 : Camden 021	1				0.1%		
E02000190 : Camden 025	1				0.1%		
E02000192 : Camden 027	1				0.1%		
E02000193 : Camden 028	6				0.7%		
E02000240 : Ealing 003	2				0.2%		
E02000264 : Ealing 027	1				0.1%		
E02000365 : Hackney 021	1				0.1%		
E02000371 : Hackney 027	2				0.2%		
E02000372 : Hammersmith and Fulham 001	3				0.3%		
E02000378 : Hammersmith and Fulham 007	1				0.1%		
E02000384 : Hammersmith and Fulham 013	2				0.2%		
E02000387 : Hammersmith and Fulham 016	1				0.1%		
E02000389 : Hammersmith and Fulham 018	2				0.2%		

E02000393 : Hammersmith and Fulham 022	1		0.1%	
E02000457 : Harrow 025	1		0.1%	
E02000509 : Hillingdon 016	4		0.5%	
E02000511 : Hillingdon 018	1		0.1%	
E02000515 : Hillingdon 022	3		0.3%	
E02000523 : Hillingdon 030	1		0.1%	
E02000524 : Hillingdon 031	2		0.2%	
E02000531 : Hounslow 006	1		0.1%	
E02000534 : Hounslow 009	1		0.1%	
E02000559 : Islington 006	1		0.1%	
E02000574 : Islington 021	2		0.2%	
E02000577 : Kensington and Chelsea 001	1		0.1%	
E02000585 : Kensington and Chelsea 009	1		0.1%	
E02000586 : Kensington and Chelsea 010	1		0.1%	
E02000588 : Kensington and Chelsea 012	1		0.1%	
E02000590 : Kensington and Chelsea 014	2		0.2%	
E02000594 : Kensington and Chelsea 018	1		0.1%	
E02000595 : Kensington and Chelsea 019	1		0.1%	
E02000614 : Kingston upon Thames 017	1		0.1%	
E02000748 : Newham 035	1		0.1%	
E02000809 : Southwark 003	2		0.2%	
E02000878 : Tower Hamlets 015	1		0.1%	
E02000968 : Westminster 009	1		0.1%	
E02000970 : Westminster 011	2		0.2%	
E02000971 : Westminster 012	2		0.2%	
E02000972 : Westminster 013	1		0.1%	
E02000974 : Westminster 015	1		0.1%	
E02000977 : Westminster 018	9		1.0%	
E02000979 : Westminster 020	2		0.2%	
E02001579 : Rotherham 002	1		0.1%	
E02002109 : Solihull 029	1		0.1%	
E02002395 : Leeds 066	1		0.1%	
E02002435 : Leeds 106	1		0.1%	
E02003106 : South Gloucestershire 017	1	0.1%		
E02003225 : Swindon 014	1	0.1%		
E02003235 : Swindon 024	1	0.1%		
E02003271 : Luton 014	1		0.1%	
E02003278 : Luton 021	1		0.1%	
E02003353 : Bracknell Forest 002	2			0.2%
E02003360 : Bracknell Forest 009	2			0.2%
E02003367 : West Berkshire 001	2	0.2%		
E02003369 : West Berkshire 003	2	0.2%		
E02003375 : West Berkshire 009	5	0.6%		
E02003377 : West Berkshire 011	2	0.2%		
E02003378 : West Berkshire 012	1	0.1%		
E02003381 : West Berkshire 015	1	0.1%		
E02003388 : West Berkshire 022	1	0.1%		
E02003389 : Reading 001	1			0.1%
E02003390 : Reading 002	1			0.1%
E02003391 : Reading 003	2			0.2%
E02003399 : Reading 011	7			0.8%
E02003402 : Reading 014	1			0.1%

E02003405 : Reading 017	1		0.1%
E02003408 : Slough 002	4		0.5%
E02003409 : Slough 003	1		0.1%
E02003411 : Slough 005	1		0.1%
E02003414 : Slough 008	1		0.1%
E02003420 : Slough 014	1		0.1%
E02003424 : Windsor and Maidenhead 004	3		0.3%
E02003425 : Windsor and Maidenhead 005	2		0.2%
E02003427 : Windsor and Maidenhead 007	4		0.5%
E02003430 : Windsor and Maidenhead 010	3		0.3%
E02003431 : Windsor and Maidenhead 011	1		0.1%
E02003437 : Windsor and Maidenhead 017	1		0.1%
E02003439 : Wokingham 001	3		0.3%
E02003442 : Wokingham 004	1		0.1%
E02003444 : Wokingham 006	4		0.5%
E02003446 : Wokingham 008	2		0.2%
E02003448 : Wokingham 010	1		0.1%
E02003451 : Wokingham 013	6		0.7%
E02003458 : Wokingham 020	1		0.1%
E02003476 : Milton Keynes 018	1	0.1%	
E02003481 : Milton Keynes 023	1	0.1%	
E02003557 : Southampton 009	1	0.1%	
E02003652 : Aylesbury Vale 001	1		0.1%
E02003658 : Aylesbury Vale 007	1		0.1%
E02003660 : Aylesbury Vale 009	3		0.3%
E02003666 : Aylesbury Vale 015	3		0.3%
E02003668 : Aylesbury Vale 017	1		0.1%
E02003670 : Aylesbury Vale 019	4		0.5%
E02003672 : Aylesbury Vale 021	1		0.1%
E02003673 : Aylesbury Vale 022	3		0.3%
E02003674 : Aylesbury Vale 023	4		0.5%
E02003675 : Aylesbury Vale 024	2		0.2%
E02003682 : Chiltern 007	3		0.3%
E02003683 : Chiltern 008	1		0.1%
E02003685 : Chiltern 010	1		0.1%
E02003686 : Chiltern 011	2		0.2%
E02003688 : South Bucks 001	2		0.2%
E02003691 : South Bucks 004	2		0.2%
E02003692 : South Bucks 005	3		0.3%
E02003694 : South Bucks 007	1		0.1%
E02003695 : South Bucks 008	1		0.1%
E02003696 : Wycombe 001	5		0.6%
E02003698 : Wycombe 003	5		0.6%
E02003699 : Wycombe 004	7		0.8%
E02003702 : Wycombe 007	13		1.5%
E02003703 : Wycombe 008	1		0.1%
E02003707 : Wycombe 012	4		0.5%
E02003708 : Wycombe 013	3		0.3%
E02003710 : Wycombe 015	11		1.3%
E02003711 : Wycombe 016	2		0.2%
E02003712 : Wycombe 017	4		0.5%
E02003713 : Wycombe 018	2		0.2%

E02003714 : Wycombe 019	4		0.5%
E02003715 : Wycombe 020	3		0.3%
E02003716 : Wycombe 021	3		0.3%
E02003717 : Wycombe 022	1		0.1%
E02003718 : Wycombe 023	5		0.6%
E02003791 : South Cambridgeshire 017	1		0.1%
E02004616 : Cotswold 002	1	0.1%	
E02004679 : Basingstoke and Deane 005	1	0.1%	
E02004681 : Basingstoke and Deane 007	1	0.1%	
E02004813 : Rushmoor 012	1		0.1%
E02004868 : Dacorum 013	1		0.1%
E02004935 : St Albans 012	1		0.1%
E02004948 : Stevenage 005	1		0.1%
E02004961 : Three Rivers 006	1		0.1%
E02004972 : Watford 005	1		0.1%
E02004986 : Welwyn Hatfield 007	1		0.1%
E02004992 : Welwyn Hatfield 013	1		0.1%
E02005397 : North West Leicestershire 001	1		0.1%
E02005456 : North Kesteven 004	1		0.1%
E02005468 : South Holland 004	1		0.1%
E02005519 : Breckland 017	1		0.1%
E02005558 : King's Lynn and West Norfolk 008	1		0.1%
E02005627 : Daventry 009	1		0.1%
E02005906 : Rushcliffe 001	1		0.1%
E02005926 : Cherwell 006	1		0.1%
E02005928 : Cherwell 008	1		0.1%
E02005931 : Cherwell 011	1		0.1%
E02005935 : Cherwell 015	6		0.7%
E02005937 : Cherwell 017	2		0.2%
E02005939 : Cherwell 019	7		0.8%
E02005940 : Oxford 001	2	0.2%	
E02005941 : Oxford 002	2	0.2%	
E02005942 : Oxford 003	2	0.2%	
E02005945 : Oxford 006	13	1.5%	
E02005946 : Oxford 007	6	0.7%	
E02005947 : Oxford 008	30	3.5%	
E02005948 : Oxford 009	5	0.6%	
E02005949 : Oxford 010	16	1.8%	
E02005950 : Oxford 011	3	0.3%	
E02005951 : Oxford 012	1	0.1%	
E02005952 : Oxford 013	13	1.5%	
E02005954 : Oxford 015	7	0.8%	
E02005955 : Oxford 016	5	0.6%	
E02005957 : Oxford 018	2	0.2%	
E02005958 : South Oxfordshire 001	12		1.4%
E02005959 : South Oxfordshire 002	2		0.2%
E02005960 : South Oxfordshire 003	8		0.9%
E02005961 : South Oxfordshire 004	12		1.4%
E02005962 : South Oxfordshire 005	10		1.2%
E02005963 : South Oxfordshire 006	4	0.5%	
E02005964 : South Oxfordshire 007	23	2.6%	
E02005965 : South Oxfordshire 008	189	21.7%	

E02005966 : South Oxfordshire 009	2	0.2%	
E02005967 : South Oxfordshire 010	3	0.3%	
E02005968 : South Oxfordshire 011	30	3.5%	
E02005969 : South Oxfordshire 012	16	1.8%	
E02005971 : South Oxfordshire 014	2	0.2%	
E02005972 : South Oxfordshire 015	2	0.2%	
E02005973 : South Oxfordshire 016	35		4.0%
E02005974 : South Oxfordshire 017	10		1.2%
E02005975 : South Oxfordshire 018	15	1.7%	
E02005976 : South Oxfordshire 019	13		1.5%
E02005977 : South Oxfordshire 020	1		0.1%
E02005979 : Vale of White Horse 002	7		0.8%
E02005980 : Vale of White Horse 003	3		0.3%
E02005982 : Vale of White Horse 005	1		0.1%
E02005983 : Vale of White Horse 006	5		0.6%
E02005984 : Vale of White Horse 007	1		0.1%
E02005987 : Vale of White Horse 010	7	0.8%	
E02005992 : Vale of White Horse 015	9	1.0%	
E02005996 : West Oxfordshire 004	1		0.1%
E02005997 : West Oxfordshire 005	1		0.1%
E02005998 : West Oxfordshire 006	1		0.1%
E02006001 : West Oxfordshire 009	2		0.2%
E02006002 : West Oxfordshire 010	1		0.1%
E02006330 : Elmbridge 014	1		0.1%
E02006332 : Elmbridge 016	1		0.1%
E02006342 : Epsom and Ewell 008	1		0.1%
E02006395 : Runnymede 003	3		0.3%
E02006415 : Spelthorne 013	1		0.1%
E02006530 : Warwick 012	1		0.1%
E02006796 : Hillingdon 033	2		0.2%
E02006801 : Lambeth 036	1		0.1%
E02006886 : Vale of White Horse 016	1	0.1%	
E02006899 : Birmingham 138	1		0.1%
W02000295 : Caerphilly 006	1	0.1%	

Appendix M: TRICS Output

Calculation Reference: AUDIT-102301-170519-0551

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : M - MIXED PRIVATE/AFFORDABLE HOUSING
 VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	2 days
	WS WEST SUSSEX	4 days
03	SOUTH WEST	
	DV DEVON	1 days
09	NORTH	
	DH DURHAM	1 days
10	WALES	
	CM CARMARTHENSHIRE	1 days
14	LEINSTER	
	KD KILDARE	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
 Actual Range: 39 to 214 (units:)
 Range Selected by User: 20 to 500 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 13/12/16

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

Selected survey days:

Monday	1 days
Tuesday	3 days
Wednesday	3 days
Thursday	3 days

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

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	5
Edge of Town	5

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

Selected Location Sub Categories:

Residential Zone	10
------------------	----

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

Secondary Filtering selection:

Use Class:

C3 10 days

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

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	5 days
15,001 to 20,000	1 days
20,001 to 25,000	1 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	1 days
50,001 to 75,000	2 days
75,001 to 100,000	3 days
100,001 to 125,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	7 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	6 days
No	4 days

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

PTAL Rating:

No PTAL Present	10 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	CM-03-M-02 COLLEGE ROAD	HOUSES & FLATS		CARMARTHENSHIRE
	CARMARTHEN Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 49 Survey date: TUESDAY 14/10/14			
2	DH-03-M-02 PUDSEY WALK	SEMI DET. & DETACHED		DURHAM Survey Type: MANUAL
	DARLINGTON Edge of Town Residential Zone Total Number of dwellings: 39 Survey date: WEDNESDAY 10/11/10			
3	DV-03-M-01 TOPSHAM ROAD	HOUSES & FLATS		DEVON Survey Type: MANUAL
	EXETER Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 61 Survey date: THURSDAY 06/10/11			
4	ES-03-M-07 SOUTH COAST ROAD	MIXED HOUSING		EAST SUSSEX Survey Type: MANUAL
	PEACEHAVEN Edge of Town Residential Zone Total Number of dwellings: 188 Survey date: THURSDAY 12/11/15			
5	ES-03-M-08 FIELD END	MIXED HOUSES		EAST SUSSEX Survey Type: MANUAL
	MARESFIELD Edge of Town Residential Zone Total Number of dwellings: 80 Survey date: TUESDAY 10/05/16			
6	KD-03-M-01 STANDHOUSE ROAD	SEMI-DETACHED		KILDARE Survey Type: MANUAL
	NEWBRIDGE Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 118 Survey date: MONDAY 11/05/09			
7	WS-03-M-04 SUMMERSDALE ROAD	HOUSES & FLATS		WEST SUSSEX Survey Type: MANUAL
	CHICHESTER Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 214 Survey date: THURSDAY 08/05/14			

LIST OF SITES relevant to selection parameters (Cont.)

8	WS-03-M-06	SEMI DETACHED/DETACHED		WEST SUSSEX
	SOUTHFIELDS CLOSE			
	CHICHESTER			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		67	
	Survey date:	TUESDAY	27/01/15	Survey Type: MANUAL
9	WS-03-M-07	HOUSES & FLATS		WEST SUSSEX
	ROSE GREEN ROAD			
	ALDWICK			
	BOGNOR REGIS			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		90	
	Survey date:	WEDNESDAY	05/03/14	Survey Type: MANUAL
10	WS-03-M-10	MIXED FLATS & HOUSES		WEST SUSSEX
	BROYLE ROAD			
	CHICHESTER			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:		194	
	Survey date:	WEDNESDAY	23/03/16	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	110	0.080	10	110	0.256	10	110	0.336
08:00 - 09:00	10	110	0.134	10	110	0.350	10	110	0.484
09:00 - 10:00	10	110	0.123	10	110	0.151	10	110	0.274
10:00 - 11:00	10	110	0.125	10	110	0.139	10	110	0.264
11:00 - 12:00	10	110	0.149	10	110	0.145	10	110	0.294
12:00 - 13:00	10	110	0.143	10	110	0.132	10	110	0.275
13:00 - 14:00	10	110	0.149	10	110	0.163	10	110	0.312
14:00 - 15:00	10	110	0.148	10	110	0.159	10	110	0.307
15:00 - 16:00	10	110	0.245	10	110	0.155	10	110	0.400
16:00 - 17:00	10	110	0.253	10	110	0.176	10	110	0.429
17:00 - 18:00	10	110	0.346	10	110	0.175	10	110	0.521
18:00 - 19:00	10	110	0.271	10	110	0.179	10	110	0.450
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.166			2.180			4.346

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

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

Parameter summary

Trip rate parameter range selected: 39 - 214 (units:)
 Survey date date range: 01/01/09 - 13/12/16
 Number of weekdays (Monday-Friday): 10
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 2
 Surveys manually removed from selection: 0

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

Calculation Reference: AUDIT-102301-170519-0533

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : A - OFFICE
 VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	KC KENT	2 days
	SC SURREY	1 days
08	NORTH WEST	
	LC LANCASHIRE	1 days
09	NORTH	
	DH DURHAM	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 186 to 3168 (units: sqm)
 Range Selected by User: 186 to 5000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 23/09/16

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

Selected survey days:

Monday	2 days
Tuesday	3 days
Wednesday	1 days

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

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	3

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

Selected Location Sub Categories:

Industrial Zone	2
Commercial Zone	1
Residential Zone	2
Built-Up Zone	1

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

Secondary Filtering selection:

Use Class:

B1 6 days

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

Population within 1 mile:

1,001 to 5,000 1 days
5,001 to 10,000 3 days
10,001 to 15,000 1 days
20,001 to 25,000 1 days

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

Population within 5 miles:

75,001 to 100,000 2 days
100,001 to 125,000 1 days
125,001 to 250,000 3 days

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

Car ownership within 5 miles:

0.6 to 1.0 3 days
1.1 to 1.5 3 days

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

Travel Plan:

Yes 2 days
No 4 days

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

PTAL Rating:

No PTAL Present 6 days

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

LIST OF SITES relevant to selection parameters

1	DH-02-A-02 DURHAM ROAD BOWBURN NEAR DURHAM Edge of Town Industrial Zone Total Gross floor area: 2000 sqm Survey date: TUESDAY 27/11/12	CONSTRUCTION COMPANY	DURHAM	Survey Type: MANUAL
2	ES-02-A-09 THE SIDINGS ORE VALLEY HASTINGS Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: 186 sqm Survey date: WEDNESDAY 19/12/12	HOUSING COMPANY	EAST SUSSEX	Survey Type: MANUAL
3	KC-02-A-07 KAVELIN WAY HENWOOD IND. ESTATE ASHFORD Edge of Town Commercial Zone Total Gross floor area: 2525 sqm Survey date: MONDAY 05/12/11	KCC HIGHWAYS REG.	KENT	Survey Type: MANUAL
4	KC-02-A-08 ST MICHAEL'S CLOSE CLAY WOOD AYLESFORD Edge of Town Industrial Zone Total Gross floor area: 3168 sqm Survey date: MONDAY 28/11/11	KCC HIGHWAYS REG. OFFICE	KENT	Survey Type: MANUAL
5	LC-02-A-09 FURTHERGATE BLACKBURN Suburban Area (PPS6 Out of Centre) Built-Up Zone Total Gross floor area: 2600 sqm Survey date: TUESDAY 04/06/13	OFFICES	LANCASHIRE	Survey Type: MANUAL
6	SC-02-A-15 BOXGROVE ROAD GUILDFORD Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: 1896 sqm Survey date: TUESDAY 05/10/10	ACCOUNTANTS	SURREY	Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	6	2063	0.307	6	2063	0.048	6	2063	0.355
07:30 - 08:00	6	2063	0.566	6	2063	0.137	6	2063	0.703
08:00 - 08:30	6	2063	0.897	6	2063	0.097	6	2063	0.994
08:30 - 09:00	6	2063	1.147	6	2063	0.073	6	2063	1.220
09:00 - 09:30	6	2063	0.897	6	2063	0.218	6	2063	1.115
09:30 - 10:00	6	2063	0.331	6	2063	0.170	6	2063	0.501
10:00 - 10:30	6	2063	0.331	6	2063	0.218	6	2063	0.549
10:30 - 11:00	6	2063	0.210	6	2063	0.210	6	2063	0.420
11:00 - 11:30	6	2063	0.186	6	2063	0.218	6	2063	0.404
11:30 - 12:00	6	2063	0.202	6	2063	0.186	6	2063	0.388
12:00 - 12:30	6	2063	0.267	6	2063	0.291	6	2063	0.558
12:30 - 13:00	6	2063	0.501	6	2063	0.469	6	2063	0.970
13:00 - 13:30	6	2063	0.461	6	2063	0.347	6	2063	0.808
13:30 - 14:00	6	2063	0.339	6	2063	0.218	6	2063	0.557
14:00 - 14:30	6	2063	0.234	6	2063	0.178	6	2063	0.412
14:30 - 15:00	6	2063	0.242	6	2063	0.307	6	2063	0.549
15:00 - 15:30	6	2063	0.218	6	2063	0.307	6	2063	0.525
15:30 - 16:00	6	2063	0.113	6	2063	0.251	6	2063	0.364
16:00 - 16:30	6	2063	0.218	6	2063	0.663	6	2063	0.881
16:30 - 17:00	6	2063	0.121	6	2063	0.832	6	2063	0.953
17:00 - 17:30	6	2063	0.162	6	2063	1.592	6	2063	1.754
17:30 - 18:00	6	2063	0.065	6	2063	0.905	6	2063	0.970
18:00 - 18:30	6	2063	0.040	6	2063	0.315	6	2063	0.355
18:30 - 19:00	6	2063	0.008	6	2063	0.299	6	2063	0.307
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			8.063			8.549			16.612

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

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

Parameter summary

Trip rate parameter range selected:	186 - 3168 (units: sqm)
Survey date date range:	01/01/09 - 23/09/16
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Appendix N: TEMPRO Growth Rates

TEMPRO Growth Factors

2015-2017 TEMPRO 7.0 Growth Factors - Car Driver

Area: South Oxfordshire 008 (E02005965)

	Origin	Destination
Average Weekday:	1.0046	1.0048
Weekday AM Peak:	1.002	1.0029
Weekday PM Peak:	1.0034	1.0031

Adjusted local peak period growth factors:

AM: 1.0309

PM: 1.0317

2017-2019 TEMPRO 7.0 Growth Factors - Car Driver

Area: South Oxfordshire 008 (E02005965)

	Origin	Destination
Average Weekday:	1.0135	1.0136
Weekday AM Peak:	1.0102	1.0158
Weekday PM Peak:	1.0138	1.0105

Adjusted local peak period growth factors:

AM: 1.0327

PM: 1.0318

2017-2022 TEMPRO 7.0 Growth Factors - Car Driver

Area: South Oxfordshire 008 (E02005965)

	Origin	Destination
Average Weekday:	1.0317	1.0319
Weekday AM Peak:	1.0225	1.0378
Weekday PM Peak:	1.033	1.0237

Adjusted local peak period growth factors:

AM: 1.0834

PM: 1.0815



clarkebond

MULTIDISCIPLINARY ENGINEERING CONSULTANTS

The Cocoa House
129 Cumberland Road
Bristol
BS1 6UY

tel: +44 (0)117 929 2244

GF Suite
Bickleigh House
Park Five Business Centre
Exeter EX2 7HU

tel: +44 (0)1392 369098

Unit 17.1
The Leathermarket
11-13 Weston Street
London SE1 3ER

tel: +44(0)20 7939 0959

www.clarkebond.com