

TRANSPORT ASSESSMENT FOR PROPOSED RESIDENTIAL DEVELOPMENT LAND TO THE SOUTH OF WARREN LANE, LONG ASHTON ON BEHALF OF LONG ASHTON LAND COMPANY LIMITED

OCTOBER 2021

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TRANSPORT ASSESSMENT PROPOSED RESIDENTIAL DEVELOPMENT, LAND TO THE SOUTH OF WARREN LANE, LONG ASHTON

COLE EASDON CONSULTANTS (CEC)

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CONTENTS

| SECTION | HEADING | | | | |
|-----------|--|---|----|--|--|
| 1.0 | INTRODUCTION | | | | |
| 2.0 | SITE LOCAT | SITE LOCATION AND EXISTING CONDITIONS 2 | | | |
| 3.0 | NATIONAL A | NATIONAL AND LOCAL POLICY 6 | | | |
| 4.0 | ACCESSIBIL | ITY BY SUSTAINABLE MODES OF TRANSPORT | 9 | | |
| 5.0 | DEVELOPME | ENT PROPOSALS | 16 | | |
| 6.0 | MULTI-MOD | AL TRIP GENERATION | 19 | | |
| 7.0 | PERSONAL INJURY ACCIDENT DATA 21 | | | | |
| 8.0 | SUMMARY A | AND CONCLUSIONS | 22 | | |
| List of P | hotographs | | | | |
| Photogra | ph 2.1 | Weston Road looking west along site frontage | | | |
| Photogra | graph 2.2 Weston Road looking east along site frontage | | | | |
| Photogra | ograph 2.3 Public Footpath Sign on Warren Lane | | | | |
| Photogra | ph 2.4 | Warren Lane looking north | | | |
| Photogra | ph 4.1 | Pedestrian refuge island on Weston Road | | | |
| Photogra | ph 4.2 | Westbound bus stop - Weston Road / Wild Country Lane | | | |
| Photogra | ph 4.3 | Eastbound bus stop - Weston Road / Wild Country Lane | | | |
| Photogra | ph 4.4 | National Cycle Route 33 along Weston Road | | | |
| Photogra | ph 4.5 | Existing cycle route signage on Weston Road | | | |
| List of T | ables | | | | |
| Table 4. | 1 | Distance to Local Facilities | | | |
| Table 4.2 | e 4.2 Bus services along Weston Road | | | | |
| Table 5. | 1 | Existing Traffic Flows and Speeds along Weston Road (Sept 2019) | | | |
| Table 6. | Residential Multi-Modal Trip Rates / Dwelling | | | | |
| Table 6.2 | 2 Residential Trip Generation (35 units) | | | | |



APPENDICES

Appendix 1 - CEC Plans

CEC Plan 3454/201 Location & Accessibility Plan

CEC Plan 3454/SK101(H) Site Access Layout

Appendix 2 - Site Layout Plan

Drawing No. 21077_NP_XX_DR_A_1003 Illustrative Site Plan (by Nash Partnership)

Appendix 3 - TRICS Data

Appendix 4 - Automatic Traffic Count Data

Appendix 5 - Personal Injury Accident Data

Appendix 6 - Stage 1/2 Road Safety Audit and Designer's Response



1.0 INTRODUCTION

- 1.1 Cole Easdon Consultants Limited (CEC) has been instructed by the Long Ashton Land Company Limited to prepare a *Transport Assessment (TA)* in support of an outline planning application for the proposed construction of up to 35 residential dwellings on land to the south of Warren Lane, Long Ashton. The location of the site is shown on CEC Plan 3454/201 [Location & Accessibility Plan] within Appendix 1.
- 1.2 The *TA* considers all of the relevant transport and highway implications of the proposed development. A previous planning application (reference: 20/P/1547/OUT) for 35 new homes on the site was refused permission in December 2020, one reason for which related to the design of the access arrangement. As well as having been generally updated, this TA also seeks to address the previous reason for refusal.

Structure of the Report

- 1.3 The *Transport Assessment* is structured as follows:
 - Section 2.0 describes the site and surrounding highway network;
 - Section 3.0 provides details of National and Local Policy;
 - Section 4.0 provides an appraisal of the site's accessibility by sustainable modes of transport;
 - Section 5.0 outlines the redevelopment proposals;
 - Section 6.0 considers the predicted person and vehicular trip generation of the proposed development;
 - Section 7.0 provides an analysis of personal injury accident data for the local area; and
 - Section 8.0 summarises and concludes the Report.





2.0 SITE LOCATION AND EXISTING CONDITIONS

Site Location

- The site is located on the western edge of Long Ashton, and presently comprises of open agricultural land. Refer to CEC Plan 3454/201 [Location & Accessibility Plan] in Appendix
 It is bounded to the west and north by open agricultural land, to the south by Weston Road and to the east by existing residential development.
- 2.2 Long Ashton village centre is located some 800 metres to the east along Weston Road, Bristol City Centre is some 7.2 kilometres to the northeast through Long Ashton and utilising the A370 and A3029, whilst Nailsea is approximately 7.5 kilometres to the west via the B3130. The A370 which links Bristol with Weston-super-Mare passes some 800 metres to the south of the site.
- 2.3 The Long Ashton Park and Ride site is located approximately 3.4 kilometres to the northeast.

Existing Highway Conditions

- 2.4 The site is bounded by two public highways, these being Weston Road (to the south), and Warren Lane (to the east).
- 2.5 Weston Road is a good standard single carriageway road with a typical carriageway width ranging between 8.4 and 9.5 metres. For some 197 metres along the site frontage from the site's eastern edge, Weston Road is subject to a 30mph speed limit, whilst west of this point it changes to 50mph. A 1.1 to 1.7-metre wide footway is provided along the north side of the road facilitating pedestrian access between the site and Long Ashton village centre, whilst a circa 3.0-metre wide shared foot/cycleway is provided along its southern side. The existing priority T-junction vehicular access to Gatcombe Farm Shop is located approximately 120 metres west of the southwest corner of the site.
- 2.6 Weston Road is oriented in a broadly east-west direction and connects with the B3128 Ashton Road at its eastern end via a priority T-junction, and with the B3130/Clevedon Road/Old Weston Road at its western end via a double mini roundabout junction. The B3128 and the B3130 then provide access to the A370, which links Bristol with Weston-super-Mare.



- 2.7 In the vicinity of the southeast corner of the site, Weston Road forms a ghost island priority junction with Wild Country Lane, with a pedestrian refuge island and associated tactile paving being provided on Weston Road as part of this junction arrangement.
- 2.8 Views of Weston Road looking east and west in the vicinity of the site are shown within Photographs 2.1 and 2.2 below.



Photograph 2.1: Weston Road looking west along site frontage





Photograph 2.2: Weston Road looking east along site frontage

2.9 Warren Lane bounds the site (in part) to the east and is a single carriageway road providing access to a number of residential dwellings. It is also designated as a public footpath providing access to Longwood (refer to Photograph 2.3).



Photograph 2.3: Public Footpath Sign on Warren Lane



2.10 A view of Warren Lane looking north is shown within Photograph 2.4.



Photograph 2.4: Warren Lane looking north

2.11 The site is considered to offer good access to the wider highway network, offering easy access to the A370, which facilitates access to Bristol and to Weston-super-Mare, as well as Nailsea and Backwell, and the M5 corridor.



3.0 NATIONAL AND LOCAL POLICY

3.1 This Section provides a summary of relevant local and national transport policy.

National Planning Policy Framework

- 3.2 The National Planning Policy Framework (NPPF) was revised in July 2021. The NPPF makes clear that there is a presumption in favour of sustainable development, stating plans should positively seek opportunities to meet the development needs of their area, and be sufficiently flexible to adapt to rapid change'.
- 3.3 With regard to transport, it states that *Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:*
 - the potential impacts of development on transport networks can be addressed;
 - opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised;
 - opportunities to promote walking, cycling and public transport use are identified and pursued;
 - the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
 - patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places'.
- 3.4 The NPPF states that 'All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed'.

National Planning Practice Guidance

- 3.5 National Planning Practice Guidance (NPPG) was published in March 2014 and includes guidance on the need for and scope of Transport Assessments and Travel Plans.
- 3.6 The NPPG requires the need for a Travel Plan, Transport Statement or Transport

 Assessment where a development will generate a significant amount of movements. The

 NPPG adds that Local Planning Authorities must make a judgement as to whether a



development proposal would generate a significant number of movements based on local context.

North Somerset Core Strategy 2012

3.7 Policy CS11 Parking states that 'adequate parking must be provided and managed to meet the needs of anticipated users (residents, workers and visitors) in usable spaces. Overall parking provision must ensure a balance between good urban design, highway safety, residential amenity and promoting town centre attractiveness and vitality.

New developments must seek to maximise off street provision, assess where on-street provision may be appropriate, demonstrate that buses, service and emergency vehicles are not restricted, and ensure that the road network is safe for all users.

Detailed parking policy guidance for all forms of development will be provided as part of the Sites and Policies Development Plan Document'.

North Somerset Development Management Policies 2016

- 3.8 The North Somerset Development Management Plan was adopted in 2016. It provides detailed development plan policies which complement the strategic context set out in the Core Strategy.
- 3.9 Policy DM24 states that 'development will be permitted provided it would not prejudice highway safety or inhibit necessary access for emergency, public transport, service or waste collection vehicles. Development giving rise to a significant number of travel movements will only be refused on transport grounds if it:
 - is likely to have a severe residual cumulative impact on traffic congestion or on the character and function of the surrounding area; or
 - is not accessible by non-car modes or cannot readily be integrated with public transport, cycleway and footpath links, and bridleways where appropriate.

Development which gives rise to a significant detrimental impact on travel patterns, or exacerbates existing transport problems, will only be permitted where acceptable counter measures or mitigation is possible.

Where a proposal would be acceptable apart from deficiencies in highways and transport infrastructure and services, which may be off-site, planning permission may, in accordance



with Core Strategy Policy CS34, be granted subject to the applicant entering into an appropriate legal agreement to fund the improvements sought'.

Long Ashton Neighbourhood Plan

- 3.10 The *Long Ashton Neighbourhood Plan* was adopted in 2015 and forms part of the development plan for Long Ashton.
- 3.11 Policy T1 encourages more sustainable modes of transport and seeks to encourage residents of Long Ashton to utilise more sustainable methods of transport by providing links to public transport as and when opportunities arise.
- 3.12 Policy T3 states that any development which leads to significantly increased traffic flows within Long Ashton will be required to provide proportionate mitigation measures within the village.
- 3.13 Policy VES1 states that 'any new development where a transport assessment demonstrates a significantly increased traffic impact on Long Ashton/Weston Road will contribute to implementing enhancements to the road in accordance with the principles of the Enhancement Scheme where these enhancements are demonstrated as being appropriate to mitigate the effects of the development'.



4.0 ACCESSIBILITY BY SUSTAINABLE MODES OF TRANSPORT

4.1 Both national and local planning policy stress the need for new development to be provided in locations with good accessibility by non-car modes of transport. This accessibility is a central feature influencing the overall sustainability of a site, and its potential impacts on the surrounding transport networks. This Section sets out the application site's accessibility by walking, cycling, and public transport, and demonstrates how it is situated in a sustainable location. Refer also to CEC Plan 3454/201 [Location & Accessibility Plan], located within Appendix 1.

Access to Facilities

4.2 Long Ashton Village Centre provides a number of everyday services and facilities including a convenience store, primary school, dentist and GP surgery. These facilities are accessible within a 10 minute walk of the site. Good opportunities exist for trips to be made on foot to these day-to-day services and facilities. Table 4.1 provides summary details of the nearest local facilities to the site. Refer also to CEC Plan 3454/201 [Location & Accessibility Plan], included within Appendix 1.

Table 4.1: Distance to Local Facilities

| Description | Approx. Distance from Site by car | Approx. Distance from Site for walking/cycling | Local Service |
|-------------------|-----------------------------------|--|--|
| Convenience Store | 700m | 700m | The Co-operative, BS41 9AA |
| Primary School | 1.1km | 1.1km | Birdwell Primary School, BS41 9AZ |
| Supermarket | 4.7km | N/A | The Food Warehouse, BS3 2LQ |
| Supermarket | 5.5km | N/A | Sainsbury's, BS3 2NS |
| Pharmacy | 850m | 850m | Cohens, BS41 9AA |
| Dentist | 600m | 600m | Chestnuts Dental Practice, BS41 9AH |
| Doctors/GP | 750m | 750m | Long Ashton Surgery, BS41 9DY |
| Bus Stop | N/A | Opp/Adj site | Warren Lane |
| Park & Ride | 3.7km | 3.7km | Long Ashton Park and Ride |



Access to Schools

- 4.3 There are two primary schools in Long Ashton Birdwell School, located at Hollis Close, approximately 1.1 kilometres to the east, and Northleaze Church of England Primary School, located at Brook Close approximately 2.0 kilometres to the east. Both of these schools are considered to be within an acceptable walking distance, and are accessible via footways along Weston Road. The walking routes to these schools from the site are shown on CEC Plan 3454/201 [Location & Accessibility Plan], included within Appendix 1. There are existing pedestrian crossing facilities provided along the route to facilitate safe pedestrian movement between the site and the primary schools.
- 4.4 The nearest secondary school to the site is located within the administrative boundary of Bristol City and is known as Ashton Park School. It is approximately 4.1 kilometres from the site on Blackmoors Lane just off the A370 Ashton Road. It can be easily accessed by public transport from bus stops immediately adjacent the site with a journey time of approximately 15 minutes.
- 4.5 The nearest secondary school to the site (within North Somerset) is located in Backwell (Backwell Secondary School) approximately 4.7 kilometres to the west. Backwell School is situated just off the A370, close to the 'Backwell Crossroads' bus stops, and can be easily accessed by public transport from bus stops immediately adjacent the site with a journey time of approximately 15 minutes.

Walking Accessibility

4.6 The site is considered to offer good accessibility on foot, with footway links providing connectivity between the site and Long Ashton village centre, and to the local primary schools. Pedestrian refuge islands are provided on Weston Road either side of Wild Country Lane (refer to Photograph 4.1). Zebra crossings are located on Weston Road to the east of Perry Road, and adjacent the Bird in Hand public house, as indicated on CEC Plan 3454/201 [Location & Accessibility Plan] enclosed within Appendix 1. Future residents would therefore be able to comfortably access the existing facilities within Long Ashton village on foot.





Photograph 4.1: Pedestrian refuge island on Weston Road

Public Transport

4.7 East and westbound bus stops are located on Weston Road along the site frontage, and are therefore within comfortable walking distance of the site. The nearest bus stops are located adjacent to the Weston Road / Wild Country Lane junction, adjacent the site's southeast corner. The westbound bus stop comprises of a lay-by with a shelter and timetable information (refer to Photograph 4.2) whilst the eastbound bus stop comprises of bus cage markings with a shelter and timetable information (refer to Photograph 4.3).





Photograph 4.2: Westbound bus stop - Weston Road / Wild Country Lane



 ${\it Photograph~4.3: East bound~bus~stop-Weston~Road~/~Wild~Country~Lane}$

4.8 During the daytime, there are typically four buses per hour to Bristol bus station. Hourly services are also provided to Weston-super-Mare and Clevedon. The site is therefore considered to offer good access by public transport, with linkages provided to key employment areas. A summary of the available bus services from Weston Road is provided within Table 4.2 below.



Table 4.2: Bus services along Weston Road

| Service No. | Route | | Typical Frequency |
|----------------|---|---------------------------------|--|
| V2 | Eastbound | Weston-super-Mare - Bristol | Mon-Sat: Approximate hourly service |
| ٨٧ | Westbound Bristol - Weston-super- Mare | | Mon - Sat: Approximate hourly service |
| X7 | Eastbound | Clevedon - Nailsea - Bristol | Mon-Sun: Approximate hourly service |
| Westbound | | Bristol - Nailsea - Clevedon | Mon-Sun: Approximate hourly service |
| Х9 | Eastbound | Nailsea - Bristol | Mon-Sat: Approximate half hourly service Sun: Approximate hourly service |
| , A9 | Westbound | Bristol - Nailsea | Mon-Sat: Approximate half hourly service Sun: Approximate hourly service |

- 4.9 In addition to the above bus services, the site is located within reasonably close proximity of the Long Ashton Park and Ride facility situated off the A370. This offers 1,500 car parking spaces and is served by the Bristol Metrobus M2 service to Bristol City Centre Monday to Saturday and the 505 service to Southmead Hospital via Hotwells, Clifton and Redland.
- 4.10 The Park and Ride is located approximately 3.4 kilometres to the northeast of the site, and is therefore within comfortable cycling distance and would also be a convenient facility for future residents to drive (or cycle) to as part of a longer journey to Bristol by public transport. National Cycle Route 33 passes the site along Weston Road, and passes within approximately 150 metres of the Park and Ride. The bus journey time from the Park and Ride site to Bristol city centre is approximately 15 minutes.

Cycling

4.11 The site offers excellent accessibility by bicycle, with Weston Road forming part of National Cycle Routes 33 (known as the 'Festival Way') and 334, which provide high quality, attractive, largely traffic-free linkages to Nailsea, Flax Bourton, Bristol, Clifton, and other neighbouring areas. Route 33 in particular is considered to be an important sustainable transport link, providing a largely traffic-free route between Long Ashton and Bristol City Centre, a major destination for employment trips from Long Ashton (refer to Photograph 4.4).





Photograph 4.4: National Cycle Route 33 along Weston Road

- 4.12 Route 33 extends along the southern side of Weston Road and also passes very close to Birdwell Primary School and the Long Ashton Park and Ride site off the A370, offering potential for cycling to form part of a longer journey by public transport into Bristol. There are existing crossing facilities on Weston Road in the vicinity of the site (adjacent to the Wild Country Lane bus stops) to enable people to safely access the cycle route from the site.
- 4.13 The proximity of these cycle routes offers potential for a significant proportion of trips from the site to be made by bicycle, and these routes undoubtedly enhance the accessibility credentials of the proposed development. The cycle routes through Long Ashton are well sign posted providing good legibility as shown in Photograph 4.5.





Photograph 4.5: Existing cycle route signage on Weston Road

Summary

- 4.14 This Section has demonstrated clearly that the site offers very good accessibility by sustainable modes of transport. Future residents of the site will have genuine travel mode choice, being located along a key bus corridor linking Long Ashton and various other North Somerset towns and villages with Bristol city centre. The proximity of the Festival Way Cycle Route is also considered to offer significant benefit to future residents, offering a sustainable and attractive cycle link between the site, Bristol city centre and Nailsea. Furthermore, there are many important services and facilities within Long Ashton village itself that would be accessible for future residents of the site on foot. Such facilities include a primary school, Co-Operative foodstore, medical facilities, hairdressers, off licence, and a pizzeria.
- 4.15 Accordingly, CEC considers that there is potential for a significant number of journeys to and from the site to be made by sustainable modes of transport.



5.0 DEVELOPMENT PROPOSALS

The Proposals

- 5.1 This planning application seeks outline permission with all matters reserved except access for the construction of 35 residential dwellings on land at Gatcombe Farm, Long Ashton.
- 5.2 The proposed residential development seeks to address affordable housing needs in Long Ashton and will therefore comprise 100% affordable housing in a range of dwelling types and sizes. The illustrative masterplan (Drawing No. 18071_NP_XX_DR_A_1003(3) [Illustrative Site Plan]) prepared by Nash Partnership is included within Appendix 2 of this Report.

Vehicular Access

- 5.3 The proposed vehicular access to the site is shown on CEC Plan 3454/SK101(H) [Site Access Layout] in Appendix 1.
- In order to inform the junction design, CEC commissioned two 7-day Automatic Traffic Counts (ATCs) along Weston Road during September 2019, where the results are enclosed in Appendix 4. Vehicle flows and speeds were recorded at locations to the east and west of the proposed access location so as to obtain comprehensive speed survey information to inform the required junction visibility. The ATCs were installed at the following locations, corresponding to approximately 43m either side of the access, being commensurate with the visibility required for a 30mph speed limit road:

ATC 1 West site: 51.42542, -2.67517
 ATC 2 East site: 51.42587, -2.67382

5.5 The existing surveyed traffic flows and 85th percentile speeds along Weston Road are summarised within Table 5.1 below, whilst the full survey data is included within Appendix 4.



Table 5.1: Existing Traffic Flows and Speeds along Weston Road (Sept 2019)

| | , | epecus unong most | | 1 |
|-----------|----------------------|----------------------|-----------------------|---|
| Direction | AM Peak 0800-0900 | PM Peak 1700-1800 | Daily (5-day Avg.) | 85 th %ile Speed |
| Eastbound | 200vph | 194vph | 2,065 | 37mph (derived from western ATC Data) |
| Westbound | 217vph | 272vph | 2,334 | 34mph (derived from eastern ATC Data) |
| Two-Way | 417vph | 466vph | 4,399 | - |

- 5.6 Having regard to the formula contained within *Manual for Streets 2 (MfS2)* for calculating junction visibility splays, CEC has calculated the required visibility splays as 2.4m x 59m, which is appropriate for the higher eastbound speed of 37mph.
- 5.7 CEC Plan 3454/SK101(H) [Site Access Layout], included within Appendix 1 illustrates the proposed site access arrangement and demonstrates that the required visibility splays can be achieved. A Stage 1/2 Road Safety Audit (including a Designer's Response) of the proposed access is included within Appendix 6 of this Report.
- 5.8 At the request of NSC, the access design <u>has been updated from the proposal submitted</u> with the previous planning application (ref: 20/P/1547/OUT) to incorporate widened connecting paths (3.0m) to provide improved cyclist connectivity to the Festival Way cycle route.
- 5.9 It is understood that NSC wishes for a *low level* of traffic calming to be introduced on Weston Road to reduce vehicle speeds. CEC considers that any traffic calming features could be incorporated into the detailed design of the junction as part of the S278 technical approval process and does not need to be agreed at the application stage since it is not necessary in relation to junction visibility or any other safety matter. The requisite visibility has been demonstrated according to the measured vehicle speeds.
- 5.10 Notwithstanding, the presence of the new junction and its associated right turn lane will, of itself, introduce an element of traffic calming and it is noted that Weston Road in the vicinity of the site is already subject to a 30mph speed limit with vehicle activated signage installed. Any further minor measures could easily be considered and designed at the S278 stage.



5.11 The Stage 1/2 Road Safety Audit of the access design does not raise any issues in relation to traffic speeds or junction visibility, reinforcing that the access design as submitted is appropriate.

Car Parking

- 5.12 The level of car parking proposed on the submitted Site Layout Plan accords with the parking standards set out in North Somerset Council's adopted Parking Standards Supplementary Planning Document (SPD). This document identifies the following minimum provision:
 - 1 bedroom- 1.5 spaces per unit;
 - 2 and 3 bedroom 2 spaces per unit; and
 - 4+ bedroom 3 spaces per unit.

Cycle Parking

- 5.13 Cycle parking will be provided in accordance with the minimum standards set out in the abovementioned SPD as follows:
 - 1 bedroom- 1 space per unit
 - 2 and 3 bedroom 2 spaces per unit; and
 - 4+ bedroom 2 spaces per unit.
- 5.14 The details relating to cycle parking will be dealt with at the reserved matters stage.

Pedestrian / Cycle Access

5.15 It is proposed to incorporate a dedicated pedestrian / cycle access into both the southeast and southwest corners of the site from Weston Road. In addition, pedestrians and cyclists will also be able to access the site via the proposed junction arrangement off Weston Road.

Servicing

5.16 The refuse collection strategy will be addressed in detail as part of a reserved matters application, which will include the submission of swept path analysis plans to confirm that a refuse vehicle is able to satisfactorily service all parts of the site. However, at this stage it is envisaged that the illustrative layout submitted as part of this outline application will be capable of achieving a satisfactory refuse collection strategy, through a combination of traditional kerbside collection, communal bin stores, and provision of refuse collection points.



6.0 MULTI-MODAL TRIP GENERATION

- 6.1 This Section of the Report considers the multi-modal trip generation associated with the proposed development. CEC obtained trip rates from the TRICS database for 'Houses Privately Owned'.
- 6.2 All TRICS sites within Greater London and Ireland were excluded from the assessment, as well as sites in Scotland. In terms of location, all 'town centre' and 'edge of town centre' sites were excluded from the assessment.
- 6.3 The Residential TRICS data was filtered according to public transport provision, where a range of between 5 and 120 two-way services was selected, where approximately 90 buses (two-way) pass the site along Weston Road between 0700 and 1900 Monday to Friday. A further filter was applied to limit the number of dwellings to between 6 and 100 units.
- 6.4 The derived trip rates are summarised within Table 6.1 below, whilst the resultant trip generation is displayed within Table 6.2.

Table 6.1: Residential Multi-Modal Trip Rates / Dwelling

| Mode | AM Peak (0800-0900) | | PM Peak (1700-1800) | | Daily (0700-1900) | |
|---------------|------------------------|------------|------------------------|------------|----------------------|------------|
| Mode | Arrivals | Departures | Arrivals | Departures | Arrivals | Departures |
| Total People | 0.261 | 0.816 | 0.580 | 0.264 | 4.013 | 4.155 |
| Vehicle Trips | 0.156 | 0.380 | 0.327 | 0.149 | 2.319 | 2.387 |

Table 6.2: Residential Trip Generation (35 units)

| Ma da | | AM Peak (0800-0900) | | PM Peak (1700-1800) | | Daily (0700-1900) | |
|---------------|----------|------------------------|----------|------------------------|----------|----------------------|--|
| Mode | Arrivals | Departures | Arrivals | Departures | Arrivals | Departures | |
| Total People | 9 | 29 | 20 | 9 | 140 | 145 | |
| Vehicle Trips | 5 | 13 | 11 | 5 | 81 | 84 | |

6.5 Table 6.2 indicates that the proposed 35 residential units is predicted to generate 18 two-way vehicles trips in the AM peak and 16 two-way vehicle trips in the PM peak. A total of 165 vehicular trips are predicted between 0700 and 1900. 38 person trips are predicted during the AM peak, with 29 two-way trips during the PM peak.



6.6 The increase in vehicular trips in the AM and PM peaks is equivalent to approximately 1 additional vehicular movement every 3-4 minutes, which is considered will have a negligible impact on the local highway network. In light of the above, no further consideration has been given to the vehicular impact of the proposed development.



7.0 PERSONAL INJURY ACCIDENT DATA

- 7.1 CEC has obtained Personal Injury Accident Data for the most recent five-year period from North Somerset Council. The accident study area comprises a significant length of Weston Road including the entire site frontage and the junctions with Gatcombe Farm, Wild Country Lane, Warren Lane, Kings Croft and Fenswood Road.
- 7.2 The accident data shows that only one slight accident has occurred within the study area in the last 5 years. Refer to Figure 7.1 below.

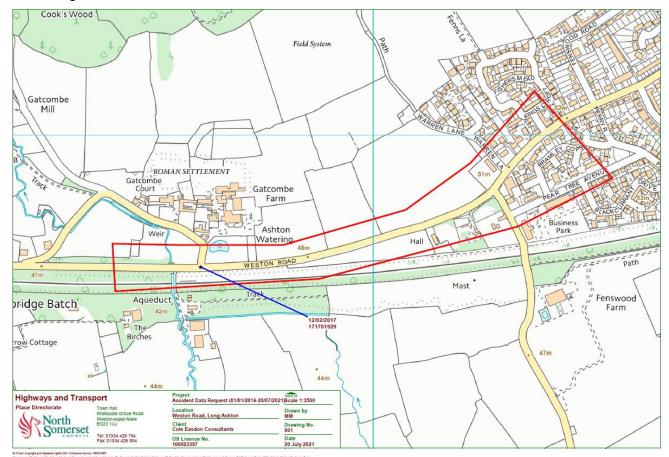


Figure 7.1: Accident Locations



8.0 SUMMARY AND CONCLUSIONS

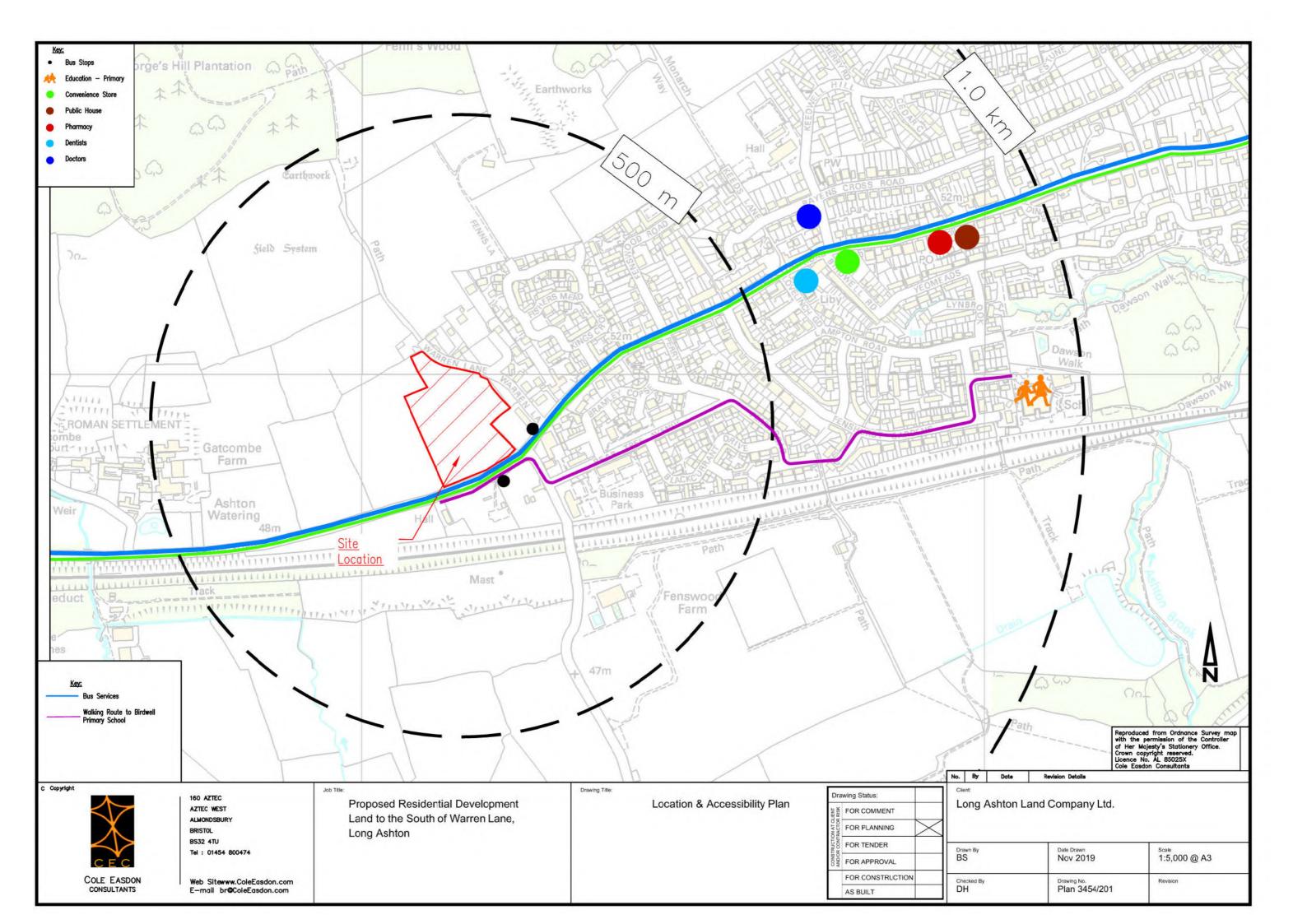
- 8.1 This *Transport Assessment (TA)* has been prepared in support of an outline planning application for the proposed construction of up to 35 residential dwellings on land to the south of Warren Lane, Long Ashton.
- 8.2 The *TA* has provided a thorough and exhaustive analysis of the transportation and highway implications associated with the proposed development, and mitigation measures have been discussed and identified where appropriate.

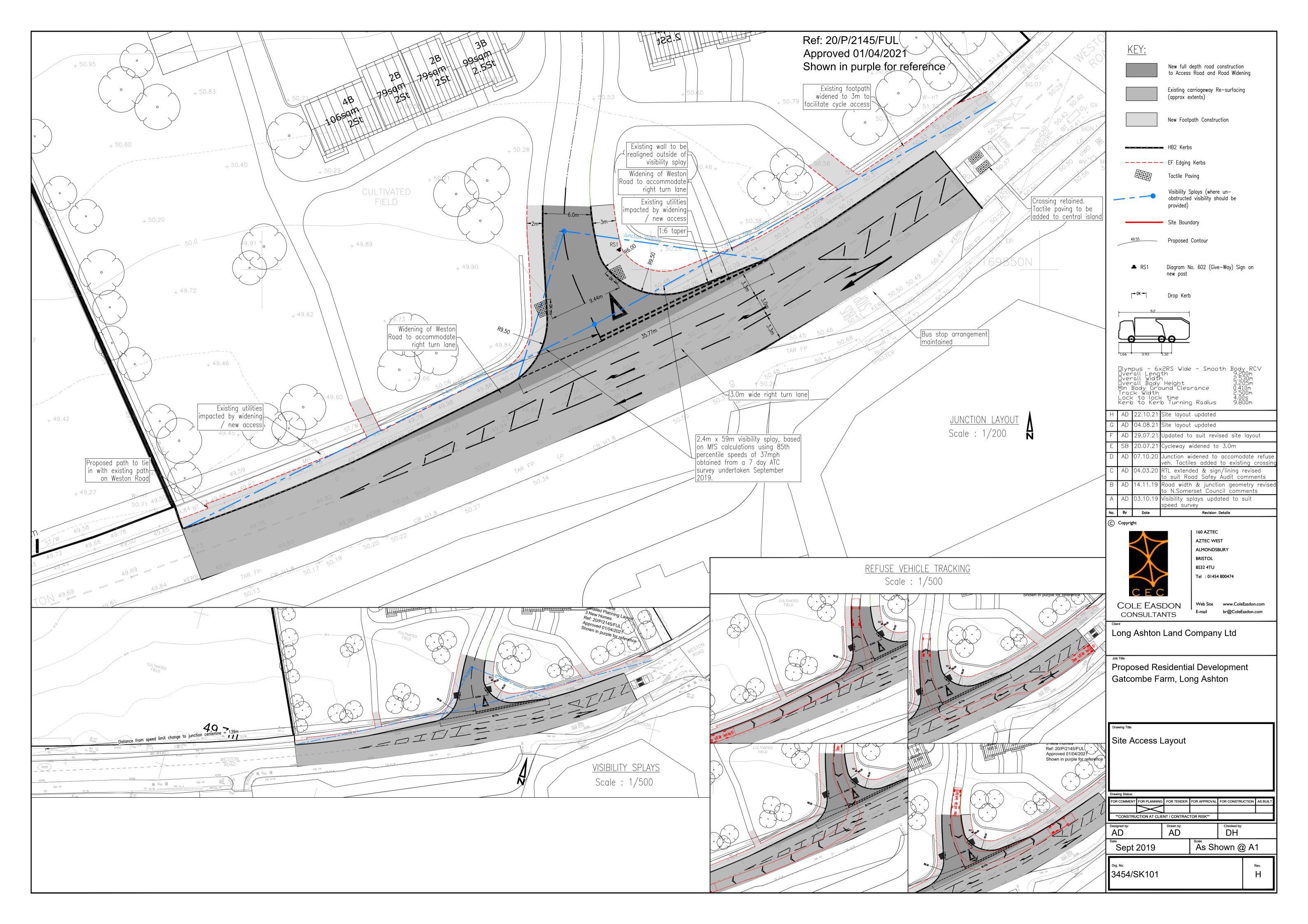
Conclusions

- 8.3 The conclusions of this *TA* are as follows:
 - The site offers good access to the local highway network, with Weston Road facilitating connections to the A370 which links Bristol with Weston-super-Mare;
 - The proposals comply with national and local policy with regard to ensuring that new development is situated where there is good accessibility by public transport, walking, and cycling;
 - The site is accessible by sustainable modes of transport, with typically 3 buses per hour to Bristol and Nailsea, and with hourly services to Weston-super-Mare, Clevedon and Portishead:
 - There are a number of day-to-day services and facilities within walking distance of the site, including primary education, convenience store, GP surgery, pharmacy, and dental surgery;
 - The site offers excellent access to the Festival Way cycle route and future residents will therefore have easy access to a high-quality traffic-free cycle route to Bristol and other neighbouring towns;
 - The site can achieve a suitable vehicular access off Weston Road in the form of a priority junction arrangement;
 - The site can accommodate appropriate levels of vehicular and cycle parking to serve the proposed development; and
 - A review of Personal Injury Accident data for the local area has confirmed that there are no particular safety concerns that would require mitigation works.
- 8.4 CEC considers that there are no highway or transport reasons to preclude the development of this site as proposed.

Cole Easdon Consultants Limited
October 2021

Appendix 1





Appendix 2



Appendix 3

Cole Easdon Consultants Dorcan Way Swindon

Licence No: 228601

Calculation Reference: AUDIT-228601-210723-0715

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : A - HOUSES PRIVATELY OWNED MULTI-MODAL TOTAL VEHICLES

Selected regions and areas: 02 SOUTH EAST SOUTH EAST EAST SUSSEX ES 1 days НС **HAMPSHIRE** 1 days KC KENT 2 days SC **SURREY** 1 days WS WEST SUSSEX 2 days 03 SOUTH WEST DV **DEVON** 2 days SM **SOMERSET** 3 days EAST ANGLIA 04 2 days NF NORFOLK **SUFFOLK** SF 1 days 05 **EAST MIDLANDS** LEICESTERSHIRE 1 days LE WEST MIDLANDS 06 SH SHROPSHIRE 2 days WK WARWICKSHIRE 2 days WM WEST MIDLANDS 1 days YORKSHIRE & NORTH LINCOLNSHIRE 07 NORTH YORKSHIRE NY 4 days 80 NORTH WEST CHESHIRE 3 days CH 09 NORTH DΗ DURHAM 1 days WALES 10 PS **POWYS** 1 days 11 SCOTLAND HIGHLAND 1 days

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

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Friday 23/07/21 Page 2

Cole Easdon Consultants Dorcan Way Swindon Licence No: 228601

Primary Filtering selection:

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

Parameter: No of Dwellings Actual Range: 8 to 99 (units:) Range Selected by User: 6 to 100 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included
Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Monday-Friday 0700-1900

Include days where PT not known: Yes Range: 5 to 120

Date Range: 01/01/13 to 19/11/19

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

Selected survey days:

 Monday
 5 days

 Tuesday
 5 days

 Wednesday
 7 days

 Thursday
 10 days

 Friday
 4 days

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

<u>Selected survey types:</u>

Manual count 31 days
Directional ATC Count 0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)

Edge of Town

Neighbourhood Centre (PPS6 Local Centre)

7

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

Selected Location Sub Categories:

Residential Zone 24
Village 6
No Sub Category 1

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

Secondary Filtering selection:

Use Class:

3 31 days

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

Population within 500m Range:

All Surveys Included

Cole Easdon Consultants Dorcan Way Swindon

Secondary Filtering selection (Cont.):

Population within 1 mile:

| FODUIATION WITHIN T TIME. | |
|---------------------------|---------|
| 1,000 or Less | 1 days |
| 1,001 to 5,000 | 7 days |
| 5,001 to 10,000 | 10 days |
| 10,001 to 15,000 | 5 days |
| 15,001 to 20,000 | 5 days |
| 20,001 to 25,000 | 1 days |
| 25,001 to 50,000 | 2 days |

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

Population within 5 miles:

| 5,001 to 25,000 | 4 days |
|--------------------|--------|
| 25,001 to 50,000 | 5 days |
| 50,001 to 75,000 | 6 days |
| 75,001 to 100,000 | 8 days |
| 100,001 to 125,000 | 1 days |
| 125,001 to 250,000 | 4 days |
| 250,001 to 500,000 | 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 | 26 days |
| 1.6 to 2.0 | 2 days |

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

Travel Plan:

| Yes | 6 days |
|-----|---------|
| No | 25 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 31 days

This data displays the number of selected surveys with PTAL Ratings.

TERRACED HOUSES

Friday 23/07/21 Page 4

Dorcan Way Licence No: 228601 Cole Easdon Consultants Swindon

LIST OF SITES relevant to selection parameters

CHESHIRE

CH-03-A-09 **GREYSTOKE ROAD** MACCLESFIELD HURDSFIELD Edge of Town

Residential Zone

Total No of Dwellings: 24

Survey date: MONDAY 24/11/14 Survey Type: MANUAL

CH-03-A-10 SEMI-DETACHED & TERRACED **CHESHIRE**

MEADOW DRIVE **NORTHWICH BARNTON** Edge of Town Residential Zone

Total No of Dwellings: 40

Survey date: TUESDAY 04/06/19 Survey Type: MANUAL

CH-03-A-11 **TOWN HOUSES CHESHIRE**

LONDON ROAD NORTHWICH **LEFTWICH**

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 24

Survey date: THURSDAY 06/06/19 Survey Type: MANUAL

DH-03-A-03 SEMI-DETACHED & TERRACED DURHAM

PILGRIMS WAY **DURHAM**

Edge of Town Residential Zone

Total No of Dwellings: 57

Survey date: FRIDAY 19/10/18 Survey Type: MANUAL

5 DV-03-A-01 **TERRACED HOUSES DEVON**

BRONSHILL ROAD

TORQUAY

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 37

Survey date: WEDNESDAY 30/09/15 Survey Type: MANUAL

DV-03-A-03 TERRACED & SEMI DETACHED **DEVON**

LOWER BRAND LANE

HONITON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 70

Survey date: MONDAY 28/09/15 Survey Type: MANUAL

ES-03-A-05 MIXED HOUSES & FLATS **EAST SUSSEX**

RATTLE ROAD NEAR EASTBOURNE STONE CROSS Edge of Town Residential Zone

Total No of Dwellings: 99

Survey date: WEDNESDAY 05/06/19 Survey Type: MANUAL

Friday 23/07/21 Page 5

Dorcan Way Licence No: 228601 Cole Easdon Consultants Swindon

LIST OF SITES relevant to selection parameters (Cont.)

HAMPSHIRE HC-03-A-23 **HOUSES & FLATS**

CANADA WAY LIPHOOK

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 62

Survey date: TUESDAY 19/11/19 Survey Type: MANUAL

HI-03-A-14 SEMI-DETACHED & TERRACED **HIGHLAND**

KING BRUDE ROAD **INVERNESS SCORGUIE**

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 40

Survey date: WEDNESDAY 23/03/16 Survey Type: MANUAL

10 KC-03-A-03 MIXED HOUSES & FLATS **KENT**

HYTHE ROAD **ASHFORD**

WILLESBOROUGH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 51

Survey date: THURSDAY 14/07/16 Survey Type: MANUAL

KC-03-A-05 **DETACHED & SEMI-DETACHED KENT**

ROCHESTER ROAD NEAR CHATHAM

BURHAM

Neighbourhood Centre (PPS6 Local Centre)

Village

Total No of Dwellings: 8

22/09/17 Survey Type: MANUAL Survey date: FRIDAY

LE-03-A-02 **DETACHED & OTHERS LEI CESTERSHIRE**

MELBOURNE ROAD

IBSTOCK

Neighbourhood Centre (PPS6 Local Centre)

Village

Total No of Dwellings: 85

Survey date: THURSDAY 28/06/18 Survey Type: MANUAL

NF-03-A-04 MIXED HOUSES NORFOLK 13

NORTH WALSHAM ROAD **NORTH WALSHAM**

Edge of Town Residential Zone

Total No of Dwellings: 70

Survey date: WEDNESDAY 18/09/19 Survey Type: MANUAL

NF-03-A-05 MI XED HOUSES NORFOLK

HEATH DRIVE

HOLT

Edge of Town Residential Zone

Total No of Dwellings: 40

Survey date: THURSDAY 19/09/19 Survey Type: MANUAL NORTH YORKSHIRE

NY-03-A-09 MIXED HOUSING 15

GRAMMAR SCHOOL LANE

NORTHALLERTON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 52

> Survey date: MONDAY 16/09/13 Survey Type: MANUAL

Friday 23/07/21 Page 6

Cole Easdon Consultants Dorcan Way Swindon Licence No: 228601

NORTH YORKSHIRE

LIST OF SITES relevant to selection parameters (Cont.)

16 NY-03-A-10 HOUSES AND FLATS

BOROUGHBRIDGE ROAD RIPON

Edge of Town No Sub Category

Total No of Dwellings: 71

Survey date: TUESDAY 17/09/13 Survey Type: MANUAL
17 NY-03-A-11 PRIVATE HOUSING NORTH YORKSHIRE

HORSEFAIR BOROUGHBRIDGE

> Edge of Town Residential Zone

Total No of Dwellings: 23

Survey date: WEDNESDAY 18/09/13 Survey Type: MANUAL
18 NY-03-A-13 TERRACED HOUSES NORTH YORKSHIRE

CATTERICK ROAD
CATTERICK GARRISON
OLD HOSPITAL COMPOUND
Suburban Area (PPS6 Out of Centre)
Residential Zone

Total No of Dwellings: 10

Survey daté: WEDNESDAY 10/05/17 Survey Type: MANUAL

19 PS-03-A-02 DETACHED/SEMI-DETACHED POWYS

GUNROG ROAD WELSHPOOL

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 28

Survey date: MONDAY 11/05/15 Survey Type: MANUAL

20 SC-03-A-04 DETACHED & TERRACED SURREY

HIGH ROAD BYFLEET

Edge of Town
Residential Zone
Total No. of Dwellin

Total No of Dwellings: 71

Survey date: THURSDAY 23/01/14 Survey Type: MANUAL

21 SF-03-A-06 DETACHED & SEMI-DETACHED SUFFOLK

BURY ROAD KENTFORD

Neighbourhood Centre (PPS6 Local Centre)

Village

Total No of Dwellings: 38

Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

22 SH-03-A-05 SEMI-DETACHED/TERRACED SHROPSHIRE

SANDCROFT TELFORD SUTTON HILL Edge of Town Residential Zone Total No of Dwellings:

Total No of Dwellings: 54

Survey date: THURSDAY 24/10/13 Survey Type: MANUAL

23 SH-03-A-06 BUNGALOWS SHROPSHIRE

ELLESMERE ROAD SHREWSBURY

Edge of Town
Residential Zone

Total No of Dwellings: 16

Survey date: THURSDAY 22/05/14 Survey Type: MANUAL

Cole Easdon Consultants Dorcan Way Swindon Licence No: 228601

LIST OF SITES relevant to selection parameters (Cont.)

SOMERSET SM-03-A-01 **DETACHED & SEMI** WEMBDON ROAD **BRIDGWATER** NORTHFIELD Edge of Town Residential Zone Total No of Dwellings: 33 Survey date: THURSDAY 24/09/15 Survey Type: MANUAL 25 SM-03-A-02 MI XED HOUSES SOMERSET **HYDE LANE NEAR TAUNTON** CREECH SAINT MICHAEL Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 42 Survey date: TUESDAY 25/09/18 Survey Type: MANUAL 26 SM-03-A-03 MIXED HOUSES SOMERSET HYDE LANE **NEAR TAUNTON** CREECH ST MICHAEL Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 41 Survey date: TUESDAY 25/09/18 Survey Type: MANUAL WK-03-A-02 **BUNGALOWS WARWICKSHIRE** NARBERTH WAY **COVENTRY** POTTERS GREEN Edge of Town Residential Zone Total No of Dwellings: 17 Survey Type: MANUAL Survey date: THURSDAY 17/10/13 WK-03-A-04 **DETACHED HOUSES** WARWICKSHIRE DALEHOUSE LANE **KENILWORTH** Edge of Town Residential Zone 49 Total No of Dwellings: Survey date: FRIDAY 27/09/19 Survey Type: MANUAL WM-03-A-04 **TERRACED HOUSES** WEST MIDLANDS 29 **OSBORNE ROAD COVENTRY EARLSDON** Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings: 39 Survey date: MONDAY 21/11/16 Survey Type: MANUAL 30 WS-03-A-07 **BUNGALOWS** WEST SUSSEX **EMMS LANE NEAR HORSHAM BROOKS GREEN** Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 57 Survey date: THURSDAY 19/10/17 Survey Type: MANUAL WS-03-A-10 MI XED HOUSES WEST SUSSEX **TODDINGTON LANE** LITTLEHAMPTON WICK Edge of Town Residential Zone Total No of Dwellings: 79 Survey date: WEDNESDAY 07/11/18 Survey Type: MANUAL

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

Cole Easdon Consultants

Dorcan Way Swindon

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

MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

| | | ARRIVALS | | [| DEPARTURES | | | TOTALS | |
|---------------|------|----------|-------|------|------------|-------|------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 31 | 46 | 0.081 | 31 | 46 | 0.327 | 31 | 46 | 0.408 |
| 08:00 - 09:00 | 31 | 46 | 0.156 | 31 | 46 | 0.380 | 31 | 46 | 0.536 |
| 09:00 - 10:00 | 31 | 46 | 0.156 | 31 | 46 | 0.186 | 31 | 46 | 0.342 |
| 10:00 - 11:00 | 31 | 46 | 0.132 | 31 | 46 | 0.176 | 31 | 46 | 0.308 |
| 11:00 - 12:00 | 31 | 46 | 0.147 | 31 | 46 | 0.162 | 31 | 46 | 0.309 |
| 12:00 - 13:00 | 31 | 46 | 0.167 | 31 | 46 | 0.163 | 31 | 46 | 0.330 |
| 13:00 - 14:00 | 31 | 46 | 0.172 | 31 | 46 | 0.171 | 31 | 46 | 0.343 |
| 14:00 - 15:00 | 31 | 46 | 0.172 | 31 | 46 | 0.186 | 31 | 46 | 0.358 |
| 15:00 - 16:00 | 31 | 46 | 0.265 | 31 | 46 | 0.175 | 31 | 46 | 0.440 |
| 16:00 - 17:00 | 31 | 46 | 0.297 | 31 | 46 | 0.167 | 31 | 46 | 0.464 |
| 17:00 - 18:00 | 31 | 46 | 0.327 | 31 | 46 | 0.149 | 31 | 46 | 0.476 |
| 18:00 - 19:00 | 31 | 46 | 0.247 | 31 | 46 | 0.145 | 31 | 46 | 0.392 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 2.319 | | | 2.387 | | | 4.706 |

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

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

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Parameter summary

Trip rate parameter range selected: 8 - 99 (units:)
Survey date date range: 01/01/13 - 19/11/19

Number of weekdays (Monday-Friday): 31
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 4
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.

Cole Easdon Consultants

Dorcan Way Swindon

Licence No: 228601

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

MULTI-MODAL TOTAL PEOPLE Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

| | ARRIVALS | | | [| DEPARTURES | | | TOTALS | |
|---------------|----------|--------|-------|------|------------|-------|------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 31 | 46 | 0.124 | 31 | 46 | 0.556 | 31 | 46 | 0.680 |
| 08:00 - 09:00 | 31 | 46 | 0.261 | 31 | 46 | 0.816 | 31 | 46 | 1.077 |
| 09:00 - 10:00 | 31 | 46 | 0.259 | 31 | 46 | 0.322 | 31 | 46 | 0.581 |
| 10:00 - 11:00 | 31 | 46 | 0.200 | 31 | 46 | 0.292 | 31 | 46 | 0.492 |
| 11:00 - 12:00 | 31 | 46 | 0.233 | 31 | 46 | 0.238 | 31 | 46 | 0.471 |
| 12:00 - 13:00 | 31 | 46 | 0.269 | 31 | 46 | 0.258 | 31 | 46 | 0.527 |
| 13:00 - 14:00 | 31 | 46 | 0.269 | 31 | 46 | 0.260 | 31 | 46 | 0.529 |
| 14:00 - 15:00 | 31 | 46 | 0.272 | 31 | 46 | 0.273 | 31 | 46 | 0.545 |
| 15:00 - 16:00 | 31 | 46 | 0.599 | 31 | 46 | 0.349 | 31 | 46 | 0.948 |
| 16:00 - 17:00 | 31 | 46 | 0.537 | 31 | 46 | 0.290 | 31 | 46 | 0.827 |
| 17:00 - 18:00 | 31 | 46 | 0.580 | 31 | 46 | 0.264 | 31 | 46 | 0.844 |
| 18:00 - 19:00 | 31 | 46 | 0.410 | 31 | 46 | 0.237 | 31 | 46 | 0.647 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | · | | | • | | |
| Total Rates: | | | 4.013 | | | 4.155 | | | 8.168 |

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.

Appendix 4



Weston Road, Long Ashton (West Site)

Site No. 503501

Site Ref. 502501

Weston Road (West)

Speed Report (Speed Limit 30 Mph) Week Begin: 18 September 2019 Channel: Westbound

| | Total Volume | 85th Percentile | Mean Average | Standard Deviation | Bin 1 <10Mph | Bin 2 10-<15 | Bin 3 15-<20 | Bin 4 20-<25 | Bin 5 25-<30 | Bin 6 30-<35 | Bin 7 35-<40 | Bin 8 40-<45 | Bin 9 45-<50 | Bin 10 50-<55 | Bin 11 55-<60 | Bin 12 60-<65 | Bin 13 =>65 |
|------------|-----------------|--------------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|----------------|
| Wed 18 Sep | 2327 | 40 | 35 | 6 | 0 | 5 | 73 | 120 | 203 | 748 | 818 | 257 | 74 | 23 | 3 | 0 | 3 |
| Thu 19 Sep | 2257 | 41 | 35 | 6 | 1 | 9 | 73 | 83 | 179 | 724 | 776 | 303 | 76 | 23 | 3 | 4 | 3 |
| Fri 20 Sep | 2279 | 42 | 35 | 6 | 0 | 8 | 47 | 91 | 191 | 720 | 776 | 327 | 84 | 22 | 7 | 3 | 3 |
| Sat 21 Sep | 1986 | 42 | 35 | 7 | 1 | 9 | 44 | 84 | 158 | 628 | 631 | 298 | 98 | 19 | 10 | 4 | 2 |
| Sun 22 Sep | 1262 | 43 | 36 | 7 | 0 | 5 | 18 | 22 | 110 | 366 | 429 | 218 | 67 | 19 | 7 | 0 | 1 |
| Mon 23 Sep | 1958 | 41 | 35 | 6 | 3 | 9 | 59 | 59 | 160 | 677 | 661 | 252 | 58 | 17 | 2 | 1 | 0 |
| Tue 24 Sep | 1428 | 41 | 35 | 6 | 0 | 7 | 50 | 70 | 140 | 438 | 467 | 198 | 43 | 12 | 1 | 2 | 0 |
| 5 Day Ave. | 2050 | 41 | 35 | 6 | 1 | 8 | 60 | 85 | 175 | 661 | 700 | 267 | 67 | 19 | 3 | 2 | 2 |
| 7 Day Ave. | 1928 | 41 | 35 | 6 | 1 | 7 | 52 | 76 | 163 | 614 | 651 | 265 | 71 | 19 | 5 | 2 | 2 |

PCC Traffic Information Consultancy Ltd.

Site No. 503501

Site Ref. 502501

Weston Road (West)

Speed Report (Speed Limit 30 Mph)

Week Begin: 18 September 2019

Channel: Eastbound

| | Total Volume | 85th Percentile | Mean Average | Standard Deviation | Bin 1 <10Mph | Bin 2 10-<15 | Bin 3 15-<20 | Bin 4 20-<25 | Bin 5 25-<30 | Bin 6 30-<35 | Bin 7 35-<40 | Bin 8 40-<45 | Bin 9 45-<50 | Bin 10 50-<55 | Bin 11 55-<60 | Bin 12 60-<65 | Bin 13 =>65 |
|------------|-----------------|--------------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|----------------|
| Wed 18 Sep | 2278 | 36 | 30 | 7 | 1 | 88 | 147 | 149 | 846 | 622 | 299 | 86 | 26 | 11 | 1 | 0 | 2 |
| Thu 19 Sep | 2191 | 37 | 30 | 7 | 3 | 83 | 127 | 157 | 814 | 558 | 299 | 108 | 26 | 6 | 8 | 2 | 0 |
| Fri 20 Sep | 2204 | 36 | 30 | 7 | 1 | 89 | 120 | 130 | 821 | 627 | 294 | 97 | 16 | 7 | 1 | 0 | 1 |
| Sat 21 Sep | 1947 | 37 | 30 | 7 | 5 | 80 | 84 | 101 | 745 | 525 | 262 | 105 | 32 | 5 | 3 | 0 | 0 |
| Sun 22 Sep | 1293 | 38 | 31 | 7 | 0 | 17 | 38 | 62 | 495 | 318 | 249 | 79 | 23 | 9 | 2 | 1 | 0 |
| Mon 23 Sep | 2124 | 35 | 29 | 6 | 6 | 43 | 83 | 200 | 919 | 559 | 233 | 64 | 12 | 3 | 2 | 0 | 0 |
| Tue 24 Sep | 1527 | 36 | 30 | 6 | 6 | 18 | 50 | 182 | 597 | 418 | 179 | 59 | 11 | 6 | 1 | 0 | 0 |
| 5 Day Ave. | 2065 | 36 | 30 | 7 | 3 | 64 | 105 | 164 | 799 | 557 | 261 | 83 | 18 | 7 | 3 | 0 | 1 |
| 7 Day Ave. | 1938 | 37 | 30 | 7 | 3 | 60 | 93 | 140 | 748 | 518 | 259 | 85 | 21 | 7 | 3 | 0 | 0 |

Site No. 503501 Site Ref. 502501

Weston Road (West)

Speed Report (Speed Limit 30 Mph)

Week Begin: 18 September 2019

Channel: Total Flow

| | Total Volume | 85th Percentile | Mean Average | Standard Deviation | Bin 1 <10Mph | Bin 2 10-<15 | Bin 3 15-<20 | Bin 4 20-<25 | Bin 5 25-<30 | Bin 6 30-<35 | Bin 7 35-<40 | Bin 8 40-<45 | Bin 9 45-<50 | Bin 10 50-<55 | Bin 11 55-<60 | Bin 12 60-<65 | Bin 13 =>65 |
|------------|-----------------|--------------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|----------------|
| Wed 18 Sep | 4605 | 39 | 32 | 7 | 1 | 93 | 220 | 269 | 1049 | 1370 | 1117 | 343 | 100 | 34 | 4 | 0 | 5 |
| Thu 19 Sep | 4448 | 40 | 32 | 7 | 4 | 92 | 200 | 240 | 993 | 1282 | 1075 | 411 | 102 | 29 | 11 | 6 | 3 |
| Fri 20 Sep | 4483 | 40 | 33 | 7 | 1 | 97 | 167 | 221 | 1012 | 1347 | 1070 | 424 | 100 | 29 | 8 | 3 | 4 |
| Sat 21 Sep | 3933 | 40 | 33 | 7 | 6 | 89 | 128 | 185 | 903 | 1153 | 893 | 403 | 130 | 24 | 13 | 4 | 2 |
| Sun 22 Sep | 2555 | 41 | 34 | 7 | 0 | 22 | 56 | 84 | 605 | 684 | 678 | 297 | 90 | 28 | 9 | 1 | 1 |
| Mon 23 Sep | 4082 | 39 | 32 | 7 | 9 | 52 | 142 | 259 | 1079 | 1236 | 894 | 316 | 70 | 20 | 4 | 1 | 0 |
| Tue 24 Sep | 2955 | 39 | 32 | 7 | 6 | 25 | 100 | 252 | 737 | 856 | 646 | 257 | 54 | 18 | 2 | 2 | 0 |
| 5 Day Ave. | 4115 | 39 | 32 | 7 | 4 | 72 | 166 | 248 | 974 | 1218 | 960 | 350 | 85 | 26 | 6 | 2 | 2 |
| 7 Day Ave. | 3866 | 40 | 33 | 7 | 4 | 67 | 145 | 216 | 911 | 1133 | 910 | 350 | 92 | 26 | 7 | 2 | 2 |



Weston Road, Long Ashton (East Site)

Site No. 503502

Site Ref. 503502

Weston Road (East)

Speed Report (Speed Limit 30 Mph)

Week Begin: 18 September 2019

Channel: Westbound

Channel: Eastbound

| | Total Volume | 85th Percentile | Mean Average | Standard Deviation | Bin 1 <10Mph | Bin 2 10-<15 | Bin 3 15-<20 | Bin 4 20-<25 | Bin 5 25-<30 | Bin 6 30-<35 | Bin 7 35-<40 | Bin 8 40-<45 | Bin 9 45-<50 | Bin 10 50-<55 | Bin 11 55-<60 | Bin 12 60-<65 | Bin 13 =>65 |
|------------|-----------------|--------------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|----------------|
| Wed 18 Sep | 2414 | 33 | 26 | 8 | 19 | 303 | 259 | 335 | 753 | 575 | 132 | 32 | 4 | 1 | 1 | 0 | 0 |
| Thu 19 Sep | 2350 | 34 | 26 | 8 | 12 | 311 | 247 | 283 | 707 | 584 | 165 | 33 | 6 | 2 | 0 | 0 | 0 |
| Fri 20 Sep | 2378 | 34 | 27 | 7 | 11 | 269 | 224 | 267 | 718 | 642 | 198 | 38 | 8 | 3 | 0 | 0 | 0 |
| Sat 21 Sep | 2003 | 35 | 28 | 7 | 7 | 190 | 144 | 162 | 524 | 664 | 251 | 46 | 11 | 3 | 0 | 0 | 1 |
| Sun 22 Sep | 1269 | 35 | 28 | 7 | 10 | 144 | 74 | 68 | 344 | 427 | 155 | 37 | 9 | 1 | 0 | 0 | 0 |
| Mon 23 Sep | 2311 | 34 | 26 | 8 | 16 | 308 | 226 | 198 | 715 | 637 | 183 | 26 | 2 | 0 | 0 | 0 | 0 |
| Tue 24 Sep | 2215 | 34 | 27 | 8 | 11 | 308 | 171 | 202 | 666 | 633 | 188 | 32 | 3 | 1 | 0 | 0 | 0 |
| 5 Day Ave. | 2334 | 34 | 26 | 8 | 14 | 300 | 225 | 257 | 712 | 614 | 173 | 32 | 5 | 1 | 0 | 0 | 0 |
| 7 Day Ave. | 2134 | 34 | 27 | 7 | 12 | 262 | 192 | 216 | 632 | 595 | 182 | 35 | 6 | 2 | 0 | 0 | 0 |

PCC Traffic Information Consultancy Ltd.

Site No. 503502

Site Ref. 503502

Weston Road (East)

Speed Report (Speed Limit 30 Mph)

Week Begin: 18 September 2019

| | Total Volume | 85th Percentile | Mean Average | Standard Deviation | Bin 1 <10Mph | Bin 2 10-<15 | Bin 3 15-<20 | Bin 4 20-<25 | Bin 5 25-<30 | Bin 6 30-<35 | Bin 7 35-<40 | Bin 8 40-<45 | Bin 9 45-<50 | Bin 10 50-<55 | Bin 11 55-<60 | Bin 12 60-<65 | Bin 13 =>65 |
|------------|-----------------|--------------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|----------------|
| Wed 18 Sep | 2003 | 32 | 26 | 6 | 16 | 90 | 268 | 363 | 805 | 334 | 101 | 20 | 5 | 0 | 1 | 0 | 0 |
| Thu 19 Sep | 1963 | 33 | 26 | 7 | 10 | 105 | 264 | 328 | 796 | 321 | 105 | 26 | 6 | 2 | 0 | 0 | 0 |
| Fri 20 Sep | 1984 | 32 | 26 | 6 | 5 | 76 | 274 | 325 | 844 | 337 | 102 | 17 | 3 | 0 | 1 | 0 | 0 |
| Sat 21 Sep | 1772 | 33 | 27 | 6 | 9 | 46 | 178 | 291 | 748 | 358 | 103 | 33 | 4 | 1 | 1 | 0 | 0 |
| Sun 22 Sep | 1223 | 34 | 27 | 6 | 1 | 33 | 138 | 170 | 511 | 256 | 84 | 22 | 7 | 1 | 0 | 0 | 0 |
| Mon 23 Sep | 2033 | 31 | 25 | 6 | 8 | 101 | 273 | 405 | 874 | 299 | 61 | 10 | 2 | 0 | 0 | 0 | 0 |
| Tue 24 Sep | 1966 | 32 | 26 | 6 | 12 | 84 | 264 | 354 | 797 | 351 | 86 | 14 | 4 | 0 | 0 | 0 | 0 |
| 5 Day Ave. | 1990 | 32 | 26 | 6 | 10 | 91 | 269 | 355 | 823 | 328 | 91 | 17 | 4 | 0 | 0 | 0 | 0 |
| 7 Day Ave. | 1849 | 33 | 26 | 6 | 9 | 76 | 237 | 319 | 768 | 322 | 92 | 20 | 4 | 1 | 0 | 0 | 0 |

Site No. 503502 Site Ref. 503502

Weston Road (East)

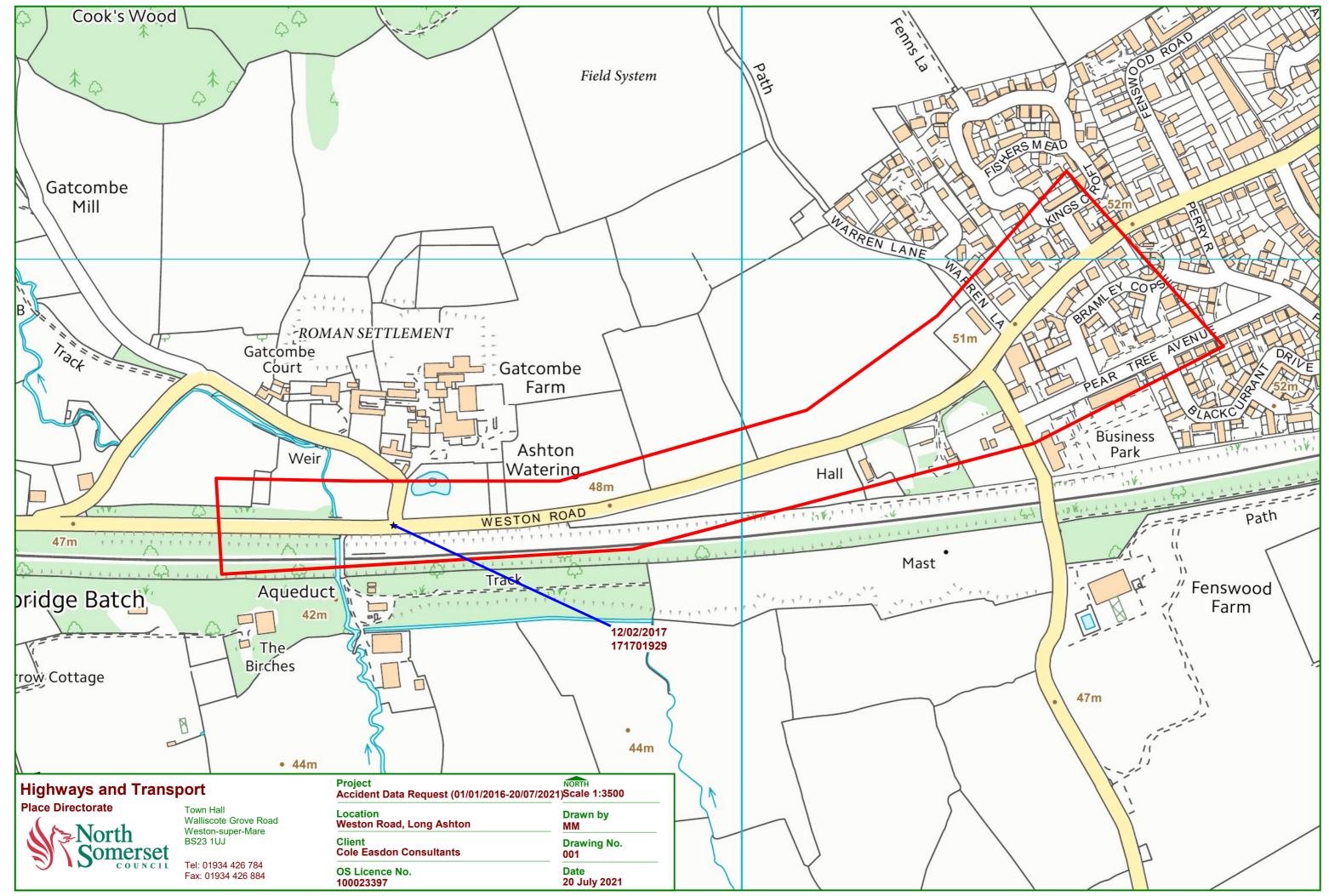
Speed Report (Speed Limit 30 Mph)

Week Begin: 18 September 2019

Channel: Total Flow

| | Total Volume | 85th Percentile | Mean Average | Standard Deviation | Bin 1 <10Mph | Bin 2 10-<15 | Bin 3 15-<20 | Bin 4 20-<25 | Bin 5 25-<30 | Bin 6 30-<35 | Bin 7 35-<40 | Bin 8 40-<45 | Bin 9 45-<50 | Bin 10 50-<55 | Bin 11 55-<60 | Bin 12 60-<65 | Bin 13 =>65 |
|------------|-----------------|--------------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|----------------|
| Wed 18 Sep | 4417 | 33 | 26 | 7 | 35 | 393 | 527 | 698 | 1558 | 909 | 233 | 52 | 9 | 1 | 2 | 0 | 0 |
| Thu 19 Sep | 4313 | 33 | 26 | 7 | 22 | 416 | 511 | 611 | 1503 | 905 | 270 | 59 | 12 | 4 | 0 | 0 | 0 |
| Fri 20 Sep | 4362 | 34 | 26 | 7 | 16 | 345 | 498 | 592 | 1562 | 979 | 300 | 55 | 11 | 3 | 1 | 0 | 0 |
| Sat 21 Sep | 3775 | 34 | 28 | 7 | 16 | 236 | 322 | 453 | 1272 | 1022 | 354 | 79 | 15 | 4 | 1 | 0 | 1 |
| Sun 22 Sep | 2492 | 35 | 28 | 7 | 11 | 177 | 212 | 238 | 855 | 683 | 239 | 59 | 16 | 2 | 0 | 0 | 0 |
| Mon 23 Sep | 4344 | 33 | 26 | 7 | 24 | 409 | 499 | 603 | 1589 | 936 | 244 | 36 | 4 | 0 | 0 | 0 | 0 |
| Tue 24 Sep | 4181 | 33 | 26 | 7 | 23 | 392 | 435 | 556 | 1463 | 984 | 274 | 46 | 7 | 1 | 0 | 0 | 0 |
| 5 Day Ave. | 4323 | 33 | 26 | 7 | 24 | 391 | 494 | 612 | 1535 | 943 | 264 | 50 | 9 | 2 | 1 | 0 | 0 |
| 7 Day Ave. | 3983 | 34 | 27 | 7 | 21 | 338 | 429 | 536 | 1400 | 917 | 273 | 55 | 11 | 2 | 1 | 0 | 0 |

Appendix 5



TRAFFMAP INTERPRETED LISTING Run on: 07/20/2021

AccsMap - Accident Analysis System

Accidents between dates 01/01/2016 and 28/02/2021 (62) months Selection: Notes:

Selected using Pre-defined Query:

171701929 12/02/2017 Sunday Time 1340 Vehicles 2 Casualties 1 Slight

Fine without high winds Road surface Dry Daylight

Special Conditions None Road Type Single carriageway

V1 HAS BEEN INDICATING RIGHT & STARTED TO TURN. V2 HAS BEEN OVERTAKING & HIT THE OFFSIDE FRONT WHEEL

& BUCKET OF V1 - UKNOWN REG V1 BUT IS A CAR (FORD)

Occurred on WESTON ROAD, LONG ASHTON

Vehicle Reference 1 Car Turning right

No skidding, jack-knifing or overturning Not in restricted lane Breath test Negative First point of impact Age of Driver 45 Offside Vehicle direction Ε to N Driver Postcode **BS419BS** FRV Not foreign registered vehicle Journey Unknown

Left hand drive No

Vehicle Reference 2 Car Overtaking moving vehicle on its offside

Not in restricted lane

No skidding, jack-knifing or overturning

First point of impact Nearside Age of Driver 47 Breath test Negative Vehicle direction E to W Driver Postcode SN105FQ FRV Not foreign registered vehicle Journey Unknown

Left hand drive No

Casualty Reference: 1 Age: 42 Female Passenger Severity: Slight

Accidents involving:

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

Casualties:

| | Fatal | Serious | Slight | Total |
|------------------|-------|---------|--------|-------|
| Vehicle driver | 0 | 0 | 0 | 0 |
| Passenger | 0 | 0 | 1 | 1 |
| Motorcycle rider | 0 | 0 | 0 | 0 |
| Cyclist | 0 | 0 | 0 | 0 |
| Pedestrian | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 1 | 1 |

Registered to: North Somerset Council

Appendix 6

Trafficmanagementconsultants@hotmail.co.uk



Unit 2 71A Hamilton Road READING RG1 5RA

07771 557382

Combined Stage 1/2 (Feasibly/Detailed Design) Road Safety Audit Report (Designers response)

14 Aintree Lane Liverpool L10 2JL

Location: Gatcombe Farm, Weston Road, Long Ashton, North Somerset

Proposed Residential Development Section 278 Highway works

Produced for: Cole Easdon Consultants

Date: 20th February 2020



Prepared by:

Peter Ronald: I.Eng, AMICE, MCIHT, MSoRSA, (HE RSA CofC) Steve Sully: I.Eng, FIHE, (HE RSA CofC), RegRSA(IHE)



Contents

- 1 Executive Summary
- 2 Introduction
- 3 Historical Summary
- 4 Existing Environment
- 5 Accident/Collision History
- 6 Survey Information
- 7 Project
- 8 Departures from Standards
- 9 Safety Audit Assessment
- 10 Nil Response/Comments
- 11 Non-Motorised User Report
- 12 Auditors' Statement

Appendix Road Safety Audit Response Auditors' Comments

Drawing Details

Other documents



DOCUMENT CONTROL SHEET

Project Name: Proposed Residential Development, Gatcombe Farm, Weston Road, North

Somerset

Report Title: Combined Stage 1/2 (Feasibility/Detailed Design) Road Safety Audit

Section 278 Highway Works

Date: 20th February 2020

Client: Cole Easdon Consultants

| Audit Team | | | |
|-----------------------|--------------|---------------------|------------|
| | Name | Position | Date |
| Audit Team Leader: | Peter Ronald | Director | 20/02/2020 |
| Audit Team Member: | Steve Sully | Road Safety Auditor | 20/02/2020 |
| Approved By: | Peter Ronald | Director | 20/02/2020 |

| Revision History | | | | | | | | | | | |
|------------------|------------|------------------------|----------------------|----------------------|----------|--|--|--|--|--|--|
| Revision | Date | Description | Audit Team Leader | Audit Team Member | Approved | | | | | | |
| А | 20/02/2020 | Final | PR | SS | PR | | | | | | |
| В | 6/3/2020 | Auditor response added | PR | | | | | | | | |

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1. Executive Summary

This scheme is promoted by Long Ashton Land Company. This combined Stage 1/2 (Feasibility/Detailed Design) Road Safety Audit Report is provided under the provisions of the Safety Audit request dated 15th November 2019.

2. Introduction

Traffic Management Consultants have been commissioned by Cole Easdon Consultants, to carry out a combined Stage 1/2 (Feasibility/Detailed Design) Road Safety Audit, associated with a residential development that is proposed to be constructed on land off the northern side of Weston Road, Long Ashton in North Somerset.

The Audit Team consisted of:

Peter Ronald: IEng, AMICE, MCIHT, MSoRSA, HA RSA Cert of Comp Steve Sully: IEng, FIHE, HA RSA Cert of Comp, RegRSA(IHE)

A daytime site visit was made on 18th February 2020 between the hours of 2.00pm and 2.30pm Traffic flows were observed to be low. The Audit Team observed numbers of pedal cyclists riding both on and off carriageway along Weston Road. There were a few pedestrians observed. The weather conditions were cloudy and dry. Traffic speeds were perceived to be within the posted 30mph speed limit along Weston Road.

The Audit comprised an examination of the drawings provided by Cole Easdon Consultants and any additional support documents completed by the Audit Team as listed in the Appendices.

The terms of reference of the audit are based on "Guidelines for the Safety Audit of Highway Schemes" published by the Institution of Highways and Transportation, other guidance references, the Traffic Signs Regulations and General Directions 2016 (as amended), and the Highways England Standard GG 119 – Road Safety Audits.

The Audit Team have examined and reported only on the road safety implications, i.e. road safety matters, of the design as presented in the supplied drawings.

All safety issues are with reference to the specific design details shown on the drawings.

Each of the Audit Team's responses is classified as either a 'Problem' or a 'Nil Response/Comment'. Items classified as a 'Problem' denote matters likely to result in significant road safety hazards. Items marked as 'Nil Response/Comment' are less serious, but worthy of consideration by the Designer and/or by the Overseeing Organisation.

Although all of the problems identified are considered to be of sufficient importance to require action, the table below shows their relative urgency based on the risk perceived by the Road Safety Auditors. The level of risk assigned to each problem is largely subjective and is only intended as a guide to assist the client in determining the priority of the issues raised.



| Severity / Risk Level | Probability | | | | | |
|--------------------------|------------------------------|-------------------------------|---------------------------------|----------------------|------------|--|
| | Frequent | Probable | Occasional | Remote | Improbable | |
| Catastrophic | **** Problem**** (Urgent) | | | | | |
| Critical | | *** Problem*** (High Risk) | | | | |
| Major | | | **Problem** (Medium Risk) | | | |
| Minor | | | | *Problem* (Low Risk) | | |
| Negligible | | | | | Comment | |

3. Historical Summary

The land on which the proposed residential development site is to be constructed is currently a rural field.

4. Existing Environment

Weston Road is a distributor road linking Long Ashton to the north east and onward to Bristol, and Weston Super Mare/M5 Motorway via the A370 to the south west.

Weston Road in the immediate vicinity of the proposed residential development site currently has a footway along its north side, and an off-carriageway shared-use footway/cycleway route along its southern side. A system of highway lighting exists along Weston Road and is subject to a posted 30mph speed limit.

Bus stop facilities exist on both sides of Weston Road in close proximity to the proposed residential development site.

5. Accident / Collision History

No personal injury collision data has been provided to the Audit Team for consideration.

6. Survey Information

No traffic survey data has been provided to the Audit Team for consideration.

7. Project

To construct a new residential development on land off the north side of Weston Road. The means of access taking the form of a simple give-way major/minor priority-controlled junction incorporating the construction of a ghost-island with dedicated right turn lane on Weston Road.



8. Departures from Standards

The Audit Team have not been advised about any Departures from Standards agreed between the Design Organisation and the Overseeing Organisation relating to the highway infrastructure changes proposed in support of the proposed residential development.

9. Stage 1/2 - Audit Assessment

The table below summarises the findings from this audit which are described in detail on following pages.

| | Item | Comments | Notes |
|-------|---------------------------------------|----------|---|
| A1 | General | | |
| A1.1 | Departures from Standards | | |
| A1.2 | Cross-sections | | |
| A1.3 | Cross-sectional Variation | | |
| A1.4 | Drainage | | (9.5) Risk of slip hazards presented to pedestrians using the proposed crossing point due to potential water ponding problems and formation of ice during freezing weather conditions. |
| A1.5 | Landscaping | | |
| A1.6 | Public Utilities / Services Apparatus | | |
| A1.7 | Lay-bys | | |
| A1.8 | Access | | |
| A1.9 | Emergency Vehicles | | |
| A1.10 | Future Widening | | |
| A1.11 | Adjacent Development | | |
| A1.12 | Basic Design Principles | | |
| A2 | Local Alignment | | |
| A2.1 | Visibility | | |
| A2.2 | New/Existing Road Interface | | |
| A2.3 | Vertical Alignment | | |
| A3 | Junctions | | |
| A3.1 | Layout | | (9.4) Risk of rear-end-shunt vehicle collisions occurring due to insufficient deceleration length of the proposed right turn lane and vehicles obstructing westbound vehicles on Weston Road. |
| A3.2 | Visibility | | |
| A4 | Non-Motorised User Provision | | |
| A4.1 | Adjacent land | | |
| A4.2 | Pedestrian/cycle routes provided | | |
| A4.3 | Facilities adequate | | |
| A4.4 | Separation from carriageway | | |



| A4.5 | Special requirements elderly/young infirm/mobility/visually impaired | | (9.3) Risk of trip/slip/fall hazards presented to mobility and visually impaired pedestrians due to absence of dropped kerbs at the proposed uncontrolled pedestrian crossing point. |
|------|--|---------|---|
| A4.6 | Tactile paving/guardrails | | |
| A4.7 | Junctions | | |
| A4.8 | Routes clear of obstruction | | |
| A4.9 | Equestrians | | |
| A5 | Road Signs, Carriageway Markings And Lighting | | |
| A5.1 | Signs | | (9.2) Risk of side-impact collisions occurring between motor vehicles exiting the proposed development access with other vehicles travelling along Weston Road due to failure to stop and give way. |
| A5.2 | Lighting | Problem | (9.1) Risk of collisions occurring between motor vehicles, pedal cyclists and pedestrians during the hours of darkness conditions due to inadequate levels of highway lighting. |
| A5.3 | Poles and Columns | | |
| A5.4 | Road Markings | | (9.2) Risk of side-impact collisions occurring between motor vehicles exiting the proposed development access with other vehicles travelling along Weston Road due to failure to stop and give way. |

9.1 **Problem** (item A5.2)

Location: Weston Road, proposed development access.

Summary: Risk of collisions occurring between motor vehicles, pedal cyclists and pedestrians

during the hours of darkness conditions due to inadequate levels of highway lighting.

Description: Observation was made that highway lighting does exist along the south side of Weston Road in the immediate vicinity of the proposed residential development access. However, the existing highway lighting provision may not be suitable and sufficient to ensure that hazardous conditions are not presented to road users on the approaches to, and at, the proposed residential development access during the hours of darkness.

Type of conflict/collision: Risk of side-impact and rear-end-shunt motor vehicle, and non-motorised road user collisions occurring due to potentially inadequate levels of highway lighting provision during the hours of darkness.

Recommendation: It is recommended that suitable and sufficient highway lighting should be provided.



9.2 *Problem* (item A5.1 & A5.4)

Location: Weston Road, proposed development access.

Summary: Risk of side-impact collisions occurring between motor vehicles exiting the proposed

development access with other vehicles travelling along Weston Road due to failure

to stop and give way.

Description: It is proposed to introduce the minimum standard of give-way road markings at the intersection of the proposed development access with Weston Road. Given the volume of traffic, numbers of pedal cyclists, and the characteristics of the layout of Weston Road, it may not be obvious that motorists must stop and give way to priority movements of vehicles travelling along Weston Road.

The Audit Team consider that the introduction of additional regulatory signing and road markings could reduce the risk of collisions occurring at the proposed development access with Weston Road due to road users failing to stop and give way.

Type of conflict/collision: Risk of side-impact collisions occurring between motor vehicles exiting the proposed development access with other vehicles travelling along Weston Road due to failure to stop and give way.

Recommendation: It is recommended that an upright regulatory give-way sign and a triangular give-way road marking should be introduced at the proposed development access with Weston Road.

9.3 *Problem* (item A4.5)

Location: Uncontrolled pedestrian crossing point at proposed residential development access.

Summary: Risk of trip/slip/fall hazards presented to mobility and visually impaired pedestrians

due to absence of dropped kerbs at the proposed uncontrolled pedestrian crossing

point.

Description: The drawing indicates that full height HB2 kerbs are to be introduced to form the outer extents of the proposed development access at its junction with Weston Road. The introduction of full height HB2 kerbs at the location of the proposed uncontrolled pedestrian crossing point will exclude access for use by any mobility impaired pedestrians from using the crossing. In addition, HB2 kerbs could present trip/slip/fall hazards to any visually impaired pedestrians attempting to use the crossing point having detected the tactile paving areas.

Type of conflict/collision: Risk of trip/slip/fall hazards presented to mobility and visually impaired pedestrians due to absence of dropped kerbs at the proposed uncontrolled pedestrian crossing point.

Recommendation: It is recommended that dropped kerbing should be introduced at the proposed uncontrolled pedestrian crossing point on both sides of the proposed development access road.



9.4 *Problem* (item A3.1)

Location: Weston Road, proposed ghost-island with right turn lane associated with development access.

Summary: Risk of rear-end-shunt vehicle collisions occurring due to insufficient deceleration

length of the proposed right turn lane and vehicles obstructing westbound vehicles on

Weston Road.

Description: The drawing indicates a right turn lane Deceleration Length of approximately 20m (includes a 5 Direct Taper) after deducting the required 10m Turning Length distance from the centreline of the proposed development access. DMRB Standard CD 123 recommends a minimum Deceleration Length of 25m, Table 5.22 based on a 50kph (30mph) Design Speed.

Type of conflict/collision: Risk of rear-end-shunt vehicle collisions occurring due to insufficient deceleration length of the proposed right turn lane and vehicles obstructing westbound vehicles on Weston Road.

Recommendation: It is recommended that the Deceleration Length of the proposed right turn lane should be increased to accord with established design standards, suitable for the operational 85th percentile approach speed of vehicles travelling along Weston Road.

9.5 *Problem* (item A1.4)

Location: Uncontrolled pedestrian crossing point at proposed residential development access.

Summary: Risk of slip hazards presented to pedestrians using the proposed crossing point due

to potential water ponding problems and formation of ice during freezing weather

conditions.

Description: The drawing does not indicate any proposed drainage facilities at the proposed development access with Weston Road. There appears to be no drainage facilities near the proposed uncontrolled pedestrian crossing point of the development access road.

The absence of suitable and sufficient drainage facilities could result in ponding of surface water congregating on the carriageway at the proposed crossing point, presenting potential slip hazards for pedestrians especially if ice were to form during freezing weather conditions.

Type of conflict/collision: Risk of slip hazards presented to pedestrians using the proposed crossing point due to potential water ponding problems and formation of ice during freezing weather conditions.

Recommendation: It is recommended that suitable and sufficient drainage facilities should be provided on the immediate upstream side of the proposed uncontrolled pedestrian crossing point.



10. Nil response/Comments

- 10.1 The drawing shows a Bifurcation arrow road marking that is considered to be located too far east of the start of the Direct Taper associated with the ghost-island lead-in taper road markings.
- 10.2 The drawing is missing an Ahead-Only arrow road marking that should be located in the Weston Road westbound through traffic lane.

11. Non-Motorised User Report

This report indicates problems that the Audit Team believes need consideration affecting NMU's.



Date: 20th February 2020

12. Auditors' Statement

We certify that we have examined the drawings listed in **Appendix A** and that the site has been inspected. The examination has been carried out with the sole purpose of identifying those features relating to the design that can be modified in order to improve the safety of the scheme.

The problems identified have been noted in the report together with associated safety improvement suggestions that we recommend should be studied for implementation.

We can confirm that we have not been involved with the design of this scheme.

Peter Ronald

(Audit Team Leader)

(Audit Team Member)

Steve Sully O Date: 20th February 2020

10



Stage 1/2 (Feasibility/Detailed Design) Road Safety Audit ROAD SAFETY AUDIT RESPONSE

Scheme Name. Proposed Residential Development, Gatcombe Farm, Weston Road, North Somerset

The issues categorised in this Road Safety Audit as 'Problem' matters are those causing serious concern and are summarised below. The purpose of this form is for the scheme Designer or Overseeing Organisation to respond to the 'Problem' matters. Responses should be returned to Traffic Management Consultants. 'Comments' in the report are made for the benefit of the Designer and are not referred to below.

| Paragraph Summary of Problem | | Designer's response | |
|------------------------------|---|---|--|
| 9.1 | Risk of collisions occurring between motor vehicles, pedal cyclists and pedestrians during the hours of darkness conditions due to inadequate levels of highway lighting. | Lighting design will be provided at detailed design stage. | |
| 9.2 | Risk of side-impact collisions occurring between motor vehicles exiting the proposed development access with other vehicles travelling along Weston Road due to failure to stop and give way. | Additional signage added | |
| 9.3 | Risk of trip/slip/fall hazards presented to mobility and visually impaired pedestrians due to absence of dropped kerbs at the proposed uncontrolled pedestrian crossing point. | Dropped kerb note added to proposed crossing points | |
| 9.4 | Risk of rear-end-shunt vehicle collisions occurring due to insufficient deceleration length of the proposed right turn lane and vehicles obstructing westbound vehicles on Weston Road. | Right turn lane extended to 35m | |
| 9.5 | Risk of slip hazards presented to pedestrians using the proposed crossing point due to potential water ponding problems and formation of ice during freezing weather conditions. | Drainage will be addressed at detailed design stage. Road gullies 'up stream' of crossing to be provided. | |

Please complete the Designer's response and return to Traffic Management Consultants Ltd.

Audit Team Comments

- 9.1 Agreed
- 9.2 Agreed
- 9.3 Agreed
- 9.4 Agreed
- 9.5 Agreed



Appendix A

Drawing Numbers:

Plan 3454/201 – Site Location Plan 3454/SK101 (Revision B) – Site Access Layout

Road Safety Audit Issues Plan

