TECHNICAL NOTE

Project: Land at Haverhill Road, Stapleford, Cambridgeshire

Application: 20/02929/OUT

Subject: Response to Cambridgeshire County Council Transportation Comments

Date: 2nd November 2020

1. Introduction

The following Technical Note (TN) presents the response to the Transportation Comments of Cambridgeshire County Council, dated 6th and 13th August 2020, in respect of outline planning application 20/02929/OUT relating to the development of land at Haverhill Road, Stapleford, Cambridgeshire.

The application is for the following development:

Development of a retirement care village in Use Class C2 comprising housing with care, communal health, wellbeing and leisure facilities, public open space, landscaping, car parking, access and associated development and public access countryside park.

The application has been the subject of a Transport Statement and Travel Plan prepared by SLR Consulting Ltd (reference 406.09693.00002).

2. Comments of 6th August 2020

The comments dated 6th August 2020 may be summarised as follows:

As far as can be determined from the submitted transport assessment and framework travel plan, the applicant details visibility splays of 2.4m x 59m, which are inadequate on a derestricted carriageway, even with the detailed 85%ile speeds of 49.8/50 mph. The proposed development would therefore be detrimental to highway safety.

The visibility splays must be a minimum of 2.4m x 160m.

As no stage 1 road safety audit has been included the junction is potentially open to safety issues. Especially if the right turn facility has been designed to a lower speed limit. The proposed development would therefore be detrimental to highway safety. Redesign the right turn facility to the 85%ile speeds of 50mph.

Include detailed, separate/standalone drawings for both accesses which can be referenced in any planning permission given.

These should then be road safety audited and once all of the recommendations are resolved the plans should be resubmitted for consultation.

With regard to the emergency access the widths are narrow for the pedestrian and cycle facilities. The highway authority would recommend 2m wide footway and a 3m wide cycleway.

There are concerns for cyclists turning right onto the facility with the bend in the carriageway, additional measures will be required to ensure a safe transition between carriageway, Gog Magog Way and the proposed off road facility.

Haverhill Road joins the A1307 at a known accident cluster site which raises concern for the additional users. This along with the size of the proposal it is a requirement for the transport planning team here at the highway authority to review and comment on this proposal.

Response:

The means of access, both in respect of the main site access from Haverhill Road and the secondary pedestrian/cycle and emergency access, has been the subject of a Stage 1 safety audit by RKS Associates, and the designer's response and updated drawings H011.1 and H012.2 are attached for reference and appropriate approval.

The principal points addressed as relating to an outline application are as follows:

- The installation of a central refuge within the hatched markings (Problem 2.2);
- The upgrading of the visibility splays and notification that these are cleared where within the verge and highway to secure the full splays required (Problem 2.3).
- The undertaking of vehicle tracking (Problem 2.4).
- The redesign of the emergency access to accord with the bollard location problem and width requirements (Problem 3.3).
- The redesign of the footpath link on Gog Magog Way (Problem 4.2).

It is noted that the footway on the western side of Haverhill Road will no longer extend to the north, and so this has been terminated at the point where the crossing island is located.

With regards to the point regarding accidents at the A1307, it is noted that, as set out in the TA, there were 14 incidents recorded at this location, of which four resulted in serious injury, and one a fatality. Six of the 14 incidents involved a car in collision with a bicycle, and two of these resulted in serious injury. The fatality was the result of a collision involving three cars, in which two other people were injured. Just two of the 14 incidents occurred after dark, both of which involved cars only. None of the incidents involved pedestrians.

It is noted that this junction is included within the schemes for improvement within the South East Cambridge area, as proposed by the Greater Cambridgeshire Partnership. The improvement of this junction is forecast for 2022, and will increase the stagger for the side roads and improve the right-turn facilities and the cycleway crossing. This improvement will, once implemented, address this particular cluster issue in future.

The safety audit was specifically requested to consider the matter of forward visibility for cyclists turning into the secondary point of access, and no issues with this were raised as a problem. In practice, the forward visibility on this approach within the carriageway and verge, as shown in Figure TN-1 below, is such that a cyclist is able to see sufficiently forward to make such a manoeuvre at this location, there being a wide verge on the southern ide of Gog Magog Way at this location.

Figure TN-1
Forward Splay at Gog Magog Way junction

3. Comments of 13th August 2020

Traffic Data

The comments dated 13th August 2020 note:

The applicant has undertaken a series of traffic counts in the vicinity of the site on Tuesday 10th December 2019 and an ATC survey undertaken for a period of seven days commencing on Friday 6th December 2019. This date of the surveys is not agreed as surveys should be carried out during a 'neutral' or representative month as detailed in the TAG Unit M1.2 guidance from DfT.

To determine the robustness of the traffic data collected, reference has been made to the count point 58387 on the A1307 Babraham Road, located a short distance to the north of the counted junction of the A1307 with Haverhill Road.

This data includes peak hour 2-way flows recorded as part of the annual monitoring of the Cambridge radial routes, and therefore enables a comparison with the data collected in December 2019.

The data was recorded between the hours of 07:00 - 10:00 and 16:00 – 19:00 on Tuesday 10th December 2019 and therefore reflects typical weekday traffic flow conditions on the local highway network (i.e. non-school holiday periods, typical weather conditions etc.). The recorded peak hour flows to the west of the junction, and those for count point 58387, are set out in table TN-1

Table TN-1
Comparison of Babraham Road (W) peak hour flows

Period	Direction	Dec 2019 count	Count point 58387	Difference
AM Peak 08:00 - 09:00	South/Eastbound	804	681	
	North/Westbound	818	929	
	Two-way	1,622	1,610	+12
PM Peak 17:00 - 18:00	South/Eastbound	1,004	1,024	
	North/Westbound	653	635	
	Two-way	1,657	1,659	-2

As is apparent from table TN-1, the counts are remarkably comparable in terms of 2-way flows and the PM peak, although there is a slight discrepancy in the directional flows in the AM peak. However, on this basis, the data is found to be suitable for the purposes of assessing the impact of the development.

TRICS Data

The TRICS data used in the traffic generation assessment is attached to this TN.

Welcome Pack Details

The comments dated 13th August 2020 state that:

The TP should contain details of a welcome pack to be issued to new employees. The Travel Plan should be updated with either a detailed list of what is included in the welcome pack or a pdf of the welcome pack.

The provision of Welcome Packs to encourage and enable the use of non-car modes as a means of regular travel for future staff to and from the retirement care village is considered an integral part of the Travel Plan preparation for the site development, as is the promotion of travel by non-car modes for future residents.

It is anticipated that the preparation of the Travel Plan and associated Travel Packs will be the subject of an appropriate pre-occupation condition, so at this stage it is appropriate to determine what information will be included in the Welcome Pack, as well in other formats such as posters in staff rest areas and common areas. Ultimately, it is proposed that the Welcome Pack will take the form of that shown as an example in Figure TN-2.

Figure TN-2
Welcome Pack Content

The Welcome Pack will include, for example:

- Information relating to bus travel and timetables to the site;
- Information relating to train travel and timetables to the site;
- Relevant promotional events;
- Information and details of the car sharing scheme;
- Information and details of the best walking and cycling routes to the site and parking provision ; and
- feedback survey to gather early information about perceived staff transport choices, the impact of the Travel Plan and ways of improving the Travel Plan.

The content and delivery of these packs will be the subject of appropriate discussions with the local authority regarding content upon implementation.

To ensure the Welcome Packs are made available to new residents and staff at the earliest possible opportunity, the Travel Plan, including Travel Pack preparation, will be complete upon occupation of the retirement care village.

PROPOSED RETIREMENT VILLAGE LAND AT HAVERHILL ROAD, STAPLEFORD, CAMBRIDGESHIRE

PROPOSED HIGHWAY WORKS

STAGE 1

ROAD SAFETY AUDIT REPORT

REQUESTED BY:
SLR CONSULTING LIMITED

OCTOBER 2020

RKS Associates

Project:	Proposed Retirement Village, Land at Haverhill Road, Stapleford, Cambridgeshire Proposed Highway Works
Client:	SLR Consulting Limited
Document:	Stage 1 Road Safety Audit
RKS Associates Ref:	VRP1221-01
Issue date:	20th October 2020
Status:	Final
Authorised by:	VP/WP

RKS Associates

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WD23 3AQ

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Appendix A: Location of Problems Identified During Stage 1 Road Safety Audit
Appendix B: Designers Response

1 INTRODUCTION

1.1 This report results from a Stage 1 Road Safety Audit carried out on the proposed highway works associated with a proposed retirement village on land located to the west of Haverhill Road, Stapleford in Cambridgeshire. The proposed retirement care village will accommodate up to 110 bed spaces/rooms/units (both assisted care suites and care bedrooms) and a further 110 self-contained retirement apartments across the site.

1.2 The highway works include the widening of Haverhill Road to provide a ghost-island right-turn facility into for a new access serving the development. The development access takes form of a simple priority junction with 6.0m kerb radii facilitating all movements into and out of the development. The highway works also seek to provide a secondary access for pedestrians, cyclists and emergency vehicles via Gog Magog Way utilising an existing gated access.

1.3 Haverhill Road is a single two-way road that is aligned in a southwest to northeast direction. The carriageway is locally subject to a 40mph speed limit which changes to a 30mph approximately 200m to the southwest and national speed limit approximately 150m to the northeast of the proposed development access. The carriageway is unlit with a grass verge along the western side fronting the development and unmade footpath along its eastern side which is set back from the carriageway by a grass verge. Gog Magog Way two-way single carriageway that is subject to a 20mph speed limit, the carriageway is lit and there are footways on either side of the carriageway up to the proposed secondary access where the footway continues along the southern side.

1.4 SLR Consulting Limited has supplied the following information upon which this Stage 1 RSA is based:

- SLR Consulting Limited Drawing Number: 406.09693.00002.14.H011.0 – Access Assessment Option 2;
- SLR Consulting Limited Drawing Number: 406.09693.00002.14.012.0 – Emergency Access Option; and
- Transport Assessment & Framework Travel Plan prepared by SLR Consulting Limited (March 2020) Reference: 406.09693.00002;

1.5 The main parties to the Audit of this Road Safety Audit include the following:

Road Safety Audit Team Leader	Vimal Patel BEng (Hons), GMICE, FIHE, HE Cert Comp, Reg RSA (IHE)
Road Safety Audit Team Member	Wendy Palmer MCIHT, MSoRSA, HE Cert Comp
Local Highway Authority	Cambridgeshire County Council
Design Organisation	SLR Consulting Limited

1.6 The Audit was undertaken following examination of the submitted documents, including site visit undertaken on Monday 19th October 2020 between the hours of 2pm and 3pm. The weather was sunny, and the road surface was dry, and no traffic congestion or incidents were observed during the site inspection. Traffic flows were low, and no cyclists were observed however low numbers of pedestrians were observed walking along Gog Magog Way.

Terms of Reference

1.7 The Audit Team is independent of the project design team and has no other involvement with the project. This Stage 1 RSA has been undertaken in accordance with the relevant sections of GG-119, part of the Design Manual for Roads and Bridges (DMRB).

1.8 The Safety Audit Team has examined only matters relating to road safety implications of the scheme and has not verified compliance of the design to any other criteria. The Audit Team has not been made aware of any Departures from Standard. All of the problems identified in this report are considered by the Audit Team to require action in order to improve the safety of the scheme and to minimise accident occurrence for all users. The location of the problems identified in this Safety Audit is shown in **Appendix A** where the reference numbers relate to the problems identified in this report.

1.9 The recommendations in this report are aimed at addressing the identified road safety problems; however, there may be other alternative acceptable ways to overcome a specific problem, when other practical issues are considered. The recommendations contained herein do not absolve the Designer of his/her responsibilities. The Auditors would be pleased to discuss the acceptability of alternative solutions to problems identified during the Audit and would encourage the Designer to consult them on this matter.

1.10 The LHA response to the RSA should be formally recorded and reported to the Designer and the RSA Team so that a record of the Audit process is contained in the As Built design pack to be provided and retained by the Local Highway Authority on completion.

Collision Data

1.11 Personal Injury Collision (PIC) information contained in the Transport Assessment has been obtained from Cambridgeshire County Council for the wider highway network for the most the five-year period up to 31st December 2019. The collision data indicates a total of 18 collisions recorded on the wider highway network, however a closer examination of the collision data identifies that no collisions have occurred in the immediate vicinity of the proposed highway works.

Traffic Speeds/Trip Generation

1.12 The Transport Assessment prepared by the design engineers indicates that the proposed development will generate approximately 31 two-way movements during the AM peak and 38 vehicular movements during the PM peak with a total of 575 vehicular movements in a 24-hour period. It is noted that Haverhill Road is a single carriageway road with a varying speed limit, the Transport Assessment indicates that as part of the development proposals, the existing 30mph limit is likely to be extended northwards, with Haverhill Road widened to accommodate a new right-turn lane into the development.

2 LOCAL ALIGNMENT

2.1 **Problem:**

Summary: Potential collisions due to standing water or service covers
Location: Throughout

No details have been provided in respect of surface water drainage or other services and it is therefore not possible to ascertain whether or not there will be any safety implications. Poor drainage may result in the collection of surface water which could increase the risk of loss of control collisions.

Recommendation:

Ensure that adequate surface water drainage is provided within the development, if necessary provide additional drainage.

2.2 **Problem:**

Summary: Potential risk of vehicle collisions between vehicles turning right into the development and traffic traveling along Haverhill Road
Location: Haverhill Road/Development access

Observations during the site inspection noted the straight alignment of Haverhill Road on its southbound approach to the ghost island right turn layout for the site access. The absence of any physical features may increase the risk of southbound vehicles that are continuing ahead to veer across into the ghost island right turn where the risk of a sideswipe collision may be greater.

Recommendation:

In order to improve the layout a central refuge island with associated signs should be provide within the hatch markings on Haverhill Road southbound approach to the development access.

3 JUNCTIONS

3.1 **Problem:**
Summary: Potential turning collisions associated with poor visibility
Location: Proposed Access on Haverhill Road

The scheme drawings indicate that the visibility splays at the development access can be achieved, however observations during the site inspection noted that vegetation behind the visibility splay could over time grow and restrict visibility to and from the development accesses. There is concern that poor visibility may increase the risk of turning collisions between vehicles exiting the development and traffic traveling along Haverhill Road.

Recommendation:
Ensure that vegetation behind the visibility splay is cut back and regularly maintained, alternatively the vegetation should be removed and replaced with low level variety.

3.2 **Problem:**
Summary: Potential risk of vehicle collisions between vehicles entering and exiting development simultaneously
Location: Entry/Egress to development access on Haverhill Road

The scheme drawings provide details of the width of the development access, however no details of vehicle swept path analysis have been provided. There is concern that large vehicles may overrun the opposing carriageway when negotiating the entry/egress to the development, increasing the risk of sideswipe collisions between vehicles entering and exiting the development simultaneously.

Recommendation:
Review the width of the access. If possible, the access should be widened to mitigate the risk of sideswipe collisions between vehicles entering and exiting the development simultaneously.

3.3 **Problem:**
Summary: Potential risk of vehicles inadvertently entering emergency access
Location: Emergency Access Gog Magog Way

The scheme drawings indicate that emergency access incorporating a 1.5m footway and 2m cycleway is to be provided on Gog Magog Way. However, there is concern that the location of the removable bollards which are set back may encourage vehicles traveling north along Gog Magog Way to inadvertently continue ahead into the emergency access. This may increase the risk of collisions between vehicles reversing out of the emergency access and traffic travelling along Gog Magog Way.

Recommendation:
Review the location of the removable bollards It may be more appropriate to bring them forward to highlight the horizontal deviation of Gog Magog Way and prevent vehicles from inadvertently entering the emergency access.

4 WALKING, CYCLING & HORSE RIDING

4.1 **Problem:**
Summary: Potential risk of pedestrian collisions due to absence of footway
Location: Proposed footway extension northwest along the Haverhill Road

The scheme proposals indicate the footway along the western side of Haverhill Road is to be extended in a north-westerly direction, however no further details relating to the termination of the footway have been provided. There is concern that the absence of a safe crossing facility across Haverhill Road for pedestrians to access the footway along the eastern side of Haverhill Road may increase the risk of a pedestrians crossing at unsafe locations, or alternatively encourage pedestrians to walk along the road where the risk of pedestrians being struck by passing traffic will be greater.

Recommendation:
Review the need for the provision of a footway along the western side of Haverhill Road and, if possible, the length of the proposed footway should be reduced and a suitable crossing facility be provided.

4.2 **Problem:**
Summary: Potential risk of pedestrian collisions associated with poor layout
Location: Proposed footway extension up to emergency access

The scheme proposals indicate that a short section of footway along the northern side of Gog Magog Way is to be extended up to the emergency access. However, the proposed tactile paving is confusing and may encourage pedestrians to cross the emergency access and continue west along the grass verge or to walk along carriageway where the risk of being struck by passing traffic will be greater.

Recommendation:
Remove the tactile paving at the emergency access and realign the dropped kerbs to provide direct access for pedestrians travelling to and from the emergency access.

5 TRAFFIC SIGNS, CARRIAGEWAY MARKINGS & LIGHTING

5.1 The Audit Team raise no concerns at this Stage 1 RSA in respect of traffic signs, carriageway markings and lighting, however full details should be provided at the detailed design stage.

6 AUDIT TEAM STATEMENT

6.1 We certify that this audit has been carried out in accordance with GG-119 of Design Manual for Roads & Bridges Volume 5 Section 2 - Road Safety Audits. Its sole purpose being to identify features of the scheme that could be removed or modified to improve safety. No member of the Audit Team has been involved in the scheme design.

Audit Team Leader

Vimal Patel
BEng (Hons), GMICE, FIHE, RegRSA (IHE), HE Cert Comp

Signed: 

Date: 21st October 2020

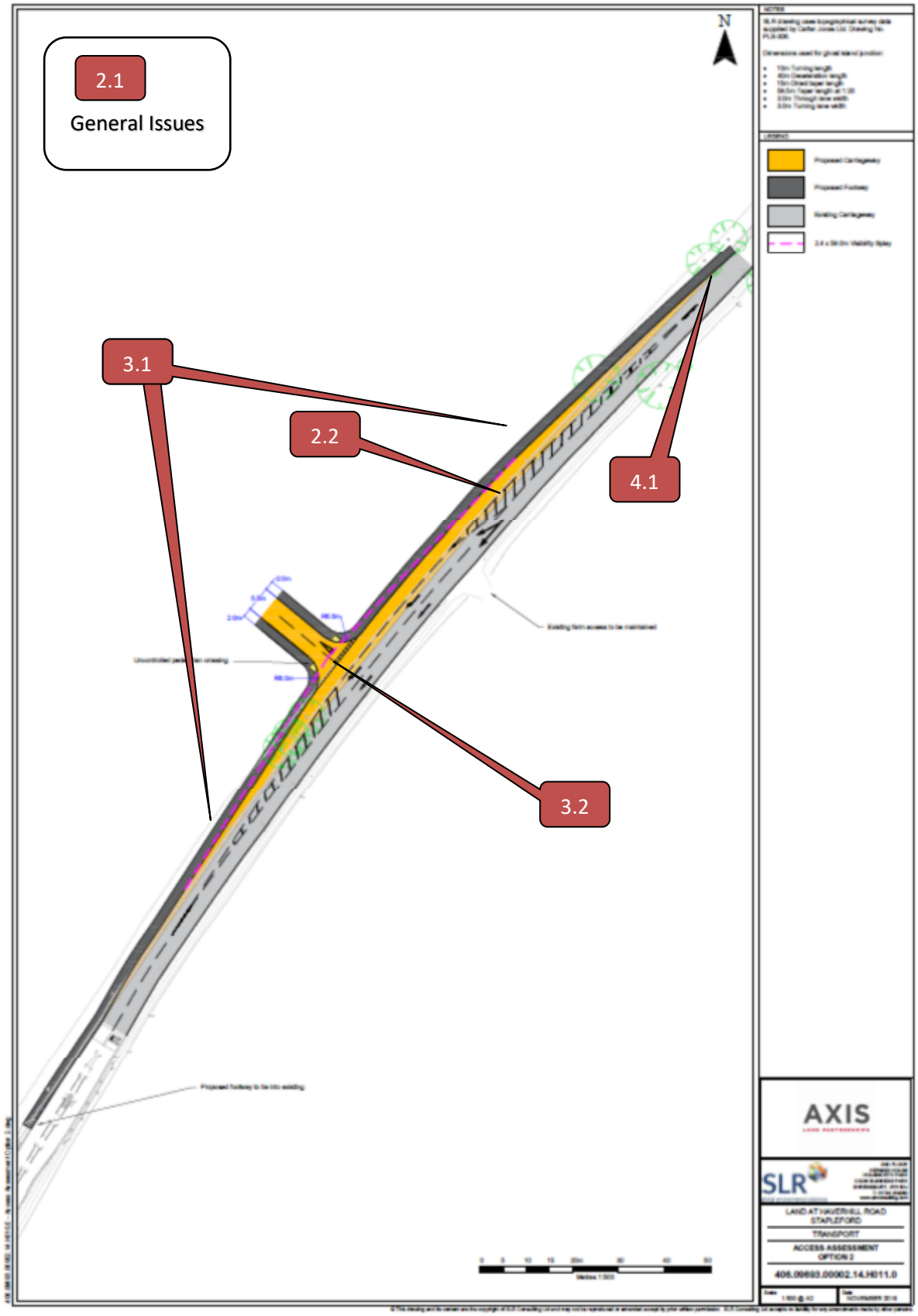
Audit Team Member

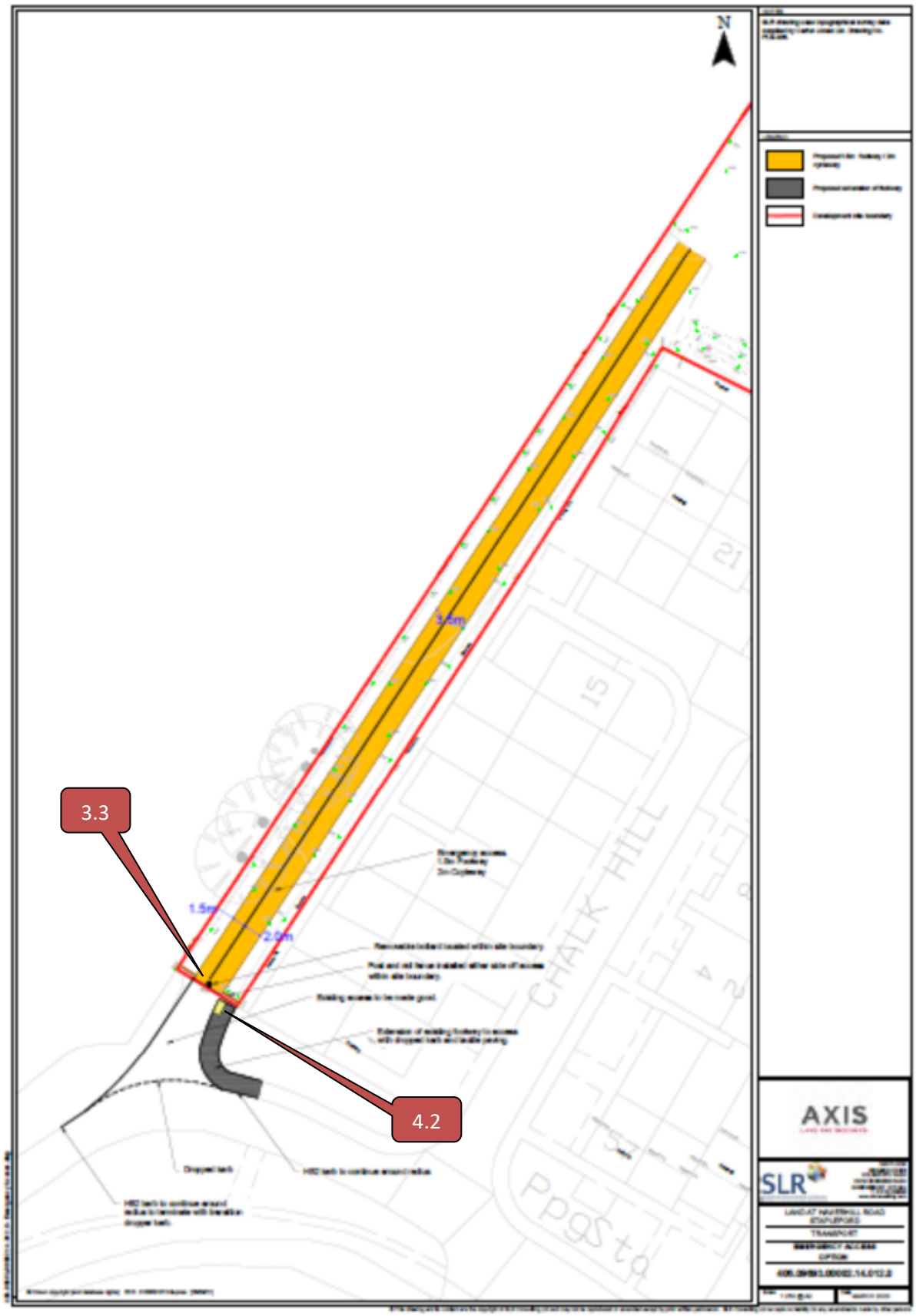
Wendy Palmer
MCIHT, MSoRSA, HE Cert Comp

Signed: 

Date: 21st October 2020

Appendix A


2.1
General Issues
3.1
2.2
4.1
3.2
N
AXIS
SLR


N
3.3
4.2
1.5m
2.0m
CHALK HILL
AXIS
SLR

Appendix B

Item No.	Audit Team Recommendation(s)	Designer's Response
2.1	Ensure that adequate surface water drainage is provided within the development, if necessary provide additional drainage.	A surface water drainage scheme will be undertaken during the detailed design stage.
2.2	In order to improve the layout a central refuge island with associated signs should be provide within the hatch markings on Haverhill Road southbound approach to the development access.	A traffic island will be provided within the southern approach hatch markings on Haverhill Road, retroreflective bollards with keep left aspects will be provided.
3.1	Ensure that vegetation behind the visibility splay is cut back and regularly maintained, alternatively the vegetation should be removed and replaced with low level variety.	A note will be added to the drawing to ensure that the visibility splay is free from obstruction and that vegetation is to be cut back and maintained.
3.2	Review the width of the access. If possible, the access should be widened to mitigate the risk of sideswipe collisions between vehicles entering and exiting the development simultaneously.	Access width increased to 6m, Swept path analysis on plans shows most likely scenario of a car waiting a the junction and a large delivery vehicle turning into the junction. It is anticipated that a refuse vehicle is the largest vehicle to use the site and its movements are limited to once or twice per week. A RCV would utilise the whole access for its turning manoeuvres and it would wait until the junction was clear before turning in or out.
3.3	Review the location of the removable bollards, it may be more appropriate to bring them forward to highlight the horizontal deviation of Gog Magog Way and prevent vehicles from inadvertently entering the emergency access.	Removable bollards have been repositioned to highlight horizontal deviation of Gog Magog Way and prevent vehicles turning into the emergency access.
4.1	Review the need for the provision of a footway along the western side of Haverhill Road, if possible, the length of the proposed footway should be reduced and a suitable crossing facility should be provided for pedestrians to access the footway along the eastern side of Haverhill Road.	Footway provision has been reduced in length to coincide with new pedestrian traffic island providing an uncontrolled crossing ling across Haverhill Road.

4.2	Remove the tactile paving at the emergency access and realign the dropped kerbs to provide direct access for pedestrians travelling to and from the emergency access.	Tactile paving removed from design and dropped kerb realigned to provide direct access to pedestrians.

Designer's Statement:

I certify that I have considered the items that have arisen in the Stage 1 Road Safety Audit Report and my response to its recommendations are set out above.

... .

Date: 30/10/2020

Designer

Project Sponsor/ Client Organisation Statement:

I accept/do not accept the Designer's Response (please delete as appropriate)

..... Date:

N

Pedestrian traffic island to be provided.
retroreflective bollards to be installed on each end with keep left aspect.
traffic island position and design to be agreed during detailed design stage .

Visibility splay tangential to kerb line.

Visibility splay to be kept free from obstruction, vegetation within the splay to be cut back and maintained regularly.
low lying vegetation to be kept at a maximum of 600mm above ground level.

Uncontrolled pedestrian crossing facility across Haverhill Road to tie into existing footway on Eastern side.

Existing farm access to be maintained

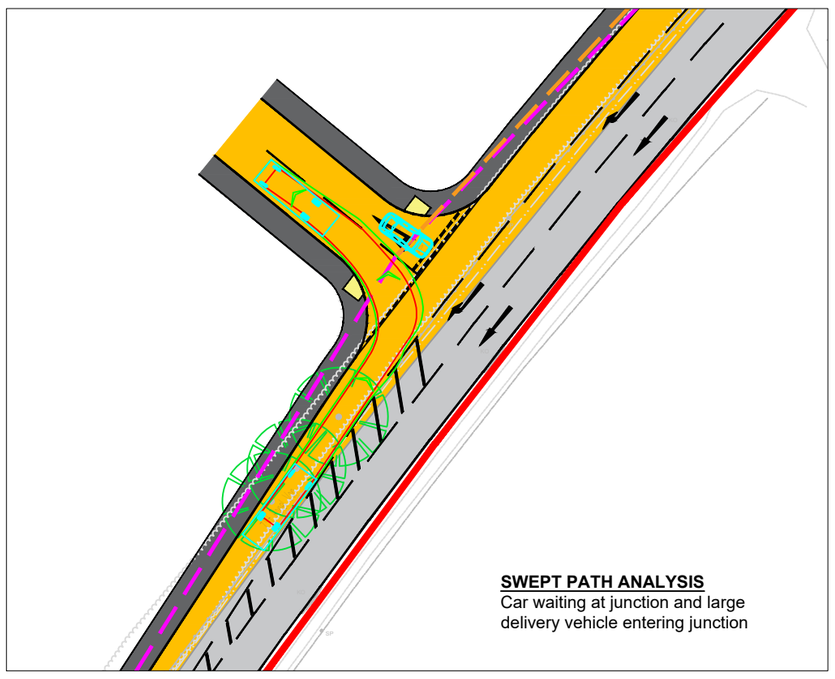
2.0m
6.0m
2.0m
R6.0m
R6.2m

Uncontrolled pedestrian crossing.

Visibility splay to be kept free from obstruction, vegetation within the splay to be cut back and maintained regularly.
low lying vegetation to be kept at a maximum of 600mm above ground level.

MOTS

Proposed footway to tie into existing.



SWEPT PATH ANALYSIS
Car waiting at junction and large delivery vehicle entering junction

0 5 10 15 20m 30 40 50
Metres 1:500

NOTES

SLR drawing uses topographical survey data supplied by Carter Jonas Ltd. Drawing No. PLS-306.

Dimensions used for ghost island junction:

- 10m Turning length
- 40m Deceleration length
- 15m Direct taper length
- 58.5m Taper length at 1:20
- 3.0m Through lane width
- 3.0m Turning lane width

LEGEND

- Proposed Carriageway
- Proposed Footway
- Existing Carriageway
- 2.4 x 160m Visibility Splay
- 2.4 x 160m Visibility Splay tangential to kerb line
- Development site boundary

1	CB	PL	10/2020	Plan updated to reflect comments from Stage 1 RSA.

AXIS LAND PARTNERSHIPS

SLR global environmental solutions
2ND FLOOR
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www.slrconsulting.com

LAND AT HAVERHILL ROAD
STAPLEFORD

TRANSPORT

ACCESS ASSESSMENT OPTION 2

406.09693.00002.14.H011.1

Scale 1:500 @ A2

Date OCTOBER 2020

406.09693.00002.14.H010.1.- Access Assessment Option 2.dwg

N

Post and rail fence installed within site boundary.

Existing access to be made good.

Removable bollards to prevent unauthorised vehicle access.

Dropped kerb

Extension of existing footway to access with dropped kerb and tactile paving.

HB2 kerb to continue around radius

HB2 kerb to continue around radius to terminate with transition dropper kerb.

Emergency access.
2m Footway
3m Cycleway

3.5m

1.5m

2.0m

Bushes

Building

Fence O/L

Fence C/L

Hedge

Gate

MH

NOTES

SLR drawing uses topographical survey data supplied by Carter Jonas Ltd. Drawing No. PLS-306.

LEGEND

Proposed1.5m footway / 2m cycleway

Proposed extension of footway

Development site boundary

2	CB	PL	10/2020	Plan updated to reflect comments from Stage 1 RSA.

AXIS LAND PARTNERSHIPS

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LAND AT HAVERHILL ROAD
STAPLEFORD

TRANSPORT

EMERGENCY ACCESS OPTION

406.09693.00002.14.012.2

Scale 1:250 @ A2

Date OCTOBER 2020

406.09693.00002.14.012.2 - Emergency Access.dwg

Calculation Reference: AUDIT-529501-200116-0119

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : P - ASSISTED LIVING
MULTI-MODAL VEHICLES

Selected regions and areas:

08	NORTH WEST		
	CH	CHESHIRE	1 days
17	ULSTER (NORTHERN IRELAND)		
	TY	TYRONE	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: 32 to 58 (units:)
Range Selected by User: 32 to 58 (units:)

Parking Spaces Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 14/06/19

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:

Thursday	1 days
Friday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	2

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

Selected Location Sub Categories:

Built-Up Zone	1
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:

C3	2 days

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days

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

Car ownership within 5 miles:

1.1 to 1.5	1 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	1 days
No	1 days

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

PTAL Rating:

No PTAL Present	2 days

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

LIST OF SITES relevant to selection parameters

1 CH-03-P-01 ASSISTED LIVING CHESHIRE
CHESTER WAY
NORTHWICH

Edge of Town Centre
Built-Up Zone
Total Number of dwellings: 58
Survey date: FRIDAY *14/06/19* *Survey Type: MANUAL*

2 TY-03-P-01 ASSISTED LIVING TYRONE
LIMEKILN LANE
COOKSTOWN

Edge of Town Centre
No Sub Category
Total Number of dwellings: 32
Survey date: THURSDAY *14/03/19* *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/P - ASSISTED LIVING
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	45	0.022	2	45	0.033	2	45	0.055
08:00 - 09:00	2	45	0.033	2	45	0.044	2	45	0.077
09:00 - 10:00	2	45	0.078	2	45	0.100	2	45	0.178
10:00 - 11:00	2	45	0.156	2	45	0.167	2	45	0.323
11:00 - 12:00	2	45	0.100	2	45	0.111	2	45	0.211
12:00 - 13:00	2	45	0.144	2	45	0.100	2	45	0.244
13:00 - 14:00	2	45	0.144	2	45	0.122	2	45	0.266
14:00 - 15:00	2	45	0.133	2	45	0.144	2	45	0.277
15:00 - 16:00	2	45	0.078	2	45	0.100	2	45	0.178
16:00 - 17:00	2	45	0.100	2	45	0.100	2	45	0.200
17:00 - 18:00	2	45	0.089	2	45	0.100	2	45	0.189
18:00 - 19:00	2	45	0.067	2	45	0.056	2	45	0.123
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.144			1.177			2.321

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:	32 - 58 (units:)
Survey date date range:	01/01/11 - 14/06/19
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/P - ASSISTED LIVING
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	45	0.000	2	45	0.000	2	45	0.000
08:00 - 09:00	2	45	0.000	2	45	0.000	2	45	0.000
09:00 - 10:00	2	45	0.000	2	45	0.000	2	45	0.000
10:00 - 11:00	2	45	0.000	2	45	0.000	2	45	0.000
11:00 - 12:00	2	45	0.000	2	45	0.000	2	45	0.000
12:00 - 13:00	2	45	0.000	2	45	0.000	2	45	0.000
13:00 - 14:00	2	45	0.000	2	45	0.000	2	45	0.000
14:00 - 15:00	2	45	0.011	2	45	0.011	2	45	0.022
15:00 - 16:00	2	45	0.000	2	45	0.000	2	45	0.000
16:00 - 17:00	2	45	0.000	2	45	0.000	2	45	0.000
17:00 - 18:00	2	45	0.000	2	45	0.000	2	45	0.000
18:00 - 19:00	2	45	0.000	2	45	0.000	2	45	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.011			0.011			0.022

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/P - ASSISTED LIVING
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	45	0.022	2	45	0.044	2	45	0.066
08:00 - 09:00	2	45	0.033	2	45	0.056	2	45	0.089
09:00 - 10:00	2	45	0.078	2	45	0.111	2	45	0.189
10:00 - 11:00	2	45	0.167	2	45	0.222	2	45	0.389
11:00 - 12:00	2	45	0.133	2	45	0.156	2	45	0.289
12:00 - 13:00	2	45	0.233	2	45	0.111	2	45	0.344
13:00 - 14:00	2	45	0.222	2	45	0.211	2	45	0.433
14:00 - 15:00	2	45	0.211	2	45	0.178	2	45	0.389
15:00 - 16:00	2	45	0.122	2	45	0.133	2	45	0.255
16:00 - 17:00	2	45	0.111	2	45	0.133	2	45	0.244
17:00 - 18:00	2	45	0.089	2	45	0.133	2	45	0.222
18:00 - 19:00	2	45	0.089	2	45	0.056	2	45	0.145
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.510			1.544			3.054

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/P - ASSISTED LIVING
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	45	0.022	2	45	0.044	2	45	0.066
08:00 - 09:00	2	45	0.056	2	45	0.033	2	45	0.089
09:00 - 10:00	2	45	0.078	2	45	0.100	2	45	0.178
10:00 - 11:00	2	45	0.133	2	45	0.089	2	45	0.222
11:00 - 12:00	2	45	0.200	2	45	0.200	2	45	0.400
12:00 - 13:00	2	45	0.167	2	45	0.211	2	45	0.378
13:00 - 14:00	2	45	0.100	2	45	0.200	2	45	0.300
14:00 - 15:00	2	45	0.122	2	45	0.089	2	45	0.211
15:00 - 16:00	2	45	0.078	2	45	0.056	2	45	0.134
16:00 - 17:00	2	45	0.111	2	45	0.111	2	45	0.222
17:00 - 18:00	2	45	0.100	2	45	0.067	2	45	0.167
18:00 - 19:00	2	45	0.044	2	45	0.067	2	45	0.111
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.211			1.267			2.478

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/P - ASSISTED LIVING
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	45	0.000	2	45	0.000	2	45	0.000
08:00 - 09:00	2	45	0.000	2	45	0.000	2	45	0.000
09:00 - 10:00	2	45	0.011	2	45	0.000	2	45	0.011
10:00 - 11:00	2	45	0.000	2	45	0.000	2	45	0.000
11:00 - 12:00	2	45	0.011	2	45	0.000	2	45	0.011
12:00 - 13:00	2	45	0.000	2	45	0.011	2	45	0.011
13:00 - 14:00	2	45	0.022	2	45	0.000	2	45	0.022
14:00 - 15:00	2	45	0.000	2	45	0.011	2	45	0.011
15:00 - 16:00	2	45	0.011	2	45	0.011	2	45	0.022
16:00 - 17:00	2	45	0.000	2	45	0.000	2	45	0.000
17:00 - 18:00	2	45	0.000	2	45	0.000	2	45	0.000
18:00 - 19:00	2	45	0.000	2	45	0.000	2	45	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.055			0.033			0.088

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/P - ASSISTED LIVING
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	45	0.044	2	45	0.089	2	45	0.133
08:00 - 09:00	2	45	0.089	2	45	0.089	2	45	0.178
09:00 - 10:00	2	45	0.167	2	45	0.211	2	45	0.378
10:00 - 11:00	2	45	0.300	2	45	0.311	2	45	0.611
11:00 - 12:00	2	45	0.344	2	45	0.356	2	45	0.700
12:00 - 13:00	2	45	0.400	2	45	0.333	2	45	0.733
13:00 - 14:00	2	45	0.344	2	45	0.411	2	45	0.755
14:00 - 15:00	2	45	0.333	2	45	0.278	2	45	0.611
15:00 - 16:00	2	45	0.211	2	45	0.200	2	45	0.411
16:00 - 17:00	2	45	0.222	2	45	0.244	2	45	0.466
17:00 - 18:00	2	45	0.189	2	45	0.200	2	45	0.389
18:00 - 19:00	2	45	0.133	2	45	0.122	2	45	0.255
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.776			2.844			5.620

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.*