



Knowles Construction Limited

Proposed Retirement Living, Henley Road, Caversham

Transport Statement

February 2022



Knowles Construction Limited

Proposed Retirement Living, Henley Road, Caversham

Transport Statement

OFFICE ADDRESS:

Labs Atrium,
The Stables Market,
Chalk Farm Road,
London,
NW1 8AH

PROJECT NO:

325410

DATE:

February 2022

REPORT No:

V1.1

FILE NAME

220131 325410 TS MM

PREPARED:

MM

DATE OF ISSUE:

01 February 2022

STATUS:

Final

CHECKED:

CH

AUTHORISED:

CH

CHANGE LOG

VERSION

DATE:

CHECKED BY:

REASON FOR CHANGE:

CONTENTS

1.	Introduction	4
1.1	Overview	4
1.2	Document Purpose	4
1.3	Document Structure	4
2.	Planning Policy Context	6
2.1	Overview	6
2.2	National Planning Policy Framework (NPPF)	6
2.3	Reading Borough Local Plan	7
3.	Application Site	8
3.1	Site Location	8
3.2	Site History	9
3.3	Sustainable Travel Opportunities	9
3.4	Local Highway Network	12
3.5	Personal Injury Collision (PIC) Records	13
4.	Development Proposals	15
4.1	Development Schedule	15
4.2	Retirement Living	15
4.3	Proposed Access Arrangements	15
4.4	Internal Layout	17
4.5	Car Parking	17
4.6	Cycle and Buggy Parking	18
4.7	Servicing and Delivery Arrangements	19
5.	Trip Generation	20
5.1	Overview	20
5.2	Existing & Permitted Vehicular Trip Generation	20
5.3	Proposed Vehicular Trip Generation	21
5.4	Net Change Assessment	21
6.	Summary and Conclusion	23
6.1	Summary	23

© Copyright mode transport planning. All rights reserved

This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing with mode transport planning, no other party may copy, reproduce, distribute, make use of, or rely on the contents of the report. No liability is accepted by mode transport planning for any use of this report, other than for the purposes for which it was originally prepared and provided.

Opinions and information provided in this report are on the basis of mode transport planning using due skill, care and diligence in the preparation of the same and no explicit warranty is provided as to their accuracy. It should be noted and is expressly stated that no independent verification of any of the documents or information supplied to mode transport planning has been made.

APPENDICES

APPENDIX A Site Layout Plan

APPENDIX B Approved Access Arrangement Plan

APPENDIX C Swept Path Analysis

APPENDIX D TRICS Output

1. Introduction

1.1 Overview

1.1.1 This Transport Statement (TS) has been prepared of behalf of Knowles Construction Limited. It accompanies a planning application for 59 retirement living units accessed from Henley Road, Caversham.

1.1.2 The development proposals include the demolition of nos. 205-213 Henley Road and rear gardens of nos. 205-219 Henley Road, for the erection of 2 retirement living apartments blocks (C3 use-age restricted) comprising 59 apartments, including communal spaces with supporting car parking, open space, landscaping and associated infrastructure.

1.2 Document Purpose

1.2.1 The purpose of the TS is to review the transport aspects of the development proposals and in doing so, demonstrate that the development proposals suitably reflect relevant National and Local planning policies from a transport standpoint, as well as general best design practice in transport terms.

1.2.2 This TS has been prepared with the following objectives:

- To review the existing conditions of the local highway and transport network including the application site's accessibility by sustainable modes of transport, demonstrating that the development proposals are well placed to integrate with its surroundings and maximise opportunities for sustainable travel by future residents.
- To review the proposed access and parking arrangements, providing for all travel modes to suit the forecast travel demand and less active elderly residents, prioritising sustainable modes of travel and suitably accommodating vehicle access and servicing requirements.
- To use the TRICS database to consider the impact of the proposed development in terms of trip generation during the weekday AM (08:00-09:00) and PM (17:00-18:00) peak hour periods, and over a typical daily period (07:00-19:00).

1.2.3 In addition, a Travel Plan Statement (TPS) has been prepared by mode as separate document to accompany the planning application which aims to encourage residents and visitors to travel to and from the development by sustainable modes, reducing reliance on the private car.

1.3 Document Structure

1.3.1 The remainder of this TS is structured as follows:

Section 2: Planning Policy Context

- 1.3.2 This section reviews the relevant National and Local transport-related planning policies applicable to the development proposals.

Section 3: Existing Conditions

- 1.3.3 This section details the existing conditions of the application site and immediate area including local facilities and amenities, sustainable transport connectivity by walking, cycling and public transport along with the operational and safety characteristics of the surrounding highway network.

Section 4: Development Proposals

- 1.3.4 This section provides a detailed overview of the development proposals and examines the movement and access strategy as well as proposed parking and servicing arrangements.

Section 5: Trip Generation

- 1.3.5 This section considers the trip generational characteristics of the proposed development and assesses the net change in trips generated with existing and consented uses.

Section 6: Summary and Conclusion

- 1.3.6 This section provides a summary and conclusion of the information presented in the TS.

2. Planning Policy Context

2.1 Overview

2.1.1 This section details the transport aspects of adopted National and Local planning policies relevant to the development proposals, that have informed the preparation of this TS. The application site location is within the administrative boundary of Reading Borough Council (RBC) who act as both the local planning authority and local highway authority.

2.2 National Planning Policy Framework (NPPF)

2.2.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. The NPPF was published in March 2012 and has since been revised, most recently in June 2021.

2.2.2 The NPPF presumes in favour of sustainable development and is a material consideration in planning decisions. Seventeen core land-use planning principles are put forward to underpin both plan-making and decision-taking, one of which is Policy 9, Promoting Sustainable Transport which aims to:

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

2.2.3 Paragraph 112 suggests that developments should be located and designed where practical to, among other things, give priority to pedestrian and cycle movements, have access to high quality public transport facilities, create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians and consider the needs of people with disabilities by all modes of transport.

2.2.4 Paragraph 110 of the NPPF states that when assessing specific sites uses for development applications, it should be ensured that:

- *"Appropriate opportunities to promote sustainable transport modes can be - or have been – taken up, given the type of development and its location;*
- *Safe and suitable access to the site can be achieved for all users; and*
- *Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*

2.2.5 Paragraph 111 of the 2021 NPPF ultimately states the following for transport:

“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or residual cumulative impacts on the road network would be severe”.

2.3 Reading Borough Local Plan

2.3.1 The Local Plan was adopted in November 2019 and sets out the overall planning strategy for the area along with the principles for new development until 2036.

2.3.2 Policy CC1 sets out the Council's views on sustainable development and states that, *“a positive approach to considering development proposals will be taken that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework (NPPF)”.*

2.3.3 Policy TR1 related to transport and states that, *“all development proposals should make appropriate provision for works and contributions to ensure an adequate level of accessibility and safety by all modes of transport from all parts of a development, particularly by public transport, walking and cycling, in accordance with any agreed transport assessment submitted as part of the application”.*

2.3.4 Policy TR3 relates to access and traffic matters and states that, *“in determining proposals involving a new or altered access onto the transport network, improvement works to the transport network, the creation of new transport infrastructure or the generation of additional trips on the transport network, consideration will be given to the effect on safety, congestion and the environment”.*

2.3.5 Policy TR3 continues and states that development will only be permitted where:

- *“Accesses and works to the highway comply with the adopted standards of the Transport Authority;*
- *The development would not have a material detrimental impact on the functioning of the transport network; and*
- *The proposals would not be detrimental to the safety of users of the transport network, including pedestrians and cyclists.”*

2.3.6 Policy TR5 refers to car and cycle parking and states that, *“development should provide car parking and cycle parking that is appropriate to the accessibility of locations within the Borough to sustainable transport facilities, particularly public transport”.*

2.3.7 Policy TR5 also states that *“within communal car parks for residential or non-residential developments of at least 10 spaces, 10% of spaces should provide an active charging point”.*

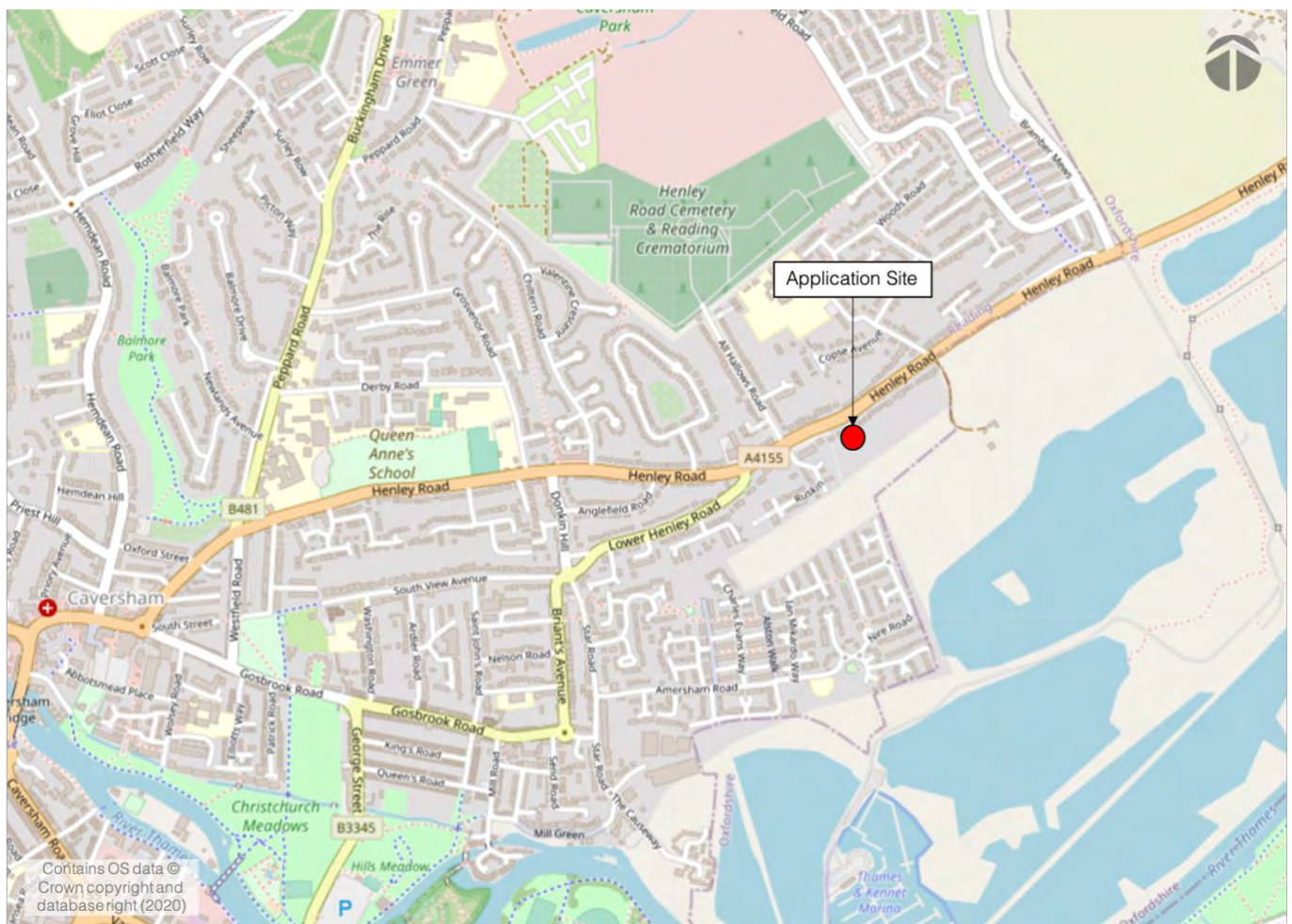
3. Application Site

3.1 Site Location

3.1.1 The application site is located to the south of the A4155 Henley Road in Caversham and is bound by residential properties to the north and east. A permitted care home neighbours the site to the west and the land to the south of the site remains undeveloped.

3.1.2 The context of the application site, in relation to the local highway network is shown on **Figure 3.1**.

Figure 3.1 Site Location



3.2 Site History

- 3.2.1 The site formerly received planning permission by RBC for 9 residential dwellings in March 2020 (LPA ref. 190887) utilising the approved access arrangements from Henley Road agreed as part of the neighbouring consented application for an 82-unit care home. Planning permission was granted by RBC (LPA ref. 190835) for the care home in December 2019.
- 3.2.2 The principle and design of the access was previously agreed with RBC as part of a residential planning consent for 42 dwellings (LPA ref. 170959) in June 2018 and again as part of the consented care home development.
- 3.2.3 A Section 38 agreement has recently been approved for the access which will be formally adopted by RBC.
- 3.2.4 This approved access will serve the application site which is considered in detail in [Section 4](#).

3.3 Sustainable Travel Opportunities

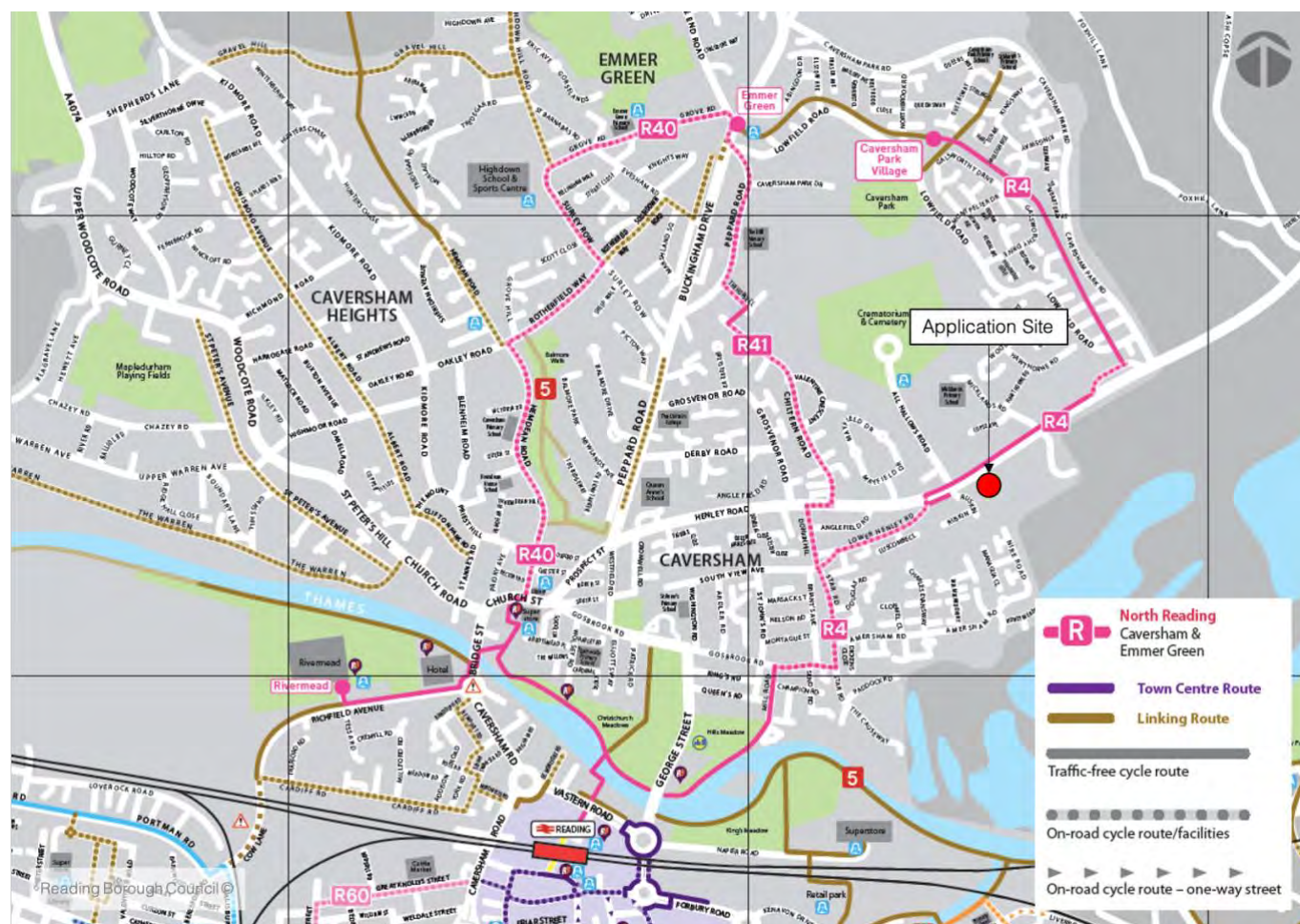
- 3.3.1 As per [Section 2](#), planning policies at National and Local levels seek to ensure that development is accessible by a range of sustainable transport modes. As such this section of the TS examines site accessibility with respect to walking, cycling and public transport.

Pedestrian & Cycle Accessibility

- 3.3.2 Henley Road benefits from a shared footway / cycleway along its northern side and white lining separates pedestrians and cyclists. The shared provision continues east, reverting to footway at the Caversham Park Road / Henley Road signalised junction.
- 3.3.3 Lit footways of 3-4m wide are provided along the southern side of Henley Road along the site frontage. On approach to the All Hallows Road / Ruskin / Henley Road signalised junction, shared footway / cycleway provision is present along the south side of Henley Road which reverts to footway along both sides of Henley Road at the B3345 Lower Henley Road / Henley Road signalised junction.
- 3.3.4 As detailed in [Section 4](#), the approved access arrangements serving the neighbouring consented care home and subsequently the application site, extends the footway infrastructure from Henley Road. Footways will flank the internal access road providing pedestrian infrastructure between the application site and Henley Road.

- 3.3.5 Notwithstanding the above, as also detailed in [Section 4](#), the development proposals have been designed to prioritise a more direct and level walking route onto Henley Road, by way of high-quality footway provision between the two apartment blocks and a sky-bridge onto Henley Road. This will significantly improve pedestrian connectivity to bus stops and local facilities and amenities, over and the above the already very good facilities that will be available on the above-mentioned access road.
- 3.3.6 The All Hallows Road / Ruskin / Henley Road signalised junction, located c. 110m to the west of the application site, provides designated pedestrian and cycle crossing facilities on all arms of the junction with the exception of the western arm of Henley Road.
- 3.3.7 Additional signalised pedestrian crossing facilities are provided on all arms of the B3345 / Henley junction and a further signalised pedestrian crossing is provided opposite the local parade of shops, located c. 600m to the west of the application site.
- 3.3.8 Approximately 70m to the east of the application is an uncontrolled pedestrian crossing with a refuge island. A signalised crossing is provided on Henley Road at the Micklands Road / Henley Road junction.
- 3.3.9 It should be recognised that the relevance of cycle connectivity is limited due to the nature of the development proposals, with end users in the most part being less active elderly residents. Other than for the potential for occasional leisure activity by a very low minority of such residents, the apartment block will have limited staff presence as well. Visitors may realistically be the most likely to travel to and from the site by cycling.
- 3.3.10 Notwithstanding the above, the application site is well placed to enable access by cycling with various cycle connections in the local area which is demonstrated on [Figure 3.2](#) and shows an extract of the RBC cycle route map.

Figure 3.2 Local Cycle Routes



Local Amenities

3.3.11 A key element in considering the accessibility of the application site is the proximity to a range of local services and facilities, which may help elderly residents fulfil a variety of day-to-day journey purposes. A range of facilities within a reasonable walking distance of the application site is summarised in [Table 3.1](#).

Table 3.1 Summary of Local Amenities

Amenity	Walk Distance	Walk Time	Amenity	Walk Distance	Walk Time
BP PFS & Londis	220m	2 minutes	Bakery	600m	8 minutes
The Traveller's Rest PH	270m	3 minutes	Takeaway Restaurants	600m	8 minutes
Co-operative	600m	8 minutes	Pharmacy	600m	8 minutes
Post Office	600m	8 minutes	The Village Dentists	1.2km	20 minutes

Hair Salon	600m	8 minutes	Balmore Park GP Surgery	1.7km	22 minutes
			Waitrose	1.8km	23 minutes

Public Transport Accessibility

3.3.12 The closest bus stops to the application site are located on Henley Road immediately west and adjacent to the application site. As discussed above, the proposed pedestrian sky-bridge (detailed further in [Section 4](#)) will provide a direct route onto Henley Road and further increase accessibility to these bus stops.

3.3.13 The westbound bus stop is provided with shelter, seating and real time passenger information and the eastbound stop is provided with pole, flag and timetable information.

3.3.14 Prospective residents will be able to utilise the existing signalised pedestrian crossing at the All Hallows Road / Ruskin / Henley Road junction to conveniently access the eastbound bus stop.

3.3.15 A summary of the bus services operating from these bus stops is provided in [Table 3.2](#).

Table 3.2 Local Bus Services

Service No.	Frequency (no. buses per hour)			Route
	Monday – Friday	Saturday	Sunday	
24 (berry)	2	2	1	Reading – Emmer Green – Caversham Park
800	2	1	1	High Wycombe – Marlow – Henley – Caversham – Reading

3.3.16 The application site is well located in terms of proximity to frequent public transport services and established pedestrian / cycle routes. Together, these provide access to a range of local amenities and the opportunity for prospective residents and visitors to travel to and from the development by means other than the private car.

3.4 Local Highway Network

3.4.1 The A4155 Henley Road is a single two-way carriageway, subject to a 30mph speed limit, which provides strategic connections between Reading and Henley-on-Thames.

- 3.4.2 To the west of the application site, Henley Road junctions with All Hallows Road and Ruskin at a signalised junction. All Hallows Road is a no through route providing access to residential dwellings and Reading Crematorium. Ruskin is a cul-de-sac and provides access to a residential development. Henley Road continues west towards Lower Caversham and Reading town centre.
- 3.4.3 To the east of the application site, Henley Road forms a priority 'T' junction with Micklands Road serving Micklands Primary School and residential properties.
- 3.4.4 Further east of the application site, Henley Road junctions with Caversham Park Road via a signalised junction. Caversham Park Road provides access to Caversham Park Village and Emmer Green. Henley Road continues east providing connections towards Sonning via Playhatch Road and onwards towards Henley-on-Thames.

3.5 Personal Injury Collision (PIC) Records

- 3.5.1 Personal Injury Collision (PIC) data has been obtained from Crash Map Pro over the latest 5-year period. Analysis has been undertaken to determine if there are any trends in the type or location of collisions on the local highway network within the vicinity of the site.
- 3.5.2 The data identifies that 9 PICs have been recorded within the study area, of which all were classified as 'slight' (minor) with the exception of one 'fatal PIC'. The locations of the recorded PICs are illustrated in **Figure 3.3**.

Figure 3.3 PIC Locations



3.5.3 The 'fatal' PIC took place between the Micklands Road and Montfort Gate junctions with Henley Road and involved a car and a stationary bus. No vulnerable users were involved and this PIC is considered to carry no relevance to the development proposals on this basis.

3.5.4 The 'slight' (minor) incidents that took place at the Lower Henley Road, All Hallows Road and Caversham Park Road junctions did not involve vulnerable road users.

3.5.5 The only two PICs within the study area that involved pedestrians took place to the west of Caversham Park Road in the vicinity of the bus stops.

3.5.6 No PICs have been recorded in the vicinity of the proposed site access location.

3.5.7 From this review, it is considered that the proposed development will have no adverse impact on highway safety, especially where existing access arrangements will be in place onto Henley Road, and adopted by RBC.

4. Development Proposals

4.1 Development Schedule

- 4.1.1 The development proposals comprise the construction of 59 retirement living units along with 46 car parking spaces. The site layout plan is provided in [Appendix A](#).
- 4.1.2 The retirement living units will be divided into two blocks. Block A fronts on to Henley Road providing 37 apartments and Block B will be located to the rear of the site providing 22 apartments.
- 4.1.3 It should be noted that the development proposals will also comprise the demolition of 5 existing residential properties fronting Henley Road (no. 205, 207, 209, 211 and 213).

4.2 Retirement Living

- 4.2.1 The principle of retirement living is to provide managed accommodation for residents over the age of 60, limited to the services of an overall 'house manager'.
- 4.2.2 Typically, residents for retirement living developments will satisfy the majority of their daily needs by way of being within walking distance of local amenities or using public transport, which as demonstrated in [Section 3](#), the application site is well placed in this regard. Residents may also take occupation without a car, either because they are unable to drive any more, or did not previously own a vehicle.
- 4.2.3 Nevertheless, it is recognised that some residents will retain ownership of a car to facilitate trips to further afield destinations which may otherwise be less accessible by sustainable travel modes by residents. Consideration also needs to be given to the likelihood that residents may give up their car ownership for various reasons, at times, within 12-18 months of initial occupation. The placement of the development proposals in an accessible location is well suited to walking or using public transport to satisfy a variety of daily needs that can assist in residents making this transition.

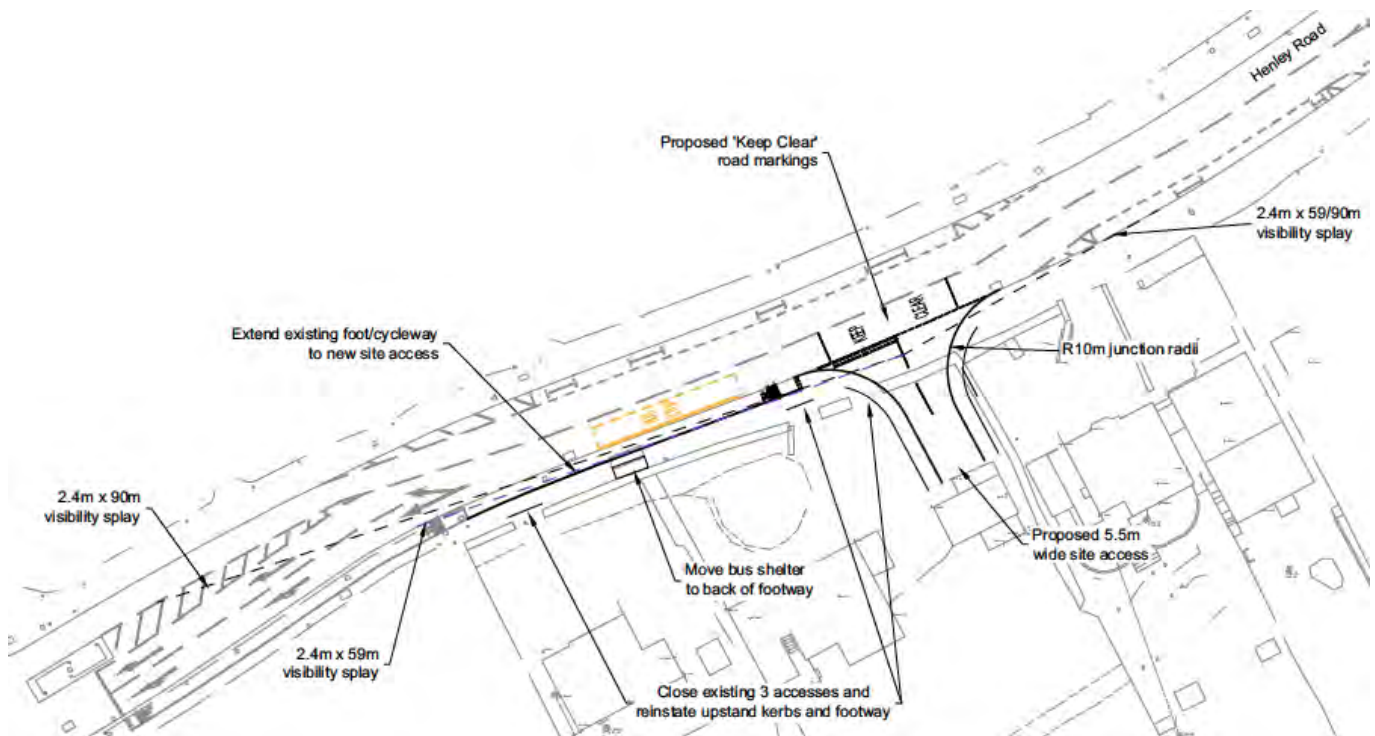
4.3 Proposed Access Arrangements

- 4.3.1 As noted in [Section 3](#), the application site will be served from the approved and forthcoming access arrangements for the neighbouring consented care home from Henley Road (LPA ref. 190835). The forthcoming access arrangements are demonstrated on [Figure 4.1](#) and more detailed plans, as per the Section 38 agreement, up to the application site boundary are provided in [Appendix B](#).

4.3.2 It should be noted that the above referenced access arrangement also formed part of the proposals for the consented residential development on the site (LPA ref. 190887) which was approved by RBC.

4.3.3 The access provides for a 5.5m wide carriageway and 1.8m wide footways. The access design will also extend the existing shared footway provision along the south side of Henley Road.

Figure 4.1 Approved Access Arrangement from Henley Road



4.3.4 As part of the approved and forthcoming access arrangement, 1.8m wide footways will flank the internal access road which will extend into the site, providing pedestrian infrastructure between the site and Henley Road.

4.3.5 As part of the application for the consented residential scheme (LPA ref. 190887) and the permitted care home (LPA ref. 190835), the follow elements with respect to the approved access arrangements were agreed with RBC:

- The principle of a new access off Henley Road to serve the site is acceptable;
- Access junction spacing is in excess of Reading Borough Council's requirement and therefore acceptable;
- The provision of 2.4m x 90m visibility splays at the proposed access is satisfactory;

- The internal road layout conforms to Reading's adoptable standards with a 5.5m wide carriageway and 1.8m wide footways proposed;
- The internal road could serve potential future development to the east of the site;
- Service vehicles could satisfactorily enter and leave in a forward gear.

4.4 Internal Layout

- 4.4.1 Three pedestrian connections will be provided connecting the site directly to Henley Road from the external terrace of Block A, of which two will provide stepped connections and the third will provide an accessible sky-bridge link suitable for mobility impaired residents.
- 4.4.2 The creation of these links enhances the pedestrian connectivity of the site and prospective residents will benefit from direct connections onto Henley Road, providing easy access to bus stops and nearby local amenities.
- 4.4.3 These designated pedestrian connections will be linked to Block B by the provision of walkway that will run alongside the eastern elevation of Block A, following pedestrian desire lines to the main entrance of Block B. Mobility impaired residents would be able to utilise the lifts provided within Block A to reach the accessible bridge link.
- 4.4.4 The internal road layout extends to the east of the site, where the road could serve any future development to the east. This layout is shown in the attached masterplan at [Appendix A](#).

4.5 Car Parking

- 4.5.1 The proposed retirement living units will be provided with a total of 46 car parking spaces, including 1 disabled bay equivalent to a ratio of 0.78 spaces per unit.
- 4.5.2 RBC operates a zonal approach for car parking standards, whereby the application site is located within Zone 3. It is recognised that the proposed parking ratio for the site falls slightly below the maximum standards outlined by RBC for Zone 3 in the Revised Parking Standards and Design SPD (2011) which states that for C3 retirement homes with a warden, 1 space per unit plus 1 space on site for staff would be required.

4.5.3 Consideration needs to be given to the locality of the site whereby, as demonstrated in [Section 3](#), the site is readily accessible by frequent public transport services located within a short walking distance of the site, along with daily amenities located nearby reducing the reliance on the private car further. Furthermore, and as described above, retirement living units inherently generate low levels of car ownership, and ownership also tends to diminish over time.

4.5.4 Comparisons in parking ratios have been made to the TRICS surveyed sites selected from the category 'Retirement Flats' as part of the trip generational assessment undertaken in [Section 5](#). The selected sites, as summarised in [Table 4.1](#), demonstrate that the average parking ratio is comparable to the proposed parking provision.

Table 4.1 Comparable Car Parking Ratios with TRICS Sites

Site Reference	No. Units	Car Parking Spaces	Ratio (spaces per unit)
CA-03-N-02	32	8	0.3
CH-03-N-01	33	12	0.4
DS-03-N-01	36	20	0.6
KC-03-N-08	88	21	0.2
LN-03-N-01	39	44	1.1
DY-03-N-01	28	28	1.0
WM-03-N-01	25	14	0.6
WS-03-N-02	17	15	0.9
WY-03-N-01	34	42	1.2
Average:			0.7

4.5.5 Giving due regard to the above, it is considered that the quantity of car parking proposed will adequately accommodate anticipated parking demand without resulting in any overspill parking onto the public highway.

4.5.6 Policy TR5 of the RBC Local Plan requires that communal car parks for residential development of at least 10 spaces should provide 10% of spaces with an active Electric Vehicle (EV) charging point. Therefore, in order to accord with this policy, the development will be provided with 6 EV spaces.

4.6 Cycle and Buggy Parking

4.6.1 With regards to cycle parking, the RBC standards as outlined in the Revised Parking Standards and Design SPD (2011) states 1 space per 3 staff or 1 space per unit for C3 retirement homes.

4.6.2 It should be acknowledged the proposed retirement living units will be supported by minimal staff and that cycling as a mode of travel may be less relevant given the nature of the development proposals as described in [Section 2](#). Typically, retirement living units tend to have a greater buggy ownership compared with bicycles to satisfy mobility needs. On this basis, communal stores will be provided within both blocks which will provide space for buggies and 6 cycle spaces in each block.

4.7 Servicing and Delivery Arrangements

4.7.1 Unlike more care-orientated retirement developments, the management of the retirement living units will be limited to the services of an overall 'house manager'. As a result, servicing will be limited to waste and recycling collection and occasional maintenance of the property and facilities. Deliveries may otherwise occur as per any other residential development e.g. online shopping.

4.7.2 Refuse collection will take place from the internal access road servicing the development and will have no impact on the neighbouring consented care home development. Vehicles will pull up kerbside to collect from the designated bin stores for both blocks. Carry distances for operatives will be within the recommended distance of 25m as outlined in Manual for Streets (MfS).

4.7.3 [mode drawing 325410-001 Rev C](#), included as [Appendix C](#), illustrates the swept path of a refuse vehicle, demonstrating that vehicles will be able to utilise the access to Block A as a turning head, allowing vehicles to arrive and depart in a forward gear. [mode drawing 325410-002 Rev C](#), also included at [Appendix C](#), demonstrates a 2.43m wide Dennis Sabre fire tender vehicle accessing and egressing from the site in a safe manner.

5. Trip Generation

5.1 Overview

5.1.1 As detailed in [Section 4](#), retirement living will likely generate a proportion of sustainable travel trips given the locality of the development being within a short walk distance of bus stops and local amenities. Furthermore, it tends to be the case that car ownership of residents reduces over time as reliance on a car naturally reduces, either with the new lifestyle or simply due to increasing age of residents. There will, nevertheless, remain an element of car travel corresponding with some car ownership by residents, as well as some visitors arriving by car.

5.2 Existing & Permitted Vehicular Trip Generation

5.2.1 As detailed in [Section 3](#), the application site benefits from a consented planning permission for 9 residential dwellings which was approved by RBC in March 2020 (LPA ref. 190887).

5.2.2 The agreed trip rates and associated movements detailed in the TS submitted as part of the application are summarised in [Table 5.1](#) and identify that the consented development had the potential to generate 4 two-way vehicle movements during the AM peak hour (08:00-09:00) and 5 two-way movements during the PM peak hour (17:00-18:00).

Table 5.1 Consented Residential Vehicle Trip Generation

Time Period	Arrivals		Departures		Total	
	Trip Rate	No. Trips	Trip Rate	No. Trips	Trip Rate	No. Trips
AM Peak (08:00-09:00)	0.152	1	0.347	3	0.499	4
PM Peak (17:00-18:00)	0.323	3	0.202	2	0.525	5
Daily (07:00-19:00)	2.183	20	2.288	21	4.471	41

5.2.3 Furthermore, as noted in [Section 4](#), the development proposals will result in the demolition of 5 existing residential properties fronting Henley Road (no. 205, 207, 209, 211 and 213). Of note, these properties were unaffected by the consented residential permission.

5.2.4 Applying the trip rates as per the consented residential development outlined in [Table 5.1](#), the existing residential properties fronting Henley Road could generate 3 two-way vehicle movements during both the AM and PM peak periods and 22 two-way vehicle movements over a typical daily period.

5.2.5 Combined, the application site under existing and consented conditions could generate in the order of 7 two-way vehicle movements during the AM peak period, 8 two-way vehicle movements during the PM peak period and 63 two-way vehicle movements over a daily period.

5.3 Proposed Vehicular Trip Generation

5.3.1 To assess the trip generational characteristics of the proposed development, vehicular trip rates have been derived from the TRICS database using the land use category '03 – Residential – N – Retirement Flats'. The TRICS output is included as [Appendix D](#).

5.3.2 The following criteria were applied when examining the TRICS data:

- Region: England, excluding Greater London
- No. Dwellings: 17 – 88
- Date Range: 01/01/12 – 20/11/19
- Location: Edge of Town Centre and Suburban Area
- No. Surveyed Sites: 9

5.3.3 The vehicular trip rates and associated movements for the AM (08:00-09:00) and PM (17:00-18:00) peak periods as well over typical weekday daily period (07:00-19:00) are summarised in [Table 5.2](#).

Table 5.2 Proposed Retirement Living Two-Way Trip Generation

Time Period	Arrivals		Departures		Total	
	Trip Rate	No. Trips	Trip Rate	No. Trips	Trip Rate	No. Trips
AM Peak (08:00-09:00)	0.066	4	0.075	5	0.141	9
PM Peak (17:00-18:00)	0.051	3	0.057	3	0.108	6
Daily (07:00-19:00)	0.903	54	0.900	54	1.803	108

5.3.4 [Table 5.2](#) shows that the proposed retirement living units have the potential to generate 9 two-way total vehicle movements during the AM peak and 6 two-way vehicle movements during the PM peak period.

5.4 Net Change Assessment

5.4.1 A comparative analysis has been undertaken to compare the trip generational characteristics between the existing and consented residential position, and the proposed retirement living units.

5.4.2 The net change in vehicle trips is summarised in **Table 5.3** which shows that the retirement living units have the potential to generate only 2 additional two-way vehicle trips during the AM peak period and a reduction of 2 two-way vehicle trips during the PM peak period.

5.4.3 Over a daily period, the proposed retirement living units could generate an additional 51 two-way vehicle movements over the day, which is equivalent to an average of 4-5 vehicles per hour which is considered to be minimal.

Table 5.3 Net Change Assessment

Time Period	Existing & Consented Residential	Proposed Retirement Living	Net Change
AM Peak (08:00-09:00)	7	9	+ 2
PM Peak (17:00-18:00)	8	6	- 2
Daily (07:00-19:00)	63	108	+ 45

5.4.4 Given the immaterial change between the existing and consent residential position and the proposed retirement living units, it is considered that the proposed development will have a negligible impact on the operation of the surrounding highway and transport networks, including the forthcoming agreed access arrangements onto Henley Road.

6. Summary and Conclusion

6.1 Summary

6.1.1 This Transport Statement (TS) has been prepared of behalf of Knowles Construction Limited. It accompanies a planning application for 59 retirement living units accessed from Henley Road, Caversham. A summary of the findings within the TS is provided below:

- The site is well located in terms of access to frequent public transport services and established pedestrian / cycle routes which provide the opportunity for residents and visitors to travel by sustainable means, reducing reliance on travel by private car.
- Examination of PIC data in the vicinity of the site reveals that the development will have no adverse highway safety impact on the local highway network.
- The development will be accessed from Henley Road via the approved access arrangements serving the consented residential development on the site and the neighbouring care home.
- The development will be provided with 46 car parking spaces, including 1 disabled bay. With this representing a ratio of 0.78 spaces per unit, this is considered to be able to suitably accommodate car ownership trends associated with retirement living and in this highly sustainable location.
- The development will be provided with cycle parking and buggy parking facilities.
- Trip generational analysis shows that the proposed retirement living units have the potential to generate 9 two-way vehicle trips during the AM peak period and 6 two-way vehicle trips during the PM peak period.
- Comparative assessment between trip generation of the proposed retirement living units and the existing / consented residential properties identifies that the proposed development would generate only 2 additional vehicle trips during the AM peak hourly period, and a reduction of 2 vehicle trips during the PM peak hourly period.
- Given the immaterial change in vehicle trips between the consent residential use and the proposed retirement living units, it is considered that the proposed retirement living units will have a negligible impact on the operation of the surrounding highway and transport networks.

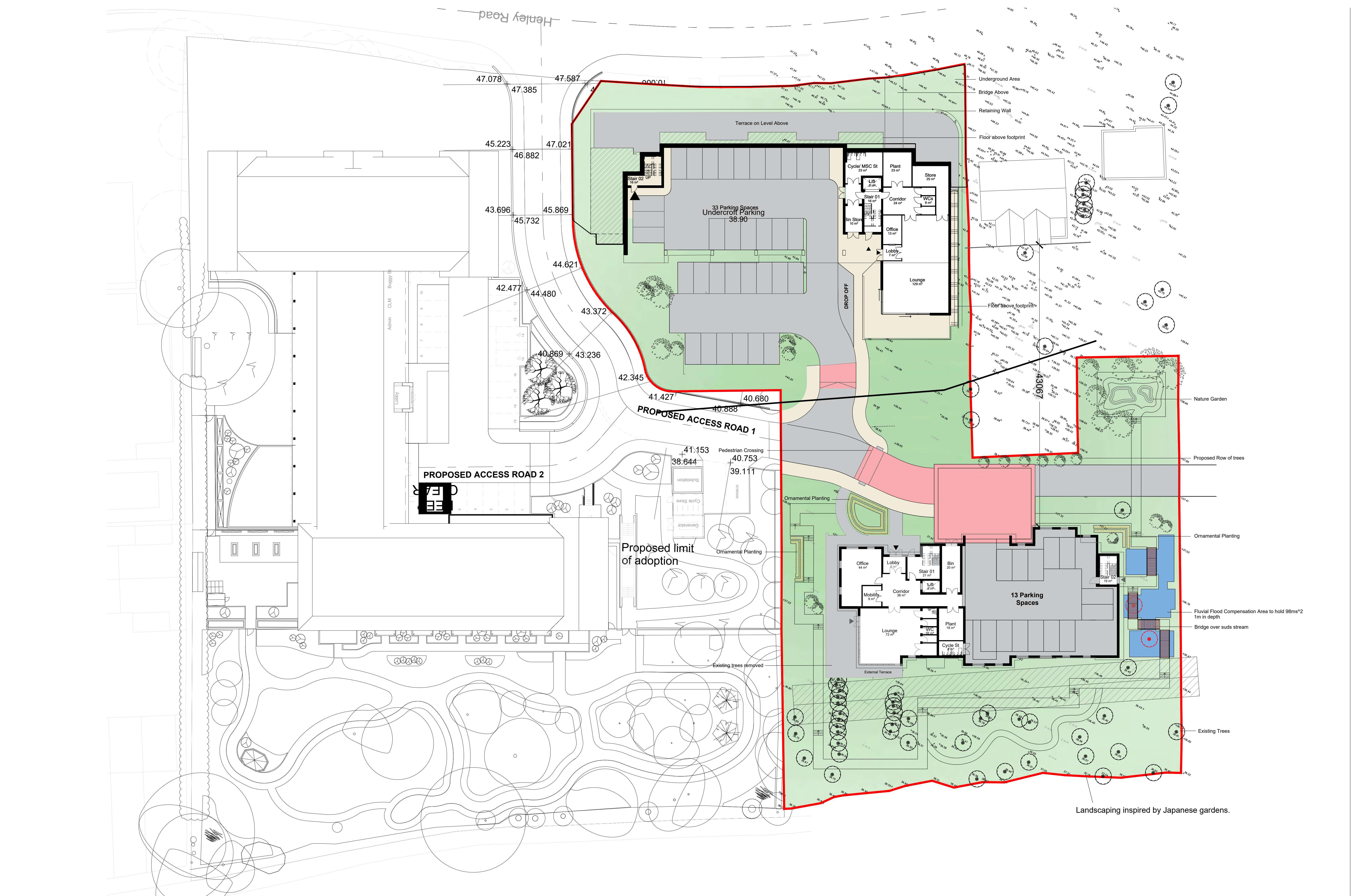
6.2 Conclusion

6.2.1 Based on the findings within this TS and in the context of the guidelines within para. 110 of the NPPF, it is considered that there are no residual cumulative impacts in terms of highway safety or the operational capacity of the surrounding road network and therefore planning permission should not be withheld on transport grounds.

APPENDICES

APPENDIX A

Site Layout Plan

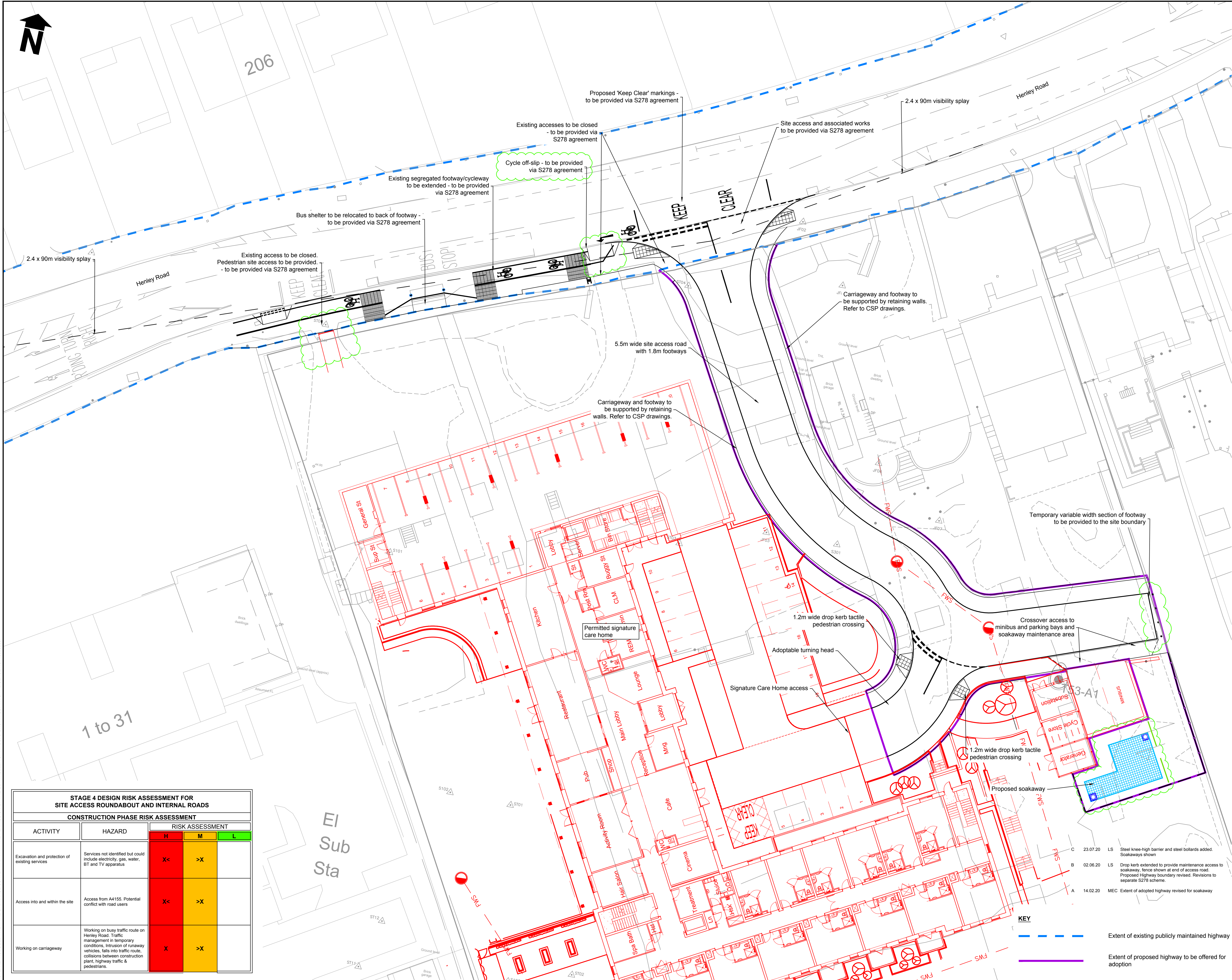


APPENDIX B

Approved Access Arrangement Plan

NOTE: REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HMSO. © CROWN COPYRIGHT LICENCE NO. 100008697

STAGE 4 DESIGN RISK ASSESSMENT FOR SITE ACCESS ROUNDABOUT AND INTERNAL ROADS				
CONSTRUCTION PHASE RISK ASSESSMENT		RISK ASSESSMENT		
ACTIVITY	HAZARD	H	M	L
Excavation and protection of existing services	Services not identified but could include electricity, gas, water, BT and TV apparatus	X<	>X	
Access into and within the site	Access from A4155. Potential conflict with road users	X<	>X	
Working on carriageway	Working on busy traffic route on Henley Road. Traffic management in temporary conditions, intrusion of runaway vehicles, falls into traffic route, collisions between construction plant, highway traffic & pedestrians	X	>X	



- NOTES**
- 1 Do not scale from this drawing.
 - 2 All errors, omission and discrepancies to be reported to the Engineer and Peter Evans Partnership Ltd immediately.
 - 3 Topographic survey provided by Jomas Associates Ltd, drawing ref. P9413J811 dated 11.03.16
 - 4 The topographic survey has been drawn about an Ordnance Survey grid.
 - 5 All levels are in metres and relate to an Ordnance Survey derived from GPS.
 - 6 All setting out details and proposed levels based on topographic survey co-ordinate system.
 - 7 Contractor to verify location of existing services prior to commencement of any works.
 - 8 Contractor to confirm location of services to isolate / divert / reconnect.
 - 9 All electrical equipment removed by the contractor is to be disconnected and made safe by qualified personnel prior to removal and/or commencement of any works
 - 10 All highway construction details to be in accordance with Reading Borough Council's 'Specification for Estate Roads' and Department for Transport 'Manual of Contract Documents for Highway Works' (MCHW)
 - 11 All covers within the highway (including private chambers) shall be in accordance with BS EN 124, stamped to indicate accreditation by BSI, LRQA or SGSY and all those within the carriageway shall be grade D400
 - 12 All necessary steps shall be taken to provide temporary drainage outlets to prevent ponding or surface water on lower carriageway layers until the completion of the pavement and it's permanent drainage.
 - 13 All road marking to be thermoplastic paint.
 - 14 All road markings and signs to be in accordance with The Traffic Signs Regulations and General Directions 2016.
 - 15 Contractor to verify spelling/consistency on all signs and road markings prior to painting/procurement. All errors/discrepancies to be reported to Peter Evans Partnership Ltd. immediately.
 - 16 Layout of tactile paving to be in accordance with "Guidance on the Use of Tactile Paving" by the Department for Transport
 - 17 Design details subject to approval by Reading Borough Council. Details may change.
 - 18 All street lighting to be in accordance with Reading Borough Council's specification
 - 19 For S38 Overall Scheme Plan see drawing no. 3218.03
 - 20 For S38 Site Clearance Plan See drawing no. 3218.04
 - 21 For S38 Proposed General Arrangement see drawing no. 3218.05
 - 22 For S38 Proposed Levels and Setting Out Details see drawing no. 3218.06
 - 23 For S38 Proposed Surfacing Plan see drawing no. 3218.07
 - 24 For S38 Location of Existing Services see drawing no. 3218.08
 - 25 For S38 Longitudinal Section of Proposed Access Road see drawing no. 3218.09
 - 26 For S38 Proposed Access Road Cross Sections see drawing no. 3218.10
 - 27 For S38 Typical Construction Details see drawing no. 3218.11
 - 28 For retaining wall details refer to see CSP drawings
 - 29 For street lighting drawings refer to MMA drawing MMA15610/001

pep

Peter Evans Partnership
Transport Planning & Highway Consultants

Client
SIGNATURE SENIOR LIFESTYLE

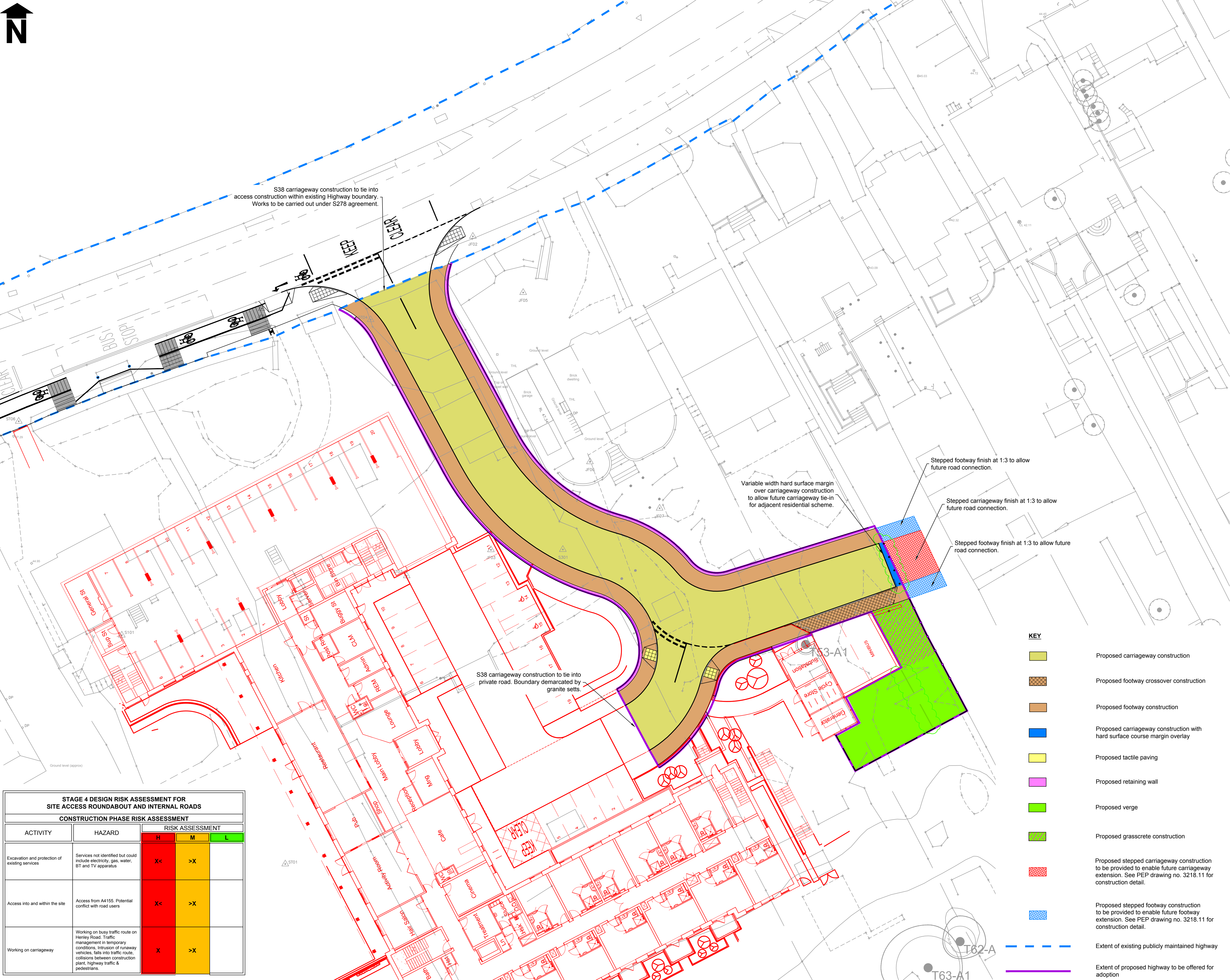
Job
HENLEY ROAD, CAVERSHAM

Drawing Title
S38 OVERALL SCHEME PLAN

Scale @ A1 1:200	Date 19.11.19	Drawn by LS	Checked by MEC
Drawing Number 3218.03C	Issue Status FOR TECHNICAL APPROVAL		Issue Status FOR TECHNICAL APPROVAL

© Peter Evans Partnership

- KEY**
- Extent of existing publicly maintained highway
 - Extent of proposed highway to be offered for adoption



NOTES

- Do not scale from this drawing.
- All errors, omission and discrepancies to be reported to the Engineer and Peter Evans Partnership Ltd immediately.
- Topographic survey provided by Jomas Associates Ltd. drawing ref. P9413J811 dated 11.03.16
- The topographic survey has been drawn about an Ordnance Survey grid.
- All levels are in metres and relate to an Ordnance Survey derived from GPS.
- All setting out details and proposed levels based on topographic survey co-ordinate system.
- Contractor to verify location of existing services prior to commencement of any works.
- Contractor to confirm location of services to isolate / divert / reconnect.
- All electrical equipment removed by the contractor is to be disconnected and made safe by qualified personnel prior to removal and/or commencement of any works
- All highway construction details to be in accordance with Reading Borough Council's 'Specification for Estate Roads' and Department for Transport 'Manual of Contract Documents for Highway Works' (MCHW)
- All covers within the highway (including private chambers) shall be in accordance with BS EN 124, stamped to indicate accreditation by BSI, LRQA or SGSY and all those within the carriageway shall be grade D400
- All necessary steps shall be taken to provide temporary drainage outlets to prevent ponding or surface water on lower carriageway layers until the completion of the pavement and it's permanent drainage.
- All road marking to be thermoplastic paint.
- All road markings and signs to be in accordance with The Traffic Signs Regulations and General Directions 2016.
- Contractor to verify spelling/consistency on all signs and road markings prior to painting/procurement. All errors/discrepancies to be reported to Peter Evans Partnership Ltd. immediately.
- Layout of tactile paving to be in accordance with "Guidance on the Use of Tactile Paving" by the Department for Transport
- Design details subject to approval by Reading Borough Council. Details may change.
- All street lighting to be in accordance with Reading Borough Council's specification
- For S38 Overall Scheme Plan see drawing no. 3218.03
- For S38 Site Clearance Plan See drawing no. 3218.04
- For S38 Proposed General Arrangement see drawing no. 3218.05
- For S38 Proposed Levels and Setting Out Details see drawing no. 3218.06
- For S38 Proposed Surfacing Plan see drawing no. 3218.07
- For S38 Location of Existing Services see drawing no. 3218.08
- For S38 Longitudinal Section of Proposed Access Road see drawing no. 3218.09
- For S38 Proposed Access Road Cross Sections see drawing no. 3218.10
- For S38 Typical Construction Details see drawing no. 3218.11
- For retaining wall details refer to see CSP drawings
- For street lighting drawings refer to MMA drawing MMA15610/001

C	14.08.20	LS	Bollards and knee high fence added to scheme.
B	04.06.20	LS	Grasscrete soakaway maintenance bay added, road alignment updated.
A	14.02.20	MEC	Extent of adopted highway revised for soakaway

pep

Peter Evans Partnership
Transport Planning & Highway Consultants

Client
SIGNATURE SENIOR LIFESTYLE

Job
HENLEY ROAD, CAVERSHAM

Drawing Title
S38 PROPOSED SURFACING PLAN

Scale @ A1 1:200	Date 19.11.19	Drawn by LS	Checked by MEC
Drawing Number 3218.07C	Issue Status FOR TECHNICAL APPROVAL		

© Peter Evans Partnership

KEY

	Proposed carriageway construction
	Proposed footway crossover construction
	Proposed footway construction
	Proposed carriageway construction with hard surface course margin overlay
	Proposed tactile paving
	Proposed retaining wall
	Proposed verge
	Proposed grasscrete construction
	Proposed stepped carriageway construction to be provided to enable future carriageway extension. See PEP drawing no. 3218.11 for construction detail.
	Proposed stepped footway construction to be provided to enable future footway extension. See PEP drawing no. 3218.11 for construction detail.
	Extent of existing publicly maintained highway
	Extent of proposed highway to be offered for adoption

STAGE 4 DESIGN RISK ASSESSMENT FOR SITE ACCESS ROUNDABOUT AND INTERNAL ROADS				
CONSTRUCTION PHASE RISK ASSESSMENT		RISK ASSESSMENT		
ACTIVITY	HAZARD	H	M	L
Excavation and protection of existing services	Services not identified but could include electricity, gas, water, BT and TV apparatus	X<	>X	
Access into and within the site	Access from A4155. Potential conflict with road users	X<	>X	
Working on carriageway	Working on busy traffic route on Henley Road. Traffic management in temporary conditions. Intrusion of runaway vehicles, falls into traffic route, collisions between construction plant, highway traffic & pedestrians.	X	>X	

NOTE: REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HMSO. © CROWN COPYRIGHT LICENCE NO. 100008987

APPENDIX C

Swept Path Analysis



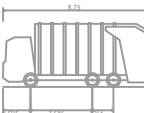
This drawing has been produced by mode transport planning.
No responsibility will be accepted for the use of this drawing in any other project.
Vehicle dimensions are taken from the Reading Council "Waste Management Guidelines for Property Developers, Architects, Planners and Contractors"

KEY
----- 10m CARRY DISTANCE FROM REFUSE VEHICLE

SERVICING BLOCK A

drawing title

VEHICLE SWEEP PATH ANALYSIS
REFUSE COLLECTION



Reading Refuse Vehicle
Overall Length 8.750m
Overall Width 2.250m
Overall Body Height 3.707m
Min Body Ground Clearance 0.260m
Track Width 2.250m
Lock to lock time 4.00s
Wall to Wall Turning Radius 10.150m

client

HENLEY ROAD LTD

job title

HENLEY ROAD, CAVERSHAM

mode transport planning

LABS Atrium
The Stables Market
Chalk Farm Road
London
NW1 8AH

mode

transport planning

t 020 7293 0217

e info@modetransport.co.uk

w www.modetransport.co.uk

scale

1:500 @ A3

drawn

RJM

checked

CH

created

Jan 21

C B A -

KB KB RJM

CH CH CH

31/01/2022

25/01/2022

21/05/2021

rev

chk

by

date

drawing no.

J32-5410-001

MASTERPLAN UPDATED
MASTERPLAN & TRACKING UPDATED
MASTERPLAN UPDATED
FIRST ISSUE

remarks

APPENDIX D

TRICS Output

Calculation Reference: AUDIT-754101-210324-0359

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : N - RETIREMENT FLATS

TOTAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	KC KENT	1 days
	WS WEST SUSSEX	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	SY SOUTH YORKSHIRE	1 days
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days

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

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: 17 to 88 (units:)
 Range Selected by User: 17 to 88 (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: Include all surveys

Date Range: 01/01/12 to 20/11/19

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	1 days
Tuesday	4 days
Wednesday	2 days
Friday	2 days

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

Selected survey types:

Manual count	9 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	4
Suburban Area (PPS6 Out of Centre)	5

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

Selected Location Sub Categories:

Residential Zone	9
------------------	---

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.

LIST OF SITES relevant to selection parameters

1	CA-03-N-02	RETIREMENT FLATS		CAMBRIDGESHIRE
	DOGSTHORPE ROAD			
	PETERBOROUGH			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:	32		
	Survey date: MONDAY	17/10/16		Survey Type: MANUAL
2	CH-03-N-01	RETIREMENT FLATS		CHESHIRE
	HOBSON STREET			
	MACCLESFIELD			
	Edge of Town Centre			
	Residential Zone			
	Total No of Dwellings:	33		
	Survey date: FRIDAY	16/09/16		Survey Type: MANUAL
3	DS-03-N-01	RETIREMENT FLATS		DERBYSHIRE
	LEAPER STREET			
	DERBY			
	Edge of Town Centre			
	Residential Zone			
	Total No of Dwellings:	36		
	Survey date: WEDNESDAY	25/09/19		Survey Type: MANUAL
4	KC-03-N-08	RETIREMENT FLATS		KENT
	CANTERBURY ROAD			
	HERNE BAY			
	EDDINGTON			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:	88		
	Survey date: TUESDAY	26/09/17		Survey Type: MANUAL
5	LN-03-N-01	RETIREMENT FLATS		LINCOLNSHIRE
	NEWPORT ROAD			
	LINCOLN			
	ERMINE			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:	39		
	Survey date: FRIDAY	28/06/19		Survey Type: MANUAL
6	SY-03-N-01	RETIREMENT FLATS		SOUTH YORKSHIRE
	MOSS CLOSE			
	NEAR ROTHERHAM			
	WICKERSLEY			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:	28		
	Survey date: WEDNESDAY	19/12/12		Survey Type: MANUAL
7	WM-03-N-01	RETIREMENT BUNGALOWS		WEST MIDLANDS
	SHORT STREET			
	STOURBRIDGE			
	Edge of Town Centre			
	Residential Zone			
	Total No of Dwellings:	25		
	Survey date: TUESDAY	21/11/17		Survey Type: MANUAL
8	WS-03-N-02	RETIREMENT FLATS		WEST SUSSEX
	FITZALAN ROAD			
	LITTLEHAMPTON			
	Edge of Town Centre			
	Residential Zone			
	Total No of Dwellings:	17		
	Survey date: TUESDAY	18/06/19		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	WY-03-N-01	RETIREMENT BUNGALOWS	WEST YORKSHIRE
	GROVE AVENUE		
	HALIFAX		
	WHEATLEY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	34	
	Survey date: TUESDAY	23/10/18	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/N - RETIREMENT FLATS

TOTAL VEHICLES**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	37	0.018	9	37	0.024	9	37	0.042
08:00 - 09:00	9	37	0.066	9	37	0.075	9	37	0.141
09:00 - 10:00	9	37	0.087	9	37	0.117	9	37	0.204
10:00 - 11:00	9	37	0.099	9	37	0.117	9	37	0.216
11:00 - 12:00	9	37	0.102	9	37	0.090	9	37	0.192
12:00 - 13:00	9	37	0.105	9	37	0.081	9	37	0.186
13:00 - 14:00	9	37	0.084	9	37	0.096	9	37	0.180
14:00 - 15:00	9	37	0.105	9	37	0.090	9	37	0.195
15:00 - 16:00	9	37	0.066	9	37	0.081	9	37	0.147
16:00 - 17:00	9	37	0.069	9	37	0.036	9	37	0.105
17:00 - 18:00	9	37	0.051	9	37	0.057	9	37	0.108
18:00 - 19:00	9	37	0.051	9	37	0.036	9	37	0.087
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.903			0.900			1.803

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	17 - 88 (units:)
Survey date range:	01/01/12 - 20/11/19
Number of weekdays (Monday-Friday):	9
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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

mode transport limited Lombard House, 145 Great Charles Street Birmingham, B3 3LP

Licence No: 754101

TRIP RATE for Land Use 03 - RESIDENTIAL/N - RETIREMENT FLATS

TAXIS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	37	0.000	9	37	0.000	9	37	0.000
08:00 - 09:00	9	37	0.003	9	37	0.003	9	37	0.006
09:00 - 10:00	9	37	0.003	9	37	0.003	9	37	0.006
10:00 - 11:00	9	37	0.000	9	37	0.000	9	37	0.000
11:00 - 12:00	9	37	0.009	9	37	0.009	9	37	0.018
12:00 - 13:00	9	37	0.000	9	37	0.000	9	37	0.000
13:00 - 14:00	9	37	0.000	9	37	0.000	9	37	0.000
14:00 - 15:00	9	37	0.000	9	37	0.000	9	37	0.000
15:00 - 16:00	9	37	0.003	9	37	0.003	9	37	0.006
16:00 - 17:00	9	37	0.000	9	37	0.000	9	37	0.000
17:00 - 18:00	9	37	0.000	9	37	0.000	9	37	0.000
18:00 - 19:00	9	37	0.006	9	37	0.006	9	37	0.012
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.024			0.024			0.048

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.

mode transport limited Lombard House, 145 Great Charles Street Birmingham, B3 3LP

Licence No: 754101

TRIP RATE for Land Use 03 - RESIDENTIAL/N - RETIREMENT FLATS

CYCLISTS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

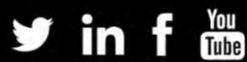
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	37	0.003	9	37	0.003	9	37	0.006
08:00 - 09:00	9	37	0.000	9	37	0.000	9	37	0.000
09:00 - 10:00	9	37	0.000	9	37	0.000	9	37	0.000
10:00 - 11:00	9	37	0.000	9	37	0.000	9	37	0.000
11:00 - 12:00	9	37	0.000	9	37	0.000	9	37	0.000
12:00 - 13:00	9	37	0.000	9	37	0.000	9	37	0.000
13:00 - 14:00	9	37	0.000	9	37	0.000	9	37	0.000
14:00 - 15:00	9	37	0.000	9	37	0.006	9	37	0.006
15:00 - 16:00	9	37	0.000	9	37	0.000	9	37	0.000
16:00 - 17:00	9	37	0.000	9	37	0.000	9	37	0.000
17:00 - 18:00	9	37	0.000	9	37	0.000	9	37	0.000
18:00 - 19:00	9	37	0.003	9	37	0.003	9	37	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.012			0.018

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.



keep up with mode:



Birmingham
☎ 0121 794 8390

London
☎ 020 7293 0217

Manchester
☎ 0161 464 9495

Reading
☎ 0118 211 8180

✉ info@modetransport.co.uk 📍 modetransport.co.uk 🐦 [@mode_transport](https://twitter.com/mode_transport)