



BAMFORD MEWS, ROCHDALE

Transport Statement

November 2025

McCarthy Stone



**RETIREMENT LIVING
BAMFORD MEWS
ROCHDALE**

Transport Statement

CONTROLLED DOCUMENT

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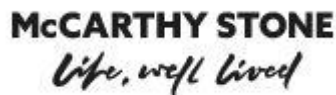
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RETIREMENT LIVING BAMFORD MEWS ROCHDALE

TRANSPORT STATEMENT

Contents

1.	INTRODUCTION	2
2.	EXISTING SITE CONDITIONS	4
3.	PROPOSED DEVELOPMENT	12
4.	HIGHWAY IMPACT.....	15
5.	SUMMARY AND CONCLUSIONS.....	18

Figures

Figure 1 – Site Location

Figure 2 – PIA Data

Tables

Table 1 – Local Bus Services

Table 2 – CIHT guidance for ‘Providing for journeys on foot’ (2000)

Table 3 – Proximity to Local Amenities

Table 4 – Proposed Development Trip Generation (apartments)

Table 5 – McCarthy Stone Data Trip Generation

Table 6 – Proposed Development Trip Generation (bungalows)

Table 7 – Proposed Development Trip Generation (total)

Appendices

Appendix A – Site Layout

Appendix B – Private Vehicle Tracking

Appendix C – McCarthy Stone Independent Research

Appendix D – Refuse and Fire Tracking

Appendix E – TRCS Outputs

1. INTRODUCTION

- 1.1 This Transport Statement (TS) has been prepared by Paul Basham Associates on behalf of McCarthy Stone to support a planning application for a Retirement Living (RL) development comprising 49 RL apartments (29 x 1-bed & 20 x 2-bed) and 18 2-bed RL bungalows on vacant land at Bamford Mews, Rochdale. The location of the development site is demonstrated within **Figure 1** with the proposed site plan attached as **Appendix A**. A site visit was undertaken in February 2025 to support this report.

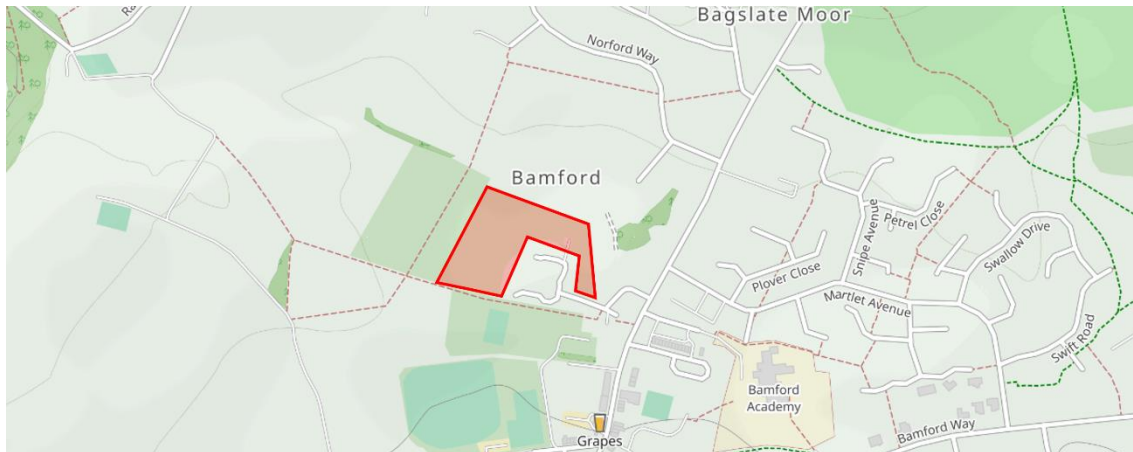


Figure 1: Site Location

Scope of Assessment

- 1.2 The subsequent sections of this Transport Statement (TS) will detail the highways aspects of the proposed development including:
- Site Location:
 - A description of the existing site conditions, local road network and surrounding area, as well as an overview of the accessibility of the local area with reference to the pedestrian infrastructure, public transport services and nearby amenities.
 - Proposed Development:
 - An outline of the development proposals with a detailed assessment of the highways elements including the access arrangements, parking provision, and fire and refuse strategies, supported by drawings.
 - Highway Impact:
 - An analysis of the impact that the development proposals would have on the local road network through the TRICS database.
 - Summary and Conclusions:
 - A synopsis of the Transport Statement (TS) regarding the above aspects with an overall conclusion.

1.3 This Transport Statement (TS) has been written in line with local guidance and National Planning Policy Framework (NPPF) (December 2024), specifically the following NPPF policies:

- **Para 109:** Transport issues should be considered from the earliest stages of plan-making and development proposals, using a vision-led approach to identify transport solutions that deliver well-designed, sustainable and popular places. This should involve:
 - making transport considerations an important part of early engagement with local communities;
 - ensuring patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places;
 - understanding and addressing the potential impacts of development on transport networks;
 - realising opportunities from existing or proposed transport infrastructure, and changing transport technology and usage – for example in relation to the scale, location or density of development that can be accommodated;
 - identifying and pursuing opportunities to promote walking, cycling and public transport use; and
 - identifying, assessing and taking into account the environmental impacts of traffic and transport infrastructure – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains.
- **Para 110:** The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.
- **Para 116:** Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios.

2. EXISTING SITE CONDITIONS

- 2.1 The site is currently vacant and is bound by football pitches to the north and west and an existing residential development (Bamford Mews) to the south and southeast of the site. The site is currently accessed from an existing turning head in Bamford Mews as demonstrated in **Photograph 1**.



Photograph 1: Existing Turning Head/Future Site Access

Local Road Network

- 2.2 Bamford Mews is a residential access road providing access to the houses, apartments and associated parking areas to the south and southeast of the site, with an electric gate measuring 5.5m wide located approximately 75m from the Norden Road junction, as shown in **Photograph 2** below.



Photograph 2: Existing Residential Gated Access

- 2.3 Bamford Mews varies in width from approximately 3.2m at its narrowest and 6.2m at its widest, with sections of one way working. Despite this, the low vehicle speeds and suitable forward visibility observed on the site visit, as shown in **Photographs 3** and **4**, allows for drivers to see oncoming vehicles and wait, which is encouraged by the presence of speed bumps in these locations.



Photograph 3: Road Narrowing



Photograph 4: Road Narrowing within private road

- 2.4 There are currently no parking restrictions along either side of Bamford Mews however, on-street parking was not observed on the site visit.
- 2.5 Bamford Mews connects to the Bamford Mews / Norden Road junction east of the site, which measures circa 5.5m wide with circa 6.0m junction radii and is subject to a 30mph speed limit. There is suitable visibility achievable from the Bamford Mews / Norden Road junction, including to the signalised pedestrian crossing located approximately 15m north of the junction.

Pedestrian Infrastructure

- 2.6 The existing pedestrian infrastructure in the local area presents an excellent opportunity to promote sustainable travel to future users of the site. Footways are present along at least one side of Bamford Mews throughout its entirety, connecting to footways along the western side of Norden Road. The existing conditions of the footways provided along Bamford Mews are shown in **Photographs 5** and **6**.



Photograph 5: Bamford Mews Existing Footway



Photograph 6: Bamford Mews Existing Footway

- 2.7 Footways measuring circa 2.0m-2.4m wide are provided throughout the entirety of Norden Road along both sides of the carriageway, with these providing safe pedestrian connection to many of the local amenities located along Norden Road, in addition to the local bus stops within the vicinity of the Bamford Mews junction. The existing conditions of the footways along Norden Road are shown in **Photographs 7 and 8.**



Photograph 7: Norden Road Existing Footways (facing south)



Photograph 8: Norden Road Existing Footways (facing north)

- 2.8 A signalised pedestrian crossing with tactile paving and dropped kerbs is provided approximately 15m north of the Bamford Mews/Norden Road junction, as shown in **Photograph 9**, facilitating safe pedestrian movement from the site to the local amenities along the eastern side of Norden Road.



Photograph 9: Norden Road Signalised Crossing

Cycle Infrastructure

- 2.9 Although there is no dedicated cycle infrastructure within the immediate vicinity of the site, the low speed, lightly trafficked and gentle topography of the local roads, provide an environment conducive to cycling. It should be noted that opportunities to promote cycling particularly to future residents are limited given the demographic of residents (discussed further in subsequent sections). As a result, there is not anticipated to be a large demand for cycling at the proposed development.

Public Transport

- 2.10 There are good public transport links close to the site, with the closest bus stops to the site located along Norden Road within the vicinity of the Bamford Mews / Norden Road junction, approximately 200m east of the proposed access, equating to a 3-minute walk. The existing conditions of the bus stops can be seen in **Photographs 10** and **11**. A summary of the services offered from the Norden Road bus stops can be seen in **Table 1**.

Bus Number	Route	Frequency		
		Monday-Friday	Saturday	Sunday
17	Blackley – Middleton – Rochdale	Seven a day	No Service	No Service
433	Bury – Ferngrove – Bamford – Norden	Once an hour	Once an hour	Six a day
442	Rochdale – Broadlhalgh – Bamford – Norden	Once an hour	Once an hour	Once an hour
467	Bury – Jericho – Bamford – Rochdale	Twice an hour	Twice an hour	Once an hour
468	Bury – Jericho – Bamford – Passmonds - Rochdale	Twice an hour	Twice an hour	Once an hour

Table 1: Local Bus Services



Photograph 10: Northbound Bus Stop (Norden Road)



Photograph 11: Southbound Bus Stop (Norden Road)

Rail Station

- 2.11 There are two train stations, Rochdale Station and Castleton Station, located within an approximate 5.5km distance of the site, with both accessible by two bus journeys utilising the services running from the stops along Norden Road. Rochdale Station is approximately an 18-minute cycle journey and has facilities for 16 cycle parking spaces while Castleton Station is approximately a 21-minute cycle and has 10 spaces. Rochdale Station is on the Rochdale and Oldham tram line and provides a tram every 12 minutes to East Didsbury by Manchester, in addition to rail services to Manchester Victoria, Salford, Bolton, Blackburn, Leeds, York and more local, regional and national destinations.

Accessibility to Local Amenities

- 2.12 CIHT document 'Providing for journeys on foot' (2000, Table 3.2) identifies the 'desirable', 'acceptable' and 'preferred maximum' walking distances to destinations. **Table 2** outlines the different classifications and the associated distances.

	Town Centre (m)	Elsewhere (m)
Desirable	200	400
Acceptable	400	800
Preferred Maximum	800	1200

Table 2: CIHT guidance for 'Providing for journeys on foot' (2000)

- 2.13 Furthermore, the CIHT document 'Planning for Walking' (April 2015) identifies that whilst the number of pedestrian journeys is decreasing, 'the average length of pedestrian journeys increased slightly from 0.7 miles to 0.85 miles' between 1985 to 2007 (page 6). This equates to an average length of pedestrian journeys of 1,368m. The average duration also increased from 15 minutes to 17 minutes.
- 2.14 The location of the site in Bamford is such that there is a wide range of facilities and amenities adjacent to the proposed development. Some of the amenities that would be of interest to the demographic of the proposed development are presented in **Table 3**, with the distances of these from the centre of the site outlined.

Service	Distance (m)	Walk (80m per minute)	Cycle (268m per minutes)
Norden Road bus stops	275	4	1
Bamford Orthodontic Practice	355	4	1
Mojitos Bar	375	5	1
Bamford Hairworks Hairdressers	375	5	1
Bamford Dry Cleaners	375	5	1
Bamford Balti Express Indian Takeaway	375	5	1

AMOR Indian Restaurant	375	5	1
Tesco Express	375	5	1
Tesco Bank ATM	375	5	1
Bamford Bowling Club	425	5	2
The Grapes at Bamford Public House	475	6	2
Rochdale Tennis Club	575	7	2
Bamford Fieldhouse Cricket Club	625	8	2

Table 3: Proximity to Local Amenities

Summary of Site Accessibility

- 2.15 The development is in close proximity to a number of amenities within Bamford, including bus stops, convenience store, public houses/restaurants and places of leisure. The public transport options close to the site are good with frequent connections to destinations such as Rochdale and Bury. Furthermore, the pedestrian and cycle infrastructure within Bamford is considered to be good, providing connections to the local amenities. The site is therefore considered to present an excellent opportunity to create a sustainable development.

Personal Injury Accident (PIA) Data

- 2.16 Personal Injury Accident (PIA) data has been obtained from the Department for Transport's (DfT) Mapping Application for Visualising Road Injury Casualties (MAVRIC) for the most recently recorded 5-year period between 2019 – 2023 in order to analyse the existing safety conditions of the local road network.

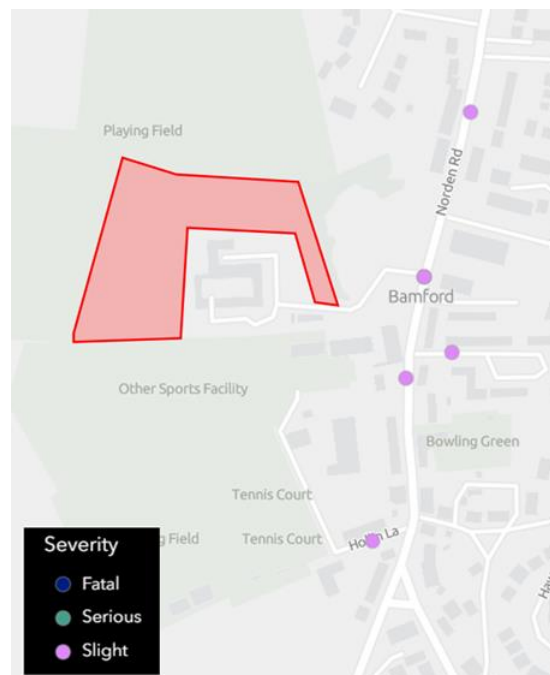


Figure 2: PIA Data (2019-2023)

2.17 **Figure 2** demonstrates that 3 'slight' incidents have occurred within 300m of the Bamford Mews / Norden Road. None of these accidents involved a pedestrian or cycle casualty and 3 accidents within a 5-year period equates to less than one accident a year and as such there is not considered to be a safety issue along the local highway network that would pose a threat or be exacerbated by users of the proposed development.

3. PROPOSED DEVELOPMENT

- 3.1 The development proposals are for a Retirement Living development comprising 49 RL apartments (29 x 1-bed & 20 x 2-bed) and 18 2-bed RL bungalows. The proposed layout is attached in **Appendix A**.
- 3.2 'Retirement Living' developments are designed to accommodate elderly persons who require limited support to allow them to live a relatively independent life. They consist of individual apartments for the residents with communal facilities such as homeowners' lounge, landscaped gardens and guest suites where friends or relatives can stay when visiting a resident. The scheme is minimally staffed with only a house manager on duty during office hours, and an alarm call system is in place for residents to call for help in an emergency outside of office hours.
- 3.3 McCarthy Stone developments are typically age-restricted to 55 years and above, however the average age of entry to McCarthy Stone Retirement Living developments has been found to be 78 years. The decision to move into a McCarthy Stone development is driven by age and needs, with residents usually choosing to move into a Retirement Living apartment as their current home no longer meets their required needs due to the size of the property or location.

Access Arrangements

- 3.4 Vehicle access is proposed to the north of an existing turning head within the Bamford Mews residential development. The proposed access will measure 6.0m, which is in accordance with Manual for Streets to allow for two cars to pass each other. Within the site the access road narrows to 5.5m, which is considered suitable to serve the proposed bungalows and RL apartment building. Private vehicle tracking has been completed (**Appendix B**) which demonstrates that two cars are able to pass at the site access in accordance with Manual for Streets (MfS) guidance.
- 3.5 Footways measuring 1.8m wide will be provided along both sides of the proposed internal road, which will extend to provide safe pedestrian connection to all bungalows and the proposed RL building. Furthermore, it is stated within the Department for Transport's (DfT) 'Inclusive Mobility' document (December 2021) that a footway width of 1500mm is sufficient to enable a wheelchair user (including a mobility scooter) and a pedestrian to safely pass, with the likelihood of two-way movement of two wheelchair users anticipated to be low. Therefore, the provision of 1.8m footways considered to provide safe pedestrian passage for all expected site visitors. It is therefore considered that safe and suitable access is achievable for all site users, as required by the NPPF.

Car Parking Provision

- 3.6 In order to inform the car parking provision Rochdale Borough Council's 'Core Strategy' (2016) has been consulted however, there are no specific standards within the document for retirement developments. Therefore, independent research undertaken by McCarthy Stone into the parking demand at existing sites has been considered to inform an appropriate level of parking provision.
- 3.7 The McCarthy Stone research utilises parking surveys which have been undertaken at their existing developments to better understand actual demand and to inform the design of future schemes. The data (attached in **Appendix C**) shows the average demand is 0.517 spaces per apartment. For the 49-apartments this equates to a total of 25 spaces. In total 35 spaces are proposed at a ratio of 0.71 spaces per apartment which should therefore ensure that no overspill parking occurs.
- 3.8 While the bungalows are RL, to provide a robust assessment these have been assessed against the local C3 residential standard. These require a provision of 2 car parking spaces for 2-bed C3 dwellings outside of town centres, which would equate to a required provision of 36 spaces for the 18 RL bungalows, which is proposed at the site and therefore in accordance with RBC's standards.
- 3.9 The proposed parking spaces measure 2.5m x 5m and the proposed tandem car parking spaces measure a minimum of 3.0m x 5.0m, which is in accordance with RBC standards. The proposed parking spaces on-site have been tracked using a private vehicle and all spaces accommodate the safe manoeuvre of cars in and out of the spaces, with some of these demonstrated in **Appendix B**.

Mobility Scooter and Cycle Parking

- 3.10 The independent research undertaken by McCarthy Stone sets out the mobility scooter demand at existing developments across the country. The research states an average ownership of 0.103 scooter spaces per apartment, equating to 5 spaces for the 49-unit development. A dedicated store with 8 mobility scooter spaces is provided in excess of the independent research.
- 3.11 In respect of cycle parking, the local plan only contains standards for general C3 housing, which is not relevant to the age-restricted nature of the proposal. The independent research undertaken by McCarthy Stone states that the average ownership is 0.018 cycles per apartment, equating to a total of 1 cycle space across the apartments. This can be accommodated within the mobility scooter store, while cycle parking demand for the RL bungalows will be accommodated within the curtilage of each bungalow.

Servicing Arrangements

- 3.12 A fire tender is able to enter the site, turn and leave in a forward gear whilst getting within 18m of the proposed dry risers within the RL apartment building and within 45m of all buildings, in line with Building Regulations (Document B). The associated tracking drawing is shown in **Appendix D**.
- 3.13 A refuse vehicle is able to access within a 25m bin drag distance of all of the proposed RL bungalows, in addition to accessing within 10m of the proposed bin store located within the proposed RL car park. This meets bin carry distance requirements set out in Manual for Streets. The associated tracking drawing of a refuse vehicle is also contained within **Appendix D**.

4. HIGHWAY IMPACT

- 4.1 The subsequent section of this Transport Statement (TS) assesses the likely vehicular trip generation of the proposed development using the TRICS database. As the site is currently vacant, it has been assumed that no vehicle trips are associated with the existing use.

Proposed Development

- 4.2 A TRICS assessment has been undertaken to forecast the likely number of trips the proposed development is anticipated to generate. The results for the RL apartments are in **Table 4** with the outputs in **Appendix E**. The following parameters were used:

- Use Class 'Residential' 'Retirement Flats';
- Parameter of 17-88 units;
- Weekday surveys only;
- Sites located in 'Edge of Town' and 'Suburban Area' locations only.

	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (12 hours)
	Arrivals	Departures	Total	Arrivals	Departures	Total	
Trip Rate	0.046	0.065	0.111	0.065	0.041	0.106	1.647
Trip Generation (49 RL Apartments)	2	3	5	3	2	5	80

Table 4: Proposed Development Trip Generation (apartments)

- 4.3 In total, 5 vehicular trips are expected in the AM and PM peaks, with a total of 80 trips over a 12-hour period, equating to one vehicle movement every 9 minutes across the duration of a day for the RL apartments.
- 4.4 Given the specific nature of the proposals, McCarthy Stone Independent research has also been consulted to estimate the trip generation for the proposed RL apartments, as shown in **Table 5** with the full outputs attached in **Appendix C**.

	AM Peak (08:00-09:00)	PM Peak (17:00-18:00)	12 hour period
Two Way Trip Rate	0.106	0.092	2.20
Trip Generation (49 RL Apartments)	5	5	108

Table 5: McCarthy Stone Data Trip Generation

4.5 While the bungalows are RL dwellings, to provide a robust assessment these have been assessed as C3 residential houses. The results for the RL bungalows are in **Table 6** with the outputs in **Appendix E**. The following parameters were used:

- Use Class 'Residential' 'Houses Privately Owned';
- Parameter of 10-50 dwellings;
- Weekday surveys only;
- Sites located in 'Edge of Town' locations only.

	AM Peak (0800-0900)		Total	PM Peak (1700-1800)		Total	Daily (12 hours)
	Arrivals	Departures		Arrivals	Departures		
Trip Rate	0.184	0.402	0.586	0.356	0.206	0.562	5.987
Trip Generation (18 RL Bungalows)	3	7	11	6	4	10	108

Table 6: Proposed Development Trip Generation (Bungalows)

4.6 In total, 11 vehicular trips are expected in the AM peak, 10 in the PM peak and a total of 108 trips over a 12 hour period, equating to one vehicle trip every 6 to 7 trips across the period of a day for the RL bungalows, although in reality this is likely to be lower considering the specific nature of the proposals.

4.7 As a robust assessment, based on the anticipated trip generation figures outlined in **Table 4** and **6**, the forecast total trip generation of the proposed development is contained within **Table 7** below.

	AM Peak (0800-0900)		Total	PM Peak (1700-1800)		Total	Daily (12 hours)
	Arrivals	Departures		Arrivals	Departures		
TRICS Trip Generation (49 RL Apartments)	2	3	5	3	2	5	80
TRICS Trip Generation (18 RL Bungalows)	3	7	11	6	4	10	108
Total	5	10	16	9	6	15	188

Table 7: Proposed Development Trip Generation (Total)

4.8 As outlined in **Table 7**, as a worst case scenario the proposed development is anticipated to result in 16 trips in the AM peak, equating to one vehicle movement every 3 to 4 minutes, 15 trips in the PM peak, equating to one vehicle movement every 4 minutes, and 188 trips over a 12-hour period, equating to one vehicle movement every 3 to 4 minutes. The forecast trip generation of the proposed development is not anticipated to have a material impact on the local highway network, especially when considering the trips associated with the RL bungalows are likely to be lower than outlined above.

4.9 The National Planning Policy Framework (NPPF) (December 2024) states in Paragraph 116 that 'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios.' The proposals should be considered acceptable in terms of highway impact on the above basis and therefore we encourage Rochdale Borough Council to look favourably upon the proposals.

5. SUMMARY AND CONCLUSIONS

- 5.1 This Transport Statement (TS) has been prepared by Paul Basham Associates on behalf of McCarthy Stone to support a planning application for a Retirement Living (RL) development comprising 49 RL apartments (29 x 1-bed & 20 x 2-bed) and 18 2-bed RL bungalows development on vacant land to the north of Bamford Mews, Rochdale.
- 5.2 The development is adjacent to a number of amenities within Bamford including bus stops, convenience store, public houses/restaurants and places of leisure. It is therefore considered that the site presents an excellent opportunity to create a sustainable development.
- 5.3 Personal Injury Accident (PIA) data has been obtained from MAVRIC for the most recent 5 year period (2019-2023). No accident history has been identified which would impact or be exacerbated by the proposals.
- 5.4 Access is proposed to the north of an existing turning head within the private Bamford Mews residential development. The proposed access will measure 6.0m, which is in accordance with Manual for Streets to allow for two cars to pass each other. Within the site the access road narrows to 5.5m, which is considered suitable to serve the proposed bungalows and RL apartment building. It is therefore considered that safe and suitable access is achievable for all site users, as required by the NPPF.
- 5.5 Car parking will be provided for the development, based on independent research undertaken at the applicant's existing age-restricted developments. 33 spaces are therefore proposed for the apartments, which will ensure no overspill parking occurs. Suitable mobility scooter and cycle parking is also provided based on the data. 36 parking for the bungalows is also provided on-plot in accordance with RBC general C3 standards.
- 5.6 A fire tender is able to enter, turn and leave in a forward gear. Fire appliances are able to get within 45m of all buildings and 18m of the proposed dry risers within the RL building. In accordance with Building Regulations. Refuse collection is proposed from the internal road for the RL bungalows and from a bin store for the RL apartments. The vehicle is able to get within 10m of the refuse store in accordance with Manual for Streets (MfS) guidance.
- 5.7 As a worst case scenario, the proposed development is anticipated to result in 16 trips in the AM peak and 15 trips in the PM peak. The forecast trip generation of the proposed development is not anticipated to have a material impact on the local highway network, especially when considering the trips associated with the RL bungalows are likely to be lower.

5.8 The National Planning Policy Framework (NPPF) (December 2024) states in paragraph 116 that 'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios.' Paul Basham Associates would therefore encourage the local highway authority to look favourably upon this development in relation to highways and transportation.

Appendix A



SCHEDULE OF ACCOMMODATION

Bungalows

8 x B2_W2 @ 72.45m2 per unit
10 x B2_N2 @ 72.45m2 per unit

TOTAL 18 Bungalows
36 car parking spaces

RLA Block

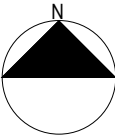
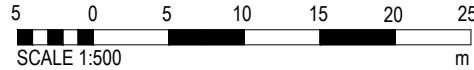
29 x 1 beds
20 x 2 beds

TOTAL 49 Apartments (3,615m2 GIA)
35 car parking spaces (inc. 3 accessible spaces)

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DRAWING NOTES:



E	Landscape plan updated	12.11.2025	AM
D	2 bed unit amendments & general	06.10.2025	AM
C	Bin store location amended	22.08.2025	MSk
B	Amended to client's comments	21.07.2025	MSk
A	First Issue	15.07.2025	MSk

REV	DESCRIPTION	DATE	BY	CHKD
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ORIGINATOR: www.ridge.co.uk



PROJECT NUMBER: 1234567

CLIENT:

CONTRACTOR CLIENT:

PROJECT:

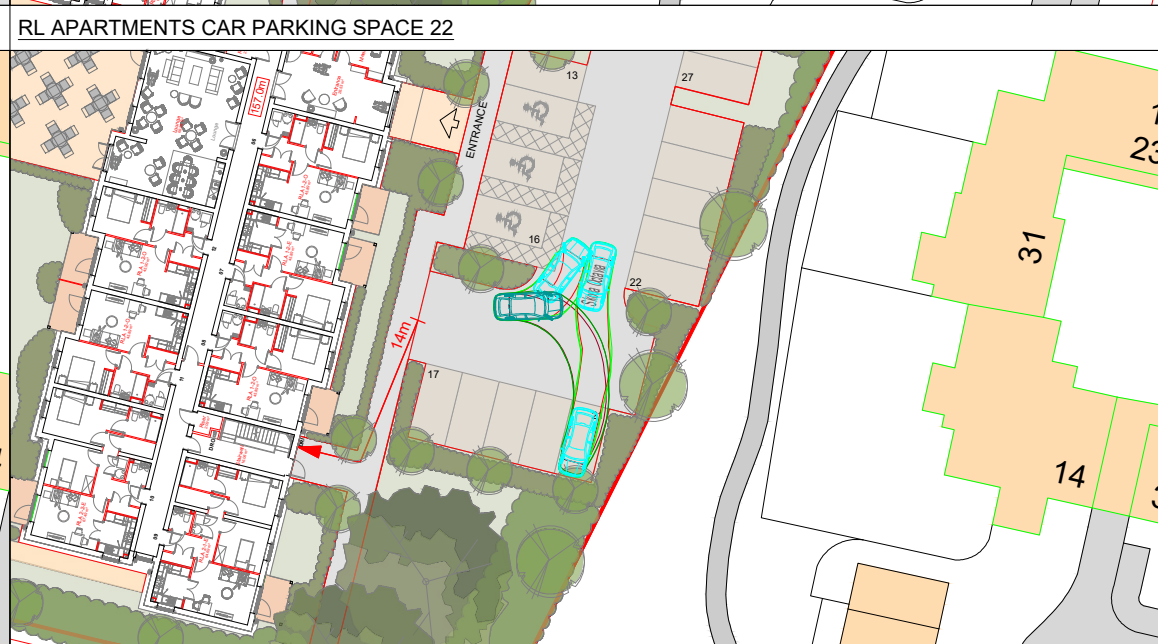
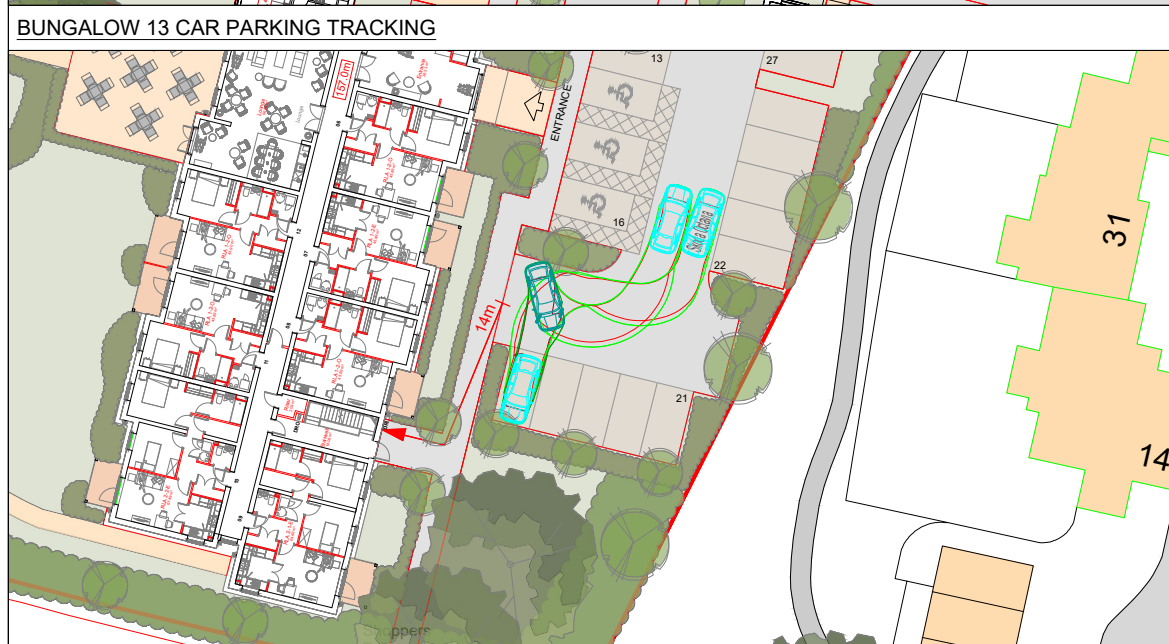
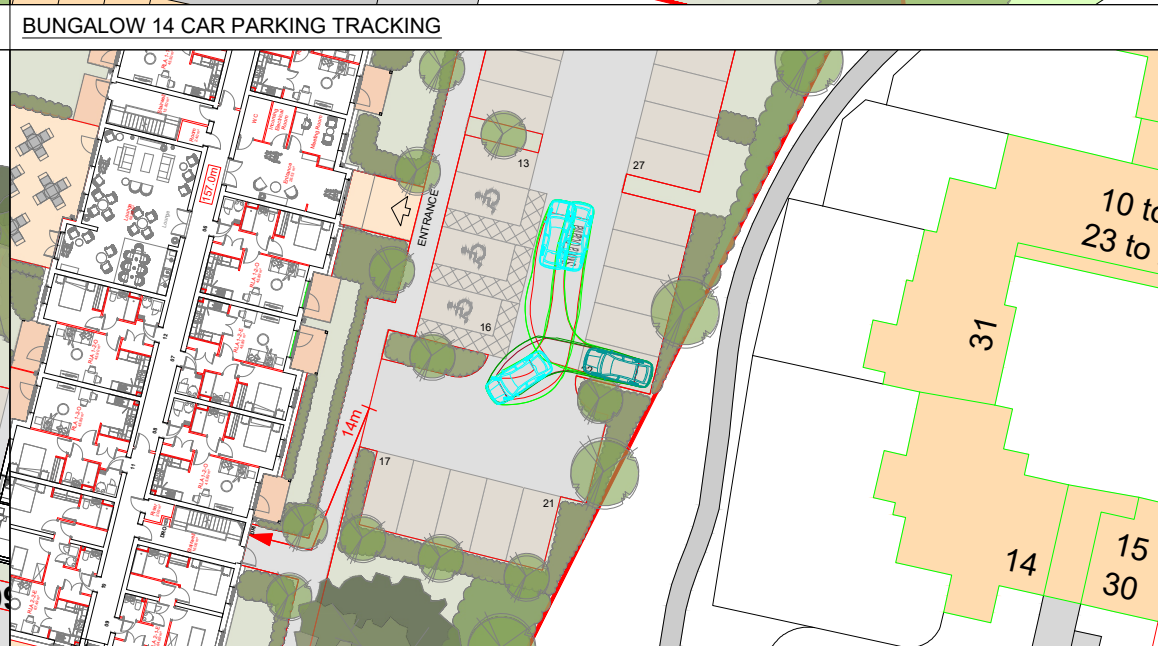
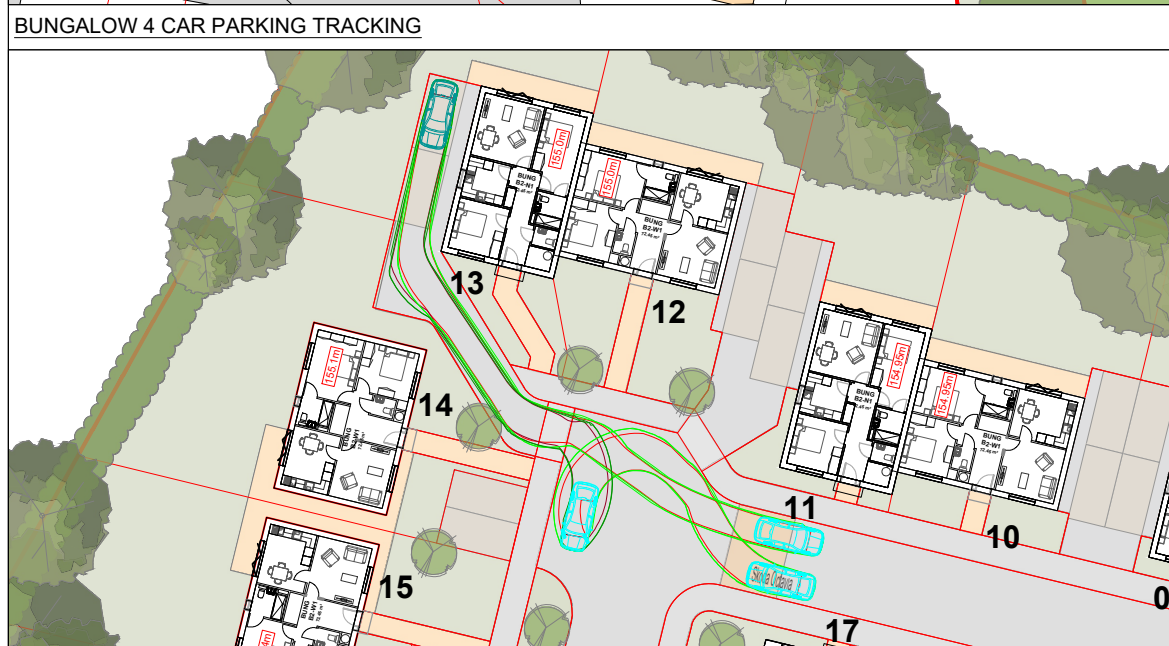
McCarthy Stone Land at Norton Road Bamford,
Rochdale OL11 5NX

TITLE:

Proposed Site Plan

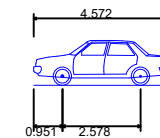
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SCALE:	1:500	@ A3	DATE: 14.07.2025
STATUS:	S3 FOR COMMENT		
DRAWING No:	NO-03010-03-AC-0002		
REGION:	PROJECT NUMBER:	STAGE NUMBER:	DISC: DRAWING NO.: REV:
NO	3010	03	A 0002 E

Appendix B



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Skoda Octavia
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Max Track Width
Lock to lock time
Kerb to Kerb Turning Radius

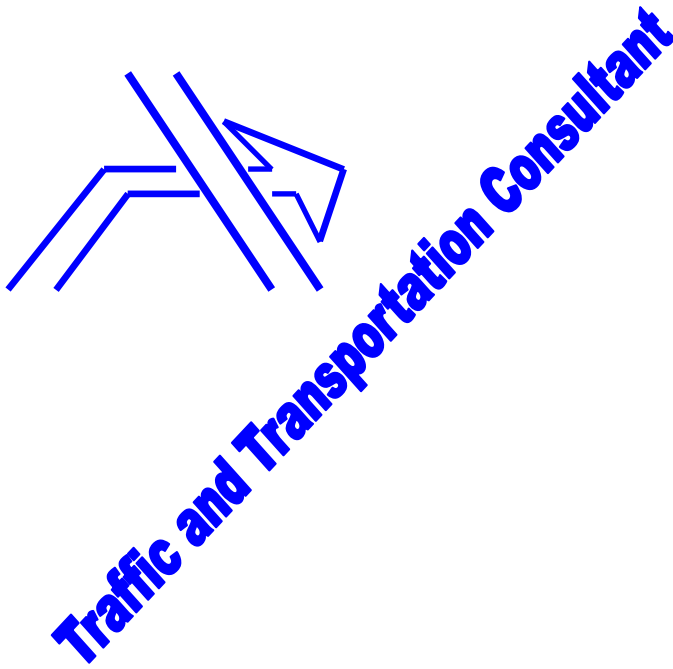
PRELIMINARY

DRAWING/DESIGN IS STILL 'IN DEVELOPMENT'
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P02	UPDATED LAYOUT	27.11.25	LMR	JNR
P01	FIRST ISSUE	20.08.25	LMR	JNR
Rev	Description	Date	By	App'd
Date Created	Drawn By	Approved By	Suitability Code	
20.08.25	LMR	JNR	-	
PBA Project Number	Scale	(AT A3)		
501.0022	1:500			
PBA Drawing No:			Revision	
501.0022-0005			P02	

Appendix C

Dr Allan J Burns



MCCARTHY STONE RETIREMENT LIFESTYLES LTD

RETIREMENT LIVING DEVELOPMENTS

REPORT ON TRANSPORT CHARACTERISTICS

FEBRUARY 2024

A. Introduction

A.1 This report is divided into 5 sections, as indicated below. This will allow the report to be used as a whole or in parts, as appropriate.

1. Residents' car, cycle and buggy ownership levels,
 2. Cars owned by residents,
 3. Car parking demand,
 4. Traffic generation
- and
5. Travel plan guidance.

SECTION 1.

RETIREMENT LIVING DEVELOPMENTS

CAR OWNERSHIP OF RESIDENTS

1.1 INTRODUCTION

1.1.1 The data contained in this report has been obtained by sending questionnaires to the house managers of a number of relatively recent McCarthy and Stone Retirement Living developments.

1.1.2 The questionnaires were sent to the following developments:-

Table 1.1.1 Surveyed Developments

Development	Location	Date of first occupation
Henshaw Court	Castle Bromwich, Birmingham	August 2013
Anstie Court	Devizes, Wiltshire	December 2013
Haven Court	Hythe, Hampshire	December 2013
Cornmantle Court	Ringwood, Hampshire	Jan 2015
Norton Court	Leighton Buzzard, Bedfordshire	July 2015
Waverley Court	Carlisle, Cumbria	August 2015
Hamon Court	Hunstanton, Norfolk	February 2017
The Laureates	Cottingham, Yorkshire	February 2017
Riverside Court	Abergavenny, Monmouthshire	May 2017
Swinden Court	Darlington, County Durham	April 2019
Tumbling Weir Court	Ottery St Mary, Devon	August 2019
Beck House,	Isleworth, London	September 2019
Greenhaven	Poole, Dorset	March 2021

1.1.3 In the following tables of data, the developments will be listed in the above order, i.e. from the most established to the most recent development. In this way it may be possible to detect any trends related to the age of the development. However, the confidence that can be given to any such perceived trends may be limited, due to the limited sample size, but may support trends detected in previous studies or be supported by logic.

1.1.4 A copy of the survey questionnaire is included as Appendix 1.A to this section of the report.

1. 2. OCCUPANCY LEVELS

- 1.2.1 The questionnaire data gives the occupancy levels of the apartments. It has been shown, from past surveys that the occupancy level is higher in the larger apartments, sold as providing two bedrooms. As the proportion of these larger apartments varies from development to development, it is prudent to look at these types of apartments independently.

Table 1.2.1 Apartment Occupancy

Development	Occupied One Bed Apps	Total Residents (One bed)	Residents per One Bed App	Occupied Two Bed Apps	Total Residents (Two bed)	Residents per two Bed App	Tot Residents Per App
Henshaw Court	23	29	1.261	13	15	1.154	1.222
Anstie Court	10	13	1.300	20	21	1.05	1.133
Haven Court	14	20	1.429	16	17	1.063	1.233
Cornmantle Court	18	23	1.278	13	20	1.538	1.387
Norton Court	15	16	1.067	12	18	1.50	1.259
Waverley Court	24	24	1.00	18	25	1.389	1.167
Hamon Court	14	17	1.214	13	14	1.077	1.148
The Laureates	20	23	1.150	12	18	1.50	1.281
Riverside Court	19	26	1.368	17	24	1.412	1.389
Swinden Court	11	11	1.00	11	18	1.636	1.318
Tumbling Weir Court	13	15	1.154	11	15	1.364	1.25
Beck House,	8	10	1.25	6	7	1.167	1.214
Greenhaven	9	14	1.556	19	26	1.368	1.429
Totals	198	241	1.217	181	238	1.315	1.264

- 1.2.2 Although the most recent development has the highest occupancy rate, there does not appear to be any significant trend in the occupancy rate between the oldest and most recent developments.

1. 3. SEX OF RESIDENTS

1.3.1 The survey also established the sex of residents.

Table 1.3.1 Sex of Residents

Development	Occupied Aps 1 bed	One Bed Aps Females	One Bed Aps Males	Occupied Aps 2 bed	Two Bed Aps Females	Two Bed Aps Males
Henshaw Court	23	22	7	13	11	4
Anstie Court	10	10	3	20	16	5
Haven Court	14	15	5	16	10	7
Cornmantle Court	18	16	7	13	12	8
Norton Court	15	10	6	12	10	8
Waverley Court	24	17	7	18	17	8
Hamon Court	14	13	4	13	9	5
The Laureates	20	16	7	12	10	8
Riverside Court	19	16	10	17	15	9
Swinden Court	11	6	5	11	10	8
Tumbling Weir Court	13	12	3	11	10	5
Beck House,	8	5	5	6	7	0
Greenhaven	9	7	7	19	16	10
Totals	198	165	76	181	153	85

1.3.2 In total there were 318 female residents and 161 male residents. Therefore 66.4% of the residents were female and 33.6% male.

1.3.3 The residents in the occupied one bedroom apartments were 68.5% female and 31.5% male, a little higher proportion of females than in the larger two bedroom apartments, where the split was 64.3% females and 35.7% male.

1.4. VEHICLE OWNERSHIP

- 1.4.1 Based on the evidence from previous surveys, the vehicle ownership of residents of one bedroom apartments is generally lower than that of the residents of two bedroom units. The data given in Table 1.4.1 below confirms that this remains valid.

Table 1.4.1 Vehicle Ownership – one and two bedroom apartments.

Development	Occupied Aps 1 bed	Vehs - one bed aps	Vehs per 1 bed ap	Occupied Aps 2 bed	Vehs – two bed aps	Vehs per 2 bed ap	Total Vehs	Vehs per total ap
Henshaw Court	23	12	0.522	13	7	0.538	19	0.528
Anstie Court	10	4	0.400	20	6	0.300	10	0.333
Haven Court	14	4	0.286	16	5	0.313	9	0.300
Cornmantle Court	18	6	0.333	13	7	0.538	13	0.419
Norton Court	15	7	0.467	12	8	0.667	15	0.556
Waverley Court	24	7	0.292	18	10	0.556	17	0.405
Hamon Court	14	3	0.214	13	7	0.538	10	0.370
The Laureates	20	4	0.200	12	8	0.667	12	0.375
Riverside Court	19	2	0.105	17	9	0.529	11	0.306
Swinden Court	11	4	0.364	11	8	0.727	12	0.545
Tumbling Weir Court	13	7	0.538	11	7	0.636	14	0.583
Beck House,	8	3	0.375	6	5	0.833	8	0.571
Greenhaven	9	5	0.556	19	15	0.795	20	0.714
Totals	198	68	0.343	181	102	0.564	170	0.449

- 1.4.2 As can be seen, the average vehicle ownership of the residents of one bedroom apartments is 0.343 vehicles per apartment and that of the residents of the larger apartments is 0.564 vehicles per apartment. Therefore, the ownership for the larger apartments is 1.64 times that for the smaller apartments.
- 1.4.3 Although the overall vehicle ownership level is at its highest for the most recent development, there does not appear to be a significant vehicle ownership trend. It may well be that the particular characteristics of Greenhaven, a small scheme in a relatively high value area, would explain the high level of vehicle ownership.
- 1.4.4 Experience suggests that the presence of a male resident increases the likelihood of a vehicle being owned by the residents of an apartment. In the following table (1.4.2) the ownership of a vehicle is shown in relation to the occupants of the apartment. It shows that the highest level of vehicle ownership is where there is more than one residents of an apartment, at 0.745 vehicles per apartment. Given the higher occupancy levels of the larger apartments, this supports the finding that vehicle ownership is higher in the larger apartment.

- 1.4.5 In the vast majority of apartments, the two residents include at least one male resident. This, and also the level of vehicle ownership in male only residents, supports the finding that the presence of a male resident increases the likelihood of vehicle ownership.

Table 1.4.2 The Sex of Residents owning a Vehicle

Development	Single female occupants	Vehs	Single male occupants	Vehs	Two occupants	Vehs
Henshaw Court	25	10	3	0	9	8
Anstie Court	27	7	4	0	4	3
Haven Court	18	2	5	1	7	6
Cornmantle Court	16	3	3	3	12	8
Norton Court	13	6	7	3	7	6
Waverley Court	26	5	7	5	8	7
Hamon Court	18	4	5	4	4	2
The Laureates	17	3	6	3	9	6
Riverside Court	17	3	5	1	14	7
Swinden Court	9	3	6	4	7	5
Tumbling Weir Court	16	7	2	1	6	6
Beck House,	8	4	3	3	3	1
Greenhaven	12	8	4	1	12	11
Totals	222	65	60	29	102	76
Averages		0.293		0.483		0.745

- 1.4.6 The vehicle ownership of single male residents is 0.483 vehicles per apartment, which is some 1.64 times the level of ownership amongst single female residents, where the ownership rate is 0.293 vehicles per apartment.
- 1.4.7 The data in Table 1.4.3, below, indicates that the parking provision for residents generally exceeds the level of vehicle ownership. There is only one development (Henshaw Court) out of the thirteen where the resident vehicle ownership exceeds the provision. The combined data would suggest an over-provision of some 42%. However there are a number of vacant apartments in the developments and future residents could include a number of vehicle owners. The surveyed showed 379 occupied apartments and 69 vacant apartments. If the level of vehicle parking remains the same amongst future residents, it would suggest an overall demand for 201 parking spaces, which is still less than the 242 provided, suggesting an “over-provision” of some 20%.

Table 1.4.3 Vehicle ownership and Parking Provision

Development	Total Vehs	Total Parking	Total Resident Parking	Visitor Parking	Staff Parking
Henshaw Court	19	17	17	0	0
Anstie Court	10	16	16	0	0
Haven Court	9	17	17	0	0
Cornmantle Court	13	19	14	5	0
Norton Court	15	17	17	0	0
Waverley Court	17	30	22	7	0
Hamon Court	10	18	18	0	0
The Laureates	12	25	22	3	0
Riverside Court	11	19	19	0	0
Swinden Court	12	28	24	3	1
Tumbling Weir Court	14	16	16	0	0
Beck House,	8	15	15	0	0
Greenhaven	20	30	24	4	2
Totals	170	267	242	22	3

1.5. CYCLE OWNERSHIP

- 1.5.1 The cycle ownership amongst residents is extremely low, as would be expected, given the age profile of residents and the fact that residents generally move into this form of accommodation when they need an element of support and, for example, where the upkeep of the former houses and gardens becomes too difficult for them. This is demonstrated in the following table (1.5.1):-

Table 1.5.1 Cycle Ownership

Development	Number of Occupied Apartments	Number of cycles owned
Henshaw Court	36	1
Anstie Court	30	2
Haven Court	30	1
Cornmantle Court	31	0
Norton Court	27	0
Waverley Court	42	2
Hamon Court	27	1
The Laureates	32	0
Riverside Court	36	0
Swinden Court	22	0
Tumbling Weir Court	24	0
Beck House,	14	0
Greenhaven	28	
Totals	379	7
Average Cycle per occupied apartment	0.018	

- 1.5.2 As can be seen, the level of cycle ownership is very low, at approximately 1 cycle per 54 apartments.
- 1.5.3 In general, this would suggest that approximately half of the developments would have no cycle owners and the peak ownership is two cycles per development. Consideration should be given to catering for this peak demand for undercover cycle parking. It may well be that the most cost effective provision is within the mobility scooter store.

1.6. MOBILITY SCOOTER OWNERSHIP AND STORAGE

1.6.1 The number of mobility scooters (buggies) owned by residents of all the apartments is shown in Table 1.6.1, below. This also shows the storage arrangements.

Table 1.6.1, Mobility Scooter Ownership

Development	Number of Occupied Apartments	Number of mobility scooters owned	Storage location:- S = store provided A= apartment
Henshaw Court	36	1	1S
Anstie Court	30	5	5S
Haven Court	30	5	5S
Cornmantle Court	31	1	1S
Norton Court	27	7	7S
Waverley Court	42	4	4S
Hamon Court	27	2	2S
The Laureates	32	2	2S
Riverside Court	36	5	5S
Swinden Court	22	5	3S
Tumbling Weir Court	24	1	1S
Beck House,	14	1	1S
Greenhaven	28	0	-
Totals	379	39	37S – 2 Other
Average Mobility Scooters per occupied apartment	0.103		

1.6.2 The survey shows that, on average, some 10% of apartments own a mobility scooter, although the peak ownership is some 26%. In all but one development, all scooters were kept in the store provided.

APPENDIX 1. A

Development

House Manager

Total number of parking spaces Number of spaces reserved for :- 1. visitors

2. staff

Apartment number	One or Two Bedrooms	Number of Female occupants	Number of Male occupants	Number of motor vehicles owned	Number of cycles owned	Number of mobility scooters owned/ where stored
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13, if included						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38, if included						

SECTION 2.

RETIREMENT LIVING DEVELOPMENTS

VEHICLES OWNED BY RESIDENTS

2.1 INTRODUCTION

- 2.1.1 The make, model and year of manufacture of vehicles owned by the residents of 7 retirement living developments were recorded as part of the overall survey. The developments surveyed are listed in Table 2.1.1, below.

Table 2.1.1

Development	Location	Date of opening
Olivier Place	Wilton, nr Salisbury	Feb 2017
Queen's Gate	Wokingham, Berkshire	Feb 2017
The Laureates	Cottingham, Yorkshire	Feb 2017
Poets Place	Loughton, Essex	Aug 2017
Lido Grange	Prestatyn, N Wales	Nov 2017
The Boathouse	Southampton	Jan 2019
Juniper House	Milton Keynes, Buckinghamshire	May 2021

- 2.1.2 Appendix 2 A, provides a complete list of the survey results. The surveys included 107 residents' vehicles.
- 2.1.3 Where possible, the lengths and widths of all of these vehicles has been ascertained, using the internet, are noted.

2.2 VEHICLE DIMENSIONS

2.2.1 In previous surveys, the most popular vehicle amongst residents was the Nissan Micra. In the current survey, the most popular vehicle was the Honda Jazz. This was owned by 12.1% of residents. The next most popular was the Toyota Yaris, owned by 5.6% of residents, closely followed by the Ford Fiesta at 4.6%. These relatively small vehicles account for over 22% of vehicles owned.

2.2.2 Table 2.2.1 below shows the distribution of vehicle widths.

Table 2.2.1 Vehicle widths

Width in metres	Number of Vehicles	Percentage of vehicles
Less than 1.60	3	2.80
< 1.62	8	7.48
<1.64	9	8.41
<1.66	16	14.95
<1.68	18	16.82
<1.70	43	40.19
<1.72	44	41.12
<1.74	52	48.60
<1.76	58	54.21
<1.78	70	65.42
<1.80	74	69.16
<1.82	83	77.57
<1.84	90	84.11
<1.86	96	89.72
<1.88	97	90.65
<1.90	100	93.46
<1.92	100	93.46
<1.94	103	96.26
<1.96	103	96.26
<1.98	105	98.13
<2.00	106	99.07
<2.20	106	99.07
<2.40	107	100

2.2.3 It can be seen that almost 70% of these vehicles are less than 1.8 metres wide, which is typically 0.6 metres narrower than a standard car parking space.

2.2.4 There were a small number of very large vehicles in the sample. The largest being one Range Rover. In total, only 5 vehicles (4.6%) were longer than the standard car parking space (4.8 metres). These were the Range Rover, a Lexus, a Mercedes and 2 Mazda 6 vehicles.

2.2.5 Table 2.2.2 below shows the distribution of vehicle widths.

Table 2.2.2 Vehicle lengths

Length in metres	Number of Vehicles	Percentage of vehicles
Less than 3.4	1	0.93
<3.6	13	12.15
<3.8	14	13.08
<4.0	41	38.32
<4.2	67	62.62
<4.4	91	85.05
<4.6	96	89.72
<4.8	102	95.33
<5.0	106	99.07
<5.2	106	99.07
<5.4	107	100

- 2.2.6 It can be seen that over 95% of these vehicles are less than 4.8 metres in length, which is typically the standard length of a car parking space. Some 85% are shorter than 4.4 metres.
- 2.2.7 The mean width of the surveyed vehicles was 1.75 metres and the mean length was 4.11 metres.
- 2.2.8 The vast majority of vehicles owned by residents are of modest size and will be readily accommodated in most conventional car park layouts.
- 2.2.9 Electric Vehicles:- The survey staff were instructed to identify any electric vehicles owned by residents. Only two hybrid vehicles were identified along with one electric vehicle. This is an insignificant number, Of the 91 vehicles observed by the survey staff, only 2.2% were hybrid vehicles and 1.1 were fully electric vehicles. However, the proportions are likely to be higher in the future, as such vehicles become more common and the time of the restriction on the sale of petrol/diesel

APPENDIX 2. A

Vehicles Owned by Residents RL Developments

Manufacturer	Model	Year	Width (metres)	Length (metres)	Notes
BMW	118D	2016	1.765	4.324	
	330i	2022	1.827	4.709	
Citreon	C1	2017	1.615	3.466	
	C3	2013	1.766	4.101	
	Picasso	2010	1.829	4.585	
	Picasso	2016	1.826	4.438	
Dacia	Sondero	2017	1.733	4.056	
Fiat	Panda	2010	1.643	3.653	
Ford	Fiesta	2014	1.722	3.969	
	Fiesta	2015	1.722	3.969	
	Fiesta	2015	1.722	3.969	
	Fiesta	2016	1.722	3.969	
	Fiesta	2018	1.756	4.068	
	Focus	2005	1.823	4.360	
	Focus	2005	1.823	4.360	
	Focus	2017	1.823	4.360	
	Puma	2020	1.805	4.186	
Honda	Jazz	2005	1.694	3.995	
	Jazz	2007	1.675	3.830	
	Jazz	2007	1.675	3.830	
	Jazz	2009	1.695	3.900	
	Jazz	2010	1.695	3.900	
	Jazz	2015	1.694	3.995	
	Jazz	2015	1.694	3.995	
	Jazz	2017	1.694	3.995	
	Jazz	2020	1.694	4.028	
	Jazz	2020	1.694	4.028	
	Jazz	2020	1.694	4.028	
	Jazz	2022	1.694	4.044	
	Jazz	2022	1.694	4.044	
	Civic	2014	1.770	4.300	
Hyundai	i20	2022	1.775	4.040	
	iX20	2015	1.765	4.120	
	Kona	2019	1.800	4.165	
	Santa Fe	2020	1.890	4.770	
Jaguar	F Pace	2017	1.936	4.731	
	F P300	2019	1.923	4.470	

Manufacturer	Model	Year	Width (metres)	Length (metres)	Notes
Kia	Picanto	2008	1.595	3.595	
	Picanto	2008	1.595	3.595	
	Picanto	2020	1.595	3.595	
	Venga	2012	1.865	4.075	
	Venga	2015	1.765	4.075	
Lexus	RX400H	2007	1.845	4.760	
	RX500H	2023	1.920	4.890	
Mazda	2	2012	1.695	3.885	
	2	2021	1.695	4.070	
	2	2016	1.695	4.060	
	CX3	2019	1.765	4.270	
	3	2016	1.795	4.465	
	6	2016	1.840	4.805	
	6	2021	1.840	4.870	
Mercedes	A180	2005	1.975	3.838	
	A180	2009	1.975	3.838	
	B180	2012	1.786	4.359	
	GL350D	2016	1.982	5.240	
	GLC300D	2019	1.890	4.642	
	EQC400	2021	1.884	4.762	
Mini	Countryman	2020	1.822	4.299	
	Cooper	2022	1.727	4.036	
Nissan	Micra	2020	1.743	3.999	
	Note	2008	1.691	4.083	
	Note	2015	1.695	4.100	
	Note	2015	1.695	4.100	
	Juke	2013	1.795	4.135	
	Juke	2021	1.800	4.210	
	Quashqai	2015	1.806	4.377	
	Quashqai	2016	1.806	4.377	
Peugeot	107	2011	1.855	3.430	
	107	2004	1.855	3.430	
	108	2015	1.615	3.475	
	206	2004	1.632	3.822	
	207	2013	1.750	4.044	
	208	2016	1.739	3.973	
	308	2019	1.804	4.253	
	308	2021	1.804	4.253	

Manufacturer	Model	Year	Width (metres)	Length (metres)	Notes
Range Rover	HSE SDV6	2015	2.220	4.850	
Renault	Modus	2008	1.695	3.874	
	Megane	2015	1.848	4.312	
	Megane	2018	1.814	4.359	
Skoda	Citigo	2015	1.645	3.563	
	Citigo	2018	1.645	3.397	
	Rapid	2018	1.706	4.483	
	Fabia	2004	1.646	4.222	
	Fabia	2014	1.642	4.000	
	Yeti	2017	1.763	4.223	
Suzuki	Swift	2022	1.735	3.845	
	Vitara	2022	1.775	4.175	
Toyota	Auris	2017	1.760	4.330	
	Aygo	2011	1.615	3.415	
	Aygo	2021	1.615	3.430	
	Aygo X	2022	1.615	3.455	
	Yaris	2002	1.694	3.950	
	Yaris	2010	1.695	3.950	
	Yaris	2013	1.695	3.950	
	Yaris	2015	1.695	3.950	
	Yaris	2018	1.695	3.950	
	Yaris	2023	1.765	4.172	
	Corolla	2003	1.695	4.385	
Vauxhall	Corsa	2017	1.746	4.036	
	Corsa	2019	1.746	4.036	
	Astra	2013	1.753	4.249	
	Meriva	2013	1.812	4.288	
	Mokka	2015	1.777	4.278	
VW	UPi	2013	1.645	3.540	
	Polo	2004	1.650	3.897	
	Polo	2017	1.682	3.972	
	Golf	2014	1.790	4.255	

SECTION 3.

RETIREMENT LIVING DEVELOPMENTS

OVERALL PARKING SPACE DEMAND

3.1 INTRODUCTION

- 3.1.1 Detailed traffic surveys were undertaken at 6 retirement living developments in England and Wales. Six is the number of sets of data that the TRICS database providers adopted as the minimum number of sites needed for inclusion on their data card.
- 3.1.2 The sites were selected to meet the following criteria:-
1. Relatively recent developments
 2. Feasible to survey - suitable parking for surveys staff to see all necessary activity
 3. An ungated development (or gated with gates normally left open) to ensure available access for residents, visitors, servicing and staff.
- 3.1.3 The same survey staff were used for each of the surveys, to ensure consistency.
- 3.1.4 The staff entered the site car park shortly before 7 a.m. and noted part of the registration numbers of all vehicles present. The full registration plate information was not noted, for confidentiality reasons. Unless there was information to the contrary, these have been assumed to be vehicles owned by residents.
- 3.1.5 From 7 a.m. to 7 p.m., the time and partial registration number details were noted for all vehicle movements into and out of the car park. Where appropriate, this was extended to any vehicle observed to park outside the development, where an occupier of the vehicle was seen to enter or leave the development, for example where a resident was picked up from the roadside dropped off there.
- 3.1.6 This data allows the number of vehicles within the car park (or parking offsite) to be calculated throughout the day.
- 3.1.7 The developments surveyed are listed in Table 3.1.1 below.

Table 3.1.1. Surveys developments

Development	Location	Opening date	Survey date
Haven Court	Hythe, nr Southampton	Dec 2013	Tuesday 4 July 2023
Olivier Place	Wilton, nr Salisbury	Feb 2017	Thursday 3 August 2023
Queen's Gate	Wokingham, Berkshire	Feb 2017	Thursday 10 August 2023
The Laureates	Cottingham, Yorkshire	Feb 2017	Thursday 18 January 2024
Lido Grange	Prestatyn, N Wales	Nov 2017	Thursday 1 February 2024
Juniper House	Milton Keynes, Buckinghamshire	May 2021	Thursday 12 October 2023

- 3.1.8 The survey at Haven Court was extended to 10 p.m., as a guide to how parking demand and traffic generation might vary during the evening period.

3.2 CAR PARKING DEMAND

3.2.1. Table 3.2.1 below shows the peak parking demand during each hour of the survey.

Table 3.2.1 Peak Parking Demand

Time Period	Peak Parking Demand						
	Haven Court	Olivier Place	Queens Gate	The Laureates	Lido Grange	Juniper House	Totals
Parking spaces	24	29	28	25	27	38	171
0700-0800	12	21	14	11	17	19	94
0800-0900	12	20	14	13	17	22	98
0900-1000	14	20	15	14	20	20	103
1000-1100	15	22	14	13	20	23	107
1100-1200	14	21	13	14	15	22	99
1200-1300	17	22	13	12	16	25	105
1300-1400	16	21	12	13	17	25	104
1400-1500	14	17	13	12	16	23	95
1500-1600	14	19	12	14	15	21	95
1600-1700	15	19	13	13	19	21	100
1700-1800	12	22	13	10	18	25	100
1800-1900	13	23	12	11	17	21	97
1900-2000	14						
2000-2100	14						
2100-2200	14						
Peak demand per parking space	0.708	0.793	0.536	0.560	0.741	0.658	0.626
Occupied apartments	30	34	27	32	38	46	207
Peak demand per occupied apartment	0.567	0.676	0.556	0.438	0.526	0.543	0.517

3.2.2 The table shows that, in every case, the peak parking demand was significantly below the provision of parking spaces. The greatest uptake of the available spaces was at Olivier Place, where some 79% of the spaces were utilised during one hour of the day. On average over the 6 developments, the peak take up was 62.6%.

3.2.3 The data also shows that, on average, the peak demand for parking was some 0.517 spaces per occupied apartment. The peak demand was at the Olivier Place development, where the demand was 0.676 spaces per apartment.

SECTION 4.

RETIREMENT LIVING DEVELOPMENTS

VEHICLE AND OTHER MOVEMENTS

4.1 INTRODUCTION

- 4.1.1 The following introduction is, in part, a repetition of that of Section 3 of this report. This will allow this section of the report to be used independently, as appropriate.
- 4.1.2 Detailed traffic surveys were undertaken at 6 retirement living developments in England and Wales. Six is the number of sets of data that the TRICS database providers adopted as the minimum number of sites needed for inclusion on their data card.
- 4.1.3 The sites were selected to meet the following criteria:-
1. Relatively recent developments
 2. Feasible to survey - suitable parking for surveys staff to see all necessary activity
 3. An ungated development (or gated with gates normally left open) to ensure available access for residents, visitors, servicing and staff.
- 4.1.4 The same survey staff were used for each of the surveys, to ensure consistency.
- 4.1.5 The staff entered the site car park shortly before 7 a.m. and noted part of the registration numbers of all vehicles present. The full registration plate information was not noted, for confidentiality reasons. Unless there was information to the contrary, these have been assumed to be vehicles owned by residents.
- 4.1.6 From 7 a.m. to 7 p.m., the time and partial registration number details were noted for all vehicle movements into and out of the car park. Where appropriate, this was extended to any vehicle observed to park outside the development, where an occupier of the vehicle was seen to enter or leave the development, for example where a resident was picked up from the roadside dropped off there.
- 4.1.7 This data allows the hourly traffic generation of the developments to be calculated.
- 4.1.8 The survey staff also noted the number of other movements into and out of the development, such as these by pedestrians and mobility scooters.
- 4.1.9 The developments surveyed are listed in Table 3.1.1 below.

Table 4.1.1. Surveys developments

Development	Location	Opening date	Survey date
Haven Court	Hythe, nr Southampton	Dec 2013	Tuesday 4 July 2023
Olivier Place	Wilton, nr Salisbury	Feb 2017	Thursday 3 August 2023
Queen's Gate	Wokingham, Berkshire	Feb 2017	Thursday 10 August 2023
The Laureates	Cottingham, Yorkshire	Feb 2017	Thursday 18 January 2024
Lido Grange	Prestatyn, N Wales	Nov 2017	Thursday 1 February 2024
Juniper House	Milton Keynes, Buckinghamshire	May 2021	Thursday 12 October 2023

- 4.1.10 The survey at Haven Court was extended to 10 p.m., as a guide to how parking demand and traffic generation might vary during the evening period.

4.2 TRAFFIC GENERATION

4.2.1 Table 4.2.1 shows the hourly traffic generation for each of the 6 developments.

Table 4.2.1 Traffic Generation

Time Period	Haven Crt		Olivier Place		Queen's Gate		The Laureates		Lido Grange		Juniper House		Totals	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
0700-0800	2	2	2	3	1	1	0	0	0	1	0	0	5	7
0800-0900	2	2	4	4	1	1	2	0	2	0	3	1	14	8
0900-1000	6	6	6	7	2	1	1	2	2	1	2	4	19	21
1000-1100	6	7	7	5	4	3	4	3	4	9	6	3	31	30
1100-1200	6	5	4	7	2	3	3	6	2	1	7	7	24	29
1200-1300	7	7	9	5	4	4	3	3	3	3	5	5	31	27
1300-1400	5	3	2	7	3	2	4	2	2	1	6	6	22	21
1400-1500	2	2	4	4	2	2	1	1	4	6	5	7	18	22
1500-1600	2	3	5	6	3	4	4	4	2	1	3	3	19	21
1600-1700	4	4	7	3	4	3	3	4	6	2	3	2	27	18
1700-1800	1	1	4	2	0	1	0	1	0	1	4	4	9	10
1800-1900	4	3	4	3	2	2	2	1	0	1	0	0	12	10
Totals	47	45	58	56	28	27	27	27	27	27	44	42	231	224

4.2.2 The surveys were undertaken when there were a total of 207 occupied apartments. The total two-way traffic movements were 455. Therefore the overall average traffic generation rate is 2.20 vehicle movements per occupied apartment per 12 hour day (0700-1900).

4.2.3 Table 4.2.2 shows the 12 hour traffic generate rates for each of the 6 development,

Table 4.2.2 Traffic Generation Rates of Surveyed Developments

. Development	Total Vehicle Movements per 12 hour day	Occupied apartments	Generation per Occupied Apartment
Haven Court (2013)	92	30	3.07
Olivier Place (2017)	114	34	3.35
Queen's Gate (2017)	55	27	2.04
The Laureates (2017)	54	32	1.69
Lido Grange (2017)	54	38	1.42
Juniper House (2021)	86	46	1.87

4.2.4 There was a comparable survey undertaken at Haven Court, by the same survey staff, back in 2015. At that time the overall generation was 68 vehicle movements per 12 hour day. The current generation was found to be 92, i.e. a 35% increase. This might suggest that the traffic generation increases as the development matures. From Table 4.2.2, above, it can be seen that the development opened in 2013 has a current generation of 3.07 vehicle movements per apartment. The average for the 2017 developments is 2.11 and the generation of the 2021 development is 1.87. Whilst this is clearly a very limited sample, there does appear to be a trend.

- 4.2.5 This increase is logical and can be explained as follows. As residents get older, they are likely to give up car ownership, or use their cars less frequently. This would tend to suggest that the overall traffic generation might be reduced. However, the residents will still have a need to travel, for shopping, medical appointments, family visits etc. When using their own vehicle, these would involve one vehicle leaving the development and one vehicle returning. If these trips are undertaken using taxis, or lifts from friends or relatives, there would be one movement to the development to pick up the resident, one movement away to the shops or appointment, one movement back to the development to drop off the resident, followed by one movement away. Hence two movements are replaced by four.
- 4.2.6 In addition, as residents get older, their need for visits by carers and medical professionals are likely to increase.
- 4.2.7 Whilst the generation is likely to increase as the development becomes more established, it is likely that the generation will reach a peak when all the residents' needs are being met and also when some of the residents are being replaced by younger, fitter, ones.
- 4.2.8 The following table, Table 4.2.3, shows the hourly split of the traffic generated.

Table 4.2.3 Hourly Split of Generated Traffic

Time	Traffic Generation		Percentage of 12 Hour Generation	
	In	Out	In	Out
0700-0800	5	7	2.16	3.13
0800-0900	14	8	6.06	3.57
0900-1000	19	21	8.23	9.38
1000-1100	31	30	13.42	13.39
1100-1200	24	29	10.39	12.95
1200-1300	31	27	13.42	12.05
1300-1400	22	21	9.52	9.38
1400-1500	18	22	7.79	9.82
1500-1600	19	21	8.23	9.38
1600-1700	27	18	11.69	8.04
1700-1800	9	10	3.90	4.46
1800-1900	12	10	5.19	4.46
Totals	231	224	100	100.01

- 4.2.9 The survey at Haven Court was extended by 3 hours to finish at 10 p.m. This showed only 2 vehicles entering the development and 3 leaving between 7 p.m. and 8 p.m., with no movements in the following 2 hours. This suggests that traffic movements are insignificant later in the day. This is in line with previous survey data.

4.2.10 Vehicle Types

Haven Court:- None of the vehicle movements were by large commercial vehicles. There were two visits by a gas engineer in a Ford Transit van, 2 visits by supermarket delivery vehicles and 3 other visits in small vans.

Olivier Place:- There were no vehicle movements by large commercial vehicles. There were 18 movements by light goods vehicles and 0 by a motor cycle.

Queen's Gate:- There were no vehicle movements were a large commercial vehicles. There were 2 movements by light goods vehicles and 4 by a bus.

The Laureates:- There were 2 vehicle movements by large commercial vehicles. This was the refuse collection vehicle that entered the development at 11.11, departing 3 minutes later.

There were 6 movements by light goods vehicles, 3 in and 3 out.

Lido Grange:- There were no vehicle movements by large commercial vehicles. There were 2 movements by light goods vehicles.

Juniper Court:- There were no vehicle movements were a large commercial vehicles. There were 6 movements by light goods vehicles.

4.2.11 Table 4.2.4 shows the percentage of vehicles movements by vehicles other than the private car.

Table 4.2.4 Other Vehicle Movements

Total Traffic Generation	455	Percentage
Motor Cycles	0	0
Light Goods Vehicles	44	9.67
Heavy Goods Vehicles	2	0.44
Buses	4	8.79

4.3 RESIDENTS TRAFFIC GENERATION

- 4.3.1 Using the noted registration numbers of the car present at 7 a.m. , which are assumed to belong to residents, it is possible to determine how many of the vehicle movements were undertaken by residents' vehicles.

Table 4.3.1 Traffic Generation by Residents

Development	Total Vehicle Movements per 12 hour day	Residents' Movements	Percentage of Movements made by Residents
Haven Court (2013)	92	4	4.3
Olivier Place (2017)	114	34	29.8
Queen's Gate (2017)	55	12	21.8
The Laureates (2017)	54	10	18.5
Lido Grange (2017)	54	19	35.2
Juniper House (2021)	86	18	20.9

- 4.3.2 The very low level of movements by residents at Haven Court, the oldest of the surveyed developments, tends to support the hypothesis that visitors undertake a significantly greater proportion of movements as a development ages. This is described in paragraph 4.2.5 above.

4.4 PEDESTRIAN MOVEMENTS

4.4.1 Table 4.3.1 shows the 12 hour pedestrian movements for the 6 developments.

Table 4.2.1 Pedestrian Movements

Development	Occupied Apartments	Pedestrian Movements	Pedestrian Movements per Occupied Apartment
Haven Court	30	17	0.567
Olivier Place	34	45	1.324
Queen's Gate	27	27	1.000
The Laureates	32	40	1,250
Lido Grange	38	68	1.789
Juniper House	46	32	0.696

4.5 OTHER MOVEMENTS

- 4.5.1 The survey showed no movements by cycle, mobility scooter etc. at any of the developments.
- 4.5.2 Clearly this does not indicate that such movements never take place. But that they are very infrequent.

SECTION 5.

RETIREMENT LIVING DEVELOPMENTS

TRAVEL PLANS

5.1 INTRODUCTION

5.1.1 The government website describes travel plans as follows:-

Travel Plans are long-term management strategies for integrating proposals for sustainable travel into the planning process. They are based on evidence of the anticipated transport impacts of development and set measures to promote and encourage sustainable travel (such as promoting walking and cycling). They should not, however, be used as an excuse for unfairly penalising drivers and cutting provision for cars in a way that is unsustainable and could have negative impacts on the surrounding streets.

Travel Plans should where possible, be considered in parallel to development proposals and readily integrated into the design and occupation of the new site rather than retrofitted after occupation.

Where there may be more effective or sustainable outcomes, and in order to mitigate the impact of the proposed development, consideration may be given to travel planning over a wider area.

5.1.2 Local Authorities often impose a planning condition, when approving a development proposal, requiring the submission of a Travel Plan for approval prior to the commencement of the development. It is frequently a requirement that the submitted plan should include targets for the reduction in vehicle movements generated by the development and means by which these targets will be achieved and measured.

5.1.3 This brief report explains how there are significant problems in applying such an approach to retirement housing for the older people. This type of housing is defined in the PPG “Housing for Older and Disabled People” as

Retirement living or sheltered housing: *This usually consists of purpose-built flats or bungalows with limited communal facilities such as a lounge, laundry room and guest room. It does not generally provide care services, but provides some support to enable residents to live independently. This can include 24 hour on-site assistance (alarm) and a warden or house manager.*

5.2. Traffic Generation Trends

- 5.2.1 In the early years of a development of retirement housing for the older people, the traffic generation is significantly lower than that of standard housing developments. The car ownership levels are relatively low and residents with vehicles are unlikely to use them frequently. There are generally no journeys to and from work, trips to the local schools to drop off children etc.
- 5.2.2 Whereas standard open market housing might be expected to generate some 6 or more vehicle movements per dwelling per day, recent survey work indicates an average trip rate of some 2.2 for this form of retirement housing. As a result, the scope to reduce vehicle movements is relatively limited
- 5.2.3 However, unlike most forms of development, the needs of residents of retirement housing for older people will change significantly over time. As residents get older, many are likely to give up driving. One might expect that this would result in a reduced traffic generation. Indeed for some travel purposes, this may be the case. However, there are many purposes for which trips will continue to be essential. This is likely to result in a different pattern of movements. Tab
- 5.2.4 For some trips, bus services could provide a suitable alternative to the car and so this would tend to reduce the traffic generation of the development. In some instances, residents might have goods delivered, rather than using the cars to collect them (e.g. supermarket deliveries). This would have a neutral effect on vehicle movements. In other instances, such as trips to medical services, residents may use taxi services or be transported by relatives or friends. Here there would be an increase in traffic generation i.e. one movement to collect the resident and one away to the destination. There would be two additional vehicle movements associated with returning the resident to their home.
- 5.2.5 Whilst a travel plan can encourage the use of bus services, by requiring residents to be provided with information about the available services, it is difficult to see how it can help to reduce vehicles movements in any other way.
- 5.2.6 As residents get older, their needs will change. The use of the health services is likely to be increased, even allowing for the fact that residents in this form of housing tend to stay healthier for longer, increasing the need to either travel to service providers or receive more visits from medical practitioners. This will tend to result in an increased traffic generation, as the development becomes more established.
- 5.2.7 The ability of the residents to undertake daily chores will also decline over the years. It is normally the case that older people will call on “carers” to assist them. Movements to and from the development, by “carers”, will be a wholly new and increasing requirement. Whilst efforts can be made to ensure that “carers” provide services to more than one resident during each visit, there is still likely to be an increase in the number of movements to and from the development.
- 5.2.8 From the above, it is clear that the traffic generation of this form of housing is highly unlikely to reduce over time and is very likely to increase, irrespective of any realistic policies adopted in a Travel Plan.

5.3. Practical Examples

5.3.1 The recent survey work illustrates the trend for there to be an increased traffic generation, as the development becomes more established.

5.3.2 Haven Court – Hythe, Southampton

Comparable surveys have been undertaken at the Haven Court retirement living development in both April 2015, soon after it was first occupied, and July 2023. The surveys were undertaken by the same survey staff. Over the 8 years, the peak parking demand fell from some 24 spaces to 17. This would suggest a fall in car ownership amongst residents.

5.3.3 The survey in 2015 showed the overall generation was 68 vehicle movements per 12 hour day. The current generation was found to be 92, i.e. a 35% increase. This would suggest that the traffic generation increases as the development matures

5.2.4 From Table 5.2.1 below, it can be seen that the development opened in 2013 has a current generation of 3.07 vehicle movements per apartment. The average for the 2017 developments is 2.11 and the generation of the 2021 development is 1.74. Whilst this is clearly a very limited sample, there does appear to be a trend.

Table 4.2.2 Traffic Generation Rates of Surveyed Developments

. Development	Total Vehicle Movements per 12 hour day	Occupied apartments	Generation per Occupied Apartment
Haven Court (2013)	92	30	3.07
Olivier Place (2017)	114	34	3.35
Queen's Gate (2017)	55	27	2.04
The Laureates (2017)	54	32	1.69
Lido Grange (2017)	54	38	1.42
Juniper House (2021)	86	46	1.74

5.2.5 Surveys have also been undertaken at Linters Court, Redhill, Surrey in both 2007 and 2015. Although this is a different form of retirement housing, providing increased facilities for the residents, it is a comparable for of housing for older people.

5.2.6 As with the Haven Court survey results, the Redhill surveys were some 8 years apart and showed that the peak parking demand fell from 22 spaces in 2007 to 17 in 2015. Again, this would suggest a fall in car ownership amongst residents. However, the 12 hour traffic generation increased from 99 to 139 vehicle movements.

5.4. Conclusions

- 5.4.1 Any requirement to reduce the traffic generation of sheltered housing for the elderly, as required in a Travel Plan, is unlikely to be realistic. **It would be unreasonable to deprive the residents of essential medical and caring services. Furthermore, any measures that would tend to reduce traffic generation, but would result in the increased isolation of residents should be resisted as being likely to have an adverse impact on the mental health of residents.**
- 5.4.2 Where the requirement for a Travel Plan is being imposed, it may be prudent to use this report to inform local authority officers of the problems of trying to reduce overall traffic generation in an acceptable manner for this form of housing.

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Appendix D

GENERAL NOTES

- ## VEHICLE PROFILE



8.680m
2.180m
3.452m
0.337m
2.121m
6.00s
7.910m



PRELIMINARY

P02	UPDATED LAYOUT		27.11.25	LMR	JNR
P01	FIRST ISSUE		20.08.25	LMR	JNR
Rev	Description		Date	By	App'd
	Date Created	Drawn By	Approved By	Suitability Code	
	20.08.25	LMR	JNR	-	
	PBA Project Number		Scale		
	501.0022		1:1000 (AT A3)		
PBA Drawing No:				Revision	
501.0022-0004				P02	

Appendix E

Audit Code: 609349e2-246f-41fd-80a3-8eb0dad2c2cb

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 03 - RESIDENTIAL

Category: A - HOUSES PRIVATELY OWNED

Total Vehicles

Selected regions and areas:

01	GREATER LONDON	
	EN	ENFIELD
		1 day
02	SOUTH EAST	
	BO	BEDFORD
		1 day
	CT	CENTRAL BEDFORDSHIRE
		1 day
	ES	EAST SUSSEX
		2 days
	HC	HAMPSHIRE
		4 days
	KC	KENT
		1 day
	MW	MEDWAY
		1 day
	SC	SURREY
		1 day
03	SOUTH WEST	
	DC	DORSET
		2 days
04	EAST ANGLIA	
	NF	NORFOLK
		3 days
05	EAST MIDLANDS	
	NT	NOTTINGHAMSHIRE
		1 day
06	WEST MIDLANDS	
	ST	STAFFORDSHIRE
		1 day
	WK	WARWICKSHIRE
		1 day
	WO	WORCESTERSHIRE
		1 day
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY	NORTH YORKSHIRE
		1 day
08	NORTH WEST	
	LC	LANCASHIRE
		1 day
09	NORTH	
	IM	ISLE OF MAN
		1 day
10	WALES	
	VG	VALE OF GLAMORGAN
		1 day
14	LEINSTER	
	CC	CARLOW
		1 day
	WC	WICKLOW
		1 day
16	ULSTER (REPUBLIC OF IRELAND)	
	CV	CAVAN
		1 day
17	ULSTER (NORTHERN IRELAND)	
	DE	DERRY
		1 day

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

Audit Code: 609349e2-246f-41fd-80a3-8eb0dad2c2cb

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:	DWELLS
Actual Range:	0.21 to 4.23 (units:DWELLS)
Range Selected by User:	10 to 50 (units:DWELLS)
Parking Spaces Range:	6 - 2696

Public Transport Provision:	
Selection by:	All Surveys Included
Date Range:	01/01/16 to 17/09/24

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:	
Friday	4 days
Monday	7 days
Thursday	4 days
Tuesday	3 days
Wednesday	11 days

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

Selected survey types:	
Manual count	29
Direction ATC Count	0

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	29 days

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:	
No Sub Category	3 days
Residential Zone	26 days

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.

Inclusion of Servicing Vehicle Counts:	
Servicing vehicles Excluded	22 days
Servicing vehicles Included	7 days

Audit Code: 609349e2-246f-41fd-80a3-8eb0dad2c2cb

Secondary Filtering Selection:

Use Class:

C3	29 surveys
----	------------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

500 - 3500

Population within 1 mile:

1,001 to 5,000	4 surveys
10,001 to 15,000	9 surveys
15,001 to 20,000	3 surveys
20,001 to 25,000	1 surveys
25,001 to 50,000	2 surveys
5,001 to 10,000	10 surveys

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

Population within 5 miles:

100,001 to 125,000	1 surveys
125,001 to 250,000	9 surveys
25,001 to 50,000	6 surveys
250,001 to 500,000	1 surveys
5,001 to 25,000	7 surveys
50,001 to 75,000	2 surveys
500,001 or More	1 surveys
75,001 to 100,000	2 surveys

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

Car ownership within 5 miles:

0.6 to 1.0	10 surveys
1.1 to 1.5	18 surveys
1.6 to 2.0	1 surveys

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.



Audit Code: 609349e2-246f-41fd-80a3-8eb0dad2c2cb

Petrol filling station:

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	17 surveys
Yes	12 surveys

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:

1b - Very poor	1 surveys
No PTAL Present	28 surveys

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

COVID-19 Restrictions:

Yes - At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Audit Code: 609349e2-246f-41fd-80a3-8eb0dad2c2cb

1	BO-03-A-01	DETACHED HOUSES	BEDFORD
CARNOUSTIE DRIVE BEDFORD GREAT DENHAM Edge of Town Residential Zone Site area: 4.23 hect Survey date: Thursday 15/10/2020			
			Survey Type: Manual
2	CC-03-A-01	DETACHED HOUSES	CARLOW
R417 ANTHY ROAD CARLOW Edge of Town Residential Zone Site area: 1.45 hect Survey date: Wednesday 25/05/2016			
			Survey Type: Manual
3	CT-03-A-01	MIXED HOUSES	CENTRAL BEDFORDSHIRE
ARLESEY ROAD STOTFOLD Edge of Town Residential Zone Site area: 1.78 hect Survey date: Wednesday 22/06/2022			
			Survey Type: Manual
4	CV-03-A-03	DETACHED HOUSES	CAVAN
R212 DUBLIN ROAD CAVAN PULLAMORE NEAR Edge of Town No Sub Category Site area: 2.6 hect Survey date: Monday 22/05/2017			
			Survey Type: Manual
5	DC-03-A-09	MIXED HOUSES	DORSET
A350 SHAFTESBURY Edge of Town No Sub Category Site area: 1.65 hect Survey date: Friday 19/11/2021			
			Survey Type: Manual
6	DC-03-A-10	MIXED HOUSES	DORSET
ADDISON CLOSE GILLINGHAM Edge of Town Residential Zone Site area: 1.4 hect Survey date: Wednesday 09/11/2022			
			Survey Type: Manual
7	DE-03-A-04	SEMI-DETACHED & TERRACED	DERRY
GREENHALL HIGHWAY COLERAINE Edge of Town Residential Zone Site area: 1.6 hect Survey date: Thursday 19/05/2022			
			Survey Type: Manual
8	EN-03-A-01	TERRACED & SEMI-DETACHED	ENFIELD
BOLLINGBROKE PARK COCKFOSTERS Edge of Town Residential Zone			

Audit Code: 609349e2-246f-41fd-80a3-8eb0dad2c2cb

Site area: 0.71 hect

Survey date: Wednesday 24/11/2021

Survey Type: Manual

9 THE FAIRWAY NEWHAVEN Edge of Town Residential Zone Site area: 1.5 hect Survey date: Monday 13/03/2023	ES-03-A-09	DETACHED & SEMI-DETACHED	EAST SUSSEX	Survey Type: Manual
10 A265 HEATHFIELD Edge of Town Residential Zone Site area: 1.7 hect Survey date: Monday 18/03/2024	ES-03-A-13	DETACHED HOUSES	EAST SUSSEX	Survey Type: Manual
11 PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS Edge of Town Residential Zone Site area: 1.2 hect Survey date: Tuesday 13/11/2018	HC-03-A-21	TERRACED & SEMI-DETACHED	HAMPSHIRE	Survey Type: Manual
12 BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE Edge of Town Residential Zone Site area: 1.69 hect Survey date: Wednesday 31/10/2018	HC-03-A-22	MIXED HOUSES	HAMPSHIRE	Survey Type: Manual
13 KILN ROAD LIPHOOK Edge of Town Residential Zone Site area: 2.17 hect Survey date: Friday 07/10/2022	HC-03-A-31	MIXED HOUSES & FLATS	HAMPSHIRE	Survey Type: Manual
14 REDFIELDS LANE FLEET CHURCH CROOKHAM Edge of Town Residential Zone Site area: 3.46 hect Survey date: Wednesday 27/03/2024	HC-03-A-37	MIXED HOUSES	HAMPSHIRE	Survey Type: Manual
15 SCARLETT ROAD CASTLETOWN Edge of Town Residential Zone Site area: 2.19 hect Survey date: Tuesday 21/05/2024	IM-03-A-05	MIXED HOUSES	ISLE OF MAN	Survey Type: Manual
16	KC-03-A-09	MIXED HOUSES & FLATS	KENT	

Audit Code: 609349e2-246f-41fd-80a3-8eb0dad2c2cb

WESTERN LINK

FAVERSHAM

DAVINGTON

Edge of Town

Residential Zone

Site area: 1.11 hect

Survey date: Wednesday 09/06/2021

Survey Type: Manual

17

LC-03-A-31

DETACHED HOUSES

LANCASHIRE

GREENSIDE

PRESTON

COTTAM

Edge of Town

Residential Zone

Site area: 1.316 hect

Survey date: Friday 17/11/2017

Survey Type: Manual

18

MW-03-A-02

MIXED HOUSES

MEDWAY

OTTERHAM QUAY LANE

RAINHAM

Edge of Town

Residential Zone

Site area: 0.7 hect

Survey date: Monday 06/06/2022

Survey Type: Manual

19

NF-03-A-05

MIXED HOUSES

NORFOLK

HEATH DRIVE

HOLT

Edge of Town

Residential Zone

Site area: 1.57 hect

Survey date: Thursday 19/09/2019

Survey Type: Manual

20

NF-03-A-10

MIXED HOUSES & FLATS

NORFOLK

HUNSTANTON ROAD

HUNSTANTON

Edge of Town

Residential Zone

Site area: 0.7 hect

Survey date: Wednesday 12/09/2018

Survey Type: Manual

21

NF-03-A-37

MIXED HOUSES

NORFOLK

GREENFIELDS ROAD

DEREHAM

Edge of Town

Residential Zone

Site area: 1.64 hect

Survey date: Tuesday 27/09/2022

Survey Type: Manual

22

NT-03-A-08

DETACHED HOUSES

NOTTINGHAMSHIRE

WIGHAY ROAD

HUCKNALL

Edge of Town

Residential Zone

Site area: 1.61 hect

Survey date: Monday 18/10/2021

Survey Type: Manual

23

NY-03-A-14

DETACHED & BUNGALOWS

NORTH YORKSHIRE

PALACE ROAD

RIPON

Edge of Town

Residential Zone

Site area: 2.9 hect

Audit Code: 609349e2-246f-41fd-80a3-8eb0dad2c2cb

Survey date: Wednesday 18/05/2022

Survey Type: Manual

24 FOLLY HILL FARNHAM Edge of Town Residential Zone Site area: 2.8 hect Survey date: Wednesday 11/05/2022	SC-03-A-07	MIXED HOUSES	SURREY	Survey Type: Manual
25 SILKMORE CRESCENT STAFFORD MEADOWCROFT PARK Edge of Town Residential Zone Site area: 0.8 hect Survey date: Wednesday 22/11/2017	ST-03-A-08	DETACHED HOUSES	STAFFORDSHIRE	Survey Type: Manual
26 ARTHUR STREET BARRY Edge of Town Residential Zone Site area: 0.21 hect Survey date: Monday 08/05/2017	VG-03-A-01	SEMI-DETACHED & TERRACED	VALE OF GLAMORGAN	Survey Type: Manual
27 STATION ROAD WICKLOW CORPORATION MURRAGH Edge of Town No Sub Category Site area: 2.443 hect Survey date: Monday 28/05/2018	WC-03-A-01	DETACHED HOUSES	WICKLOW	Survey Type: Manual
28 DALEHOUSE LANE KENILWORTH Edge of Town Residential Zone Site area: 2.425 hect Survey date: Friday 27/09/2019	WK-03-A-04	DETACHED HOUSES	WARWICKSHIRE	Survey Type: Manual
29 RYE GRASS LANE REDDITCH Edge of Town Residential Zone Site area: 1.11 hect Survey date: Thursday 01/10/2020	WO-03-A-07	MIXED HOUSES & FLATS	WORCESTERSHIRE	Survey Type: Manual

Audit Code: 609349e2-246f-41fd-80a3-8eb0dad2c2cb

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

Total Vehicles

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
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	29	36	0.080	0.266	0.346
08:00-09:00	29	36	0.184	0.402	0.586
09:00-10:00	29	36	0.167	0.215	0.382
10:00-11:00	29	36	0.157	0.192	0.349
11:00-12:00	29	36	0.176	0.177	0.353
12:00-13:00	29	36	0.222	0.202	0.424
13:00-14:00	29	36	0.197	0.187	0.384
14:00-15:00	29	36	0.193	0.236	0.429
15:00-16:00	29	36	0.318	0.233	0.551
16:00-17:00	29	36	0.297	0.179	0.476
17:00-18:00	29	36	0.356	0.206	0.562
18:00-19:00	29	36	0.256	0.169	0.425
19:00-20:00	1	32	0.188	0.125	0.313
20:00-21:00	1	32	0.219	0.188	0.407
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			3.010	2.977	5.987

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: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

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Audit Code: 609349e2-246f-41fd-80a3-8eb0dad2c2cb

Parameter Summary:

Trip rate parameter range selected:	10 - 50 (units: DWELLS)
Survey date date range:	25/05/2016 - 21/05/2024
Number of weekdays (Monday-Friday):	29
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.



Audit Code: 71374e9a-904a-4358-b440-3899c2ee3495

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 03 - RESIDENTIAL

Category: N - RETIREMENT FLATS

Total Vehicles

Selected regions and areas:

01	GREATER LONDON	
	WF	WALTHAM FOREST
02	SOUTH EAST	
	IW	ISLE OF WIGHT
	KC	KENT
04	EAST ANGLIA	
	PB	PETERBOROUGH
05	EAST MIDLANDS	
	LN	LINCOLNSHIRE
06	WEST MIDLANDS	
	SH	SHROPSHIRE
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	AL	CALDERDALE
	NY	NORTH YORKSHIRE
11	SCOTLAND	
	GC	GLASGOW CITY

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

Audit Code: 71374e9a-904a-4358-b440-3899c2ee3495

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:	DWELLS
Actual Range:	0.12 to 1.142 (units:DWELLS)
Range Selected by User:	17 to 88 (units:DWELLS)
Parking Spaces Range:	2 - 76

Public Transport Provision:

Selection by:	All Surveys Included
Date Range:	01/01/16 to 23/06/24

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:

Friday	1 days
Monday	2 days
Thursday	1 days
Tuesday	5 days

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

Selected survey types:

Manual count	9
Direction ATC Count	0

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	3 days
Suburban Area (PPS6 Out of Centre)	6 days

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 days
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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.

Inclusion of Servicing Vehicle Counts:

Servicing vehicles Excluded	4 days
Servicing vehicles Included	5 days

Audit Code: 71374e9a-904a-4358-b440-3899c2ee3495

Secondary Filtering Selection:

Use Class:

C3	9 surveys
----	-----------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

0 - 0

Population within 1 mile:

1,001 to 5,000	2 surveys
10,001 to 15,000	1 surveys
20,001 to 25,000	2 surveys
25,001 to 50,000	4 surveys

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

Population within 5 miles:

100,001 to 125,000	1 surveys
125,001 to 250,000	2 surveys
25,001 to 50,000	1 surveys
5,001 to 25,000	1 surveys
50,001 to 75,000	1 surveys
500,001 or More	2 surveys
75,001 to 100,000	1 surveys

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

Car ownership within 5 miles:

0.5 or Less	1 surveys
0.6 to 1.0	2 surveys
1.1 to 1.5	5 surveys
1.6 to 2.0	1 surveys

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.

Audit Code: 71374e9a-904a-4358-b440-3899c2ee3495

Petrol filling station:

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	9 surveys
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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	8 surveys
None	1 surveys

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

COVID-19 Restrictions:

No

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Audit Code: 71374e9a-904a-4358-b440-3899c2ee3495

1	AL-03-N-01	RETIREMENT BUNGALOWS	CALDERDALE
GROVE AVENUE HALIFAX WHEATLEY Suburban Area (PPS6 Out of Centre) Residential Zone Site area: 1.142 hect Survey date: Tuesday 23/10/2018			
			Survey Type: Manual
2	GC-03-N-02	RETIREMENT FLATS	GLASGOW CITY
VICTORIA CIRCUS GLASGOW HYNDLAND Suburban Area (PPS6 Out of Centre) Residential Zone Site area: 0.189 hect Survey date: Tuesday 18/04/2023			
			Survey Type: Manual
3	IW-03-N-01	RETIREMENT FLATS	ISLE OF WIGHT
CHURCH ROAD BEMBRIDGE Edge of Town Residential Zone Site area: 0.61 hect Survey date: Thursday 27/06/2019			
			Survey Type: Manual
4	KC-03-N-08	RETIREMENT FLATS	KENT
CANTERBURY ROAD HERNE BAY EDDINGTON Suburban Area (PPS6 Out of Centre) Residential Zone Site area: 0.44 hect Survey date: Tuesday 26/09/2017			
			Survey Type: Manual
5	LN-03-N-01	RETIREMENT FLATS	LINCOLNSHIRE
NEWPORT ROAD LINCOLN ERMINE Suburban Area (PPS6 Out of Centre) Residential Zone Site area: 0.37 hect Survey date: Friday 28/06/2019			
			Survey Type: Manual
6	NY-03-N-01	RETIREMENT FLATS	NORTH YORKSHIRE
EASTGATE PICKERING Edge of Town Residential Zone Site area: 0.39 hect Survey date: Monday 26/09/2016			
			Survey Type: Manual
7	PB-03-N-02	RETIREMENT FLATS	PETERBOROUGH
DOGSTHORPE ROAD PETERBOROUGH Suburban Area (PPS6 Out of Centre) Residential Zone Site area: 0.12 hect Survey date: Monday 17/10/2016			
			Survey Type: Manual
8	SH-03-N-02	RETIREMENT FLATS	SHROPSHIRE
ABBEY FOREGATE SHREWSBURY			

Audit Code: 71374e9a-904a-4358-b440-3899c2ee3495

Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 0.62 hect
Survey date: Tuesday 20/06/2023

Survey Type: Manual

9	WF-03-N-01	RETIREMENT FLATS	WALTHAM FOREST
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SEWARDSTONE ROAD
WALTHAMSTOW
Edge of Town
Residential Zone
Site area: 0.28 hect
Survey date: Tuesday 05/11/2019

Survey Type: Manual

Audit Code: 71374e9a-904a-4358-b440-3899c2ee3495

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

Total Vehicles

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
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	46	0.022	0.029	0.051
08:00-09:00	9	46	0.046	0.065	0.111
09:00-10:00	9	46	0.072	0.096	0.168
10:00-11:00	9	46	0.098	0.125	0.223
11:00-12:00	9	46	0.096	0.074	0.170
12:00-13:00	9	46	0.084	0.067	0.151
13:00-14:00	9	46	0.055	0.062	0.117
14:00-15:00	9	46	0.115	0.113	0.228
15:00-16:00	9	46	0.072	0.074	0.146
16:00-17:00	9	46	0.070	0.055	0.125
17:00-18:00	9	46	0.065	0.041	0.106
18:00-19:00	9	46	0.029	0.022	0.051
19:00-20:00	1	40	0.000	0.000	0.000
20:00-21:00	1	40	0.000	0.000	0.000
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			0.824	0.823	1.647

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Audit Code: 71374e9a-904a-4358-b440-3899c2ee3495

Parameter Summary:

Trip rate parameter range selected:	17 - 88 (units: DWELLS)
Survey date date range:	26/09/2016 - 20/06/2023
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.