



Former Dee Road Fire Station, Reading

Transport Statement

Client: Bellway Homes

i-Transport Ref: JDW/SPH/ITB17485-001A R

Date: 29 July 2022

Former Dee Road Fire Station, Reading

Transport Statement

Client: Bellway Homes

i-Transport Ref: JDW/SPH/ITB17485-001A R

Date: 29 July 2022

i-Transport LLP

The Square
Basing View
Basingstoke
Hampshire
RG21 4EB

Tel: 01256 637940

www.i-transport.co.uk

COPYRIGHT

The contents of this document must not be copied or reproduced in whole or in part without the written consent of i-Transport LLP

Quality Management

Report No.	Comments	Date	Author	Authorised
ITB17485	DRAFT	21/07/2022	BB/SPH	JDW
ITB17485	First Issue	29/07/2022	BB/SPH	JDW

File Ref: T:\Projects\17000 Series\17485ITB - Dee Road, Reading\Admin\Report and Tech Notes\ITB17485-001A R
- TS.docx

Contents

SECTION 1	Introduction	1
SECTION 2	Policy Context	4
SECTION 3	Existing Conditions	8
SECTION 4	Development Proposal	17
SECTION 5	Traffic Impact	24
SECTION 6	Summary and Conclusion	28

Figures

FIGURE 1	Site Location Plan
FIGURE 2	Local Facilities and Services Plan

Drawings

ITB17485-GA-001	Parking Court Access Visibility – Dee Road
ITB17485-GA-002	Proposed Site Access – Spey Road
ITB17485-GA-003	Swept Path Analysis – Refuse Vehicle
ITB17485-GA-004	Existing Locations of Bus Stops and Speed Cushions – Spey Road

Appendices

APPENDIX A.	Pre-Application Advice – Reading Borough Council
APPENDIX B.	Reading Borough Council Cycle Map
APPENDIX C.	Proposed Site Layout
APPENDIX D.	TRICS Reports
APPENDIX E.	Theale Fire and Rescue Station – Extract of Supporting Transport Statement

1.1 Background

1.1.2 The application site is located on the site of the former Dee Road Royal Berkshire Fire and Rescue Station, located off Dee Road. The site is bound to the south by Dee Road to the north by Leven Street, to the east by Spey Road, to the west by the rear facing gardens of properties accessed off Leven Street and Gairn Close respectively.

1.1.3 The location of the site is shown in **Figure 1**, an extract of which is shown as **Image 1.1**.

Image 1.1: Site Location Plan



Source: Extract of Figure 1

1.2 Planning History

- 1.2.1 The site includes the former Dee Road Royal Berkshire Fire and Rescue station, which has been deemed surplus to requirements, with services being relocated to other stations. The site is allocated for residential development under Policy WR3m '103 Dee Road' within the Reading Borough Council Local Plan (2019). The proposed development therefore has local planning policy support.

1.3 Scope

- 1.3.1 Having regards to the requirements of the National Planning Policy Framework (NPPF), this Transport Statement (TS) has been prepared to consider the transport impacts that may arise from the proposed development.
- 1.3.2 The Transport Statement has been specifically prepared to consider the four key tests set out in the NPPF paragraph 110, namely:
- Will the opportunities for sustainable travel be appropriately taken up, given the type of development and its location?
 - Will safe and suitable access be provided for all users?
 - Do the design of streets, parking areas and other transport elements reflect current national guidance, including the National Design Guide and Model Design Code?
 - Will the transport impacts of the site be adequately mitigated, such that the residual cumulative impacts will be acceptable (i.e., not severe), and not result in unacceptable safety impacts?
- 1.3.3 The scope of this Transport Statement has been informed by written pre-application that has been provided by Reading Borough Council (RBC) in their role as the Local Planning Authority (LPA). The advice included comments from RBC highways officers, which have been appropriately considered in the drafting of this TS. The full pre-application advice is contained at **Appendix A**.

1.4 Structure

1.4.1 The remainder of this Transport Statement is structured as follows:

- **Section 2** provides a review of current national and local transport policy and guidance.
- **Section 3** summarises the existing transport conditions.
- **Section 4** describes the development proposal and access arrangements.
- **Section 5** considers the accessibility and sustainability of the site.
- **Section 6** assesses the traffic impact of the development; and
- **Section 7** provides a summary and conclusion.

SECTION 2 Policy Context

2.1 This section of the TS provides a summary overview of relevant transport planning policies contained in national and local policy documents.

2.2 National Policy

National Planning Policy Framework (NPPF, 2021)

2.2.1 The National Planning Policy Framework (NPPF) (July 2021) sets out the Government's planning policies for England and how these are expected to be applied. It provides overarching guidance for local planning authorities and decision makers both in drawing up plans and in determining planning applications.

2.2.2 The specific transport policies are contained within Section 9 of the NPPF. This TS has been prepared in line with the requirements of the NPPF.

2.2.3 The Framework (paragraph 105) recognises that in accessibility and sustainability terms, 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."

2.2.4 Paragraph 110 of the NPPF identifies the four key transport tests with development proposals required to ensure that:

- ***Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location***
- ***Safe and suitable access to the site can be achieved for all users.***
- ***The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code.***
- ***Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.***

2.2.5 Paragraph 111 provides the key determination test for development, identifying 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 would be severe."

2.2.6 This sets a very high bar, where only very significant transport impacts should prevent otherwise acceptable development from being approved.

National Planning Practise Guidance (NPPG)

- 2.2.7 The National Planning Practice Guidance (NPPG) is a government published web-based planning guidance. In relation to Transport, NPPG identifies that:

“Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements. (Ref: ID42 – 002)

“Transport Assessments and Statements can be used to establish whether the residual transport impacts of a proposed development are likely to be “severe”, which may be a reason for refusal, in accordance with the National Planning Policy Framework.” (Ref: ID42 – 005)

- 2.2.8 In accordance with NPPG, this TS assesses the transport impacts of the development proposal and identifies that they will be very low, and certainly well below a level that could reasonably be considered to be ‘severe’

2.3 Local Policy

Reading Transport Strategy

- 2.3.1 The Reading Transport Strategy (2020 – 2036) (RTS) sets out the future for the transport sector within the Reading network such as initiatives, policy and principles

- 2.3.2 Key strategic objectives within this document include:

- Clean and Green Reading
- Supporting Healthy Lifestyles
- Enabling Sustainable and inclusive growth
- Connecting People and Places
- Embracing Smart Solutions

- 2.3.3 Policy RTS4 of the RTS outlines requirements for developments within the Reading Area, section 4.3 states:

“Developments be will required to demonstrate how they will deliver healthy streets and make a positive contribution to the walking, cycling and public transport network and support sustainable travel, such as initially subsidising bus services, through the development and implementation of travel plans.”

Reading Local Plan

2.3.4 The Reading Local Plan (2019 – 2031) outlines transport requirements for Reading and the surrounding area, with three main goals:

- Proposed development should contribute to meeting the objectives of the most up to date Local Transport Plan/ Successor Document
- Planning Permission will not be granted for major developments proposals unless there is a commitment to implement measures to promote and improve sustainable transport, such as through encouragement of walking, cycling and use of public transport.
- All development proposals should make appropriate provision for works and contributions to ensure adequate levels of accessibility and safety for all modes of transport

2.3.5 The application is part of a number of developments in West Reading and Tilehurst which are allocated in policy WR3 of the Reading Local Plan. The West Reading and Tilehurst expansions have potential for over 700 dwellings during the plan period.

2.3.6 The Local Plan identifies a series of policies relating to transport, including:

TR3: Access, Traffic and Highway-Related Matters

2.3.7 Developments with the generation of additional trips on the transport network, must be considered against the effects on the environment, safety and congestion

2.3.8 Developments will be permitted based on the following requirements

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

TR4: Cycle Routes and Facilities

“Developments will be expected to make full use of opportunities to improve access for cyclists to, from and within the development and to integrate cycling through the provision of new facilities. Development of new facilities for cycling, such as cycle hire points and cycle parking, will be acceptable.”

TR5: Car and Cycle Parking and Electric Vehicle Charging

“Development should provide car parking and cycle parking that is appropriate to the accessibility of locations within the Borough to sustainable transport facilities, particularly public transport.”

2.3.9 Developments should make the following provision for electric vehicle charging points:

Table 2.1: Residential Electric Vehicle Charging Standards

Car Parking	Residential Spaces	Electric Spaces
10% of parking must provide electric charging points	10	1

Reading Local Development Framework – Revised Parking Standards and Design

2.3.10 The parking standards for new developments are stated in RBC’s Revised Parking Standards SPD. The parking standards for residential dwellings are set out in **Table 2.2**.

Table 2.2: Residential Parking Standards

Residential Dwelling	Zone 1	Zone 2	Zone 3	Zone 4	Cycle Provision
1/ 2 Bedroom Flat	0.5	1	1.5	1.5	0.5
3+plus Bedroom Flat	1	1.5	2	2	1
3 Bedroom House	1	2	2	2	2
Visitor Parking	0	1 space per 10 dwellings (flats only)	1 space per 4 dwellings (flats only)	1 space per 4 dwellings (flats only)	-

Source: RBC Revised Parking Standards SPD (October 2011)

2.3.11 Within the pre-application highways advice provided by RBC, it was identified that the ‘Zone 2’ parking standards should be applied to the proposed development in this instance.

SECTION 3 Existing Conditions

3.1.1 This section of the TS outlines the existing transport conditions in the local area to provide context for the transport appraisal

3.2 Site Location

3.2.1 The application site is located on the site of the now redundant Royal Berkshire Fire and Rescue Station, off Dee Road. The location of the site is shown in **Figure 1**, an extract of which is provided as **Image 1.1**.

3.3 Walking and Cycling

Walking

3.3.1 Dee Road accommodates circa 2m wide footways on either side of the carriageway. The footways benefit from street lighting and are separated from the carriageway by grass verges.

3.3.2 Spey Road accommodates footways on either side of the carriageway that are circa 2m wide and benefit from street lighting. To the north, the footways connect to the wider pedestrian network within the vicinity of the site, as well as provide a route towards a local convenience store and the Ranikhet Academy via the footways on Eddleston Way.

3.3.3 To the northeast of the site, the footways on Dee Road form a route towards Oxford Road via the footways on either side of Grovelands Road. Further to the east, the footways on Oxford Road provide a continuous route towards Reading town centre, which is located circa 3km from the site. The footways on Oxford Road vary in width between 2m-3m along their extents and benefit from street lighting.

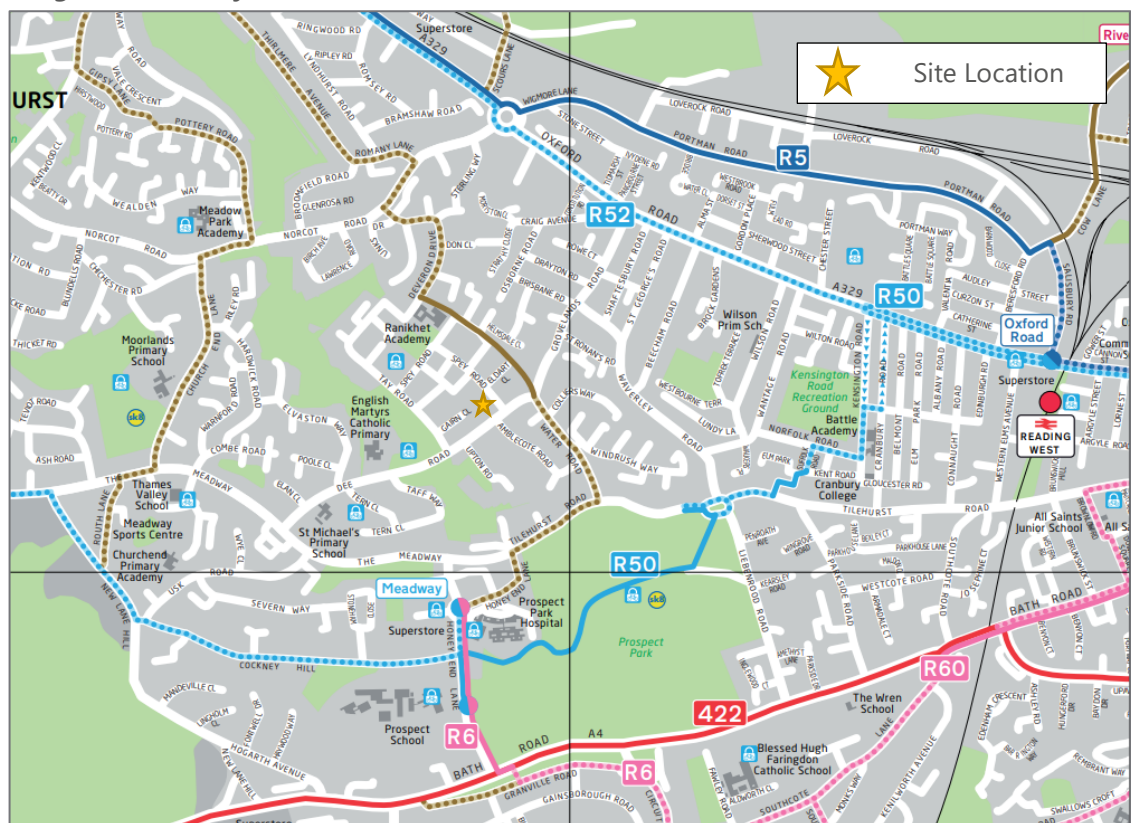
3.3.4 To the south of the site, the footways on Dee Road connect to those on either side of Water Road at the Dee Road / Grovelands Road / Water Road mini-roundabout junction. After approximately 350m, the footways on Water Road meet those on Tilehurst Road. The footways along Tilehurst Road are circa 1.5m-2m wide and facilitate access to a number of local facilities and services, including an ASDA Superstore. Pedestrian access to the ASDA Superstore is provided via a traffic signal-controlled pedestrian crossing on Tilehurst Road.

3.3.5 To the west of the site, the footways on Dee Road facilitate access to the nearby English Martyrs Catholic Primary School and St Michael's Primary School after circa 450m and 650m respectively, before connecting to the wider pedestrian network at The Meadway.

Cycling

- 3.3.6 There are a number of cycling routes within the vicinity of the site at Dee Road, as illustrated on Reading Borough Councils cycle map, recreated in **Image 3.1**. A full copy of the map is included at **Appendix B**.
- 3.3.7 The cycle routes are primarily to the east of the site and provide access into Reading town centre. The main routes are R50, R52 and R5, which are primarily accessed by travelling north along Grovelands Road and onto the A329. In addition, access to these routes can be achieved using the linking/connecting cycle route to the east of the site (shown as brown on the cycle map), which routes between R50, R6 and R5.

Image 3.1: Local Cycle Routes



Source: Reading Borough Council (Full Map included in Appendix B)

- 3.3.8 In addition, cycle travel is appropriate on many of the surrounding roads, given the sign posted speed limits and road characteristics. Manual for Streets guidance suggests:

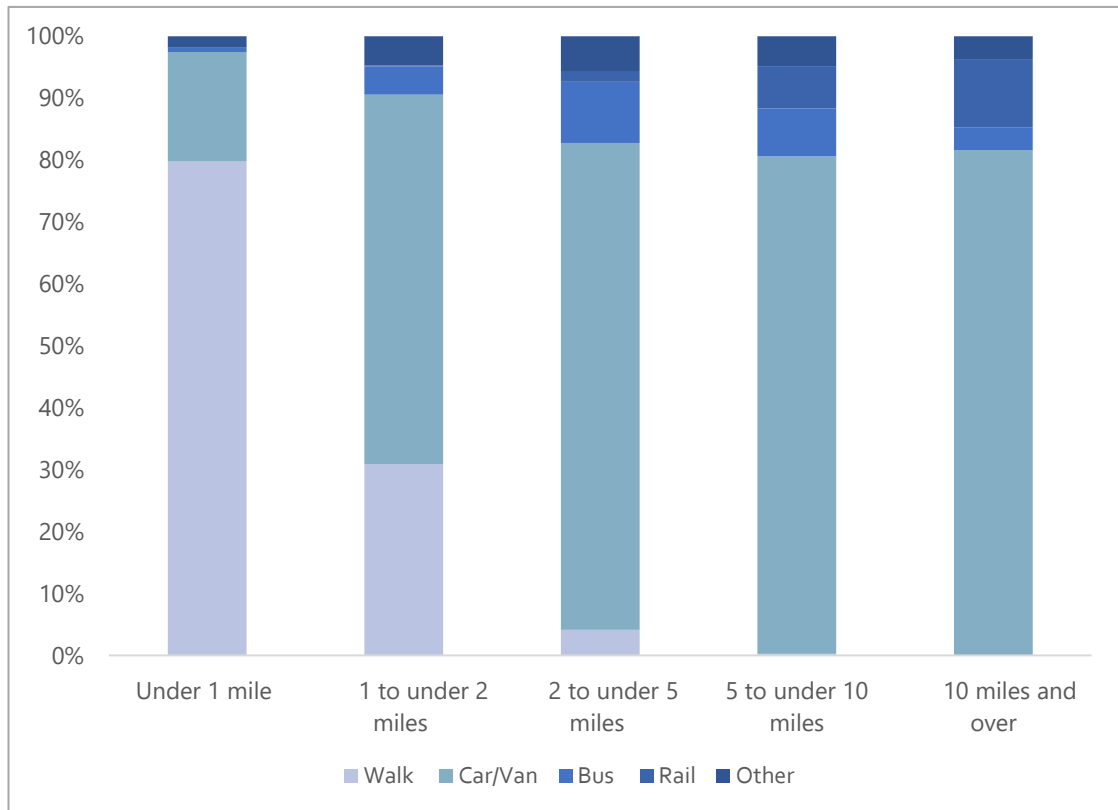
“Cyclists should generally be accommodated on the carriageway. In areas with low traffic volumes and speeds, there should not be any need for dedicated cycle lanes on the street” (MfS, para 6.4.1)

- 3.3.9 On this basis, the surrounding roads including Dee Road, Spey Road, Grovelands Road and Tilehurst Road are appropriate for on-street cycling.

3.4 Accessibility to Local Services and Facilities

3.4.1 Turning to the general accessibility of the site by walking and cycling, the National Travel Survey (NTS) 2019 identifies the mode share of journeys of different lengths:

Image 3.2: Mode Share of Trips by Main Mode for Different Trip Lengths: England, 2019



Source: National Travel Survey (2019)

3.4.2 The majority (80%) of all trips up to one mile (1.6km) are undertaken on foot and 30% of all journeys between one and two miles are also made on foot (1.6km to 3.2km). Against this background, the following distances have been used to determine the likelihood of walking journeys to and from the site:

- 800m – a 'comfortable' walking distance.
- 1,600m – a 'reasonable' walking distance'; and
- 3,200m – the 'maximum' regular walking distance.

3.4.3 In terms of cycle distance, 3 miles (5km) represents a reasonable everyday cycle distance, with 5 miles (8km) being a likely everyday upper distance. NTS 0303 identifies that average cycle trips are 3.3miles, or 5.3km. Cycling also frequently forms part of a longer journey in combination with public transport. These distances are supported by Government cycling guidance including 'Gear Change'.

3.4.4 In line with the above, destinations located within the above distances from the site offer the greatest potential to be made by more sustainable modes of transport.

3.4.5 A summary of some of the key destinations for future residents of the proposed development within the local area is provided in **Table 3.1**, whilst a plan showing the locations of these facilities and services is included as **Figure 2**.

Table 3.1: Summary of Local Facilities and Services

Type of Facility	Destination	Approx. Distance (Meters)	Walking Time	Cycling Time
Leisure	Dance Reality Studios	350	5	2
	Mansion house Reading	1300	16	5
	The Spread Eagle	1000	13	4
	Kensington Park	1000	13	4
	Lousehill Copse	350	5	2
Education	Ranikhet Rainbows Pre-School	170	3	1
	Ranikhet Academy	350	5	2
	National Autistic Society School	1200	15	5
	English Martyrs School	450	6	2
	Cranbury College	1500	18	6
Retail	Marys Store	600	8	3
	Londis	170	3	1
	Medway Shopping Centre	950	12	4
	Asda Tilehurst Superstore	1100	14	4
	Reading Retail Centre	1200	15	5
	Tesco Extra	1900		
Health	Grovelands Pharmacy	700	9	3
	Grovelands Medical Centre	700	9	3
	Medicare Clinic Reading	1000	13	4
Misc	Spey Road Bus Stop	57	0.6	0.2

3.4.6 The site is therefore situated in a sustainable location, with a range of local facilities and services within a 1.6km radius of the site, including numerous schools and health, leisure and retail opportunities. In terms of cycling, all of the identified local facilities and services are located within a 5-6-minute cycle of the site and are therefore well inside a comfortable cycle distance. Future residents of the site will therefore be afforded good opportunities to travel to key destinations on foot and by cycle.

3.5 Public Transport

Bus Services

3.5.1 The nearest bus stops (as shown on **Figure 2**) are located on Spey Road, within the immediate vicinity of the site. The northbound bus stop comprises a bus stop flag with associated timetable information (**Image 3.3**), while the southbound stop includes a bus shelter with seating.

Image 3.3 – Local Bus Stop on Spey Road



Source: Consultant's site photographs

- 3.5.2 The bus stops are serviced by the 15,15a and 88 bus routes, which provide access to central Reading as frequently as every 30 minutes. A summary of these local bus routes is provided in **Table 3.2**.

Table 3.2: Local Bus Services

Service No	Route	Frequency		
		Mon - Fri	Sat	Sun
15	Tilehurst – Dee Park – Central Reading	Every 30 minutes (05:34 – 23:23)	Every hour (06:34 – 23:23)	Every 30 minutes (07:43 – 23:23)
15a	Tilehurst – Dee Park – Central Reading	Every 40 minutes (07:21 – 18:47)	Every 40 minutes (07:42 – 18:09)	No Service
88	Friar Street – Dee Road Fire Station – Calcot – Theale Green School	Once per Day at 07:05 and 15:10	No Service	No Service

- 3.5.3 The proposed development therefore provides opportunities for future residents to access destinations such as Central Reading without relying on the private car. This offers a genuine travel option for most journeys.

Railway Services

- 3.5.4 The nearest Railway Station is Reading West, which is located 2.1km from the site. The station provides regular rail connections to Reading Central, Newbury and Basingstoke throughout the week, as well as a connection further afield and to London, which is a circa 34 to 41 minutes journey, with a change at Reading Central.
- 3.5.5 A summary of the local rail services available at Reading West, during the peak and off-peak periods, is provided in **Table 3.3**.

Table 3.3: Local Rail Services – Reading West

Service	Frequency		Journey Time (Minutes)
	Peak	Non-Peak	
Reading	5	3	5
Newbury	1	1	25
Basingstoke	2	2	24

- 3.5.6 Reading West and Reading Central rail stations are connected by the 15 and 15a bus services. Rail is therefore a genuine alternative to the car for both commuting and leisure trips.

- 3.5.7 Reading Railway Station is now part of the Elizabeth Line which enables future residents to use the Crossrail services into London and beyond.

3.6 Local Highway Network

- 3.6.1 Dee Road is a single carriageway, two-way road that is subject to a 30mph speed limit. The road benefits from street lighting and accommodates circa 2m wide footways on either side of the carriageway that are set back from the road by grass verges.
- 3.6.2 Spey Road is a single carriageway, two-way road that is subject to a 20mph speed limit. The road benefits from street lighting and accommodates circa 2m wide footways on either side of the carriageway. In addition, traffic calming is provided along Spey Road in the form of speed humps. To the north, Spey Road connects to the wider residential road network within the vicinity of the site, whilst to the south it meets Dee Road at a priority-controlled T-junction.
- 3.6.3 To the west of the site, Dee Road provides access to two local schools before connecting to the wider residential road network in Reading at the traffic signal-controlled junction with The Meadway.
- 3.6.4 Approximately 90m to the east of the site, Dee Road meets Water Road and Grovelands Road at a mini-roundabout junction. Water Road is a single carriageway, two-way road that is subject to a 30mph speed limit. To the south, Water Road meets Tilehurst Road at a mini-roundabout junction.
- 3.6.5 Grovelands Road is a single carriageway, two-way road that is subject to a 30mph speed limit. To the north of the site, Grovelands Road connects to the wider residential road network via numerous minor road access junctions, before meeting Oxford Road at a traffic signal-controlled junction.
- 3.6.6 Oxford Road is a single carriageway, two-way road that is subject to a 30mph speed limit. Along its length, Oxford Road provides access to a number of local businesses and the wider residential road network via numerous minor access road junctions. To the west, Oxford Road forms part of a route towards the nearby settlement of Tilehurst, whilst to the east it forms a direct route towards Reading town centre.
- 3.6.7 Oxford Road provides access to the A329 (which forms part of the principal road network) via Chatham Street and a four-arm grade separated roundabout junction. The A329 forms one of the main arterial routes through Reading and to the south becomes the A33, before providing access to Junction 11 of the M4 (which forms part of the strategic road network) at a grade-separated junction.

3.7 Baseline Traffic Data

3.7.1 To understand the existing operation of Dee Road, an Automatic Traffic Counter (ATC) survey was commissioned in June 2022. The survey recorded traffic volumes and speeds in the vicinity of the site. The results of the ATC survey are summarised in **Table 3.4**.

Table 3.4: Summary of ATC Survey – Dee Road

Direction	Observed Traffic Flow (5-Day Average)		Recorded 85 th Percentile Vehicle Speeds
	AM Peak (0800-0900)	PM Peak (1700-1800)	
Eastbound	295	217	35.3
Westbound	289	254	33.1

Source: ATC Survey

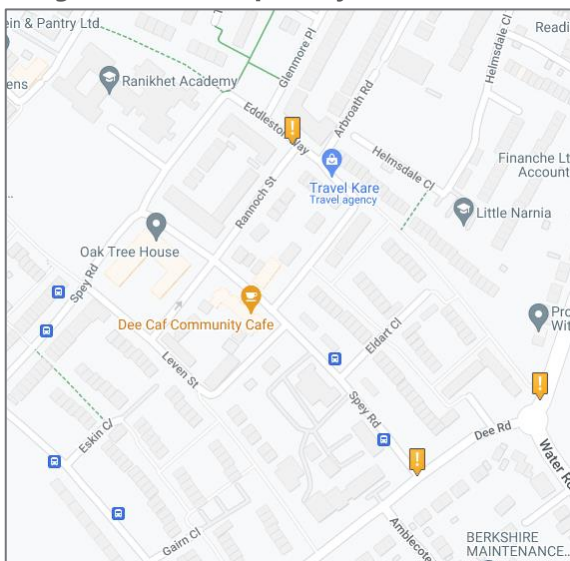
3.7.2 Dee Road is currently well-trafficked, with approximately 580 two-way vehicle movements in the morning peak period and approximately 470 two-way movements in the evening peak period. This broadly equates to 10 vehicles per minute in the morning peak hour and 8 vehicles per minute in the evening peak hour respectively.

3.7.3 Traffic speeds within the vicinity of the site are moderately above the sign-posted 30mph speed limit, with an 85th percentile vehicle speeds of up to 35mph recorded along Dee Road.

3.8 Highway Safety

3.8.1 Personal Injury Accident (PIA) data has been reviewed for the latest five-year period using the online resource CrashMap. The study area includes the length of Dee Road and Spey Road within the vicinity of the site.

Image 3.4: CrashMap Study Area



Source: CrashMap

3.8.2 There have been three accidents within the study area in the latest five-year period, all of which were classified as slight in nature. A summary of the accidents is provided below:

- One collision occurred to the west of the site along Dee Road on 20 November 2017. Two vehicles were involved, with one vehicle colliding into the rear of the other whilst it was slowing to a stop.
- Another collision occurred to the east of the site along Dee Road on 22 November 2019. Two vehicles were involved, with both colliding with one another whilst in the act of turning right.
- One collision occurred at the Dee Road / Grovelands Road / Water Road mini-roundabout junction on 25 September 2020. A single vehicle was involved which collided with the nearside crash barrier whilst in the act of turning right.

3.8.3 In summary, the accident record over the most recently available five-year period is typical for a highway network in an urban area. There does not appear to be any identifiable patterns in terms of location, causality or road user-type that suggests a particular safety issue with the operation of the local highway network.

3.9 **Summary**

3.9.1 The site is well located to encourage travel by sustainable modes including the use of walking, cycling and public transport. These will provide genuine opportunities for residents to travel to/from the site more sustainably. The proximity of the site to local services and facilities in the immediate area, as well as Reading town centre will enable residents to walk and cycle to services and amenities, they are likely to use on a day-to-day basis.

SECTION 4 Development Proposal

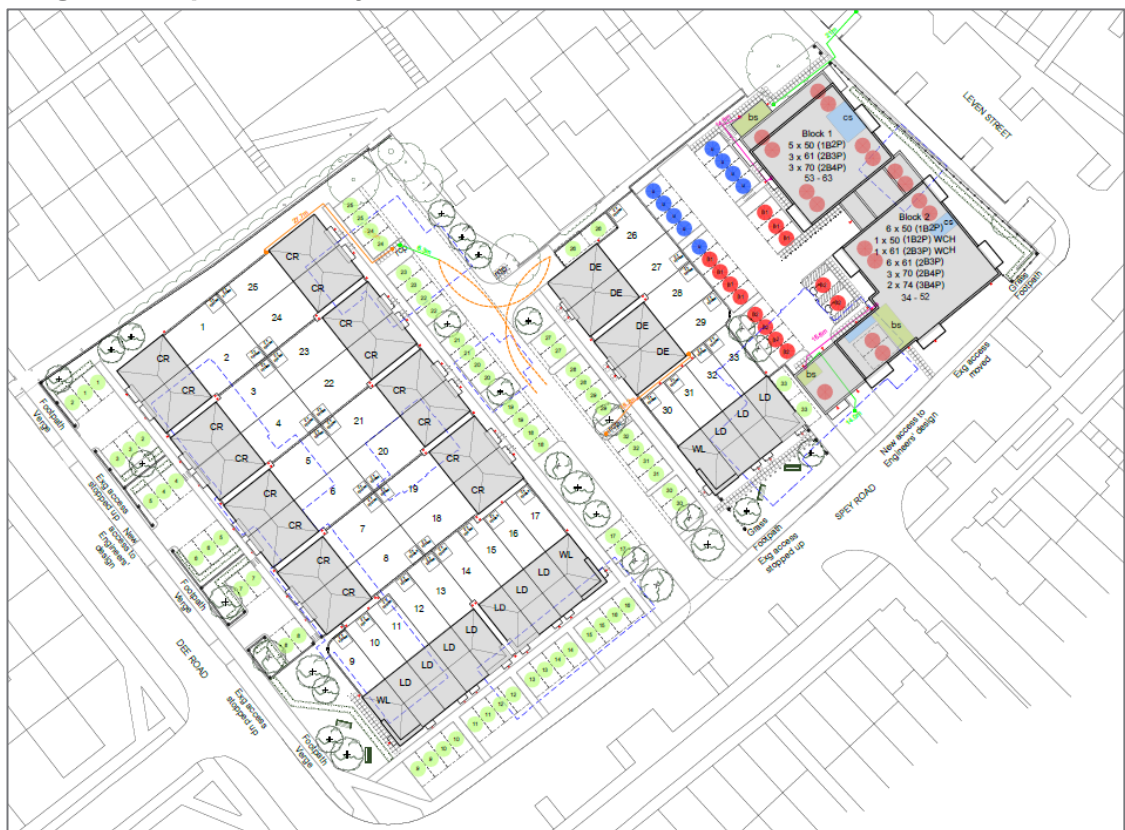
4.1 Introduction

4.1.1 This section of the TS presents the development proposal, including the proposed access and servicing arrangements.

4.2 Proposed Development

4.2.1 The development proposal comprises 63 residential dwellings, consisting of 33 houses and 30 apartments. The proposed layout is contained at **Appendix C**, an extract of which is presented as **Image 4.1**.

Image 4.1: Proposed Site Layout



Source: Extract of DHA architecture drawing no. 092102-BEL-TV-02

4.3 Schedule of Accommodation

4.3.1 The proposed schedule of accommodation for the 63 residential dwellings at the site is summarised in **Table 4.1**.

Table 4.1: Proposed Schedule of Accommodation

Type	Mix
Private	
One-bedroom apartment	5
Two-bedroom apartment	6
Three-bedroom house	33
Affordable	
One-bedroom apartment	6
Two-bedroom apartment	13
Total	63

4.4 Proposed Access Strategy

4.4.1 Primary vehicular access to the site is proposed onto Spey Road, where two independent points of access will be provided to the proposed apartments and houses respectively. In addition, vehicular access to three parking courts associated with the proposed houses will be provided onto Dee Road via dropped kerb vehicle crossover arrangements.

4.4.2 There are a series of existing access points into the site along Dee Road and Spey Road respectively, which are to be stopped up as part of the development proposals. These include:

- The emergency access point for the Fire and Rescue Service Station onto Dee Road.
- The vehicle crossover onto Dee Road, which provides access into an area of car parking to the front of the Fire and Rescue Service Station; and
- Two gated access points for the Fire and Rescue Service Station onto Spey Road.

4.4.3 The location of the proposed access points has been designed so that the existing speed cushions located along Spey Road can be retained. While the existing cushions are immediately south of the proposed access to the development, this approach is similar to that which has been undertaken elsewhere in the vicinity, and most notably at the junction of Spey Road and Leven Street.

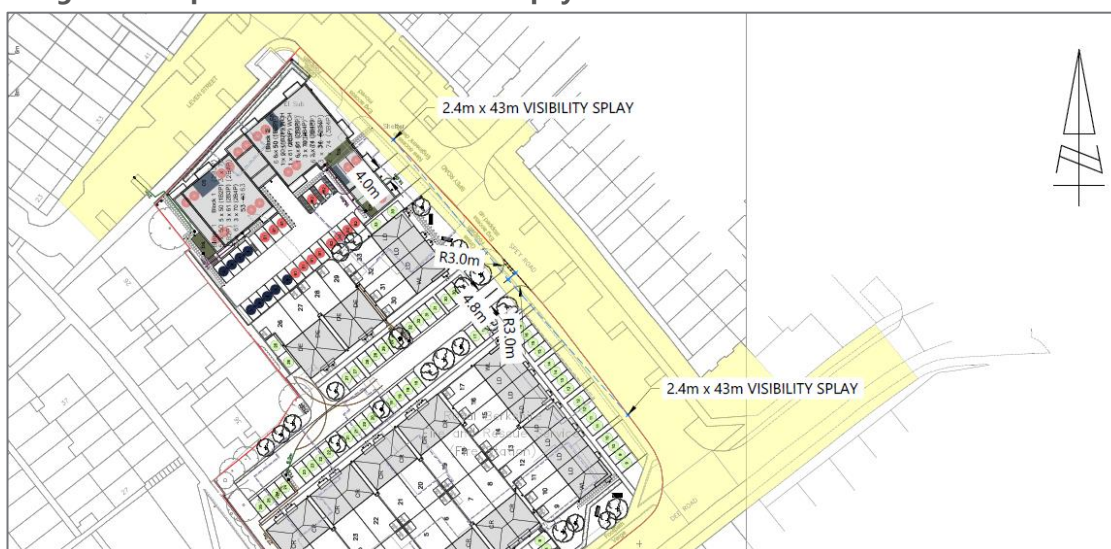
4.4.4 The proposed access arrangements are shown on i-Transport drawing nos. **ITB17485-GA-001** and **ITB17485-GA-002**, extracts of which are presented in **Image 4.2** and **Image 4.3** respectively.

Image 4.2: Proposed Parking Court Access Points – Dee Road



Source: Extract of i-Transport drawing no. ITB17485-GA-001A

Image 4.3: Proposed Access Points onto Spey Road



Source: Extract of i-Transport drawing no. ITB17485-GA-002A

- 4.4.5** The locations of the access points that are to be stopped up, as well as the location of the existing speed cushions on Spey Road, are shown on i-Transport drawing no. **ITB17485-GA-004**.
- 4.4.6** In addition, a number of the proposed parking bays for the houses at the site are to be accessed directly from Spey Road. To facilitate safe access and egress to these parking bays for vehicles, the existing bus stop along Spey Road is to be relocated approximately 60m to the north on Spey Road. The proposed new location for the bus stop is indicated on i-Transport drawing no. **ITB17485-GA-004**.
- 4.4.7** The access onto Spey Road for the proposed houses comprises a 4.8m wide carriageway, with 3.0m kerb radii. Two 1.2m wide footways are provided, which are set back from the carriageway by soft landscaping and the parking bays associated with the proposed houses.

- 4.4.8 The access onto Spey Road for the proposed apartments comprises a 5.0m wide carriageway. Pedestrian access to the apartment blocks is provided via footpaths running adjacent to the proposed buildings.
- 4.4.9 At the proposed access points onto Spey Road, visibility splays of 2.4m x 43m can be achieved in either direction along the carriageway. This is in accordance with pre-application advice received from RBC and is in excess of the sign-posted speed limit of 20mph along the road. Therefore, adequate visibility is achievable.
- 4.4.10 In addition, where access is provided onto Dee Road for the proposed parking courts, visibility splays of 2.4m x 70m can be achieved in either direction along the carriageway. This is in accordance with pre-application advice received from RBC and therefore adequate visibility is achievable.

4.5 Parking Provision

Car Parking

- 4.5.1 The development will consist of 30 apartments (11 one bedroom and 19 two bedroom) and 33 houses for a total of 63 dwellings. RBC's Parking Standards SPD, as set out in Section 2, outlines the parking guidance for apartments and houses (**Table 4.2**).

Table 4.2: Parking Provision Standards

Residential Dwelling	Zone 1	Zone 2	Zone 3	Zone 4	Cycle Provision
1/ 2 Bedroom Flat	0.5	1	1.5	1.5	0.5
3+plus Bedroom Flat	1	1.5	2	2	1
3 Bedroom House	1	2	2	2	2
Visitor Parking	0	1 per 10 dwellings (Flats only)	1 per 4 dwellings (Flats only)	1 per 4 dwellings (Flats only)	-

- 4.5.2 Within the pre-application highways advice provided by RBC, it was identified that the 'Zone 2' parking standards apply to the proposed development in this instance. The proposed level of parking provision at the site, set against the 'Zone 2' requirements, is summarised in **Table 4.3**.

Table 4.3: Proposed Car Parking Provision

Dwelling Type	RBC Parking Standard	No. of Units	RBC Parking Requirement	Total Spaces
1/2 Bedroom Flat	1	30	30	30
3 Bedroom House	2	33	66	66
<i>Sub-total</i>	-	63	96	96
Visitor Parking	1 per 10 flats	-	3	9
Total	-	63	99	105

- 4.5.3 A total of 96 allocated car parking spaces are proposed across the site, along with 9 unallocated visitor spaces, providing a total of 105 car parking spaces. The proposed level of parking provision therefore fully complies with the adopted RBC parking standards.

Electric Vehicle Charging

- 4.5.4 While RBC have their own standards for Electric Vehicles, it is of note that Building Regulations, which will be in place at the time of construction have far more onerous requirements. The requirements for electric vehicle charging provision are set out in Approved Document S *Infrastructure for the charging of electric vehicles* of Schedule 1 of the Building Regulations (2010), which was formally adopted on 15th June 2022.
- 4.5.5 Requirement S1 of the regulations stipulates that all new residential dwellings must have access to an electric vehicle charger that has a minimum rated output of 7kW. In accordance with these requirements, all residential dwellings at the site will be provided with electric vehicle charging.

Cycle Parking

- 4.5.6 Cycle parking is proposed across the site in accordance with the adopted RBC standards. Cycle parking will be provided in rear garden sheds for the proposed houses and within communal bike stores for the proposed apartments.
- 4.5.7 Three communal bike stores are proposed providing a total of 30 cycle parking spaces, equating to one cycle parking space per apartment. This provision is in excess of the adopted RBC standards and is proposed to encourage the use of sustainable modes.

4.6 Servicing and Refuse Collection Arrangements

4.6.1 The internal site layout has been designed to accommodate the movement of an 8.75m refuse collection vehicle, in accordance with the specifications set out by RBC. Servicing for plots 1-8 will occur directly from Dee Road. This is in a similar way to how existing properties which front onto Dee Road are currently served. Plots 9-17 and the apartments (units 34 to 52) will be serviced directly from Spey Road in a similar way to those dwellings opposite. Servicing for plots 18-33 will occur internally within the development. Apartments (units 53 to 63) will be served from Leven Street via a footpath provided alongside apartment block one. To facilitate collection, the landscaped area adjacent to the parking spaces on Leven Street will be converted to hardstanding and dropped kerbs provided.

4.6.2 Therefore, to ensure ease of access, swept path analysis of a refuse vehicle manoeuvring throughout the layout has been undertaken and is presented as i-Transport drawing no. **ITB17458-GA-003A**.

4.6.3 The drawing demonstrates that a refuse can safely enter, turn and egress the site in a forward gear, using the turning head provided at the western extent of the site. In addition, the layout has been designed such that, for all homes, bins will be provided in accordance with the 'drag' distances stipulated in RBC's *Waste Management Guidelines for Property Developers, Architects, Planners and Contractors*, i.e.:

- Within 15m of the carriageway where the refuse vehicle will stop for two-wheeled bins.
- Within 10m of the carriageway where the refuse vehicle will stop for four-wheeled bins; and
- No more than 30m from homes.

4.6.4 The site therefore makes adequate provision for a refuse collection vehicle.

4.7 Emergency Vehicle Access

4.7.1 To ensure ease of access for emergency vehicles, swept path analysis of a fire tender manoeuvring throughout the internal site layout has been undertaken and is presented as i-Transport drawing no. **ITB17485-GA-005A**.

4.7.2 The drawing demonstrates that a fire tender is able to enter, turn and egress the site safely in a forward gear. The internal site layout also ensures that a fire tender will not be required to reverse more than 20m, in accordance with Paragraph 13.4 of the Building Regulations (2010) Appendix B *Fire Safety*.

- 4.7.3 Properties which face directly onto Dee Road, Spey Road and Leven Street would be served directly from those road frontages.

4.8 **Summary**

- 4.8.1 Primary vehicular access to the site is proposed onto Spey Road, where two independent points of access will be provided to the proposed apartments and houses respectively. In addition, vehicular access to three parking courts associated with the proposed houses will be provided onto Dee Road via dropped kerb vehicle crossover arrangements.
- 4.8.2 At the proposed access points onto Spey Road, visibility splays of 2.4m x 43m can be achieved in either direction along the carriageway. This is in accordance with pre-application advice received from RBC and is in excess of the sign-posted speed limit of 20mph along the road. Therefore, adequate visibility is achievable.
- 4.8.3 In addition, where access is provided onto Dee Road for the proposed parking courts, visibility splays of 2.4m x 70m can be achieved in either direction along the carriageway. This is in accordance with pre-application advice received from RBC and therefore adequate visibility is achievable.
- 4.8.4 The access onto Spey Road for the proposed houses comprises a 4.8m wide carriageway, with 3.0m kerb radii. Two 1.2m wide footways are provided, which are set back from the carriageway by soft landscaping and the parking bays associated with the proposed houses.
- 4.8.5 The access onto Spey Road for the proposed apartments comprises a 5.0m wide carriageway. Pedestrian access to the apartment blocks is provided via footpaths running adjacent to the proposed buildings.
- 4.8.6 Car parking is proposed in accordance with RBC's maximum standards for Zone 2. Due to the location of the site in terms of its opportunities for active modes, public transport and access to local services and facilities, the level of parking is acceptable.
- 4.8.7 Cycle parking is proposed in excess of RBC's standards and will comprise parking in rear garden sheds for the proposed houses and in secure communal bike stores for the proposed apartments.
- 4.8.8 Swept path analysis has been undertaken for appropriate servicing and emergency vehicles and demonstrates that such vehicles will be able to safely enter, turn and egress the site in a forward gear.

SECTION 5 Traffic Impact

5.1 Introduction

5.1.1 This section of the TS sets out the traffic generation of the proposed development and assesses the likely vehicular traffic impact on the local highway network.

5.2 Trip Generation

Proposed Use - Residential

5.2.1 The development proposal would see the construction of 63 dwellings at the site, comprising 33 houses and 30 apartments.

5.2.2 To estimate the likely vehicular trip generation of the proposed development, vehicular trip rates have been derived for comparable surveys contained within the TRICS database. Trip rates have been obtained for the proposed apartments and houses respectively.

5.2.3 The extracted TRICS trip rates and subsequent traffic generation are summarised in **Table 5.1**, whilst the full TRICS outputs are provided at **Appendix D**.

Table 5.1: Vehicular Trip Rates and Traffic Generation – 63 dwellings

	Morning Peak Hour			Evening Peak Hour		
	In	Out	Total	In	Out	Total
Trip Rate						
Private houses (per dwelling)	0.139	0.310	0.449	0.310	0.176	0.486
Private flats (per dwelling)	0.055	0.201	0.256	0.176	0.086	0.262
Trip Generation						
Private houses (per dwelling)	5	10	15	10	6	16
Private flats (per dwelling)	2	6	8	5	3	8
Total	7	16	23	15	9	24

Source: TRICS

- 5.2.4 The proposed development is likely to generate some 23 two-way vehicle movements in the morning peak hour and some 24 two-way vehicle movements in the evening peak hour. This broadly equates to one additional vehicle every 2-3 minutes on average. This is a very modest level of traffic generation that under any reasonable assessment would not lead to a significant, let alone 'severe', impact on the operation of the local highway network.

Extant Use – Royal Berkshire Fire and Rescue Station

- 5.2.5 It is pertinent to note that the site currently comprises buildings associated with an existing Royal Berkshire Fire and Rescue Station, including circa 80 associated on-site car parking spaces.
- 5.2.6 Whilst the existing Dee Road Fire and Rescue Station is no longer in operation, having been decommissioned following the opening of the new Fire and Rescue Station in Theale in early 2022 (*West Berks Ref: 17/02128/COMIND*), it nonetheless remains the extant lawful use at the site.
- 5.2.7 Therefore, for the purposes of a traffic impact assessment, the likely traffic generation associated with the extant Fire and Rescue Station use at the site has been estimated on a first principles basis, to understand the net impact of the proposal.
- 5.2.8 The first principles assessment has been undertaken with reference to empirical data presented in Table 6.1 of the Transport Statement (prepared by others) submitted in support of the newly constructed Theale Fire and Rescue Station, as well as with consideration to the number of associated on-site car parking spaces. The first principles assessment is summarised in **Table 5.2**, whilst an extract of the Transport Statement submitted in support of the Theale Fire and Rescue Station is contained at **Appendix E**.

Table 5.2: First Principles Traffic Generation Assessment – Extant Fire and Rescue Station

Description	Total Number of Two-way Trips (24 hours)
6 Crew Members (2 shifts)	24
Station Mini-Bus	2
Heavy Rescue Unit / Standard Appliance	3
Appliance Movements for Training Purposes	2
Appliance Movements for Community Safety	2
Communications Maintenance Workshop Staff	4
Vehicle Servicing / Maintenance Facility	4
Total	41

- 5.2.9 The traffic generation of the extant Fire and Rescue Station at the site could therefore have been in the order of 40 two-way vehicle movements across a typical 24-hour period. This does not include for any additional call outs which may be required on specific days.

Net Impact

- 5.2.10 The residential proposal is likely to generate some 250 two-way movements per day. The daily net impact arising from the proposal is expected to be some 209 two-way movements per day (over a 24-hour period).
- 5.2.11 When considered in the context of the extant Fire and Rescue Station at the site, the net impact of the proposed residential development will therefore be less than that outlined in **Table 5.1**.

Impacts on Local Junctions and Links

- 5.2.12 The proposed development will see the majority of development traffic using the following junctions and links on the local highway network:
- Dee Road.
 - Water Road / Tilehurst Road mini-roundabout junction.
 - The Meadway / Dee Road traffic signal-controlled junction; and
 - Oxford Road / Grovelands Road traffic signal-controlled junction.
- 5.2.13 The proposed development is estimated to result in the following uplifts in two-way vehicular traffic at the identified local junctions and links on the local highway network during the traditional network peak periods:
- Some 24 two-way vehicle movements along Dee Road, broadly equating to one additional vehicle every 2 and a half minutes.
 - Some 10 two-way vehicle movements at the Grovelands Road / Water Road / Dee Road mini-roundabout junction, broadly equating to one additional vehicle every 6 minutes.
 - Some 8 two-way vehicle movements at the Dee Road / The Meadway traffic signal-controlled junction, broadly equating to one additional vehicle every 7-8 minutes; and
 - Some 5 two-way vehicle movements at the Oxford Road / Grovelands Road traffic signal-controlled junction, broadly equating to one additional vehicle every 12 minutes.
- 5.2.14 The forecast uplifts in two-way vehicular traffic at the identified junctions on the local highway network are very modest, and are unlikely to result in any material, let alone 'severe' impact on the operation of the junctions or the wider local highway network.

5.2.15 Moreover, it is pertinent to note that when considered in the context of the extant Fire and Rescue Service Station at the site, the net impact of the proposed residential development is likely to be less than that outlined above.

5.3 **Summary**

5.3.1 It is evident that the proposed residential development will not generate a significant volume of traffic that will lead to any material, let alone a 'severe', impact on the operation of the local highway network.

SECTION 6 Summary and Conclusion

6.1 Summary

- 6.1.1 i-Transport has been appointed by Bellway Homes to provide highways and transport advice in relation to the residential redevelopment of a site at Dee Road, Reading. The proposal is to develop the site to provide 63 dwellings, comprising 33 houses and 30 apartments.
- 6.1.2 The application site is located on the site of the now redundant Royal Berkshire Fire and Rescue Station, off Dee Road. The site is bound to the north by Leven Street, to the east by Spey Road, to the west by the rear facing gardens of properties accessed off Leven Street and Gairn Close respectively and to the south by Dee Road.
- 6.1.3 The site is well located to encourage travel by sustainable modes including the use of walking, cycling and public transport. These will provide genuine opportunities for residents to travel to/from the site more sustainably. The proximity of the site to local services and facilities in the immediate area, as well as Reading town centre will enable residents to walk and cycle to services and amenities, they are likely to use on a day-to-day basis.
- 6.1.4 Primary vehicular access to the site is proposed onto Spey Road, where two independent points of access will be provided to the proposed apartments and houses respectively. In addition, vehicular access to three parking courts associated with the proposed houses will be provided onto Dee Road via dropped kerb vehicle crossover arrangements.
- 6.1.5 At the proposed access points onto Spey Road, visibility splays of 2.4m x 43m can be achieved in either direction along the carriageway. In addition, where access is provided onto Dee Road for the proposed parking courts, visibility splays of 2.4m x 70m can be achieved in either direction. These visibility splays are in accordance with pre-application advice received from RBC.
- 6.1.6 The internal site layout has been designed in accordance with Manual for Streets design principles and provides appropriate access for refuse and emergency vehicles throughout the site. In addition, an appropriate level of car and cycle parking is proposed across the site.
- 6.1.7 The proposed development is likely to generate some 23 two-way vehicle movements in the morning peak period and some 24 two-way vehicle movements in the evening peak period. This broadly equates to one additional vehicle every 2-3 minutes on average, which is a very modest level of traffic generation.

6.1.8 Moreover, when considered in the context of the likely traffic generation associated with the extant Fire and Rescue Station at the site, the net impact of the residential development at the site is likely to be lower.

6.2 Conclusions

6.2.1 The proposed development complies with the requirements of the NPPF insofar that:

- There are genuine opportunities for travel to and from the site using sustainable modes.
- Safe and suitable access can be provided to the development for all users.
- The local highway network can accommodate the traffic generated by the development without leading to any significant (let alone 'severe') impact; and
- The internal design of the development accords with national guidance.

6.2.2 The proposals are therefore acceptable in highway and transport terms.

FIGURES



Key

Site Boundary

Contains OS data © Crown copyright and database right 2022
Contains public sector information licensed under the
Open Government Licence v3.0

i-Transport

Basingstoke: 01256 637 940
Leeds: 0113 357 1360
London: 020 3705 9215
Manchester: 0161 830 2172

www.i-transport.co.uk

Title:

Site Location Plan

Project:

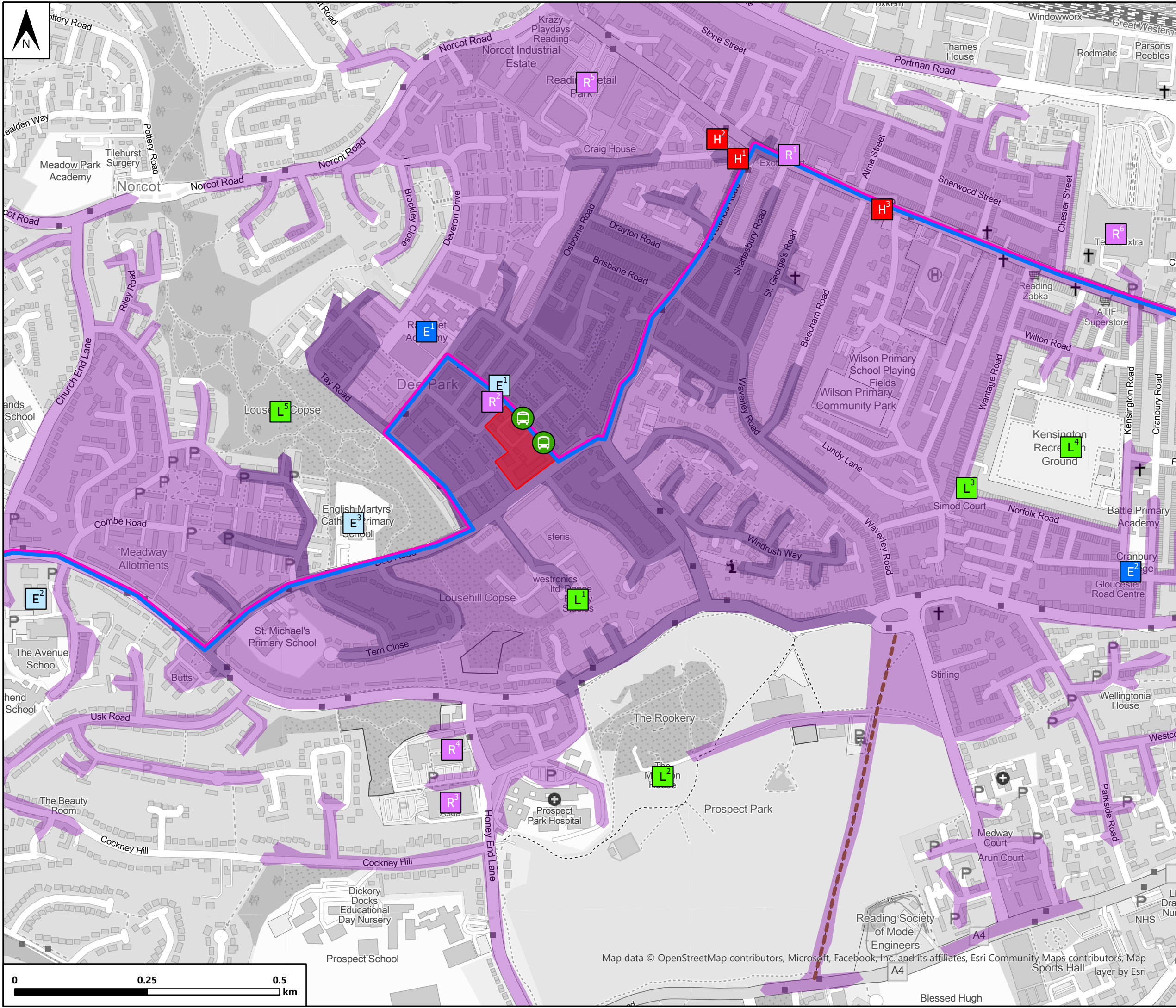
Dee Road, Reading

Project Number:
IT17485

Figure Number:
Figure 1

Revision:
-

Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri



Key

- Site Boundary
- 800m Walking Distance
- 1600m Walking Distance
- H¹ Grovelands Pharmacy
- H² Grovelands Medical Centre
- H³ Medicare Clinic Reading
- R¹ Marys Store
- R² Londis
- R³ Asda Tilehurst Superstore
- R⁴ Medway Shopping Centre
- R⁵ Reading Retail Centre
- R⁶ Tesco Extra
- E¹ Ranikhet Rainbows Pre-School
- E² National Autistic Society School
- E³ English Martyrs School
- E¹ Ranikhet Academy
- E² Cranbury College
- L¹ Dance Reality Studio
- L² Mansion house Reading
- L³ The Spread Eagle
- L⁴ Kensington Park
- L⁵ Lousehill Copse
- Bus Stop
- Bus Route 15/15a
- Bus Route 88
- Public Rights of Way

Contains OS data © Crown copyright and database right 2022
Contains public sector information licensed under the
Open Government Licence v3.0

Basingstoke: 01256 637 940
Leeds: 0113 357 1360
London: 020 3705 9215
Manchester: 0161 830 2172

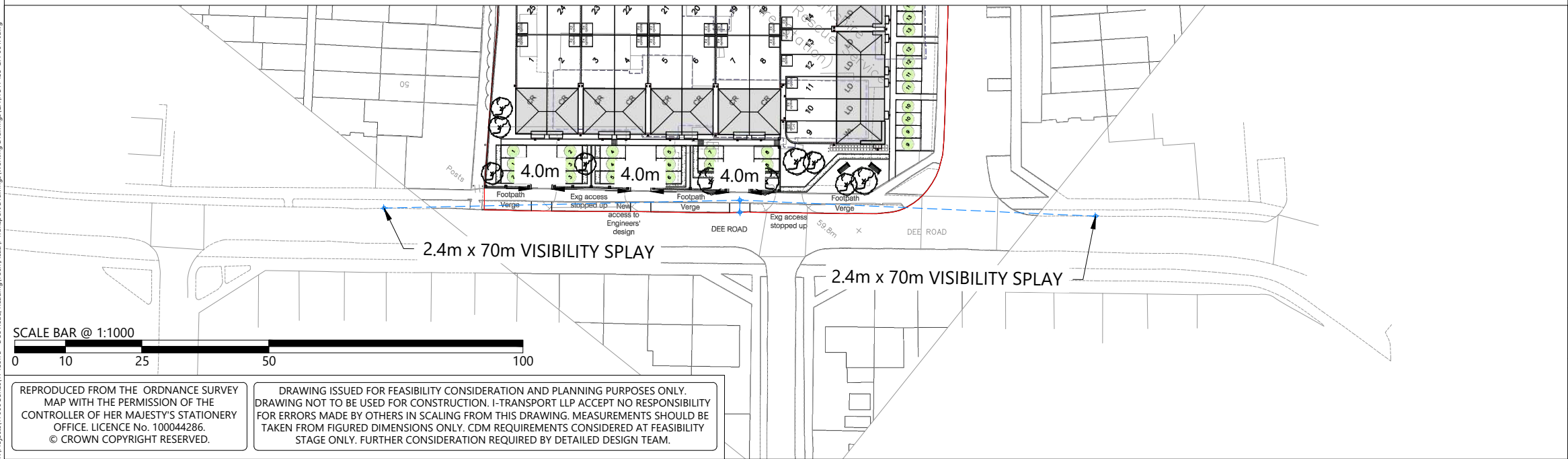
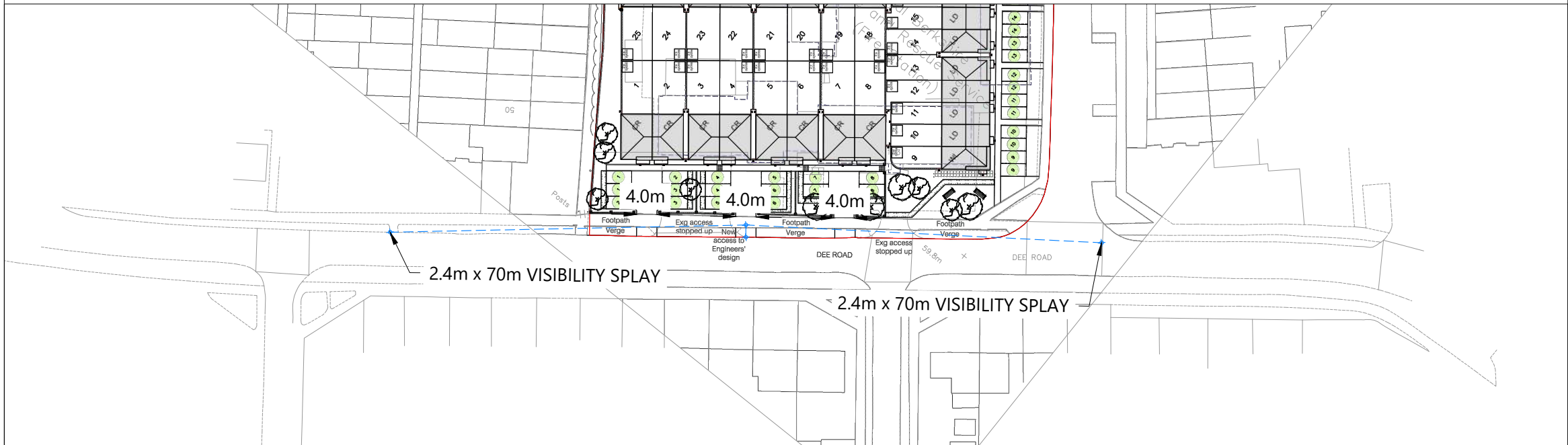
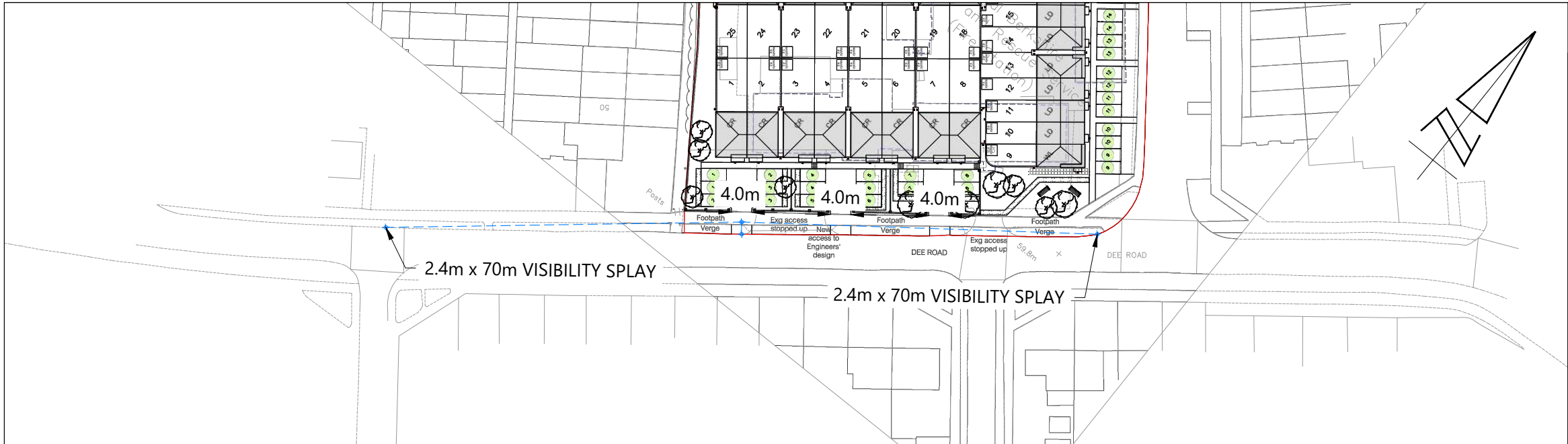
www.i-transport.co.uk

Title: **Local Amenities Plan**

Project: **Dee Road, Reading**

Project Number: IT17485	Figure Number: Figure 2	Revision: -
-----------------------------------	-----------------------------------	-----------------------

DRAWINGS



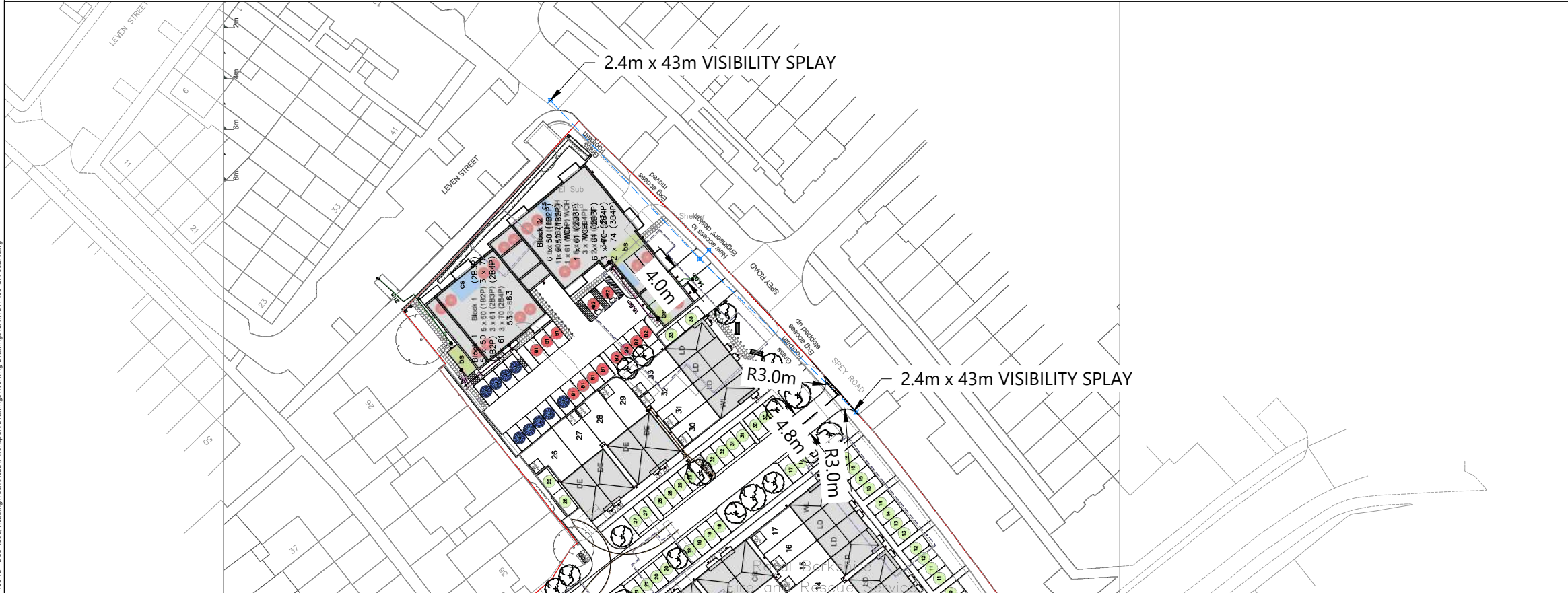
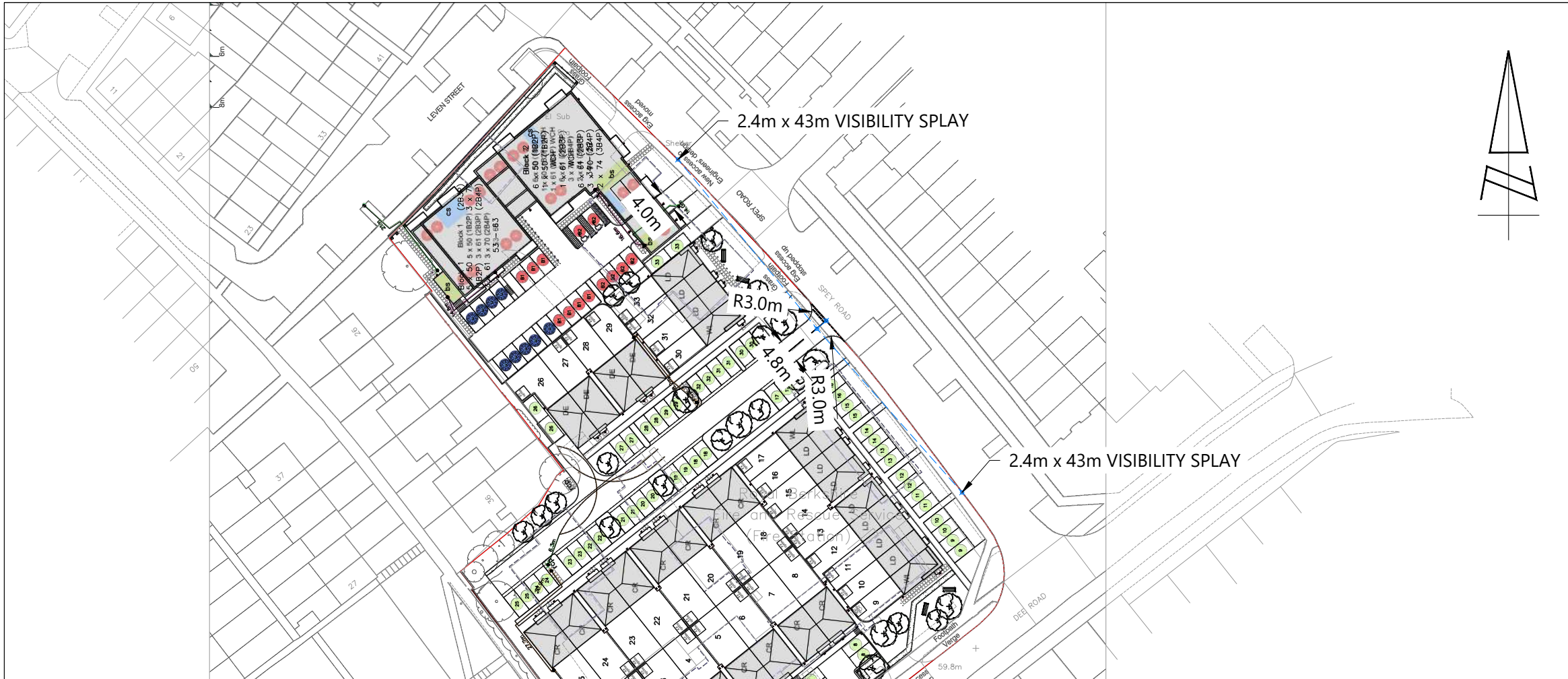
A	27.07.22	MM	SITE LAYOUT UPDATED	BB	JDW
REV	DATE	BY	DESCRIPTION	CHK	APD

STATUS: FOR INFORMATION

i-Transport

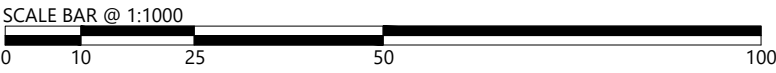
The Square, Basing View,
Basingstoke, Hampshire, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

TITLE: ACCESS VISIBILITY SPLAYS - DEE ROAD		
PROJECT: DEE ROAD, READING		
CLIENT: BELLWAY HOMES		
DRAWN: MM	CHECKED: JDW	APPROVED: JDW
PROJECT No: ITB17485	SCALE @ A3: 1:1000	DATE: 20.06.22
DRAWING No: ITB17485-GA-001		REV: A



REPRODUCED FROM THE ORDNANCE SURVEY
MAP WITH THE PERMISSION OF THE
CONTROLLER OF HER MAJESTY'S STATIONERY
OFFICE. LICENCE No. 100044286.
© CROWN COPYRIGHT RESERVED.

DRAWING ISSUED FOR FEASIBILITY CONSIDERATION AND PLANNING PURPOSES ONLY.
DRAWING NOT TO BE USED FOR CONSTRUCTION. I-TRANSPORT LLP ACCEPT NO RESPONSIBILITY
FOR ERRORS MADE BY OTHERS IN SCALING FROM THIS DRAWING. MEASUREMENTS SHOULD BE
TAKEN FROM FIGURED DIMENSIONS ONLY. CDM REQUIREMENTS CONSIDERED AT FEASIBILITY
STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.



A	27.07.22	MM	SITE LAYOUT UPDATED	BB	JDW
REV	DATE	BY	DESCRIPTION	CHK	APD

STATUS: FOR INFORMATION



The Square, Basing View,
Basingstoke, Hampshire, RG21 4EB
www.i-transport.co.uk

Tel: 01256 637940

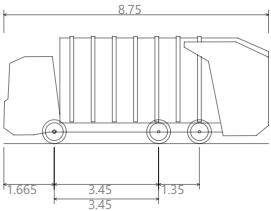
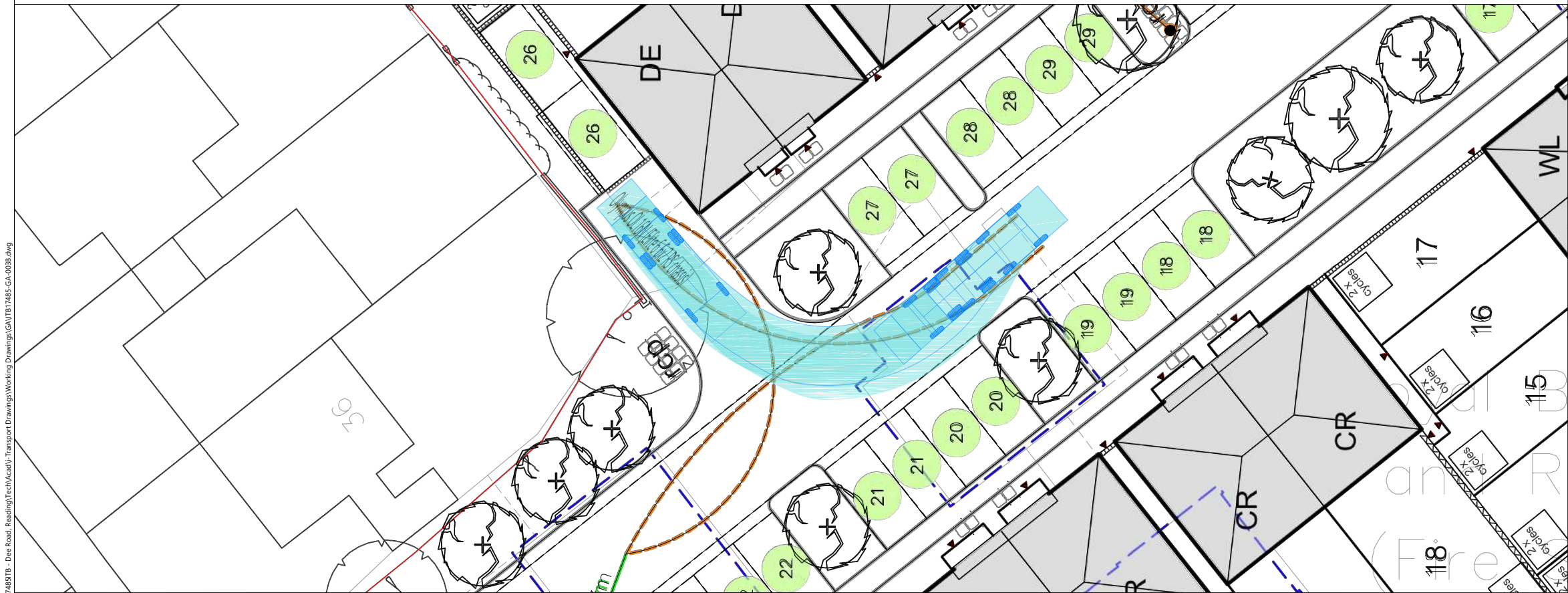
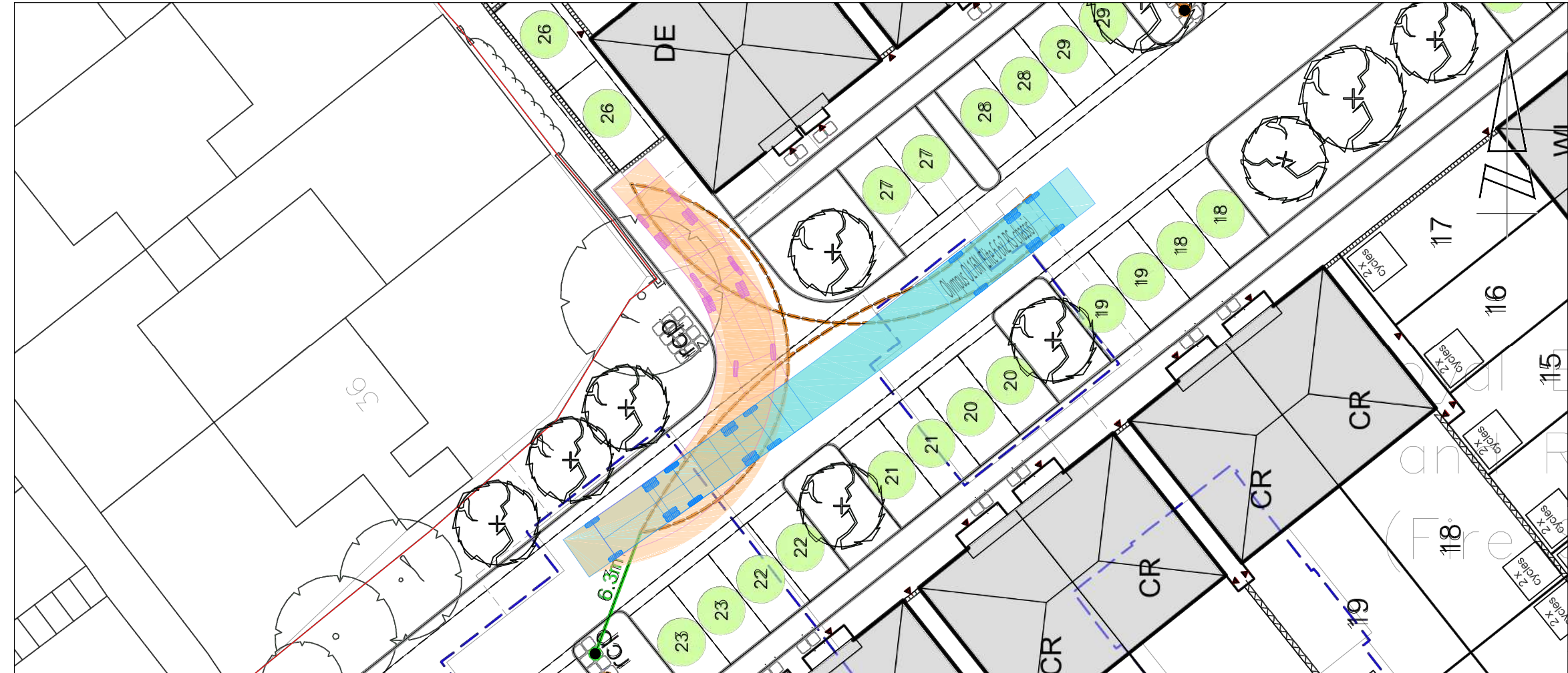
TITLE: ACCESS VISIBILITY SPLAYS - SPEY ROAD

PROJECT: DEE ROAD, READING

CLIENT: BELLWAY HOMES

DRAWN: MM	CHECKED: JDW	APPROVED: JDW
PROJECT No: ITB17485	SCALE @ A3: 1:1000	DATE: 20.06.22

DRAWING No: ITB17485-GA-002
REV: A



Olympus OL16N (Elite 6 6x2 RS chassis)	
Overall Length	8.750m
Overall Width	2.250m
Overall Body Height	3.540m
Min Body Ground Clearance	0.260m
Track Width	2.250m
Lock to lock time	4.00s
Wall to Wall Turning Radius	10.150m

REV	DATE	BY	DESCRIPTION	CHK	APD
B	27.07.22	MM	SITE LAYOUT UPDATED	BB	JDW
A	19.07.22	MM	SWEEP PATHS AMENDED	BB	JDW

STATUS: FOR INFORMATION



The Square, Basing View,
Basingstoke, Hampshire, RG21 4EB
www.i-transport.co.uk

Tel: 01256 637940

TITLE: SWEPT PATH ANALYSIS - REFUSE VEHICLE

PROJECT: DEE ROAD, READING

CLIENT: BELLWAY HOMES

DRAWN: MM	CHECKED: BB	APPROVED: JDW
PROJECT No: ITB17485	SCALE @ A3: 1:250	DATE: 20.06.22

DRAWING No: ITB17485-GA-003 REV: B

T:\Projects\17000 Series\17485TB - Dee Road, Reading\Tech\Acad\Transport Drawings\Working Drawings\GA\ITB17485-GA-003B.dwg

REPRODUCED FROM THE ORDNANCE SURVEY
MAP WITH THE PERMISSION OF THE
CONTROLLER OF HER MAJESTY'S STATIONERY
OFFICE. LICENCE No. 100044286.
© CROWN COPYRIGHT RESERVED.

DRAWING ISSUED FOR FEASIBILITY CONSIDERATION AND PLANNING PURPOSES ONLY.
DRAWING NOT TO BE USED FOR CONSTRUCTION. I-TRANSPORT LLP ACCEPT NO RESPONSIBILITY
FOR ERRORS MADE BY OTHERS IN SCALING FROM THIS DRAWING. MEASUREMENTS SHOULD BE
TAKEN FROM FIGURED DIMENSIONS ONLY. CDM REQUIREMENTS CONSIDERED AT FEASIBILITY
STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.



APPENDIX A. Pre-Application Advice – Reading Borough Council

Mr Tom Ryan
Savills
Ground Floor, Hawker House
5-6 Napier Court
Napier Road
Reading
RG1 8BW

Frances Martin
Executive Director for Economic Growth
and Neighbourhood Services

Civic Offices, Bridge Street,
Reading, RG1 2LU

□ 0118 9373787

Our Ref: 220232

Direct: □ 0118 9372980

e-mail: stephen.vigar@reading.gov.uk

20 May 2022

Your contact is: **Steve Vigar, Planning**

Dear Mr Ryan,

PRE PLANNING APPLICATION ENQUIRY - INITIAL LEVEL 3 RESPONSE

Enquiry Reference: 220232

Address: Berkshire Fire and Rescue, Dee Road, Tilehurst, Reading, RG30 4BT

Proposal: Pre-application advice to redevelop the site to deliver 71 residential units (including 22 affordable housing units) together with associated landscaping, parking and infrastructure works.

Thank you for your enquiry and for a useful site visit and introductory meeting which took place on 5 May.

This scoping pre-application response is intended to form part of an initial 'feasibility stage' of the pre-application process. It is based on very limited information and has been subject to only limited consultee involvement. This response is intended as a guide to inform subsequent detailed pre-application discussions. It should not be relied upon to inform an application for Planning Permission at this stage.

Relevant Policy and Guidance

Reading Borough Local Plan 2019

CC1: PRESUMPTION IN FAVOUR OF SUSTAINABLE DEVELOPMENT

CC2: SUSTAINABLE DESIGN AND CONSTRUCTION

CC3: ADAPTATION TO CLIMATE CHANGE

CC4: DECENTRALISED ENERGY

CC5: WASTE MINIMISATION AND STORAGE

CC6: ACCESSIBILITY AND THE INTENSITY OF DEVELOPMENT

CC7: DESIGN AND THE PUBLIC REALM

CC8: SAFEGUARDING AMENITY

CC9: SECURING INFRASTRUCTURE

EN7: LOCAL GREEN SPACE AND PUBLIC OPEN SPACE

EN9: PROVISION OF OPEN SPACE

EN10: ACCESS TO OPEN SPACE
EN12: BIODIVERSITY AND THE GREEN NETWORK
EN14: TREES, HEDGES AND WOODLAND
EN15: AIR QUALITY
EN16: POLLUTION AND WATER RESOURCES
EN17: NOISE GENERATING EQUIPMENT
EN18: FLOODING AND DRAINAGE
H1: PROVISION OF HOUSING
H2: DENSITY AND MIX
H3: AFFORDABLE HOUSING
H5: STANDARDS FOR NEW HOUSING
H10: PRIVATE AND COMMUNAL OUTDOOR SPACE
TR1: ACHIEVING THE TRANSPORT STRATEGY
TR2: MAJOR TRANSPORT PROJECTS
TR3: ACCESS, TRAFFIC AND HIGHWAY-RELATED MATTERS
TR4: CYCLE ROUTES AND FACILITIES
TR5: CAR AND CYCLE PARKING AND ELECTRIC VEHICLE CHARGING
OU1: NEW AND EXISTING COMMUNITY FACILITIES
WR3m: 103 DEE ROAD

Supplementary Planning Documents

- Affordable Housing (2021)
- Sustainable Design and Construction (2019)
- Parking Standards and Design (2011)
- Employment, Skills and Training (2013)
- Planning Obligations under S.106 (2015)

Other Reading Borough Council Documents:

- Reading Tree Strategy 2021
- Strategic Housing Market Assessment (2016)
- Culture and Heritage Strategy 2015-2030
- Local Transport Plan 2011-2026
- Climate Emergency Strategy 2020-25
- Local Cycling and Walking Infrastructure Plan 2020-2030

National Planning Policy and Guidance

- National Planning Policy Framework
- National Planning Practice Guidance
- National Design Guide

EIA

At this early stage it is assumed that the proposals should be subject to Screening under the Environmental Impact Assessment Regulations 2017. Any significant environmental effects will be screened through this and this will require input from relevant consultees in order to assist the LPA in issuing a Screening Opinion and deciding whether an Environmental Impact Assessment is required.

Site Allocation

The site is allocated for residential development (subject to the fire station being surplus to requirements) under Policy WR3m “103 Dee Road” as set out in the Local Plan 2019. An indicative amount of development of 34 to 50 dwellings is given under that policy.

It will be necessary as part of detailed pre-app and any future application to provide evidence that the fire station is surplus to requirements. The new station at Theale is noted and it is assumed for the purposes of this response that this replaces all requirements for a station at Dee Road.

Design

The proposed layout does in some ways reflect the character of the existing area of regenerated housing in the Dee Park area. However it is considered that some significant changes would be required to arrive at an acceptable design. Many of the wider planning matters and the question of policy-compliance are dependant upon, and flow from, the site layout and built form. I would recommend that you focus on arriving at a suitable layout, we can then discuss wider issues as part of the ongoing pre-application work.

Southern Block

The basic concept of a perimeter block to the southern end of the site with a central street running east-west is probably the correct approach. However the parking court cutting north-south would be undesirable due to the creation of ambiguous public/private space, exposure of rear boundaries, intrusion of vehicles into rear garden areas and taking land which would be better used as private gardens for residents.

I would recommend changing the housing fronting Dee Road and also the central street from terraces/FOG to semi-detached with in-curtilage parking (with added benefit of more effective EV charging provision). Further discussion over driveways, visibility and slowing of vehicles on Dee Road will need to be considered, as well as suitable street tree planting (which could perhaps be incorporated into traffic calming).

The housing fronting Spey Road within the southern block could be acceptable in general, however a good deal of land is given over to circulation space with the adopted pavement, the parking area and a second walkway adjacent to the houses. A simpler approach, ideally with in-curtilage parking would be more appropriate.

Dual fronted dwellings to provide activation to Gairn Close would be desirable (noting the significant change in ground levels).

Central Block

This block presents a number of problems in terms of the relationship with housing to the west on Gairn Close, the rear of which would be exposed to public areas, raising security and visual concerns.

The maisonettes would be sandwiched between parking areas with little amenity space and a lack of clear definition between public and private areas. The housing to the Spey Road

frontage relates poorly to the parking area to the north and the layout would result in an awkward arrangement of side and rear boundaries. Combined with this I am concerned over a lack of public open space within the scheme.

To resolve these layout concerns I would recommend moving the four houses fronting Spey Road to the west so that the rear garden boundaries back onto the rear passageway/boundaries of the Gairn Close properties. The space created to the Spey Road frontage would be well-located to provide public open space, and enhance the site visually.

Flats to the North.

I recommend omitting the FOG and also cutting the flats back from the western boundary with Gairn Close housing as I am concerned that this would cause overbearing effects, daylight issues and potential privacy concerns. The proximity to the large tree at the north west corner is also a concern. This corner area would be best used as a private garden to serve the flats.

I am concerned that the flats as currently proposed would present a dead frontage to Spey Road with an unattractive undercroft parking entrance. On site we discussed the possibility of sinking the building to provide a semi-basement parking arrangement using the ground levels within the site and some further excavation. This would allow the ground floor flats to sit at approximately half a storey above street which would provide activation whilst also providing some defensible space and better privacy for occupiers. This would also provide benefits in reducing the apparent scale of the building which would appear quite large in the street scene. Some modelling of the uppermost floor to reduce a potentially blocky appearance should also be considered.

Taking the Central Block comments into account it would appear that the flats could be set within a landscaped extension to the POS with planting within the parking area and grounds that further complements that within the POS.

Affordable Housing

The basic proposal to provide 30% Affordable Housing on site would comply with Policy H3. However the mix should reflect the overall mix on site - including 'family housing'. The tenure would be expected to accord with the Affordable Housing SPD 2021.

Design Review

It is expected that the pre-app proposals will be assessed by the Council's Design Review Panel. Arrangements for this can be discussed as part of the PPA/ongoing pre-app.

Other Matters

All other matters are heavily dependent on the layout and/or detailed design, which remains subject to change, and will be discussed in more detail as pre-app progresses. I would recommend that matters relating to ecology are resolved early at pre-app stage. I would also encourage early engagement with the Thames Valley Police Designing Out Crime Officer. All matters relating to environmental sustainability will be a high priority for the Council.

It is recommended that further detailed pre-application discussions should be undertaken and that these should be governed by a Planning Performance Agreement. A further fee to cover the costs of carrying out this work will need to be negotiated as part of the PPA.

Please note that the advice contained within this letter, or attached report, is that of an officer of the Borough Council and is provided without prejudice to the decision of the Borough Council in the event of a formal application for planning permission.

Yours sincerely

SDV

Steve Vigar

Planning Applications Team Leader

APPENDIX - Consultation responses

Please note that these comments are provided in their entirety - the relative weight to be given to the points raised will be a matter to be addressed through the pre-application and application process.

Natural Environment (Trees)

The illustrative layout indicatively shows incorporation of landscaping, including the retention of the existing landscape buffer on the Dee Road frontage, which is positive. Whilst it does not appear there is much scope, if any, for large canopy trees, which is unfortunate, if the density and layout is otherwise acceptable in planning terms, this may have to be accepted. The indicative planting does show a net gain in tree number, as is required by EN14 and our Tree Strategy, so in that respect is supportable.

On submission of an application, we will expect landscape principles to be provided hence the applicant should familiarise themselves with the aims of the Tree Strategy in order that species, diversity and wildlife considerations, for example, are taken into account in these principles. In addition, the provision of appropriate soil volumes for those trees within the parking areas will need to be demonstrated hence reference to how this will be provided should be included in the landscape information.

The location of all services, including lighting and CCTV, should be considered at an early stage alongside landscape layout to avoid conflicts arising during the agreement of details for each.

There are some trees on site and/or on the boundary (it's unclear) which will need to be addressed formally through a Tree Survey and Arboricultural Impact Assessment which should be submitted with any future application.

No doubt GS Ecology will require some biodiversity enhancements, the principles of which should be provided along with the landscape principles.

In conclusion, development of the site is likely to be supported on tree and landscape grounds subject to sufficient information being provided on submission of an application."

Natural Environment (Ecology)

The pre-application site comprises buildings and land currently in use as Dee Road Fire Station. It is proposed to demolish these buildings and convert the area to housing comprising 71 residential units. The site appears to comprise mostly hardstanding and buildings with some areas of amenity grassland. The site is located close to Louse Hill Copse Local Wildlife Site and there are a number of bat roosts in nearby properties. There is therefore a risk that protected and priority species, including bats, badgers and nesting birds, could be affected by the proposals. As such, an ecological assessment (comprising an extended Phase 1 Habitat and Species Scoping Survey, a bat survey of the existing office building and any trees to be affected by the proposals, and any phase 2 surveys) would need to be provided with any planning application submitted.

Survey requirements

Surveys should be carried out by suitably experienced ecologists who are a member of a professional organisation such as the Chartered Institute of Ecology and Environmental Management and / or are licensed or accredited by Natural England to survey protected species.

- Extended phase 1 habitat & protected species scoping survey

An Extended Phase 1 Habitat Survey is a standardised technique for environmental audit and involves classifying and if required mapping habitats on and adjacent to the application site. The survey is then 'extended' and any features or habitats that are likely to be of importance for notable or protected species, and or prove to be a constraint to development are investigated further and described.

Phase 2 ecology surveys

If the surveys show that the site contains habitats suitable for protected species further surveys for species such as reptiles and bats may need to be carried out.

Ecological enhancements and Scheme Design

Paragraph 174 of the NPPF reads "Planning policies and decisions should contribute to and enhance the natural and local environment".

Paragraph 180 of the NPPF reads *"opportunities to incorporate biodiversity in and around developments should be encouraged by [...] minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*

[...]

development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."

The applicant would need to demonstrate how the development will result in a "net gain" in biodiversity units as measured using the DEFRA 3 Metric.

Furthermore, the applicant should design the development from the outset so that its value to wildlife is maximised. This can be achieved by for example providing green roofs, integral bird and bat boxes, native and wildlife friendly planting."

Transport Development Control (Highway Authority)

"The site comprises of a number of commercial buildings, including a 3-storey building previously used as the headquarters for the Royal Berkshire Fire and Rescue Service. The site fronts onto Dee Road and is located in a residential area.

Given the size and scale of the development any full application should be accompanied by a Transport Statement.

The Transport Statement should ensure that a full comparison for both vehicle and pedestrian movements between the existing and proposed uses on the site.

The site is located within the Zone 2, primary core area but on the periphery of the central core area which lies at the heart of Reading Borough, consisting primarily of retail and commercial office developments with good transport hubs.

Parking/cycle provision

In accordance with the adopted SPD, the development would require the following parking and cycle provision. In addition to the residential parking visitor parking is also required at a ratio of 1 per 10 Flats. Parking areas must be made of permeable material any proposal should not increase any surface water run-off from the site onto the Public Highway

Dimensions of all the parking spaces must be provided in accordance with the Councils current standards.

Flats/Maisonettes	Car Parking Required per unit	Car Parking Total	Cycle Storage per unit	Cycle Storage Total
6 x 1 bed units	1.0	6	0.5	3
2 x 1 bed maisonettes	1.0	2	0.5	1
2 x 2 bed maisonette	1.0	2	0.5	1
24 x 2 bed units	1.0	24	0.5	12
2 x 1 bed maisonettes	1.0	2	0.5	1
2 x 2 bed duplex	1.0	2	0.5	1
2 x 2 bed maisonettes	1.0	2	0.5	1
Visitor Parking Required	1 space per 10 units	4		
TOTAL		44		
Houses/Coach Houses				
2 x 2 bed coach Houses	1	2	2	4
29 x 3 bed Houses	2	58	2	58
TOTAL		60		82

Cycle storage should be provided in secured and covered units utilizing Sheffield type stands. For the C3 Houses storage can be provided within the private rear gardens of each dwelling in the form of a garden shed.

The submitted plans states 69 parking spaces are proposed for the dwellings and 40 for the proposed units. This provision falls short of the Councils current standards. This could not be supported given the extensive areas of unrestricted parking that surrounds the appeal site.

It would appear from the plans within the Proposed Plan document that parking for the 2 and 3 bedroom dwellings will be provided within a communal car park area, if this is the case how will these be allocated? Identification of these spaces will be required and should be located close to the dwellings.

The Council's Local Transport Plan 3 Strategy 2011 - 2026 includes policies for investing in new infrastructure to improve connections throughout and beyond Reading which include a network of publicly available Electric Vehicle (EV) charging points to encourage and enable low carbon or low energy travel choices for private and public transport. The Councils Local Plan was adopted in November 2019 and this includes a requirement at Policy TR5 for **each new house to be provided with an electric charging point** and within communal car parks for residential developments of at least 10 spaces, 10% of spaces should provide an active charging point.

The provision of parking for disabled motorists is a key element of all developments that are open to the public. Typically, this excludes residential developments, however where such a development is to be of a significant size, or with large amounts of visitor or communal parking bays then the developer should ideally provide some level of parking which takes into account the need of disabled motorists.

VEHICLE ACCESS:

Access to the site will be via the existing 2 entrances off Spey Road.

Another access point is proposed to the far east of the site, along Spey Road, to serve the apartment block. Therefore, a total of 3 vehicle access points from Spey Road will serve the development. Visibility splays of 2.4m x 43m for the new accesses proposed on Spey Road will need to be illustrated on plans if a full application is submitted.

Two of the accesses onto Spey Road also conflict with the existing speed cushions and therefore should the accesses not be relocated a drawing should be submitted fully illustrating the relocation of the speed cushions which the applicant will be required to undertake as part of any S278 Highway Agreement.

Parking bays are proposed that are accessed directly from Spey Road however these will conflict with an existing bus stop along this frontage. Should an application be submitted the parking layout should be designed so as to remove this conflict.

An additional access point is proposed via Dee Road to serve the 2 and 3 bed units to the west of the site. Dee road is a classified Rd (C404) and therefore any accesses proposed will need to be in accordance with the Councils Geometric Design Guidance for Residential Accesses on to Classified Rds. Visibility Spays of 2.4 x 70m will be required and the access will need to be a minimum of 4.8m wide.

On site turning should be provided and tracking diagrams illustrating delivery vehicles entering and turning on site would be required.

A comprehensive site plan will be required illustrating all the access points and visibility splays for the new accesses this should include all lamp columns, telegraph poles, utility covers in the footway etc. All works on the public highway will require a license from the Highways Department and this includes adjustments to existing dropped crossings or the introduction of new dropped crossings.

PEDESTRIAN ACCESS

The internal network should ensure that 2m wide footways are provided throughout.

A Sub-Station exists on the corner of Spey Road and Leven Street which has not been illustrated on the submitted plans, should this be relocated as part of the proposals the developer will be required to widen the existing footway.

SUDS

A sustainable drainage strategy for the site will be required and this should ensure that the surface water run off is reduced in line with National Defra standards.

REFUSE COLLECTION

Bin storage should comply with the Council's Waste Management Guidance's (available on the Council's website) and British Standard 5906: 2005 for Waste Management in Buildings to avoid the stationing of service vehicles on the carriageway for excessive periods.

I recommend that the Council's waste department is consulted on this application to determine where they would collect. Tracking will be required illustrating a refuse vehicle entering, turning on site and exiting the site.

Given the site's location a comprehensive Construction Method Statement will be required."

RBC Access Officer

"

1. As I have said on several occasions, many disabled people do not like pedestrian and cycle ways to be combined, especially blind and older people. Cycles are very quiet, and if people do not hear them coming, they may not get out of the way quickly enough and may be injured as a result.
2. Despite at least some of the dwellings being designed to comply with Part M4(2), there seems to be no wider parking spaces for disabled drivers or passengers.
3. As wheelchair users find it very hard to find suitable accommodation, is there any scope for any of the dwellings to be built to Part M4(3) standard? Adaptation is very useful, but it would be very welcome to have dwellings that wheelchair users could move into immediately.
4. The gradient of the site might make access difficult for some disabled people, especially for some wheelchair users and those with walking difficulties; is there any way that this could be mitigated? I am not able to tell the steepness of the gradient.
5. Are there enough dropped kerbs/pram crossings in the area for wheelchair users?"

RBC Environmental Protection

"Environmental Protection concerns

- Bins stores - pests
- Redevelopment of land - pest control
- Air Quality - increased emissions
- Contaminated Land
- Construction and Demolition phase

Air Quality - Increased emissions

Reading has declared a significant area of the borough as an Air Quality Management Area (AQMA) for the exceedance of both the hourly and annual mean objectives for nitrogen dioxide. In addition to this recent epidemiologic studies have shown that there is no safe level for the exposure to particulate matter PM10.

The proposed development (large scale/significant traffic generation) is located close to an air quality management area and has the potential to increase emissions. An assessment and/or mitigation measures should be provided as part of the application.

The assessment must use a full dispersion model to predict the pollutant concentrations at the building façade for the proposed year of occupation as well as any impacts during the development phase. The input parameters used in the assessment must be agreed with a member of the Environmental Protection Team. Where the assessment identifies an impact on air quality a mitigation plan demonstrating sufficient mitigation to protect the dwellings from poor air quality must also be included.

Possible mitigation against increased emissions:

- Travel Plans - a travel plan is a set of measures aimed at reducing single occupancy car use, it is important that the effectiveness of the plan is considered
- Mitigation through design, improved air flow around development, alternative plant
- Parking - consider reducing number of parking spaces, graduated permit schemes based on euro standards, allocated parking for car clubs / low emission vehicles
- Provision of electric charging bays or low emission fuelling points
- Development / promotion of car clubs
- Provision of cycling facilities / residents cycles
- Improvements to local public transport

It may be appropriate in some circumstances for the developer to fund mitigating measures elsewhere to offset any increase in local pollutant emissions as a consequence of the proposed development. This may be achieved through the use of a s.106 agreement, which may in some circumstances involve the direct funding of a specific scheme or measure, however, it is likely that in most cases to be in the form of a contribution to the costs of the monitoring network and / or air quality action plan.

Bin storage - pest proofing

There is a widespread problem in Reading with rats. This is exacerbated by poor waste storage which provides them with a food source. Developers should consider how bins will be stored and ensure that bin stores are designed in such a way as to minimise access from vermin.

Re-development of land - pest control

Where development will be taking place on sites with a former land use, particularly with a former drainage network, you are advised to ensure that former unused drains have been removed and / or properly capped or the proposed development may be at risk of rodent ingress.

It is likely that rats will occupy a cleared site. If there is a significant gap between site clearance and re-development, it is recommended that baiting be carried out to eradicate rats prior to redevelopment. This is to prevent rat populations which may be disturbed due to the redevelopment of the site causing subsequent problems to residents and businesses in the local area.

Contaminated Land

The site is situated on potentially contaminated land. Ideally a 'phase 1' desk study should be submitted with applications for developments on sites with potential contamination to give an indication as to the likely risks and to determine whether further investigation is necessary.

Investigation must be carried out by a suitably qualified person to ensure that the site is suitable for the proposed use or can be made so by remedial action.

It is possible that the desk study will recommend further intrusive site investigation, if consent is given the further investigation will be required by condition, along with a condition for a remediation strategy and a condition for validation certification that remedial works have been successfully completed. The remediation strategy shall be submitted and approved prior to development and the validation certification prior to occupation. If no contamination is found by the intrusive investigations, then all conditions will be discharged.

Construction and demolition phases

We have concerns about potential noise, dust and bonfires associated with the construction (and demolition) of the proposed development and possible adverse impact on nearby residents (and businesses).

Fires during construction and demolition can impact on air quality and cause harm to residential amenity. Burning of waste on site could be considered to be harmful to the aims of environmental sustainability.

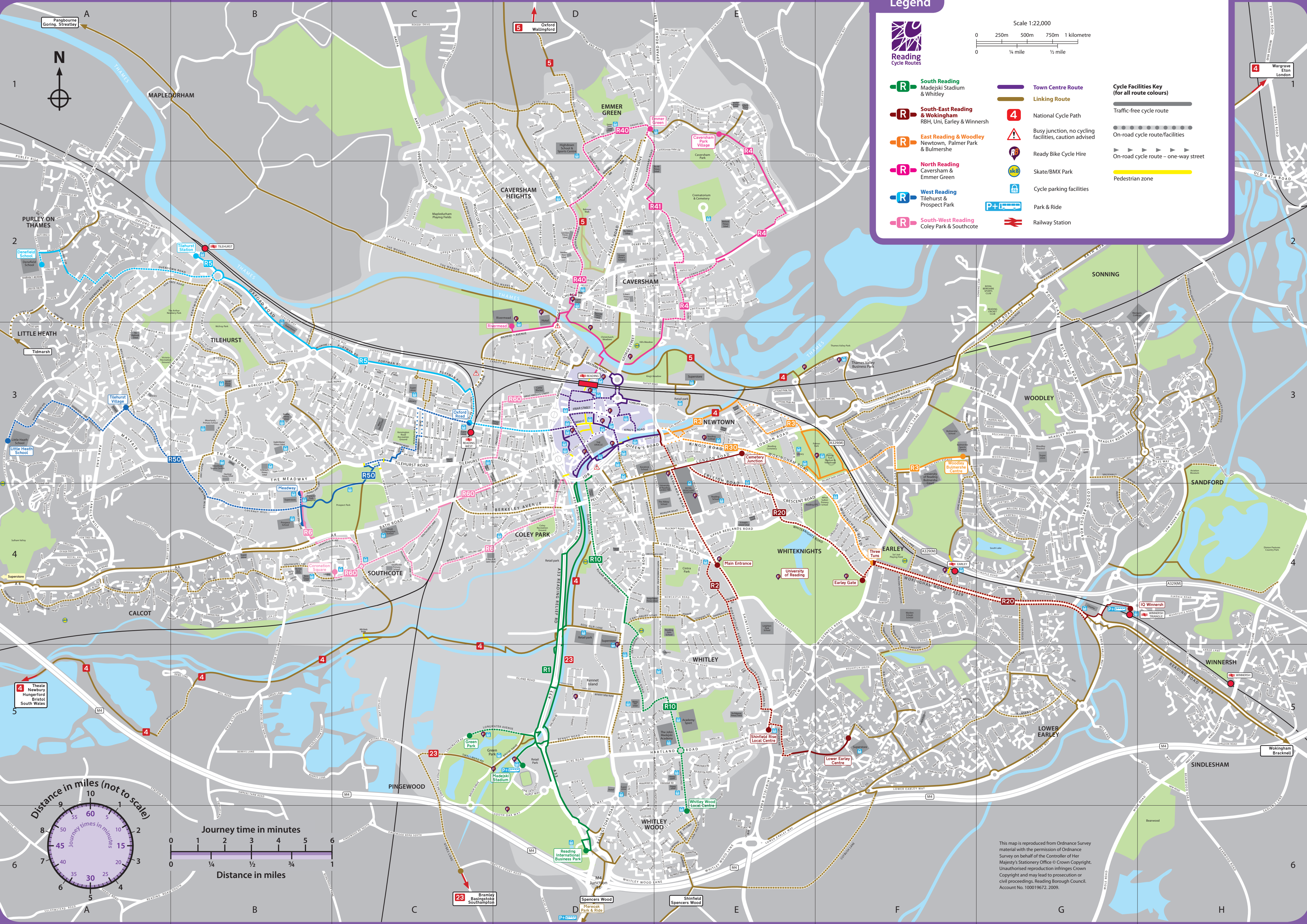
A scheme should be submitted which specifies the provisions to be made for the control of noise and dust emanating from the site during the demolition and construction phase.

The hours of noisy construction, demolition and associated deliveries should be restricted to the hours of 08:00hrs to 18:00hrs Mondays to Fridays, and 09:00hrs to 13:00hrs on Saturdays, and not at any time on Sundays and Bank or Statutory Holidays.

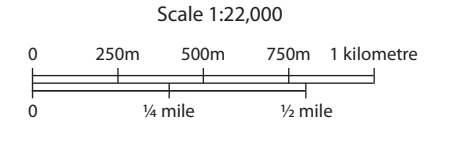
No materials or green waste produced as a result of the clearance of the site, demolition works or construction works associated with the development should be burnt on site."

END

APPENDIX B. Reading Borough Council Cycle Map



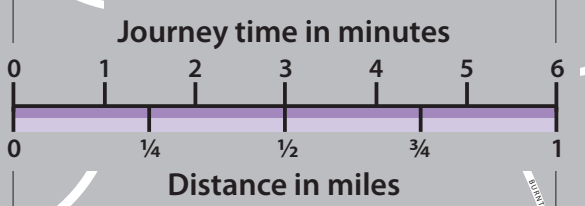
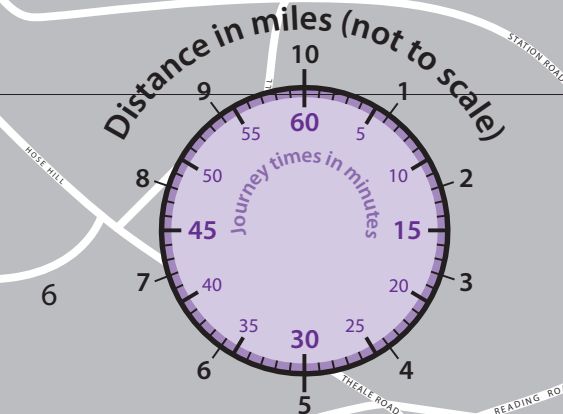
Legend



- R** South Reading
Madejski Stadium & Whitley
- R** South-East Reading & Wokingham
RBH, Uni, Earley & Winnersh
- R** East Reading & Woodley
Newtown, Palmer Park & Bulmershe
- R** North Reading
Caversham & Emmer Green
- R** West Reading
Tilehurst & Prospect Park
- R** South-West Reading
Coley Park & Southcote

- Town Centre Route**
- Linking Route**
- 4** National Cycle Path
- Busy junction, no cycling facilities, caution advised
- Ready Bike Cycle Hire
- Skate/BMX Park
- Cycle parking facilities
- Park & Ride
- Railway Station

- Cycle Facilities Key (for all route colours)**
- Traffic-free cycle route
 - On-road cycle route/facilities
 - On-road cycle route – one-way street
 - Pedestrian zone



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Reading Borough Council. Account No. 100019672. 2009.

APPENDIX C. Proposed Site Layout

LEGEND - PARKING ALLOCATION

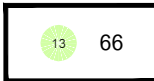
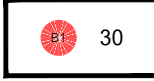
As part of the Dee Road redevelopment scheme, the following parking provision is proposed for the new dwellings.

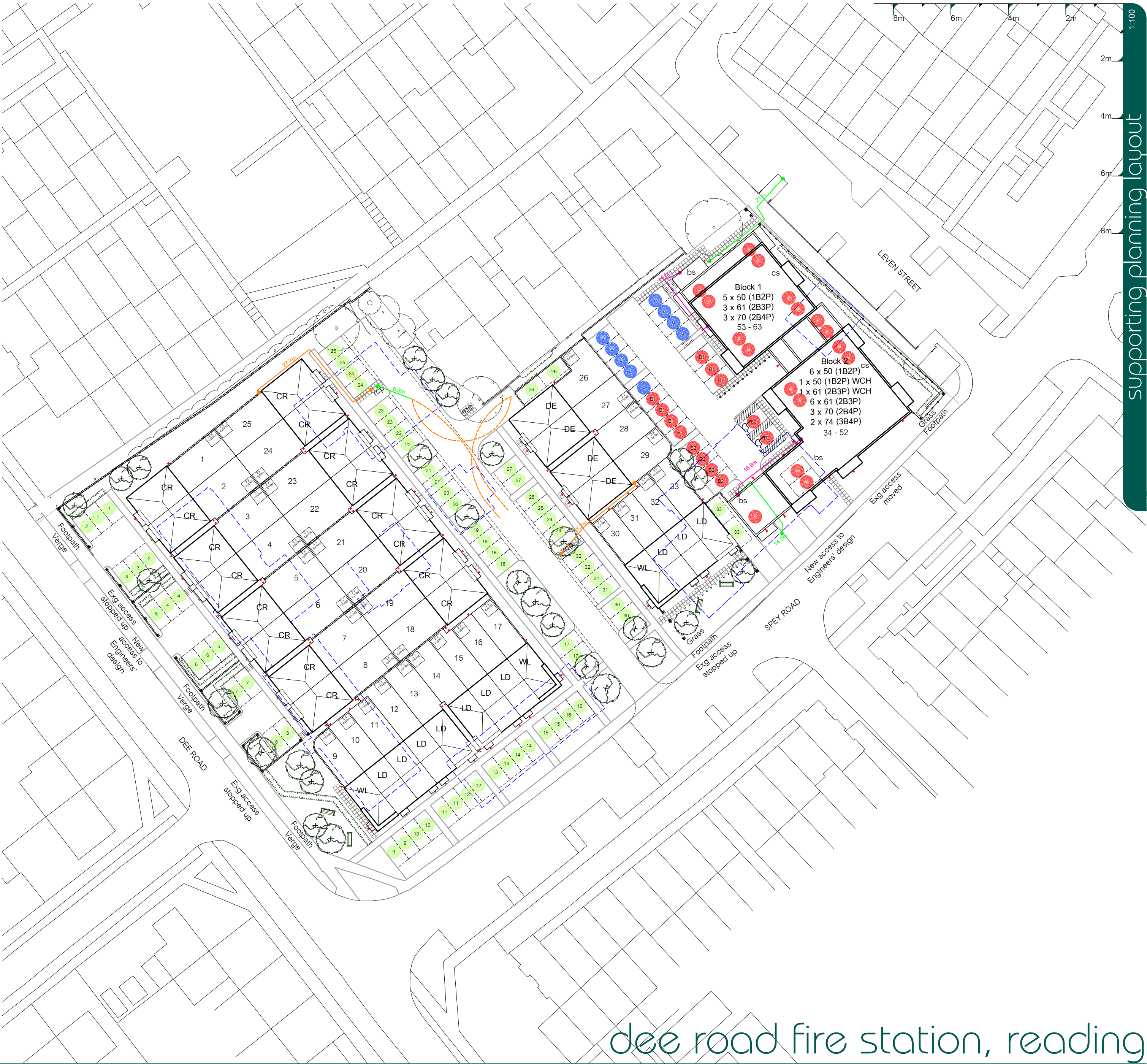
Apartments 1.25 parking spaces per dwelling
+ 1 visitor parking space per 4 apartment dwellings

Houses 2 allocated parking spaces per dwelling

Unit Type	No	Allocated	Visitor
Apartments	30	30	9
Houses	33	66	-
Totals	63	96	9

PARKING PROVIDED

	66	Parking allocated to Plot number quoted
	30	Apartment Residents - Unallocated
	9	Apartment Visitors - Unallocated



APPENDIX D. TRICS Reports

Calculation Reference: AUDIT-236601-220621-0635

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED
 TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	BD BEDFORDSHIRE	1 days
	ES EAST SUSSEX	1 days
	HC HAMPSHIRE	1 days
	HF HERTFORDSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	2 days
	SF SUFFOLK	4 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
09	NORTH	
	CB CUMBRIA	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 30 to 91 (units:)
 Range Selected by User: 30 to 100 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 15/10/21

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

Selected survey days:

Monday	3 days
Tuesday	4 days
Wednesday	4 days
Thursday	3 days
Friday	1 days

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

Selected survey types:

Manual count	15 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	7
Suburban Area (PPS6 Out of Centre)	8

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.

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

Secondary Filtering selection:

Use Class:

C3 15 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
20,001 to 25,000	3 days
25,001 to 50,000	7 days
50,001 to 100,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	4 days
125,001 to 250,000	4 days
250,001 to 500,000	6 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	8 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	2 days
No	13 days

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

PTAL Rating:

No PTAL Present	15 days
-----------------	---------

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

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

LIST OF SITES relevant to selection parameters

1	BD-03-C-02	BLOCKS OF FLATS	BEDFORDSHIRE
	STANBRIDGE ROAD		
	LEIGHTON BUZZARD		
	Edge of Town Centre		
	Residential Zone		
	Total No of Dwellings:	62	
	Survey date: TUESDAY	15/05/18	Survey Type: MANUAL
2	CA-03-C-03	BLOCKS OF FLATS	CAMBRIDGESHIRE
	CROMWELL ROAD		
	CAMBRIDGE		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total No of Dwellings:	82	
	Survey date: MONDAY	18/09/17	Survey Type: MANUAL
3	CB-03-C-03	FLATS & BUNGALOWS	CUMBRIA
	LOUND STREET		
	KENDAL		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	33	
	Survey date: MONDAY	09/06/14	Survey Type: MANUAL
4	DS-03-C-03	BLOCKS OF FLATS	DERBYSHIRE
	CAESAR STREET		
	DERBY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	30	
	Survey date: WEDNESDAY	25/09/19	Survey Type: MANUAL
5	ES-03-C-01	BLOCK OF FLATS	EAST SUSSEX
	OLD SHOREHAM RD		
	BRIGHTON		
	HOVE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	71	
	Survey date: TUESDAY	26/09/17	Survey Type: MANUAL
6	HC-03-C-01	BLOCKS OF FLATS	HAMPSHIRE
	CROSS STREET		
	PORTSMOUTH		
	Edge of Town Centre		
	Built-Up Zone		
	Total No of Dwellings:	90	
	Survey date: TUESDAY	05/06/18	Survey Type: MANUAL
7	HF-03-C-03	BLOCK OF FLATS	HERTFORDSHIRE
	SHENLEY ROAD		
	BOREHAMWOOD		
	Edge of Town Centre		
	Built-Up Zone		
	Total No of Dwellings:	91	
	Survey date: THURSDAY	14/11/19	Survey Type: MANUAL
8	NF-03-C-01	BLOCKS OF FLATS	NORFOLK
	PAGE STAIR LANE		
	KING'S LYNN		
	Edge of Town Centre		
	Built-Up Zone		
	Total No of Dwellings:	51	
	Survey date: THURSDAY	11/12/14	Survey Type: MANUAL

i-Transport Grove House Basingstoke

Licence No: 236601

LIST OF SITES relevant to selection parameters (Cont.)

9	NF-03-C-02 HALL ROAD NORWICH LAKENHAM Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 82 Survey date: MONDAY 18/11/19	MIXED FLATS & HOUSES	NORFOLK	Survey Type: MANUAL
10	NT-03-C-01 LAWRENCE WAY NOTTINGHAM Suburban Area (PPS6 Out of Centre) No Sub Category Total No of Dwellings: 56 Survey date: TUESDAY 08/11/16	HOUSES (SPLIT INTO FLATS)	NOTTINGHAMSHIRE	Survey Type: MANUAL
11	SF-03-C-01 STATION HILL BURY ST EDMUNDS Edge of Town Centre Built-Up Zone Total No of Dwellings: 85 Survey date: THURSDAY 18/12/14	BLOCKS OF FLATS	SUFFOLK	Survey Type: MANUAL
12	SF-03-C-03 TOLLGATE LANE BURY ST EDMUNDS Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 30 Survey date: WEDNESDAY 03/12/14	BLOCKS OF FLATS	SUFFOLK	Survey Type: MANUAL
13	SF-03-C-04 SAINT MARY'S ROAD IPSWICH Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 56 Survey date: WEDNESDAY 16/09/20	BLOCKS OF FLATS	SUFFOLK	Survey Type: MANUAL
14	SF-03-C-05 FORE STREET IPSWICH IPSWICH WATERFRONT Edge of Town Centre Development Zone Total No of Dwellings: 69 Survey date: WEDNESDAY 23/06/21	BLOCKS OF FLATS	SUFFOLK	Survey Type: MANUAL
15	WM-03-C-04 GILLQUART WAY COVENTRY PARKSIDE Edge of Town Centre Residential Zone Total No of Dwellings: 55 Survey date: FRIDAY 11/11/16	BLOCKS OF FLATS	WEST MIDLANDS	Survey Type: MANUAL

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

i-Transport Grove House Basingstoke

Licence No: 236601

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	63	0.054	15	63	0.142	15	63	0.196
08:00 - 09:00	15	63	0.055	15	63	0.201	15	63	0.256
09:00 - 10:00	15	63	0.066	15	63	0.110	15	63	0.176
10:00 - 11:00	15	63	0.072	15	63	0.087	15	63	0.159
11:00 - 12:00	15	63	0.078	15	63	0.081	15	63	0.159
12:00 - 13:00	15	63	0.091	15	63	0.086	15	63	0.177
13:00 - 14:00	15	63	0.068	15	63	0.080	15	63	0.148
14:00 - 15:00	15	63	0.082	15	63	0.080	15	63	0.162
15:00 - 16:00	15	63	0.100	15	63	0.067	15	63	0.167
16:00 - 17:00	15	63	0.117	15	63	0.082	15	63	0.199
17:00 - 18:00	15	63	0.176	15	63	0.086	15	63	0.262
18:00 - 19:00	15	63	0.171	15	63	0.098	15	63	0.269
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.130			1.200			2.330

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

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

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

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

Parameter summary

Trip rate parameter range selected: 30 - 91 (units:)
 Survey date range: 01/01/14 - 15/10/21
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

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

Calculation Reference: AUDIT-236601-220701-0736

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
 TOTAL VEHICLES

Selected regions and areas:

05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
09	NORTH	
	CB CUMBRIA	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 30 to 89 (units:)
 Range Selected by User: 30 to 100 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 19/11/21

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

Selected survey days:

Monday	2 days
Tuesday	2 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	4
---------------------	---

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	4
------------------	---

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

Secondary Filtering selection:

Use Class:

C3 4 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

10,001 to 15,000 2 days

25,001 to 50,000 2 days

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

Population within 5 miles:

5,001 to 25,000 2 days

125,001 to 250,000 1 days

250,001 to 500,000 1 days

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 days

0.6 to 1.0 2 days

1.1 to 1.5 1 days

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

Travel Plan:

No 4 days

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

PTAL Rating:

No PTAL Present 4 days

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

LIST OF SITES relevant to selection parameters

1	CB-03-A-05 MACADAM WAY PENRITH	DETACHED / TERRACED HOUSING	CUMBRIA
	Edge of Town Centre Residential Zone Total No of Dwellings:	50	
	Survey date: TUESDAY	21/06/16	Survey Type: MANUAL
2	LN-03-A-04 EGERTON ROAD LINCOLN	DETACHED & SEMI-DETACHED	LINCOLNSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:	30	
	Survey date: MONDAY	29/06/15	Survey Type: MANUAL
3	NY-03-A-12 RACECOURSE LANE NORTHALLERTON	TOWN HOUSES	NORTH YORKSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:	47	
	Survey date: TUESDAY	27/09/16	Survey Type: MANUAL
4	WM-03-A-05 COUNDON ROAD COVENTRY	TERRACED & DETACHED	WEST MIDLANDS
	Edge of Town Centre Residential Zone Total No of Dwellings:	89	
	Survey date: MONDAY	21/11/16	Survey Type: MANUAL

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

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

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	54	0.069	4	54	0.231	4	54	0.300
08:00 - 09:00	4	54	0.139	4	54	0.310	4	54	0.449
09:00 - 10:00	4	54	0.162	4	54	0.125	4	54	0.287
10:00 - 11:00	4	54	0.120	4	54	0.125	4	54	0.245
11:00 - 12:00	4	54	0.102	4	54	0.111	4	54	0.213
12:00 - 13:00	4	54	0.120	4	54	0.157	4	54	0.277
13:00 - 14:00	4	54	0.148	4	54	0.134	4	54	0.282
14:00 - 15:00	4	54	0.116	4	54	0.157	4	54	0.273
15:00 - 16:00	4	54	0.176	4	54	0.134	4	54	0.310
16:00 - 17:00	4	54	0.264	4	54	0.130	4	54	0.394
17:00 - 18:00	4	54	0.310	4	54	0.176	4	54	0.486
18:00 - 19:00	4	54	0.190	4	54	0.125	4	54	0.315
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.916			1.915			3.831

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

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

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

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

Parameter summary

Trip rate parameter range selected:	30 - 89 (units:)
Survey date range:	01/01/14 - 19/11/21
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

APPENDIX E. Theale Fire and Rescue Station –
Extract of Supporting Transport
Statement

6. TRIP GENERATION

- 6.1.1. Table 6.1 below sets out an estimate of the trips estimated to be related to the operation of the site based upon operational information provided by the emergency services. These trip generated has been used for the Transport Assessment.

Description of Movement	Total Number of Trips associated with the Wigmore Lane Access/Egress (24 hours)	Total Number of Trips associated with the Emergency Egress (24 hours)
6 Members of Crew x 2	24	N/A
Station Mini-Bus	2	N/A
Heavy Rescue Unit/ Standard Appliance	3	3
Appliance movements for training purposes	2	N/A
Appliance movements for community safety	2	N/A
8 Members of Police Staff arriving and leaving for shift	16	N/A
4 Marked Police Cars on Patrol	8	N/A
2 Staff arriving and leaving for shift at the Communications Maintenance workshop	4	N/A
2 Staff arriving and leaving for shift at the Vehicle servicing/maintenance facility	4	N/A
Total Trips	65	3

Table 6-1 : Potential vehicle trips associated with the proposed developments

- 6.1.2. Table 6.1 is based upon the assumption that all trip generated is likely to be car mode due to site accessibility limitation and therefore represents a worst case scenario.

