



ttp consulting
transport planning specialists

Thames Properties Ltd

**Former Cox & Wyman Works,
Cardiff Road, Reading**

Transport Statement

October 2017

TTP Consulting Ltd
111-113 Great Portland Street
London W1W 6QQ
Tel: 020 7100 0753

www.ttp-consulting.co.uk

Registered in England: 09931399

Contents

1	INTRODUCTION	1
2	EXISTING SITUATION	3
	Site and Surrounding Area	3
	Local Highway Network	3
	Local Parking Conditions.....	5
	Loading Bay Utilisation	6
3	ACCESSIBILITY BY NON-CAR MODES	8
	Access on foot	9
	Access by bicycle.....	9
	Public Transport Services.....	10
	Bus Services	10
	Rail Services	11
	Car Clubs	12
	Method of Journey to Work.....	12
4	POLICY	13
	National Planning Policy Framework	13
	Core Strategy – Reading Borough Council	14
	Revised Parking Standards and Design – Reading Borough Council	14
	Revised Sustainable Design and Construction – Reading Borough Council	16
5	DEVELOPMENT PROPOSAL AND EFFECTS	17
	Access.....	17
	Car Parking.....	17
	<u>Loading Bay on Meadow Road</u>	18
	Cycle Parking.....	18
	Deliveries and Servicing.....	19
	Refuse and Recycling Storage and Collection.....	20
6	TRIP GENERATION	21
	Existing Vehicle Trip Generation	21
	Proposed Vehicle Trip Generation.....	22
	Travel Plan	24
7	SUMMARY AND CONCLUSION	25
	Summary	25
	Conclusion	26

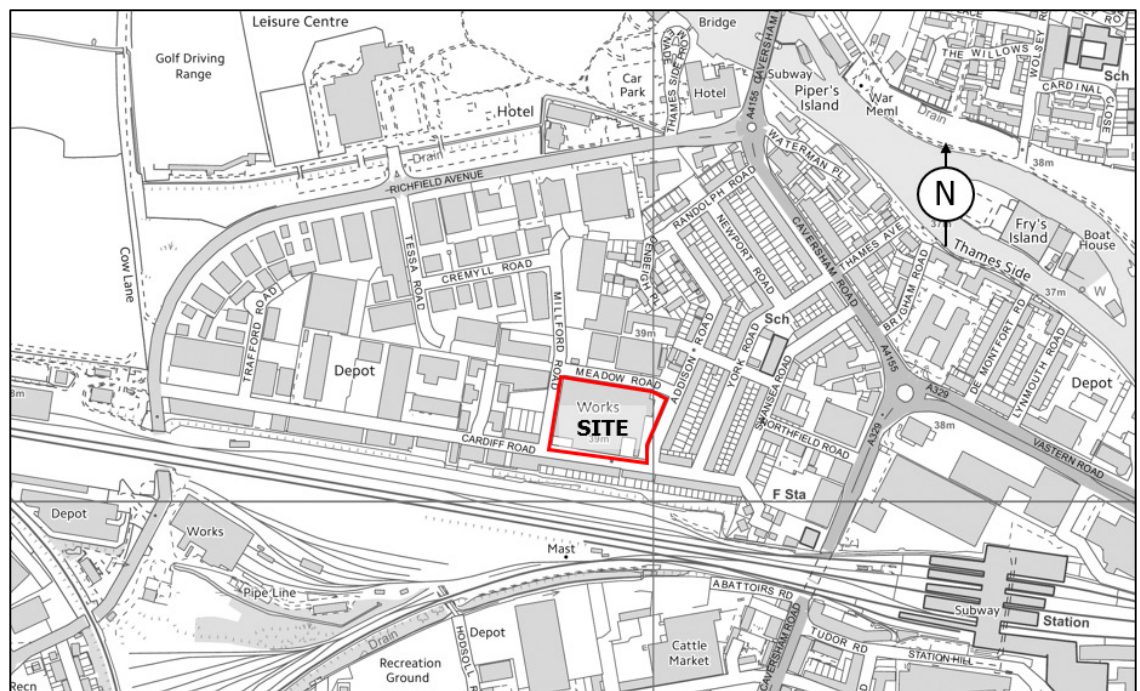
Appendices

Appendix A -	Parking Beat Survey Results
Appendix B -	Local Cycle Map
Appendix C -	Local Bus Route Maps
Appendix D -	Architect's Layout Plan
Appendix E -	2011 Census Data
Appendix F -	Swept Path Plots
Appendix G -	TRICS Output
Appendix H -	Travel Plan

1 INTRODUCTION

- 1.1 TTP Consulting has been appointed by Thames Properties Ltd ("the Applicant") to provide traffic and transport advice in relation to the proposed residential development at the former Cox & Wyman Works on Cardiff Road ('the site'), located within the Borough of Reading.
- 1.2 The application site is in an edge of town centre location circa 1km, a 12 – 13-minute walk, from Reading Station and within walking distance of bus routes on Caversham Road. The site location is shown on **Figure 1.1**.

Figure 1.1: Site Location Plan



- 1.3 The existing site is characterised by light industrial uses and associated yard space. The former Cox & Wyman Works, previously in use as a printing company ceased to operate in 2015 and the building is now in use as a storage facility for a small film company.
- 1.4 The site takes frontage onto Cardiff Road to the south, Addison Road to the east, Milford Road to the west, and Meadow Road to the north. There are existing crossovers into the site from all sides with the exception of Milford Road.
- 1.5 The proposed development seeks to provide 96 residential dwellings with associated car parking. Cycle parking will be provided in accordance with Reading Borough Council's minimum standards and refuse will be stored on-site.

- 1.6 A new east / west access road will connect Addison Road and Milford Road through the site, utilising the existing crossover on Addison Road and creating a new crossover on Milford Road. All other redundant crossovers will be 'made good' and reinstated as footway.
- 1.7 This report has been prepared with the benefit of three pre-application meetings with Reading Borough Council, with the latest held in March 2017. It assesses the proposal and considers the transport matters relevant to the site's suitability for residential development including accessibility, car parking, cycle parking, trip generation, deliveries and refuse collection.
- 1.8 The remainder of the report is set out as follows:
- Section 2 sets out the existing situation of the site and the surrounding area;
 - Section 3 describes the accessibility of the site by non-car modes;
 - Section 4 provides a summary of relevant transport development policy;
 - Section 5 describes the development proposals and effects;
 - Section 6 provides the trip generation assessment; and,
 - Section 7 presents a summary and conclusion.

2 EXISTING SITUATION

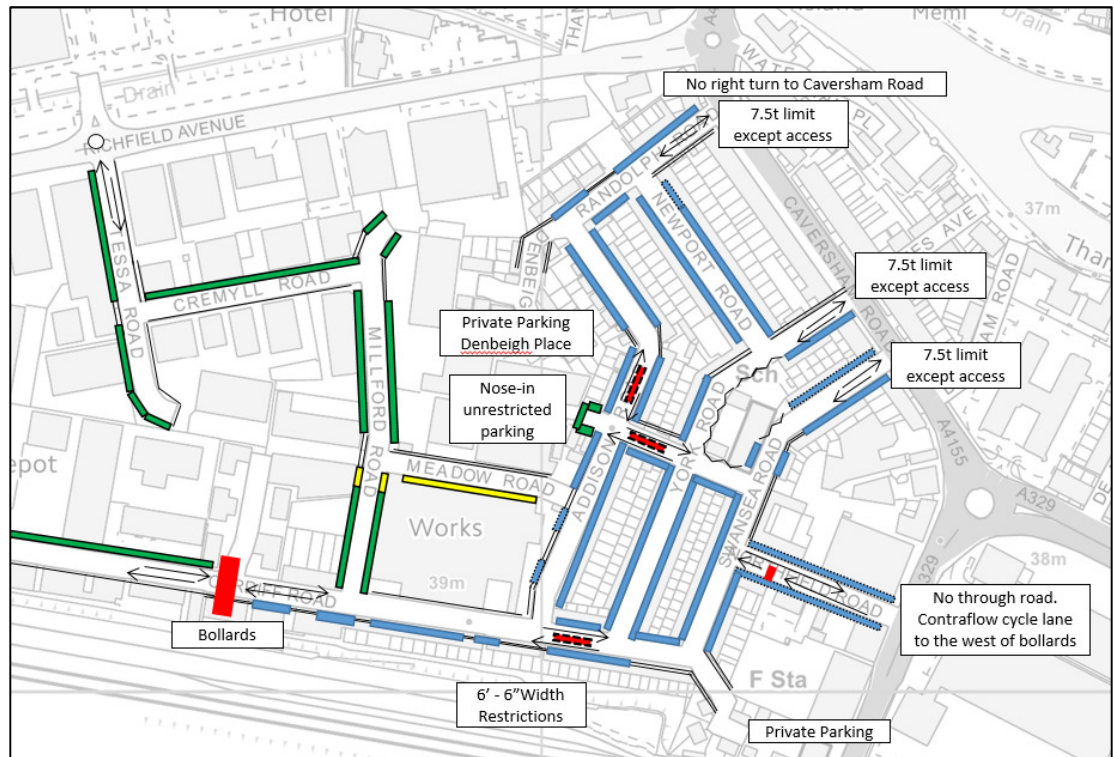
Site and Surrounding Area

- 2.1 The site has a light industrial land use with a number of buildings contributing to a combined floor area of circa 102,000sq f plus associated yard area.
- 2.2 As noted previously, the site is bound by Cardiff Road, Milford Road, Meadow Road and Addison Road. There are two vehicle crossovers into the site from Cardiff Road, one of which is gated while the other provides direct access into the one of the units where cars currently park informally in front of the gates. There are further gated crossovers into the site from Addison Road and two from Meadow Road.
- 2.3 Meadow Road also provides a 70m long on-street loading bay which was associated with the Cox & Wyman Works but more recently was used by the business opposite when the works no longer needed it.
- 2.4 The site and its wider area are part of a virtual 'island site' bound by the railway track to the south, by Richfield Avenue to the north and west, and by Caversham Road to the north and east. The area is residential in nature to the north and east with commercial and light industrial uses to the north and west.

Local Highway Network

- 2.5 There are '7.5t except for access' limits on the residential streets within the 'island site' as well as a width restriction on Cardiff Road where the residential frontage meets the industrial frontage of the application site, as shown on the plan in **Figure 2.1**. Commercial vehicles access the commercial and industrial units predominantly from Richfield Avenue via Tessa Road or Cardiff Road.
- 2.6 It was noted within the initial pre-application advice received that the restrictions on the road network surrounding the site may be reviewed by the Council in order to further segregate the residential and commercial areas.

Figure 2.1 Local Highway Network



Cardiff Road

- 2.7 The site on Cardiff Road is accessed most readily from the east from Caversham Road, however the Richfield Avenue roundabout junction with Tessa Road also provides vehicular access from the north.
- 2.8 In the vicinity of the site, Cardiff Road is residential in nature, operating as a two-way single carriageway road. There are width restrictions on Cardiff Road to the east of the site and to the west there are bollards across the road restricting vehicle access from the western end of Cardiff Road where it meets Richfield Avenue.
- 2.9 There is single yellow line along Cardiff Road in front of the site and permit holder only parking on the opposite side of the street.

Milford Road

- 2.10 Milford Road bounds the site to the west running in a north/south orientation between Cardiff Road and Cremyll Road. The street provides access to industrial units and offers loading bays and unrestricted parking on both sides.

Meadow Road

- 2.11 Meadow Road runs along the extent of the northern boundary of the site between Addison Road and Milford Road. There are double yellow lines along the northern side and a loading bay, is located on the southern side of the street. The loading bay is in operation Monday to Saturday 08:00-18:00.

Addison Road

- 2.12 Addison Road is predominantly residential in nature, the street is bound by Cardiff Road to the south and Randolph Road to the north. There are shared permit holder / no return (within 2 hours) parking bays on Addison Road.
- 2.13 The wider road network is dominated by Caversham Road to the north and east which is a two-way dual carriageway road and subject to a 30mph speed limit. Caversham Road provides access to Reading Station to the east and connects to Richfield Avenue at the roundabout junction to the north. As noted previously, Richfield Avenue provides access to the 'island site' via Tessa Road and Cardiff Road; it is subject to a 40mph speed limit.

Local Parking Conditions

- 2.14 Parking beat surveys were undertaken on Tuesday 10th January and Thursday 12th January 2017 between 6am – 6pm to capture local residential and commercial parking demand. The parking surveys recorded the provision and demand for car parking on streets with a 200m walk of the site. **Appendix A** includes a plan showing the extent of the survey area, a street inventory of existing parking controls and a full copy of the results.
- 2.15 With 5m allowed for each parking space the 1,045m of usable kerb space for resident permit parking was measured to provide capacity for 209 cars. Similarly, the 375m of usable uncontrolled kerb space was measured to provide space for up to 75 cars to park.
- 2.16 There were similar numbers of cars parked on both survey days so the average has been summarised in **Table 2.1**, separating utilisation of Resident Permit bays and uncontrolled kerb space.

Table 2.1: Parking Beat Survey (January 2017)

Time	Resident Permit Bays			Uncontrolled kerb space		
	Parked	Available space	Percentage utilisation	Parked	Available space	Percentage utilisation
6am	158	51	76%	25	50	33%
8am	132	77	63%	43	32	57%
10am	107	102	51%	48	27	64%
12pm	109	100	52%	51	25	68%
2pm	115	94	55%	49	26	65%
4pm	117	92	56%	43	32	57%
6pm	130	79	62%	28	47	37%

2.17 The table shows that whilst utilisation of resident permit bays and uncontrolled spaces is relatively high at certain times during the day, there is available capacity for additional vehicles to park during each hour. In summary:

- Utilisation of resident permit bays is highest during the 6am beat when residents are expected to be at home before leaving for work. Nonetheless, there are still at least 51 permit spaces available in the survey area.
- The resident bays are used less during the middle of the day whilst people are out at work with up to 100 available spaces.
- Demand for the uncontrolled kerb space is higher during the day which is expected from staff driving to work and increased vehicle activity associated with the commercial businesses in the area.
- Utilisation of the uncontrolled kerb space in the survey area peaked at 68% at midday with at least 26 available spaces.

Loading Bay Utilisation

2.18 The loading bays on Meadow Road and Milford Road were also monitored within the parking beat survey with the loading bays on Milford Road observed to be used by cars parking.

2.19 The use of the Meadow Road loading bay has been summarised in **Table 2.2** with utilisation based on 12m per space for HGVs. The results indicate that for much of the day the loading bay is 50-60% occupied.

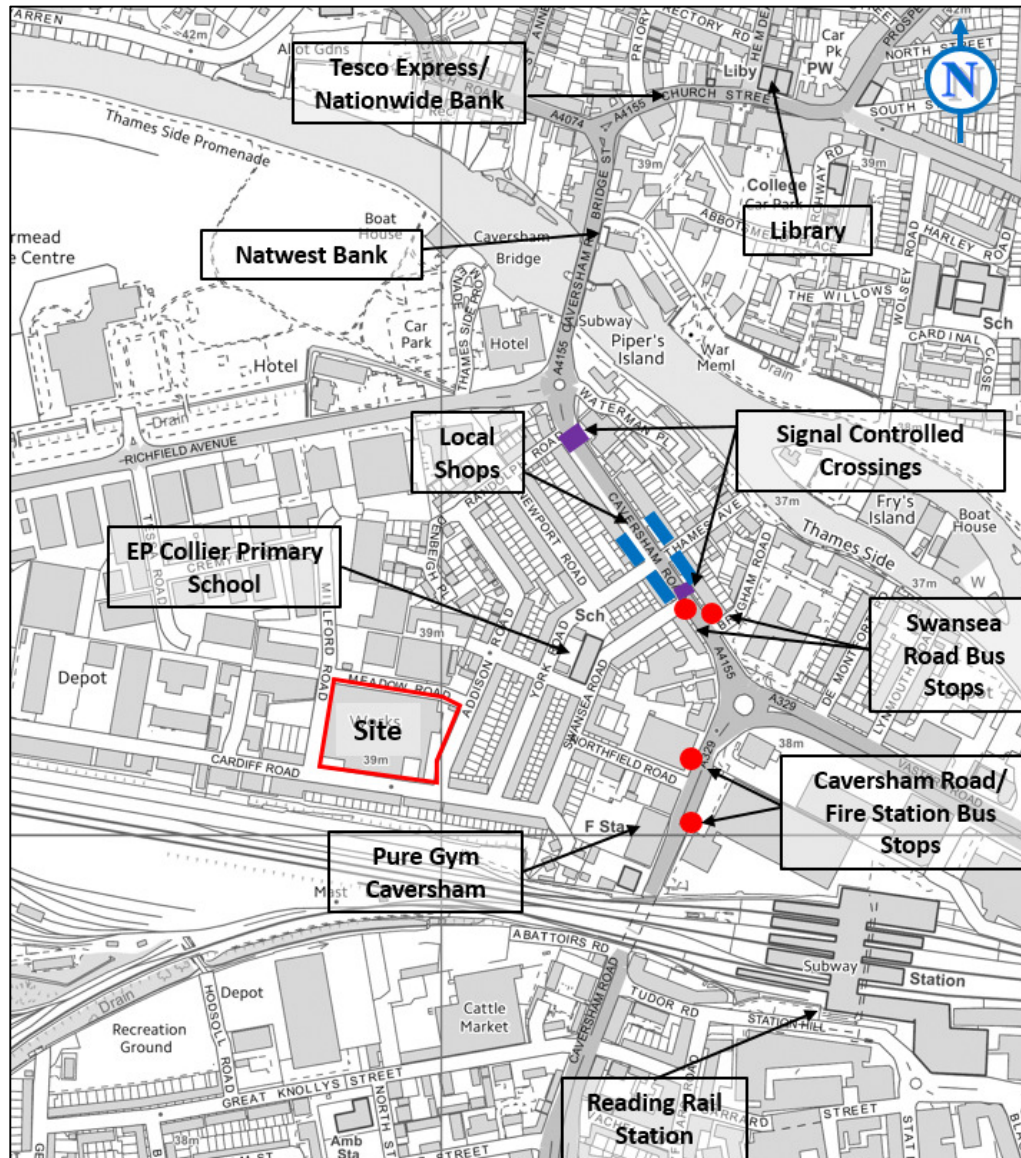
Table 2.2: Loading Bay Utilisation Meadow Road

Time	Parked	Available space	Percentage utilisation
6am	3	2	60%
8am	3	3	50%
10am	3	3	50%
12noon	4	1	80%
2pm	3	3	50%
4pm	4	2	70%
6pm	3	2	60%

3 ACCESSIBILITY BY NON-CAR MODES

- 3.1 This section sets out the sites accessibility to non-car modes. The site is well located, on the edge of Reading town centre, circa 1km west of Reading Station. A plan showing local amenities is provided at **Figure 3.1**, which includes local transport opportunities and controlled pedestrian crossings.

Figure 3.1 Local Amenities Plan



- 3.2 There are a variety of facilities and amenities including supermarkets, fitness facilities and health facilities within walking distance.

- 3.3 In particular, Priory Avenue Surgery is the closest GP surgery to the site which is located 1km to the north. There are other GP surgeries within walking distance such as Chatham Street Surgery, Reading Walk-In Health Centre, Abbey Medical Centre and Balmore Park Surgery.
- 3.4 There is a local convenience store on Caversham Road approximately 350m to the northeast of the site. The closest primary school to the site is EP Collier Primary School located 300m northeast on Swansea Road.

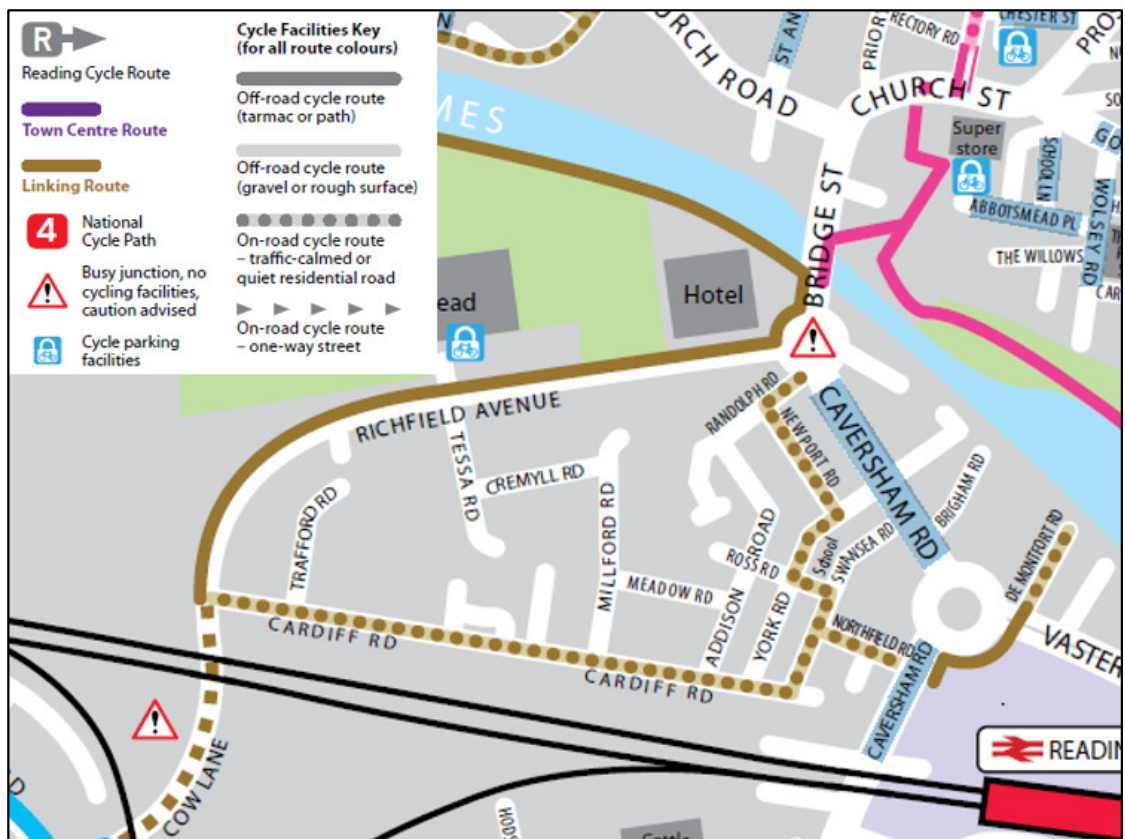
Access on foot

- 3.5 Generally, a person's willingness to walk is dependent on many factors including: access to a car, safety, road congestion, weather, gradients, parking, health, direction of route, and purpose of journey. It is widely accepted that walking has the greatest potential to replace car journeys for distances less than 2km.
- 3.6 There are footways adjacent to all residential roads with footways generally between 1.8 – 2m in width and street lighting columns present at regular intervals.
- 3.7 There are three pelican crossings over Caversham Road, one is to the east of the site, facilitating access to the town centre and Reading Station, one is just north of the junction with Swansea Road and the other is close to the Caversham Bridge roundabout.

Access by bicycle

- 3.8 Traditionally cycling is considered to offer the potential to substitute for short car trips, particularly those under 5km, which is equivalent to approximately 20-minutes riding time.
- 3.9 The site is located within Reading Cycle Map 'R5 West Reading' where Cardiff Road is identified as an '*on-road cycle route – traffic calmed or quiet residential road*'. An extract of the Reading cycle map is included at **Figure 3.2** whilst the full map is contained in **Appendix B**.
- 3.10 The Cardiff Road on-road route connects:
- to the north to Route R40 at Church Street and National Cycle Path 5;
 - to the southwest to Richfield Avenue and Cow Lane providing access to Route R5 which runs to Tilehurst Station; and,
 - to the east to Reading station where there is cycle parking for more than 600 bicycles.

Figure 3.2: Local Amenities Plan



Public Transport Services

Bus Services

- 3.11 The closest northbound and southbound bus stops on Caversham Road approximately 350m northeast of the site are served by 12 bus routes. There are also bus stops located on Caversham Road approximately 450m east of the site which are served by a further 5 bus routes. These routes provide access to destinations including Reading town centre, Tilehurst, Southcote, Caversham, the Madejski Stadium and High Wycombe.
- 3.12 Route maps are contained in **Appendix C**, whilst **Table 3.1** summaries the local bus routes and service frequencies.
- 3.13 There are also 2 – 3 bus services each hour that operate between Heathrow Airport and Reading Station.

Table 3.1 – Bus Services

Bus Stop	Route Number	Route	Frequency (minutes)		
			Mon-Fri	Sat	Sun
Caversham Road (350m northeast 4 minutes' walk)	27	Lower Caversham to Central Reading	30	30	60
	800	High Wycombe to Reading	60	60	60
	Community Link 28	Caversham Park to Purley	(2 services per day in each direction)		
	Community Link 28A	Kentwood Oak Tree Road and King's Meadow adjacent to Tesco	(1 service towards Caversham and 2 towards Kentwood per day)		
	F10	Birdwood Court to the Madejski stadium	Match Days only		
	F11	Emmer Green to the Madejski Stadium	Match Days only		
	F12	St Barnabas Church to the Madejski Stadium	Match Days only		
	Pink 22	Friar Street to St Andrew's Library	10-20	10-20	20
	Pink 24	Friar Street to Chalgrove Way	10-20	10-20	20
	X39	Oxford St Aldates to Reading Station	60	60	-
	X40	Oxford St Aldates to Reading Station	35-70	30-60	60
	X80	Reading Friar Street to High Wycombe	60	60	-
Caversham Road (450m east 5 minutes' walk)	29	Nire Road to Lower Caversham	30	30	60
	921	Chiltern Edge School to Caversham Road	School Bus (1 morning and 1 afternoon service)		
	922	Chiltern Edge School to Caversham Road	School Bus (1 morning and 2 afternoon services)		
	Pink 23	Queensway to Friar Street, Reading	20	20	-
	Pink 25	Peppard Common to Friar Street	30	30	60

Rail Services

- 3.14 Reading Station, located approximately 1km east of the site, is managed by National Rail and is served by Great Western Railway, CrossCountry Trains and South West Trains.
- 3.15 Services each hour include: 13 to London Paddington, 8 to Oxford, 5 to Ealing Broadway, and 4 to Bristol Temple Meads and Newbury. There are also at least 2 services each hour to Basingstoke, Cardiff Central, London Waterloo, Worcester Shrub Hill, Redhill and Swansea, and 1 each hour to Manchester Piccadilly, Southampton Central, Gatwick via Guildford, Bedwyn, Bournemouth and Plymouth.

Car Clubs

- 3.16 Car Clubs can help to reduce car ownership by offering the convenience of a car without the costs of repairs, servicing, insurance and parking. There are existing car club bays within walking distance of the site, including two bays on Garrad Street, located 1km southeast of the site and two located adjacent and behind Broad Street Mall, a 1.3km walk south of the site.

Method of Journey to Work

- 3.17 The 2011 Census data has been examined to establish the method of journey to work for residents living in the area and staff employed in the area.
- 3.18 A summary is provided in **Table 3.2** which shows that of those living in the area, 43% travel by car to get to work whereas 69% of those working in the area travel by car. Public transport accounts for 28% of resident journeys to work and almost a quarter walk.

Table 3.2: Modal Split (Super Output Area Middle Layer Reading 007)		
Mode	Residents living in the area	Employees working in the area
Car Driver	39%	64%
Car passenger	4%	5%
Rail	14%	5%
Bus	14%	8%
Motorcycle	1%	1%
Cycle	4%	5%
Walk	24%	12%
Total	100%	100%

4 POLICY

- 4.1 This Section considers the proposed development in the context of relevant national, regional and local policies.

National Planning Policy Framework

- 4.2 The National Planning Policy Framework (NPPF) was published on 27th March 2012 and sets out the Government's planning policies for England and how these are expected to be applied.

- 4.3 Chapter 4 – 'Promoting Sustainable Transport' sets out central government national transport policy:

"Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives. Smarter use of technologies can reduce the need to travel. The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas.

Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport."

- 4.4 Chapter 4 – 'Promoting Sustainable Transport' continues by stating at paragraph 32 that:

"All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- *safe and suitable access to the site can be achieved for all people; and*
- *improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."*

Core Strategy – Reading Borough Council

4.5 Reading's Core Strategy, adopted in January 2008 and altered in January 2015, sets out the Council's planning strategy for the Borough. Within the document, Chapter 7 sets out the Council's adopted transport planning policy considerations.

4.6 Policy CS22 – Transport Assessments states that:

"Planning permission will not be granted unless development proposals make appropriate provision for works and contributions to ensure an adequate level of accessibility and safety by all modes of transport from all parts of a development, particularly by public transport, walking and cycling, in accordance with an agreed transport assessment submitted as part of the application."

4.7 Policy CS23 – Sustainable Travel and Travel Plans states that:

"Planning permission will not be granted for major development proposals unless there is a commitment to implement measures to promote and improve sustainable transport facilities, such as through provision to encourage walking, cycling and the use of public transport; and through agreed travel plans, safe routes to schools, safe routes to parks and similar measures."

4.8 Policy CS24 – Car / Cycle Parking states that maximum car parking standards and cycle parking requirements will be applied to a site in relation to its accessibility within the Borough to reach sustainable transport facilities.

Revised Parking Standards and Design – Reading Borough Council

4.9 The Revised Parking Standards and Design document is a Supplementary Planning Document (SPD) which was adopted in October 2011. It sets out the maximum car parking and minimum cycle parking requirements for developments.

4.10 The document describes four zones of connectivity as summarised below:

- Zone 1 includes the central core area;
- Zone 2 includes areas which are within a 2km walk from the centre of Reading;
- Zone 3 includes local centres and areas within a 400m walk from the 'Premier Route' bus services; and,
- Zone 4 includes the wider urban area.

4.11 The proposed development sits within 'Zone 2'. **Table 4.1** sets out the maximum car parking standards for residential developments in this zone.

Table 4.1: Reading Parking Standards per dwelling (Zone 2)

Unit Type	Maximum Parking Standards
Flat 1 – 2 beds	1 space
Flat 3 bed	1.5 spaces
Visitor parking (flats only)	0.1 space
House 1 bed	1 space
House 2 bed	1 space
House 3 bed	2 spaces
House 4+ bed	2 spaces

4.12 The document further states that should a developer require fewer spaces than are set out, they would need to demonstrate to the Highway Authority's satisfaction that there would be no detriment to highway safety as a result. Moreover, accessible parking should be provided based on the level of accessible units proposed.

4.13 The minimum cycle parking standards are set out within the document and are summarised in **Table 4.2.**

Table 4.2: Reading Cycle Parking Standards per dwelling (Zone 2)

Unit Type	Minimum Parking Standards
Flat 1 – 2 beds	0.5 spaces
Flat 3 bed	1 space
House 1 bed	1 space
House 2 bed	2 space
House 3 bed	2 spaces
House 4+ bed	2 spaces

4.14 Section 9 of the SPD sets out the car club requirements for new residential developments of more than 10 residential units in Zones 1 and 2. It is advised that car clubs will be secured with a section 106 agreement and that the provision of the car club should be included within a Travel Plan.

Revised Sustainable Design and Construction – Reading Borough Council

4.15 Also an SPD, the Revised Sustainable Design and Construction document, was published in July 2011. It describes the weight given to it as a material consideration in determining planning applications, stating at paragraph A8.1 the following waste storage requirements for new residential developments:

- *"All households have access to adequate storage space off the highway for both residual waste and recycling waste.*
- *Standard containers for both residual and recycling waste are 240 litre wheeled bins for each.*
- *240 litre bins for green garden waste are also available.*
- *For flats, developers should demonstrate sufficient space for 1100 litre wheeled bulk bins to be stored securely off the highway, where there is level, unobstructed access for the bins and large vehicles for emptying. The relevant number of wheeled bulk bins depends on the number of flats being served. This information can be provided by our Waste Section."*

5 DEVELOPMENT PROPOSAL AND EFFECTS

- 5.1 The proposal seeks to provide 96 residential dwellings including 40 x 1 – 2 bedroom flats and 8 x 3 bedroom flats within a new apartment block, 6 x 2 bedroom townhouses and 42 x 3 bedroom town houses. Car parking will be provided as well as cycle storage and waste storage facilities.
- 5.2 The Townhouses that will front onto Cardiff Road and Addison Road are proposed to be in keeping with the existing properties on the opposite side of the streets. The Cardiff Road set of townhouses will have an office / parking garage at the rear of their garden which will be accessed via the new east / west route that will be constructed through the site connecting Addison Road and Milford Road.
- 5.3 Within the site, there will be two north / south cul-de-sacs with back to back townhouses which will have parking in front of their properties. A new apartment block will be located on the corner of Milford Road and Meadow Road. Parking for the apartment block will primarily be located in a courtyard under a green podium.
- 5.4 The Architect's layout plan is contained in **Appendix D**.

Access

- 5.5 In order to connect the new internal access road to the existing highway network a new crossover is required on Milford Road, necessitating the loss of 2 – 3 on-street parking spaces, and, reinstating the existing crossover on Addison Road, which is currently gated but which previously provided vehicle access into the site. The internal road network will be 6m wide and allow two-way traffic flow. It is proposed that the new road is offered for adoption by the Council.
- 5.6 The existing vehicle crossovers on Cardiff Road, Addison Road and Meadow Road which become redundant will be 'made good' and reinstated as footway.

Car Parking

- 5.7 In total, 121 on-site car parking spaces will be provided for the 96 dwellings. The development proposes 2 spaces per dwelling for the 48 three bedroom town houses which is up to the maximum allowable, according to Reading's parking standards.
- 5.8 There are 28 parking spaces within the courtyard for the flats. The 10 three bedroom flats would each be allocated a parking space, which would offer 18 spaces for the remaining 28 one and two bedroom flats, representing a parking ratio of 0.64 spaces per dwelling.

- 5.9 The 2011 Census has been interrogated to establish car ownership levels locally. In the Abbey Ward, flats had an average of 0.6 vehicles per household. This would suggest that the parking provision for the one and two bedroom flats is in accordance with local car ownership, representing a sensible balance between Council standards and policy objectives whilst not overproviding. The Census data is contained in **Appendix E**. The approach to parking for the flatted development has been discussed with the Transport Officer at the Council.
- 5.10 Whilst dedicated wheelchair accessible spaces have not been identified on the plans, all of the office / garage parking spaces have the potential to be able to accommodate wheelchair users with additional space around each parking space. Likewise, some of the bays along the two cul-de-sacs and within the parking court have space surrounding the bays or a dedicated 1.2m transfer zone adjacent, which would be suitable for wheelchair users.
- 5.11 There is the potential to convert the kerb space on Meadow Road to provide up to 11 shared use visitor parking for the development and the wider area.
- 5.12 The developer is willing to enter into a permit-free agreement for all dwellings to ensure there is no impact from overspill resident parking on the local streets that are permit controlled. Notwithstanding this, there is currently some uncontrolled carriageway surrounding the site which would be available for use.
- 5.13 The parking beat survey results summarised in **Table 2.1** demonstrated that there was up to 25 available spaces during the day, with likely more available space overnight, which would also be able to accommodate any visitor parking demand.

Loading Bay on Meadow Road

- 5.14 The loading bay on Meadow Road has the potential to be converted into 11 shared use parking spaces, which has been discussed and agreed in principle with the Transport Officer at the Council. The loading bay was originally provided to assist the Cox & Wyman Works but more recently has been used by the business on the opposite side of Meadow Road. It is understood that the business is due to leave the premises and therefore there will be no need to retain a dedicated loading bay. It was also agreed in principle that the visitor parking requirement would be mitigated by an increase in shared use spaces.

Cycle Parking

- 5.15 The development will provide 126 cycle parking spaces for residents in accordance with the Council's minimum standards which are set out in **Table 5.2**.

Table 5.2: Reading Cycle Parking Standards per dwelling (Zone 2)

Unit Type	Minimum Parking Standards	Number of Units in Scheme	Minimum Parking in Development
Flat 1 – 2 beds	0.5 spaces	38	20
Flat 3 beds	1 space	10	10
House 3 beds	2 spaces	48	96
Total		96	126

5.16 A cycle store with Sheffield stands or similar will be provided at ground level for the apartment block which will be secure and weatherproof, with space to park 30 bikes. Access to the store will be taken via the car park.

5.17 For the majority of townhouses that front onto Cardiff Road, it is proposed that bikes are stored in the garages which have been sized to meet the Council's minimum standards. Where townhouses do not have access to a garage, it is proposed there will be a bike shed in the rear gardens.

5.18 For the north / south townhouses, bikes will be stored in bike lockers in the front gardens of the properties.

Deliveries and Servicing

5.19 It is anticipated that the development will generate a requirement for the following deliveries each day:

- Post;
- On-line food deliveries;
- Non-food deliveries; and
- White good / household furniture.

5.20 In addition, albeit less frequent, it will be necessary to facilitate residents moving in or out of the development.

5.21 The potential number of deliveries has been estimated based on information included in the TRICS trip generation database which indicates that the 96 units are expected to generate demand for 8 – 9 deliveries each day. The data also suggests that 85% of deliveries are likely to be light goods vehicle (LGV) with the remainder by heavy goods vehicle (HGV).

5.22 It is anticipated that servicing vehicles will stop on-site on the new road, however there will be opportunities for larger vehicles to stop on the existing road network with the site benefitting from frontage to Milford Road, Meadow Road, Addison Road and Cardiff Road. The street network is also already supporting deliveries for all of the existing residential area. A swept path analysis has been undertaken which demonstrates the suitability of the layout to accommodate 7.5t box vans which are used by many home furniture and white goods delivery companies. The vehicle track plots are contained in **Appendix F**.

5.23 The impact of servicing vehicles on the local highway network is expected to be negligible, particularly given the lawful use of the site and likely composition of vehicles that would have previously served the site of which a significant proportion which would have been heavy goods vehicles.

Refuse and Recycling Storage and Collection

5.24 Waste and recycling bins for the townhouses will be stored in the gardens at the front of each house. Refuse and recycling from the townhouses that front onto Cardiff Road, Addison Road and Meadow Road will be collected from the respective street to which their property relates. Residents will be responsible for presenting their bins in a convenient position at the back of the footway on the day of collection in the same way as existing local residents currently do.

5.25 Residents living in the two cul-de-sacs will also be required to present their bins either to the back of the footway on Cardiff Road or to the new internal road for collection. Refuse vehicles will be able to enter and exit the new road in the development in forward gear, from either Milford Road or Addison Road, as shown on the swept path plots contained in **Appendix F**.

5.26 A shared refuse store will be provided for the apartment block at ground level with access via the car park. Key pad entry will be provided to residents of the apartment block for access to the refuse store.

5.27 A temporary store has also been included to house bins from the apartment block on the day of collection as part of a managed strategy, to ensure that minimum drag distances for bins by refuse operatives are met. It is anticipated that a caretaker will be employed to oversee refuse collection as required. Further details are provided within the Design and Access Statement.

6 TRIP GENERATION

6.1 This section sets out the trip generation assessment for the existing site and the proposed development. The methodology for the trip generation assessment has been updated following the pre-application discussion where subsequently the density of the proposed development has reduced.

6.2 The change of use at the site from the consented employment use to residential has the potential to lead to a significant reduction in weekday peak period traffic movements and hence it was agreed that a junction capacity assessment of the local road network would not be necessary.

6.3 The trip generation assessment has been undertaken to estimate the number of vehicle trips throughout a typical weekday, with emphasis placed on the AM peak period (7am – 10am) and PM peak period (4pm – 7pm), and also the total number of daily trips.

Existing Vehicle Trip Generation

6.4 Vehicle trip rates for the existing light industrial use have been extracted from the TRICS trip generation database. Sites were selected that were in 'edge of town' locations in the south of England / Midlands' area and offering between 1,880sqm and 17,675sqm of floor space. The full TRICS report can be found in **Appendix G**.

6.5 Whilst the existing building has the potential to be fully occupied, for the purpose of assessing traffic movements the trip rates have been applied to the full site area, i.e. 10,000sqm and also half of the floor area, i.e. 5,000sqm, in order to reflect a lower density of occupation.

6.6 **Table 6.1** suggests that the existing site has the potential to generate 100 two-way vehicle trips in the AM peak hour (8am – 9am) and 72 two-way vehicle trips in the PM peak hour (5pm – 6pm).

6.7 The current lower density occupation of the site has the potential to generate up to 51 two-way trips in the AM peak hour and 36 two-way trips within the PM peak hour.

Table 6.1: Vehicle Trip Generation Potential for Existing Light Industrial Use

Period	Trip Rate per 100sqm		Number of Vehicle Trips (10,000sqm)		Number of Vehicle Trips (5,000sqm)	
	In	Out	In	Out	In	Out
7am – 8am	0.512	0.180	51	18	26	9
8am – 9am	0.852	0.151	85	15	43	8
9am – 10am	0.255	0.153	26	15	13	8
4pm – 5pm	0.135	0.490	14	49	7	25
5pm – 6pm	0.077	0.635	8	64	4	32
6pm – 7pm	0.140	0.342	14	34	7	17
Daily 7am – 7pm	2.999	3.077	300	308	150	154

- 6.8 In addition there are likely to be operational traffic movements such as deliveries in / out which are not reflected in this trip rate methodology.

Proposed Vehicle Trip Generation

- 6.9 The type of trips generated by the proposed residential development will vary during the day with trips to work, school and retail destinations making the bulk of trips during a typical weekday.

- 6.10 To establish a vehicle trip generation scenario for the 96 residential dwellings the TRICS database was interrogated. The assessment has been undertaken using data for 'mixed privately owned flats and houses', taking into account the characteristics of the site in terms of 'edge of town' locations in the south of England / Midlands. The surveys selected and resultant trip rates are included at **Appendix G**.

- 6.11 **Table 6.2** shows the vehicle trip rates and number of vehicle trips expected to be generated for the peak hour periods in the morning and afternoon, and across the course of the day.

Table 6.2: Vehicle Trip Rate Summary for Proposed Residential Use (96 dwellings)

Period	Vehicle Trip Rates per household		Number of Vehicle Trips	
	In	Out	In	Out
7am – 8am	0.086	0.240	8	23
8am – 9am	0.089	0.271	9	26
9am – 10am	0.118	0.117	11	11
4pm – 5pm	0.168	0.132	16	13
5pm – 6pm	0.252	0.130	24	13
6pm – 7pm	0.232	0.148	22	14
Daily 7am – 7pm	1.736	1.865	167	179

6.12 The proposed development is expected to generate 35 two-way vehicle trips in the AM peak hour and 37 two-way vehicle trips in the PM peak hour.

6.13 **Table 6.3** shows the difference between the potential vehicle trip generation for the existing site and the proposed development. It is worth noting that with its current consented use, the site has the potential to generate a significant level of vehicle trips above that likely to be generated by the proposed development.

Table 6.3: Net Change in Trip Generation				
Period	Proposed minus Existing (10,000sqm)		Proposed minus Existing (current lower density occupation i.e. 5,000sqm)	
	In	Out	In	Out
7am – 8am	-43	5	-18	14
8am – 9am	-76	11	-34	18
9am – 10am	-15	-4	-2	3
4pm – 5pm	2	-36	9	-12
5pm – 6pm	16	-51	20	-19
6pm – 7pm	8	-20	15	-3
Daily 7am – 7pm	-133	-129	17	25

6.14 The first column in the table compares the predicted residential vehicle trip generation to the existing consented use of the site (i.e. 102,000sq f) where there is predicted to be a significant reduction in vehicle trips generated by the proposed development across the course of the day.

6.15 The second column compares the predicted residential vehicle trip generation to the lower density of occupation reflecting the current use of the site. There is likely to be a reduction in vehicle trips during the AM peak hour by 16 two-way movements and no material change during the PM peak hour with 1 additional vehicle trip predicted.

6.16 There is expected to be a change in the pattern of movement to and from the development with more people leaving the site in the morning to go to work or school compared to an employment use where more people would arrive at the site in the morning to start work.

Public Transport Use

6.17 Notwithstanding the above, travel on the public transport network in Reading represents a real option for residents at the development with 12 bus routes within walking distance that can be caught from bus stops on Caversham Road, and in excess of 50 rail services each hour from Reading station.

- 6.18 It is expected that the demand for public transport services will increase by one or two people by bus or rail services during peak periods and as such it is expected this will have no material impact on the existing level of service offered to users.

Travel Plan

- 6.19 Residents and visitors of the development will be encouraged to travel by sustainable modes through the implementation of a Travel Plan. A draft Residential Travel Plan has been prepared and is contained in **Appendix H**.
- 6.20 It is anticipated that the final Travel Plan would be secured by way of a legal agreement or condition prior to occupation.

7 SUMMARY AND CONCLUSION

Summary

- 7.1 TTP Consulting has been appointed by Thames Properties Ltd to provide traffic and transport advice in relation to the proposed residential development at the former Cox & Wyman Works on Cardiff Road, in Reading Borough Council.
- 7.2 The site is located on the edge of Reading town centre circa 1km to the west of Reading Station. There is a good network of public transport services available near the site with bus stops on Caversham Road providing access to 12 bus routes.
- 7.3 The site is rectangular in shape and takes frontage onto Cardiff Road to the south, Addison Road to the east, Milford Road to the west and Meadow Road to the north. The existing site is characterised by light industrial units which have a floor area of circa 102,000sq f and the associated yard area. The building is now in use as a storage facility for a small film company.
- 7.4 The proposed development seeks to provide 96 residential dwellings with 121 car parking spaces representing a sensible balance between Council standards, policy objectives and car ownership levels.
- 7.5 A local parking beat survey identified that there is capacity on-street to accommodate additional parking demand both within permit bays and within uncontrolled lengths of carriageway. If considered necessary, the developer is willing to enter into a permit free agreement to restrict residents from being able to purchase permits to park on-street which will limit any potential impact from overspill parking.
- 7.6 Cycle parking will provided in accordance with Reading Borough Council's minimum standards and will be secure and weather protected.
- 7.7 The trip generation assessment demonstrates that there will be a reduction in vehicle trips at the proposed development compared to the existing consented use of the site. Even with the current lower density of occupation, there will be a reduction in peak hour vehicle trips in the AM peak hour and no material change during the PM peak hour.
- 7.8 A Travel Plan has been submitted as part of the application to encourage sustainable travel to and from the development.

- 7.9 With the exception of those new properties which will have direct frontage to existing public highway, the majority of servicing activity will take place within the site on the new internal access road. All likely vehicle types may enter and exit the development in forward gear.
- 7.10 Vehicle access is proposed via one new crossover and the reuse of an existing crossover. The remaining crossovers will become redundant and are proposed for reinstatement as footway, offering an enhancement to the pedestrian environment.
- 7.11 An existing loading bay on Meadow Road will no longer serve a purpose and offers an opportunity to be reallocated, offering an increase in the number of on-street parking bays for shared visitor / permit holder users in the area.

Conclusion

- 7.12 The proposed scheme is consistent with relevant transport policy guidance and will not give rise to any material transport related impacts. It therefore meets the test of the NPPF and paragraph 32, which states that:

"Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."

Appendix A



Job Number & Name: 12906 Cardiff Road, Reading

Site Number/Name: Cardiff Road

Client: TTP Consulting

Date: 10th & 12th January 2017

Weather: Cloudy, Dry

Comments: Vehicles on Meadow Road are HGV trailers and parking has been assumed as 12m spaces.

Description of column headers

Total Length of Available Kerb Space Measured length (in metres) of kerb space excluding sides of the road which are too narrow for two cars to pass

Length of Junctions Measurement of 5m on either side of road at a junction

Length of Bus stops/other Measured length (in metres) of other restrictions which preclude parking

Length (m) Measured length (in metres) of total parking per restriction, rounded to the nearest 5m

Calculated Spaces Calculation of number of available spaces based on 5m length

Cars Parked Number of vehicles parked per time period

Stress Calculated stress per restriction per road based on number of parked vehicles and number of available spaces

Advanced Transport Research		Job Number & Name: 12906 Cardiff Road, Reading	
Cardiff Road		Client: TTP Consulting	
Parking Demand		Date: 10th & 12th January 2017	

0600 Tuesday 10th January 2017	Street	Length of Street (m)	Length of Kerb Space (m)	Length of Resident Permit Space (m)	Unrestricted Kerb Space				Resident Permit Bay				Disabled Permit Bay				Loading Bay				Single Yellow Line				Double Yellow Line			
					Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Motor Vehicle	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress
					Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Motor Vehicle	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress
	Cherry Road	144	10	28	86	17	1	0%																	20	4	0	0%
	Milford Road	549	30	129	241	48	18	38%									30	6	6	100%					119	23	0	0%
	Meadow Road	296	20	57													70	5	3	60%					149	29	0	0%
	Cardiff Road	592	40	90					295	59	45	76%	10	2	2	100%					78	15	4	27%	79	15	0	0%
	Addison Road	424	50	30					290	58	43	74%	5	1	1	100%									49	9	0	0%
	Ross Road	233	40	56	46	9	6	67%	50	10	7	70%													41	8	2	25%
	York Road	284	20	0					245	49	35	71%	5	1	1	100%									14	2	0	0%
	Swains Road	257	30	0					165	33	26	76%	5	1	1	100%									57	11	0	0%
Total per Beat by restriction					74	23	24%		209	152	75%		5	5	100%		11	9	82%		15	4	27%		101	2	2%	
Total per Beat					299	203	68%																					

0700 Tuesday 10th January 2017	Street	Length of Street (m)	Length of Kerb Space (m)	Length of Resident Permit Space (m)	Unrestricted Kerb Space				Resident Permit Bay				Disabled Permit Bay				Loading Bay				Single Yellow Line				Double Yellow Line			
					Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Motor Vehicle	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress
					Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Motor Vehicle	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress
	Cherry Road	144	10	28	86	17	7	41%																	20	4	0	0%
	Milford Road	549	30	129	241	48	22	46%									30	6	6	100%					119	23	0	0%
	Meadow Road	296	20	57													70	5	4	80%					149	29	0	0%
	Cardiff Road	592	40	90					295	59	47	80%	10	2	2	100%					78	15	3	30%	79	15	0	0%
	Addison Road	424	50	30					290	58	35	68%	5	1	1	100%									49	9	0	0%
	Ross Road	233	40	56	46	9	6	67%	50	10	9	90%													41	8	3	38%
	York Road	284	20	0					245	49	33	67%	5	1	1	100%									14	2	0	0%
	Swains Road	257	30	0					165	33	23	70%	5	1	1	100%									57	11	0	0%
Total per Beat by restriction					74	30	42%		209	147	70%		5	5	100%		11	10	91%		15	3	20%		101	1	1%	
Total per Beat					299	203	68%																					

0800 Tuesday 10th January 2017	Street	Length of Street (m)	Length of Kerb Space (m)	Length of Resident Permit Space (m)	Unrestricted Kerb Space				Resident Permit Bay				Disabled Permit Bay				Loading Bay				Single Yellow Line				Double Yellow Line			
					Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Motor Vehicle	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress
					Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Motor Vehicle	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress
	Cherry Road	144	10	28	86	17	9	53%																	20	4	0	0%
	Milford Road	549	30	129	241	48	31	65%									30	6	6	100%					119	23	0	0%
	Meadow Road	296	20	57													70	5	2	40%					149	29	0	0%
	Cardiff Road	592	40	90					295	59	45	76%	10	2	2	100%					78	15	0	0%	79	15	0	0%
	Addison Road	424	50	30					290	58	32	59%	5	1	1	100%									49	9	0	0%
	Ross Road	233	40	56	46	9	5	56%	50	10	7	70%													41	8	0	0%
	York Road	284	20	0					245	49	29	59%	5	1	1	100%									14	2	0	0%
	Swains Road	257	30	0					165	33	17	52%	5	1	1	100%									57	11	0	0%
Total per Beat by restriction					74	45	61%		209	136	65%		5	5	100%		11	8	73%		15	0	0%		101	0	0%	
Total per Beat					299	188	63%																					

0900 Tuesday 10th January 2017	Street	Length of Street (m)	Length of Kerb Space (m)	Length of Resident Permit Space (m)	Unrestricted Kerb Space				Resident Permit Bay				Disabled Permit Bay				Loading Bay				Single Yellow Line				Double Yellow Line			
					Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Motor Vehicle	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress
					Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Motor Vehicle	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress
	Cherry Road	144	10	28	86	17	9	53%																	20	4	0	0%
	Milford Road	549	30	129	241	48	33	69%									30	6	6	100%					119	23	0	0%
	Meadow Road	296	20	57													70	5	2	40%					149	29	0	0%
	Cardiff Road	592	40	90					295	59	44	75%	10	2	2	100%					78	15	0	0%	79	15	0	0%
	Addison Road	424	50	30					290	58	34	59%	5	1	1	100%									49	9	0	0%
	Ross Road	233	40	56	46	9	6	67%	50	10	8	80%													41	8	0	0%
	York Road	284	20	0					245	49	29	59%	5	1	0	0%									14	2	0	0%
	Swains Road	257	30	0					165	33	17	52%	5	1	1	100%									57	11	0	0%
Total per Beat by restriction					74	45	62%		209	132	62%		5	4	80%		11	8	73%		15	0	0%		101	0	0%	
Total per Beat					299	188	64%																					

1000 Tuesday 10th January 2017	Total per Best				220		102		64%																			
	Street	Length of Street (m)	Length of Kerb Space (m)	Length of Resident Permit Space (m)	Unrestricted Kerb Space				Resident Permit Bay				Disabled Permit Bay				Loading Bay				Single Yellow Line				Double Yellow Line			
					Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Motor Vehicle	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress	Length (m)	Calculated Stopped Space	Car Park	Stress
Cherryhill Road	144	10	28	86	17	10	59%																		20	4	0	0%
Milford Road	549	30	129	241	48	34	71%										30	6	6	100%					119	23	0	0%
Meadow Road	296	20	57														70	5	2	40%					149	29	0	0%
Cardiff Road	592	40	90						295	59	41	69%	10	2	1	50%					78	15	0	0%	79	15	0	0%
Addison Road	424	50	30						290	58	31	53%	5	1	1	100%									49	9	0	0%
Ross Road	233	40	56	46	9	6	67%	50	10	7	70%														41	8	0	0%
York Road	284	20	0						245	49	25	55%	5	1	1	100%									14	2	0	0%
Wardstone Road	257	20	0						165	33	13	39%	5	1	1	100%									57	11	0	0%
Total per best (miles)				30	50	40%											11	0	0%		11	0	0%					

1600 Tuesday 10th January 2017	Street	Total Length of Street (m)	Length of Footway (m)	Length of Junction (m)	Length of 2m or more off-street (m)	Unrestricted Kerb Space				Resident Permit Bay				Disabled Permit Bay				Loading Bay				Single Yellow Line				Double Yellow Line				
						Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	HGV Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	
						Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	HGV Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	
	Cherry Road	144	10	28	86	17	9	53%																		20	4	0	0%	
	Milford Road	549	30	129	241	48	35	73%										30	6	5	83%					119	23	0	0%	
	Meadow Road	296	20	57														70	5	3	60%					149	29	0	0%	
	Canolf Road	592	40	90						295	59	40	68%	10	2	2	100%					78	15	2	13%		79	15	0	0%
	Addison Road	424	50	30						290	58	29	90%	5	1	1	100%									49	9	0	0%	
	Ross Road	233	40	56	46	9	5	56%		50	10	8	80%													41	8	0	0%	
	York Road	284	20	0						245	49	25	51%	5	1	1	100%									14	2	0	0%	
	Serrano Road	257	30	0						165	33	20	61%	5	1	1	100%									57	11	0	0%	
Total per Beat by restriction						74	45	66%		209	132	58%		5	5	100%		11	8	73%		15	2	13%		151	0	0%		
Total per Beat						295	188	62%																						

1700 Tuesday 10th January 2017	Street	Length of Street (m)	Length of Footway (m)	Length of Junction (m)	Length of 2m or more off-street (m)	Unrestricted Kerb Space				Resident Permit Bay				Disabled Permit Bay				Loading Bay				Single Yellow Line				Double Yellow Line				
						Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	HGV Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	
Cherryhill Road	144	10	28	86	17	9	53%																			20	4	0	0%	
Milford Road	549	30	129	241	48	33	69%											30	6	4	67%					119	23	0	0%	
Meadow Road	296	20	57															70	5	3	60%					149	29	0	0%	
Canolf Road	592	40	90						295	59	43	73%	10	2	2	100%						78	15	1	7%		79	15	0	0%
Addison Road	424	50	30						290	58	31	53%	5	1	1	100%										49	9	0	0%	
Ross Road	233	40	56	46	9	5	56%		50	10	7	70%														41	8	0	0%	
York Road	284	20	0						245	49	26	53%	5	1	1	100%										14	2	0	0%	
Serrano Road	257	30	0						165	33	21	64%	5	1	1	100%										57	11	0	0%	
Total per Beat by restriction						74	47	64%		209	132	61%		5	5	100%		11	7	64%		15	1	7%		151	0	0%		
Total per Beat						295	188	62%																						

1800 Tuesday 10th January 2017	Street	Length of Street (m)	Length of Footway (m)	Length of Junction (m)	Length of 2m or more off-street (m)	Unrestricted Kerb Space				Resident Permit Bay				Disabled Permit Bay				Loading Bay				Single Yellow Line				Double Yellow Line			
						Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	HGV Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress
						Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	HGV Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress
	Cherry Road	144	10	28	86	17	3	18%																		20	4	0	0%
	Milford Road	549	30	129	241	48	23	48%										30	6	4	67%					119	23	0	0%
	Meadow Road	296	20	57														70	5	3	60%					149	29	0	0%
	Canolf Road	592	40	90					295	59	39	66%	10	2	2	100%					78	15	0	0%		79	15	0	0%
	Addison Road	424	50	30					290	58	35	60%	5	1	1	100%										49	9	0	0%
	Ross Road	233	40	56	46	9	6	67%		50	10	9	90%													41	8	2	25%
	York Road	284	20	0					245	49	33	67%	5	1	1	100%										14	2	0	0%
	Serrano Road	257	30	0					165	33	23	70%	5	1	1	100%										57	11	0	0%
Total per Beat by restriction						74	32	43%		209	139	67%		5	5	100%		11	7	64%		15	0	0%		151	2	2%	
Total per Beat						295	188	62%																					

0600 Thursday 12th January 2017	Street	Total Length of Street (m)	Total Length of Footway (m)	Length of Junction (m)	Length of 2m or more off-street (m)	Unrestricted Kerb Space				Resident Permit Bay				Disabled Permit Bay				Loading Bay				Single Yellow Line				Double Yellow Line				
						Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	HGV Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	
						Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	HGV Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	
	Cherryhill Road	144	10	28	86	17	2	12%											30	6	4	67%					20	4	0	0%
	Milford Road	549	30	129	241	48	16	33%											30	6	4	67%					119	23	0	0%
	Meadow Road	296	20	57															70	5	3	60%					149	29	0	0%
	Canolf Road	592	40	90						295	59	45	76%	10	2	2	100%					78	15	5	33%		79	15	0	0%
	Addison Road	424	50	30						290	58	45	76%	5	1	1	100%										49	9	0	0%
	Ross Road	233	40	56	46	9	7	78%		50	10	7	70%														41	8	2	25%
	York Road	284	20	0						245	49	35	71%	5	1	1	100%										14	2	0	0%
	Serrano Road	257	30	0						165	33	28	80%	5	1	1	100%										57	11	0	0%
Total per Beat by restriction						76	25	34%		209	160	77%		5	5	100%		11	7	64%		15	5	33%		151	2	2%		
Total per Beat						295	201	68%																						

0700 Thursday 12th January 2017	Street	Third Lane Length (m)	Footpath Length (m)	Length of Junction (m)	Length of 2m or more off-street (m)	Unrestricted Kerb Space				Resident Permit Bay				Disabled Permit Bay				Loading Bay				Single Yellow Line				Double Yellow Line			
						Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	HGV Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress
						Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	HGV Parked	Stress	Length (m)	Calculated Stopped	HGV Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress	Length (m)	Calculated Stopped	Car Parked	Stress
	Cherry Road	144	10	28	86	17	2	12%																		20	4	0	0%
	Milford Road	549	30	129	241	48	15	31%										30	6	4	67%					119	23	0	0%
	Meadow Road	296	20	57														70	5	3	60%					149	29	0	0%
	Canolf Road	592	40	90					295	59	50	85%	10	2	2	100%					78	15	5	33%		79	15	0	0%
	Addison Road	424	50	30					290	58	44	76%	5	1	1	100%										49	9	0	0%
	Reeve Road	233	40	56	46	9	7	76%	50	10	7	75%														41	8	2	35%
	York Road	284	20	0					245	49	34	68%	5	1	1	100%										14	2	0	0%
	Penrhyn Road	257	30	0					165	33	26	79%	5	1	1	100%										57	11	0	0%
	Total per Beat by restriction																	11	7	64%		15	5	33%		101	2	2%	
	Total per Beat								279	204	24	32%																	

Appendix B

R5

Avoid congestion through the Oxford Road local centre by cycling along the off-road cycle path on **Portman Road** and **Oxford Road** west all the way to **Tilehurst Station**. Remember that traffic is moving slowly, usually less than 20mph past **Oxford Road Primary School**, so if you want to move quickly, pass vehicles on their right. To get into the bus lane towards town, position yourself in the centre of the road.

R5 Route Gradients

Metres

30
40
50



A

6 mins



Norcot Road Junction

B

4 mins



West Village (Battle Hospital Development)



D

3 mins

Reading West Station



3 mins

Town Centre



C



E

Chatham Place

West Reading

R5

Tilehurst Station, The West Village & Oxford Road to Reading Town Centre



Reading Cycle Routes

Other Cycle Maps

R1 R10
South Reading
Green Park & Whitley

R50
West Reading
Tilehurst & Prospect Park

R6 R60
South-West Reading
Coley Park & Southcote

Reading Network

Available from:



0118 939 0900
www.reading.gov.uk

Winter/Spring 2010



Reading
Cycle Routes

Legend



Reading Cycle Route

Town Centre Route

Linking Route

4

National
Cycle Path



Busy junction, no
cycling facilities,
caution advised



Cycle parking
facilities



Cycling
prohibited



Railway
Station



Pedestrian
Light Controlled
Crossing



Toucan (Cycle)
Light Controlled
Crossing



Underpass
/Subway

Cycle Facilities Key (for all route colours)

Off-road cycle route
(tarmac or path)

Off-road cycle route
(gravel or rough surface)

On-road cycle route
- traffic-calmed or
quiet residential road

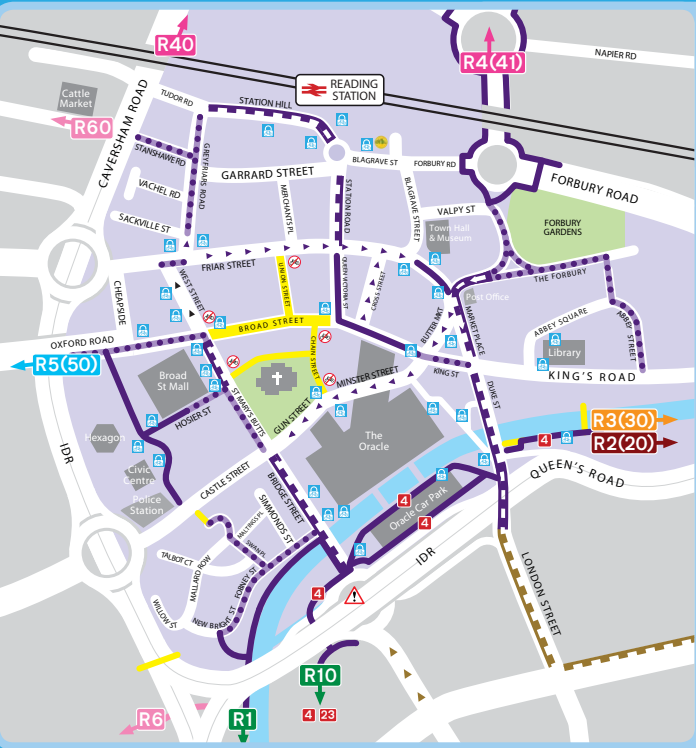
On-road cycle route
- one-way street

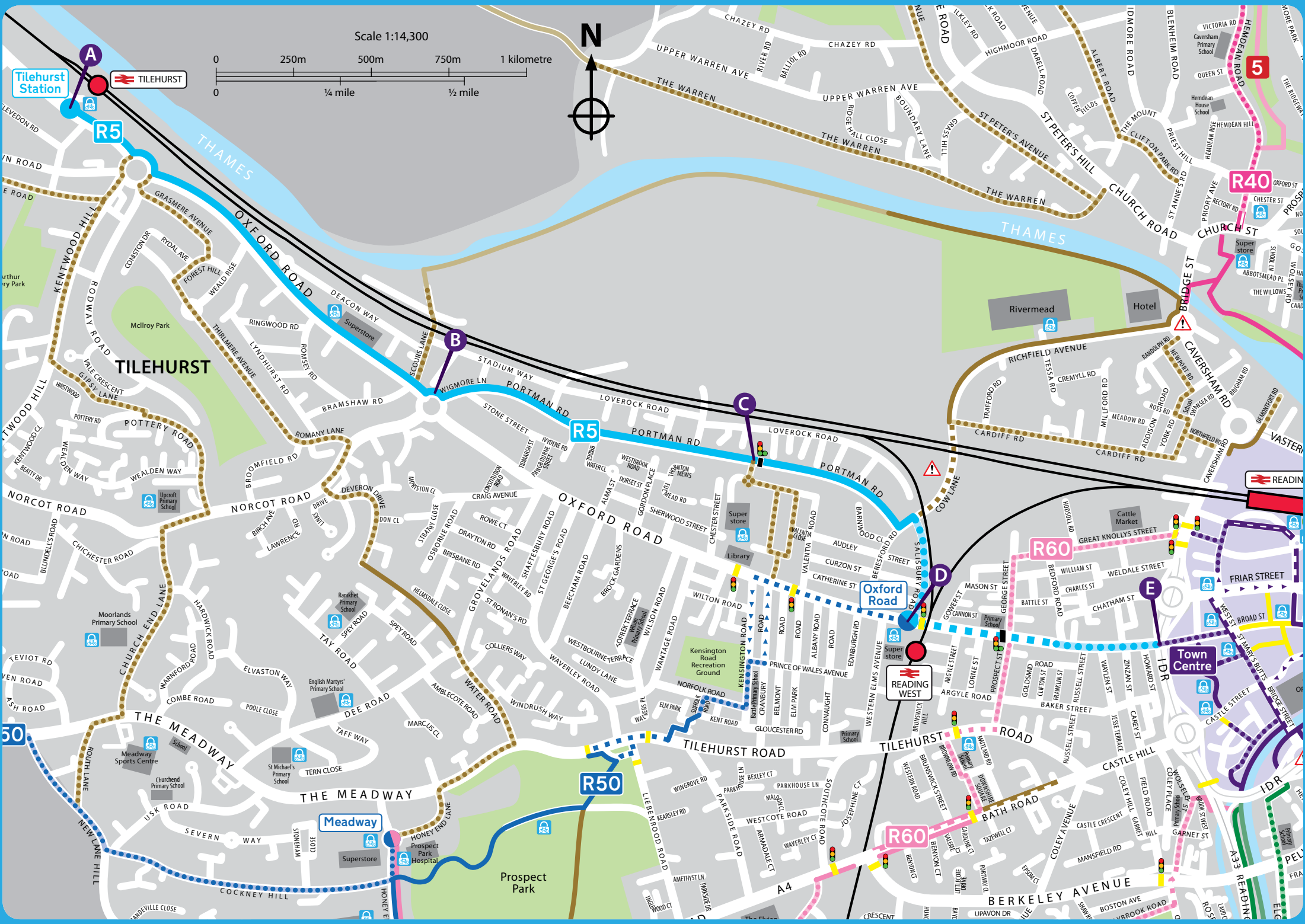
On-road cycle way / shared
bus lane (one direction)

On-road cycle way / shared
bus lane (both directions)

On-road route without
dedicated facilities

Pedestrians only,
cyclists dismount





Appendix C

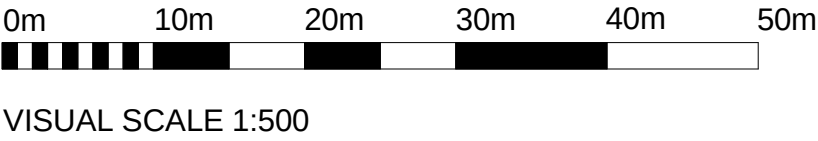
Appendix D



Note:
For detailed landscape design refer to Barton Willmore
Landscape drawing: 24325-RG-L-01

PLANNING

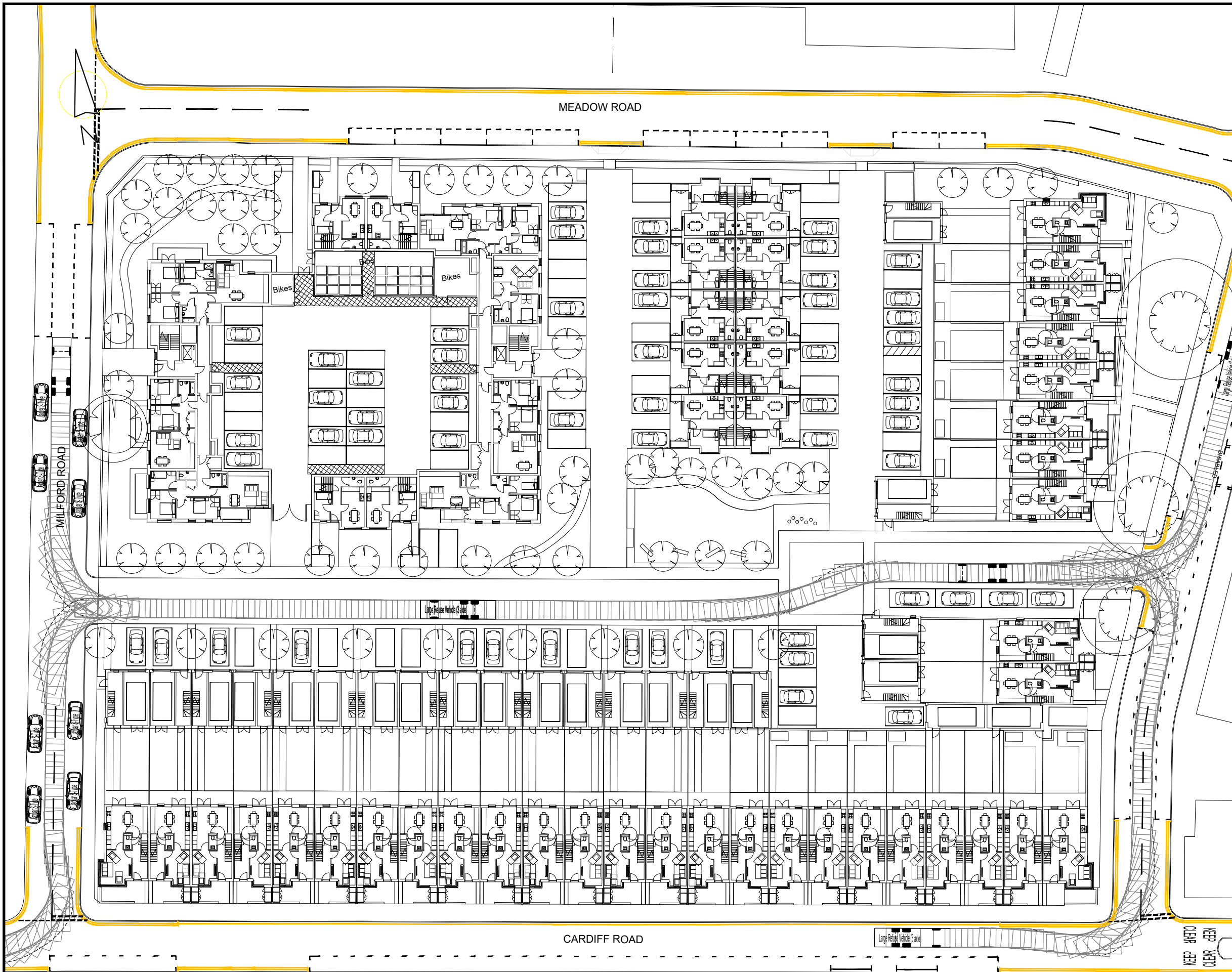
Project			
Former Cox & Wyman Site			
Cardiff Road, Reading			
Drawing Title			
Proposed Site Plan			
Date	Scale	Drawn by	Check by
29/09/17	1 : 500 @ A2	DC	PN
Project No	Drawing No	Revision	
24325	A/PP-P10-01	A	



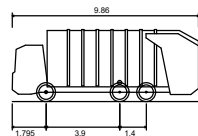
Appendix E

E36000872 Abbey			Total: Car or van availability	No cars or vans in household	1 car or van in household	2 cars or vans in household	3 or more cars or vans in household	All cars in the area	Total Car per household
Total: Accommodation type	Total: Tenure	Total: Number of rooms	6329	2842	2860	551	76	4190	0.7
House or bungalow	Total: Tenure	Total: Number of rooms	1794	543	914	284	53	1641	0.9
Flat, maisonette or apartment	Total: Tenure	Total: Number of rooms	4535	2299	1946	267	23	2549	0.6

APPENDIX F



Rev	Details	Drawn	Checked	Date
A	Parking amended.	MW	JP	03.10.17



Large Refuse Vehicle (3 axle)

Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	3.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	9.500m

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.

Client
Thames Properties Ltd

Project
Cardiff Road, Reading

Drawing Title
Swept Path Analysis Using a Large Refuse Vehicle East to West

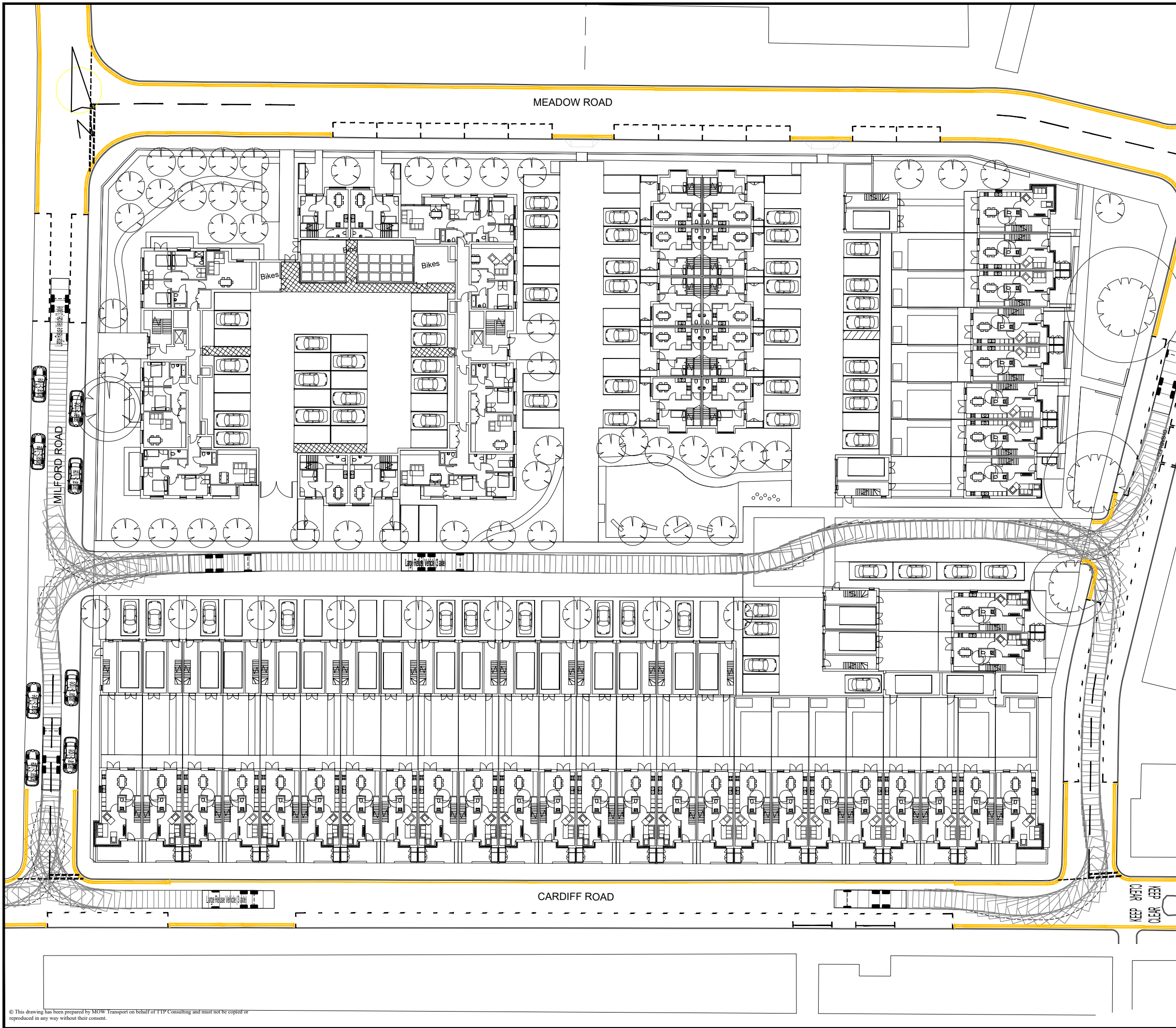
Scale
1:500 at A3

Drawn	MW	26.09.17
Checked	JP	26.09.17

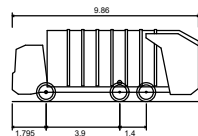


111 - 113 Great Portland Street
London
W1W 6QQ
Tel. No. 0207 1000 753

Drawing Number	Rev
2015-2594-AT-111(1)	A



Rev	Details	Drawn	Checked	Date
A	Parking amended.	MW	JP	03.10.17



Large Refuse Vehicle (3 axle)	
Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	3.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	9.500m

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.

Client
Thames Properties Ltd

Project
Cardiff Road, Reading

Drawing Title
Swept Path Analysis Using a Large Refuse Vehicle West to East

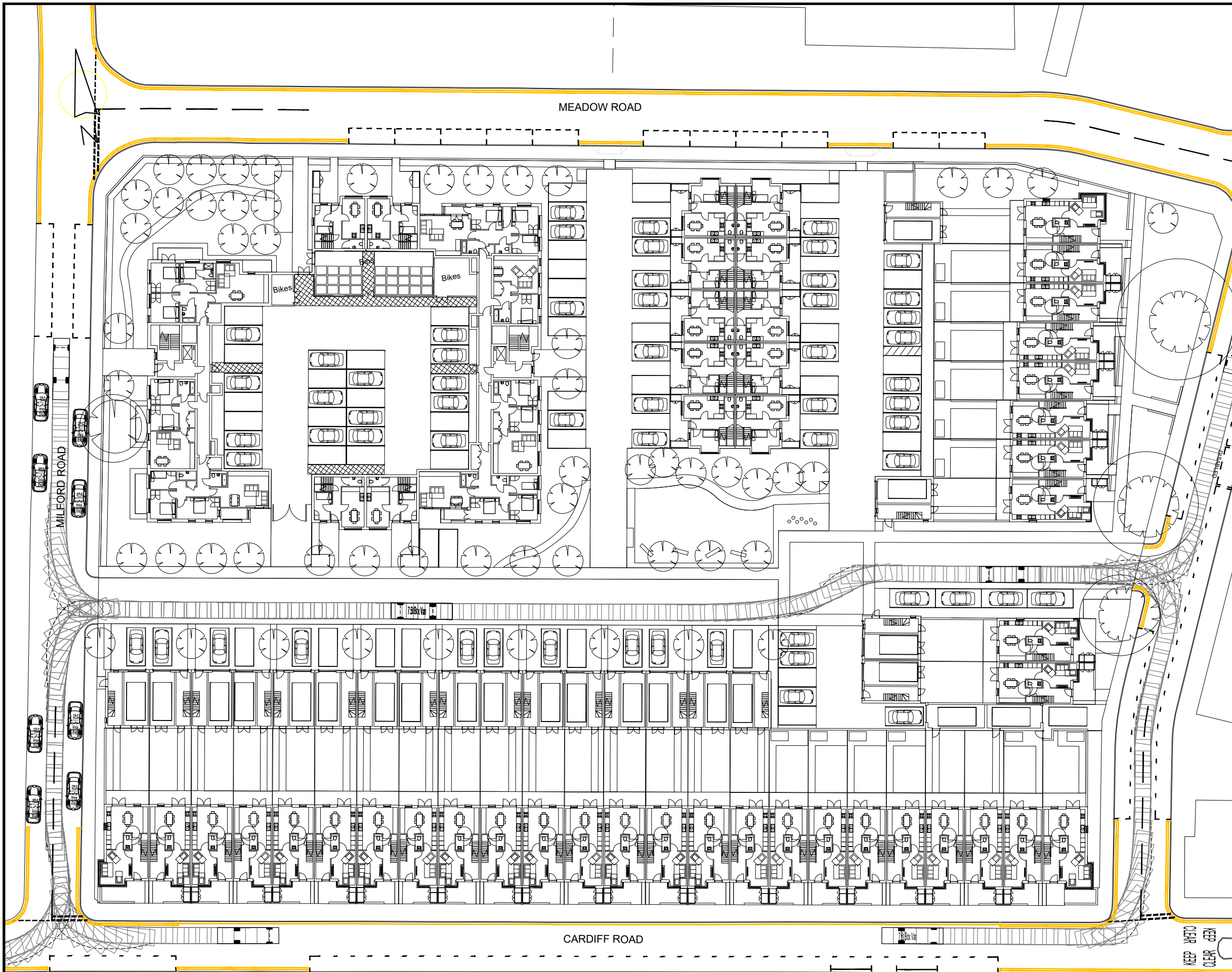
Scale
1:500 at A3

Drawn	MW	26.09.17
Checked	JP	26.09.17

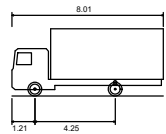


111 - 113 Great Portland Street
London
W1W 6QQ
Tel. No. 0207 1000 753

Drawing Number	Rev
2015-2594-AT-111(2)	A



Rev	Details	Drawn	Checked	Date
A	Parking amended.	MW	JP	03.10.17



7.5t Box Van
Overall Length 8.010m
Overall Width 2.100m
Overall Body Height 3.556m
Min Body Ground Clearance 0.351m
Track Width 2.064m
Lock to Lock Time 4.00 sec
Kerb to Kerb Turning Radius 7.400m

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.

Client
Thames Properties Ltd

Project
Cardiff Road, Reading

Drawing Title
**Swept Path Analysis Using a
7.5t Box Van
East to West**

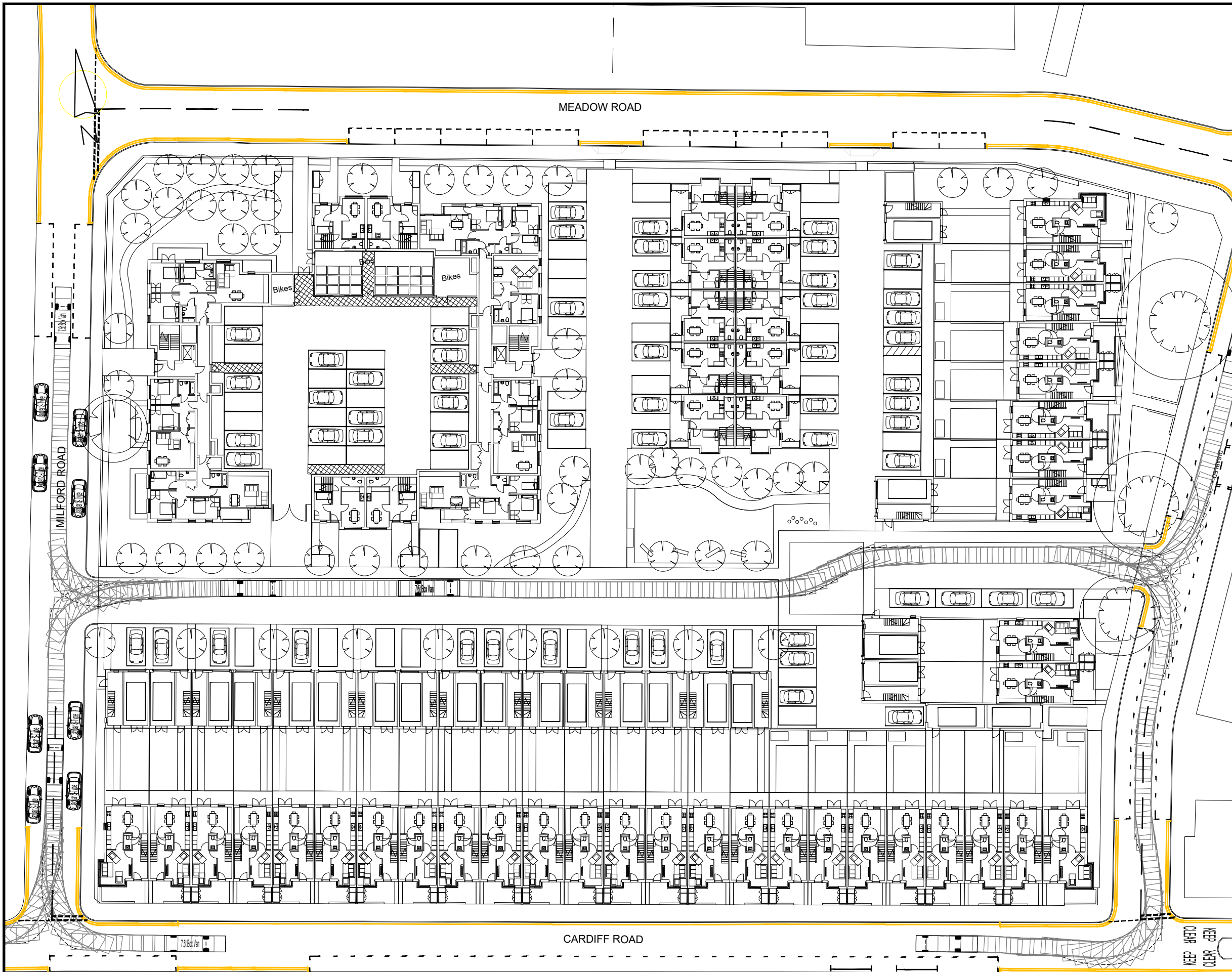
Scale
1:500 at A3

Drawn	MW	26.09.17
Checked	JP	26.09.17

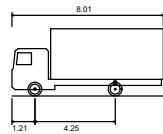


111 - 113 Great Portland Street
London
W1W 6QQ
Tel. No. 0207 1000 753

Drawing Number	Rev
2015-2594-AT-112(1)	A



Rev	Details	Drawn	Checked	Date
A	Parking amended.	MW	JP	03.10.17



7.5t Box Van
Overall Length 8.010m
Overall Width 2.100m
Overall Body Height 3.556m
Min Body Ground Clearance 0.351m
Track Width 2.064m
Lock to Lock Time 4.00 sec
Kerb to Kerb Turning Radius 7.400m

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.

Client
Thames Properties Ltd

Project
Cardiff Road, Reading

Drawing Title
**Swept Path Analysis Using a
7.5t Box Van
West to East**

Scale
1:500 at A3

Drawn	MW	26.09.17
Checked	JP	26.09.17



111 - 113 Great Portland Street
London
W1W 6QQ
Tel. No. 0207 1000 753

Drawing Number	Rev
2015-2594-AT-112(2)	A

APPENDIX G

LIST OF SITES relevant to selection parameters

1	CH-02-C-01	BAKERY		CESHIRE
	GADBROOK PARK			
	HIGH SHURLACH			
	NORTHWICH			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:	15000 sqm		
	Survey date: THURSDAY	21/06/07		Survey Type: MANUAL
2	CW-02-C-02	LIGHTING COMPANY		CORNWALL
	NORMANDY WAY			
	BODMIN			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:	17675 sqm		
	Survey date: WEDNESDAY	06/06/07		Survey Type: MANUAL
3	DC-02-C-07	NEW LOOK		DORSET
	MERCERY ROAD			
	WEYMOUTH			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:	5467 sqm		
	Survey date: MONDAY	07/07/08		Survey Type: MANUAL
4	HE-02-C-02	THERMAL PROCESSING		HEREFORDSHIRE
	COLLEGE ROAD			
	BURCOTT			
	HEREFORD			
	Edge of Town			
	Commercial Zone			
	Total Gross floor area:	1880 sqm		
	Survey date: TUESDAY	22/10/13		Survey Type: MANUAL
5	WM-02-C-03	INDUSTRIAL GLASS		WEST MIDLANDS
	DOWNING STREET			
	SMETHWICK			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:	5070 sqm		
	Survey date: TUESDAY	06/11/12		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 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	9018	0.175	5	9018	0.113	5	9018	0.288
07:30 - 08:00	5	9018	0.337	5	9018	0.067	5	9018	0.404
08:00 - 08:30	5	9018	0.557	5	9018	0.084	5	9018	0.641
08:30 - 09:00	5	9018	0.295	5	9018	0.067	5	9018	0.362
09:00 - 09:30	5	9018	0.166	5	9018	0.086	5	9018	0.252
09:30 - 10:00	5	9018	0.089	5	9018	0.067	5	9018	0.156
10:00 - 10:30	5	9018	0.071	5	9018	0.073	5	9018	0.144
10:30 - 11:00	5	9018	0.093	5	9018	0.075	5	9018	0.168
11:00 - 11:30	5	9018	0.053	5	9018	0.049	5	9018	0.102
11:30 - 12:00	5	9018	0.089	5	9018	0.078	5	9018	0.167
12:00 - 12:30	5	9018	0.073	5	9018	0.126	5	9018	0.199
12:30 - 13:00	5	9018	0.080	5	9018	0.120	5	9018	0.200
13:00 - 13:30	5	9018	0.153	5	9018	0.113	5	9018	0.266
13:30 - 14:00	5	9018	0.162	5	9018	0.113	5	9018	0.275
14:00 - 14:30	5	9018	0.104	5	9018	0.146	5	9018	0.250
14:30 - 15:00	5	9018	0.064	5	9018	0.098	5	9018	0.162
15:00 - 15:30	5	9018	0.031	5	9018	0.082	5	9018	0.113
15:30 - 16:00	5	9018	0.055	5	9018	0.053	5	9018	0.108
16:00 - 16:30	5	9018	0.053	5	9018	0.109	5	9018	0.162
16:30 - 17:00	5	9018	0.082	5	9018	0.381	5	9018	0.463
17:00 - 17:30	5	9018	0.042	5	9018	0.242	5	9018	0.284
17:30 - 18:00	5	9018	0.035	5	9018	0.393	5	9018	0.428
18:00 - 18:30	5	9018	0.060	5	9018	0.200	5	9018	0.260
18:30 - 19:00	5	9018	0.080	5	9018	0.142	5	9018	0.222
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			2.999			3.077			6.076

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

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

Parameter summary

Trip rate parameter range selected:	1880 - 17675 (units: sqm)
Survey date date range:	01/01/07 - 23/01/14
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	1

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-752101-170922-0918

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : K - MIXED PRIV HOUS (FLATS AND HOUSES)
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
	RE READING	1 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	GS GLOUCESTERSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	2 days
05	EAST MIDLANDS	
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
 Actual Range: 28 to 132 (units:)
 Range Selected by User: 24 to 162 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 07/11/16

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	1 days
Thursday	4 days
Friday	1 days

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

Selected survey types:

Manual count	8 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:

Town Centre	1
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	3

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	6
No Sub Category	2

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

Secondary Filtering selection:

Use Class:

C3

8 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 1 mile:

1,001 to 5,000

1 days

5,001 to 10,000

1 days

20,001 to 25,000

2 days

25,001 to 50,000

4 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

125,001 to 250,000

5 days

250,001 to 500,000

2 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

2 days

1.1 to 1.5

5 days

1.6 to 2.0

1 days

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

Travel Plan:

Yes

1 days

No

7 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

8 days

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

LIST OF SITES relevant to selection parameters

1	CA-03-K-01	MIXED HOUSES & FLATS	CAMBRIDGESHIRE
	WEASANHAM LANE		
	FENLAND		
	WISBECH		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	100	
	Survey date: MONDAY	07/09/15	Survey Type: MANUAL
2	CA-03-K-02	MIXED HOUSES & FLATS	CAMBRIDGESHIRE
	ALDERMANS DRIVE		
	PETERBOROUGH		
	Town Centre		
	Residential Zone		
	Total Number of dwellings:	40	
	Survey date: TUESDAY	16/12/14	Survey Type: MANUAL
3	GS-03-K-01	MIXED HOUSING	GLOUCESTERSHIRE
	CONEY HILL ROAD		
	CONEY HILL		
	GLOUCESTER		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	33	
	Survey date: THURSDAY	29/04/10	Survey Type: MANUAL
4	HC-03-K-06	HOUSES & FLATS	HAMPSHIRE
	ROMSEY ROAD		
	MAYBUSH		
	SOUTHAMPTON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	91	
	Survey date: THURSDAY	02/10/14	Survey Type: MANUAL
5	NT-03-K-02	MIXED HOUSES	NOTTINGHAMSHIRE
	CASTLE BRIDGE ROAD		
	NOTTINGHAM		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Number of dwellings:	132	
	Survey date: MONDAY	07/11/16	Survey Type: MANUAL
6	RE-03-K-01	SEMI DETACHED/FLATS	READING
	CONSTITUTION ROAD		
	READING		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	44	
	Survey date: THURSDAY	03/12/09	Survey Type: MANUAL
7	ST-03-K-03	MIXED HOUSING & FLATS	STAFFORDSHIRE
	CLAREMONT ROAD		
	WOLVERHAMPTON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	28	
	Survey date: FRIDAY	09/05/14	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	WS-03-K-03	MIXED HOUSES & FLATS	WEST SUSSEX
	LITTLEHAMPTON ROAD		
	WEST DURRINGTON		
	WORTHING		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	115	
	Survey date: THURSDAY	12/05/16	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/K - MIXED PRIV HOUS (FLATS AND HOUSES)

MULTI-MODAL VEHICLES

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 96 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	8	73	0.086	8.233	8	73	0.240	23.053	8	73	0.326	31.286
08:00 - 09:00	8	73	0.089	8.563	8	73	0.271	26.017	8	73	0.360	34.580
09:00 - 10:00	8	73	0.118	11.362	8	73	0.117	11.197	8	73	0.235	22.559
10:00 - 11:00	8	73	0.105	10.045	8	73	0.163	15.643	8	73	0.268	25.688
11:00 - 12:00	8	73	0.111	10.703	8	73	0.103	9.880	8	73	0.214	20.583
12:00 - 13:00	8	73	0.153	14.655	8	73	0.129	12.350	8	73	0.282	27.005
13:00 - 14:00	8	73	0.137	13.173	8	73	0.129	12.350	8	73	0.266	25.523
14:00 - 15:00	8	73	0.115	11.033	8	73	0.166	15.973	8	73	0.281	27.006
15:00 - 16:00	8	73	0.170	16.302	8	73	0.137	13.173	8	73	0.307	29.475
16:00 - 17:00	8	73	0.168	16.137	8	73	0.132	12.679	8	73	0.300	28.816
17:00 - 18:00	8	73	0.252	24.206	8	73	0.130	12.515	8	73	0.382	36.721
18:00 - 19:00	8	73	0.232	22.230	8	73	0.148	14.161	8	73	0.380	36.391
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			1.736	166.642			1.865	178.991			3.601	345.633

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

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

Parameter summary

Trip rate parameter range selected:	28 - 132 (units:)
Survey date range:	01/01/09 - 07/11/16
Number of weekdays (Monday-Friday):	8
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 H



ttp consulting
transport planning specialists

Thames Properties Ltd

**Former Cox & Wyman Works,
Cardiff Road, Reading**

Residential Travel Plan

October 2017

TTP Consulting Ltd
111-113 Great Portland Street
London W1W 6QQ
Tel: 020 7100 0753

www.ttp-consulting.co.uk

Registered in England: 09931399

Contents

1	INTRODUCTION	1
	Scope.....	2
2	POLICY	3
	National Planning Policy Framework (NPPF).....	3
	Core Strategy – Reading Borough Council	3
3	ACCESSIBILITY AND TRAVEL PATTERNS.....	4
	Access on foot	5
	Access by bicycle.....	5
	Public Transport Services.....	6
	Bus Services	6
	Rail Services	7
	Car Clubs	8
	Travel Patterns.....	8
4	OBJECTIVES AND TARGETS.....	10
	Objectives	10
	Targets	10
	Aim Targets	11
5	TRAVEL PLAN STRATEGY.....	13
	Travel Plan Coordinator	13
	Travel Plan Coordinator	14
	Travel Plan Phases	14
	Marketing Strategy	15
6	MEASURES AND INITIATIVES.....	16
	Introduction	16
	Measures to Encourage Walking	16
	Measures to Encourage Cycling	17
	Measures to Encourage Public Transport Use.....	18
	Car Travel	18
	Measures for Disabled Persons	19
	Personalised Travel Planning	19
	Travel Pack.....	20
7	MONITORING AND REVIEW	21
	Monitoring	21
	Reporting	21
	Review.....	22
	Remedial Measures	22
8	ACTION PLAN	23

9 SECUREMENT AND FUNDING 24

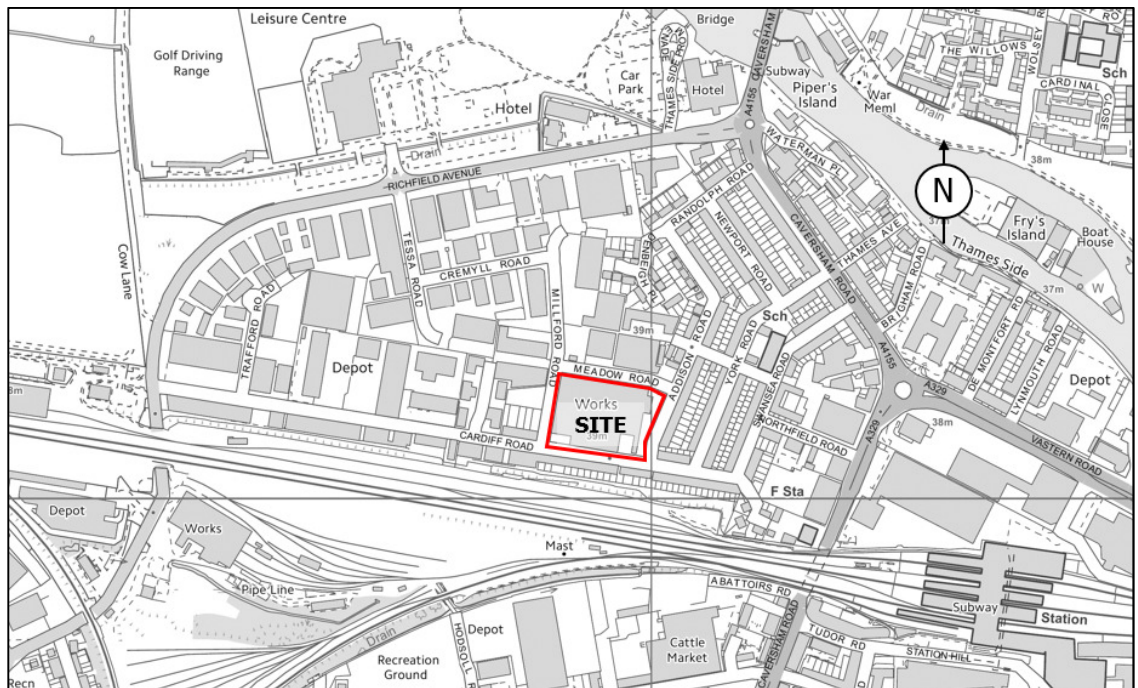
Appendices

- Appendix A - Local Bus Route Maps
- Appendix B - Local Cycle Maps
- Appendix C - Residential Travel Survey Questionnaire

1 INTRODUCTION

- 1.1 This Draft Travel Plan has been prepared for the residential development at the former Cox & Wyman Works, on Cardiff Road ('the site'), located within the Borough of Reading. The site location is shown at **Figure 1.1**.
- 1.2 The development is in an edge of town centre location circa 1km, a 12 – 13-minute walk, from Reading Station and within walking distance of bus routes on Caversham Road.

Figure 1.1: Site Location Plan



- 1.3 The proposed development seeks to provide 96 residential dwellings of varying size and associated parking for 121 vehicles. Cycle parking will be provided in accordance with Reading Borough Council's minimum standards. The proposed plans are included in the associated Transport Statement.
- 1.4 The main aim of this Residential Travel Plan is to put in place the management tools deemed necessary to enable the residents to make more informed decisions about their travel, which at the same time minimises the adverse impacts of their travel on the environment. This is achieved by setting out a strategy for eliminating the barriers keeping residents from using sustainable modes, which in effect can self-manage single-occupancy vehicle use.
- 1.5 This Travel Plan has been prepared in accordance with Travel Plan guidance issued by the Department for Transport.

Scope

- 1.6 This Travel Plan sets out the sustainable travel options available to residents of the development and the measures and initiatives that will be used to incentivise travel by sustainable modes.
- 1.7 The remainder of this Travel Plan is structured as follows:
- Section 2 - Relevant national, regional and local policy guidance;
 - Section 3 - Describes the accessibility and travel patterns of the development;
 - Section 4 - Sets out the objectives and targets of the Travel Plan;
 - Section 5 - Outlines the Travel Plan strategy;
 - Section 6 - Identifies the measures and initiatives that will be implemented;
 - Section 7 - Details the review and monitoring programme;
 - Section 8 - Provides the Action Plan; and
 - Section 9 - Sets out securement and funding.

2 POLICY

National Planning Policy Framework (NPPF)

2.1 The National Planning Policy Framework (NPPF) was published on 27th March 2012 and it sets out the Government's planning policies for England and how these are expected to be applied.

2.2 Chapter 4 – 'Promoting Sustainable Transport' sets out central government national transport policy:

"Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives. Smarter use of technologies can reduce the need to travel. The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas."

2.3 The NPPF states that a key tool to facilitate the use of sustainable transport modes is a Travel Plan and at paragraph 36 states *"all developments which generate significant amounts of movement should be required to provide a Travel Plan."*

Core Strategy – Reading Borough Council

2.4 Reading's Core Strategy was adopted in January 2015 and sets out the Council's adopted planning strategy for the Borough. Within the document, Chapter 7 sets out the Council's adopted transport policy.

2.5 Policy CS23 – Sustainable Travel and Travel Plans states that:

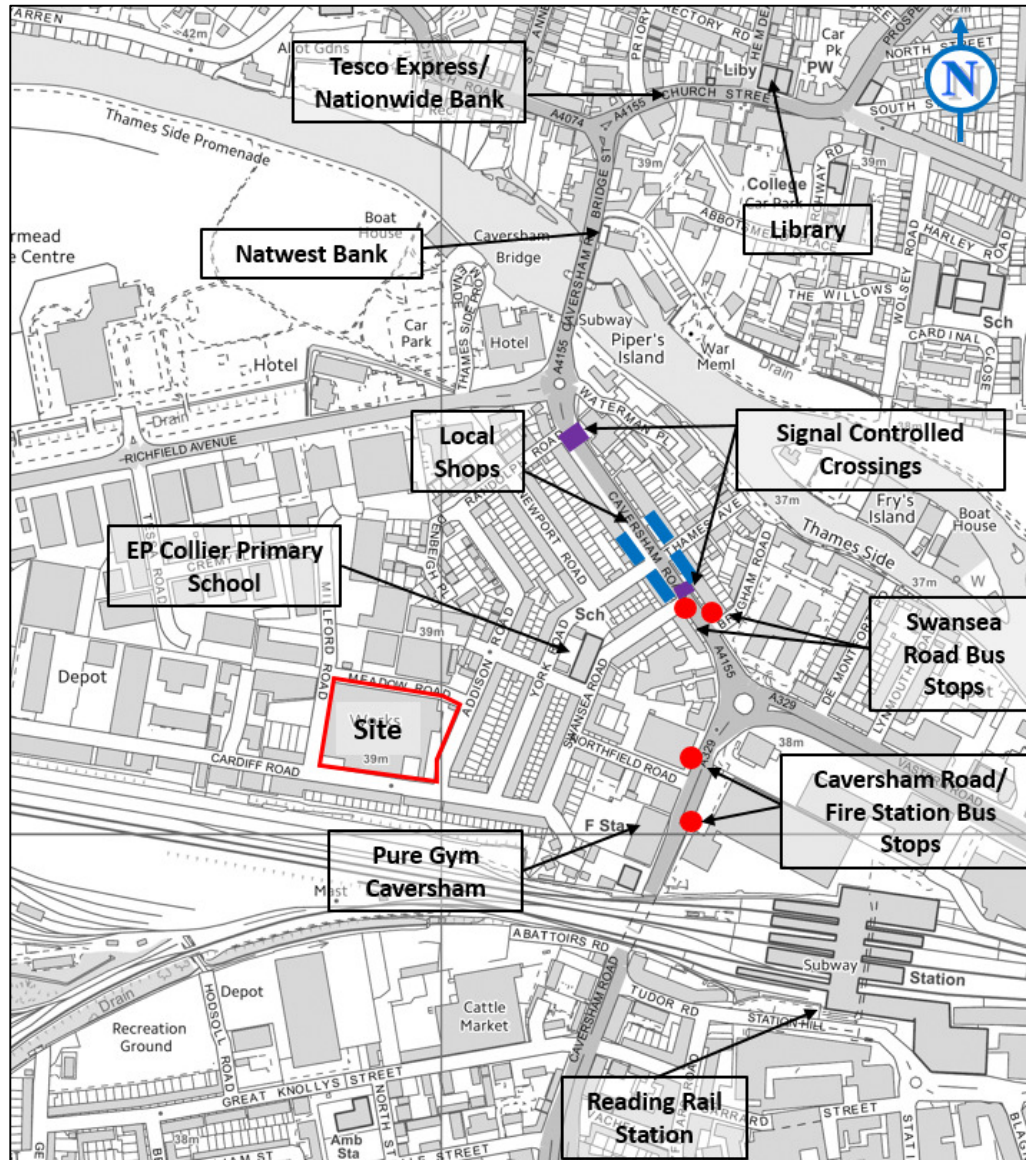
"Planning permission will not be granted for major development proposals unless there is a commitment to implement measures to promote and improve sustainable transport facilities, such as through provision to encourage walking, cycling and the use of public transport; and through agreed travel plans, safe routes to schools, safe routes to parks and similar measures."

2.6 Policy CS24 – Car / Cycle Parking states that maximum car parking standards and cycle parking requirements will be applied to a site in relation to the accessibility within the Borough to sustainable transport facilities, particularly public transport.

3 ACCESSIBILITY AND TRAVEL PATTERNS

- 3.1 The site is well located, on the edge of Reading town centre, circa 1km west of Reading Station. A plan showing local amenities is provided at **Figure 3.1**, which includes local transport opportunities and controlled pedestrian crossings.

Figure 3.1 Local Amenities Plan



- 3.2 There are a variety of facilities and amenities including supermarkets, fitness facilities and health facilities within walking distance.

- 3.3 In particular, Priory Avenue Surgery is the closest GP surgery to the site which is located 1km to the north. There are other GP surgeries within walking distance such as Chatham Street Surgery, Reading Walk-In Health Centre, Abbey Medical Centre and Balmore Park Surgery.
- 3.4 There is a local convenience store on Caversham Road approximately 350m to the northeast of the site. The closest primary school to the site is EP Collier Primary School located 300m northeast on Swansea Road.

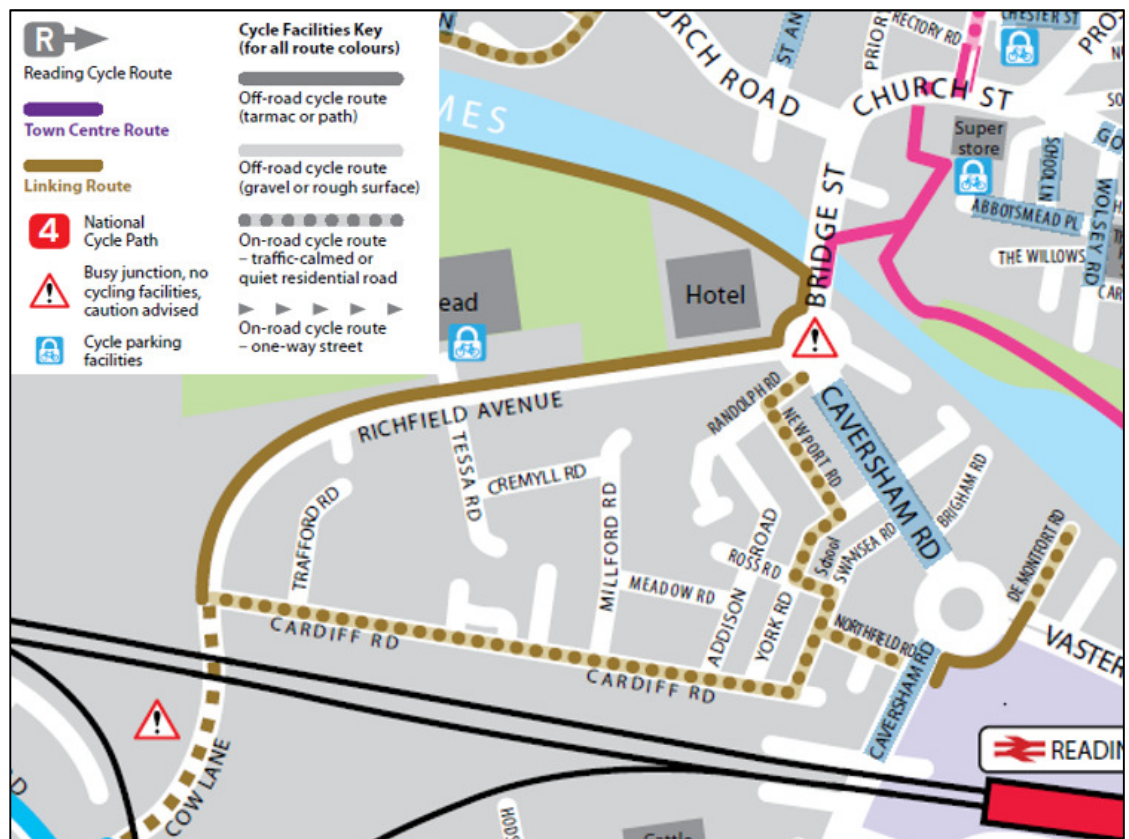
Access on foot

- 3.5 Generally, a person's willingness to walk is dependent on many factors including: access to a car, safety, road congestion, weather, gradients, parking, health, direction of route, and purpose of journey. It is widely accepted that walking has the greatest potential to replace car journeys for distances less than 2km.
- 3.6 There are footways adjacent to all residential roads with footways generally between 1.8 – 2m in width and street lighting columns present at regular intervals.
- 3.7 There are three pelican crossings over Caversham Road, one is to the east of the site, facilitating access to the town centre and Reading Station, one is just north of the junction with Swansea Road and the other is close to the Caversham Bridge roundabout.

Access by bicycle

- 3.8 Traditionally cycling is considered to offer the potential to substitute for short car trips, particularly those under 5km, which is equivalent to approximately 20-minutes riding time.
- 3.9 The site is located within Reading Cycle Map 'R5 West Reading' where Cardiff Road is identified as an '*on-road cycle route – traffic calmed or quiet residential road*'. An extract of the Reading cycle map is included at **Figure 3.2** whilst the full map is contained in **Appendix B**.
- 3.10 The Cardiff Road on-road route connects:
- to the north to Route R40 at Church Street and National Cycle Path 5;
 - to the southwest to Richfield Avenue and Cow Lane providing access to Route R5 which runs to Tilehurst Station; and,
 - to the east to Reading station where there is cycle parking for more than 600 bicycles.

Figure 3.2: Local Amenities Plan



Public Transport Services

Bus Services

- 3.11 The closest northbound and southbound bus stops on Caversham Road approximately 350m northeast of the site are served by 12 bus routes. There are also bus stops located on Caversham Road approximately 450m east of the site which are served by a further 5 bus routes. These routes provide access to destinations including Reading town centre, Tilehurst, Southcote, Caversham, the Madejski Stadium and High Wycombe.
- 3.12 Route maps are contained in **Appendix C**, whilst **Table 3.1** summaries the local bus routes and service frequencies.
- 3.13 There are also 2 – 3 bus services each hour that operate between Heathrow Airport and Reading Station.

Table 3.1 – Bus Services

Bus Stop	Route Number	Route	Frequency (minutes)		
			Mon-Fri	Sat	Sun
Caversham Road (350m northeast 4 minutes' walk)	27	Lower Caversham to Central Reading	30	30	60
	800	High Wycombe to Reading	60	60	60
	Community Link 28	Caversham Park to Purley	(2 services per day in each direction)		
	Community Link 28A	Kentwood Oak Tree Road and King's Meadow adjacent to Tesco	(1 service towards Caversham and 2 towards Kentwood per day)		
	F10	Birdwood Court to the Madejski stadium	Match Days only		
	F11	Emmer Green to the Madejski Stadium	Match Days only		
	F12	St Barnabas Church to the Madejski Stadium	Match Days only		
	Pink 22	Friar Street to St Andrew's Library	10-20	10-20	20
	Pink 24	Friar Street to Chalgrove Way	10-20	10-20	20
	X39	Oxford St Aldates to Reading Station	60	60	-
	X40	Oxford St Aldates to Reading Station	35-70	30-60	60
	X80	Reading Friar Street to High Wycombe	60	60	-
Caversham Road (450m east 5 minutes' walk)	29	Nire Road to Lower Caversham	30	30	60
	921	Chiltern Edge School to Caversham Road	School Bus (1 morning and 1 afternoon service)		
	922	Chiltern Edge School to Caversham Road	School Bus (1 morning and 2 afternoon services)		
	Pink 23	Queensway to Friar Street, Reading	20	20	-
	Pink 25	Peppard Common to Friar Street	30	30	60

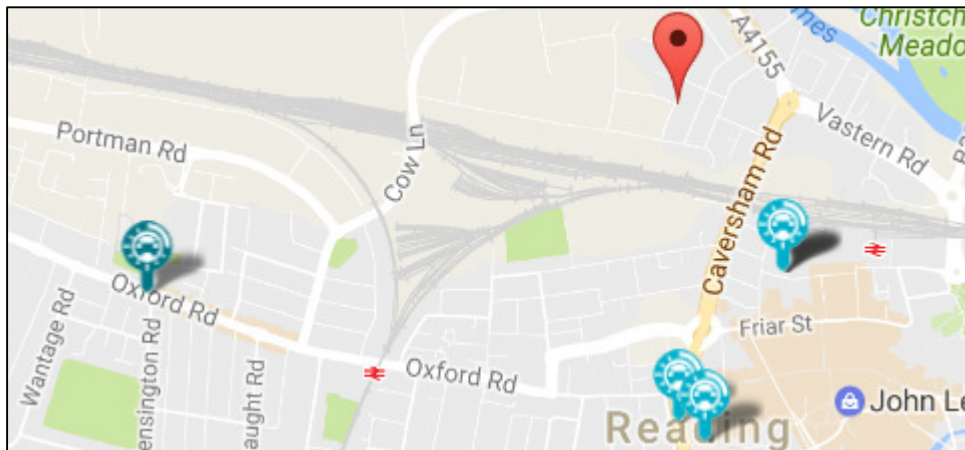
Rail Services

- 3.14 Reading Station, located approximately 1km east of the site, is managed by National Rail and is served by Great Western Railway, CrossCountry Trains and South West Trains.
- 3.15 Services each hour include: 13 to London Paddington, 8 to Oxford, 5 to Ealing Broadway, and 4 to Bristol Temple Meads and Newbury. There are also at least 2 services each hour to Basingstoke, Cardiff Central, London Waterloo, Worcester Shrub Hill, Redhill and Swansea, and 1 each hour to Manchester Piccadilly, Southampton Central, Gatwick via Guildford, Bedwyn, Bournemouth and Plymouth.

Car Clubs

- 3.16 Car Clubs can help to reduce car ownership by offering the convenience of a car without the costs of repairs, servicing, insurance and parking. **Figure 3.3** provides a map of local car club vehicles extracted from the Carplus website. There are existing car club bays within walking distance of the site, including two bays on Garrad Street, located 1km southeast of the site and two located adjacent and behind Broad Street Mall, a 1.3km walk south of the site.

Figure 3.3: Map of Car Club Bays in Proximity to the site



Travel Patterns

- 3.17 **Table 3.3** sets out the predicted mode split at the residential development based on Method of Travel to Work Census 2011 data for the resident population in the local (Reading 007) lower level super output area.

Table 3.3: Predicted Mode Split Percentage	
Mode	Census Modal Split for Output Area in Reading [007]
Car Driver	39%
Car passenger	4%
Rail	14%
Bus	14%
Motorcycle	1%
Cycle	4%
Walk	24%
Total	100%

- 3.18 For the purpose of this Travel Plan, the Baseline Mode Share in the table has been used for target setting purposes until the initial (Year 0) travel survey is undertaken.
- 3.19 A travel survey will be given to each household within 3 months of occupation, with a follow up survey once 75% of the residential units are occupied to establish how residents travel each day, the results of which will be classified as Year 0 and will be used to ratify the Baseline Mode Share and targets.

4 OBJECTIVES AND TARGETS

4.1 This section sets out the overarching objectives for the Travel Plan, as well as targets for the short and medium term.

- *Objectives are the high-level aims of the Travel Plan. They help to give the Travel Plan direction and provide a clear focus.*
- *Targets are the goals by which progress will be assessed.*

Objectives

4.2 The Travel Plan's overriding objective is:

"To engage with and encourage residents to use more sustainable ways of travelling to / from the development through more effective promotion of active modes. This will minimise the impact of the development on the surrounding highway network. "

4.3 The sub-objectives are:

- a) Sub-objective 1: To increase resident awareness of the advantages and availability of sustainable / active modes of transport;
- b) Sub-objective 2: To promote the health and fitness benefits of active travel to all users;
- c) Sub-objective 3: To introduce a package of physical and management measures that will facilitate resident travel by sustainable modes; and therefore,
- d) Sub-objective 4: To reduce unnecessary use of the car for the journey to and from the development by residents and visitors.

Targets

4.4 Targets are essential for the success of the Travel Plan. The key Action Targets are set out below:

- a) A Residential Travel Plan Co-ordinator (TPC) will be appointed at least one month before the first residential unit is occupied and will remain in place for the duration of this Travel Plan i.e. 5 years;

- b) Residents will be provided with a Travel Pack, detailing the Measures set out in this document, on occupation of their unit;
- c) Each monitoring survey will occur within one month of the anniversary of the baseline survey in each survey year (as detailed in the Monitoring section); and
- d) A sustainable transport noticeboard will be provided and located in a prominent location. The noticeboard will be periodically updated so that it details up-to-date information.

Aim Targets

4.5 **Table 4.1** outlines the Aim Targets set out for the residential units for journeys to work. The targets are set to measure progress towards the main objectives over five years, from the date of the Baseline Survey. The interim targets are defined as those which the residential use seeks to achieve within 1 and 3 years of the launch of the Travel Plan and the final targets those which the residential use seeks to achieve within 5 years of the launch of the Travel Plan. For the purposes of this document, the Baseline figures are taken from the local Census Data 2011 (See also **Table 3.3** above).

Table 4.1: Travel Plan AIM Targets					
Target	Indicator	Mode Split			
		Baseline Year 0	Interim Year 1	Interim Year 3	Final Year 5
Residents					
Achieve a 8% reduction in car driver trips	Modal Split monitoring from travel survey	39%	37%	34%	31%
Achieve a 2% increase in public transport	Modal Split monitoring from travel survey	28%	29%	29%	30%
Achieve an increase in cycling by 4%	Modal Split monitoring from travel survey	4%	5%	7%	8%
Achieve an increase in walking by 2%	Modal Split monitoring from travel survey	24%	24%	25%	26%
Visitors					
Increase the awareness of cycling and walking as viable options available to access the development	No Surveys Necessary	-	-		-

- 4.6 Indicators are the elements which will be measured in order to assess progress towards meeting the final and interim targets. For the most part this will be the main mode listed by residents of the development in the monitoring surveys conducted in years 1, 3 and 5.

5 TRAVEL PLAN STRATEGY

Travel Plan Coordinator

- 5.1 A Travel Plan Coordinator (TPC) will be appointed at least one month before the occupation of the first residential unit. The Travel Plan Coordinator will be a member of the Estate Management Team or other suitably qualified person, be responsible for the implementation of the Travel Plan, and will allocate sufficient time to be agreed with the Site Owner and the Council to carry out their duties.
- 5.2 The performance plan transition will see the handover of the Travel Plan from the Developer to the Travel Plan Co-ordinator (TPC) of the residential units. Following the handover, the TPC will be responsible for overseeing the management, development, implementation, monitoring and review of the Travel Plan.
- 5.3 The TPC will be allocated a specific amount of time to dedicate to the implementation of the Travel Plan, which will be agreed with the applicant and Reading Borough Council, for example the TPC could be allocated half a day per month in which to carry out their duties.
- 5.4 The primary responsibilities of this role include:
- Launch the Travel Plan within 1 month of occupation of first residential units;
 - To undertake the Baseline Travel Survey (Year 0);
 - The implementation of measures as set out in the Travel Plan (including reviewing the Travel Pack and noticeboards to ensure they are up-to-date).
 - To undertake Interim Travel Surveys in Years 1, 3 and 5 and supply evidence of this to Reading Borough Council within a short report within one month of surveys;
 - To oversee the development and implementation of the Travel Plan;
 - Promoting the objectives and benefits of the Travel Plan;
 - To ensure the travel information available is up to date;
 - Liaison with Reading Borough Council;
 - Acting as the point of contact for information with residents. and
 - Updating of the Travel Plan.

Travel Plan Coordinator

5.5 The TPC contact details are as follows;

Name: _____

Telephone: _____

Email: _____

Travel Plan Phases

5.6 The Developer is committed to the Travel Plan and will ensure the TPC commits as much time to the Travel Plan as necessary so that it can achieve its Objectives. The various phases of this Travel Plan, who is responsible for each phase and the target date for completion is detailed in **Table 5.1** below.

Table 5.1: Travel Plan Phases		
Travel Plan Phase	Responsibility	Target Date
Handover Travel Plan	Developer to TPC	At least 1 month prior to occupation of the first residential unit
Launch Travel Plan	TPC	Within 1 month of occupation of first residential units
Carry Out Baseline Travel Survey (Year 0)	TPC	To be carried out within 3 months of occupation, with a follow up survey once 75% of the residential units are occupied
Implement Travel Plan measures and initiatives	TPC	Ongoing
Carry out Monitoring Surveys	TPC	On the anniversary of Year 0 survey
Submit a short Update on Progress Report to the local planning authority	TPC	Within 1 month of the Monitoring Surveys
Full Review at end of Year 5	TPC	On the 5th anniversary of the Initial Year 0 Travel Survey

Marketing Strategy

- 5.7 Each resident will be provided with a Travel Pack on first occupation. The Travel Pack will include a summarised version of the Travel Plan along with information on public transport, the local walking and cycling network, contact details for taxi operators, and Car Club operators.
- 5.8 Residents will, as a consequence, be made aware of the Travel Plan and of its branding, including the purpose and objectives of the Travel Plan, along with specific measures such as cycle parking. In conjunction with the Travel Pack, marketing activity will be undertaken during point of sale (where possible).

6 MEASURES AND INITIATIVES

Introduction

- 6.1 This section of the Travel Plan outlines the specific physical and management measures to be implemented as part of the Travel Plan which will help achieve the set targets. The implementation of the listed measures, which include awareness initiatives and infrastructure provision, is the core of the Travel Plan.
- 6.2 The Travel Plan Coordinator will encourage walking, cycling and public transport use and advise residents on the opportunities to car share.
- 6.3 The measures outlined below have been agreed with the Site Owner as being suitable for the Site, however, the list is not exhaustive and the Travel Plan Coordinator is encouraged to investigate other potential initiatives and update the Travel Plan accordingly.

Measures to Encourage Walking

Walking Strategy 1: Promoting Benefits of Walking

- 6.4 Walking is a truly sustainable method of travel which offers predictable journey times and a range of physical and psychological benefits.
- 6.5 The Travel Plan Coordinator will develop marketing materials to highlight the health benefits of walking and provide information and advice to residents concerning suitable routes.
- 6.6 The Travel Plan Coordinator will ensure the residents are aware of 'walking' initiatives set up by the Local Council and non-profit organisations, including:
- 10,000 steps a day campaign – Part of the NHS Live Well campaign to improve health and fitness;
 - Walking Works – A website providing tips on how to get friends, family and colleagues walking;
 - National Walking Month – May is National Walking Month and is promoted by Living Streets; and
 - Ramblers Association – National organisation to promote walking and campaign to improve conditions for walkers.

Walking Strategy 2: Maintaining Infrastructure

- 6.7 Well-maintained footways, lighting and signage are present in the area surrounding the site and an attractive open space within the site will provide a quality pedestrian environment and playspace. Internal walking routes and footways will be maintained by the Estates Management Team.
- 6.8 The Travel Plan Coordinator will identify, through discussion with residents, problems with external pedestrian routes and discuss possible improvements with the highway authority as appropriate.

Measures to Encourage Cycling

Cycling Strategy 1: Promoting Cycling

- 6.9 Cycling is generally accepted as a good mode of transport to replace car journeys up to 8km. It is also free (excluding the purchase and maintenance of the bicycle) and would form part of a person's daily exercise.
- 6.10 Feedback from residents will be sought to determine the level of demand for such training events and services and these shall be promoted accordingly. Furthermore, the Travel Plan Coordinator will explore with local bicycle retailers the possibility of providing discounts on cycling equipment to residents. If available, the take up of this discount will be monitored.
- 6.11 Cycle routes and other cycling information will be provided in the Travel Pack.

Cycling Strategy 2: Cycling Infrastructure

- 6.12 Cycle parking will be provided within the development:
- Townhouses will either have a bike locker, shed or garage to store their bikes; and
 - The shared cycle store for the flats will be secure, lit and weatherproof.

Cycling Strategy 3: Initiatives

- 6.13 There are a number of 'cycling' initiatives set up by the Local Council and non-profit organisations which the Travel Plan Coordinator will ensure the residents are aware of, including:
- Bike Week (www.bikeweek.org.uk), the biggest nationwide cycling event in the UK which usually takes place in June each year;

- Bike 2 Work (www.bike2workscheme.co.uk) enables employees to be able to obtain a voucher to purchase a bicycle / equipment for a reduced amount of money. The Travel Plan Coordinator will promote the scheme to residents and encourage them to approach their employees about the scheme.
- The Travel Reading Live website: <http://www.reading-travelinfo.co.uk/cycling/central-reading-cycle-map.aspx> provides cycle network routes, maps and information that can be provided to residents.

Measures to Encourage Public Transport Use

- 6.14 Residents will be advised of the best ways to seek out the most-up-to-date travel information for local and national public transport services, including the use of smart phone technology.

Public Transport Strategy 1: Promoting Public Transport

- 6.15 Increased use of public transport is a fundamental aspect of the Government's sustainable transport strategy.
- 6.16 It is important to recognise that, where possible, walking and cycling are usually favourable to public transport because they have fewer environmental impacts and offer health benefits. Nevertheless, public transport remains important and up-to-date details of bus, train and taxi services, including route information and service frequencies, will be made available to residents. National Rail's website and enquiry phone numbers will also be promoted through all relevant means.
- 6.17 The Travel Plan Coordinator will promote sustainable travel for general travel as part of a healthier way of life not only for travel to and from the development.

Car Travel

- 6.18 There will be 121 parking spaces on-site for the development. The developer is willing to enter into a permit-free agreement for all dwellings to ensure there is no impact from overspill resident parking on the local streets that are permit controlled.

Car Travel Strategy 1: Encouraging Car Sharing

- 6.19 The Travel Plan Coordinator will advise residents who do need to travel by car of the lift share website which helps people to find others travelling the same way as them so they can share their journey. More information can be found at: <https://liftshare.com/uk>

Car Travel Strategy 2: Visitor Parking

- 6.20 The loading bay on Meadow Road has the potential to be converted into 11 shared use parking spaces for use by visitors to the development and those living in the wider area.

Car Travel Strategy 3: Car Club

- 6.21 Car clubs enable residents to have access to a car without the need to own one or pay for maintenance and running costs.
- 6.22 The TPC, through the Travel Pack and the Personalised Travel Planning sessions detailed below, will advertise the benefits of belonging to the Car Club. Car Clubs offer economic (no tax, MOT, fuel, servicing, repairs, depreciation and parking costs) and environmental benefits over owning and running a car, particularly if a resident rarely uses a vehicle.
- 6.23 There are existing car club bays within walking distance of the site, including two bays on Garrad Street, located 1km southeast of the site and two located adjacent and behind Broad Street Mall, a 1.3km walk south of the site.

Car Travel Strategy 4: Taxis

- 6.24 Taxis have an important role in providing for residents and visitors when other modes of transport may not be available. The TPC will ensure that the contact details for local taxi operators are available in the Travel Packs.

Measures for Disabled Persons

Disabled Persons Strategy 1: Disabled Parking Spaces

- 6.25 Whilst dedicated wheelchair accessible spaces have not been identified on the plans, all of the office / garage parking spaces have the potential to be able to accommodate wheelchair users with additional space around each parking space. Likewise, some of the bays along the two cul-de-sacs and within the parking court have space surrounding the bays or a dedicated 1.2m transfer zone adjacent, which would be suitable for wheelchair users.

Personalised Travel Planning

- 6.26 The Travel Plan Coordinator will offer a personalised Travel Planning service for all residents, if requested. The Travel Plan Coordinator will be able to draw on advice from journey planning websites such as <http://www.traveline.info/>.

Travel Pack

6.27 Residents will be issued with a Travel Pack which will contain the following information:

- Details of the Car Club locations in the surrounding area;
- Public transport and cycle maps;
- Timetables for local public transport services;
- Details of recommended walk routes and key destinations e.g. local amenities; and
- Details of the Travel Plan Coordinator and Travel Plan.

6.28 There will be regular updates to the Travel Pack to ensure its content remains relevant.

7 MONITORING AND REVIEW

- 7.1 The Travel Plan is part of a continuous process for improvement, requiring monitoring, review and revision to ensure it remains relevant. This section sets out the proposals for monitoring and review of the Travel Plan.

Monitoring

- 7.2 All monitoring will follow the most up to date Reading Borough Council guidance and will be the responsibility of the applicant / Estate Management Company.
- 7.3 The monitoring programme begins with the initial Year 0 baseline travel survey. The Travel Plan will be monitored for 5 years. Travel surveys will take place on the 1st, 3rd and 5th anniversary of the Year 0 Travel Survey to monitor progress towards the interim and final targets. An example Travel Questionnaire Survey is provided at **Appendix D**.
- 7.4 Additional monitoring of the following will also be used to judge whether the implementation or proportion of certain measures needs to be modified. The following factors will be monitored on a constant basis:
- a) The level of usage of residential cycle stands;
 - b) Demand for additional cycle parking facilities; and
 - c) Comments received from residents relating to the operation and implications of the Travel Plan.
- 7.5 A Travel Plan Review will occur each year over the lifetime of the Plan that will ensure the Travel Plan remains up-to-date. The Review will include updates to the Travel Pack to ensure their content remains relevant.

Reporting

- 7.6 The TPC will compile a report each year that will include the results of any monitoring that has been undertaken, including the above factors. The report will be issued to Reading Borough Council in the form of an email.

Review

7.7 The review of the Travel Plan which will be carried out after each monitoring survey in consultation with Reading Borough Council Travel Plan officers will consider the following;

- The success of the measures since the previous review;
- The need to amend or introduce new targets; and
- The need to change or introduce new measures.

Remedial Measures

7.8 In the event that the Review Report shows that the Travel Plan has not met its objectives/targets in any respect, then the Travel Plan Coordinator with the support of the Site Owner / Estate Management Team shall implement remedial measures.

7.9 The remedial measures include:

- A review of the amount of time spent by the Travel Plan Coordinator implementing the Travel Plan. If the allotted time is not sufficient then more time will be allocated to the Travel Plan Coordinator role to ensure each initiative is put in place. This review will take place within 6 months and again at 12 months.
- A review of the utilisation of cycle parking spaces will take place as part of the monitoring process. If, following review during the summer months or following 6 months of occupation, whichever comes first, additional cycle spaces are required, then they will be provided in the existing parking areas.
- Following the results of the 3rd Interim Travel Survey (Year 3), should targets not be met then the Travel Plan Coordinator will work with the Site Owner and Estate Management Team to implement further promotion of certain initiatives as appropriate. The aim will be to ensure the uptake of certain measures i.e. personalised journey planning, car club use, cycling proficiency training and on-Site bike mechanic courses.

8 ACTION PLAN

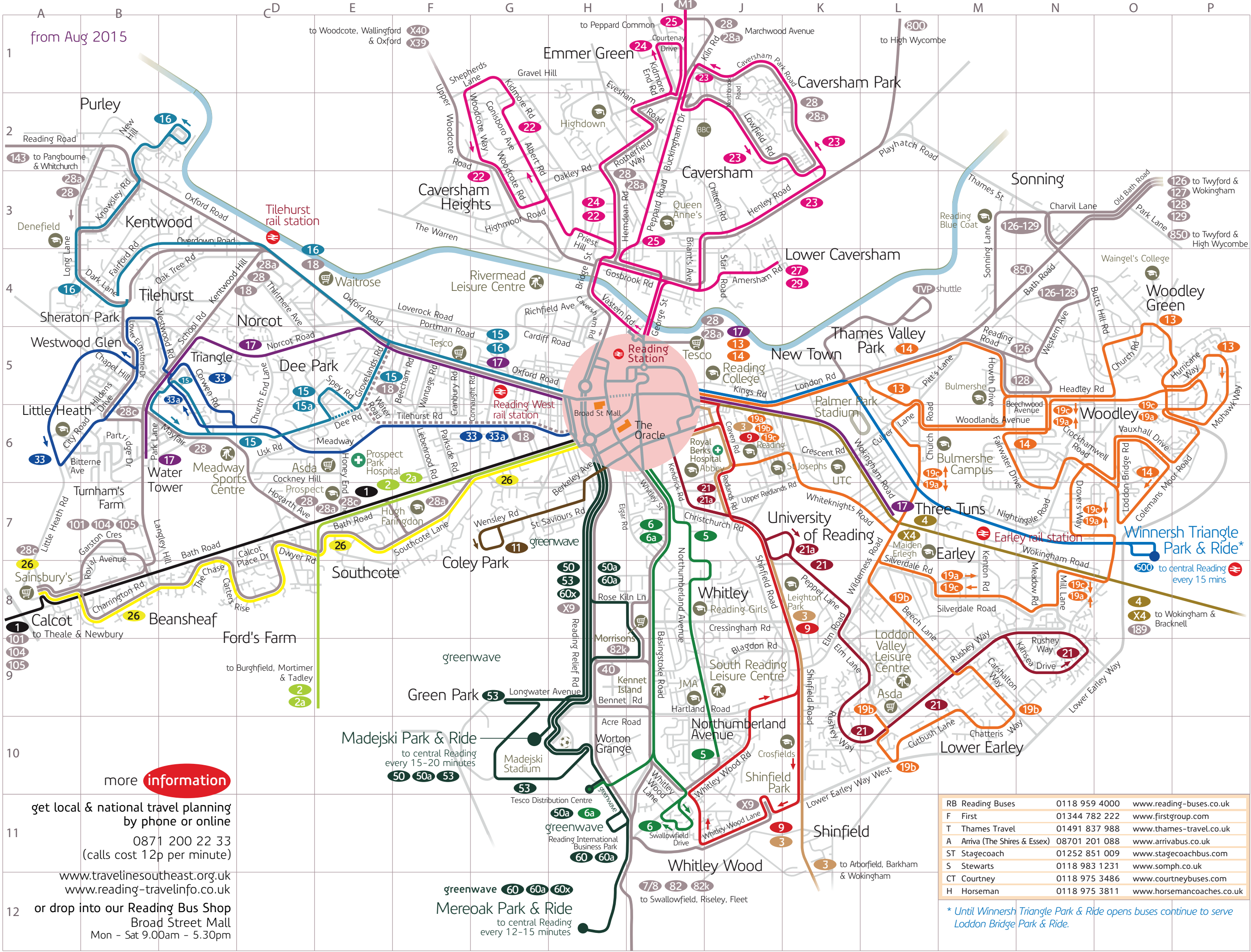
8.1 **Table 8.1** sets out the Action Plan for the implementation of the various measures associated with the Travel Plan along with who is responsible and how funding will be secured.

Table 8.1: Travel Plan Action Plan					
Action	Target	Funding	Measure	Responsibility	Cost
Production of Travel Plan	The Developer / TTP Consulting	Site Owner	Travel Plan	Developer	Time-spent
Appointment of Residential Travel Plan Co-ordinator	One month prior to first occupation	Site Owner	Appointment of Travel Plan Co-ordinator	Developer	Time-spent
Launch Travel Plan	Within 1 months of the occupation	Site Owner	-	Developer	Time-spent
Provision of Cycle and Car Parking	Prior to first occupation	Site Owner	On completion of the development	Developer	
Erection of Travel Noticeboards	Prior to first occupation	Site Owner	On completion of the development	TPC and/or Developer	Printing costs
Production of Travel Pack	To new residents upon occupation	Site Owner	Completed Travel Pack	TPC	Time-spent and printing costs (£300 per year)
Baseline Travel Survey (Year 0)	Given to each household within 3 months of occupation or after 75% of units are occupied	Site Owner	Receipt of survey results	TPC	Time-spent
Interim Surveys	At Years 1 and 3	Site Owner	Receipt of survey results	TPC	Time-spent
Full Review at end of Year 5	5 years after Baseline Survey	Site Owner	Receipt of survey results	TPC	Time-spent

9 SECUREMENT AND FUNDING

- 9.1 This Travel Plan will be secured and implemented through a S106 agreement or planning condition.
- 9.2 The Site Owner is fully committed to the implementation of the Travel Plan and will provide all reasonable necessary funding to ensure that the agreed targets are achieved. This will include funding the Travel Plan Co-ordinator, travel surveys and implementation of all reasonable necessary measures.

Appendix A



from Aug 2015

1

2

3

4

5

6

7

8

9

10

11

12

get local & national travel planning by phone or online

0871 200 22 33 (calls cost 12p per minute)

www.travelinesoutheast.org.uk

www.reading-travelinfo.co.uk

or drop into our Reading Bus Shop

Broad Street Mall

Mon - Sat 9.00am - 5.30pm

RB Reading Buses	0118 959 4000	www.reading-buses.co.uk
F First	01344 782 222	www.firstgroup.com
T Thames Travel	01491 837 988	www.thames-travel.co.uk
A Arriva (The Shires & Essex)	08701 201 088	www.arrivabus.co.uk
ST Stagecoach	01252 851 009	www.stagecoachbus.com
S Stewarts	0118 983 1231	www.somph.co.uk
CT Courtney	0118 975 3486	www.courtneybuses.com
H Horseman	0118 975 3811	www.horsemancoaches.co.uk

* Until Winnersh Triangle Park & Ride opens buses continue to serve Loddon Bridge Park & Ride.

Appendix B

R5

Avoid congestion through the Oxford Road local centre by cycling along the off-road cycle path on **Portman Road** and **Oxford Road** west all the way to **Tilehurst Station**. Remember that traffic is moving slowly, usually less than 20mph past **Oxford Road Primary School**, so if you want to move quickly, pass vehicles on their right. To get into the bus lane towards town, position yourself in the centre of the road.

R5 Route Gradients

Metres

30
40
50



A

6 mins



Norcot Road Junction

B

4 mins



West Village (Battle Hospital Development)



D

3 mins

Reading West Station



3 mins

Town Centre



E

Chatham Place

West Reading

R5

Tilehurst Station, The West Village & Oxford Road to Reading Town Centre



Reading Cycle Routes

Other Cycle Maps

R1 **R10**

South Reading Green Park & Whitley

R50

West Reading Tilehurst & Prospect Park

R6 **R60**

South-West Reading Coley Park & Southcote

Reading Network

Available from:



0118 939 0900
www.reading.gov.uk

Winter/Spring 2010



Reading Cycle Routes

Legend



Reading Cycle Route

Town Centre Route

Linking Route

4 National Cycle Path

Busy junction, no cycling facilities, caution advised

Cycle parking facilities

Cycling prohibited

Railway Station

Pedestrian Light Controlled Crossing

Toucan (Cycle) Light Controlled Crossing

Underpass /Subway

Cycle Facilities Key (for all route colours)

Off-road cycle route (tarmac or path)

Off-road cycle route (gravel or rough surface)

On-road cycle route – traffic-calmed or quiet residential road

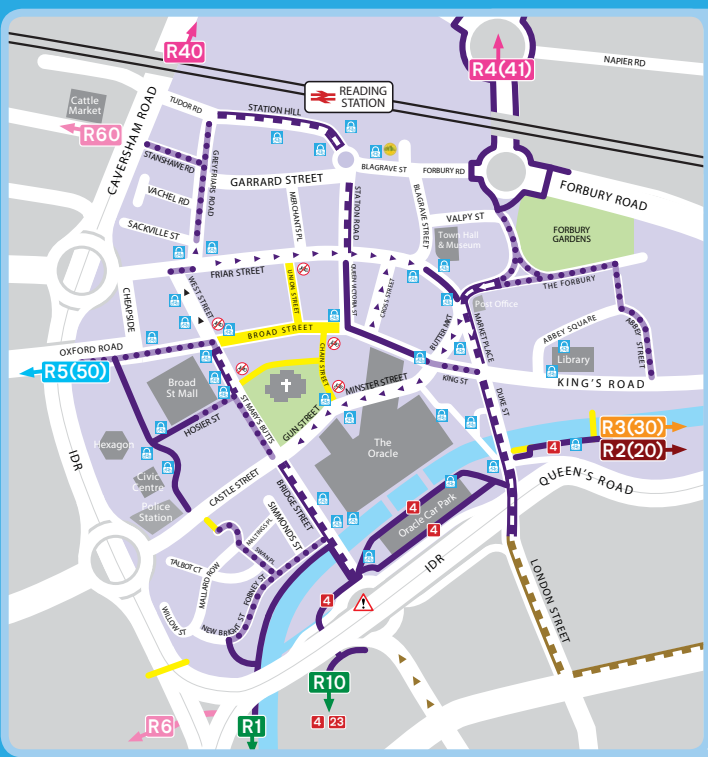
On-road cycle route – one-way street

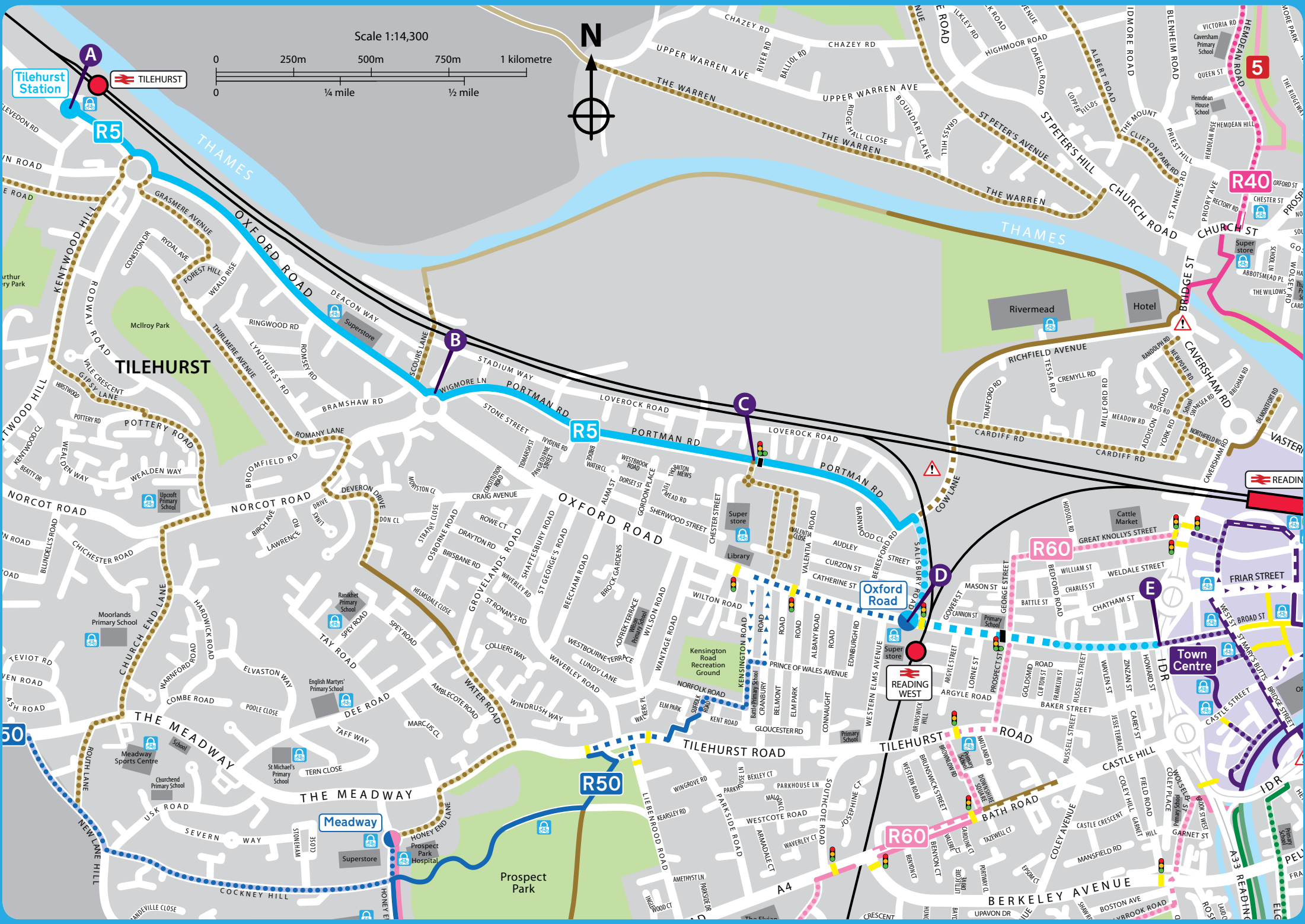
On-road cycle way / shared bus lane (one direction)

On-road cycle way / shared bus lane (both directions)

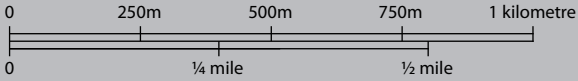
On-road route without dedicated facilities

Pedestrians only, cyclists dismount





Scale 1:14,300



Tilehurst Station

R5

TILEHURST

R5

R50

Meadway

Oxford Road

READING WEST

R60

R60

5

R40

R60

Town Centre

R60

R60

R60

Appendix C

Travel Survey Questionnaire

As part of the Travel Plan, a travel survey is being undertaken so we can understand your travel patterns and would appreciate your assistance by completing this questionnaire.

The information you provide will be treated in the strictest confidence with no reference to individuals. For further information please contact _____ on _____. Please put your completed questionnaire in the box in the reception area. Thank you in advance for your help.

1. What is your workplace postcode? _____

2. What time do you normally arrive at work?

07:00 – 10:00 (01) ☐ 10:00 – 16:00 (02) ☐ 16:00 – 19:00 (03) ☐ After 19:00 (04) ☐

3. What time do you normally leave work?

07:00 – 10:00 (01) ☐ 10:00 – 16:00 (02) ☐ 16:00 – 19:00 (03) ☐ After 19:00 (04) ☐

4. On average, how long does your journey take?

0 – 15min (01) ☐ 16 – 30min (02) ☐ 31 – 45min (03) ☐ 46 – 60min (04) ☐

61 – 75min (05) ☐ 76 – 90min (06) ☐ Over 90min (07) ☐

5. Approximately how far is your journey?

0 – 1 mile (01) ☐ 1 – 2 miles (02) ☐ 2 – 5 miles (03) ☐ >5 miles (04) ☐

6. What is your MAIN mode of transport (i.e. the longest part of your journey)?

Drive alone (01) ☐ Car share - driver (02) ☐ Car passenger (03) ☐ Bus (04) ☐

Train (05) ☐ Underground (06) ☐ Walk (07) ☐ Cycle (08) ☐

Motorbike (09) ☐ Taxi (10) ☐ Other (11) ☐

7. What alternative mode of transport would you consider if your usual mode wasn't available?

Drive alone (01) ☐ Car share -driver (02) ☐ Car passenger (03) ☐ Bus (04) ☐

Train (05) ☐ Underground (06) ☐ Walk (07) ☐ Cycle (08) ☐

Motorbike (09) ☐ Taxi (10) ☐ Other (11) ☐

8. What would encourage you to use an alternative mode of travel?

More frequent bus services (01) ☐ Better pedestrian / cycle routes (02) ☐

A cleaner walking / cycling environment (03) ☐ A friend to walk / cycle with (04) ☐

A safer walking / cycling environment (05) ☐ Cycle training (06) ☐

Better information on alternatives (07) ☐ Nothing (08) ☐

9. In what age category do you fall?

Under 25 (01) ☐ 26 – 40 (02) ☐ 41 – 60 (03) ☐ Over 60 (04) ☐