

# Technical Note - Locational Sustainability Appraisal

Site: Kiln Park, Bath Road, Knowl Hill  
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## 1.0 Introduction

- 1.1 Motion has been commissioned by ET Planning to undertake a Locational Sustainability Appraisal to support a Permission in Principle (PIP) application for development on land at Kiln Park, Knowl Hill, Berkshire.
- 1.2 The site is within Green Belt and ET Planning have undertaken a Grey Belt assessment which indicates the site would meet the 'grey belt' tests within the National Planning Policy Framework (December 2024)(NPPF). This Technical Note supplements this Grey Belt assessment with regards the requirements of Paragraphs 110 and 115 of the NPPF.
- 1.3 Paragraph 110 of the NPPF states:

*"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."*

While Paragraph 115 states:

*"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that: a) sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location; b) safe and suitable access to the site can be achieved for all users; c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code48; and d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach"*

- 1.4 It is also noteworthy that Annex 2, Glossary of the NPPF defines sustainable transport modes as "Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, ultra-low and zero emission vehicles, car sharing and public transport."
- 1.5 The following section details the baseline conditions of the site followed by the sustainable appraisal.

## 2.0 Baseline Conditions

- 2.1 The site is located to the north of the A4 Bath Road to the west of the village of Knowl Hill, 2¾ miles north east of the large village of Twyford and 4½ miles west of Maidenhead town centre. The A4 provides connections to Reading to the south west and the A404(M) to the east, which in turns provides connections to the M4 and M40.
- 2.2 The location of the site is detailed within Figure 2.1.

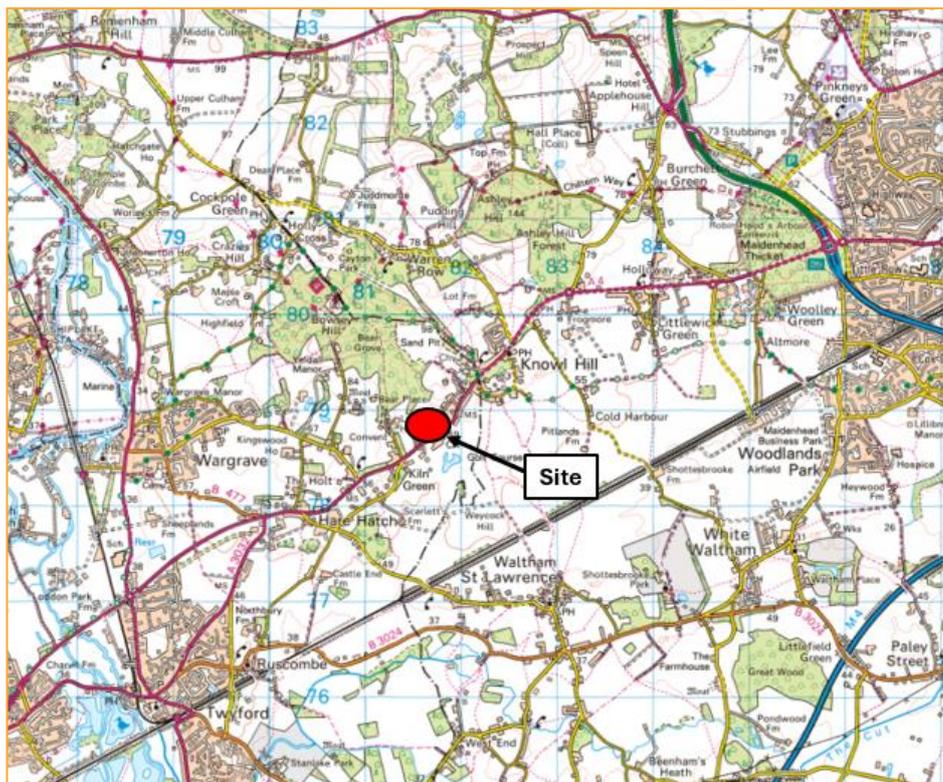


Figure 2.1 – Site Location

2.3 Even though the site is within a village, there are several local facilities available within 1 kilometre of the site as detailed on Figure 2.2 below, with a detailed analysis provided within Section 3. Bus stops on the A4 are within a short walking distance of the site which provide a regular service between Twyford and Maidenhead. Given the rural area of the site, significant local services are available within close proximity of the site. Figure 2.2 details the close proximity of the site to National Cycle Route 4, which links Maidenhead and Reading along off road or quite road routes.

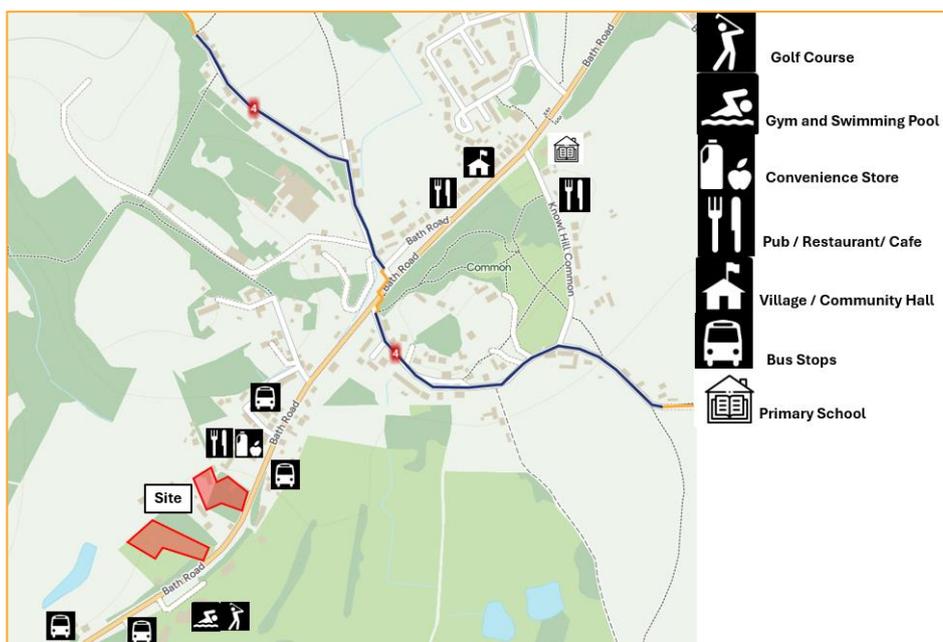


Figure 2.2 – Local Services

## 3.0 Sustainable Appraisal

3.1 It is generally accepted that walking and cycling provide important alternatives to the private car and should be encouraged to form part of longer journeys via public transport. Indeed, it is noteworthy, that the Chartered Institution of Highways and Transportation (CIHT) has prepared several guidance documents that provide advice with respect to the provision of sustainable travel in conjunction with new developments. Within these documents it is suggested that:

- ▶ 80% of journeys one mile, 1.6 kilometres and under are undertaken by foot with an average walking speed of 3 miles per hour (Paragraph 2.1, 'Planning for Walking' 2015).
- ▶ The bicycle is a potential mode of transport for short journeys of up to five miles , 8 kilometres (Section 2, 'Planning for Cycling' 2014).
- ▶ Buses are the preferred method of sustainable transport for trips between 2 and 10 miles, with surface rail being the preferred method for trips mover 10 miles (Section A.2, 'Buses in Urban Areas' 2018).

3.2 Notwithstanding the above, it should be noted that the NPPF recognises that different polices and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural locations. Moreover, Manual for Streets (MfS) identifies 'Walkable Neighbourhoods' as being:

*'characterised by having a range of facilities within 10 minutes (up to about 800 metres) walking distance of residential areas which residents may access comfortably on foot'.*

3.3 However, it is important to recognise that MfS does not consider 800 metres to be a maximum walking distance. Indeed, paragraph 4.4.1 of MfS contends that walking can be used to access a variety of destinations within a range of up to 2 kilometres. Finally, it is also important to recognise that 81% of all trips that cover a maximum distance of one mile are completed on foot (National Travel Survey, 2022).

3.4 However it is important to recognise that 'active travel' is only one of the modes which are classified as sustainable travel as detailed within the Glossary to the NPPF which defines, as outlined within Section 2, sustainable modes as:

*"Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, ultra-low and zero emission vehicles, car sharing and public transport."*

### **Accessibility by Foot and Cycle**

3.5 The site is located to the east of Knowl Hill and good footway links are provided along the Bath Road from the site to most areas of the village. As stated, above paragraph 4.4 of Manual Street states walking offers the greatest potential to replace short car trips under 2 kilometres (1.25 miles), while paragraph 2.1 of the IHT document 'Planning for Walking' states that than an average walking speed is 3 miles per hour. A 25 minute walk time, equating to a 1.25 miles walking distance has been plotted using the Travel Time website and this is detailed within Figure 3.1.

3.6 Figure 3.1, below, details that all the amenities and services within Figure 2.2 are significantly within a 25 minute walk time, while the Squires Garden Centre, Sheeplands Farm Shop, Horse and Groom pub and restaurant and the Waltham Court business park are all within a 25 minute walk of the site.

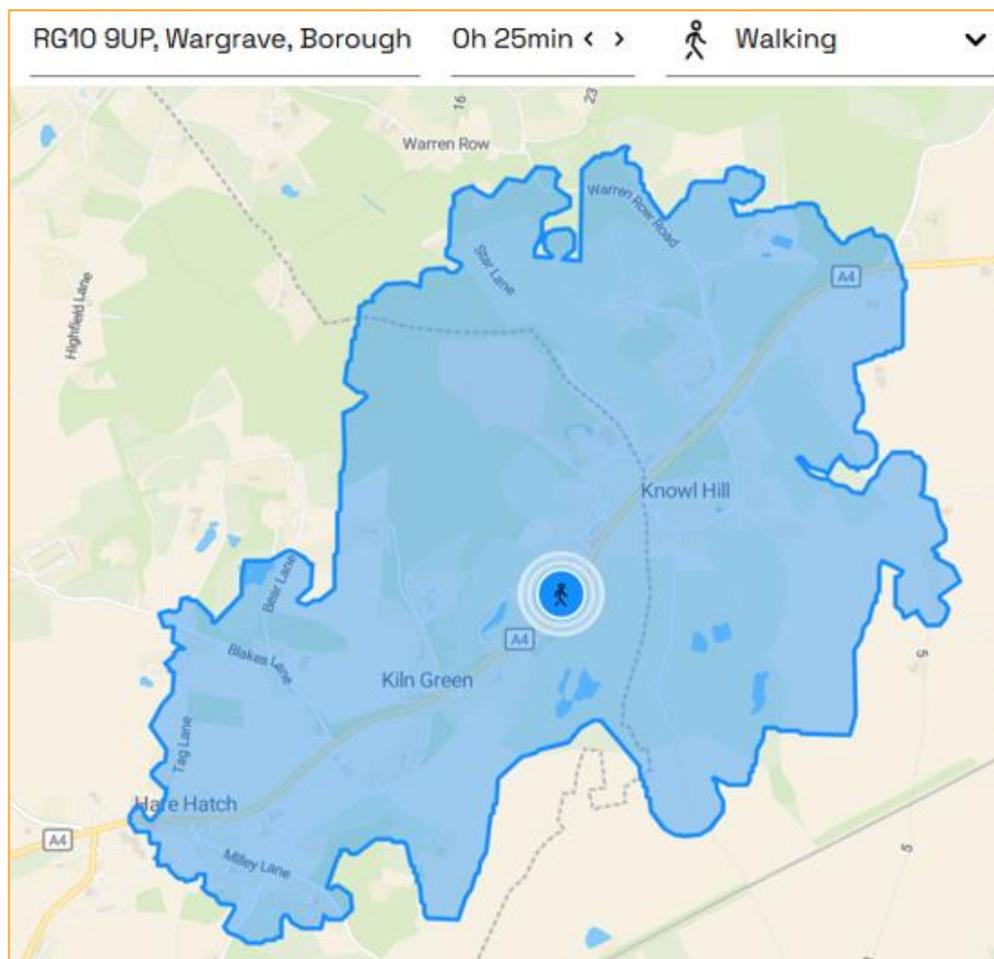


Figure 3.1 – 25 Minute Walking Distance From the Site.

- 3.7 Paragraph 2.2.2 of LTN 1/20 Cycle Infrastructure Design states “two out of every three personal trips are less than 5 miles in length – an achievable distance to cycle for most people”, while paragraph 13.6.3 states “an average speed of 10 miles per hour provides a baseline for calculating cycle journey times”. A 30 minute cycle time, equating to a 5 mile cycle distance has been plotted using the Travel Time website and is provided within Figure 3.2.
- 3.8 Figure 3.2 details that the centre of Twyford, with a Waitrose supermarket, station and many local services is significantly within a 30 minute cycle time as is the Maidenhead Office Park to the north of White Waltham airfield. In addition Woodley, Henley on Thames and Maidenhead, where there are a wide range of services including employment areas are also within a 30 minute cycle time.

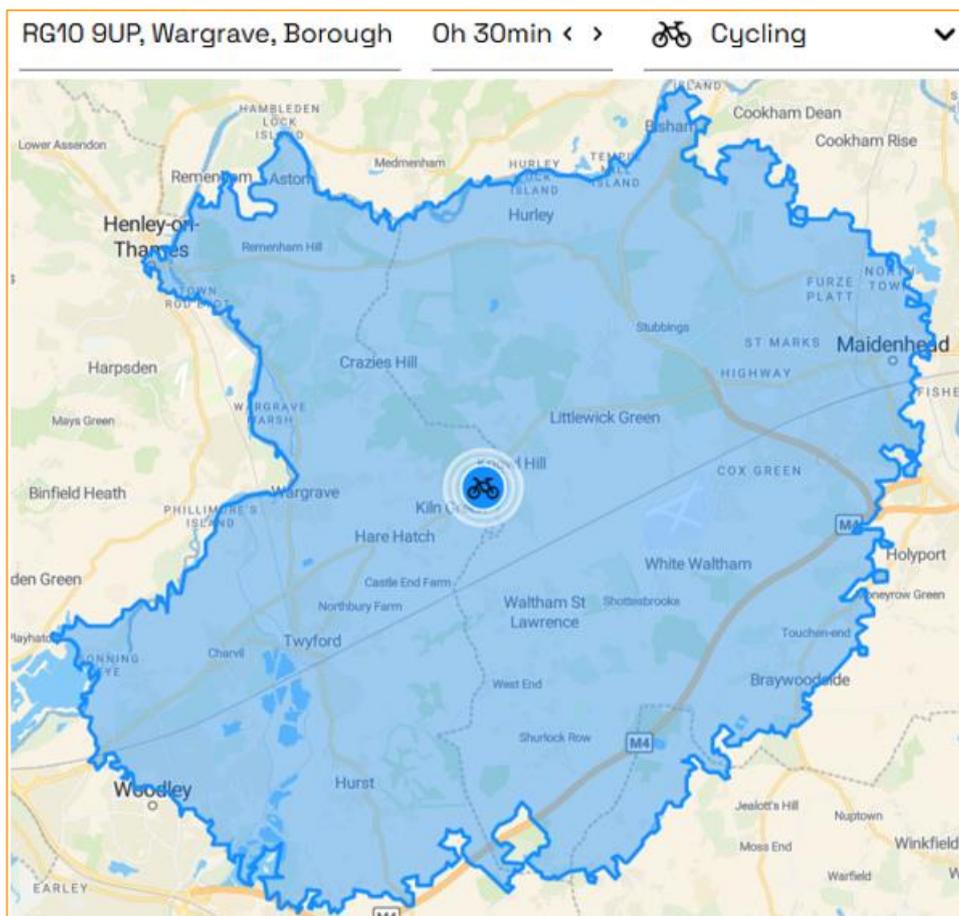


Figure 3.2 – 30 Minute Cycling Distance from Site

### Public Transport

3.9 Bus stops are located within 100 metres of the site access which are served by the 127 and 234 buses services, which provide regular services between Knowl Hill and Maidenhead, Maidenhead Station, Twyford and Reading. Bus stops in Twyford, adjacent to the Waitrose supermarket within the village centre are within a five minute walk of Twyford Station. A summary of services are provided within Table 3.1.

Bus Service	Frequency		
	Monday to Friday	Saturday	Sunday
127 towards Maidenhead from Twyford & Reading	07:30, every 60 minutes until 17:30	09:15 circa every 120 minutes 17:30	No Service
127 towards Twyford & Reading from Maidenhead	07:21, every 60 minutes until 18:30	10:30, circa every 120 minutes until 18:16	No Service
227 towards Twyford Railway Station	Four services a day at 06:56, 10:36, 15:34 & 18:40	Four services at 07:56, 10:56, 14:26 and 17:26	No Service
227 towards Maidenhead	Five services a day at 06:11, 07:46, 11:25, 16:22 and 19:14	Four services at 8:40, 11:40, 15:10, 18:10	No Service

Table 3.1 – Bus Services from Knowl Hill

3.10 Table 3.1 details a significant bus service for a rural area adjacent to the site, with an hourly service linking Knowl Hill with Twyford, Reading and Maidenhead, service 127. In addition the 227 service provides an early morning and evening service to and from Twyford station enable link commuter trips by train to be undertaken.

- 3.11 Twyford Railway station is 2½ miles south west of the site which is within a 10 to 15 minute bus ride from the site, or a 13 minute cycle ride. The station has a large cycle store as well as a large car park, which enables longer trips to be made my train. The station is served by fast Great Western and Elizabeth Line services and details of the services are provided in Table 3.2

Route	Monday to Friday			Saturday	Sunday
	AM Peak Period	PM Peak Period	Off Peak		
Elizabeth Line, stopping service to Central London	4 trains per hour	4 trains per hour	2 per hour	2 per hour	2 per hour
GWR fast to London Paddington stopping Maidenhead and Slough	2 trains per hour	2 trains per hour	2 per hour	2 per hour	1 per hour
Elizabeth line from Central London	4 trains per hour	4 trains per hour	2 per hour	2 per hour	2 per hour
GWR fast from London Paddington via Slough and Maidenhead	2 trains per hour	3 trains per hour	2 per hour	2 per hour	1 per hour
Elizabeth Line to Reading	4 trains per hour	4 trains per hour	2 per hour	2 per hour	2 per hour
GWR to Reading and Didcot Parkway	2 trains per hour	3 trains per hour	2 per hour	2 per hour	2 per hour
Henley (to and From)	2 per hour	2 per hour	2 per hour	2 per hour	2 per hour

Table 3.2 – Trains Services from Twyford

- 3.12 Reading station, which is a 7 minute journey from Twyford is the second busiest interchange station on the national rail network where connections are available to Gatwick Airport, Southampton, Birmingham, Bristol, the South West, Oxford, Worcester Birmingham, Manchester, the North East and South Wales.
- 3.13 While the last bus from Twyford Station is at 19:14 to Knowl Hill, the station has a large taxi rank and therefore onward journeys are available by taxi after the last bus has departed the station.

### Accessibility to Local Amenities

- 3.14 A walking and cycle distance assessment has been made to various local amenities as detailed within Table 3.3 below together with the associated walk and cycle times, which are based on standard walk speed (i.e. 1.4m/s) and cycle speeds (i.e. 12mph or 5.4m/s) referenced in the Chartered Institution of Highways and Transportation's document entitled 'Planning for Walking' and the Department for Transport's 'Local Transport Note 1/20 - Cycle Infrastructure Design'.

Amenity	Distance from Site (metres)	Walking Time (minutes)	Cycling Time (minutes)
Bath Road Bus Stops	150	1½	½
Londis General Store	200	2	¾
Bird in Hand (Pub and Restaurant)	150	1½	½
Castle Royle Golf and Gym	200	2	¾
Knowl Hill Primary School	1000	12	3
Square Deal Cafe	800	9½	2½
Knowl Hill Village Hall	850	10	2¾
Royal Oak Public House	1150	13½	3½

Table 3.1: Distance to Local Amenities

- 3.15 Table 3.3 details that there are a wide range of services within a 10 minute walk of the site and a 4 minute cycle ride, which for a rural area is quite significant. Given the NPPF states within Paragraph 110 that "opportunities to maximise sustainable transport solutions will vary between urban and rural areas", the public transport availability along with the availability of local services, confirm that the site is highly sustainable for a rural location.

- 3.16 In addition, Twyford 2¾ miles to the south west, has a wide range of services including the following:
- ▶ Waitrose superstore;
  - ▶ Twyford GP Surgery;
  - ▶ Dentists;
  - ▶ Various Pubs and Restaurants;
  - ▶ Post Office;
  - ▶ Pharmacy; and
  - ▶ Main line railway station.
- 3.17 Twyford is within a six minute cycle ride of the site and is within 10 minutes on the 124 bus service, which operates hourly between 7:30 and 18:15, with the 227 service providing early morning and early evening services from the station. Therefore it is possible to travel to range of services and a mainline railway station from the site by active travel and public transport.
- 3.18 The proposals will also be provided with Electric Vehicle Charging Points and therefore Twyford will be accessible by ultra-low and zero emission vehicles, acknowledged by the NPPF as sustainable transport modes.

## 4.0 Summary

- 4.1 Motion has been commissioned by ET Planning to undertake a Locational Sustainability Appraisal to support a Permission in Principle (PIP) application for development on land at Kiln Park, Knowl Hill, Berkshire.
- 4.2 This Technical Note has detailed that, while the site is within a rural area, there is a range of local services and amenities within walking distance of the site, is well served by public transport, which enables the wide range of services within Twyford to be reached by sustainable modes of transport.
- 4.3 Therefore in accordance with the requirements of the NPPF the site is within a sustainable location.