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Residential Development
Watford Road, Croxley Green

Transport Statement
Stephen Howard Homes

May 2009

**This document is an amended version of the WSP report dated
December 2008 to relate to the new proposal**



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1 Introduction

1.1.1 WSP Development and Transportation have been commissioned by Stephen Howard Homes Ltd to prepare a Transport Statement in support of its application for residential development at Watford Road, Croxley Green in the Three Rivers District of Hertfordshire.

1.1.2 The site is located on the eastern part of Watford road in Croxley Green and to the west of Watford (see Figure 1). The site is currently occupied by a car dealership with access on Watford Road and Baldwins Lane, and also 2 houses fronting Watford Road.

1.1.3 The proposed development comprises 10 houses with associated landscaping, access arrangements and parking. Access is proposed to be taken from Watford Road at the mid point of the site. The application area does not include the area adjacent to Baldwins Lane, which is to be retained as a car dealership.

1.1.4 In July 2007 a planning application (07/1487/FUL) was submitted for the erection of 43 flats on part of the site. The scheme was refused planning permission by Three Rivers District Council in October 2007. Reasons for refusal set out in the decision notice dated 29th October 2007 Included:

4. The applicant has not demonstrated there is adequate provision for space within the site parking and manoeuvring of vehicles clear of the highway. The development if permitted would therefore be likely to lead to additional on-street parking and to vehicles reversing onto or off the highway to the detriment of public and highway safety. This fails to meet the requirements of Policy T7 of the Three Rivers Local Plan 1996-2011.

5. The applicant has not demonstrated and adequate access can be provided to serve the proposed development with safety and convenience. This fails to meet the requirements of Policy T7 of the Three Rivers Local Plan 1996-2011.

1.1.5 Reasons 4 and 5 both refer to policy T7 of the Three Rivers Local Plan. Policy T7 (1) states that:

"Development proposals likely to generate additional traffic, or which involve the creation or improvement of an access on the public highway will only be permitted where the development will:

- (i) Not compromise the safe movement and free flow of the other highway users, particularly pedestrians, cyclists, equestrians and the disabled
- (ii) Not lead to the movement of freight or other heavy vehicles through residential areas, town and village centres or narrow rural roads.

- 1.1.6 Subsequently, this decision was appealed (APP/P1940/A/07/2061282) and a public inquiry was held in July 2008. The appeal was dismissed, partly on highways grounds. The inspector's comments as they relate to 'highway safety' are provided in Appendix A. It can be seen that the issues of concern relate to the design of the access, layout of the site, and sightline requirements.
- 1.1.7 It should be noted that the current application relates to a larger site and a noticeably lower level of development.
- 1.1.8 This Transport Statement (TS) evaluates the new application, particularly in the context of previous concerns.

2

Existing Conditions

2.1 SITE DESCRIPTION

2.1.1 The site is located on Watford Road to the west of Croxley Green centre and to the east of Watford. It is currently partly in use of a car dealership with a hand car wash also in operation at the site. The remainder is occupied by two large detached houses. The houses have individual access points and large areas of hard standing to accommodate car parking. Approximately half of the car dealership area is occupied by buildings, with outdoor space in use as a forecourt and display area for vehicles for sale. The site access is to the south, adjoining Watford Road (see Figure 2, photos 10 and 11)

2.1.2 The site is bounded to the west by residential properties and to the east by the car park for a Harvester restaurant. To the north of the sites is the remainder of the car dealership and an accounting firm, with access onto Baldwins Lane (see figure 1, photo 4)

2.2 PEDESTRIAN FACILITIES

2.2.1 The site is well served for pedestrian access; the footway that runs past the northern perimeter of the site is approximately 2m wide. Footways of this width are provided along both sides of Watford Road and Baldwins Lane.

2.2.2 Drop kerbs with tactile paving and pedestrian refuges are provided at the end of Watford Road and Baldwins Lane, offering crossing points on the approach to the Baldwins Lane roundabout for pedestrians travelling from the site towards Watford.

2.2.3 Cassio Bridge provides the main access by foot from the site towards Watford. On the Western end of the bridge is a staggered puffin crossing which provides access to the marina at the Grand Union Canal and Cassiobury Park. On the bridge, footways are separated from the carriageway by pedestrian ground rails.

2.3 CYCLE FACILITIES

2.3.1 Advisory cycle lanes of an approximate width of 1m wide run along both sides of Watford Road and lead towards Croxley Underground station to the west, and provide a link to Watford in the east.

2.3.2 The cycle lanes are marked in green along the carriageway and run past numerous site accesses along Watford Road. The cycle lanes towards Croxley station are interrupted by the access to a petrol station and terminate just before the bridge over the Metropolitan railway line.

2.3.3 At the parade of shops at Baldwins Lane, there are 6 Sheffield stands adjacent to the cafe. Secure cycle parking is also provided inside Croxley underground station (see photo 15, Figure 2). A plan of the local cycle routes is shown in Appendix B.

2.4 PUBLIC TRANSPORT

2.4.1 The closest bus stops to the site are shown in **Appendix C** and are located within very easy walking distance of the site. The two closest bus stops are on Watford Road, opposite the site, and on Baldwins Lane adjacent to the Harvester restaurant. The latter is marked by a bus stop flag. The other bus stops have shelters with seating and up to date timetables are displayed at each stop. The two closest stops are shown in Figure 2, photos 7 and 12. These provide services to Rickmansworth twice per hour with a journey time of 15 minutes. Watford is accessible via all the bus routes with a frequency of seven buses per hour and a journey time of about 10 minutes. The main bus services are summarised below, with more details provided in **Appendix C**.

TABLE 2.1 BUS SERVICES

Service	Route	Monday-Friday AM Peak Frequency
5	Berry Kane Estate-Garston	2
6	Maple Cross – Hemel Hempstead	1
352	Hemel Hempstead – Watford	1
336	Watford - Chesham	1
724	Harlow – Heathrow	1
41	Garston – Garston (circular)	1 Journey
42	Garston – Abbots Langley	1 Journey
622	Rickmansworth – Bushey Heath	1 Journey

2.4.2 Croxley Underground station is located approximately 1km south west of the site; a comfortable 12 minutes walk, and provides access to Metropolitan Line services every 10 minutes toward Watford and Baker Street. This offers a direct link to central London with all the interchange opportunities and access to a wide range of services and facilities that this brings.

2.4.3 From the site No.5 bus route provides a link to Watford Junction railway station. From this operates services between London Euston, Birmingham and the North West. Details of these services and the location of Croxley station in the context of the London Underground network is shown in **Appendix D**.

2.4.4 Transport for London has developed proposals, in partnership with Hertfordshire County Council, to re-route and extend the Metropolitan Line to Watford Junction

via Croxley station. The works which are pending agreement and funding. Would involve constructing a link from the north of the proposed residential site across the A412 Watford Road towards Ascot Road and creating a link to Watford Junction to the South and east of the town centre.

2.5 HIGHWAY NETWORK

- 2.5.1 Watford Road has a single carriageway of approximately 10m width. This includes two 1m wide cycle lanes, central markings and two running lanes of 3m width each (see Figure 2, photo 8).
- 2.5.2 This road runs from the roundabout at Baldwins Lane towards Croxley Underground Station and Rickmansworth. The road has 30mph speed limit which is enforced by a speed camera approximately 500m west of the site.
- 2.5.3 To the east of the roundabout, the A412 continues as a dual carriageway towards Watford. The route includes a cycleway and footway leading from the site on both sides of the road and encircling the roundabout.
- 2.5.4 The roads in the vicinity of the site are generally well maintained, with lighting at regular intervals in all directions.
- 2.5.5 Along Baldwins Lane, there are traffic calming measures including speed cushions and road humps with traffic islands and 'slow' markings. Along the north side of Baldwins Lane, within 200m of the site, there are a number of unrestricted parking bays produced by the widening of the footway and narrowing of the carriageway at the railway bridge. Additionally, there are 10 parking bays along the front of the shopping parade. Most of these spaces were vacant at the time of the site visit (Wednesday 19th March at 2.00pm). See figure 2. Photo 2.
- 2.5.6 In October 2008, traffic surveys were undertaken between 0.700 – 19.00 at the car showroom and the two houses to record the volume of traffic generated. The survey data is provided in Appendix G and the results are summarised below:

TABLE 2.2 EXISTING TRAFFIC MOVEMENTS

	AM Peak			PM Peak			Daily (12 hour)		
	In	Out	Total	In	Out	Total	In	Out	Total
245-247 Watford Road	0	1	1	1	0	1	5	7	12
Car Showroom	0	0	0	7	4	11	56	61	117
Total	0	1	1	8	4	12	61	68	129

Note: No movements were recorded at No. 251 so it may have been vacant

2.6 SITE ACCESSIBILITY

2.6.1 As demonstrated above, the site benefits from satisfactory pedestrian, cycle and public access. These facilities and the location of the site in relationship to Croxley Green and Watford combine to provide ready access to a range of employment, education, healthcare, retails and leisure opportunities. The area is well provided with primary and secondary schools. In addition a variety of local shops and facilities can be found along Watford Road and Baldwins Lane. These include:

Minimarket

Hair Salon

Cafe

Pub/restaurant

Butchers

Newsagent

Take-away

2.6.2 Planning Policy Guidance 13: Transport (PPG13) states that " Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2km" (75). Croxley Underground station and to shopping parades are located within this distance.

2.6.3 PPG13 also states that " Cycling also has the potential to substitute for short car trips, particularly those under 5km". This means that Croxley Business Park and Croxley underground station where secure cycle parking is available are accessible by bike.

2.6.4 Figure 3 shows the wide range of services and facilities accessible from the site on foot and by bicycle, demonstrating that the site is at a suitably accessible location.

2.7 ACCIDENT HISTORY

2.7.1 Accident data covering the three year period to 30th November 2007 was obtained from Hertfordshire Highways for the roads nearby and adjacent to the site. A plot showing the accident locations is attached at Appendix E.

2.7.2 The area includes the A412 Watford Road on which the site is located. The area for which data was collected extends from the junction of Watford Road with New Road to the south, to the Watford roundabout at Cassio Bridge. The area also includes the east end of Baldwins Road to the north of the site.

- 2.7.3 24 personal injury accidents were recorded for the study area, of which 22 were categorised as resulting in slight injuries and 2 were categorised as resulting in serious injury.
- 2.7.4 The majority of incidents occurred at the busier junctions in the study area; at the two roundabouts and close to Croxley station.
- 2.7.5 The incidents recorded closest to the site occurred on Watford Road and involved a collision between two cars during the night, which resulted in slight injuries. Adjacent to this location, there was an incident involving a single motorcyclist losing control on wet conditions after dark. This incident did not involve any other casualties.
- 2.7.6 The table below summarises the accidents by casualty type:

TABLE 2.1 PERSONAL INJURY ACCIDENT SEVERITY

Casualty Type	Number of Accidents
Car	11
Bicycle	5
Motorcycle	4
Pedestrian	3
PSV	1
Total	24

- 2.7.7 The accidents have been evaluated and there are no evident common causes or similarities that could be rectified by engineering interventions.

3 Proposed Development

3.1.1 The proposed development comprises 10 four bedroom houses. 7 of these dwellings have integral garages with parking spaces for 2 and 2 in front (on-plot). 3 of these dwellings have integral garages with parking space for 1 and 1 in front (on-plot).

3.1.2 BBR Architects site layout (PL02) is attached **Appendix F**.

3.2 ACCESS ARRANGEMENTS

3.2.1 Pedestrian and vehicle access is proposed from Watford Road, midway along the site frontage. The vehicle access would take the form of a conventional kerbed junction with 6m radius, a side road width of 4.1m and 1m footway on both sides of the road.

3.2.2 Visibility splays of 90m x 4.5m x 90m are proposed at the access onto Watford Road (see Appendix F). These are more than sufficient for the prevailing traffic speeds, especially given the more appropriate visibility standards set out in 'Manual for Streets', published by DCLG and DfT in 2007.

3.2.3 Within the site the access road will continue at 4.1m. This width is sufficient to allow two cars to pass each other at low speeds. The 1m footway will continue along both sides of the road.

3.2.4 There is sufficient space at the northern end of the site to permit a large refuse vehicle to turn.

3.3 PARKING

3.3.1 The number and type of parking provision across the site is summarised below.

TABLE 3.1 PARKING PROVISION

Housing Type	No. Of Units	No. Of spaces (total)
Type A with integral garage	2	8
Type B with double garage	5	20
Type B with single garage	3	6
General parking	N/A	N/A
	10	34

- 3.3.2 Overall, the level of parking equates to 3.4 spaces per unit
- 3.3.1 National policy relating to parking related issues is set out in PPG13 and PPS3
- 3.3.2 PPG13 says:
- 'Policies in development plans should set maximum levels of parking for broad classes of development. Maximum standards should be designed to be used as part of a package of measures to promote sustainable transport choices, reduce the land-take of development, enable schemes to fit into central urban sites, promote linked-trips and access to development for those without use of a car and to tackle congestion. There should be no minimum standard for development, other than parking for disabled people' (52).
- 3.3.3 It also makes clear that local authorities should:
- Not require developers to provide more spaces than they themselves wish, other than in exceptional circumstances which might include for example where there are significant implications for road safety which cannot be resolved through the introduction or enforcement of on-street parking controls (51).
- 3.3.4 Similarly, PPS3 says
- Local Planning Authorities should, with stakeholders and communities, develop residential parking policies for their areas, taking account of expected levels of car ownership, the importance of promoting good design and the need to use land efficiently (51).
- 3.3.5 The Three Rivers Local Plan car parking standard for four-bedroom houses is three spaces per unit and this includes an allowance for visitor spaces.
- 3.3.6 'Residential Car Parking Research' published by DCLG in May 2007 examined the factors that influence the demand for car parking at residential development including:
- Dwelling, size, type and tenure
 - Dwelling location
 - Availability of allocated and unallocated parking spaces
 - Availability of on and off-street parking
 - Availability of visitor parking; and availability of garage parking
- 3.3.7 The LPA's cycle parking standard is one space per unit if a garage or shed is not provided. All houses will have integral garages.

4 Summary & Conclusions

- 4.1.1 It is proposed that 10 houses be constructed on the site of a car showroom and two houses fronting Watford Road, Croxley Green.
- 4.1.2 Development at the site has previously been refused, partly on highways ground, however, the scale of development has markedly reduced and the site area has been increased.
- 4.1.3 Conditions in the vicinity of the site for pedestrians and cyclists are satisfactory and a number of bus services run past or near the site. Additionally, there are a number of local amenities and facilities within convenient walking distance. The location is considered to be both sustainable and accessible.
- 4.1.4 There will be a single vehicular access, constructed to highway authority standards. Sightlines of 4.5m x 90m will be provided in both directions. These are more than sufficient, particularly given the advice set out in Manual for streets.
- 4.1.5 The site access road will be 4.1m wide. There will be a 1m footway on both sides of the road.
- 4.1.6 The road layout provides sufficient space for a large refuse truck to turn within the site.
- 4.1.7 All of the units will have integral garages and also space for a car. Calculations using research published by DCLG indicates that this level of parking provision (34 in total) is appropriate given the development's mix and design.
- 4.1.8 All units will have integral garages with space for storing cycles, which meets the requirements of the LPA's standards.
- 4.1.9 Using TRICS data it is forecast that the development will generate fewer than 143 vehicular movements per day. However, given the good level public transport accessibility this prediction is considered very robust. The level of traffic equates to traffic levels associated with the extant uses.
- 4.1.10 The development will result in the removal of a number of individual access points along Watford Road and replacement with a single access designed to highway authority standards. This will have general benefits in terms of movements and road safety.