Site Name & Designation	Distance & Direction from Survey Area	Brief Description of Designated Site
Non-statutory Designations within 1km		
Ecosite 30/26 Grand Union Canal	c.0.15km north	The canal provides an important wildlife corridor with aquatic vegetation, and certain areas have had water vole present in the past. It is identified as a **pLWS**.
Ecosite 44/26 A46 roadside verge	c.0.15km east	Nature conservation status ungraded. The bordering hedgerow contains hawthorn and oak species.

Non-Statutory

4.4 Thirty one non-statutory designations are present within 2km of the Site. Those designations within 1km which are most relevant to the site are described in Table 1 above. Warwickshire maintain both County important sites, known as Local Wildlife Sites (LWS) and sites of nature conservation importance, known as Ecosites which can have additional LWS status. There is one relevant Local Wildlife Site within 1km of the site, namely the River Avon and tributaries (including Gog Brook) c.0.02km north. There are also five additional potentially relevant Ecosites within 1km, two of which are highlighted as potential LWSs.

4.5 These non-statutory designations are described in Table 1 above. Details of all of the sites within 2km are provided within Appendix C.

Ancient Woodland

4.6 There are no Ancient Woodland sites covering any part of the proposed development site or adjacent to the Site.

Habitats and Flora

Notable Flora Records

4.7 WBRC have provided 21 records of 15 county rare plant species from within the search area. Of these species a large number are historic or with unknown date origins. Those of potential relevance to the site include mouse tail *Myosurus minimus* which is an arable species recorded within the grid square of the site in 1992, and trailing tormentil *Potentilla anglica* recorded 0.46km north west of the site in 1984 often found on paths and woodland borders.

Habitats

4.8 The following habitats were recorded on site and classified in line with current Phase 1 habitat species guidance[5], as illustrated in Appendix A and with detailed species lists for each habitat as provided in Appendix D.

Arable

4.9 The Site predominantly comprises a large arable field which appeared to be sown with an oilseed rape crop. The edges of the field are bordered by tall

[5] NCC, 1990 (2003 edition), Handbook for Phase 1 habitat survey – a technique for environmental audit, English Field Unit Nature Conservancy Council, revised reprint 2003 JNCC

ruderals/ semi-improved grassland margins with hedgerows along the site boundaries.

Tall ruderals/ semi-improved grassland margins

4.10 The crop is separated from the surrounding hedgerows by species poor rough semi-improved grassland margins and tall ruderals. Species dominance varies between boundaries, although species composition is relatively similar across the site. The widths of these margins are between one and three metres along H1, H3 and H5, but extend to between three and five metres along B2. Between H5 and B6 is a much wider disturbed grassland strip at a width of approximately 11m.

4.11 The grassland sward is dominated by frequent Yorkshire fog *Holcus lanatus*, with other grass species including cocks foot *Dactylis glomerata*, perennial rye grass *Lolium perenne*, rough meadow grass *Poa trivialis,* red fescue *Festuca rubra* and false oat grass *Arrhenatherum elatius*. Broadleaved herb species within the sward include cleavers *Galium aparine*, groundsel *Senecio vulgaris*, red dead nettle *Lamium purpureum*, white dead nettle *L. album*, cut leaved cranesbill *Geranium dissectum,* ground ivy *Glechoma hederaceae*, common field speedwell *Veronica persica*, common chickweed *Stellaria media*, field forget-me-not *Myosotis arvensis*, broad leaved dock *Rumex obtusifolius*, bristly oxtongue *Helminthotheca echioides*, spear thistle *Cirsium vulgare*, nipplewort *Lapsana communis*, petty spurge *Euphorbia peplus*, lesser celandine *Ficaria verna* and dandelion *Taraxacum agg*.

4.12 Additional species along the arable edge of the western hedge (H1) include fat hen *Chenopodium album*, scentless mayweed *Tripleurospermum inodorum* and prickly sowthistle *Sonchus asper*.

4.13 Some margins of the site are particularly dominated by tall ruderals, especially along the northern and eastern boundaries. These include areas of common nettle *Urtica dioica and* cow parsley *Anthriscus sylvestris*, interspersed with hogweed *Heracleum sphondylium* and hedge garlic *Alliaria petiolata*.

4.14 Between boundaries H5 and B6 there is also an area of disturbed ground comprising semi-improved grassland and tall ruderals. There are stacks of farm debris and manure heaps within this area which runs parallel to the access track of Stanks Farm. This grassland is species poor predominantly comprising cocks' foot and red fescue, with occasional broad leaved dock, creeping buttercup, cleavers and common nettle.

Hedgerows

4.15 Boundaries of the survey area have been numbered on the Habitats Plan provided within Appendix C and are described below in Table 2.

Table 2 Boundaries present onsite

Boundary ID	Brief Description	Woody Species Present
H1	C.300m in length. 1.5m high x 1.5m wide hedgerow, well maintained, regularly trimmed and planted parallel to the road within the past 20-30 years. Post and rail fence with pig net on inside of hedge.	Woody species present include blackthorn *Prunus spinosa*, hawthorn, elder *Sambucus nigra*, bramble *Rubus fruticosus* agg. and ivy *Hedera helix*, with occasional ash trees.
B2	C.390m in length. Mostly a garden fence line with occasional hedgerow, trees and scrub along its length. An old brick wall with rubble lies parallel outside the boundary, likely from Budbrooke Barracks which previously occupied the land south of the Site until 1960. A public footpath runs parallel to this boundary.	Additional species present alongside the extensive blackthorn scrub include a line of multi stemmed semi-mature ash with occasional crab apple *Malus sylvestris*, hazel *Corylus avellana*, elder, ivy, honeysuckle *Lonicera* sp. and redcurrant *Ribes rubrum*.
H3	C. 200m in length. 3-6m high x 1-2m wide hedgerow with trees on a slight bank. Mature hedge trimmed back on field side, not topped, very broken post and rail fence at the back of hedgerow.	Woody species such as elder, holly *Ilex aquifolium*, bramble, blackthorn, crab apple, elm *Ulmus procera*, hazel, dog rose *Rosa canina* and cherry *Prunus* sp. Semi-mature and mature trees are present including ash, crab apple and oak. Understory species include lords and ladies *Arum maculatum* and wood avens *Geum urbanum*.
B4	C.50m. A line of hay bales along the arable field margin. The ground is exposed and bare at the edges of the rapeseed crop.	Species present on this sparsely vegetated ground include cleavers, dandelion, bristly oxtongue and cut leaved cranesbill.
H5	C.150m in length. 1.5m high and 1-2m width, trimmed hedgerow with a large, mature oak tree.	Woody species such as hawthorn, elder, bramble, oak, blackthorn and holly *Ilex aquifolium*. The ground flora comprises ivy and lords and ladies adjacent to the grassland margins.
B6	C.150m in length. The access track to Stanks Farm forms the northernmost boundary to the Site.	The ground is bare. Horsegrazed pasture is adjacent to the track beyond the Site boundary.

Mature trees

4.16 There is a single large mature oak tree along the northern hedgerow of the site (H5). There are also a number of mature trees along the eastern hedgerow (H3) including crab apple, ash and oak. Some of these trees contain cracks, crevices and deadwood that could offer bat roosting potential or are covered in ivy obscuring such features.

Scrub

4.17 There is dense and scattered encroaching scrub along the southern boundary (B2) of the Site adjacent to the fence line comprising predominantly hawthorn,

blackthorn and bramble. There is also a dense stand of blackthorn in the disturbed area to the north of the site between H5 and B6.

Fauna

Bats

4.18 There are 55 bat records from within the search area dating from 1980 to 2015 and comprising the following species: common pipistrelle *Pipistrellus pipistrellus,* soprano pipistrelle *Pipistrellus pygmaeus*, noctule *Nyctalus noctula*, brown long-eared *Plecotus auritus*, unidentified *Myotis* and a number of other unidentified bat species.

4.19 There is one record of a pipistrelle roost from a house c.0.25km west of the site boundary in 2014. Another roost was noted c.0.43km west of the site in 2006, most likely to be pipistrelle bat from the droppings found.

4.20 The closest record is that of an unknown pipistrelle bat c.0.04km south of the site boundary from 1980. There are also an additional two unidentified bat species records from within the same housing estate from 2009 and 2015 c.0.16km and c.0.14km south of the site boundary respectively. The majority of the remaining records are east of the site over the Warwick ByPass within Warwick itself.

4.21 Habitats at the Site may offer some foraging and dispersal opportunities for bats, especially along the hedgerows. There may also be roosting opportunities within some mature trees along the Site boundaries. All bats are S41 listed species and are European Protected Species.

Badger

4.22 WBRC have provided 15 records of badger *Meles meles* from within the search area. There are no records of setts and all records are road casualties, however no dates have been provided. The majority of casualties are along the Warwick Bypass east of the Site. The nearest record is that of a casualty along H1.

4.23 Badger signs were evident along the boundaries of the Site, although no setts were located during the Phase 1 survey. The hedgerows and grassland margins provide good foraging corridors for badgers, with easy access to neighbouring fields below the fence line. Badgers are afforded protection under the Protection of Badgers Act 1992.

Other mammals

Brown hare

4.24 WBRC have provided eight records of brown hare *Lepus europaeus* from within the search area dating from 1990 to 2011. The closest record is c.1.29km north west of the Site from 2004.

4.25 The Site is considered optimum habitat for brown hares, which prefer a mix of arable and grassland fields with varied vegetation height and some large uniform fields. In this instance access to a large open field network is restricted by the railway line to the north, the surrounding road network and the housing to the south of the Site. Also although oilseed rape provides a sufficient food resource for the winter, by early summer this crop is mature and no longere a grazing resource so foraging opportunities onsite are limited to the grassland boundaries. Brown hare is classified as a priority species under the UK Biodiversity Action Plan (BAP)[6].

Hedgehog

4.26 There are 27 records of hedgehog from within the search area dating from 1966 to 2014. The closest record is c. 0.25km west of the Site, recorded within a garden in 2014 where more than one is seen each year.

4.27 The hedgerows, rough grassland and scrub areas onsite could potentially be used as foraging resources by hedgehogs.

Additional species

4.28 Deer hoof prints were seen in the south eastern corner of the site, and it is likely that deer are making use of the field margins from surrounding fields. A brook network also runs very close to the Site boundaries (c.0.02km north), although given the habitats onsite it is unlikely that any aquatic mammals such as water vole would be making use of the Site.

Birds

4.29 WBRC have provided 23 records of 17 bird species from within the search area dating from 1978 to 2013, including several records of bird species listed on the S41 list and Birds of Conservation Concern Red or Amber lists. There is also a historic record of barn owl *Tyto alba* from 1905.

4.30 Those species of potential relevance to the Site include a number of garden birds such as redwing *Turdus iliacus*, mistle thrush *Turdus viscivorus*, starling *Sturnus vulgaris*, bullfinch *Pyrrhula pyrrhula*, spotted flycatcher *Muscicapa striata*, linnet *Carduelis cannabina*, house martin *Delichon urbicum* and swift *Apus apus*.

4.31 The nearest bird records are those of local BAP species song thrush *Turdus philomelos* c.0.08km south of the site (1998) within the residential area and amber listed green woodpecker *Picus viridis* c.0.06km (1993) north of the site along the railway line. Additional species recorded include red kite *Milvus milvis*, kestrel Falco *tinnunculus*, woodcock *Scolopax rusitcola,* wryneck *Jynx torquilla*, mute swan *Cygnus olor* and golden plover *Pluvialis apricaria*.

[6] http://www.gwct.org.uk/media/208618/Conserving-the-Brown-Hare.pdf (accessed 20 May 2015)

4.32 Onsite the trees, hedges and mature scrub offer suitable habitats for widespread bird species to nest, forage and seek refuge. Many records of small garden species have been provided which could potentially use the site especially from the residential areas to the south of the site. During the Phase 1 survey bird activity was noted within the dense stands of blackthorn in the disturbed ground area to the north of the site.

Reptiles

4.33 There is one record of grass snake *Natrix natrix* and two records of slow worm *Anguis fragilis* from within 2km of the site boundary. Slow worm was recorded in 2005 c.0.6km north west of the site, with an additional note stating the sighting of another slow worm within St Michael's churchyard c.0.42km north west of the site in 2014. Grass snake was found c.0.93km south east of the site at Warwick Racecourse in 2009.

4.34 Although the field is predominantly arable, the rough grassland/ tall ruderal margins on the periphery of the site potentially provide good quality habitat for basking, foraging, sheltering and dispersal of widespread reptile species. Also in the disturbed grassland area to the north of the site there is a rubble heap comprised of various farm debris with surrounding rough grassland/tall ruderal/scrub habitat which could be used by reptiles for shelter. All British reptiles are S41 listed species and are afforded protection under the Wildlife and Countryside Act 1981 (as amended).

Amphibians

4.35 WBRC have provided 33 records of four amphibian species from within the search area, including great crested newt *Triturus cristatus*, smooth newt *Lissotriton vulgaris*, common toad *Bufo bufo* and common frog *Rana temporaria*.

4.36 The closest record to the site is that of common frog, located c.0.02km south of the site boundary from 1999 from a garden pond, not visible on the aerials. Common toad has also been recorded along the railway line c.0.06km north of the site in 2011.

4.37 The majority of the remaining records except one are located east of the Warwick Bypass, mostly within Warwick. The nearest smooth newt record is located c.1.1km south of the site boundary.

4.38 It is unlikely that the site is used by amphibians, as the majority of the Site is arable offering negligible opportunities for sheltering or foraging. However the rough grassland margins of the Site do offer dispersal, foraging and sheltering opportunities for amphibians if they are present in nearby ponds.

Great Crested Newt

4.39 Of these records two relate to great crested newts *Triturus cristatus* found within the search area. These records are both from 2011, and are from the

same location as the nearest smooth newt records, c.1.1km south of the site boundary across the Warwick Bypass.

4.40 There are no permanent water bodies on the Site. A desktop search for ponds within 500m of the Site did not identify any ponds, with the nearest being c.0.55km to the north west of the site. However following additional investigation a pond was located c.0.03km west of the boundary across Old Budbrooke Road which is not visible on aerials. Also the data search results indicate a garden pond may be present within the residential area c.0.02km south of the Site boundary.

4.41 The rough grassland and scrub edges could provide potential habitats for great crested newts, however the majority of the site is arable which is of minimal value to great crested newts, and the Warwick ByPass to the east of the site provides a major barrier to dispersal to any ponds east of the site. There is also a housing estate directly south of the Site and the canal close to the northern boundary, all of which act as physical barriers to dispersal. It is therefore unlikely that this species will offer constraint to the proposed development. Great crested newts are S41 listed and European Protected Species.

Invertebrates

4.42 WBRC have provided over 1000 records of invertebrate species within the search area, the majority of which are moths and over 1km from the Site.

4.43 A number of these records come from a residential address c.0.2km south of the Site boundary. From this address three species of butterfly have been recorded including small heath *Coenonympha pamphilus*, wall *Lasiommata megera* and grizzled skipper *Pyrgus malvae*, and 38 species of moth including lackey *Malacosoma neustria*, dusky brocade *Apamea remissa* and large nutmeg *Apamea anceps*. All of these UK BAP priority species were recorded from between 1981 and 2008.

4.44 The habitats on the Site are typical of the wider area and will provide opportunities for a range of common invertebrates, however there are few indications that a notable assemblage of species may be present.

5.0 ECOLOGICAL CONSTRAINTS & OPPORTUNITIES

Ecological Constraints

Confirmed Constraints

5.2 Avoidance, mitigation and/ or compensation measures will be required for the following ecological constraints, with recommendations provided for each constraint in turn:

- Semi-mature and mature trees
  - *These features should be retained as part of the proposals wherever possible, given their intrinsic ecological value, especially to bats, birds and invertebrates.*
- Hedgerows
  - *These features should be retained as part of the proposals wherever possible, given their priority habitat status and intrinsic ecological value. This is especially important to the western hedgerow which is designated as an Ecosite and the eastern hedgerow.*
- Nesting birds
  - *The hedgerows, scrub and trees provide high quality bird nesting habitat. Based on their legal protection, any clearance of potential nesting habitat should be undertaken between September and February (inclusive), outside of the bird nesting season.*

Potential Constraints

5.3 Avoidance, mitigation and/ or compensation measures may be required for the following potential ecological constraints, subject to further investigation and/ or surveys:

- Bats – Activity transect surveys to be undertaken on the Site to assess the extent to which these linear and other features are used by bats. These will comprise three transect activity surveys between May to September in line with BCT Survey Guidelines[7], with two surveyors. In addition three periods of monitoring using static detectors are recommended alongside these transect surveys, one for each transect. This will give a good indication of bat activity across the Site. All established trees around the margins of the survey area should also undergo ground based tree inspections to be assessed in terms of their potential to support roosting bats. Those considered to have high bat roosting potential may be subject to further aerial inspections or emergence/ return to roost surveys.
- Badgers – Badger survey to be undertaken any time of year to ascertain level of use of the Site and whether there is a significant population or sett in close proximity. Optimal survey periods are February to April and October to November when vegetation cover is minimal.

[7] Hundt, L. (2012), *'Bat Surveys – Good Practice Guidelines'*, 2nd Edition, , Bat Conservation Trust

- Reptiles – Surveys to be undertaken along the rough grassland margins and especially within the area of disturbed ground where existing refugia exist, for example rubble piles. This would comprise an initial survey set-up visit, followed by seven survey visits during suitable weather conditions between April to September.
- Great crested newts – There is one identified pond within 500m of the Site boundary to be subject to a HSI assessment to assess the suitability of the pond for great crested newts. Following this it is recommended that the pond should be sampled for eDNA to test for likely presence/ absence of newts. If a positive result is obtained, a full great crested newt survey may be required dependent on the water level and access to the pond.
- Breeding birds – Scoping surveys to ascertain the level of activity onsite and the bird assemblage present to inform whether more detailed surveys will be necessary between April and July.
- Hedgerows - A formal hedgerow assessment is recommended to identify if the hedgerows onsite meets the 'important' criteria and are afforded protection under the Hedgerows Regulations 1997.

5.4 Based on the potential ecological constraints identified above, Table 3 sets out recommendations for further work necessary to determine the need for and scope of any avoidance, mitigation and/ or compensation measures. The outcome of this further investigation and/ or survey work will inform a full Ecological Assessment of the final scheme.

Table 3. Recommendations for further inspection/ survey

Inspection/ Survey	Timescales
Ground based tree assessments for bats (where potential for impacts to roosts exists)	Ground based tree inspections of established trees onsite (any time of year). Further aerial inspections or emergence/ return to roost surveys may be required if the trees are to be impacted.
Bat activity surveys	Two/ three transect and static detector surveys from May to September
Badger Survey	Badger survey to be undertaken any time of year (optimal period Feb/April and Oct/Nov) Update survey prior to commencement of development
Breeding Bird Surveys	Scoping surveys to be undertaken between April and June/July. Additional surveys may be required dependent on levels of activity.
Reptile presence/ absence survey	Seven reptiles surveys to be undertaken between April and September in suitable weather conditions
GCN presence/ absence survey	A HSI assessment of the pond west of the Site with an eDNA survey mid-March to the end of June.
Hedgerows (Hedgerow assessments)	A formal hedgerow assessment in line with the Hedgerows Regulations 1997 to be undertaken in spring/ early summer when botanical species are most visible.

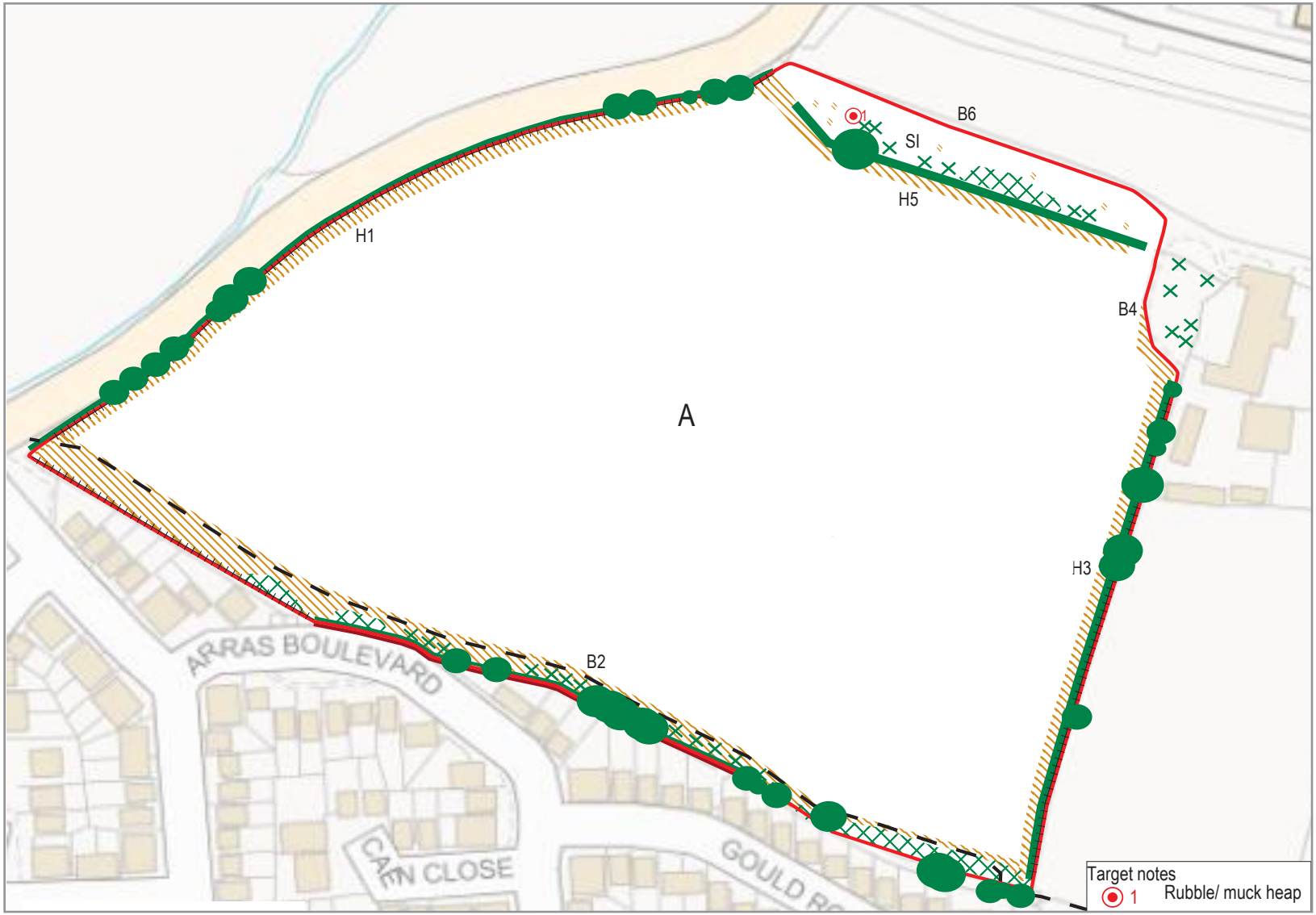
Opportunities for Ecological Enhancement

5.5 The following opportunities for ecological enhancement have been identified:

- Incorporation of native plants and those of wildlife value in to landscaping scheme
- Strengthening and retaining existing hedgerows where possible
- Semi-mature and mature trees to be retained given their intrinsic ecological value as a commuting, foraging and sheltering resource for many species
- Retention of vegetation and especially hedgerows onsite would limit impacts to invertebrates, and if possible any fallen deadwood should be left onsite to provide opportunities for saproxylic invertebrates.
- Bat roosting opportunities should be incorporated into the design of new buildings or attached to retained trees
- Bird nest boxes should be erected on new buildings and retained trees

Appendix A

Habitats Plan (CSa/2634/104) & Photosheet (CSa/2634/105)



Legend

- Site Boundary
- A — Arable
- SI — Semi-improved grassland
- Hedgerow
- Tall ruderals/ rough semi-improved grassland
- Scattered tall ruderals
- Dense scrub
- Scattered scrub
- Fence
- Footpath
- Indicative semi-mature/ mature tree location
- H1/ B1 — Hedgerow/ boundary reference
- Wall

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Project	Land at Hampton Magna, Warwickshire	Date	June 2015	Drawing Number	CSa/2634/104
Title	Habitats Plan	Scale	See scale bar	Revision	-
Client	Taylor Wimpey UK Ltd	Drawn	HW	Checked	KC

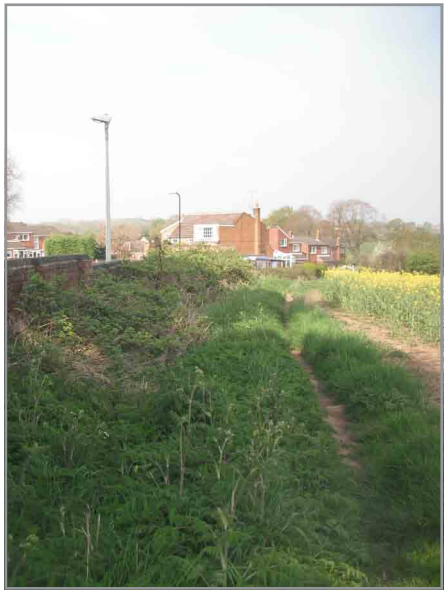
Arable field

Northern hedgerow (H5)

Disturbed semi-improved grassland

Eastern hedgerow (H3)

Western hedgerow (H1)



Southern boundary (B2)

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Project	Land at Hampton Magna, Warwickshire	Date	June 2015	Drawing Number	CSa/2634/105
Title	Photosheet	Scale	Not to scale	Revision	-
Client	Taylor Wimpey UK Ltd	Drawn	HW	Checked	KC

Appendix B

Legislation, Planning Policy and Standing Advice

The **Conservation of Habitats and Species Regulations 2010** (as amended) enacts the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, and Council Directive 79/409/EEC on the Conservation of Wild Birds, into UK law. The Regulations allow for the designation of Statutory Nature Conservation sites (SACs and SPAs) and European Protected Species ('EPS' including all UK bat species, great crested newt, hazel dormouse and otter) which are assigned a greater level of protection than under national legislation.

The **Wildlife and Countryside Act 1981** (as amended) forms the primary piece of UK legislation relating to the protection of habitats and species (including nesting birds, reptiles and watervole). Additionally, badgers are protected under the **Protection of Badgers Act, 1992.**

Section 40(1) of the **Natural Environment and Rural Communities (NERC) Act 2006** states that each public authority *"must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity*". This legislation makes it clear that planning authorities should consider impacts to biodiversity when determining planning applications, with particular regard to the Section 41 list of 56 habitats and 943 species of principal importance, irrespective of whether they are covered by other legislation. The S41 list was taken forward for action under the UK BAP (first published in 1994). The UK BAP has now been superseded by the Biodiversity 2020 Strategy[8], which continues to prioritise the S41 list, setting national targets for the period to 2020, and the UK Post-2010 Biodiversity Framework[9], which shows how these contribute to targets at the European level. Whilst BAPs are therefore no longer formally recognised, many of the tools and resources originally developed for the BAP remain in use, such as the background information which still forms the basis of work at national level.

National Planning Policy Framework (2012)[10] (NPPF) sets out the government planning policies for England and how they should be applied. With regards to ecology and biodiversity, Chapter 11: Conserving and Enhancing the Natural Environment, paragraph 109, states that the planning system and planning policies should:

- Minimise impacts on, and provide net gains in, biodiversity where possible, "*contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*".
- Recognise the wider benefits of ecosystem services.

[8] Defra (2011) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*. Defra, London
[9] JNCC and Defra (2012) *UK Post-2010 Biodiversity Framework* (on behalf of the Four Countries' Biodiversity Group). July 2012.
[10] Department for Communities and Local Government (2012) National Planning Policy Framework

Under these aims, paragraph 117 states the need to plan for biodiversity at a landscape scale, linked to national and local targets. Paragraph 118 sets out the principles that local planning authorities should apply when determining planning applications:

- Refuse planning permission if significant harm cannot be avoided, adequately mitigated, or, as a last resort, compensated for
- Encourage opportunities to incorporate biodiversity in and around developments
- Permission should not normally be permitted where an adverse effect on a nationally designated Site of Special Scientific Interest is likely, either individually or in combination with other developments
- Refuse planning permission if development will result in the loss or deterioration of irreplaceable habitats, such as ancient woodland and the aged or veteran trees, unless the need for, and benefits of, the development in that location clearly outweigh the loss

The **Government Circular 06/2005**, which is referred to within the NPPF, defines statutory nature conservation sites and protected species as a material consideration in the planning process.

Local planning policies are of relevance to ecology, biodiversity and/or nature conservation have been set out in Table B.1 below.

A new Local Plan is currently being prepared to replace the current Local Plan 1996- 2011. This new plan will guide the area's development until 2029. Until this plan is formally adopted, the saved policies in the current Local Plan remain relevant as long as they are consistent with the NPPF.

Table B.1. Summary of regional and local planning policy relating to ecology

Policy	Summary
Warwick District Local Plan 1996-2011	
Policy DP3 Natural and Historic Environment and Landscape	Development will only be permitted which protects important natural features and positively contributes to the character and quality of its natural and historic environment through good habitat/landscape design and management. Development proposals will be expected to demonstrate that they:- a) protect and/or enhance local ecology, including existing site features of nature conservation value; b) protect and/or enhance features of historical, archaeological, geological and geomorphological significance; c) protect and enhance the landscape character of the area, particularly respecting its historic character; d) provide appropriate levels of amenity space which incorporate suitable habitat features and hard and soft landscaping; e) integrate the amenity space and proposed landscaping into the overall development; f) secure the long term management and maintenance of habitat/landscape features; and g) protect best and most versatile agricultural land Development proposals which have a significant impact upon the character and appearance of an area will be required to demonstrate how they comply with this policy by way of a Nature Conservation

Policy	Summary
	and Landscape Analysis. Where adverse impacts are unavoidable, the Council may consider possible mitigation measures to reduce any harm caused by these adverse impacts. Where mitigation measures are not possible, compensation measures may be appropriate.
DAP2 Protecting Nature Conservation, Geology and Geomorphology	Development will not be permitted which will destroy or adversely affect the following sites of national importance:- a) designated Sites of Special Scientific Interest (SSSIs). Currently designated sites are shown on the Proposals Map; Development will be strongly resisted that will destroy or adversely affect the following locally important sites/features:- b) designated Ancient Woodlands. Currently designated sites are shown on the Proposals Map; c) designated Local Nature Reserves (LNRs). Currently designated sites are shown on the Proposals Map; d) any other sites subject to a local ecological or ecological/geomorphological designation unless the applicant can demonstrate that the benefits of the proposal significantly outweigh the ecological/geological/geomorphological importance of the area; e) protected, rare, endangered or other wildlife species of conservation importance. In assessing the effect of development on a nature conservation or geological/geomorphological site in relation to b), c), d) and e), proposals will not be permitted unless the applicant can demonstrate that consideration has been given to any mitigation and compensatory measures proposed that take account of the importance of the site/species, the extent to which ecological, geological or geomorphological impact is minimised, the nature of the measures proposed, and proposed long term management of features/sites/habitats of ecological/ geological/ geomorphological importance.

Appendix C

Desk Study Information [MAGIC + WBRC]

Site Check Report Report generated on Mon Apr 13 2015
You selected the location: Centroid Grid Ref: SP263652
The following features have been found in your search area:

Ramsar Sites (England)
No Features found

Special Areas of Conservation (England)
No Features found

Special Protection Areas (England)
No Features found

2634_Land at Hampton Magna, Warwick_10km

Legend

- Ramsar Sites (England)
- Special Areas of Conservation (England)
- Special Protection Areas (England)

Projection = OSGB36
xmin = 406400
ymin = 250600
xmax = 447300
ymax = 280400
Map produced by MAGIC on 13 April, 2015.

Site Check Report Report generated on Mon Apr 13 2015
You selected the location: Centroid Grid Ref: SP263652
The following features have been found in your search area:

Local Nature Reserves (England)

Reference	1009057
Name	OAKWOOD AND BLACKLOW SPINNEY
Hectares	1.76
Hyperlink	http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1009057

Sites of Special Scientific Interest (England)

Name	COTEN END QUARRY
Reference	1002626
Natural England Contact	MIKE ROBINSON
Natural England Phone Number	0845 600 3078
Hectares	0.23
Citation	1003310
Hyperlink	http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003310

National Nature Reserves (England)
No Features found

2634_Land at Hampton Magna, Warwick_3km

Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)
- Sites of Special Scientific Interest (England)

Projection = OSGB36
xmin = 419500
ymin = 260500
xmax = 433200
ymax = 270000
Map produced by MAGIC on 13 April, 2015.

Date: 28/04/2015
Our Ref: CSA5517

Name: Hannah Willis
Company/Organisation: CSa Environmental Planning

Site Name: Land at Hampton Magna
Grid Reference: SP263652
Site Radius: 2.25km

Ben Wood
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Warwickshire Biological Records Centre
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Site Brief Descriptions

Ecosite 10/26 Woodland-Grove park	Nature conservation status ungraded with a part identified as potential Local Wildlife Site (pLWS). Site of high nature conservation value, probably of District or County importance. Listed on English Natures Ancient Woodland Inventory. Mixed woodland with extensive sycamore *Acer pseudoplatanus*, but some English oak *Quercus robur* / ash *Fraxinus excelsior* canopy and hazel *Corylus avellana* coppice. Elder *Sambucus nigra* frequent and typical woodland ground flora, including wood anemone *Anemone nemorosa* and bluebell *Hyacinthoides non-scripta*. Adjacent pool surrounded by alder *Alnus glutinosa* trees and willow *Salix spp.* with much submerged and marginal vegetation. Orange foxtail *Alopercurus aequalis*, a Warwickshire rarity has been recorded on site.
Ecosite 14/26 Blackbrake Plantation	Identified as a potential Local Wildlife Site (pLWS). A mainly deciduous wood (small conifer plantation at eastern end) of mature trees.
Ecosite 15/26 Warwick Racecourse	Identified as a potential Local Wildlife Site (pLWS). An area in the south has been designated as a Local Wildlife Site (LWS). A large, flat, well drained site with rough semi-improved grassland, scattered trees, relict hedgerows and a further hedgerow bordering a stream along the west side of the site. The LWS comprises of a large area of neutral semi-improved grassland dominated by a mix of grasses including meadow foxtail *Alopecurus pratensis*, sweet vernal grass *Anthoxanthum odoratum* and yokshire fog *Holcus lanatus*. Diversity and abundance of forbs is improving gradually with more sensitive management. Species include abundant bulbous buttercup *Ranunculus bulbosus* and meadow buttercup *R. acris*, with frequent common knapweed *Centaurea nigra* and ladies bedstraw *Galium verum*. More locally-

	frequent species include pignut *Conopodium majus*, common cat's ear *Hypochaeris radicata* and goat's beard *Tragopogon pratensis* with occasional yellow rattle *Rhinanthus minor*. There is also an area of rush pasture and wetland, with a small pond and spring towards the southern end. The site is a county important breeding site for meadow pipit *Anthus pratensis*.
Ecosite 18/26 Priory Park	Previously identified as pLWS, but has since been rejected by the LWS panel. Not of LWS quality. A parkland site in the heart of Warwick. Its habitats are well used by invertebrates, nesting birds and a range of mammals. A badger sett was previously present in the park but was probably deserted owing to disturbance. The park is a mixture of grassland and wooded areas, with a steam on its northern edge.
Ecosite 20/26 River Avon and tributaries	Designated as a Local Wildlife Site (LWS). The river serves an important function as a habitat corridor and linear feature and even though it has been much modified, some sections are still relatively natural. Along all its length the river has good stands of bank side vegetation with many in-stream and bank features, from mid-point and side bars to oxbows, riffles, backwaters, pools and eroding/stable earth cliffs. The river is a known location for populations of white-clawed crayfish *Austropotamobius pallipes* and otter *Lutra lutra*, whilst water vole *Arvicola amphibius* has also been recorded.
Ecosite 30/26 Grand Union Canal (Hatton Locks)	Identified as a potential Local Wildlife Site (pLWS). The canal is an important linear wildlife corridor. Parts have tall herbs, and hawthorn *Crataegus monogyna*/blackthorn *Prunus spinosa* scrub bordering areas of trees and hedges. The canal, although heavily used for recreation, is still of significant nature conservation value and certain areas have had water vole *Arvicola amphibius* present in the past, whilst the lock walls have a least five species of fern. Most aquatic vegetation is found in the turning bays on the canal where there are also reed and sedge beds. The picnic site at Hatton Locks car park near the A46 has particularly rich calcicole flora. The site also includes associated grasslands between the canal and railway and although historically much more grassland was present, only fragments remain. The main concentration is in the area around Hatton Locks, where the grassland is semi-improved with patches of marshy grassland.
Ecosite 44/26 A46 roadside verge	Nature conservation status ungraded. The bordering hedgerow contains hawthorn *Crataegus monogyna* and occasional oak *Quercus* sp.
Ecosite 49/26 Budbrooke Farm Pool	Nature conservation status ungraded. A small pool surrounded by well wooded banks, with limited marginal vegetation. It may well be of value for amphibians.

Ecosite 50/26 Budbrooke ponds and Hampton Magna	Nature conservation status ungraded. The value of the site has decreased owing to frequent dumping of rubbish and the tarmacking of part of it.
Ecosite 52/26 Warwick Sewage Farm	Nature conservation status ungraded. A small area adjacent to the River Avon was previously identified as pLWS, but has since been rejected by the LWS panel. Not of LWS quality A working sewage works with some sludge beds partly re-colonised by tall herbs and grasses. Habitats include an area of semi-improved grassland with frequent dove's-foot crane's-bill *Geranium molle* and occasional common mouse-ear *Cerastium fontanum*, dried sludge areas dominated by nettle *Urtica dioica* with occasional creeping thistle *Cirsium arvense* around the edges and some bare patches with prickly lettuce *Lactuca serriola*, mullein *Verbascum sp* and scentless mayweed *Tripleurospermum inodorum*. The area nearest the river is bordered by a strip of semi-improved grassland and tall ruderal vegetation with scrub and broad-leaved plantation. Abundant ground ivy *Glechoma hederacea* and butterbur *Petasites hybridus* can be found at the northern end and close to the river. A good range of invertebrates have been recorded onsite.
Ecosite 70/26 Hedge near Hampton Magma	Nature conservation status ungraded. Hedgerow of hawthorn *Crataegus monogyna*, ash *Fraxinus excelsior*, oak *Quercus sp* and wild privet *Ligustrum vulgare*, with false oat-grass *Arrhenatherum elatius* and common couch *Elytrigia repens* underneath.
Ecosite 73/26 Smith's Covert	Identified as a potential Local Wildlife Site (pLWS). Semi-natural Ancient Woodland listed on English Nature's Inventory. Mature oak *Quercus sp* woodland with planted larch *Larix sp,* spruce *Picea sp* and a number of mature pines *Pinus sp* in the north east corner. Large-leaved lime *Tilia platyphyllos* has been recorded, but there is little ground flora except ivy *Hedera helix*, bramble *Rubus fruticosus*, elder *Sambucus nigra* and lesser celandine *Ranunculus ficaria*.
Ecosite 77/26 Scrub Woodland on Budbrooke Farm	Nature conservation status ungraded. Bushy area with bramble *Rubus fruticosus* and good ground cover. Some deciduous trees are present.

Ecosite 81/26 The Butts Wildlife Garden	Nature conservation status ungraded. Parish nature conservation value. The site supports a range of broadleaved herbs, including comfrey *Symphytum officinale*, ivy *Hedera helix*, spanish bluebell *Hyacinthoides hispanica*, black medick *Medicago lupulina*, germander speedwell *Veronica chamaedrys* and ribwort plantain *Plantago lanceolata*. Large copper beech *Fagus sylvatica* overhang most of the site.
Ecosite 85/26 Hampton on the Hill Churchyard	Nature conservation status ungraded. Site of parish value. Churchyard with some interest, with a yew and primrose present.
Ecosite 91/26 Hampton Allotment Ponds	Nature conservation status ungraded. Site of County value. A spring fed marl pool surrounded by hawthorn and blackthorn scrub. Breeding great crested newts were recorded here in 1983, but there is no further evidence to support this. Pond recorded as containing Great Crested Newts a species protected under the Wildlife and Countryside Act, 1981.
Ecosite 97/26 St. Marys Cemetery, Birmingham Road	Identified as a potential Local Wildlife Site (pLWS). Site is of District value. The grassland is species rich, with records of meadow vetchling *Lathyrus pratensis*, lady's bedstraw *Galium verum*, heath bedstraw *Galium saxatile*, primrose *Primula veris* and sweet violet *Viola odorata*. Wetter areas include greater burnet *Sanguisorba officinalis*, grey sedge *Carex divulsa*, meadowsweet *Filipendula ulmaria* and water figwort *Scrophularia auriculata*.
Ecosite 100/26 Budbrooke Churchyard	Nature conservation status ungraded. The churchyard supports a range of plants including common mouse-ear *Cerastium fontanum*, pale willowherb *Epilobium roseum*, red fescue *Festuca rubra*, meadow vetchling *Lathyrus pratensis*, annual meadow grass *Poa annua*, slender speedwell *Veronica filiformis*, sweet violet *Viola odorata* and common violet *Viola riviniana*.
Ecosite 102/26 St. Paul's Churchyard	Nature conservation status ungraded. A churchyard supporting a range of flowering plants, including spring sedge *Carex caryophyllea*, common mouse-ear *Cerastium fontanum*, annual meadow-grass *Poa annua*, blue comfrey *Symphytum spp* and common violet *Viola sp*.

Ecosite 109/26 Horse Brook	The site's specific nature conservation status is ungraded, but it is included as part of the River Avon LWS. An important wildlife corridor with good aquatic vegetation. All water courses are of at least some nature conservation importance.
Ecosite 112/26 Gog Brook	Included as part of the River Avon LWS (Local Wildlife Site). The stream along much of its length has aquatic and emergent vegetation. The bank tops have scrub, tall herbs and mature trees. In a few sections it has been canalised, with mown grass banks off the Warwick – Henley Road. In other sections, mature willow *Salix sp* and oak *Quercus robur* shade the stream with natural bankside vegetation including stands of tall herbs. The stream itself is gravel bottomed in sections with many instream and bankside features, such as exposed tree roots, riffles, pools and eroding and stable earth cliffs.
Ecosite 113/26 Hatton Hill Field	Identified as a potential Local Wildlife Site (pLWS). This small field immediately to the rear of the existing plant is species rich and of high nature conservation value with county rarities. Planning consent granted for development required a number of conditions covering this area and a small "nature reserve" area was left. The hedge to the south of the small field has another narrow strip of grassland beyond which is also of high value.
Ecosite 116/26 Railway-Leamington Spa to Birmingham	Parts of the site have been selected as a potential Local Wildlife Site (pLWS). Linear features provide important wildlife corridors and the deep railway cutting which extends either side includes areas of semi-improved grassland, tall ruderal, scrub and scattered trees. Sycamore *Acer pseudoplatanus* is the dominant tree species but there are also occasional oaks *Quercus sp*. The understorey has abundant broom *Cytisus scoparius*, frequent hawthorn *Crataegus monogyna* and occasional rose *Rosa sp* and bramble *Rubus fruticosus*.
Ecosite 118/26 St Mary's Churchyard	Nature conservation status ungraded. The churchyard has records of sweet violet *Viola odorata*, barren strawberry *Potentilla sterilis*, rose-of-sharon *Hypericum calycinum* and giant borage *Echium pininana*. Bats have been seen foraging in the vicinity of the churchyard, whilst in recent years both peregrine falcon *Falco peregrinus* and spotted flycatcher *Muscicapa striata* have nested, the former on the towers and the latter in the grounds.
Ecosite 120/26 Warwick Castle Park	Running through the site is the River Avon, designated as a Local Wildlife Site (LWS). A pond and swamp in the east of the site has been designated New Waters Local Wildlife Site (LWS). Alderham Pastures at the south of the site adjacent to the river has been designated as a Local Wildlife Site (LWS). Adjacent to New Waters is Nursery Wood potential Local Wildlife Site (pLWS). A plantation along the eastern boundary of the site has been

	rejected by the LWS panel. Not of LWS quality. Warwick Castle Park is a complex site with woodland, wetland, scrub, open water and reedbeds (large areas are also farmed arable land). It contains a large area of reedbed, whilst The New Waters area is potentially important for otter *Lutra lutra* as the habitat has been recognised as one of the best potential breeding sites for the species in the county. The park is a Capability Brown landscaped area and the features present reflect the previous history of planting. However, the plantation woodlands do contain veteran oaks *Quercus sp* which probably pre-date this. The woodlands may be also of significant nature conservation interest, although survey work is required to confirm this. The area is used by several bat populations and a number of roosts are known in the immediate area. Of particular interest is a Natterers bat *Myotis nattereri* colony. In addition, the Castle Park is important for reed warbler *Acrocephalus scirpaceus*, sedge warbler *Acrocephalus schoenobaenus* and reed bunting *Emberiza schoeniclus*, whilst grey herons *Ardea cinerea* (heronry) also breed within the grounds. The area is also known to have a number of badger setts. A dam forms the western edge of the lake, known as New Waters. The open water areas of the lake are surrounded by swamp and fen vegetation. Habitats include reedmace swamp, drier swamp with greater pond sedge *Carex riparia* and great willowherb *Epilobium hirsutum*, some lesser pond sedge *Carex acutiformis* communities and reed sweet grass *Glyceria maxima* also occurs. Towards the eastern end successional changes have resulted in wooded habitats including willow *Salix sp* and alder *Alnus glutinosa* carr. The lake has not been surveyed for invertebrates but is likely to be important for many groups, including *Odonata*.
Ecosite 122/26 Woodway Lane, roadside woodland	Designated as Woodway Lane Local Wildlife Site (LWS). Narrow roadside oak *Quercus* sp. woodland with an understorey dominated by hazel *Corylus avellana* with some hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, dog rose *Rosa canina*, rowan *Sorbus aucuparia* and gorse *Ulex europaeus*. Ground flora generally dominated by ivy *Hedera helix* and bramble *Rubus fruticosus agg.* with areas of nettle *Urtica dioica*, greater stitchwort *Stellaria holostea*, and bluebell *Hyacinthoides non-scripta*. Raspberry *Rubus idaeus*, cleavers *Galium aparine*, wood sage *Teucrium scorodonia*, cow parsley *Anthriscus sylvestris*, honeysuckle *Lonicera periclymenum*, creeping jenny *Lysimachia nummularia*, garden archangel, hogweed *Heracleum sphondylium*, lords and ladies *Arum maculatum*, herb-Robert *Geranium robertianum*, hedge garlic *Alliaria petiolata* and ivy-leaved speedwell *Veronica hederifolia* also occur. (1998)

Ecosite 125/26 Field at Oldence	Identified as a potential Local Wildlife Site (pLWS). The site consists of a series of semi-improved fields and broad-leaved woodland. The semi-improved grasslands are dominated by false oat grass, *Arrhenatherum elatius*, with frequent cock's foot, *Dactylis glomerata,* crested dog tail *Cynosaurus cristatus* and yorkshire fog *Holcus lanatus*. Common sorrel, *Rumex acetosa,* tufted vetch, *Vicia cracca,* ribbed melilot, *Melilotus officinalis,* lesser stitchwort, *Stellaria graminae,* black medick, *Medicago lupulina*, smooth hawksbeard, *Crepis capillaris*, yarrow, *Achillea millefolium* and black knapweed *Centaurea nigra* are typically found in each field. The broadleaved semi-natural woodland canopy contains sycamore, *Acer pseudoplatanus,* cherry, *Prunus sp* and oak *Quercus sp*. Elder, *Sambucus nigra* and hawthorn, *Crataegus monogyna* make up the understorey, with the sparse ground flora containing common sorrel *Rumex acetosa*.
Ecosite 153/26 Hollow and Pond	Identified as a potential Local Wildlife Site (pLWS). Deep hollow - assumed to have once been a quarry and then part wooded with elm. The area is dominated by rank grassland containing *Holcus lanatus*, *Arrhenatherum elatius*, *Alopecurus pratensis* and *Festuca rubra* with some lesser stitchwort *Stellaria graminea*, bluebell *Hyacinthoides non-scripta*, meadow vetchling *Lathyrus pratensis*, hogweed *Heracleum sphondylium*, nettle *Urtica dioica*. The base of the hollow is rather damp with some distinct wetland areas - species include hairy sedge *Carex hirta*, *Carex diandra* (possibly) with rushes *Juncus inflexus*, *Juncus effusus*, curled dock *Rumex crispus*, amphibious bistort *Persicaria amphibia* and lady's smock *Cardamine pratensis* occurring in the wettest parts. Large open pool. Much of the surface is dominated by *Glyceria fluitans* and often associated with floating algea. Amphibious bistort is abundant near the edge with some gipsywort, dock and *Juncus effusus*.
Ecosite 155/26 Ashbeds Wood and the Lilacs	The northern area of the site was previously identified as pLWS, but has since been rejected by the LWS panel. Not of LWS quality. The southern area is identified as a Local Wildlife Site (LWS). An area of semi-natural broadleaved woodland dominated by sycamore *Acer pseudoplatanus* and ash *Fraxinus excelsior*, much of which has been coppiced. Other species found include lime *Tilia x europaea*, wych elm *Ulmus glabra* and several much older oak *Quercus robur* standards. The understorey is sparse and consists of some holly *Ilex aquifolium*, hawthorn *Crataegus monogyna*, elder *Sambucus nigra* and occasional honeysuckle *Lonicera periclymenum.* The ground cover is also patchy and holds amongst others, wood avens *Geum urbanum*, garlic mustard *Alliaria petiolata* and cow parsley *Anthriscus sylvestris*.

Ecosite 156/26 Corner of field S of Hampton Magna	Identified as a potential Local Wildlife Site (pLWS). It appears that this field may now have been turned into arable and as such is in need of further survey.
Ecosite 162/26 Com Brook, tributary of River Avon	The site's specific nature conservation status is ungraded. Included as part of the River Avon LWS. A slow running, shallow stream, large parts of its banks are covered by old stonework or concrete. However there is abundant vegetation where banks have been left undeveloped. Native and several introduced species are found throughout, including locally abundant cow parsley *Anthriscus sylvestris*, common nettle *Urtica dioica*, occasional lesser celandine *Ranunculus ficaria*, hogweed *Heracleum sphondylium*, garlic mustard *Alliaria petiolata*, ground elder *Aegopodium podagraria*, cleavers *Galium aparine*, broad-leaved dock *Rumex obtusifolius*, herb-Robert *Geranium robertianum*, meadowsweet *Filipendula ulmaria* and lords and ladies *Arum maculatum*.

Non-statutory site designations

County important sites are known as 'Local Wildlife Sites' (previously Sites of Importance for Nature Conservation). There are also a number of sites of nature conservation importance, termed "Ecosites", which are found within your area of search. Information about the designation and grading of Ecosites is included in the table above.

The county is currently reviewing its site system and will be identifying further Local Wildlife Sites (LWS) over the next few years. Currently we have identified those sites which are potential Local Wildlife Sites (pLWS) and these are also indicated below with the Ecosite details; many sites are as yet ungraded against the LWS system. Please contact us if you would like a copy of the detailed citation for an LWS within your search area.

Some Ecosites are also Local Geological Sites (LGS) or statutory Local Nature Reserves (LNRs). Details of these designations are also given in the table with the Ecosite details.

The table above gives brief details of all known Ecosites within your area of search; please see the enclosed map for locations. Sites of regional and local biodiversity interest are considered to play a fundamental role in meeting overall national biodiversity targets, and therefore appropriate weight must be attached to designated Ecosites in all planning applications (in accordance with local plan policies and the general principles of the National Planning Policy Framework (NPPF)).

N.B. All watercourses are considered to be of ecological importance; however, accurate assessment of the relative importance of the various stretches is not yet generally possible.

Structure and Local Plan policies provide protection for these sites or, in circumstances where development is allowed, require mitigation measures to off-set any damage. In order to achieve this it is essential that adequate survey details for sites which may be affected by development are gathered at a very early stage. For sites of high biodiversity value this requires Phase 2 survey work and species specific surveys including invertebrates,

mammals, birds and so on. Guidance is available from the Institute of Environmental Assessment (IEA) in “Guidelines for Baseline Ecological Assessment”.

Please note that the brief descriptions above include species recorded within the whole Ecosite, and therefore potentially an area outside of your specific area of search. In particular descriptions of linear Ecosites such as water courses and railway lines may include species which were not necessarily recorded within your area of search.

For further information relating to specific sites please contact WBRC at wbrc@warwickshire.gov.uk
For information relating to SSSIs please contact Natural England.

Appendix D

Extended Phase 1 Habitat Survey

Methodology

Phase 1 Habitat survey- a technique for environmental audit[11] is a method of classification and mapping wildlife habitats in Great Britain. It was originally intended to provide "…relatively rapidly, a record of semi-natural vegetation and wildlife habitat over large areas of the countryside". Phase 1 Habitat Survey methodology has been widely 'extended' beyond its original purpose to allow the capture of information at an intermediate level between Phase 1 and Phase 2 Habitat surveys. For clarity, Standard Phase 1 Habitat Survey methodology has been 'extended' in this report to include the following:

- More detailed floral species lists for each identified habitat;
- Descriptions of habitat structure, the evidence of management and a broad assessment of habitat condition;
- Mapping of additional habitat types (e.g. hardstanding);
- Identification of Priority Habitats under Section 41 of the NERC Act;
- Identification of Habitats Directive Annex I habitat types;
- Evidence of, or potential for, the presence of the following species / groups:
  - *European Protected Species (including bats, great crested newt, dormice and otter)*
  - *Birds*
  - *Reptiles*
  - *Water vole*
  - *Badger*
  - *Other mammals (including S41 Priority Species: hedgehog, harvest mouse and brown hare)*
  - *Other amphibians (including S41 Priority Species: common toad)*
  - *Notable, rare or protected plants*
  - *Notable, rare or protected invertebrates*

Results of the Extended Phase 1 Habitat survey are presented on the Habitat Plan in Appendix A with floral species lists in Table D.1 below.

[11] JNCC (2010)

Results

Table D.1: Habitats and Flora Species List

Habitat	Phase 1 Reference Codes	S41/ Annex I status	Flora	
			Common name	**Latin name**
Arable	J1.1	-	Oilseed rape	*Brassica oleifera*
Semi-improved grassland margins	B6		Perennial rye-grass	*Lolium perenne*
			Cock's foot	*Dactylis glomerata*
			False oat-grass	*Arrenatherum elatius*
			Yorkshire fog	*Ranaunculus repens*
			Rough meadow grass	*Poa trivialis*
			Red fescue	*Festuca rubra*
			Cleavers	*Galium aparine*
			Groundsel	*Senecio vulgaris*
			Red dead nettle	*Lamium purpureum*
			White dead nettle	*Lamium album*
			Cut leaved cranesbill	*Geranium dissectum*
			Ground ivy	*Glechoma hederaceae*
			Common field speedwell	*Veronica persica*
			Common chickweed	*Stellaria media*
			Field forget-me-not	*Myosotis arvensis*
			Broad leaved dock	*Rumex obtusifolius*
			Bristly oxtongue	*Helminthotheca echioides*
			Spear thistle	*Cirsium vulgare*
			Nipplewort	*Lapsana communis*
			Petty spurge	*Euphorbia peplus*
			Lesser celandine	*Ranunculus ficaria*
			Dandelion	*Taraxacum agg*
			Scentless mayweed	*Tripleurospermum inodorum*
			Fat hen	*Chenopodium album*
			Sow thistle	*Sonchus asper*
Tall ruderal	C3.1		Common nettle	*Urtica dioica*
			Hogweed	*Heracleum sphondylium*
			Hedge garlic	*Alliaria petiolata*
			Cow Parsley	*Anthriscus sylvestris*
Hedgerow	J2.1	S41 Priority Habitat "Hedgerows"	Bramble	*Rubus fruticosus* agg.
			Blackthorn	*Prunus spinosa*
			Elder	*Sambucus nigra*
			Hawthorn	*Crataegus monogyna*
			Ash	*Fraxinus excelsior*
			Ivy	*Hedera helix*

			Hazel	*Corylus avellana*
			Crab apple	*Malus sylvestris*
			Honeysuckle	*Lonicera* sp.
			Redcurrant	*Ribes rubrum*
			Elm	*Ulmus procera*
			Lords and ladies	*Arum maculatum*
			Wood avens	*Geum urbanum*
			Cherry	*Prunus* sp.
			Holly	*Ilex aquifolium*
			Oak	*Quercus* sp.
Scrub	A2.1	-	Blackthorn	*Prunus spinosa*

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Offices also at **Milton Keynes** and **Ibstock**

16th August 2016

Your Ref:
Our Ref: AB/21119

BY EMAIL ONLY

Mr R. Crow
Barton Willmore
Regent House
Prince's Gate
4 Homer Road
Solihull
B91 3QQ

Dear Russell,

OLD BUDBROOKE ROAD, HAMPTON MAGNA

Further to your recent email I am writing in respect of the above site and to provide a response to a question posed by the Inspector as part of Warwick Local Plan EiP. My understanding is the following question has been put forward:

> *What are the infrastructure requirements/costs and are there physical or other constraints to development? How would these be addressed?*

When considering technical matters, it is our view there are no physical constraints to the development of this site and a proposed development of 140 dwellings. This is summarised as follows:

- **Highways** – Access can be achieved onto Old Budbrooke Road through the creation of a T-junction with right turn lane. The junction can be accommodated within the existing highway boundary or land under the control of Taylor Wimpey UK Ltd. Emergency access and pedestrian/cycle can be facilitated onto Arras Boulevard. Infrastructure payments of £6000 per dwelling will be made to satisfy off site highway impacts.

- **Sustainability** – The development is in a sustainable location with bus services and local amenities and facilities available close to the site. Warwick Parkway station is located approximately 280m walking from the providing provide easy access to Birmingham and London.

- **Flood Risk** – The site is located in Flood Zone 1 and no other significant sources of flood risk are identified.

- **Drainage** – Surface water drainage will be accommodated through the provision of onsite attenuation features which will outfall to an existing watercourse on the western side of Old Budbrooke Road. Foul flows are likely drain to the existing sewer network located along the southern of the site.

- **Noise** – Some mitigation may be required in the form of enhanced glazing to protect internal noise standards and dwelling orientation to protect rear garden standards. Principle noise sources include Old Budbrooke Road (west), A46 (east) and railway line (north) however it is considered unlikely noise will have a significant adverse impact on the development of this site.

- **Land Contamination** – The site is unlikely to be classified as contaminated land.

- **Utilities** – All principal utilities (gas, electric, drainage and telecommunications) are located within close proximity of the site. A 300mm foul water sewer and 11kv overhead cable is located within the site boundary and these will be diverted and incorporated into the development area as required.. Capacity within the network is likely to be available subject to suitable upgrades being implemented at the developers cost. Diversion of existing BT telecommunications cables within Old Budbrooke Road is likely to be required to facilitate access but these do not pose a constraint to development.

- **Construction Traffic** – As with any other development site in Hampton Magna construction traffic will therefore be required to access the site from the local road network and not the A46. As part of any future Construction Management Plan the following will be considered in respect of large vehicle movement due to restriction on part of the surrounding highway network:

    - Larger vehicles will access the site via the A4189 and in order to limit impact within Warwick all vehicles will be directed to access the site via the B4463 which extends from the M40 junction 15. As part of being able to achieve construction movements along this route the following measures will need to be considered:
        - Potential improvement to the A4189/Hampton Road junction to facilitate turning movements for larger vehicles.
        - Contain movements to within the day when on street parking is limited (most noticeable in Hampton on the Hill).
        - Potential for coordinated approach with residents to ensure vehicles do not impede route along with possible use of convoy system.
        - Potential for traffic management measures
        - Provision of larger on site storage compound to limit the number of larger vehicle movements.

In respect of principal infrastructure requirements and costs these are outlined below although please note the costs are estimated at this time:

Item	**Comments**	**Costs (estimated)**
Access	Right turn lane onto Old Budbrooke Road	£175,000.00
Footway/emergency access connections	Connections onto Arras Boulevard	£50,000.00
2 x bus stops	Assumed to new bus stops close to the site with shelters	£50,000.00
Public Rights of Way	Aware of standard 1.5 mile radius	£20,000.00

	contribution requirement from Warwickshire County Council	
Travel Packs	Travel packs at £75 per dwelling	£10,500.00
Offsite highways	IDP contribution which is required by Warwickshire County Council @ £6000 per dwelling	£840,000.00
Construction Management	These measures are to assist with construction vehicle and include off site highway measures as outlined.	£150,000.00
Attenuation basin	3,700m3 @ £50m3 plus hydrobake and headwalls	£200,000.00
Pumping station	To achieve foul drainage connection	£75,000.00
Utility connections	Electricity and Gas (combined)	£150,000.00
	Water Supply	£0.00
Utility Diversions	Telecommunications (BT)	£50,000.00
	Electricity	£50,000.00
	Foul sewer (if diverted)	£180,00000
		£2,000,500.00

We trust the above is sufficient for your needs however should you have any queries please do not hesitate to contact me.

Yours sincerely,

Alexander Bennett Bsc (Hons) MCIHT MTPS
Director
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PROPOSED RESIENTIAL DEVELOPMENT OLD BUDBROOKE ROAD, HAMPTON MAGNA, WARWICKSHIRE

TECHNICAL REPORT

APRIL 2016

REPORT REF: 21119/04-16/4326

Consulting Development Engineers

PROPOSED RESIDENTIAL DEVELOPMENT OLD BUDBROOKE ROAD, HAMPTON MAGNA, WARWICKSHIRE

FEASIBILTY REPORT

APRIL 2016

REPORT REF: 21119/04-16/4326

CLIENT: Taylor Wimpey UK Ltd

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4.0 FLOOD RISK AND DRAINAGE
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1.0 INTRODUCTION

1.1 Mewies Engineering Consultants Ltd (M-EC) has been commissioned by Taylor Wimpey UK Ltd to produce this Technical Report in support of the continued promotion of Land off Old Budbrooke Road, Hampton Magna and its suitability for residential development. A site location plan is provided in Appendix A.

1.2 The total proposed developable area measures 7.42ha and the site is capable of delivering up to 140 dwellings. A proposed Framework Plan for the site is shown in Figure 1 below.

Figure 1: Proposed site Framework Plan

1.3 The Site is bounded by Old Budbrooke Road to the west, a farm track to the north – with the railway line and Warwick Parkway station located less than 50m to the north, existing residential development focused on Arras Boulevard to the south and to the east are Stanks Farm buildings and a disused Sewage Works. The site is approximately 2.2km west of Warwick town centre and approximately 500m north east of Budbrooke Village centre. The application area is centred within grid reference 426323, 265259.

1.4 A settlement hierarchy study was carried out by Warwick District Council in 2013 to inform the progress of the Local Plan. As part of this study, Hampton Magna was identified as the most sustainable Primary Service Village.

1.5 This report provides an overview on the following technical disciplines:

- Highways and Transportation
- Flood Risk and Drainage
- Noise
- Land Contamination
- Utilities
- Preliminary Construction and Environmental Management Plan

1.6 All work is based on initial observations however; further technical work will be required to support any future planning application. For the purpose of this appraisal we have assumed deliver of the site in isolation and therefore not reliant on the wider land options.

1.7 M-EC has completed this report for the benefit of the individuals referred to in paragraph 1.1 and any relevant statutory authority which may require reference in relation to approvals for the proposed development. Other third parties should not use or rely upon the contents of this report unless explicit written approval has been gained from M-EC.

1.8 The report has been prepared using published information and information provided by the Client which was made available at the time of writing only. No liability is extended to any information which has become available since this time. Third parties using information contained in this report do so at their own risk.

1.9 M-EC accepts no responsibility or liability for:

a) The consequence of this documentation being used for any purpose or project other than that for which it was commissioned;

b) The issue of this document to any third party with whom approval for use has not been agreed.

2.0 HIGHWAYS AND TRANSPORTATION

Vehicular Access

2.1 Access to the site would be achieved from Old Budbrooke Road where footways of varying width (approximately 1.8m to 2.5m) and a carriageway of approximately 5.5m width are available. A verge with a hedgerow and shrubs separates the site from the footway along the eastern side of Old Budbrooke Road. Old Budbrooke Road is subject to a 40mph speed limit (although actual speeds may be higher based on the nature of the road) with street lighting noted along the southern footway. Both footways proceed north and south towards a range of facilities and amenities.

2.2 Highway boundary data (see Appendix B) has been purchased from Warwickshire County Council (WCC) and appears to show Old Budbrooke Road coupled with the hedgerow and footways are adopted. Copies of these plans can be found attached.

2.3 Vehicle access will take the form of a T-junction with a right turn lane, with an initial design having been prepared on drawing 21119_08_020_01, in Appendix C. The size of the right turn lane associated junction visibility splays are based on the subjected speed limit of 40mph and there would be a requirement for the carriageway to be widened to cater for the right turn lane. A speed survey will be completed in due course to ensure no significant design variations will occur if speeds are higher than the subject speed limit. As part of the design new footways will be provided from the site onto Old Budbrooke Road.

2.4 An emergency access and pedestrian/cycle link could be taken off Arras Boulevard, located to the south of the site. A carriageway of circa 6.5m in width is available, with footways of approximately 2.0m located along either side of the carriageway. Arras Boulevard is predominantly a residential street with a 30mph speed limit. Street lighting is also noted along the northern footway. Vegetation and a wall split the site from the carriageway.

Sustainability

2.5 A combined footway cycleway runs parallel to Old Budbrooke Road on its southern side measuring 2.5m to 3.0m in width, which complimented with a footway on the opposing side of Old Budbrooke Road currently of varying widths owing to the encroachment of the grass verge which if cut back and maintained could provide greater provision for pedestrians. Street lighting is provided along the southern side

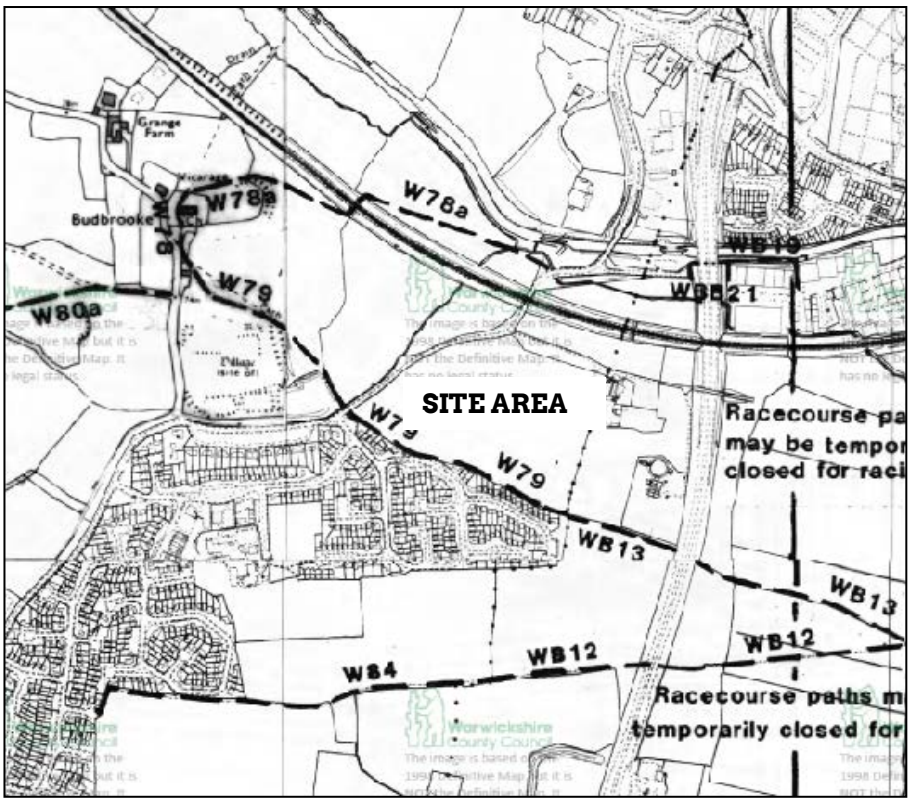
of Old Budbrooke Road and is anticipated to provide a high level and uniformity of illumination.

2.6 The above provide direct connectivity to Hampton Magna, Warwick Parkway Station and pedestrian links / connectivity to facilities in the wider locale, which are discussed in greater detail in later paragraphs.

2.7 Existing infrastructure for pedestrians comprise of a controlled crossing (Toucan) across the access to Warwick Parkway Station junction of Old Budbrooke Road, which is further replicated across the eastern arm where Old Budbrooke Road intersects with Birmingham Road approximately 800m north of the proposed site.

2.8 In addition to the footways there is also public footpath W79 which runs parallel to the southern boundary of the site. This footpath in turn links with footpaths WB13, W78a and W80a respectively. Whilst these routes do not provide direct links to local facilities they provide excellent leisure routes in close proximity to the site and therefore of direct benefit to residents, and encourage walking as viable and valued mode of transport. The location of these public footpaths can be seen in Figure 2 below.

Figure 2: Extract from Warwickshire Definitive Map



2.9 The NPPF does not specify specific walking distances. However the Institution of Highways Transportation publication 'Guidelines for Providing Journeys on Foot' 2000 does state the following; 'Approximately 80% of walk journeys and walk stages in urban areas are less than one mile. The average length of walk journey is one kilometre (0.6 miles)'.

2.10 The document goes further to say that the above distances can vary between locations and other factors such as physical ability of individuals, cost and convenience, and deterrents to walking.

2.11 Table 3.2 of the guidelines presents 'Suggested Acceptable Walking Distances' to be evaluated against, though it should be noted that the proposed site is on the edge of the urban environment and therefore it could be argued that the distances below are not wholly applicable in this case.

Suggested Walking Distances			
	Town Centres (m)	**Commuting / School (m)**	**Elsewhere (m)**
Desirable	200	500	400
Acceptable	400	1000	800
Preferred Maximum	800	2000	1200

2.12 Aside from Warwick Parkway Station and Budbrooke House children nursery, which are located to the north of the site the main concentration of facilities can be found to the south west of the site within the village of Hampton Magna and as shown on drawing 21119_08_010_01 in Appendx D. These are listed below and their location and approximate walking distances from the application site detailed.

- Warwick Parkway Station – 450m
- Budbrooke Primary School - 380m
- Budbrooke Medical Centre - 550m
- Convenience Store/ Post Office 550m
- Café 550m
- Montgomery of Alamen Public House – 450m
- Recreational Area served off Sykes Close. – 380m

- Budbrooke House Children Nursery – 600m

2.13 When comparing the above walking distances against that recommended in table 3.2 it can be seen that the majority of the main facilities fall within the desirable to acceptable limits.

2.14 The pedestrian/cycle infrastructure highlighted in previous paragraphs will only be taken up if the surrounding environment is conducive to walking as the distances involved. Therefore, a review has been taken of the quality of and provision against the 5 C's as detailed in the IHE guidelines as listed overleaf:

- Connected
- Comfortable
- Convenient
- Convivial
- Conspicuous

2.15 The above are discussed in detail in the following sections under the heading to which they relate.

Connected: The application site is situated to the north east of Hampton Magna with well-established footway and off carriageway cycling that links Hampton Magna, Warwick Parkway and to footways in the wider locale. Controlled crossings are provided at the major intersections allowing for safer crossing of adjacent junctions. Pedestrian guard as also noted that in turn provides pedestrians a sense of safety whilst guiding them to safer crossing opportunities. The footways are well lit and of sufficient width to accommodate the anticipated increases in footfall likely to arise from the development.

Comfortable: The topography of the land is relatively flat with no significant changes in gradient that would prevent walking being a viable option for all abilities. There are no vertical features that would restrict passage by either pedestrians or cyclists of any ability. Parking restrictions are enforced along Old Budbrooke Road meaning that no vehicles will be parked across the footway and restricting pedestrian/ cycle passage.

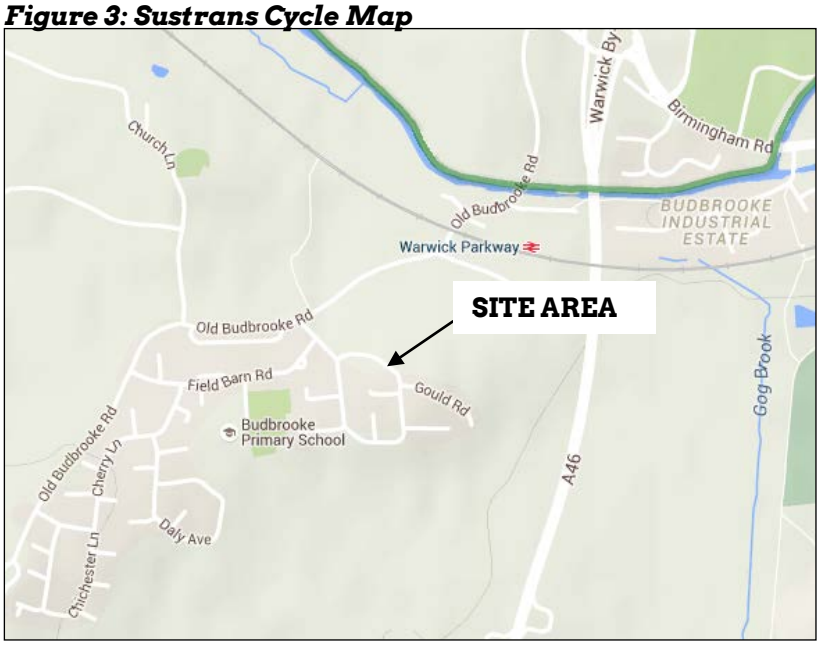
Convenient: All existing footways are convenient to the site and offer a safe route to Budbrooke Primary School, shops, medical practice, recreations are and Warwick Parkway rail station.

Convivial: Old Budbrooke Road is subject to a speed limit of 40mph and is light to moderately trafficked. Open land bounded by hedgerow is situated on the northern side of Old Budbrooke Road and the area as whole is rural in setting making it an attractive environment in which to walk/cycle. There are opportunities to reduce the speed limit as part of the development proposal

Conspicuous: A system of street lighting is provided along Old Budbrooke Road, and should provide a high level and uniformity of lighting. Further improvements will be facilitated as part of the access proposals.

2.16 As mentioned in the preceding paragraphs, a footway/cycleway runs along the eastern side of Old Budbrooke Road and across the development frontage. It should be noted that this local route is not detailed on Sustrans cycle map presented in Figure 3. The footway/cycleway measures some 2.5 to 3.0m in width and fully and uniformly lit along its entire length. Heading northwards the footway/cycleway crosses the junction of Old Budbrooke Road/Warwick Parkway, where a toucan crossing is provided to assist with safer crossing of junction. An additional local cycle route is noted along the northern side of the canal which proceeds towards Warwick. Other cycle provision will take place on the local highway network which is deemed suitable to support cycle traffic.

Figure 3: Sustrans Cycle Map



2.17 As part of the development proposals opportunities will be explored to improve cycle linkages especially to the south and onto the A4189 to improve connections to the secondary school. On site observations show large areas of verge are available and it is anticipated contributions will be sought as part of any future Section 106 Agreement.

2.18 The site is located off Old Budbrooke Road and is situated approximately 280m (450m walking distance) south west of the closest bus stop, situated within Warwick Parkway station.

2.19 The Public transport (service 68) operates along Old Budbrooke Road on a 30 minute frequency, Monday to Saturday. The service, which is operated by Stagecoach, runs between Hatton Park and Cubbington, stopping at a number of locations including Warwick and Warwick Parkway Rail Station. Drawing 21119_08_010_02, found in Appendix E highlights the bus routes and bus stops local to the site. There is no inbound/outbound service beyond 19:15 however it is reasonable to assume that the demand for a service would be negligible.

2.20 In conclusion it is considered that the site is well served by public transport at the point where the demand requires it.

2.21 Warwick Parkway Rail Station is located circa 280m (450m walking distance) north of the site, and can be directly accessed on foot via the existing unbroken footway/cycleway along Old Budbrooke Road. The station, which is managed by Chiltern Railways, provides cycle storage provision and a 24 hour car park. The station can be used as part of a multimodal journey to towns and cities including Birmingham, Leamington Spa and Solihull, all located within an hour commute.

Highway Impact

2.22 In respect of highway impact it is likely the following junctions would require formal assessment to determine the impact of the proposed development on their capacity.

- Old Budbrooke Road/A4177
- A46 Birmingham Road roundabout junction;
- Arras Boulevard/Blandford Way T-Junction;
- Blandford Way/Old Budbrooke Road T-Junction;
- Henley Road/Hampton Road/Old School Lane Junctions.

- A review of the signals under the railway bridge to the north of the site would also need to be undertaken.

2.22 Preliminary discussions with WCC have indicated that the junctions of Old Budbrooke Road/Warwick Parkway, A4177 Birmingham Road/Old Budbrooke Road and Old Budbrooke Road signals are already busy during peak periods. WCC have advised that a growth funded scheme at the A46 roundabout will be coming forward shortly. As part of the transport work it is likely the development will be assessed using the WCC Warwick Highway Model.

2.23 WCC and WDC are aware of the cumulative impact of development in the district and collect monies, via Section 106, to pay for large scale infrastructure improvements on the network. This figure currently stands at £6,000 per dwelling and it is likely this will be requested to offset highway impact from the proposed development.

2.24 Suitable mitigation will be provided as part of the development proposals including any identified off site highway works and contributions. All assessment work and consideration of impact will be undertaken in line with the NPPF.

Parking Provision and Management

2.23 It is acknowledged that the proximity of the application site to Warwick Parkway Station will be an attractor for commuter parking, if effective and enforceable kerb side space and the management is not implemented and managed accordingly. To this end a Parking Management Plan/Strategy will be promoted setting out the measures to be adopted to include but not exhaustive to the following:

- Designation of resident's visitor spaces applicable to each household within the curtilage and/or through clear designation around the development;

- Number of parking spaces to reflect local planning standards and site characteristics;

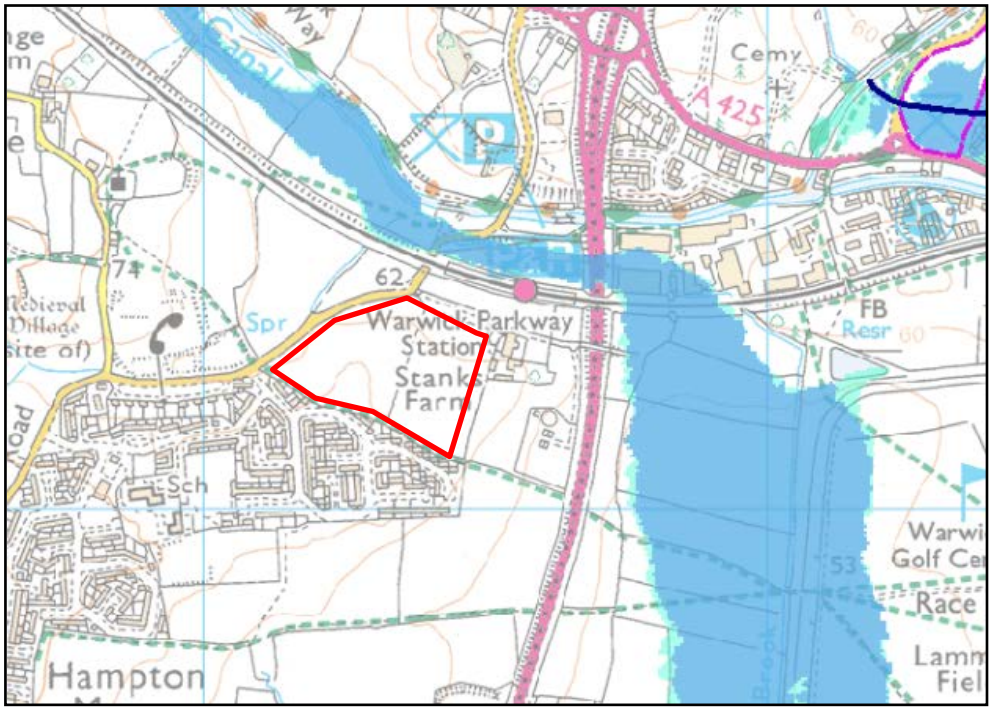
- Implementation of a residents Parking Permit Scheme; and

- Private Management Company to enforce and to act as arbitrator and equally as a point of contact for residents.

3.0 FLOOD RISK AND DRAINAGE

3.1 The development sites lies in Flood Zone 1 (See Figure 4 below) and is therefore sequentially acceptable for development.

Figure 4: Environment Agency Flood Map for Planning (Rivers and Seas)



Note: Environment Agency flood maps give guidance on fluvial flood risk only for watercourses with a catchment of greater than 3km^2. Other information sources should be consulted for flood risk posed by ordinary watercourses with catchments less than 3km^2.

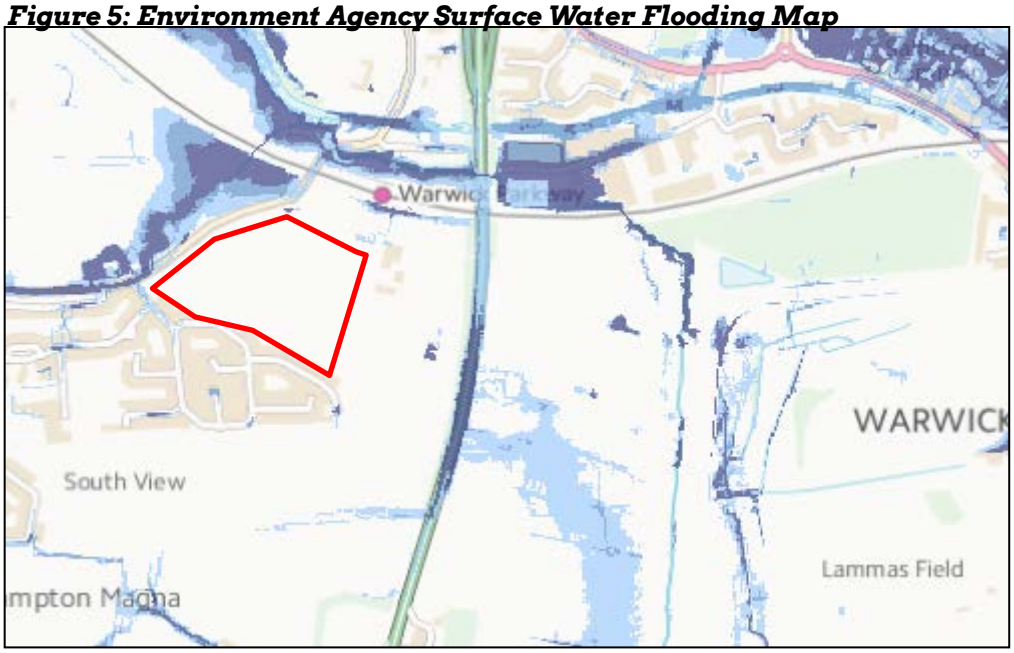
	Key Site Location Flood Zone 3, High Risk, flooding from rivers or sea without defences Flood Zone 2, Moderate Risk, extent of extreme flood Flood Zone 1, Low Risk, flooding can be effectively discounted Flood defences Areas benefiting from flood defences Main River
Not To Scale	Source: http://maps.environment-agency.gov.uk

3.2 The surface water flooding maps (see Figure 5 below) show small pockets of surface water accumulations along the northern boundary of the site. Large areas of surface water flooding occur over Old Budbrooke Road outside of the site boundaries.

3.3 Overland flows route from the Grand Union Canal run along a section of Old Budbrooke Road to the northwest of the site before falling into the field as stated previously.

3.4 Within the boundaries of the site, 'low risk'areas occur across all of the site with a documented probability of occurrence ranging between 1 in 100 (1%) and 1 in 1000 (0.1%). 'High risk' and 'medium risk' flow areas occur just outside the northern boundary of the site in sporadic patches, as well as large areas of 'high risk' probability noted along Old Budbrooke Road to the southwest of the site. These flow areas have a probability of occurrence of between 1 in 30 (3.3%) and 1 in 100 (1%) in any given year however, due to the topography of the land, flows proceed away from the site.

Figure 5: Environment Agency Surface Water Flooding Map



Not To Scale

Key

Site Location

High Risk, 1 in 30 (3.3%)

Medium Risk, 1 in 100 (1%) and 1 in 30 (3.3%)

Low Risk, 1 in 1000 (0.1%) and 1 in 100 (1%)

Source: http://maps.environment-agency.gov.uk

3.5 The 1:50,000 British Geological Survey (BGS) map, Sheet 184 (Warwick) shows no superficial deposits overlying the site. Deposits of Alluvium are shown along the north western boundary and may impinge on the site. The solid geology underlying the site is the Mercia Mudstone Group - red or green grey mudstone and thin siltstone bands (weathers to clay). The Mercia Mudstone Group strata underlying the entire site are classified as being a Secondary (B) Aquifer. The Alluvium along the north western boundary of the site is classified as a Secondary (A) Aquifer. The site is not within 500m of a groundwater source protection zone.

3.6 Percolation testing would need to be undertaken in due course.

3.7 The site naturally slopes to the north with levels of 72.19mAOD falling to 63.58mAOD along the sites northern boundary at which this is the lowest point. The site therefore has a difference in topography of 8.61mAOD from the south to the southern boundary. The site also slopes gradually to Old Budbrooke Road where levels of 65.17mAOD are noted with the site also gradually falling along its eastern boundary to levels of 69.12mAOD.

3.8 Onsite attenuation would be provided with above ground features likely to be required. The developable area will be in the region of 4.38ha therefore, it is anticipated the majority of this storage would be delivered through two interlinked balancing ponds, located either side of the proposed site access, along the western boundary of the site. Restricting the surface water flow rate via a hydro-brake (or similar flow device) to 15.5 l/s, an estimated storage volume of approximately totalling 3700 m3) for a 1 in 100 year storm event plus 40% for climate change would be required (this takes account of the February 2016 changes). Both attenuation ponds would outfall to the watercourse located along the western side of Old Budbrooke Road.

3.9 It should be noted that the north eastern boundary is the lowest point of the site however, due to the distance this location is from the outfall; this area is not deemed suitable for the pond. Due to the lower levels close to the northeasetern boundary, this area of the site would remain undeveloped.

3.10 There are a possible two options which could be assessed in relation to foul flows from the site and these are outlined as follows:

i. The first option would involve a pumped solution to the sewer which runs within the site (southern boundary), with a pumping station situated close to the northeastern boundary.

ii. The second solution would involve draining via gravity however; a Section 98 sewer requisition would be required to connect to a sewer located east of the site.

4.0 NOISE

4.1 If required at the planning application stage, noise impact should be considered and assessed against the following guidance:

- BS8233:2014 'Guidance on sound insulation and noise reduction for buildings'; and
- World Health Organisation (WHO) Guidelines for Community Noise 1999.

4.2 The northern boundary of the site lies approximately 70m from the Chiltern Main Line and the western boundary lies directly adjacent to Old Budbrooke Road. To the east of the site, the A46 trunk road lies 190m from the edge of the site. Due to the close proximity of the site to the railway line and the carriageway edge, it is likely that noise will require consideration as part of any planning application for the site.

4.3 It is anticipated that any dwellings situated along the northern, eastern and western boundaries of the site would need to face away from the noise sources, in order to protect rear gardens. Furthermore, some enhanced glazing and ventilation specifications may be required to protect internal amenity.

4.4 In relation to the properties along the northern boundary of the site, it is unlikely that standoff distance will be required, however a suitable mitigation strategy incorporating the measures outlined above should be implemented. It is not anticipated that there will be a need for linked frontages on any boundary.

4.5 It is considered unlikely noise will have a significant adverse impact on the development of this site as any sound levels exceeding the recommended thresholds would be dealt with by way of a suitable mitigation strategy.

5.0 LAND CONTAMINATION

5.1 An initial Phase I Environmental Risk Assessment has been completed for the site area and a summary of the findings is outlined in the table below. Copies of the Emapsite Environmental Report can be found in Appendix G.

Site Walkover Findings	No buildings, areas of burnt ground or fly-tipped materials were observed during the site workover.
Regulator Consultations	Environment Agency (EA) The EA website has been interrogated with reference to any relevant environmental issues in the local area, not included in the environmental data report. • The development is located within 250m of a Flood Zone 2 and 3, although the map indicates that the site is not considered to be at risk of flooding. • There are two recorded landfill sites: one is approximately 100m to the west of the development area and the second is 192m to the north. Potential risk of landfill gases from the landfill sites. There are no significant pollution incidents or air pollution sites located within 500 m of the site.
Site history	The earliest map reviewed (1889), shows the site as a portion of a larger open field with field boundaries including mature trees. The site is surrounded by open fields. Two large clay pits/ponds are shown in the site. The 1925 map indicates that one of the pond/clay pits has been enlarged. The ponds/clay pits are no longer shown on the 1968 OS map and may have been backfilled. The 1989 OS map shows a small group of buildings (Stanks Farm), close to the eastern boundary. A large area, which includes several buildings and labelled 'Regimental Depot Barracks, is shown immediately south of the site. A Railway track is shown within 40m of the site, as it is today and runs parallel with the Warwick and Birmingham Canal, which is

	100m to the north of the railway. By 1968, a large excavation is shown close to the western corner of the site and a Sewage Work is shown 100m to the east. Beyond the sewage works is the A46, which is 200m to the east of the site boundary. The number of buildings associated with Stanks Farm has been increased. By 1971, the site of the former Budbrooke Barracks is now a residential development. By 1987, the residential area to the south has been extended eastwards. Mixed development is now shown to the north east of the site (1987) and by 2006, extensive residential development is shown to the south of the site (Hampton Magna). A drain is also shown running northwards towards the Canal.
Geology	The 1:50,000 British Geological Survey (BGS) map, Sheet 184 (Warwick) shows no superficial deposits overlying the site. Deposits of Alluvium are shown along the north western boundary and may impinge on the site. The solid geology underlying the site is the Mercia Mudstone Group - red or green grey mudstone and thin siltstone bands (weathers to clay). No dip information is shown for the solid strata in the local area. No faulting is shown within the site area or the area surrounding the site.
Hydrogeology	No superficial deposits are recorded on site. The Mercia Mudstone Group strata underlying the entire site are classified as being a Secondary (B) Aquifer. The Alluvium along the north western boundary of the site is classified as a Secondary (A) Aquifer. There are three references groundwater abstraction recorded within 1km of the site. They all refer to a point source for potable water, 823m to the south west of the site. The site is not recorded to be within a groundwater Source Protection Zone.
Hydrology	The site is within 250 m of Zone 2 or Zone 3 Flood zones, although the maps suggest that the site is not at risk from flooding.

	The nearest surface water feature is recorded as being 7m to the north west of the site and is likely to refer to a minor stream or drainage ditch. There are eight references for Detailed River Network Lines within 250 m of the site boundary. The nearest entry appears to refer to the same minor stream or drainage ditch. The nearest significant entry is for Gog Brook, 98m to the north east. Other entries refer to additional drains/minor streams and the Grand Union Canal, 134m to the north of the site.
Radon	It is anticipated that no radon protection measures will be required for the proposed development.
Other issues	A coal authority search has indicated that a mining report is not required for the site.
Environmental sensitivity	Groundwater: Low Surface water: Low Ecology: Very Low Flood risk: Low
Statutory Designation	In our opinion, it is unlikely that the site would be designated as statutory contaminated land by the local authority under the provision of Part IIA of the Environmental Protection Act 1990 (inserted by Section 57 of the Environmental Act 1995). A proven "pollution linkage" within the definition of causing "significant possibility of significant harm" to people, controlled waters or the environment as defined in the statutory guidance, Edition 2, May 2006 has not been identified at the site.
Recommendations	Completion of a Phase II land quality assessment, planning conditions & financial security. This will be primarily to assess geotechnical issues and to assist in the design of foundations, drainage, underground services, roads etc. However, it is suggested that confirmatory environmental testing (across the site area) including gas monitoring be completed to assess the site conditions and to obtain sufficient data to further refine the conceptual model and

	environmental risks for submission to the local planning authority.

6.0 UTILITIES

6.1 Apparatus Plans sourced from all local providers have been obtained and a summary is outlined below. Copies of all relevant plans and correspondence can be found in Appendix G. From the information provided there are no significant constraints to development.

Sewers (Foul)

6.2 A 150mm public foul sewer is located within the northern footway of Arras Boulevard with a 300mm public foul sewer located close to Warwick Parkway Rail Station.

6.3 The sewer records show that a 300mm public foul sewer runs within the site from west to east close to the southern boundary. An easement of 3m either side of the centre point will be required for this sewer however, this is to be confirmed by STW. The sewer could be diverted if its current location does not conform with the proposed site layout.

Sewers (surface Water)

6.4 A 375mm surface water sewer runs within the southern footway of Arras Boulevard connecting to a 375mm surface water sewer within Blandford Way. This sewer then increases to a 525mm diameter surface water sewer before it outfalls to a watercourse located along the western side of Old Budbrooke Road.

Water Mains

6.5 A service pipe runs along the eastern boundary of the site connecting to Stanks Farm from Gould Road. A 4'' clean water main runs within the southern footway of Arras Boulevard. This 4'' main connects to a 4'' main within the northern footway of Gould Road. A 16'' clean water main runs within the A46 to the east of the site.

Electricity Cables

6.6 There are existing 11kV overhead high voltage cables running across the site from west to east which will require diverting underground to facilitate the site proposals. An overhead LV cable is also noted connecting to Stanks Farm along the eastern boundary of the site. Underground LV cables are located within the southern footway of Arras Boulevard and a small section of the eastern footway of Old Budbrooke Road..

BT

6.7 BT underground apparatus is noted within both the eastern and western footways of Old Budbrooke Road. Further underground apparatus is located within the northern footway of Arras Boulevard. Diversions are likely to be required to relocate the affected apparatus to accommodate a suitable access.

Gas

6.8 A 6'' Medium Pressure gas main is located in Old Budbrooke Road along its western side. A Low Pressure main is located within the northern footway of Arras Boulevard. Diversions may be required if a access is taken from this location. No National Grid apparatus is located within the site.

7.0 PRELIMINARY CONSTRUCTION AND ENVIRONMENTAL MANAGEMENT PLAN

7.1 The purpose of this Construction Management section is to outline an overall strategy for managing environmental aspects and impacts throughout the development's construction and it is prepared as part of an outline to a Construction and Environmental Management Plan (CEMP). It is anticipated a CEMP will be conditioned to any planning permission and a full CEMP will be prepared prior to commencement of construction works on site and will respond to specific planning conditions and to update and address environmental issues specific to planned site activities.

7.2 As part of the CEMP all appropriate and relevant documentation shall be made available as required to Warwick District Council. This may include any noise and air quality monitoring data, waste management documentation, complaints and incidents log, liaison meeting notes, letters, photographs and newsletters.

7.3 A legislation register should be maintained and updated by the designated environmental function. Any requisite changes in procedures due to legislation changes should be communicated to the relevant personnel. Relevant legislation and guidance includes but is not limited to:

- Control of Pollution Act 1974;
- Countryside and rights of Way Act 2000;
- Environmental Protection Act 1990;
- Environment Act 1995;
- Hazard Waste (England and Wales) (Amendment) Regulations 2009;
- The Waste (England and Wales) Regulations 2011;
- CIRIA Environmental Good Practice on Site (C692);
- Environment Agency Pollution Prevention Guidance Notes.

Roles and Responsibilities

7.4 Key individuals will be identified to undertake environmental management activities throughout the construction phase. Designated individuals include the site manager, contracts manager, site supervisor, safety consultant and relevant personnel.

7.5 To ensure that all works are carried out in accordance with the CEMP and all other environmental obligations, it is recommended that the following tasks are assigned

to the appropriate individuals. Suggested tasks in implementing the CEMP are provided below.

- Development, review and updating of the CEMP, Construction Method Statements and specialist procedures;
- Identification of environmental competence requirements for all personnel and ensuring the delivery of environmental training;
- Review and improvement of method statements for identified environmental aspects. Monitoring of construction activities performance to ensure control measures are effective and ensure compliance;
- Provision of a main point of contact between regulatory authorities and the project on environmental issues;
- Management of environmental monitoring programmes and review of reports;
- Environmental audit of subcontractors and suppliers; and
- Appointment of environmental specialists when required;
- Monitoring of construction activities;
- Undertaking of regular site inspections;
- Provision of training and advice to site personnel;
- Maintenance of environmental records;
- Investigation and resolution of complaints;
- Ensuring that correct procedures are followed in the event of an environmental incident;
- Dissemination of waste reduction and management procedures to all relevant personnel;
- Implementation and maintenance of identified environmental controls;
- Attending to any environmental incidents;
- Reporting environmental incidents;
- Completion of a daily environmental log; and
- Maintenance of the waste registers and ensuring implementation of waste management procedures.

Community Liaison

7.6 Prior to construction, a responsible person shall be appointed to liaise with Warwick District Council, local residents, businesses and any other relevant authorities.

7.7 Warwick District Council will be consulted in order to discuss methods of working and measures planned throughout the remainder of the construction works, and that further meetings will take place, where required.

7.8 The names and contact details of appropriate site personnel should be forwarded to Warwick District Council. The relevant department (to be confirmed) at Warwick District Council must be supplied with a current 24-hour call out number in case of complaint or emergency.

7.9 Procedures shall be put in place for registering and responding to third party complaints.

7.10 Local residents shall be kept informed of progress and forthcoming works, for example by newsletter, on a fortnightly basis. Prior to work commencing, neighbours will be informed of the project start date, duration and nature of the project, the principal project stages, contact names and numbers of appropriate personnel, and the complaints procedure.

7.11 A display board shall be erected outside the site which will identify key personnel, contact names and details.

7.12 Taylor Wimpey UK Ltd are committed to working with the community to ensure minimal disruption during the construction process and as part of the CEMP will provide a commitment to provide a principal liaison person who can be contacted directly and a regular monthly meeting will be arranged to work with residents over significant elements of construction and the pre-planning of vehicle movements.

Construction Program and Working Hours

Construction Program

7.13 A detailed construction development program is yet to be produced for the site but will be submitted at a later date.

Equipment

7.14 Specific plant and tools identified by Taylor Wimpey UK Ltd as likely to generate noise, vibration and dust are:

- Excavators
- Dumpers
- Forklifts