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Planning Policy and Programmes  
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17<sup>th</sup> June 2019

Issued via email: localplan@warrington.gov.uk

Dear Sirs

**Proposed Submission Version Local Plan: Representations submitted on behalf of Ashall Property Limited**

Cushman & Wakefield has been instructed by Ashall Property Limited (Ashall Property hereafter) to submit representations in relation to the current consultation on Warrington Borough Council's Proposed Submission Version Local Plan (Local Plan hereafter).

**Background**

Ashall Property is a private property investment and development company that focuses on creating investment value through property development and asset management. Ashall Property was established in Warrington in the 1930s and as such has strong local connections and interest across the Borough.

Ashall Property own the Freehold interest of 8.18 hectares (20.21 acres) of land to the south of Chester Road (A56), Walton. Ashall Property also has a property interest in approximately 30 hectares (75 acres) of land north of Chester Road (A56), Walton. A copy of a location plan illustrating these two land interests is provided as an Appendix to this letter.

Cushman & Wakefield on behalf of Ashall Property submitted a Call for Sites form on 5<sup>th</sup> December 2016 which included a comprehensive Development Statement and location plan for the Freehold land interest to the south of Chester Road (A56). A copy of the Development Statement is provided as an Appendix to this letter. The submitted Call for Sites information confirmed that the site to the south of Chester Road, Walton is a sustainable site which is available, suitable and achievable for residential development and could deliver approximately 200 new homes within the first five years of the Local Plan period. It also confirmed that the site has the potential to bring forward 3, 4 and 5 bedroomed homes, including affordable homes to directly assist the Council in meeting its significant housing need requirement over the Plan period.

Further to this, and because Ashall Property's two land interests are included within the site area of the proposed Warrington South West Urban Extension (SWUE) within the Local Plan (policy MD3), Ashall Property has engaged and collaborated with the other main landholdings interests across the SWUE, namely Peel Holdings (Management) Ltd and Story Homes, to positively promote the SWUE for allocation within the Local Plan under the title of the SWUE Consortium (Consortium hereafter).

The output of the Consortium collaboration is four-fold:

1. A Development Prospectus for the whole of the SWUE that sets out a vision and concept masterplan to demonstrate that the site represents a sustainable opportunity for accommodating much needed new homes in a desirable and high quality new neighbourhood.
2. Detailed representations on Local Plan policy MD3 and suggested amendments to the policy wording that will assist the Council in making sure that the policy meets the tests of soundness set in national policy and the site is deliverable within the timescales anticipated within the Local Plan.
3. Detailed representations on the Local Plan Viability Assessment.
4. The preparation of supporting technical surveys and evidence that supplements the evidence base that the Council prepared in order to demonstrate that the SWUE is deliverable, i.e. available now, offer a suitable location for development now, and is achievable with a realistic prospect that housing will be delivered on the site within 5 years<sup>1</sup>, and could deliver around 1,800 new homes. Furthermore, and subject to obtaining planning permission, there are no insurmountable obstacles to immediate delivery on the SWUE.

The Consortium's outputs set out above will be separately submitted to the Council by Turley on behalf of the Consortium.

To inform the Consortium's outputs, Ashall Property has produced a number of technical studies and surveys that demonstrate that their landholdings to the south of Chester Road has the capacity for 200 new homes. This technical information includes the following and is appended to this letter of representation.

- PS001 Sketch Site Plan – Rev A Chester Road, Walton
- Landscape & Visual Overview – Taylor Grange April 2019
- Preliminary Ecological Appraisal – Taylor Grange April 2019
- Arboricultural Appraisal – Taylor Grange April 2019
- FRA & Drainage Strategy – Waterco June 2019
- Phase 1 Geo-environmental Assessment – Earth Environmental and Geotechnical September 2016
- Transport Statement – DTPC October 2016
- Utilities Review Report – BWB September 2016
- Soils And Agricultural Use & Quality – Land Research Associates August 2016
- Potential Site Access Arrangement – Crofts February 2019

## **Representations**

The subject of this representation is firstly to confirm that Ashall Property fully supports the allocation of the Warrington South West Urban Extension (SWUE) as a housing allocation within the Local Plan, and to confirm that it is an integral part of the Consortium that is committed to delivering the new homes and associated facilities, services and infrastructure set out within the Consortium's Development Prospectus for the site.

Secondly, the representation provides the opportunity for Ashall Property to provide its support for key elements of the Local Plan and comment on specific Local Plan draft policies that will assist the Council in making sure that the Local Plan is justified, effective, and consistent with national policy.

The remainder of the letter therefore sets out Ashall Property's support for key areas of the Local Plan and

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<sup>1</sup> NPPF paragraph 67 footnote 32 and Glossary

provides comments on other specific Local Plan draft policies.

**Spatial Strategy and Exceptional Circumstances for Green Belt Release  
(Local Plan Chapter 3 Sections 3.3 and 3.4)**

Ashall Property strongly supports the Council's Spatial Strategy that has considered all reasonable alternatives to arrive at the most sustainable approach to accommodating and managing development in different locations across the Borough in accordance with the Plan's vision and objectives. This is particularly the case where the majority of new development required over the plan period is focused within, and around the edges of, the urban area of Warrington. The town is the largest settlement in the Borough and is the principal focus of services and facilities and public transport connections, making it an inherently sustainable location for new development.

The Council has also identified the potential for new development adjacent to the existing urban area to contribute to removing existing highway network and social infrastructure capacity constraints. The need to remove these constraints has further informed the strategy to focus the majority of new development required over the plan period is focused within, and around the edges of, the urban area of Warrington proposed, and is fully supported by Ashall Property.

Ashall Property therefore concludes that the Council's justification for the spatial strategy that underpins the Local Plan, demonstrates that the Council has fully examined all reasonable options for meeting Warrington's identified development needs before concluding that exceptional circumstances exist to justify strategic Green Belt release adjacent to the urban area of Warrington that is consistent with guidance contained within paragraphs 135-139 of the National Planning Policy Framework (for further explanation please refer to paragraphs 2.10-2.17 of the SWUE Consortium document 'Warrington South West Urban Extension (SWUE) Representations to Warrington Propose Submission Version Local Plan' prepared by Turley on behalf of Peel Holdings (Management) Ltd, Story Homes Ltd and Ashall Property Ltd June 2019).

To be able to meet the Borough's housing need within the context of the spatial strategy, the Council propose the following approach to delivering their housing requirement:

- a new Garden Suburb to the south east of the main urban area, which will deliver around 5,000 homes (including 4,200 through Green Belt release) in the Plan period up to 2037, with a potential for a further 2,300 homes from Green Belt release beyond the Plan period;
- an urban extension to the south west of the main urban area of around 1,600 homes (consistent with the consortium of main landowners that are promoting the allocation of this urban extension, Ashall Property consider that the stated capacity of the urban extension should be around 1,800 homes); and
- incremental growth' across the outlying settlements of around 1,100 homes.

This approach is supported by Ashall Property.

Furthermore, this strategy for achieving significant new development within the Borough is consistent with national policy, which recognises that the supply of large numbers of new homes can often be best achieved through planning for larger scale development, including significant extensions to existing towns, provided they are well located and designed, and supported by the necessary infrastructure and facilities.

With specific reference to the SWUE that is the subject of this representation, the SWUE is strategically located and provides a scale of development which will build on existing infrastructure assets and future

planned infrastructure (such as the Western Link) which are key to Warrington's future growth. Delivery of the Western Link presents an opportunity to improve existing accessibility to Warrington Town Centre, and will also support the levels of housing and economic growth envisaged within the Local Plan. Ashall Property recognises that significant infrastructure investment is needed to realise the full potential of the SWUE, and fully supports the delivery of the Western Link Road connecting the A56 and the A57.

On this basis, and specific to the SWUE, the Council's spatial strategy will ensure that the permanency of the revised Green Belt boundary will endure well beyond the Plan period whilst at the same time allowing land to come forward that is required to meet local housing need and support economic growth and local services/ amenities. This includes the necessary infrastructure to facilitate this growth in the most effective and sustainable manner that will not only bring forward these sites for sustainable development, it will also assist that Council address many of the Borough's existing constraints, for example congestion, housing affordability, and the ability to make the most efficient land within and on the edge of the urban area. Ashall Property therefore concludes that the Council's Local Plan strategy provides a comprehensive basis to plan and provide for Warrington as a whole.

### **Warrington South West Urban Extension (Local Plan policy MD3)**

Detailed representations on Local Plan policy MD3 and suggested amendments to the policy wording are included within the SWUE Consortium document 'Warrington South West Urban Extension (SWUE) Representations to Warrington Propose Submission Version Local Plan' prepared by Turley on behalf of Peel Holdings (Management) Ltd, Story Homes Ltd and Ashall Property Ltd June 2019. These representations have been made to assist the Council in making sure that the policy meets the tests of soundness set in national policy and that the site is deliverable within the timescales anticipated within the Local Plan.

Whilst this is the case, and for ease of reference, Ashall Property summarise the suggested amendments to policy MD3 that are set out in the separate SWUE Consortium representations:

- (a) Site area to reflect the boundaries shown on the Consortium's concept masterplan (i.e. 119.6 ha).
- (b) Increase the site capacity to 'around 1,800 homes' in order to reflect the capacity of the site shown on the conceptual masterplan and ensure the efficient use of land. Additional text to be added to the supporting text to confirm that there is no reason to prevent a higher number of dwellings coming forward at planning application stage, subject to detailed technical assessments.
- (c) Enable an element of development to be permitted (but not occupied) in advance of funding being secured and a delivery programme confirmed for the Western Link.
- (d) The *potential* provision of a residential care home (Use Class C2) on the site to be referred to as part of the range of uses which could be delivered on the site, rather than as infrastructure which is required to be delivered.
- (e) Delete Point 13 of the policy, which refers to a requirement for the provision of self-build / custom-build plots as part of the overall housing mix to be provided on the site, and replicates the general policy provision in Policy DEV2.

- (f) Add reference to the potential for increased minimum densities in appropriate areas of the site (e.g. within / adjacent to the local centre and existing urban area).
- (g) Provide additional flexibility over the location of the new local centre to be provided within the site, to enable the final position to be determined through the detailed masterplanning stage and following commercial discussions with potential retailers / occupiers.
- (h) Remove the requirement for contributions towards the provision of additional secondary school places, open space, playing pitches and built leisure facilities unless robust evidence can be provided to demonstrate an existing shortfall in the local area and that such contributions would meet the CIL Regulations and be proportionate to the additional demand generated through the development of the site.
- (i) Include additional land to the south west of the allocation boundary as currently proposed, for Green Belt compliant uses, such as public open space and amenity green space.
- (j) Quantify the required contribution towards the delivery of the Western Link.
- (k) Clarify that development on the SWUE should seek to meet a proportion of its energy needs from renewable or low carbon sources, subject to feasibility and viability considerations.
- (l) Amend the detailed wording of the 'Historic Environment' section to ensure compliance with national policy, case law and relevant legislation.

### **Housing Need and Housing Trajectory (Local Plan Policy DEV1 Housing Delivery, DEV2 Meeting Housing Needs)**

#### Housing Need

Ashall Property agrees with the Council's proposed approach in policy DEV1 to deliver a minimum of 18,900 new homes over the plan period, which equates to an average of 945 homes per annum. This is on the basis that this approach aligns with the Council's economic growth aspirations, and that in order to deliver these growth objectives, the Council must release Green Belt land to meet the necessary housing requirements in line with the Local Plan's vision, objectives and spatial strategy.

Ashall Property, therefore also strongly supports part 3 of policy DEV1 that confirms that the South West [Urban] Extension is to be removed from the Green Belt and allocated as sustainable urban extension to the main urban area of Warrington, albeit, Ashall Property would respectfully request that part 3b. of the policy is amended to reflect the SWUE Consortium concept masterplan (provided as a separate submission to the Local Plan consultation) that demonstrates that the SWUE has the capacity for around 1,800 new homes.

#### Housing Trajectory

The submitted technical documentation, including the previously submitted Stonecroft Development Statement, demonstrates land in Ashall Property's ownership south of Chester Road is suitable, available and deliverable in the short-term<sup>2</sup> for circa 200 homes, and could therefore provide the Council with housing

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<sup>2</sup> NPPF paragraph 67 & Glossary "available now, offer a suitable location for development now, and is achievable with a realistic prospect that housing will be delivered on the site within 5 years"

delivery in the first five years of the Local Plan period. The provision of homes in the short term is also addressed within the separately submitted SWUE Consortium representation in relation to the whole of the SWUE site.

The SWUE Consortium representation also identifies that draft policy MD3 (point 7.) proposes to restrict any development on SWUE from being permitted until funding for the Western Link Road has been secured and a programme of delivery has been confirmed. This has the potential to unnecessarily delay the delivery of much-needed housing on the site. In particular, the current policy wording would prevent planning applications for individual parcels within the SWUE from being determined until the funding has been secured and delivery programme for the Western Link confirmed. Based on recent discussions with the Council, it is expected that this will take place in summer 2022, with delivery of the Link Road anticipated to be 2023/24.

In order to ensure that housing delivery can come forward as soon as possible, Ashall Property and the other members of the Consortium would seek to undertake a detailed masterplanning process immediately following adoption of the Warrington Local Plan. Thereafter, planning applications for individual parcels within the site will be prepared and submitted.

Based on the Council's current Local Development Scheme<sup>3</sup>, the expectation is that the Local Plan will be adopted in late 2020. In other words, the development of the SWUE would be fully policy compliant midway through the 2020/21 monitoring period. It is therefore expected that the masterplan will be endorsed and the first full planning applications for development submitted in 2020/21. Allowing time for determination of those applications, the discharge of conditions and mobilisation of contractors, it is expected that the first dwellings on the site will be delivered in 2021/22.

The Council has not provided any evidence to justify delaying determining any planning applications until the funding and delivery programme for the Western Link road has been confirmed. Such an approach would unnecessarily stall the delivery of residential development which is capable of coming forward in the early years of the plan. As a result, Ashall Property and the other Consortium members are concerned that point 7. of policy MD3 is not sound as it is not positively prepared and is not justified.

In order to address this, it is requested that point 7. of draft Policy MD3 is amended to confirm that " No development shall be occupied until funding has been secured and a programme of delivery has been confirmed for the Western Link".

Such an approach would enable Ashall Property and other members of the Consortium to progress the masterplanning work and for planning applications for parcels within the site to be prepared, submitted and determined by the Council so that development can commence as soon as the funding and delivery programme for the Western Link has been confirmed.

Subsequently the Council should consider the implications of this requested amendment on their housing trajectory set out at part 5a. of draft policy DEV1 that considers the housing trajectory for the first 5 years of the Local Plan.

Within this context, and as demonstrated by the Stonecroft Development Statement, PS001 Sketch Site Plan

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<sup>3</sup> Local Planning Framework Local Development Scheme (Warrington Borough Council, March 2019)

– Rev A Chester Road, Walton, and the Potential Site Access Arrangement (Crofts February 2019) that are enclosed with this letter, the SWUE parcel south of Chester Road in Ashall Property’s ownership can achieve a stand-alone highway access point that does not require the Western Link Road to be in place to bring forward an element of new development. This provides further evidence that the SWUE will be able to deliver homes within years 0-5 of the Local Plan period.

This approach has been put forward by Ashall Property in representations to previous stages of the Local Plan preparation process. In summary, and if there are unforeseeable delays to the Western Link Road due to funding approval, detailed designs, planning application, land acquisition, and the relevant ecological, environmental and flood risk assessments etc, it is considered that there is scope to provide access into the parcel of the SWUE south of Chester Road without the proposed Western Link Road. Ashall Property would continue to work with the Council in this context, including the production of a Transport Assessment and detailed design to determine the appropriate junction arrangement, albeit Crofts Potential Site Access Arrangement drawing (enclosed) demonstrates that a signalised junction into the site may be suitable based on the assumption of reduced traffic flows along Chester Road.

Further to this point, Ashall Property is keen to work with the Council and the Local Highways Authority to ensure the junction design is future-proofed to accommodate for the Western Link Road if this comes forward at a later date than the Chester Road residential development, although notes that Ashall Property expects to be appropriately compensated for the loss of any residential land value arising from the proposed Link Road’s position on site.

It should also be noted that the Council’s trajectory is based on an assumption that the site will be delivered by two housebuilders / outlets. This represents a cautious approach as the site is expected to be built out by four housebuilders, each delivering 30 dpa within their respective phase plus 10 affordable units (i.e. total of 40 dpa per housebuilder / outlet). This indicates that, once maximum delivery rates are achieved, the site will be capable of delivering 160 dpa. At this stage, it is envisaged that there are likely to be three outlets on the site from the outset, increasing to four sales outlets from 2026/27.

#### Affordable Housing

Ashall Property supports the Council’s requirement for a minimum of 30% affordable homes to be provided across the SWUE as set out in draft policy DEV2 and MD3.

Ashall Property notes that the explanatory text to draft policy DEV2 (paragraph 4.1.34) states that the Council will seek a 50/50 split between rented and low cost home ownership within inner Warrington, and a 66/34 split in all other areas. Within the context of the land in Ashall Property’s ownership south of Chester Road, the proposed mix of homes illustrated by PS001 Sketch Site Plan – Rev A Chester Road, Walton, and local market dynamics, Ashall Property consider it appropriate for the 50/50 split between rented and low cost home ownership to be applied within this local context.

#### **Conclusions**

In conclusion, and as a summary of the content of this representation, Ashall Property support the ‘release’ of the South West Urban Extension from the Green Belt and its allocation for housing and related development over the full period of the Local Plan.

The letter of representation and Appendices, in conjunction with the separate SWUE consortium representations, demonstrate that:

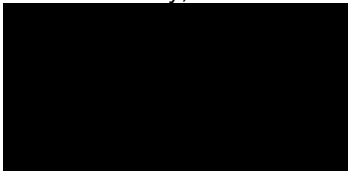
- the SWUE site including the land parcel in Ashall Property's ownership south of Chester Road is suitable, available and deliverable,
- the substantial technical assessment work that has been undertaken on behalf of Ashall Property and the SWUE Consortium supplements the evidence base prepared by the Council, and demonstrates that subject to obtaining planning permission there are no insurmountable obstacles to immediate development on the SWUE site,
- the SWUE aligns with the Vision, Objectives and Spatial Strategy of the Local Plan, and
- the 'exceptional circumstances' to release the site from the Green Belt have been demonstrated.

This letter of representation also provides reference to detailed comments on the wording of draft Policy MD3 prepared by Turley on behalf of the SWUE Consortium. These comments are made to ensure that policy MD3 meets the tests of soundness set out in national policy and that the SWUE is deliverable within the timescales anticipated by the Local Plan.

This letter of representation also provides comment on requested amendments to other draft policies and explanatory text within the Local Plan that has a direct bearing on the delivery of new homes on the land parcel in Ashall Property's ownership south of Chester Road.

Finally, Ashall Property can confirm it is committed to continuing to work together with SWUE Consortium, and with the Council, to ensure that the SWUE is developed in a comprehensive and coordinated manner at the earliest opportunity. To this end, Ashall Property would like to register its intention to participate in the forthcoming Hearing Sessions following the Local Plan being submitted for independent examination. I trust that the above letter of representation is clear and comprehensive, however should you have any queries, please do not hesitate to contact me.

Yours faithfully,



**Andrew Teage**  
**Partner, Planning & Development**  
**Cushman & Wakefield LLP**



## **Appendices**

1. Site Location Plan – Land to the South of Chester Road
2. Site Location Plan – Land to the North of Chester Road
3. Stonecroft Development Statement
4. PS001 Sketch Site Plan – Rev A Chester Road, Walton
5. Potential Site Access Arrangement – Crofts February 2019
6. Technical Reports
  - a. Landscape & Visual Overview – Taylor Grange April 2019
  - b. Preliminary Ecological Appraisal – Taylor Grange April 2019
  - c. Arboricultural Appraisal – Taylor Grange April 2019
  - d. FRA & Drainage Strategy – Waterco June 2019
  - e. Phase 1 Geo-environmental Assessment – Earth Environmental and Geotechnical September 2016
  - f. Transport Statement – DTPC October 2016
  - g. Utilities Review Report – BWB September 2016
  - h. Soils And Agricultural Use & Quality – Land Research Associates August 2016




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## **Appendix 1 Site Location Plan – Land to the South of Chester Road**

**Key**

 Site Boundary

 n\*ORTH

0m 20m 40m 60m 80m 100m

Scale 1:2,500 (@A3)

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**e\*SCAPE**  
urbanists

Project Title  
Chester Road, Walton, Warrington

e\*SCAPE Job No.  
016-024

Client  
Ashall Property

Drawing Number      Revision  
016-024-P001      REV -

Drawing Title  
Site Boundary

Scale      Date  
1:2,500 @ A3      August '16

## Appendix 2 Site Location Plan – Land to the South of the Chester Road



Land Interest identified in red (Source: Promap)



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## **Appendix 3 Stonecroft Development Statement**



STONECROFT

CHESTER ROAD | WALTON

A Vision for a New Neighbourhood

December 2016

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Executive Summary



Illustrative Masterplan

## Executive Summary

*Land at Stonecroft – a comprehensive and sustainable extension to Walton that will:*

- *Deliver an attractive and distinctive new residential destination for Warrington;*
- *Offer a choice of high quality new homes to meet local needs;*
- *Reinforce and enhance Stockton Heath's District Centre status;*
- *Create a place of character, strong community and a quality of life which is in-keeping with the existing settlement; and*
- *Improve the transition from the countryside into the town*

This statement has been prepared by Ashall Property to support the promotion of land at Chester Road, Walton for the development of 3, 4 and 5 bedroomed new homes. The proposed development site, which totals approximately 8.18 hectares (20.21 acres) comprises a single parcel of land to the south of Chester Road (A56).

It is Ashall Property's considered opinion that new housing provision within settlements such as Walton is essential in supporting the future vitality of the area and Warrington as a whole. It caters for new residents that can widen the demographic profile and sustain essential local facilities. Such development is firmly aligned with the principles of sustainable development. The development of land at Chester Road for housing, provides an opportunity to achieve these sustainability objectives, whilst at the same time making a significant contribution to the Borough's housing supply requirements.

Ashall Property encourages the support of Warrington Borough Council and other local stakeholders for the residential development of the site. It is considered that the land represents a suitable strategic site which should be included as an allocation within the revised Local Plan Core Strategy. It offers the opportunity to be brought forward as an early phase of new homes, and that by working in partnership with the Council, stakeholders and the local community, this would provide all parties with the ability to plan properly so that the immediate and future needs of Walton can be met in the most sustainable way possible, particularly when considering the absence of a 5 year deliverable land supply across the Borough.

This Development Statement therefore seeks demonstrate the credentials of Stonecroft as a sustainable extension to Walton, boosting Warrington's five year housing land supply and its portfolio of residential development land over the full plan period to 2037.

In summary, the Development Statement will demonstrate that Land at Chester Road, Walton:

- Is a sustainable and deliverable site on the edge of Lower Walton, and the development accords with the principles of sustainable development;
- The site is available, suitable and achievable for residential development on land adjacent to the existing settlement boundary;
- The site is in a sustainable location for new housing, located in close proximity to public transport links, transport routes and a range of shops, services, schools, jobs and community facilities;
- The site could provide in the region of 200 new homes and therefore directly assist the Council in meeting their housing need and requirement;
- The development would contribute towards an identified need for both market and affordable housing in the Borough, and therefore help to meet the identified need for Walton and support Stockton Heath as a District Centre and focus for future development.
- Residential development of the site is compatible with the existing surrounding land uses, with the proposals being sensitive to the character of the local landscape in terms of scale, design, layout, building style and materials;
- The provision of new housing on this site will generate a number of local economic and social benefits, supporting the wider economy and helping to sustain existing services; and
- There are no significant technical, physical or environmental constraints to the development of housing at land at Chester Road.





## Chapter 1 - Introduction

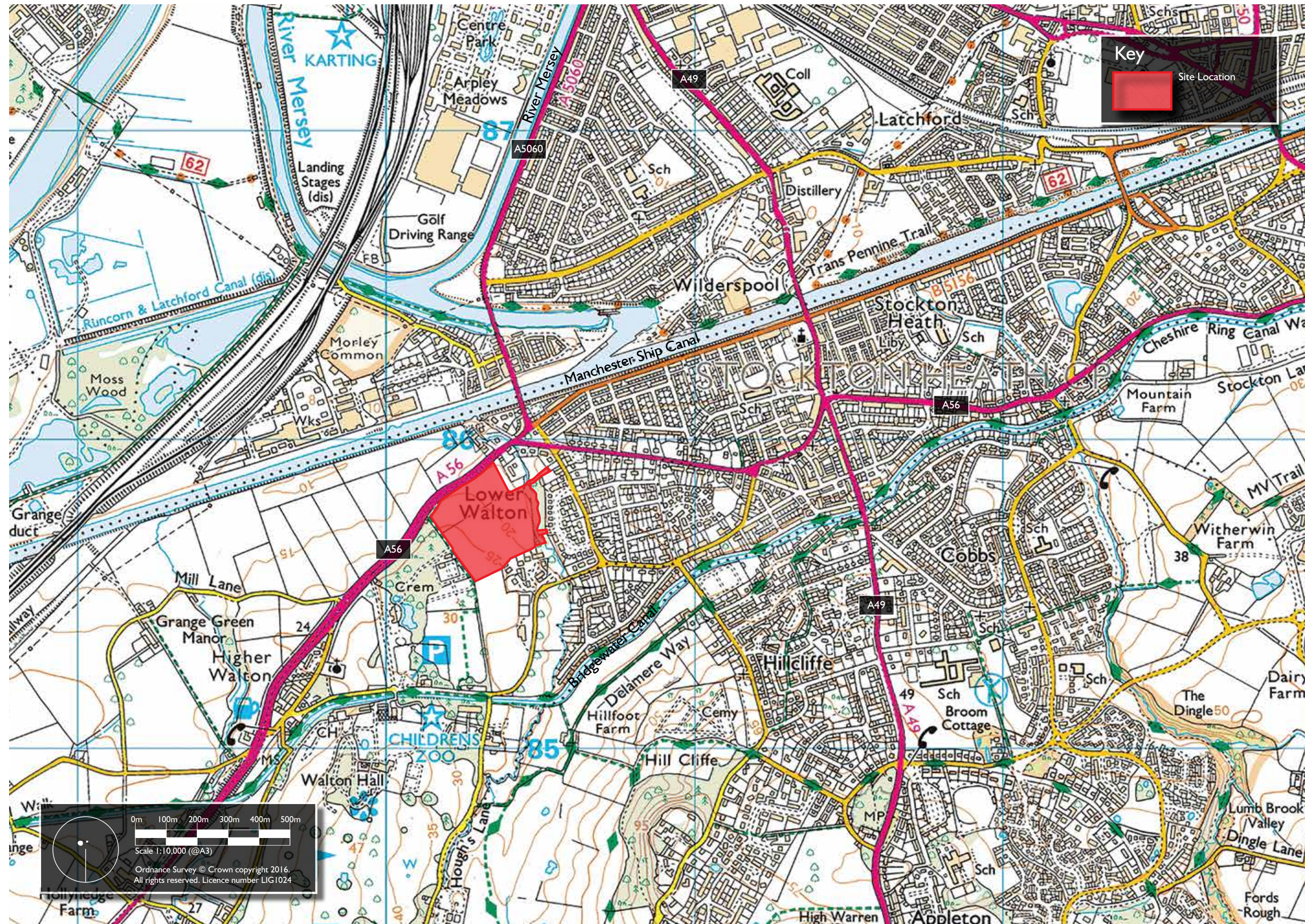


Figure 01:01 - Site Location

# Introduction

- 1.1 This Development Statement has been prepared to consider the merits of land at Chester Road, Walton to be allocated for residential development as part of Warrington Borough Council's revised Local Plan Core Strategy (LPCS).
- 1.2 The suitability of the site for residential development is supported by a range of assessments which have informed the preparation of an initial masterplan (prepared by e\*SCAPE Urbanists). This has included the following documents:
  - Landscape and Visual Impact Assessment
  - Preliminary Ecological Appraisal
  - Phase 1 Geo-environmental assessment
  - Highways assessment
  - Arboricultural Survey
  - Utilities Report
  - Flood Risk Assessment
  - Agricultural Land Classification
  - Market Analysis

# Site Location and Context

- 1.3 The site extends to 8.18 hectares (20.21 acres) and comprises a single parcel of land to the south of Chester Road (A56) as illustrated in Figure 01:01. The site lies adjacent to the western edge of Walton and is bound to the east by an unadopted road, leading to the Walton Lea Project and sports fields associated with Warrington Sports Club to the south. An established residential area is located to the site's eastern boundary and includes a mix of bungalows and primarily detached dwellings. Land to the north east is currently under construction by Elan Homes (Hall Gardens) for 14 no. 4 and 5 bed properties. Blocks of woodland are located to the site's eastern and western boundaries which are protected under Tree Preservation Orders (TPOs).
- 1.4 The site is generally flat with a rise in levels from approximately 17m AOD (Above Ordnance Datum) at the north eastern corner to approximately 31m AOD to the south west. The site is currently in use as agricultural land. A Public Right of Way (reference: 304/6) runs along the site's western boundary and provides access to the Walton Lea Project and 1-3 Walton Lea Cottages and 99 Chester Road.
- 1.5 In terms of the wider settlement, Walton forms part of the Hatton, Stretton and Walton ward and has a population of approximately 3,092 residents (2013 mid-year estimate) and 1,188 households (2011 Census). The settlement is currently identified by the Council as a Green Belt settlement in the proposed settlement hierarchy within the adopted Local Plan.
- 1.6 The site is within a sustainable location and is within:
  - 60m of a bus stop which provides frequent services to Warrington and St Helens;
  - 200m of a local 'one stop shop' and public house;
  - 900m of amenity open space at Walton Hall Gardens;
  - 10m of recreational playing fields at Warrington Sports Centre;
  - 0.6km of Stockton Heath Primary School;
  - 1.6km of Bridgewater High School and
  - 1.2km of shops and services within Stockton Heath district centre.
- 1.7 The site location and context is considered to demonstrate that the site is within a sustainable location for new development, and that the western edge is a natural and sustainable location for such development.



## Chapter 2 - The Vision



## Vision Statement:

"Land at Chester Road, referred to here as 'Stonecroft' will be a comprehensive and sustainable extension to Walton that will:

- Deliver an attractive and distinctive new residential destination for Warrington;
- Offer a choice of high quality new homes to meet local needs;
- Reinforce and enhance Stockton Heath's District centre status;
- Create a place of character, strong community and a quality of life which is in-keeping with the existing settlement; and
- Improve the transition from the countryside into the town.

The development proposals for Stonecroft will deliver new market and affordable family homes to the benefit of the local community, at a time when there are severe challenges to housing supply across the Borough."

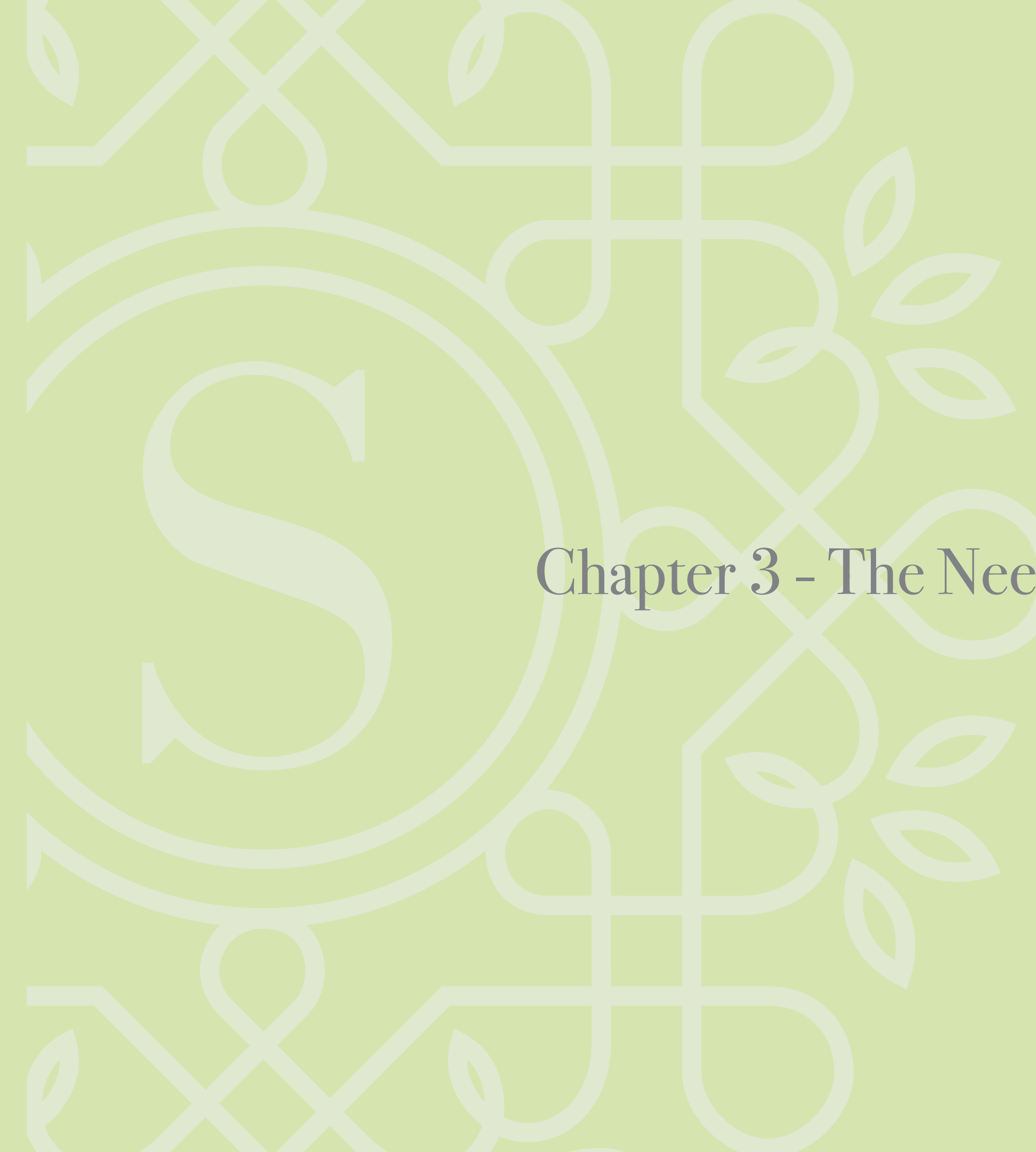
2.1 Our vision for the site is therefore underpinned by the following goals:

- **Delivering quality new homes** – the appointed developer will build quality new homes, which make use of and are sensitive to the distinctive character of the surrounding area.
- **Achieving a choice of housing** – The proposed development will offer a mix of housing in terms of type, tenure and size to satisfy local needs and help to broaden the demographic profile of Walton and Warrington as a whole.
- **Providing affordable homes** – The proposals will help to address a recognised local housing need for affordable homes, meeting the needs of those currently unable to afford a new home.
- **Investing in the community** – the proposed scheme will seek to strengthen the local economy through the provision of housing to attract the economically active.
- **Creating a safe, desirable place to live** – The proposals will aspire to create a safe and attractive environment, which discourages crime and engenders a strong community spirit, building upon the strengths of the wider area.
- **Supporting the community** – The proposals will sustain the local community by providing more places to live.
- **Promoting ecological conservation** – The proposals will seek to sustain and enhance the quality of the existing habitats and features of conservation value.
- **Incorporating environmental and sustainability measures** – The proposals will incorporate a range of environmental and sustainability credentials, aimed at reducing carbon emissions and improving energy efficiency.
- **Working in partnership** – The appointed developer will collaborate with local residents and other key stakeholders to create a development that delivers community-wide benefits for all.
- **Enhance the profile and standing of the town** – Located at its western gateway, Land at Chester Road will provide a positive statement of the quality of life and environment that can be enjoyed and experienced within Walton and Warrington more generally.





## Chapter 3 - The Need for Sustainable Homes



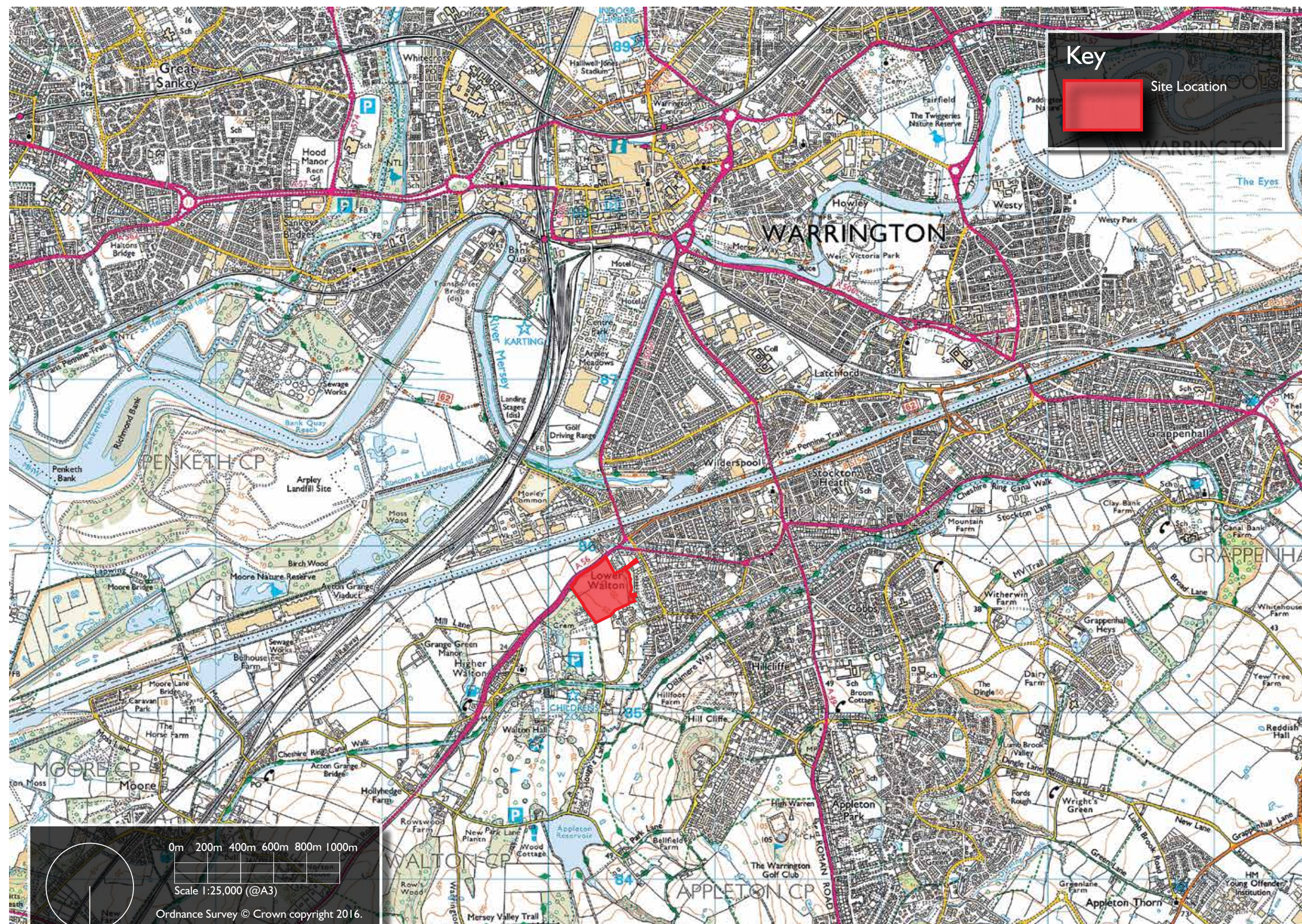


Figure 03:01 - Site Location Plan

## The Need for Sustainable Homes

3.1 This chapter of the Development Statement summarises how the development proposals can support the Council in meeting their significant housing need through delivering quality new homes in a sustainable location which responds to planning policy at the national and local level, and therefore represents sustainable development.

### The Need for New Housing in Warrington

3.2 There is a recognised national shortage of new homes; which is driving central government through the National Planning Policy Framework (NPPF) and supporting Planning Practice Guidance to prioritise significantly boosting the supply of housing across the Country.

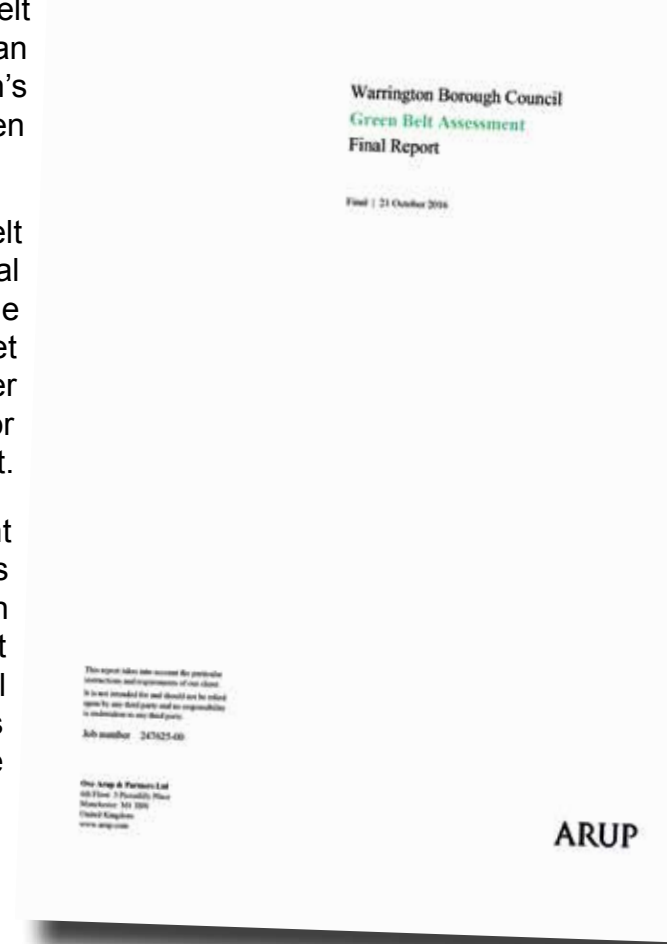
3.3 Warrington Borough Council has undertaken further evidence base work to establish the need for new homes in the Borough, the results of which will inform a review of the adopted Local Plan Core Strategy (LPCS). This has confirmed the need to provide land to accommodate around 20,000 new homes over the next 20 years, of which 5,000 will need to be accommodated within the existing Green Belt, given the constrained capacity of sites within the settlement area.

### Green Belt Assessment

3.4 The Council has recently published its Green Belt Assessment (October 2016) which sets out an objective-based assessment of how Warrington's Green Belt contributes to the five purposes of Green Belt, as defined in national policy.

3.5 Within the Assessment, Warrington's Green Belt has been divided into large parcels, or General Areas which were defined using recognisable and permanent boundaries. Areas around inset settlements were then refined to create smaller Green Belt parcels and have been assessed for their contribution to the five purposes of Green Belt.

3.6 The Green Belt parcel containing the development site (reference WR64) has been categorised as making a moderate contribution to the Green Belt, which according to the Council's Green Belt Assessment confirms that 'on the whole the parcel contributes to a few of the Green Belt purposes however does not fulfil all elements'. The Assessment notes that the boundaries between the parcel and the countryside are durable which would serve to contain the development and would therefore not threaten the openness and permanence of the Green Belt. The site is also categorised as having a moderate contribution to checking unrestricted sprawl and in assisting urban regeneration.



## Planning Policy

3.7 Warrington's Local Plan Core Strategy (LPCS) was adopted by the Council in July 2014 and provides the overarching strategic policies for guiding the location and level of development in the Borough up to 2027.

3.8 The housing target contained within the LPCS was quashed by the High Court in February 2016. In the absence of a housing target, the Council is therefore unable to demonstrate a five year housing land supply. This position is accepted by the Council in recent reports to the Development Control Committee which state that therefore any relevant policies for the supply of housing within the LPCS are not considered to be up-to-date, as set out within Paragraph 49 of the NPPF.

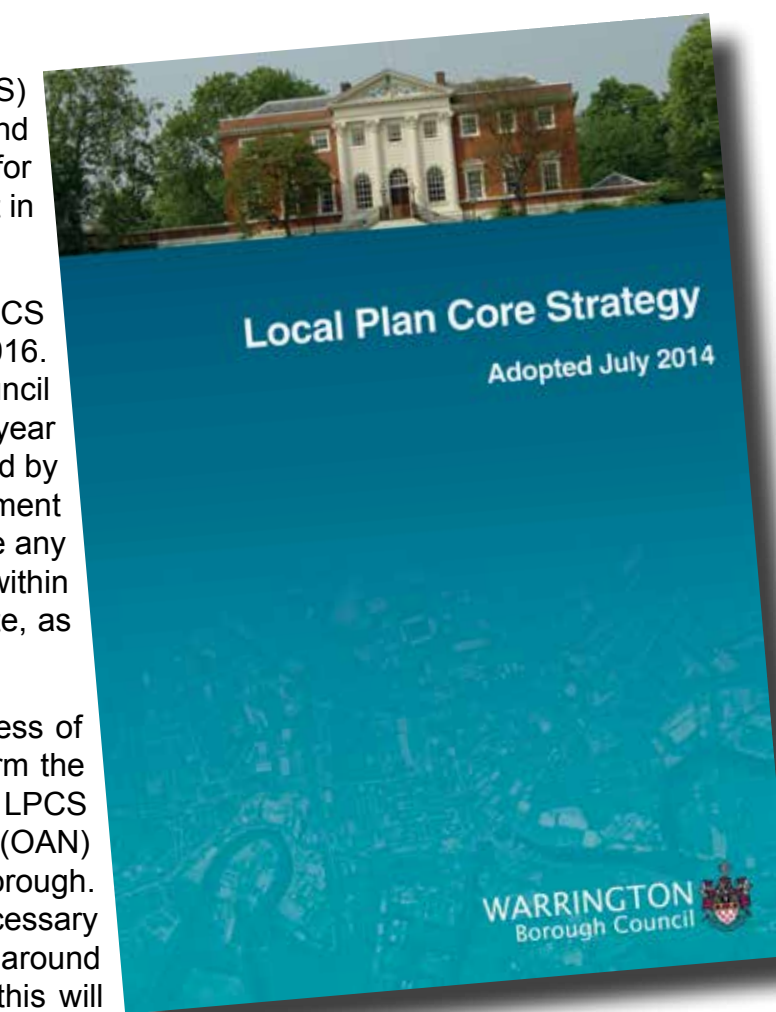
3.9 As set out above, the Council is in the process of refreshing the evidence base which will inform the review of the Local Plan, and ensure that the LPCS fully meets the Objectively Assessed Needs (OAN) for market and affordable housing in the Borough. The Council has confirmed that it will be necessary to increase the minimum supply of homes to around 1,000 per annum, and as outlined above, this will require the release of Green Belt sites.

3.10 The review of the Local Plan will be focused on three strategic matters:

- The provision of land and level of housing development that can be accommodated within Warrington, taking into account Objectively Assessed Needs (OAN);
- The provision of land for economic development and a growing local economy, taking into account OAN; and
- Ensuring the timely delivery of new and improved physical and social infrastructure required to meet the needs of new development and mitigate the impacts on existing communities.

3.11 It is proposed that the Local Plan will be adopted by October 2018.

3.12 It is considered that land at Chester Road, Walton, is a prime candidate for allocation, and is able to directly assist the Council in meeting its significant housing need requirement over the plan period. Ashall Property welcomes the opportunity to work with the Council, its stakeholders and local community to bring new homes forward in this location, to assist in meeting the five year housing land supply shortfall and to maintain a flexible and responsive supply of land for housing over the plan period. In doing this, Ashall Property believe that they can directly assist the Council in demonstrating that their emerging Local Plan can be considered sound at its Examination in Public.



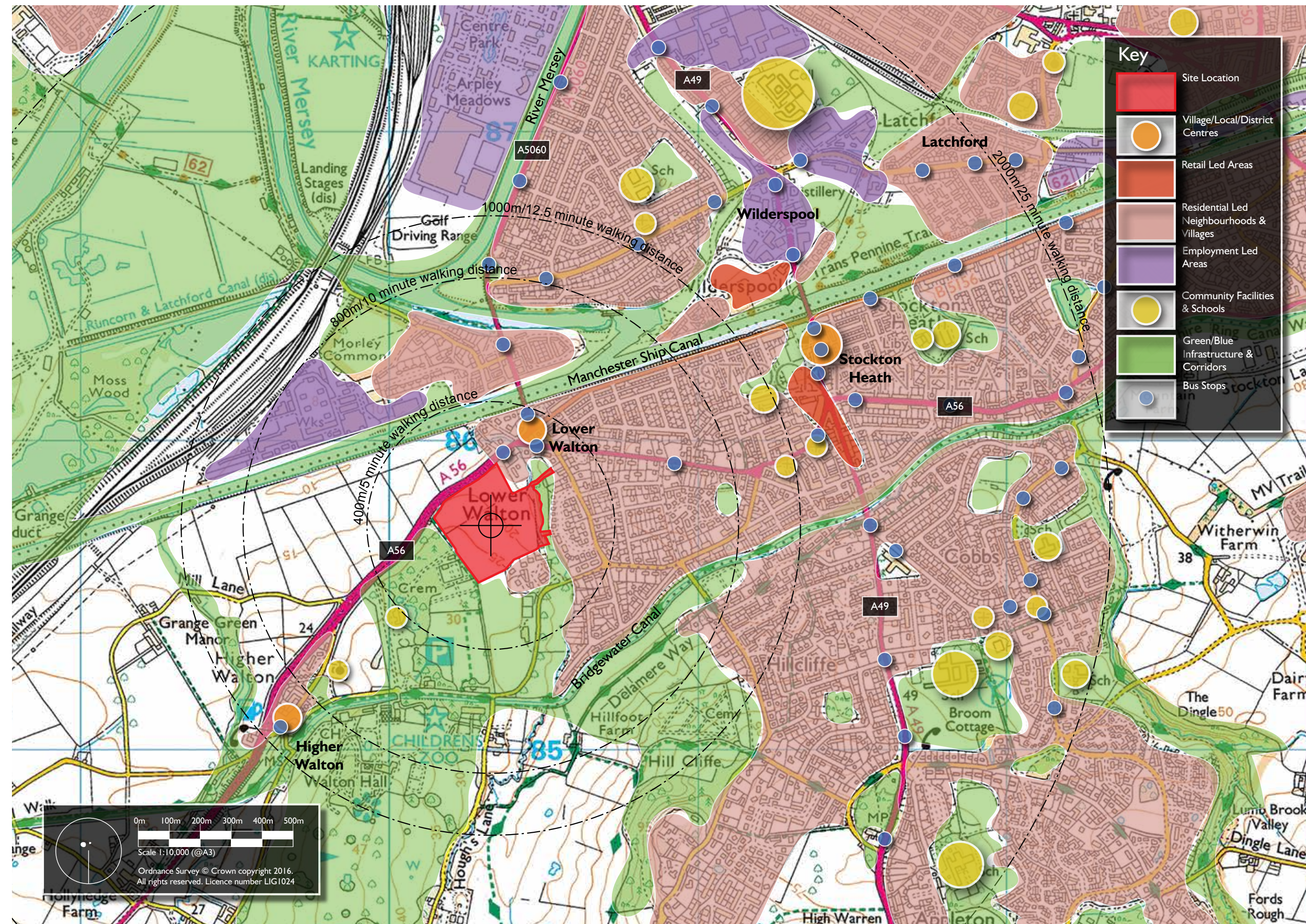


Figure 03.02 - Settlement Context Plan

## Walton: A sustainable location for new development

3.13 Walton is located to the south of Warrington and west of Stockton Heath, and forms part of the suburban area of Warrington. It is separated into two settlement areas – Higher Walton and Lower Walton, with the site being in close proximity to the latter. To the south and east lies Walton Hall and Gardens, farmland and golf courses. Stockton Heath adjoins Lower Walton to the west, and to the north lies the Manchester Ship Canal and River Mersey which separate Lower Walton from Warrington. Land between the Manchester Ship Canal and River Mersey falls within Flood Zones 2 and 3.

3.14 As such, land to the west of Lower Walton is considered to be the only sustainable, suitable location for new development in this area, and should therefore be considered as part of the suburban area of South Warrington.

3.15 In terms of accessibility, land to the west of Lower Walton can be considered suitable for new development, given the excellent road connections provided by the A56 into Warrington and towards the M56 which links Manchester and Chester, as well as the proposed new links into Warrington through the Warrington Western Link (which has been approved through the Local Majors Fund, Autumn Statement 2016) and the Warrington Waterfront redevelopment.

3.16 The site is within close proximity to a selection local retail and community facilities on Ellesmere Road/Hill Cliffe Road, and is only a 15 minute walk to Stockton Heath centre where a wider range of facilities are available. Nearby bus stops located on Chester Road and Hill Cliffe Road provide regular connections to Warrington and Chester. The nearest train station to the site is at Warrington Bank Quay, approximately 2km from the site, which provides connections to Manchester, Liverpool, London and Glasgow.

3.17 Furthermore, land to the west of Lower Walton is directly adjacent to the currently proposed route for the Warrington Western Link, a new high level link across the Manchester Ship Canal, and the Warrington Waterfront redevelopment area. The significant highways and transport infrastructure improvements proposed in close proximity to the site further demonstrate the site's suitable location for new development.

3.18 This has demonstrated that due to a number of physical and infrastructure factors, the optimum location for additional development is to the west of Lower Walton where there is the opportunity to deliver a sustainable urban development.

## Land at Chester Road

3.19 The proposed development site, situated to the south of Chester Road (A56) sits within land to the west of Lower Walton. As set out below, the site has clear advantages which demonstrate that it is a sustainable site and has the capability of accommodating new homes to meet local housing need for Walton and for Warrington as whole.

## Land at Chester Road: The Advantages

3.20 Land at Chester Road has the following advantages:

- It is visually well-located adjacent to the existing built form of Lower Walton and the southern suburbs of Warrington;
- It is well-related to the road network, particularly the A56;

• It is located within Flood Zone 1, whereas land to the north of the Manchester Ship Canal located in Flood Zones 2 and 3;

• It is capable of accommodating a significant level of housing development that is able to respond to its immediate context allowing it to sit well in its environment and deliver an attractive western gateway to the urban edge of Warrington and Stockton Heath;

• The site is not subject to any international, national or regional environmental designations;

• The site is located approximately 2km to the east of Stockton Heath centre, where a broad range of shops, facilities, services and associated employment opportunities can be found;

• Further employment opportunities can be found in Warrington, which is located approximately 2.6km to the north of the site;

• Stockton Heath Primary School is circa 800m from the site and Bridgewater High School is approximately 1.6km from the site;

• As detailed later in this Development Statement, the site at Chester Road is well-served by public transport with bus stops located along the A56 and Hill Cliffe Road adjacent to the site, and train services at Warrington Bank Quay and Warrington train stations; and

• The site is also considered to be accessible on foot and by cycle; and

• The site promoter is committed to working with the Council to promote the site through the emerging review of the LPCS.

3.21 On this basis, land at Chester Road will go a considerable way towards meeting the identified need for housing development in a sequentially preferable location which is well-related to Warrington and Stockton Heath and existing and proposed transport infrastructure.

## Summary

3.22 This chapter of the Development Statement has demonstrated that there is a clear case for supporting the residential development of land at Chester Road. In summary:

• This is underpinned by a significant unmet need for new housing, comprising family homes and affordable homes, to help support the vitality of Warrington and Stockton Heath;

• The proposed development would contribute towards the Borough's housing land supply at a time when the Council cannot demonstrate a five year supply of housing land, and there is a significant identified requirement to release Green Belt land sufficient to accommodate approximately 5,000 new dwellings;

• The proposed development would contribute towards building a strong, responsive economy by providing short term economic and fiscal benefits in terms of job creation, additional monies to the local authority and increased expenditure in the local economy;

• The site is extremely well-located in proximity to public transport links, strategic transport routes and a range of shops, services, schools, jobs and community facilities;

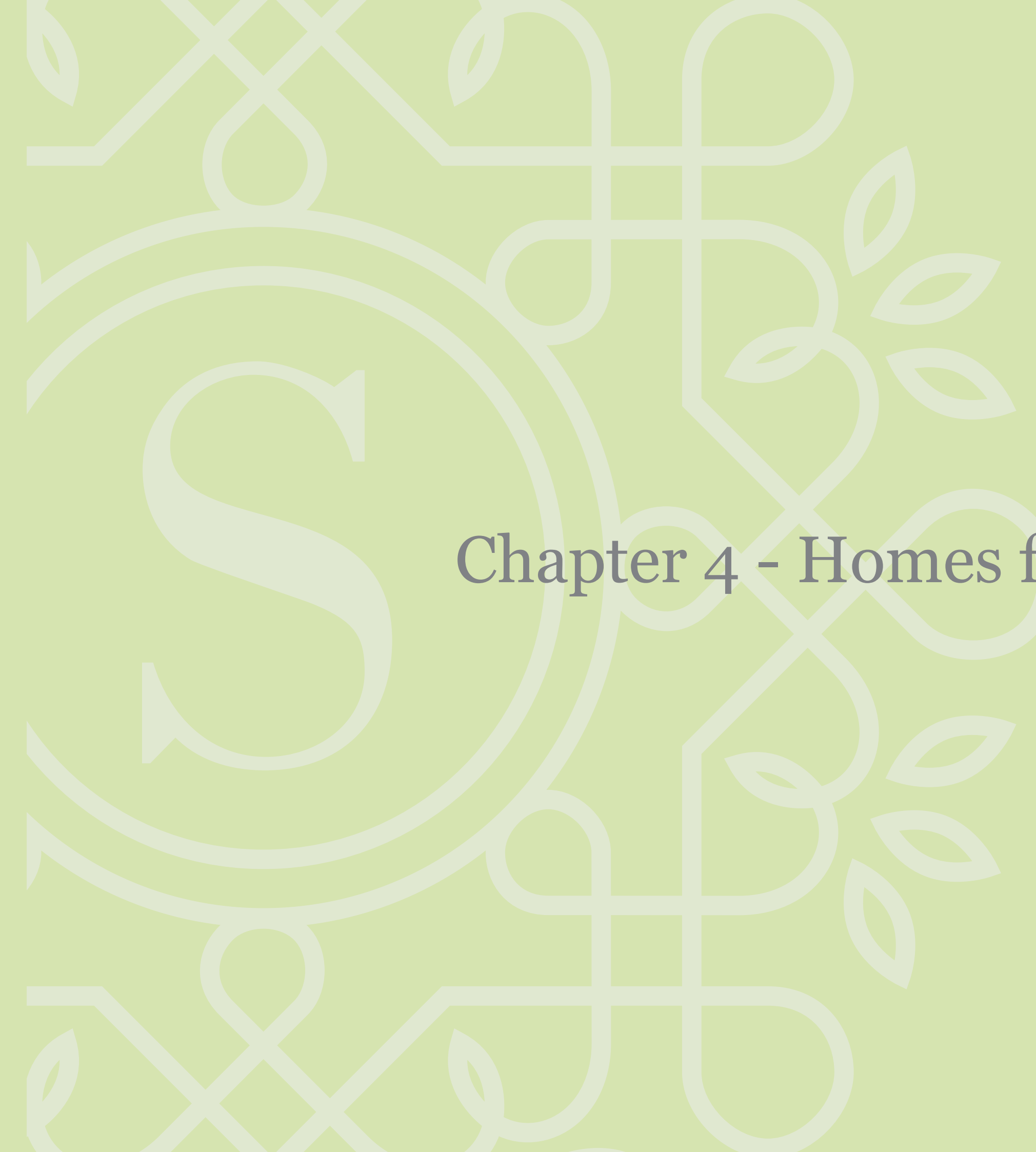
• The development of this site could be readily accommodated within the landscape setting; and

• The site promoter is willing and available to deliver development on the site in the short term through an allocation in the emerging review of the LPCS.

3.23 The development proposals for the site are therefore firmly aligned with the principles of sustainable development which underpin national and local planning policy.



## Chapter 4 - Homes for Now & the Future





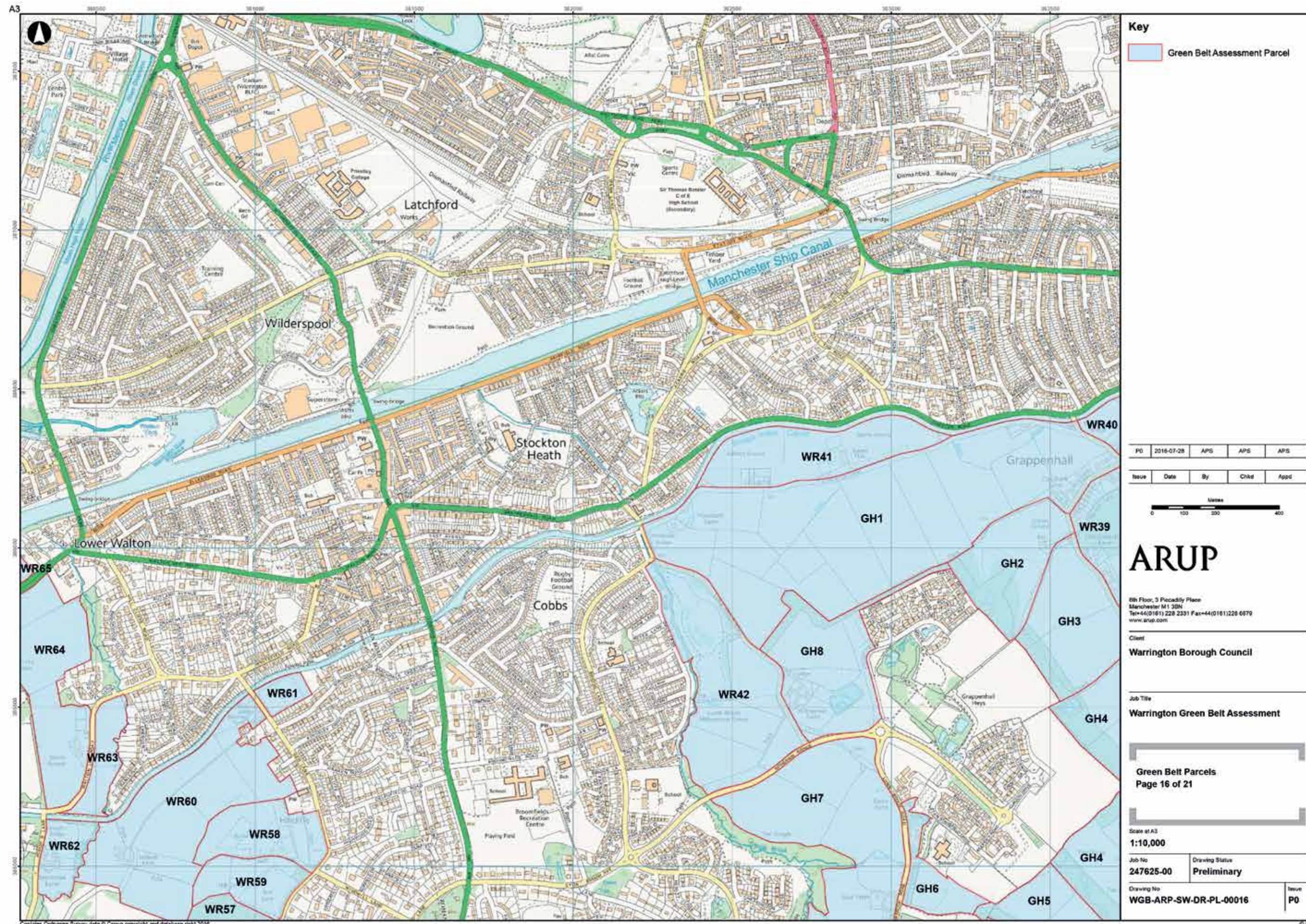


Figure 04:01 - Extract from Green Belt Assessment

# Homes for Now & the Future

In line with Planning Practice Guidance, plan makers should assess the suitability of the identified use of a particular site and be guided by the development plan, market requirements in that housing market, as well as any physical constraints. These key elements have therefore been considered below.

## Suitability

### Planning Policy and Site Allocation

- 4.1 The statutory development plan for Warrington Borough Council comprises the Local Plan Core Strategy (LPCS) (adopted 2014) which designates the site as Green Belt (Policy CS5) with the site lying directly adjacent to the South Area Boundary. Notwithstanding this, the Council has acknowledged that they do not currently have a five year supply of housing land in place and has recognised the need to release Green Belt sites for development as part of the Local Plan review process. Recent case law has also confirmed that local plan policies which restrict housing supply, including those related to Green Belt protection can be seen as being out-of-date where local planning authorities do not have a five year supply in place .
- 4.2 There is therefore scope for the site to be released from the Green Belt as the revised Local Plan is developed.

### A popular residential location with growing market interest/value

- 4.3 The site is located within an existing and popular residential area that has growing market interest and value based upon Cushman & Wakefield's local agency intelligence. From our on-going dialogue with regional and national house builders the demand for sites in the immediate area is very strong and this is likely to result in a number of parties expressing interest in any residential development opportunity.

### An Accessible and Sustainable Location

- 4.4 The site is incredibly well located in terms of its proximity and accessibility to key modes of public transport and local amenities and facilities. The site is within close proximity from local bus stops (within 60 m) which provide regular services to Warrington, Runcorn and Chester. The site's location is also well placed to provide access to the strategic highway network, providing access to key local and sub-regional employment destinations.
- 4.5 The site also provides positive accessibility and connectivity to local shops and services, within Walton itself, as well as within Stockton Heath, access to open space and sporting facilities (Warrington Sports Club and Walton Gardens) and Stockton Heath Primary School and Bridgewater High School are within 20-30 minutes of the site.
- 4.6 It is clear therefore that the location of the site is inherently sustainable.

## An Unconstrained and Available Development Site

The land is considered to be free from any significant impediments to delivery within the short term. Initial technical due diligence has been undertaken in support of the development of the site for residential uses:

- Landscape and Visual Overview prepared by Tyler Grange
- Preliminary Ecological Appraisal prepared by Tyler Grange
- Arboricultural Appraisal prepared by Tyler Grange
- Flood Risk Assessment and Drainage Strategy prepared by WaterCo
- Phase 1 Geo-Environmental Assessment prepared by Earth Environmental & Geotechnical
- Highways/ Transport prepared by DTPC
- Agricultural Land Classification prepared by Land Research Associates
- Market Analysis Report prepared by Cushman & Wakefield
- 4.7 The key physical, environmental and technical findings from these site assessments are summarised in the remainder of this chapter to demonstrate that there are no significant physical, environmental or technical constraints to residential development of the site.
- 4.8 All of the detailed site assessments can be made available upon request.



- Site Boundary
- Photoviewpoint Location
- Footpath
- Bridleway
- Public Right of Way Reference
- Cycle Route
- Principal Vegetation and Trees Filtering Views
- Built form / Surrounding Residential Townscape

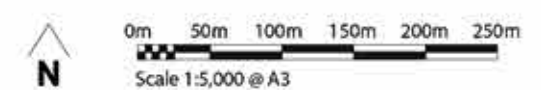


Figure 04:02 - Photoviewpoint Locations Plan

### Landscape and Visual Character

- 4.9 An appraisal of the site has been undertaken by Tyler Grange which confirms that the site sits within the 'Mersey Valley' Character Area which includes densely populated urban and suburban areas, including Warrington, large-scale visible industrial development set within a natural landscape comprising large-scale, predominantly flat farmland, trees and woodland.
- 4.10 More specifically, the site is set within the Appleton Park & Grappenhall Character Area which comprises 'strongly sloping land to the north, affording sweeping long distance views, occasionally restricted by the presence of linear deciduous woodlands, coverts and tree groups'. This character area is also noted to have 'advanced' landscaping and 'entrance' features relating to proposed housing development'.
- 4.11 The site is also influenced by adjacent landscape character areas – the River Mersey/Bollin and Victoria Park to Fiddlers Ferry. This includes 'widespread residential and industrial development on the floodplain'.
- 4.12 Whilst the characteristics set out above provide some context to the site, the site itself has been characterised by Tyler Grange as being agricultural in nature but it has an urban fringe and an enclosed character. The site is influenced by the visual backdrop of Lower Walton and Warrington, and is associated with the surrounding established residential area due to the proximity and visual connectivity to the adjacent dwellings off Chester Road.
- 4.13 The site at Chester Road has generally limited visibility in the wider landscape due to the relatively flat nature of the land and existing vegetation at site boundaries and in the wider landscape. The site is well enclosed due to its vegetated boundaries of hedgerows and hedgerow trees, and the adjoining woodland blocks. This assists in filtering and screening views and is therefore likely to assist in reducing the visual impact of any new development within this landscape.
- 4.14 There are relatively few receptors that are likely to be impacted on and there is a limited visual relationship between the site and the wider Green Belt. The main receptor is from Public Footpath

304/6 which runs along the western boundary. This allows views towards the residential edge of Lower Walton and Warrington, including the spire of St Elphin's Church. Appropriate mitigation is proposed to be incorporated within the indicative design proposals (see Figure 05:03) which includes a comprehensive green infrastructure network, incorporating native tree, hedgerow and woodland planting.

- 4.15 Residential amenity from the properties adjoining the site will also be maintained through the addition of soft landscaping and screening.
- 4.16 Consideration has been given as to the site's suitability for release from Green Belt in relation to the principal Green Belt objectives as set out within the NPPF, and with reference to adopted Local Plan Policy CS 5. This confirms the following key points:
  - That development on the site would reinforce the robustness of access to the Walton Lea Project and 1-3 Walton Lea Cottages as edge to the settlement;
  - The site is visually well enclosed by existing vegetation which separates it from any visual relationship to Higher Walton.
  - There is potential to retain and enhance the existing boundary vegetation and woodland block along the eastern boundary;
  - The existing public footpath (304/6) connects Walton Hall and Gardens to the south of the site and as such there is an opportunity to create a link through the site from Chester Road at the northern boundary;
  - The containment of the site afforded by the surrounding vegetation will limit the extent to which any proposed development would introduce uncharacteristic features into the landscape and the wider Green Belt landscape.
- 4.17 On this evidence it is considered that there are no landscape reasons to prevent the site being allocated for residential development.

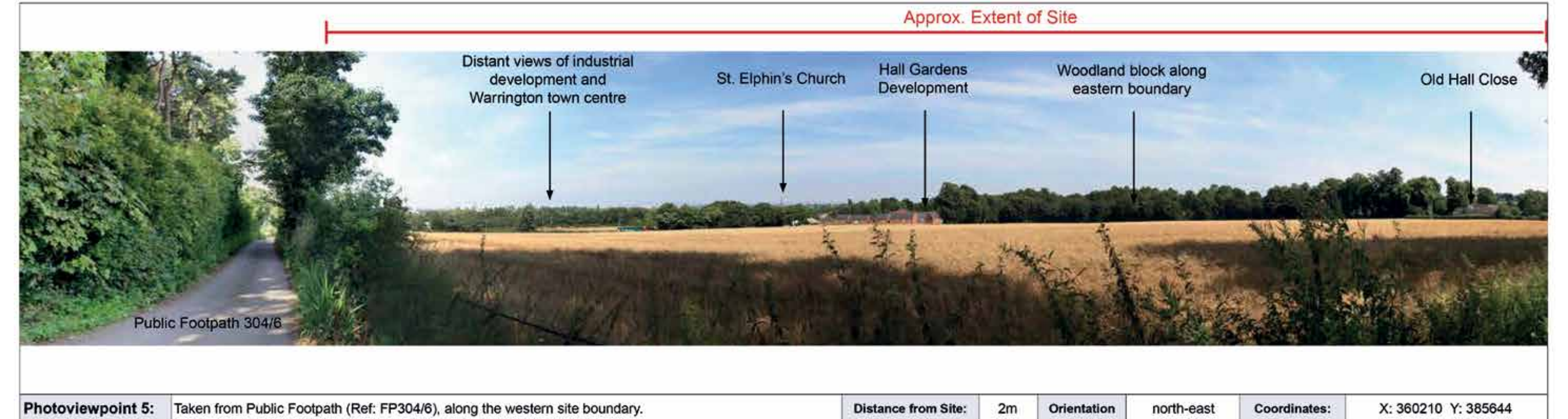
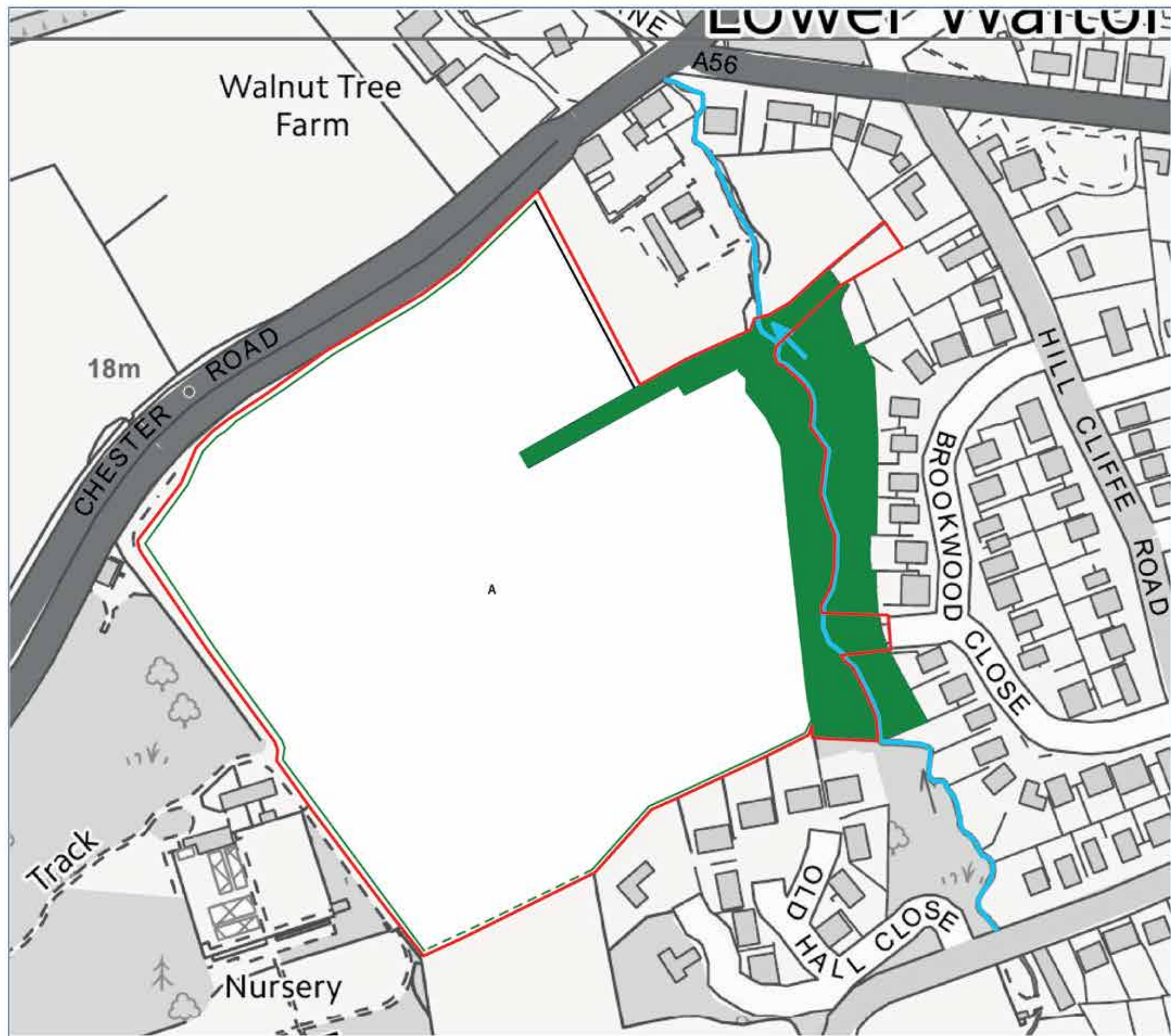


Figure 04:03 - Photoviewpoint 5



- Site Boundary
- A Arable
- Broadleaved Woodland
- Fence
- Hedge and Tree Line
- Hedgerow - defunct
- Hedgerow - intact
- Watercourse

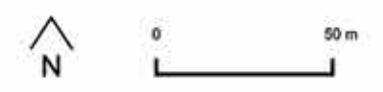


Figure 04:04 - Habitat Features Plan

Tyler Grange LLP  
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**Preliminary Ecological Appraisal**

- 4.18 A Preliminary Ecological Appraisal (PEA) has been undertaken by Tyler Grange to review the ecological features [resent within the likely zone of influence of the proposed development, and the ecological issues and opportunities that may arise as a result of the proposal.
- 4.19 The PEA has confirmed that the site is not covered by any statutory or non-statutory nature conservation designations.
- 4.20 The predominant feature of the site is the arable land which has been identified as being floristically poor and uniform in structure and having very limited field margins. Hedgerows and trees line the perimeter of the site and comprise a mix of species and trees of differing maturity.
- 4.21 A small brook which flows into the Manchester Ship Canal lines the eastern site boundary, within the broadleaf woodland. It provides an important linear feature which is considered to be of local importance as illustrated in Figure 04:04 opposite.
- 4.22 A belt of mature semi-natural broadleaved woodland lines the eastern boundary and extends into the middle of the field. It provides a strong boundary to the site and provides connectivity to habitats in the wider locality. It is considered to be of local importance.
- 4.23 Habitats on site have been identified as having the potential to support badger, bats, breeding birds, otter and water vole. The PEA therefore recommends that additional surveys are undertaken to support any future planning application, including a full badger survey, a preliminary roost assessment of trees for bats (if any trees are to be lost), a breeding bird survey and otter and water vole survey (if the brook is to be affected by development).
- 4.24 No ecological issues have been identified that could affect the principle of development on the site. Existing ecological features, including the woodland is proposed to be retained and there is an opportunity, as a result of the proposed development, to enhance the biodiversity of the site.
- 4.25 On this evidence it is considered that there are no ecological reasons to prevent the site being allocated for residential development.

**Flooding**

- 4.26 A Flood Risk Assessment and Drainage Strategy has been carried out by WaterCo. This confirms that the majority of the site is within Flood Zone 1 – an area considered to be outside of the extreme flood extent meaning it has a less than 1 in 1000 (0.1%) annual probability of flooding. The eastern extent of the site, adjacent to the unnamed watercourse, is situated in Flood Zone 2 – an area considered to be at risk of fluvial flooding with between a 1 in 100 (1%) and a 1 in 1000 (0.1%) annual probability and in Flood Zone 3 – an area considered to be at risk of fluvial flooding with less than a 1 in 100 (1%) annual probability as illustrated in Figure 04:05.
- 4.27 Notwithstanding this, given the steepness of the catchment, the flood extent is minimal and confined to areas immediately adjacent to the watercourse. The risk of fluvial flooding to the majority of the site is low and the flood extent is confined to the wooded area to the east of the site. Locating all properties outside of the wooded area would mitigate the potential fluvial flood risk.
- 4.28 The site is also at a low risk of flooding from artificial sources.

- 4.29 An initial drainage strategy has also been undertaken which has confirmed that there is potential to dispose surface water via soakaways or via the existing watercourse to the eastern boundary of the site.
- 4.30 The majority of the site is therefore within an area considered to have a low risk of flooding (i.e. less than a 1 in 1,000 annual probability of flooding) and is sequentially preferable in terms of the NPPF and associated technical guidance. These indicate that all uses of land, including housing, are appropriate within this zone.
- 4.31 On this evidence it is considered that there are no flood risk constraints preventing the site coming forward for development.

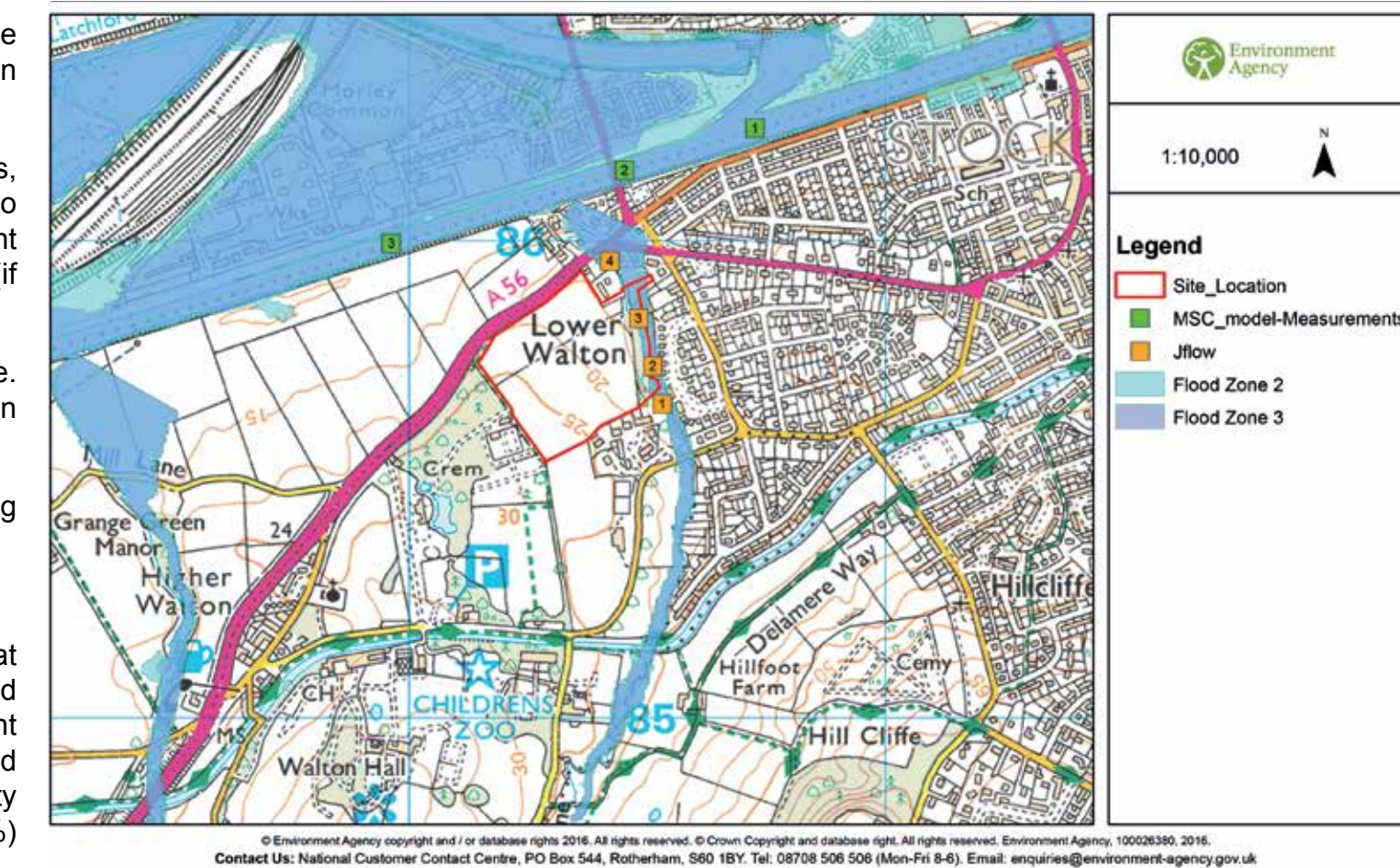


Figure 04:05 - Detailed Flood Map

## Phase 1 Geo-Environmental Scoping

4.32 A Phase 1 Geo-Environmental Site Assessment report for the site was produced in September 2016 by Earth, Environmental & Geotechnical. The report identifies the underlying environmental setting of the site, including the geology, hydrology, flood risk and ecology.

4.33 The majority of the site is underlain by superficial deposits which comprises Shirdley Hill Sand Formation and Tidal Flat Deposits (Clay, Silt and Sand). This is shown to be underlain by bedrock deposits consisting of the Wilmslow Sandstone Formation.

4.34 According to the Environment Agency's online Groundwater Vulnerability Mapping, the superficial Shirdley Hill Sand Formation and Tidal Flat Deposits are a Secondary (undifferentiated) aquifer. These are layers which have typically previously been classed as aquifers and non-aquifers due to the variable characteristics of the rock type. The Wilmslow Sandstone Formation bedrock is classified as a Primary aquifer. These are permeable layers capable of supporting water supplies at a local rather than strategic scale and in some cases form an important source of base flow to rivers.

4.35 The likelihood of contamination on the site has been identified as low to medium, however further ground investigations would be required to determine the nature of proposed foundations, ahead of submitting a planning application.

4.36 It is therefore considered that there are no geo-technical reasons why the site could not come forward for residential development.

## Highways/ Transport

4.37 DTPC has undertaken an initial highways assessment of the site.

4.38 The site is located off Chester Road (A56). East of the site, Chester Road consists of a single carriageway which provides a northbound lane, northbound right-turn lane and a single southbound lane. The carriageway is approximately 11.5m wide and provides 2m wide footways, dropped kerbs and street lighting. This section of Chester Road is subject to a 30mph speed limit.

4.39 Along the frontage and west of the site, Chester Road forms a dual carriageway which provides two lanes in each direction of travel. Each carriageway is approximately 8m wide and a shared footway/cycleway is provided alongside the northbound carriageway. A grass verge approximately 1m wide separates the carriageway from the footway/cycleway and street lighting is provided along the length of the carriageway. The dual carriageway is subject to a 40mph speed limit.

4.40 Chester Road forms a priority controlled junction with the A5060 Chester Road, approximately 255m northeast of the site and extends in a south-westerly direction towards a junction with the M56. Approximately 200m northeast of the existing site access Chester Road forms a priority junction with Walton New Road and Pool Lane.

4.41 The proposed development site is thus considered to be in a strategic location for access to key road networks within Warrington and the wider region.

4.42 The proposed development is located on the edge of an existing urban area with a range of services and facilities. There are existing pedestrian routes within the vicinity of the site that will assist the accessibility of the site for pedestrians, as well as easy access to an existing bus stop to provide additional opportunities for sustainable travel. Bus services (62 and X30) are provided from the bus stop within 60 m from the site, providing access to Warrington, Runcorn, Widnes, Hough Green and Chester.

4.43 Opportunities are also identified for cycling, as Warrington, Grappenhall and Great Sankey are all within 5km of the site. Traffic free cycle routes exist heading west on Chester Road (A56) and heading east along the northern bank of the Manchester Ship Canal, approximately 700m from the application site. A mixed on-road and traffic free cycle route extends west towards Runcorn along the St Helen's Canal.

4.44 As such there are considered to be no identified highways constraints that would prevent the site being allocated and developed for residential purposes, and the application site has good potential to be accessible by sustainable modes of transport.

## Arboricultural

4.45 Tyler Grange has prepared an arboricultural appraisal to inform the indicative masterplan for the site, and to fully understand the tree constraints and associated root protection areas.

4.46 A total of 11 no. individual trees, 6 no. groups of trees, 4 no. hedgerows and a woodland have been identified.

4.47 The wooded area to the eastern boundary of the site is subject to a Tree Preservation Area (reference 13 ref A1 and 9 ref W1) and as such the approximate extent of the root protection area associated with this has been determined and has influenced the indicative masterplan for the site. Trees within the TPO have been identified as category A and will be retained and protected as part of any future development.

4.48 The scheme has been designed to incorporate and retain as many B quality trees as possible, and further consideration will be given to the ecological and amenity value of the trees when the scheme is developed further.

4.49 A residential scheme on the site would also likely lead to a net-gain in tree cover due to the provision of new street trees, incidental landscaping and residential gardens.

4.50 On this basis it is considered that there are no arboricultural issues which would prevent the site from coming forward for residential development. The protected trees within the Tree Preservation Order (TPO) would be retained and protected as part of any future scheme.

## Agricultural Land Classification

4.51 An agricultural land assessment has been undertaken by Land Research Associates which has confirmed that the agricultural quality of land is limited by droughtiness and soil wetness. The majority of the site is identified as subgrade 3a which will affect crop yields and the flexibility of cropping in winter and early spring, and the potential profitability of the land through economies of scale for agriculture or horticulture is limited due the scale of the site and that the site is separated on all sides from other agricultural land.

4.52 There are no land quality issues which would prevent the site being allocated for residential development, given that there is adequate good quality agricultural land available in and around Warrington.

## Availability

4.53 The site is wholly within Ashall Property's control and there are no known legal or ownership problems which could impact the deliverability of the site. The site is vacant and is used for occasional crop planting by way of an agricultural lease which can be easily surrendered. It can therefore come forward for delivery in the short term.

## Achievability

4.54 The site is economically viable for an appropriate residential development and, as previously stated, there is likely to be significant market interest in this location.



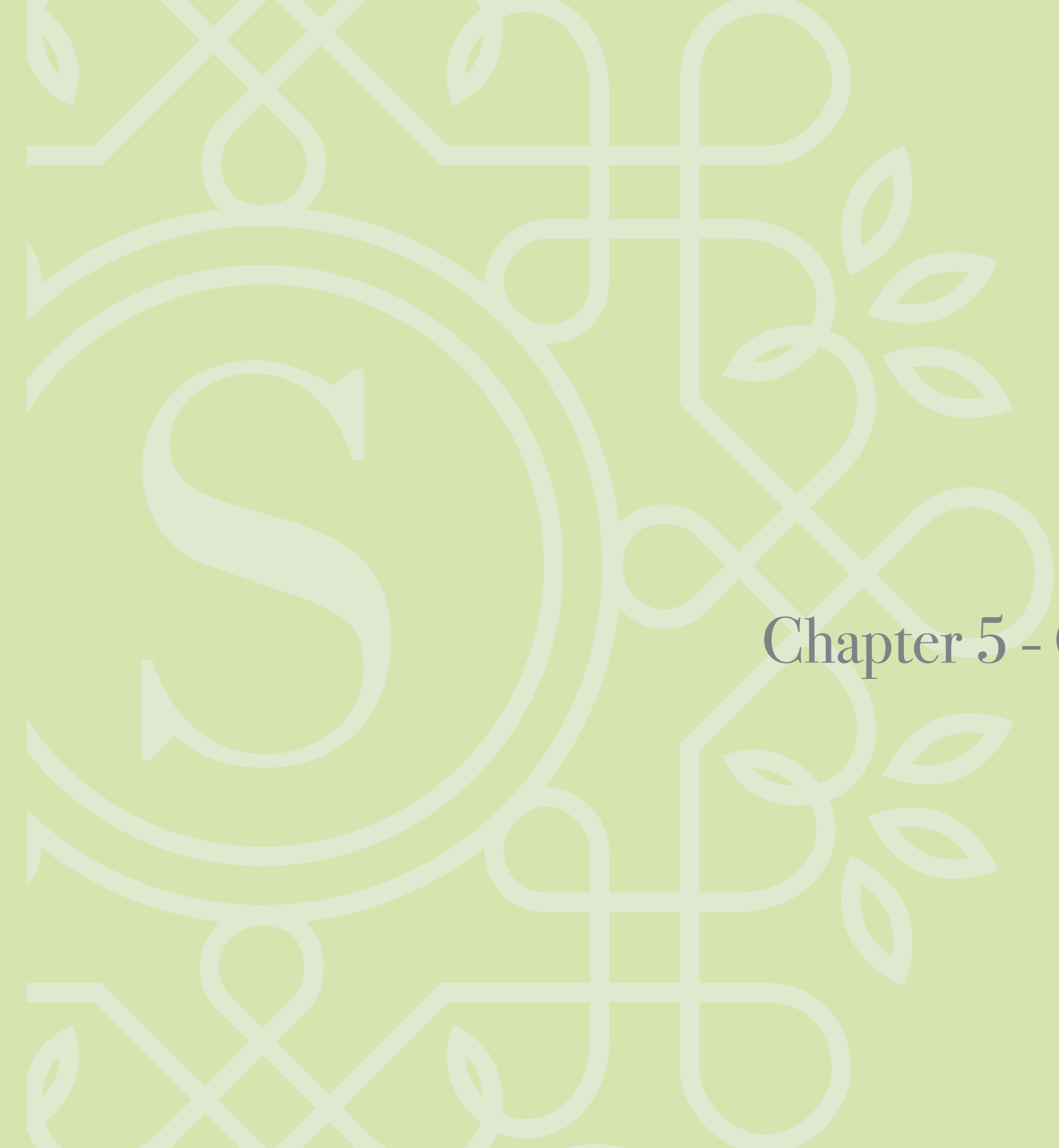
Figure 04:06 - Aerial Photograph of Site

## Conclusions on the Deliverability of the Development

It has been demonstrated that the Chester Road site is deliverable in terms of the relevant tests within the NPPG. The site is not subject to any technical or environmental constraints that would prevent it coming forward for housing. It is considered that it should be released and allocated in preference to other suggested sites.

These matters can be summarised as follows:

- **Available:** Ashall Property owns the freehold of the site and as such the site is within the control of a developer with phase(s) that can be brought forward for development at the earliest opportunity.
- **Achievable:** Ashall Property is keen to develop the site for residential uses at the earliest opportunity and as a well-financed developer, has the resources to do so. Ashall Property is committed to delivering such housing at this site and in turn, helping to create a sustainable community for all.
- **Suitable:** The preceding sections have demonstrated that land at Chester Road is suitable for housing by virtue of its setting, relative to adjacent residential and leisure uses, its accessibility by public transport and major transport routes, and its proximity to a range of local facilities and services.
- **Developable:** Initial supporting investigations have identified no physical, environmental or technical constraints to residential development at the site, and have established that the proposed development can be accommodated within its boundaries and appropriately to its context.
- **Deliverable:** It is considered that the site is readily deliverable in the current market and would be capable of contributing towards housing land supply within the five year period and across the wider plan period.



## Chapter 5 - Creating a Place to Live



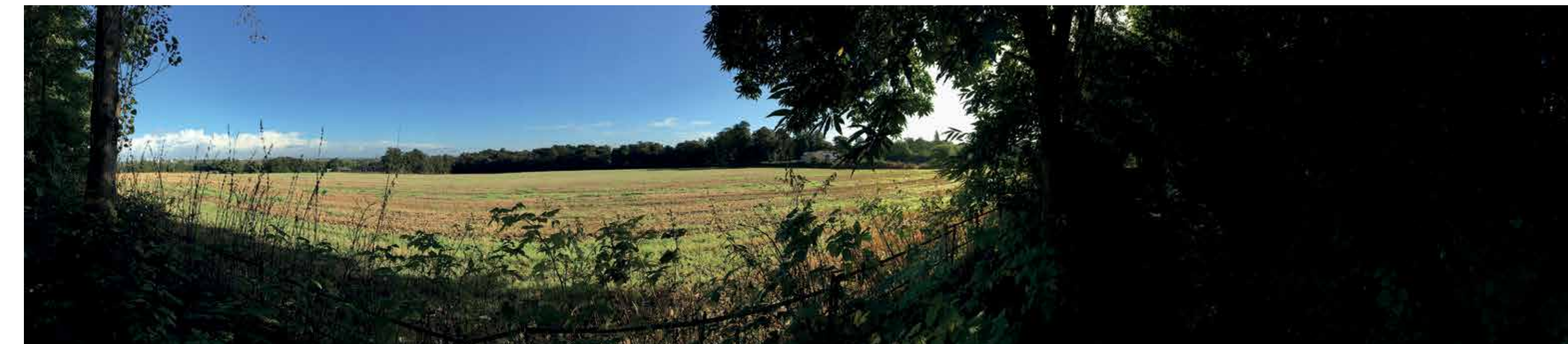
# Design & Form of Development

- 5.1 Ashall Property has prepared the scheme layout presented in this Chapter to demonstrate how the design and form of development will respond sensitively to the characteristics of the site and the wider area, and to demonstrate the contribution that the site could make to the sustainable growth of Warrington.
- 5.2 The vision for the site is based on present analysis. It is intended that these ideas will evolve further in consultation with the Council, local community, and key stakeholders at the appropriate time.

## Site Constraints and Opportunities

- 5.3 The vision for the site derives from a careful analysis of the characteristics for the site, its context, and the opportunities and constraints which arise. Those characteristics are illustrated in Figure 05:01 opposite and in the supporting narrative below.
- 5.4 The site is bordered by hedgerows and woodlands which in turn link into a wider established green infrastructure network as illustrated. The site offers the opportunity to connect into this network and further enhance and provide greater connectivity in terms of green spaces and wildlife corridors.
- 5.5 The site has a limited visual relationship with the wider landscape and is well enclosed due to the boundaries being vegetated with hedgerows and hedgerow trees, as well as the adjoining woodland blocks. The visual envelope is limited to only the immediate surroundings. The visible areas of the site provide an opportunity to create a transitional edge between the urban and rural area, and ensure that the site responds well to the surrounding context through ensuring appropriate development offsets, additional landscaping and the retention of existing established vegetation.
- 5.6 A vista runs from the western boundary north east towards the spire of St Elphin's Church in Warrington. This has played a key role in determining the masterplan layout of the site.

- 5.7 Existing residential properties adjoin the site to the east, south and west. Properties to the east and west are screened from the proposed development areas of the site by the extensive mature woodlands, whilst the properties to the south back onto the site. Any proposed development to the south shall back onto the established properties to finish the development blocks and provide suitable and sympathetic stand-off distances, ensuring visual amenity and appropriate privacy in maintained in their rear gardens.
- 5.8 Within the site the landform is broadly flat with a rise in levels from approximately 17m Above Ordnance Datum (AOD) at the north eastern corner, to approximately 31m AOD to the south west. The site is bounded by woodland vegetation to the east and west which provides an opportunity to create focal features within the development which can also benefit wildlife and ecology. There is also an opportunity to provide additional landscaping within the development which would complement the existing character of the site.
- 5.9 There is potential to provide safe highway access into the site from Chester Road (A56). The access would most likely comprise a roundabout. Properties shall front Chester Road and shall be set back into the site to provide a visual and acoustic buffer from the road. In addition acoustic mitigation to the building facades shall be incorporated to ensure noise levels are reduced internally and that rear garden noise levels are kept to a minimum.
- 5.10 There are no existing underground services within the site as confirmed by an initial utilities strategy. There are therefore no easements which would prevent development coming forward on the site.
- 5.11 The site is in agricultural use but is interspersed by hedgerow and scattered hedgerow trees. There is also an established woodland area along the eastern and western edge. Existing high quality vegetation adds character and maturity to development and should be retained where possible. Any loss of vegetation can be mitigated by providing extensive new tree and hedgerow planting throughout the development.



Panorama from public right of way looking east across site to mature woodland adjoining Brookwood Close

Figure 05:01 - Constraints & Opportunities Plan



5.12 An existing Public Right of Way (PROW) lies adjacent to the site, to the site's western boundary. Development on the site therefore provides an opportunity to promote and improve pedestrian and cycle access through the site and to connect into the existing footpath network.

5.13 The key principles of development arising from the opportunities and constraints are:

- Strengthen existing site boundaries and create a positive and finished edge;
- Improve the western 'gateway' into Higher Walton;
- Retain existing valued landscape features;
- Retain existing PROW's and their setting;
- Provide appropriate landscape buffers where necessary.

5.14 There is potential on the Chester Road site to develop a high quality residential scheme with a coherent landscape structure which conserves the natural assets present on the site, as well as enhancing the western edge of Higher Walton.

### Parameters Masterplan

5.15 The masterplan parameters have been informed by the site constraints and opportunities as illustrated in Figure 05:02 opposite.

5.16 The existing mature woodlands are retained. To maximise site permeability a pedestrian/cycleway link is provided onto Brookwood Close. Impact on the retained woodland is minimised and will be sensitively designed and located to ensure the retention of these protected trees. This connection links the site to the existing settlement and also provides direct pedestrian access from the existing settlement out to the surrounding countryside, public rights of way, Walton Hall, Crematorium, the Bridgewater Canal and Higher Walton.

5.17 The green infrastructure network within the site provides public open spaces in the form of greens and linear parks around and through the proposed development linking and joining with the woodlands, watercourses and surrounding green spaces.

5.18 The proposed roundabout creates a new gateway into Walton on Chester Road and will aid in slowing traffic speeds before vehicles enter the village and provide an announcement of arrival.

5.19 Secondary gateways into the site are created to the east between Brookside Close and the site as well as from the public right of way to the west.

5.20 The development parcels have been located to create complete outward facing blocks. Where existing development or development currently under construction backs onto the site the proposed development blocks back onto these boundaries to complete these development blocks, following best urban design practice.

5.21 The movement and public realm hierarchy has been designed to create a legible and permeable network of avenues, streets, lanes and associated spaces, as illustrated in Figure 05:02. The Avenue creates a strong vista through the site from the roundabout south east, terminating in a focal element.

5.22 Streets and lanes branch off the avenue providing a variety of routes around and through the site, each of which is unique and aids in the legibility of the development.

5.23 The avenue visually connects the development and creates a direct pedestrian and cycle link, but is broken in terms of vehicular access so that traffic speeds are reduced. Vehicles move through the site via the surrounding street hierarchy ensuring low traffic speeds throughout the development.

5.24 In addition to the shared routes through the site, pedestrian and/or cycleway routes and links are provided which encourages walking and cycling through the site and into the wider settlement or out to the surrounding countryside.

5.25 The development blocks shall be outward facing overlooking the movement network, public realm or surrounding green spaces providing surveillance and activity onto those areas.

5.26 Landmark elements in the form of architectural statements/header buildings shall be created at the head of avenues, streets, lanes and vistas or in gateway locations to provide visual interest or statements of arrival.



View west from Lower Walton along Chester Road site frontage



View south west from Chester Road across site to Walton Lea woodlands



Vista to St Elphin's Church Spire

Figure 05:02 - Parameters Masterplan



Figure 05:03 - Illustrative Masterplan

## Illustrative Masterplan

5.27 The high quality residential scheme proposed will deliver the following key features:

- Up to 177 dwellings at a maximum net density of 29 dwellings per hectare;
- Approximately 2.11 hectares of accessible, safe and multi-functional greenspace, providing recreational and environmental benefits;
- A softened western edge and new 'gateway' into Higher Walton;
- Extensive new footpaths and cycleways;
- Extensive new tree and hedgerow planting.

5.28 A lot of work has gone into understanding the area and the site itself. This chapter clearly demonstrates that all the work culminates in an exciting and vibrant Masterplan, which not only delivers residential development on this site, but creates a three dimensional place with varied spaces, built form and layers of interest.

5.29 This depth and breadth is picked up in the form of the street hierarchy and public realm, the variety and choice of homes proposed, as well as the naturalistic and ecological nature of the open spaces. All these elements come together to create a thoughtful masterplan which has all the physical attributes to create a strong 'sense of place'.

5.30 It must be stressed that this masterplan is only the start and as stated it is an 'initial masterplan' solidifying the parameters and illustrating how it can be delivered. It also demonstrates site capacity and viability. We anticipate that the design shall further evolve and develop over the coming months.

5.31 The Initial Masterplan in Figure 05:03 over page is supported by the following narrative and other supporting technical documents submitted as part of this proposal. The plan demonstrates site access, movement, overlooking distances, plot sizes and depths, street widths, sufficient space for on and off street parking and the relationship of the development to the existing surrounding neighbourhoods.

5.32 The following narrative therefore covers:

- Land Use and Quantum of Development
- Scale and Massing
- Spatial Layout - A Legible Hierarchy
- Amenity
- Secured by Design
- Access
- Landscape

### Land Use & Quantum of Development

5.33 The density of homes varies according to their position within the development. Around the main gateway the number of houses increases as more semi-detached dwellings are used to create a more enclosed, intimate character.

5.34 Overall the number of homes illustrated in the masterplan stands at circa 177 over a site of some 8.18ha. This provides a gross density of circa 22 units/ha, similar to that found in the surrounding settlement. The residential development itself covers just over 6ha of the site, leaving more than 2ha as public open space in the form of village greens, linear parks and woodlands, providing new open

spaces for the benefit of the wider community.

5.35 The public realm within the development is also considered to be part of the wider open space network, with the Streets, Squares, Lanes and Mews offering additional formal spaces within this new neighbourhood for the community to interact within.

### Scale and Massing

5.36 In order for this development to positively add to the existing townscape, create a statement at gateways and provide variety in terms of a skyline, the building storey heights shall vary according to their position in the layout. At the heart of the development around the Village Street some 2.5 storey properties are proposed, as housing densities drop the storey heights also drop from 2.5 to 2. At other key locations, for example around the secondary gateways the storey heights rise back up to 2.5.

5.37 The massing in key locations will not only add variety to the streetscape, but also to the skyline with varied ridge heights offering relief to the usual 'one height house types' of past developments.

### Spatial Layout - A Legible Hierarchy

5.38 The hierarchy of routes, as touched upon previously is expanded on here. In effect the development should be legible; a visitor should be able to find their way around the development intuitively by understanding the importance of the streets and spaces through which they are moving. It should also be permeable; a visitor should be able to get from 'A' to 'B' without having to literally go round the houses.

5.39 Therefore the proposals illustrated in the Initial Masterplan are both legible and permeable, a movement and street hierarchy has been developed as discussed previously and set out below in the order of importance:

- The Gateway
- The Avenue
- The Streets
- The Squares
- The Lanes
- The Mews

5.40 This interlinked hierarchical approach to the Movement and Public Realm ensures that variety, and uniqueness to each and every route and space is integral to the Masterplan. Each route changes in width, location of the footpaths, varied planting and street tree species, enclosure and boundary treatments, relationship to built forms etc. This approach makes each route unique and legible within the development.

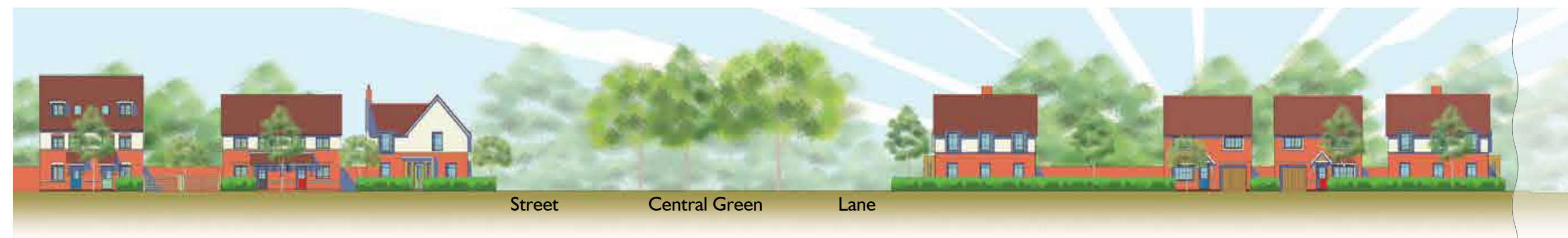
### Amenity

5.41 The amenity of existing and future residents of the development and surrounding neighbourhoods will be protected as part of the masterplan. Existing neighbours are not overlooked by the development, many of the existing properties are also screened from the development by the mature woodlands which surround the site. In terms of overlooking, the proposals follow best practice, striking the balance between urban design and guideline overlooking distances.





ILLUSTRATIVE STREET SCENE A - A1: CHESTER ROAD



ILLUSTRATIVE STREET SCENE B - B1: MAIN ACCESS STREET

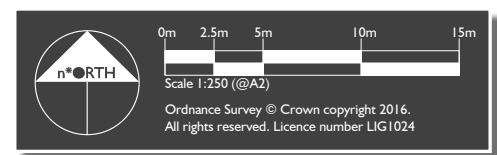


Figure 05.04 - Illustrative Streetscenes

#### Secured by Design

5.42 The layout responds to Secured by Design principles in terms of maximising the opportunities for overlooking of the streetscape, public realm and open spaces from habitable rooms. The streets and spaces are designed to be legible in terms of movement and their public, semi-private or private nature. All spaces, streets and paths will be lit to a suitable standard as agreed with the local authority. Pedestrian/Cycle routes are safe, secure, overlooked and direct to ensure they reflect the aspirations for the reduction of the occurrence and perception of crime.

#### Access and Accessibility

5.43 The site is intended to be highly permeable, allowing and offering easy access into the development for all forms of movement. Access and movement is an integral element in the design process. Vehicular access to the development is via the main gateway, with traffic speeds reduced using a number of traffic calming techniques which are seamlessly part of the design proposals. Vehicles are dispersed from the avenue via the streets. Provision for the turning and manoeuvring of larger vehicles, including refuse and emergency vehicles has been allowed for within the masterplan.

5.44 Pedestrian and Cycle access is a strong integral element of the masterplan, the new footpath/cycleways link into existing road/footpath network ensuring good connectivity between the site, wider settlement and countryside beyond. The footpaths also provide good direct access to the surrounding bus stops and public transport network.

#### Landscape Strategy

5.45 As described above, the landscape within the public realm and open spaces is key to creating a development of quality and character.

5.46 In terms of soft landscape elements; formal planting and ornamental species shall be restricted to the avenue. Street trees shall be selected which are of a size and shape to complement the streets width. Gardens shall be enclosed by railings and/or native hedgerows.

5.47 Planting within the public open spaces shall utilise locally indigenous native species of trees, shrubs and herbaceous planting to create a naturalistic landscape. The parks shall also provide variety in terms of grasslands; with wet meadows, hay meadows and general amenity grasslands providing habitat diversity, as well as space for informal play. Where possible allotments and orchard trees shall also be incorporated into the open spaces.

5.48 Hard landscape elements shall be drawn from a simple pallet to reflect those found in the surrounding areas. Street furniture including benches, lighting and signage shall all come from a common suite to ensure consistency and unification of the development, as will fences and railings.

5.49 The final detailing of the external environment will be tackled in more detail as part of any planning application, as would be expected.

#### Creating a Sustainable Neighbourhood

5.50 The site location, linked as it is with the existing urban edge of Lower Walton, the road and public transport networks means that Stonecroft is in a highly sustainable location.

5.51 Specifically the form and layout also ensures it is sustainable in terms of orientation, social gain, variety and choice of homes, character and sense of place, landscape setting, biodiversity and accessibility. This sites specific approach to sustainability shall also be delivered at the detailed individual building level later on in the design development process, looking to delivering energy efficiency to minimise impact on the environment.

5.52 The masterplan demonstrates that the site is capable of delivering a high quality scheme which will complement the wider area and deliver a range of attractive benefits.

#### Delivery Phasing

5.53 It is anticipated that the site could be developed over the first five years of the plan period.

5.54 There is a recognised need for investment in infrastructure to open up the wider site and enable the delivery of the development. The development of the highways infrastructure in the form of the roundabout will also bring forward key utilities connections from the A56.

5.55 The development of the site from Chester Road allows for maximum sales and marketing visibility from the A56, calming traffic approaching Lower Walton and making a statement about the quality of life to be realised at the scheme.

5.56 In landscape and visual terms, the southern parcel represents the most logical location for Phase 1. The site is best related to the existing settlement of Walton and is considered to have a limited visual connection with the wider landscape.

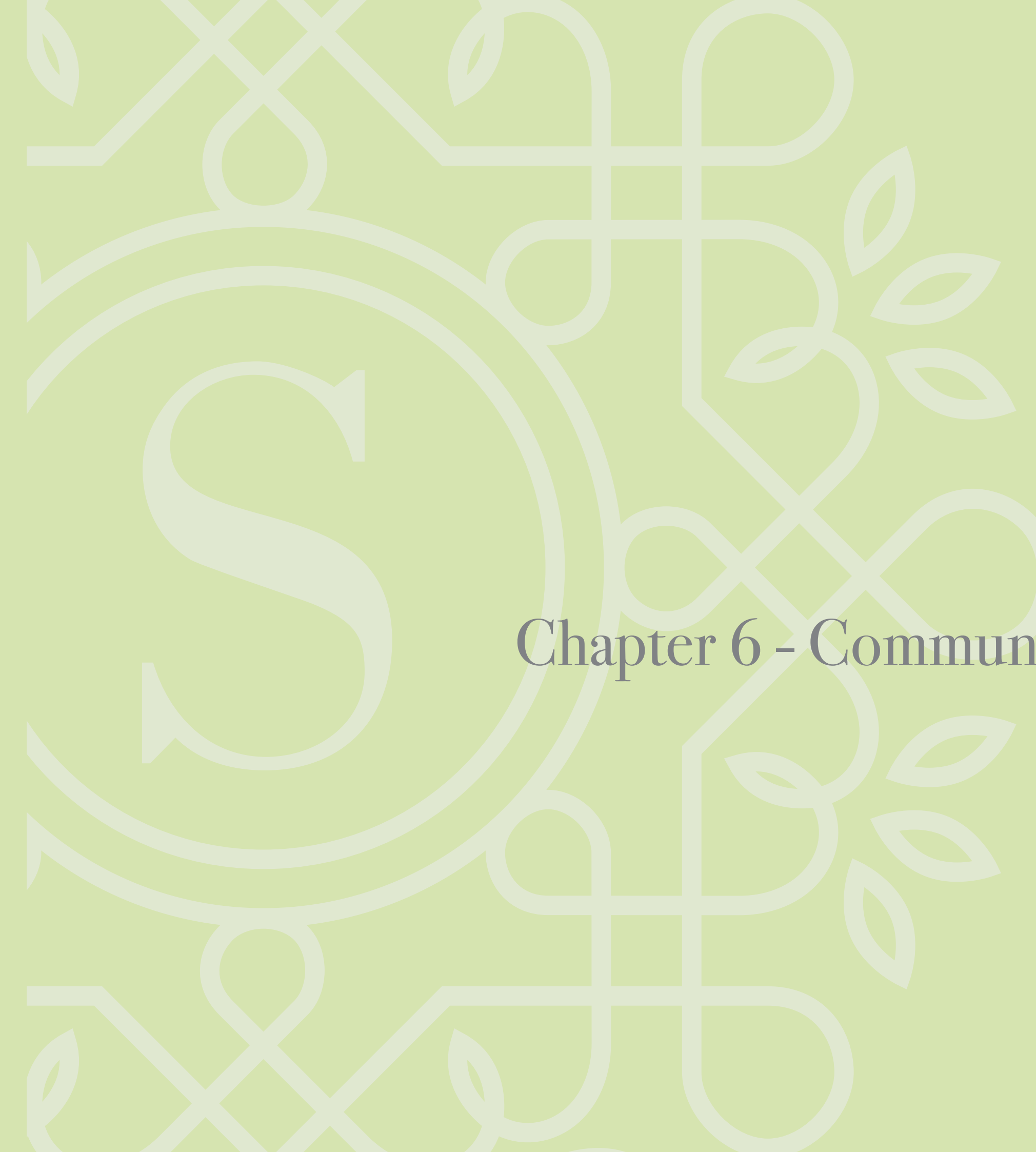
5.57 There is the opportunity to bring forward additional land, north of Chester Road (A56) as part of a future development proposal. Ashall Property has an interest in approximately 10 hectares (up to 25 acres) of land to the north of Chester Road. There is therefore the opportunity to create a more comprehensive sustainable extension to the west of Walton, which would help support the Council meeting local housing need over the plan period.



Figure 05:05 Massing Model - View from Chester Road South East across Site



Figure 05:06 Massing Model - Indicative view North East from Public Right of Way towards St Elphin's Church Spire



## Chapter 6 - Community & Economic Benefits



Figure 06:01 Massing Model - View from Chester Road South East across Site

# Associated Benefits of Development

- 6.1 The development of land at Chester Road for residential dwellings will generate a number of local economic and social benefits.
- 6.2 The delivery of up to 177 new homes in Walton will generate both construction benefits (in the form of direct and indirect employment) and on-going benefits arising from the completion of the development and the occupation of new homes over time. The proposals will also make an important contribution to meeting local policy objectives and priorities. The associated benefits of development at the site can be summarised as follows.

- **Construction Related Benefits** – Capacity to generate an additional jobs associated with the construction process and to sustain over further additional indirect jobs within the local economy. There is associated potential to reduce levels of unemployment and increase economic activity locally, alongside diversifying the population profile to include greater proportions of younger working age people.
- **Population Benefits** – Potential to increase the population by approximately 200 households. Given the potential appeal of the site, there is an opportunity to introduce young, family households which will help to sustain essential services within the settlement.
- **Spending Power** – Potential to create additional expenditure within the local economy, which will help to sustain local shops and businesses essential to the vitality of the District Centre. Importantly, this can provide the impetus to support existing and new retail provision and essential facilities in Walton and Stockton Heath.
- **Enhancing Council Tax Revenues and New Homes Bonus** – Potential to generate additional Council Tax revenue and contribute a significant amount in New Homes Bonus.
- **Apprenticeships** – Potential to work with education providers and others to incorporate appropriate opportunities for apprentices supported by recognised training and development programmes for young and unemployed people in the area.
- **Connectivity** – Development of the site provides the opportunity to enhance the existing Public Right of Way as well as provide new pedestrian and cycle routes through the site connecting onto the existing networks and providing access to Higher Walton and the wider landscape.



## Chapter 7 - Conclusions



Figure 07:01 Massing Model - View from Brookwood Close West across Site

## Conclusion

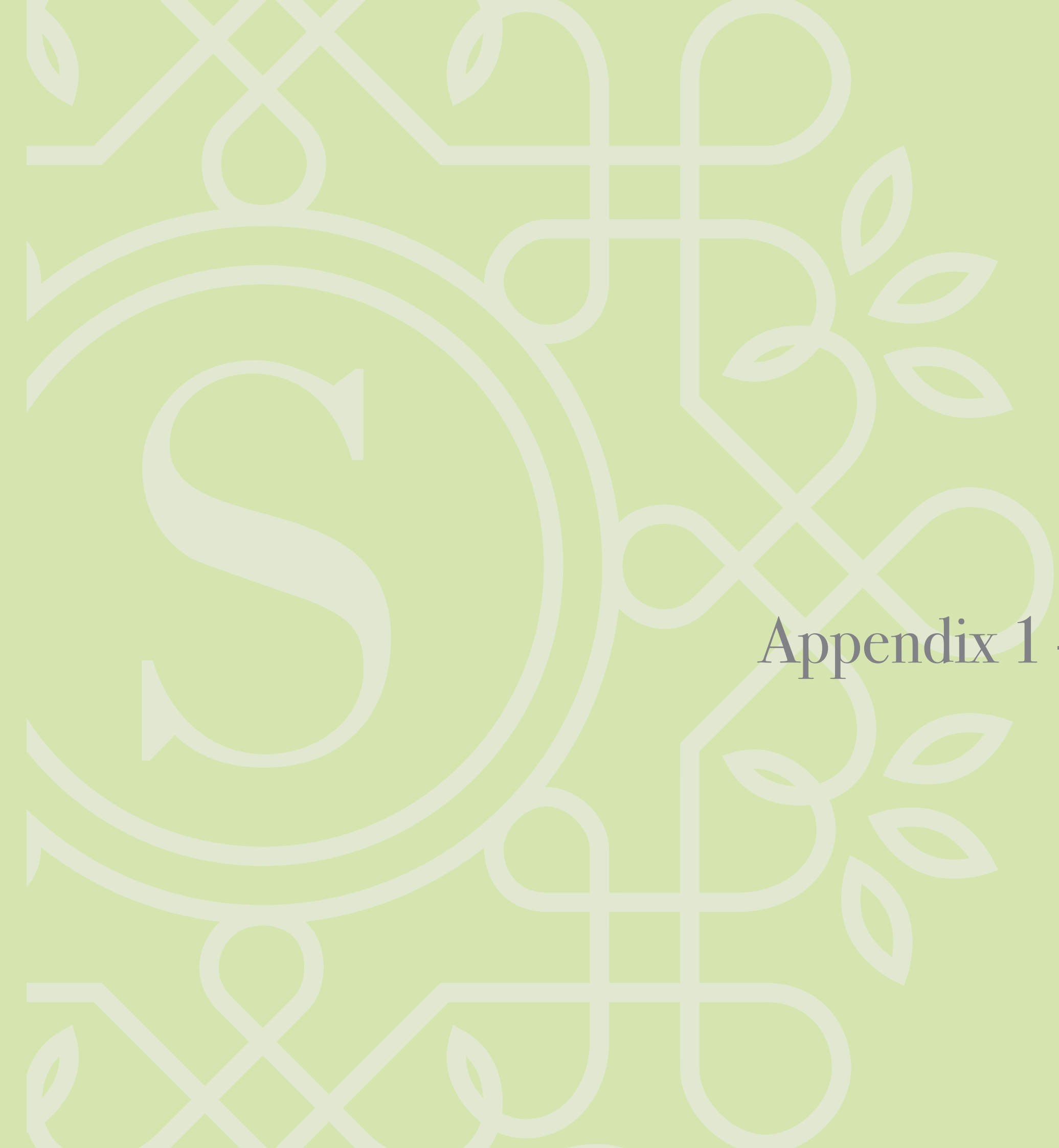
- 7.1 This Development Statement has demonstrated that the development of the site for approximately 177 new homes would make a substantial, and necessary, contribution towards a recognised local housing need – a need for more family homes and more affordable homes to help support the future vitality of Walton and Warrington as a whole. Further justifications are set out in the box opposite.
- 7.2 It is considered that this site represents the most appropriate and logical location for a sustainable extension without harming the wider sensitive landscape surrounding the settlement, with the site largely being contained by existing development and sitting well within its countryside context.
- 7.3 In our view, the release of the site from Green Belt is wholly justified as the scheme will provide a high quality residential environment which is balanced with the provision of social and physical infrastructure and supports the economic and regeneration ambitions of the Council.
- 7.4 It is considered that this Development Statement provides compelling reasons for development of the Chester Road site for new homes to be supported by Warrington Borough Council, other local stakeholders and the existing and future community. It is a starting point for exploring and shaping the development vision for the site, with Ashall Property firmly committing to engage with the local community and stakeholders to develop these concepts further.

### Summary

- 7.5 There is a compelling need to deliver additional development in Walton in the short term. The site provides the best fit in terms of location and environmental capacity within the wider constraints of the suburb.
- 7.6 The proposals can be sensitively designed to have no significant adverse visual impact and will contribute towards meeting the development needs of the area. The allocation of this site will help meet this need and contribute to Warrington's housing requirement.

As set out in this statement, Ashall Property has demonstrated that:

- The site is located close to a District Centre, which is identified as a top tier settlement in the settlement hierarchy and a focus for new development.
- The site could accommodate in the region of 200 residential dwellings and therefore assist in meeting the Borough's housing targets.
- That the site will contribute towards meeting the identified and planned development needs within Walton, and to Warrington's five year housing land supply.
- The site adjoins residential development to the east and leisure to the south which are compatible with residential development.
- The development proposals can provide for a choice of high quality homes and in terms of type, tenure and size to meet local needs.
- The development would contribute towards the need for affordable housing in the Borough.
- The site is available, suitable and achievable for residential development.
- This site represents the most appropriate location for residential development to meet Walton's needs and will result in less harm than alternative options.
- The development proposals are economically viable and will be financed by a reputable developer.
- The site is in a sustainable location for new housing, located in close proximity to public transport links, transport routes and a range of shops, services, schools, jobs and community facilities.
- The provision of new housing on this site will benefit the wider economy and help to sustain existing services.
- The immediate delivery of the development would help meet housing needs in the short term and assist the Council in demonstrating a five year housing land supply.
- The development would generate a number of local economic and social benefits;
- There are no technical, physical or environmental constraints to the development of housing at land at Chester Road.
- The proposals will be sensitive to the character of the local landscape in terms of scale, design, layout, building style and materials.



## Appendix 1 - About Ashall Property



**Ashall**  
P R O P E R T Y

## About Ashall Property

Ashall Property is a private property investment and development company which focuses on creating investment value through property development and asset management.

Ashall Property was established in the 1930s in Padgate, Warrington and as such has strong local connections and interest, and over 70 years' experience in the property construction and development sector. Land at Chester Road, Walton was acquired by JR Ashall (Ashall Property) in 1943.

Ashall Property has developed circa 4,000 dwellings since across Appleton, Padgate, Woolston, Thelwall and Lymm and in Walton on land adjoining Stonecroft.

Ashall Property thrives on collaboration and long-term engagement with its partners to create high quality schemes and mutually working relationships. We look forward to the opportunity of working with Warrington Borough Council for land at Chester Road, Walton.





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## **Appendix 4 PS001 Sketch Site Plan – Rev A Chester Road, Walton**

HOUSING							
House Type	Beds	SQ Ft	SQ m	Total	Achieved %	Total Sqft	Total Sqm
1b2p apartment	1	538.2	50	12	6%	6458.40	600
1b2p apartment	1	570.5	53	12	6%	6846.00	636
Type A - 2b3p	2	888.9	84	30	15%	20687.00	1920
Type B - 3b4p	3	749.2	69.6	6	3%	4495.20	417.6
Type C - 3b4P	2	904.2	84	14	7%	12658.80	1176
Type D - 3b5p	3	1065.6	99	14	7%	14918.40	1386
Type F - 4 bed	4	1356.3	126	21	11%	28482.30	2646
Type G - 4b6p	4	1567.5	145.62	14	7%	21945.00	2038.68
Type H - 4b7p	4	1641.5	152.5	25	13%	41037.50	3812.5
Type I - 4 bed	4	1722.2	160	17	9%	29277.40	2720
Type J - 5b8p	5	1851.4	172	34	17%	62947.60	5848
<b>Total</b>				<b>199</b>	<b>100%</b>	<b>249733.60</b>	<b>23200.78</b>
Net Site Area			15.8			15.8 Acres	6.3 Hectares
Gross Site Area			20.2			20.2 Acres	8.2 Hectares
Total SQFT per Acre						16008.56	
<b>TOTAL UNITS</b>	<b>199</b>						



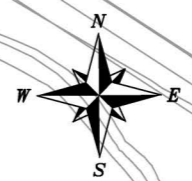


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## **Appendix 5 Potential Site Access Arrangement – Crofts February 2019**



NORTH SOUTH AERIAL VIEW



**NOTES**

THIS IS NOT A CONSTRUCTION DRAWING AND IS FOR INDICATIVE PURPOSES ONLY. THE DRAWING WILL BE SUBJECT TO CHANGE FOLLOWING LOCAL AUTHORITY REVIEW AND CONFIRMATION OF PUBLIC HIGHWAY AND THIRD PARTY LAND BOUNDARIES.

— DENOTES NEW KERBS



SITE LAYOUT NTS

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REV	DETAILS	DRAWN	CHECKED	DATE
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CLIENT:  
**LANE END**

PROJECT:  
**SOUTH-WEST WARRINGTON**

DRAWING TITLE:  
**POTENTIAL SITE ACCESS ARRANGEMENT OFF A56 CHESTER ROAD**

SCALES:  
**1:1000 @ A3**

DRAWN: JC	CHECKED: PJW	DATE: FEB 19
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Croft Transport Planning & Design  
Hill Quays  
9 Jordan Street  
Manchester  
M15 4PY  
Email: [info@crofts.co.uk](mailto:info@crofts.co.uk)  
Tel: 0161 667 3746  
Web: [www.crofts.co.uk](http://www.crofts.co.uk)



DRAWING NUMBER: <b>2404-F01</b>	REVISION: -
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## Appendix 6 Technical Reports

# Land South of Chester Road, Walton

## 10468\_R01b\_Landscape & Visual Overview

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### 1.0 Introduction

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- 1.1. This overview report has been prepared by Tyler Grange LLP (TG) on behalf of Ashall Properties to advise upon the feasibility of development in terms of landscape character and visual amenity matters, as well as to provide a review of existing Green Belt context.
- 1.2. Fieldwork was initially undertaken in 2016 and was updated in April 2019 to ensure that the current baseline conditions are taken into consideration. The site has a draft allocation for housing development in the Warrington Proposed Submission Local Plan (2017-2037), which is currently undergoing consultation.
- 1.3. It is to be read alongside the following plans and photosheets:
  - **Landscape Policy Context (10468/P01a);**
  - **Landscape Character (10468/P02a);**
  - **Photoviewpoint Locations (10468/P03a);**
  - **Landscape Opportunities & Constraints (10468/P04a);** and
  - **Photoviewpoints 1 to 7 (10468/P07a).**
- 1.4. The work does not constitute a full Landscape and Visual Appraisal (LVA) or a full Landscape and Visual Impact Assessment (LVIA). It is intended to support representations and inform the requirements for a future planning application.

### 2.0 Site Context

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- 2.1. The site is located at the western periphery of Lower Walton, a village in Warrington. Walton is at the southwestern edge of the town, next to Stockton Heath and lies approximately 2.5km (1.5 miles) from Warrington town centre.
- 2.2. The site is centred on OS grid reference SJ 60311 85717 and extends to approximately 7.9 hectares (19.7 acres). It currently comprises of one arable field, with hedgerow and scattered hedgerow trees along the northern and southern boundaries and to the eastern and western boundaries blocks of woodland. The site adjoins a recent residential development to the north-east (Hall Gardens) and the existing residential edge of Walton (Brookwood Close). At the southern boundary of the site is situated Warrington Sports Club off Walton Lea Road and residential development (Old Hall Close). Along the western boundary are residential properties (99 Chester Road and 1-3 Walton Lea Cottages) and the Walton Lea Project (a charity enterprise which includes a garden centre and farm shop). These are set within a woodland block which extends south to Walton Lea Road.



- 2.3. The block of woodland to the eastern boundary partially extends westward into the site along a former field boundary and also contains a small brook which flows north to the Manchester Ship Canal.
- 2.4. Public Right of Way Ref 304/6 runs along the western boundary of the site and the A56 runs along the northern boundary. The public footpath runs along a lane from the A56 along the western boundary to access the Walton Lea Project and 1-3 Walton Lea Cottages and 99 Chester Road.
- 2.5. The site rises east from Chester Road towards the sports playing field located directly behind the site.
- 2.6. The site has an urban fringe character due to its edge of settlement location, with direct visibility towards the current settlement edge, agricultural and industrial land use to the north and adjacent land use for sporting activities (rugby, cricket and hockey) to the south. views are foreshortened by the woodland vegetation to the east and west, and hedgerow with scattered hedgerow trees to the north and south. The site is influenced by urban references where views extend towards the built up edge of Lower Walton, industrial development off Baronet Road along the Manchester Ship Canal, railway embankments, pylons and overhead lines.
- 2.7. The Grade II\* listed St Elphin's Church is visible to the north east from the western edge of the site alongside taller buildings within Warrington town centre. The Grade II listed Walton Hall and Gardens are located to the south of the site off Walton Lea Road.
- 2.8. The Walton Village Conservation Area is located within Higher Walton to the south west of the site however this does not have a visual relationship with the site. Warrington historic town centre Conservation Area is located north of the site and distant views can be seen from the site. There is no intervisibility between the site and Conservation Area and Church and Walton Hall Gardens
- 2.9. To the south and west of the site, the landscape continues to have a mostly recreational land use including golf courses (Warrington and Walton Hall) and Walton Hall and Gardens with agricultural land further south and to the west and north along the Manchester Ship Canal.
- 2.10. There are three Tree Preservation Orders within influence of the site:
  - Larger section of woodland along western boundary – Hill Cliffe Road, Walton - TPO No. 9 ref. W1;
  - Northern section of the woodland along western boundary - Walton New Road/Walton Old Hall - TPO No. 13 ref. A1; and
  - Off-site trees towards the south eastern boundary - Walton New Road/Walton Old Hall - TPO No. 13 ref. A3.

### **3.0 Planning Context & SPD**

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#### **Policy Context (see *Landscape Policy Context plan (10468/P04a)*)**

- 3.1. The site falls within the administrative borough of Warrington and is subject to a Green Belt designation (Overall Spatial Strategy - Green Belt Policy CS 5) within the Warrington Borough Council Local Plan Core Strategy (Adopted July 2014).



- 3.2. As of March 2019, a Draft Local Plan has been approved for consultation, which includes emerging landscape policies that will need to be considered as part of the site promotion. Once adopted The Draft Local Plan will provide statutory planning framework for the entire borough of Warrington for the period of 2017-2037 and will be used to guide decisions on planning applications. This Draft Local Plan *Warrington Proposed Submission Local Plan 2017-2037 (March 2019)* will replace the Local Plan Core Strategy (2014).
- 3.3. Warrington Proposed Submission Local Plan 2017-2037 (March 2019) contains and an overall vision, a range of objectives and an overall strategy for development, helping to inform developers, residents and services provides on achieving the overall vision within the set-out time frame. landscape policies that will need to be considered as part of each object are as follows.

Warrington Proposed Submission Local Plan 2017-2037 (March 2019)

- **GB1 – Green Belt:** In order for Warrington to meet its future development needs there is the need for a significant amount of land to be released from the Green Belt. The Objectives will ensure that development on former Green Belt land complements rather than competes with development within the existing urban area and that new infrastructure investment will benefit the Borough as a whole. The policy will also supersede CS 5 Overall Spatial Strategy (Maintaining a 10 Year Forward Supply of Housing Land) from the Local Core Strategy (Adopted 2014), which is mentioned within this report, if the Draft Local plan is adopted.
- **MD3 – South West Urban Extension:** Land comprising approximately 112ha to the south west of Warrington will be removed from the Green Belt and allocated as a sustainable urban extension. The majority of this policy isn't relevant; However, the policy indicated a minimum quantity of 32ha of land within this area will need to be spend on a new local park and or strategic open space. The Illustrative concept plan provided with the Draft Local Plan illustrates Green Open Space beyond the confines of the site.
- **DC3 – Green Infrastructure:** All development proposals should, where a loss of, or negative impact on green infrastructure functionality or ecological system/network is unavoidable, development proposals should demonstrate what mitigation measures are proposed and/or replacement green infrastructure will be provided.

The local draft Plan addresses The NPPG and identifies how green infrastructure can help support several planning policies including.

- **DC5 – Open Space, Outdoor Sports and Recreation Provisions:** All residential **development** proposals of 40 dwellings or more will be required to contribute to the provision of open space and equipped play where appropriate. If this is not possible within the site extents, a financial contribution towards suitable provisions or enhancement of existing off-site facilities will be sought. The Draft Local Plan has identified Open Space standards, these standards are used to inform the open space requirements for new housing developments set out in this policy.
- **DC6 – Quality of Place: Design and layout,** provide for new open space and landscaping which enhances and/or provides mitigation against loss of biodiversity and assists with the physical and visual integration of new development (see Policies DC3 – DC5);

- a. *Delivering a wide choice of high-quality homes, providing opportunities for recreation, social interaction and play in new and existing neighbourhoods and enhancing local landscape character, contributing to a sense of place.*
- b. *Promoting healthy communities by improving environmental quality in new development, helping create safe and accessible environments, providing opportunities for recreation and exercise and delivering mental and physical health benefits.*

This policy will also supersede CS 6 Overall Spatial Strategy from the Local Core Strategy (Strategic Green Links) (Adopted 2014), which is mentioned within this report, if the Draft Local plan is adopted.

3.4. Local Policies relating to landscape character and visual amenity with *Warrington Borough Council Local Plan Core Strategy (Adopted July 2014)*, are still relevant, until the new 2019 Draft Local Plan has been adopted. Where new policies will supersede the 2014 version of the local plan. These policies include:

- Policy CS 1 Overall Spatial Strategy - Delivering Sustainable Development;
- Policy CS 2 Overall Spatial Strategy - Quantity and Distribution of Development;
- Policy CS 3 Overall Spatial Strategy - Maintaining a 10 Year Forward Supply of Housing Land;
- Policy CS 5 Overall Spatial Strategy - Green Belt;
- Policy CS 6 Overall Spatial Strategy – Strategic Green Links;
- Policy QE 3 Green Infrastructure;
- Policy QE 6 Environment and Amenity Protection;
- Policy QE 7 Ensuring a High Quality Place;
- Policy CC 1 Inset and Green Belt Settlements; and
- Policy CC 2 Protecting the Countryside.

3.5. The Overall Spatial Strategy policies focus on sustainable development, managing the quantity and distribution, housing supply, the Green Belt and strategic Green Links.

3.6. Policy CS 1 states that *“development proposals that are sustainable will be welcomed and approved without delay”*. The policy goes on to list the criteria by which development should accord with alongside national and local planning policy frameworks and the material considerations in order to be considered sustainable. Specific material considerations relevant to the site and proposed residential development include:

- *“Priority afforded to the protection of the Green Belt and the character of the countryside;*
- *The need to address the causes of and be resilient to the effects of climate change;*
- *The need to safeguard environmental standards and residential amenity;*
- *The delivery of high standards of design and construction, that have regard to local distinctiveness and efficiency; and*
- *The need to make the best use of existing transport, utility, social and environmental infrastructure within existing settlements, and ensure additional provision where needed to support development.”*

3.7. Policy CS 2 relates to the quantity and distribution of development. Principles in the policy relevant to the site and residential development include:

- *“The general extent of the Green Belt and the detailed boundaries as indicated on the Local Plan Core Strategy Policies Map will be maintained for as long as can be seen ahead and at least until 2032;*
- *Within the Green Belt area, development will only be allowed where it is considered to be appropriate in accordance with national policy; and*
- *All new development should where appropriate make provision for supporting infrastructure in accordance with Policy MP10.”*

3.8. Policy CS 3 states that:

*“Should monitoring indicate that an on-going, 5 years’ deliverable and a subsequent 5 years’ supply of developable housing land can no longer be sustained or where it can be demonstrated that housing need cannot be met within Warrington, the Council will review its housing land provision, and bring on-stream additional housing sites as required, with priority given to encouraging the reuse of previously developed land and avoiding sites in the Green Belt where possible.”*

3.9. Policy CS 4 states that development will be located to reduce the need to travel, especially by car, and to enable people as far as possible to meet their needs locally. The policy states that the Council will support development which *“improves access to the Town Centre, health facilities, education, culture, leisure and the natural environment by all modes, especially by walking and cycling.”*

3.10. In relation to Policy CS 5, planning permission for new buildings in the Green Belt “will be approved where they accord with relevant national policy.” The site is being considered for release from the Green Belt for the purposes of residential development in the emerging Warrington Borough Council’s Green Belt Review. It will be important to ensure that the development of the site does not contribute towards urban sprawl of Warrington with Runcorn (approximately 3.83km to the south west) or significant encroachment into the countryside in order to ensure the strategic role of the Liverpool, Manchester and West Lancs Greenbelt remains valid. Furthermore, the development will need to respect the setting and character of Lower Walton, despite its location at the edge of the settlement.

3.11. Policy CS 6 relates to Green Infrastructure and states that the Council “is committed to supporting wider programmes and initiatives which seek to connect the borough’s Strategic Green Links with employment areas, residential communities, and Green Infrastructure Assets”. This includes the Walton Hall Estate which is within the study areas for this report. Further requirements in relation to Green Infrastructure are set out in Policy QE3 which provides more detail on the criteria against applications will be assessed.

3.12. Policy QE 6 details considers the protection of environmental and amenity within development. Areas taken into consideration relevant to site and residential development include:

- *The quality of water bodies, including canals, rivers, ponds and lakes;*
- *Land quality;*
- *Levels of light pollution and impacts on the night sky; and*
- *The need to respect the living conditions of existing neighbouring residential occupiers and future occupiers of new housing schemes in relation to overlooking / loss of privacy, outlook, sunlight, daylight, overshadowing, noise and disturbance.”*

3.13. Policy QE 7 describes the Council's expectations in term of the quality of place in relation to development. Proposals which have considered the following aspects will be positively received:

- *“Be sustainable, durable, adaptable and energy efficient; create inclusive, accessible and safe environments;*
- *function well in relation to existing patterns of movement and activity;*
- *reinforce local distinctiveness and enhance the character, appearance and function of the street scene, local area and wider townscape;*
- *harmonise with the scale, proportions and materials of adjacent and / or existing buildings;*
- *maintain and respect the landscape character and, where appropriate, distinctiveness of the surrounding countryside;*
- *use the density and mix of development to optimise the potential of the site without damaging the character of the area; and*
- *be visually attractive as a result of good architecture and the inclusion of appropriate public space.”*

3.14. The remaining applicable landscape and visual related policies deal with improvements to the Green Infrastructure the retention of landscape features and recreational public routes, including cycleways, as well as the requirement for built form to complement the materiality of the locality in order to preserve local distinctiveness and the local character features to ensure the suitable assimilation of development proposals. The policies also direct development towards achieving high quality design within new development, and providing landscaping as an integral part of the overall design.

3.15. Policy CC1 covers Green Belt Settlements (that is washed over) within the Green Belt. Although the site is within the Green Belt its location on the edge of Lower Walton is not included within the designated Green Belt Settlements. However, the criteria by which development is assessed in terms of its scale, design and character would still be relevant.

3.16. Policy CC 2 supports development within the countryside provided that:

- *“the detailed siting and design of the development relates satisfactorily to its rural setting, in terms of its scale, layout and use of materials;*
- *they respect local landscape character, both in terms of immediate impact, or from distant views;*
- *unobtrusive provision can be made for any associated servicing and parking facilities or plant, equipment and storage;*
- *they relate to local enterprise and farm diversification; and*
- *it can be demonstrated that there would be no detrimental impact on agricultural interests.”*

3.17. The contribution the site makes to the Green Belt in landscape and visual terms is covered further in **Section 5** of this report.

3.18. In addition to the above policies, the following Supplementary Planning Documents (SPD) and Supplementary Planning Guidance (SPG) also need to be taken into consideration:

Supplementary Planning Documents

3.19. Relevant supplementary planning document considerations are set out below:

**Environmental Protection SPD (May 2013)**

3.20. This SPD supports Policy QE6 Environment and Amenity Protection and details the councils approach to dealing with environmental protection including light pollution. Development schemes which include street lighting proposals should adhere to the design principles set out in the SPD. Principles relating to landscape and visual include:

- *“Limiting the light levels to a designed uniformity;*
- *limiting the use of lighting schemes to identified uses or users;*
- *the retention of screening vegetation; and*
- *the use of planting and bunding to contain lighting effects.*

3.21. The SPD states that *“these conditions will be applied as necessary by the LPA to help reduce obtrusive light from new proposals, particularly glare and spillage, from areas of wildlife importance, open countryside and residential amenity.”*

**Design and Construction SPD October 2010 Amended (February 2016)**

3.22. This document provides advice and guidance to developers about aspects of the design and construction process. The document states that *“A well designed landscape scheme should enhance the appearance and setting of any new development and its location. A successful scheme will have considered and correctly interpreted the landscape character of the location to produce the most appropriate design solution for the development.”*

The document also provides advice and guidance on landscaping and the natural environment, *“Almost all development sites will have some existing or potential values as wildlife habitat or public open space. The retention, protection and extension of areas of wildlife habitat will help conserve and enhance biodiversity and the richness of the natural environment”*.

- *Existing attractive or valuable natural features must be retained and protected on a site and be the starting point for the development of building design and landscaping proposals. These could include trees, hedges, ponds or streams. They may be valuable because of their visual amenity or their wildlife or biodiversity value. The Council has identified significant areas for nature conservation within the borough. Development proposals on or close to designated wildlife sites will warrant special scrutiny and those that will have an adverse effect on these sites will not be permitted without mitigation to reduce damage.*
- *Planting that enhances nature conservation, wildlife habitat and diversity will be encouraged, particularly on sites that are close to existing wildlife areas or enhance and expand “green corridors”.*

**Planning Obligations SPD January 2017**

3.23. This SPD details the council’s approach to the use of planning obligations to facilitate decision making, relevant key objectives include:

*Biodiversity:*

- *The Council will work with partners to protect and where possible enhance sites of recognised nature and geological value. These efforts will be guided by the principles set out in national planning policy and those which underpin the strategic approach to the care and management of the borough’s Green Infrastructure in its widest sense.*
- *Under Policies QE5 and QE6 the protection of habitats such as hedgerows, trees and ponds are of importance for wildlife flora and fauna and should be retained. Certain species of animals and plants receive additional special protection under Schedules 1, 5*

and 8 of the Wildlife and Countryside Act 1981 (as amended). If development proposals are likely to affect sites important to wildlife habitat, landscaping and/or protected species then the Council will attach a condition to any permission to achieve implementation of mitigation measures. This may involve the creation of other sites of at least equal nature conservation value, or the creation of adequate alternative habitats for the protected.

- Where it is considered unfeasible for development to provide adequate on-site biodiversity enhancements, or where projects in nearby open space or enhancement to nearby rivers and water bodies offer better opportunities to enhance biodiversity or access to nature, the council will seek to secure off-site provision enhancement.

### Green Infrastructure

- The guidance in this section primarily supports Local Plan Core Strategy Policy CS1 (Overall Spatial Strategy - Delivering Sustainable Development), Policy CS6 (Overall Spatial Strategy – Strategic Green Links), Policy QE3 (Green Infrastructure), Policy SN7 (Enhancing Health and Well-being) and Policy MP10 (Infrastructure). Policy QE3 seeks to:
  - protect the existing level of provision and the functions that it performs,
  - improve the quality of existing provision, including local networks and corridors, specifically to increase its attractiveness as a sport, leisure and recreation opportunity and its value as a habitat for biodiversity,
  - In line with these policies new housing developments will be required to provide sufficient recreation and amenity open space and facilities in order to cater for the anticipated increase in demand arising from the development. The type of provision that is required will vary with the nature, scale and location of the development but may involve the provision of formal open space, informal amenity space (including, for example, dog walking areas), children’s play areas, allotments or improvements to the public realm.

### Open Space

- Developments of any type (residential or non-residential) that would lead to a loss of an existing open space will be required to make replacement provision available, of at least an equivalent quantity, quality and accessibility to that which is lost. The only instances where this will not be the case will be where the development is in an area of overall surplus provision (after the completion of the development).
- Any necessary on-site provision for new development will be expected to be incorporated within the development proposals and will be secured by condition.

### Evidence Base Documents

3.24. Relevant evidence base considerations are set out below:

#### **Strategic Housing Land Availability Assessment (SHLAA) (July 2018)**

3.25. The SHLAA identifies potential sites for housing development within the borough; the site is located within the Appleton district and has not been allocated within the SHLAA.

#### **Walton Village Conservation Area Guidance Leaflet**

3.26. The Walton Village Conservation Area is located approximately 0.6km (0.4 miles) west of the site and covers Higher Walton. This guidance leaflet describes the character and appearance of the conservation area and summarises the main components contributing to character as

*“the combination of buildings of character, their grouping and the numerous belts of trees and the areas of open space which gives Walton its great charm.”*

#### **Stockton Heath Conservation Area Guidance Leaflet**

- 3.27. The Stockton Heath Conservation Area is located approximately 1km (0.6 miles) east of the site, the guidance leaflet describes the character and appearance of the conservation area which is of Roman origins *“route of a Roman Road passes within 100 metres and traces of Roman occupation have been found nearby”*.

#### **The Greenalls Brewery Conservation Area Guidance Leaflet**

- 3.28. The Greenalls Brewery Conservation Area is located approximately 1.1km (0.7 miles) north-east of the site across the Manchester Ship Canal. The guidance leaflet describes the character and appearance of the conservation area *“the large red brick brewery buildings form an impressive gateway to the town with their Victorian ornamentation and clock tower.”*

- 3.29. Although all three Conservation Areas within the study area, there is no visual relationship between them and the site. The large woodland blocks surrounding the Walton Lea Project and Walton Lea Crematorium blocks views from the site to Higher Walton to the south west. Views of the Stockton Heath and Greenalls Brewery Conservation Areas are restricted by the settlement of Lower Walton.

- 3.30. This document identifies current infrastructure and details what provisions are required to meet future development requirements. Environmental infrastructure of relevance to landscape and visual focuses on:

- Open Spaces;
- Sports and Leisure Provision; and
- Play Areas.

- 3.31. The site is adjacent to a public footpath (Ref PF304/6) To the south Warrington Sports Club is located adjacent to the site and locally can be found Walton Hall and Gardens, two golf courses and a network of public rights of way within the open countryside and adjacent to the Bridgwater Canal. To the north Morley Common contains a small equipped children’s play area and playing pitches and a network of public rights of way around the Moore Nature Reserve.

#### **Climate Change Strategy for Warrington**

- 3.32. This document details the council’s approach to climate change and aims to promote sustainable development that are resilient to climate change including: *“through locating development away from flood risk areas, increasing tree cover or increasing the use of permeable surfaces.”*

#### **Warrington Borough Council SPD Design and Construction (October 2010) (Amended 2016)**

- 3.33. This document details the council’s approach to design and construction within the Borough of Warrington. The document addresses the need for good design and scope for Landscaping and the natural environment through local policy documents.

#### Design and layout

*‘Almost all development sites will have some existing or potential value as wildlife habitat or public open space. The retention, protection and extension of areas of wildlife habitat will help conserve and enhance biological diversity and the richness of the natural environment. Good quality landscaping also helps make a development attractive and maintain its desirability and*

use’.

- *Existing attractive or valuable natural features must be retained and protected on a site and be the starting point for the development of building design and landscaping proposals. These could include trees, hedges, ponds or streams. They may be valuable because of their visual amenity or their wildlife or biodiversity value. The Council has identified significant areas for nature conservation within the borough. Development proposals on or close to designated wildlife sites will warrant special scrutiny and those that will have an adverse effect on these sites will not be permitted without mitigation to reduce the damage.*
- *Planting that enhances nature conservation, wildlife habitat and diversity will be encouraged, particularly on sites that are close to existing wildlife areas or enhance and expand “green corridors”.*
- *New landscaping should be designed for easy maintenance to ensure that the visual amenity continues into the long term and that the plants will thrive. Factors to consider include the appropriateness of species for the local climate, topography and soil; the landscape mix; ensuring that there is sufficient space for plants to thrive without constant maintenance and attention; and minimising the requirement for importing topsoil and using artificial irrigation.*
- *New development should be designed to harvest rainwater which can be used for irrigation of the site’s landscaping.*

#### Landscape in New Development

*‘A well-designed landscape scheme should enhance the appearance and setting of any new development and its location. A successful scheme will have considered and correctly interpreted the landscape character of the location so as to produce the most appropriate design solution for the development. Landscape schemes should therefore’:*

- *Integrate new development sympathetically with its surroundings*
- *Enhance the setting of new buildings*
- *Create a high-quality environment in which to live and work*
- *Promote quality landscape schemes which are sensitive to the locality and provide local distinctiveness*

*Residential developments may comprise a solitary building or a number of buildings on one site. Landscape design solutions for each site will depend upon the scale and type of development in relation to its landscape context, and therefore the design of the development must be considered in terms of the landscape. This is achieved through assessment and appraisal of the existing landscape features, identifying constraints and solutions and the potential use of mitigation measures to ensure that the development is compatible with the local landscape character. Developers should not only consider how the site will function within itself but also how it relates to the surrounding landscape or townscape.*

#### Green Belt Landscapes

*Development proposals in the Green Belt must be compatible with the character of the surrounding countryside. Design solutions should protect and, where appropriate, enhance existing landscape features by incorporating the features into the development layout and ensuring that new tree planting mirrors the locally native species. Where the development results in the loss of existing features such as trees, hedgerows or ponds, replacement planting or pond construction will be required to maintain the character of the locality and enhance the visual quality of the new development and its local setting.*



## 4.0 Landscape Character

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### Policy Context (see *Landscape Character plan (10468/P02a)*)

- 4.1 At a national level the site lies within the 'Mersey Valley' Character Area (National Character Area 60).
- 4.2 The key characteristics relevant to the site and surrounding study area are:
- *Trees and woodland are mainly associated with settlements, occasional parkland and isolated woodland blocks;*
  - *Large-scale, open, high-quality farmland occurs between developments, with primarily arable farming to the north of the valley and a mixture of arable and dairying to the south;*
  - *The field pattern is regular and large scale, often defined by hedgerows with isolated hedgerow trees; many hedgerows are intermittent and have been replaced by post-and-wire fencing;*
  - *There are densely populated urban and suburban areas, with major towns particularly at the river crossings, including Warrington;*
  - *There is large-scale, highly visible industrial development, with docks, chemical works and oil refineries; and*
  - *The river valley has a dense communication network with motorways, roads, railways and canals running east-west, and power lines are also prominent."*
- 4.3 At a district level, the site is part of the 'Red Sandstone Escarpment' (Type 3 as set out within the Warrington: A Landscape Character Assessment (2007)) and more specifically identified within the 'Appleton Park & Grappenhall' Character Area (3.A).
- 4.4 The Appleton Park and Grappenhall landscape character area comprises *"of strongly sloping land to the north, affording sweeping long distance views, occasionally restricted by the presence of linear deciduous woodlands, coverts and tree groups."*
- 4.5 The key characteristics are:
- *"Sweeping northerly views;*
  - *Strongly sloping land to the north;*
  - *Incised stream valleys running in a northerly direction;*
  - *Exposed red sandstone in outcrops, walls and older buildings;*
  - *Gorse in hedgerows and sandy banks;*
  - *Numerous small ponds in the farmland;*
  - *Linear woodlands, coverts and tree clumps;*
  - *Raised knolls;*
  - *Sparsity of hedgerow trees (mainly oak);*
  - *Hedges running along contour lines or at right angles to them; and*
  - *'Advanced' landscaping and 'entrance' features relating to proposed housing development."*
- 4.6 The Character Assessment sets out management objectives for the Appleton Park and Grappenhall landscape character area, including:
- *"Control planned housing development, pulling back construction on the skyline crest;*

- *Encourage hedgerow retention and restoration;*
  - *Encourage the replacement of new hedgerow trees; and*
  - *Encourage the restoration of marl pit ponds.”*
- 4.7 The wider study area includes the River Mersey / Bollin and the Victoria Park to Fiddlers Ferry Landscape Character Areas defined by the Landscape Character Assessment. These are both located to the north of the site and the Manchester Ship Canal.
- 4.8 The key characteristics of the River Mersey / Bollin which are found within the study area include:
- *“The River Mersey;*
  - *The Manchester Ship Canal and*
  - *Widespread residential and industrial development on the floodplain”*
- 4.9 The key characteristics of the Victoria Park to Fiddlers Ferry which are found within the study area include:
- *“Dominance of surrounding industrial use and landfill downstream; and*
  - *relatively undisturbed areas with important nature conservation value”*
- 4.10 The site is located on the edge of the settlement of Lower Walton which has not been assessed as part of the Council’s study and so has been shown on the plan as ‘Urban’
- 4.11 Whilst the character information set out above does provide some context relevant to the promotion of the site, it does not address the characteristics specific to the site. In response to fieldwork and desktop research, further observations have been made with regards the site and its immediate surroundings:
- Arable agricultural land, with well-established hedgerow field boundaries containing mature hedgerow trees along the northern and southern boundaries;
  - The site is made up of a single field parcel, broadly square in shape, with evidence of historical division into three parcels up until 1950’s and two 1990’s;
  - Dense woodland blocks along the eastern and western boundaries restrict views to Lower Walton and Higher Walton;
  - Chester Road has a verdant character, with established hedgerows and trees which channel views along the road;
  - The flat topography and boundary vegetation limits the extent of the views to the east, south and west of the site;
  - From the site looking north, north-east and north west, views extend towards the residential edge of Walton to the industrial development along the Manchester Ship Canal and beyond to Warrington; and
  - To the south and west, the character of the landscape beyond Walton Lea Road becomes more rural with views becoming more far reaching, and less urbanising elements present / visible.
- 4.12 It is evident from the fieldwork, that although the site is agricultural in nature, it has an urban fringe and enclosed character. This is due the surrounding land use and the visual backdrop of Lower Walton and Warrington. The site has some association with the surrounding residential built form owing to the proximity and visual connectivity to adjacent dwellings off Chester Road. Consideration of the density of development and the siting of built form as well as the balance

of open space provision with regards to the existing suburban edge will be an important consideration to ensure the development complements and enhances the existing residential area in terms of adjacent residential amenity and functionality.

## 5.0 Visual Circumstances

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(See *Photoviewpoint Locations (10468/P03a)* and *Photoviewpoints 1-7 (10468/P07a)*)

5.1 Visually, the site is relatively well enclosed due to the boundaries being vegetated with hedgerows and hedgerow trees, and the adjoining woodland blocks.

5.2 The approximate extent of the visual envelope (VE) is set out below:

- To the north – views extend to Chester Road along the northern boundary (see **Photoviewpoint 7**). Further north visibility of the site is restricted to glimpsed partial views of the site boundary vegetation only by intervening field boundary vegetation and vegetation along the banks of the Manchester Ship Canal;
- To the north-east – views extend to the adjacent residential settlement edge along Chester Road and the recent residential development at Hall Gardens (see **Photoviewpoints 1**);
- To the east – slightly elevated views from Hill Cliffe Road, Grantham Avenue, Rutland Avenue are possible through gaps in the woodland block on the eastern boundary and between the shrub and canopy layers which extend across the site. Views beyond the site are restricted by the woodland block along the western boundary (see **Photoviewpoint 2**);
- To the south – where gaps in the residential built form along Old Hall Close allow, the site boundary vegetation is visible (see **Photoviewpoint 3**). The southern edge of the site is visible through the field boundary hedgerows from the playing pitches and built form of Warrington Sports Club;
- To the south-west – immediate views of the site are possible through the boundary trees, informal hedgerow and fencing along Public Footpath 304/6 which runs along the western boundary (See **Photoviewpoint 4**). Views extend across the site to the eastern boundary and glimpsed views of residential edge of Lower Walton;
- To the west – views across the site are possible through gaps in the boundary trees, informal hedgerow and fencing along Public Footpath 304/6 which runs along the western boundary (See **Photoviewpoint 5**). Views towards the residential edge of Lower Walton and Warrington are possible to the north of the woodland block which includes the spire of St. Elphin's Church and taller buildings associated with Warrington town centre; and
- To the north-west - views extend to Chester Road along the northern boundary (see **Photoviewpoint 6**). Further north visibility of the site is restricted to glimpsed partial views of the site boundary vegetation only by intervening field boundary vegetation and vegetation along Chester Road.

5.3 Overall, the existing framework of site boundary vegetation and the adjacent built up edge result in the visual envelope being limited to only the immediate surroundings. Where more distant visibility towards the site is possible, views are largely obscured the layering of intervening vegetation or comprise views of the site boundary vegetation only. In these cases the site boundary vegetation appears in the background of views.

5.4 Potential visual receptors to development of the site include:

- Users of the Public Footpath 304/6 adjacent to the site's western boundary;

- Recreational users of Warrington Sports Club adjacent to the site's southern boundary;
- Private residents at 99 Chester Road and 1-3 Walton Lea Cottages on the western boundary of the site;
- Private residents associated with the adjacent settlement edge (Hall Gardens, Hill Cliffe Road, Brookwood Close and Old Hall Close);
- Visitors to the Walton Lea Project (a charity enterprise which includes a garden centre and farm shop);
- Agricultural users associated with the adjacent farmland to the north; and
- Transient highway views from vehicular users of the Chester Road.

5.5 It is evident that due to the visual context of the site and surrounding landscape, there are relatively few receptors that are likely to be impacted on and there is a limited visual relationship between the site and the wider Green Belt, despite the site's location on the settlement edge. There are opportunities to utilise the screening provided by the framework of green infrastructure already present surrounding the site to create a sensitive settlement extension to Lower Walton that does not impact upon the perceived openness of the wider Green Belt landscape or sensitive receptors.

5.6 The key consideration in terms of visual impact will be to ensure that the visual amenity of users Public Footpath 304/6 is maintained or mitigated through appropriate development layout design. This may include the incorporation of development offsets, the enhancing of the vegetation at the site boundaries to screen views of the new built form, the retention of open views where already existing to prevent footpaths becoming enclosed, the provision of links to new and existing public open spaces and the creation of new permissive routes.

5.7 The setting and residential amenity of the properties adjoining the site (Hall Gardens, Brookwood Close, Old Hall Close, 1-3 Walton Lea Cottages and 99 Chester Road) and east (Brookwood Close) will need to be respected. This could be carried out through appropriate development offsets and the orientation of the development and materiality. Soft landscaping along the boundaries with residential properties and screening through green buffers would also be proposed where appropriate.

5.8 Ensuring the development complements the more open character of the adjacent landscape to the south and west, through the retention and enhancement of site boundary vegetation, as well as the incorporation of a development offset, should be a primary design consideration. The careful consideration of development densities and building heights will also be necessary to ensure that the development of the site responds to the landscape and visual context described above.

## 6.0 Suitability of the Site for Release from the Green Belt

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6.1 A review of the site's performance and suitability for release from the Green Belt is summarised below in relation to the applicable principal Green Belt objectives as set out within the NPPF (the Framework), and with reference to the Warrington Borough Local Plan Core Strategy Policy CS 5 Overall Spatial Strategy - Green Belt

### ***To check unrestricted sprawl***

6.2 The principal consideration here is the sprawl of the urban edge of Lower Walton westwards and potential coalescence with Higher Walton. Scattered built form is already present along

western Chester Road, the route connecting the two settlements, and development of the site would represent a rounding off of the Lower Walton settlement edge rather than urban sprawl. The incorporation of a development offset to the southern and western edges of the site, and retention and enhancement existing boundary vegetation would reinforce the robustness of access to the Walton Lea Project and 1-3 Walton Lea Cottages as edge to the settlement.

### ***To prevent neighbouring towns merging into one another***

- 6.3 In terms of merging settlements, a key consideration is also the strength and permanence of existing boundaries. Visually the site is well enclosed by the surrounding framework of vegetation which separates it from any visual relationship to Higher Walton (to the south-west). Where built form is visible from the site this is associated with Lower Walton, which gives the site a clear relationship with the village. The site's visual relationship with the wider open countryside of the Green Belt to the north is across agricultural land to the boundary of the Manchester Ship Canal where views are limited due to the layering of field boundary vegetation. To the south views towards the site are across the grounds of Warrington Sports Club but then restricted by woodland along Walton Lea Road.
- 6.4 The urban fringe location also requires consideration in relation to the NPPF where sustainable locations can be used efficiently for development in association with opportunities for strengthening the landscape and environmental quality of the site through the provision of connecting Green Infrastructure and new recreation opportunities. The development of the site offers the potential retain and enhance the existing field boundary vegetation and woodland block along the eastern boundary. The public footpath 304/6 to the western boundary connects Walton Hall and Gardens to the south of the site and so an opportunity to create a link through the site from Chester Road at the northern boundary.

### ***Safeguarding the countryside from encroachment***

- 6.5 As described above, the site has a limited visual relationship with the wider open countryside of the Green Belt to the north and south. To the north the Green Belt boundary is formed by the nearby Manchester Ship Canal and views are limited by field boundary vegetation and to the south views are across the playing pitches of the Warrington Sports Club and limited further by woodland along Walton Lea Road. Furthermore, the containment afforded by the surrounding vegetation and adjoining settlement edge to the north-east and east would limit the extent to which any proposed development would introduce uncharacteristic features into the landscape. The use of development offsets and the retention and enhancement of the existing site boundary vegetation along the more sensitive edges of the site to the north and south would ensure that any significant visual encroachment into the wider Green Belt landscape would be negligible.

## **7.0 Landscape Themes**

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- 7.1 In response to the desktop and fieldwork undertaken, a landscape strategy response has been set out as guidance for the appropriate development of the site. The landscape themes to be used to shape a deliverable masterplan are illustrated on the Landscape Opportunities & Constraints plan (10468/P04a) and include:
- The incorporation of a development offset along the northern boundary to ensure the retention of the existing boundary vegetation along Chester Road with additional hedgerow and scattered hedgerow tree planting;

- The provision of a landscape buffer between the residential properties at Hall Gardens and the site to soften views of new built form for existing private residents. This would be formed by the retention and enhancement of existing gappy hedgerow along the north-eastern boundary;
- Retention and enhancement of the woodland block along the eastern boundary and provision of a development offset; provision of a development offset to the section of the eastern woodland block which extends into the site and the opportunity to incorporate into an area of public open space within the development;
- The provision of a landscape buffer between the existing residential properties along the southern boundary at Old Hall Close and the site to soften views of new built form for existing private residents;
- Retention and enhancement of existing hedgerow along the southern boundary where the site adjoins Warrington Sports Club development including the planting of characteristic linear woodland;
- Existing vegetation along the western boundary adjacent to Public Footpath 304/6 to be retained and enhanced, supplementing with additional hedgerow planting. This would retain the verdant character of this footpath and ensure views of the development edge remains softened;
- A view of St. Elphin's Church spire can be seen from the Public Footpath 304/6, this view could be retained to maintain the visual connectivity of the footpath with a local landmark. However, within the *Warrington Borough Council Green Belt Assessment Final Report (October 2016)*, the document states that the parcel does not cross an important viewpoint of the Parish Church, but could be facilitated an area of public open space linking the public footpath on the western and the woodland block to the east would be
- Proposed pedestrian connection to Chester Road along the northern boundary to the site to provide access to Lower Walton centre; and
- Proposed development should look to reflect the scale, and density of the existing neighbouring residential development to the north and east.

## 8.0 Conclusion

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- 8.1 Whilst it is appreciated that only a broad level assessment has been undertaken, this technical note has demonstrated that development within the proposed site could be accommodated with reference to site specific circumstances and the ability to deliver sustainable growth in Lower Walton.
- 8.2 The site is considered capable of being developed without having significant impact on coalescence or urban sprawl. Although the site is currently open in terms of its use as agricultural field, urban influences are present in the form of views towards the residential edge of Lower Walton and Warrington, which includes views towards industrial development along the Manchester Ship Canal and Warrington town centre in the distance. There is also a considerable level of visual screening and filtering offered by field boundary vegetation including woodland blocks, which restrict the extent to which the site relates to the wider open countryside of the Warrington Green Belt further to the north, west and south.
- 8.3 As a result of the containment provided by the surrounding vegetation, few receptors will be affected and the effects on landscape character will be localised to the immediate setting.
- 8.4 Responding to the woodland and recreational usage to the west and south (Public Footpath 304/6 and Warrington Sports Club) will be key in the future development of the site, and could



be achieved through the incorporation of development offsets and the retention and enhancement of existing site boundary vegetation.

- 8.5 The most likely adverse effects are deemed to relate to the change in views from users of the public footpath to the west of the site, as well as the interruption of residential views from properties along Hall Gardens, 1-3 Walton Lea Cottages, Brookwood Close and Old Hall Close. These will need to be sensitively considered as part of future design proposals for the site, with development offsets, the consideration of appropriate screen planting, the enhancement of existing boundary vegetation and the provision of new soft landscaping. Whilst there would be a likely noticeable increase in the extent of built form for receptors overlooking the site in close proximity, the perceived impacts would be localised. This would be likely to diminish over time due to the scope for implementing appropriate areas of open space, landscaping, development offsets, densities, buffers, materials and scaling. The enhancement of boundary vegetation to mitigate impacts and assimilate the scheme proposals into the surrounding landscape could also be incorporated.
- 8.6 With respect to landscape and visual matters, this site should therefore be considered suitable for residential development and release from the Green Belt.

**Plans:**

**Landscape Policy Context (10468/P01a);**

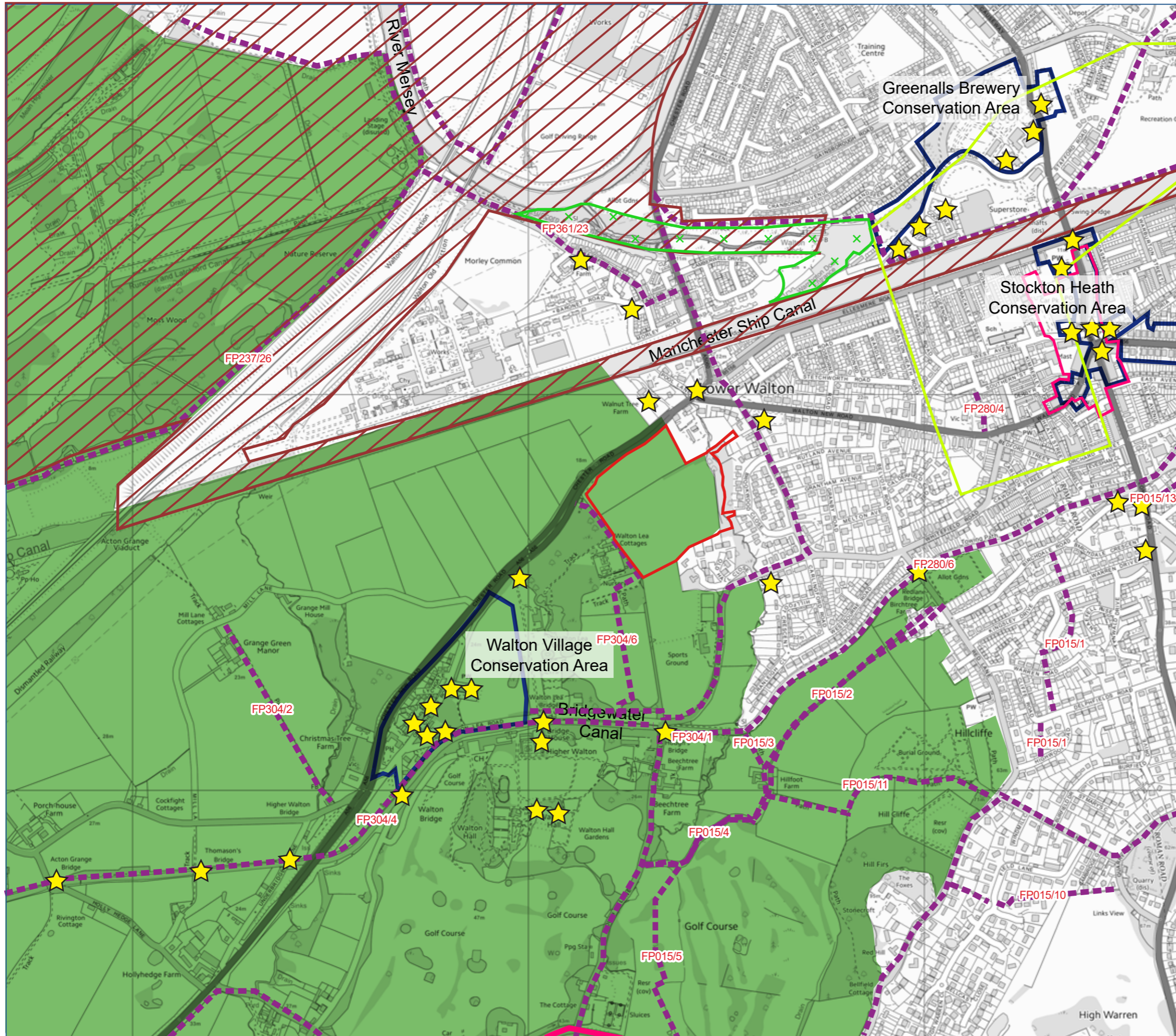
**Landscape Character (10468/P02a);**

**Photoviewpoint Locations (10468/P03a);**

**Landscape Opportunities & Constraints (10468/P04a); and**

**Photoviewpoints 1 to 7 (10468/P07a).**

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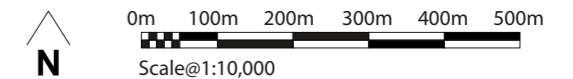
- Site Boundary
- Conservation Area  
Policies QE8 and CS9
- LPCS Area Boundaries  
Policies MP3 and QE8
- Strategic Location Inner Warrington  
Policies CS9 and QE9
- Strategic Green Links  
Policies CS6
- Stockton Heath District Centre  
Policies SN4, SW1 and QE8
- Green Belt  
Policy CS5

**Local Planning Designations**  
Date plotted from <http://www.magic.gov.uk/MagicMap.aspx>

- ★ Listed Buildings

**Public Rights of Way**  
Date plotted from the Warrington Borough Council  
Interactive Online Map:  
<http://maps.warrington.gov.uk:8080/connect/>

- Footpath  
Policy MP3
- FP01 Public Right of Way Reference



Project | Chester Road, Walton

Drawing Title | **Landscape Planning Policy Context and Public Rights of Way**

Scale | 1:10,000 @ A3

Drawing No. | 10468/P01a

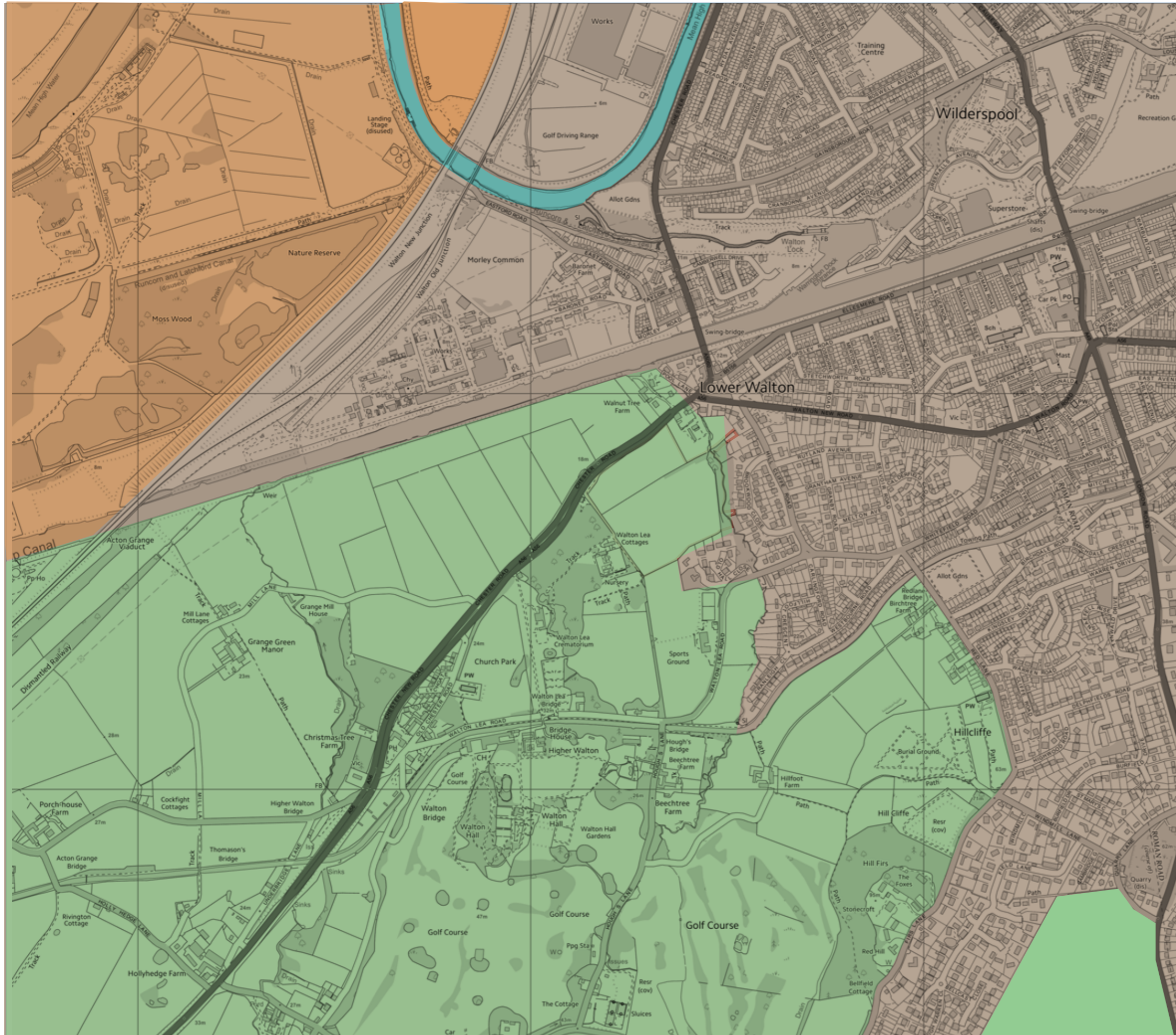
Date | April 2019

Checked | TB/CP

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 Site Boundary

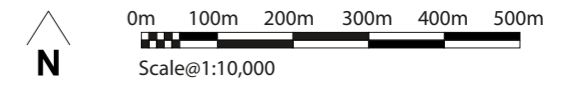
**National Character**

The entire study area lies within NCA Profile:  
60 Mersey Valley (NE492)

**Local Character**

Information obtained from the Warrington Borough  
Council Landscape Character Assessment (2007)

-  Character Type 3: Red Sandstone Escarpment  
Area 3.A: Appleton Park & Grappenhall
-  Character Type 5: River Flood Plain  
Area 5.A: River Mersey / Bollin
-  Character Type 6: Inter-Tidal Areas  
Area 6.A: Victoria Park to Fiddlers Ferry
-  Urban



Project Chester Road, Walton

Drawing Title **Landscape Character Areas**

Scale 1:10,000 @ A3

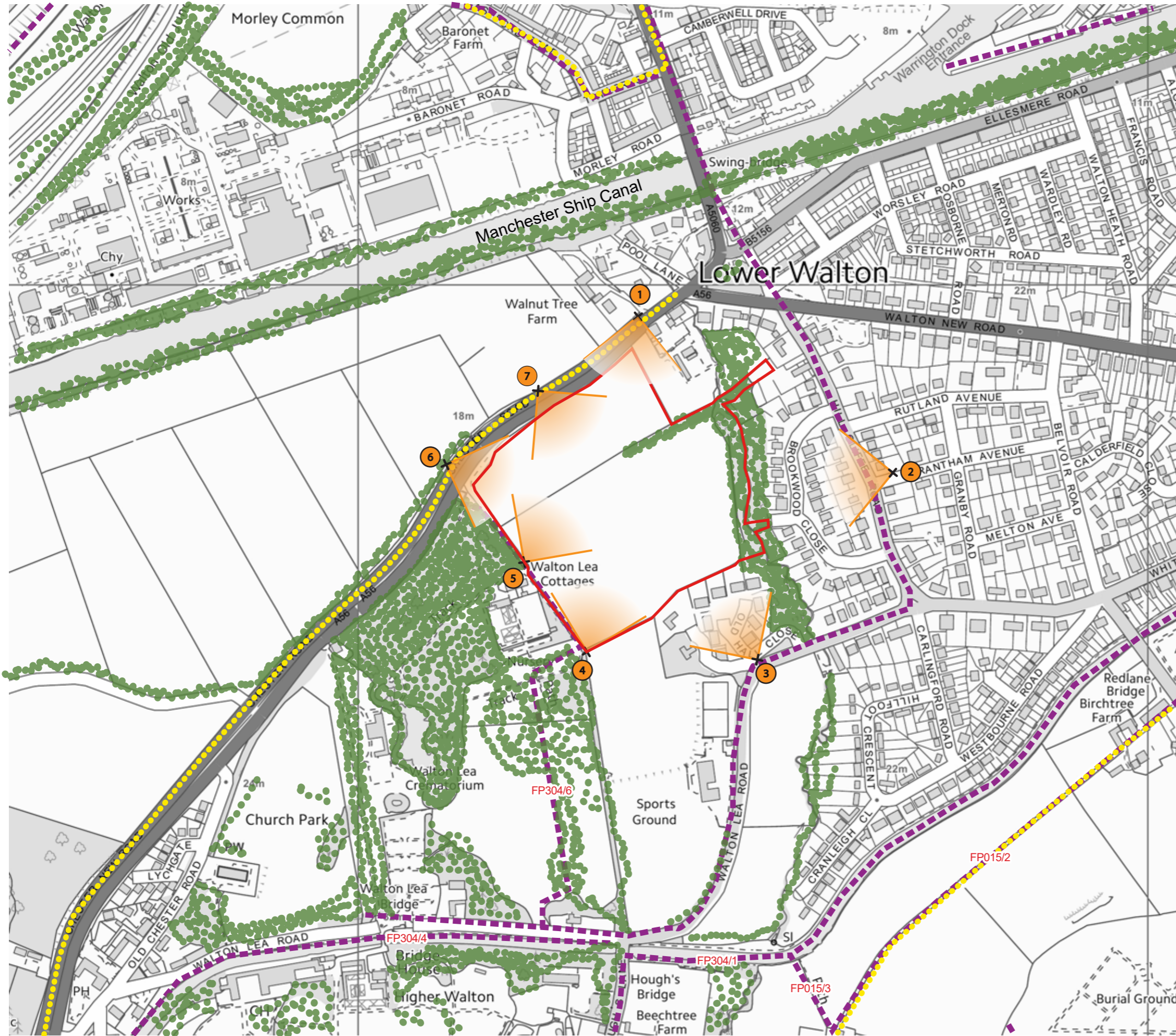
Drawing No. 10468/P02a







Date April 2019

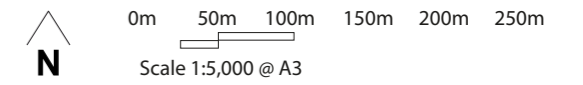
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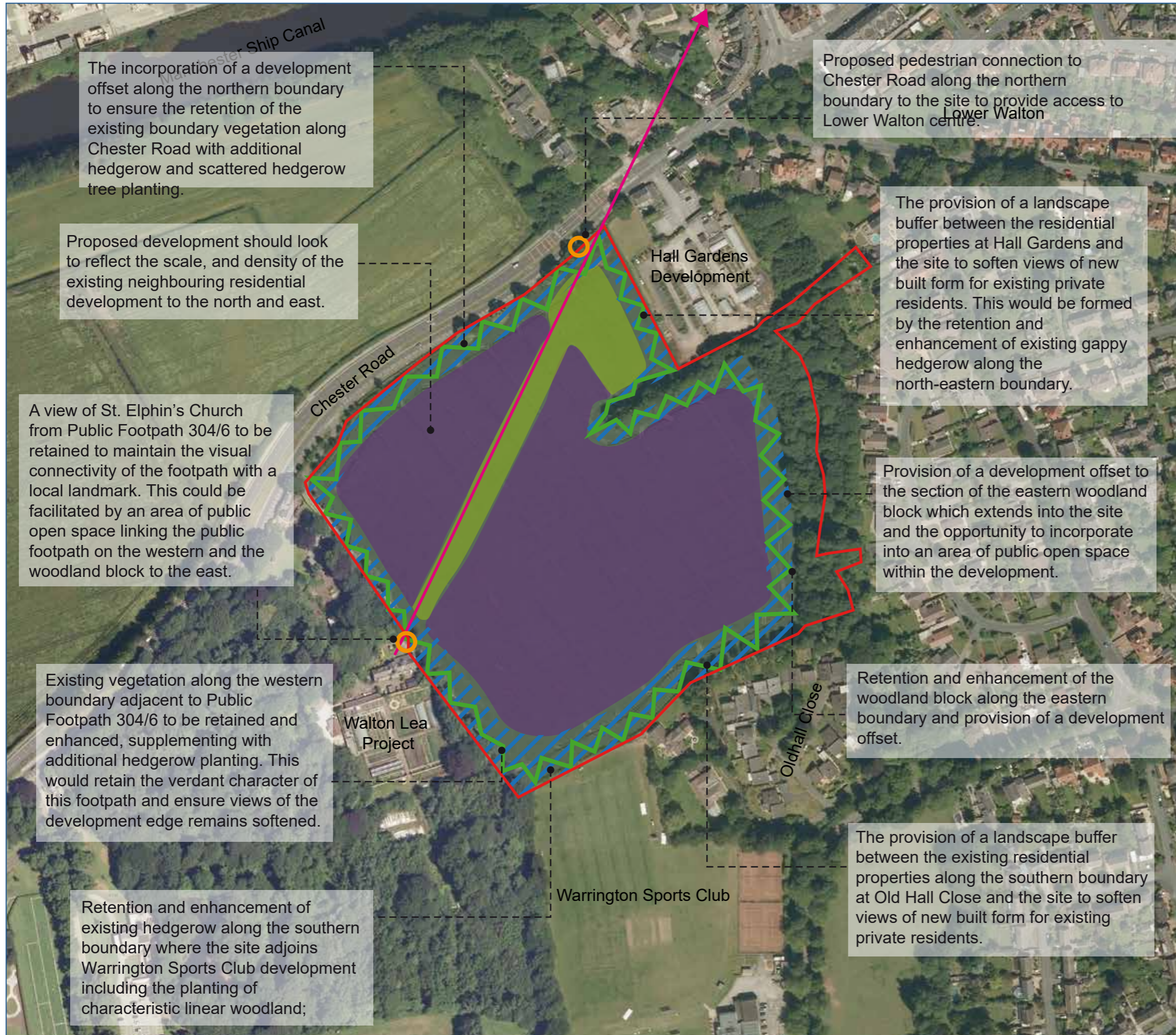




-  Site Boundary
-  Photoviewpoint Location
-  Footpath
-  FP01 Public Right of Way Reference
-  Cycle Route
-  Principal Vegetation and Trees Filtering Views
-  Built form / Surrounding Residential Townscape



Project | Chester Road, Walton  
 Drawing Title | **Photoviewpoint Locations**  
 Scale | 1:5,000 @ A3  
 Drawing No. | 10468/P03a  
 Date | April 2019  
 Checked | TB/CP





-  Site Boundary
-  Key View
-  Developable Area
-  Development Offset
-  Link to Public Right of Way
-  Strengthen Existing / Provide New Vegetation to Filter Views of Development
-  Potential Public Open Space

The incorporation of a development offset along the northern boundary to ensure the retention of the existing boundary vegetation along Chester Road with additional hedgerow and scattered hedgerow tree planting.

Proposed development should look to reflect the scale, and density of the existing neighbouring residential development to the north and east.

A view of St. Elphin's Church from Public Footpath 304/6 to be retained to maintain the visual connectivity of the footpath with a local landmark. This could be facilitated by an area of public open space linking the public footpath on the western and the woodland block to the east.

Existing vegetation along the western boundary adjacent to Public Footpath 304/6 to be retained and enhanced, supplementing with additional hedgerow planting. This would retain the verdant character of this footpath and ensure views of the development edge remains softened.

Retention and enhancement of existing hedgerow along the southern boundary where the site adjoins Warrington Sports Club development including the planting of characteristic linear woodland;

Proposed pedestrian connection to Chester Road along the northern boundary to the site to provide access to Lower Walton centre.

The provision of a landscape buffer between the residential properties at Hall Gardens and the site to soften views of new built form for existing private residents. This would be formed by the retention and enhancement of existing gappy hedgerow along the north-eastern boundary.

Provision of a development offset to the section of the eastern woodland block which extends into the site and the opportunity to incorporate into an area of public open space within the development.

Retention and enhancement of the woodland block along the eastern boundary and provision of a development offset.

The provision of a landscape buffer between the existing residential properties along the southern boundary at Old Hall Close and the site to soften views of new built form for existing private residents.



Project	Chester Rd, Walton
Drawing Title	<b>Landscape Opportunities and Constraints</b>
Scale	Not to Scale
Drawing No.	10468/P04a
Date	April 2019
Checked	TB/CP



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<b>Photoviewpoint 1:</b>	Taken from Chester Road looking south towards the northern boundary of the site	<b>Distance from Site:</b>	28m	<b>Orientation</b>	South	<b>Coordinates:</b>	X: 360352 Y: 385958
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<b>Photoviewpoint 2:</b>	Taken from Grantham Avenue looking west towards the site	<b>Distance from Site:</b>	178m	<b>Orientation</b>	West	<b>Coordinates:</b>	X: 360671 Y: 385756
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<b>Photoviewpoint 3:</b>	Taken from Old Hall Close on the southern boundary on the site	<b>Distance from Site:</b>	132m	<b>Orientation</b>	North-West	<b>Coordinates:</b>	X: 360497 Y: 385527
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<b>Photoviewpoint 4:</b>	Taken from Public Footpath (Ref: FP304/6), at the south-western corner of the site boundary	<b>Distance from Site:</b>	1m	<b>Orientation</b>	e.g. North-East	<b>Coordinates:</b>	X: 360287 Y: 385541
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<b>Photoviewpoint 5:</b>	Taken from Public Footpath (Ref: FP304/6), at the south-eastern corner of the site boundary	<b>Distance from Site:</b>	2m	<b>Orientation</b>	e.g. North-East	<b>Coordinates:</b>	X: 360210 Y: 385644
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<b>Photoviewpoint 6:</b>	Taken from Chester Road at the north western corner of the site	<b>Distance from Site:</b>	24m	<b>Orientation</b>	East	<b>Coordinates:</b>	X: 360100 Y: 385743
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<b>Photoviewpoint 7:</b>	Taken from Chester Road, 180° view of northern boundary	<b>Distance from Site:</b>	22m	<b>Orientation</b>	e.g. South	<b>Coordinates:</b>	X: 360197 Y: 385850
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23<sup>rd</sup> April 2019

Land South of Chester  
Road, Walton,  
Warrington

Preliminary Ecological  
Appraisal

Report Number: 10468\_R02a\_LRD\_HB

Author: Laura Dennis MSc GCIEEM

Checked: Lisa Davies BSc Ma ACIEEM



Tyler Grange

Birmingham • Cotswolds • Exeter • London • Manchester



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References

## Appendices / Appendix

- Appendix 1: Legislation and Planning Policy
- Appendix 2: Ecology Survey Planner
- Appendix 3: List of Bird Species within 1km of the site as provided by RECORD

## Plans & Photoviewpoints

Habitat Features Plan  
10468/P05 August 2016 HC/LD



# Summary

- S.1. This report has been prepared by Tyler Grange LLP on behalf of Ashall Property Ltd. It sets out the findings of a Preliminary Ecological Appraisal (PEA) of a parcel of land to the south of Chester Road, Walton (centred on OS Grid Reference SJ 60311 85717), hereinafter referred to as the 'site'.
- S.2. The site is not covered by any statutory or non-statutory nature conservation designations, however there are several such sites within the study area, although they are at such a distance that it is considered that they would not be affected by future development of the site.
- S.3. The site comprises of the following habitats:
- Arable (site importance);
  - Hedgerows and mature trees (local importance);
  - Watercourse (local importance); and
  - Woodland (semi-natural broadleaved) (local importance).
- S.4. Where possible, habitat features of local importance should be retained, protected and enhanced within any future development designs in line with national and local planning policy. It is recommended that landscape buffers are retained between any built development and these features to maintain their integrity and also to ensure continued use for wildlife both during construction and once the development is operational. This could incorporate green infrastructure around the boundary edges of any future development.
- S.5. Habitats on site have the potential to support the following species:
- Badger;
  - Bats;
  - Breeding birds; and
  - Otter and water vole.
- S.6. Badgers are present on site and as such a full badger survey will be required to accompany any future planning application. If a sett is to be affected, then a licence for sett closure from Natural England (NE) will be required.
- S.7. Providing the brook, woodland, hedgerows, mature trees and tree lines are retained and protected it is not thought that the other above species will be affected. However, if any of these habitat features are to be affected by development layouts then the following further ecological surveys may be required to inform any future planning application:
- Bats: Preliminary Roost Assessment (PRA) of trees - required if any trees or areas of woodland are to be lost;



- Bats: Detailed roost surveys or tree climbing inspections of trees identified with roost potential following PRA - required if any trees or areas of woodland are to be lost;
- Birds: Breeding bird survey - may be required if woodland is to be lost; and
- Otter and water vole survey - required if brook is to be affected by development (i.e. a proposed crossing to provide access to the site).

S.8. It is recommended that the above scope of surveys is agreed with the Local Planning Authority ecologist.

S.9. No ecological issues that could affect the principle of development of the site have been identified. Those valuable ecological features that exist, or could exist, at the site could be accommodated by the adoption of relatively simple design principles, albeit these would need to be informed by further detailed survey work at a later stage, and prior to submission of a planning application. The potential to improve the biodiversity of the site also exists, and recommendations are made that should contribute to local BAP targets.

S.10. In conclusion, there is every reason to suspect that allocation and future development of the site would accord with relevant planning policy that seeks to protect and enhance ecological features.



# Section 1: Introduction, Context and Purpose

## Introduction

- 1.1. This report has been prepared by Tyler Grange LLP on behalf of Ashall Property Ltd. It sets out the findings of a Preliminary Ecological Appraisal (PEA) of a parcel of land to the south of Chester Road, Walton (centred on OS Grid Reference SJ 60311 85717), hereinafter referred to as the 'site'.

## Context

- 1.2. The site has a draft allocation for housing development in the Warrington Proposed Submission Local Plan (2017 – 2037) which is currently undergoing consultation.

## Purpose

- 1.3. This report aims to advise on the feasibility of development of the site in terms of ecology by:
- Using available background data and results of field surveys, to describe and evaluate the ecological features present within the likely 'zone of influence' (Zoi)<sup>1</sup> of the proposed development;
  - Describing the actual or potential ecological issues and opportunities that might arise as a result of the site's future development;
  - Where appropriate, making recommendations for mitigation of adverse effects and ecological enhancement, to ensure conformity with policy and legislation listed in **Appendix 1**; and
  - Identifying any further work required to inform a future planning application.
- 1.4. It is not intended that this report should be submitted with a planning application, unless supported by the results of further surveys and an assessment of proposed impacts.
- 1.5. This assessment and the terminology used are consistent with the ' Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine Guidelines for Ecological Impact Assessment in the UK and Ireland' (CIEEM, 2018).

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<sup>1</sup> Defined as the area over which ecological features may be subject to significant effects as a result of activities associated with a project and associated activities (CIEEM 2018).



# Section 2: Methodology

## Data Search

- 2.1. The aim of the data search is to collate existing ecological records for the site and adjacent areas. Obtaining existing records is an important part of the assessment process as it provides information on issues that may not be apparent during a single survey, which by its nature provides only a 'snapshot' of the ecology of a given site.
- 2.2. The data search has been undertaken for a 10km radius around the site for European statutory sites, a 2km radius for national statutory and non-statutory sites and a 1km radius for protected and priority<sup>2</sup> species records. The search area was extended to 2km for bats records.
- 2.3. 'Record' the biological records centre for Warrington was contacted in August 2016 for details of protected and priority species and non-statutory sites and, where relevant, the information provided has been incorporated with acknowledgement within this report.
- 2.4. The Multi-Agency Geographic Information for the Countryside website<sup>3</sup> was accessed in April 2019 for information on the location of statutory designated nature conservation sites within the Zol.
- 2.5. The Warrington Borough Council website [available at: <https://www.warrington.gov.uk>] was consulted in April 2019 for details of relevant local planning policies and supplementary planning guidance.
- 2.6. The Cheshire Local Biodiversity Action Plan (LBAP) was consulted in April 2019 for priority habitats and species subject to conservation action, to assist with the evaluation of ecological features and to inform site enhancement strategies.

### *Extended Phase I Habitat Survey*

- 2.7. An 'extended' Phase I habitat survey was undertaken on 16<sup>th</sup> August 2016 by Hayley Care, an experienced field ecologist and Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM). The technique was based upon Phase I survey methodology (JNCC, 2010). This 'extended' Phase I technique provides an inventory of the habitat types present and dominant species. The weather conditions for the survey were dry, clear with a light breeze and a temperature of 21°C.
- 2.8. More recently, an update Phase I survey was completed on 5<sup>th</sup> April 2019 by Laura Dennis an experienced field ecologist and Graduate member of the CIEEM. The weather conditions for the update survey were dry, clear, with a light breeze and a temperature of 12°C.

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<sup>2</sup> UK priority species and habitats are those subject to conservation action and referred to as Species of Principal Importance (SoPIs) or Habitats of Principal Importance (HoPIs). They are listed at Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of both SoPIs and HoPIs.

<sup>3</sup> <http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>



- 2.9. Using the above method, the site was classified into areas of similar botanical community types with a representative sample of those species present at the time of the survey being described.
- 2.10. Additionally, incidental records of fauna were also made during the survey and the habitats identified were evaluated for their potential to support legally protected and priority species.

## **Evaluation**

- 2.11. The evaluation of habitats and species is defined in accordance with published guidance (CIEEM, 2018). The level of importance of specific ecological features is assigned using a geographic frame of reference, with international being most important, then national, regional, county, local and lastly, within the site boundary only.
- 2.12. Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include site designations (such as SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

## **Quality Control**

- 2.13. All ecologists at Tyler Grange LLP are members of CIEEM and abide by the Institute's Code of Professional Conduct.



# Section 3: Ecological Features and Evaluation

## Context

- 3.1. The site comprises an arable field bounded by hedgerows, tree lines and a broadleaved woodland which contains a small brook which flows north to the Manchester Ship Canal. The A56 Chester Road borders the site to the north, a new residential development is present to the northeast and further residential properties lie to the east and southeast with their gardens backing onto the site. Walton sports club lies southwest with its sports pitch at a level several feet below the site. A public footpath and driveway to a nursery lines the western boundary within broadleaved woodland.

## Protected Sites

### Statutory Sites

- 3.2. The following statutory sites lie within the study area defined in paragraph 2.2.

**Table 3.1. Statutory Protected Sites within 10km of the site.**

Site Name	Distance and Direction	Reason for Designation
Mersey Estuary	Ramsar and SPA 9.6km W	The intertidal flats and saltmarshes provide feeding and roosting sites for large populations of waterbirds. During the winter, the site is of major importance for ducks and waders. The site is also important during the spring and autumn migration periods, particularly for wader populations moving along the west coast of Britain.  It qualifies as a wetland of international importance by regularly supporting 20,000 waterfowl.
Manchester Meadows	SAC 8km NE	Designated for it's degraded raised bog habitat still capable of natural regeneration.
Rixton Clay Pits	SAC 8.9km NE	Designated for its population of great crested newts <i>Triturus cristatus</i> that occur within 20 ponds on site.

- 3.3. Ramsar sites, Special Protection Areas (SPAs) and Special Areas if Conservation (SACs) are of **International importance**.



### *Non-Statutory (Local) Sites*

- 3.4. Non-statutory nature conservation designated sites are known in Warrington as Local Wildlife Sites (LWS).
- 3.5. Two LWS occur within the study area; Walton locks LWS 480m northeast and Moor nature reserve LWS 898m northwest.
- 3.6. LWS are selected on the basis that they meet the criteria for local wildlife sites selection for sites of importance or potential importance at a county level. They are therefore of **county importance**.

### **Habitats**

- 3.7. The site supports the following habitats:
  - Arable Land;
  - Hedgerows and Mature Trees;
  - Watercourse; and
  - Woodland (semi-natural broadleaved).
- 3.8. For ease of reference, habitat types have been described alphabetically, below. All the features described are shown on the **Habitat Features Plan 10468/P05**.

#### *Arable Land*

- 3.9. The site comprises 7.5ha of arable land that was planted with a young cereal crop at the time of the update survey. The field has very limited field margins, but where they are present the mosaic includes species indicative of disturbed, agricultural land including hogweed *Heracleum sphondylium*, spear thistle *Cirsium vulgare*, perennial rye grass *Lolium perenne*, ragwort *Senecio jacobaea*, great willowherb *Epilobium hirsutum*, broadleaved dock *Rumex obtusifolius* and scentless mayweed *Matricaria recutita*.



**Photograph 1: view of arable field looking northeast across the site.**






- 3.10. Depending on the time of year, arable land within the site is either bare ground or under cultivation. The arable field is floristically poor and uniform in structure. The field margins are also very minimal and although they are more diverse in species composition, they comprise common and widespread species and are small in area. Therefore, the arable land is considered to be of **site importance**.

### *Hedgerows and Mature Trees*

- 3.11. The site is bounded by hedgerows and tree lines to the north south and west and are described in **Table 3.2** below.

**Table 3.2. Descriptions of tree lines and hedgerows bounding the site.**

Tree / Hedgerow	Description	Photograph
Northern Tree line and hedgerow	<p>Line of mature sycamore <i>Acer pseudoplatanus</i>, common lime <i>Tilia x europaea.</i>, elm <i>Ulmus sp.</i>, hazel <i>Corylus avellana</i>, turkey oak <i>Quercus cerris</i> and elder <i>Sambucus nigra</i> is present along half of northern boundary.</p> <p>The remaining boundary comprises hawthorn <i>Crataegus monogyna</i> dominated hedge with sporadic holly <i>Ilex aquifolium</i>, approximately 1.5m tall and 0.5m wide.</p> <p>Ground flora is sparse and is dominated by nettle <i>Urtica dioica</i> and bramble <i>Rubus fruticosus</i> with grassland and ruderal vegetation from the field margins present where there are gaps.</p>	
Western tree line	<p>Gappy, single tree line of immature oak, sycamore, holly, ash <i>Fraxinus excelsior</i>, lime, sweet chestnut <i>Castanea sativa</i>, with occasional cherry <i>Prunus sp.</i>, laurel <i>Prunus laurocerasus</i>, Leyland cypress <i>Cupressus x leylandii</i>, rowan <i>Sorbus aucuparia</i>, poplar <i>Populus sp.</i>, elder and copper beech <i>Fagus sylvatica f. purpurea</i>.</p> <p>Ground flora is again sparse and dominated with nettle, bramble and field margin vegetation but with some occasional raspberry <i>Rubus idaeus</i>.</p>	

<p>Southern hedgerow (defunct)</p>	<p>Defunct, unmanaged hedgerow on top of bank that drops off steeply to the south (and the adjacent offsite sports field of Walton sports club). Approximately 1.5m high and 1m wide.</p> <p>Species comprise immature turkey oak, hawthorn, elder and field maple <i>Acer campestre</i> with ground flora dominated by rosebay willowherb <i>Chamerion angustifolium</i> and bramble.</p>	
<p>Southern hedgerow (intact)</p>	<p>The eastern half of the southern hedgerow is intact and managed as boundary hedgerows to the adjacent residential properties. Approximately 2.5m high and 1m wide.</p> <p>Species present comprise blackthorn <i>Prunus spinosa</i>, hazel, holly, rose <i>Rosa</i> sp, and ornamental species.</p>	

- 3.12. Hedgerows and tree lines provide a habitat connection around the perimeter of the site and connections to wider woodland habitats to the east and west. They comprise a mixture of species and trees of differing maturity, with the more mature specimens being well established. Due to their connectivity and species diversity, the trees and hedgerows are considered to be of **local importance**.

### *Watercourse*

- 3.13. A small brook lines the eastern site boundary within the broadleaved woodland. It flows north and has a steady to fast flow with earth and pebble substrate. The water is clean and clear with a varying depth along its length from around 5cm – 30cm. The channel is approximately 1m wide with steep banks, which are reinforced at the southern end and covered with ground ivy. The brook joins the Manchester Ship Canal approximately 295m downstream from the site.



**Photograph 2: The brook runs north through the broadleaved woodland along the eastern site boundary.**

- 3.14. The brook provides an important linear feature acting as a wildlife corridor and ecological resource that extends along the entire eastern site boundary and into habitats within the wider locality. It also feeds into the Manchester Ship Canal further downstream. It is therefore considered to be of **local importance**.

*Woodland (semi-natural broadleaved)*

- 3.15. A belt of mature semi-natural broadleaved woodland lines along the eastern site boundary and extends into the middle of the arable field. The woodland is dominated by mature sycamore with horse chestnut, hawthorn, ash, birch *Betula sp.*, elder, common lime, oak and elm. Rowan, holly and Rhododendron *Rhododendron ponticum* are present within the understorey. Ground flora is sparse due to being over-shaded and predominately comprises nettles and ivy *Hedera helix*.
- 3.16. A line of mature trees dominated by common lime and turkey oak extends out into the centre of the arable field. Although it is more formal in arrangement, it is connected to the woodland both in canopy and with ground flora and as such is therefore included within the woodland habitat classification from an ecological perspective.



**Photograph 3: The semi-natural broadleaved woodland lies along the eastern site boundary.**

- 3.17. The woodland is mature and provides a strong boundary to the otherwise open nature of the site. It also includes the brook and provides connectivity to habitats in the wider locality. The woodland is well established and would not be able to be replaced in the short to medium term. It is therefore considered to be of **local importance**.

**Fauna**

- 3.18. For ease of reference, descriptions of the fauna have been described alphabetically in **Table 3.3** below.

**Table 3.3. Presence of, or potential for, protected or notable fauna on site.**

Species/ Group	Presence or Potential for on Site	Protection / Conservation Status
Amphibians	RECORD returned no records of great crested newt (GCN) within 1km. Five records of common toad <i>Bufo bufo</i> and six common frog <i>Rana temporaria</i> records were returned the closest 545m northeast.	NERC – toad only



	<p>The site has very limited potential for GCN. There are no suitable waterbodies on site and the nearest ponds are two woodland ponds 220m and 310m south west of site. The busy A56 to the north and running brook along eastern boundary form barriers to movement of GCN and the only suitable terrestrial habitat is limited to the woodland, tree belts and hedgerow bases boundaries surrounding the site.</p> <p>The brook provides aquatic habitat for common toad and frog and the woodland, tree belts and hedgerow bases provide terrestrial habitat for these species.</p>	WCA
Badger	<p>RECORD returned 48 badger <i>Meles meles</i> records within 1km.</p> <p>Badger signs and setts were recorded on site both in the arable fields and woodland during the both Phase I surveys in 2016 and 2019.</p>	BPA
Birds	<p>RECORD returned records of a variety of woodland, farmland and wetland bird species within 1km of the site. The full list can be seen within <b>Appendix 3</b>.</p> <p>The site provides foraging and nesting habitat for hedgerow, woodland and farmland species such as song thrush <i>Turdus philomelos</i>, house sparrow <i>Passer domesticus</i>, tree sparrow <i>Passer montanus</i>, and yellowhammer <i>Emberiza citrinella</i>, within its boundary features.</p> <p>The arable field provides limited opportunities for ground nesting species such as lapwing <i>Vanellus vanellus</i> and skylark <i>Alauda arvensis</i>, due to its size and enclosure with hedgerows and trees. No ground nesting birds were recorded on site during the update Phase I survey in April 2019.</p> <p>The site is of limited value to barn owl <i>Tyto alba</i>, as it lacks the rough grassland habitats required for its prey.</p>	<p>WCA</p> <p>WCA Sch 1 – barn owl only</p> <p>NERC</p> <p>LBAP</p> <p>RL</p> <p>AL</p>
Bats	<p>RECORD returned the following bat records within 2km:</p> <ul style="list-style-type: none"> <li>• common pipistrelle <i>Pipistrellus pipistrellus</i> – 39 records, the closest 367m south;</li> <li>• Daubenton's bat <i>Myotis daubentonii</i> – Six records, the closest: 367m south;</li> <li>• noctule <i>Nyctalus noctula</i> – 27 records, the closest 259m southwest;</li> <li>• pipistrelle sp. – 45 records, the closest 240m southwest; and</li> <li>• soprano pipistrelle <i>Pipistrellus pygmaeus</i> - 26 records, the closest 390m north.</li> </ul>	<p>CHSR</p> <p>NERC</p> <p>LBAP</p> <p>WCA</p>



	Boundary features, woodland, hedgerows and tree lines and the brook provide foraging and commuting habitat for bats. Mature trees could provide roosting potential.	
Hedgehog	<p>RECORD returned 12 hedgehog <i>Erinaceus europaeus</i> records within 2km, the closest 316m north.</p> <p>Suitable habitat is present for hedgehog in boundary features such as hedgerows, tree lines and the broadleaved woodland.</p>	NERC
Invertebrates	<p>RECORD returned one record of grizzled skipper <i>Pyrgus malvae</i> butterfly 644m north and seven cinnabar <i>Tyria jacobaeae</i> records, the closest 437m north.</p> <p>There is some limited habitat for grizzled skipper along the woodland edge along the eastern boundary. Ragwort (the food plant for cinnabar) is present within the limited field boundaries, but it is not in a considerable quantity.</p> <p>The woodland, hedgerows, trees and brook could provide other habitat for a range of invertebrates. The arable field with its limited field margins would provide limited resource for invertebrates.</p>	NERC
Reptiles	<p>RECORD returned no reptile records within the study area.</p> <p>The site provided negligible habitat for reptiles due to its arable nature, limited grassy field margins and heavily shaded and sparsely vegetated woodland floor.</p>	WCA LBAP
Otter and water vole	<p>RECORD returned two otter <i>Lutra lutra</i> records within the Manchester Ship Canal 810m northeast. No water vole <i>Arvicola amphibius</i> records were returned.</p> <p>The brook along eastern boundary could provide potential habitat for these species, especially as it feeds into the Manchester Ship Canal which has records of otter.</p>	CHSR LBAP NERC WCA
<p><u>Abbreviations</u></p> <p>CHSR – Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2018;</p> <p>WCA – Wildlife and Countryside Act 1981 (as amended);</p> <p>NERC – species and habitats of principal importance protected under Section 41 of the</p>		



Natural Environment and Rural Communities Act 2006;

PBA – Protection of badgers Act, 1992;

LBAP – Cheshire Local Biodiversity Action Plan species

RL – red list bird species having suffered severe population declines over the last 25 years;

AL – denotes amber list bird species having suffered moderate population decline over the last 25 years (Eaton *et al.* 2015)



# Section 4: Considerations in Respect of Future Development

## Proposed Development

- 4.1. The site has a draft allocation for housing development within the Warrington Proposed Submission Local Plan (2017 – 2037) which is currently undergoing consultation. The potential consequences with respect to development of the site are set out below, with reference to relevant legislation and planning policy, which is summarised in **Appendix 1**.

## Protected Sites

- 4.2. The statutory nature conservation designations identified during the desk study are all over 8km from the site, with no direct habitat connections. The brook on site does feed into the Manchester Ship Canal which in turn eventually connects to the Mersey Estuary; however, this RAMSAR and SPA is designated for its overwintering bird populations and is unlikely to be affected if there were any impacts to the brook on site. At this distance it is considered that no impacts will occur from future development of the site either to habitats or species covered by the designations.
- 4.3. The two non-statutory nature conservation designations (Walton lock and Moor nature reserve LWSs) lie within 1km of the site. The brook that runs through the site does connect to the Manchester Ship Canal, however, this is downstream of Walton lock LWS and as such it is unlikely to be affected by development of the site.
- 4.4. Moor nature reserve LWS is managed and maintained for public access. It has no direct habitat connections to the site and is separated from the site by the Manchester Ship Canal. It is therefore also considered that it is unlikely that future development of the site will have a negative impact on site LWS.

## Habitats and Flora

- 4.5. The following habitats have been identified as a priority habitat or as having ecological importance and as such will need consideration in any future development proposals:
- Hedgerows and Mature Trees (**local importance**);
  - Watercourse (**local importance**); and
  - Woodland (semi-natural broadleaved) (**local importance**).
- 4.6. Local planning authorities are required to consider the potential effects of development on these habitat types and this is reflected in both national and local planning policy (see policy QE3 and draft policy DC4). Therefore, it is recommended that development proposals seek to retain and protect these habitat types where possible, or losses mitigated through the provision of similar replacement habitats, preferably within the context of an overall 'green infrastructure' for the site.



### *Hedgerows and Mature Trees*

- 4.7. The hedgerows on site may qualify as 'important' under the Hedgerows Regulations Act 1997 and therefore it is recommended that they are retained, protected (both during and post construction) through maintaining and/or creating green landscape buffers between built development and these features. There is opportunity for enhancement through additional planting and 'gapping up' of defunct sections with native species. Mature trees within the site are also recommended for retention and should also be protected during and post construction.
- 4.8. Retention of these habitats would also provide benefits to wildlife through maintaining habitat connections across the site. Enhancements to the existing hedgerows through additional planting of native species and inclusion of tree planting within public open space, green buffers and landscape areas is encouraged by local policy QE3 and draft policy DC3.

### *Watercourse*

- 4.9. New development could impact upon the brook through runoff from the development both during the construction period and post construction. Human impacts such as pollution / littering and bank modification may also occur. As discussed above, these actions could all have an impact on connecting watercourses further downstream, which includes the Manchester Ship Canal. The brook is likely to be an important feature for local wildlife, providing a linkage to offsite habitats.
- 4.10. It is recommended that a buffer is retained between the brook and any development proposed which could be achieved through the retention of the surrounding broadleaf woodland. Appropriate measures will need to be included to ensure that the brook is protected from pollution throughout both the construction process and also once the development is complete.

### *Woodland (semi-natural broadleaved)*

- 4.11. The woodland along the eastern site boundary and lining the brook provides an important green link for wildlife, acting as a green corridor. It also provides an amenity function, acting to screen and enclose the site. It is not replaceable in the short to medium term and therefore it should be retained, protected and where possible enhanced in line with national policy. As with the above features, maintaining a landscape buffer between built development and the woodland would ensure that root protection areas are maintained and protected. Bringing the woodland into active management could also enhance it whilst ensuring its longevity.

## **Fauna**

- 4.12. Habitats within the site have the potential to support several protected and/or notable species which would require mitigation if present and to be affected by future development.

### *Badger*

- 4.13. Badgers have been recorded on site during the Phase I habitat surveys. As such, a full badger survey will be required to accompany any future planning application. Most of the activity is within the eastern woodland and as such it is recommended that this woodland is retained and that an offset landscape buffer is provided which could be used to avoid working in close proximity to any badger setts within the woodland.





- 4.14. If any setts are found within 30m of proposed development and would be affected by development, a licence from Natural England (NE) may be required to undertake works. This would need to be accompanied by a mitigation strategy outlining methods employed to minimise impacts upon this species.

#### *Other Species*

- 4.15. Habitats present on site also provide opportunities for:
- Bats (in mature trees);
  - Breeding birds;
  - Otter and Water vole.
- 4.16. Providing that habitat features such as the brook, woodland, hedgerows, mature trees and tree lines are retained and protected it is not thought that these species will be affected. However, if any of these habitat features are to be affected by development layouts then further ecological surveys may be required.

## **Ecological Design Principles and Enhancement Opportunities**

- 4.17. Future development should be designed to retain boundary habitat features of ecological importance (the brook, broadleaved woodland, hedgerows and mature trees and tree lines). This will maintain habitat connections around the site and to the wider landscape, allowing movement of wildlife to continue. Retention of the woodland will also result in maintaining a natural buffer to the brook, which will help to prevent pollution entering the water course.
- 4.18. Maintaining green buffers between retained features is also recommended to ensure their protection and integrity throughout the development. These could be used to incorporate green infrastructure and landscaping (providing the root protection areas of retained trees and hedgerows are protected).
- 4.19. Although it is at the early stages, it is recommended that any future lighting design is designed to avoid lighting the retained boundary features (particularly the woodland) to maintain their value and use by species such as bats and badgers. This would be in conformity with Warrington's Environmental Protection Supplementary Planning Document (SPD) which deals with environmental protection including light pollution (see **Appendix 1**).
- 4.20. There is the opportunity to enhance the biodiversity of the site by adopting design principles informed by local conservation strategies, notably the Cheshire Local Biodiversity Action Plan (LBAP). Delivery of such biodiversity gain would be in accordance with NPPF (which encourages development to provide net gains in biodiversity where possible) and local policies relation to green infrastructure, protected habitats and priority species. Such opportunities include:
- Creation of green infrastructure within the development, which can be multi-functional, delivering biodiversity, amenity, aesthetic and drainage benefits. This should form continuous corridors for wildlife movement and can include retained and newly created habitats, such as those listed below, which should be managed and monitored;
  - Habitat creation that could include ponds (of benefit to amphibians, birds and invertebrates), hedgerows and tree planting;



- Enhancing retained tree lines and hedgerows through ‘gapping up’ defunct sections with a variety of native species or those with known wildlife benefit;
- Use of native species where possible in the landscape designs to provide new opportunities for fauna; and
- Explore opportunities to increase the interpretative/educational importance of the site, for instance by providing better access to nature.

## Further Work to Inform a Future Planning Application

- 4.21. To inform future development designs and mitigation strategies, and in accordance with ODPM Circular 06/05 and BS 42020:2013 ‘Biodiversity – Code of practice for planning and development’, it will be necessary to undertake surveys to confirm whether legally protected and/or priority species would be affected by proposed development of the site. These surveys are summarised below, with survey timings provided in **Appendix 2**:
- Badger;
  - Bats: Preliminary Roost Assessment (PRA) of trees - required if any trees or areas of woodland are to be lost, with follow-up roost surveys or climbing inspections if roost potential is identified;
  - Birds: Breeding bird survey - may be required if woodland habitat is to be lost; and
  - Otter and water vole survey - required if brook is to be affected by development (i.e. a proposed crossing to provide access to the site).
- 4.22. In order to ensure acceptability for planning determination, it is recommended that the scope of the above surveys is agreed in advance with the local planning authority ecologist.



## Section 5: Conclusions

- 5.1. No ecological issues that could affect the principle of development of the site have been identified. Those valuable ecological features that exist, or could exist, at the site could be accommodated by the adoption of relatively simple design principles, albeit these would need to be informed by further detailed survey work at a later stage, and prior to submission of a planning application. The potential to improve the biodiversity of the site also exists, and recommendations are made that should contribute to local BAP targets.
- 5.2. In conclusion, it is considered that future development of the site could be designed to accord with relevant planning policy that seeks to protect and enhance ecological features.



# References

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

Eaton M, Aebischer N, Brown A, Hearn R, Lock L, Musgrove A, Noble D, Stroud D and Gregory R (2015) Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. *British Birds*, **108**: 708 - 746.

Joint Nature Conservation Committee (2010). *Handbook for Phase 1 habitat survey - a technique for environmental audit*. JNCC, Peterborough



# Appendix 1: Legislation and Planning Policy



# Appendix 1: Legislation and Planning Policy

A1.1. This section summarises the legislation and national, regional and local planning policies, as well as other reference documents, relevant to the baseline ecology results.

## Legislation

A1.2. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:

- The Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2018;
- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way Act 2000;
- The Natural Environment and Rural Communities Act 2006;
- The Hedgerows Regulations 1997; and
- The Protection of Badgers Act 1992.

A1.3. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2018 (as amended).

A1.4. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.

A1.5. The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.



# Planning Policy

## *National Planning Policy Framework*

- A1.6. The National Planning Policy Framework (NPPF) was updated in February 2019 and sets out the Government's planning policies for England and how these should be applied. It replaces the first National Planning Policy Framework published in March 2012.
- A1.7. Paragraph 11 states that:
- “Plans and decisions should apply a presumption in favour of sustainable development.”*
- A1.8. Section 15 of the NPPF (paragraphs 170 to 177) considers the conservation and enhancement of the natural environment.
- A1.9. Paragraph 170 states that planning and decisions should contribute to and enhance the natural and local environment by:
- a) *“protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
  - b) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and*
  - d) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”*
- A1.10. Paragraph 171 states that plans should distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.
- A1.11. Paragraph 174 states that in order to protect and enhance biodiversity and geodiversity, plans should:
- a) *“Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
  - b) *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”*
- A1.12. When determining planning applications, Paragraph 175 states that local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:
- a) *“if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
  - b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments),*



*should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*

- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons<sup>58</sup> and a suitable compensation strategy exists; and*
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”*

A1.13. As stated in paragraph 176 the following should be given the same protection as habitats sites:

- a) “potential Special Protection Areas and possible Special Areas of Conservation;*
- b) listed or proposed Ramsar sites; and*
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.”*

A1.14. Paragraph 177 states that the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site, unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

***Office of the Deputy Prime Minister (ODPM) Circular 06/2005: Biodiversity and Geological Conservation - Statutory Obligations and their Impact within the Planning System***

A1.15. ODPM Circular 06/05 was prepared to accompany PPS9, however continues to be valid, and material in the consideration of planning applications since PPS9's replacement by the NPPF.

A1.16. ODPM Circular 06/05 provides guidance on applying legislation in relation to nature conservation and planning in England. Part I considers the legal protection and conservation of internationally designated sites (namely candidate Special Areas of Conservation (cSACs), SACs, potential Special Protection Areas (pSPAs), SPAs and Ramsar sites) and Part II considers the legal protection and conservation of nationally designated sites, namely Sites of Special Scientific Interest (SSSIs).

A1.17. Part III considers the protection of habitats and species outside of designated areas (particularly UK Biodiversity Action Plan species and habitats, which it states are capable of being a material consideration in the preparation of local development documents and the making of planning decisions.

A1.18. Part IV considers species protected by law and states that the presence of a protected species is a material consideration in the consideration of a development proposal that, if carried out, would be likely to result in harm to the species or its habitat and that it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted.





## *Local Planning Policy*

### Warrington Proposed Submission Local Plan (2017 - 2037)

A1.19. A new draft local plan was submitted for consultation in March 2019. It contains the following draft policies which are relevant to ecology:

- Policy DC3 relates to the protection and enhancement of green infrastructure assets; and
- Policy DC4 relates to the protection and enhancement of designated sites, protected species and priority habitats.

### Warrington Borough Council Local Plan Core Strategy (adopted July 2014)

A1.20. The Warrington Borough Local Plan Core Strategy was consulted to identify relevant policies relating to ecology and nature conservation which may need to be considered in connection with a future planning application to be submitted for the site. They are summarised as follows:

- Policy QE3 relates to the protection and enhancement of green infrastructure; and
- Policy QE5 relates to the protection and enhancement of designated nature conservation sites.

### Supplementary Planning Documents

A1.21. Relevant supplementary planning document considerations are set out below:

#### Environmental Protection (May 2013)

A1.22. This SPD supports Policy QE6 Environment and Amenity Protection and details the Council's approach to dealing with environmental protection including light pollution. Development schemes which include street lighting proposals should adhere to the design principles set out in the SPD.

A1.23. The SPD states that "these conditions will be applied as necessary by the LPA to help reduce obtrusive light from new proposals, particularly glare and spillage, from areas of wildlife importance, open countryside and residential amenity."

#### Open Space and Recreation Provision (September 2007)

A1.24. This policy details a number of key objectives for open space within the borough including:

- to create opportunities for and enhance biodiversity.



## Biodiversity Action Plans

- A1.25. The UK Post-2010 Biodiversity Framework succeeded the UK BAP partnership in 2011 and covers the period 2011 to 2020. However, the lists of Priority Species and Habitats agreed under the UKBAP still form the basis of much biodiversity work in the UK. The current strategy for England is 'Biodiversity 2020: A Strategy for England's wildlife and ecosystem services' published under the UK Post-2010 UK Biodiversity Framework. Although the UK BAP has been succeeded, Species Action Plans (SAPs) developed for the UK BAP remain valuable resources for background information on priority species under the UK Post-2010 Biodiversity Framework.
- A1.26. Priority Species and Habitats identified under the UKBAP are also referred to as Species and Habitats of Principal Importance for the conservation of biodiversity in England and Wales within Sections 41 (England) and 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006. The commitment to preserving, restoring or enhancing biodiversity is further emphasised for England and Wales in Section 40 of the NERC Act 2006.

### *Local Biodiversity Action Plan*

- A1.27. The Cheshire Biodiversity species and habitat action plans are listed below and are available on the Biodiversity Action Reporting System (BARS) website and Cheshire Wildlife Trust website (<https://www.cheshirewildlifetrust.org.uk/biodiversity>). **Habitat Action Plans**



<p><b>Habitat Action Plans</b></p> <ul style="list-style-type: none"> <li>• Hedgerows</li> <li>• Woodland</li> <li>• Arable Field Margins</li> <li>• Coastal &amp; Floodplain Grazing Marsh</li> <li>• Coastal Sand Dune</li> <li>• Coastal Saltmarsh</li> <li>• Dry Stone Wall</li> <li>• Lowland Fen</li> <li>• Gardens &amp; Allotments</li> <li>• Heathland</li> <li>• Lime beds</li> <li>• Lowland Raised Bog</li> <li>• Wood-Pasture and Parkland</li> <li>• Meres</li> <li>• Intertidal Mudflats</li> <li>• Ponds</li> <li>• Reedbeds</li> <li>• Roadside Verges</li> <li>• Traditional Orchards</li> <li>• Unimproved Grassland</li> <li>• Waxcap Grasslands</li> </ul> <p><b>Species Action Plans</b></p> <p><b>Birds</b></p> <ul style="list-style-type: none"> <li>• Barn Owl <i>Tyto alba</i></li> <li>• Black Necked Grebe <i>Podiceps nigricollis</i></li> <li>• Farmland Birds</li> <li>• Spotted Flycatcher <i>Muscicapa striata</i></li> </ul> <p><b>Herptiles</b></p> <ul style="list-style-type: none"> <li>• Great Crested Newt <i>Triturus cristatus</i></li> <li>• Natterjack Toad <i>Epidalea calamita</i></li> <li>• Adder <i>Vipera berus</i></li> <li>• Slow-worm <i>Anguis fragilis</i></li> </ul> <p><b>Invertebrates</b></p> <ul style="list-style-type: none"> <li>• Bees and Wasps</li> <li>• Club Tailed Dragonfly <i>Gomphus vulgatissimus</i></li> <li>• Depressed River Mussel <i>Pseudanodonta complanata</i></li> <li>• Dingy Skipper <i>Erynnis tages</i></li> <li>• Downy Emerald <i>Cordulia aenea</i></li> </ul>	<ul style="list-style-type: none"> <li>• Lesser Silver Water Beetle <i>Hydrochara caraboides</i></li> <li>• Mud snail <i>Omphiscola glabra</i></li> <li>• Ringlet <i>Aphantopus hyperantus</i></li> <li>• Sandhill Rustic <i>Luperina nickerlii</i></li> <li>• Small Pearl-bordered fritillary <i>Boloria selene</i></li> <li>• Spotted Yellow/Black Leaf Beetle <i>Cryptocephalus decemmaculatus</i></li> <li>• Variable Damselfly <i>Coenagrion pulchellum</i></li> <li>• White-clawed Crayfish <i>Austropotamobius pallipes</i></li> <li>• White Letter Hairstreak <i>Satyrium w-album</i></li> </ul> <p><b>Mammals</b></p> <ul style="list-style-type: none"> <li>• Atlantic grey seal <i>Halichoerus grypus</i></li> <li>• Bats</li> <li>• Brown Hare <i>Lepus europaeus</i></li> <li>• Dormouse <i>Muscardinus avellanarius</i></li> <li>• Harvest Mouse <i>Micromys minutus</i></li> <li>• Otter <i>Lutra lutra</i></li> <li>• Polecat <i>Mustela putorius</i></li> <li>• Small Cetaceans</li> <li>• Water Vole <i>Arvicola amphibius</i></li> </ul> <p><b>Plants</b></p> <ul style="list-style-type: none"> <li>• Black poplar <i>Populus nigra</i> subsp. <i>betulifolia</i></li> <li>• Bluebell <i>Hyacinthoides non-scripta</i></li> <li>• Isle of Man Cabbage <i>Coincya monensis</i> ssp. <i>monensis</i></li> <li>• Ivy-leaved Water Crowfoot <i>Ranunculus hederaceus</i></li> <li>• Mackay's Horsetail <i>Equisetum x trachyodon</i></li> <li>• River Water Crowfoot <i>Ranunculus fluitans</i></li> <li>• <b>Rock Sea-lavender</b> <i>Limonium binervosum</i></li> </ul>
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# Appendix 2: Ecology Survey Planner



Land South of Chester Road, Walton, Warrington  
Preliminary Ecological Appraisal

10468\_R02a\_23<sup>rd</sup> April 2019\_LRD\_HB



# Ecology Survey Planner

Birmingham  
t. 0121 773 0770

Cotswolds  
t. 01285 831 804

Exeter  
t. 01392 447 588

Manchester  
t. 0161 236 8367

London  
t. 0207 620 2710

e. [info@tylergrange.co.uk](mailto:info@tylergrange.co.uk)  
w. [tylergrange.co.uk](http://tylergrange.co.uk)

<sup>1</sup> Internal building searches for evidence of bats can be undertaken at any time; winter is the best time for assessing trees for roosting potential, with further work to confirm potential undertaken in spring / summer.

<sup>2</sup> The timing of detailed flora surveys is dependent on the specific habitat type to be investigated. Lower plants should be surveyed in winter.

<sup>3</sup> Timing is dependent on target species/group.

<sup>4</sup> Surveys are required in both the early and late seasons.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Badgers	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal
Bats activity	Unreliable	Unreliable	Unreliable	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Optimal (Mating/Swarming)	Optimal	Sub-optimal	Unreliable
Bats <sup>1</sup> roost identification	Sub-optimal (Hibernation Roost)	Sub-optimal	Sub-optimal	Unreliable	Sub-optimal (Maternity Roosts)	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal
Birds breeding	Unreliable	Unreliable	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Unreliable
Birds winter	Sub-optimal	Sub-optimal	Sub-optimal	Unreliable	Unreliable	Unreliable	Unreliable	Unreliable	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal
Crayfish	Unreliable	Unreliable	Unreliable	Unreliable	Unreliable	Unreliable	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Unreliable
Dormouse	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal (Nest Tube Surveys)	Sub-optimal	Sub-optimal (Hazelnut Search)	Sub-optimal	Sub-optimal	Sub-optimal
Great Crested Newts breeding ponds	Unreliable	Unreliable	Unreliable	Sub-optimal (eDNA)	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Unreliable
Habitats / Detailed Flora <sup>2</sup>	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal
Hedgerows	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal
Otter	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal
Reptiles	Unreliable	Unreliable	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Unreliable
Terrestrial / Freshwater Invertebrates <sup>3</sup>	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal
Water Voles <sup>4</sup>	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal (Early Season)	Sub-optimal	Sub-optimal (Late Season)	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal	Sub-optimal

Surveys optimal
  Surveys sub-optimal
  Surveys cannot be undertaken / results unreliable

## **Appendix 3: List of Bird Species within 1km of the site as provided by RECORD**



## Appendix 3: List of Bird Species within 1km of the site as provided by RECORD

Scientific name	Common name	Designations
<i>Acanthis cabaret</i>	Lesser Redpoll	BoCC Red
<i>Acanthis flammea</i>	Common Redpoll	BoCC Amber
<i>Actitis hypoleucos</i>	Common Sandpiper	BoCC Amber
<i>Alauda arvensis</i>	Skylark	BoCC Red LBAP NERC S41
<i>Alcedo atthis</i>	Kingfisher	BoCC Amber WCA1
<i>Anas clypeata</i>	Shoveler	BoCC Amber
<i>Anas crecca</i>	Teal	BoCC Amber
<i>Anas penelope</i>	Wigeon	BoCC Amber
<i>Anas platyrhynchos</i>	Mallard	BoCC Amber
<i>Anas querquedula</i>	Garganey	BoCC Amber WCA1
<i>Anas strepera</i>	Gadwall	BoCC Amber
<i>Anser anser</i>	Greylag Goose	BoCC Amber WCA1
<i>Anthus spinoletta</i>	Water Pipit	BoCC Amber
<i>Apus apus</i>	Swift	BoCC Amber
<i>Aythya ferina</i>	Pochard	BoCC Amber
<i>Aythya marila</i>	Scaup	BoCC Red NERC S41 WCA1
<i>Botaurus stellaris</i>	Bittern	BoCC Amber NERC S41 WCA1
<i>Bucephala clangula</i>	Goldeneye	BoCC Amber WCA1
<i>Chroicocephalus ridibundus</i>	Black-headed Gull	BoCC Amber
<i>Circus aeruginosus</i>	Marsh Harrier	BoCC Amber
<i>Columba oenas</i>	Stock Dove	BoCC Amber
<i>Cuculus canorus</i>	Cuckoo	BoCC Red NERC S41





<i>Cygnus olor</i>	Mute Swan	BoCC Amber
<i>Delichon urbicum</i>	House Martin	BoCC Amber
<i>Dendrocopos minor</i>	Lesser Spotted Woodpecker	BoCC Red NERC S41
<i>Emberiza citrinella</i>	Yellowhammer	BoCC Red LBAP NERC S41
<i>Emberiza schoeniclus</i>	Reed Bunting	BoCC Amber LBAP NERC S41
<i>Falco peregrinus</i>	Peregrine	WCA1
<i>Falco subbuteo</i>	Hobby	WCA1
<i>Falco tinnunculus</i>	Kestrel	BoCC Amber
<i>Gallinago gallinago</i>	Snipe	BoCC Amber
<i>Haematopus ostralegus</i>	Oystercatcher	BoCC Amber
<i>Larus argentatus</i>	Herring Gull	BoCC Red
<i>Larus canus</i>	Common Gull	BoCC Amber
<i>Larus fuscus</i>	Lesser Black-backed Gull	BoCC Amber
<i>Limosa limosa</i>	Black-tailed Godwit	BoCC Red NERC S41 WCA1
<i>Linaria cannabina</i>	Linnet	BoCC Red
<i>Mergellus albellus</i>	Smew	BoCC Amber
<i>Motacilla cinerea</i>	Grey Wagtail	BoCC Red
<i>Motacilla flava</i>	Yellow Wagtail	BoCC Red NERC S41
<i>Passer domesticus</i>	House Sparrow	BoCC Red LBAP NERC S41
<i>Passer montanus</i>	Tree Sparrow	BoCC Red LBAP NERC S41
<i>Phylloscopus trochilus</i>	Willow Warbler	BoCC Amber
<i>Poecile montana</i>	Willow Tit	BoCC Red
<i>Prunella modularis</i>	Dunnock	BoCC Amber NERC S41
<i>Pyrrhula</i>	Bullfinch	BoCC Amber LBAP NERC S41
<i>Saxicola rubetra</i>	Whinchat	BoCC Amber
<i>Scolopax rusticola</i>	Woodcock	BoCC Red
<i>Strix aluco</i>	Tawny Owl	BoCC Amber



<i>Sturnus vulgaris</i>	Starling	BoCC Red LBAP NERC S41
<i>Tadorna tadorna</i>	Shelduck	BoCC Amber
<i>Tringa ochropus</i>	Green Sandpiper	BoCC Amber WCA1
<i>Tringa totanus</i>	Redshank	BoCC Amber
<i>Turdus iliacus</i>	Redwing	BoCC Red WCA1
<i>Turdus philomelos</i>	Song Thrush	BoCC Red LBAP
<i>Turdus pilaris</i>	Fieldfare	BoCC Red WCA1
<i>Turdus viscivorus</i>	Mistle Thrush	BoCC Red
<i>Tyto alba</i>	Barn Owl	LBAP WCA1
<i>Vanellus vanellus</i>	Lapwing	BoCC Red LBAP NERC S41



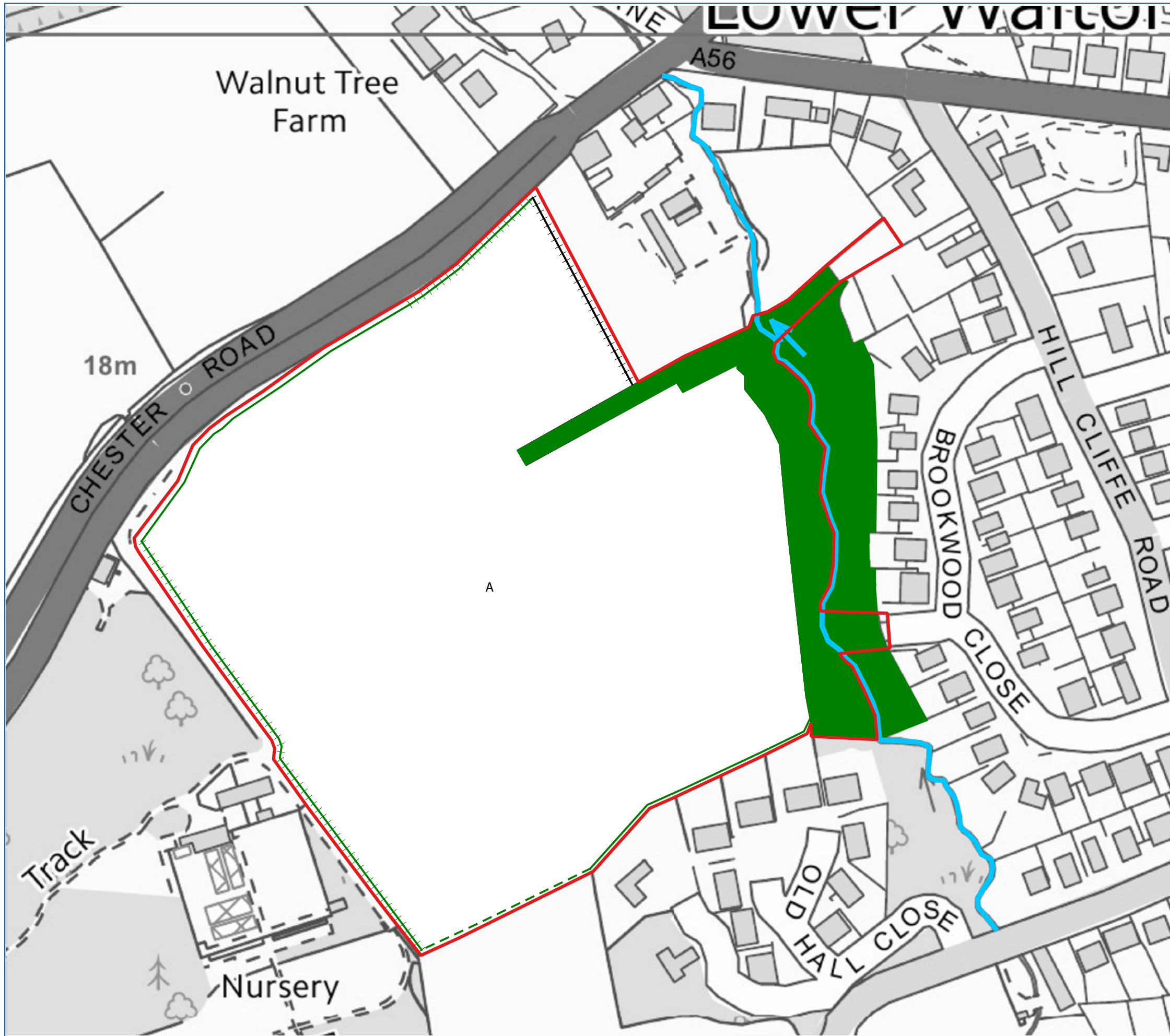
# Plan

Habitat Features Plan  
10468/P05 August 2016 HC/LD



Land South of Chester Road, Walton, Warrington  
Preliminary Ecological Appraisal

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- Site Boundary
- A Arable
- Broadleaved Woodland
- Fence
- Hedge and Tree Line
- Hedgerow - defunct
- Hedgerow - intact
- Watercourse



Project Land South of Chester Road, Walton

Drawing Title Habitat Features

Scale As Shown (Approximate)

Drawing No. 10468/P05

Date August 2016

Checked HC/LRD



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# Land South of Chester Road, Walton

## 10468\_R03b\_Arboricultural Appraisal

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### 1.0 Introduction

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- 1.1. This overview report has been prepared by Tyler Grange LLP (TG) on behalf of Ashall Property Ltd in response to desktop analysis and updated fieldwork undertaken in April 2019. This report sets out the findings of an Arboricultural Appraisal of a parcel of land to the south of Chester Road, Walton (centred on OS Grid Reference SJ 60311 85717), hereinafter referred to as the 'site'.
- 1.2. The work has been prepared to advise upon the feasibility of development of the above named site which has a draft allocation for housing development in the Warrington Proposed Submission Local Plan (2017 – 2037). The Local Plan is currently undergoing consultation.
- 1.3. This work does not constitute a full BS5837:2012 Tree Survey at this stage but establishes the principal distribution of trees on-site and their constraints towards development, chiefly; tree quality categorisations, tree shading and root protection areas. An appraisal of the likely acceptability of development proposals on the site in relation to trees is provided, with supporting recommendations and key arboricultural-related design considerations.
- 1.4. This document should be read in conjunction with the **Tree Constraints Plan (TCP) (10468/P06b)** and **Tree Survey Schedule (Appendix 1)** alongside the corresponding **Tree Survey Explanatory Notes (Appendix 2)** and **Cascade Chart for Tree Quality Assessment (Appendix 3)** contained to the rear of this report.

### 2.0 Site Context

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- 2.1. The site is located at the western edge of Lower Walton, a village in Warrington. Walton is at the southwestern edge of the town, next to Stockton Heath and lies approximately 2.5km from Warrington town centre.
- 2.2. The site covers 7.5ha and currently comprises a single arable field bound by hedgerows and scattered hedgerow trees to the northern and southern boundaries with woodland blocks present to the eastern and western boundaries.
- 2.3. The A56 Chester Road aligns the northern site boundary. The site also adjoins residential development to the north-east (Hall Gardens and Brookwood Close) with Warrington Sports Club, off Walton Lea Road, and further residential development (Old Hall Close) located beyond the southern site boundary. Residential properties (99 Chester Road and 1-3 Walton Lea Cottages) and the Walton Lea Project (a charity enterprise which includes a garden centre and farm shop) are located within woodland to the west of the site.

### 3.0 Methodology

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- 3.1. An arboricultural walkover was carried out on the 9th April 2019 to update and verify baseline tree survey data originally collected during 2016. The survey included trees measuring above

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75mm in diameter at breast height (dbh) within or within influence of the site. The distribution of trees surveyed is illustrated on the **Tree Constraints Plan (TCP) (10468/P06b)**.

- 3.2. The survey included gathering key tree data to determine the principal context of tree cover across the site boundaries, including; a review of tree quality and condition, principal stem dbh, tree heights and their distribution across the site. The survey did not constitute a full BS5837:2012 tree survey. However, the guidance set out within BS5837:2012 was used to guide the aspects of tree data collected during the site visit.
- 3.3. In accordance with arboricultural best practice, topographical survey data was used to inform the tree survey. Aerial photography and OS Mapping was used to approximately identify the locations and canopy spreads of off-site trees; which is considered sufficient in illustrating the principal structure of the adjacent tree cover, particularly where trees occur in groups which is frequently the case for this site. Measurements were taken using a stem diameter tape and a digital clinometer app. Where this was not possible or reasonably practical, measurements have been estimated by eye.
- 3.4. The quality and value of trees has been assessed in accordance with the Cascade Chart for Tree Quality Assessment included within BS5837:2012. Grading subcategories (1, 2 and 3) included within the **Cascade Chart for Tree Quality Assessment (Appendix 3)** are intended to reflect arboricultural, landscape and cultural values respectively.
- 3.5. The BS5837 Tree Survey Categories can be summarised as:
  - **Category Grading A:** Trees of high quality and value, which are in such a condition as to be able to make a substantial contribution from an arboricultural, landscape or cultural perspective;
  - **Category Grading B:** Trees of moderate quality and value, which are in such a condition as to make a significant contribution from an arboricultural, landscape or cultural perspective;
  - **Category Grading C:** Trees of low quality and value, which are currently in adequate condition to remain until new planting could be established or young trees with a stem diameter below 150mm; and
  - **Category Grading U:** Trees which are in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management.

#### **4.0 Arboricultural Planning Policy and Statutory Designations**

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- 4.1 Under the Town and Country Planning Act 1990 (as amended) the requirement to consider trees as part of development is a material planning consideration and will be taken into account in the determination of planning applications. Arboricultural planning policy that relates to the Site are set out by policy at a National and local level.

##### *National Planning Policy*

- 4.2 The National Planning Policy Framework (NPPF) is a material consideration in planning decisions and outlines the Government's planning policies for England, setting out how these are expected to be applied. The consideration for existing trees and woodlands in the context of planning and new development is set out within Section 15 'Conservation and Enhancing the Natural Environment'.



- 4.3 Paragraph 170 provides a series of prerequisites to inform how planning policies and decisions should contribute to and enhance the natural and local environment. This includes *“protecting and enhancing valued landscapes”* and *“recognising the intrinsic character and beauty of the countryside”*. *The value of ecosystem services is also noted, including the “economic and other benefits of the best and most versatile agricultural land, and of trees and woodland”*.
- 4.4 Paragraph 170 also recognises the consideration for *“minimising impacts on and providing net gains for biodiversity”*. *This includes the need to establish cohesive ecological networks that are “more resilient to current and future pressures”*.
- 4.5 Paragraph 171 addresses the need to take a *“strategic approach to maintaining and enhancing networks of habitats and green infrastructure”* adding that plans should be made for the *“enhancement of natural capital at the catchment or landscape scale across local authority boundaries”*.
- 4.6 Paragraph 174 includes ways in which biodiversity should be protected and enhanced, such as plans that *“identify, map and safeguard components of local wildlife-rich habitats”,* as well as *“wildlife corridors and stepping stones that connect them”*.
- 4.7 Paragraph 175 highlights a series of principles that local planning authorities should apply when determining planning applications, stating that *“if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused”*.
- 4.8 Paragraph 175 also adds that *“development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensatory strategy exists”*.
- 4.9 At a national level, the consideration for trees is recognised in the context of their contribution green infrastructure and biodiversity networks, and also in terms of their contribution in landscape terms to the local setting and character to a place. Great weight is also applied to the importance of conserving existing aged trees, including ancient woodland and trees considered to be ‘veterans’.

#### *Local Planning Policy*

#### **Warrington Proposed Local Plan (2017-2037)**

- 4.10 A new draft local plan was submitted for consultation in March 2019 which contains the following draft policies relating to trees and woodland:
- DC3-Green Infrastructure
  - DC4-Ecological Network
- 4.11 Should the draft local plan currently submitted for consultation be adopted the following policies contained with The Warrington Local Plan Core Strategy, adopted by the council on 21 July 2014 will be superseded.
- Policy CS1 – Overall Spatial Strategy - Delivering Sustainable Development**
- 4.12 The policy includes requirements for development to make the best use of existing *“environmental infrastructure”* and to *“ensure additional provision where needed to support development”*. The policy also states the need to *“sustain and enhance the borough’s built heritage, biodiversity and geodiversity”*.



### **Policy CS6 – Overall Spatial Strategy - Strategic Green Links**

- 4.13 The policy relates to Green Infrastructure and states that the Council *“is committed to supporting wider programmes and initiatives which seek to connect the borough’s Strategic Green Links with employment areas, residential communities, and Green Infrastructure Assets”*.

### **Policy QE3 – Green Infrastructure**

- 4.14 The policy states that:

*“The Council will work with partners to develop and adopt an integrated approach to the provision, care and management of the borough’s Green Infrastructure. Joint working and the assessment of applications will be focussed on:*

- *Protecting existing provision and the functions this performs;*
- *Increasing the functionality of existing and planned provision especially where this helps to mitigate the causes of and addresses the impacts of climate change;*
- *Improving the quality of existing provision, including local networks and corridors, specifically to increase its attractiveness as a sport, leisure and recreation opportunity and its value as a habitat for biodiversity;*
- *Protecting and improving access to and connectivity between existing and planned provision to develop a continuous right of way and greenway network and integrated ecological system;*
- *Securing new provision in order to cater for anticipated increases in demand arising from development particularly in areas where there are existing deficiencies assessed against standards set by the Council.*

### **Design and Construction (October 2010, amended February 2016)**

- 4.15 This document provides advice and guidance to developers about aspects of the design and construction process, including urban design matters associated with Green Infrastructure such as shadowing, character and amenity.
- 4.16 Addressing the ‘Landscaping and the Natural Environment’ the document states that *“The retention, protection and extension of areas of wildlife habitat will help conserve and enhance biological diversity and the richness of the natural environment. Good quality landscaping also helps make a development attractive and maintain its desirability and use”*, adding that *“Existing attractive or valuable natural features must be retained and protected on a site and be the starting point for the development of building design and landscaping proposals. These could include trees, hedges, ponds or streams. They may be valuable because of their visual amenity or their wildlife or biodiversity value”*.
- 4.17 The document states that *“Design solutions should protect and, where appropriate, enhance existing landscape features by incorporating the features into the development layout and ensuring that new tree planting mirrors the locally native species. Where the development results in the loss of existing features such as trees, hedgerows or ponds, replacement planting or pond construction will be required to maintain the character of the locality and enhance the visual quality of the new development and its local setting”*.
- 4.18 Section 10 of the SPD document addresses the ‘Protection of Trees on Development Sites’ stating that *“Trees and woodland are of vital importance to people especially in urban areas.*





*They provide a host of benefits including cleaner air, shade and shelter, and an attractive environment, reducing noise and improving people's sense of well-being. Trees may be of important ecological value. It is important not only to maintain a sustainable tree population by planting new trees but also to protect existing trees. With proper consideration from the outset the protection and retention of existing trees can enhance a new development and make it more attractive to a potential purchaser”.*

### **Statutory Designations relating to Arboriculture**

- 4.19 As shown on the Warrington Borough Council online mapping tool, the northern section of W1 is protected by Tree Preservation Order (TPO) “*Walton New Road/Walton Old Hall - TPO No. 13 ref. A1*”. The central section of the eastern boundary W1 woodland is protected by “*Hillcliffe Road, Walton - TPO No. 9 ref. W1*”.
- 4.20 Off-site trees towards the south eastern boundary, incorporating G5, are protected by “*Walton New Road/Walton Old Hall - TPO No. 13 ref. A3*”.
- 4.21 A TPO is a written order made by a local planning authority (e.g. a borough, district or unitary council or a national park authority) which, in general, makes it an offence to cut down, top, lop, uproot, wilfully damage or wilfully destroy a tree protected by that order without the authority's permission. If you deliberately destroy a protected tree, or damage it in a manner likely to destroy it, you could be liable to an unlimited fine. Consent to undertake works to protected trees is not required where the work is in relation to proposed development that has been granted full / detailed planning permission.
- 4.22 As shown at [www.magic.defra.gov.uk](http://www.magic.defra.gov.uk) the eastern boundary woodland (W1) and the woodland adjacent to the western boundary is identified as Deciduous Woodland within the National Woodland Inventory 2014.
- 4.23 There are no identified Ancient Woodlands within or adjoining the site.
- 4.24 The site is not located within a Conservation Area, as illustrated on the Warrington Borough Council online mapping tool.

## **5.0 Arboricultural Appraisal Summary / Design Considerations**

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- 5.1. A total of 11no. individual trees, 6no. groups of trees, 4no. hedgerows and a woodland were identified during the site walkover. The tree cover addressed within this appraisal is illustrated on the **TCP (10468/P06b)** and listed individually within the **Tree Survey Schedule (Appendix 1)** contained to the rear of this report.
- 5.2. Tree cover on-site comprises a mix of roadside planting across the northern site boundary, inclusive of Sycamore (*Acer pseudoplatanus 'Leopoldii'* – T1, T3, T7, T9), Lime (*Tilia sp.* – T2, T5, T6, T8), Elm (*Ulmus sp.* – T4), Turkey Oak (*Quercus cerris* – T10, G1), Scots Pine (*Pinus sylvestris* - G1). Hedgerows (H1 and H2) are present providing understorey vegetation and low level screening along Chester Road. Northern boundary tree stock forms a variegated canopy layer with past pruning works evident.
- 5.3. With the site occupying an arable field, the surrounding tree stock has generally been left to naturalise with the onset of low level scrub and self-seeded infill and has not been subject to regular close inspection or management other than on-going flail cutting works across the site-



side boundaries (commonly found within agricultural tree management strategies) where field margins have been maintained to reduce tractor strike.

- 5.4. The western site boundary is intermittently treed with stands of young to mature Sycamore, Turkey Oak (G3) interspersed with Juniper (*Juniperus communis*), Ash (*Fraxinus excelsior*), Sweet Chestnut (*Castanea sativa*), Purple Plum (*Prunus cerasifera*), Privet (*Ligustrum sp.*) and Sycamore (*Acer pseudoplatanus*) (G4) forming a diverse mix of ornamental planting and a good visual screen. The tree cover along the western boundary falls offsite, with trees being located just west of the sites perimeter fence. The future growth and current shading implications associated with the western boundary tree stock will need to be considered as part of the emerging design process.
- 5.5. Southern boundary hedgerows, incorporating a mix of Hawthorn (*Crataegus monogyna*), Pin Oak (*Quercus palustris*), Hazel (*Corylus avellana*), Beech (*Fagus sylvatica*), Leyland Cypress (*Cupressus × leylandii*), Sycamore and Privet (H3 and H4) provide low level screening that would benefit from future re-stocking and enhancement. H4 has been more actively managed as a residential screen, and H3 is represents a defunct hedgerow of minimal arboricultural value. G5 (Lime) represents a notable design consideration given the predicted shading constraints in relation to the south eastern reaches of the site. As sizeable high-canopy mature specimens with dimensions of 20m in height, an appropriate development offset will need to be sought to address future adverse residential amenity impacts.
- 5.6. Eastern site boundary tree stock represents a dense belt of woodland (W1) with good screening value. Flail damage is noted across the lower site-side canopies with the remaining woodland having been left to naturalise with predominantly self-seeded Sycamore. The boundary treatments in relation to the adjoining woodland will need to consider the potential impacts of unregulated garden waste tipping and pruning / damage by residents. Buffers would allow the development of a varied woodland edge and may reduce disturbance effects from members of the public and future site occupants, including noise and light spill from on-site development. A woodland buffer in the form of a fenced / gated maintenance strip or similar, with no public access would be appropriate if gardens are to abut the eastern site boundary.
- 5.7. A tree line of predominantly Common Lime extends into site from the edge of W1. This feature is not considered to be a natural extension of W1 but more a planted tree line of ornamental purposes. This feature should be incorporated into an emerging scheme through sufficient development off-sets from the canopies and RPAs. The design should avoid incorporating trees within G6 into residential gardens and consider the shade cast by the group. This should be achieved by integrating the group as an arboricultural feature within open space.
- 5.8. Except for a dead Horse Chestnut tree established within G6, the majority of trees were found to be in a fair to good physiological and structural condition. No major health issues were noted, besides the presence of flail-wounds and minor deadwood in place. This is likely to be age related and owing to the largely naturalised form and arable-fringe context of much of the tree stock.
- 5.9. There was a broad mix of ages across the surveyed tree stock. It should be noted that many of the mature trees will be in the final third of their life span and should be incorporated with new tree planting to provide a continued tree presence as part of longer term management and development proposals for the site.
- 5.10. Much of the boundary stock was found to be of moderate quality and value (Category B) largely consisting of broad mixed belts of established mature trees, containing several visually



prominent specimens. Such trees are also considered to have a greater collective landscape value, given their importance in the locality due to their urban greening value, notably their contribution to the visual experience of the adjacent street scenes, and the visual containment they afford to adjacent dwellings.

- 5.11. W1 along the eastern site boundary represents a high quality woodland resource, classified as a collective Category A tree group.

## 6.0 Tree Quality and Value in Design

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- 6.1. The purpose of categorising surveyed trees based on their arboricultural quality and value is to ensure that potential development proposals have considered the presence of important trees on site, and informed decisions are made concerning the removal or retention of trees as a result of development, in conformity with BS5837:2012.
- 6.2. Category A trees represent significant arboricultural features and should be regarded as particularly important trees that are desirable to retain within a completed development; they subsequently represent a major constraint towards potential development. Category A trees are denoted by a Green tree canopy outline as illustrated on the **TCP (10468/P06b)** located to the rear of this report. W1 (protected by TPOs “*Walton New Road/Walton Old Hall - TPO No. 13 ref. A1*” and “*Hillcliffe Road, Walton - TPO No. 9 ref. W1*”) represents a collective Category A tree group.
- 6.3. Category B trees signify those that provide moderate arboricultural quality and value to the site. This level of classification has been frequently assigned to trees which attract a higher collective rating than they might as individuals, particularly in terms of their visual prominence where contributing to continuation of mature tree belts. Category B trees are denoted by a Blue tree canopy outline as illustrated on the **TCP (10468/P06b)** and include T1, T2, T5, T6, T7, T8, T9, T11, G4, G5 and G6.
- 6.4. The integration of Category C trees into the emerging design is recognised as important where practical as they contribute to the overall tree cover within the site vicinity and will assist with the assimilation of new development. Nonetheless they are of less priority for retention, particularly where their removal benefits to the retention of higher quality tree cover. All remaining trees surveyed (T3, T4, T10, G1, G2, G3, H1, H2, H3 and H4) are considered to represent poor examples of the species that are readily replaceable. Category C trees are denoted by a Grey tree canopy outline as illustrated on the **TCP (10468/P06b)** located to the rear of this report.

## 7.0 Root Protection Area Constraints

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- 7.1. The **TCP (10468/P06b)** contained to the rear of this report shows the approximate extent of Root Protection Areas (RPAs). The RPAs have been calculated in accordance with the methodology set out within Appendices C and D of BS5837:2012, using the stem diameter dimensions obtained during the site visit.
- 7.2. The RPAs are considered to contain sufficient rooting volume to ensure the survival of the tree and should be left undisturbed in order to avoid damage to the roots or rooting environment surrounding the tree. Particular care is needed regarding the proximity of trees which may become enclosed within new development, or are disturbed by unsuitable working methods or proximity during the construction phase of a development.

- 7.3. Whilst the locations of RPAs must be respected, and development or excavations avoided wherever within them, regulated minor works can be undertaken within the root protection area in some cases, but this must be carried out carefully by hand, avoiding damage to roots. Appropriate protective measures should be implemented to avoid desiccation and undue disturbance of roots if a tree is to be retained. Any sudden and major alteration of the soil or surface conditions within RPAs will lead to progressive shoot and branch dieback until the roots have adapted to the altered conditions and have been able to source sufficient water and oxygen levels. If damage is progressive or so severe that the tree is unable to adapt then it is likely that the tree will ultimately die. It should be noted that in general, with increased maturity of a specimen, the ability of that tree to adapt to dramatic alterations in relation to its root system is lessened.
- 7.4. Any future design for development should be informed by the RPAs of the surveyed trees.

## 8.0 Tree Canopies and Shading Constraints

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- 8.1. The distribution of tree canopy cover within and in influence of the site is illustrated on the **TCP (10468/P06b)** located at the rear of this report. Canopies have been plotted using a combination of site observations, the supplied topographic survey data and aerial photography. Similarly to plotted RPAs, a full BS5837:2012 will be required to obtain a fully accurate representation of the sites tree canopy cover.
- 8.2. Tree canopies represent a physical constraint to development, as siting proposed buildings within these areas will result in pruning works or tree removal. It is recommended that potential developments parameters respond to the extent of tree canopies encroaching into the fields.
- 8.3. Where it is unavoidable to assemble proposed structures in close proximity to canopies, an allowance for future growth should be considered. This is heavily dependent on the sites existing context and species attributes, which should be addressed during refinement of a new scheme.
- 8.4. BS5837:2012 states that, "*An indication of potential direct obstruction of sunlight can be illustrated by plotting a segment, with a radius from the centre of the stem equal to the height of the tree, drawn from due north-west to due east, indicating the shadow pattern through the main part of the day*" (BS5837:2012 para. 5.2.2 – NOTE 1).
- 8.5. The principal tree shadow constraints are shown on the **TCP**. This signifies the area within which the amenity interests of shading, available daylight and the proximity of trees for any future site uses may be impacted upon should a tree be retained as part of a scheme.
- 8.6. As well as the potential adverse impacts of shadowing, such impacts should also be reviewed on balance with the positive aspects of retaining a degree of canopy shade. BS5837:2012 (para. 5.3.4, a) NOTE 1) states that "*shading can be desirable to reduce glare or excessive solar heating, or to provide comfort during hot weather. The combination of shading, wind speed/turbulence reduction and evapo-transpiration effects of trees can be utilised in conjunction with the design of buildings and spaces to provide local microclimatic benefits*".
- 8.7. Where the proposed use or future function of a site is dependent on a need to avoid or retain a degree of shading, the plotted tree canopy shadow areas shown on the **TCP** should be utilised to inform the scheme parameters.



- 8.8. It is also advised that any residential aspects of development ensures that habitable rooms and garden spaces are located outside of the tree canopy shadow where possible. Excessive tree shading can cause a negative relationship between trees and new residential occupants, resulting in future pressure for tree removal. Existing trees should also be excluded from proposed private gardens.

## **9.0 Recommendations and Development Opportunities**

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- 9.1. The principal design recommendations to consider can be summarised as:

- Prioritise the retention of Category A and Category B tree cover;
- Suitable development offsets in accordance with Root Protection Areas (RPAs);
- On-site habitable rooms and garden areas to avoid plotted shadowing constraints to reduce future tree resentment issues / adverse residential amenity impacts;
- Ensure appropriate boundary treatments in relation to the W1 woodland edge, utilising management strips to safeguard against adverse residential impacts; and
- Avoid locating retained trees within proposed residential gardens, utilise strips of public open space to act as ownership barriers.

- 9.2. Opportunities to consider should a scheme be prepared include:

- Utilise the existing tree cover to create a scheme that offers a high quality landscape setting with instant maturity and enhanced assimilation;
- Establish a soft-landscaping / tree planting scheme that mitigates the impact of any tree losses;
- Management of scrub, Ivy and brambles in accordance with ecological requirements;
- Gapping up of defunct hedgerows / strengthening of weaker tracts of site boundary stock with native hedgerows planted to ensure development of a diverse native hedgerow species mix; and
- Enhance the physiological and structural condition of the mature tree stock through tree management recommendations identified following full BS5837:2012 tree survey, including the removal of any hanging branches, thin standing or unsafe / poorly attached deadwood, remedial target pruning of weighty leaders within canopies overhanging proposed vehicle and pedestrian routes and lifting or reduction of crowns where needed to avoid future vehicular strike. Selected retention as hibernaculum / habitat features where appropriate and works undertaken in accordance with TPO restrictions in relation to W1 and G5.

## **11.0 Future Work Requirements to Accompany a Planning Application**

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- 11.1. If a full / detailed planning application is to be submitted then an Arboricultural Impact Assessment (AIA), Tree Protection Plan and corresponding Arboricultural Method Statement (AMS) would need to be prepared to inform the design process and establish a robust tree protection strategy. Such work will ensure that trees of merit can be safeguarded during the construction phase of the development. This work should be based on a full tree survey, undertaken in accordance with BS5837:2012 using measured topographic survey data of the entire site.
- 11.2. It is our professional opinion that the provision of well-considered development parameters that propose the enhancement of the existing arboricultural baseline via management, re-planting



and appropriate development offsets could lead to beneficial effects with regard to arboricultural matters.

- 11.3. It is expected that a residential scheme on-site would lead to a net-gain in tree cover via the provision of new street trees, incidental landscaping, site boundary planting and residential garden spaces. New site-wide green infrastructure can serve to not only enhance existing features but also to create new habitats, filter views and break up the overall development. The effects of localised tree loss and the full impact of scheme proposals will however depend upon the detailed design approach and the delivery of a layout that addresses site access, the drainage regime, detailed planting proposals, the alignment of built form in relation to surveyed tree stock and a consideration of microclimatic effects in detail.

## 12.0 Limitations

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- 12.1. The contents of this report are valid at the time of writing. Tyler Grange shall not be liable for any use of this report other than for the purposes for which it was produced. Owing to the dynamic nature of ecological, landscape, and arboricultural resources, if more than twelve months have elapsed since the date of this report, further advice must be taken before you rely on the contents of this report. Notwithstanding any provision of the Tyler Grange LLP Terms & Conditions, Tyler Grange LLP shall not be liable for any losses (howsoever incurred) arising incurred as a result of reliance by the client or any third party on this report more than twelve months after the date of this report.
- 12.2. The comments made are based on observable factors present at the time of inspection and are based on maximising the trees' safe life expectancy given their existing context. Although the health and stability of trees in their current context is an integral part of their suitability for retention, it must be stressed that this report is not a tree risk assessment and should not be construed as such. While every attempt has been made to provide a realistic and accurate assessment of the trees' condition at the time of inspection, it may have not been appropriate, or possible, to view all parts or all sides of every tree to fulfil the assessment criteria of a risk assessment.
- 12.3. The Wildlife and Countryside Act (WCA) 1981 (as amended) makes it an offence to disturb nesting birds or recklessly endanger a bat or its roost. Bats are also a European protected species and are additionally protected under the Conservation (Habitats & c) Regulations 1994 and 2010 (as amended).
- 12.4. Any arboricultural recommendations are proposed on the basis that they are advised and undertaken by a qualified arboricultural contractor working in accordance with best practice as, for instance, embodied in BS3998: 2010 Recommendations for Tree Work, or in the European Tree Pruning Guide, published in 2001 by the Arboricultural Association and who must be listed in the Arboricultural Association's Approved Contractors Directory ([www.trees.org.uk](http://www.trees.org.uk)) following the completion of a full BS5837:2012 Tree Quality Survey.

## 13.0 Appendices

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Appendix 1: Tree Survey Schedule

Appendix 2: Tree Survey Explanatory Notes

Appendix 3: Cascade Chart for Tree Quality Assessment



## 14.0 Plan

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### Tree Constraints Plan (TCP) (10468/P06b)

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## Appendix 1: Tree Survey Schedule





## Appendix 2: Tree Survey Explanatory Notes



## Appendix 2: Tree Survey Explanatory Notes

### Tree Numbers

'T' prefixes have been used to identify individual trees and commence with 'T1'.

'G' prefixes have been used to identify groups of trees.

### Species

Species are listed by their common name, both in the schedule and in the report text.

### Height and Stem Diameter

The stem diameter of single stemmed trees is measured at 1.5m above ground level and given in millimetres (mm). The diameter measurement of multi-stemmed trees is taken immediately above the root flare. Tree heights are measured in metres (m).

### Crown Spread and Height of Crown Clearance

Radial crown spread is measured in metres and is listed for each of the four cardinal points. The canopy shape for individually surveyed trees depicted on the accompanying plans accurately represents the canopy spread as measured on-site.

The height crown clearance is measured above ground in metres from the attachment point of the first significant branch, or the height to which the lowest (living) branch reaches; whichever is the lower.

### Age Class

The age of each tree is defined as follows:

**Young** - within the first third of life expectancy;

**Young-Mature** - within the second third of life expectancy;

**Mature** - within the last third of life expectancy;

**Over mature** - Tree in decline; and

**Veteran** – tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned. For the purpose of this report the term 'ancient tree' and 'veteran tree' are interchangeable.

### Physiological and Structural Condition

The physiological or structural condition of each tree is defined as either; good, fair, poor or dead. For each tree, where appropriate, notes on the structural integrity are provided on form, taper, forking habit, storm damage, decay, fungi, pests, etc.

An assessment of a tree's physiological condition is defined as:

**Good** – fully functioning biological system showing expectant vitality for the species i.e. normal bud growth, leaf size, crown density and wound closure.

**Fair** – fully functioning biological system showing below average vitality i.e. reduced bud growth, smaller leaf size, lower crown density and reduced wound closure

**Poor** – a biological system with limited functionality showing clear physiological decline, disease or significantly below average vitality i.e. limited bud growth, small and chlorotic leaves, low crown density and limited wound closure.

An assessment of a tree's structural condition is defined as:

**Good** – no significant structural defects.

**Fair** – structural defects which could be alleviated through remedial tree surgery or arboricultural management practices



**Poor** – structural defects which cannot be alleviated through tree surgery or arboricultural management practices.

### **Estimated Remaining Contribution (ERC) in Years**

The Estimated Remaining Contribution (ERC) for each tree is based on species and existing and apparent physiological and structural condition of the tree. The ERC may affect the proposed development layout, since the longer the tree is likely to live the greater the contribution it will make and the greater the need for retention.

**<10** - Unsuitable for retention

**10 - 20** - Can be retained in the short term

**20 – 40** - Will continue to offer benefits for the foreseeable future

**40+** - Good longevity potential



## Appendix 3: Cascade Chart for Tree Quality Assessment



### Appendix 3: Cascade Chart for Tree Quality Assessment

TREES FOR REMOVAL				
Category and Definition	Criteria			Identification on Plan
<b>Category U</b> Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<ul style="list-style-type: none"> <li>Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning).</li> <li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.</li> <li>Trees infected with pathogens of significance to the health and/or safety of other trees nearby or very low quality trees suppressing adjacent trees of better quality.</li> </ul> <p>(NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve)</p>			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and Definition	Criteria - Subcategories			Identification on Plan
	1. Mainly Arboricultural Values	2. Mainly Landscape Values	3. Mainly Cultural Values, including Conservation	
<b>Category A</b> <b>Trees of high quality</b> with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	LIGHT GREEN
<b>Category B</b> <b>Trees of moderate quality</b> with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remedial defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural benefits.	MID BLUE



<p><b>Category C</b> <b>Trees of low quality</b> with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm</p>	<p>Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.</p>	<p>Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or temporary/transient landscape benefit.</p>	<p>Trees with no material conservation or other cultural value.</p>	<p>GREY</p>
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**Plan: Tree Constraints Plan (TCP) (10468/P06b)**

# Chester Road, Walton

## Flood Risk Assessment and Drainage Strategy

June 2019





**DOCUMENT VERIFICATION RECORD**

<b>CLIENT:</b>	Ashall Property Ltd.
<b>SCHEME:</b>	Proposed residential development at land south of Chester Road, Walton, Warrington – Flood Risk Assessment and Drainage Strategy.
<b>INSTRUCTION:</b>	The instruction to carry out this Flood Risk Assessment and Drainage Strategy was received from Scott Ashall of Ashall Property Ltd.

**DOCUMENT REVIEW & APPROVAL**

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## Introduction

Waterco Consultants have been commissioned to undertake a Flood Risk Assessment (FRA) and Drainage Strategy to support a promotion document for potential residential development at land south of Chester Road, Walton, Warrington, WA4 6EN.

The purpose of this report is to outline the potential flood risk to the site and establish any potential flood risk or drainage constraints to the development. This report has been prepared in accordance with National Planning Policy Framework (February 2019) and the associated National Planning Practice Guidance (NPPG): Flood risk and coastal change.

This report also includes a Drainage Strategy. The aim of the Drainage Strategy is to identify surface water discharge options, required discharge rates and water management measures to provide attenuation storage and treatment.

This report has been prepared in consultation with Warrington Borough Council as the Lead local Flood Authority (LLFA), the Environment Agency (EA) and United Utilities (UU).

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## Existing Conditions

The 7.7 hectare (ha) development site is located at National Grid Reference: 360312, 385736. A location plan and an aerial image are included in Appendix A.

The site comprises undeveloped agricultural land with woodland forming the eastern extent. The site is bordered by Chester Road (A56) to the north with agricultural land, residential properties and the Manchester Ship Canal beyond. The eastern boundary of the site is formed by an unnamed watercourse with a residential conurbation beyond. Further residential properties and agricultural fields are to the south with a charity building and woodland to the west of the site.

Access is provided from Chester Road to the north.

### Local Topography

Existing topographic levels have been derived from a 2m resolution EA composite 'Light Detecting and Ranging' (LiDAR) Digital Terrain Model (DTM). An extract of the LiDAR data is included in Appendix B. The site slopes from west to east with levels varying from a high of approximately 28 metres Above Ordnance Datum (m AOD) in the west to 12m AOD in the east, adjacent to the unnamed watercourse.

### Ground Conditions

Reference to the British Geological Survey online mapping (1:50,000 scale) indicates that the site is underlain by superficial deposits comprising of the Shirdley Hill Sand Formation and Tidal Flat Deposits (Clay, Silt and Sand). This is shown to be underlain by bedrock deposits consisting of the Wilmslow Sandstone Formation (Sandstone).

According to the EA's Groundwater Vulnerability dataset, accessed via Magic's online mapping application, the superficial Shirdley Hill Sand Formation and Tidal Flat Deposits are classified as a Secondary (undifferentiated) aquifer. These are layers which have previously been classed as minor aquifers and non-aquifers due to the variable characteristics of the rock type. The Wilmslow Sandstone Formation bedrock is classified as a Primary aquifer. These are permeable layers capable of supporting water supplies at a local rather than strategic scale and in some cases form an important source of base flow to rivers.

The EA's online groundwater Source Protection Zone data, accessed via Magic's online mapping application, indicates that the site is located partially within the outer zone (Zone 2) and total catchment (Zone 3) of a groundwater Source Protection Zone.

The Cranfield University 'Soilscapes' map indicates that the site is underlain by 'naturally wet very acid sandy and loamy soils'.

### Local Drainage

Public sewer records have been obtained from United Utilities and are included in Appendix C. The sewer plans identify a 150mm public surface water sewer in Chester Road, north of the site. There is a 150mm public combined sewer in Hall Gardens north-east of the site. There is also a 225mm public surface water sewer, a 225mm private surface water sewer and a 150mm and 225mm private combined sewer in Brookwood Close east of the site. All of the local surface water sewers adjacent to

the site are shown to flow toward and discharge to the unnamed watercourse which forms the eastern boundary of the site.

It is assumed that surface water is currently infiltrating to the ground and there is no formal drainage system serving the site.

## Development Proposals

At this stage no development plans are available. This FRA and Drainage Strategy will identify any potential constraints and associated mitigation measures to inform the future site layout. The current promotion of the site is for a residential development of up to 220 dwellings.

## Planning Policy

The Warrington Local Plan Core Strategy was adopted in July 2014. The following policy extracts relate to flood risk and drainage;

### ***'Policy QE 4 - Flood Risk***

*The Council will only support development proposals where the risk of flooding has been fully assessed and justified by an agreed Flood Risk Assessment.*

*A site specific Flood Risk Assessment is required for:*

- *Proposals of 1 hectare or greater in Flood Zone 1 and Critical Drainage Areas as defined by the SFRA and*
- *all proposals for new development in Flood Risk Zones 2 and 3, and*
- *proposed minor development or change of use in Flood Risk Zones 2 and 3 where a more vulnerable use may be susceptible to other sources of flooding.*

*The Flood Risk Assessment should also address, if required, the sequential and exceptions tests as set out in National Planning Policy.*

*Where the sequential and exception tests are satisfied, the Council will require development proposals to:*

- *provide safe and clear access and egress routes in the event of a flood;*
- *manage surface water run-off to ensure that flood risk is not increased and that a reduction of at least 30% will be sought on previously developed land, rising to a minimum of 50% in Critical Drainage Areas or in areas susceptible to intermediate or high risk surface water flooding;*
- *use Sustainable Drainage Systems that incorporate natural drainage, rather than using traditional piped systems in new developments unless it can be demonstrated that such techniques are impractical or would present an unacceptable pollution risk;*
- *provide compensatory storage where development is proposed in undefended areas of the floodplain;*
- *ensure that the layout and design of a site is considered to provide the opportunity to provide flood resilience measures and reduce flood risk within the development;*
- *apply a sequential approach at a site level to minimise risk by directing the most vulnerable development to areas of lowest risk;*
- *avoid the use of culverting and building over watercourses and where practical to re-open existing culverts;*
- *ensure that appropriate mitigation is included within the design of the development to make it safe for the future users of the site without adversely affecting others;*
- *ensure that developers have considered the impacts of climate change to ensure that the future users of the development are not put at additional danger of flooding, which may be exacerbated by climate change over the lifetime of the development.*

*In addition, in areas identified by the Council as being at intermediate and high risk of surface water flooding, development proposals that are greater than 0.5 hectares should be supported by a Flood Risk Assessment which considers information in Warrington's Strategic Flood Risk Assessment and Preliminary Flood Risk Assessment to demonstrate that the development;*

- *is not at risk from existing drainage systems or overland flows*
- *will make a positive contribution to managing or mitigating flood risk*
- *will not adversely affect existing flooding conditions'.*

The Warrington Proposed Submission Version Local Plan 2017-2037, March 2019, is yet to be formally adopted however contains the following policy in relation to flood risk and drainage;

***'Policy ENV2 - Flood Risk and Water Management***

**General Principles**

1. *Development should be focused towards areas at the lowest risk of flooding from all sources.*
2. *Sustainable water management measures must be integrated into developments to reduce flood risk across the Borough and to avoid adverse impacts on water quality and quantity.*
3. *New development should not result in increased flood risk from any source, or cause other drainage problems, either on the development site or elsewhere.*
4. *No development should take place within 8m of the top of the bank of a watercourse either culverted or open, or within 8 metres of a raised flood defence, such as a flood wall or a flood embankment, unless this approach is supported by the Environment Agency and Warrington Borough Council as the Lead Local Flood Authority.*

**Development proposals**

5. *The Council will only support development proposals where the risk of flooding has been fully assessed, understood and justified, with the implementation of appropriate mitigation measures where necessary.*
6. *A site specific Flood Risk Assessment is required for:*
  - a. *development proposals of 1 hectare or greater in Flood Zone 1;*
  - b. *any development proposals within Flood Zone 1, which has critical drainage problems (as notified to the Local Planning Authority by the Environment Agency);*
  - c. *all proposals for new development (including minor development and change of use) in Flood Zones 2 & 3; and*
  - d. *development proposals or a change of use to a more vulnerable class that might be susceptible to other sources of flooding.*
7. *The Flood Risk Assessment should also address, if required, the Sequential and Exceptions tests as set out in National Planning Policy, and should take into account all sources of flooding identified in the Warrington Strategic Flood Risk Assessment (SFRA).*
8. *The Council will require development proposals to:*
  - a. *provide safe and clear access and egress routes in the event of a flood;*
  - b. *manage surface water runoff to ensure that flood risk is not increased;*
  - c. *use Sustainable Drainage Systems that reflect the principles set out in the adopted Warrington Sustainable Drainage Systems (SuDS) Design and Technical Guidance, unless it can be demonstrated that such techniques are impractical or would present an unacceptable pollution risk;*



- d. *provide compensatory storage where development is proposed in undefended areas of the floodplain;*
  - e. *ensure that the layout and design of a site is considered to provide the opportunity to provide flood resilience measures and reduce flood risk within the development;*
  - f. *apply a sequential approach at a site level to minimise risk by directing the most vulnerable development to areas of lowest risk;*
  - g. *avoid the use of culverting and building over watercourses and where practical to re-open existing culverts;*
  - h. *ensure that appropriate mitigation is included within the design of the development to make it safe for the future users of the site without adversely affecting others;*
  - i. *ensure that developers have considered the impacts of climate change to ensure that the future users of the development are not put at additional danger of flooding, which may be exacerbated by climate change over the lifetime of the development. Climate Change allowances should be in accordance with the latest Government guidance;*
  - j. *Consider the connectivity and condition of watercourses within the development and make improvements where required;*
  - k. *Make an assessment of downstream watercourse to ensure their suitability and effectiveness; and*
  - l. *have regard to the Sankey Catchment Action Plan when assessing flood risk and any appropriate mitigation measures.*
9. *In addition, in areas identified by the Council as being at intermediate and high risk of surface water flooding, development proposals that are greater than 0.5 hectares should be supported by a Flood Risk Assessment which considers information in Warrington's Strategic Flood Risk Assessment and Preliminary Flood Risk Assessment to demonstrate that the development:*
- a. *is not at risk from existing drainage systems or overland flows;*
  - b. *will make a positive contribution to managing or mitigating flood risk; and*
  - c. *will not adversely affect existing flooding conditions.*
10. *The Council will expect surface water to be discharged in the following order of priority:*
- a. *An adequate soakaway or some other form of infiltration system.*
  - b. *An attenuated discharge to surface water body.*
  - c. *An attenuated discharge to public surface water sewer, highway drain or another drainage system.*
  - d. *An attenuated discharge to public combined sewer.*

11. *Applicants wishing to discharge to public sewer will need to submit clear evidence demonstrating why alternative options are not available. The expectation will be for only foul flows to communicate with the public sewer.*
12. *Applicants will be expected to conform to the following discharge requirements unless site-specific policies indicate otherwise:*
  - a. *On greenfield sites, applicants will be expected to demonstrate that the current natural discharge solution from a site is at least mimicked.*
  - b. *On previously developed land, applicants will also be expected to follow the surface water hierarchy.*
  - c. *Thereafter, any proposal based on a proposed reduction in surface water discharge from a previously developed site should target a reduction to greenfield run-off rate. A reduction of at least 30% will be sought on previously developed land, rising to a minimum of at least 50% in Critical Drainage Areas (as defined in Warrington's Strategic Flood Risk Assessment) or in areas susceptible to intermediate or high risk surface water flooding. In demonstrating a reduction, applicants should include clear evidence of existing positive operational connections from the site with associated calculations on rates of discharge.*
13. *Development proposals will be expected to incorporate sustainable drainage systems in accordance with the requirements of national planning policy. The preference will be for new development to incorporate infiltration based systems and thereafter surface level sustainable drainage systems with multi-functional benefits as opposed to underground tanked storage systems for the management of surface water. Applicants will need to submit clear evidence where surface level sustainable drainage features are not proposed.*
14. *Any development proposal which is part of a wider development / allocation should demonstrate how the site delivers foul and surface water drainage as part of a wider strategy having regard to interconnecting phases of development. It will be necessary to ensure the drainage proposals are part of a wider, holistic strategy which coordinates the approach to drainage between phases, between developers, and over a number of years of construction. Applicants will be expected to include details of how the approach to foul and surface water drainage on a phase of development has regard to interconnecting phases within a larger site. Infrastructure should be sized to accommodate flows from interconnecting phases and drainage strategies should ensure a proliferation of pumping stations is avoided on a phased development. This will ensure a comprehensive approach to drainage and that any early*

*phases of development provide the drainage infrastructure to meet the needs of any later interconnecting phases of development. In delivering drainage as part of a wider strategy, applicants will also be expected to ensure unfettered rights of discharge between the various parcels of development within a wider development to prevent the formation of 'ransom situations' between separate phases of development.*

*15. Approved development proposals will be expected to be supplemented by appropriate maintenance and management regimes for surface water drainage schemes.*

*16. Applicants should consider what contribution landscaping proposals can make to reducing surface water discharge. This can include hard and soft landscaping such as permeable surfaces to reduce the volume and rate of surface water discharge'.*

Local guidance documents including the Warrington Borough Council Strategic Flood Risk Assessment (SFRA) (September 2011, and July 2018), the Warrington Borough Council Preliminary Flood Risk Assessment (PFRA) (June 2011 and 2017) and the Warrington Borough Council 'SuDS Design and Technical Guidance' (December 2017) has been reviewed and informs this report.

## Consultation

The EA were consulted to determine if there were any site-specific requirements for an FRA. The EA response, received in August 2016 and included in Appendix D, summarises that:

- If the proposals for the site are within close proximity to, or affect, Flood Zone 3, then the FRA must consider climate change.
- The EA Flood Maps are indicative only and are not of sufficient accuracy to determine the risk of fluvial flooding at a specific location.
- Surface water drainage proposals are to be discussed with the LLFA.

United Utilities (UU) were consulted in 2016 with regards to foul and surface water flows from the proposed development. Their response is included in Appendix C. To summarise:

- Foul flows from the site will be allowed to discharge into the public combined sewerage system located near the junction of Pool Lane and Walton New Road to the north-east of the site.

- Surface water flows generated from this site should discharge via soakaways where practicable and thereafter directly into the adjacent watercourse with prior consent of the riparian owner.
- UU have no record of public sewer flooding of properties in the vicinity of the site.

## Flood Zone Category & Planning Policy

The EA 'Flood Map for Planning', included in Appendix D, shows that the majority of the site is located within Flood Zone 1 – an area considered to be outside of the extreme flood extent meaning it has a less than 1 in 1000 (0.1%) annual probability of flooding. The eastern extent of the site, adjacent to the unnamed watercourse, is situated in Flood Zone 2 – an area considered to be at risk of fluvial flooding with between a 1 in 100 (1%) and a 0.1% annual probability and in Flood Zone 3 – an area considered to be at risk of fluvial flooding with a greater than 1% annual probability.

## Sources of Flooding and Probability

### Fluvial

The nearest watercourse is an unnamed watercourse located at the eastern boundary of the site. The unnamed watercourse flows north in this location and joins the Manchester Ship Canal. The Manchester Ship Canal is located approximately 165m north of the site.

### Environment Agency Estimated Flood Levels

Estimated flood levels and detailed flood mapping for the Manchester Ship Canal have been obtained from the EA in August 2016 and are included in Appendix D. The EA have also provided JFLOW derived flood levels for the unnamed watercourse at the eastern boundary of the site. It is specified that the JFLOW levels are indicative only and are not suitable to accurately assess the flood risk on a site specific scale.

The extreme 0.1% annual probability flood level for the Manchester Ship Canal at the nearest modelled node point to the site is 9.44m AOD. The 1% annual probability plus 20% climate change flood level is 7.14m AOD. The site is situated at or above 12m AOD and is a minimum of 2.5m above the 0.1% annual probability flood level of the Manchester Ship Canal. The site is therefore not at risk from the Manchester Ship Canal.

A summary of the JFLOW derived flood levels for the unnamed watercourse to the east of the site is provided in Table 1. The node locations are shown on the EA 'Detailed FRA Map' in Appendix D.

**Table 1** - EA Estimated Flood Levels – Unnamed Watercourse

Node Reference	Grid reference	Maximum Water Level (m AOD)	
		1% AEP	0.1% AEP
2	360513E 385737N	16.02	16.03
3	360482E 385837N	15.44	15.60
4	360422E 385957N	13.98	14.11

The majority of the site is located outside of the 0.1% annual probability extent. However, areas adjacent to the unnamed watercourse are shown at flood risk. The flood extent is contained within the wooded area in the eastern extent of the site. Maximum estimated water levels during the 0.1% annual probability event fall from 16.03m AOD in the south-eastern corner to 14.11m AOD in the north-western corner. Given the steepness of the catchment, the flood extent is minimal and confined to areas immediately adjacent to the watercourse.

The EA have confirmed that the generalised JFLOW modelling available for the watercourse adjacent to the site is insufficient to accurately assess flood risk. Therefore, to accurately assess the fluvial flood risk to the site, accounting for updated climate change guidance, hydraulic modelling of the unnamed watercourse should be undertaken. However, and based on the steep fall in topography towards the watercourse, it is considered unlikely that any potential flooding of this watercourse would extend beyond the wooded area in the eastern extent of the site.

It can be concluded that the risk of fluvial flooding to the majority of the site is very low. Land adjacent to the unnamed watercourse to the east is shown at flood risk. The flood extent is confined to the wooded area.

### Tidal

The site is situated at a minimum of 12m AOD and is above extreme sea levels. The site is therefore not at risk of tidal flooding.

### Surface Water Flooding

Surface water flooding occurs when rainwater does not drain away through the normal drainage system or soak into the ground. It is usually associated with high intensity rainfall events, however, can also occur with lower intensity rainfall or melting snow where the ground is saturated, frozen or developed, resulting in overland flow and ponding in depressions in topography. Surface water flooding can occur anywhere without warning. However, flow paths can be determined by consideration of contours and relative levels.

The EA 'Flood Risk from Surface Water' map (Appendix D) shows that the site is at very low risk of surface water flooding, meaning it has a less than 0.1% annual probability of flooding. The eastern boundary of the site is shown at risk however the flood extent is minimal and the identified risk is associated with the unnamed watercourse.

The SFRA contains no records of surface water flooding at the site. Any potential surface water flooding arising at or near to the site would be directed east, away from the site and towards the unnamed watercourse, following the local topography.

It can therefore be concluded that the risk of surface water flooding is very low.

### Sewer Flooding

Flooding from sewers can occur when a sewer is overwhelmed by heavy rainfall, becomes blocked, is damaged, or is of inadequate capacity. Flooding is mostly applicable to combined and surface water sewers.

Any potential flooding of the 150mm public surface water sewer in Chester Road to the north would be directed east, away from the site, following the local topography. The site is separated from other nearby public surface water and combined sewers by the unnamed watercourse to the east.

UU have stated that they have no records of sewer flooding in the vicinity of the site. The SFRA contains no records of sewer flooding at the site. It can be concluded that the risk of sewer flooding is very low.

### Groundwater Flooding

Groundwater flooding occurs when water levels underneath the ground rise above normal levels. Prolonged heavy rainfall soaks into the ground and can cause the ground to become saturated. This results in rising groundwater levels which leads to flooding above ground.

The SFRA contains no records of groundwater flooding at the site. Borehole records publicly available on the British Geological Survey website identify a number of boreholes located north-east of the site at a level of 11.5m AOD, 0.5m below the minimum site. Groundwater was encountered within the boreholes at approximately 2.8m below ground level.

It can therefore be concluded that the risk of groundwater flooding is low.

### Artificial Sources of Flooding

The Bridgewater Canal is situated approximately 410m south of the site at its closest point. Any potential floodwater arising as a result of a breach or overtopping of the canal would flow east, towards the unnamed watercourse, bypassing the site.

The Manchester Ship Canal is situated approximately 155m north of the site at its closest point. Flood risk from the Manchester Ship Canal is considered under fluvial flooding above. The site is situated a minimum of 2.5m above the extreme 0.1% annual probability flood level of the Manchester Ship Canal and the risk of flooding is therefore low.

The EA online 'Risk of Flooding from Reservoirs' map shows that the eastern extent of the site is at risk of flooding from a failure of the following reservoirs:

**Table 2** – EA Risk of Flooding from Reservoirs

Name of Reservoir	Grid Reference	Owner
High Warren No. 2	361306E 384280N	United Utilities
Appleton	360189E 384414N	United Utilities

The EA state that reservoir flooding is extremely unlikely to happen. All large reservoirs must be inspected and supervised by reservoir panel engineers. As the enforcement authority for the Reservoirs Act 1975 in England, the EA ensure that reservoirs are inspected regularly, and essential safety work is carried out.

It can therefore be concluded that there the risk of flooding from artificial sources is very low.

## Mitigation Measures

All properties should be located outside of the 0.1% annual probability (Flood Zone 2) flood extent. The flood extent is confined to a wooded area in the eastern extent of the site. Locating all properties outside of the wooded area would mitigate the potential fluvial flood risk.

Any new access crossings over the unnamed watercourse should be designed with a soffit level above the 1% annual probability plus climate change flood level. The flood level would need to be established by undertaking hydraulic modelling of the unnamed watercourse.

## Surface Water Management

The existing site comprises undeveloped agricultural land.

Existing greenfield runoff rates have been estimated using the Warrington Borough Council (LLFA) IH 124 spreadsheet (available online). A summary of existing runoff rates for the 7.7ha site are shown in Figure 1.

**Figure 1** – IH124 Runoff Rates

IH124		Peak Greenfield Runoff Rate (l/s)	
Site Name	Chester Road, Walton	2 year	15.48
Site Area (ha)	7.7	5 year	19.81
Soil Description	Sandy loam	10 year	22.97
Urban Area (ha)	0	20 year	26.3
		25 year	27.3
		30 year	28.3
		50 year	30.79
		75 year	32.96
		100 year	34.62
<input type="button" value="Calculate Runoff"/>		<input type="button" value="Clear Data"/>	



The 1 in 2 year greenfield runoff rate is estimated at 15.5 l/s. It is therefore proposed to limit surface water discharge to 15.5 l/s.

### Attenuation Storage

In order to achieve a limited discharge rate of 15.5 l/s, attenuation storage will be required. In accordance with Warrington Borough Council requirements, storage should be provided up to the 1 in 100 year plus 40% climate change (CC) event.

An attenuation storage estimate has been provided using MicroDrainage and is included in Appendix E. An estimated storage volume of 3,588m<sup>3</sup> will be required to accommodate the 1 in 100 year plus 40% CC event. The attenuation volume is based on storage within a tank or pond, hydro-brake flow control (15.5 l/s) and an impermeable drainage area of 46,200m<sup>2</sup> (60% of the total site area).

Based on a reduced impermeable area of 30,800m<sup>2</sup> (40% of the total site area) an estimated storage volume of 2,194m<sup>3</sup> will be required to accommodate the 1 in 100 year plus 40% CC event.

The attenuation volumes are for indicative purposes only and should be verified at the detailed drainage design stage and upon the finalisation of the proposed site layout. An allowance for urban creep should be included in the attenuation storage calculations.

### Discharge Method

Paragraph 080 of the NPPG: Flood Risk and Coastal Change sets out the following hierarchy of drainage options: into the ground (infiltration); to a surface water body; to a surface water sewer, highway drain or another drainage system; to a combined sewer.

### Soakaways

The first consideration for the disposal of surface water is soakaways. As described above the site is underlain by tidal flat deposits which comprises of clay, silt, sand and gravel and bedrock deposits of the Wilmslow Sandstone.

The suitability of soakaways should be confirmed by undertaking infiltration testing in accordance with the BRE365 specification.

### *Watercourse*

Where soakaways are not suitable, a connection to watercourse is the next consideration. The nearest watercourse is the unnamed watercourse located at the eastern boundary of the site.

A gravity connection to the unnamed watercourse appears to be feasible. Discharge of surface water to watercourse would need to be at a controlled greenfield runoff rate of 15.5 l/s.

### *Sewer*

A connection to the public sewer system is the final option. UU have advised that surface water should discharge via soakaways or directly to the adjacent watercourse. Therefore, discharge of surface water to the public sewer is not a permitted option.

## **Sustainable Drainage Systems**

Attenuation storage should be provided in the form of Sustainable Drainage Systems (SuDS) where practical. The following SuDS options have been considered:

### *Soakaways*

As described above, the suitability of soakaways should be confirmed through infiltration testing.

### *Swales, detention basins and ponds*

There is potential to incorporate above ground attenuation features such as swales, detention basins and ponds. Such features should be located in the lower eastern extent of the site to enable gravity drainage.

### *Porous / Permeable Paving*

Permeable paving could be utilised within private access roads, driveways and parking areas. Permeable paving could accommodate attenuation storage within the sub-grade material prior to controlled discharge to watercourse. The amount of storage provided within the sub-grade of permeable paving is subject to sub-grade depth and site gradients. The use of permeable paving for attenuation storage will be considered at the detailed design stage.

### *Underground Attenuation Tanks*

Storage could be provided within below ground attenuation tanks (modular storage) located in open space or within oversized pipes located beneath access roads. However, preference should be given to above ground SuDS such as ponds and basins which provide amenity and bio-diversity benefits.

### Concept Surface Water Drainage Scheme

Surface water runoff should be discharged to soakaways if practicable. The next consideration is to discharge surface water runoff to the unnamed watercourse adjacent to the eastern boundary of the site at a controlled greenfield rate 15.5 l/s. Attenuation storage should be provided in the form of above ground features such as a pond or basin and should accommodate the 1 in 100 year plus 40% CC event. Attenuation storage features should be located in the lower eastern extent of the site to facilitate gravity drainage.

### Surface Water Treatment

In accordance with the CIRIA C753 publication 'The SuDS Manual' (2015), residential roofs have a 'very low' pollution hazard level, with individual property driveways classified as having a 'low' pollution hazard level and roads, except for low traffic roads, classified as having a 'medium' pollution hazard level. Table 3 shows the pollution hazard indices for each land use.

**Table 3** – Pollution Hazard Indices

Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydrocarbons
Residential Roofs	Very low	0.2*	0.2	0.05
Individual Property Driveways	Low	0.5	0.4	0.4
All roads except low Traffic Roads	Medium	0.7	0.6	7

*Table extract taken from the CIRIA C753 publication 'The SuDS Manual' – Table 26.2*

*\* Indices values range from 0-1.*

Runoff from roofs and roads should be directed into a pond or detention basin. Table 4 demonstrates that ponds provide sufficient surface water treatment. Where basins are utilised, additional treatment could be provided in the form of a suitably sized separator or swales, placed upstream of the basin.

**Table 4** – SuDS Mitigation Indices

Type of SuDS	Mitigation Indices		
	Total Suspended Solids (TSS)	Metals	Hydrocarbons
Detention Basin	0.5	0.5	0.6
Pond	0.7	0.7	0.5
Swales	0.5	0.6	0.6

Table extract taken from the CIRIA C753 publication 'The SuDS Manual' – Table 26.3.

## Maintenance

Maintenance of communal drainage features such as ponds, detention basins, swales, permeable paving or an attenuation tank will be the responsibility of the site owner. Maintenance of shared surface water drainage systems can be arranged through appointment of a site management company.

Maintenance schedules for a pond, detention basin, swales, attenuation tank and permeable paving are included in Appendix F.

## Foul Drainage

Correspondence from UU (included in Appendix C) states that; 'foul water flows emanating from the proposed development would be allowed to discharge to the 600mm public combined sewer system located near the junction of Pool Lane and Walton New Road'.

A cover level of 11.51m AOD is identified at Manhole 4903 located upstream of the 600mm public combined sewer system located near the junction of Pool Lane and Walton New Road. Although the sewer invert is below developable site levels, a pumped solution may be required to serve properties located in the lower eastern extent of the site. A pumped solution is considered necessary given the distance to the sewer and the requirement to cross over / under the unnamed watercourse which separates the site and the point of connection to the public sewer.

Where a pumped solution is required, and in accordance with Sewers for Adoption 7<sup>th</sup> Edition, a 15m buffer should be provided from the wet well of the pumping station to habitable dwellings. The pumping station should be located at the lowest point of the site, near to the eastern boundary (outside of the Flood Zone 2 extent).

### **Other Considerations**

Access provision and an undeveloped 8m buffer strip to the unnamed watercourse along the eastern boundary should be retained for maintenance purposes.

## Conclusions

This Flood Risk Assessment has been carried out to inform a promotion document for the site for potential development of up to 220 houses.

The majority of the site is at very low risk of flooding from all sources. The eastern extent of the site is bordered by an unnamed watercourse and is identified at risk of fluvial flooding. The fluvial flood extent is minimal and is confined to a wooded area adjacent to the watercourse.

Development proposals will introduce hard-standing in the form of buildings and roads. In order to ensure surface water runoff from the site will not increase flood risk elsewhere, flow control will be used, and attenuation provided on site to accommodate the 1 in 100 year plus 40% climate change event.

All methods of surface water discharge have been assessed. Disposal of surface water via soakaways is the preferred option. Where soakaways are not feasible, discharge of surface water should be made to the unnamed watercourse at the eastern site boundary at a controlled greenfield rate of 15.5 l/s. A gravity connection appears feasible.

Attenuation storage should be provided in the form of above ground SuDS such as ponds and basins. Attenuation storage should be located in the lower eastern extent of the site.

United Utilities have confirmed that foul flows can discharge to the 600mm public combined sewer north-east of the site. A pumped solution may be required for properties in the lower eastern extent of the site.

A Concept Designer's Risk Assessment (cDRA) has been prepared to inform future designers of any identified hazards associated with the scheme. The cDRA has been included in Appendix G.

## Recommendations

1. Undertake hydraulic modelling of the unnamed watercourse adjacent to the site to inform existing flood risk, take into account latest climate change allowances and inform mitigation measures for development proposals;
2. Make provision within development proposals for sustainable drainage features such as detention basins and ponds in the lower eastern extent of the site;
3. Verify the attenuation volumes included in this report when a site layout plan is available.

## Appendix A – Location Plan & Aerial Image





NOTES:  
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

**LEGEND**

Site Boundary

CLIENT:

**ASHALL PROPERTY LTD**



[www.waterco.co.uk](http://www.waterco.co.uk)

SCHEME:

**CHESTER ROAD, WALTON**

PLOT TITLE:

**AERIAL PLAN**

PLOT STATUS:

**FINAL**

DATE:

17/06/2019

DRAWN:

VJ

CHECKED:

AW

APPROVED:

VG

PLOT SCALE @ A3:

1:2,500

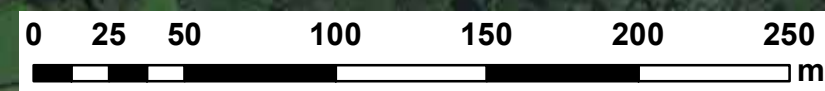
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PLOT NAME:

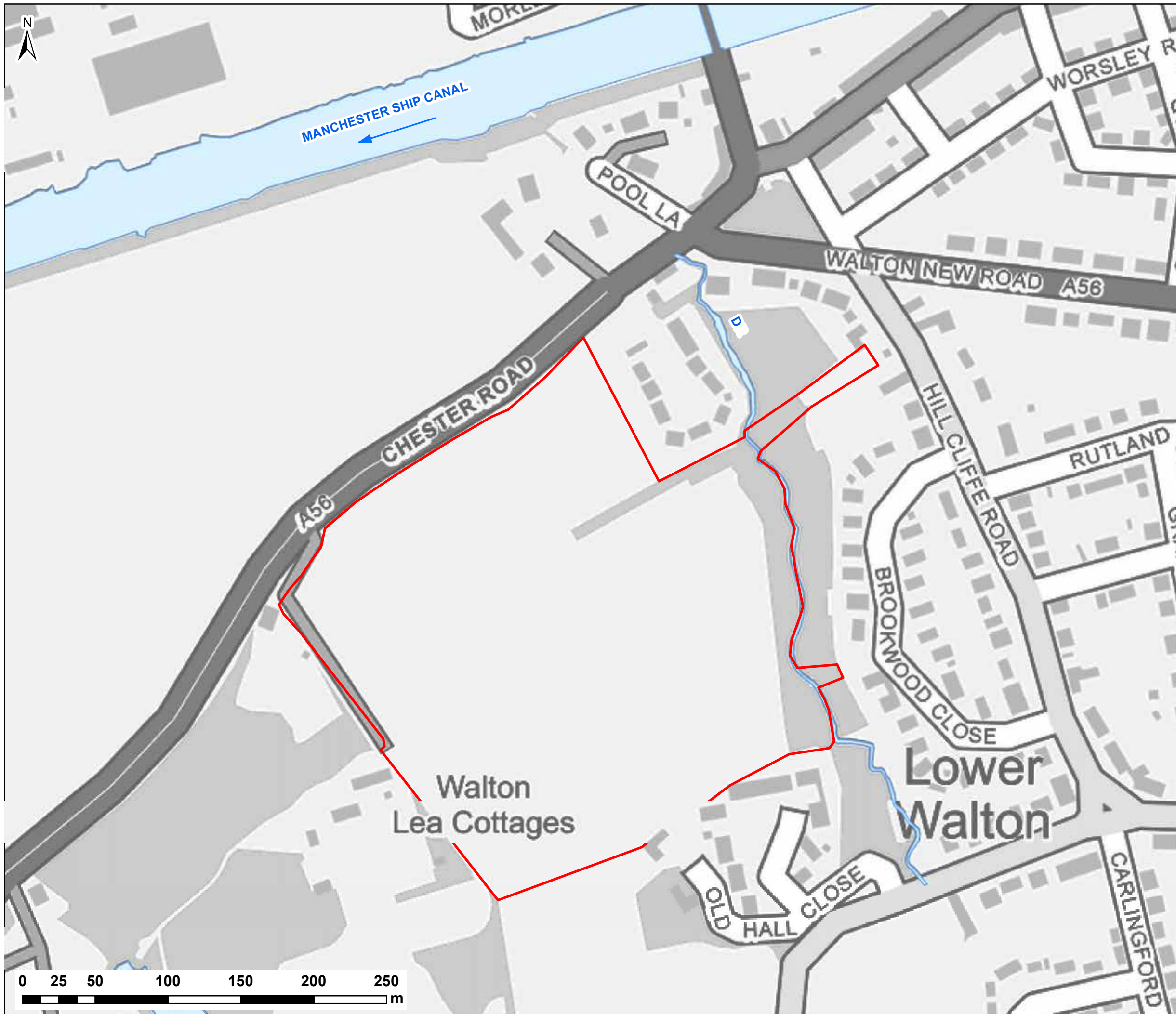
w10132-Aerial\_Plan

REV:

-



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

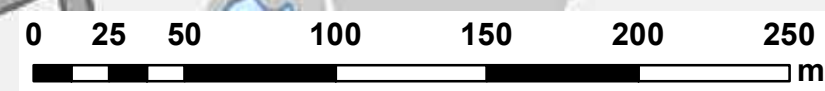


NOTES:  
 1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

**LEGEND**

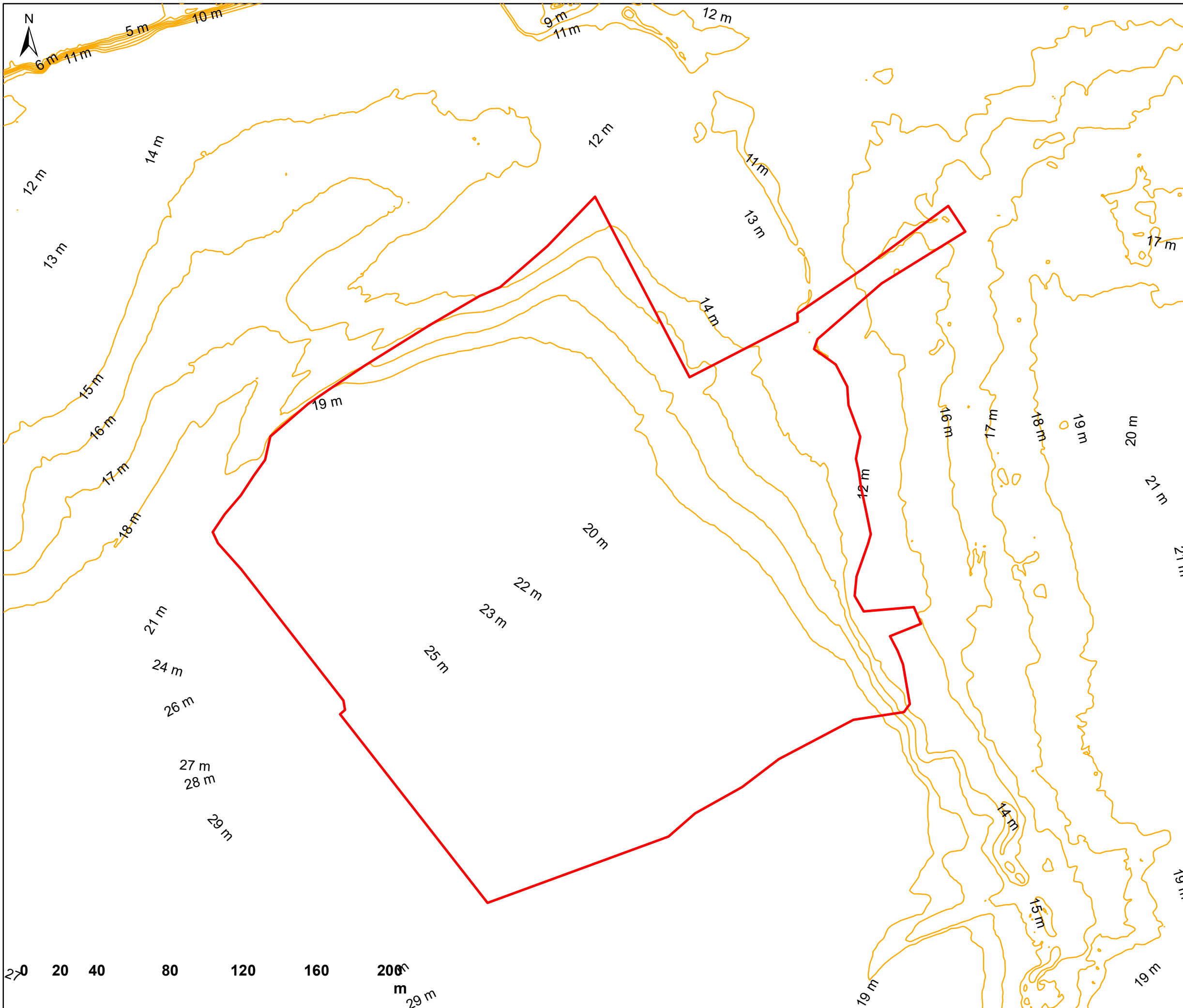
Site Boundary

Watercourses / Water Bodies




CLIENT:			
<b>ASHALL PROPERTY LTD</b>			
 <a href="http://www.waterco.co.uk">www.waterco.co.uk</a>			
SCHEME:			
<b>CHESTER ROAD, WALTON</b>			
PLOT TITLE:			
<b>LOCATION PLAN</b>			
PLOT STATUS:		DATE:	
<b>FINAL</b>		17/06/2019	
DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3:
VJ	AW	VG	1:2,500 (UNLESS STATED OTHERWISE)
PLOT NAME:			REV:
w10132-Location_Plan			-

## Appendix B – LiDAR Plan



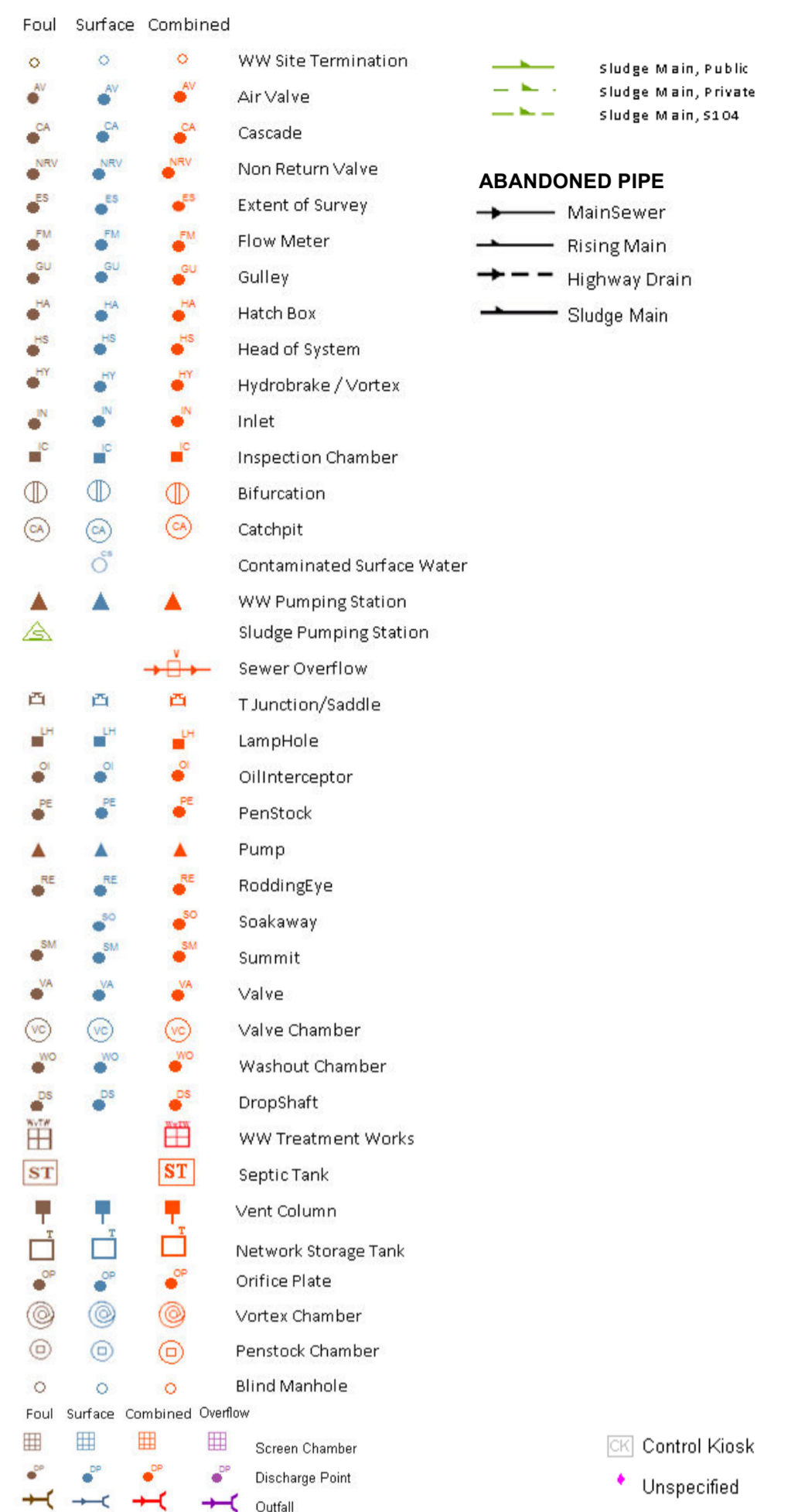
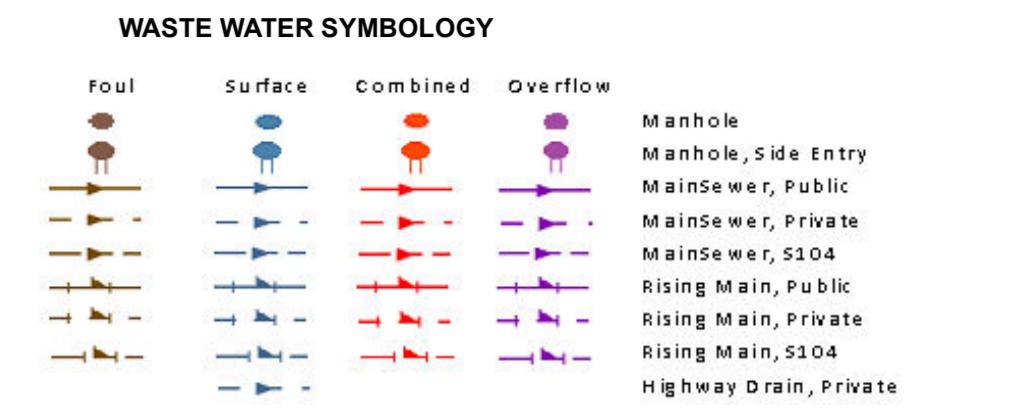
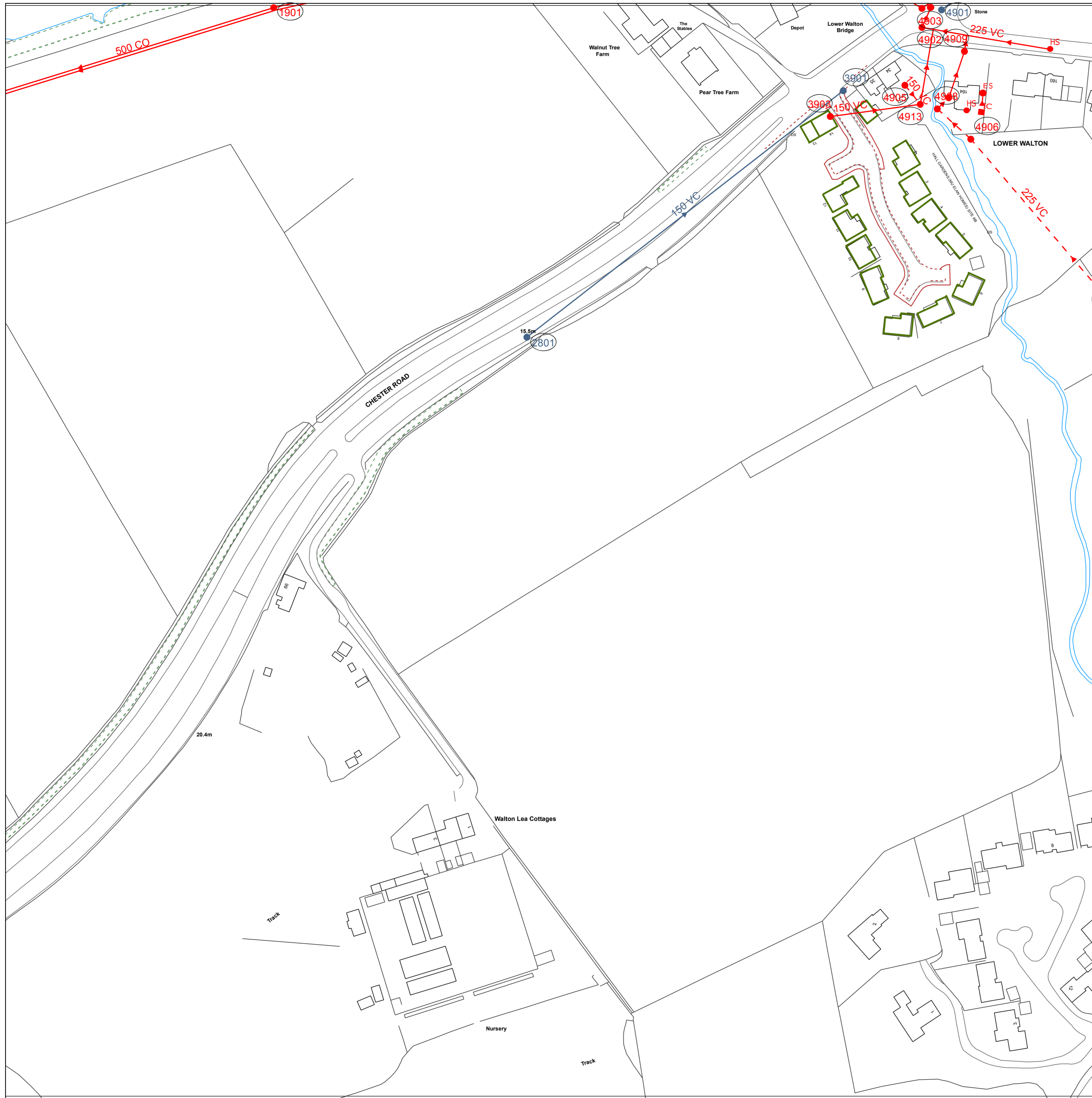
NOTES:  
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

**LEGEND**  
 Site Boundary  
 1m contour based on 1m EA DTM

CLIENT: <b>ASHALL PROPERTY LTD</b>			
 www.waterco.co.uk			
SCHEME: <b>CHESTER ROAD, WALTON</b>			
PLOT TITLE: <b>LIDAR FIGURE SITE CONTOURS M AOD EA LIDAR DATA</b>			
PLOT STATUS: <b>FINAL</b>		DATE: 17/06/2019	
DRAWN: VJ	CHECKED: AW	APPROVED: VG	PLOT SCALE @ A3: 1:2,000 <small>(UNLESS STATED OTHERWISE)</small>
PLOT NAME: W10132-160805-LIDAR FIGURE			REV: -

## Appendix C – United Utilities Sewer Plans and Correspondence





### LEGEND

MANHOLE FUNCTION	
FO	Foul
SW	Surface Water
CO	Combined
OV	Overflow

SEWER SHAPE			
CI	Circular	TR	Trapezoidal
EG	Egg	AR	Arch
OV	Oval	BA	Barrel
FT	Flat Top	HO	HorseShoe
RE	Rectangular	UN	Unspecified
SQ	Square		

SEWER MATERIAL			
AC	Asbestos Cement	DI	Ductile Iron
BR	Brick	PVC	Polyvinyl Chloride
PE	Polyethylene	CI	Cast Iron
RP	Reinforced Plastic Matrix	SI	Spun Iron
CO	Concrete	ST	Steel
CSB	Concrete Segment Bolted	VC	Vitrified Clay
CSU	Concrete Segment Unbolted	PP	Polypropylene
CC	Concrete Box Culverted	PF	Pitch Fibre
PSC	Plastic/Steel Composite	MAC	Masonry, Coursed
GRC	Glass Reinforced Concrete	MAR	Masonry, Random
GRP	Glass Reinforced Plastic	U	Unspecified

The position of underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. The actual positions may be different from those shown on the plan and private pipes, sewers or drains may not be recorded. United Utilities will not accept any liability for any damage caused by the actual positions being different from those shown. United Utilities Water Limited 2014. The plan is based upon the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office. Crown and United Utilities copyrights are reserved. Unauthorised reproduction will infringe these copyrights.

OS Sheet No: SJ6085NW  
 Scale: 1: 1250 Date: 08/08/2016  
 17 Nodes  
 Sheet 1 of 1



## Rory Clements

---

**From:** Lunt, John <John.Lunt@uuplc.co.uk>  
**Sent:** 11 August 2016 15:58  
**To:** Rory Clements  
**Cc:** Wastewater Developer Services  
**Subject:** (UU Ref:DE2491) Chester Road, Walton, Warrington

Hi Rory,

In reply, I've carried out an assessment of your application which is based on the information provided further to which, this pre development advice will remain valid for 12 months.

### Foul water

The foul water flows emanating from the proposed development would be allowed to discharge in to the 600mm public combined water sewerage system located near the junction of Pool Lane and Walton New Road.

### Surface Water

The surface water flows generated from this site should discharge via soak-aways wherever practicable and thereafter directly in to the adjacent watercourse with the prior consent of the riparian owner.

### Connection Application

Although we may discuss and agree discharge points & rates in principle, please be aware that you will have to apply for a formal sewer connection. This is so that we can assess the method of construction, Health & Safety requirements and to ultimately inspect the connection when it is made. Details of the application process and the form itself can be obtained from our website by following the link below

<http://www.unitedutilities.com/connecting-public-sewer.aspx>

### Sewer Adoption Agreement

You may wish to offer the proposed new sewers for adoption. United Utilities assess adoption application based on Sewers adoption 6th Edition and for any pumping stations our company addenda document. Please refer to link below to obtain further guidance and application pack:

<http://www.unitedutilities.com/sewer-adoption.aspx>

### Flooding

I can advise that UU have no record of public sewer flooding of properties in this vicinity as a result of overloaded sewers i.e. no properties on the 'at risk' register as compiled for our Regulator. Please note that United Utilities Water plc (UUW) can only record and check flooding events which are reported to us and we have to comply with our Regulators instructions on the qualification of flooding events to place on the 'at risk' register. Also, this does not include any sewer flooding events caused by blockages or collapses which are the result of third party actions, natural events or other actions over which UUW has no control and not a facet of sewer capacity.

Please be aware that on site drainage must be designed in accordance with Building Regulations, National Planning Policy, Planning Conditions and local flood authority guidelines, we would recommend that you liaise and make suitable agreements with the relevant statutory bodies.

If you have any queries or comments in relation to the above then please don't hesitate to get in touch.



Regards,

John

**John Lunt**

Developer Query Engineer  
Developer Services and Planning  
Operational Services  
T: 01925 679411 (Int; 79411)  
E-mail: [wastewaterdeveloperservices@uuplc.co.uk](mailto:wastewaterdeveloperservices@uuplc.co.uk)  
United Utilities.com

---

**From:** Rory Clements [<mailto:Rory.clements@waterco.co.uk>]  
**Sent:** 27 July 2016 13:37  
**To:** Wastewater Developer Services <[WastewaterDeveloperServices@uuplc.co.uk](mailto:WastewaterDeveloperServices@uuplc.co.uk)>  
**Subject:** w10132-Chester Road, Warrington, Walton-Preliminary opinion

**Scoping study Flood Risk Assessment for proposed residential development at Land off Chester Road, Walton, Warrington, WA4 6NY (approx. grid reference: 360316E 385732N)**

Dear Sir/Madam,

I kindly request United Utilities provide me with a development enquiry for the site at the above address. I have attached a site location plan and the completed Development Enquiry form. I have attached a site location plan for information.

I have attached the completed development enquiry form along with MicroDrainage Greenfield runoff calculations for the Qbar Q30 and Q100 events.

Please could you advise if there will be any specific requirements for a Drainage Strategy at this site and if you have any records of historical flooding in this area?

If you have any questions or require any further information, please do not hesitate to contact me.

Kind Regards,

**Rory Clements**

Environmental Consultant

T: 0161 214 0852 | E: [rory.clements@waterco.co.uk](mailto:rory.clements@waterco.co.uk) | W: [www.waterco.co.uk](http://www.waterco.co.uk)



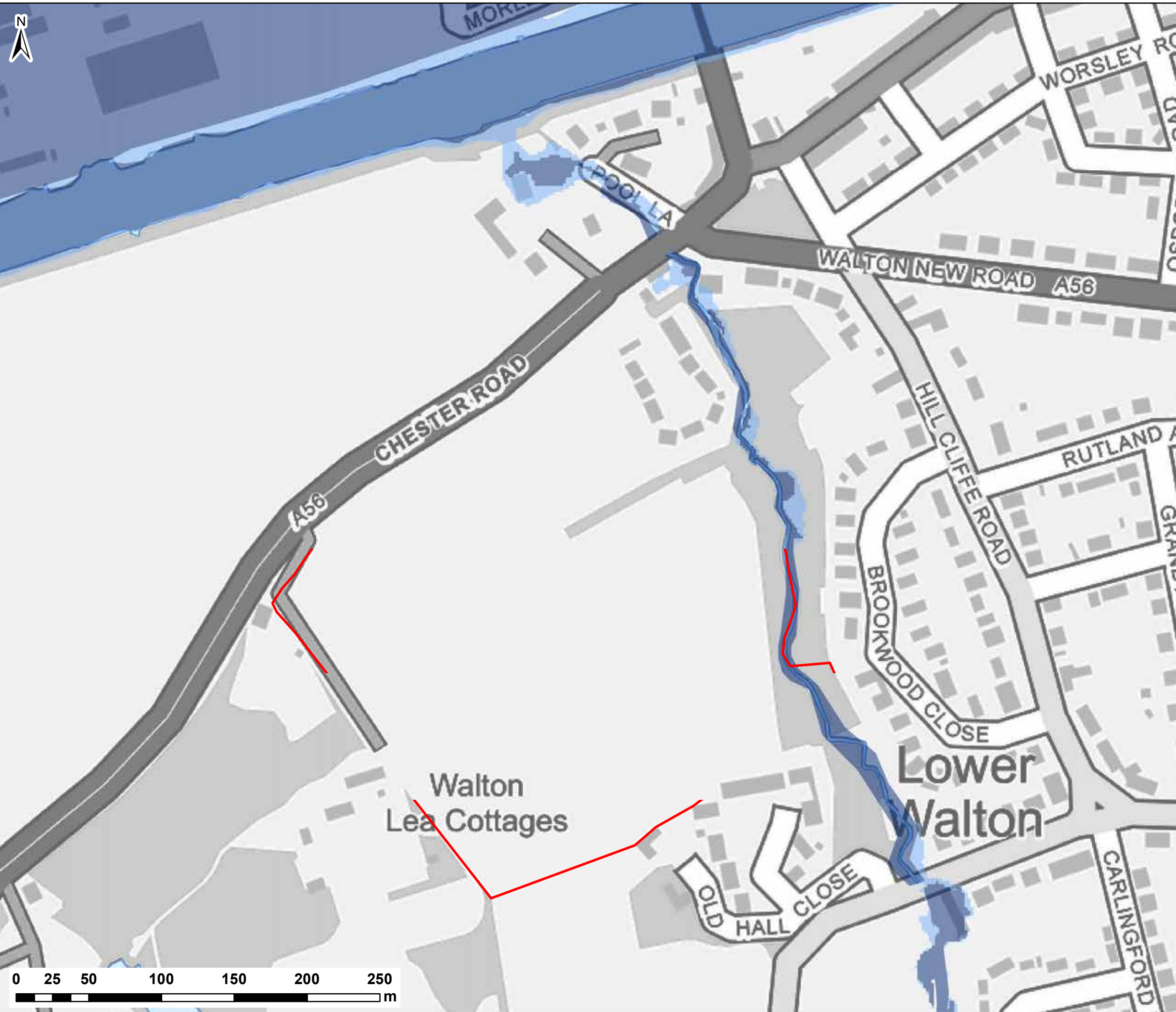
Specialists of choice for water, drainage and flood risk

Head Office	Regional	International
Ruthin, Denbighshire 01824 702220	Hanover St, Manchester 0161 214 0850	Hyderabad, India (+91) 406536060

---

For email confidentiality, limitations and company details please see our [disclaimer webpage](#).  
Registered office address: Waterco Ltd, Eden Court, Lon Parcwr Business Park, Ruthin, Denbighshire LL15 1NJ.  
Registered in Wales under company no. 3577754.

## Appendix D – EA Flood Maps and Correspondence



NOTES:  
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

**LEGEND**

- Site Boundary
- EA Main Rivers
- EA Flood Zone 3
- EA Flood Zone 2

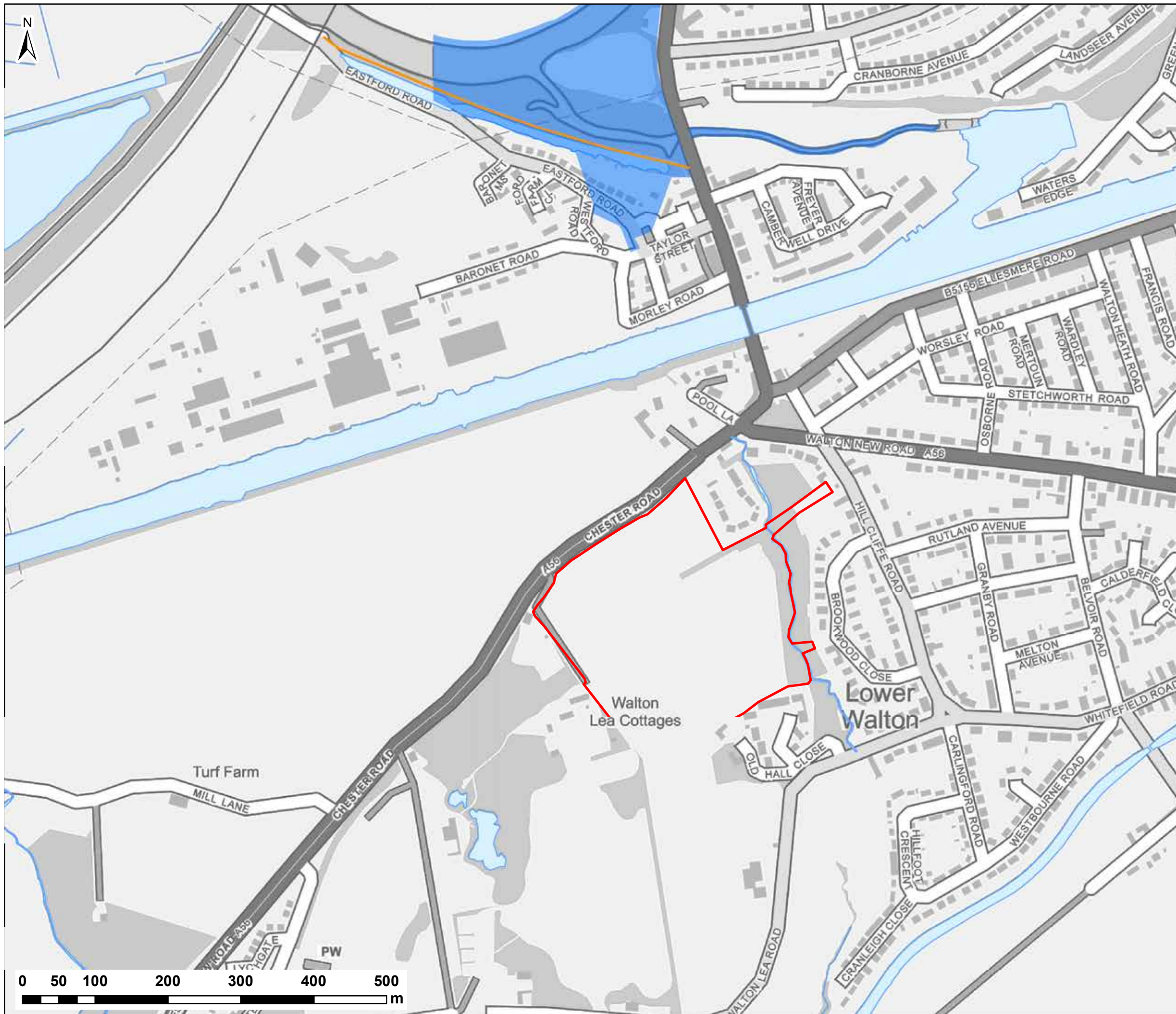
CLIENT:  
**ASHALL PROPERTY LTD**



SCHEME:  
**CHESTER ROAD, WALTON**

PLOT TITLE:  
**EA FLOOD MAP FOR PLANNING**

PLOT STATUS: <b>FINAL</b>		DATE: 17/06/2019	
DRAWN: VJ	CHECKED: AW	APPROVED: VG	PLOT SCALE @ A3: 1:2,500 (UNLESS STATED OTHERWISE)
PLOT NAME: w10132-EA_FM			REV: -



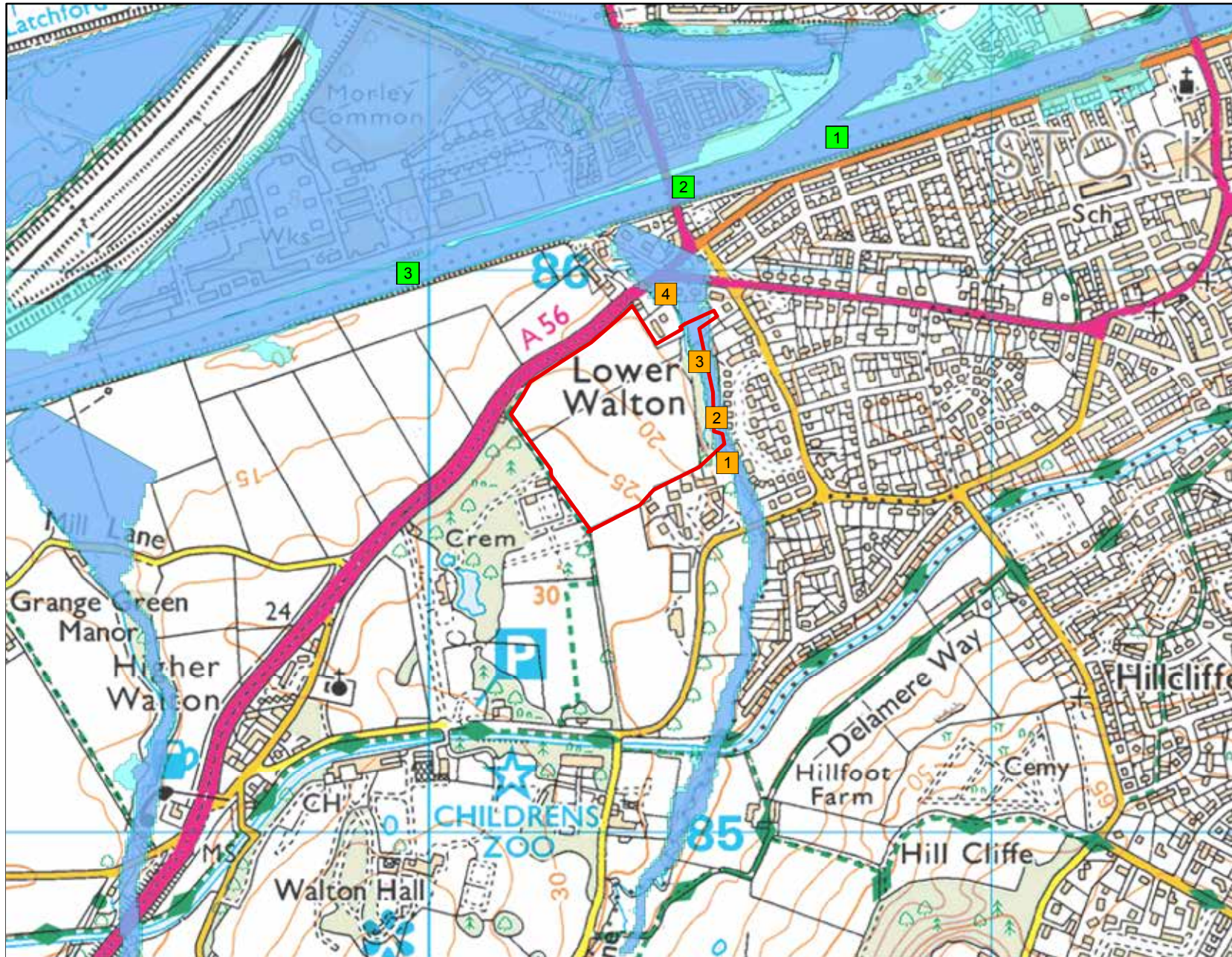
NOTES:  
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

**LEGEND**

- Site Boundary
- EA Main Rivers
- Historic Flood Map

CLIENT:			
<b>ASHALL PROPERTY LTD</b>			
 <a href="http://www.waterco.co.uk">www.waterco.co.uk</a>			
SCHEME:			
<b>CHESTER ROAD, WALTON</b>			
PLOT TITLE:			
<b>EA HISTORIC FLOOD MAP</b>			
PLOT STATUS:		DATE:	
<b>FINAL</b>		17/06/2019	
DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3:
VJ	AW	VG	1:5,000 (UNLESS STATED OTHERWISE)
PLOT NAME:			REV:
w10132-EA_FM_HIST			-

# Detailed Flood Map centred on Chester Road, Walton, Warrington. Created 08/08/2016 [GMMC19068ANB]



1:10,000



## Legend

- Site\_Location
- MSC\_model-Measurements
- Jflow
- Flood Zone 2
- Flood Zone 3

Map Reference	Model Node Reference	Easting	Northing	Data	Jflow Levels	
					1 % AEP (1 in 100 year)	0.1 % AEP (1 in 1000 year) <sup>2</sup>
1	Ordinary Watercourse	360533	385657	Modelled Water Level (m aodN)	16.44	16.46
2		360513	385737	Modelled Water Level (m aodN)	16.02	16.03
3		360482	385837	Modelled Water Level (m aodN)	15.44	15.60
4		360422	385957	Modelled Water Level (m aodN)	13.98	14.11

Model data taken from National Generalised Modelling Study 2004

Notes:

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

Please note: JFlow is broadscale generalised modelling and as such is not sufficiently accurate for use in Flood Risk Assessments.

Map Reference	Model Node Reference	Easting	Northing	Data	Model runs represent a ve o a single gate failure on every set of sluice structures. 3 gates open						Model runs represent a ve o present conditions and all gates are operational as per the agreed automated protocol. 4 gates open									
					2 % AEP (1 in 50 year)	1.33 % AEP (1 in 75 year)	1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year) + Climate Change*	0.5 % AEP (1 in 200 year)	0.1 % AEP (1 in 1000 year)	50 % AEP	20 % AEP (1 in 5 year)	4 % AEP (1 in 25 year)	2 % AEP (1 in 50 year)	1.33 % AEP (1 in 75 year)	1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year) + Climate Change*	0.5 % AEP (1 in 200 year)	0.1 % AEP (1 in 1000 year)	
1	ea013_Model_MSCC04_219	360727	386236	Modelled Water Level (m aodN)	6.58	6.75	6.87	7.39	7.23	9.94	5.52	5.78	6.32	6.58	6.76	6.90	7.40	7.24	9.93	
				Modelled Flow (cumecs)	576.43	604.56	627.73	719.55	687.96	1045.26	373.71	427.24	526.33	578.59	607.11	631.39	722.58	695.67	1043.28	
2	ea013_Model_MSCC04_224	360454	386148	Modelled Water Level (m aodN)	6.57	6.74	6.87	7.39	7.23	9.93	5.51	5.77	6.31	6.57	6.75	6.89	7.40	7.24	9.92	
				Modelled Flow (cumecs)	576.02	604.29	627.34	717.87	687.31	1043.53	373.68	427.19	526.14	578.22	606.84	630.98	720.28	694.81	1041.56	
3	ea013_Model_MSCC04_228	359963	385995	Modelled Water Level (m aodN)	6.42	6.58	6.69	7.14	7.00	9.44	5.44	5.66	6.18	6.42	6.59	6.71	7.15	7.01	9.44	
				Modelled Flow (cumecs)	576.00	604.42	627.28	715.33	686.83	1039.57	374.09	427.59	526.38	578.27	607.02	630.98	717.71	694.19	1037.72	

Model data taken from the Manchester Ship Canal 2010 Study.

Notes:

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

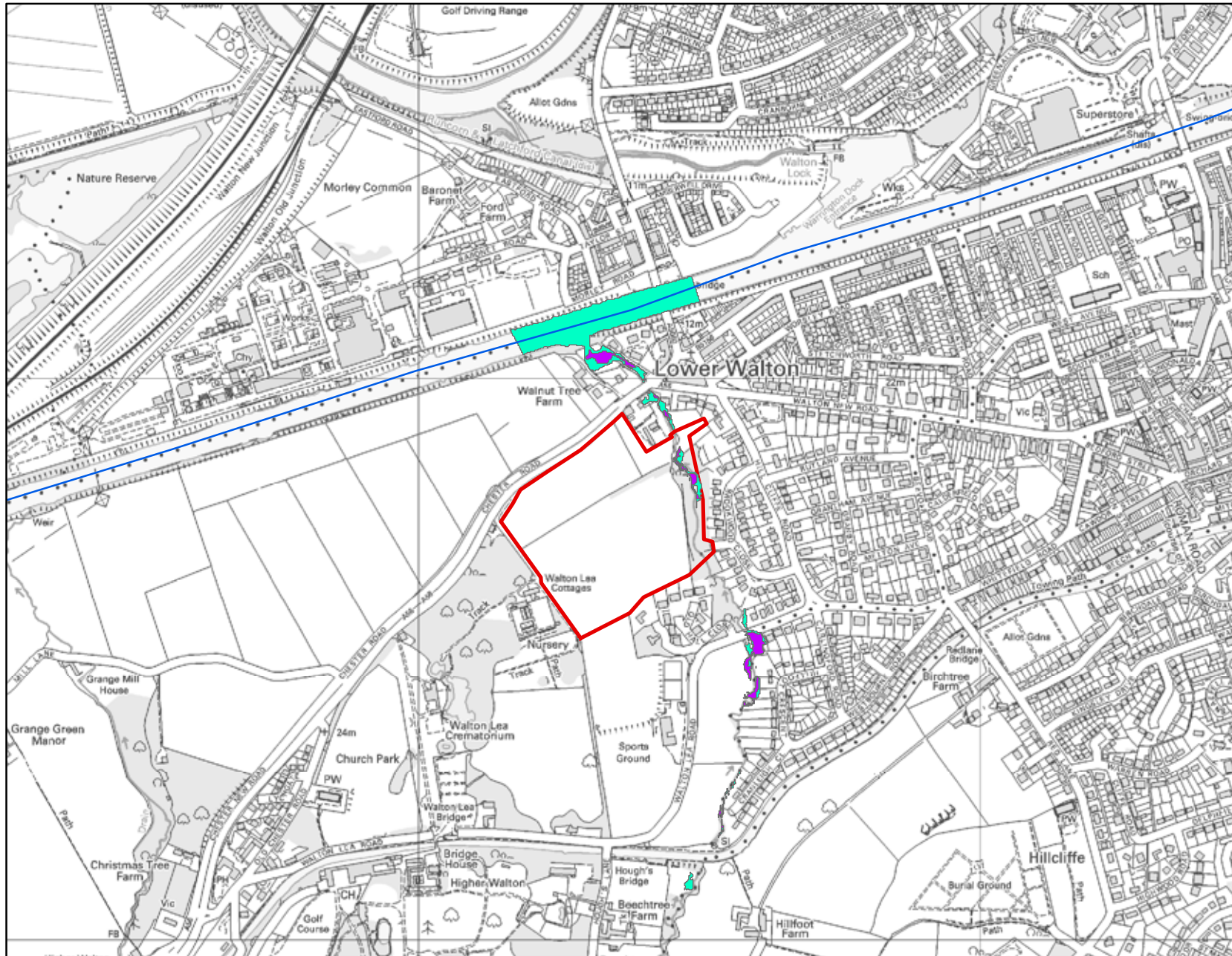
cumecs - cubic metres per second

\*Climate Change Scenario based on the previous guidance - 20% increase in flow. The new climate change guidance is available at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment.

When we provide data for the Manchester Ship Canal we provide 2 scenarios. The two scenarios are as follows.

1. Representative of present conditions (i.e. all gates are operational as per the agreed automated protocol). This scenario is used for our flood risk mapping.
2. Representative of a single gate failure on every set of sluice structures. This will define the residual risk.

# 2016 Draft Flood Map centred on Chester Road, Walton, Warrington. Created 11/08/2016 [GMMC19068ANB]



1:10,001



## Legend

 Site\_Location

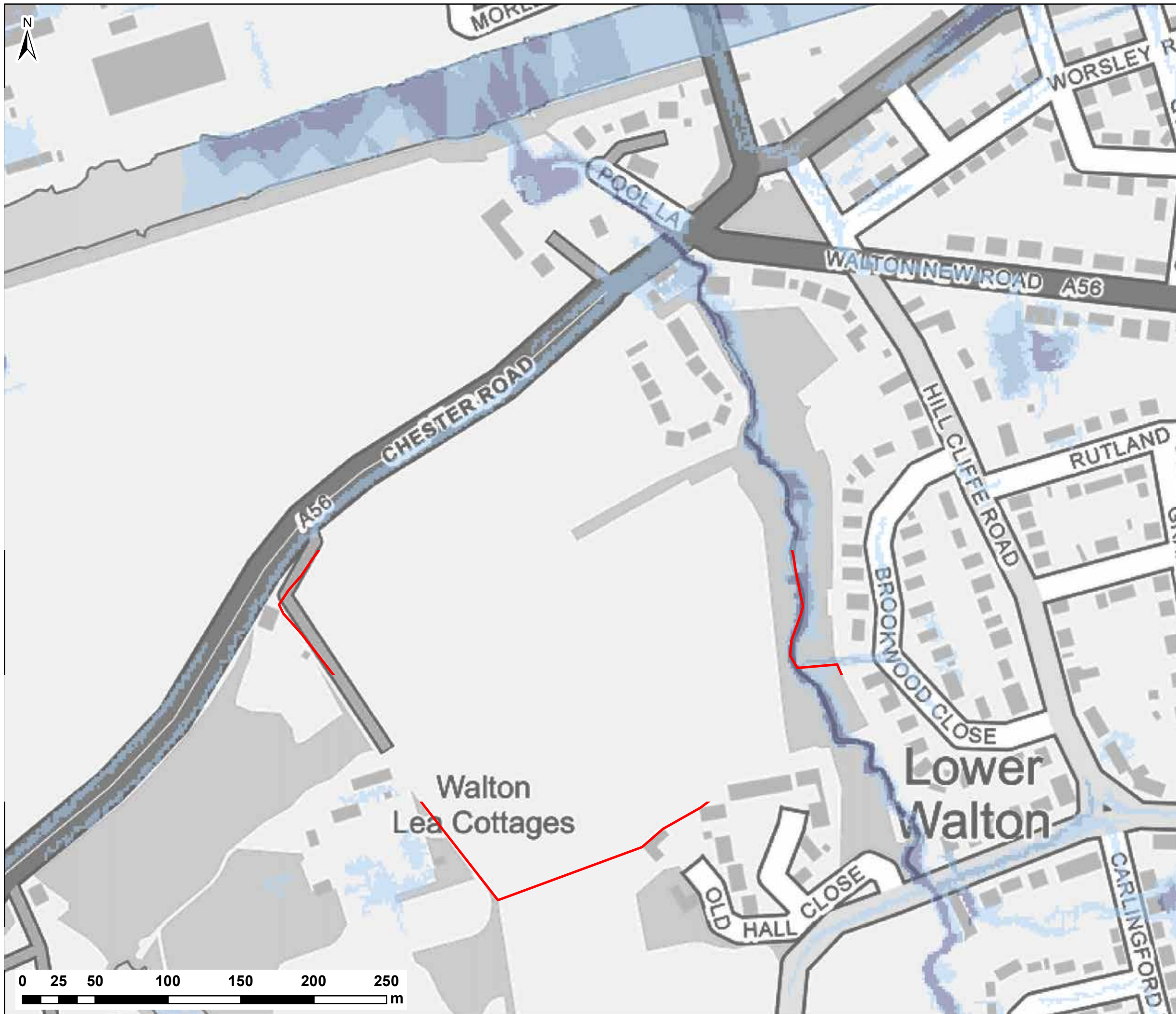
## NAME

 Manchester Ship Canal

 100 year Draft flood outline

 1000 year Draft flood outline

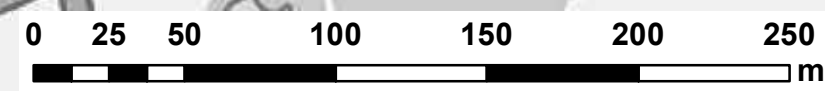




NOTES:  
1) ALL DIMENSIONS ARE IN METRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE

**LEGEND**

- Site Boundary
- Very Low (less than 0.1%)
- Low (between 0.1% and 1.0%)
- Medium (between 1.0% and 3.3%)
- High (3.3% or greater)



CLIENT:			
<b>ASHALL PROPERTY LTD</b>			
 <a href="http://www.waterco.co.uk">www.waterco.co.uk</a>			
SCHEME:			
<b>CHESTER ROAD, WALTON</b>			
PLOT TITLE:			
<b>EA FLOOD RISK FROM SURFACE WATER</b> JUNE 2019			
PLOT STATUS:		DATE:	
<b>FINAL</b>		17/06/2019	
DRAWN:	CHECKED:	APPROVED:	PLOT SCALE @ A3:
VJ	AW	VG	1:2,500 (UNLESS STATED OTHERWISE)
PLOT NAME:			REV:
w10132-EA_SW_FM			-

Waterco Ltd  
Eden Court  
Lon Parcwr Business Park  
Ruthin  
Clwyd  
LL15 1NJ

**Our ref:** SO/2016/116298/01-L01  
**Your ref:** w10132  
**Date:** 08 August 2016

## **FAO Rory Clements**

Dear Sir

### **SCOPING STUDY FLOOD RISK ASSESSMENT FOR PROPOSED RESIDENTIAL DEVELOPMENT LAND OFF CHESTER ROAD, WALTON, WARRINGTON**

Thank you for your enquiry regarding the above site which was received 27<sup>th</sup> July 2016.

We would like to make the following comments:-

The majority of the site is shown on the Environment Agency's Flood Maps as being within Flood Zone 1, which is low probability of river flooding.

There is however a watercourse along the eastern boundary of the site and our Flood Maps show Flood Zones 2 and 3 (medium and high probability respectively of fluvial flooding), affecting land adjacent to the watercourse.

Our Flood Maps are indicative only and they are not of sufficient accuracy to determine the risk of fluvial flooding at a specific location.

If the proposals for the site are in close proximity to, or affect, Flood Zone 3, then a Flood Risk Assessment will be required to be undertaken. The FRA will need to demonstrate that the proposals will be safe from flooding over their expected lifetime, taking climate change into account, and not increase the risk of flooding elsewhere.

For surface water drainage proposals for any proposed development on the site, these are to be discussed with the Lead Local Flood Authority, which is Warrington Borough Council.

#### **Review of Documentation and Further Work**

We now operate a voluntary charged-for service where we can provide more detailed planning advice. As part of this service we can provide a dedicated project manager to act as a single point of contact to coordinate any review of technical documents. Should you or the developer want us to undertake a detailed review of the FRA as discussed

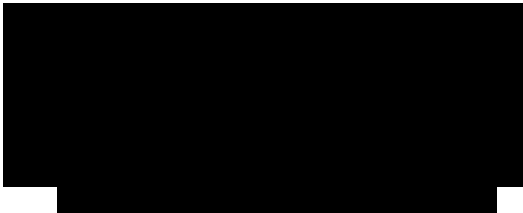
Environment Agency  
Richard Fairclough House Knutsford Road, Warrington, WA4 1HT.  
Customer services line: 03708 506 506  
[www.gov.uk/environment-agency](http://www.gov.uk/environment-agency)

Cont/d..

above we can do this as part of our charged service.

Should you require further assistance please do not hesitate to contact this office.

Yours faithfully




**Ms DAWN HEWITT**  
**Planning Advisor**

Direct dial [REDACTED]

Direct e-mail [dawn.hewitt@environment-agency.gov.uk](mailto:dawn.hewitt@environment-agency.gov.uk)

## Appendix E – MicroDrainage Storage Estimates

Waterco Ltd		Page 1
Eden Court Lon Parcwr Business Park Denbighshire LL15 1NJ	w10132 - Chester Road Walton - 40% hardstanding 1 in 100 plus 40% CC	
Date 17/06/2019 File w10132-190611-microdrai...	Designed by JW Checked by AW	
XP Solutions	Source Control 2019.1	

Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m <sup>3</sup> )	Status
15 min Summer	9.371	0.371	15.5	813.1	O K
30 min Summer	9.482	0.482	15.5	1056.9	O K
60 min Summer	9.593	0.593	15.5	1300.3	O K
120 min Summer	9.700	0.700	15.5	1534.8	O K
180 min Summer	9.762	0.762	15.5	1671.4	Flood Risk
240 min Summer	9.802	0.802	15.5	1760.1	Flood Risk
360 min Summer	9.849	0.849	15.5	1861.6	Flood Risk
480 min Summer	9.870	0.870	15.5	1908.2	Flood Risk
600 min Summer	9.878	0.878	15.5	1926.0	Flood Risk
720 min Summer	9.878	0.878	15.5	1926.3	Flood Risk
960 min Summer	9.864	0.864	15.5	1896.5	Flood Risk
1440 min Summer	9.827	0.827	15.5	1815.0	Flood Risk
2160 min Summer	9.775	0.775	15.5	1699.8	Flood Risk
2880 min Summer	9.725	0.725	15.5	1589.9	Flood Risk
4320 min Summer	9.624	0.624	15.5	1369.0	O K
5760 min Summer	9.541	0.541	15.5	1186.4	O K
7200 min Summer	9.471	0.471	15.5	1033.3	O K
8640 min Summer	9.412	0.412	15.5	903.6	O K
10080 min Summer	9.362	0.362	15.5	795.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m <sup>3</sup> )	Discharge Volume (m <sup>3</sup> )	Time-Peak (mins)
15 min Summer	142.331	0.0	735.3	16
30 min Summer	93.068	0.0	956.8	31
60 min Summer	57.897	0.0	1293.3	62
120 min Summer	34.814	0.0	1552.7	122
180 min Summer	25.716	0.0	1715.3	182
240 min Summer	20.669	0.0	1832.6	242
360 min Summer	15.090	0.0	1993.4	362
480 min Summer	12.005	0.0	2098.7	480
600 min Summer	10.030	0.0	2172.4	600
720 min Summer	8.648	0.0	2224.0	720
960 min Summer	6.832	0.0	2274.5	934
1440 min Summer	4.883	0.0	2198.5	1154
2160 min Summer	3.492	0.0	2871.0	1540
2880 min Summer	2.760	0.0	3019.3	1960
4320 min Summer	1.994	0.0	3249.4	2728
5760 min Summer	1.592	0.0	3524.8	3512
7200 min Summer	1.344	0.0	3715.0	4256
8640 min Summer	1.174	0.0	3888.2	5008
10080 min Summer	1.051	0.0	4042.4	5656

Eden Court  
Lon Parcwr Business Park  
Denbighshire LL15 1NJ

w10132 - Chester Road  
Walton - 40% hardstanding  
1 in 100 plus 40% CC

Date 17/06/2019  
File w10132-190611-microdrai...

Designed by JW  
Checked by AW




XP Solutions

Source Control 2019.1

Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m <sup>3</sup> )	Status
15 min Winter	9.415	0.415	15.5	911.4	O K
30 min Winter	9.540	0.540	15.5	1185.1	O K
60 min Winter	9.665	0.665	15.5	1459.7	O K
120 min Winter	9.787	0.787	15.5	1725.8	Flood Risk
180 min Winter	9.857	0.857	15.5	1880.1	Flood Risk
240 min Winter	9.903	0.903	15.5	1981.9	Flood Risk
360 min Winter	9.958	0.958	15.5	2101.5	Flood Risk
480 min Winter	9.984	0.984	15.5	2159.9	Flood Risk
600 min Winter	9.997	0.997	15.5	2186.5	Flood Risk
720 min Winter	10.000	1.000	15.5	2193.9	Flood Risk
960 min Winter	9.991	0.991	15.5	2175.0	Flood Risk
1440 min Winter	9.945	0.945	15.5	2072.7	Flood Risk
2160 min Winter	9.878	0.878	15.5	1926.9	Flood Risk
2880 min Winter	9.811	0.811	15.5	1780.1	Flood Risk
4320 min Winter	9.668	0.668	15.5	1466.4	O K
5760 min Winter	9.534	0.534	15.5	1172.5	O K
7200 min Winter	9.427	0.427	15.5	935.9	O K
8640 min Winter	9.341	0.341	15.5	747.3	O K
10080 min Winter	9.275	0.275	15.4	604.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m <sup>3</sup> )	Discharge Volume (m <sup>3</sup> )	Time-Peak (mins)
15 min Winter	142.331	0.0	823.9	16
30 min Winter	93.068	0.0	1061.4	31
60 min Winter	57.897	0.0	1448.0	62
120 min Winter	34.814	0.0	1734.4	120
180 min Winter	25.716	0.0	1912.7	180
240 min Winter	20.669	0.0	2039.3	238
360 min Winter	15.090	0.0	2207.1	356
480 min Winter	12.005	0.0	2307.6	470
600 min Winter	10.030	0.0	2365.6	584
720 min Winter	8.648	0.0	2389.5	698
960 min Winter	6.832	0.0	2361.7	922
1440 min Winter	4.883	0.0	2248.1	1312
2160 min Winter	3.492	0.0	3213.3	1644
2880 min Winter	2.760	0.0	3376.9	2108
4320 min Winter	1.994	0.0	3625.3	2988
5760 min Winter	1.592	0.0	3948.2	3752
7200 min Winter	1.344	0.0	4162.2	4472
8640 min Winter	1.174	0.0	4357.5	5184
10080 min Winter	1.051	0.0	4534.0	5848

Waterco Ltd		Page 3
Eden Court Lon Parcwr Business Park Denbighshire LL15 1NJ	w10132 - Chester Road Walton - 40% hardstanding 1 in 100 plus 40% CC	
Date 17/06/2019 File w10132-190611-microdrai...	Designed by JW Checked by AW	
XP Solutions	Source Control 2019.1	


Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 360310 385740	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 3.080

Time (mins)	Area
From:	To: (ha)
0	1 3.080

Waterco Ltd		Page 4
Eden Court Lon Parcwr Business Park Denbighshire LL15 1NJ	w10132 - Chester Road Walton - 40% hardstanding 1 in 100 plus 40% CC	
Date 17/06/2019 File w10132-190611-microdrai...	Designed by JW Checked by AW	
XP Solutions	Source Control 2019.1	

Model Details

Storage is Online Cover Level (m) 10.000

Tank or Pond Structure

Invert Level (m) 9.000

Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )
0.000	2194.0	1.000	2194.0

Hydro-Brake® Optimum Outflow Control

Unit Reference	MD-SHE-0178-1550-1000-1550
Design Head (m)	1.000
Design Flow (l/s)	15.5
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	178
Invert Level (m)	8.995
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1500

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.000	15.5
Flush-Flo™	0.324	15.5
Kick-Flo®	0.706	13.1
Mean Flow over Head Range	-	13.2

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	6.3	1.200	16.9	3.000	26.2	7.000	39.4
0.200	14.9	1.400	18.2	3.500	28.2	7.500	40.7
0.300	15.5	1.600	19.4	4.000	30.1	8.000	42.0
0.400	15.4	1.800	20.5	4.500	31.8	8.500	43.3
0.500	15.1	2.000	21.6	5.000	33.5	9.000	44.5
0.600	14.6	2.200	22.6	5.500	35.0	9.500	45.7
0.800	13.9	2.400	23.5	6.000	36.5		
1.000	15.5	2.600	24.4	6.500	38.0		



Eden Court  
Lon Parcwr Business Park  
Denbighshire LL15 1NJ

w10132 - Chester Road  
Walton - 40% hardstanding  
1 in 100 plus 40% CC



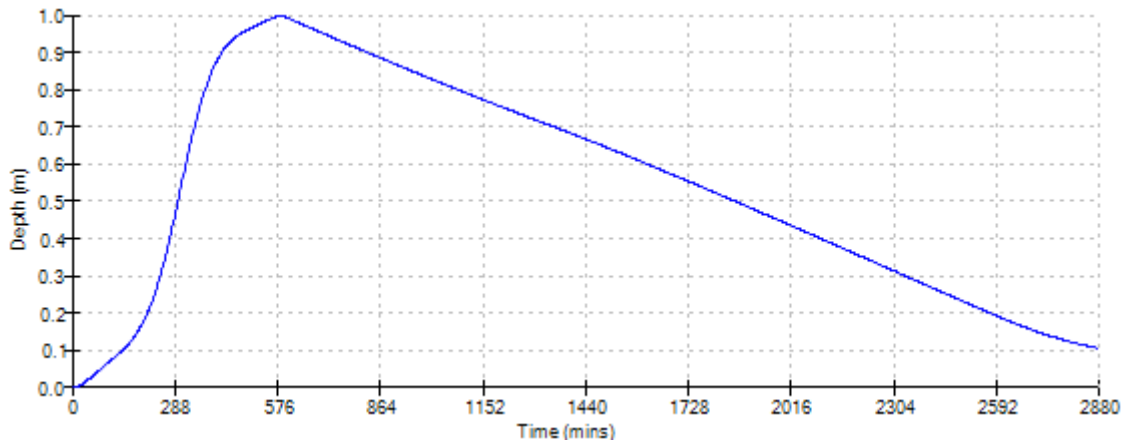
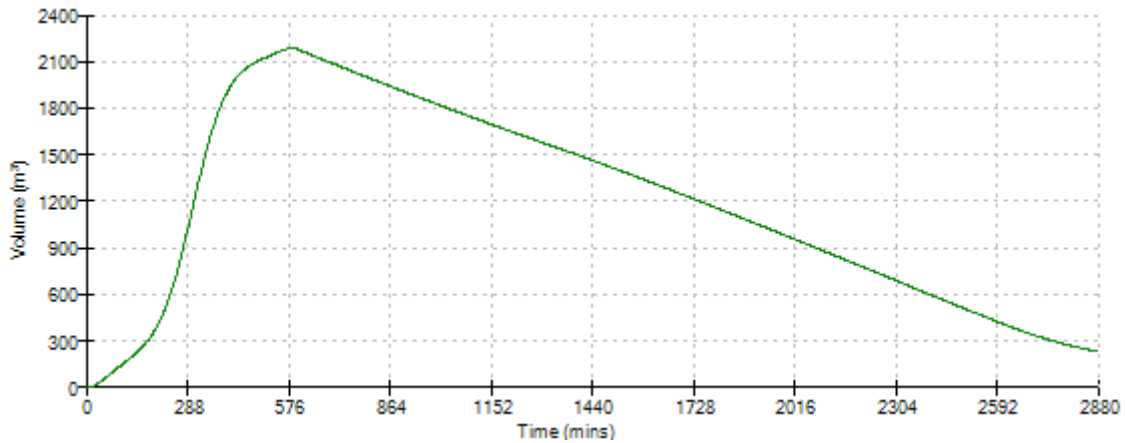
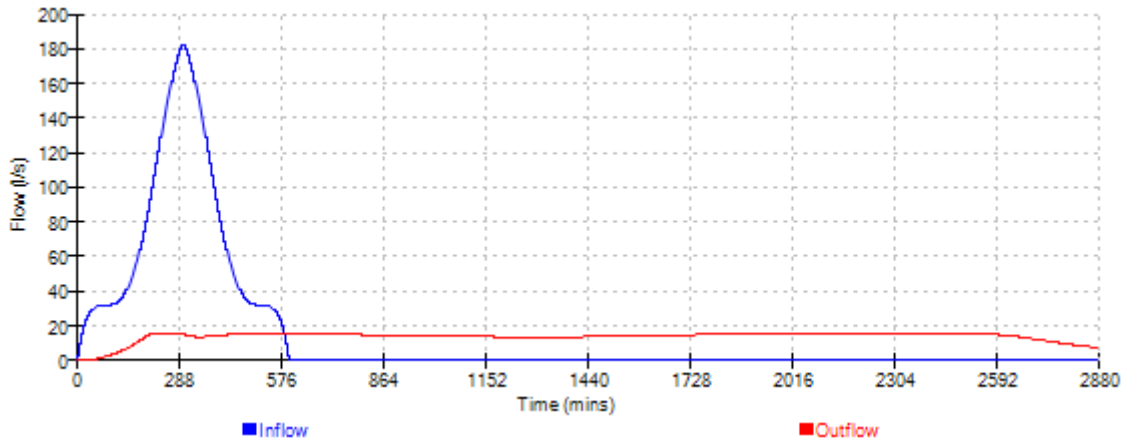
Date 17/06/2019  
File w10132-190611-microdrai...

Designed by JW  
Checked by AW

XP Solutions

Source Control 2019.1

Event: 600 min Winter



Eden Court  
Lon Parcwr Business Park  
Denbighshire LL15 1NJ

w10132 - Chester Road  
Walton - 40% hardstanding  
1 in 100 plus 40% CC



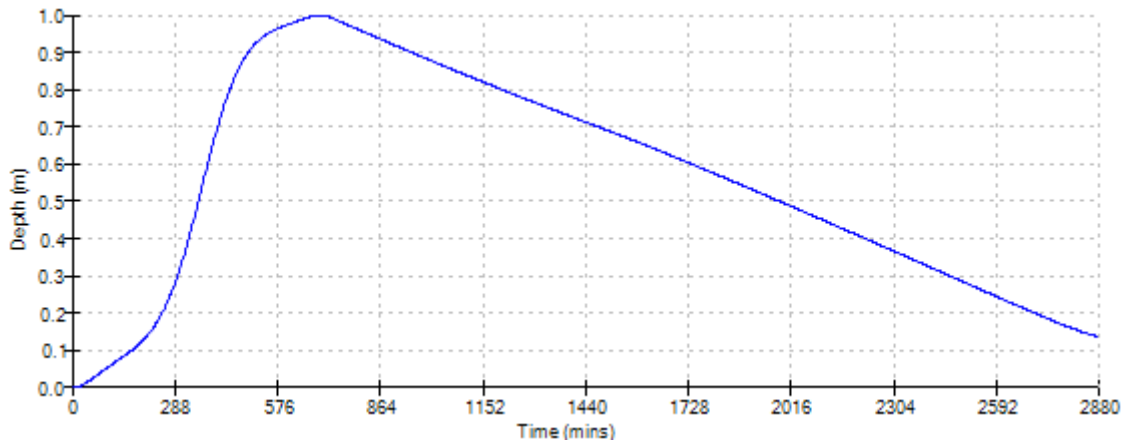
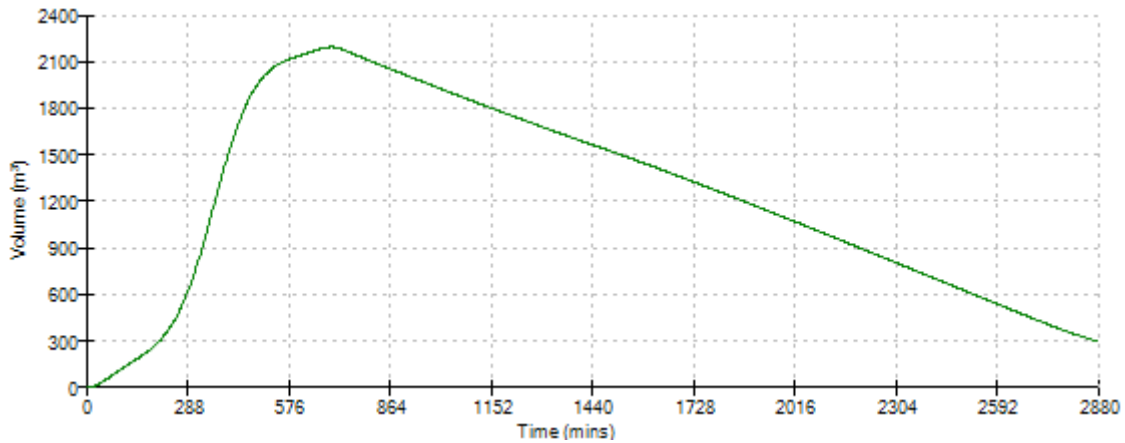
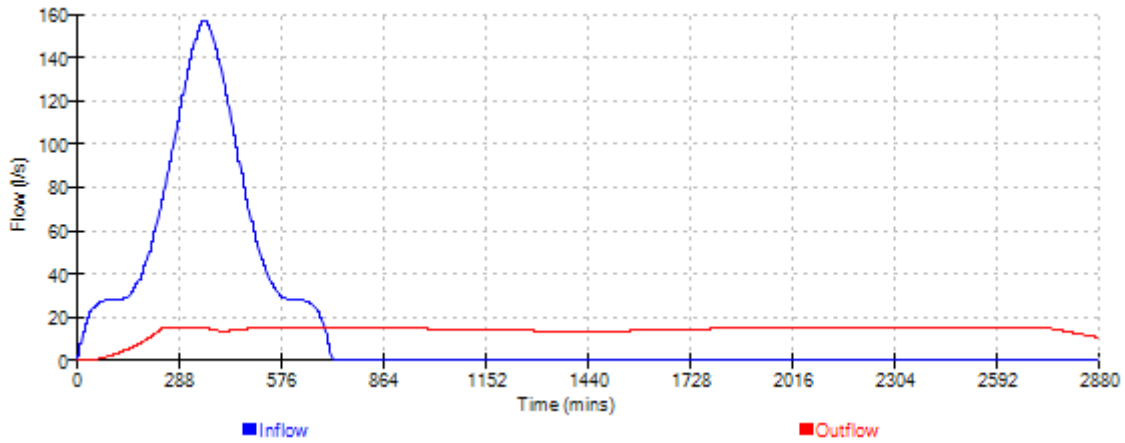
Date 17/06/2019  
File w10132-190611-microdrai...

Designed by JW  
Checked by AW

XP Solutions

Source Control 2019.1

Event: 720 min Winter



Eden Court  
Lon Parcwr Business Park  
Denbighshire LL15 1NJ

w10132 - Chester Road  
Walton - 40% hardstanding  
1 in 100 plus 40% CC



Date 17/06/2019

Designed by JW

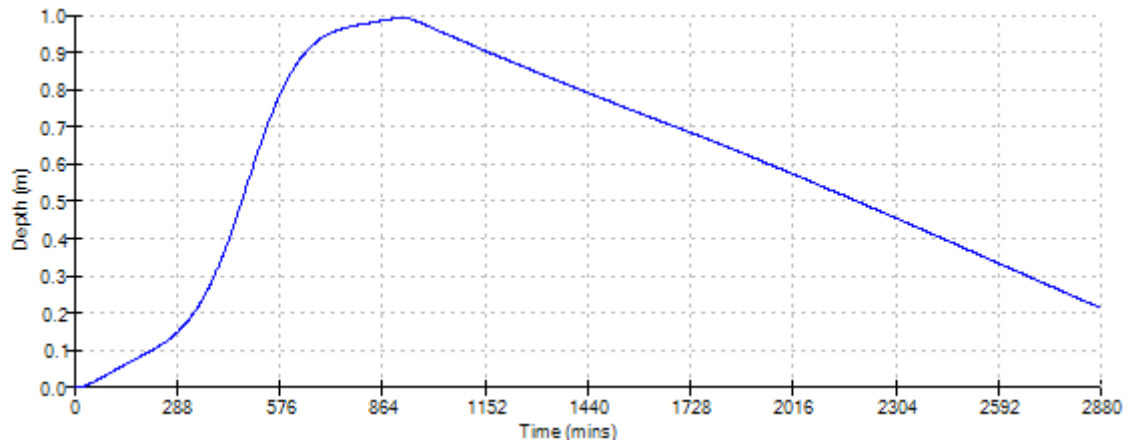
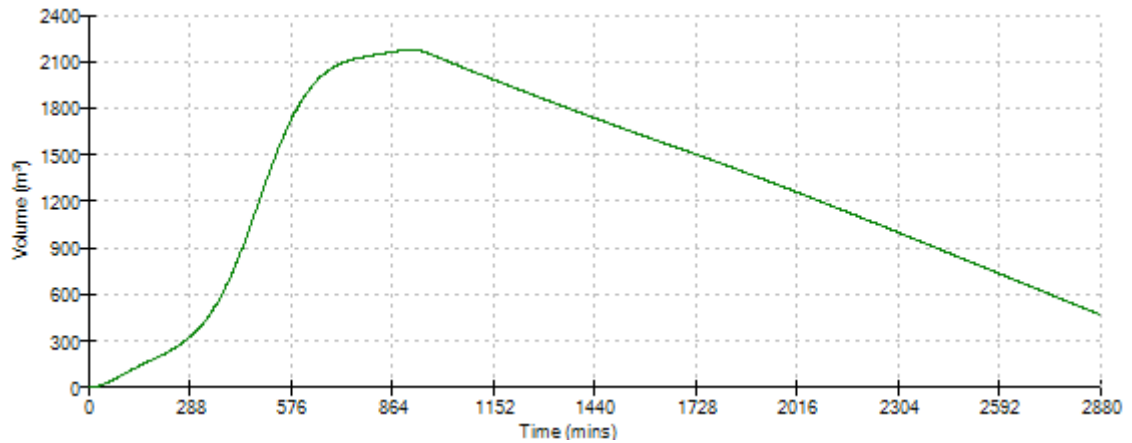
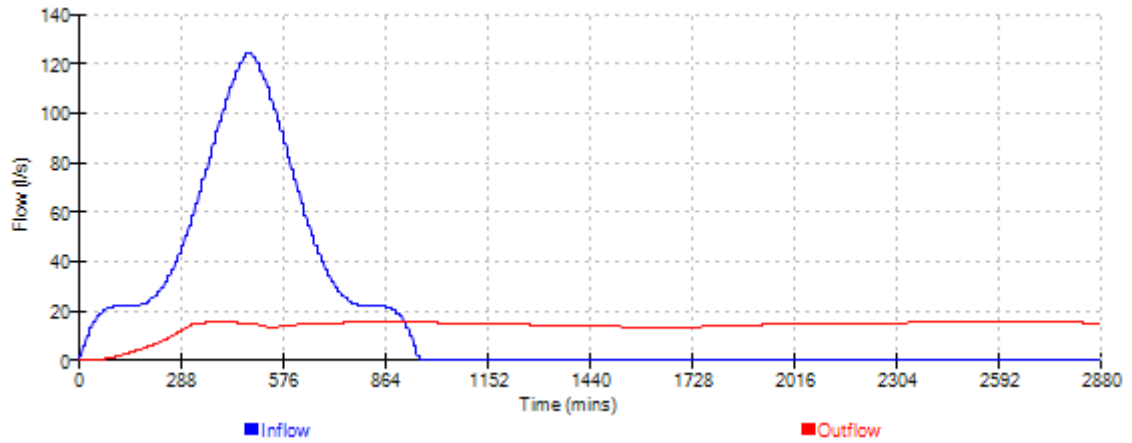
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Checked by AW

XP Solutions

Source Control 2019.1

Event: 960 min Winter




Waterco Ltd		Page 1
Eden Court Lon Parcwr Business Park Denbighshire LL15 1NJ	w10132 - Chester Road Walton - 60% hardstanding 1 in 100 plus 40% CC	
Date 17/06/2019 File w10132-190611-microdrai...	Designed by JW Checked by AW	
XP Solutions	Source Control 2019.1	

Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m <sup>3</sup> )	Status
15 min Summer	9.339	0.339	15.5	1218.1	O K
30 min Summer	9.443	0.443	15.5	1588.7	O K
60 min Summer	9.547	0.547	15.5	1964.2	O K
120 min Summer	9.651	0.651	15.5	2334.8	O K
180 min Summer	9.713	0.713	15.5	2559.8	Flood Risk
240 min Summer	9.757	0.757	15.5	2714.5	Flood Risk
360 min Summer	9.811	0.811	15.5	2909.6	Flood Risk
480 min Summer	9.842	0.842	15.5	3020.9	Flood Risk
600 min Summer	9.861	0.861	15.5	3088.5	Flood Risk
720 min Summer	9.872	0.872	15.5	3128.8	Flood Risk
960 min Summer	9.881	0.881	15.5	3160.4	Flood Risk
1440 min Summer	9.869	0.869	15.5	3117.4	Flood Risk
2160 min Summer	9.835	0.835	15.5	2995.9	Flood Risk
2880 min Summer	9.805	0.805	15.5	2889.1	Flood Risk
4320 min Summer	9.751	0.751	15.5	2694.6	Flood Risk
5760 min Summer	9.698	0.698	15.5	2505.2	O K
7200 min Summer	9.646	0.646	15.5	2319.5	O K
8640 min Summer	9.601	0.601	15.5	2157.4	O K
10080 min Summer	9.561	0.561	15.5	2013.4	O K


Storm Event	Rain (mm/hr)	Flooded Volume (m <sup>3</sup> )	Discharge Volume (m <sup>3</sup> )	Time-Peak (mins)
15 min Summer	142.331	0.0	977.3	27
30 min Summer	93.068	0.0	1216.3	41
60 min Summer	57.897	0.0	1843.4	72
120 min Summer	34.814	0.0	2177.3	130
180 min Summer	25.716	0.0	2347.4	190
240 min Summer	20.669	0.0	2428.0	250
360 min Summer	15.090	0.0	2438.0	368
480 min Summer	12.005	0.0	2400.7	488
600 min Summer	10.030	0.0	2364.9	606
720 min Summer	8.648	0.0	2331.3	726
960 min Summer	6.832	0.0	2268.7	964
1440 min Summer	4.883	0.0	2151.9	1440
2160 min Summer	3.492	0.0	4138.2	1800
2880 min Summer	2.760	0.0	4249.0	2168
4320 min Summer	1.994	0.0	3990.8	2984
5760 min Summer	1.592	0.0	5254.9	3808
7200 min Summer	1.344	0.0	5536.4	4608
8640 min Summer	1.174	0.0	5791.9	5368
10080 min Summer	1.051	0.0	6011.7	6152

Waterco Ltd		Page 2
Eden Court Lon Parcwr Business Park Denbighshire LL15 1NJ	w10132 - Chester Road Walton - 60% hardstanding 1 in 100 plus 40% CC	
Date 17/06/2019 File w10132-190611-microdrai...	Designed by JW Checked by AW	
XP Solutions	Source Control 2019.1	

Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m <sup>3</sup> )	Status
15 min Winter	9.381	0.381	15.5	1365.6	O K
30 min Winter	9.497	0.497	15.5	1782.0	O K
60 min Winter	9.614	0.614	15.5	2204.7	O K
120 min Winter	9.731	0.731	15.5	2624.2	Flood Risk
180 min Winter	9.802	0.802	15.5	2877.6	Flood Risk
240 min Winter	9.851	0.851	15.5	3052.4	Flood Risk
360 min Winter	9.913	0.913	15.5	3275.8	Flood Risk
480 min Winter	9.949	0.949	15.5	3406.3	Flood Risk
600 min Winter	9.972	0.972	15.5	3488.0	Flood Risk
720 min Winter	9.986	0.986	15.5	3539.3	Flood Risk
960 min Winter	10.000	1.000	15.5	3587.6	Flood Risk
1440 min Winter	9.994	0.994	15.5	3567.1	Flood Risk
2160 min Winter	9.956	0.956	15.5	3431.4	Flood Risk
2880 min Winter	9.917	0.917	15.5	3289.2	Flood Risk
4320 min Winter	9.845	0.845	15.5	3032.0	Flood Risk
5760 min Winter	9.773	0.773	15.5	2771.9	Flood Risk
7200 min Winter	9.698	0.698	15.5	2502.9	O K
8640 min Winter	9.619	0.619	15.5	2221.4	O K
10080 min Winter	9.552	0.552	15.5	1980.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m <sup>3</sup> )	Discharge Volume (m <sup>3</sup> )	Time-Peak (mins)
15 min Winter	142.331	0.0	1082.9	26
30 min Winter	93.068	0.0	1286.8	41
60 min Winter	57.897	0.0	2049.0	70
120 min Winter	34.814	0.0	2369.6	128
180 min Winter	25.716	0.0	2473.2	186
240 min Winter	20.669	0.0	2469.1	246
360 min Winter	15.090	0.0	2432.0	362
480 min Winter	12.005	0.0	2401.4	480
600 min Winter	10.030	0.0	2375.3	596
720 min Winter	8.648	0.0	2351.6	712
960 min Winter	6.832	0.0	2307.5	942
1440 min Winter	4.883	0.0	2226.2	1390
2160 min Winter	3.492	0.0	4532.8	2016
2880 min Winter	2.760	0.0	4507.0	2280
4320 min Winter	1.994	0.0	4125.8	3204
5760 min Winter	1.592	0.0	5882.4	4152
7200 min Winter	1.344	0.0	6195.8	5048
8640 min Winter	1.174	0.0	6482.7	5800
10080 min Winter	1.051	0.0	6738.1	6560

Waterco Ltd		Page 3
Eden Court Lon Parcwr Business Park Denbighshire LL15 1NJ	w10132 - Chester Road Walton - 60% hardstanding 1 in 100 plus 40% CC	
Date 17/06/2019 File w10132-190611-microdrai...	Designed by JW Checked by AW	
XP Solutions	Source Control 2019.1	


Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 360310 385740	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 4.620

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
From:	To:	From:	To:	From:	To:
0	4	4	8	8	12
	1.540		1.540		1.540

Waterco Ltd		Page 4
Eden Court Lon Parcwr Business Park Denbighshire LL15 1NJ	w10132 - Chester Road Walton - 60% hardstanding 1 in 100 plus 40% CC	
Date 17/06/2019 File w10132-190611-microdrai...	Designed by JW Checked by AW	
XP Solutions	Source Control 2019.1	

Model Details

Storage is Online Cover Level (m) 10.000

Tank or Pond Structure

Invert Level (m) 9.000

Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )
0.000	3588.0	1.000	3588.0

Hydro-Brake® Optimum Outflow Control

Unit Reference	MD-SHE-0178-1550-1000-1550
Design Head (m)	1.000
Design Flow (l/s)	15.5
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	178
Invert Level (m)	8.995
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1500

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.000	15.5
Flush-Flo™	0.324	15.5
Kick-Flo®	0.706	13.1
Mean Flow over Head Range	-	13.2

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	6.3	1.200	16.9	3.000	26.2	7.000	39.4
0.200	14.9	1.400	18.2	3.500	28.2	7.500	40.7
0.300	15.5	1.600	19.4	4.000	30.1	8.000	42.0
0.400	15.4	1.800	20.5	4.500	31.8	8.500	43.3
0.500	15.1	2.000	21.6	5.000	33.5	9.000	44.5
0.600	14.6	2.200	22.6	5.500	35.0	9.500	45.7
0.800	13.9	2.400	23.5	6.000	36.5		
1.000	15.5	2.600	24.4	6.500	38.0		

Eden Court  
Lon Parcwr Business Park  
Denbighshire LL15 1NJ

w10132 - Chester Road  
Walton - 60% hardstanding  
1 in 100 plus 40% CC



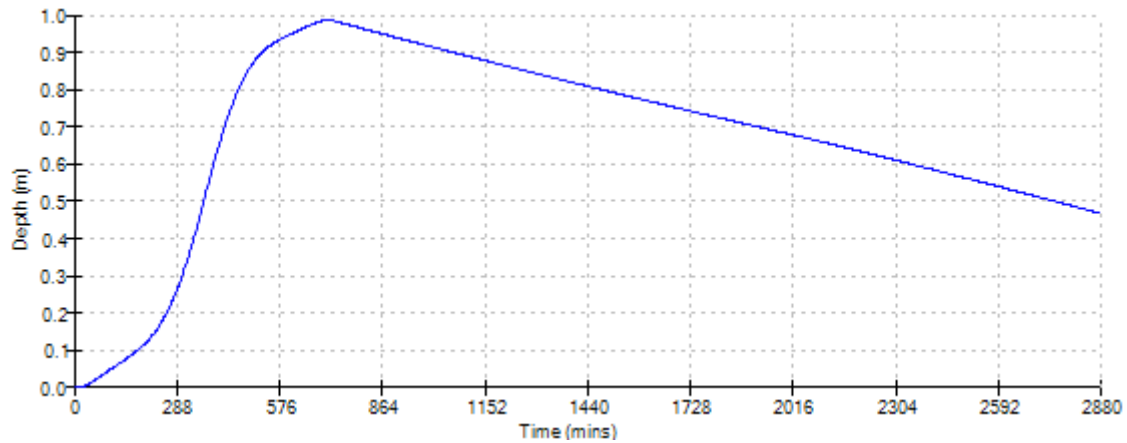
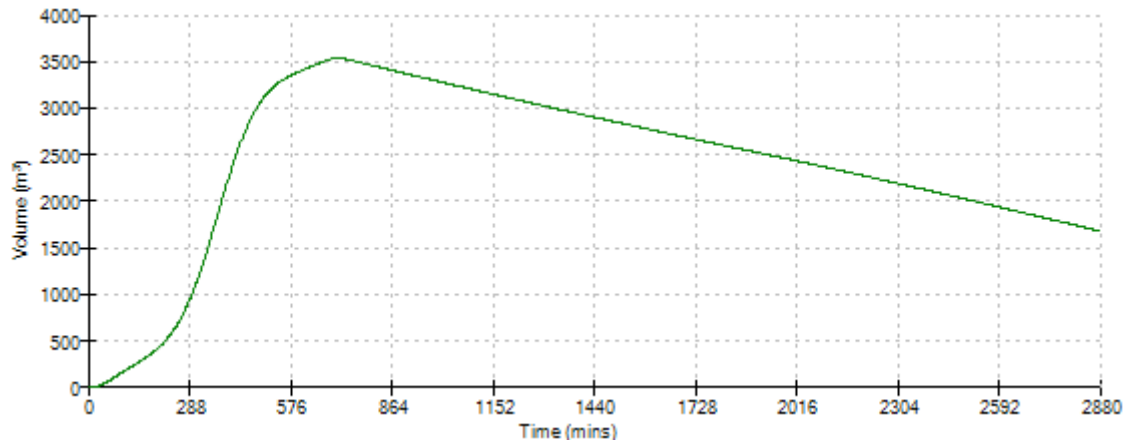
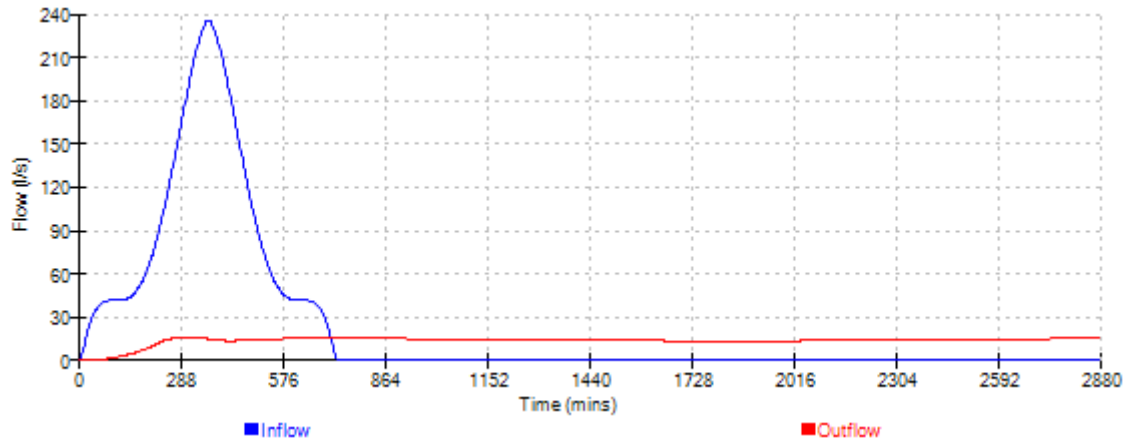
Date 17/06/2019  
File w10132-190611-microdrai...

Designed by JW  
Checked by AW

XP Solutions

Source Control 2019.1

Event: 720 min Winter





Eden Court  
Lon Parcwr Business Park  
Denbighshire LL15 1NJ

w10132 - Chester Road  
Walton - 60% hardstanding  
1 in 100 plus 40% CC



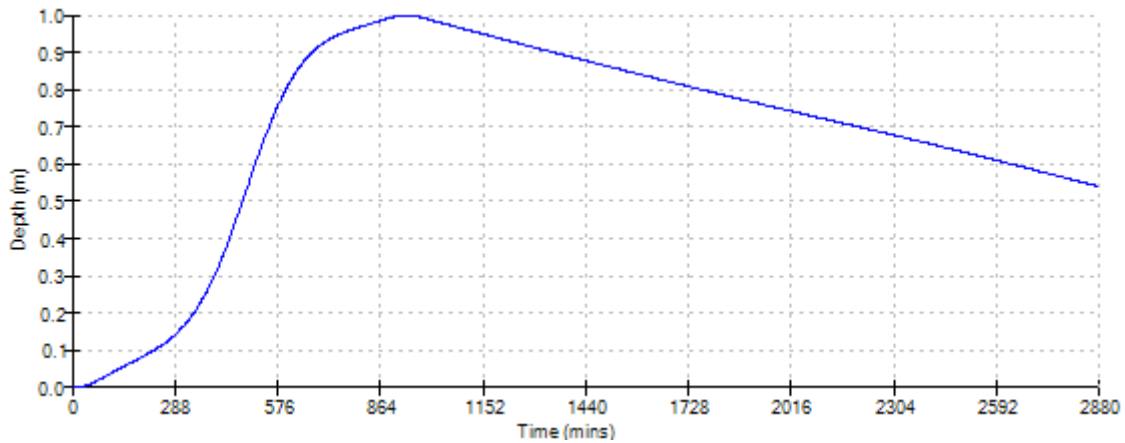
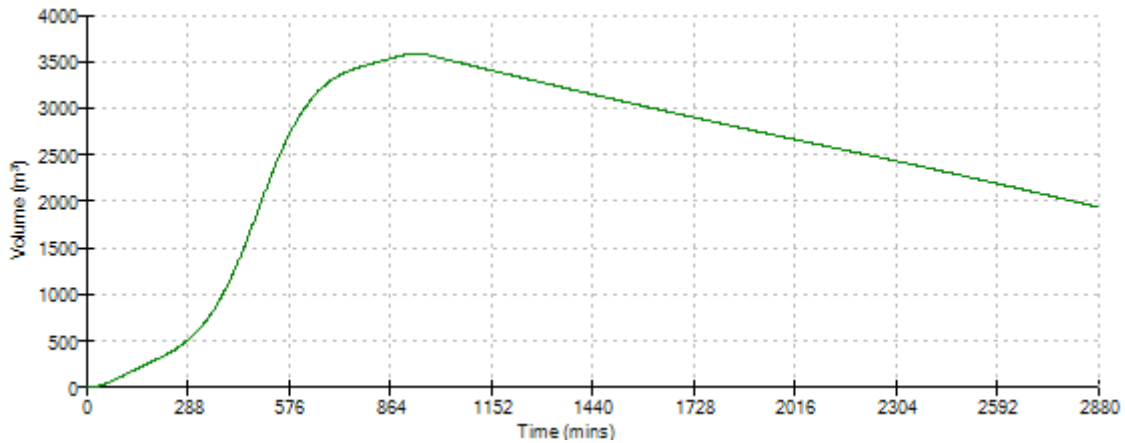
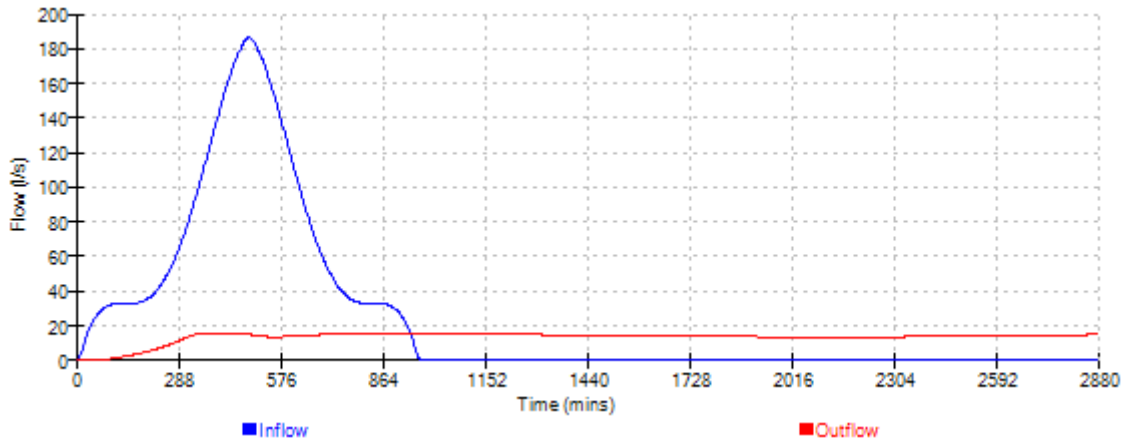
Date 17/06/2019  
File w10132-190611-microdrai...

Designed by JW  
Checked by AW

XP Solutions

Source Control 2019.1

Event: 960 min Winter



Eden Court  
Lon Parcwr Business Park  
Denbighshire LL15 1NJ

w10132 - Chester Road  
Walton - 60% hardstanding  
1 in 100 plus 40% CC



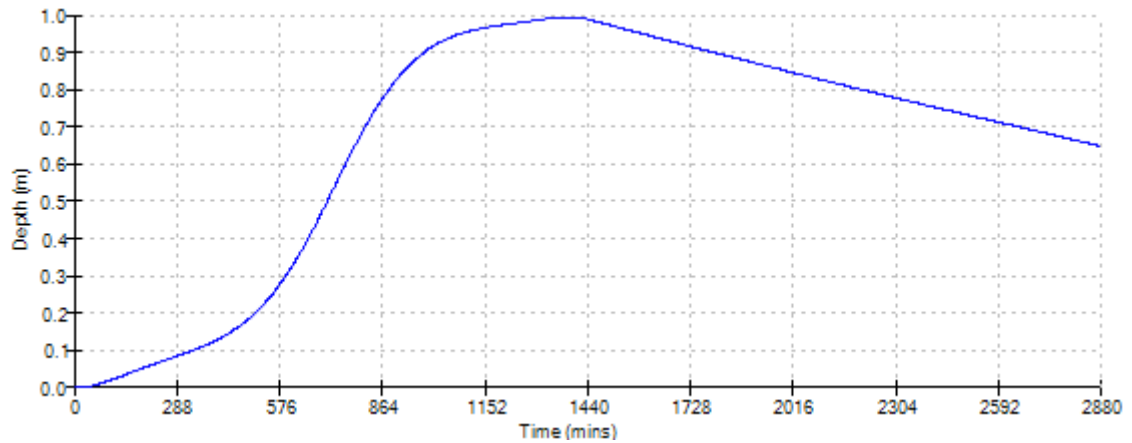
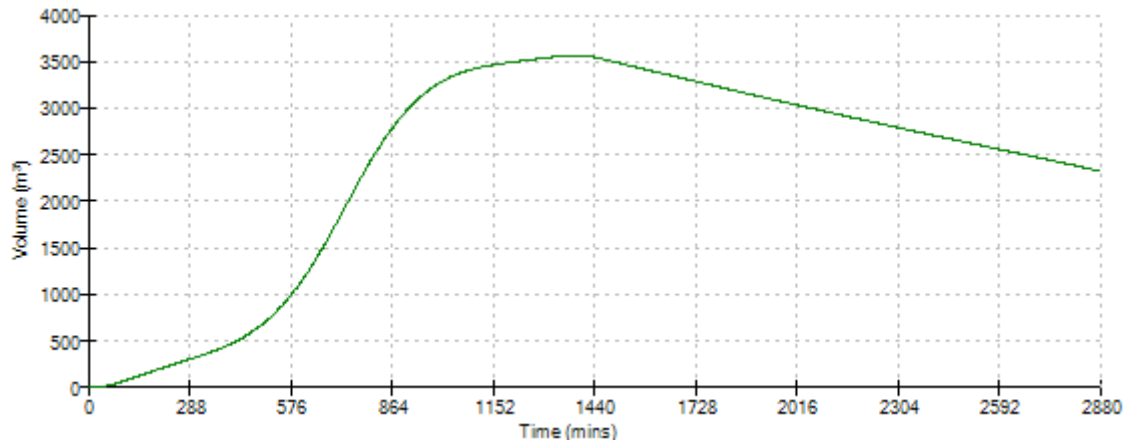
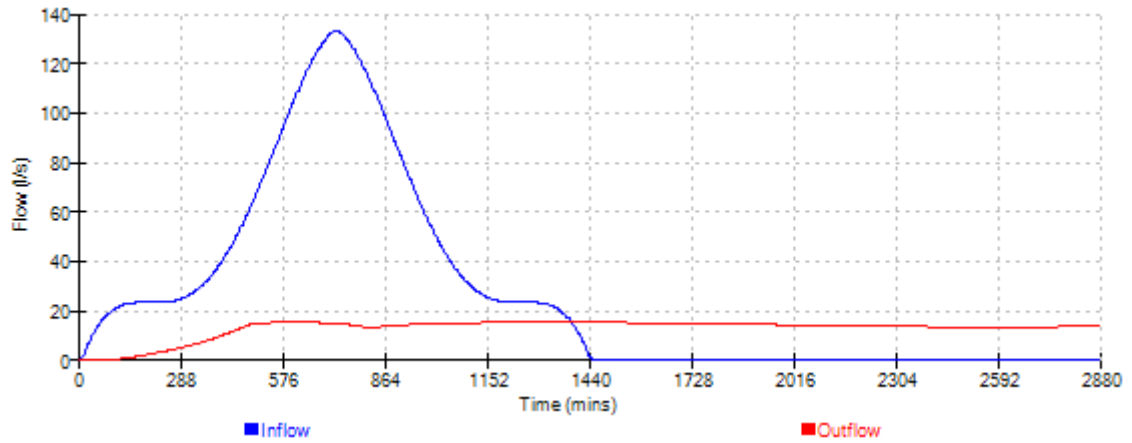
Date 17/06/2019  
File w10132-190611-microdrai...

Designed by JW  
Checked by AW

XP Solutions

Source Control 2019.1

Event: 1440 min Winter



## Appendix F – Maintenance Schedules

### Operation and Maintenance Requirements for Detention Basins

Maintenance Schedule	Required Action	Typical Frequency
Regular maintenance	Remove litter and debris	Monthly
	Cut grass-for spillways and access routes	Monthly (during growing season), or as required
	Cut grass - meadow grass in and around basin	Half yearly (spring - before nesting season, and autumn)
	Manage other vegetation and remove nuisance plants	Monthly (at start, then as required)
	Inspect inlets, outlets and overflows for blockages, and clear if required.	Monthly
	Inspect banksides. structures. pipework etc. for evidence of physical damage	Monthly
	Inspect inlets and facility surface for silt accumulation. Establish appropriate silt removal frequencies.	Monthly (for first year), then annually or as required
	Check any penstocks and other mechanical devices	Annually
	Tidy all dead growth before start of growing season	Annually
	Remove sediment from inlets, outlet and forebays	Annually (or as required)
	Manage wetland plants in outlet pool – where provided	Annually (as set out in Chapter 23)
Occasional maintenance	Reseed- areas of poor vegetation growth	As required
	Prune and trim any trees and remove cuttings	Every 2 years. or as required
	Remove sediment from inlets, outlets. forebays and main basin when required	Every 5 years. or as required (likely to be minimal requirements where effective upstream source control is provided)
Remedial actions	Repair erosion or other damage by reseeding or re-turfing	As required
	Realignment of rip-rap	As required
	Repair/rehabilitation of inlets, outlets and overflows	As required
	Relevel uneven surfaces and reinstate design levels	As required

Ref. Table 22.1 CIRIA C753 'The SuDS Manual'

The maintenance requirements detailed above are to be undertaken by the site owner.

**Name :**

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**Position :**

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**Date :**

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**Signed on behalf of the site owner :**

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### Operation and Maintenance Requirements for Permeable Paving

Maintenance Schedule	Required Action	Typical Frequency
Regular maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer’s recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
Occasional maintenance	Stabilise and move contributing and adjacent areas	As required
	Removal of weeds or management using glyphosate applied directly into the weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
Remedial actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50mm of the level or the paving	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Inspect for evidence of poor operation and / or weed growth – if required, take remedial action	Three-monthly, 48hr after large storms in first six months
	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

Ref. Table 20.15, CIRIA C753 ‘The SuDS Manual’

The maintenance requirements detailed above are to be undertaken by the site owner.

**Name :** \_\_\_\_\_

**Position :** \_\_\_\_\_

**Date :** \_\_\_\_\_

**Signed on behalf of the site owner :** \_\_\_\_\_

### Operation and Maintenance Requirements for Ponds and Wetlands

Maintenance Schedule	Required Action	Typical Frequency
Regular maintenance	Remove litter and debris	Monthly (or as required)
	Cut the grass – public areas	Monthly (during growing season), or as required
	Inspect marginal and bankside vegetation and remove nuisance plants (for first 3 years)	Monthly (at start, then as required)
	Inspect inlets, outlets, banksides, structures, pipework etc for evidence of blockage, and / or physical damage.	Monthly
	Inspect water body for signs of poor water quality	Monthly (May – October)
	Inspect silt accumulation rates in any forebay and in main body of the pond and establish appropriate removal frequencies; undertake contamination testing once some build-up has occurred, to inform management and disposal options.	Half yearly
	Check any mechanical devices e.g. penstocks	Half yearly
	Hand cut submerged and emergent aquatic plants (at minimum of 0.1m above pond base; include max 25% of pond surface)	Annually
	Remove 25% of bank vegetation from water’s edge to a minimum of 1m above water level	Annually
	Remove sediment from any forebay	Every 1 – 5 years, or as required
	Remove sediment and planting from one quadrant of the main body of ponds without sediment forebays	Every 5 years, or as required
Occasional maintenance	Remove sediment from the main body of big ponds when pool volume is reduced by 20%	With effective pre-treatment, this will only be required rarely, e.g. 25-50 years
Remedial actions	Repair erosion or other damage	As required
	Replant where necessary	As required
	Aerate pond when signs of eutrophication are detected	As required
	Realign rip-rap or repair other damage	As required
	Repair/rehabilitate of Inlets, outlets and overflows	As required

Ref. Table 23.1 CIRIA C753 ‘The SuDS Manual’

The maintenance requirements detailed above are to be undertaken by the site owner.

**Name :**

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**Position :**

-----

**Date :**

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**Signed on behalf of the site owner :**

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### Operation and Maintenance Requirements for Attenuation Storage Tanks

Maintenance Schedule	Required Action	Typical Frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary	Annually
	Remove sediment from pre-treatment structures and/ or internal forebays	Annually, or as required
Remedial actions	Repair/rehabilitate inlets, outlet, overflows and vents	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually
	Survey inside of tank for sediment build-up and remove if necessary	Every 5 years or as required

Ref. Table 21.3, CIRIA C753 'The SuDS Manual'

The maintenance requirements detailed above are to be undertaken by the site owner.

**Name :**

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**Position :**

-----

**Date :**

-----

**Signed on behalf of the site owner :**

-----



### Operation and Maintenance Requirements for Swale

Maintenance Schedule	Required Action	Typical Frequency
Regular maintenance	Remove litter and debris	Monthly (or as required)
	Cut the grass – to retain grass height within specified design range	Monthly (during growing season), or as required
	Manage other vegetation and remove nuisance plants	Monthly at start, then as Required
	Inspect inlets, outlets and overflows for blockages, and clear if required	Monthly
	Inspect infiltration surfaces for ponding, compaction, silt accumulation, record areas where water is ponding for > 48 hours	Monthly, or when required
	Inspect vegetation coverage	Monthly for 6 months, quarterly for 2 years, then half yearly
	Inspect inlets and facility surface for silt accumulation, establish appropriate silt removal frequencies	Half yearly
Occasional maintenance	Reseed areas of poor vegetation growth, alter plant types to better suit conditions, if required	As required or if bare soil is exposed over 10% or more of the swales treatment area
Remedial actions	Repair erosion or other damage by re-turfing or reseeding	As required
	Relevel uneven surfaces and reinstate design levels	As required
	Scarify and spike topsoil layer to improve infiltration performance, break up silt deposits and prevent compaction of the soil surface	As required
	Remove build-up of sediment on upstream gravel trench, flow spreader or at top of filter strip	As required
	Remove and dispose of oil or petrol residues using safe standard practices	As required

Ref. Table 17.1 CIRIA C753 ‘The SuDS Manual’

The maintenance requirements detailed above are to be undertaken by the site owner.

Name :

-----

Position :

-----

Date :

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Signed on behalf of the site owner :

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## Appendix G – Concept Designer’s Risk Assessment

Project: Chester Road, Walton  
 Client: Ashall Homes Ltd  
 Report Reference: w10132-190611-FRA & Drainage Strategy

Project No: w10132

Prepared by: Johanne Williams Date: 12/06/2019  
 Checked by: Aled Williams Date: 17/06/2019  
 Reviewed by: Josh Rigby Date: 17/06/2019

**Requirement:**

The Construction (Design and Management) Regulations 2015 (CDM 2015) place an obligation on the Designer to take all reasonable steps to provide, with the design, sufficient information about the design, construction or maintenance of the structure, to adequately assist the client, other designers and contractors to comply with their duties under CDM. The Designer has undertaken this assessment to identify any extra-ordinary risks, or those that would not be expected on this particular project by an experienced and competent Contractor. The aim is to avoid needless paperwork and bureaucracy and ensure the assessment is project specific, relevant and proportionate to the risk.

**DRA Summary**

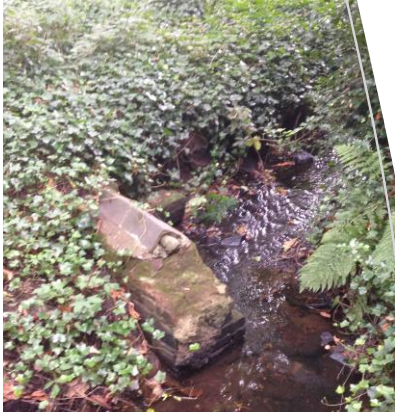
Each of the following risk areas has been considered using the question below. Is a risk present which is considered to be **extra-ordinary or unexpected** in this instance?

If **YES** - A detailed risk assessment is required at design stage

If **UNKNOWN** - Insufficient information has been provided at concept design stage and the risks are unknown. Further consideration must be given at design stage(s)

If **NO** - No further action is required.

Hazard Ref.	Risk Areas	YES, UNKNOWN or NO	Comments
1	Ground Conditions	Unknown	
2	Hazardous Environment	Unknown	
3	Existing Working Environment	Unknown	
4	Existing Services	Unknown	
5	Proximity to Other Structure(s)	Unknown	
6	Near Waterbody / flood risk	Yes	The eastern extent of the site is at potential risk of fluvial flooding
7	Proximity to Other Activities	Unknown	
8	Sequence of Construction	Unknown	
9	Access	Unknown	
10	Interfaces	Unknown	
11	Confined Space Working	Unknown	
12	Maintenance Considerations	Yes	Proposed drainage system will require ongoing maintenance
13	Working at Height	Unknown	
14	Steep Slopes	Yes	Topography slopes steeply to watercourse at eastern boundary
15	Demolition / Refurbishment / Repair	Unknown	
16	Welfare	Unknown	
17	Occupational Health	Unknown	
18	Environmental Issues	Unknown	
19	Other Significant Hazards not Identified Above	Unknown	
20	Residual Risk to Future Users	Unknown	



**Earth Environmental**  
& Geotechnical

Phase 1 GeoEnvironmental  
Assessment

Chester Road

Walton

September 2016

On behalf of

Ashall Residential Ltd

Earth Environmental & Geotechnical Ltd  
Houldsworth Mill Business & Arts Centre  
Houldsworth Street  
Stockport  
SK5 6DA

Tel : 0161 975 6088

Email [info@earthenvironmental.co.uk](mailto:info@earthenvironmental.co.uk)  
[www.earthenvironmental.co.uk](http://www.earthenvironmental.co.uk)



**CHESTER ROAD**

**WALTON**

**PHASE I ENVIRONMENTAL DESK STUDY**

**FOR**

**ASHALL RESIDENTIAL LTD**

Earth Environmental & Geotechnical Ltd  
Houldsworth Mill Business & Arts Centre  
Houldsworth Street  
Stockport  
SK5 6DA  
0161 975 6088

**Report No. A1426/16**

**September 2016**

<b>Report Title:</b>	<b>Chester Road, Walton Phase I Environmental Desk Study</b>
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## 1.0 INTRODUCTION

### Appointment

- 1.1 Earth Environmental & Geotechnical was commissioned by Ashall Residential Ltd (the client) to undertake a Phase I Environmental Desk Study at Chester Road, Walton.
- 1.2 It is understood that the client intends to develop the site for a large residential estate end use comprising of 212 low rise houses, with access roads, car parking, private gardens and landscaped soft standing areas.
- 1.3 A proposed layout plan is shown in Figure 1 below.

**Figure 1: Proposed Development Layout Plan**



### Objective

- 1.4 The purpose of the Desk Study is to collate available geological and environmental data for the site (and its environment) and provide a preliminary geotechnical and geo-environmental appraisal, with a site specific conceptual model. This enables a preliminary assessment of geo-environmental risks to be undertaken and, if necessary, provides information for the design of a Phase 2 Ground Investigation.

## Scope

1.5 The Phase I Environmental Desk Study comprises of a site reconnaissance visit and a review of the following information sources some of which was provided by the client.

- British Geological Survey online maps.
- Google Earth imagery.
- Environment Agency online mapping data.
- Historical Ordnance Survey maps.
- The site and surrounding areas environmental, geological and mining data presented in the site specific GroundSure Reports (Appendix 1).
- Coal Authority Interactive Viewer.
- Warrington Borough Council Planning Portal.

## 2.0 SITE LOCATION AND DESCRIPTION

2.1 The site is currently occupied by a single large field used for crop growing.

### Site Location

2.2 The site is located immediately southeast of Chester Road, immediately southwest of Walton town centre and approximately 2.5km south of Warrington town centre. The approximate National Grid Reference for the centre of the site is SJ603857 (360319, 385745), at postcode WA4 6TB.

2.3 The site, which occupies approximately 8.04ha and comprises an approximately square parcel of land. A plant nursery and some large detached residential properties accessed via a lane runs parallel to the southwest boundary of the site. The southeast boundary is in contact with a playing field (cricket) and the rear gardens of detached residential properties. The northeast boundary is bound by a small river which flows north, with the exception of the northernmost corner of the site which is immediately bound by a newly developed housing estate. Past this river is a woodland and the rear gardens of large detached residential properties. Chester Road bounds the northwest site boundary, with fields beyond this road.

2.4 Trees, scrub vegetation and low-lying metal fencing mark the perimeter of the site, whilst a 3m high wooden panelled fence separates the housing estate immediately northeast of the site. The site is accessed by an unnamed lane that is oriented northwest-southeast along the southwest boundary of the site. There are two access gates along the southwest boundary and another in the centre of the northwest boundary.

2.5 A location plan is shown below as Figure 2.

Figure 2 Site Location Plan



2.6 The boundaries of the site and neighbouring land uses can be described as follows:

<b>Boundary</b>	<b>Security/ Barrier</b>	<b>Adjacent Landuse</b>
Northwest	Mature trees and shrubs and low lying metal fence.	Chester Road running northeast-southwest and arable fields beyond this.
Southwest	Mix of low-lying metal fencing and hedgerow with mature trees.	Large detached residential housing with gardens and a plant nursey.
Southeast	Shrubs and hedge boundary and mature trees.	Playing fields (cricket) and rear gardens of detached residential properties.
Northeast	Dense shrubs and tall mature trees. 3m high wooden panel fencing in north corner.	A river runs parallel to this boundary with woodland either side for 25m either side. Newly built residential property immediately off northeast corner.

2.7 There is a small high in the northwest portion of the site with the land then sloping gently towards the east-northeast. The surrounding area however slopes moderately north.

2.8 The site is accessed directly off Chester Road and another access from an unnamed lane along the southwest site boundary.

#### **Site Utility Services**

2.9 A site service plan has been not provided by the client. The status of all services should be checked with the statutory providers prior to any development (including site investigation) commencing.

### 3.0 ENVIRONMENTAL SETTING

- 3.1 The geology of the site is covered by British Geological Survey (BGS) online data and the site specific GroundSure GeolInsight report (Appendix 1).
- 3.2 Environmental conditions are covered by Environment Agency (EA) and British Geological Survey (BGS) online data, and the site specific GroundSure EnviroInsight report (Appendix 1).

#### Geology

- 3.3 The BGS states that the site is not underlain by artificial ground.
- 3.4 The majority of the site is underlain by the Shirdley Hill Sand Formation superficial deposits which consists of moderately to well-sorted, fine-grained sand with peat layers in the lower part. A small amount of Tidal Flat superficial deposits are present at the centre of the northwest site boundary which consists of clay, silt and sand.
- 3.5 The site is underlain by the Wilmslow Sandstone Formation to the west which consists of fine-to medium-grained, red-brown to brick red, generally pebble-free, cross stratified sandstone, with sporadic siltstones and the Tarporley Siltstone Formation to the east which consists of interlaminated and interbedded siltstones, mudstones and sandstones in approximately equal proportions.
- 3.6 The bedrock is separated by an inferred geological fault of unknown displacement on site which is oriented approximately northnorthwest-southsoutheast on site. There are two other inferred fault records within 250m of the site.
- 3.7 There are no records of any landslips within 500m of the site boundary.
- 3.8 There are 25 BGS borehole records identified within 250m of the site, the closest of which is SJ68NW62 Warrington Newtown Development 392, 83m northeast of the site, drilled to a total depth of 6.5m, which shows fill over gravel over sand with weathered sandstone at 6.00m.
- 3.9 The site is in an area where the hazard rating is negligible or very low with regard to shrink-swell clays, landslides, ground dissolution of rocks and collapsible deposits.
- 3.10 The site is in an area where the hazard rating is moderate with regard to compressible deposits, where the BGS states:

*'Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.'*

- 3.11 The site is in an area where the hazard rating is moderate with regard to running sands, where the BGS states:

*'Significant potential for running sand problems with relatively small changes in ground conditions. Avoid large amounts of water entering the ground (for example through pipe leakage or soak-aways). Do not dig (deep) holes into saturated ground near the property without technical advice. For new build, consider the consequences of soil and groundwater conditions during and after construction. For existing property, possible increase in insurance risk from running sand, for example, due to water leakage, high rainfall events or flooding.'*

- 3.12 The maximum hazard rating of natural subsidence within the site has been classified as moderate by the BGS.
- 3.13 There are 23 estimated background soil chemistry records within 250m of the site, 4 of which are on site.

### **Ground Workings**

- 3.14 There are 43 historical surface ground workings identified within 250m of the site boundary, the closest being a sand pit 15m northwest, dated 1897. Also in the vicinity are ponds, mill ponds, unspecified wharfs, unspecified pits, canals, unspecified ground workings and another sand pit.
- 3.15 There are 4 current ground workings identified within 1km of the site, the closest being the ceased Stockton Heath sand pit, 45m northwest of the site. All other records relate to ceased sand and sandstone pits.
- 3.16 There are 19 historical surface railways or tunnel features within 250m of the site, the closest being railway sidings 92m northeast of the site, dated 1992.
- 3.17 There are no current active railway lines or tunnel features within 250m of the site.

### **Mining and Other Underground Workings**

- 3.18 There are no historical mining areas within 1km of the site.
- 3.19 There are no coal mining areas within 1km of the site.
- 3.20 There are no non-coal mining areas within 1km of the site.
- 3.21 There are no areas of gypsum extraction, brine extraction, tin mining or clay mining within 1km of the site.
- 3.22 There are no historical underground working features identified within 1km of the site.
- 3.23 There are no non-coal cavities or natural cavities identified within 1km of the site.
- 3.24 No underground railway lines or railway tunnels are identified within 250m of the site on historical mapping.

## Radon Potential

- 3.25 The property is not in a Radon Affected Area as defined by the Health Protection Agency, as less than 1% of properties are above the Action Level of exposure.
- 3.26 No radon protection measures are therefore necessary.

## Hydrogeology and Hydrology

- 3.27 The highest underlying superficial deposits permeability is classified by the Environment Agency (EA) as a Secondary A Aquifer with an intergranular flow type and high maximum and high minimum permeability. The BGS states the following:

*'Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.'*

- 3.28 The underlying Wilmslow Sandstone Formation is classified by the Environment Agency (EA) as a Secondary B Aquifer with a fracture flow type and moderate maximum and low minimum permeability. The BGS states the following:

*'Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.'*

- 3.29 The underlying Tarporley Siltstone Formation is classified by the Environment Agency (EA) as a Principal Aquifer with an intergranular flow type and high maximum and high minimum permeability. The BGS states the following:

*'Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers.'*

- 3.30 The EA classifies the groundwater vulnerability and soil leaching potential on site as HU, major aquifer/high leaching potential where the BGS states:

*'Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.'*

- 3.31 The EA classifies the groundwater vulnerability and soil leaching potential on site as H2, major aquifer/high leaching potential where the BGS states:

*'Deep, permeable, coarse textured soils which readily transmit a wide range of pollutants because of their rapid drainage and low attenuation potential.'*

- 3.32 There are 49 groundwater abstraction licence records for 8 locations within 1km of the site. The closest being a historical borehole for evaporative and non-evaporative cooling and effluent slurry dilution, 271m northwest of the site.

- 3.33 There are 2 surface water abstraction licences within 2km of the site, both relating to an active point at Appleton, 1.35km south of the site.

- 3.34 There are 2 potable water abstraction licences within 2km of the site, both relating to an active point at Appleton, 1.35km south of the site.
- 3.35 There are 3 groundwater Source Protection Zones within 500m of the site, with a Zone 2 outer catchment and a Zone 3 total catchment located on site.
- 3.36 The site is within 500m of a Source Protection Zone within a confined aquifer, an outer catchment located 471m south of the site.
- 3.37 There are 12 detailed river network records within 500m of the site with an unnamed secondary river defining the northeast site boundary. The Manchester Ship Canal is 179m north of the site, an unnamed tertiary river lies 337m southeast of the site, the Bridgewater Canal lies 380m south of the site, the Warrington Dock Entrance is located 404m northeast of the site, a secondary river lies 424m southeast of the site and a primary river is located 462m north of the site.
- 3.38 There are 7 unidentified surface water features within 250m of the site, 2 of which are located on site and most likely associated with the unnamed secondary river along the northeast site boundary.
- 3.39 There are no biological or chemical river quality records within 1.5km of the site.

#### **Landfill and Waste Management Activity**

- 3.40 There are 96 records of historical potentially infilled land identified within 500m of the site, the closest being a sand pit 15m northwest of the site dated 1897. Also in the vicinity are multiple ponds, mill ponds, unspecified wharfs, unspecified pits, canals, ship canals, unspecified ground workings, sand pits, disused canals and refuse heaps.
- 3.41 There is 1 record of a current EA landfill site within 1km of the site, a co-disposal landfill site 891m northwest of the site.
- 3.42 There are 2 records of historic EA landfill sites with 1.5km of the site, the closest being 1.04km northeast of the site, licence surrendered in 1982.
- 3.43 There are 9 records of Landfills from Local Authority and Historical Mapping Records within 1.5km of the study site, the closest being a refuse tip 705m northwest of the site, from 1966 mapping.
- 3.44 There are 10 records of waste treatment, transfer or disposal sites within 500m of the study site, the closest being a household, commercial and industrial waste station 766m northwest of the site, dated 1993.
- 3.45 There are no other landfill or waste sites within 1.5km of the site.

#### **Industrial Land Use Information**

- 3.46 There are 125 records of historical potentially contaminative uses identified within 500m of the site, the closest being a nursery immediately west of the site, dated 1969 to 1992. Also within the vicinity are sand pits, mill ponds, unspecified mills, unspecified commercial/industrial sites,



unspecified wharfs, unspecified pits, ship canals, unspecified groundworkings a sawmill, mineral railway sidings, railway sidings, unspecified works, sawing and planning mills, sand pits, timber yards, railway, buildings, nurseries, disused canals, refuse heaps, unspecified tanks, borate works, unspecified pumps and sand pumps.

- 3.47 There are 9 records of current potentially contaminative industrial sites identified within 250m of the site, the closest being a depot 78m north of the site. Also in the vicinity are electricity substations, bathroom fixtures, fittings and sanitary equipment, published goods, sewage works, outfall and antenna services.
- 3.48 There are 23 records of historical tanks identified within 500m of the site, the closest being settling tanks 123m north of the site dated 1966.
- 3.49 There are 26 records of historical energy features identified within 500m of the site, the closest being an electricity substation 86m east, dated 1984 to 1995.
- 3.50 There are no historical petrol or fuel sites within 500m of the site.
- 3.51 There are no current petrol or fuel sites within 500m of the site.
- 3.52 There are no historical garages or motor vehicle repair sites identified within 500m of the site.
- 3.53 There are no National Grid high voltage underground electricity transmission cables, or high pressure gas transmission pipelines within 500m of the site.

### Environmental Permits, Incidents and Registers

- 3.54 The Groundsure Report includes records of environmental permits, incidents and registers within 500m of the site, which are summarised in Table 1 below.

**Table 1: Environmental Permits, Incidents and Registers within 500m of the site**

Historic IPC Authorisations	3
Part A (1) and IPPC Authorised Activities	21
Red List Discharge Consents	None
List 1 Dangerous Substances Inventory Sites	1
List 2 Dangerous Substances Inventory Sites	1
Part A (2) and Part B Activities and Enforcements	3
Category 3 or 4 Radioactive Substance Authorisations	None
Licensed Discharge Consents	11
Water Industry Referrals	None
Planning Hazardous Substance Consents and Enforcements	1
Dangerous or Hazardous (COMAH and NIHHS) Sites	1
National Incidents Recording System (Pollution Incidents), List 2	9
National Incidents Recording System (Pollution Incidents), List 1	None
Sites Determined as Contaminated Land under Part 2A EPA1990	None

- 3.55 All 3 Historic IPC Authorisations relate to the Solvay Intertox Ltd Baronet Works, 369m northwest of the site, for combustion processes, last dated 1998. The site permit has been revoked and the site classified as an IPPC.
- 3.56 All of the Part A (1) and IPPC Authorised Activities relate to the Solvay Intertox Ltd Baronet Works, 405m northwest of the site, for a number of processes including; the disposal of > 50 t/d non-hazardous waste involving physicochemical treatment, combustion; any fuel =>50mw, organic chemicals; oxygen containing compounds e.g. alcohols, inorganic chemicals; non-metals etc. e.g. calcium carbide, inorganic chemicals; and salts e.g. ammonium chloride, last noted as effective on the 31<sup>st</sup> August 2016.
- 3.57 The List 1 Dangerous Substances Inventory Site relates to the Solvay Intertox Ltd Baronet Works, 369m northwest of the site, receiving water from the Mersey Estuary with authorised substances being arsenic and zinc. This site is listed and not active.
- 3.58 The List 2 Dangerous Substances Inventory Site relates to the Solvay Intertox Ltd Baronet Works, 369m northwest of the site, receiving water from the Mersey Estuary with authorised substances being mercury and cadmium. This site is listed and not active.
- 3.59 The closest Part A (2) and Part B Activities and Enforcements relates to crematoria processes, 271m southwest of the site.
- 3.60 The closest licensed discharge consent is identified 157m north of the site, and is a historic discharge consent for sewer storm overflow.
- 3.61 The Planning Hazardous Substance Consent and Enforcement relates to the application for amendment to Hazardous Substances Consent at the Solvay Intertox Ltd Baronet Works, 406m northwest of the site. Application number A01/43873.
- 3.62 The Dangerous or Hazardous (COMAH and NIHHS) Sites record relates to the Solvay Intertox Ltd Baronet Works which is a registered current COMAH site Top Tier Operator.
- 3.63 The closest NIRS list 2 pollution incident was recorded in 2003, 21m southwest of the site, the pollutant was inorganic chemicals or product and was recorded as having no impact to water, land or air quality. The closest most significant pollution incident was recorded in 2001, 404m north of the site, the pollutant was crude sewage and was recorded as having significant impact to water quality.

### **Environmentally Sensitive Sites**

- 3.64 There are 4 records of Ancient Woodland within 2km of the site, the closest being unnamed woodland 1.6km southwest of the site.
- 3.65 The site is located within the Liverpool, Manchester and West Yorks, under the local authority of Warrington (B).
- 3.66 It should be noted that an ecological assessment of the site falls outside the brief of this report and that an ecological specialist should be consulted in this regard.

### Archaeology

- 3.67 An archaeological assessment falls outside the brief of this report. Where considered necessary, advice should be sought from an archaeological specialist in this respect.

### Potential Flood Risks

- 3.68 Detailed assessment of flood risks is outside the scope of this report. However, the site is within 250m of 2 Environment Agency Zone 2 (Fluvial/Tidal Models) and 2 Zone 3 (Fluvial Models) floodplains which lie onsite along the northeast site boundary and 245m north and 153m northwest respectively. The highest risk of flooding on site is high.
- 3.69 There are no flood defences, areas benefitting from flood defences or areas used for flood storage within 250m of the site.
- 3.70 According to the BGS there are areas within 50m of the site boundary that may be susceptible to clearwater flooding. The highest susceptibility to groundwater flooding is 'limited potential' and the BGS confidence rating is low. The BGS states:

*'Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.'*

### Previous Site Investigations

- 3.71 We are not aware of any records of previous site investigations.

#### 4.0 SITE HISTORY

- 4.1 The historical development of the site has been determined by reference historical plans and Google Earth imagery. The reviewed historical plans comprise only readily available records and may be limited; however, the information available to date indicates that additional searches are unlikely to add to our understanding of the site. The earliest available historical mapping covering the site dates back to 1877.
- 4.2 The site history is summarised in Table 2, below, followed by selected extracts from maps and aerial photographs.

**Table 2: Summary of Site History**

<b>Date</b>	<b>Site</b>	<b>Surrounding Land Use</b>
1877	<p>Site is open field similar to today.</p> <p>Access lane or pathway is located in the centre of the site oriented N-S until it makes a sharp E-W change of direction with a bridge crossing the unnamed secondary river along the northeast site boundary.</p> <p>Site is part of 2 fields.</p>	<p>Rural agricultural setting.</p> <p>Walton Flour Mill and large mill pond 100m N of the site.</p> <p>Walton old Hall 95m S of the site.</p> <p>Walton Lea buildings and nursey 100m W of the site.</p> <p>Walton House 100m NE of the site.</p>
1894, 1897, 1899	<p>Site is now part of 3 fields.</p> <p>Small path road along the unnamed river onsite leading to Walton Old Hall.</p>	<p>Tennis ground now immediately S of the site as part of the Walton Old Hall with has expanded.</p> <p>Sand Pit ~20m N of the site opposite Chester Road.</p> <p>Manchester Ship Canal 160m N of the site.</p> <p>Birkenhead Railway line 700m NW of the site oriented NE-SW.</p> <p>Warrington Dock Entrance 500m NE of the site.</p> <p>River Mersey 500m N of the site.</p>
1905-1908, 1907, 1905-1910, 1910, 1925-1926, 1926-1929, 1927-1928, 1938, 1949-1954, 1966, 1965-1967, 1969, 1967-1970, 1975-1980	<p>Site now has the linear band of wooded area as seen today oriented along the path E-W.</p> <p>Site split into 2 fields from 1966.</p>	<p>Residential buildings constructed NE of the site due to urbanisation of Walton.</p> <p>Expansion of Walton Lea buildings 100m W of the site.</p> <p>Mill no longer in use and mill pond infilled.</p> <p>Bridgewater Canal 450m SE of the site.</p> <p>Timber Yard 450m NE of the site.</p> <p>Mineral railway along the Manchester Ship Canal.</p> <p>Grange Mill 750m W of the site.</p>
1987-1990, 1992-1993, 1993, 2002, 2014	<p>Site is 2 fields with similar outline as seen today.</p>	<p>Walton Old Hall demolished and replaced with residential properties.</p> <p>Works 400m N of the site.</p> <p>Part of railway line disused.</p>
GoogleEarth Aerial	<p>Site is split via a hedgerow into 3 fields in</p>	<p>Site immediately NE of the site is now demolished with a new housing estate replacing the commercial estate seen on</p>

Photograph 1945, 2005, 2009, 2013, 2015	1945. 2005 – present, site is as seen today.	Google Imagery – post 2015.
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Figure 3 OS Map Extract 1877

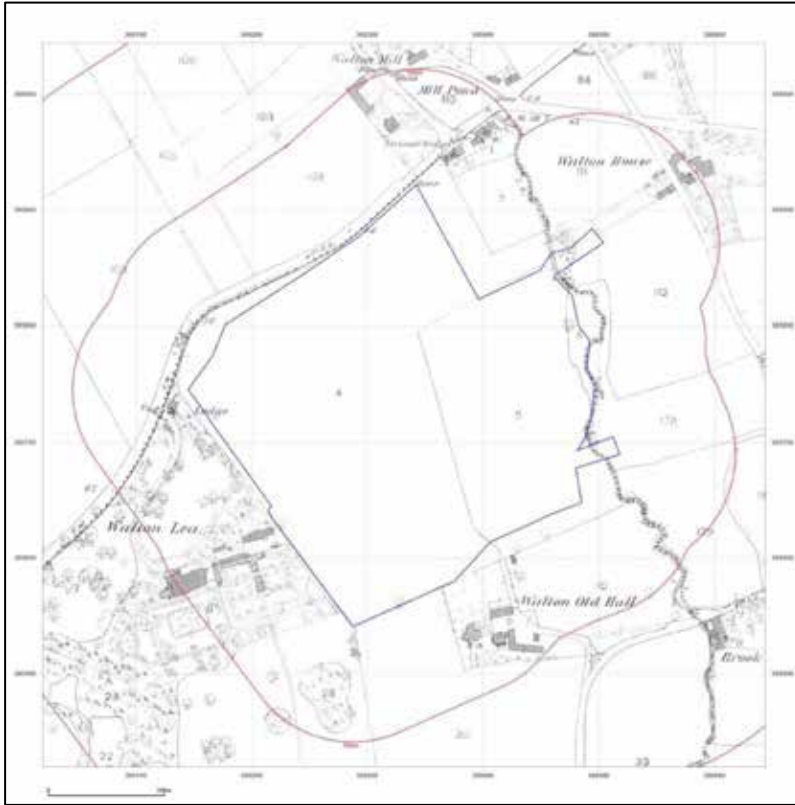


Figure 4 OS Map Extract 1993



## 5.0 WALKOVER SURVEY

- 5.1 A (non-intrusive) walkover survey was completed on 09 September 2016. The photographs and notes from this survey are appended to this report as Appendix 2 and Appendix 3 respectively.
- 5.1 The site is currently occupied by a large open agricultural land currently used for crop growing. Mature trees, shrub vegetation and small trees are present across the site boundaries, particularly surrounding the unnamed secondary river which marks the northeast boundary of the site.
- 5.2 The centre of the field is slightly raised with the surrounding land sloping gently away in each direction.
- 5.3 A plant nursery is situated immediately southwest of the site and residential housing along the southern and eastern site boundaries.
- 5.4 The site is accessed by an unnamed lane that is oriented northwest-southeast along the southwest site boundary which leads to the nursery southwest of the site.
- 5.5 Two old stockpiles were noted within the wooded area which extends into the field along the northeast site boundary and another closer to the unnamed river on site. These are overgrown and materials are unable to be identified.
- 5.6 The current site usage is considered low risk in terms of environmental pollution and ground contamination.
- 5.7 There was a strong scent of gas along the southwest boundary of the site with an unknown source.

## 6.0 PRELIMINARY CONTAMINATION RISK ASSESSMENT

### Introduction

- 6.1 The following paragraphs outline a Preliminary Risk Assessment (PRA) for the site as defined by DEFRA and the EA Model Procedures for the Management of Land Contamination, CLR11 (2004).
- 6.2 Table 3 provides a Preliminary Conceptual Model (PCM) which defines the site in terms of a potential pollution linkage, that is, whether a pathway exists between a contamination source and a sensitive environmental receptor (Source-Pathway-Receptor relationship).
- 6.3 Table 3 considers whether a pollution linkage is potentially present and provides a preliminary qualitative assessment of risk based on the information currently available. Where a possible linkage is identified, it does not necessarily mean that a significant risk exists, but indicates that further information is required through appropriate site investigation to substantiate the conceptual model

**Table 3: Preliminary Conceptual Model**

- 6.4 The PCM/PRA is based on residential end use.

Source	Pathway	Receptor	Linkage	Comment
The likelihood of significant ground contamination sources being present at the site, associated with historical land use and made ground, is considered <b>LOW</b> .	Direct contact, ingestion of soil, dermal contact, dust exposure pathways.	Current Site Users	Unlikely	The risk associated with current site users via direct exposure is considered to be <b>LOW</b> .
		Adjacent land users	Possible	There is limited potential for contact via wind-blown dust / debris. The current risk is considered <b>LOW</b> .
		Construction Workers	Unlikely	Standard industry working practices for working on sites will be sufficient to manage any potential risks. Therefore, the risk associated with construction workers via direct exposure is considered to be <b>LOW</b> .
		Future land users	Possible	Considering a proposed residential end use with private gardens, direct exposure is likely. The risk associated with future site users via direct exposure is considered to be <b>LOW</b> .





<p>The likelihood of soluble and/or liquid and therefore mobile contaminants occurring at the site due to its past use is considered <b>LOW</b>.</p>	<p>Direct downward migration through leaching and/or mobile liquids.</p>	<p>Groundwater</p>	<p>Unlikely</p>	<p>Minor potential sources of mobile contamination are identified on the site and major contamination sources are identified close to the site which lies upon Principal and Secondary B Aquifers. The perceived risk to groundwater is considered <b>MEDIUM</b>.</p>
	<p>Off-site migration in groundwater or surface water flow.</p>	<p>Surface water</p>	<p>Unlikely</p>	<p>No significant sources of mobile contamination are identified associated with the site; however major contamination sources are identified close to the site. There is anticipated porous superficial deposits and underlying strata with several surface water courses in the vicinity. The perceived risk to surface water is considered <b>MEDIUM</b>.</p>
		<p>Groundwater / surface water abstractions</p>	<p>Unlikely</p>	<p>The site is within a groundwater source protection zone and a groundwater source protection zone within a confined aquifer. An unnamed river is located on site. There are multiple water abstraction licences in the area, however, these are over 200m from the site. The risk to water abstractions is therefore considered <b>LOW to MEDIUM</b>.</p>
		<p>Adjacent Properties</p>	<p>Unlikely</p>	<p>No significant sources of mobile contamination are identified, associated with the site. Anticipated porous superficial deposits and underlying strata provides the potential for infiltration and migration of mobile contaminants, if present. The preliminary risk to adjacent properties is considered <b>LOW</b>.</p>
		<p>Ecology</p>	<p>Unlikely</p>	<p>There are no ecologically vulnerable areas in close proximity to the site. The risk to ecology is therefore considered <b>NEGLIGIBLE</b>.</p>
<p>The likelihood of volatile contaminants at the site due to its past use is considered <b>LOW</b>.</p>	<p>Inhalation of harmful vapours (indoor and outdoor airspaces)</p>	<p>Current Site Users</p>	<p>Unlikely</p>	<p>The site is unoccupied; the risk associated with current site users is considered to be <b>LOW</b>.</p>
		<p>Adjacent Properties</p>	<p>Unlikely</p>	<p>No significant sources of mobile contamination are identified associated with the site; however major contamination sources are identified close to the site. Underlying porous strata will provide the potential for migration, if present. The potential risk to adjoining site users is therefore considered <b>LOW to MEDIUM</b>.</p>

<p>There is a sand pit and a now infilled mill pond in close proximity to the site. The likelihood of degradable materials with the potential to generate hazardous ground gas is therefore <b>MEDIUM</b>.</p>	<p>Emissions from the ground collecting in confined spaces and excavations</p>	<p>Construction/ services maintenance workers</p>	<p>Possible</p>	<p>Sources of potentially degradable materials are identified in close proximity to the site. The preliminary risk is therefore considered <b>MEDIUM</b>.</p>
	<p>Migration of gases on/off site and collecting in confined spaces on/off site.</p>	<p>Adjoining site users</p>	<p>Possible</p>	<p>Sources of potentially degradable materials in the vicinity of the site. Anticipated underlying porous strata provides the potential for migration of ground gases, if present. Adjacent residential properties represent sensitive receptors. The potential risk to adjoining site users is therefore considered <b>MEDIUM</b>.</p>
		<p>Current/future site users</p>	<p>Possible</p>	<p>Sources of potentially degradable materials are identified in the vicinity of the site. Anticipated underlying porous strata provides the potential for migration of ground gases, if present. The proposed residential end use represents sensitive receptors. The potential risk is therefore considered <b>MEDIUM</b>.</p>
<p>Chemicals which could prove aggressive to construction materials may be present on site.</p>	<p>Direct contact</p>	<p>Construction concrete, plastic water pipes.</p>	<p>Possible</p>	<p>Risks to construction materials can be identified via site investigation prior to the proposed construction works. The perceived risk is considered <b>LOW</b>.</p>

## Preliminary Risk Assessment

- 6.5 The site has been an agricultural plot of land since 1877. There have historically been a sand pit, mill pond and a site with a history of potentially contaminative sources in close proximity to the site. As a result, the ground may have been impacted by potentially contaminative substances which could potentially impact upon current and future users. Therefore, a number of potential pollutant linkages exist at the site, these are considered to be low to medium risks.
- 6.6 Several significant pollutant linkages have been identified, with medium to low associated preliminary risks.
- 6.7 Considering the underlying Principal and Secondary B Aquifers, localised impact to groundwater is possible and a medium risk to groundwater is identified, should mobile contamination be present.
- 6.8 A medium risk has been identified with respect to the potential for the generation of hazardous ground gases.

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

- 7.1 The likelihood of contamination on the site is overall low to medium.
- 7.2 Several significant pollutant linkages have been identified, with medium to low associated preliminary risks
- 7.3 Considering that the proposed residential development includes private gardens, a low preliminary risk is identified with potential risks to site users and plants.
- 7.4 The site is in an area where the hazard rating is moderate with regard to compressible deposits and running sands.
- 7.5 The site is within 250m of two Environment Agency Zone 2 (Fluvial/Tidal Models) and two Zone 3 (Fluvial Models) floodplains which lie onsite along the northeast site boundary and 245m north and 153m northwest respectively. The highest risk of flooding on site is high.

### Recommendations





- 7.6 An intrusive investigation should be undertaken to establish geotechnical parameters for the design of foundations, floor slabs and pavement construction for the proposed new build and surrounding area.
- 7.7 As part of the geotechnical investigation, it is recommended that samples of soil and groundwater are recovered for analysis for contamination and to confirm whether there are any residual risks.
- 7.8 As part of the site investigation, it is recommended that ground gas and groundwater installations and monitoring are completed to confirm whether there are any residual risks.
- 7.9 A Flood Risk Assessment is recommended due to the risk of flooding of the unnamed secondary River along the northeast boundary of the site.
- 7.10 An Ecological Survey will be required for planning and design purposes.

## **APPENDIX 1**

### **GROUNDSURE REPORTS**

## **APPENDIX 2**


### **SITE PHOTOGRAPHS**

<p><b>Earth Environmental &amp; Geotechnical Ltd</b></p> <p><b>Tel:</b> 0161 2824518  <b>Email:</b> info@earthenvironmental.co.uk  <b>Web:</b> www.earthenvironmental.co.uk</p>	<p><b>SITE PHOTOGRAPHS</b></p> 
<p><b>Job No.:</b> A1426/16</p>	<p><b>Site:</b> Chester Road, Walton</p>
<p><b>Plate A. Walkover Notes and Picture Locations.</b></p>	
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>
<p><b>Plate 1 Southwest boundary of the site looking N.</b></p>	<p><b>Plate 2 Southwest boundary of the site looking NE.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>

<p><b>Earth Environmental &amp; Geotechnical Ltd</b></p> <p><b>Tel:</b> 0161 2824518  <b>Email:</b> info@earthenvironmental.co.uk  <b>Web:</b> www.earthenvironmental.co.uk</p>	<p><b>SITE PHOTOGRAPHS</b></p> 
<p><b>Job No.:</b> A1426/16</p>	<p><b>Site:</b> Chester Road, Walton</p>
<p><b>Plate 3 Southwest boundary of the site looking E.</b></p>	<p><b>Plate 4 Southwest boundary of the site looking SE.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>
<p><b>Plate 5 Southwest boundary of the site looking SE.</b></p>	<p><b>Plate 6 Southeast boundary of the site looking N.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>






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<p><b>Job No.:</b> A1426/16</p>	<p><b>Site:</b> Chester Road, Walton</p>
<p><b>Plate 7 Southeast boundary of the site looking NE.</b></p>	<p><b>Plate 8 Southeast boundary of the site looking NE.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>
<p><b>Plate 9 Southeast boundary of the site looking E.</b></p>	<p><b>Plate 10 Southeast boundary of the site looking SE.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>



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<p><b>Job No.:</b> A1426/16</p>	<p><b>Site:</b> Chester Road, Walton</p>
<p><b>Plate 11 Southeast boundary of the site looking S into adjacent playing fields.</b></p>	<p><b>Plate 12 Flora along southeast boundary.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>
<p><b>Plate 13 Southeast boundary of the site looking N.</b></p>	<p><b>Plate 14 Industrial site N of the site.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>

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<p><b>Job No.:</b> A1426/16</p>	<p><b>Site:</b> Chester Road, Walton</p>
<p><b>Plate 15 Southeast corner of site looking W at leaning tree in boundary.</b></p>	<p><b>Plate 16 Northeast boundary of site looking N.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>
<p><b>Plate 17 Stockpiled material in southeast corner of site.</b></p>	<p><b>Plate 18 Stockpiled material in southeast corner of site.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>








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<p><b>Job No.:</b> A1426/16</p>	<p><b>Site:</b> Chester Road, Walton</p>
<p><b>Plate 19 Northeast site boundary looking E towards unnamed secondary river.</b></p>	<p><b>Plate 20 Northeast site boundary looking E towards unnamed secondary river.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>
<p><b>Plate 21 Northeast site boundary looking E towards unnamed secondary river.</b></p>	<p><b>Plate 22 Northeast site boundary looking S.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>




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<p><b>Job No.:</b> A1426/16</p>	<p><b>Site:</b> Chester Road, Walton</p>
<p><b>Plate 23 Northeast site boundary looking SW.</b></p>	<p><b>Plate 24 Northeast site boundary looking W.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>
<p><b>Plate 25 Northeast site boundary looking N.</b></p>	<p><b>Plate 26 Northeast site boundary looking NE.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>



<p><b>Earth Environmental &amp; Geotechnical Ltd</b></p> <p><b>Tel:</b> 0161 2824518  <b>Email:</b> info@earthenvironmental.co.uk  <b>Web:</b> www.earthenvironmental.co.uk</p>	<p align="center"><b>SITE PHOTOGRAPHS</b></p> 
<p align="center"><b>Job No.:</b> A1426/16</p>	<p align="center"><b>Site:</b> Chester Road, Walton</p>
<p align="center"><b>Plate 27 Old stockpile in NE corner of site.</b></p>	<p align="center"><b>Plate 28 Unnamed secondary river along NE boundary flowing NW.</b></p>
	
<p align="center"><b>Date:</b> 09 September 2016</p>	<p align="center"><b>Date:</b> 09 September 2016</p>
<p align="center"><b>Plate 29 Unnamed secondary river along NE boundary flowing NW.</b></p>	<p align="center"><b>Plate 30 Unnamed secondary river along NE boundary flowing NW.</b></p>
	
<p align="center"><b>Date:</b> 09 September 2016</p>	<p align="center"><b>Date:</b> 09 September 2016</p>

<p><b>Earth Environmental &amp; Geotechnical Ltd</b></p> <p><b>Tel:</b> 0161 2824518  <b>Email:</b> info@earthenvironmental.co.uk  <b>Web:</b> www.earthenvironmental.co.uk</p>	<p><b>SITE PHOTOGRAPHS</b></p> 
<p><b>Job No.:</b> A1426/16</p>	<p><b>Site:</b> Chester Road, Walton</p>
<p><b>Plate 31 Remnants of old bridge.</b></p>	<p><b>Plate 32 Remnants of old bridge.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>
<p><b>Plate 33 Stockpiled materials.</b></p>	<p><b>Plate 34 Northeast corner of site.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>

<p><b>Earth Environmental &amp; Geotechnical Ltd</b></p> <p><b>Tel:</b> 0161 2824518  <b>Email:</b> info@earthenvironmental.co.uk  <b>Web:</b> www.earthenvironmental.co.uk</p>	<p><b>SITE PHOTOGRAPHS</b></p> 
<p><b>Job No.:</b> A1426/16</p>	<p><b>Site:</b> Chester Road, Walton</p>
<p><b>Plate 35 Old stockpile.</b></p>	<p><b>Plate 36 Northeast corner of site looking W.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>
<p><b>Plate 37 Northeast corner of site looking SW.</b></p>	<p><b>Plate 38 Northeast corner of site looking S.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>

<p><b>Earth Environmental &amp; Geotechnical Ltd</b></p> <p><b>Tel:</b> 0161 2824518  <b>Email:</b> info@earthenvironmental.co.uk  <b>Web:</b> www.earthenvironmental.co.uk</p>	<p><b>SITE PHOTOGRAPHS</b></p> 
<p><b>Job No.:</b> A1426/16</p>	<p><b>Site:</b> Chester Road, Walton</p>
<p><b>Plate 39 Northwest corner of site looking S.</b></p>	<p><b>Plate 40 Northwest corner of site looking E.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>
<p><b>Plate 41 Northwest corner of site looking SE.</b></p>	<p><b>Plate 42 Northwest corner of site looking S.</b></p>
	
<p><b>Date:</b> 09 September 2016</p>	<p><b>Date:</b> 09 September 2016</p>



## **APPENDIX 3**

### **SITE WALKOVER NOTES**

## WALK OVER SURVEY REPORT

**Site:** Chester Road, Walton

**Date:** 09 September 2016

**Job No:** A1426/16

**Undertaken By:** Joleen Harris

**Purpose of Site Walkover:**

- 1) Provide further information for the Desk Study Report;
- 2) Identify potential contamination sources, pathways and receptors;
- 3) Identify geotechnical features and potential geohazards;
- 4) Determine locations for exploratory boreholes.

Desk Study features checked during site visit	Feature and Information required	Present	Description / Comments
Site Setting	Description required for:  Town/Country/Suburb Setting  Industrial/Residential/Retail Usage  Current Site use (if undertaking security and access to the site)		Mixed: Agricultural west of the site, urban town setting east of the site.  Agricultural use.  Field. No security or access issues.
Evidence of Past Activities	Are there:  Any relevant street names in area?  Features or relics which indicate past history?	Yes/No  Yes/No	N/A  N/A
Geographic Setting	Description required for: Low lying flood plain/dry valley/rolling hills etc.		Valley edge gently sloping towards the north-northeast.
Ground Conditions	Is there any evidence of:  Mining, Mine entries Subsidence  Landslip/slope erosion  Former investigation works	Yes/No  Yes/No  Yes/No	N/A  N/A  N/A

Desk Study features checked during site visit	Feature and Information required	Present	Description / Comments
Topography	<p>Description required for:</p> <p>Are there apparent differences between site and surrounding area? (If yes describe the presence of retaining walls, and slopes).</p> <p>Is there evidence of Made Ground / Fill on site?</p>	<p>Yes/No</p> <p>Yes/No</p>	<p>There is a small hillock in the NW corner of the site, with surrounding land gently-moderately sloping away towards the north and northeast.</p> <p>N/A</p>
Site Boundaries and Neighbours	<p>Description required for:</p> <p>Type of boundary demarcation (if any) on each side of site, usage of adjacent land and name of industrial/commercial occupiers.</p> <p>Note any adjacent features such as water course and other potentially environmentally sensitive uses (residential, school, infirmary, SSSI etc.).</p>		<p>A plant nursery and some large detached residential properties accessed via a lane runs parallel to the southwest boundary of the site. The southeast boundary is in contact with a playing field (cricket) and the rear gardens of detached residential properties. The northeast boundary is bound by a small river which flows north, with the exception of the northernmost corner of the site which is immediately bound by a newly developed housing estate. Past this river is a woodland and the rear gardens of large detached residential properties. Chester Road bounds the northwest site boundary, with fields beyond this road.</p>
Vegetation	<p>Are there any vegetation/trees on or close to site (if yes describe locations, type, maturity, etc.)?</p> <p>Is there any evidence of poor health / distress?</p>	<p>Yes/No</p> <p>Yes/No</p>	<p>Mix of mature trees, shrubs and flowers along all site boundaries.</p> <p>1 tree leaning along southeast site boundary. All others are in good health.</p>
Ground Surface	<p>Are there areas of hardstanding and estimate the split between hard and soft cover? (If yes describe locations, types and conditions).</p> <p>Is there any evidence of any spillages or staining?</p>	<p>Yes/No</p> <p>Yes/No</p>	<p>100% crop field and woodland 25m either side of the river along northeast boundary.</p> <p>N/A</p>

<b>Desk Study features checked during site visit</b>	<b>Feature and Information required</b>	<b>Present</b>	<b>Description / Comments</b>
Site Drainage	Are there any drain covers / soakaways (if yes describe locations)?	Yes/No	N/A
	Are there any outfalls/water courses on site (note the condition of water courses in open water courses? discolouration, odour, eutrophication, oily sheen, gas bubbling water, clear or cloudy)	Yes/No	Unnamed secondary river along NE site boundary flowing towards the NW.
	Where a watercourse runs alongside or crosses a site are there any differences in visible water quality upstream and downstream of the site?	Yes/No	No change.
Electrical Equipment	Are there any electricity sub stations on or adjacent to the site? Are there any electrical transformers, capacitors, pylons etc. on site?	Yes/No	N/A
Buildings	Description of Buildings, including age, state of repair, materials used in construction.		Solely occupied by a field.
	Is there any evidence of asbestos construction materials e.g. roofing, insulation materials?	Yes/No	N/A
	Do any buildings have basements?	Yes/No	N/A
	Do any buildings have a boiler room (if yes, describe fuel type and storage arrangements)?	Yes/No	N/A
Landfilling	Is there any evidence of gas protection measures (gas protection measures (gas membrane, gravel-filled trenches, venting pipes, etc.)?)	Yes/No	N/A

<b>Desk Study features checked during site visit</b>	<b>Feature and Information required</b>	<b>Present</b>	<b>Description / Comments</b>
Process Air Emissions	Point Source: Are there any stacks / vents / cooling towers / abatement equipment?	Yes/No	N/A
	Fugitive Source: is there any stockpiled material / windblown dust / vapour process?	Yes/No	2 old overgrown stockpiles and 1 stockpile of wooden crates.
Storage of fuels & Chemicals	Are there any drums / containers (if yes, describe quantity, full /empty, stored on hard standing / soft landscaping, bunding)?	Yes/No	N/A
	Are there any above ground fuel tanks (if yes, describe locations, volumes, how many, bunding, used / disused, condition?)	Yes/No	N/A
	Is there any evidence of underground fuel tanks (fuel pumps, covers, vent pipes, how many and how large, fill point, used / disused, and condition)?	Yes/No	N/A
Accidents	In the event of a large spillage would runoff affect any vulnerable watercourse/culverts?	Yes/No	Unnamed secondary river along NE site boundary.
	Are emergency procedures / equipment in place?	Yes/No	N/A
Waste	Are there any waste skips present on site?	Yes/No	N/A
	Are waste storage facilities adequate?	Yes/No	N/A
	Is there any litter/fly tipped material?	Yes/No	2 old overgrown stockpiles and 1 stockpile of wooden crates.
Atmospheric	Are there any fumes, odours originating from site or affecting site from neighbouring sites?	Yes/No	Strong smell of gas along SW site boundary. Unknown source.

Desk Study features checked during site visit	Feature and Information required	Present	Description / Comments
Access / Further Investigations	<p>If a Phase 2 Investigation is likely to be required, describe any access problems including headroom where relevant, services, overhead cables, restricted access areas, confined spaces, trafficked areas, etc. that are likely to affect investigation scope/techniques.</p> <p>Identify possible site office and storage locations.</p> <p>Identify possible water supply</p>	Yes/No	<p>Vehicular access is available from Chester Road and unnamed lane directly onto the site.</p> <p>No buildings on site.</p> <p>Unnamed river on site.</p>
Site Environs	<p>Are there any local features that could have a harmful influence e.g. landfill, industrial processes, railway land?</p> <p>Are there any sensitive water features/courses near to the site?</p>	Yes/No  Yes/No	<p>Industrial site 400m N of the site, ship canals N and S of site. Old mill pond 100m NE of the site. Sand pit 20m N of the site.</p> <p>Unnamed secondary river along NE site boundary flowing NW.</p>
Local Knowledge / Anecdotal Evidence			Old removed hedgerows and footpath could provide some made ground across the site.
Site Dimensions	Describe shape of Site in plan and measure dimensions.		The site, which occupies approximately 8.04ha and comprises an approximately square parcel of land

## **APPENDIX 4**

### **REPORT LIMITATIONS**

## **LIMITATIONS**

This contract was completed by Earth Environmental & Geotechnical Ltd on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with all reasonable skill, and care, bearing in mind the project objectives, the agreed scope of works, the prevailing site conditions, the budget and staff resources allocated to the project.

Other than that expressly contained in the above paragraph, Earth Environmental & Geotechnical Ltd provides no other representation or warranty whether express or implied, is made in relation to the services. Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon, or transferred to, by any other party without the written agreement of a Director of Earth Environmental & Geotechnical Ltd.

If a third party relies on this report, it does so wholly at its own and sole risk and Earth Environmental & Geotechnical Ltd disclaims any liability to such parties.

It is Earth Environmental & Geotechnical Ltd understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was an important factor in determining the scope and level of the services. Should the purpose for which the report is used, or the proposed use of the site change, this report will no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without Earth Environmental & Geotechnical Ltd review and advice shall be at the client's sole and own risk.

The report was written in 2016 and should be read in light of any subsequent changes in legislation, statutory requirements and industry best practices. Ground conditions can also change over time and further investigations or assessment should be made if there is any significant delay in acting on the findings of this report. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of Earth Environmental & Geotechnical Ltd. In the absence of such written advice of Earth Environmental & Geotechnical Ltd, reliance on the report in the future shall be at the client's own and sole risk. Should Earth Environmental & Geotechnical Ltd be requested to review the report in the future, Earth Environmental & Geotechnical Ltd shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between Earth Environmental & Geotechnical Ltd and the client.

The observations and conclusions described in this report are based solely upon the services that were provided pursuant to the agreement between the client and Earth Environmental & Geotechnical Ltd. Earth Environmental & Geotechnical Ltd has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report.



Earth Environmental & Geotechnical Ltd is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, Earth Environmental & Geotechnical Ltd did not seek to evaluate the presence on or off the site of electromagnetic fields, lead paint, radon gas or other radioactive materials.

The services are based upon Earth Environmental & Geotechnical Ltd observations of existing physical conditions at the site gained from a walkover survey of the site together with Earth Environmental & Geotechnical Ltd interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst Earth Environmental & Geotechnical Ltd have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified.

No responsibility can be accepted for errors within third party items presented in this report. Further Earth Environmental & Geotechnical Ltd was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the services. Earth Environmental & Geotechnical Ltd is not liable for any inaccurate information, misrepresentation of data or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to Earth Environmental & Geotechnical Ltd and including the doing of any independent investigation of the information provided to Earth Environmental & Geotechnical Ltd save as otherwise provided in the terms of the contract between the client and Earth Environmental & Geotechnical Ltd.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Earth Environmental & Geotechnical Ltd] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan, but is (are) used to present the general relative locations of features on, and surrounding, the site.



# DTPC

Report No. J697/TS  
October 2016

**PROPOSED RESIDENTIAL DEVELOPMENT  
CHESTER ROAD, WALTON, WARRINGTON**

**TRANSPORT STATEMENT**



PROPOSED RESIDENTIAL DEVELOPMENT  
CHESTER ROAD, WALTON, WARRINGTON

TRANSPORT STATEMENT

CONTROLLED DOCUMENT

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<i>Rev.</i>	<i>Date</i>	<i>Summary of Changes</i>
A		

**PROPOSED RESIDENTIAL DEVELOPMENT  
CHESTER ROAD, WALTON, WARRINGTON**

**TRANSPORT STATEMENT**

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## 1. INTRODUCTION

DTPC has been appointed by Ashall Homes Ltd to provide transport and highway advice for the traffic and transportation implications associated with the proposed residential development Chester Road, Walton, Warrington.

The application relates to a site located on the edge of the urban area currently used for grazing which will be redeveloped.

In order to advise the highway authority, this report provides information on the scope of traffic and transport planning aspects of the development proposals, and forms supplementary information to assist in the determination of the land use submission.

It deals solely with the proposals for the area within the red line plan.

The TS discusses the following issues:

- Site and Local Area
- Existing Highway Conditions
- Development Proposals
- Access Considerations
- Summary & Conclusions.

This report has been prepared solely in connection with the proposed development as stated above. As such, no responsibility is accepted to any third party for all or any part of this report, or in connection with any other development.

## 2. NATIONAL AND LOCAL POLICY GUIDANCE

### National Policy

Increasing travel choice and reducing dependency on car travel is an established aim across all areas of government policy development, documents and guidance alongside addressing climate change and reducing CO<sub>2</sub> emissions. Travel planning to date has focused on reducing single occupancy car use to specific destinations. Recent national guidance has broadened this, outlining the potential for Residential Travel Plans and addressing trips generated from individual origins (homes) to multiple and changing destinations. The Department for Transport (DfT) also published “Smarter Choices – Changing the Way We Travel” focusing on softer education and persuasive measures which are a key element of travel plans.

National planning policy ensuring that development plans and planning application decisions contribute to delivery of development that is. It states that development should ensure environmental, social and economic objectives would be achieved together over time.

It will also contribute to global sustainability, by addressing the causes and impacts of climate change, reducing energy use and emissions by encouraging development patterns that reduce the need to travel by car and impact of transporting goods as well as in making decisions in the location and design of development.

### Future of Transport 2004

2004, Department for Transport (DfT) published a long-term strategy (*Future of Transport White Paper*) which examines the factors that will shape travel and transport over the next thirty years. It sets out how the Government will respond to the increasing demand for travel, maximising the benefits of transport while minimising the negative impact on people and the environment.

Central to the strategy is the need to bring transport costs under control, the importance of shared decision making at local, regional and national levels to ensure better transport delivery, and ***improvements in the management of the network to make the most of existing capacity.***

### National Planning Policy Framework

Abstracts are provided for reference, the ***bold italics*** are added to emphasise the key policies related to the development:

### Achieving sustainable development

7 There are three dimensions to sustainable development: economic, social and environmental. These dimensions give rise to the need for the planning system to perform a number of roles:

- an economic role – ***contributing to building a strong, responsive and competitive economy***, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;
- a social role – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and
- an environmental role – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including

moving to a low carbon economy.

## The presumption in favour of sustainable development

14 At the heart of the National Planning Policy Framework **is a presumption in favour of sustainable development**, which should be seen as a golden thread running through both plan-making and decision-taking.

For decision-taking this means

- approving development proposals that accord with the development plan without delay; and
- where the development plan is absent, silent or relevant policies are out-of-date, granting permission unless:
  - **any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole;** or
  - specific policies in this Framework indicate development should be restricted

## Core planning principles

17 Within the overarching roles that the planning system ought to play, a set of core land-use planning principles should underpin both plan-making and decision-taking.

- **encourage the effective use of land by reusing land that has been previously developed (brownfield land), provided that it is not of high environmental value;**
- **actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling,** and focus significant development in locations which are or can be made sustainable; and
- take account of and support local strategies to improve health, social and cultural wellbeing for all, and deliver sufficient community and cultural facilities and services to meet local needs.

## Promoting sustainable transport

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

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

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

34 Plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be

maximised. However this needs to take account of policies set out elsewhere in this Framework, particularly in rural areas.

35 Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to

- accommodate the efficient delivery of goods and supplies;
- give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
- create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;
- incorporate facilities for charging plug-in and other ultra-low emission vehicles; and
- consider the needs of people with disabilities by all modes of transport.

36 A key tool to facilitate this will be a Travel Plan. All developments which generate significant amounts of movement should be required to provide a Travel Plan.

37 Planning policies should aim for a balance of land uses within their area so that people can be encouraged to minimise journey lengths for employment, shopping, leisure, education and other activities.

38 For larger scale residential developments in particular, planning policies should promote a mix of uses in order to provide opportunities to undertake day-to-day activities including work on site. Where practical, particularly within large-scale developments, key facilities such as primary schools and local shops should be located within walking distance of most properties.

39 If setting local parking standards for residential and non-residential development, local planning authorities should take into account:

- the accessibility of the development;
- the type, mix and use of development;
- the availability of and opportunities for public transport;
- local car ownership levels; and
- an overall need to reduce the use of high-emission vehicles.

40 Local authorities should seek to improve the quality of parking in town centres so that it is convenient, safe and secure, including appropriate provision for motorcycles. They should set appropriate parking charges that do not undermine the vitality of town centres. Parking enforcement should be proportionate.

41 Local planning authorities should identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice.

## Decision-taking

186 Local planning authorities should approach decision-taking in a positive way to foster the delivery of sustainable development. The relationship between decision-taking and plan-making should be seamless, translating plans into high quality development on the ground.

187 ***Local planning authorities should look for solutions rather than problems***, and decision-takers at every level should seek to approve applications for sustainable development where possible. ***Local planning authorities should work proactively with applicants to secure developments that improve the economic, social and environmental conditions of the area.***



### **Warrington Local Transport Plan 3 (LTP3)**

Warrington's LTP3 sets out the council's transport strategy, policies and spending priorities. It's objective is to build and manage a transport network that;

- "Is integrated and customer focused and reduces the need to travel by car.
- Enables the regeneration of the Borough and supports economic growth.
- Maintains the highway, minimises congestion for all modes of travel and enables Warrington's smart growth
- Improves everyone's access to health, employment, education, culture, leisure and the natural environment.
- Improves everyone's access to the town centre by all modes of travel.
- Enhances accessibility for those in disadvantaged communities or groups.
- Improves neighbourhoods and residential areas.
- Improves safety and security for all modes of travel.
- Enhances the image and profile of the place.
- Improves the quality of public space making Warrington more welcoming.
- Protects and enhances the natural environment.
- Reduces the impact of traffic on air quality in Warrington and helps to reduce carbon emissions and tackle climate change.
- Makes Warrington safer, sustainable and healthier.
- Integrates with transport networks outside Warrington to enhance the sustainability of cross boundary travel."

### **Summary**

The overriding theme of national policy is that developments must be accessible by sustainable means of transport and accessible to all members of the local community. Local policy is to echo the sustainability sentiment of national policy.

It is considered that the development proposal will not adversely impact on the transport network, and indeed will enhance opportunities for sustainable travel by integrating into existing opportunities for sustainable travel to the site.

### 3. SITE DESCRIPTION

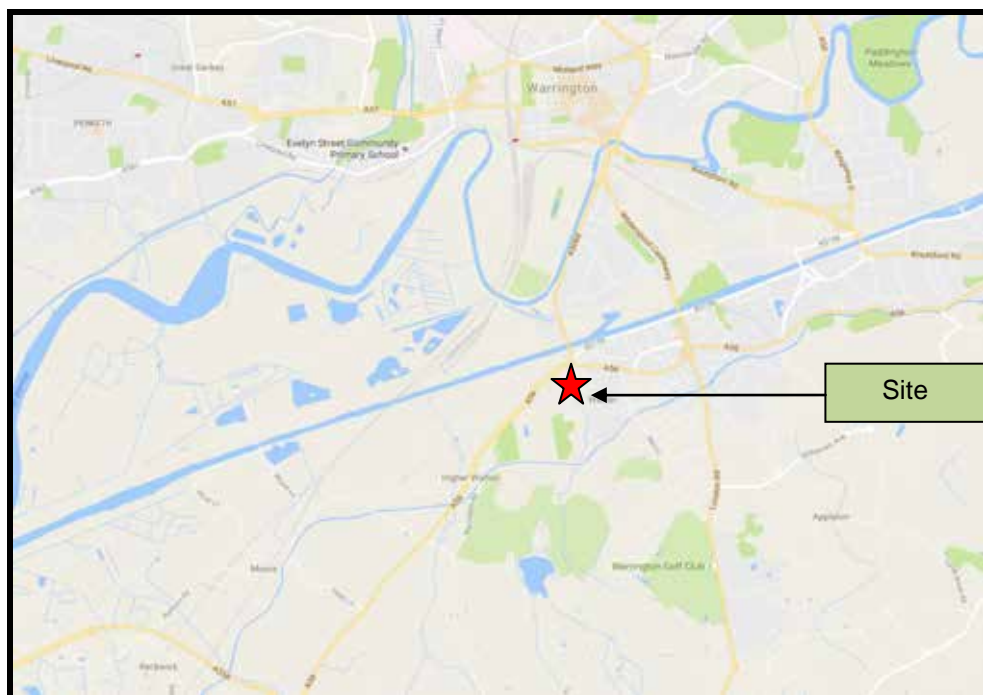
#### Site location context

The site is located approximately 1km from Stockton Heath, 2.5km from Warrington, 8km from Lymm and 10km from Runcorn.

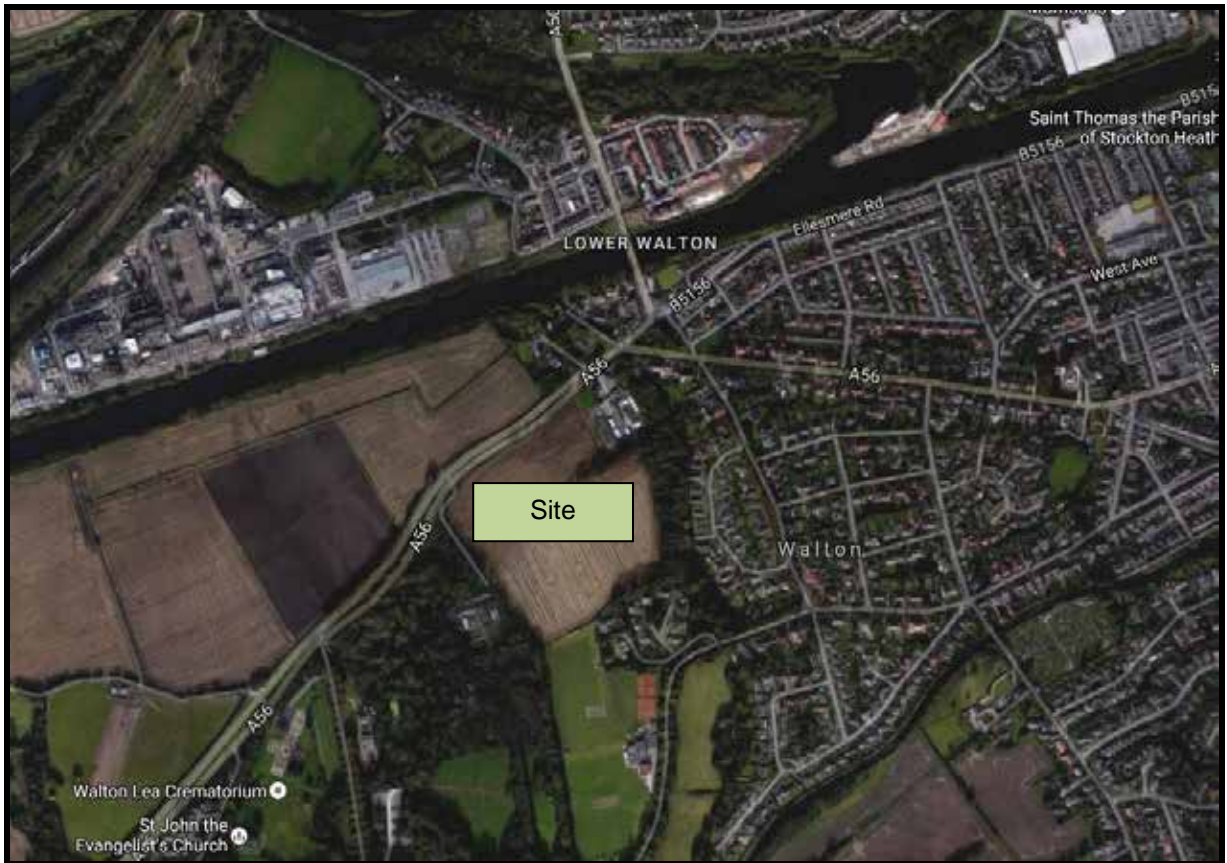
The site is bordered to the north by the A56 Chester Road, to the east by residential properties and to the south and west by agricultural land.



Site location plan in relation to neighbouring settlements and locally overleaf



Local area setting and the site.



### Local Highway Provision

All the roads in the area are of a standard carriageway width appropriate for their usage, with footpaths and street lighting. They serve primarily an urban catchment containing local services, employment/retail units.

#### A56 Chester Road

The A56 Chester road forms a priority controlled junction with the A5060 Chester road, approximately 255m northeast of the site and extends in a south-westerly direction towards a junction with the M56. Approximately 200m northeast of the existing site access Chester Road forms a priority junction with Walton New Road and Pool Lane.

East of the site, Chester Road consists of a single carriageway which provides a northbound lane, northbound right-turn lane and a single southbound lane. The carriageway is approximately 11.5m wide and provides 2m wide footways, dropped kerbs and street lighting. This section of Chester Road is subject to a 30mph speed limit.

Along the frontage and west of the site, Chester Road forms a dual carriageway which provides two lanes in each direction of travel. Each carriageway is approximately 8m wide and a shared footway/cycleway is provided alongside the northbound carriageway. A grass verge approximately 1m wide separates the carriageway from the footway/cycleway and street lighting is provided along the length of the carriageway. The dual carriageway is subject to a 40mph speed limit.

### **A5060 Chester Road**

From the priority junction with the A56 Chester Road, the A5060 Chester Road runs on a north-south axis towards central Warrington. It consists of a single carriageway approximately 9m wide and provides a single lane in each direction of travel. Approximately 200m from the existing site, the A5060 Chester Road forms a swing bridge over the Manchester Ship Canal. A5060 Chester Road provides 2m wide footways, tactile paving, dropped kerbs and street lighting. Chester Road is subject to a 30mph speed limit.

### **A56 Walton New Road**

Walton New Road forms a priority junction with Chester Road and Pool Lane, approximately 200m east of the site. It then extends eastward towards the village of Lymm. Walton New Road consists of a single carriageway with a single lane in each direction of travel. The carriageway is approximately 7m wide and also provides street lighting and a 2m wide footway along the eastbound lane. The road is bordered by residential properties and is subject to a 30mph speed limit.

### **Ellesmere Road**

From a priority junction with A5060 Chester Road, Ellesmere road runs northwest towards Stockton Heath. It consists of a single carriageway, approximately 7.5m wide, and provides one lane in each direction of travel. Ellesmere Road provides approximately 2m footways with dropped kerbs and street lighting. The road is bordered by residential properties and the Manchester Ship Canal and is subject to a 30mph speed limit.

From site observation the area has a typical traffic flow characteristic associated with an urban area i.e. distinct AM and PM flow periods. A detailed photographic record of the local access and setting is provided below for future reference



**The view to NE and SW shows the speed limit change.**



**View NE and SW along Chester Road to site frontage**



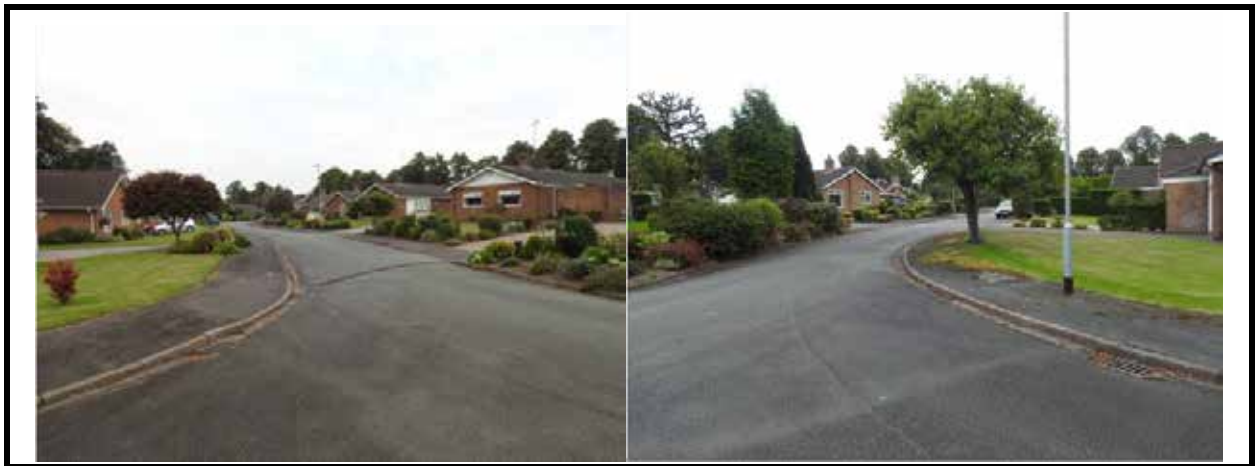
**View left and right from potential site access**



**Walton New Road to right and along the road**



**View to and away from site at Brookwood Close**



**View left and right from site at Brookwood Close**

### **Accident review**

The national CrashMap accident record site uses data collected by the police about road traffic crashes occurring on British roads where someone is injured.

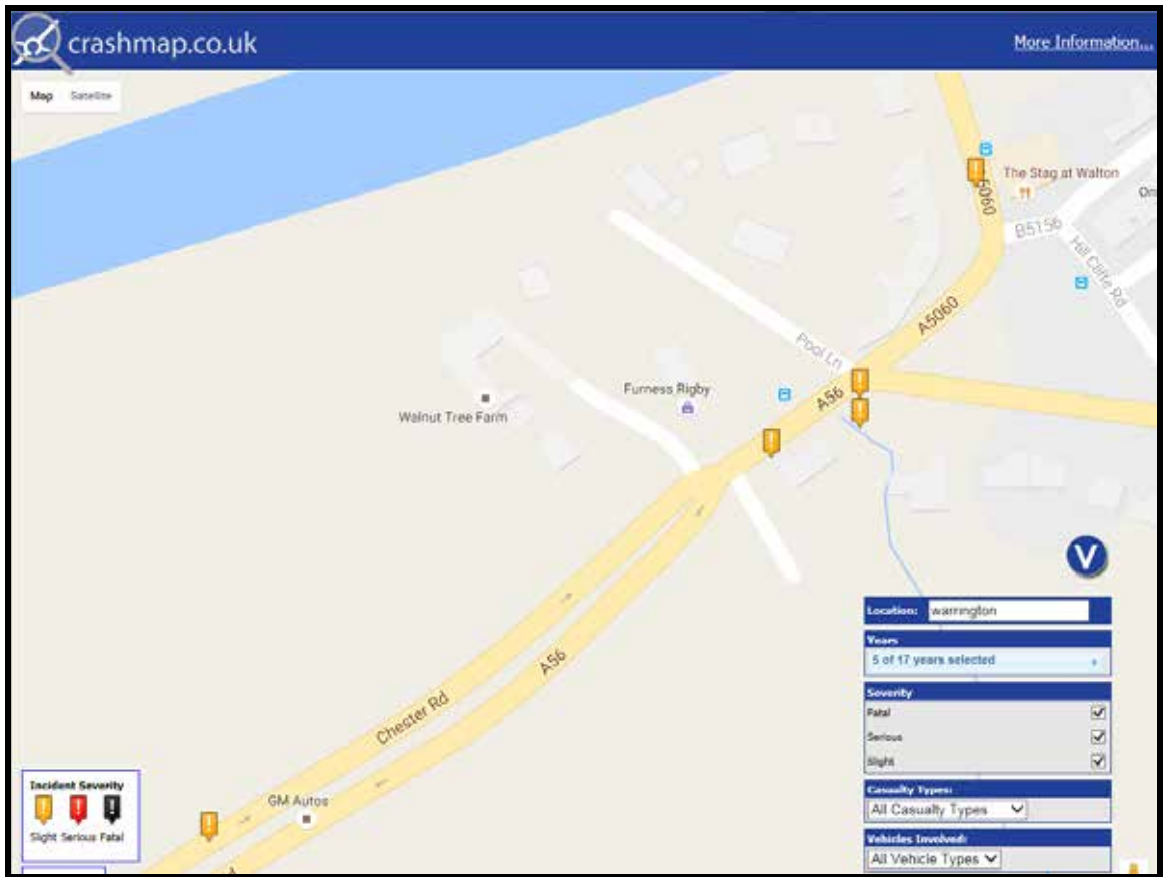
This data is approved by the National Statistics Authority and reported on by the Department for Transport each year.

This site uses data obtained directly from official sources but compiled in to an easy to use format showing each incident on a map. Incidents are plotted to within 10 metres of their location and as such, can sometimes appear to be off the carriageway.

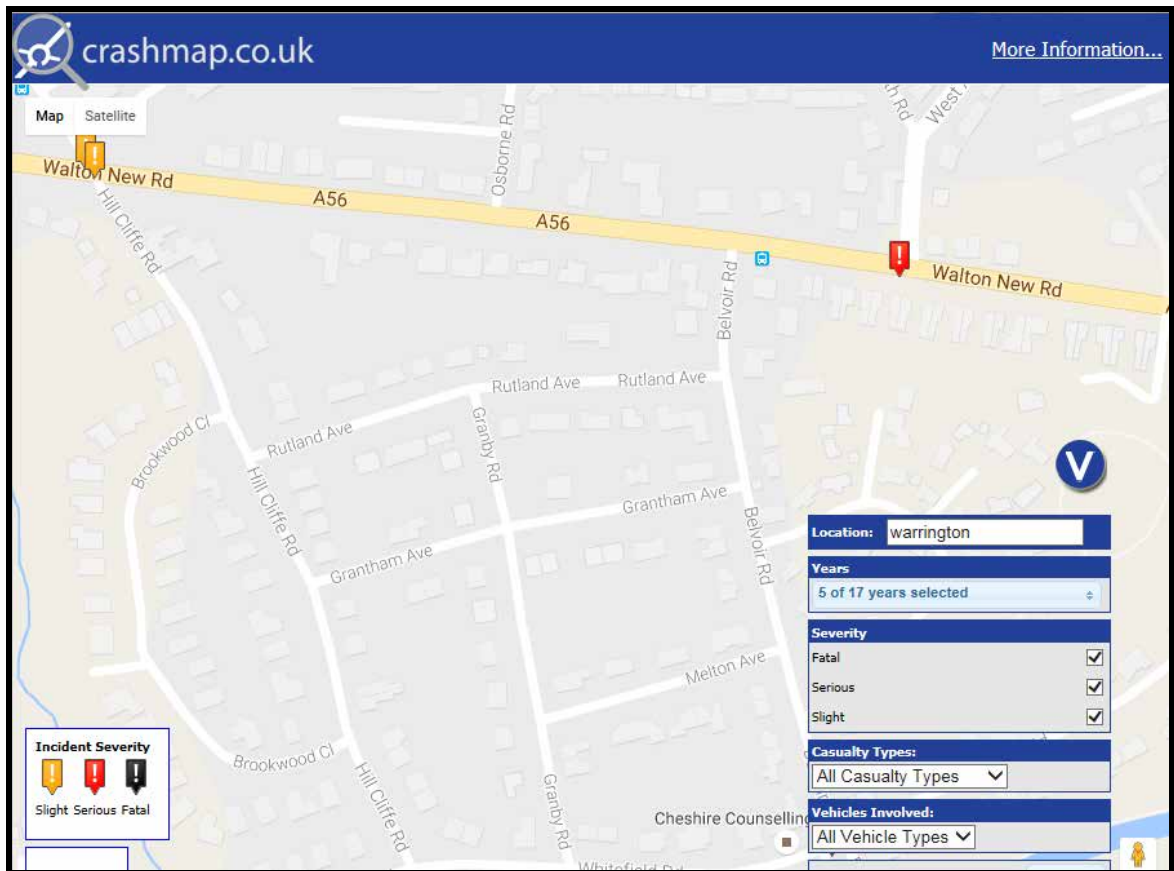
Where a number of incidents occur in the same location they are grouped together and shown on the map by a number in a purple coloured box.

Access to the national data base has been undertaken and the resultant mapping provided for reference.

Along the Chester Road corridor locally have 5 events recorded. All were slight in nature, 2 in 2011 approaching and at the Walton New road junction, 1 in 2013 at the same junction. The other two records west and east of the site occurred in 2015 and 2013 respectively.



Accident information from Crashmap along Chester Road above and Brookwood Close below



Both accidents at the Hall Cliffe Road junction occurred in 2015.

The accident information obtained shows that in the latest 5 year period there are no records at the existing site access.

The average number of accidents here equates to less than one per year within the recorded period.

There is nothing about the road environment that would suggest that the additional traffic resulting from the development of the site will have an adverse effect on the highway safety in this area.

Whilst any accident is regrettable incidents of this nature would not indicate a significant safety issue arising from the operation of the network at the site access and local area.

### Traffic flows

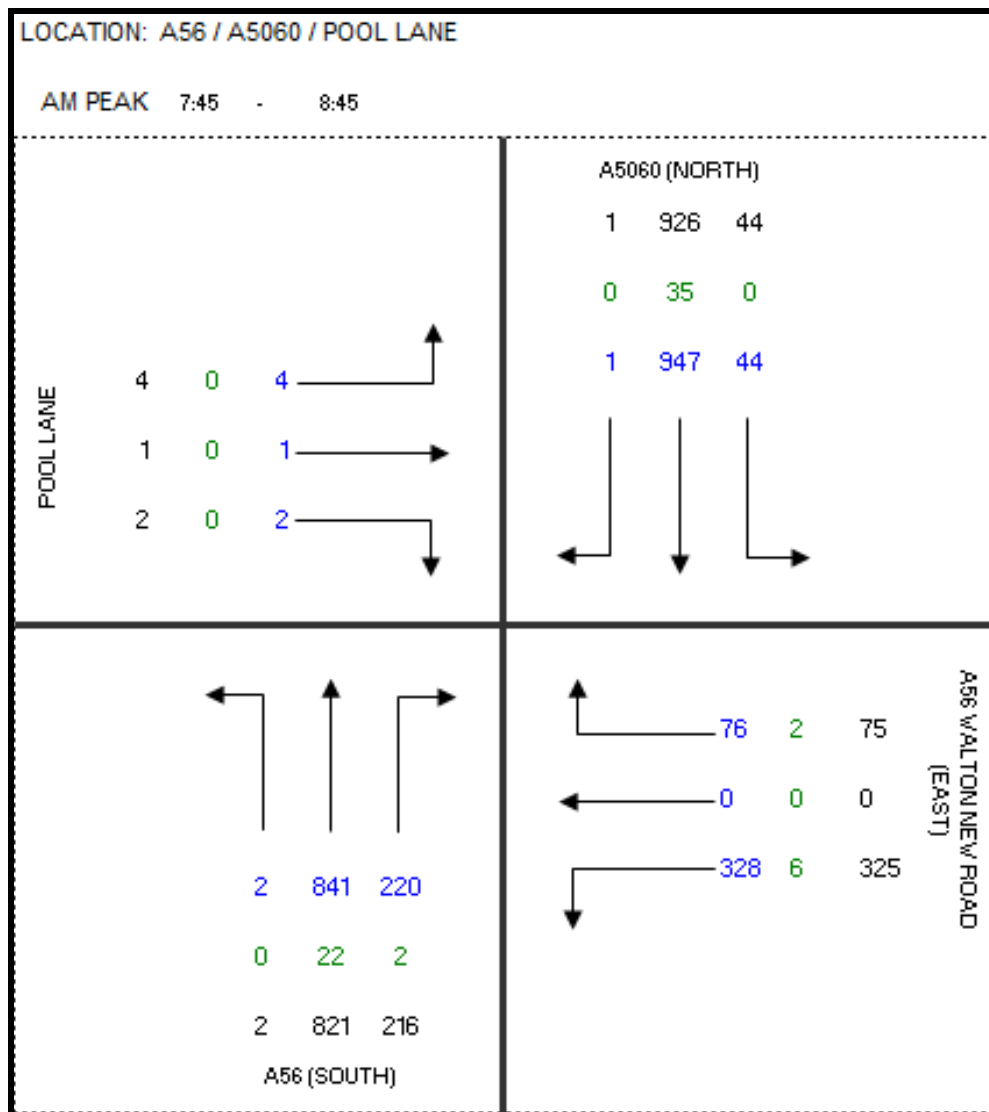
Traffic surveys have been undertaken of the local network and provided in appendix A, the flows along the site frontage and the nearby Walton New Road are shown below.

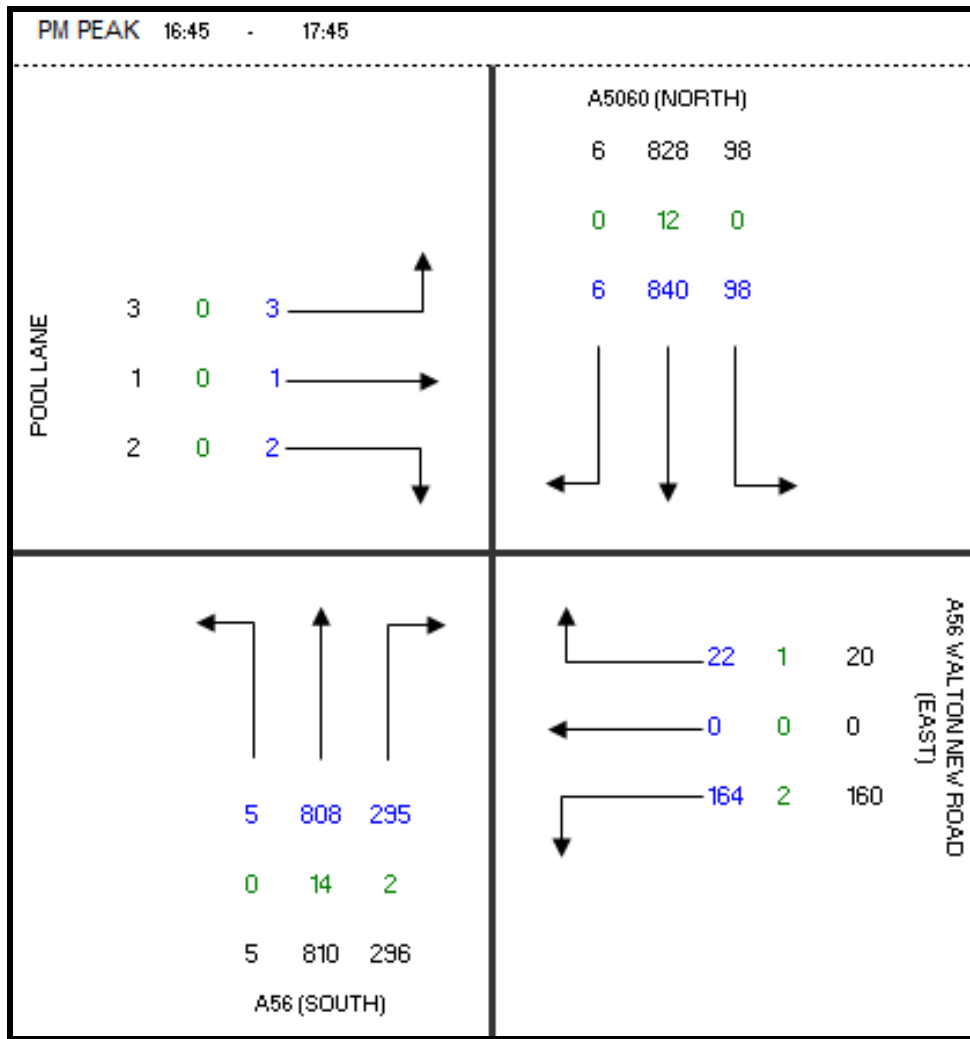
Road: A56 Chester Road, Walton									A: South-westbound							
Day: Tuesday									B: North-eastbound							
Date: 1 March 2016																
Weather: Rain AM/Fine & Cloudy PM																
A									B							
Time	Car	LGV	OGVI	0GV2	P/C	M/C	PSV	Total	Car	LGV	OGVI	0GV2	P/C	M/C	PSV	Total
07:30	316	48	5	3	2	5	1	380	211	24	4	0	1	3	4	247
07:45	317	37	5	3	3	1	1	367	226	28	3	2	0	2	2	263
08:00	250	30	5	1	2	1	1	290	221	24	5	1	2	0	0	253
08:15	286	33	10	4	3	2	2	340	242	28	5	1	0	1	2	279
08:30	253	18	9	3	1	3	2	289	264	19	6	4	0	2	2	297
08:45	226	23	3	3	1	0	6	262	208	24	6	4	0	1	3	246
09:00	173	26	5	2	1	0	3	210	185	21	2	2	0	0	0	210
09:15	186	25	10	2	0	0	3	226	147	29	5	4	0	1	0	186
<b>Total</b>	<b>2007</b>	<b>240</b>	<b>52</b>	<b>21</b>	<b>13</b>	<b>12</b>	<b>19</b>	<b>2364</b>	<b>1704</b>	<b>197</b>	<b>36</b>	<b>18</b>	<b>3</b>	<b>10</b>	<b>13</b>	<b>1981</b>
16:30	252	26	3	2	0	2	2	287	223	37	4	5	0	1	2	272
16:45	235	22	2	2	0	1	4	266	229	32	3	3	4	4	1	276
17:00	264	18	3	0	0	2	1	288	271	20	2	2	3	0	1	299
17:15	253	19	0	1	0	0	7	280	238	26	3	7	2	4	2	282
17:30	250	15	4	3	1	0	2	275	255	20	0	2	5	4	2	288
17:45	191	21	0	2	0	0	3	217	226	16	5	3	3	1	1	255
18:00	210	14	1	0	0	1	0	226	231	17	1	2	2	2	3	258
18:15	153	8	0	0	0	0	2	163	193	12	5	1	6	1	2	220
<b>Total</b>	<b>1808</b>	<b>143</b>	<b>13</b>	<b>10</b>	<b>1</b>	<b>6</b>	<b>21</b>	<b>2002</b>	<b>1866</b>	<b>180</b>	<b>23</b>	<b>25</b>	<b>25</b>	<b>17</b>	<b>14</b>	<b>2150</b>



A56 CHESTER ROAD, WALTON, WARRINGTON - TUESDAY 1 MARCH 2016 (07:30-08:30)															
B - North-Eastbound								A - South-Westbound							
Cars	LGV	OGV1	OGV2	P/C	M/C	PSV	Total	Cars	LGV	OGV1	OGV2	P/C	M/C	PSV	Total
900	104	17	4	3	6	8	1042	1169	148	25	11	10	9	5	1377

A56 CHESTER ROAD, WALTON, WARRINGTON - TUESDAY 1 MARCH 2016 (16:45-17:45)															
B - North-Eastbound								A - South-Westbound							
Cars	LGV	OGV1	OGV2	P/C	M/C	PSV	Total	Cars	LGV	OGV1	OGV2	P/C	M/C	PSV	Total
993	98	8	14	14	12	6	1145	1002	74	9	6	1	3	14	1109





ARM / TURNING DIRECTION	LEFT TURN							STRAIGHT ON							RIGHT TURN										
	PEDA L	MOTO R	CAR TAXI	LGV	OGV1	OGV2	BUS COAC	TOTA L	PEDA L	MOTO R	CAR TAXI	LGV	OGV1	OGV2	BUS COAC	TOTA L	PEDA L	MOTO R	CAR TAXI	LGV	OGV1	OGV2	BUS COAC	TOTA L	
AMPEAK																									
A5060 (NORTH)	0	0	39	5	0	0	0	44	10	8	771	95	24	11	7	926	0	0	1	0	0	0	0	0	1
A56 WALTON NEW ROAD (EAST)	3	1	296	17	5	1	2	325	0	0	0	0	0	0	0	0	1	0	69	3	1	1	0	75	
A56 (SOUTH)	0	0	2	0	0	0	0	2	5	2	731	56	10	12	5	821	1	1	192	16	1	1	4	216	
POOL LANE	0	0	3	1	0	0	0	4	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	2	
PMPEAK																									
A5060 (NORTH)	0	0	91	7	0	0	0	98	4	5	749	50	7	5	8	828	0	0	5	1	0	0	0	6	
A56 WALTON NEW ROAD (EAST)	0	2	140	13	1	1	3	160	0	0	0	0	0	0	0	0	0	0	17	1	1	0	1	20	
A56 (SOUTH)	0	0	5	0	0	0	0	5	11	11	709	64	7	7	1	810	4	3	271	14	1	1	2	296	
POOL LANE	0	0	2	1	0	0	0	3	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	2	

### Speeds

The site frontage has been surveyed for local speeds and shown below.

The surveys show the road operates at or below the speed limit.

**A56 Chester Road, Walton, Warrington - Speed Survey (Tuesday 1st March 2016)**

**Weather Conditions - Fine & Cloudy/Road Conditions - Damp**

**South-westbound**

41	43	35	31	41	34	39	35	37	41
33	42	40	33	41	35	38	41	36	38
39	37	42	40	34	39	33	37	40	38
38	41	33	38	40	33	37	40	45	35
37	40	38	36	32	39	37	34	32	37
37	33	37	35	38	33	39	36	34	37
38	35	38	41	34	37	40	35	37	41
34	40	38	36	38	34	31	37	39	37
37	36	39	33	29	39	38	33	36	39
37	46	35	39	35	43	37	48	43	39
37	36	39	43	39	32	38	41	36	39
35	38	36	39	45	35	41	33	47	38
38	34	41	38	39	35	39	36	46	37
38	37	30	39	42	34	38	41	36	33
32	38	45	39	37	33	40	35	26	38
29	44	35	38	42	31	37	41	38	44
43	36	39	43	39	49	43	36	46	38
36	40	37	36	32	40	38	35	42	35
37	35	40	34	37	34	41	44	38	32
40	38	41	34	38	40	33	33	40	32
<b>Max - 49</b>		<b>Min - 26</b>		<b>85% - 41</b>		<b>Ave - 38</b>		<b>Sp. Limit - 40</b>	

A56 Chester Road, Walton, Warrington - Speed Survey (Tuesday 1st March 2016)									
Weather Conditions - Fine & Cloudy/Road Conditions - Damp									
North-eastbound									
43	40	47	39	44	37	42	46	36	44
41	51	38	41	35	43	40	39	33	37
44	39	41	45	35	43	48	36	39	35
35	44	36	38	41	37	34	45	38	35
43	35	38	34	43	40	49	38	46	40
36	45	40	36	37	39	42	40	37	43
41	37	44	39	36	40	33	36	37	40
37	43	36	39	34	43	51	38	34	45
39	32	42	47	38	50	43	49	38	36
42	36	34	42	35	37	42	34	42	35
36	42	44	37	41	36	34	61	41	36
34	37	42	38	34	39	36	40	34	39
39	35	37	32	38	62	41	48	38	44
41	37	34	47	51	41	35	33	37	36
35	50	41	35	38	32	42	52	45	38
30	38	36	40	35	39	36	41	37	41
37	33	38	38	35	52	37	34	40	37
40	37	32	42	36	52	40	45	38	42
38	36	40	38	33	41	56	37	41	36
30	40	38	42	32	38	36	33	39	38
<b>Max - 62</b>		<b>Min - 30</b>		<b>85% - 44</b>		<b>Ave - 39</b>		<b>Sp. Limit - 40</b>	

### Summary

The site is located on the edge of urban area close to local facilities, it has a good local infrastructure around the site with a bus route and good walking connections.

#### 4. EXISTING NON MOTORISED TRAVEL OPTIONS TO THE SITE

It is important to recognise that national Government guidance encourages accessibility to new developments by non-car travel modes. New proposals should attempt to influence the mode of travel to the development in terms of gaining a shift in modal split towards non car modes, thus assisting in meeting the aspirations of current national and local planning policy.

The accessibility of the proposed development sites by the following modes of transport has, therefore, been considered:

1. Accessibility on foot and cycle;
2. Accessibility by public transport.

##### Walking and cycling

The local area has excellent facilities to promote movement of pedestrians wide footways, and directional signage to aid visitors to the area.

The proposed development site is located on the edge of the urban area with a range of local land uses, services and facilities.

Experience from good practice in Travel Planning development generally suggests that pedestrians are prepared to walk up to 2kms between home and workplace, provided that accessible footway routes are identified.

ACCEPTABLE WALKING DISTANCES [INSTITUTE OF HIGHWAYS AND TRANSPORTATION]			
Walking Distance	Local Facilities *	District Facilities**	Other
Desirable	200m	500m	400m
Acceptable	400m	1000m	800m
Preferred Maximum	800m	2000m	1200m
* Includes food shops, public transport, primary schools, crèches, local play areas			
** Includes employment, secondary schools, health facilities, community / recreation facilities			

Importantly, the 0.8km yellow / 2km brown distance are the 10 and 25 minutes walk journeys covers other education and shopping facilities. There are, therefore, opportunities for residents/students to access a range of shopping, employment, leisure, and service facilities on foot.

For the urban areas a 400m maximum desirable distance to bus stops based on urban studies corresponds to a walk time of 5 minutes, based upon typical normal walking speed, the site lies well within this distance for the stops shown on Chester Road

The CIHT report provides guidance about journeys on foot. It does not provide a definitive view on distances, but does suggest a preferred maximum distance of 2000m for walk commuting trips this extends to cover a considerable part of the urban area.

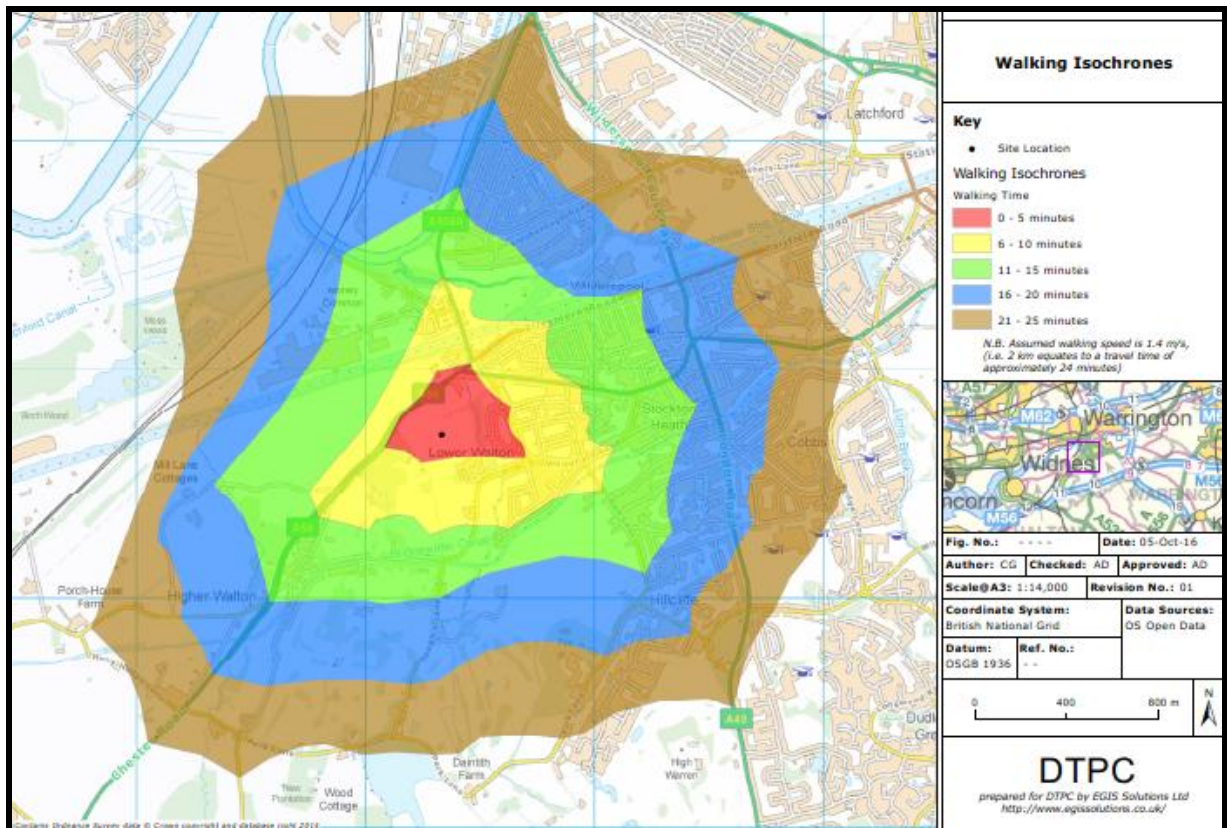
This is supported by the now superseded PPG 13 and the National Travel Survey which suggests that most walking distances are within 1.6km thus accepted guidance states that walking is the most important mode of travel at the local level supporting the above statement.

The DfT identify that 78% of walk trips are less than 1km in length, (DfT Transport Statistics GB).

Importantly, the 2km walk catchment also extends to cover the full residential and employment area. There are, therefore, significant opportunities for travel on foot.

Clearly, there is also potential for walking to form part of a longer journey for residents via the bus services.

In conclusion, the proposed application site can be considered as being accessible on foot.



### Walk Catchments

The local services within 500m include the Stag at Walton Public House and Spar foodstore. Within a 1,000m boundary, there is Stockton Heath Primary School, Walton Lea Community Project, Warrington Hockey Club a Lloyds Pharmacy, several doctors' surgeries and Morrison's, Co-op and Sainsbury's foodstores.

Located within a 2,000m boundary, there is the Priestley College, St Thomas C of E Primary School, Bridgewater High School, Center Park Business Park and Warrington Golf Club and Walton High Golf Club.

Clearly, there is also potential for walking to form part of a longer journey for residents to and from the proposed development.

**There are existing pedestrian routes in the vicinity of the site that will assist the accessibility of the site for pedestrians.**

Historic Guidance and perceived good practice suggests: "Cycling also has potential to substitute for short car trips, particularly those under 5km and to form part of a longer journey by public transport" The CIHT guidance 'Cycle Friendly Infrastructure' (2004) states that: "Most journeys are short.

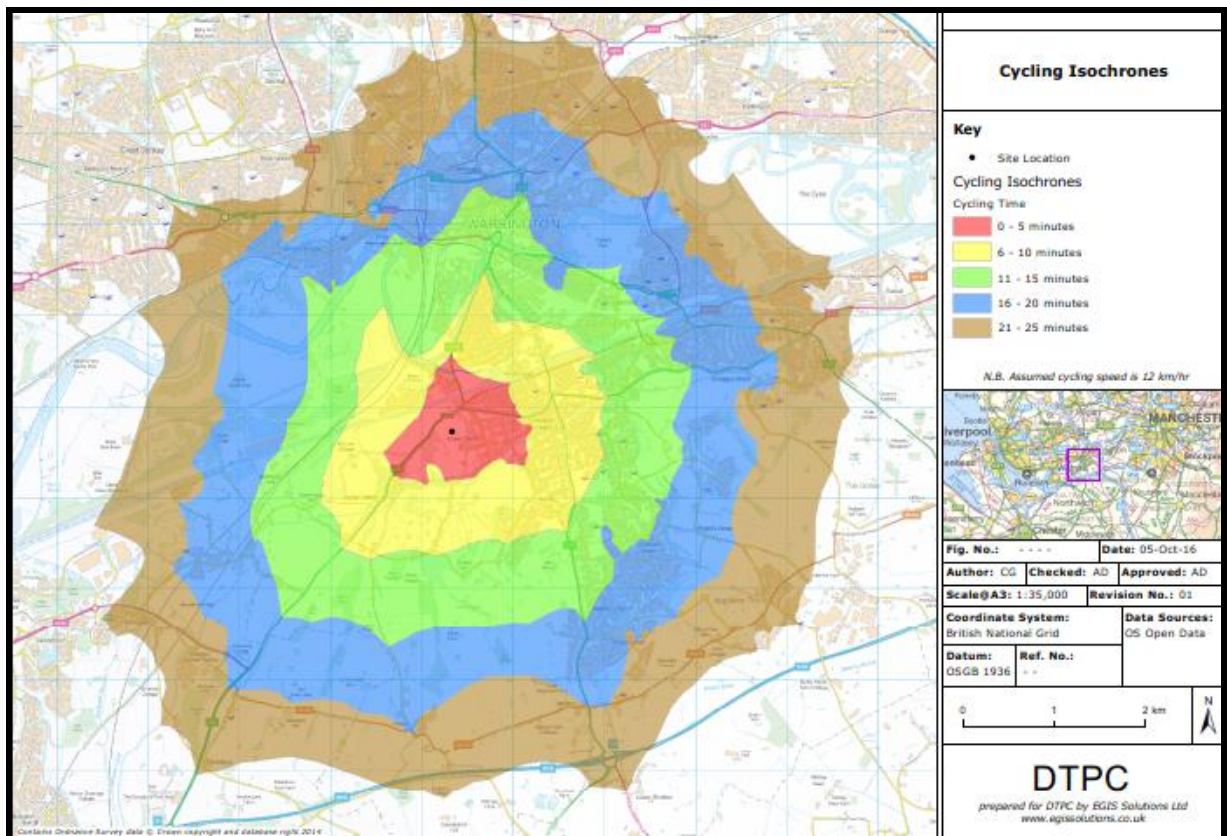
Three quarters of journeys by all modes are less than five miles (8km) and half under two miles (3.2km) (DOT 1993, table 2a). These are distances that can be cycled comfortably by a reasonably fit person.” (para 2.3)

The National Travel Survey NTS (undertaken annually by the DfT) has identified that bicycle use depends on topography, but a mean distance of between 5 – 10 kilometres is considered a reasonable travel distance between home and workplace. For the purposes of this report the national guidance of 5km has been used.

The brown area indicates the 5 km distance. The 5km cycle journey encompasses the whole of Warrington and its key local facilities and extends to include Grappenhall and Great Sankey.

Traffic-free cycle routes exist heading west on A56 Chester road immediately adjacent to the site and heading east along the northern bank of the Manchester Ship Canal, approximately 700m from the application site. A mixed on-road and traffic-free cycle route extends west towards Runcorn along the St Helen’s Canal.

There are also numerous ‘Quiet Residential Roads’ identified as cycling routes by WBC. The proposed development is therefore considered to be accessible by cycle.



### Cycle Catchments

Chester Road has dedicated cycle paths.



**Cycle Lane on north side of Chester Road**

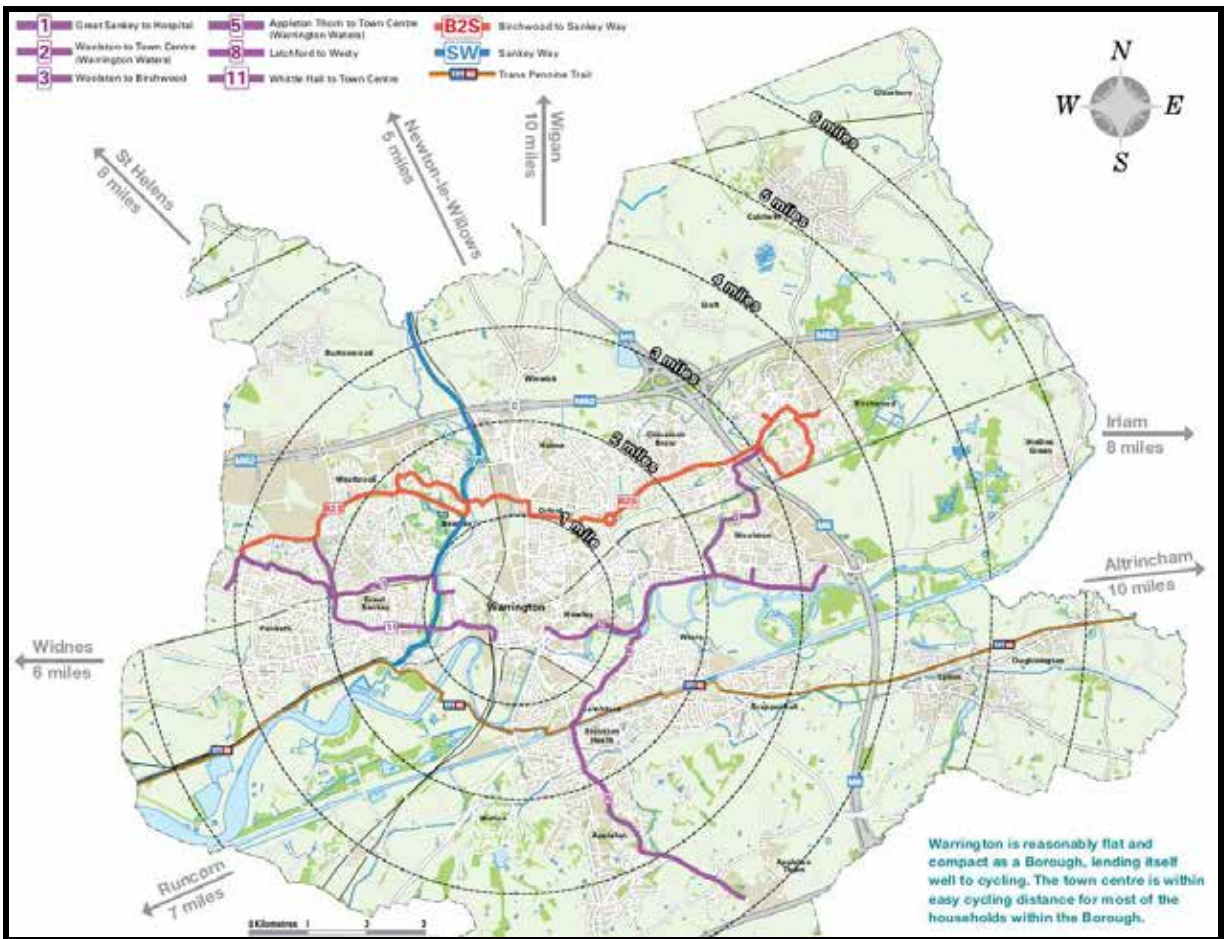


**Cycle Lane on south side of Chester Road**





Local area and wider network



Therefore, there are a variety of leisure, employment and amenity attractions within the cycle catchment area that can access the site.

In conclusion, the proposed application site can be considered as being served by the cycle network and is therefore accessible by cycle.

### Public Transport

An effective public transport system is essential in providing good accessibility for large parts of the population to opportunities for work, education, shopping, leisure and healthcare in the town and beyond.

The CIHT 'Guidelines for Planning for Public Transport in Developments' (March 1999) set out that, in considering public transport provision for development, three questions need to be addressed:

"What is the existing situation with respect to public transport provision in and around the development?"

What transport provision is required to ensure that the proposed development meets national and local transport policy objectives?

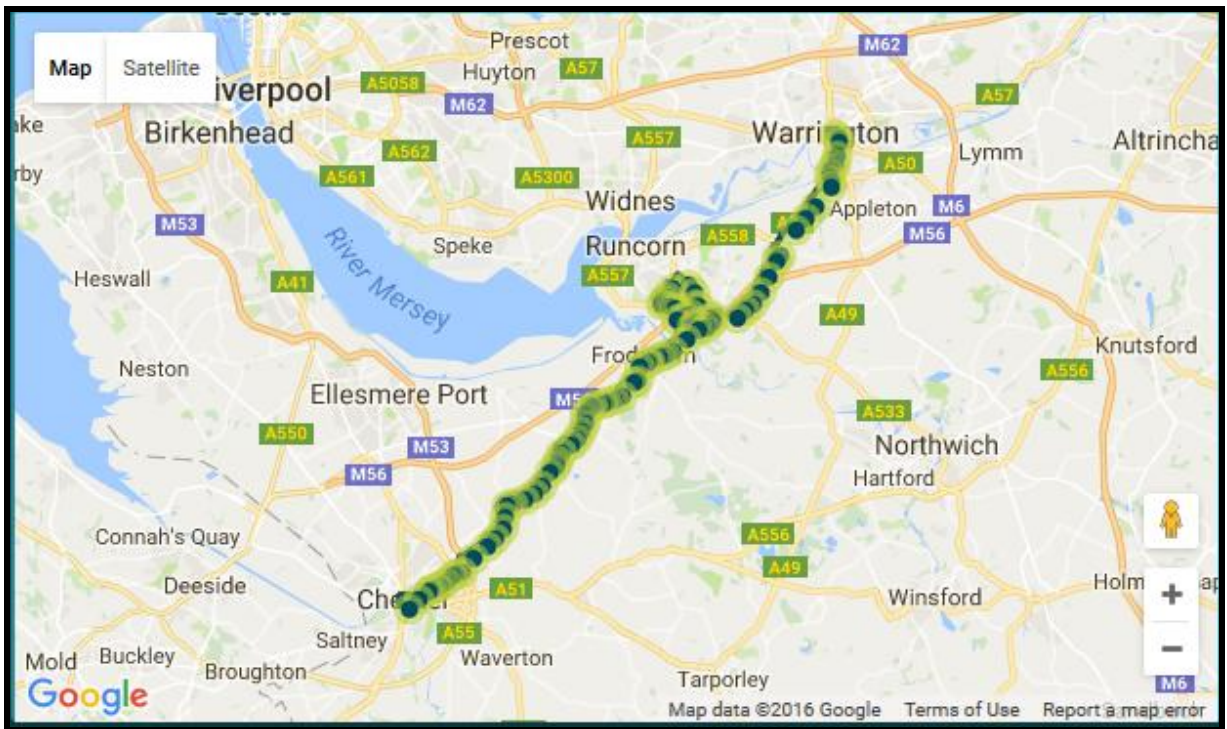
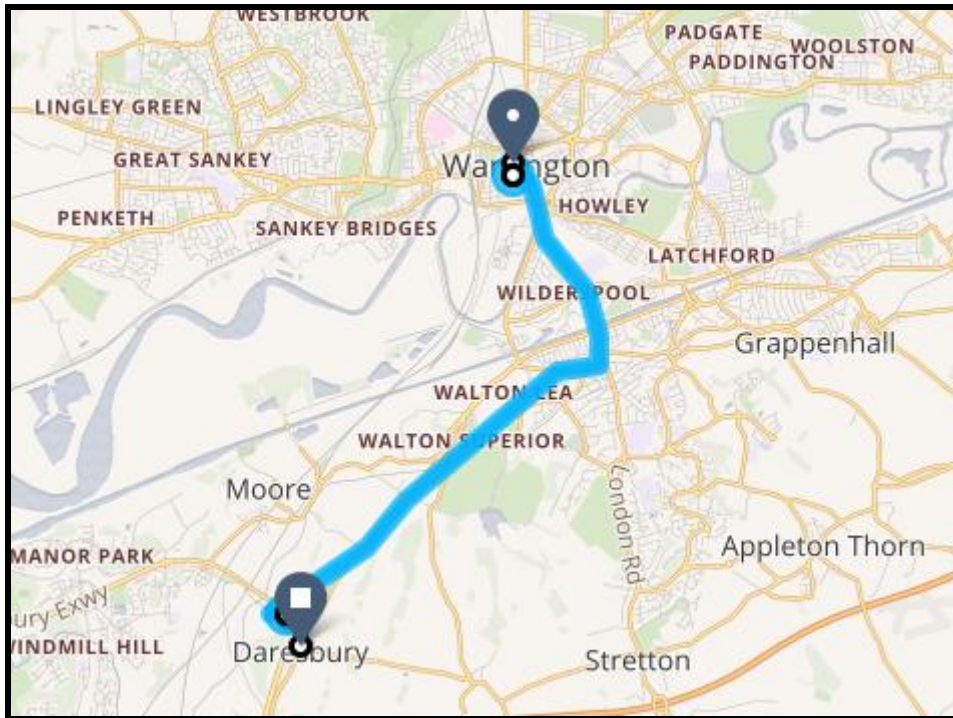
Are the transport features of the development consistent with the transport policy objectives, and if not, can they be changed to enable the policy objectives to be achieved?" (para 4.18).

As shown in the walking section the development site is located well within 400 metres from the nearest bus stops.

Local Bus Journey Summary			
Bus Service	Journey	Frequency	
		Monday to Saturday	Sunday
62	Warrington – Runcorn – Widnes – Hough Green	30 min	No service
X30	Warrington – Runcorn - Chester	hourly	No service

The 62 bus service provides a half hourly service to Runcorn and Widnes.. An hourly service is also provided by the X30 to Runcorn and Chester.

The services near the application site provide access to employment and leisure opportunities in the surrounding areas, making travel by public transport a practical mode of travel for residents at the proposed development.



### Local bus routes

#### Accessibility by Rail

Warrington Bank Quay Rail Station is approximately 2km and Warrington Central is 2.5km from the application site.

Warrington Bank Quay Rail Station lies on the West Coast Main Line. Services from this station call at stations including London, Birmingham, Manchester, Glasgow and Chester and trains run with an hourly frequency.

Eight trains an hour call at the station, with services to stations including Liverpool Lime Street, Manchester Oxford Road, Scarborough and Norwich.

The two stations are comfortably within the 5km cycle catchment, and may fall within an acceptable walking distance to some people. Rail could therefore form part of a multi-modal journey.

### **Private hire**

As with most towns the taxi offering is supplemented by private hire vehicles pre booked for pick up and drop off, ideally suited for evening leisure trips etc.

### **Summary**

In summary, the application site can be considered as having a good potential to be accessible by walk, cycle and public transport in accordance with planning policy guidance related to urban areas.

## 5. THE DEVELOPMENT PROPOSALS AND LAYOUT

### Development Proposals

The proposed allocation is for 177 units with access from Chester Road via a new roundabout and a new link from Brookwood close.

Full details in architects drawings



### Site Layout

#### Servicing strategy

The larger deliveries are accommodated using the turning heads shown for a large refuse vehicle.

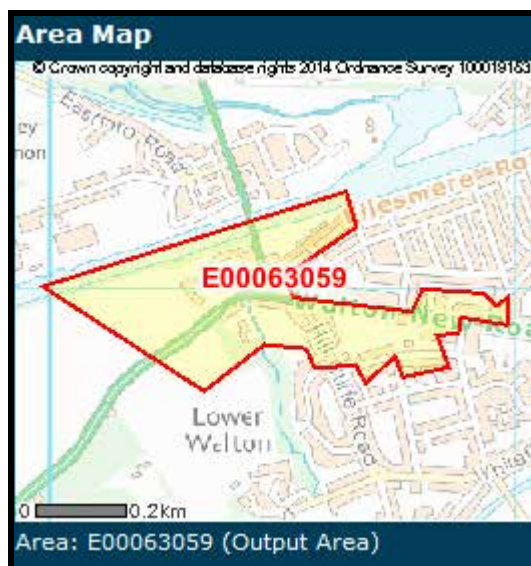
Smaller vans/deliveries can be accommodated along the homezones and private drives.

#### Car parking Policy and review

The accessible nature of the scheme would give potential for residents to use walk/cycle/car share/public transport as their chosen mode of transport. These are set out in the sustainability chapter.

The site would accord with local parking policy.

Census data shows the area has low car ownership reflective of its location and accessibility.



Car or Van Availability (QS416EW)	E00063059		Warrington	
	Output Area		Unitary Authority	
All Households	124	%	85140	%
No Cars or Vans in Household	6	5	16409	19
1 Car or Van in Household	41	33	35587	42
2 Cars or Vans in Household	58	47	26623	31
3 Cars or Vans in Household	17	29	5049	19
4 or More Cars or Vans in Household	2	2	1472	2

It also shows that the ownership does not mean car use at the same level.

Method of Travel to Work (QS701EW)	E00063059		Warrington		North West	
			Unitary Authority		Region	
All Usual Residents Aged 16 to 74	175	%	100856	%	3228744	%
Work Mainly at or From Home	20	11.4	4648	4.6	144079	4.5
Underground, Metro, Light Rail, Tram	0	0.0	148	0.1	20719	0.6
Train	7	4.0	2147	2.1	89429	2.8
Bus, Minibus or Coach	4	2.3	5039	5.0	267140	8.3
Taxi	1	0.6	400	0.4	26302	0.8
Motorcycle, Scooter or Moped	0	0.0	692	0.7	19988	0.6
Driving a Car or Van	123	70.3	71217	70.6	2021199	62.6
Passenger in a Car or Van	6	3.4	5803	5.8	197661	6.1
Bicycle	4	2.3	2618	2.6	70557	2.2
On Foot	9	5.1	7626	7.6	351807	10.9
Other Method of Travel to Work	1	0.6	518	0.5	19863	0.6

## 6. TRIP GENERATION AND ASSESSMENT

### Introduction

This section provides an indication of the likely levels of additional traffic generated by the proposed residential development

### Proposed Development Trip Demand

In order to determine the likely level of additional trips generated by the proposed residential development reference has been made to the TRICS v7.1.1 national database. TRICS is the industry recognised tool for calculating traffic demand of the developments. The TRICS database contains multi-modal survey data for a variety of land uses. The database has been interrogated for 'Residential Houses Privately Owned' developments similar in scale to the development currently proposed.

The following tables present a summary of the multi-modal results obtained from the TRICS database, based on 177 residential dwellings. The full TRICS output is contained in Appendix B.

Vehicle Trip Generation Summary					
Time Period	Trip Rate		Trip Generation		
	Arrivals	Departures	Arrivals	Departures	Two-way
08:00 – 09:00	0.157	0.383	28	68	96
17:00 – 18:00	0.349	0.197	62	35	97

These are split 2/3 to the roundabout and 1/3 to the Brookwood Close route.

Roundabout			
Time Period	Trip Generation		
	Arrivals	Departures	Two-way
08:00 – 09:00	18	45	63
17:00 – 18:00	41	23	64

Brookwood Close			
Time Period	Trip Generation		
	Arrivals	Departures	Two-way
08:00 – 09:00	10	23	33
17:00 – 18:00	21	12	33

### Assessment

The Department for Transport's publication entitled "Guidance on Transport Assessment" (GTA) dated March 2007 sets out the criteria for assessing new development. At Appendix B of the GTA it is confirmed that developments under 50 residential units do not need to be assessed. At paragraph 4.92 GTA states that

"For the avoidance of doubt, the 1994 Guidance regarding the assessment thresholds of 10 percent and 5 percent levels of development traffic relative to background traffic is no longer an acceptable mechanism....".

However, GTA does suggest that a threshold of 30 two-way trips may be appropriate for identifying the level of impact below which the need for a formal assessment may not be needed.

Indeed, it is generally the HA's approach to apply the 30 two-way trips threshold as that below which operational assessments are not required for the trunk road network. It is concluded that, in the specific case of this TS, and the absence of any other guidance, the '30 two-way trip threshold' should be adopted as the basis of a materiality test of traffic impact for the study junctions.

The flows along Chester Road are split approx 50/50 in each direction, the 63/64 trips would be 32 in each direction to the next junction. Similarly the Brookwood Close route would also split into the local network.

The sites impact would be spread across the network and would have limited impact on the network.

### **Impact During Construction**

The development of the site will provide an element of HGV traffic during construction. Whilst this is unavoidable, movements will be restricted, where appropriate, to hours that would not cause undue disturbance to the local area.



## **7. SUMMARY**

The scheme accords with local and national policy to site development adjacent to transport linkages and other attractions to minimise trips and share trip movements.

The site has a sustainable location and the site layout is designed to accord with good practice.

There are no operational issues that would arise if the development was to proceed as such the scheme would have little or no impact on the local network.

It is considered that there are no reasons why the scheme should not be approved from a transportation point of view.



# BWB

CONSULTANCY | ENVIRONMENT  
INFRASTRUCTURE | BUILDINGS

## TRANSPORT & INFRASTRUCTURE

Cushman and Wakefield  
Chester Road, Walton,  
Warrington

Utilities Review Report

## **TRANSPORT & INFRASTRUCTURE**

Cushman and Wakefield  
Chester Road, Walton,  
Warrington

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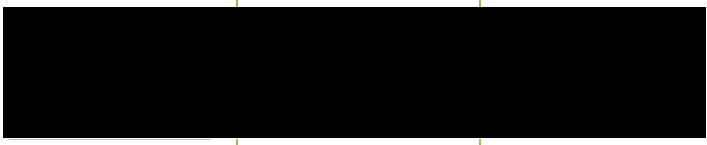
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## DOCUMENT ISSUE RECORD

<b>Document Number</b>	CRW-BWB-00-XX-RP-Z-0001-S0-P0_URR
<b>BWB Reference</b>	LDT2162-URR

Revision	Date of Issue	Status	Author:	Checked:	Approved:
A	09/09/2016	Issue	Armani Akbar-Roy BSc (Hons)	Ian Boddice BA (Hons)	Ian Boddice BA (Hons)
					

### Limitations

The assessments and interpretation have been made in line with legislation and guidelines in force at the time of writing, representing best practice at that time.

All of the comments and opinions contained in this report, including any conclusions, are based on the information obtained by BWB during our investigations.

There may be other conditions prevailing on the site which have not been disclosed by this investigation and which have not been taken into account by this report. Responsibility cannot be accepted for conditions not revealed by the investigation.

Any diagram or opinion of the possible configuration of the findings is conjectural and given for guidance only and confirmation of intermediate ground conditions should be considered if deemed necessary.

Except as otherwise requested by the Client, BWB is not obliged and disclaims any obligation to update the report for events taking place after:

- a) The date on which this assessment was undertaken; and
- b) The date on which the final report is delivered.

BWB makes no representation whatsoever concerning the legal significance of its findings or to other legal matters referred to in the following report.

This report has been prepared for the sole use of Cushman and Wakefield. No other third parties may rely upon or reproduce the contents of this report without the written permission of BWB. If any unauthorised third party comes into possession of this report they rely on it at their own risk and the authors do not owe them any Duty of Care or Skill.

## EXECUTIVE SUMMARY

This Foul Water & Utilities Assessment has been prepared by BWB Consulting Limited (BWB) on behalf of Cushman and Wakefield. Its purpose is to describe the locations of existing utilities apparatus in the vicinity of the site and to provide an account of the viability of servicing the proposed development with suitable mains services infrastructure. The assessment also considers whether any services diversions are likely to be required as a consequence of the development proposals.

BWB carried out a comprehensive services search to establish the approximate location of existing recorded services. The site and its surrounds are well served by the existing utilities infrastructure.

Having made initial enquiries with the relevant statutory undertakers, the responses received indicate that minor diversionary works to the existing; electricity, water, foul water and telecommunications apparatus may be required to accommodate the development however, it is not anticipated that the works will be prohibitive to the development.

It is recommended that further consultation with the relevant statutory undertakers is undertaken once the development proposals are reasonably fixed, in order to finalise the availability and cost of strategic services supplies to serve the proposed development and to confirm the extents and cost of any localised services diversions required.

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### FIGURES

Figure 1      SITE LOCATION PLAN

### APPENDICES

Appendix A      SITE DEVELOPMENT MASTERPLAN  
Appendix B      EXISTING UTILITY RECORD PLANS

## 1.0 INTRODUCTION

### Instruction

- 1.1 BWB Consulting (BWB) was instructed by Cushman and Wakefield to carry out a Utilities Review report.
- 1.2 It is anticipated that the land at Chester Road, Walton, Warrington, will be utilised for a development opportunity.
- 1.3 A site development masterplan is included as **Appendix A**.

### Objectives

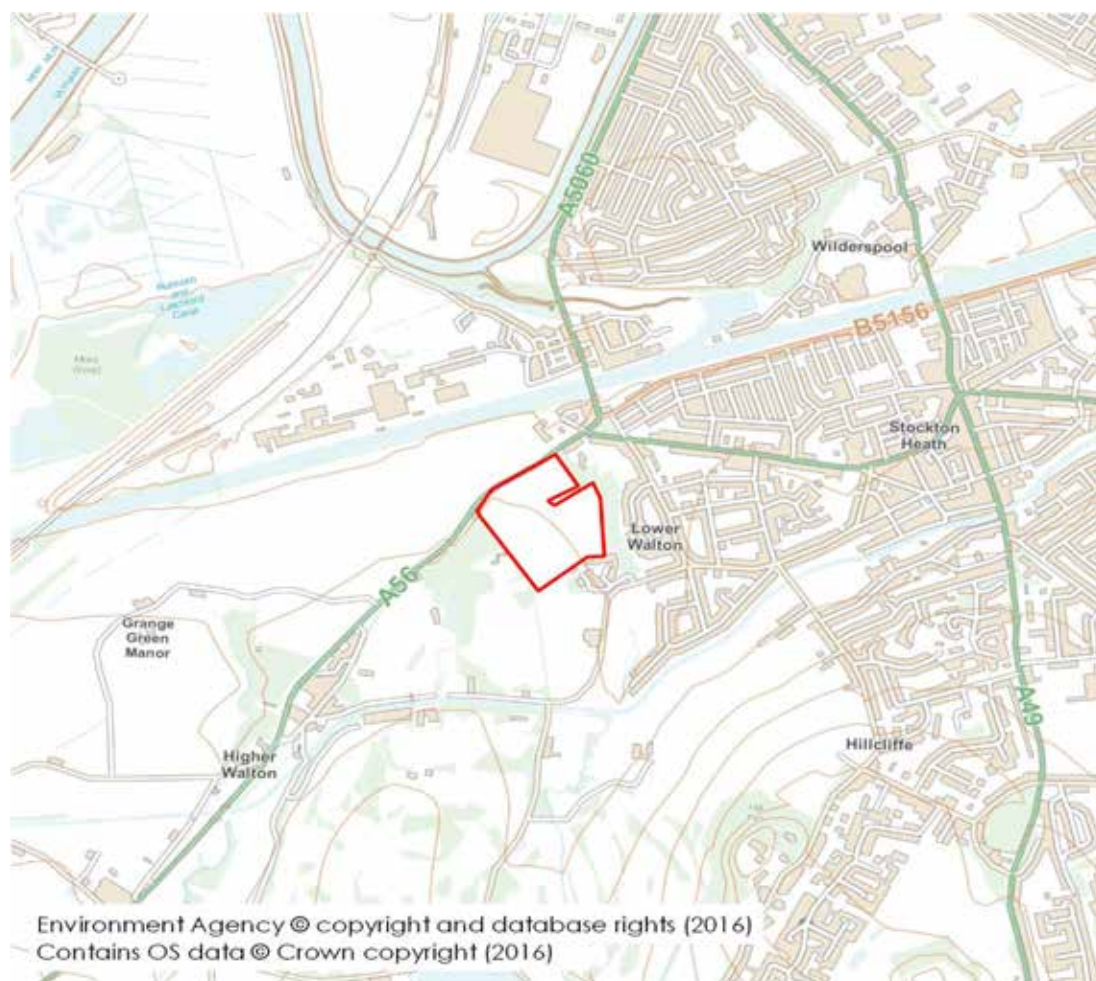
- 1.4 The objectives of the report are:-
  - To describe the location of existing services on and immediately adjacent to the site.
  - To determine whether there is likely to be any difficulty in providing strategic utility services to serve the proposed development.
  - To consider the impact of the development itself, on the existing services infrastructure and the likelihood of any necessary diversions.

## 2.0 THE SITE

### Site Location

- 2.1 The existing site is located approximately 0.5 miles to the west of Walton village and approximately 3 miles to the south of the town of Warrington. **Figure 1.**

**Figure 1: Site Location Plan**



### Site Description

- 2.2 The promoted site is located on a parcel of land off the A56, Chester Road, Warrington and comprises of arable/agricultural land. The site is bound to the north by a mix of both arable/agricultural land, industrial space and residential dwellings. The site is bound to the east by residential dwellings, and to the south and west by Warrington Sports Club and existing wooded land, respectively.



## 3.0 EXISTING SERVICES APPARATUS

- 3.1 BWB requested copies of existing services records from the utility companies operating within the vicinity of the site. The following provides a summary of the responses received.

### Electricity Apparatus

- 3.2 The Scottish Power (SP) electricity record plan shows an existing network of both high voltage (HV) and low voltage (LV) electricity cables supplying the existing residential dwellings surrounding the site.
- 3.3 Of note, the SP electricity record plan shows a disused HV cable, running along the western boundary of the site, to the north, where it crosses the A56, Chester Road.
- 3.4 Most notably, there is an LV cable running within the A56, Chester Road. The SP electricity record plan shows the cable running from west to east, where it connects into the existing electricity network and provides a supply to the residential dwellings within the surrounding area.
- 3.5 The SP electricity record plan confirms that there is no existing electricity apparatus present within the site itself.

### Gas Apparatus

- 3.6 The National Grid (NG) gas record plan shows an existing network of low pressure (LP) gas mains supplying the existing residential dwellings surrounding the site.
- 3.7 Of note, the NG gas record plan shows an existing LP gas main running within the A56, Chester Road. The record plan shows the gas main running from west to east, where it connects into the existing gas infrastructure surrounding the site at the east.
- 3.8 Most notably, the NG gas record plan shows a medium pressure (MP) gas main present, beyond the eastern boundary of the site, within Walton New Road. The medium pressure main is shown running centrally through the existing residential suburb of Walton.
- 3.9 The NG gas record plan confirms that there is no existing gas apparatus present within the site itself.

### Water Apparatus

- 3.10 The United Utilities (UU) clean water record plan shows a network of clean water anticipated to be of varying sizes, supplying the existing residential dwellings surrounding the site.

- 3.11 Of note, there is a Trunk main running from the B5156, Ellesmere Road to the A56, Chester Road, where it heads north into the arable/agricultural land adjacent to the proposed site.
- 3.12 Most notably, the UU clean water record plan shows a water main running within the A56, Chester Road, from the west to east. The UU water record plan shows the water main running within close proximity to the northern boundary of the site, at the north eastern corner.
- 3.13 The UU clean water record plan confirms that there is no clean water apparatus present within the site itself.

### **Public Sewer Apparatus**

- 3.14 The United Utilities (UU) sewer record plan confirms that there is an existing network of both foul and surface water sewers, serving the existing residential dwellings, surrounding the site beyond the eastern boundary.
- 3.15 Most notably, the UU sewer record plan shows an existing 150mm surface water sewer running within the A56, Chester Road, from the existing sewerage infrastructure, located east of the site.
- 3.16 The UU sewer record plan confirms that there is no existing foul drainage apparatus present within the site itself.

### **Telecommunication Apparatus**

#### BT/Openreach

- 3.17 The BT/Openreach record plan BWB obtained, shows an existing network of underground apparatus surrounding the site.
- 3.18 Of note, the BT/Openreach record plan shows underground apparatus present within the A56, Chester Road. The BT/Openreach record plan shows the existing apparatus providing telecoms services to the existing residential dwellings within the surrounding area.
- 3.19 The BT/Openreach record plans confirms that there is no existing BT apparatus present within the site itself.

#### Virgin Media

- 3.20 The Virgin Media (VM) record plan obtained, shows an existing network of underground apparatus surrounding the site.
- 3.21 Most notably, the VM record plan shows underground apparatus present within the A56, Chester Road, within the northerly footway, adjacent to the northern boundary of the site.

- 3.22 The VM record plans confirms that there is no existing apparatus present within the site itself.

#### Vodafone

- 3.23 The Vodafone record plan BWB obtained, shows apparatus now owned and operated by Vodafone and that which is not.
- 3.24 Of note, the Vodafone record plan confirms that there is no existing apparatus within the site itself.
- 3.25 Furthermore, the Vodafone record plan shows apparatus present, belonging to another licensed operator, running within the A56, Chester Road.

BWB contacted several other communications companies including; Interoute, KCOM, Verizon, Telent and Colt, none of whom have any apparatus in the vicinity of the site.

### **Linesearch Apparatus**

- 3.26 BWB contacted several other utility companies through Linesearch. The response received confirms the site does not lie within the zone of interest of a number of companies, most notably:

Main Pipelines Ltd

Government Pipeline Storage Systems (GPSS)

Shell Pipelines

Croyton Energy Con Ltd (Gas Pipeline)

ES Pipeline Ltd

## 4.0 DIVERSIONS/DISCONNECTIONS

### Electricity Apparatus

- 4.1 Following a review of the existing Scottish Power (SP) electricity record plans, it is confirmed that the promoted site is not affected by existing electricity infrastructure. As such, any development opportunity within the proposed site will not require the need to undertake diversionary works.

### Gas Apparatus

- 4.2 The National Grid (NG) gas record plan confirmed that there was no apparatus present within the site itself. However, it was highlighted that there is an existing low pressure main within the A56, Chester Road and running within proximity to the northern boundary, at the north east. Whilst the gas main is not anticipated to affect any proposed plans to develop, it is recommended that consideration is made towards its location, when devising a site masterplan.

### Water Apparatus

- 4.3 Upon review of the existing United Utilities (UU) clean water record plan, it is confirmed that there was no apparatus present within the site itself. However, it was highlighted that there is an existing clean water main within the A56, Chester Road and running within proximity to the northern boundary, at the north east. Whilst the clean water main is not anticipated to affect any proposed plans to develop, it is recommended that consideration be made to its location, when devising a site masterplan.

### Public Sewer Apparatus

- 4.4 The United Utilities (UU) foul sewer record plan confirmed that there was no apparatus present within the site itself. However, it was highlighted that there is an existing 150mm surface water sewer within the A56, Chester Road and running within proximity to the northern boundary, at the north east. Whilst the gas main is not anticipated to affect any proposed plans to develop, it is recommended that any iterations of a site masterplan consider its location to the site.

### Telecommunications Apparatus

#### BT/Openreach

- 4.5 Upon review of the existing BT/Openreach plans provided, it is confirmed that the existing underground apparatus serving the surrounding area does not impact upon the promoted site. As such, any development opportunity within the proposed site will not require diversionary works.

4.6 Virgin Media

4.7 Upon review of the existing Virgin Media (VM) record plans provided, it is confirmed that the existing underground apparatus serving the surrounding area does not impact upon the promoted site. As such, diversionary works will not be required.

4.8 Vodafone

4.9 The Vodafone record plans obtained confirmed that there is no existing apparatus present within the site itself. As such, any development opportunity within the proposed site will not require diversionary works.

## Diversion / Disconnection Summary

	Affected	Easement	Cost	Comments
<b>Electricity</b>	No	N/A	-	No diversionary works required
<b>Gas</b>	No	N/A	-	No diversionary works required
<b>Water</b>	No	N/A	-	No diversionary works required
<b>Foul Water</b>	No	N/A	-	No diversionary works required
<b>BT</b>	No	N/A	-	No diversionary works required
<b>Virgin Media</b>	No	N/A	-	No diversionary works required
<b>Vodafone</b>	No	N/A	-	No diversionary works required

## 5.0 CONCLUSIONS/RECOMMENDATIONS

5.1 The main conclusions and recommendations that can be drawn from this utilities investigation are as follows;

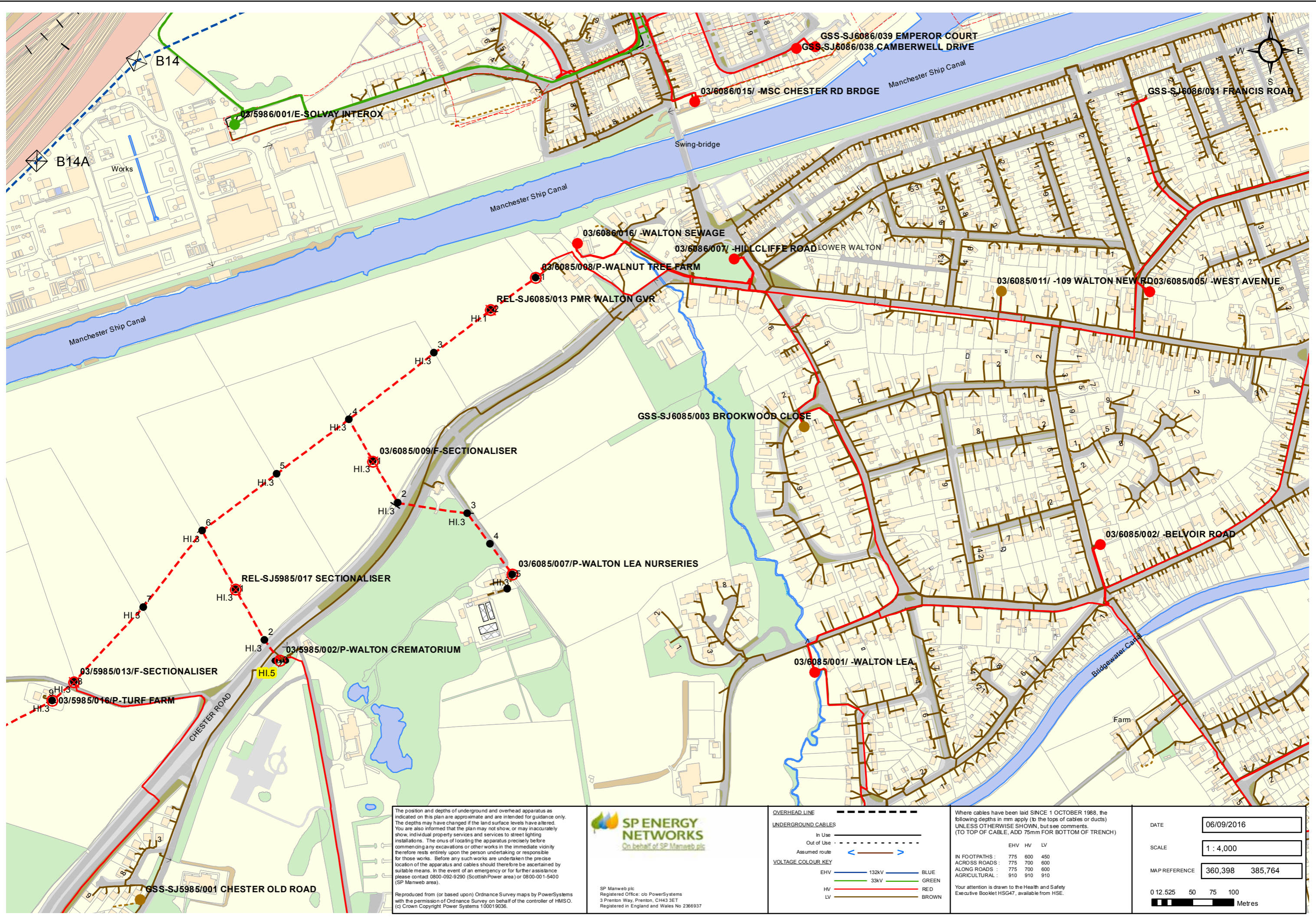
- The existing site surrounds appear to be well served by the main utility services.
- Following a review of the existing utility record plans obtained, it is clear that the surrounding network is reasonably well established, with suitable infrastructure present within the immediate vicinity of the site and its surrounding areas.
- Following a further review of the existing utility record plans obtained, it is confirmed that the site is free of any existing infrastructure services and therefore, will not be constrained by potential diversionary work considerations.
- It is recommended that further consultation with the relevant companies is undertaken closer to the time when works on the relevant parts of the development are due to commence and the proposals are reasonably fixed in order to confirm the availability and cost of strategic services supplies.

## **APPENDICES**



**APPENDIX A**  
**SITE DEVELOPMENT MASTERPLAN**

**APPENDIX B**  
**EXISTING UTILITY RECORD PLANS**



The position and depths of underground and overhead apparatus as indicated on this plan are approximate and are intended for guidance only. The depths may have changed if the land surface levels have altered. You are also informed that the plan may not show, or may inaccurately show, individual property services and services to street lighting installations. The onus of locating the apparatus precisely before commencing any excavations or other works in the immediate vicinity therefore rests entirely upon the person undertaking or responsible for those works. Before any such works are undertaken the precise location of the apparatus and cables should therefore be ascertained by suitable means. In the event of an emergency or for further assistance please contact 0800-092-9290 (Scottish Power area) or 0800-01-5400 (SP Manweb area).

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**SP ENERGY NETWORKS**  
On behalf of SP Manweb plc

SP Manweb plc  
Registered Office: c/o PowerSystems  
3 Prenton Way, Prenton, CH43 3ET  
Registered in England and Wales No 2366937

**OVERHEAD LINE**  
-----

**UNDERGROUND CABLES**  
In Use ———  
Out of Use - - - -  
Assumed route <----->

**VOLTAGE COLOUR KEY**

EHV	132kV	BLUE
HV	33kV	GREEN
HV		RED
LV		BROWN

Where cables have been laid SINCE 1 OCTOBER 1988, the following depths in mm apply (to the tops of cables or ducts) UNLESS OTHERWISE SHOWN, but see comments. (TO TOP OF CABLE, ADD 75mm FOR BOTTOM OF TRENCH)

	EHV	HV	LV
IN FOOTPATHS :	775	600	450
ACROSS ROADS :	775	700	600
ALONG ROADS :	775	700	600
AGRICULTURAL :	910	910	910

Your attention is drawn to the Health and Safety Executive Booklet HSG47, available from HSE.

DATE: 06/09/2016

SCALE: 1 : 4,000

MAP REFERENCE: 360,398 385,764

0 12.525 50 75 100 Metres

Carmen Jaimez  
BWB Consulting Ltd  
Livery Place  
35 Livery Street  
Colmore Business District  
Birmingham  
Birmingham  
B3 2PB

**Date:** 02/09/2016  
**Our Ref:** NW\_TW\_Z1\_3SWX\_263807  
**Your Ref:** LDT2612  
**RE: Proposed Works, chester road, walton, warrington**

Thank you for your enquiry which was received on 02/09/2016.  
Please note this response and any attached map(s) are valid for 28 days.

An assessment has been carried out with respect to National Grid Electricity Transmission plc's and National Grid Gas plc's apparatus. Please note it does not cover the items listed in the section "Your Responsibilities and Obligations", including gas service pipes and related apparatus.

For details of National Grid's network areas please see the National Grid website (<http://www.nationalgrid.com/uk/Gas/Safety/work/>) or the enclosed documentation.

**As your works are at a "proposed" stage, any maps and guidance provided are for information purposes only. This is not approval to commence work. You must submit a "Scheduled Works" enquiry at the earliest opportunity and failure to do this may lead to disruption to your plans and works. National Grid will endeavour to provide an initial assessment within 14 days of receipt of a Scheduled Works enquiry and dependent on the outcome of this, further consultation may be required.**

**In any event, for safety and legal reasons, works must not be carried out until a Scheduled Works enquiry has been completed and final response received.**

Plant Protection  
National Grid  
Block 1; Floor 1  
Brick Kiln Street  
Hinckley  
LE10 0NA  
E-mail: [plantprotection@nationalgrid.com](mailto:plantprotection@nationalgrid.com)  
Telephone: +44 (0)800 688588

**National Grid Electricity Emergency Number:  
0800 40 40 90\***

**National Gas Emergency Number:  
0800 111 999\***

\* Available 24 hours, 7 days/week.  
Calls may be recorded and monitored.

[www.nationalgrid.com](http://www.nationalgrid.com)

## Your Responsibilities and Obligations

The "Assessment" Section below outlines the detailed requirements that must be followed when planning or undertaking your scheduled activities at this location.

It is your responsibility to ensure that the information you have submitted is accurate and that all relevant documents including links are provided to all persons (either direct labour or contractors) working for you near National Grid's apparatus, e.g. as contained within the Construction (Design and Management) Regulations.

This assessment solely relates to National Grid Electricity Transmission plc (NGET) and National Grid Gas plc (NGG) apparatus. This assessment does **NOT** include:

- National Grid's legal interest (easements or wayleaves) in the land which restricts activity in proximity to National Grid's assets in private land. You must obtain details of any such restrictions from the landowner in the first instance and if in doubt contact National Grid.
- Gas service pipes and related apparatus
- Recently installed apparatus
- Apparatus owned by other organisations, e.g. other gas distribution operators, local electricity companies, other utilities, etc.

It is **YOUR** responsibility to take into account whether the items listed above may be present and if they could be affected by your proposed activities. Further "Essential Guidance" in respect of these items can be found on the National Grid Website (<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=8589934982>).

This communication does not constitute any formal agreement or consent for any proposed development work; either generally or with regard to National Grid's easements or wayleaves nor any planning or building regulations applications.

NGG and NGET or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law nor does it supersede the express terms of any related agreements.

If you require further assistance please contact the National Grid Plant Protection team via e-mail ([click here](#)) or via the contact details at the top of this response.

Yours faithfully

National Grid Plant Protection Team

# ASSESSMENT

## Affected Apparatus

The National Grid apparatus that has been identified as being in the vicinity of your proposed works is:

- High or Intermediate pressure (above 2 bar) Gas Pipelines and associated equipment
- Low or Medium pressure (below 2 bar) gas pipes and associated equipment. (As a result it is highly likely that there are gas services and associated apparatus in the vicinity)

## Requirements

**BEFORE carrying out any work you must:**

- Carefully read these requirements including the attached guidance documents and maps showing the location of National Grid apparatus.
- Contact the landowner and ensure any proposed works in private land do not infringe National Grid's legal rights (i.e. easements or wayleaves). If the works are in the road or footpath the relevant local authority should be contacted.
- Ensure that all persons, including direct labour and contractors, working for you on or near National Grid's apparatus follow the requirements of the HSE Guidance Notes HSG47 - 'Avoiding Danger from Underground Services' and GS6 – 'Avoidance of danger from overhead electric power lines'. This guidance can be downloaded free of charge at <http://www.hse.gov.uk>
- In line with the above guidance, verify and establish the actual position of mains, pipes, cables, services and other apparatus on site before any activities are undertaken.

# GUIDANCE

## **High Pressure Gas Pipelines Guidance:**

If working in the vicinity of a high pressure gas pipeline the following document must be followed: 'Specification for Safe Working in the Vicinity of National Grid High Pressure Gas Pipelines and Associated Installations - Requirements for Third Parties' (SSW22). This can be obtained from:  
<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33968>

## **Dial Before You Dig Pipelines Guidance:**

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33969>

## **Excavating Safely - Avoiding injury when working near gas pipes:**

[http://www.nationalgrid.com/NR/rdonlyres/2D2EEA97-B213-459C-9A26-18361C6E0B0D/25249/Digsafe\\_leaflet3e2finalamends061207.pdf](http://www.nationalgrid.com/NR/rdonlyres/2D2EEA97-B213-459C-9A26-18361C6E0B0D/25249/Digsafe_leaflet3e2finalamends061207.pdf)

## Standard Guidance

### **Essential Guidance document:**

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=8589934982>

### **General Guidance document:**

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=35103>

### **Excavating Safely in the vicinity of gas pipes guidance (Credit card):**

<http://www.nationalgrid.com/NR/rdonlyres/A3D37677-6641-476C-9DDA-E89949052829/44257/ExcavatingSafelyCreditCard.pdf>

### **Excavating Safely in the vicinity of electricity cables guidance (Credit card):**

<http://www.nationalgrid.com/NR/rdonlyres/35DDEC6D-D754-4BA5-AF3C-D607D05A25C2/44858/ExcavatingSafelyCreditCardelectricitycables.pdf>

Copies of all the Guidance Documents can also be downloaded from the National Grid Website:  
<http://www.nationalgrid.com/uk/Gas/Safety/work/downloads/>



ID: NW\_TW\_Z1\_3SWX\_263807 View extent: 2020m, 2180m **Map not to be used for construction**

USER: BWB LP MAINS MP MAINS IP MAINS LHP MAINS NHP MAINS MAPS Plot Server Version 1.9.0

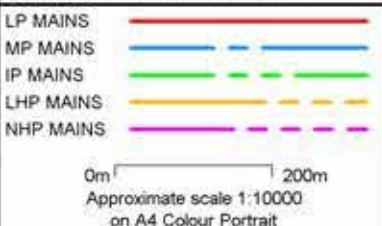
DATE: 02/09/2016

DATA DATE: 01/09/2016

REF: LDT2612

MAP REF: SJ6085

CENTRE: 360315, 385732



**nationalgrid**

Requested by: BWB Consulting Ltd

Map 1 of 1 (GAS)

Some examples of Plant Items:  
 Valve Depth of Cover Syphon Diameter Change Material Change Out of Standard Service

This plan is reproduced from or based on the OS map by National Grid Gas plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved. Ordnance Survey Licence number 100024886

This plan shows those pipes owned by National Grid Gas plc in its role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc., are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by National Grid Gas plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.



# ENQUIRY SUMMARY

## Received Date

02/09/2016

## Your Reference

LDT2612

## Location

Centre Point: 360315, 385732

X Extent: 345

Y Extent: 411

Postcode: WA4 6ER

Location Description: chester road, walton, warrington

## Map Options

Paper Size: A4

Orientation: PORTRAIT

Requested Scale: 2500

Actual Scale: 1:10000 (GAS)

Real World Extents: 2020m x 2180m (GAS)

## Recipients

utilities@bwbconsulting.com

## Enquirer Details

Organisation Name: BWB Consulting Ltd

Contact Name: Carmen Jaimez

Email Address: utilities@bwbconsulting.com

Telephone: 01212333322 (01212333322)

Address: Livery Place, 35 Livery Street, Colmore Business District, Birmingham, Birmingham, B3 2PB

## Description of Works

proposed residential scheme. Desktop study only. plans required to undertake a feasibility assessment regarding potential provision of supplies.

## Enquiry Type

Proposed Works

## Activity Type

Development Project

## Work Types

Work Type: Plans Only

**BWB Consulting Limited  
Livery Place  
35 Livery Street  
Colmore Business District  
Birmingham  
B3 2PB**

**FAO:** [REDACTED]

Dear Sirs

**Location:** [REDACTED] **CHESTER ROAD HIGHER WALTON WARRINGTON WA4 6TD**

I acknowledge with thanks your request dated 02/09/16 for information on the location of our services.

Please find enclosed plans showing the approximate position of our apparatus known to be in the vicinity of this site.

The enclosed plans are being provided to you subject to the United Utilities terms and conditions for both the wastewater and water distribution plans which are shown attached.

If you are planning works anywhere in the North West, please read our access statement before you start work to check how it will affect our network.

<http://www.unitedutilities.com/work-near-asset.aspx>.

I trust the above meets with your requirements and look forward to hearing from you should you need anything further.

If you have any queries regarding this matter please telephone us on 0370 7510101.

Yours Faithfully,

[REDACTED]  
Amanda Simmonds  
Property Searches Manager

**United Utilities Water Limited**

Property Searches  
Ground Floor Grasmere House  
Lingley Mere Business Park  
Great Sankey  
Warrington  
WA5 3LP  
DX 715568 Warrington  
Telephone 0370 751 0101

[Property.searches@uuplc.co.uk](mailto:Property.searches@uuplc.co.uk)

Your Ref: LDT2162  
Our Ref: 16/ 1230095  
Date: 5/9/2016

### TERMS AND CONDITIONS - WASTERWATER & WATER DISTRIBUTION PLANS

These provisions apply to the public sewerage, water distribution and telemetry systems (including sewers which are the subject of an agreement under Section 104 of the Water Industry Act 1991 and mains installed in accordance with the agreement for the self-construction of water mains) (UUWL apparatus) of United Utilities Water Limited "(UUWL)".

#### **TERMS AND CONDITIONS:**

1. This Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out in this agreement or the documents referred to in it.
2. This Map and any information supplied with it is provided for general guidance only and no representation, undertaking or warranty as to its accuracy, completeness or being up to date is given or implied.
3. In particular, the position and depth of any UUWL apparatus shown on the Map are approximate only and given in accordance with the best information available. The nature of the relevant system and/or its actual position may be different from that shown on the plan and UUWL is not liable for any damage caused by incorrect information provided save as stated in section 199 of the Water Industry Act 1991. UUWL strongly recommends that a comprehensive survey is undertaken in addition to reviewing this Map to determine and ensure the precise location of any UUWL apparatus. The exact location, positions and depths should be obtained by excavation trial holes.
4. The location and position of private drains, private sewers and service pipes to properties are not normally shown on this Map but their presence must be anticipated and accounted for and you are strongly advised to carry out your own further enquiries and investigations in order to locate the same.
5. The position and depth of UUWL apparatus is subject to change and therefore this Map is issued subject to any removal or change in location of the same. The onus is entirely upon you to confirm whether any changes to the Map have been made subsequent to issue and prior to any works being carried out.
6. This Map and any information shown on it or provided with it must not be relied upon in the event of any development, construction or other works (including but not limited to any excavations) in the vicinity of UUWL apparatus or for the purpose of determining the suitability of a point of connection to the sewerage or other distribution systems.
7. No person or legal entity, including any company shall be relieved from any liability howsoever and whensoever arising for any damage caused to UUWL apparatus by reason of the actual position and/or depths of UUWL apparatus being different from those shown on the Map and any information supplied with it.
8. If any provision contained herein is or becomes legally invalid or unenforceable, it will be taken to be severed from the remaining provisions which shall be unaffected and continue in full force and affect.
9. This agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts, save that nothing will prevent UUWL from bringing proceedings in any other competent jurisdiction, whether concurrently or otherwise.

# Cleanwater Symbolology

## Pipework

Live	Proposed	
		Distribution Main - Pressurised Main
		LDTM Treated Water Distribution - Pressurised main
		LDTM Treated Water Distribution - Gravity main
		Trunk Main - Pressurised main
		Raw Water Aqueduct - Pressurised Main
		Raw Water Aqueduct - Gravity Main
		LDTM Raw Water Distribution - Pressurised main
		LDTM Raw Water Distribution - Gravity main
		Private Pipe
		Comms Pipe
		Concessionary Service

## Abandoned

	LDTM Treated Water Distribution
	Trunk Main
	Raw Water Aqueduct
	LDTM Raw Water Distribution
	Distribution main
	Private Pipe
	Comms Pipe
	Concessionary Service

## Property Types

Live	Proposed	
		Condition Report
		Pumping Station
		Water Treatment Works
		Valve House
		Water Tower
		Service Reservoir
		Supply Reservoir
		Pipe Bridges

## Nodes

Live	Proposed	
		End Cap
		CC Valve open
		CC Valve closed
		AC Valve open
		AC Valve closed
		Air Valve
		Sluice Valve
		Non Return Valve
		Pressure Management Valve
		Change of Characteristics
		Anode
		Chlorination Point
		De Chlorination Point
		Bore Hole
		Inlet Point
		Bulk Supply Point
		Fire Hydrant
		Hydrant
		Pump
		Site Termination
		Service Start
		Service End
		Commercial Meter
		Domestic Meter
		Strainer Point
		Access Point
		Hatch Box
		IP Point
		Sampling Station
		Logger Box
		Stop Tap

Material Types		Lining Types	
AC	Asbestos Cement	CL	Cement Lining
CI	Cast Iron	TB	Tar or Bitumen
CU	Copper	ERL	Epoxy Resin
CO	Concrete		
DI	Ductile Iron	Insertion Types	
GI	Galvanised Iron	DD	Die Drawn
GR	Grey Iron	DR	Directional Drilling
OT	Others	MO	Moling
PB	Lead	PI	Pipeline
PV	uPVC	SL	Slip Lined
SI	Spun Iron		
ST	Steel		
UN	Unknown		
PE	Polyethelene		

# WASTE WATER SYMOLOGY

Combined	Foul	Surface	Overflow	
				Manhole
				Manhole, side entry
				Public sewer
				Private sewer
				S104 sewer
				Rising Main, public
				Rising Mian, private
				Rising main, S104
				Highway Drain, private
				WW Pumping Station
				Inspection Chamber
				Extent of Survey
				Head of System
				Soakaway
				Rodding Eye
				Lamp Hole
				T Junction/Saddle
				Gulley
				Air Valve
				Non Return Valve
				Sewer Overflow
				Cascade
				Flow Meter
				Hatch Box
				Hydrobrake
				Inlet
				Bifurcation
				Catchpit
				Oil Interceptor
				Penstock
				Summit
				Valve
				Valve chamber
				Washout Chamber
				Drop Shaft
				WW Treatment Works
				Septic Tank
				Vent Column
				Network Storage Tank
				Orifice Plate
				Vortex Chamber
				Penstock Chamber
				Screen Chamber
				Discharge Point
				Outfall

## MANHOLE FUNCTION

FO	Foul
SW	Surface Water
CO	Combined
OV	Overflow

## SEWER SHAPE

CI	Circular	SQ	Square
EG	Egg	TR	Trapezoidal
OV	Oval	AR	Arch
FT	Flat Top	BA	Barrel
RE	Rectangular	HO	Horse Shoe
		U	Unspecified

## SEWER MATERIAL

AC	Asbestos Cement	DI	Ductile Iron
BR	Brick	VC	Vitrified Clay
CO	Concrete	PP	Polypropylene
CSB	Concrete Segment	PF	Pitched Fibre
CSU	Concrete Segment	MA	Masonary, Coursed
CC	Concrete Box Culverted	MA	Masonary, Random
PSC	Plastic	RP	Reinforced Plastic
GR	Glass Reinforced	CI	Cast Iron
GRP	Glass Reinforced	SI	Spun Iron
PVC	Polyvinyl Chloride	ST	Steel
PE	Polyethhtlene	U	Unspecified



Control Kiosk



Sludge Main

## ABANDONED PIPE

	Public Sewer
	Rising Main
	Private Sewer
	Sludge Main

# Extract from Map of Public Sewers

The position of underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available.

The actual positions may be different from those shown on the plan and private pipes, sewers or drains may not be recorded.

United Utilities will not accept any liability for any damage caused by the actual positions being different from those shown.

United Utilities Water Limited 2014

The plan is based upon the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office. Crown and United Utilities copyrights are reserved. Unauthorised reproduction will infringe these copyrights.

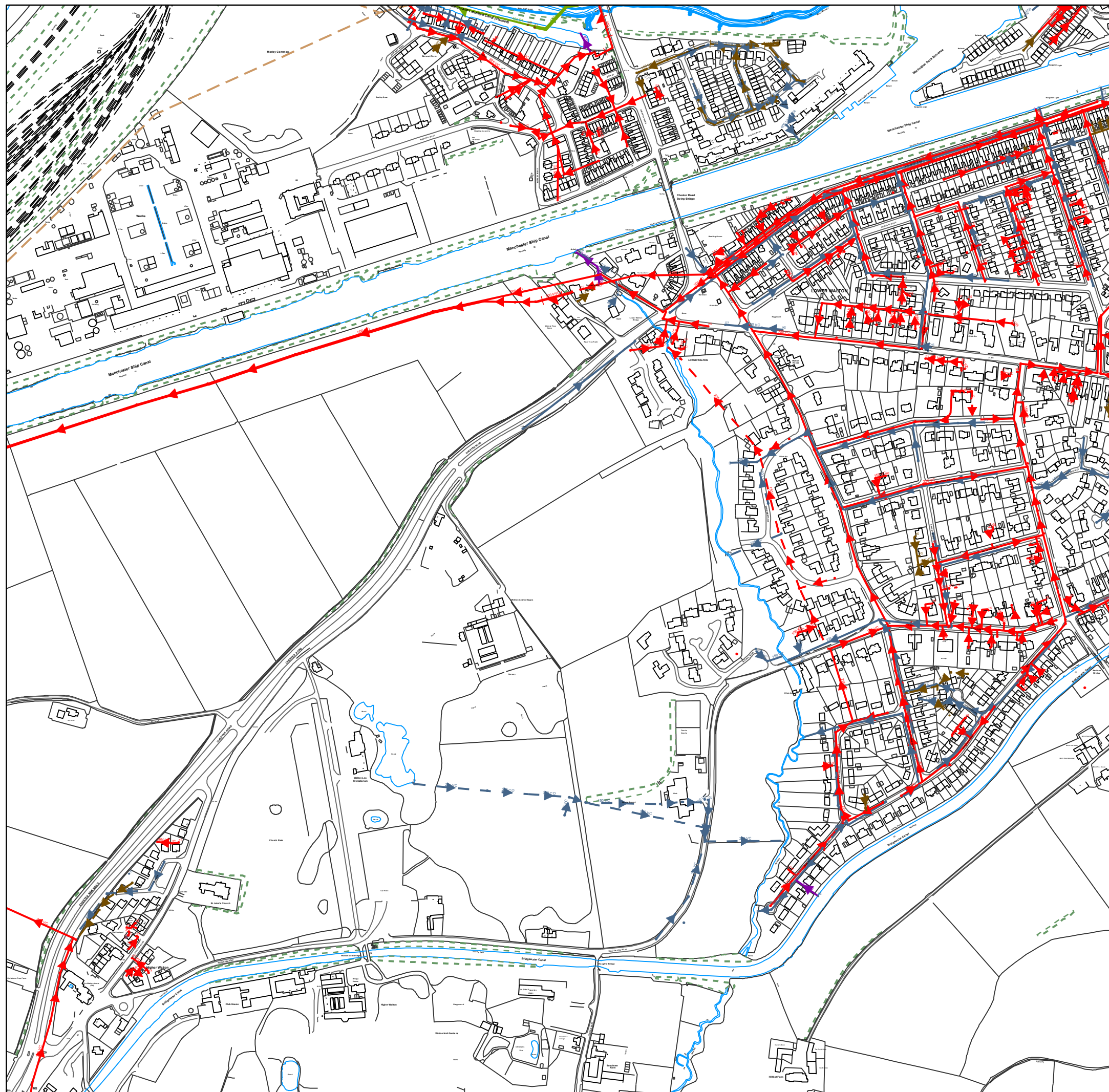
## LEGEND

				Water Course
				Overflow Pipe
				Sludge Main
				Highway Drain
				Public Sewer
				Private Sewer
				Section 104
				Rising Main
				Combined
				Surface Water
				Foul
				Abandoned

**Lea Lodge 99 Chester Road Higher  
Walton Warrington WA4 6TD**

Printed By : Property Searches Date: 05/09/2016

**DO NOT SCALE**  
Approximate Scale: 1:5000



# Extract from Map of Water Mains

The position of underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available.

The actual positions may be different from those shown on the plan private service pipes may be shown by a broken blue line.

United Utilities will not accept any liability for any damage caused by the actual positions being different from those shown.

United Utilities Water Limited 2014

The plan is based upon the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office. Crown and United Utilities copyrights are reserved. Unauthorised reproduction will infringe these copyrights.

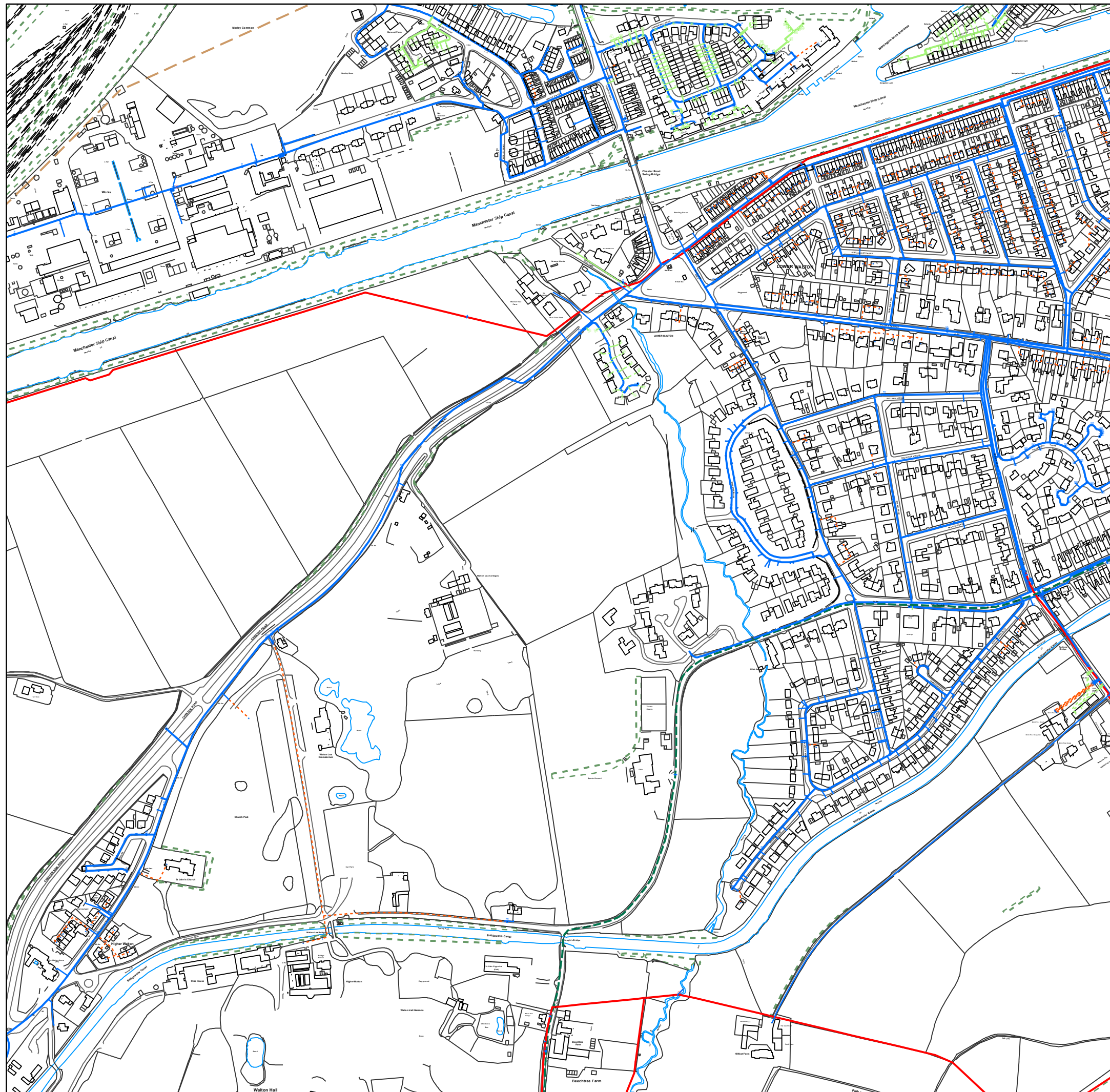
## LEGEND

Proposed	Abandoned	Live	
			Distribution Main
			Trunk Main
			Comms Pipe
			Private Pipe
			Raw Water
			LDTM Raw Water
			LDTM Treated Water

**Lea Lodge 99 Chester Road Higher  
Walton Warrington WA4 6TD**

Printed By : Property Searches Date: 05/09/2016

**DO NOT SCALE**  
Approximate Scale: 1:5000



# Maps by email Plant Information Reply



## IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy.

It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.



openreach  
a BT Group business

### CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email [cbyd@openreach.co.uk](mailto:cbyd@openreach.co.uk)

ADVANCE NOTICE REQUIRED  
(Office hours: Monday - Friday 08.00 to 17.00)  
[www.openreach.co.uk/cbyd](http://www.openreach.co.uk/cbyd)

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(C) Crown Copyright British Telecommunications plc 100028040

## KEY TO BT SYMBOLS

DP		Pole	
Planned DP		Planned Pole	
PCP		Joint Box	
Planned PCP		Change Of State	
Built		Split Coupling	
Planned		Duct Tee	
Inferred		Planned Box	
Building		Manhole	
Kiosk		Planned Manhole	
Hatchings		Cabinet	
		Planned Cabinet	

Other proposed plant is shown using dashed lines.  
BT Symbols not listed above maybe disregarded.  
Existing BT Plant may not be recorded.  
Information valid at time of preparation

openreach  
a BT Group business



BT Ref : PTT04007T

Map Reference : (centre) SJ603 1385 732

Easting/Northing : (centre) 3603 13,385

Issued : 06/09/2016 16:00:50

**WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: [nnhc@openreach.co.uk](mailto:nnhc@openreach.co.uk)**





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Date: 05/09/16

Scale: 1:4293

Map Centre: 360313,385732

Data updated: 03/07/16

Telecoms Plan A4

Important Information - please read The purpose of this plan is to identify Virgin Media apparatus. We have tried to make it as accurate as possible but we cannot warrant its accuracy. In addition, we caution that within Virgin Media apparatus there may be instances where mains voltage power cables have been placed inside green, rather than black ducting. Further details can be found using the 'Affected Postcodes.pdf', which can be downloaded from this website. Therefore, you must not rely solely on this plan if you are carrying out any excavation or other works in the vicinity of Virgin Media apparatus. The actual position of any underground service must be verified by cable detection equipment, etc. and established on site before any mechanical plant is used. Accordingly, unless it is due to the negligence of Virgin Media, its employees or agents, Virgin Media will not have any liability for any omissions or inaccuracies in the plan or for any loss or damage caused or arising from the use of and/or any reliance on this plan. This plan is produced by Virgin Media Limited (c) Crown copyright and database rights 2016 Ordnance Survey 100019209.

Duct, Trench



Chamber



Cabinet


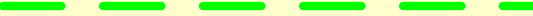


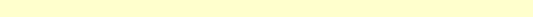
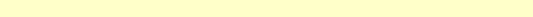
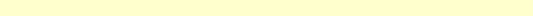


shalini.akshintala@virginmedia.co.uk







### Vodafone Network Colour:

	Ex-Cable&Wireless UK Network (now Vodafone)
	Planned & Approved Route
	Planned Route – Awaiting Approval
	Other Licensed Operator (OLO)
	Ex-Thus Network (now Vodafone)
	Ex-Energis Network (now Vodafone)
	OLO

### Other:

	Overhead Electricity Line (non Vodafone)
	Network Rail

### Other Licensed Operator (OLO).

= Ex-Cable&Wireless UK, Energis and Thus fibre-optic cable within an OLO duct. Please contact all other operators for further details of their apparatus within that area.

# Fibre Services

## Special Requirements relating to the External Plant Network of Vodafone

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## 1. Introduction

This document sets out the procedure that will apply when Other Parties intend or are undertaking works in the vicinity of Vodafone apparatus.

## 2. Purpose of document

This document provides a means by which the Vodafone specific special requirements relating to their apparatus, regardless of it being situated in the public highway / road, private street, land or any other areas, is made aware to Other Parties.



### 3. Scope

This document will be presented to Other Parties or Contractors to encourage those undertaking works within the vicinity of Vodafone apparatus to refer to and comply with. This is in order to protect where necessary the Vodafone apparatus and to avoid damage to the apparatus and loss of service.

A National Joint Utilities Group (NJUG) document NJUG 9 titled "Recommendations for the Exchange of Records of Apparatus between Utilities" provides useful reference material.

It should be noted that, where appropriate, additional information on avoiding danger from underground apparatus is contained within the HSG47 guidance book titled "Avoiding Danger from Underground Services."

### 4. Vodafone Network and Apparatus

Damage to Vodafone apparatus is extremely disruptive and can be expensive to repair, especially where long lengths of cable have to be replaced.

In order to maintain the network integrity and minimise disruption to service, it is essential that disturbances are absolutely minimal. When working within the vicinity of Vodafone apparatus, extreme care is necessary in order to avoid costly repairs. The Other Parties / Contractor shall make every effort to ensure that disturbance of Vodafone apparatus is no more than is absolutely necessary for the completion of the works in accordance with their contract.

### 5. Plant records

It is the responsibility of the Other Parties undertaking works which may affect Vodafone apparatus to obtain all relevant Vodafone plant records from our agent Atkins Global prior to works commencing. This may be done by contacting the Atkins Global Plant Enquiries Team listed in Appendix B.

Plant records for such enquiries will generally be provided within 10 working days of receipt and in compliance with the New Roads and Street Works Act 1991 [NRSWA] requirements. If Vodafone plant is affected, the response will contain reference to this document. Other Parties and Contractors are advised to refer to the National Joint Utilities Group [NJUG] 9 Document which outlines recommendations for the exchange of records of apparatus between utilities.

### 6. Definitions

The following definitions are applicable in this document:

- a) **Apparatus** means all electronic communications apparatus above surface, at the surface or sub-surface apparatus, Cable, Jointing Chamber and plant formerly being apparatus owned or used by the Code Operators Cable & Wireless UK, Energis Communications Limited, Thus Group Holdings Plc and Your Communications Limited including any associated cables or ducts owned, leased or rented by the said Code Operators now owned and used by the Code Operator Vodafone Limited ("Vodafone").
- b) **Cable** means any polythene or other sheath containing optical fibres or metallic conductors.
- c) **Depth of cover** means the depth from the surface to the topmost barrel of the duct nest, in the case of ducts encased in concrete, to the top of the concrete, and in the case of directly buried cable, the top of the cable.
- d) **Jointing chamber** means any manhole, surface box or other chamber giving access to Vodafone apparatus or their network.
- e) **Utility** means an organisation licensed to provide gas, water, electricity, Cable TV or telecommunications services.
- f) **Developer** means an organisation licensed to develop industrial/residential premises or given license to connect to utility apparatus.



- g) **Contractor** means the individual, firm or company contracted to undertake the work for a Utility or Other Parties.
- h) **Other Parties** means the Utilities, Highway Authorities, Developers, Street Authority (Roads Authority - Scotland).
- i) **Site** means the location of, or in the vicinity of, the various works.

## 7. Requirements

Prior to commencing any work or moving heavy plant or equipment over any portion of the site, the Other Parties or Contractor shall notify Vodafone of their intentions. This may be done by contacting Atkins Global, contact listed in Appendix B.

Upon receipt of this notification, Atkins Global will identify if Vodafone apparatus is affected. If any Vodafone apparatus is affected by the works then Atkins Global will provide necessary records and confirm details of Vodafone apparatus and network operated within the affected area or adjacent to the proposed work site.

### 7.1 Location of Plant

It is the responsibility of the Other Parties or Contractors to undertake adequate plant location procedures. These may include searches for metallic cables which must be performed by actively inducing a signal in a cable conductor via a transmitter. A passive search is not considered sufficient.

Before applying a tracing signal to the Vodafone apparatus, the Other Parties or Contractors shall seek confirmation from Atkins Global that the Vodafone apparatus will not suffer any disruption to its networks normal workings as a result of the nature of the signal being induced.

### 7.2 Trial excavations

Optic fibre cables are very susceptible to damage from excavation tools. They are not electrically conductive and cannot be located by radio induction methods. Once an approximate location is known, the exact location must be ascertained by means of hand dug pilot holes. Where the work to be carried out by the Other Party or Contractor involves excavation in the vicinity of our apparatus, the Other Party or Contractor shall, by trial excavation at his own expense, determine the exact location and depth of the Cable & Wireless Worldwide apparatus. All excavations adjacent to the Vodafone apparatus are to be carried out by hand until the extent and /or location of the apparatus is known.

**All excavation work shall be executed in accordance with the current issue of Health and Safety series booklet HSG47, Avoiding danger from underground services.**

## 8. Depths of cover

The Other Party or Contractor should note that the minimum depths of cover for Vodafone apparatus shall be maintained together with specified separation requirements. Where the minimum depths of cover specified by Vodafone cannot be maintained, the Other Party or Contractor shall at their own expense, carry out the instructions of Vodafone requirements for the protection or diversion of their apparatus.

**The Other Party or Contractor should have particular regard to the possibility of encountering Vodafone apparatus (including ducts and cables), at depths of cover other than that reported.**

Surface cables (such as cables on bridges or walls) which are liable to be placed in danger from the Other Parties or Contractors works shall be protected, at the Other Parties expense, as directed by the Vodafone representative.

## 9. Separation

Reference should be made to HSG47 to ensure that adequate separation is achieved. The following details outline the specific requirements of Vodafone and capture the HSG47 requirements.



#### 9.1 High voltage cables

High voltage single core cables of 1000 V and above shall have a minimum clearance from Company Apparatus of 500 mm.

High voltage multi-core cables of 1000 V and above shall have a minimum clearance from Company Apparatus of 350 mm.

In exceptional circumstances where the above clearances cannot be maintained, the separating distance may be reduced to a minimum of 175 mm. In such circumstances, concrete, of a quality as directed by the Company Representative, must be inserted to completely fill the space between the High Voltage cable and the Company Apparatus, in accordance with the requirements of the Company Representative. Any further services must have a minimum clearance of 250 mm from the concrete.

#### 9.2 Low voltage cables

Low voltage cables of less than 1000 V shall have a minimum clearance from Company Apparatus of 180 mm. In exceptional circumstances where the above clearance cannot be maintained, the separating distance may be reduced to a minimum of 75 mm. In such circumstances, concrete, of a quality as directed by the Company Representative, must be inserted to completely fill the space between the services, in accordance with the requirements of the Company Representative. Any further services must have a minimum clearance of 250 mm from the concrete.

#### 9.3 Ancillary electrical apparatus

Lamp posts, traffic posts and other such ancillary electrical apparatus shall have a minimum clearance of 150 mm from underground Company Apparatus and 600mm clearance from above ground Company Apparatus.

#### 9.4 High pressure gas mains and other Undertakers plant/equipment

High pressure gas mains shall have a minimum clearance of 450 mm from Company Apparatus. All other undertakers' plant and equipment, when running in parallel with Company Apparatus, shall have a minimum clearance of 200mm. Where gas mains cross Company Apparatus, the minimum clearance shall be 200mm. All other undertakers' plant and equipment, when running across Company Apparatus, shall have a minimum clearance of 100 mm.

#### 9.5 Other Undertakers plant

Other undertakers' plant and equipment which runs in parallel with Company Apparatus shall have a minimum clearance of 200mm. All other undertakers' plant and equipment when running across Company Apparatus shall have a minimum clearance of 100mm.

#### 9.6 Tramways

Each separating distance shall be individually agreed with the Company Representative.



## 10. Jointing chambers

### 10.1 Protection

Footway type jointing chambers are not designed to withstand carriageway loadings.

Where such chambers are liable to be placed at risk, either temporarily or permanently, from vehicular traffic or from the movement of plant and/or equipment, they will need to be adequately protected. Alternatively, they may have to be demolished and rebuilt to carriageway standards, at the Other Parties or Contractors expense under supervision of Vodafone representative.

All Vodafone jointing chambers and / or other access points shall be kept clear and unobstructed. Access for vehicles, winches, cable drums and / or any further equipment required by Vodafone for the maintenance of its apparatus, must be maintained at all reasonable times.

### 10.2 Access

The covers to Vodafone jointing chambers and / or apparatus shall only be lifted by means of the appropriate keys and under the direct supervision of a Cable & Wireless Worldwide representative. Other Parties or Contractors shall not enter any Vodafone jointing chamber and / or apparatus unless under the supervision of a Vodafone representative and in any case not before the mandatory gas test has been carried out in the presence of Vodafone representative and such checks have shown it to be safe to enter the Vodafone chamber and / or apparatus. The Other Parties or Contractors shall be given reasonable access to Vodafone apparatus and chambers when required.

## 11. Notification periods

Where the Other Parties or Contractors works or the movement of plant or equipment may endanger Vodafone apparatus, the Other Party or Contractor shall give the Vodafone agent Atkins Global [as indicated at Appendix B] at least 7 working days notice in writing of the intended date to commence operations.

No excavation should be made without first consulting the relevant Vodafone apparatus layout drawings, which will be made available from the Vodafone agent Atkins Global on request and allowing 28 working days for processing the relevant drawings. However, should this not be possible, direct contact should be made to the Atkins Global Bristol Plant Enquiries Team as soon as possible to assess the situation.

When excavating, moving or backfilling (including use of Foamed Concrete for Reinstatements – FCR) around Vodafone apparatus, Atkins Global (as agent for Vodafone) shall be given adequate prior written notice of the Other Parties or Contractors intentions, in order that the works may be adequately supervised. Such notice shall not be less than 3 working days.

## 12. Excavation and backfill

All excavations adjacent to Vodafone apparatus are to be carried out by hand until the extent and or location of the Vodafone apparatus is known.

Use of mechanical borers and / or excavators shall not be used without the supervisory presence of a Vodafone representative or a given exemption.

Shuttering of the excavation or support to Vodafone apparatus, at the Other Parties or Contractors expense, shall be used as directed by the Vodafone representative.

At least 7 working days notice must be given to Vodafone in order that any special protective measures which may be required to protect Vodafone apparatus, at the Other Parties or Contractors expense, when equipment such as pile driving, explosives, laser cutting high powered RF equipment or RF test gear, is to be used in conjunction with the works.

Other Parties or Contractors are advised to refer to the National Joint Utilities Group [NJUG] 4 Document which outlines the identification of small buried mains and services.



## 13. Foam concrete

If foam concrete is being used as the backfill material, it shall not be used either above or within 500 mm of any Company Apparatus. A suitable material in accordance with the specification for the Reinstatement of Openings in Highways shall be substituted.

## 14. Attendance of Company Representative

If a situation requires the attendance on site of a Vodafone representative for a continuous period of more than 6 hours, suitable facilities shall be provided by the Other Party or Contractor, at their expense, to meet the office and ablution requirements.

## 15. Damage reports

In the event of any damage whatsoever occurring to Vodafone apparatus, the Other Party or Contractor shall immediately inform Vodafone by contacting Julia Burgoyne, (for contact details please refer to Appendix B).

All relevant costs of any subsequent repair and / or removal of the Vodafone apparatus shall be charged to the Other Party or Contractor, irrespective of who affects the repair.

The above requirements do not relieve the Other Party or Contractor of any of their obligations under their contract.





## Appendix A - office address details

### **Glasgow Office**

Vodafone  
Pavillion 1  
1 - 2 Berkeley Square  
99 Berkeley Street  
Glasgow  
G3 7HR

### **Bristol Office**

Vodafone  
Unit 1,  
Tamar Road  
St Philips  
Bristol  
BS2 0TY

### **Manchester Office**

Vodafone  
Unit M  
Atlas Business Park  
Wythenshawe  
Manchester  
M22 5RR



## Appendix B – Street Works Team Contacts for Vodafone

Function	Name	Job Title	Address	Phone	Mobile	Fax	Email Address
Co-ordination	Sandra Semple	National Street Works Manager	Glasgow Office (see above)	0141 303 2857	07775 792133	0141 300 9611	sandra.semple@cw.com
Customer Complaints	CMC	Customer Management Centre	n/a	08456 021585	n/a	n/a	n/a
Liability Claims	Julia Burgoyne	Major Incident Resolution Coordinator	Bristol Office (see above)	01454 895114	07803 259857	n/a	julia.burgoyne@cw.com
Diversiory Works	Samantha Wilkinson	C3 Diversiory Works Project Controller	Manchester Office (see above)	0161 423 2740	n/a	n/a	samantha.wilkinson@cw.com
Emergencies (24 Hour)	CMC	Customer Management Centre	n/a	08456 021585	n/a	n/a	n/a
Plant Enquiries- Including Thus Plc, (formerly Scottish Telecom), Your Comms (formerly Norweb), Energis & Mercury Communications	Plant Enquiries Team	n/a	Atkins Global PO Box 290 500 Aztec West, Almondsbury, Bristol, BS32 4RZ	01454 662881	n/a	01454 663330	Osm.Enquiries@atkinsglobal.com



## 16. About this Document

### Content Owner

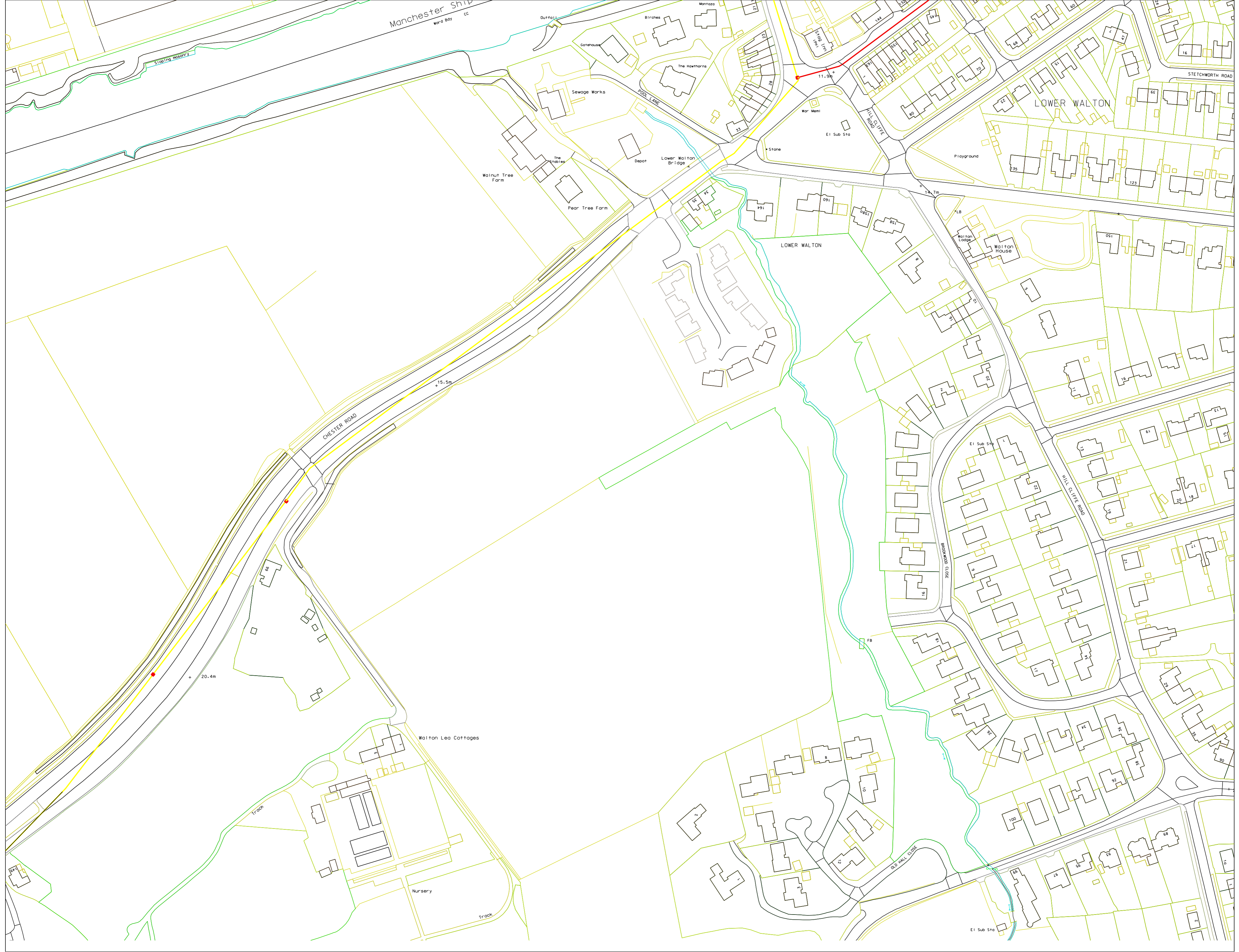
Price, David J

### Changes since last version

Reformatted using the current Vodafone template.

End of Document





**Enquirer**

Name	Mr Simon Hilditch	Phone	0115 924 1100
Company	BWB Consulting Limited	Mobile	Not Supplied
		Fax	Not Supplied
Address	Waterfront House Station Street Nottingham Nottinghamshire NG2 3DQ		
Email	Utilities@bwbconsulting.com		
Notes	Please ensure your contact details are correct and up to date on the system in case the LSBUD Members need to contact you.		

**Enquiry Details**

Scheme/Reference	LDT2162		
Enquiry type	Planned Works	Work category	Development Projects
Start date	05/07/2017	Work type	Housing
End date	23/10/2018	Site size	81910 metres square
Searched location	XY= 360313, 385732 Easting/Northing	Work type buffer*	25 metres
Confirmed location	360333 385695		

\* The WORK TYPE BUFFER is a distance added to your search area based on the Work type you have chosen



## Asset Owners

**Terms and Conditions.** Please note that this enquiry is subject always to our standard terms and conditions available at [www.lineasearchbeforeudig.co.uk](http://www.lineasearchbeforeudig.co.uk) ("Terms of Use") and the disclaimer at the end of this document. Please note that in the event of any conflict or ambiguity between the terms of this Enquiry Confirmation and the Terms of Use, the Terms of Use shall take precedence.

**Validity and search criteria.** The results of this enquiry are based on the confirmed information you entered and are valid only as at the date of the enquiry. It is your responsibility to ensure that the Enquiry Details are correct, and LineasearchbeforeUdig accepts no responsibility for any errors or omissions in the Enquiry Details or any consequences thereof. LSBUD Members update their asset information on a regular basis so you are advised to consider this when undertaking any works. It is your responsibility to choose the period of time after which you need to resubmit any enquiry but the maximum time (after which your enquiry will no longer be dealt with by the LSBUD Helpdesk and LSBUD Members) is 28 days. If any details of the enquiry change, particularly including, but not limited to, the location of the work, then a further enquiry must be made.

**Asset Owners & Responses.** Please note the enquiry results include the following:

1. "LSBUD Members" who are asset owners who have registered their assets on the LSBUD service.
2. "Non LSBUD Members" are asset owners who have not registered their assets on the LSBUD service but LSBUD is aware of their existence. Please note that there could be other asset owners within your search area.

Below are three lists of asset owners:

1. **LSBUD Members who have assets registered within your search area. ("Affected")**
  - a. These LSBUD Members will either:
    - i. Ask for further information ("Email Additional Info" noted in status). The additional information includes: Site contact name and number, Location plan, Detailed plan (minimum scale 1:2500), Cross sectional drawings (if available), Work Specification.
    - ii. Respond directly to you ("Await Response"). In this response they may either send plans directly to you or ask for further information before being able to do so, particularly if any payments or authorisations are required.
2. **LSBUD Members who do not have assets registered within your search area. ("Not Affected")**
3. **Non LSBUD Members who may have assets within your search area.** Please note that this list is not exhaustive and all details are provided as a guide only. It is your responsibility to identify and consult with all asset owners before proceeding.

**National Grid.** Please note that the LSBUD service only contains information on National Grid's Gas above 2 bar asset and all National Grid Electricity Transmission asset. For National Grid Gas below 2 bar asset information please go to [www.beforeyoudig.nationalgrid.com](http://www.beforeyoudig.nationalgrid.com)

**LSBUD Members who have assets registered on the LSBUD service within the vicinity of your search area.**

**List of affected LSBUD members**

No LineSearchbeforeUdig Asset Owners within the Zone of Interest

**LSBUD members who do not have assets registered on the LSBUD service within the vicinity of your search area. Please be aware that LSBUD members make regular changes to their assets.**

**List of not affected LSBUD members**

AWE Pipeline	ESSAR	Perenco UK Limited (Purbeck Southampton Pipeline)
BOC Limited (A Member of the Linde Group)	Esso Petroleum Company Limited	Petroineos
BP Midstream Pipelines	FibreSpeed Limited	Phillips 66
BPA	Fulcrum Pipelines Limited	Premier Transmission Ltd (SNIP)
Carrington Gas Pipeline	Gamma	Redundant Pipelines - LPDA
CATS Pipeline c/o Wood Group PSN	Humbly Grove Energy	RWEnpower (Little Barford and South Haven)
Cemex	IGas Energy	SABIC UK Petrochemicals
Centrica Energy	Ineos Enterprises Limited	Scottish Power Generation
Centrica Storage Ltd	INEOS Manufacturing (Scotland and TSEP)	Seabank Power Ltd
CLH Pipeline System Ltd	Lark Energy	Shell (St Fergus to Mossmorran)
ConocoPhillips (UK) Ltd	Lightsource SPV Limited	Shell Pipelines
Coryton Energy Co Ltd (Gas Pipeline)	Mainline Pipelines Limited	Total (Finaline, Colnbrook & Colwick Pipelines)
CSP Fibre c/o Centara	Manchester Jetline Limited	Transmission Capital
Dong Energy (UK) Ltd	Manx Cable Company	Uniper UK Ltd
E.ON UK CHP Limited	Marchwood Power Ltd (Gas Pipeline)	Vattenfall
EirGrid	National Grid Gas (above 2 bar) and National Grid Electricity Transmission	Western Power Distribution
Electricity North West Limited	Northumbrian Water Group	Wingas Storage UK Ltd
ENI & Himor c/o Penspen Ltd	NPower CHP Pipelines	Zayo Group UK Ltd c/o JSM Group Ltd
ESP Utilities Group	Oikos Storage Limited	

The following non-LSBUD members may have assets in your search area. It is **YOUR RESPONSIBILITY** to contact them before proceeding. Please be aware this list is not exhaustive and it is your responsibility to identify and contact all asset owners within your search area.

Non-LSBUD members (Asset owners not registered on LSBUD)			
Asset Owner	Preferred contact method	Phone	Status
BT	<a href="https://www.swns.bt.com/pls/mbe/welcome.home">https://www.swns.bt.com/pls/mbe/welcome.home</a>	08009173993	Not Notified
CityFibre	<a href="mailto:asset.team@cityfibre.com">asset.team@cityfibre.com</a>	033 3150 7282	Not Notified
Colt	<a href="mailto:plantenquiries@catelecomuk.com">plantenquiries@catelecomuk.com</a>	01227768427	Not Notified
Energetics Electricity	<a href="mailto:plantenquiries@energetics-uk.com">plantenquiries@energetics-uk.com</a>	01698404646	Not Notified
ENGIE	<a href="mailto:nrswa@cofely-gdfsuez.com">nrswa@cofely-gdfsuez.com</a>	01293 549944	Not Notified
GTC	<a href="https://pe.gtc-uk.co.uk/PlantEnqMembership">https://pe.gtc-uk.co.uk/PlantEnqMembership</a>	01359240363	Not Notified
Hibernia Networks	<a href="mailto:info@hibernianetworks.com">info@hibernianetworks.com</a>	01704 322 300	Not Notified
Instalcom	<a href="mailto:plantenquiries@instalcom.co.uk">plantenquiries@instalcom.co.uk</a>	02087314613	Not Notified
Interoute	<a href="mailto:interoute.enquiries@plancast.co.uk">interoute.enquiries@plancast.co.uk</a>	02070259000	Not Notified
Mobile Broadband Network Limited	<a href="mailto:mbnl.plant.enquires@turntown.com">mbnl.plant.enquires@turntown.com</a>	01212 621 100	Not Notified
National Grid Gas Distribution (below 2 bar)	<a href="mailto:plantprotection@nationalgrid.com">plantprotection@nationalgrid.com</a>	0800688588	Not Notified
Redcentric plc	<a href="mailto:plant-enquiries@redcentricplc.com">plant-enquiries@redcentricplc.com</a>	0845 200 2200	Not Notified
Scottish Power (South)	<a href="mailto:requestforplansmanweb@sppowersystems.com">requestforplansmanweb@sppowersystems.com</a>	01516092373	Not Notified
Sky UK Limited	<a href="mailto:nrswa@sky.uk">nrswa@sky.uk</a>	02070323234	Not Notified
Tata, KPN (c/- McNicholas)	<a href="mailto:plantenquiries@mcnicholas.co.uk">plantenquiries@mcnicholas.co.uk</a>	03300558469	Not Notified
United Utilities	<a href="mailto:property.searches@uuplc.co.uk">property.searches@uuplc.co.uk</a>	08707510101	Not Notified
Utility assets Ltd	<a href="mailto:assetrecords@utilityassets.co.uk">assetrecords@utilityassets.co.uk</a>		Not Notified
Verizon Business	<a href="mailto:osp-team@uk.verizonbusiness.com">osp-team@uk.verizonbusiness.com</a>	01293611736	Not Notified
Virgin Media	<a href="http://www.digdat.co.uk">http://www.digdat.co.uk</a>	08708883116	Not Notified
Vodafone	<a href="mailto:osm.enquiries@atkinsglobal.com">osm.enquiries@atkinsglobal.com</a>	01454662881	Not Notified
Vtesse Networks	<a href="https://vtplant.vtesse.com">https://vtplant.vtesse.com</a>	01992532100	Not Notified

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# BWB



**SOILS AND  
AGRICULTURAL USE & QUALITY  
OF LAND SOUTH OF CHESTER ROAD  
WALTON, WARRINGTON**

Report 1245/1

30<sup>th</sup> August, 2016

**SOILS AND AGRICULTURAL USE & QUALITY  
OF LAND SOUTH OF CHESTER ROAD WALTON, WARRINGTON**

M W Palmer, MSc, PhD, MISoilSci

Report 1245/1  
Land Research Associates Ltd  
Lockington Hall,  
Lockington,  
Derby  
DE74 2RH

30<sup>th</sup> August, 2016

## **SUMMARY**

A survey has been undertaken of 8.2 ha of land south of Chester Road, Walton, Warrington.

The land comprises two fields, in use for arable cropping at the time of survey.

The soils at the site were found to be sandy, with land quality limited to subgrade 3a by droughtiness and wetness over most of the site, with loamier soils in the south-west of grade 2 quality.

Were the site to be developed, the topsoils are a high quality resource for reuse in gardens and landscaping.

## 1.0 Introduction

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- 1.1 This report provides information on the soils and agricultural quality and use of 8.2 ha of land south of Chester Road, Walton, Warrington. The report is based on a survey of the land in August 2016.

### **SITE ENVIRONMENT**

- 1.2 The land investigated comprises two fields operated as a single unit. The land is bordered to the north by Chester Road, to the east by residential development and riparian woodland, to the south by residential development and adjoining agricultural land, and to the west by woodland. The land is level to very gently sloping, at an average elevation of approximately 20 m AOD.

### **AGRICULTURAL USE**

- 1.3 The land was under a barley crop at the time of survey. It is not registered under any agri-environment schemes.

### **PUBLISHED INFORMATION**

- 1.4 1:50,000 scale BGS information shows the geology of the site as sandstone of the Wilmslow Formation mainly overlain by wind-blown sand of the Shirdley Hill Sand Formation.
- 1.5 The national soil map (published at 1:250,000 scale) shows the land as Blackwood Association, comprising mainly sandy and coarse loamy soils formed in sand and gravel deposits<sup>1</sup>.
- 1.6 Provisional Agricultural Land Classification of the site shows the land as grade 3. No detailed survey of the site has been published.

<sup>1</sup> Jarvis, R.A., 1984. *Soils and their use in Northern England*. Soil Survey of England and Wales Bulletin No. 10, Harpenden.

## 2.0 Soils

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- 2.1 The National Planning Practice Guidance states that the planning system should protect and enhance valued soils and prevent the adverse effects of unacceptable levels of pollution. This is because soil is an essential finite resource that provides important ecosystem services, for example as a growing medium for food, timber and other crops, as a store for carbon and water, as a reservoir of biodiversity and as a buffer against pollution.
- 2.2 A detailed soil resource and agricultural quality survey was carried out in August 2016. It was based on observations at intersects of a 100 m grid, giving a sampling density of one observation per hectare. During the survey, soils were examined by a combination of pits and augerings to a maximum depth of 1.1 m. A log of the sampling points and a map (Map 1) showing their location is in an appendix to this report.
- 2.3 Soils were found to comprise medium sandy loam or loamy sand topsoil, grading to medium sand at depth. Variation occurred from east to west, with soils in the east predominantly sandy throughout, and soils in the west mainly coarse loamy over sandy. An area in the north-west had finer textured slowly permeable subsoil at a depth of approximately 65-75 cm depth, causing waterlogging (evidenced by grey mottled colour) in the subsoil layers above.
- 2.4 An average profile is described below from observation 6 (Map 1).
- |            |   |
|------------|---|
| 0-26 cm    | Dark brown (7.5Y 3/2) loamy medium sand; very slightly stony (small hard quartz pebbles); weakly developed fine sub-angular blocky structure; very friable; clear smooth boundary to: |
| 26-51 cm   | Brown (7.5Y 5/8) loamy medium sand; stoneless; single grain; loose; diffuse smooth boundary to:   |
| 51-110+ cm | Strong brown (7.5Y 5/8) medium sand; stoneless; single grain; loose.  |
- 2.5 The soils are mainly freely-draining (Soil Wetness Class I) and have a high capacity to absorb excess winter rainfall. In the north-west there are moderate drainage restrictions (Soil Wetness Class III).

## 3.0 Agricultural quality

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3.1 To assist in assessing land quality, the Ministry of Agriculture, Fisheries and Food (MAFF) developed a method for classifying agricultural land by grade according to the extent to which physical or chemical characteristics impose long-term limitations on agricultural use for food production. The MAFF Agricultural Land Classification (ALC) system classifies land into five grades numbered 1 to 5, with grade 3 divided into two subgrades (3a and 3b). The system was devised and introduced in the 1960s and revised in 1988.

3.2 The agricultural climate is an important factor in assessing the agricultural quality of land and has been calculated using the Climatological Data for Agricultural Land Classification<sup>2</sup>. The relevant site data for an average elevation of 20 m is given below.

- Average annual rainfall: 801 mm
- January-June accumulated temperature >0°C 1432 day°
- Field capacity period 190 days  
(when the soils are fully replete with water) mid Oct – late Apr
- Summer moisture deficits for: wheat: 92 mm  
potatoes: 80 mm

3.3 The survey described in the previous section was used in conjunction with the agro-climatic data above to classify the site using the revised guidelines for Agricultural Land Classification issued in 1988 by the Ministry of Agriculture, Fisheries and Food<sup>3</sup>. There are no climatic limitations to land quality in this locality.

### **SURVEY RESULTS**

3.4 The agricultural quality of the land is limited by droughtiness and soil wetness. Land of grades 2 and 3 has been identified.

#### **Grade 2**

3.5 This land is found in the south-west of the site. The soils in this area are mainly coarse loamy with sandy lower layers. Under the local climate this results in

<sup>2</sup> *Climatological Data for Agricultural Land Classification*. Meteorological Office, 1989

<sup>3</sup> *Agricultural Land Classification for England and Wales: Guidelines and Criteria for Grading the Quality of Agricultural Land*. MAFF, 1988.

slight droughtiness which will affect yields in very dry summers, but the land is capable of supporting good yields of a wide range of crops.

**Subgrade 3a**

- 3.6 The soils in the east have sandy subsoils and limited moisture reserves. This results in moderate droughtiness which is likely to affect yields of cereals in most years.
- 3.7 The soils in the north have slowly permeable lower subsoil resulting in impeded drainage. Under the moist local climate this results in wetness limitations which are likely to affect flexibility of cropping in winter and early spring.

**Non Agricultural**

- 3.8 This comprises a wooded area in the east.

**Grade areas**

- 3.9 The boundaries between the different grades of land are shown on Map 2 and the areas occupied by each are shown below.

**Table 1. Areas occupied by the different land grades**

<i>Grade/subgrade</i>	<i>Area (ha)</i>	<i>% of the land</i>
<b>Grade 2</b>	2.5	30
<b>Subgrade 3a</b>	5.0	61
<b>Non Agricultural</b>	0.7	9
<b>Total</b>	8.2	100



## 4.0 Soil resources and their use

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- 4.1. As part of the Government's 'Safeguarding our Soils' Strategy, Defra published a code of practice on the sustainable use of soils on construction sites, which can be helpful in design of developments and setting planning conditions. An Environment Agency strategy Soil a Precious Resource: Our strategy for protecting, managing and restoring soil (Environment Agency, 2007) has complementary aims.

### **Topsoil**

- 4.2. Were the site to be developed, the topsoils represent a high quality resource for reuse in landscaping and gardens. Care should be taken to strip to correct depth in order to avoid diluting with sandy subsoil.

### **Subsoil**

- 4.3. The upper subsoils at the site are freely-draining. Compaction during construction activities could result in restricted rooting depth, increased droughtiness and risk of localised flooding. If compacted during construction, subsoils should be loosened before any topsoil is spread on them.

### **Soil Handling**

- 4.4. Areas not being built over (e.g. environmental buffers and landscape areas) should not be trafficked by construction vehicles as this will render the soils impermeable, preventing percolation of rainfall beyond the base of the topsoil, which will quickly become saturated.
- 4.5. Stripped topsoil should be stored in separate resource bunds no more than 3 m high, and kept grassed and free from construction traffic until required for re-use. The Construction Code of Practice for Sustainable Use of Soils on Construction Sites (Defra 2009) provides guidance on good practice in soil handling.

**APPENDIX**  
**MAPS AND DETAILS OF OBSERVATIONS**

**Land at Walton: ALC and soil resources survey – Details of observations at each sampling point**

Obs No	Topsoil			Upper subsoil			Lower subsoil			Slope (°)	Wetness Class	Agricultural quality	
	Depth (cm)	Texture	Stones >20 mm (%)	Depth (cm)	Texture	Mottling	Depth (cm)	Texture	Mottling			Grade	Main limitation
1	0-28	LMS	<5	28-90+	MS(r)	o				3	I	3a	D
2	0-25	MSL	<5	25-50	LMS	xx	50-63 <u>63-100+</u>	MSL SCL	xxx xxx	2	III	3a	W
3	0-26	MSL	<5	26-62	LMS	o	62-74 <u>74-110+</u>	MS HCL/SCL	xx xxx	1	III	3a	W
4	0-25	MSL	<5	25-51	LMS	o	51-110+	MS	o	1	I	2/3a	D
5	0-26	MSL	<5	26-61	LMS	xxx	61-100+	MS	xxx	1	I	2	D
6	0-27	LMS	<5	27-53	LMS	o	53-100+	MS	o	1	I	3a	D
7	0-30	MSL	<5	30-110+	MS	o				2	I	3a	D
8	0-25	MSL	<5	25-78	LMS	o	78-100+	MS(r)	o	1	I	2	D

**Key to table**

*Mottle intensity:*

- o unmottled
- x few to common rusty root mottles (topsoils)  
or a few ochreous mottles (subsoils)
- xx common to many ochreous mottles and/or dull structure faces
- xxx common to many greyish or pale mottles (gleyed horizon)
- xxxx dominantly grey, often with some ochreous mottles (gleyed horizon)

a depth underlined (e.g. 50) indicates the top of a slowly permeable layer  
(a wavy underline indicates the top of a layer borderline to slowly permeable)

*Texture:*

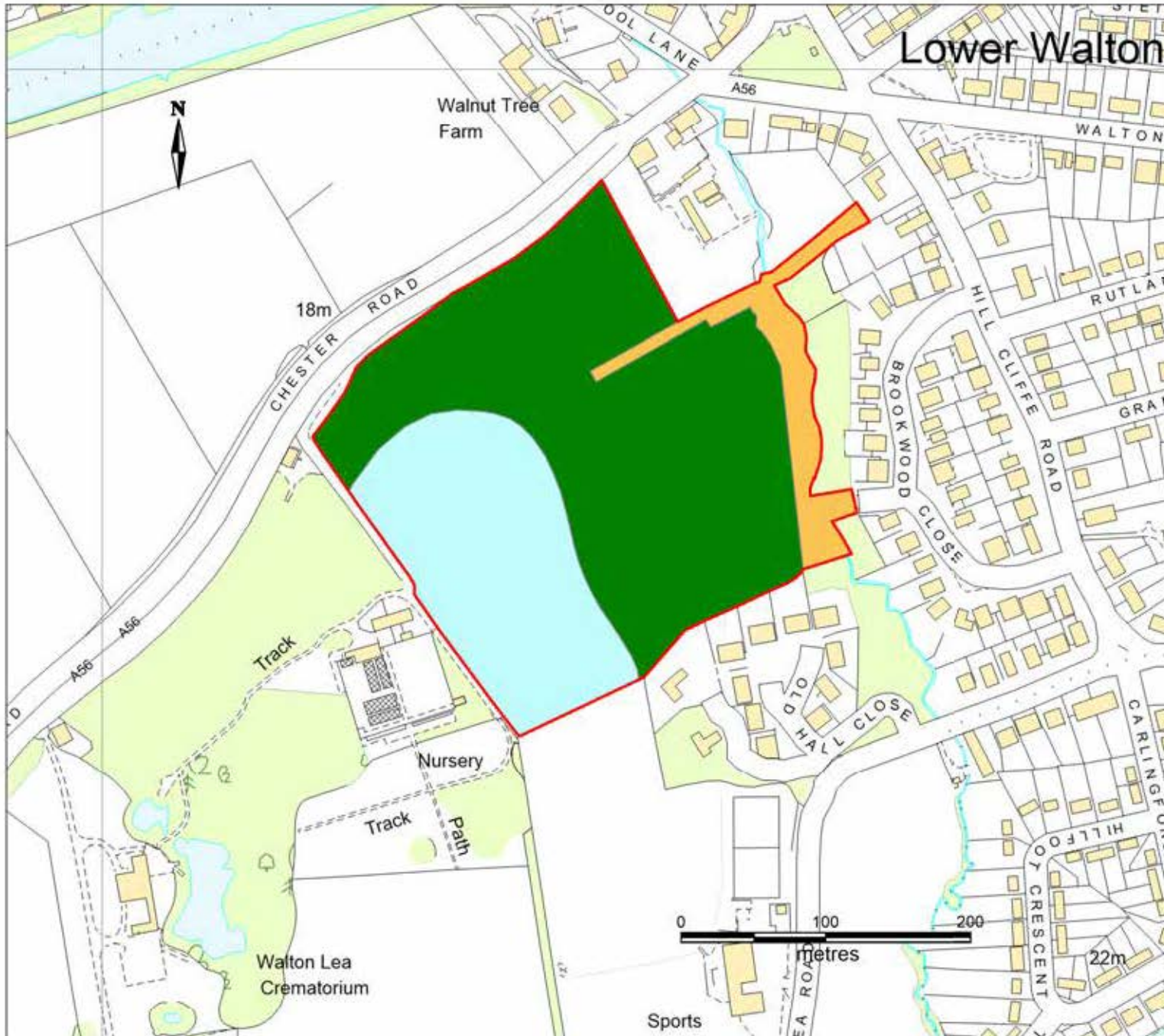
- C - clay
- ZC - silty clay
- SC - sandy clay
- CL - clay loam (H-heavy, M-medium)
- ZCL - silty clay loam (H-heavy, M-medium)
- SCL - sandy clay loam
- SZL - sandy silt loam (F-fine, M-medium, C-coarse)
- SL - sandy loam (F-fine, M-medium, C-coarse)
- LS - loamy sand (F-fine, M-medium, C-coarse)
- S - sand (F-fine, M-medium, C-coarse)
- P - peat (H-humified, SF-semi-fibrous, F-fibrous)
- LP - loamy peat; PL - peaty loam
- R - bedrock

*Limitations:*

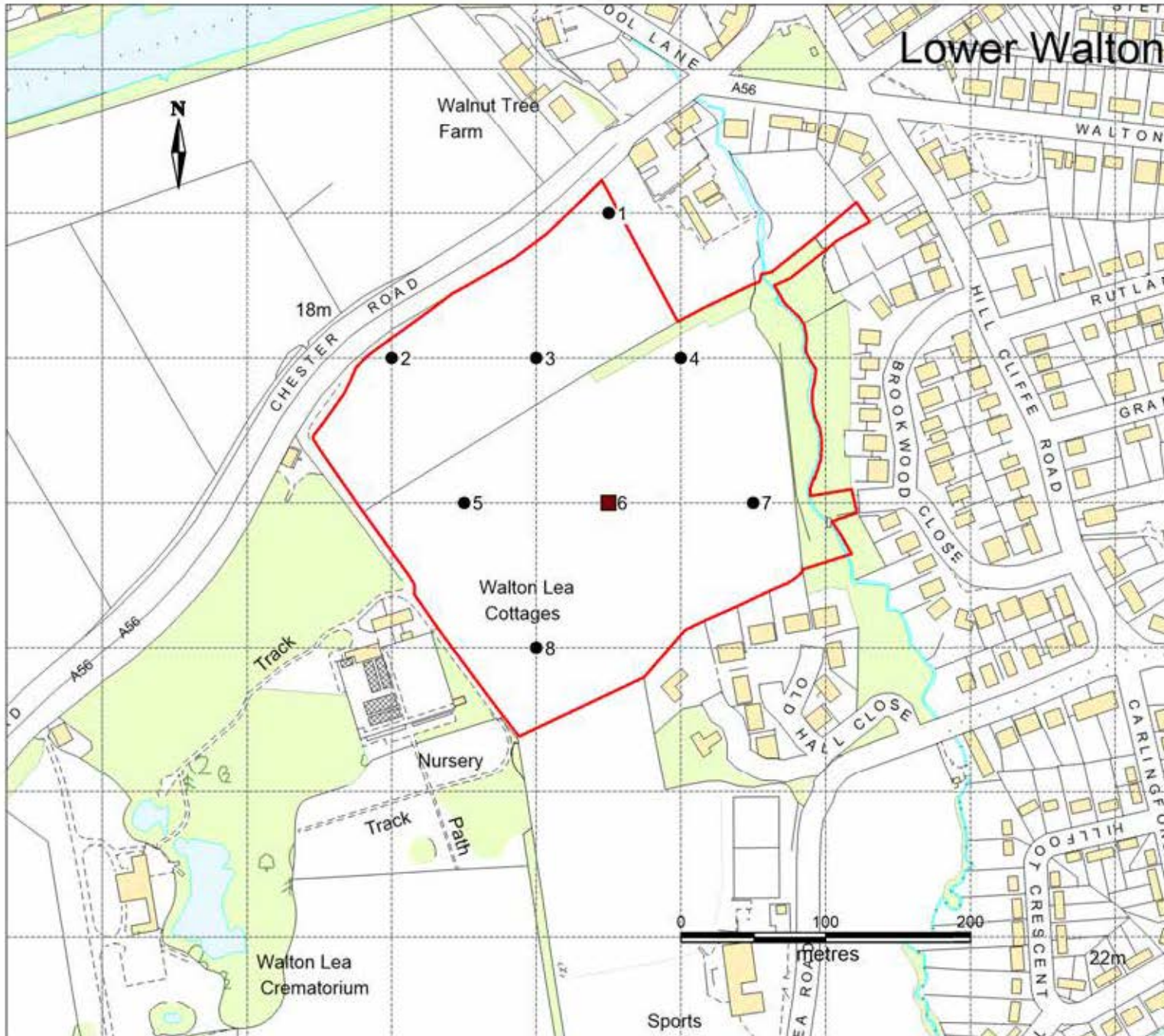
- W - wetness/workability
- D - droughtiness
- De - depth
- St - stoniness
- SI - slope
- F - flooding
- T - topography/microrelief

*Texture suffixes & prefixes:*

- ca – calcareous: x-extremely, v-very, sl-slightly
- (ca) marginally calcareous
- mn - ferrimanganiferous concentrations
- gn – greenish, yb – yellowish brown, rb – reddish brown
- r – reddish; (v)st – (very) stony; sdst – sandstone lst - limestone
- dist - disturbed soil layer; mdst - mudstone



<p><b>KEY</b></p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: lightblue; border: 1px solid black; margin-right: 5px;"></span> Grade 2</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: darkgreen; border: 1px solid black; margin-right: 5px;"></span> Subgrade 3a</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: orange; border: 1px solid black; margin-right: 5px;"></span> Non Agricultural</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 2px solid red; margin-right: 5px;"></span> Survey area</li> </ul>	
Client:	 <p><b>Ashall</b> PROPERTY</p>
Site:	<p><b>Land south of Chester Road, Walton</b></p>
Map title:	<p><b>Map 2 Agricultural Land Classification</b></p>
 <p>Land Research Associates Lockington Hall Lockington Derby DE74 2RH 01509 670570</p>	<p>Scale: 1:4,000</p> <p>Date: 30/08/2016</p>



<p><b>KEY</b></p> <ul style="list-style-type: none"> <li>● Auger observation</li> <li>■ Soil/land grade description point</li> <li>□ Survey area</li> </ul>	
<p>Client:</p>  <p><b>Ashall</b> PROPERTY</p>	
<p>Site:</p> <p style="text-align: center;"><b>Land south of Chester Road, Walton</b></p>	
<p>Map title:</p> <p style="text-align: center;"><b>Map 1 Survey observations</b></p>	
<p><i>Land Research</i> ASSOCIATES</p> <p>Land Research Associates Lockington Hall Lockington Derby DE74 2RH 01509 670570</p>	<p>Scale: 1:4,000</p> <p>Date: 30/08/2016</p>