[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

I do not propose to review your note. I have simply sent it to the Council's Local Plans team for their information as consideration of such issues as properly dealt with as part of the Local Plan process.

Should you have objections to the planning applications to which refer, I would urge you to formally lodge these with the council as part of the planning application process (if you haven't already)

Regards

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Have you had an opportunity to review the mail below and attachment.

Thank you.

Regards,

[redacted]

Subject: Lymm - Strategic land use proposal

[redacted]

Firstly, thank you for taking the time to return my call and listen to our proposal. As noted we hold a large portfolio of land within Warrington some of which is located in Lymm. [redacted] The future growth and sustainability of Lymm be it facilitated through development, transport or community facilities is important to us and something we endeavour to assist in. As noted, we are not seeking to secure large numbers of dwellings on plots of land to be realised from green belt, we are more interested in securing a sustainable path for the inevitable growth of Lymm and surrounding areas through strategic land use.

We are aware of the current planning review process and have submitted a number of sites into the process under the conditions outlined by the Council. We have been informed to the fact a significant number of sites were received across the borough, pushing out the original timescales set by the Council by several months. However, it appears there are a number of land promoters & PLC residential development companies choosing to ignore such porta call and causing distraction from the planning policy review process through submitting planning application on greenbelt land. Which alone would be a departure from the local plan and national greenbelt

policy. As noted the sites received in the outlying settlements are yet to be reviewed making it impossible to consider such planning applications in context of strategic growth and Councils ability meeting the current housing target not to mention future increasing targets yet to come.

In relation to the site mentioned and more clearly outlined in the following link https://www.placenorthwest.co.uk/news/planning-lymm-green-belt-homes-on-warrington-agenda/ please find attached a google earth screen shot noting a link road connecting Pepper Street to Oughtrington Lane as mentioned. Significant highway consultations will be required to assess such a proposal, however for now it demonstrates such a possibility. Which would supply need car parking for St. Peters Church, additional parking for the school, collection & drop off area and bus turning points taking it out of the school grounds. There is also the possibility to extending the graveyard. Such facilities will relieve current traffic within Lymm Village, Pepper Street and Higher Lane. Relocating the current bus terminal arrangement from the school yard in itself will eliminate safety issues within the school grounds. The case to create a better road link serving Lymm Village, Ravenbank Primary School, Lymm High School, providing turning & parking facilities and supplying much need parking for the church should be considered. Such a road may also encourage a rise in activity to and from Lymm Village and allow for additional community facilities.

Regards,

[redacted]

LAND AT LONGBUTT LANE, LYMM

DEVELOPMENT STATEMENT

SEPTEMBER 2017

STAMFORD PROPERTY HOLDINGS

INTRODUCTION & CONTENTS

The land at Longbutt Lane was submitted to Warrington Borough Council (WBC) in December 2016 in response to WBC's call for sites exercise. The submission by Paul Butler Associates identified the site at Longbutt Lane as suitable for release from the green belt and a highly sustainable location for new housing.

This document (produced on behalf of Stamford Property Holdings) demonstrates its suitability through meeting each of the requirements as outlined within Warrington Borough Council Local Plan "Preferred Development Option Regulation 18" for the green belt release of the land at Longbutt Lane to accommodate a new state of the art primary care facility, new pedestrian links, open recreational space and the delivery of new high quality family housing all in support of WBC strategic aims for "Outlying Settlements" green belt release.

The content supports Warrington Borough Council Local Plan, Preferred Development Option 18 consultation July 2017 Publication. With reference to, Preferred Development Option 2, Local Plan Strategic Objectives, High Level Spatial Options Assessment, Overall Approach, Outlying Settlements – Indicative Green Belt Capacity, Preferred Development Option & Next Steps. It sets out a vision for a new, sustainable neighbourhood of choice supporting the long term development needs of Lymm in line with WBC Preferred Development Options and has been informed by a suite of technical studies & reports carried out by the professional team noted. Each study/report can be found at appendices 1-5.

The document has been produced in collaboration with:

- Paul Butler Associates Planning and Heritage Consultants
- Ollier Smurthwaite Architects
- Curtins Transport Planning
- Civic Engineers
- Urban Green Environmental Consultants
- Watt Consulting Engineers

CONTENTS


OUGHTRINGTON
Bridgewater Canal
Oughtrington Lane
LYMM
Lymm High School
Longbutt Lane
Lymm Dam

HOUSING NEED POLICY REVIEW

National Policy
The National Planning Policy Framework (NPPF) sets out the purpose of the planning system is to contribute to the achievement of sustainable development. At the heart of the NPPF is the presumption in favour of sustainable development and it sets out how local authorities should seek to significantly boost the supply of housing by identifying a supply of specific deliverable sites.

Warrington Borough Council Local Plan Review – Preferred Development Option Regulation 18 Consultation July 2017
The draft Local Plan review contains strategic policies to guide the development of the Borough up to 2037. It sets out a spatial vision and objectives as well as strategic development targets, including a total requirement to deliver 24,220 dwellings over the plan period.

The existing urban area has the capacity to accommodate 15,429 new dwellings. In order to deliver the shortfall of housing it is necessary for Warrington to review its green belt boundaries to accommodate projected future housing growth. The preferred options include an identified need for 8,791 new homes to be built within the green belt over the plan period.

The preferred development option focusses on three strategic areas of growth: Waterfront (4,032), SW Extension (1,831 dwellings) and Garden City Suburb (7,274 dwellings).

The village of Lymm is defined as an outlying settlement within the Preferred Development Option. Under the incremental growth scenario a potential capacity of 500 new dwellings for the village on green belt land is identified.

The site at Longbutt Lane represents a deliverable and viable option for green belt release. This development brochure demonstrates in accordance with paragraph 47 of the NPPF that the site is available now, offers a suitable location for development and is achievable with development capable of coming forward within the first five years of the plan period.

Communities and Local Government

National Planning Policy Framework

www.communities.gov.uk
community, opportunity, prosperity

WARRINGTON Borough Council

Warrington Borough Council
Local Plan

Preferred Development Option
Regulation 18 Consultation
July 2017

Warrington Borough Council

Green Belt Assessment

Addendum following Regulation 18 Consultation

Issue | 28 June 2017

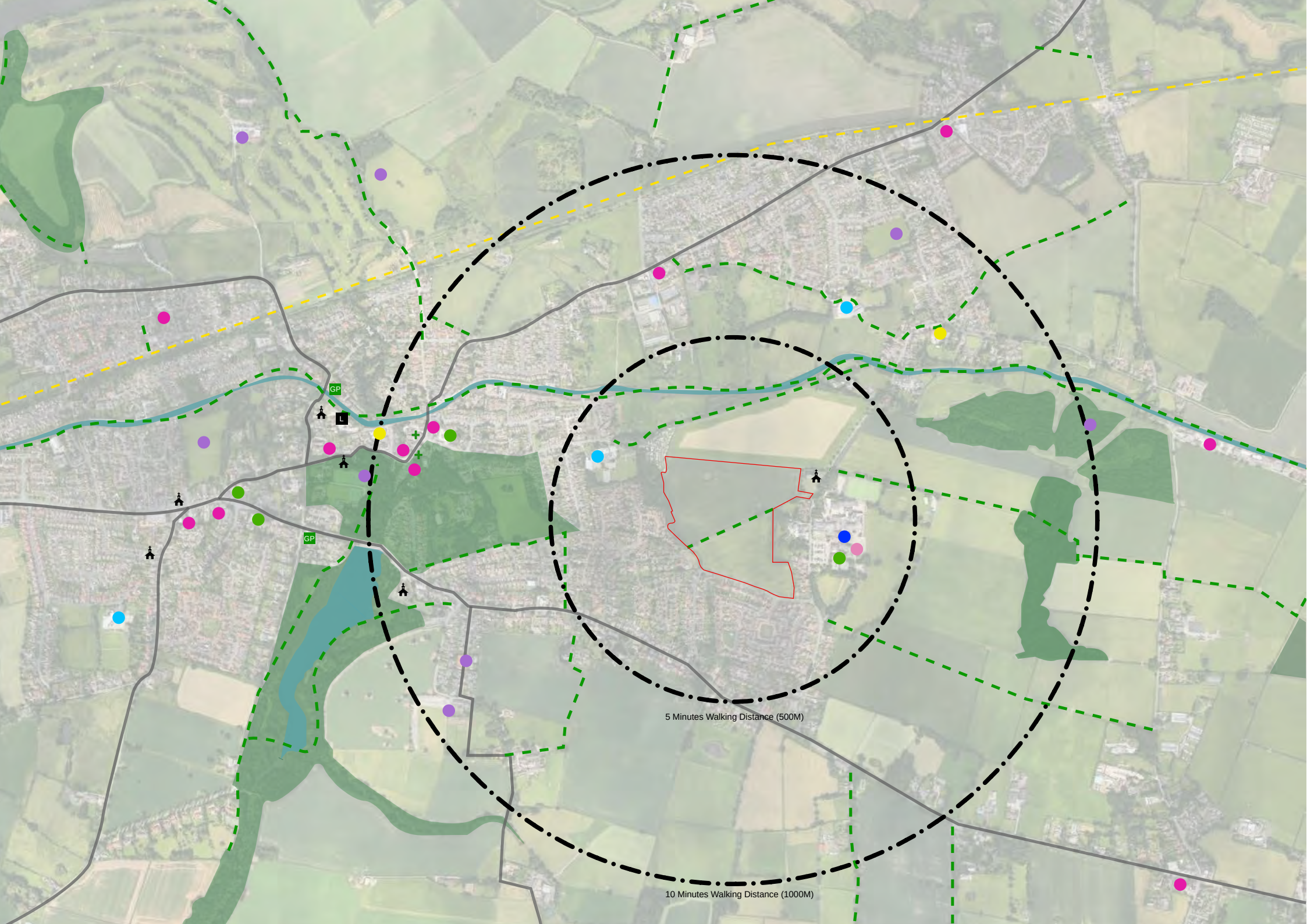
Job number 247625-01

SITE & SURROUNDINGS

The site extends to 10 hectares (25 acres) in area and is located on the eastern edge of Lymm, approximately 850 meters from Lymm village centre. Longbutt Lane runs along the southern boundary with residential properties facing the site. Buildings fronting onto Oughtrington Lane border the east of the site, the western boundary of the site is occupied by a belt of trees with residential properties on Churchwood Close and Longbutt Lane adjoining. There is a Public Right of Way that crosses the site connecting Longbutt and and Oughtrington Lanes.

Lymm High School is immediately east of the site and Ravenbank Primary School is located just to the west of the site within walking distance. The site is surrounded by good pedestrian footways and cycle links enabling ease of access to surrounding locations. The nearby village centre of Lymm is accessible by foot or cycle.

The map opposite shows the proximity of local services and facilities to the site.


GP
L
GP
5 Minutes Walking Distance (500M)
10 Minutes Walking Distance (1000M)

SUITABILITY OF THE SITE FOR DEVELOPMENT

Site Analysis

A number of technical studies have been undertaken to assess the site and its immediate surroundings in order to demonstrate that the site is capable of being developed and providing a valued contribution to Warrington's housing land supply. Our key findings are as follows and are supported by the technical reports in appendices 1-5.

Flood Risk and Drainage
The site is located within flood zone 1 and is therefore not at risk of flooding. The small watercourse to the south west of the boundary has a medium risk of flooding from surface water, however the extent of flooding does not extend into or affect the development site.

Initial feasibility studies suggest that surface water can discharge to the watercourse south west of the boundary subject to agreement with the Environment Agency. The remaining run off will discharge into the combined sewer crossing the site, or below Longbutt Lane. This connection will be subject to agreement with United Utilities. The foul drainage will be discharged to the combined sewer crossing the site or within Longbutt Lane south of the development site.

Ecology
The site is predominantly comprised of arable fields with semi improved grassland to the north east. Broadleaved trees with understory scrub occupy the eastern and western boundaries, while a species poor hedgerow forms the southern boundary.

The predominant habitats described above represent a poor diversity of habitats, the fringe areas are also common and widespread in the area.

A licensed ecologist (Urban Green) has undertaken a site walkover. A full suite of surveys for protected species will need to accompany any planning application in the future. However, it is not anticipated that there are any issues which cannot be adequately mitigated for through the design process and relevant legislation. Overall the site itself was not considered to be of high ecological value with agricultural monoculture limiting species and habitat diversity.

Trees (refer to Appendix 06)
A Preliminary Arboricultural Assessment has been undertaken to examine the potential for trees on site to influence the proposed development layout.

This survey finds that the majority of trees are situated on the site boundaries allowing significant potential for development on the site with a limited arboricultural impact. The proposed development also provides the opportunity to provide new tree planting to assimilate the development within the surrounding landscape.

The choice in access options proposed for the site provides flexibility in terms of minimising tree loss. The access options are discussed in further detail elsewhere in this brochure.

Ground Conditions (refer to Appendix 03)
An assessment of the underlying geology of the site has revealed that shallow foundations are likely to be suitable across of the majority of the site. Small areas of potential soft spots may require deeper foundations which will be confirmed through detailed sited investigations however this does not pose any kind of significant constraint to development.

Utilities
The presence of the United Utilities public sewers and HV electric mains crossing the site will require easements of up to 8m (4m either side of centre line of asset) to be provided for maintenance access to the buried service, will need to be considered when devising the proposed plot layouts. Alternatively the public sewers could be diverted within the development layout subject to agreement with united utilities. The master plan accommodates all existing utilities.

Access and Highways (refer to Appendix 02)
Curtins Transport Consultants have prepared and Access and Transport Appraisal to support the consideration of land at Longbutt Lane for release from the green belt. The appraisal recognises that the site represents a highly sustainable and suitable location for new development owing to its proximity to Lymm village centre and local education establishments.

The appraisal concludes that there are no highway related constraints that would preclude safe and suitable access being achieved to the site, and indeed there are a range of access options available for a scheme on the site. The development of the site also presents an opportunity to enhance local transport infrastructure and mitigate some of the pre-existing issues that can currently occur around Lymm High School through parking for the school or a drop off area on the site.

Landscape
Urban Green environmental consultants have considered the landscape and visual impact of the potential redevelopment of the site. The visual impact of the scheme would be localised in nature, the impact over longer range views are unlikely to be significant due to the undulating topography and intervening vegetation. Residential development on this site can be comfortably accommodated within a high quality landscape framework which will ensure no significant degradation of the character of the scenic qualities of the wider countryside setting.

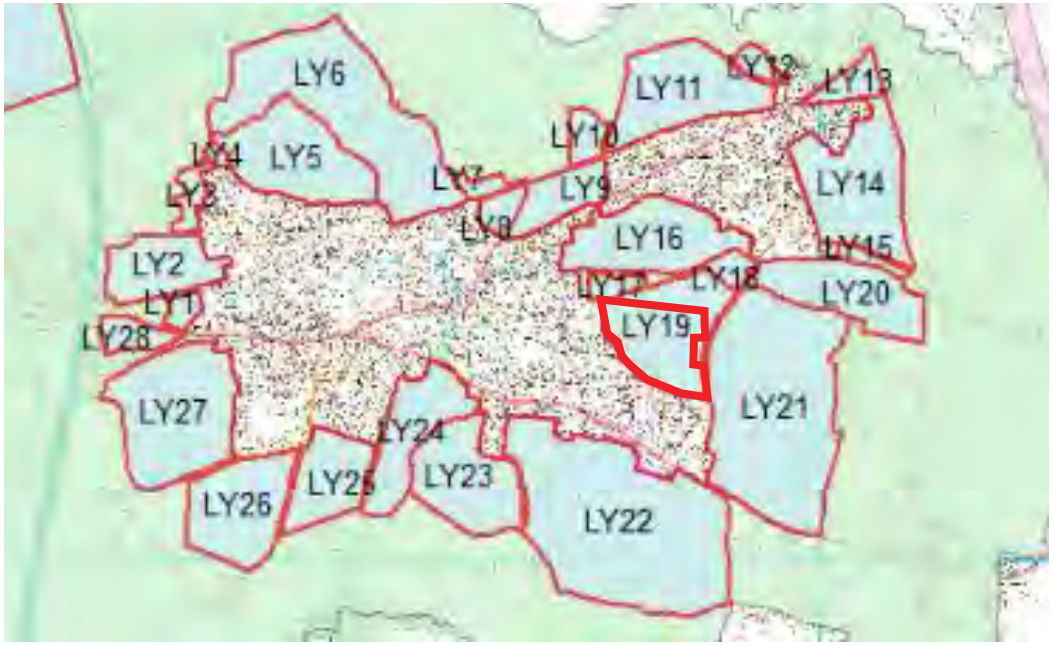
Heritage
In heritage terms, the main issue to consider with a residential development on the site is the Church of St Peter on Oughtrington Lane which is grade II listed. The proposed development outlined in this document responds to the setting of this building allowing the church to remain an integral part of the village character.

GREENBELT ASSESSMENT

The Warrington Borough Council Local Plan, Preferred Development Options Regulation 18 consultation identifies a requirement to deliver 22,260 new homes and 381 hectares of employment land over the plan period 2017-2037. Within this strategy, the settlement of Lymm is suitable for accommodating 500 new dwellings over the plan period.

Presently the settlement of Lymm is inset from the green belt with the village settlement boundary following the line of the existing built form. The Local Plan Preferred Options is supported by a green belt review (ARUP, 2016) which identifies the site as forming part of parcel LY19. This concludes that the site makes a strong contribution to green belt purposes.

Paul Butler Associates (representation, 2016) previously commented on the conclusions made within the green belt review and offer a revised green belt assessment which more accurately reflects the status of the site. The revised assessment is opposite.

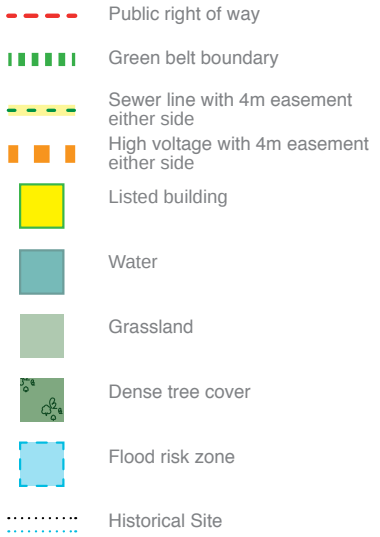


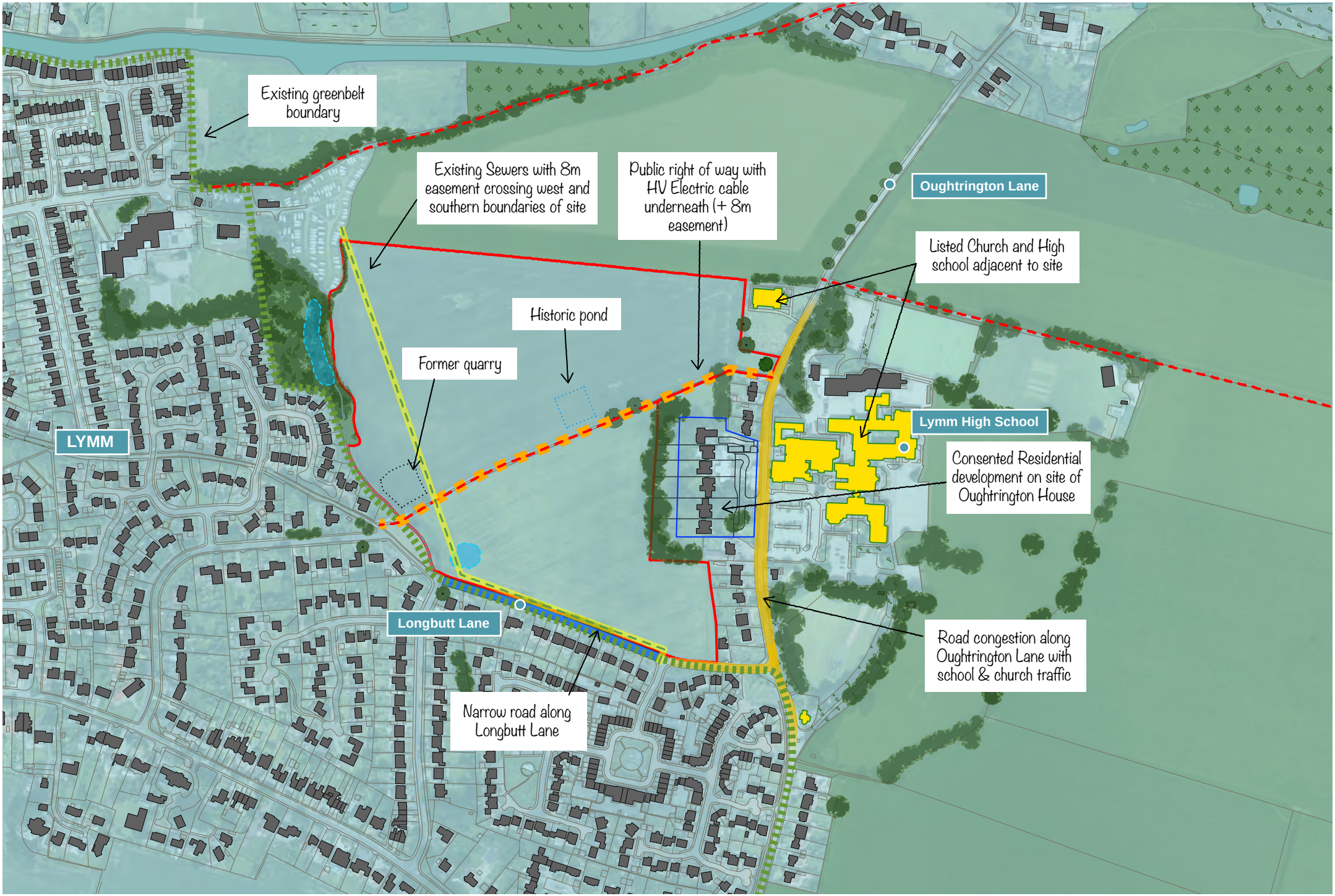
REF	**Purpose 1**: to check the unrestricted sprawl of large built up areas.	**Purpose 2**: to prevent neighbouring towns merging into one another.	**Purpose 3**: to assist in safeguarding the countryside from encroachment	**Purpose 4**: to preserve the setting and special character of historic towns	**Purpose 5**: to assist in urban regeneration, by encouraging the recycling of derelict and other urban land	**Justification for assessment**	**Overall Assessment**
LY19	No contribution: The parcel is not adjacent to the Warrington urban area and therefore does not contribute to this purpose.	No contribution: The parcel does not contribute to preventing towns from merging.	Weak contribution: The parcel is connected to the settlement on its southern and western boundaries. The parcel is connected to built form on its eastern boundary (in addition to the southern and western boundaries). The parcel is therefor relatively contained. Developed in this parcel would help 'round off' the settlement. It is considered that the parcel has a limited / weak degree of openness - whereby the removal of the parcel from the green belt would not impact upon the overall openness of the green belt.	No contribution: Lymm is a historic town however the parcel is not within 250 metres of its Conservation Area. The parcel does not cross an important viewpoint of the Parish Council.	Moderate contribution: The Mid Mersey Housing Market Area has 2.08% brownfield urban capacity for potential development therefore the parcel makes a moderate contribution to this purpose.	The parcel makes a weak contribution to one purpose, a moderate contribution to one and no contribution to three. Development within this parcel would effectively be infill development which would be well contained by the existing landscape.	Weak contribution

OPPORTUNITIES & CONSTRAINTS

Opportunities Supporting Warrington Borough Council Local Plan – Preferred Development Option – Regulation 18 Consultation July 2017

- To retain and enhance the existing Public Rights of Way that cross the site.
- The development will utilise this central corridor, capitalising on pedestrian links to the village centre.
- Parking for the school in the site to alleviate traffic concerns.
- Development options which allow for the retention of mature trees on the site.
- The site is located outside of the floodzone and therefore would not be at risk of flooding.
- The site is located close to existing schools and services within Lymm thereby providing a sustainable location for new housing. New pupils from the scheme will be able to walk to the surrounding schools, which cannot be said for the majority of other sites in the green belt around Lymm.
- The redevelopment of the site will respect the setting of surrounding heritage assets.
- Access into the site is achievable from Longbutt Lane with adequate visibility provided in both directions.
- A state of the art Primary Care facility will be provided on site.
- Land to enable widening of Longbutt Lane.
- Introduction of a new public footpath.
- Open space & park land.

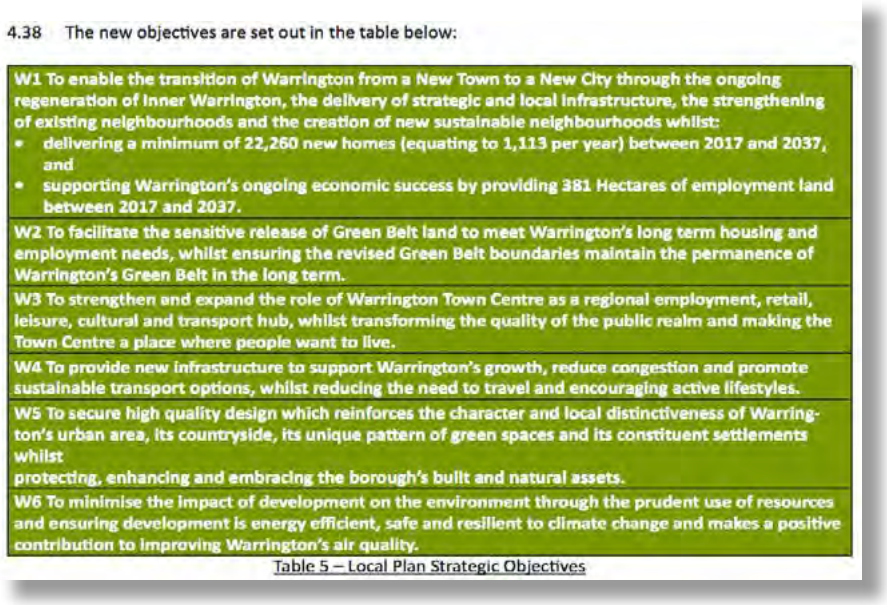



Existing greenbelt boundary
Existing Sewers with 8m easement crossing west and southern boundaries of site
Public right of way with HV Electric cable underneath (+ 8m easement)
Oughtrington Lane
Listed Church and High school adjacent to site
Historic pond
Former quarry
LYMM
Lymm High School
Consented Residential development on site of Oughtrington House
Longbutt Lane
Road congestion along Oughtrington Lane with school & church traffic
Narrow road along Longbutt Lane

OPPORTUNITIES & CONSTRAINTS

Warrington Borough Council Local Plan – Preferred Development Option – Regulation 18 Consultation July 2017

The Proposal demonstrates the delivery of each of the desired options as set out within Warrington Borough Council Local Plan - Preferred Development Option Regulation 18 Consultation July 2017 are met. Further satisfying and supporting the site as a viable site to be released from greenbelt. To the right are extracts from the WBC Preferred Development Option - Regulation 18 July 2017.



4.38 The new objectives are set out in the table below:

W1 To enable the transition of Warrington from a New Town to a New City through the ongoing regeneration of Inner Warrington, the delivery of strategic and local infrastructure, the strengthening of existing neighbourhoods and the creation of new sustainable neighbourhoods whilst: • delivering a minimum of 22,260 new homes (equating to 1,113 per year) between 2017 and 2037, and • supporting Warrington's ongoing economic success by providing 381 Hectares of employment land between 2017 and 2037.
W2 To facilitate the sensitive release of Green Belt land to meet Warrington's long term housing and employment needs, whilst ensuring the revised Green Belt boundaries maintain the permanence of Warrington's Green Belt in the long term.
W3 To strengthen and expand the role of Warrington Town Centre as a regional employment, retail, leisure, cultural and transport hub, whilst transforming the quality of the public realm and making the Town Centre a place where people want to live.
W4 To provide new infrastructure to support Warrington's growth, reduce congestion and promote sustainable transport options, whilst reducing the need to travel and encouraging active lifestyles.
W5 To secure high quality design which reinforces the character and local distinctiveness of Warrington's urban area, its countryside, its unique pattern of green spaces and its constituent settlements whilst protecting, enhancing and embracing the borough's built and natural assets.
W6 To minimise the impact of development on the environment through the prudent use of resources and ensuring development is energy efficient, safe and resilient to climate change and makes a positive contribution to improving Warrington's air quality.

Table 5 – Local Plan Strategic Objectives

4.52 The Council's detailed assessment and the SA/SEA Report can be found on the Council's website. A summary of the overall conclusions from the Council's assessment of the three options is provided in the table below.

Option 1	This option has the potential to contribute positively to the objectives of the plan and would enable Warrington to meet its development needs whilst also contributing to the delivery of Warrington New City. Depending on the specific locations for development, it could provide a sustainable, viable and deliverable option for meeting Warrington's development needs and provides the opportunity to maintain the permanence of the Green Belt at a strategic level through managed green belt release.
Option 2	This option has the potential to contribute positively to the plan objectives and would enable Warrington to meet its development needs whilst directly contributing to the delivery of Warrington New City. Depending on the specific locations for development, it could provide a sustainable, viable and deliverable option for meeting Warrington's development needs and provides the opportunity to maintain the permanence of the Green Belt at a strategic level through managed green belt release. In addition, incremental growth in the outlying settlements could contribute to longer term sustainability of local services and local business, promote local housing choice and deliver a number of smaller sites in the early part of the plan period.
Option 3	Although a settlement extension in itself could provide a sustainable form of development in principle, the option as a whole does not perform as well against the objectives of the Plan as the other 2 options. It could have detrimental impacts on Green Belt, the character of settlements and may result in secondary school capacity issues. It would also result in less development being focussed on the main urban area and therefore could reduce the ability of the Council to deliver strategic infrastructure and therefore dilute the Council's New City aspirations.

Table 7 – Summary of High Level Spatial Options Assessment

4.53 Following this exercise, the Council confirmed Option 2 - focussing Green Belt release adjacent to the main urban area of Warrington, with incremental growth in the outlying settlements - as the preferred option.

4.54 Option 2 enables the majority of growth to be delivered adjacent to the main urban area, contributing positively to the Plan Objectives. It performs stronger than Objective 1 in that it also enables incremental housing growth in the outlying settlements to support local services and widen local housing choice without compromising their character. This will also assist in overall Plan delivery by promoting a larger number of smaller sites which are likely to be deliverable early in the Plan period.

4.55 Option 3 does not perform as strongly as the distribution of growth will begin to impact on the character of one or more of the outlying settlements and a greater proportion of growth is being moved away from the main urban area where it can most positively contribute to the Warrington New City concept.

5.46 The preferred option defines an approximate number of homes the Council considers can be accommodated by each of the outlying settlements under the 'incremental growth' scenario.

Settlement	Indicative Green Belt Capacity
Lymm	500
Culcheth	300
Burtonwood	150
Winwick	90
Croft	60
Glazebury	50
Hollins Green	40
TOTAL	**1,190**

Table 22: Outlying Settlements - Indicative Green Belt Capacity

5.47 In order to deliver this level of development it will be necessary to expand existing primary schools in Lymm, Culcheth and Burtonwood. It will also be necessary to provide additional primary care capacity in Lymm and in Burtonwood.

PROPOSED INDICATIVE DEVELOPMENT

Following the publication of the Preferred Development Option Regulation 18 Consultation July 2017 and site analysis work, a concept masterplan has been developed incorporating all key points outlined within the Preferred Development Option.

The proposals will deliver the following:

- A new state of the art primary care facility.
- Public open space.
- Enhanced pedestrian links from Longbutt Lane to Oughtrington Lane.
- Land to allow the much needed widening of Longbutt Lane with the inclusion of a foot path, ensuring safety and significantly reducing congestion at this location.
- Up to 140 new homes.
- A mix of dwelling types to include detached, semi-detached and terraced houses.
- A range of dwelling sizes from 1 to 4+ bedrooms.
- Provision of affordable housing to include a mix of different sizes in response to local needs.
- A high quality development that will have regard to local character.
- Investment into new and existing community infrastructure with improved local pedestrian and cycle links.
- Provide parking and turning for St. Peters Church and Lymm High School, reducing congestion.
- Improving public open space, facilities, new pedestrian & cycle links.
- Improved transport connectivity.

Benefits of the development

- Contributing to the Council's five year supply of deliverable housing sites and delivery of new homes to meet the housing needs of the borough.
- Helping to meet an identified need for affordable housing within the town.
- Creation of a sustainable residential community that is in close proximity to existing local retail and social and community facilities.
- Provision of new public open space for the benefit of new and existing residents.
- New habitat creation to encourage ecological diversity.
- New construction jobs to be created during the construction of the development.
- New Homes Bonus payable to the Council from Central Government and additional Council Tax receipts once homes are occupied.
- Enhanced public walk ways.
- Parking facility for St. Peters Church.
- Parking and turning for Lymm High School.
- Widening of Longbutt Lane & introduction of a public footpath.

The illustrative concept masterplan includes the following key features:

1. Provision of new public open space including children's play areas and amenity open space.
2. Dedicated parking and drop off area for Lymm High School & the church.
3. Housing sensitivity aligned to minimise visual impact and to protect the amenity of residents on Longbutt Lane / Oughtrington Lane.
4. Widening of Longbutt Lane to accommodate greater traffic movements and creation of a new footpath.
5. Provision of a new Primary Care facility at the heart of the scheme.


Views out over Green Belt
Lower density units against Green Belt boundary
Development avoids building over Sewer & Former Quarry
New Car Park for school & church use
Additional Screen Planting
2.
Mid Density Residential Development Plots
1.
Central Square surrounded by higher density accommodation
Self-Build Plots
Higher Density Residential Development Plots
5.
Upgraded Footpath + Cycle Routes
3.
New Primary Care Facility
Main Vehicular Entrances off Longbutt Lane
4.
Over 55's Extra Care Units
Existing Road Widened

PROPOSED INDICATIVE DEVELOPMENT
ALTERNATIVE OPTION

There are several options available for how the site may be accessed, which could be developed in due course and through discussion with WBC. The initial indicative plan (see previous page) shows two points of access from Longbutt Lane with a loop road crossing the development and linking the two entrance together.

The alternative diagram (right) shows two vehicular entrances with an access point from Longbutt Lane to the southwest and an access point to the northeast corner of the site from Oughtrington Lane. The two entrances would be inked with a through road crossing the site.


Views out over Green Belt
Lower density units against Green Belt boundary
Development avoids building over Sewer & Former Quarry
New Car Park for school & church use
Additional Screen Planting
2.
Mid Density Residential Development Plots
1.
Central Square surrounded by higher density accommodation
Self-Build Plots
Higher Density Residential Development Plots
5.
Upgraded Footpath + Cycle Routes
3.
New Primary Care Facility
Main Vehicular Entrance off Longbutt Lane
4.
Over 55's Extra Care Units
Existing Road Widened

DELIVERY

The National Planning Policy Framework requires that to be considered deliverable, sites should be available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years and in particular that development of the site is viable (NPPF para 47, footnote 11).

As evidenced in this submission, the site is available now offering a suitable location for new development. The site is considered to be a viable and realistic proposition that will make a significant contribution to housing delivery over the plan period. There are also no known constraints that would affect delivery of housing commencing on site within 5 years.

Stamford Property Holdings hold a significant track record of working with developers and housebuilders alike to deliver high quality schemes ranging from a single dwelling through to projects comprising over 200 dwellings. Stamford Property Holdings will endeavour to deliver the master plan attached in full, within Warrington Borough Councils desired time scale of five years, should the site be released from greenbelt

Ownership is with one party and there are no legal constraints which could restrict delivery.

CONCLUSION

This development brochure outlines vision for a new, sustainable neighbourhood of choice at land off Longbutt Lane to support the long term development needs of Lymm. The brochure supports the representation submitted in response to the Warrington Borough Council Regulation 18 Preferred Options consultation.

The brochure has been informed by a range of technical studies which demonstrate the suitability of the site for development and release from the green belt. The indicative proposals for the site illustrate the potential for the creation of a new sustainable neighbourhood which responds to the local character of the area through a high quality and sensitive design response.

The indicative proposals demonstrate that the site is capable of accommodating approximately 140 new dwellings, including affordable housing. The brochure also demonstrates the suitability of the site for new development concluding that there are no significant constraints to restrict development of the type identified coming forward in this location.

This study highlights the suitability of the site by meeting all the desiried requirement setout in Warrington Borough Council Local Plan, Preferred Development Option Regulation 18 – Sustainable development, Provision of a Primary Care Facility, Enhanced community facilities & open space, Improved Transport Links.

Stamford Property Holdings in association with

Ollier Smurthwaite Architects
40 King Street
Manchester
M2 6BA

T: 0161 883 0838
E: mail@olliersmurthwaite.com

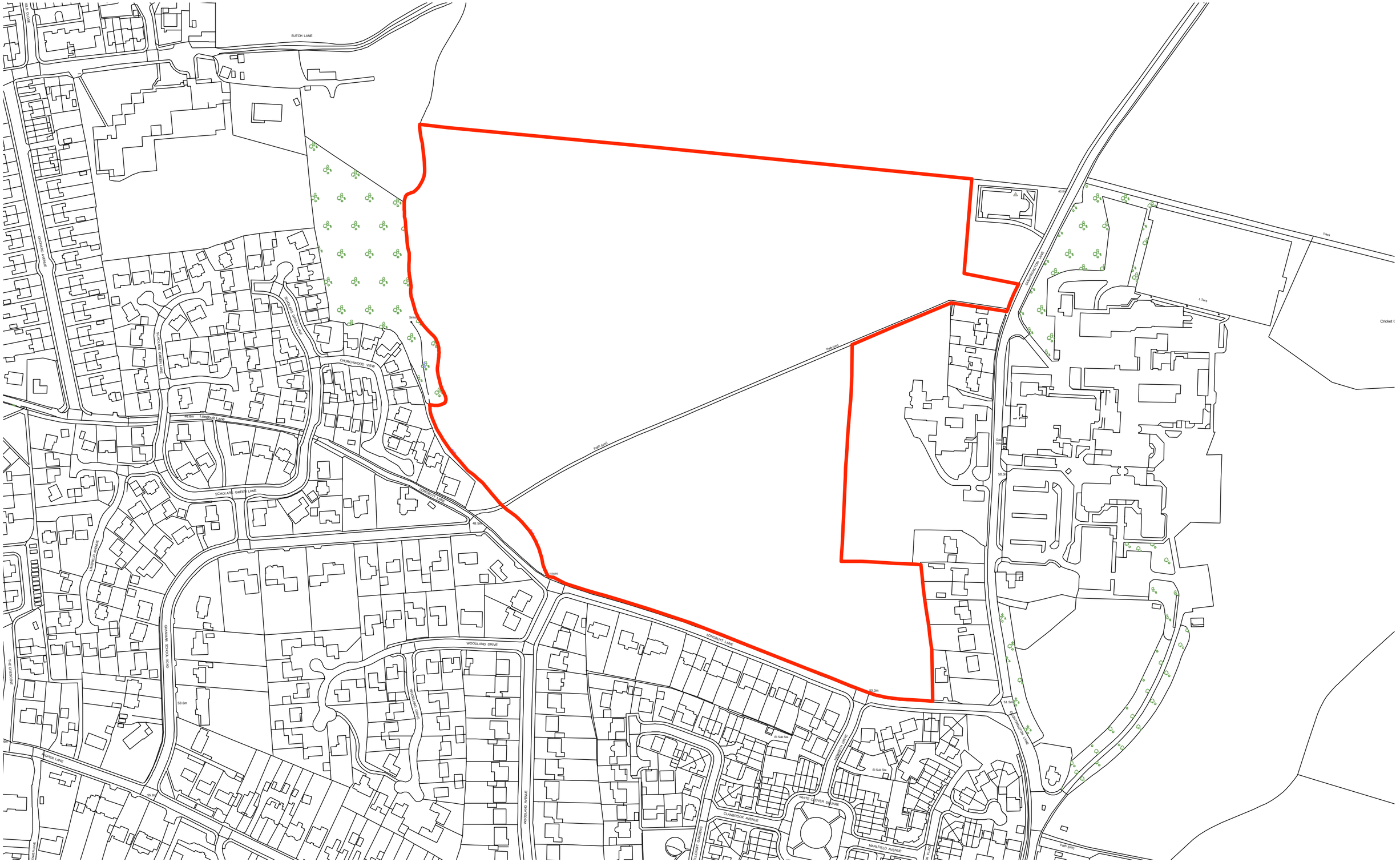
LAND AT LONGBUTT LANE, LYMM

TECHNICAL APPENDICES

SEPTEMBER 2017

APPENDICES CONTENTS

The following documents are to be read in conjunction with the main submission report;



0m 25m 50m 100m 150m 200m 250m

SITE PLAN

N

REVISION	DATE	DESCRIPTION

CLIENT: STAMFORD PROPERTY HOLDINGS

PROJECT: LYMM SITES

ADDRESS: LAND AT LONGBUTT LANE, LYMM

DRAWING TITLE: EXISTING SITE PLAN

SCALE: 1:2500 @ A3 **DATE:** SEPTEMBER 2017

DRAWING NO: A499_SITE PLAN

OLLIER SMURTHWAITE ARCHITECTS
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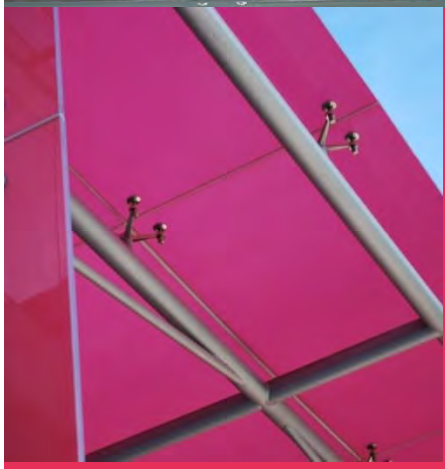

Land off Longbutt Lane, Lymm – Local Plan Review Site R18/068

Access & Transport Appraisal

Curtins Ref: 66027/TN01
Revision: Issue 1
Issue Date: 18 August 2017

Client Name: Stamford Property Holdings

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Manchester. M1 5WG.
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www.curtins.com

Control Sheet

This report has been prepared for the sole benefit, use, and information for the client. The liability of Curtins with respect to the information contained in the report will not extend to any third party.

Author	Signature	Date
[redacted]	[redacted]	18 August 2017

		Date
		18 August 2017

		Date
		18 August 2017

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Figures

Tables

Plans

Plan 66027-CUR-00-XX-DR-TP-06003-P01 – Pedestrian Catchment Plan
Plan 66027-CUR-00-XX-DR-TP-06004-P01 – Cycle Catchment Plan
Plan 66027-CUR-00-XX-DR-TP-06005-P01 – Public Transport Plan

Drawings

66027-CUR-Z0-LV-DR-TP-05001-P01 – Potential Site Access Strategy Option 1
66027-CUR-Z0-LV-DR-TP-05002-P01 – Potential Site Access Strategy Option 2

Appendices

Appendix A – TRICS Outputs

1.0 Introduction

1.1 Project Introduction

1.1.1 Warrington Borough Council (WBC) are currently preparing a new draft local development plan and are seeking representations in respect of residential and employment land allocations throughout the Borough.

1.1.2 Curtins has been appointed on behalf of Stamford Property Holdings to provide traffic and transport advice in relation to the potential allocation of a 10ha site to the north of Longbutt Lane, Lymm, for residential purposes.

1.1.3 The site is identified as number **R18/068** in the recently published Call for Sites list on WBC's website.

1.1.4 For the purposes of this report, and based on the assumptions that perhaps 75% of the roughly 10 hectare site area is developable and there could be perhaps 30 dwellings per hectare, it is estimated that the site could deliver in the order of 200-230 dwellings.

1.2 Purpose of the Report

1.2.1 This report has been prepared to consider the access and transport related implications of the potential residential allocation of the site. It considers the following items:

i) Whether the site is (or can be made to be) sustainable and accessible by non-car modes of transport;
ii) Whether the traffic arising from a residential development of the site can be satisfactorily accommodated on the local highway network (or can be made to be);
iii) Whether there are any technical / land control constraints with achieving satisfactory access into the site, and that any accesses can be designed and constructed to relevant standards;
iv) Whether there are any material local road safety issues that would present a concern in the context of the potential allocation of the site; and,
v) Whether there are any on-site highway-related constraints that would prevent the sites coming forward.

1.3 Background

Emerging Planning Policy

1.3.1 As mentioned above, the site is provisionally identified by WBC as site number R18/068 in the emerging local plan land allocation process.

1.3.2 Initial representations to remove the site from Green Belt and allocate it for housing were submitted to WBC in December 2016.

1.3.3 Since then, WBC recently published their *"Preferred Development Option Regulation 18 Consultation"* document, dated July 2017. This sets out the Council's preferred approach to allocating and delivering mainly large strategic redevelopment schemes around the Borough.

1.3.4 Paragraphs 5.46 – 5.49 of this document indicate that Lymm could potentially grow by 500 dwellings in the plan period through a release of Green Belt capacity. The document goes on to say that:

"5.47 In order to deliver this level of development it will be necessary to expand existing primary schools in Lymm, Culcheth and Burtonwood. It will also be necessary to provide additional primary care capacity in Lymm and in Burtonwood.

5.48 Due to the large number of sites put forward in proximity to each of the outlying settlements relative to the level of growth required under the Preferred Development Option, the Council has decided to hold back detailed site assessment work to confirm the individual sites to be allocated until after the Preferred Development Options Stage.

5.49 The numbers provided in the table above [e.g. 500 total dwellings] *are therefore indicative at this stage. The final numbers will depend on the detailed assessment of potential development sites, including a more detailed assessment of the implications for the character of the respective settlements, the permanence of the amended Green Belt boundaries and transport impacts."*

1.3.5 The document also identifies on Figure 10 a broad strategic overview of the transport infrastructure that might be required to help deliver the preferred option development aspirations. However, no strategic improvements are earmarked within Lymm to deliver the quota of 500 dwellings that have been specified.

1.3.6 The document does go on to say that one of the key next steps for the Council will be to develop the Warrington Multi-Modal Transport Model. This will *"enable the Council to consider local and borough wide transport impacts arising from new development. It will also allow the Council to confirm the infrastructure required to mitigate these impacts and contribute to the wider New City concept".*

1.3.7 WBC have also recently published their *"Warrington Transport Summary - Part 1: Overview"* document, which forms part of the evidence base for the emerging local development plan.

1.3.8 The document presents a general high-level assessment of historical and current travel trends into / out of the Borough, and does not refer to any of the specific potential land allocations.

1.4 Structure of this Report

1.4.1 The structure of this report is as follows:-

i) Section 2.0 provides a brief overview of the existing conditions around the site, including a review of the highway safety record and the highway-related constraints around the site;

ii) Section 3.0 provides an overview of the potential development that could be delivered on the site, including details of a potential access strategy, mitigation measures and opportunities that the site could deliver;

iii) Section 4.0 sets out an appraisal of the accessibility of the site by non-car modes of transport;

iv) Section 5.0 sets out the anticipated highway impact of the potential site allocation / development; and,

v) Section 6.0 sets out the summary and conclusions.

2.0 Existing Conditions

2.1 Site Location

2.1.1 The site is located to the east of Lymm Village Centre and to the south of the Rush Green area on the edge of the settlement boundary, as indicated on **Figure 2.1** below:

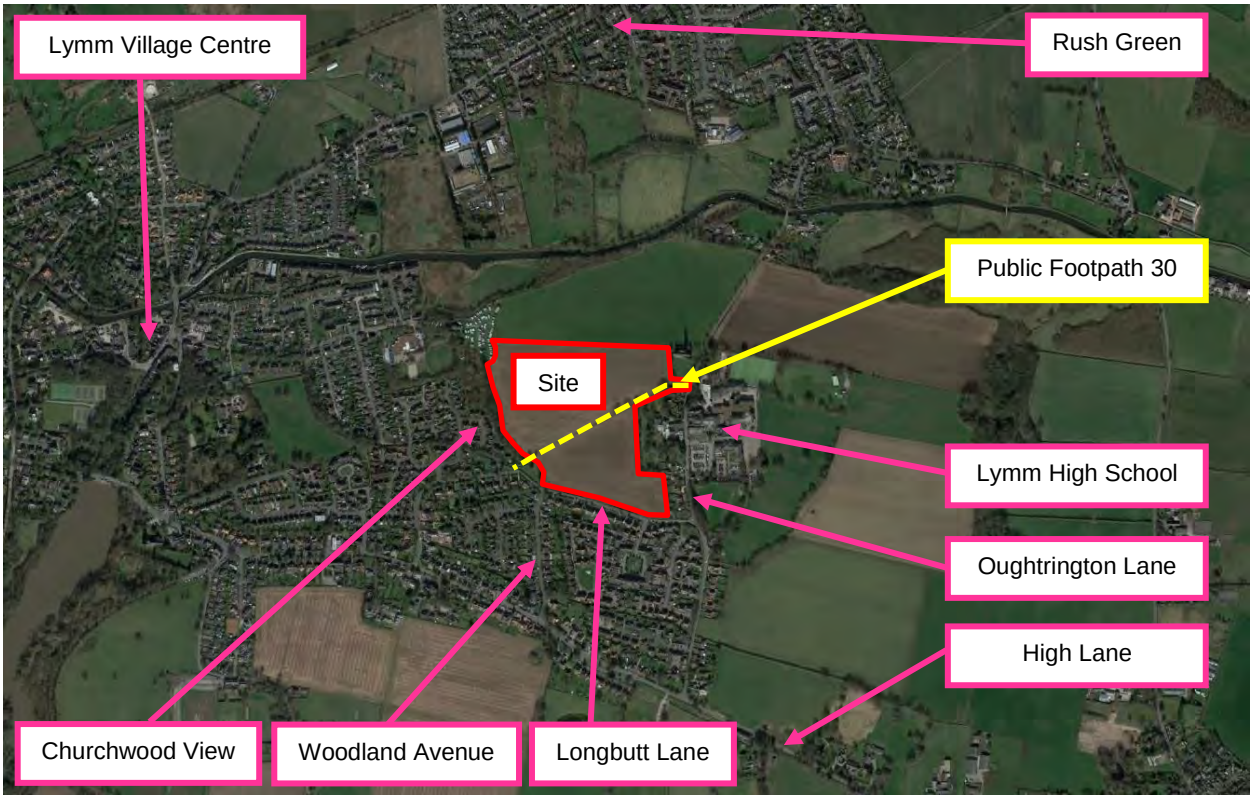

Figure 2.1 – Site Location Plan

2.1.2 As indicated above, locally the site is located to the north of Longbutt Lane, the west of Oughtrington Lane and the east of Churchwood View. The site is currently used to grow agricultural crop.

2.1.3 The site has a long area of frontage (approximately 280m) that runs contiguously with Longbutt Lane to the south and a small section of direct frontage (approximately 22m) onto Oughtrington Lane to the north-east.

2.1.4 The existing agricultural use of the site can be accessed via the small section of site frontage onto Oughtrington Lane to the north-east and via another gated field access to the south on Longbutt Lane (opposite Newarth Drive).

2.2 Local Highway Network

Longbutt Lane

2.2.1 As stated above, Longbutt Lane runs alongside the southern boundary of the site in an east-west alignment between Oughtrington Lane to the east and Scholars Green Lane to the west. Vehicular access to Scholars Green Lane is unavailable due to Longbutt Lane forming a cul-de-sac where it meets Scholar's Green Lane.

2.2.2 The carriageway of Longbutt Lane varies in width between around 4.5m and 5.0m along the site frontage. Due to this, and due to sporadic on-street parking that currently occurs, the road is effectively reduced to single-track working in places (also see subsection 2.5 below for more details on parking issues that occur at school pick-up / drop-off times).

2.2.3 Longbutt Lane has a footway only on its southern side measuring between around 2.0m and 3.5m in width. The road is lit by regularly spaced lighting columns and is subject to a 20mph mandatory speed limit.

Oughtrington Lane

2.2.4 As stated above, Oughtrington Lane runs in a north-south alignment to the east of the site between the A56 Higher Lane to the south and Sandy Lane / Stage Lane to the north.

2.2.5 The site benefits from a small section of direct frontage onto Oughtrington Lane at its north-eastern corner which measures around 22m in length. This section also forms the eastern end of Footpath 30 which runs through the site (see sub-section 2.3 below).

2.2.6 The site access at this location is a double-gated agricultural style access which passes over the existing footway via a dropped kerb crossover.

2.2.7 The carriageway of Oughtrington Lane is around 5.6m in width in the vicinity of the site frontage. There is a footway only on its western side measuring around 1.9m in width. The road is lit by regularly spaced lighting columns and is subject to a 20mph mandatory speed limit.

2.2.8 There are a number of issues that can occur on Oughtrington Way at school pick-up / drop-off times which are described in more detail in sub-section 2.5 below.

2.3 Public Right of Way

2.3.1 As indicated above and on **Figure 2.1**, there is a Public Right of Way (defined as Footpath 30) which runs across the site, connecting Longbutt Lane to the south-west to Oughtrington Lane to the north-east. **Figure 2.2** below shows a series of photographs taken of this route:

Figure 2.2 – Photographs of Footpath 30 Across Site

2.3.2 It is understood that the route is very well used by pedestrian schoolchildren during school term time as it lies on a convenient desire line between Lymm Village Centre to the west and Lymm High School to the east.

2.3.3 However, it is recognised that there are a number of shortfalls with the route, as indicated on the images above. These issues include a lack of sufficient width along extended sections, poor surface water drainage, a lack of suitable surfacing in many sections, poor containment of the surface material, a lack of street lighting (particularly problematic in winter time) and a lack of natural surveillance over a long length (thereby leading to personal security concerns for vulnerable users).

2.3.4 These issues, along with a potential footpath upgrade scheme, are discussed further in the following Chapter of this report.

2.4 Site Visit

2.4.1 Curtins visited the site on Friday 4th August 2017 at 08:30 during the AM peak hour to make observations and take measurements of the surrounding area.

2.4.2 Although the local highway network was observed to be completely free from any congestion at this time, it should be noted that the site visit was conducted during the school holidays, therefore it is recognised that local traffic conditions may have been suppressed below the levels normally experienced during school term time.

2.5 School Term Time / Church Issues

2.5.1 Nonetheless, Curtins are aware from previous experience and various observations made in representations submitted for other nearby sites that the nearby Lymm High School gives rise to various localised congestion issues during school term time.

2.5.2 Specifically, it is understood that the following short-lived issues can occur on the local highway network at school drop-off / pick up times:-

i) Congestion along Oughtrington Lane, mainly caused by the volume of traffic, school buses being unable to pass smaller vehicles within the available road width, pedestrians walking within the carriageway and inconsiderate parking;

ii) Congestion along the eastern section of Longbutt Lane, caused by the volume of traffic, inconsiderate parking and the inability of two vehicles to pass one another with ease along the length of the road; and,

iii) Highway safety concerns due to the volume of pedestrian schoolchildren routing to / from the high school in and amongst local traffic along inadequate footways.

2.5.3 In addition, on weekends it is understood that similar issues can occur on Oughtrington Lane near the St Peter's Church of England (situated adjacent to the north-eastern part of the site), albeit to a lesser extent than the issues that can occur on weekdays in association with the high school.

2.5.4 Specifically, it is understood that church services and events can attract a material level of on-street parking on the western side of Oughtrington Lane, thereby reducing the effective carriageway width to single-track working over significant lengths.

2.5.5 These issues, along with some potential mitigation measures, are discussed further in the following Chapter of this report.

2.6 Highway Safety

2.6.1 Personal Injury Accident (PIA) data for the highway network around the site has been obtained from the online Crashmap resource for the most recently available five-year period.

2.6.2 A plan of the highway network that has been assessed is illustrated below in **Figure 2.3**:

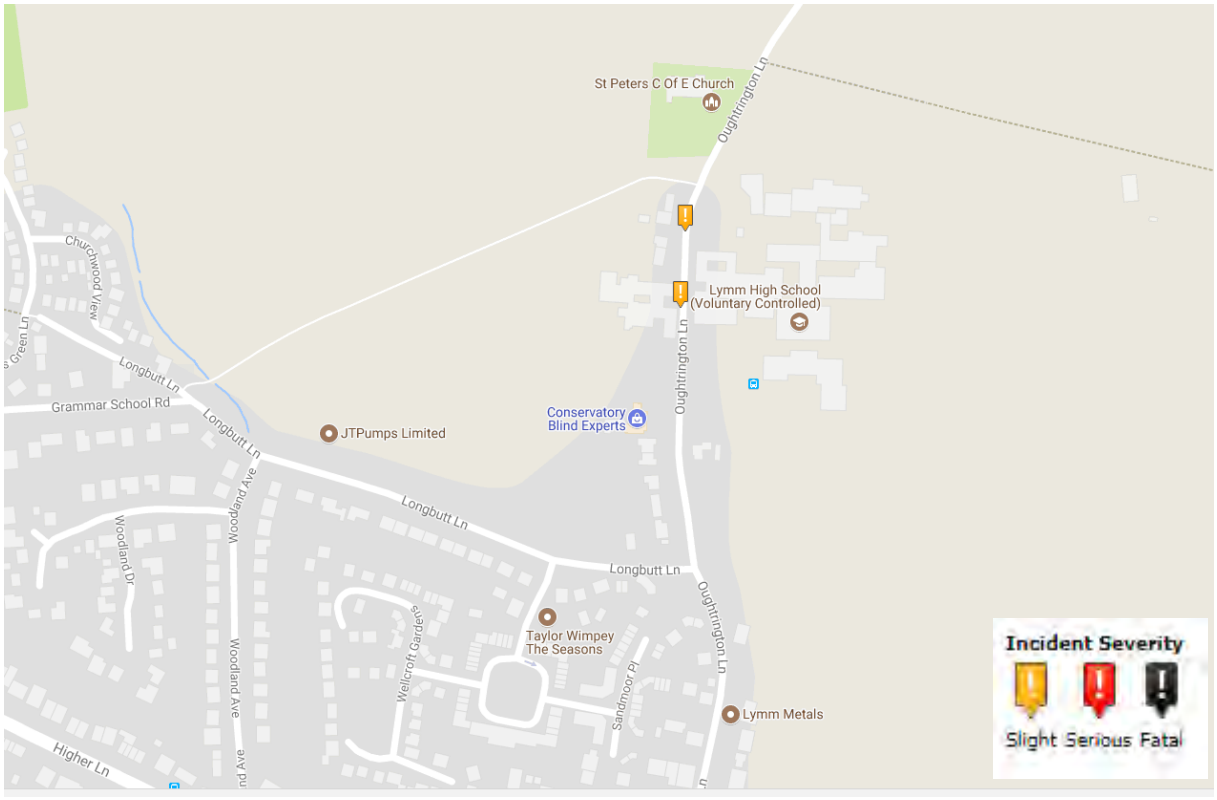

Figure 2.3 – Area Assessed for Personal Injury Accident Data

2.6.3 A summary of the data can be seen in **Table 2.1:**

Junction/Link	Slight	Serious	Fatal	Totals
Longbutt Lane	0	0	0	**0**
Oughtrington Lane	2	0	0	**2**
Totals	**2**	**0**	**0**	**2**

Table 2.1 – Personal Injury Accident Data Summary

2.6.4 There has been a total of only two accidents recorded in the study area in the most recently available five-year period, both of which resulted in only slight injuries.

2.6.5 There is nothing to suggest there is an unusual safety issue from the breakdown as indicated in **Table 2.1**, and in fact the local road safety record is considered to be enviable considering the size of the study area examined and the number of roads / junctions included.

2.7 Potential Highway-Related Constraints

2.7.1 There are a number of potential highway-related constraints around the site that have been considered in the context of allocating the site for residential development and achieving a satisfactory access strategy.

2.7.2 In particular, the following information has been gathered to ensure that the access strategy (see the following Chapter) is feasible from both a technical highway-standard perspective and a land control perspective:-

i) On-site measurements of the highways and footways surrounding the site;

ii) The land boundary of the site based on land registry records;

iii) The precise limits of the adopted highway boundary;

iv) Information on conservation areas in Lymm;

v) Information on nationally / locally listed structures in Lymm;

vi) Information on trees within and surrounding the site (based on an assessment by Urban Green Arboricultural Consultants);

vii) On-site observations of the general topography of the site; and,

viii) Public Rights of Way passing through and around the site.

2.7.3 Based on the above, the following points are of particular relevance to the potential allocation of the site and the chosen access strategy:-

i) Digital Ordnance Survey (OS) mapping of the site and the surrounding highway network has been obtained and has been manually amended, where necessary, to increase its accuracy in those areas where the site could potentially take access from;

ii) The boundary of the site has been plotted on the OS mapping based on land registry records;

iii) The precise limits of the adopted highway boundary have also been transposed below the OS mapping to ensure that any selected access solution is feasible without recourse to any third-party land;

iv) There are no conservation areas (CAs) around the site that would preclude any wall, hedge or tree boundary features being removed around the site (but see point vi) below);

v) There are no nationally or locally listed structures on or near the site that would preclude any particular access strategy being considered;

vi) There is a large mature sycamore tree roughly in the middle of the 22m long site frontage that abuts Oughtrington Lane. The tree is not formally protected by TPO or CA but has been designated as a 'Category A' tree by Urban Green, and therefore worthy of retention. The presence and position of this tree means that it would have to be removed in order to form a 'main' standard residential vehicular access point into the site at this location, but could potentially be retained if a lesser form of access is provided. This is therefore discussed in more detail in the following Chapter of this report as part of the access strategy options. There are no other trees within or around the site that would potentially preclude access being achieved into the site;

vii) There are no material level differences between the site and the surrounding highway network that would preclude any particular access strategy being considered; and,

viii) The only Public Right of Way that is materially relevant to the potential allocation of the site is Footpath 30 (which runs through the site), as described earlier.

2.8 Existing Planning Permissions / Committed Developments

2.8.1 Planning permission was recently applied for the demolition of existing buildings and erection of 6 dwellings at Cotebrook House directly to the east of the site (application reference 2017/30375).

2.8.2 Based on the limited scale and nature of the scheme and the proposed access arrangements and details, it is concluded that the scheme does not present any material issue in the context of the potential allocation of the site, or impinge upon the achievability (or otherwise) of gaining access into the site.

3.0 Potential Development

3.1 Overview of Potential Scheme

3.1.1 As mentioned earlier, based on the size and potential developable area of the site, it is envisaged that a scheme of perhaps 200 – 230 dwellings could be delivered on the site in due course if the land is released from Green Belt and is allocated.

3.2 Access Strategy

General Approach

3.2.1 As a general principle, it should be noted that there are no design standards / guidance that would require a residential development of this size to feature more than a single point of access (or indeed any size).

3.2.2 On the contrary, the Manual for Streets (MfS) indicates in paragraph 6.7.3 that no such cul-de-sac length limits or dwelling number limit should be placed on a residential development, but rather the fire service should be consulted to ensure they are able to respond quickly and effectively to any emergency on a particular development. Nonetheless it is common to find that developments of over 200 dwellings feature 2 vehicular access points to improve route choice and emergency access options.

3.2.3 Based on this, it is considered that 2 points of vehicular access should be preferable, but not absolutely necessary, for a scheme of this scale and nature.

3.2.4 In terms of pedestrian and cyclist access, it should be generally desirable to achieve as much permeability and route choice into any residential scheme as possible, and therefore provide pedestrian and cycle access points at those points that lie on the most likely desire lines.

3.2.5 The above principles, combined with the potential constraints identified in sub-section 2.7 earlier, have therefore informed the potential site access strategy options for the site.

Access Option 1

3.2.6 The 'Option 1' potential access strategy is shown on drawing **66027-CUR-Z0-LV-DR-TP-05001-P01** to the rear of this report.

3.2.7 This Option features a vehicular access onto Longbutt Lane towards the south-western part of the site and another vehicular access onto Oughtrington Lane to the north-east of the site. It is envisaged that these accesses would potentially be connected internally via an internal network of roads or via a single spine road.

3.2.8 Option 1 would require the removal of the large sycamore tree that sits in the middle of the site's frontage onto Oughtrington Lane, as described in the previous Chapter.

3.2.9 Although the tree has been identified as a Category A specimen, it is not protected and currently sits within the footway on the western side of Oughtrington Lane, leaning slightly at an angle into and over the road, and so may present a future maintenance liability (in terms of trunk / root encroachment into the footway).

3.2.10 For the purposes of access Option 1 it is therefore assumed that the tree would be removed and then its loss mitigated against by a scheme of replacement tree planting within the site / around the access, with a number of new trees planted to offset the loss of the single tree.

3.2.11 In terms of the vehicular site access details, both accesses have been designed to feature standard residential road geometry, with 5.5m wide carriageways, 2m footways and 6m corner radii. 2.4m x 40m junction visibility splays will be achievable from each access point. This level of junction visibility is commensurate with the prevailing Manual for Streets design standards for a 30mph road for robustness, despite the fact that both Oughtrington Lane and Longbutt Lane are both subject to a 20mph speed limit.

3.2.12 The reasoning behind the location of the potential vehicular site access onto Longbutt Lane is that development-related traffic would be much more inclined to route to the wider highway network via Woodland Avenue instead of Oughtrington Lane if the access is at that location. Woodland Avenue is a good quality road with good standard junctions onto the A56 Higher Lane and Longbutt Lane that is suited to the purpose of accommodating the additional development traffic (note the potential highway impact of the development is discussed and quantified in greater detail in Chapter 5.0 of this report).

3.2.13 In terms of the pedestrian and cycle access details, the drawing shows that access would be available at the two vehicular site access points, the two existing Footpath 30 access points and a new pedestrian / cycle access point at the south-eastern corner of the site onto Longbutt Lane. It is considered that these access points, combined, cover all the likely pedestrian and cycle desire lines into and out of the site.

3.2.14 Access Option 1 also features the following significant mitigation schemes / benefits:-

i) **The widening, new surfacing, lighting and drainage of Footpath 30**. As identified in sub-section 2.3 earlier, and despite being very well used by schoolchildren in particular, Footpath 30 currently suffers a number of shortfalls. The potential allocation and development of the site therefore presents an ideal opportunity to significantly upgrade the Public Right of Way, by widening it to 3.5m to form a combined foot / cycle path, new surfacing, providing proper drainage and lighting to assist the negotiation of the route in the dark. By definition, the development of the site around the footpath would also provide the natural surveillance over the route that is currently lacking, by virtue of the new dwellings that would abut the route, thereby offering extra protection to vulnerable schoolchildren. At the point at which any on-site roads need to traverse Footpath 30, appropriate highway design / treatment could be utilised and priority given to the upgraded foot / cyclepath route.

ii) **The widening of Longbutt Lane.** This would be implemented along the entire site frontage to make the road 5.5m wide with a new 2m wide footway on the northern side. This will therefore help address the pre-existing operational issues that can currently occur along Longbutt Lane, as discussed in Sections 2.2 and 2.5 earlier (i.e. inadequate carriageway width causes the road to operate as single-track working).

A new car park within the site. The Option indicates a location and indicative arrangement for a new potential car park featuring around 108 spaces within the north-eastern portion of the site. As identified in sub-section 2.5 earlier, the presence of both the school and church give rise to localised congestion issues at various times and the potential allocation / development of the site therefore presents an ideal opportunity to help mitigate against those issues that occur. The idea behind this would be to provide an off-street parking facility for parents dropping off / picking up children from Lymm High School opposite and also a parking facility for visitors to St Peter's Church on weekends.

Although the plan illustrates a car park indicatively, the facility could equally include a school bus / coach park with drop-off / layover areas, perhaps with a dedicated drop-off zone provided for parents as well. The access would need to be made slightly larger in this configuration, however this is easily feasible within the constraints.

Access Option 2

3.2.15 The 'Option 2' potential access strategy is shown on drawing **66027-CUR-Z0-LV-DR-TP-05002-P01** to the rear of this report.

3.2.16 This Option features 2 main vehicular access points onto Longbutt Lane towards the south-western part of the site (the same as Option 1) and the south-eastern part of the site, along with a third, less substantial vehicular access onto Oughtrington Lane to the north-east of the site.

3.2.17 Option 2 has been designed around the assumption that the large sycamore tree that sits in the middle of the site's frontage onto Oughtrington Lane would be retained, and not removed (as per Option 1).

3.2.18 Therefore, the reasoning behind Option 2 is that the existing agricultural dropped-kerb footway crossover access point would be utilised to serve a small cul-de-sac car park, with no through access available into the wider site. The access and car park would essentially make use of the existing grassed surface area, but be reinforced using a 'no-dig' celluar confinement / root protection system, so that the sycamore tree could be retained.

3.2.19 As with Option 1, the car park would offer mitigation against the pre-existing localised congestion issues that can occur on Oughtrington Lane, albeit to a lesser extent than with Option 1.

3.2.20 In terms of the main vehicular site access details onto Longbutt Lane, again both accesses have been designed to feature standard residential road geometry, with 5.5m wide carriageways, 2m footways and 6m corner radii. 2.4m x 40m junction visibility splays will be achievable from each access point. This level of visibility is commensurate with the prevailing Manual for Streets design standards for a 30mph road for robustness, despite the fact that Longbutt Lane is subject to a 20mph speed limit.

3.2.21 In terms of the pedestrian and cycle access details, the drawing shows that access would be available via virtually the same locations as those shown on Option 1.

3.2.22 As with Option 1, access Option 2 also features the following significant mitigation schemes / benefits:-

i) **The widening, new surfacing, lighting and drainage of Footpath 30**. See sub-section 3.2.14 i) above for the details and benefits of this opportunity.

ii) **The widening of Longbutt Lane.** Again, see sub-section 3.2.14 ii) above for the details and benefits of this opportunity.

iii) **A new car park within the site.** See sub-section 3.2.14 iii) above for the details and benefits of this opportunity, albeit with a smaller number of spaces and a different potential arrangement with perhaps around 15 parking spaces.

3.2.23 As indicated earlier, it is not considered to be absolutely necessary to have two vehicular points of access for the site. The site could easily be served via a slightly wider single point of access at the south-western part of the site onto Longbutt Lane, without giving rise to any safety or capacity issues.

3.2.1 In any event, both Options show that safe and suitable access arrangements are achievable into the site and demonstrate the significant and material added highway-related benefits that an allocation / development of the site could bring.

3.3 Servicing Strategy

3.3.1 The potential site access arrangements for both access Options have been designed to cater for the infrequent movements of a servicing vehicle.

3.3.2 Given the size and shape of the site, it is considered that an on-site road network can easily be achieved that would cater for the movements of a servicing vehicle in due course. The detail of this would be designed at any future planning application stage.

3.4 Parking Provision

3.4.1 Similarly, given the size and shape of the site, it is considered that a scheme featuring appropriate levels of off-street / communal car and cycle parking can easily be achieved which confirms to WBC's adopted 2015 parking standards. Again, the detail of this would be designed at any future planning application stage.

4.0 Accessibility by Sustainable Modes of Travel

4.1 Introduction

4.1.1 A key element of national, regional and local policy is to ensure that new developments are located in areas where alternative modes of travel are available. It is important to ensure that developments are not isolated but are located close to complementary land uses. This supports the aims of integrating planning and transport, providing more sustainable transport choices, and reducing overall travel and car use.

4.1.2 The accessibility of the site is considered in this context for the following modes of travel:

- Pedestrian Accessibility;
- Accessibility by Cycle; and,
- Accessibility by Public Transport.

4.2 TRACC Analysis

4.2.1 The accessibility of the site has been assessed through the use of TRACC Software. TRACC is the leading multi-modal transport accessibility tool which was developed in conjunction with the Department for Transport (DfT), local authorities and transport planners.

4.2.2 It is designed to calculate travel time using a multitude of public transport and road travel modes to give accurate journey times from many origins to many destinations in one calculation. The software covers a wide range of transport modes including walking, cycling, driving and public transport.

4.3 Pedestrian Accessibility

4.3.1 Research has indicated that acceptable walking distances depend on a number of factors, including the quality of the development, the type of amenity offered, the surrounding area, and other local facilities. The Chartered Institution for Highways and Transportation (CIHT) document entitled 'Providing for Journeys on Foot' suggests walking distances which are relevant to this planning application. These are reproduced in **Table 4.1**.

	Town Centres (m)	Commuting/School/ Sightseeing (m)	Elsewhere/Local Services (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

Table 4.1 – CIHT Suggested Acceptable Walking Distances

4.3.2 To assist in summarising the accessibility of the site by foot, an indicative pedestrian catchment plan has been produced. **Plan 66027-06003** shows distances of 500m, 1,000m and 2,000m which are termed 'Desirable', 'Acceptable' and the 'Preferred Maximum' by the CIHT for commuting trips.

4.3.3 The pedestrian catchment plan confirms that the site is well located in relation to local services and facilities within Lymm.

4.3.4 The centre of the site is within around 1km walk distance of Lymm Village Centre where numerous shopping, employment, leisure, health, restaurants and pubs are available. The site is closer to Lymm Village Centre than the majority of the other Green Belt release candidate sites under consideration by WBC, as illustrated below on **Figure 4.1**:

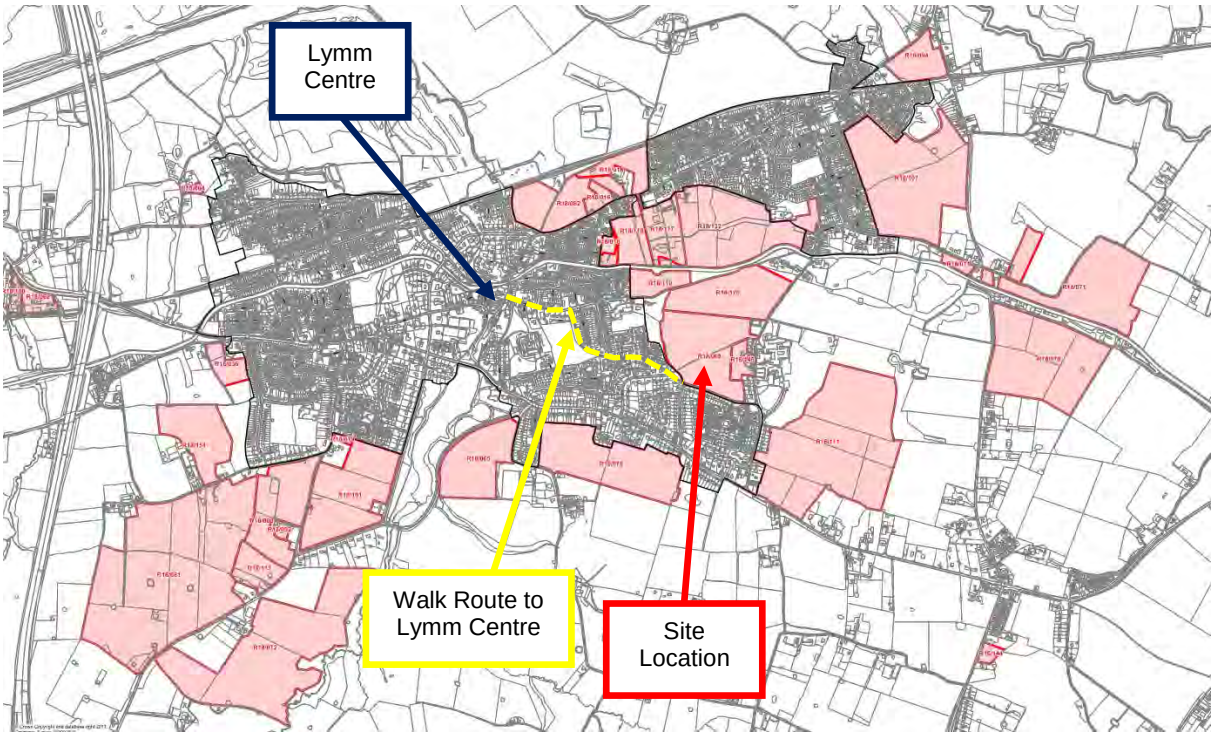

Figure 4.1 – Site's Proximity to Lymm Centre in Relation to Other Green Belt Release Candidate Sites

4.3.5 The route to the village centre is via an attractive route that is traffic-free for much of its length (via Longbutt Lane and Pepper Street).

4.3.6 Ravenbank Community Primary School is reachable within only around a 600m walking distance of the site whilst Lymm High School is situated only a short distance away from the eastern site boundary. There is also a day nursery situated immediately to the south of Lymm High School on Oughtrington Lane.

4.3.7 One of the most attractive walk routes in the area lies alongside the Bridgewater Canal, which is accessible via a path link from Oughtrington Lane to the north-east of the site. The canal tow-path provides a route towards Altrincham (and Manchester beyond) to the north-east and Stockton Heath and beyond to the west.

4.3.8 The topography of the local area is generally flat and conducive to pedestrian trips, and the area benefits from natural surveillance from the residential properties that abut all the main walk routes.

4.3.9 As mentioned earlier, it is suggested and expected that any development of the site would include for the retention and substantial upgrading of the existing Footpath 30 which runs diagonally through the site. These improvements would include widening, new surfacing, a drainage scheme and a lighting scheme to significantly enhance its attractiveness.

4.4 Accessibility by Cycle

4.4.1 In order to assist in assessing the accessibility of this site by cycle, **Plan 66027-06004** presents an 8km cycle catchment for the site. The 8km cycling distance refers to a recommendation by Cycling England in the document 'Integrating Cycling into Development Proposals' (2009).

4.4.2 The catchment extends as far as Partington and Glazebrook Railway Station in the north, Bowdon to the east, High Legh in the south and Thelwall / Grappenhall to the west.

4.4.3 There are multiple local on and off road cycle routes that surround the site, with many of the local roads being designated as 'grade 1' (i.e. the best in terms of cyclability), as shown on **Figure 4.2** below:

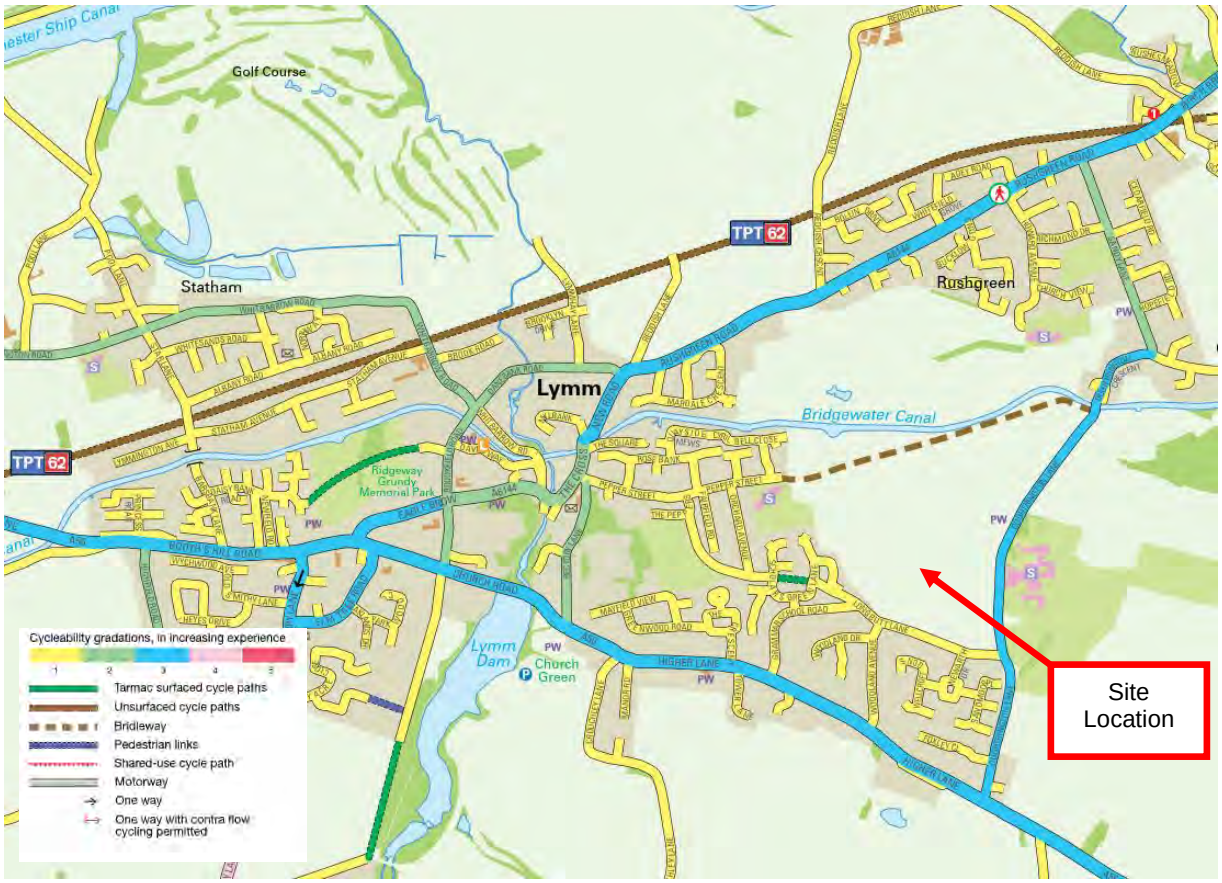

Figure 4.2 – Cycle Routes Around Site

4.4.4 **Figure 4.2** above also shows the National Cycle Route 62 passing in an east-west alignment to the north of Lymm, some 1.6km cycling distance from the centre of the site. This route provides an excellent off-road facility between south Manchester to the east and south Warrington to the west.

4.5 Accessibility by Public Transport

4.5.1 **Plan 66027-06005** demonstrates those areas accessible within a 20, 40 and 60 minute public transport journey from the site. Accessibility by bus and rail are considered in further detail within the subsections below.

Bus Accessibility

4.5.2 Guidance from the Chartered Institution of Highways and Transportation (CIHT) document 'Guidelines for Planning for Public Transport in Development' indicates that a bus stop should ideally be located within 300m of a new development but preferably no more than 400m away.

4.5.3 The potential site access onto Longbutt Lane is within around 370m walk distance (500m walk distance to the site centre) of bus stops on the A56 Higher Lane.

4.5.4 **Table 4.2** details the bus services that call at these stops and their associated frequencies:

Bus Service	Route	Peak Hourly Frequency		
		Mon – Fri	Sat	Sun/Hols
35	Warrington Interchange - Altrincham via Stockton Heath, Grappenhall, Thelwall, Statham, Lymm, Warburton (some) & Dunham Massey	60 mins	60 mins	-
191	Lymm Circular	3 services on Tue, Thu and Fri only	-	-
47	High Legh - Warrington via Lymm-Weaste Ln - Massey Brook	2 services on Tue and Fri only	-	-

Table 4.2 – Summary of Bus Service Frequencies from Chester Road

4.5.5 As shown in **Table 4.2**, the best bus service on offer to prospective residents of the site is the No. 35, which runs between Warrington and Dunham Massey.

4.5.6 Although the service presently runs every hour, there is the future potential to increase the frequency to perhaps half hourly intervals as part of a S106 Agreement planning obligation contribution from the development of the site, or as part of a pooled contribution with other Green Belt release development sites in due course.

Rail Accessibility

4.5.7 The nearest railway station is Glazebrook, some 5.5km crow-fly distance from the site.

4.5.8 Glazebrook lies on the Liverpool-Warrington-Manchester line. A summary of rail services from the station is summarised in **Table 4.3**:

Destination	Hourly Frequency		
	Mon – Fri	Sat	Sun/Hols
Liverpool Lime Street (via Warrington)	0.5 (more in peaks)	0.5 (more in peaks)	-
Manchester Oxford Road	0.5 (more in peaks)	0.5 (more in peaks)	-

Table 4.3 – Summary of Rail Services from Glazebrook Railway Station

4.6 Summary

4.6.1 It is considered the site is highly accessible by foot and cycle modes of transport and reasonably accessible by public transport. Public transport provision could however be enhanced as part of any future development of the site, which would improve the general provision not just for prospective occupiers of the development, but for everyone in Lymm.

5.0 Potential Traffic Impact

5.1 Introduction

5.1.1 This section of the report provides an estimate of the multi-modal trips that might be generated by a residential development of up to 230 dwellings on the site during the weekday AM and PM peak hours and also over a normal weekday.

5.1.2 The potential impact of the vehicular traffic that might be generated by the site's development is also discussed in this Chapter.

5.2 Trip Generation Forecasts

5.2.1 The level of trips that could be generated by a residential redevelopment of the site has been estimated through reference to average peak hour trip rates obtained from surveys of schemes of a similar size and nature from within the industry-standard TRICS Database.

5.2.2 The TRICS printouts are contained in **Appendix A** and summarised in **Table 5.1** below, along with the resultant trip forecasts:-

TRICS-Based Trip Rates						
Mode	AM (08:00 – 09:00)		PM (17:00 – 18:00)		Daily	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
Vehicles	0.107	0.309	0.310	0.175	1.934	2.055
Cyclists	0.003	0.013	0.017	0.008	0.079	0.081
Pedestrians	0.052	0.187	0.100	0.040	0.798	0.851
Public Transport	0.001	0.022	0.019	0.002	0.074	0.092
Trip Generation Forecasts						
Mode	AM (08:00 – 09:00)		PM (17:00 – 18:00)		Daily	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
Vehicles	25	71	71	40	445	473
Cyclists	1	3	4	2	18	19
Pedestrians	12	43	23	9	184	196
Public Transport	0	5	4	0	17	21

Table 5.1 – Residential Use Trip Generation – 230 Dwellings

5.3 Development Traffic Impact

General

5.3.1 As illustrated above, a scheme of 230 residential dwellings on the site might be expected to generate in the order of 96 to 111 two-way vehicle trips in each weekday peak hour.

5.3.2 Volumetrically, this equates to an additional vehicle movement every 30 to 40 seconds or so, on average, during the worst case peak hour periods.

5.3.3 Seen in this context, this is not considered to be a particularly onerous level of traffic.

Wider Highway Network Impact

5.3.4 Setting aside the localised and short-lived congestion issues that are known to occur around Lymm High School (discussed more in the following sub-section), it is understood that there are no significant or 'severe' pre-existing congestion issues on the wider primary road network around Lymm, including the A56 corridor.

5.3.5 The online Google Maps Traffic resource has been interrogated to check typical speeds through the primary road network in Lymm. The snapshots below on **Figures 5.1 and 5.2** illustrate the speed at which traffic typically moves through the network during the weekday (in this case a Tuesday) AM and PM peak hours:

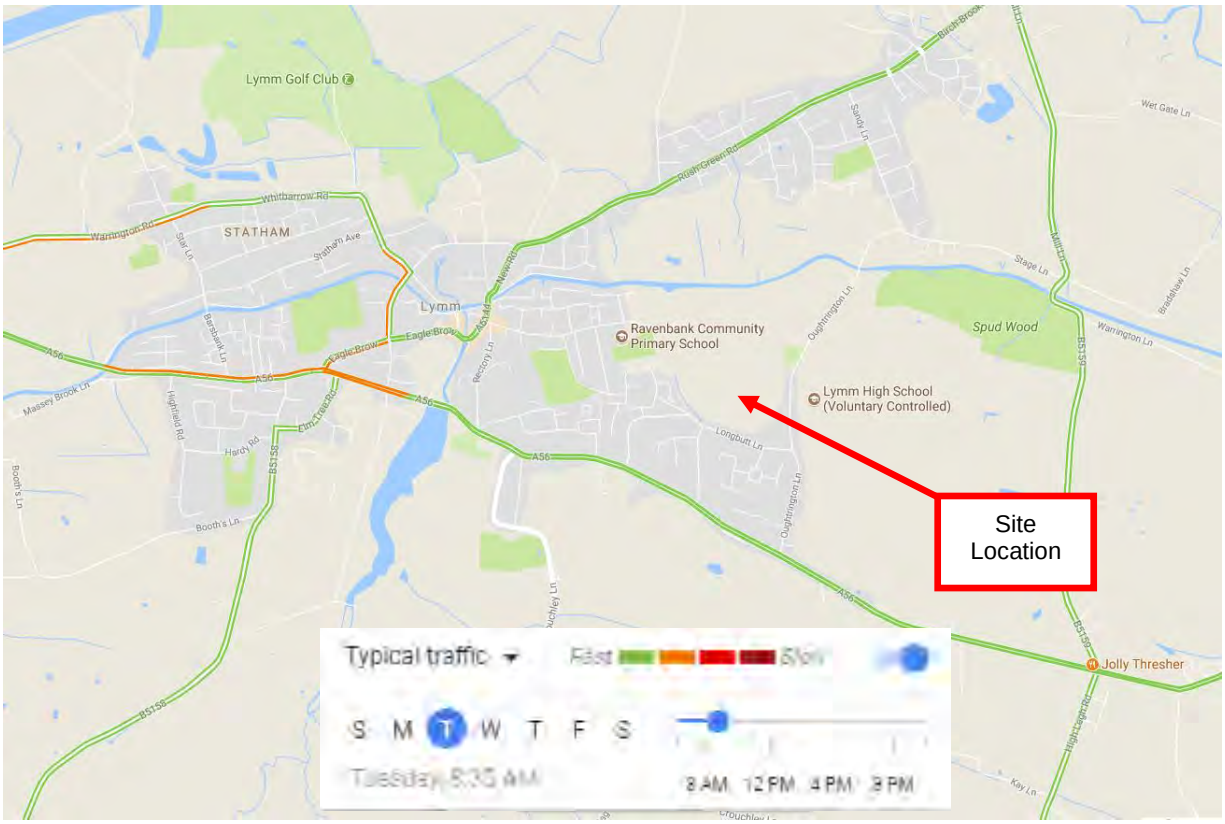

Figure 5.1 – AM Peak Hour Traffic Speeds Around Lymm (*source: Google Maps Traffic Resource)*

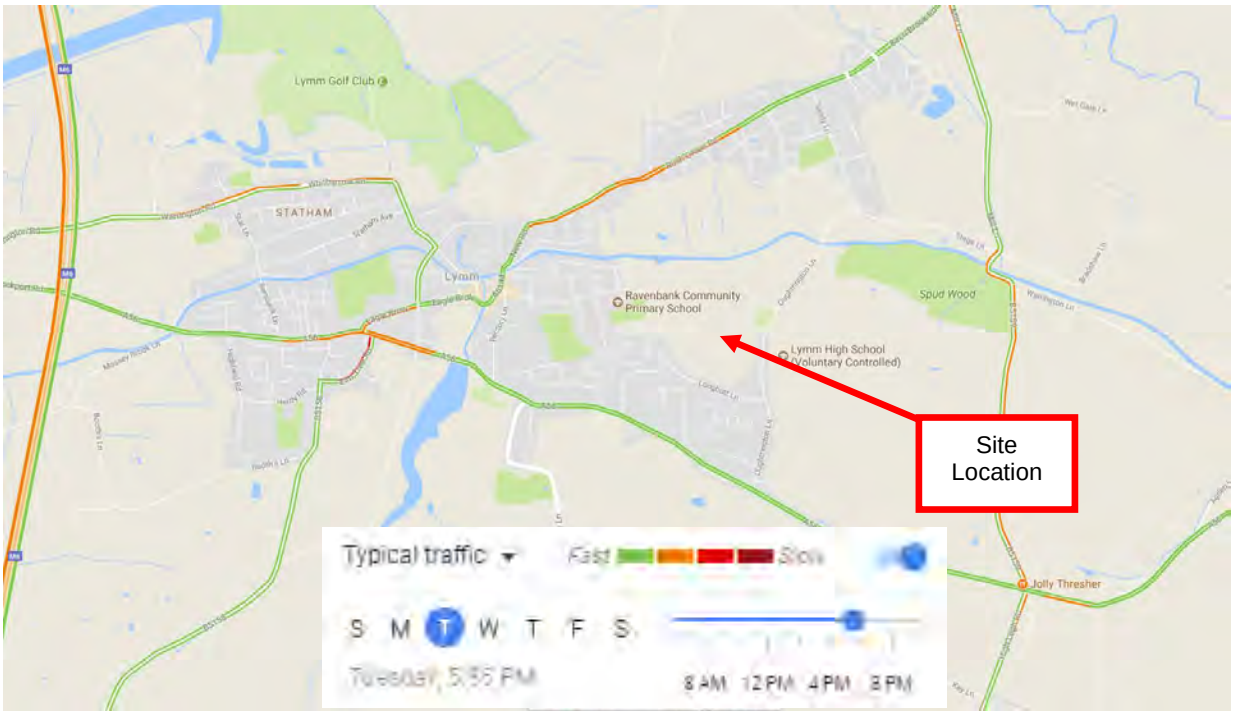

Figure 5.2 – PM Peak Hour Traffic Speeds Around Lymm (*source: Google Maps Traffic Resource)*

5.3.6 This analysis demonstrates that traffic is able to move through the local network more or less uninterrupted (i.e. green-coloured) at or around the prevailing speed limits, apart from some slowing around the Elm Tree Road / Eagle Brow junctions with the A56.

5.3.7 This is also reflected in WBC's *"Warrington Transport Summary - Part 1: Overview"* document, which does not indicate that any particular improvements are required in the area of Lymm to help bring forward the planned housing growth in the Borough.

5.3.8 This high-level assessment therefore points strongly towards the fact that there is sufficient capacity within the wider highway network around Lymm to accommodate the additional traffic demand that would be generated by the release of Green Belt land for housing, including at the site in question.

5.3.9 It is therefore considered that no wider off-site junction improvements are likely to be necessary to mitigate against the impact of the allocation and development of the site, however this would be tested in detail as part of any Transport Assessment report that would be necessary to accompany any planning application in due course and as part of WBC's multi-modal transport model assessments.

Local Highway Network Impact

5.3.10 In terms of the localised network around the site, and as identified earlier in this report, there are some issues experienced around Lymm High School during pick-up / drop-off times at near the St Peter's Church.

5.3.11 Given that the access strategy Options presented earlier propose that a main point of access is situated to the south-west of the site near Woodland Avenue, Woodlands Avenue would therefore be the most logical and convenient route for the majority of development-related traffic to take to reach the wider network on the A56 Higher Lane. This therefore means that this traffic would route around the issues experienced on Oughtrington Lane and the eastern end of Longbutt Lane, and so would not materially exacerbate the issues there.

5.3.12 Furthermore, the access Options set out earlier in this report include a number of mitigation measures that will help significantly alleviate the pre-existing congestion issues, including the provision of off-street car parks / bus stop facilities for parents and church visitors to use, the widening of Longbutt Lane and the enhancement of Footpath 30 which runs through the site that will help encourage more walk / cycle based trips to the school.

5.3.13 If considered necessary, these measures could also be supplemented by a package of Traffic Regulation Orders funded by any development on the site which could for instance include No Waiting parking restrictions, permit schemes and the like.

6.0 Summary and Conclusions

6.1 Summary

6.1.1 Curtins has been appointed on behalf of Stamford Property Holdings to provide traffic and transport advice in relation to the potential allocation of a 10ha site to the north of Longbutt Lane, Lymm, for residential purposes. The site is identified as number **R18/068** in the recently published Call for Sites list on WBC's website.

6.1.2 For the purposes of this report, and based on the assumptions that perhaps 75% of the roughly 10 hectare site area is developable and there could be perhaps 30 dwellings per hectare, it is estimated that the site could deliver in the order of 200-230 dwellings.

6.1.3 The site is one of a number of sites around Lymm that have been indented for potential release from the Green Belt to meet the Council's growth target of 500 new dwellings around the village.

6.1.4 The site is located to the north of Longbutt Lane and to the west of Oughtrington Lane to the east of Lymm Village Centre.

6.1.5 The existing highway safety record around the site has been examined for the most-recently available 5 years' worth of accident data. The data shows that only two incidents occurred which resulted in only slight severity injuries. This is considered to be an enviable safety record.

6.1.6 Curtins visited the site recently to take measurements and observations of the network surrounding the site. Various investigations have also taken place into any potential constraints that might preclude any particular access options to the site.

6.1.7 This exercise has revealed that the only material constraint that might preclude new vehicular access points being formed into the site is a large mature sycamore tree that sits roughly in the middle of the Oughtrington Lane site frontage.

6.1.8 It is also understood that various localised but short-lived congestion issues can occur on Oughtrington Lane and the eastern end of Longbutt Lane in connection with pick-ups / drop-offs at the nearby Lymm High School, and also in connection with the St Peter's Church on weekends.

6.1.9 These factors have therefore been taken into account in the development of two access Options for the site.

6.1.10 Access Option 1 features a standard residential site access junction formed onto Longbutt Lane at the south-western part of the site and a second standard residential site access at the site frontage onto Oughtrington Lane, and so would therefore result in the need to remove the abovementioned tree. Access Option 2 puts forward an alternative strategy whereby two standard residential accesses are formed onto Longbutt Lane with a third, smaller and less substantial vehicular cul-de-sac access onto Oughtrington Lane which utilises the existing agricultural access so that the tree could be retained.

6.1.11 In both Options, Woodlands Avenue would be the most logical and convenient route for the majority of development-related traffic to take to reach the wider network on the A56 Higher Lane. This therefore means that this traffic would route around the pre-existing issues experienced on Oughtrington Lane and the eastern end of Longbutt Lane, and so would not materially exacerbate the issues there.

6.1.12 Nonetheless, both access Options include a number of mitigation measures that will help significantly alleviate the pre-existing congestion issues, including the provision of off-street car parks / bus stop facilities for parents and church visitors to use, the widening of Longbutt Lane and the enhancement of Footpath 30 which runs through the site that will help encourage more walk / cycle based trips to the school.

6.1.13 If considered necessary, these measures could also be supplemented by a package of Traffic Regulation Orders funded by any development on the site which could for instance include No Waiting parking restrictions, permit schemes and the like.

6.1.14 In any event, both Options show that safe and suitable access arrangements are achievable into the site and demonstrate the significant and material added benefits that an allocation / development of the site could bring.

6.1.15 It is considered the site is highly accessible by foot and cycle modes of transport and reasonably accessible by public transport. Public transport provision could however also be enhanced as part of any future development of the site, which would improve the general provision not just for prospective occupiers of the development, but for everyone in Lymm.

6.1.16 The site is closer to Lymm Village Centre and its associated facilities than the majority of the other Green Belt release candidate sites under consideration by WBC.

6.1.17 A scheme of 230 dwellings is estimated to generate in the order of 96 to 111 two-way vehicle trips in each weekday peak hour. Volumetrically, this equates to an additional vehicle movement every 30 to 40 seconds or so, on average, during the worst case peak hour periods. Seen in this context, this is not considered to be a particularly onerous level of traffic.

6.1.18 Setting aside the localised and short-lived congestion issues that are known to occur around Lymm High School (discussed above), it is understood that there are no significant or 'severe' pre-existing congestion issues on the primary road network around Lymm, including the A56 corridor. This has been checked with reference to typical weekday peak hour traffic speed through Lymm and WBC's own 'Transport Summary' and 'Preferred Development Option Regulation 18' reports published recently as part of the evidence base for the emerging local plan.

6.1.19 This high-level assessment therefore points strongly towards the fact that there is sufficient capacity within the wider highway network around Lymm to accommodate the additional traffic demand that would be generated by the release of Green Belt land for housing, including at the site in question.

6.1.20 It is therefore considered that no wider off-site junction improvements are likely to be necessary to mitigate against the impact of the allocation and development of the site, however this would be tested in detail as part of any Transport Assessment report that would be necessary to accompany any planning application in due course and as part of WBC's multi-modal transport model assessments.

6.2 Conclusions

6.2.1 It is therefore concluded that there is an ideal opportunity with the candidate site to help deliver housing in a sustainable and suitable location close to Lymm Village Centre. There are no highway-related constraints that would preclude safe and suitable access being achieved to the site, and indeed there are a range of access options available. Furthermore, the development of the site presents an opportunity to enhance local transport infrastructure and address some of the pre-existing issues that can currently occur around Lymm High School.

6.2.2 From a highway and transport perspective, the site is therefore commended to WBC for release from the Green Belt and allocation for future housing in the emerging local plan.

Plans

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Project:
WBC SITE PROMOTIONS - LYMM

Status:
PRELIMINARY

Drg Title:
ACCESSIBILITY
INDICATIVE WALKING CATCHMENT
LONGBUTT LANE

Drawn By: JM | Checked By: LK

Designed By: JM | Date: 1708/17

Scale: NTS

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
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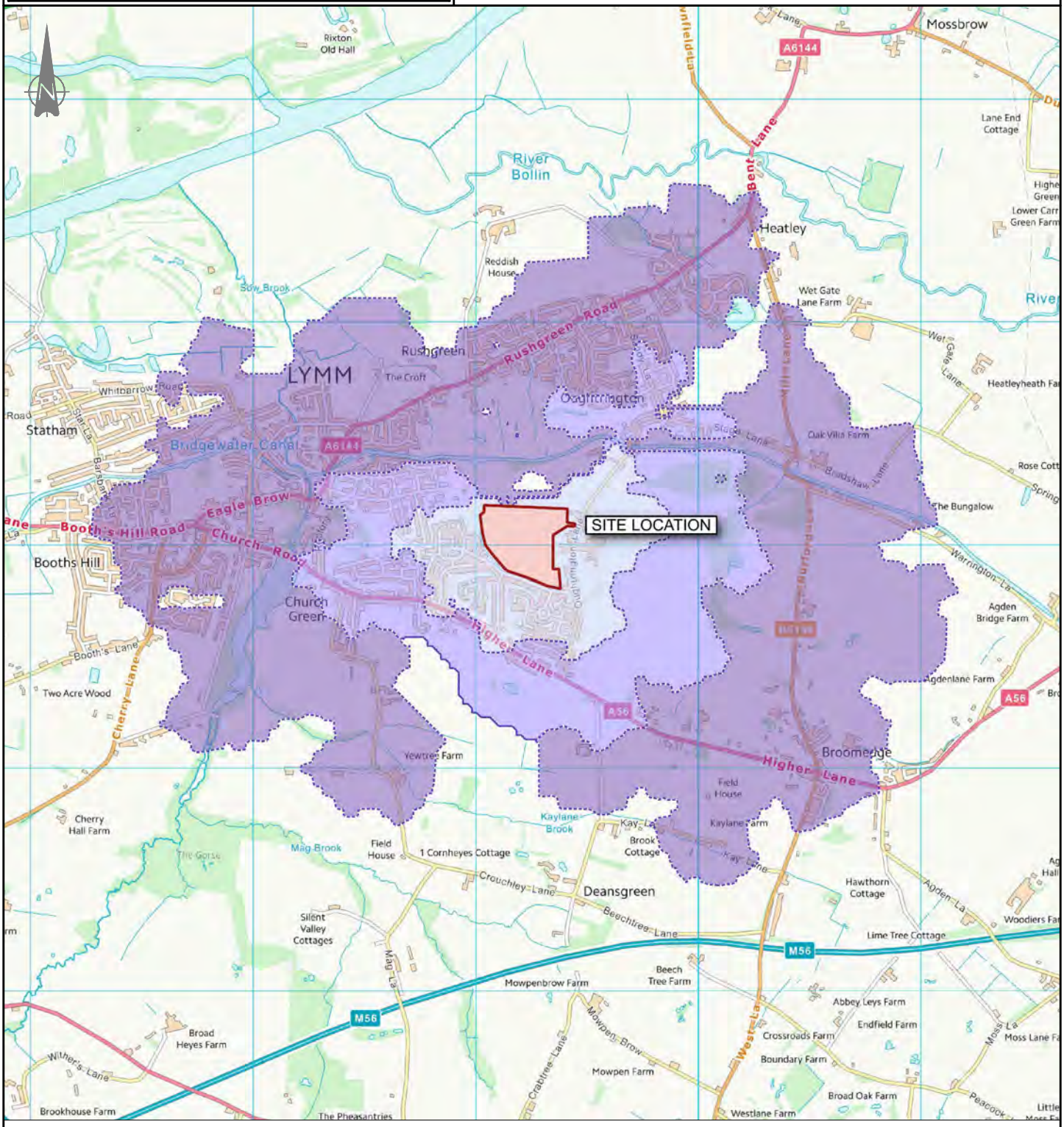

KEY:

Site

Walking Catchment:

- 2000m
- 1000m
- 500m

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Project:
WBC SITE PROMOTIONS - LYMM

Drg Title:
ACCESSIBILITY
INDICATIVE CYCLE CATCHMENT
LONGBUTT LANE

Status:
PRELIMINARY

Drawn By: JM Checked By: LK

Designed By: JM Date: 1708/17

Scale: NTS

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
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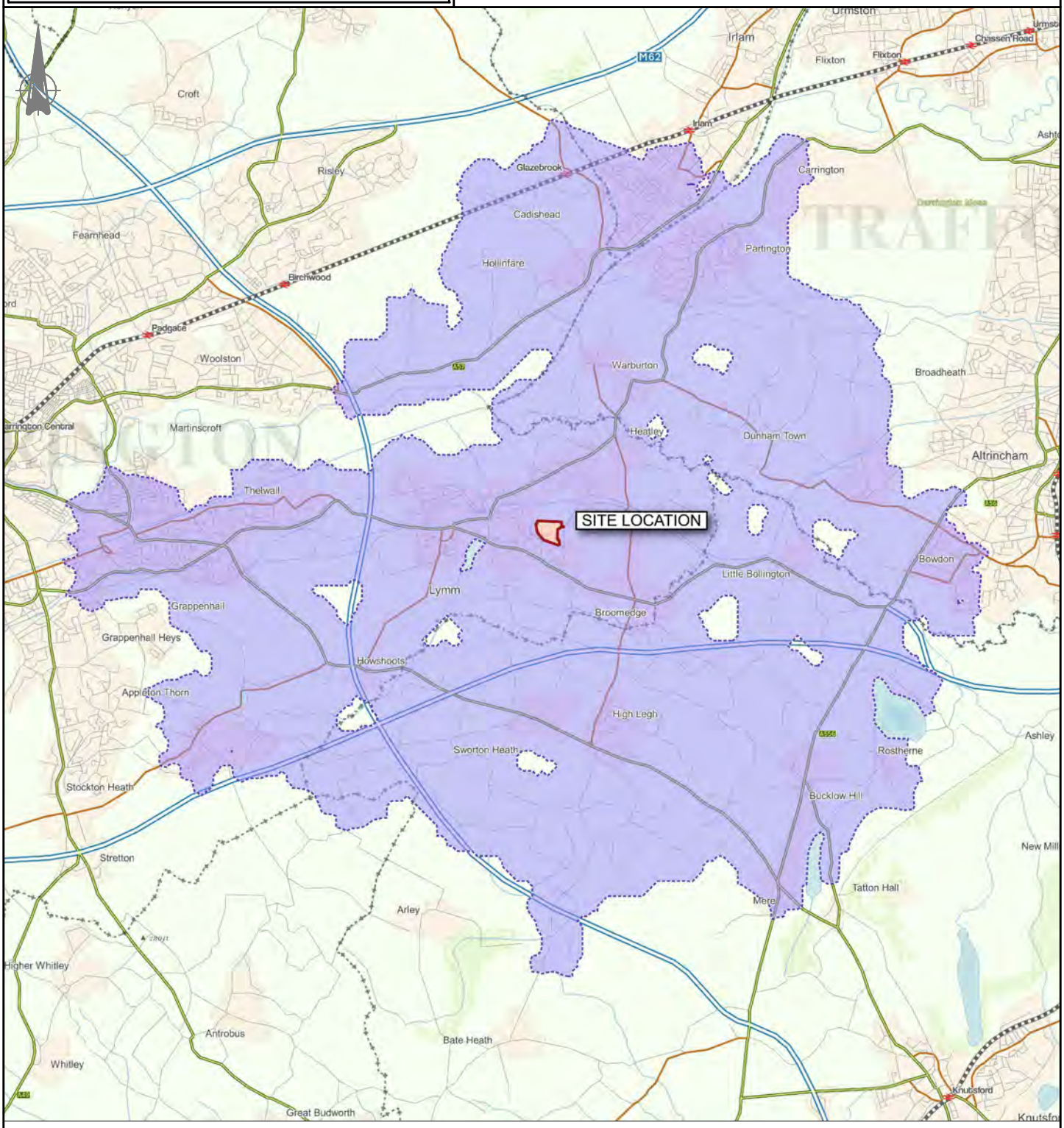

KEY:
Site
Walking Catchment:
2000m
1000m
500m

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Project:
WBC SITE PROMOTIONS - LYMM

Status:
PRELIMINARY

Drg Title:
ACCESSIBILITY
INDICATIVE PUBLIC TRANSPORT CATCHMENT - LONGBUTT LANE

Drawn By: JM | Checked By: LK

Designed By: JM | Date: 17/08/17

Scale: NTS

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
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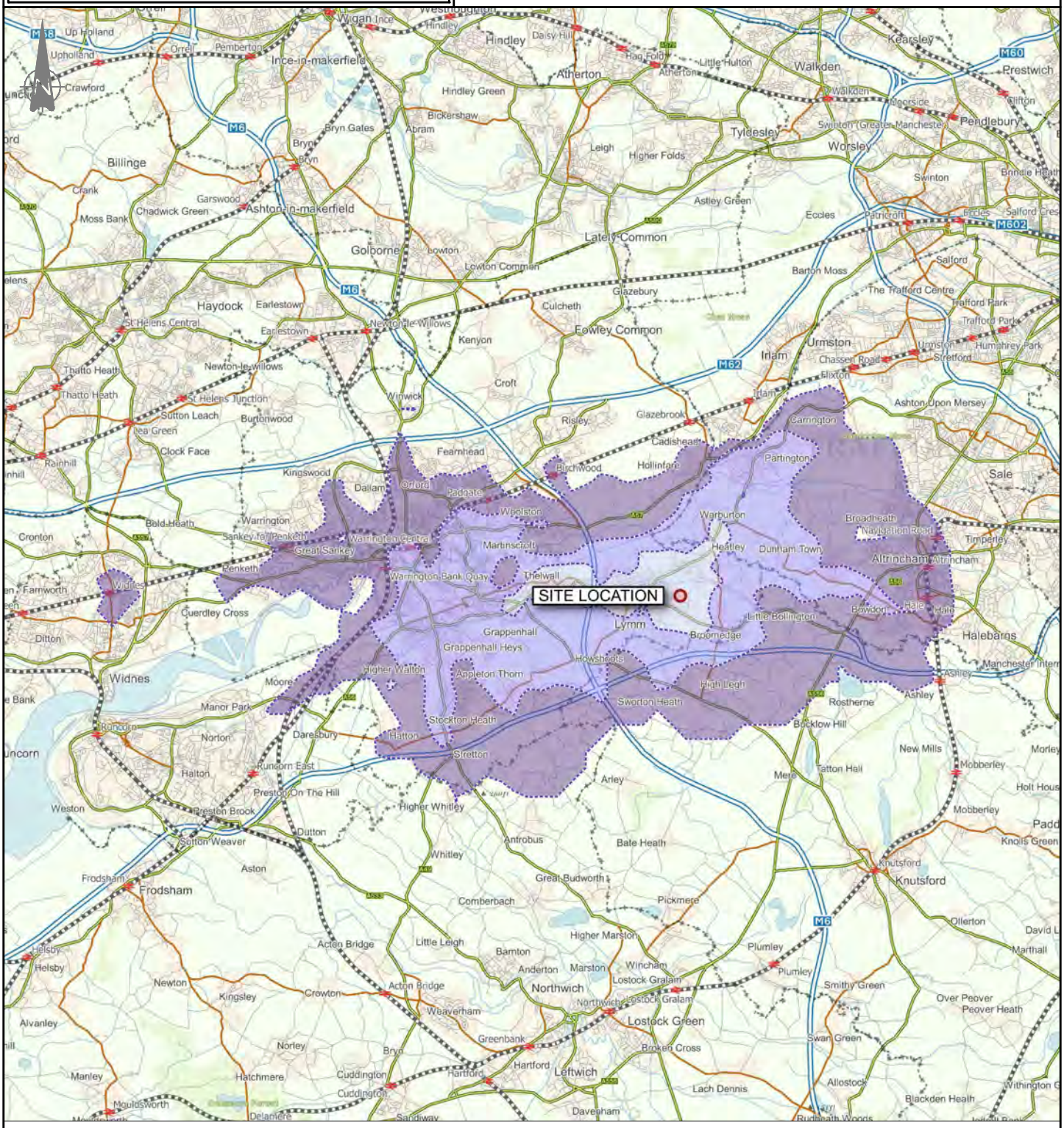

KEY:

Site

Public Transport Catchment:

- 60 minutes
- 40 minutes
- 20 minutes

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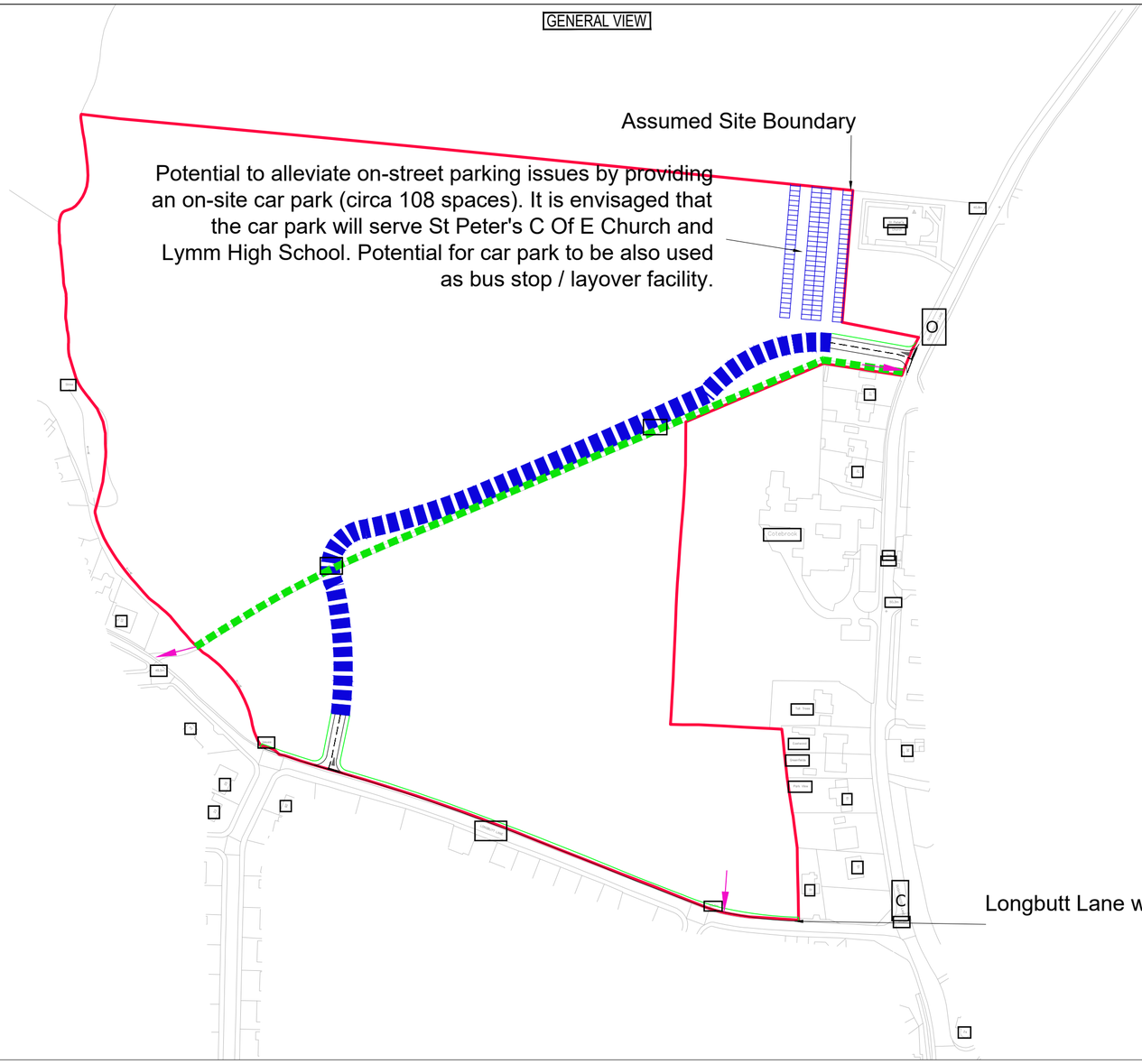
Drawings

GENERAL VIEW



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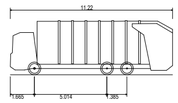
Note - the base Ordnance Survey mapping along the frontage of the site to Oughtrington Lane has been manually adjusted to ensure greater accuracy, having regard to measurements taken on site by Curtins

VEHICLE PROFILE:

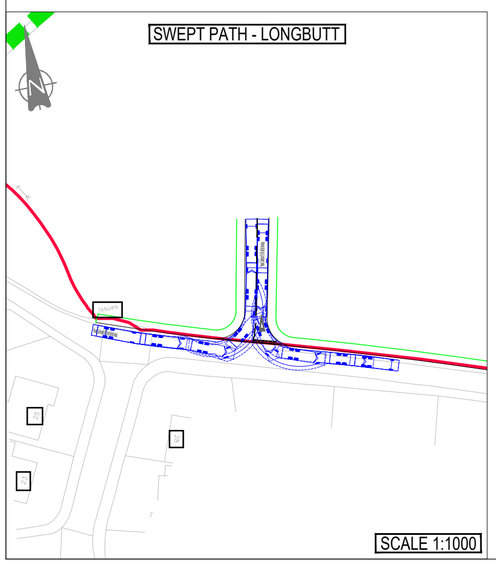


Phoenix 2 Duo Recycler (P2-15W with Elite 6x4 chassis)	
Overall Length	11.220m
Overall Width	2.530m
Overall Body Height	3.756m
Min Body Ground Clearance	0.309m
Track Width	2.530m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	11.550m

KEY:

- PROPOSED KERB LINE
- PROPOSED FOOTWAY
- PROPOSED ROAD MARKINGS
- SITE BOUNDARY
- PROPOSED VISIBILITY SPLAYS (ADJUSTED TO BONNET LENGTH)
- INDICATIVE ALIGNMENT OF POTENTIAL SPINE ROAD LINKING SITE ACCESSES
- EXISTING FOOTPATH 30 ROUTE UPGRADED TO FEATURE:
  1) 3.5m WIDTH FOR FOOT/CYCLE USAGE
  2) NEW SURFACING / LANDSCAPING
  3) DRAINAGE FACILITIES
  4) LIGHTING
- PEDESTRIAN/ CYCLE ACCESS LOCATION

SWEPT PATH - LONGBUTT



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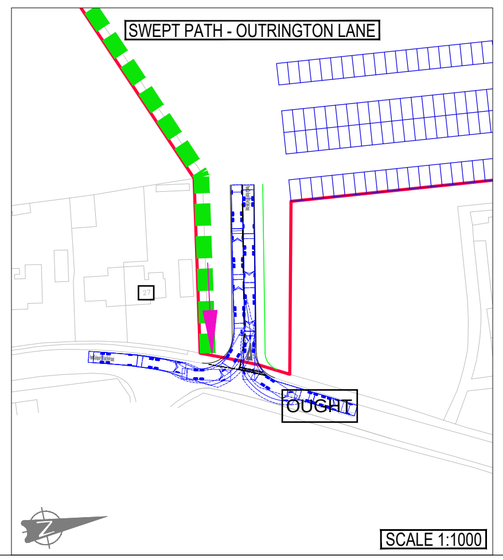
SWEPT PATH - OUTRINGTON LANE



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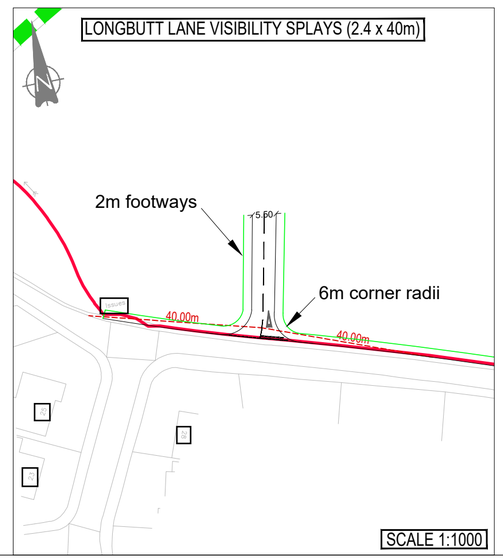
LONGBUTT LANE VISIBILITY SPLAYS (2.4 x 40m)



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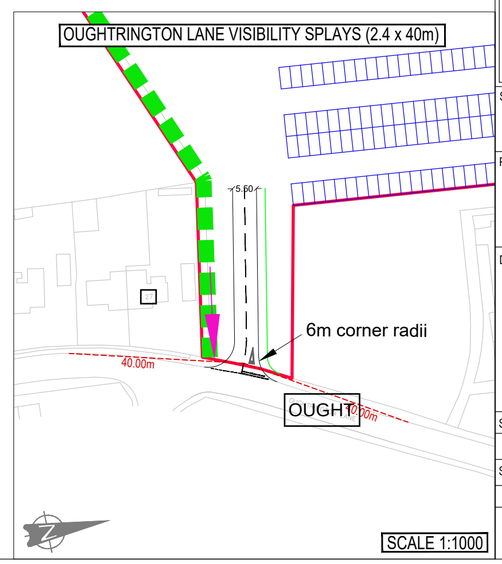
OUGHTRINGTON LANE VISIBILITY SPLAYS (2.4 x 40m)



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Rev:	Description:	Date:	By:	Chkd:

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Status:

PRELIMINARY

Project:

LAND OFF LONGBUTT LANE. LYMM

Drg Title:

POTENTIAL SITE ACCESS STRATEGY OPTION 1

Size:	Date:	Drawn By:	Designed By:	Checked By:
A2	18/08/17	JM	JM	LK
Scale: AS INDICATED				

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
66027	CUR	00	XX	DR	TP	05001	P01

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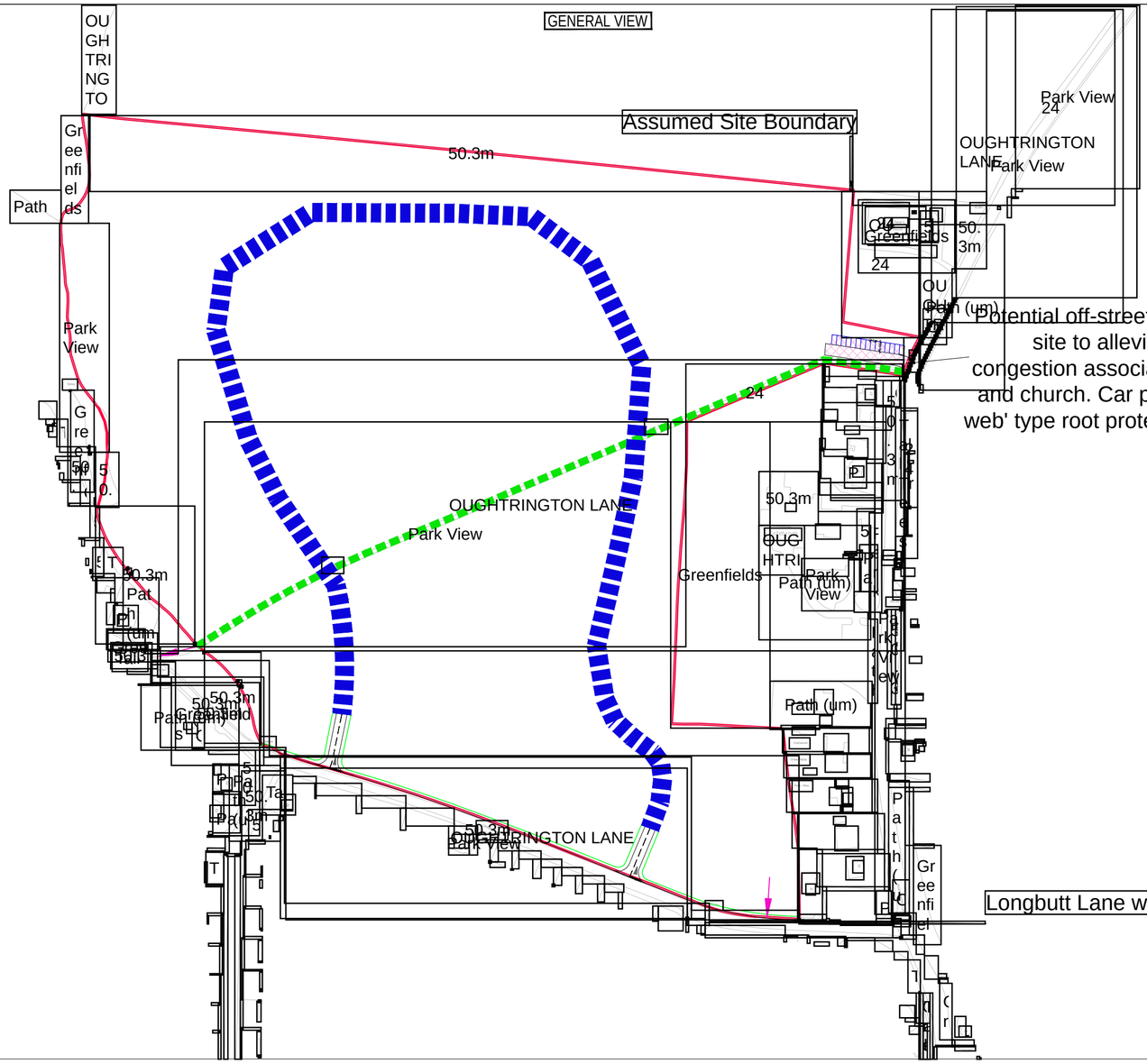
GENERAL VIEW



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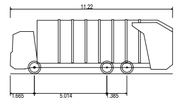

Phoenix 2 Duo Recycler (P2-15W with Elite 6x4 chassis)

Overall Length	11.220m
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- PROPOSED FOOTWAY
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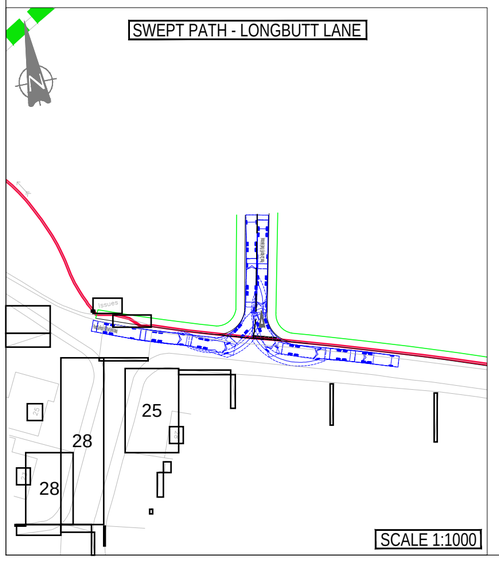
  3) DRAINAGE FACILITIES
  4) LIGHTING
- PEDESTRIAN/ CYCLE ACCESS LOCATION

SWEPT PATH - LONGBUTT LANE



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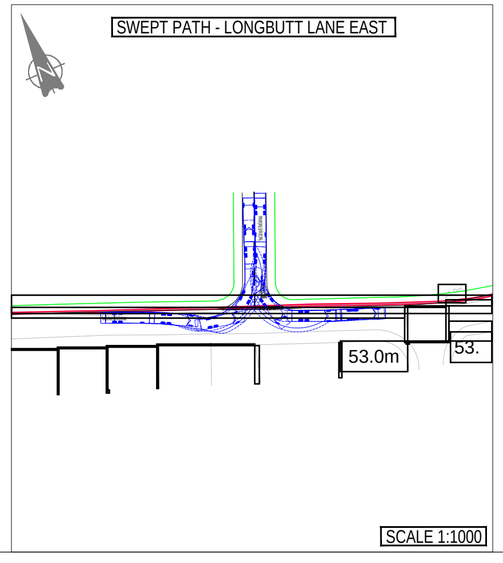
SWEPT PATH - LONGBUTT LANE EAST



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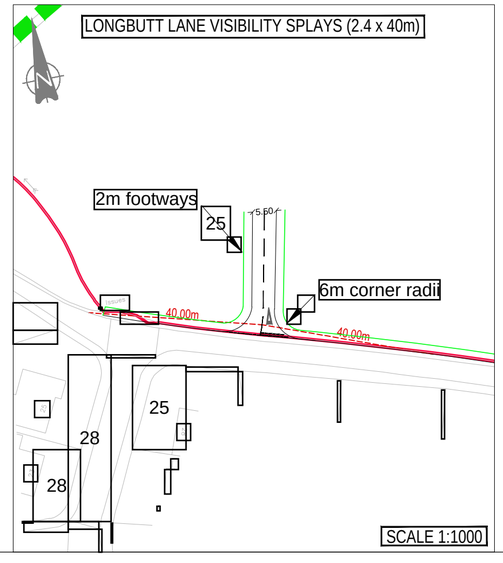
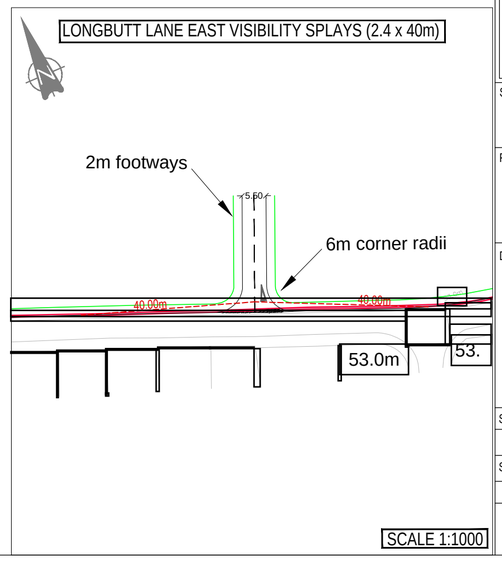
LONGBUTT LANE VISIBILITY SPLAYS (2.4 x 40m)



SCALE 1:1000

LONGBUTT LANE EAST VISIBILITY SPLAYS (2.4 x 40m)



SCALE 1:1000

Rev:	Description:	Date:	By:	Chkd:

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Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Status:

PRELIMINARY

Project:

LAND OFF LONGBUTT LANE. LYMM

Drg Title:

POTENTIAL SITE ACCESS STRATEGY OPTION 2

Size:	Date:	Drawn By:	Designed By:	Checked By:
A2	18/08/17	JM	JM	LK

Scale: AS INDICATED

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
66027	CUR	00	XX	DR	TP	05002	P01

\\mafs01\Projects\066001 - 067000\066027 - WBC Local Plan Site Promotions, Lymm\QMS 4 Production\4B Models & Drawings_Transport-Z\CAD\05\

Appendix A – TRICS Printouts

Calculation Reference: AUDIT-148301-170817-0811

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
03	SOUTH WEST		
	DV	DEVON	2 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
05	EAST MIDLANDS		
	NR	NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	2 days
	SY	SOUTH YORKSHIRE	1 days
09	NORTH		
	DH	DURHAM	1 days
11	SCOTLAND		
	FA	FALKIRK	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 50 to 161 (units:)
Range Selected by User: 50 to 600 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/09 to 28/03/17

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	3 days
Tuesday	2 days
Wednesday	2 days
Thursday	1 days
Friday	2 days
Saturday	1 days

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

Selected survey types:

Manual count	11 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	11

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	11 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	3 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
20,001 to 25,000	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	9 days

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

Travel Plan:

Yes	1 days
No	10 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	11 days

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

LIST OF SITES relevant to selection parameters

1 DH-03-A-01 SEMI DETACHED DURHAM
GREENFIELDS ROAD

BISHOP AUCKLAND
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 50
Survey date: TUESDAY *28/03/17* *Survey Type: MANUAL*

2 DV-03-A-02 HOUSES & BUNGALOWS DEVON
MILLHEAD ROAD

HONITON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 116
Survey date: FRIDAY *25/09/15* *Survey Type: MANUAL*

3 DV-03-A-03 TERRACED & SEMI DETACHED DEVON
LOWER BRAND LANE

HONITON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 70
Survey date: MONDAY *28/09/15* *Survey Type: MANUAL*

4 FA-03-A-02 MIXED HOUSES FALKIRK
ROSEBANK AVENUE & SPRINGFIELD DRIVE

FALKIRK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 161
Survey date: WEDNESDAY *29/05/13* *Survey Type: MANUAL*

5 HC-03-A-18 HOUSES & FLATS HAMPSHIRE
CANADA WAY

LIPHOOK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 62
Survey date: TUESDAY *29/11/16* *Survey Type: MANUAL*

6 NF-03-A-02 HOUSES & FLATS NORFOLK
DEREHAM ROAD

NORWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 98
Survey date: MONDAY *22/10/12* *Survey Type: MANUAL*

7 NR-03-A-01 HOUSES NORTHAMPTONSHIRE
BOUGHTON GREEN ROAD
KINGSTHORPE
NORTHAMPTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 102
Survey date: SATURDAY *22/09/12* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

8 NY-03-A-06 BUNGALOWS & SEMI DET. NORTH YORKSHIRE
HORSEFAIR

BOROUGHBRIDGE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 115
Survey date: FRIDAY *14/10/11* *Survey Type: MANUAL*

9 NY-03-A-09 MIXED HOUSING NORTH YORKSHIRE
GRAMMAR SCHOOL LANE

NORTHALLERTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 52
Survey date: MONDAY *16/09/13* *Survey Type: MANUAL*

10 SH-03-A-04 TERRACED SHROPSHIRE
ST MICHAEL'S STREET

SHREWSBURY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 108
Survey date: THURSDAY *11/06/09* *Survey Type: MANUAL*

11 SY-03-A-01 SEMI DETACHED HOUSES SOUTH YORKSHIRE
A19 BENTLEY ROAD
BENTLEY RISE
DONCASTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 54
Survey date: WEDNESDAY *18/09/13* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.051	11	90	0.234	11	90	0.285
08:00 - 09:00	11	90	0.107	11	90	0.309	11	90	0.416
09:00 - 10:00	11	90	0.141	11	90	0.153	11	90	0.294
10:00 - 11:00	11	90	0.130	11	90	0.164	11	90	0.294
11:00 - 12:00	11	90	0.118	11	90	0.145	11	90	0.263
12:00 - 13:00	11	90	0.165	11	90	0.148	11	90	0.313
13:00 - 14:00	11	90	0.159	11	90	0.152	11	90	0.311
14:00 - 15:00	11	90	0.126	11	90	0.158	11	90	0.284
15:00 - 16:00	11	90	0.203	11	90	0.129	11	90	0.332
16:00 - 17:00	11	90	0.231	11	90	0.149	11	90	0.380
17:00 - 18:00	11	90	0.310	11	90	0.175	11	90	0.485
18:00 - 19:00	11	90	0.193	11	90	0.139	11	90	0.332
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.934			2.055			3.989

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.000	11	90	0.000	11	90	0.000
08:00 - 09:00	11	90	0.001	11	90	0.002	11	90	0.003
09:00 - 10:00	11	90	0.006	11	90	0.004	11	90	0.010
10:00 - 11:00	11	90	0.002	11	90	0.002	11	90	0.004
11:00 - 12:00	11	90	0.001	11	90	0.001	11	90	0.002
12:00 - 13:00	11	90	0.003	11	90	0.003	11	90	0.006
13:00 - 14:00	11	90	0.002	11	90	0.002	11	90	0.004
14:00 - 15:00	11	90	0.001	11	90	0.001	11	90	0.002
15:00 - 16:00	11	90	0.003	11	90	0.002	11	90	0.005
16:00 - 17:00	11	90	0.003	11	90	0.005	11	90	0.008
17:00 - 18:00	11	90	0.004	11	90	0.003	11	90	0.007
18:00 - 19:00	11	90	0.001	11	90	0.002	11	90	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.027			0.027			0.054

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.000	11	90	0.000	11	90	0.000
08:00 - 09:00	11	90	0.002	11	90	0.001	11	90	0.003
09:00 - 10:00	11	90	0.001	11	90	0.002	11	90	0.003
10:00 - 11:00	11	90	0.002	11	90	0.000	11	90	0.002
11:00 - 12:00	11	90	0.002	11	90	0.002	11	90	0.004
12:00 - 13:00	11	90	0.003	11	90	0.001	11	90	0.004
13:00 - 14:00	11	90	0.003	11	90	0.005	11	90	0.008
14:00 - 15:00	11	90	0.001	11	90	0.002	11	90	0.003
15:00 - 16:00	11	90	0.001	11	90	0.002	11	90	0.003
16:00 - 17:00	11	90	0.000	11	90	0.000	11	90	0.000
17:00 - 18:00	11	90	0.001	11	90	0.001	11	90	0.002
18:00 - 19:00	11	90	0.001	11	90	0.001	11	90	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.017			0.017			0.034

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.000	11	90	0.000	11	90	0.000
08:00 - 09:00	11	90	0.000	11	90	0.000	11	90	0.000
09:00 - 10:00	11	90	0.000	11	90	0.000	11	90	0.000
10:00 - 11:00	11	90	0.000	11	90	0.000	11	90	0.000
11:00 - 12:00	11	90	0.000	11	90	0.000	11	90	0.000
12:00 - 13:00	11	90	0.000	11	90	0.000	11	90	0.000
13:00 - 14:00	11	90	0.000	11	90	0.000	11	90	0.000
14:00 - 15:00	11	90	0.000	11	90	0.000	11	90	0.000
15:00 - 16:00	11	90	0.000	11	90	0.000	11	90	0.000
16:00 - 17:00	11	90	0.000	11	90	0.000	11	90	0.000
17:00 - 18:00	11	90	0.000	11	90	0.000	11	90	0.000
18:00 - 19:00	11	90	0.000	11	90	0.000	11	90	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.001	11	90	0.014	11	90	0.015
08:00 - 09:00	11	90	0.003	11	90	0.013	11	90	0.016
09:00 - 10:00	11	90	0.001	11	90	0.008	11	90	0.009
10:00 - 11:00	11	90	0.005	11	90	0.005	11	90	0.010
11:00 - 12:00	11	90	0.004	11	90	0.004	11	90	0.008
12:00 - 13:00	11	90	0.005	11	90	0.007	11	90	0.012
13:00 - 14:00	11	90	0.003	11	90	0.002	11	90	0.005
14:00 - 15:00	11	90	0.004	11	90	0.008	11	90	0.012
15:00 - 16:00	11	90	0.013	11	90	0.004	11	90	0.017
16:00 - 17:00	11	90	0.010	11	90	0.004	11	90	0.014
17:00 - 18:00	11	90	0.017	11	90	0.008	11	90	0.025
18:00 - 19:00	11	90	0.013	11	90	0.004	11	90	0.017
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.079			0.081			0.160

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.068	11	90	0.270	11	90	0.338
08:00 - 09:00	11	90	0.131	11	90	0.423	11	90	0.554
09:00 - 10:00	11	90	0.162	11	90	0.197	11	90	0.359
10:00 - 11:00	11	90	0.166	11	90	0.215	11	90	0.381
11:00 - 12:00	11	90	0.150	11	90	0.199	11	90	0.349
12:00 - 13:00	11	90	0.207	11	90	0.189	11	90	0.396
13:00 - 14:00	11	90	0.215	11	90	0.212	11	90	0.427
14:00 - 15:00	11	90	0.161	11	90	0.218	11	90	0.379
15:00 - 16:00	11	90	0.315	11	90	0.163	11	90	0.478
16:00 - 17:00	11	90	0.311	11	90	0.215	11	90	0.526
17:00 - 18:00	11	90	0.418	11	90	0.232	11	90	0.650
18:00 - 19:00	11	90	0.259	11	90	0.199	11	90	0.458
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.563			2.732			5.295

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.022	11	90	0.075	11	90	0.097
08:00 - 09:00	11	90	0.052	11	90	0.187	11	90	0.239
09:00 - 10:00	11	90	0.064	11	90	0.074	11	90	0.138
10:00 - 11:00	11	90	0.060	11	90	0.068	11	90	0.128
11:00 - 12:00	11	90	0.039	11	90	0.044	11	90	0.083
12:00 - 13:00	11	90	0.065	11	90	0.041	11	90	0.106
13:00 - 14:00	11	90	0.036	11	90	0.065	11	90	0.101
14:00 - 15:00	11	90	0.045	11	90	0.058	11	90	0.103
15:00 - 16:00	11	90	0.141	11	90	0.088	11	90	0.229
16:00 - 17:00	11	90	0.120	11	90	0.064	11	90	0.184
17:00 - 18:00	11	90	0.100	11	90	0.040	11	90	0.140
18:00 - 19:00	11	90	0.054	11	90	0.047	11	90	0.101
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.798			0.851			1.649

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.001	11	90	0.008	11	90	0.009
08:00 - 09:00	11	90	0.001	11	90	0.018	11	90	0.019
09:00 - 10:00	11	90	0.000	11	90	0.005	11	90	0.005
10:00 - 11:00	11	90	0.002	11	90	0.005	11	90	0.007
11:00 - 12:00	11	90	0.002	11	90	0.002	11	90	0.004
12:00 - 13:00	11	90	0.004	11	90	0.009	11	90	0.013
13:00 - 14:00	11	90	0.004	11	90	0.001	11	90	0.005
14:00 - 15:00	11	90	0.003	11	90	0.004	11	90	0.007
15:00 - 16:00	11	90	0.006	11	90	0.006	11	90	0.012
16:00 - 17:00	11	90	0.009	11	90	0.004	11	90	0.013
17:00 - 18:00	11	90	0.013	11	90	0.002	11	90	0.015
18:00 - 19:00	11	90	0.012	11	90	0.000	11	90	0.012
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.057			0.064			0.121

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.000	11	90	0.014	11	90	0.014
08:00 - 09:00	11	90	0.000	11	90	0.004	11	90	0.004
09:00 - 10:00	11	90	0.000	11	90	0.002	11	90	0.002
10:00 - 11:00	11	90	0.000	11	90	0.001	11	90	0.001
11:00 - 12:00	11	90	0.000	11	90	0.001	11	90	0.001
12:00 - 13:00	11	90	0.000	11	90	0.001	11	90	0.001
13:00 - 14:00	11	90	0.000	11	90	0.000	11	90	0.000
14:00 - 15:00	11	90	0.001	11	90	0.001	11	90	0.002
15:00 - 16:00	11	90	0.000	11	90	0.003	11	90	0.003
16:00 - 17:00	11	90	0.001	11	90	0.000	11	90	0.001
17:00 - 18:00	11	90	0.006	11	90	0.000	11	90	0.006
18:00 - 19:00	11	90	0.009	11	90	0.001	11	90	0.010
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.017			0.028			0.045

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL COACH PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.000	11	90	0.000	11	90	0.000
08:00 - 09:00	11	90	0.000	11	90	0.000	11	90	0.000
09:00 - 10:00	11	90	0.000	11	90	0.000	11	90	0.000
10:00 - 11:00	11	90	0.000	11	90	0.000	11	90	0.000
11:00 - 12:00	11	90	0.000	11	90	0.000	11	90	0.000
12:00 - 13:00	11	90	0.000	11	90	0.000	11	90	0.000
13:00 - 14:00	11	90	0.000	11	90	0.000	11	90	0.000
14:00 - 15:00	11	90	0.000	11	90	0.000	11	90	0.000
15:00 - 16:00	11	90	0.000	11	90	0.000	11	90	0.000
16:00 - 17:00	11	90	0.000	11	90	0.000	11	90	0.000
17:00 - 18:00	11	90	0.000	11	90	0.000	11	90	0.000
18:00 - 19:00	11	90	0.000	11	90	0.000	11	90	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.001	11	90	0.022	11	90	0.023
08:00 - 09:00	11	90	0.001	11	90	0.022	11	90	0.023
09:00 - 10:00	11	90	0.000	11	90	0.007	11	90	0.007
10:00 - 11:00	11	90	0.002	11	90	0.006	11	90	0.008
11:00 - 12:00	11	90	0.002	11	90	0.003	11	90	0.005
12:00 - 13:00	11	90	0.004	11	90	0.010	11	90	0.014
13:00 - 14:00	11	90	0.004	11	90	0.001	11	90	0.005
14:00 - 15:00	11	90	0.004	11	90	0.005	11	90	0.009
15:00 - 16:00	11	90	0.006	11	90	0.009	11	90	0.015
16:00 - 17:00	11	90	0.010	11	90	0.004	11	90	0.014
17:00 - 18:00	11	90	0.019	11	90	0.002	11	90	0.021
18:00 - 19:00	11	90	0.021	11	90	0.001	11	90	0.022
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.074			0.092			0.166

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	90	0.092	11	90	0.382	11	90	0.474
08:00 - 09:00	11	90	0.186	11	90	0.646	11	90	0.832
09:00 - 10:00	11	90	0.227	11	90	0.286	11	90	0.513
10:00 - 11:00	11	90	0.233	11	90	0.294	11	90	0.527
11:00 - 12:00	11	90	0.195	11	90	0.250	11	90	0.445
12:00 - 13:00	11	90	0.281	11	90	0.248	11	90	0.529
13:00 - 14:00	11	90	0.258	11	90	0.279	11	90	0.537
14:00 - 15:00	11	90	0.214	11	90	0.288	11	90	0.502
15:00 - 16:00	11	90	0.475	11	90	0.264	11	90	0.739
16:00 - 17:00	11	90	0.451	11	90	0.286	11	90	0.737
17:00 - 18:00	11	90	0.555	11	90	0.282	11	90	0.837
18:00 - 19:00	11	90	0.347	11	90	0.251	11	90	0.598
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.514			3.756			7.270

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

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

Parameter summary

Trip rate parameter range selected:	50 - 161 (units:)
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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Civic Engineers

Job Title
925-01 – Longbutt Lane, Lymm

Prepared for
Stamford Property Holdings

Report Type
Preliminary Site Constraints Report

Date
23rd August 2017

Contents

Prepared by	[redacted]
Reviewed by	
Civic Job No.	925/01
Issued	23/08/17
Revised	

1. Introduction

1.1 Purpose of Report

The following report, by Civic Engineers, is to identify any constraints to development of a greenfield site located within the Greenbelt into residential dwellings.

This report is prepared for the exclusive use of Civic Engineers and our client, Stamford Property Holdings. All comments and conclusions in this report are based upon the assumption that the sourced data is reliable. Civic Engineers accepts no liability for any inaccurate conclusions or assumptions resulting from inaccurate information.

1.2 Site Location

The subject site is located at Longbutt Lane on the outskirts of Lymm, Cheshire (Figure 1 below) and is bounded to the north by further fields, to the east by private property and grounds off Oughtrington Lane as well as St Peters Church of England, to the south by Longbutt Lane and to the south-west by a small watercourse backing onto rear gardens of private properties (figure 2 below).

A footpath is shown to bisect the site from east to west, from Oughtrington Lane between the private properties and St Peters Church, leading to Longbutt Lane to the south west at the junction with Grammar School Road.

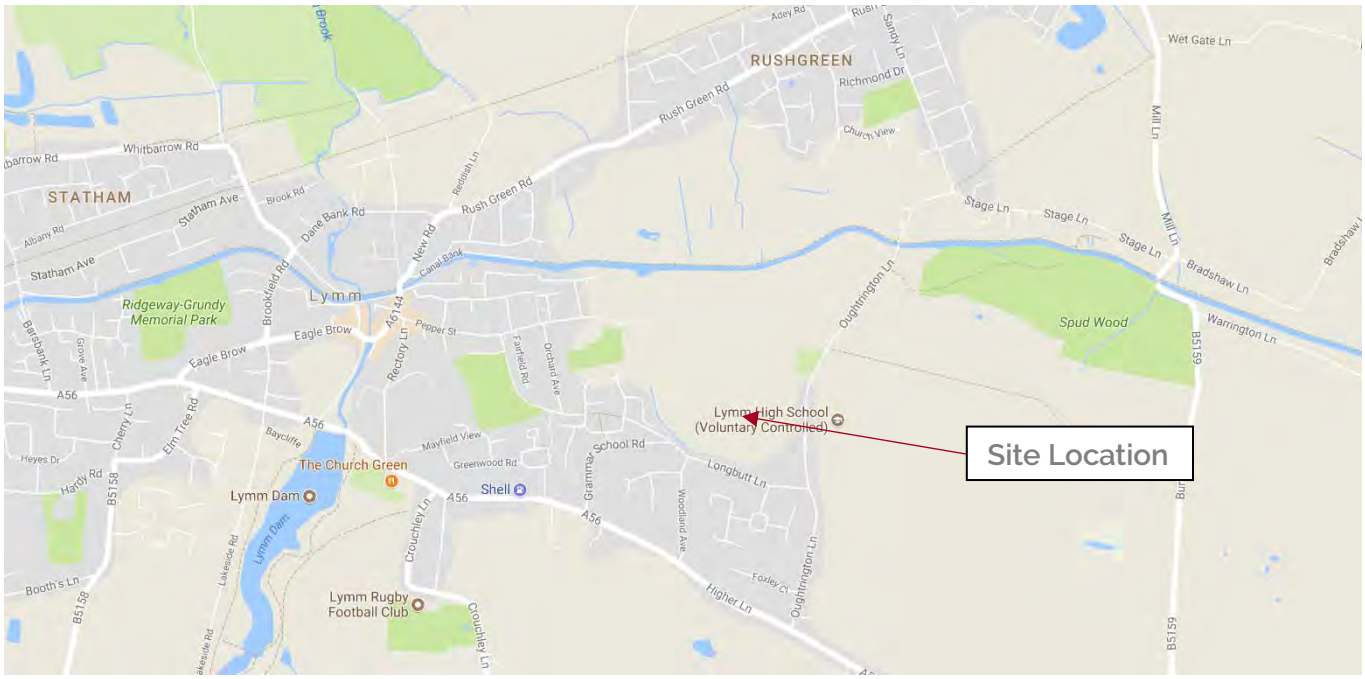

Figure 1: Site location

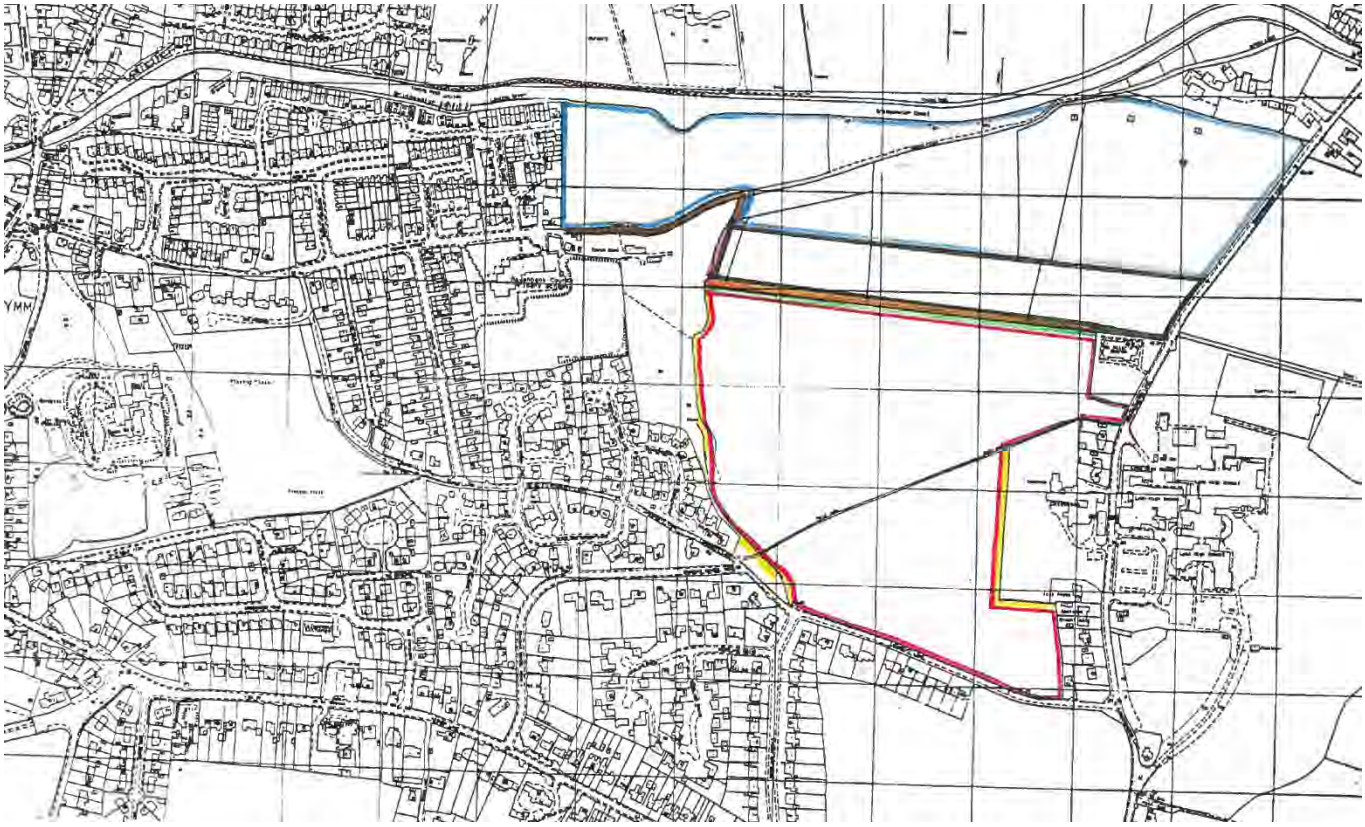

Figure 2 – Site boundary

1.3 Site History

The earliest historical map of the site is dated 1875 and shows the site to be predominantly greenfield with Oughtrington House and St Peters Church to the west boundary and Longbutt Lane to the south. A quarry is identified within the site to the west boundary. The existing footpath is shown on this earliest map bisecting the subject site, tracking from north of Oughtrington House gardens to south of the quarry. A pond is also identified to exist central within the subject site boundary, to the north of the footpath.

The 1898 map shows a similar configuration, though the quarry is noted as 'disused' at this time.

The site remains unchanged in the main until the 1937 map where the grounds to Oughtrington House in the east appear to be expanded into a rectangular configuration of a tree-lined fence boundary abutting the subject site.

Little change is shown until the 1989-1992 map whereby the quarry is no longer shown, and can be assumed to have been backfilled, along with the pond similarly no longer shown.

A aerial photograph of the site, from 2000, is available and shows the site to be used as farmland with the footpath crossing the site. There is a feint scar shown in the location of the previously identified quarry. The site appears to have remained in this configuration until present day.

2. Site Constants

2.1 Ground Water Vulnerability

The ground water vulnerability map shows the site to be located over a major and principle aquifer and is considered to fall within a 'source protection zone'.

2.2 Anticipated Ground Conditions

Interpolation of historical borehole log data in the vicinity of the site, taken from the British Geological Survey records, suggests the sites' 0.4m of top soil to be underlain by approximately 0.4m to 2.0m of stiff brown, sandy clay, which is anticipated to be underlain by 0.7m to 1.5m of dense, becoming very dense sand. The historical boreholes available terminate at a depth of 2.3m and 3.1m below ground level, though the records suggest the borehole investigation is likely to be approaching the sandstone bedrock at this depth. This is further supported by the evidence of the existence of a historic quarry within the site boundary.

An area of 'potentially infilled land' is identified within the site boundary, though this correlates to the location of the quarry as identified on the historical maps of the site. The depth of the historic quarry, and therefore infill, is not known but could be investigated further via intrusive ground investigation works.

2.3 Site Sensitivity and Soil Geochemistry

Soil geochemistry maps from the Envirocheck report estimates slightly elevated concentration values of heavy metals (arsenic, chromium and nickel), though all figures fall below the CLEA guideline value (SGV) mg/kg for residential use.

2.4 Existing Utilities Search

Findings from the utilities maps search show that gas mins, water supply mains, public sewers, BT fibre, HV electric mains and Virgin cable are all present below Longbutt Lane to the south of the proposed development site.

The utilities maps also suggest the presence of an HV electric mains and abandoned water main below the path that bisects the site.

The Unitied Utilities asset map suggests the presence of a public foul sewer encroaching on the site at the southern boundary. This appears to serve the residential development on Newarth Drive, off Longbutt Lane to the south of the site, which subsequently connects to a public combined sewer that appears to cross the site, south to north, within the site boundary to the west.

2.5 Site Flood Risk

The site location falls outside of the Environment Agency's flood risk zones (considered flood zone 1) and is therefore not prone to flooding from rivers or sea.

A small watercourse is shown to the south west of the site boundary, and shown to have a low to medium risk (100 year return) of flooding from surface water, though the extent of flooding does not appear to extend into the development site.

2.6 Coal Mining Risk

A search of the Coal Authority database has highlighted that the development site is considered in an area that is on a coalfield, though the risk of past coal mining below the site is not known at this stage.

3. Considerations for Development

3.1 Site Constraints

As outlined in section 2 of this report, a number of constraints to development exist within, or at, the site boundary.

The presence of the UU public sewers and HV electric mains crossing the site will require easements of up to 8m (4m either side of centre line of asset) to be provided for maintenance access to the buried service, and should be considered when devising the proposed plot layouts.

The public footpath crossing the site, will require to be stopped up if this is proposed to be removed.

Typically, the geology of the site would suggest shallow foundations would be suitable, though this will be subject to a detailed, intrusive, and site/development specific, ground investigation being undertaken. The historical maps suggest a quarry and small pond have been previously present on the site, and it is likely the features will pose 'soft spots' in the geology and require local deeper foundation solutions. The backfilled material to these features may also pose a local risk of contaminated material or generation of ground gases.

The Coal Authority database search has suggested the site sits within a known area of coalfield. It is recommended that a consultants report is obtained that will determine whether the site is considered to be 'at risk' of past coal mining activity.

3.2 Surface Water Drainage Strategy

The site is a greenfield site, bounded on all sides by hedges and vegetation, private gardens or public highway to the south. There is no known existing formal drainage to the site and overland surface drainage follows the existing topography of the site and is anticipated to flow to the south-west corner of the site and the adjacent existing watercourse.

The geological and historical borehole records consulted in section 2.2 of this report would suggest that infiltration/soakaway methods are not feasible means of disposal of surface water due to the presence of non-permeable strata at shallow depth.

There is a known watercourse in the immediate vicinity of the site (to the south west boundary). The site previously had a small pond central to the site, however this has subsequently been filled in overtime and is no longer visible on site.

There is no separate surface water drainage network in the vicinity of the site; the public sewer crossing the site is a combined sewer.

Based on the constraints described above it is proposed, if proven accessible, to discharge surface water run-off from the site (plot drainage, private driveways and shared surface highways) to this watercourse subject to agreement from the Environment Agency, with the remaining runoff (from

traditional highway drainage) into the combined sewer crossing the site, or below Longbutt Lane. Any new connection to the public sewer would be subject to agreement with United Utilities.

The scale and layout of any proposed development is not currently known, and therefore, it is not possible to determine discharge rates or attenuation volumes for the site. However, the drainage system and ground levels should be designed such that:

- unless an area is designed to hold and/or convey water, flooding does not occur on any part of the site for a 1 in 30-year rainfall event.

- flooding does not occur during a 1 in 100-year storm event (including 40% increase to allow for the anticipated impacts of climate change in any part of a building or in any utility plant susceptible to water (e.g. pumping station or electricity substation) within the development.

- flows resulting from rainfall in any event exceeding the 1 in 100-year rainfall event are managed in exceedance routes to minimise as far as practicable the risk of flooding to people and property both on and off site.

3.3 Foul Water Drainage Strategy

Foul drainage will discharge to the combined sewer crossing the site, or within Longbutt Lane to the south of the proposed residential development site. Point of connection will be established following CCTV investigation and is subject to agreement with United Utilities.

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925-01—Longbutt Lane, Lymm

Site Constraints Key Map

Landscape Analysis

Land at Longbutt Lane, Lymm

Stamford Property Holdings

September 2017

URBAN GREEN

Contents

1. Introduction and Scope of Assessment

1.1. This report provides a landscape and visual analysis of land north of Longbutt Lane, east of Lymm, Warrington, which is being promoted by Stamford Property Holdings for residential-led development. The site – referred to below as the 'assessment site' – is shown in Appendix 3 **Plan 1**, and is located to the east of the settlement of Lymm.

1.2. Urban Green were commissioned in August 2017 by Paul Butler Associates to undertake this landscape and visual analysis.

1.3. Prior to the field work a desk review of existing and emerging planning policy and landscape character guidance relevant to the assessment site and surrounding area was undertaken. This report does not consider the full range of planning policy considerations, only those which are relevant to the landscape and visual considerations.

1.4. The landscape and visual analysis was prepared following site visits in August 2017. This assessment describes and evaluates the change to the landscape and visual amenity, the extent to which these affect perception and views of the landscape and also considers the effect(s) of the proposed development on the setting of listed buildings in proximity to the proposed development.

1.5. Landscape character and visual assessment, although closely related to one another, have been considered separately for reasons of clarity and robustness.

1.6. Within this report, the landscape and visual baseline environment of the site and its surroundings are established and mitigation measures described. Taking these measures into account, the effects of the development are then predicted. This report focuses on the significant effects predicted to arise from the development.

1.7. This report is structured as follows:

a. Section 2 summarises the relevant parts of planning policy in respect of landscape and visual considerations.

b. Section 3 deals with the baseline; in respect of the landscape baseline, it identifies published documents on local landscape character, and adds supplemental points based on site visits to the area surrounding the assessment site; and sets out a description of the visual baseline.

c. Sections 4 and 5 set out an assessment of the landscape and visual effects of the proposed development;

d. Section 6 sets out the potential effects on the purposes for the Green Belt designation

e. Section 7 sets out the landscape strategy for the site and an overall conclusion.

2. Landscape Planning Policy Context

National Planning Policy Framework

2.1. National planning policy for England is defined within the National Planning Policy Framework (herein referred to as the NPPF) that has distilled the content of previous Planning Policy Statements into one comprehensive document. The NPPF is the relevant national planning policy document against which to test the proposals.

General Considerations

2.2. As a central theme, the NPPF has a presumption in favour of sustainable development (para. 14) for which it defines three mutually interdependent dimensions of sustainability (para. 7) to be jointly sought (economic, social and environmental). With relevance to landscape and visual matters the third dimension states:

"an environmental role – contributing to protecting and enhancing our natural, built and historic environment;…."

2.3. The planning system is identified as the vehicle for guiding development to sustainable solutions and seeking positive improvements in the quality of built, natural and historic environments based on local circumstances (para. 10, author's emphasis).

Core Principles

2.4. Paragraph 17 lists the 12 core planning principles that should underpin planning decisions. Of these, the following are considered pertinent to landscape and visual amenity:

(5th) take account of the different roles and character of different areas, promoting the vitality, main urban areas…. Recognising the intrinsic character and beauty of the countryside and supporting thriving rural communities within it.

(7th) contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should prefer land of lesser environmental value, where consistent with other policies in this Framework.

(10th) conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations." (NPPF, para. 17).

Section 11 (Conserving and enhancing the natural environment)

2.5. This section of the NPPF identifies a requirement in favour of protecting and enhancing valued landscapes (para 109) by focussing development on land of least environmental or amenity value (para 110).

2.6. As listed in the NPPF, these valued landscapes are defined as:

- Sites of Special Scientific Interest;
- Land designated as Green Belt;
- Local Green Space;

- Area of Outstanding Natural Beauty;
- Heritage Coast; and
- National Parks

2.7. The site and the surrounding landscape fall within the Green Belt, and this is described in further detail in Section 6.

Local Landscape Policy

2.8. We have briefly outlined the key policies that relate to landscape and visual matters below.

Adopted Policy

2.9. Section 38(6) of the Planning and Compulsory Purchase Act 2004 places a requirement upon Authorities when determining planning applications to do so in accordance with the adopted Development Plan unless material considerations indicate otherwise.

2.10. The adopted policies of the Local Plan comprises of the following document:

- Warrington Local Plan Core Strategy (adopted July 2014)

2.11. The relevant policies within the above noted documents are as follows:

Policy CS 5 - Green Belt

Policy CS 5

Overall Spatial Strategy - Green Belt

The Council will maintain the general extent of the Green Belt for as far as can be seen ahead and at least until 2032, in recognition of its purposes:

- to check the unrestricted sprawl of large built-up areas;
- to prevent neighbouring towns from merging into one another;
- to assist in safeguarding the countryside from encroachment; and
- to assist in urban regeneration by encouraging the recycling of derelict and other urban land.

The boundaries of the Green Belt in Warrington, which is contiguous with the Green Belt in Merseyside, Greater Manchester, and North Cheshire, are shown on the Policies Map.

The strategic locations and proposals set out in Policy CS2 - Quantity and Distribution of Development provide for significant growth throughout and beyond the plan period. There is therefore no need to review Strategic Green Belt boundaries during the plan period.

A minor detailed change to the approved Green Belt boundary in the Warrington Unitary Development Plan has been made at Bents Garden Centre, Glazebury.

Development Proposals within the Green Belt will be approved where they accord with relevant national policy.

Policy QE 5

Biodiversity and Geodiversity

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.

Sites and areas recognised for their nature and geological value are shown on the Policies Map and include:

- European Sites of International Importance
- Sites of Special Scientific Interest
- Regionally Important Geological Sites
- Local Nature Reserves
- Local Wildlife Sites
- Wildlife Corridors

The specific sites covered by the above designations at the time of publication are detailed in Appendix 3.

Proposals for development which may affect **European Sites of International Importance** will be subject to the most rigorous examination in accordance with the Habitats Directive. Development or land use change not directly connected with or necessary to the management of the site and which is likely to have significant effects on the site (either individually or in combination with other plans or projects) and which would affect the integrity of the site, will not be permitted unless the Council is satisfied that;

- there is no alternative solution; and
- there are imperative reasons of over-riding public interest for the development or land use change.

Proposals for development in or likely to affect **Sites of Special Scientific Interest (SSSI)** will be subject to special scrutiny. Where such development may have an adverse effect, directly or indirectly, on the SSSI it will not be permitted unless the reasons for the development clearly outweigh the nature conservation value of the site itself and the national policy to safeguard the national network of such sites.

Proposals for development likely to have an adverse effect on **regionally and locally designated sites** will not be permitted unless it can be clearly demonstrated that there are reasons for the development which outweigh the need to safeguard the substantive nature conservation value of the site or feature.

Proposals for development which may adversely affect the integrity or continuity of **UK Key habitats or other habitats of local importance**, or adversely affect **EU Protected Species**, **UK Priority Species or other species of local importance**, or which are the subject of **Local Biodiversity Action Plans** will only be permitted if it can be shown that the reasons for the development clearly outweigh the need to retain the habitats or species affected and that mitigating measures can be provided which would reinstate the habitats or provide equally viable alternative refuge sites for the species affected.

All development proposals affecting protected sites, wildlife corridors, key habitats or priority species (as identified in Local Biodiversity Action Plans) should be accompanied by information proportionate to their nature conservation value including;

- a site survey where necessary to identify features of nature and geological conservation importance; an assessment of the likely impacts of the proposed development proposals for the protection and management of features identified for retention;
- an assessment of whether the reasons for the development clearly outweigh the nature conservation value of the site, area or species; and
- proposals for compensating for features damaged or destroyed during the development process

Where development is permitted, the Council will consider the use of conditions or planning obligations to ensure the protection and enhancement of the site's nature conservation interest and/or to provide appropriate compensatory measures.

Policy QE6 - Environment and Amenity Protection

Policy QE 6

Environment and Amenity Protection

The Council, in consultation with other Agencies, will only support development which would not lead to an adverse impact on the environment or amenity of future occupiers or those currently occupying adjoining or nearby properties, or does not have an unacceptable impact on the surrounding area. The Council will take into consideration the following:

- The integrity and continuity of tidal and fluvial flood defences;
- The quality of water bodies, including canals, rivers, ponds and lakes;
- Groundwater resources in terms of their quantity, quality and the ecological features they support;
- Land quality;
- Air quality;
- Noise and vibration levels and times when such disturbances are likely to occur;
- Levels of light pollution and impacts on the night sky;
- Levels of odours, fumes, dust, litter accumulation and refuse collection / storage.
- 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;
- The effect and timing of traffic movement to, from and within the site and car parking including impacts on highway safety;
- The ability and the effect of using permitted development rights to change use within the same Use Class (as set out in the in the Town and Country Planning (General Permitted Development Order) without the need to obtain planning consent.

Proposals may be required to submit detailed assessments in relation to any of the above criteria to the Council for approval.

Where development is permitted which may have an impact on such considerations, the Council will consider the use of conditions or planning obligations to ensure any appropriate mitigation or compensatory measures are secured.

Development proposals on land that is (or is suspected to be) affected by contamination or ground instability or has a sensitive end use must include an assessment of the extent of the issues and any possible risks. Development will only be permitted where the land is, or is made, suitable for the proposed use.

Additional guidance to support the implementation of this policy is provided in the Design and Construction and Environmental Protection Supplementary Planning Documents.

Policy QE7 – Ensuring a High Quality Place

Policy QE 7

Ensuring a High Quality Place

The Council will look positively upon proposals that are designed to;

- 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.

Developers will be encouraged to engage with neighbourhoods and communities in developing design solutions. Where appropriate, developments should harness the imagination and creative skills of artists and urban designers in the design process to create distinctive urban environments.

The Council will promote design excellence in new housing developments and will use accepted environmental standards such as Building for Life and the Code for Sustainable Homes to evaluate the design quality of all proposals for major residential development within the borough.

Additional guidance to support the implementation of this policy is provided in the Design and Construction Supplementary Planning Document.

Policy QE8 – Historic Environment

Policy QE 8

Historic Environment

The Council will ensure that the fabric and setting of heritage assets, as set out below, are appropriately protected and enhanced in accordance with the principles set out in National Planning Policy.

- Scheduled Monuments
- Listed Buildings
- Conservation Areas
- Areas of known or potential Archaeological Interest
- Locally Listed Heritage Assets

The Council and its partners will aim to recognise the significance and value of historic assets by identifying their positive influence on the character of the environment and an area's sense of place; their ability to contribute to economic activity and act as a catalyst for regeneration; and their ability to inspire the design of new development.

Heritage Assets such as buildings, structures and sites which are valued as good examples of local architectural styles or for their historic associations, are included on a local list produced by the Council. The buildings, structures and sites included on this list are detailed in Appendix 4.

To be included on the local list, an asset should be substantially unaltered and retain the majority of its original features and either:

1. be a good example of a particular local asset type, craftsmanship, architectural quality, style or detailing, or
2. display physical evidence of periods of local economic, technical or social significance, well-known local people or historic events

Development proposals which affect the character and setting of all heritage assets will be required to provide supporting information proportionate to the designation of the asset which;

- adopts a strong vision of what could be achieved which is rooted in an understanding of the asset's significance and value, including its setting;
- avoids the unnecessary loss of and any decay to the historic fabric which once lost cannot be restored;
- recognises and enhances the asset's contribution to the special qualities, local distinctiveness and unique physical aspects of the area;
- fully accords with the design principles outlined elsewhere within the Local Planning Framework;
- includes suitable mitigation measures, including an appropriate desk-based assessment and where necessary field evaluation and publication, for areas with known or potential archaeological interest.
- ensures the knowledge and understanding of the historic environment is available for this and future generations. The evidence arising from any investigations should be publicly accessible through the Historic Environment Record and the local museum.

Applications for new development will also be required to take all reasonable steps to retain and incorporate non-statutorily protected heritage assets contributing to the quality of the borough's broader historic environment.

2.12. The adoption of parts of the Warrington Local Plan Core Strategy was met with a High Court Challenge in February 2015, with the decision ordering removal of elements of Housing policies from the Local Plan. As part of this process, the Council have undertaken a Call for Sites exercise in October 2016, in which the site was included (ref: R18/068).s

3. Baseline

The Landscape Baseline - Landscape Character

3.1. Landscape assessment is based on an evaluation of the sensitivity of the existing landscape and the magnitude of change associated with the introduction of the development into the landscape resource.

3.2. The landscape of the area has been studied at various scales and there are landscape character assessment publications available at national and county levels. This study has reviewed the findings of these publications.

3.3. At the broadest scale the landscape of the area falls into National Character Area (NCA) 60: Mersey Valley.

3.4. At County level, the document 'Warrington: A Landscape Character Assessment' (2007) of provides a finer grain landscape character assessment. This document places the site in the landscape character type 3: Red Sandstone Escarpment, sub-type C: Lymm.

3.5. Some key characteristics recorded for the Red Sandstone Escarpment character type, sub-type C: Lymm within the NCA60: Mersey Valley national character area are:

- Smaller scale, more intimate rural landscape
- Luxuriant hedgerow trees with diverse range of species
- Rolling landscape
- Restricted views

3.6. The site of the proposed development is not subject to any landscape designations. The site is designated as Green Belt, though this is not strictly considered a landscape designation.

Local Landscape Character

3.7. At a local level, the character of the assessment site is one heavily influenced by the current use as arable farmland land comprising large scale fields. The western site boundary comprises a dense treeline which provides a strong visual buffer to residential properties at Churchwood View and Ravenbank Community Primary School to the west. The eastern site boundary with Cotebrook House also comprises a dense treeline, providing a visual buffer to parts of Cotebrook House and other residential properties along Oughtrington Lane to the east. The south eastern site boundary comprises a combination of hedgerows, hedgerow trees and closed board fencing associated with the rear curtilages of residential properties along Oughtrington Lane. The north eastern boundary to St. Peter's Church is currently open.

3.8. To the immediate south of the site lie residential properties along Longbutt Lane, with the southern boundary comprising a combination of hedgerows and metal post-and-rail fencing with occasional agricultural access gates. The northern site boundary remains open, with views available from the site over the Bridgewater Canal and the Manchester Ship Canal, to the north. This land to the immediate north of the site is currently in agricultural use

and designated as Green Belt. This is also true for the open land located to the east of the site, on the eastern side of Lymm Grammar School.

3.9. Landscape and Heritage designations that lie within 1km of the site include the following:

- A total of 29 Listed Buildings are located within 1 km of the site;
- Lymm Conservation Area is located approximately 495m to the west of the site;
- 'Lymm Hall Moated Site and Ice House' and 'Two Cockpits 125m west of Lymm Hall' Scheduled Monuments are located approximately 530m and 690m to the west of the site respectively.

3.10. The assessment site falls within an area designated as Green Belt land.

3.11. No other National or Regional landscape or heritage designations are found within 1 km of the site.

Land Use

3.12. The assessment site is currently utilised as open arable farmland.

Topography

3.13. The assessment site is gently undulating, with a gentle fall from south east to north west. Elevations are approximately +54.5m AOD towards the south eastern site boundary, and +37.0m AOD to the north west of the site.

Vegetation

3.14. The entirety of the assessment site comprises arable farmland, with dense tree belts located along the eastern and western site boundaries. Hedgerows are present along the south eastern and southern boundaries.

Water Features

3.15. There are no permanent water features located on site.

Built Elements and Designations

3.16. Built elements on site are currently reserved to the boundaries. These include post-and-rail fencing and occasional access gates along the southern boundary, closed board fencing along the eastern boundary with gardens of properties at Oughtrington Lane.

3.17. There are 29 listed buildings and 2 Scheduled Monuments within 1km of the assessment site, and Lymm Conservation Area is located approximately 495m to the west. The land is also designated as Green Belt.

Public Rights of Way

3.18. Footpath WG/Lymm/30 traverses the assessment site from south west to north east, linking Grammar School Road and Oughtrington Lane. There are a total of 15 Footpaths and 2 Bridleways located within 1km of the site.

Landscape Designations

National level landscape designations

3.19. The following are the three national level landscape designations that mark the intrinsic landscape quality of an area and actively seek to manage the conservation and enhancement of these areas;

- National Park;
- Area of Outstanding Natural Beauty;
- Heritage Coast

3.20. None of these designations apply to the site or its surrounding area.

Registered Park and Gardens

3.21. Registered Parks and Gardens (RPGs) are listed in the English Heritage 'Register of Historic Parks and Gardens of special historic interest in England'. There are no Registered Parks and Gardens identified within 2km of the proposed development.

The Visual Baseline

3.22. The appraisal commences with the identification of representative visual receptors.

3.23. A Summary table of key visual receptors and key views is presented below.

Table 1: Photograph locations

Photograph Number	Description	Representative Receptor Type	Distance & Direction from Proposed Development
1	Close to southern site boundary, at junction of Longbutt Lane and Woodland Avenue	Road users and residents of properties along Longbutt Lane and Woodland Avenue	~5m to the south
2	Grammar School Road, close to Footpath WG/Lymm/30	Road users and residents along Grammar School Road; Users of footpath WG/Lymm/30	~25m to south west
3	Footpath WG/Lymm/30, on site (west)	Users of footpath WG/Lymm/30	On site
4	Footpath WG/Lymm/30, on site (centre)	Users of footpath WG/Lymm/30	On site
5	Close to St Peters Church	Grade II listed St Peters Church; Residents of properties along Oughtrington Lane	~0m to the north east
6	Oughtrington Lane, close to Lymm High School	Road users along Oughtrington Road; Users of High School	~113m to the east

Photograph Number	Description	Representative Receptor Type	Distance & Direction from Proposed Development
7	Footpath WG/Lymm/32	Users of Footpath WG/Lymm/32	~86m to the east
8	Longbutt Lane (south eastern site boundary)	Residents and road users along Longbutt Lane	~0m to the south east
9	Longbutt Lane (near residential properties)	Residents and road users along Longbutt Lane	~10m to the south
10	Oughtrington Lane (north)	Road users along Oughtrington Lane	~115m to the north
11	WG/Lymm/43	Users of footpath WG/Lymm/43	~200m to the north
12	WG/Lymm/31	Users of footpath WG/Lymm/31	~130m to the north
13	Oughtrington Lane, close to footpath WG/Lymm/29	Users of footpath WG/Lymm/29	~125m to the south east

4. Appraisal of Predicted Landscape Effects

4.1. The character of the Red Sandstone Escarpment, Sub-type C (Lymm) is one of rolling topography, with land use characterised by pastoral farmland punctuated by mature hedgerow trees with diverse range of species.

4.2. It is generally a contained landscape, with views restricted by high quality vegetation and rolling topography, however the area to the east of Lymm, close to Oughtrington, is considered to be an exception, with a generally open landscape.

4.3. The proposed residential development in this location would have limited effect on the fabric of the existing landscape with limited (if any) loss of existing features including trees and hedgerows. The primary effects of the development would therefore be of a visual nature.

4.4. The visual presence of the residential development would affect a small proportion of the host Red Sandstone Escarpment character type within the NCA 60: Mersey Valley national character area. There would be no notable effect beyond this into any other local landscape type.

4.5. The Mersey Valley landscape character type extends for a large area, particularly to the north of the proposed site. The localised change brought by this proposed development would be a small incidence within the wider character area and would not affect the integrity of this county landscape character type.

4.6. More locally the visual presence of the residential development may have an effect on the perceived character of Red Sandstone Escarpment character type. In this local landscape context the residential development would essentially constitute infilling of the existing settlement boundary, however it is noted that it would form a new and noticeable feature when experienced in direct and open views from within the immediate context of the site, particularly in from Footpath WG/Lymm/30 which traverses the site, existing residential properties along Longbutt Lane to the south, and bridleway WG/Lymm/31 to the north. In these circumstances, the perception of local landscape character would be altered from an open agricultural field to residential. However, the relatively contained nature of the site, particularly from the west, south and east, ensures that only limited views of the site available beyond this immediate context, which limits the extent of any potential landscape change.

4.7. There are also longer range views of the site available from beyond this immediate context to the north. However, it is considered that views from those receptors within 1km, including footpath WH/Lymm/43, WG/Lymm/34 and residential properties at Rushgreen Road, are screened due to the undulating topography and intervening vegetation. Beyond 1km the only sensitive receptor within 2km is WG/Lymm/42, and it is considered that views from this receptor are screened by intervening built form and vegetation. In addition, due to the distance the development would represent such a small proportion of these views that it greatly limits the extent of any potential landscape change.

4.8. The document 'Conservation Areas in Lymm' (December 2000) states that proposed developments in Conservation Areas "should pay special

attention to carefully considering the appropriateness of the proposal and details such as materials, colour, height, proportion, design and siting, to seek to preserve and enhance the character and appearance of the area." It also states that "development proposals which are outside a Conservation Area but which would affect its setting, or views into or out of the area, will also be carefully considered in the light of this contextual relationship."

4.9. The development does not for within Lymm Conservation Area or its setting, with no views towards the site available from within the Conservation Area or vice versa. It is therefore considered that the development of the site would not detract from the setting of any Conservation Areas.

4.10. In respect of other heritage assets, the grade II listed St Peters Church is located to the immediate north east of the site, and has direct, open views across the assessment site. This listed building is considered to be a local landmark, as stated in the document 'Warrington: A Landscape Character Assessment' (2007), and as such the setting of the building should be considered as an integral part of the design proposals.

4.11. It is thus considered that a sensitively designed residential development would not detract from the setting of this listed building, particularly if views of St Peters Church from the north are retained.

4.12. Overall findings in relation to potential landscape effects are that in the immediate setting, the residential development would become one of the defining characteristics of the location alongside the prevailing rural features of the landscape. However, this influence of the residential development would be localised and further away the landscape character of the wider area would not be so significantly affected. The residential development can therefore be accommodated without significant degradation of the character or the scenic qualities of the wider countryside setting.

5. Assessment of Predicted Visual Effects

5.1. Potential visual receptors identified for the proposed residential development are listed below.

5.2. Visual receptors within 1km of the assessment site include:

- Residents to the south of the site, along Longbutt Lane, Woodland Avenue and Grammar School Road
- Residents to the east of the site, along Oughtrington Lane
- Road users to the south of the site, along Longbutt Lane, Woodland Avenue and Grammar School Road
- Walkers along footpaths WG/Lymm/30
- Users of bridleway WG/Lymm/31

5.3. Views available within 1km of the site are predominantly short distance, reflective of the gently undulating topography and the screening effect of the intervening residential built form and vegetation to the south, east and west of the site.

5.4. Although longer distance views (beyond 1km) are potentially available from the north of the site, these are at such distances that it is considered the proposed development would constitute a negligible proportion of the wider view.

6. Effect on Green Belt

6.1. Though not defined as a landscape designation, it is considered that the Green Belt policy is relevant to the considerations of this Landscape Analysis.

6.2. In assessing the contribution of the site to the purposes of the Green Belt, the assessment makes direct reference to the five purposes of including land within the Green Belt as identified in the National Planning Policy Framework.

6.3. The key purposes of a Green Belt include:

Table 2: Green Belt

Purpose of Green Belt	Applicability to the Site
To check the unrestricted sprawl of large built-up areas	The settlement of Lymm is currently a moderate sized town and the assessment Site is located to the eastern extent of the urban area. The site is bounded by development along Oughtrington Lane to the east, including Cotebrook House, the Church of St Peter, Lymm Grammar School and residential properties, which effectively restrict any further development in this direction, not least due to the fact that both the Church of St Peter and a portion of Lymm Grammar School as listed buildings. To the north lies undeveloped agricultural land designated as Green Belt, and beyond this lies the Bridgewater Canal, which acts as a barrier to any further development in this direction. Areas to the south and west are already developed, and therefore development of the proposed site would not lead to the unrestricted sprawl of the built up area.
To prevent neighbouring towns merging into one another	The proposed development will not extend the existing bounds of the settlement such that the settlement will be any closer to any adjacent settlements, since the proposed development essentially comprises infilling within the existing settlement boundary, due to the built development of Cotebrook House and Lymm Grammar School along Oughtrington Lane. It is also worth noting that there are no settlements within proximity to Lymm to the east which would be subject to any merging effect.
To assist in safeguarding the countryside from encroachment	The assessment site itself comprises open countryside, with the key characteristics of the area including open arable farmland with bordered by hedgerows and dense tree belts. Residential development is also located along the 3 of the 4 boundaries of the assessment site, and further residential development would there not necessarily detract from the character of the area, particularly through the retention of the hedgerows, and the introduction of supplementary planting of similar species as part of the proposals. The proposed development would essentially comprise infilling of the existing settlement boundary to the east, and it is considered that appropriate screening measures could be employed to reduce the visibility of the development when viewed from the north. Existing residential development along Longbutt Lane to the south, Oughtrington Lane to the east and Churchwood View to the west also provide a residential context in the area, meaning that the proposals would not be uncharacteristic of this part of Lymm.

To preserve the setting and special character of historic towns	The assessment site is not located within any historic towns or conservation areas. The Lymm Conservation Area is located approximately 495m to the west of the site, with no views available into the site from the Conservation Area, and vice versa. Policy QE 8 of the Warrington Local Plan Core Strategy (2014) states that development proposals which affect the character and setting of all heritage assets should consider the area's value and significance, including its setting, and recognise and enhance the asset's contribution to the special qualities, local distinctiveness, and unique physical aspects of the area. These aspects will be integral to the development proposals.
To assist in urban regeneration by encouraging the recycling of derelict and other land	Although the land on which the assessment site is located is open countryside currently utilised as arable land, the development of the site for housing will make a significant contribution to meeting the housing needs of Warrington.

6.4. It is therefore considered that that the development of the land would not lead to unrestricted sprawl of the Lymm urban area, would effectively comprise infilling of the existing settlement boundary, and would thus not bring the Lymm settlement boundary any closer to any neighbouring towns. In addition, the proposals would be sensitively designed through appropriate positioning, scale and massing of houses, in order to prevent any adverse impacts upon the setting of the neighbouring St Peters Church, and to assist in assimilating the development into the wider context.

7. Landscape Strategy

7.1. By suggesting landscape mitigation measures it does not follow that the proposals have an unacceptable adverse effect on the landscape character or visual amenity of the area but rather the presence of further development within this setting would benefit from considered landscape works. The purpose of landscape mitigation for these proposals at this location are primarily two-fold;

- To reduce adverse visual and landscape effects identified through the wider Landscape Analysis process; and
- To enhance the character of the proposals and assist in their assimilation into the wider landscape scene.

7.2. As identified in the Warrington Landscape Character Assessment 2007, Type 3, Area 3C (Lymm) is notable for its intimate landscape, although the area to the east of Lymm, around Oughtrington, is noted as an exception with a more open landscape.

7.3. In order to lessen any potential landscape and impacts the visual impact of the proposed, the landscaping scheme would incorporate the provision of:

- Reinforcement of existing hedges and field boundaries with hedge planting gap filling and scattered hedgerow tree planting;
- Further tree planting of a range of species along field edges, particularly the southern and eastern site boundaries to residential properties along Longbutt Lane and Oughtrington Lane, respectively;
- Planting of trees and orientation of houses in such a way that visual permeability is increased through the site, particularly when viewed from the south.

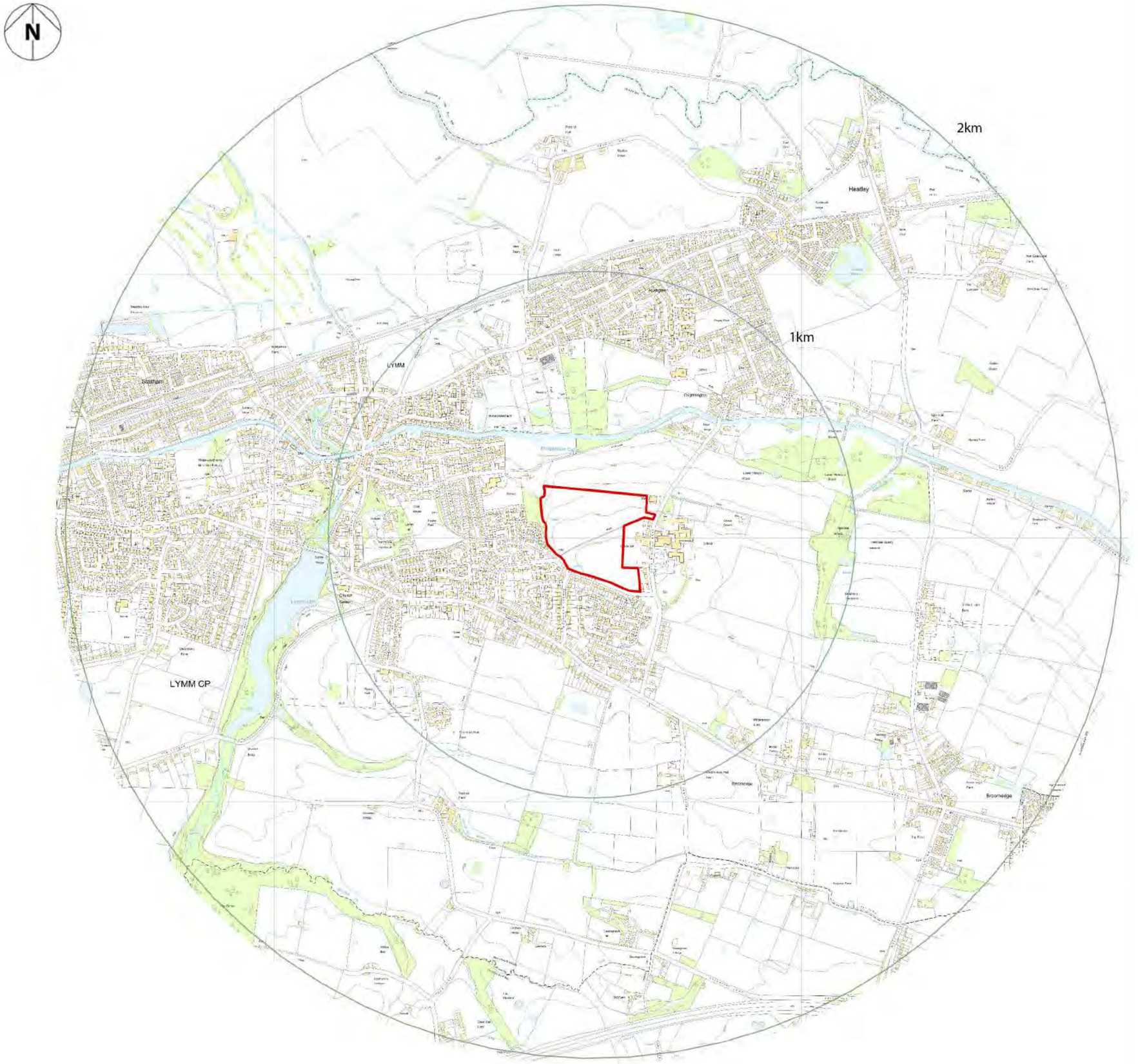
7.4. The placement of these features is designed to provide enhanced screening and softening of the proposed development and to maximise its integration into the setting. They have also been targeted so as to be most beneficial in relation to the identified visual receptors.

7.5. In addition, in accordance with the National Planning Policy Framework, Green Belt boundaries should be defined clearly, using physical features that are readily recognisable and likely to be permanent.

Appendices

Appendix 1 - Plans

Plan 1: Location Plan



Legend

- Red Line Boundary
- 1km Buffer
- 2km Buffer

URBAN GREEN

LONGBUTT LANE, LYMM

FIGURE 1

SITE LOCATION

1:15000

250 0 250 500 750 1000 m

Plan 2: Landscape Designations

Legend

- Red Line Boundary
- 1km Buffer
- 2km Buffer
- Local Wildlife Sites QE5
- Green Belt

URBAN GREEN

LONGBUTT LANE, LYMM

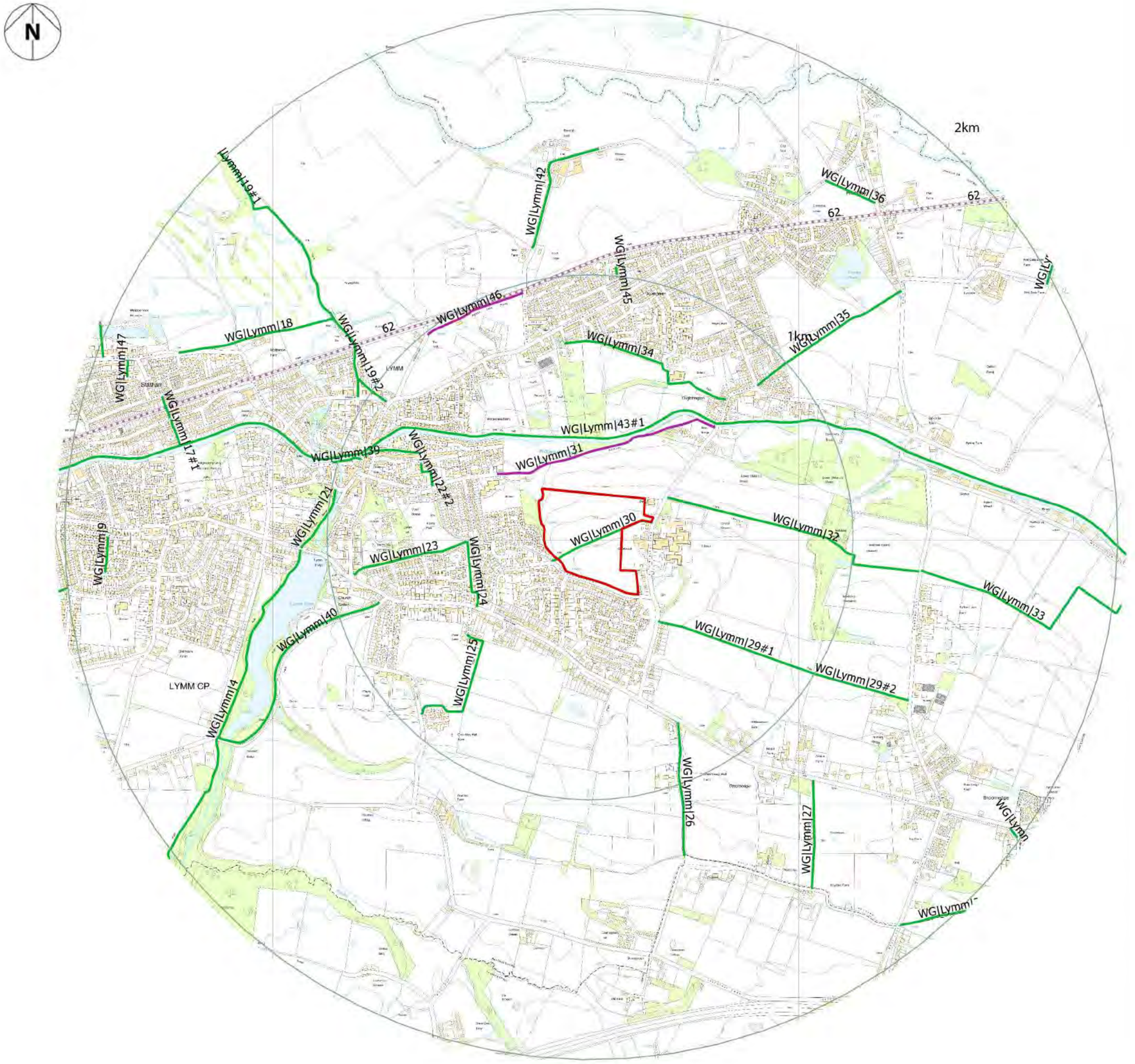
FIGURE 2

LANDSCAPE DESIGNATIONS

1:15000

250 0 250 500 750 1000 m

Plan 3: Public Rights of Way



Legend

- Red Line Boundary
- 1km Buffer
- 2km Buffer
- Warrington Footpaths
- Warrington Bridleways
- National Cycle Route

URBAN GREEN

LONGBUTT LANE, LYMM

FIGURE 3

PUBLIC RIGHTS OF WAY

1:15000

250 0 250 500 750 1000 m

Plan 4: Heritage Designations

Legend

- Red Line Boundary
- 1km Buffer
- 2km Buffer
- Listed Buildings
- Scheduled Monuments
- Conservation Areas

URBAN GREEN

LONGBUTT LANE, LYMM

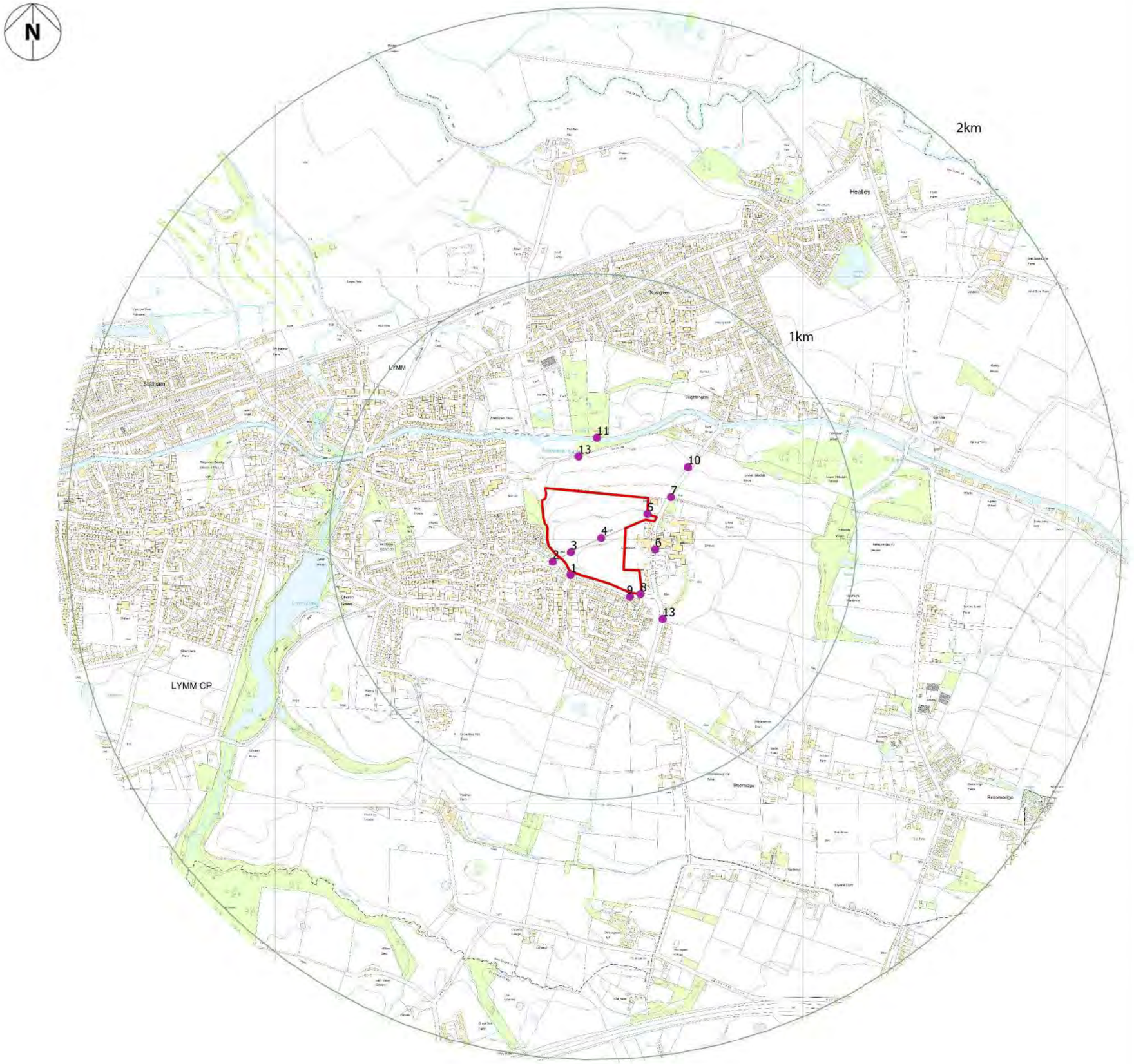
FIGURE 4

HERITAGE

1:15000

250 0 250 500 750 1000 m

Plan 5: Viewpoint Locations



Legend

- Red Line Boundary
- 1km Buffer
- 2km Buffer
- Viewpoints

URBAN GREEN

LONGBUTT LANE, LYMM

FIGURE 5

VIEWPOINTS

1:15000

250 0 250 500 750 1000 m

Appendix 2 – Viewpoint Photographs

Approximate extent of proposed development

Viewpoint 1a: View looking north across the assessment site from close to the southern site boundary on Longbutt Lane, approximately 5m south of the site boundary

Approximate extent of proposed development

Viewpoint 1b: View looking north across the assessment site from close to the southern site boundary on Longbutt Lane, approximately 5m south of the site boundary

URBAN GREEN

Longbutt Lane, Lymm - Viewpoint Photographs

Site Viewpoint Photographs

Date:	August 2017	Drawn:	KS
Drg no.:	PL_11548	Checked:	CM

Approximate extent of proposed development

Viewpoint 2a: View looking north east towards the assesment site from Grammar School Road, close to Footpath WG/Lymm/30, located approximately 28m to the south west of the site boundary

Approximate extent of proposed development

Viewpoint 2b: View looking north east towards the assesment site from Grammar School Road, close to Footpath WG/Lymm/30, located approximately 28m to the south west of the site boundary

URBAN GREEN

Longbutt Lane, Lymm - Viewpoint Photographs

Date: August 2017 Drawn: KS
Drg no.: PL_11548 Checked: CM

Approximate extent of proposed development

Viewpoint 3a: View looking 360 degrees across the assesment site from the west Footpath WG/Lymm/30, which traverses the site from south west to north east

Approximate extent of proposed development

Viewpoint 3b: View looking 360 degrees across the assesment site from the west of Footpath WG/Lymm/30, which traverses the site from south west to north east

URBAN GREEN

Longbutt Lane, Lymm - Viewpoint Photographs

Date: August 2017 Drawn: KS
Drg no.: PL_11548 Checked: CM

Approximate extent of proposed development

Viewpoint 4a: View looking 360 degrees across the assesment site from the centre ofFootpath WG/Lymm/30, which traverses the site from south west to north east

Approximate extent of proposed development

Viewpoint 4b: View looking 360 degrees across the assesment site from the centre of Footpath WG/Lymm/30, which traverses the site from south west to north east

URBAN GREEN

Longbutt Lane, Lymm - Viewpoint Photographs

Date: August 2017 Drawn: KS
Drg no.: PL_11548 Checked: CM

Approximate extent of proposed development

Viewpoint 5a: View looking south west across the assesment site from the north eastern site boundary, close to grade II listed St Peters Church

Approximate extent of proposed development

Viewpoint 5b: View looking south west across the assesment site from the north eastern site boundary, close to grade II listed St Peters Church

URBAN GREEN

Longbutt Lane, Lymm - Viewpoint Photographs

Date: August 2017 Drawn: KS
Drg no.: PL_11548 Checked: CM

Approximate extent of proposed development

Viewpoint 6a: View looking west towards the assesment site from outside Lymm Grammar School on Oughtrington Lane, located approximately 120m east of the site boundary

Approximate extent of proposed development

Viewpoint 6b: View looking west towards the assesment site from outside Lymm Grammar School on Oughtrington Lane, located approximately 120m east of the site boundary

URBAN GREEN

Longbutt Lane, Lymm - Viewpoint Photographs

Date: August 2017 Drawn: KS
Drg no.: PL_11548 Checked: CM

Approximate extent of proposed development

Viewpoint 7a: View looking south west towards the assesment site from Footpath WG/Lymm/32, located approximately 90m east of the site boundary

Approximate extent of proposed development

Viewpoint 7b: View looking south west towards the assesment site from Footpath WG/Lymm/32, located approximately 90m east of the site boundary

URBAN GREEN

Longbutt Lane, Lymm - Viewpoint Photographs

Date: August 2017 Drawn: KS
Drg no.: PL_11548 Checked: CM

Approximate extent of proposed development

Viewpoint 8a: View looking north west across the assesment site from the south eastern site boundary, located on Longbutt Lane

Approximate extent of proposed development

Viewpoint 8a: View looking north west across the assesment site from the south eastern site boundary, located on Longbutt Lane

URBAN GREEN

Longbutt Lane, Lymm - Viewpoint Photographs

Date: August 2017 Drawn: KS
Drg no.: PL_11548 Checked: CM

Approximate extent of proposed development

Viewpoint 9a: View looking north west across the assessment site from close to residential properties along Longbutt Lane, located aprroximately 15m south of the site boundary

Approximate extent of proposed development

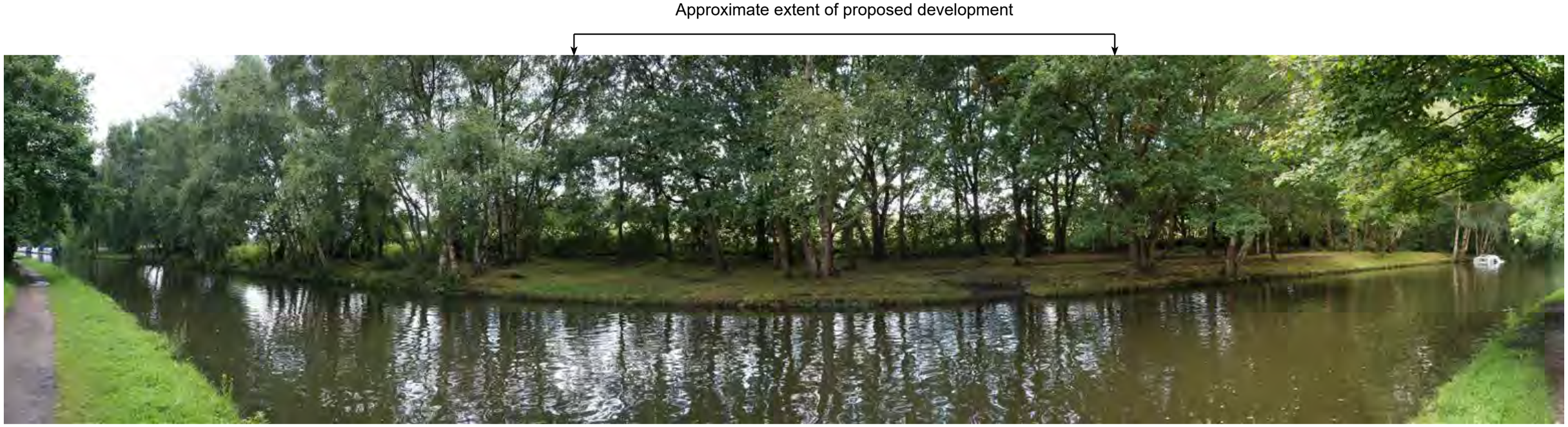
Viewpoint 9b: View looking north west across the assessment site from close to residential properties along Longbutt Lane, located aprroximately 15m south of the site boundary

URBAN GREEN

Longbutt Lane, Lymm - Viewpoint Photographs

Date: August 2017 Drawn: KS
Drg no.: PL_11548 Checked: CM

Viewpoint 10: View looking south west towards the assesment site from Oughtrington Lane, located approximately 190m north east of the site boundary



Viewpoint 11: View looking south towards the assessment site from Footpath WG/Lymm/43, located approximately 210m north of the site boundary

URBAN GREEN

Longbutt Lane, Lymm - Viewpoint Photographs

Date: August 2017 Drawn: KS
Drg no.: PL_11548 Checked: CM

Approximate extent of proposed development

Viewpoint 12: View looking south towards the assesment site from Bridleway WG/Lymm/31, located approximately 130m north of the site boundary

Approximate extent of proposed development

Viewpoint 13: View looking north west towards the assesment site from close to Footpath WG/Lymm/29, located approximately 130m south east of the site

URBAN GREEN

Longbutt Lane, Lymm - Viewpoint Photographs

Date: August 2017 Drawn: KS
Drg no.: PL_11548 Checked: CM

Preliminary Arboricultural Assessment (PAA)

Stamford Property Holdings

Land off Longbutt Lane

Lymm

August 2017

URBAN GREEN

Quality Management

Project No	11548		
Project	Longbutt Lane, Lymm		
Location	Longbutt Lane, Lymm, WA13 0QX		
Title	Preliminary Arboricultural Assessment		
Document Type	BS5837	**Issue**	2
Date	18th August 2017		
	[redacted]		

Contents

1 Introduction

1.1 Instructions and references

1.1.1 All trees, regardless of their statutory status, are a material consideration in a planning application. We have been instructed by Stamford Property Holdings to carry out a Preliminary Arboricultural Appraisal (PAA) in accordance with BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations at Longbutt Lane, Lymm and produce our findings in a report with an accompanying Tree Constraints Plan.

1.1.2 Warrington Borough Council are preparing a draft local development plan and the current site is being put forward for residential led-development.

1.1.3 The PAA is compiled objectively and is aimed to assist with feasibility and decision making. The purpose of this report is to outline the arboricultural constraints onsite in relation to potential development.

1.2 Documents provided

1.2.1 A scaled plan has been provided although no tree positions were plotted. Tree locations have been plotted according to measurements taken on site and/or using aerial photography. The exact locations of these trees must be verified and any discrepancies discussed with the Arboricultural Consultant before starting works on site.

1.3 Scope and limitations of the report

1.3.1 The report is based upon a visual inspection. The consultant shall not be responsible for events that happen after the date of the report due to factors that were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report.

1.3.2 The consultant accepts no liability in respect of the trees unless the recommendations of this report are carried out under his supervision.

1.3.3 Assessing the potential influence of trees upon load bearing soils, beneath existing and proposed structures resulting from water abstraction by trees or rehydration of shrinkable soils was not included in the contract brief and is therefore not considered in the report. The consultant cannot be held responsible for damage arising from such action.

1.3.4 Trees are living organisms whose health, condition and structure can change over time. The contents of this report are valid for a period of one year from the date of the report.

1.3.5 Potentially hazardous trees are highlighted and appropriate recommendations are made. However, this report should not be seen as a substitute for a full tree risk assessment or management plan which are specifically designed to minimise risk and liability associated with responsibility for trees.

2 Site Location

2.1.1 The site is located in the area shown in Figure 1. The OS Grid Reference is SJ 69266 86799.

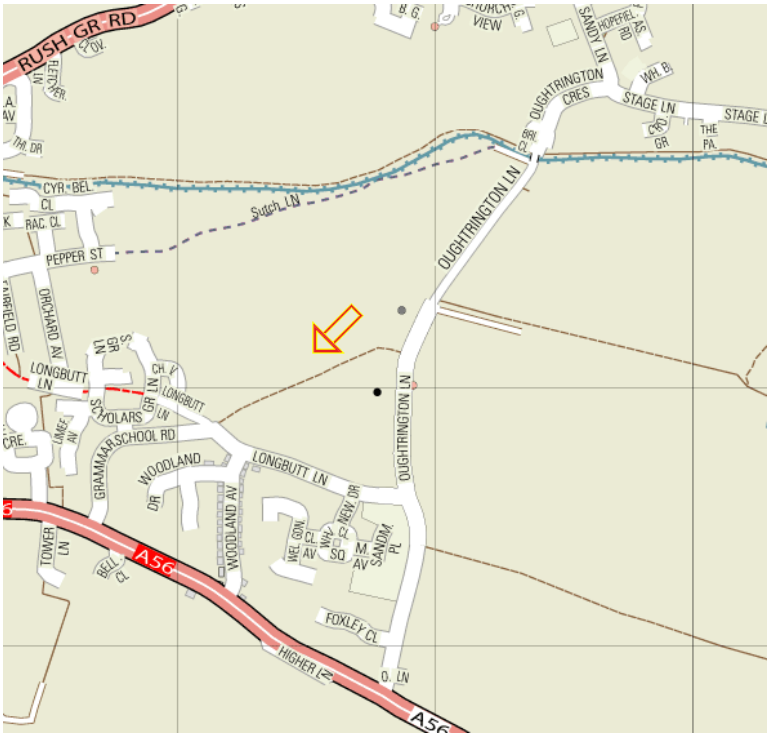


Figure 1 – Site location plan

Figure 2 – Red line boundary

3 Tree Condition and Recommendations

3.1.1 The following findings are provided in order to identify the quality and value of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed, retained or those that require work. Any recommendations provided in this section are given with the assumption that development will occur, however, no specific designs have been accounted for.

3.2 Summary of arboricultural findings

3.2.1 The majority of trees onsite are situated on the site boundary with the centre of the site comprising of arable land.

3.2.2 All trees are in an acceptable condition with no current works required.

3.3 Work priority and future management

3.3.1 The Tree Data Schedule in Appendix 1 details what works are required to individual trees in order to ensure that they are in an acceptable condition.

3.3.2 The following table suggests a schedule for prioritising works required to individual specimens, as outlined in the Tree Data Schedule in Appendix 1, in order to ensure that the associated risks are abated.

Table 1 – Tree Work Priority Schedule

Priority	Definition	Tree Number
Urgent	As soon as possible	-
Very High	Within 1 Month	-
High	Within 3 Months	-
Moderate	Within 1 year	-
Low	Within 3 years	T1, G2, H3, T4, H5, T6, G7, G8, G9, G10, G11, G12, H13, G14, H15

3.3.3 Upon completion of any recommended works, the trees will be in an acceptable condition from a health and safety perspective. However, they should be regularly inspected according to the following suggested schedule.

Table 2 – Recommended Inspection Frequency

Inspection Frequency (years)	Tree Number
0.5	-
1	-
1.5	-
3	T1, G2, H3, T4, H5, T6, G7, G8, G9, G10, G11, G12, H13, G14, H15

3.4 Tree protection status

3.4.1 A Tree Preservation Order (TPO) is an order made by a Local Authority to protect specific trees, groups of trees or woodlands in the interests of amenity. A TPO prohibits the cutting down, topping, lopping, uprooting and wilful damage or destruction of trees without the Local Authority's written consent.

3.4.2 Warrington Councils online mapping system confirmed that the trees within G12 are protected by Tree Preservation Order 462 (Churchwood View Woodland), and the three mature sycamore in G7 by Tree Preservation Order 523 (Cotebrook House).

3.4.3 The site is not within a Conservation Area.

3.4.4 It is recommended that the Local Authority is consulted before any tree works are undertaken, as new TPOs may have been created since the time of enquiry, and heavy fines exist for unauthorised works to protected trees.

3.4.5 All works to trees covered by a TPO require permission from the Local Authority, including any pruning. However, this does not include trees that are dead or have become dangerous. The removal of dead branches is also excluded from a TPO. Although the above exceptions exist, it is advisable to give the Local Authority five days' notice in writing of any intended removal. Permission is not needed where tree work is required to implement an approved planning application.

3.4.6 It is an offence to remove more than $5m^3$ of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission. It must be noted, however, that this excludes sites where planning permission has already been granted.

3.5 Tree works

3.5.1 Tree works that are recommended in Appendix 1 are made in line with good arboricultural practice and should be programmed in accordance with the Tree Data Schedule.

3.5.2 All specified tree work is to be carried out in accordance with BS 3998:2010 Tree work - Recommendations.

3.6 Wildlife

3.6.1 Prior to the commencement of any tree works, the trees should be assessed for the presence of protected species, some of which are subject to the *Wildlife and Countryside Act 1981* (as amended) and the *Conservation of Habitats and Species Regulations 2010.*

3.6.2 Where there is evidence that bats, birds or other protected species are present, the advice of a suitably qualified ecologist should be sought.

3.6.3 If tree works are carried out during the bird nesting season (March to August inclusive), trees would need to be inspected by a qualified ecologist within the 24-hour period prior to the commencement works.

4 Potential Arboricultural Constraints

4.1 Root Protection Area (RPA) explained

4.1.1 The RPA is an area of ground around the base of a tree indicated on the Tree Constraints Plan as a pink circle centred around the stem which is calculated in relation to the stem diameter.

4.1.2 The majority of tree roots grow within the upper 600mm of the soil profile where most nutrients are available as the result of the decomposition of organic matter close to the surface. Rooting conditions become less favourable at depth as the soil density increases, creating anaerobic conditions.

4.1.3 It is essential that roots are protected from construction works including physical damage from excavation and changes in soil structure from compaction and changes in ground levels.

4.1.4 BS 5837:2012 states that the default position for proposed structures should always be outside the RPA. It is recognised that this may not always be possible, yet tree retention would be desirable. In this instance, technical solutions might be available that prevent damage to the retained tree(s).

4.1 Site constraints and opportunities

4.1.1 The majority of the trees are situated on the site boundary as such the site offers significant potential to develop with a limited arboricultural impact.

4.1.2 The site currently comprises of arable land that is limited in its biological diversity. Should the site be developed a robust soft landscape scheme and the provision of ecological enhancement areas would have the potential to create a net gain in tree cover.

4.1.3 T1 is located at the entrance to the site on Oughtrington Lane and is situated in the pavement causing cracking and deformation of the tarmac. This tree is a high value A category tree due to its prominence on Oughtrington Lane and public visibility. It does however present a maintenance issue to the highway as the pavement will require continual resurfacing to prevent a potential trip hazard.

4.1.4 Beyond T1 lies T4 which is a large mature sycamore that is situated on the grounds of St Peter's Church. The RPA of this tree proliferates onto site and between the extremity of the RPA and the opposite boundary there is approximately a 14m gap which would allow sufficient space for vehicular access.

4.2 Proposed Access Options

4.2.1 Two options have been proposed for access into site (Access and Transport Appraisal – Ref 66027/TN01).

4.2.2 Option 1 features a vehicular access onto Longbutt Lane towards the south-western part of the site and another vehicular access onto Oughtrington Lane to the north-east of the site. This option would result in the loss of T1 and a small section of hedgerow in H15.

4.2.3 Option 2 features 2 main vehicular access points onto Longbutt Lane towards the south-western part of the site (the same as Option 1) and the south-eastern part of the site, along with a third, less substantial vehicular access onto Oughtrington Lane to the north-east of the site.

4.2.4 Option two was discussed with the highways consultant and it was agreed that the existing agricultural dropped kerb would be retained on Oughtrington Lane and there would be no through access to the wider site. As such the parking and access in this area would make us of the existing grassed surface area and levels and would be reinforced by a no dig cellular confinement system.

4.3 Social proximity

4.3.1 Due to the fact that the majority of trees are on the site boundaries there is sufficient space to develop the site and avoid future conflicts between residents and trees. All buildings should be offset from the boundaries. It may be possible to utilise public open space on the site edges to enhance the existing tree cover.

4.4 Conclusions

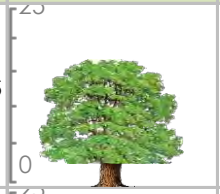
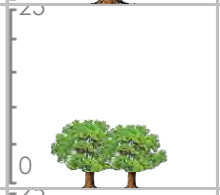
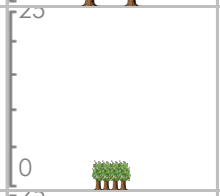
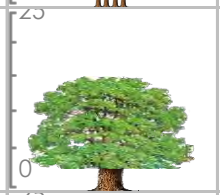
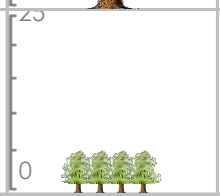
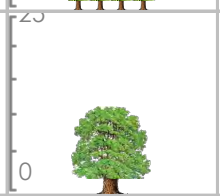
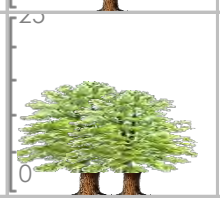
4.4.1 Access option 2 is the preferred arboricultural option as this would retain T1 on Oughtrington Lane and the amenity value it provides. Option two will also limit the impact of the access on other high value trees in the area such as T4 and G7.

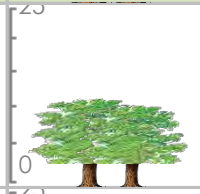
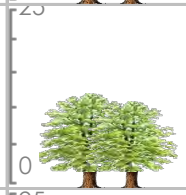
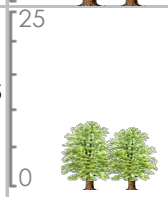
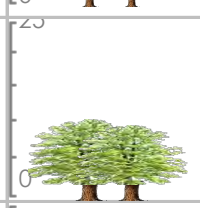
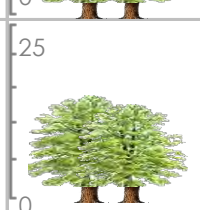
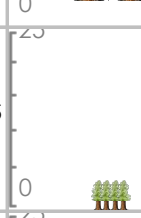
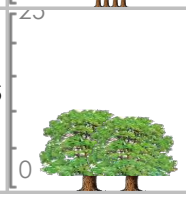
4.4.2 Where possible category A and B trees should be retained and any works within their RPAs should be undertaken in a sympathetic manner. Although C category trees should not be a constraint to development, it may be desirable to retain them as part of the wider landscape proposals.

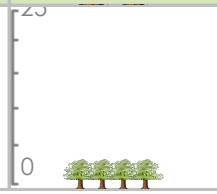
4.4.3 Shading of buildings by trees can be a problem, particularly where there are rooms which require natural light. Proposed buildings should be designed to take account of existing trees, their ultimate size and density of foliage, and the effect that these will have on the availability of light.

Appendix 1 - Tree Data Schedule

The following pages contain information gathered during the site survey. The reader should refer to Appendix 2 in order to correctly interpret the tree data. All images within the Tree Data Schedule are diagrammatical only. Their purpose is to indicate, at a glance, the relative dimensions of each tree. The images are computer generated based on measurements recorded for stem diameter, crown spread, crown height and overall height.

Reference G = Group H = Hedge	Age & Species	Height (m)	Crown Ht (m)	Diameter (mm)	Crown Spread (m) N W E S	Scaled Tree Diagram (m)	Notes	Recommendations: Priority	Recommendations: Inspect Freq (yrs)	Physiological Condition / Structural Condition	Life Expectancy (yrs) / Retention Category
T1	Mature **Sycamore** Acer pseudoplatanus	17	3	730	av 6.5 / 6.5 6.5 / 6.5 each		1: Good specimen. 2: Minor bark wound to main stem. 3: Situated in pathway (highway tree). 4: No significant defects observed.	No action required.	n/a	3	Good / Good	40+ / A
G2	Semi-Mature **Sycamore** Acer pseudoplatanus	av 8	av 2	av 250	av 3 / 3 3 / 3 each		1: Group of 3 self set specimens. 2: Low value. 3: No significant defects observed.	No action required.	n/a	3	Good / Good	40+ / C
H3	Semi-Mature **Privet** Ligustrum ovalifolium	av 1	0.1	70	5 / 5 5 / 0.2 5		1: Formally maintained hedge.	No action required.	n/a	3	Good / Good	40+ / C
T4	Mature **Sycamore** Acer pseudoplatanus	15	3	870	av 7 / 7 7 / 7 each		1: Good specimen. 2: Situated on third party land. 3: No significant defects observed.	No action required.	n/a	3	Good / Good	40+ / A
H5	Semi-Mature **Mixed** Species	av 4	0.1	80	1 / 1 1 / 1		1: Boundary hedge.	No action required.	n/a	3	Good / Good	40+ / C
T6	Semi-Mature **Sycamore** Acer pseudoplatanus	11	2	500	3 / 3 3 / 3		1: Multi stemmed at base. 2: No significant defects observed.	No action required.	n/a	3	Good / Good	40+ / C
G7	Mature **Mixed** Species	av 15	av 3	av 650	av 6 / 6 6 / 6 each		1: Mixed group consisting of three large sycamore, two oaks and two silver birch. 2: Situated on third party land. 3: Good specimens.	No action required.	n/a	3	Good / Good	40+ / A

Reference G = Group H = Hedge	Age & Species	Height (m)	Crown Ht (m)	Diameter (mm)	Crown Spread (m) N W E S	Scaled Tree Diagram (m)	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category
G8	Early-Mature **Oak** Quercus app	av 11	av 3	av 450	av 5 5 5 5 each		1: Group consisting of two turkey oak and two english oak. 2: Situated on prow. 3: No significant defects observed.	No action required. n/a	3	Good Good	40+ **B**
G9	Early-Mature **Mixed** Species	av 12	av 2	av 400	av 4 4 4 4 each		1: Mixed group consisting of poplar, oak, pine and sycamore. 2: Good screen to site. 3: Poplars in relatively poor condition.	No action required. n/a	3	Fair Good	40+ **B**
G10	Semi-Mature **Mixed** Species	av 8	av 1	av 200	av 2.5 2.5 2.5 2.5 each		1: Mixed group scattered along rear gardens including hedges. 2: Species consist of beech hedgerow, cherry, apple and birch. 3: Acceptable condition at present.	No action required. n/a	3	Good Good	40+ **C**
G11	Early-Mature **Mixed** Species	av 10	av 2	av 500	av 5 5 5 5 each		1: Two specimens consisting of one ash and one sycamore. 2: Moderate value. 3: No significant defects observed.	No action required. n/a	3	Good Good	40+ **B**
G12	Mature **Mixed** Species	av 14	av 2	av 550	av 5 5 5 5 each		1: Mixed group consisting of predominantly oak and sycamore. 2: Situated adjacent to stream with some areas on a steep bank. 3: Important boundary group. 4: High landscape value.	No action required. n/a	3	Good Good	40+ **A**
H13	Semi-Mature **Mixed** Species	av 1	0.1	70	0.5 0.5 0.5 0.5		1: Multi dead hedgerow predominantly comprising hawthorn, elder and scattered ash.	No action required. n/a	3	Good Good	40+ **C**
G14	Early-Mature **Sycamore** Acer pseudoplatanus	av 10	av 2	av 450	av 3.5 3.5 3.5 3.5 each		1: Boundary group. 2: Situated on slightly raised mound. 3: Moderate value.	No action required. n/a	3	Good Good	40+ **B**

Reference G = Group H = Hedge	Age & Species	Height (m)	Crown Ht (m)	Diameter (mm)	Crown Spread (m) N W E S	Scaled Tree Diagram (m)	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category
H15	Semi-Mature **Mixed** Species	av 2	0.1	80	1 1 1 1		1: Mixed hedgerow consisting of hawthorn, sycamore, elm, ash and elder. 2: Acceptable condition at present.	No action required. n/a	3	Good Good	40+ **B**

Appendix 2 – Tree Schedule Definition of Terms

Tree Referencing	**Individual Trees** T (+number) **Grouped Trees** G (+number) **Hedgerows** H (+number) **Woodlands** W(+number)
Age Category	**Young** Usually <15 years **Semi-mature** Significant growth expected, approximately one third of life expectancy complete **Early-Mature** Full height achieved with further significant growth possible, up to two thirds of life expectancy complete **Mature** Full height has been achieved with possible spreading of the canopy, usually past two thirds of overall life expectancy **Veteran** Usually a tree of significant age with characteristics that give additional cultural, landscape and conservation benefits, **Over-mature** A tree declining due to age as indicated by deterioration in the health and condition of its crown and trunk.
Species	**Botanical Name** - conforming to the International Code of Nomenclature for algae, fungi, and plants (ICN). For universal plant recognition. **Common Name** – commonly used names usually on a local and national scale.
Tree Height	The vertical distance between the base of the tree (where soil and buttress meet) and the tip of the highest branch on the tree.
Crown Height	Measured from ground level to the height at which the main crown begins.
Stem Diameter (DBH)	Stem diameter is measured at 1.5 m above ground level
	A diagrammatical representation of the tree taken from measurements of stem diameter, crown height and spread, and overall height.
Crown	Measurements taken from all four cardinal points in metres.
Notes	Notes are made to inform of any possible defects, peculiarities or points of interest that may relate to the trees position, physiology, safety and possible effects on developments.
Recommendations	Recommendations are made in accordance to good arboricultural practice. Recommendations are made regardless to the end usage of the site.
Priority Scale	Priority is given dependant on the perceived threat and the likelihood of failure given to a possible hazard. The priority of work is given regardless of the end usage of the site. **Urgent** To be carried out as soon as possible. **Very High** To be carried out within 1 month. **High** To be carried out within 3 months. **Moderate** To be carried out within 1 year. **Low** To be carried out within 3 years.
Physiological Condition:	**Good** Usually healthy with no symptoms of poor health or disease. **Fair** Exhibiting signs of poor health or minor disease infections that are not considered to be hazardous. **Poor** Disease present in considerable quantities or with very poor physiological vigour. **Very Poor** Tree is in a moribund state in extremely poor condition, usually with little chance of recovery.
Structural Condition:	**Good** A tree with no significant structural defects. **Fair** Minor defects may have been observed but are not considered to be immediately hazardous. **Poor** Significant defects found. Tree requires monitoring or remedial works. **Very Poor** Major defects that require immediate remedial work or the removal of the tree.
Life Expectancy:	The estimated number of years before the tree may require removal should no unexpected mechanical or environmental impacts occur to the tree.
Retention Category:	Please refer to Tree retention categorisation table on the next page.

Appendix 3 – Tree Retention Category

The following table provides an explanation of retention categories used.		
Trees to be removed		Colour on Plan
Category U Includes trees of very low quality that offer little or no amenity value.	Trees that are in such a condition that they should be removed as a matter of good arboricultural practice regardless of given proposals.	RED
Trees to be considered for retention		
Category A Trees of a high quality, with an estimated life of expectancy of at least 40 years	Trees that are excellent examples of their species, usually mature, especially if rare or unusual including veteran trees. Category A trees are likely to enhance a development and should be retained wherever possible.	GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	Trees that are good examples of their species. B category trees are usually mature or younger trees with the potential to reach A category in the future. Although the retention of these trees is desirable, some losses may be acceptable.	BLUE
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	GREY
NOTE: Trees that are viewed as borderline and do not fit neatly into either of the categories are given a plus or minus rating (+/-) in the tree data schedule. Therefore, C+ would denote a tree being borderline C/B although C is deemed to be the most appropriate category. Similarly, B- would denote a tree being borderline B/C with B seen as the most appropriate category.		

Appendix 4 – Site Plans

The site plans referred to in the report follow this page which include the following:

- Tree Constraints Plan

Although included plans are usually to scale, they are only intended to indicate positions of surveyed trees and dimensions should not be taken from these drawings.

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

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Notes:-

Category A tree, group or hedge

Category B tree, group or hedge

Category C tree, group or hedge

Category U tree, group or hedge

Root Protection Area (RPA)

REV.	DATE.	DESCRIPTION	DRAWN	CHK'D
P01	20/09/17	Planning	KO	ED

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Client:
Stamford Property Holdings

Project:
Longbutt Lane, Lymm

Title:
Tree Constraints Plan

Status: Planning

Project:	Drawn:	Checked:
11548	KO	JC
Scale @ A0: 1:750	Date: 18/08/17	Approved: JC

Drawing No: UG_11548_ARB_TCP_01

Revision: P01

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