

Land North East of Culcheth
Technical Appendix

Peel L&P Holdings (UK) Ltd

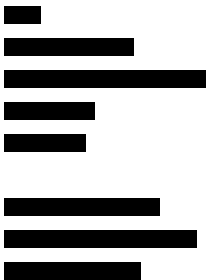
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PARTNERSHIP



LAND NORTHEAST OF CULCHETH WARRINGTON PRELIMINARY ECOLOGICAL ASSESSMENT



Offices in Warrington, Market Harborough, Gateshead, London and Cornwall

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APPENDICES

- APPENDIX A: Proposed Development
- APPENDIX B: Desk Study
- APPENDIX C: Target Notes

DRAWING

G6929.01.009 Phase 1 Habitat Plan

Executive Summary

- 1.1 TEP was commissioned by Peel L&P Holdings (UK) Limited (Peel) in May 2018 to carry out an ecological assessment of Land north east of Culcheth, Warrington, to inform release of this site for development as part of the new Warrington Local Plan.
- 1.2 The site is located off Warrington road, Culcheth and is composed of large arable fields separated by hedgerows, ditches and tree lines. There are also areas of tall ruderal vegetation, dense scrub and two farmyards present on site. Hitchfield Wood Local Wildlife Site is also present in the north east of site. The site has good connectivity to the wider area along the surrounding tree lines and hedgerows.
- 1.3 A constraints and opportunities report was produced by TEP for this site in September 2017 and also included an extended Phase 1 Habitat Survey and desktop assessment. This Ecological Assessment is based on the findings of those surveys.
- 1.4 Based on the desktop assessment and site surveys described in the sections below, TEP's assessment indicates that there are no overriding ecological constraints which preclude sustainable development of land north east of Culcheth.
- 1.5 Hitchfield Wood LWS lies within the east of the site. Measures will be implemented as part of a Construction Environmental Management Plan (CEMP) to ensure there are no direct or indirect impacts on this site.
- 1.6 An Arboricultural Report has been produced by TEP. All recommendations made in this report will be adhered to in order to ensure any retained trees and woodland are suitably protected during development. Woodland, ponds, hedgerows and mature trees will be retained where possible but, any losses will be mitigated through the creation of replacement habitat on site.
- 1.7 New crossings through hedgerows, treelines and across watercourses are to be created. These will be designed so as to minimise impacts on protected species and habitats. Any losses will be mitigated within the two new country parks proposed for the site.
- 1.8 Himalayan balsam is present in the east of site. A management plan will be produced detailing measures required to prevent its spread during development. The management plan will be informed by an updated survey for invasive species.
- 1.9 There are trees and buildings on site which may support roosting bats, and the site boundaries and internal linear features offer foraging and commuting potential to local bat species. Further survey will be undertaken to determine the bat species assemblage present and the use of the site by foraging, commuting and roosting bats. Should bats be identified and are likely to be impacted by development, mitigation measures and/or a licence from Natural England may be required.
- 1.10 Two ponds are present on site with a further eight within 500m. These will be subject to further detailed survey to confirm the presence or absence of great crested newts. If great crested newts are identified on site it is likely a licence will be required from Natural England.

- 1.11 Water vole surveys will be undertaken to inform any development within close proximity to the banks of the watercourses running across the site. Should water vole be present, suitable mitigation measures will be required and a licence may be needed from Natural England.
- 1.12 Further survey will be undertaken to confirm the presence or absence of badger prior to submittal of a detailed planning application.
- 1.13 The habitats present on site are suitable to support nesting birds. If vegetation clearance cannot be undertaken outside the nesting bird season (March - August inclusive) checks must first be undertaken by a suitably qualified ecologist. Surveys to confirm the value of the site to wintering birds will also be undertaken, and appropriate mitigation designed, if required.
- 1.14 A Reasonable Avoidance Method Statement will be produced detailing how harm to both brown hare and hedgehog will be avoided during works.
- 1.15 Biodiversity enhancement measures suitable for this site are set out in section 7.35.
- 1.16 To date no biodiversity net gain assessment, to calculate the change in ecological value, has been undertaken with regard to this site and there is currently no legislation or policy which requires this to be undertaken. However, The Environment Bill is currently passing through parliament, and it is considered likely that this will pass into law prior to commencement of a detailed planning application for this site. The Environment bill will require a minimum 10% net gain on this site.
- 1.17 Therefore, submission of a detailed planning application for this site will be supported through completion of a Biodiversity Net Gain assessment undertaken using Biodiversity Metric 3.0 and a minimum 10% net gain will be achieved for the development. The methods for this are detailed in the recommendations section of this report.

1.0 Introduction

- 1.1 TEP was commissioned by Peel in May 2018 to carry out a preliminary ecological assessment of Land northeast of Culcheth, to inform potential future residential development of the site.
- 1.2 Warrington Council is currently undertaking a review of their local plan. As part of this there has been a call for sites which are capable of supporting new residential development. Peel considers that this site would represent a sustainable location for residential development, capable of making a very significant contribution to meeting the housing needs of Warrington over the emerging plan period.
- 1.3 TEP undertook a constraints and opportunities assessment for this site in September 2017 (Ref: 6612.03.002). This included an extended Phase 1 Habitat Survey and desk based assessment. An Arboricultural Constraints report has also been produced for the site (TEP Ref: 6929.02.006) and should be read in conjunction with this report. Site proposals are included at Appendix A.
- 1.4 The assessment has been informed by the following surveys:
 - Desk study;
 - Extended Phase 1 habitat survey; and
 - Ground-based inspection of trees for bat roost potential.
- 1.5 The objectives of this assessment are to:
 - Describe the existing vegetation and give an overview of the habitats present;
 - Identify any features of conservation value such as designated sites and protected or notable habitats and species within the site or the wider zone of influence;
 - Advise on further survey or mitigation requirements that may be needed to inform the evolving proposal; and
 - Outline opportunities for biodiversity enhancement in line with the requirements of the National Planning Policy Framework.

2.0 Site Overview

- 2.1 The site is located off Warrington Road, Culcheth and is composed of large arable fields separated by hedgerows, ditches and tree lines. There are also areas of tall ruderal vegetation, dense scrub and two farm yards present on site. Hitchfield Wood Local Wildlife Site is also present in the north east of site.
- 2.2 The site is located directly north east of the village of Culcheth and is bounded to the north by a train line and open farmland, to the east by further open farmland, to the south by residential development and Culcheth high school and to the west by residential development. The wider area is made up of residential development and farmland.

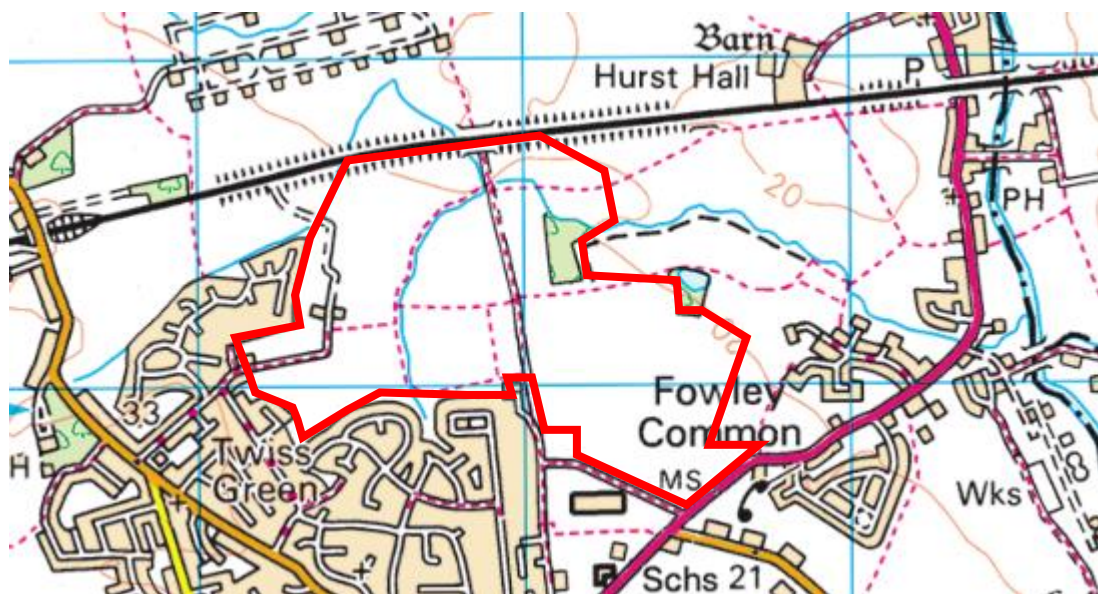


Figure 1. Site Location Plan (Contains Ordnance Survey data © Crown copyright and database right 2018).

3.0 Methods

Desk Study

- 3.1 Information regarding designated sites, notable habitats and existing protected and notable species records of the past decade, within a 1km minimum radius of the site (distances as specified in table), was gathered from the sources listed in Table 1. Relevant policies from the local plan(s) relating to biodiversity were also identified (Table 1).

Table 1. Desk Study Information Sources

Source	Nature of Information
MAGIC Map ¹	Statutory protected sites and priority habitats to 1km from the site boundary, with international sites to 10km.
Local Environmental Records Centre	Local wildlife sites and citations, species records to 1km from the site boundary.
Local Plan	Any planning policy allocations on the site. Relevant biodiversity policies, local wildlife site designations, wildlife corridors.
Local Biodiversity Action Plan	Local habitat and species action plans

Limitations

- 3.2 Species records can provide a useful indication of the species present within the search area, although the absence of a given species from the dataset cannot be taken to represent actual absence.

Extended Phase 1 Habitat Survey

- 3.3 A Phase 1 Habitat survey was completed by TEP ecologist Phil Askew in September 2017 using the standard JNCC Phase 1 habitat assessment method (2010)². This method records the habitat types present in and immediately surrounding the site, based on the JNCC descriptions. Plant species are identified in accordance with Stace (2010)³ and recorded as target notes using the DAFOR⁴ scale.

¹ Multi-Agency Geographic Information for the Countryside - Searchable mapping website

² JNCC (2010) Handbook for Phase 1 Habitat Survey: A technique for environmental audit. Joint Nature Conservation Committee, Peterborough

³ Stace, C. (2010) New Flora of the British Isles. 3rd Ed. Cambridge University Press

⁴ DAFOR = Dominant, Abundant, Frequent, Occasional & Rare

- 3.4 The survey method was extended through the additional recording of specific features indicating the presence, or potential presence, of protected species or other species of nature conservation significance, including invasive species, in accordance with Guidelines for Preliminary Baseline Ecological Appraisal (CIEEM, 2013⁵).

Limitations

- 3.5 The site survey was undertaken during the optimum time period of April to October and the whole site could be accessed, there are therefore no limitations to the survey.

Bats

Ground-based Inspection of Trees

- 3.6 A ground-based inspection of trees was carried out alongside the Phase 1 Habitat Survey, looking for signs of bat activity and features suitable for roosting in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) (Collins, 2016)⁶.
- 3.7 Potential roost features (PRF) include rot holes, splits, snags and flaking or lifted bark. Ivy cover can be suitable for roosting, for example, where the stems are overlapping and matted to form a crevice feature beneath. Ivy cover that is not sufficiently established to offer roosting opportunities, but which may mask other suitable features on a tree, is noted separately as a potential constraint.
- 3.8 Each tree was then categorised, based on the findings of the inspection. In parallel with this, the proposed working areas were considered for their value to support foraging and dispersal by bats, taking into account the habitats present, their position in the wider landscape of the estate and connectivity to surrounding habitat features. The categories used are as listed in Table 2 (based on Collins, 2016, Table 4.1).
- 3.9 The findings of the daytime inspections are used to determine the scope of any further nocturnal surveys to ascertain whether a roost is present and, if so, the species and status.

Limitations

- 3.10 The survey was undertaken in September when the trees were still in leaf, this limits the surveyor's ability to see small cracks and crevices within the tree canopy.

Table 2. Categorisation of Trees and Habitats for Bats

Category of Suitability	Description of Roosting Habitat	Description of Habitat for Foraging & Dispersal
Confirmed roost	Roosting bats or evidence thereof identified.	Habitats known to be used by bats entering or exiting the roost, or which support associated foraging or commuting behaviour.

⁵ Chartered Institute of Ecology and Environmental Management. Guidelines for Preliminary Ecological Appraisal. (CIEEM <http://www.cieem.net/>), 2013.

⁶ Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)

Category of Suitability	Description of Roosting Habitat	Description of Habitat for Foraging & Dispersal
High suitability	A tree possessing potential roost features (PRF) that is/are suitable for use by larger numbers of bats on a regular basis and potentially for longer periods of time, due to their size, shelter, protection and surrounding habitat.	Continuous high quality habitat that is strongly connected with the wider landscape and is likely to be used regularly by commuting or dispersing bats (e.g. river valley, vegetated stream, woodland edge, hedgerows with trees), or by foraging bats (e.g. broadleaved woodland, grazed parkland, tree-lined watercourses or ponds).
Moderate suitability	A tree with PRF that could be used by bats but which is unlikely to support a roost of high conservation status with respect to roost type i.e. maternity or hibernation. Note: Roosts of high conservation status with respect to species can only be determined once presence is confirmed.	Continuous habitat connected to the wider landscape that could be used by bats for commuting (e.g. lines of trees or scrub or linked back gardens), or foraging bats (e.g. trees, scrub, water, grassland).
Low suitability	A tree with PRF that could be used by individual bats on an opportunistic basis, but which do not offer sufficient space, shelter, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.	Habitat that could be used by small numbers of commuting bats (e.g. a gappy hedgerow or un-vegetated stream) or foraging bats (e.g. a lone tree or small patch of scrub) but which is not well connected to the surrounding countryside.
Negligible suitability	Inspected tree with no/exceptionally poor suitability PRF.	No, or exceptionally poor quality, habitat features on site that likely to be used by foraging, commuting or dispersing bats. A general lack of linear features and low habitat, structural or floristic diversity.

Water Vole/ Otter

- 3.11 No detailed survey for water vole and otter was undertaken, however, any watercourses present on site were subject to a visual assessment from the banks of the watercourse for their potential to support these species.

Badger

3.12 A detailed badger survey was undertaken alongside the Phase 1 Habitat Survey. The standard methodology as recommended by Harris, Cresswell and Jefferies (1989) was followed to complete a thorough search for evidence which would indicate the presence of badgers both on the site and locally. Evidence of badger occupation and activity sought included:

- Setts: including earth mounds, evidence of bedding and pathways between setts;
- Latrines: often located close to setts, at territory boundaries or adjacent to favoured feeding areas;
- Prints and paths or trackways;
- Hairs caught on rough wood or fencing;
- Other evidence: including snuffle holes, feeding and playing areas and scratching posts.

Limitations

3.13 All areas of the site could be suitably accessed during the survey. There were no specific limitations.

4.0 Results

Planning Context

- 4.1 Relevant extracts of local planning policy are provided in the desk study (Appendix B). In summary, the site lies within the greenbelt in the Warrington Borough Council Local Plan Core Strategy (adopted July 2014).
- 4.2 Ecological policies relevant to the site include Policy QE5 'Biodiversity and Geodiversity', which sets out the council's aim to protect and, where, possible enhance sites of recognised nature and geological value, and Policy QE6 'Environment and Amenity Protection' which states that the council 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.

Designated Sites

- 4.3 There are two European protected sites within 10km. These are Manchester Mosses Special Area of Conservation (SAC), which is composed of a number of different sites and is designated for its degraded raised bog habitat which is still capable of natural regeneration. The closest part of this lies approximately 2.5km north east of the site. The other site is Rixton Clay Pits SAC which lies approximately 5.3km to the south east and is designated for its populations of great crested newt. Due to their distance from the Culcheth site and reasons for designation, no impacts are anticipated on either site.
- 4.4 There are no nationally designated sites within 1km.
- 4.5 Two Local Wildlife Sites (LWS) were identified in the desktop data provided by rECOrd. The first of these is Hitchfield Wood LWS which is located within the north east of the site. The second LWS is Eleven Acre Common LWS located approximately 800m south west of the proposed development site.
- 4.6 The site falls within two SSSI Impact Risk Zones (IRZ), but it is not clear exactly which site these are for as there are a number within close proximity. IRZs highlight the potential for effects on a SSSI if certain types of development are planned within a specified radius of it. Potentially relevant categories include:
- Discharges - any discharge of water or liquid waste over 20m³/day to ground or to surface water.

Habitats and Flora

- 4.7 The desk study (Appendix B) identified the following notable habitats and flora. Notable habitats identified on the MAGIC Map dataset on or adjacent to site are as follows:
- Deciduous woodland is present in the north east of site and directly adjacent to the eastern boundary.
- 4.8 Records of the following flora were also returned within 1km of the site:

- Protected species: Cornflower *Centaurea cyanus* (S41),
- Non-native invasive species: Himalayan cotoneaster *Cotoneaster simonsii*, hollyberry cotoneaster *Cotoneaster bullatus*, Montbretia *Crocsmia x crocosmifolia*, Himalayan balsam *Impatiens glandulifera* and Japanese knotweed *Fallopia japonica*.

4.9 Habitats present in and around the site are described below and illustrated in TEP drawing G6929.01.009. Target notes are provided in Appendix C.

Trees and Scrub Habitats

- 4.10 There are six distinct areas of semi natural broadleaved woodland on site. Two small parcels are present along the northern site boundary with a further small parcel present in the eastern extent of the site and another small copse surrounded by arable land in the north of site. These are dominated by English oak *Quercus robur*.
- 4.11 The most significant areas of woodland are Wellfield Wood which runs north south through the centre of the site and Hitchfield Wood which is located in the north east of site. Wellfield wood (TN9) is dominated by English oak with other tree species present including frequent sycamore *Acer pseudoplatanus*, beech *Fagus sylvatica*, ash *Fraxinus excelsior* and hawthorn *Crataegus monogyna*. The understory is dominated by Yorkshire fog *Holcus lanatus* and pendulous sedge *Carex pendula*.
- 4.12 Hitchfield Wood (TN4) is a mature broadleaved woodland with areas of standing water and is generally wet throughout. It is dominated by both beech and English oak. Its understory contains abundant Yorkshire fog, bramble *Rubus fruticosus agg* and red campion *Silene dioica*.
- 4.13 Beyond the woodland trees there are a number of mature trees scattered across the site, largely around field boundaries with the exception of a small number of trees within the northern most field. These scattered trees are dominated by English oak.
- 4.14 In the east of site is an unmanaged field which contains large expanses of bramble dominated scrub and occasional scattered scrub is present across the site.
- 4.15 Hedgerows are present across the site and incorporate species poor intact and defunct hedgerows dominated by hawthorn and species poor hedgerows with trees.
- 4.16 The woodland and hedgerows will qualify as important habitats under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. There are also several areas within the site which are covered by Tree Preservation Orders (TPOs).

Grassland Habitats

- 4.17 A field to the south west of site has been set aside and has become covered by modified neutral grassland (TN10) with another small strip present along the southern boundary (TN1). This grassland contains abundant false oat grass *Arrhenatherum elatius*, cocks foot *Dactylis glomerata*, common couch *Elytrigia repens* and Yorkshire fog.
- 4.18 In the north east of site is another grassland field which had been recently cut at the time of survey. This is species poor semi improved and contains abundant greater plantain *Plantago major* and meadow buttercup *Ranunculus acris*.

Tall ruderal Habitats

- 4.19 There are two extensive areas of tall ruderal vegetation on site, one to the north (TN5 and TN6) and one to the south east. These are both areas of arable land which have been unmanaged and allowed to become rank. The tall ruderal vegetation is dominated by broad leaved dock *Rumex obtusifolius*, common ragwort *Senecio jacobaea* and dandelion *Taraxacum officinale agg.* Within the tall ruderal vegetation at TN5 is a small area of marshy grassland containing both soft rush *Juncus effusus* and hard rush *Juncus inflexus*.

Wetland Habitats

- 4.20 There are two ponds on site, one is a small woodland pond present in the north east corner of the site and the other is located within Hitchfield Wood. A number of wet pools are also present in Hitchfield Wood.
- 4.21 There are two wet ditches on site, one runs south to north through the site along Wellfield Wood and is part of Jibcroft Brook. This was flowing at the time of survey and is heavily shaded by woodland along the majority of its route. The other watercourse is located in the centre of the site and is a narrow field drain which empties into Hitchfield Wood.

Other Habitats

- 4.22 There are two farms present within the site boundary, Tanner's Farm and Leatherbarrow Farm. These consist of farm buildings and associated barns with hardstanding yards and roads between.
- 4.23 The remainder of the fields on site are covered by arable crops which look to be well managed.

Protected and Invasive Flora

- 4.24 Himalayan balsam, an invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981, has been identified in several places within the site. The exact locations are shown in the Phase 1 Habitat plan (G6929.01.009)

Connectivity with the Wider Landscape

- 4.25 The site has good connectivity to the wider area along the treelines and hedgerows which border the site and along the railway line at the northern boundary.

Fauna

Bats

- 4.26 Common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* have been recorded within 1km. The closest record for both is immediately outside the western boundary.

- 4.27 Trees on site were subject to a ground based inspection for their potential to support roosting bats. The results of this survey are shown in the Phase 1 habitat drawing (Ref: 6929.01.009). In summary there are a number of trees spread across the site with roosting bat potential, the majority of these are English oak. Two trees were found with low potential to support roosting bats, two with moderate potential and one with high potential.
- 4.28 It is likely that the farm buildings on site will also offer roosting potential to local bat species.
- 4.29 The site offers roosting potential in trees and buildings, and foraging and commuting potential along the site boundaries and internal linear features.

Amphibians

- 4.30 No records of protected amphibian species were recorded on or within 1km of the site boundary.
- 4.31 There are two ponds present on site and several within 500m. These ponds may be suitable to support breeding amphibians. There is also suitable habitat present which offers foraging and hibernation potential.

Otter and water vole

- 4.32 No records of otter *Lutra lutra* or water vole *Arvicola amphibius* have been returned within 1km.
- 4.33 The watercourses running across the site contain habitat suitable to support water vole with running water and vegetated banks. They are unlikely, given their size and adjacent habitats, to support otter.

Badger

- 4.34 No records of badger *Meles meles* have been returned within 1km.
- 4.35 No evidence of badger was found on site such as snuffle holes, latrines or setts. However, there is habitat suitable to support this species on and directly adjacent to site, primarily the areas of semi natural broadleaved woodland.

Birds

- 4.36 Extensive bird records have been recorded within 1km of site including birds listed under Birds of Conservation Concern, S41 priority species and those listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). Schedule 1 birds include brambling *Fringilla montifringilla*, fieldfare *Turdus pilaris*, peregrine *Falco peregrinus* and redwing *turdus iliacus*.
- 4.37 Of the Schedule 1 species listed fieldfare, redwing and brambling have been identified closest to site (250m west).
- 4.38 The site has potential to support wintering birds given its large size, open flight lines and arable crops. Pink footed geese *Anser brachyrhynchus* have been recorded within 1km of the site.

Other Fauna

- 4.39 No significant records of invertebrates were returned within 1km. The site lacks any significant areas of flowering plants suitable to support an important invertebrate population, so invertebrates are not considered further in this report.
- 4.40 No records of reptiles were returned and the site contains little suitable habitat to support reptiles. This group is therefore not considered further in this report.
- 4.41 The site has potential to support both brown hare *Lepus europaeus* and hedgehog *Erinaceus europaeus*, both have previously been recorded on site.

5.0 Discussion and Conclusions

- 5.1 This section discusses the potential impacts on ecological receptors associated with the proposed development plan (Appendix A). Consideration is given to the 'mitigation hierarchy', i.e. that impacts are first avoided or, where this is not practicable, mitigated and as a final resort, compensated (off-set).
- 5.2 The proposed development, as shown in the conceptual masterplan (Ref: 630DC-20) includes areas of residential development within the centre of the site and two new country parks, one to the north and one to the east.

Designated Sites

- 5.3 Hitchfield Wood LWS is located within the north east of the site. The proposals at Appendix A show this site is to be retained and separated from the proposed development by green open space. However there is some potential for indirect negative impacts on this LWS from both air and waterborne pollution, damage to tree roots and from increased public pressure on the site. Mitigation measures to avoid negative impacts are discussed in Section 7.0.
- 5.4 All other protected sites lack connectivity to the site or are of a distance where direct or indirect impacts are unlikely to occur.
- 5.5 The site lies within two SSSI IRZs. Although residential development is not identified as of concern, if run off of surface water to ground or nearby watercourses exceeds 20m³ per day the council should consult with Natural England to discuss the potential impacts.

Habitats and Flora

- 5.6 The habitats of highest importance on site are the ponds, woodland blocks and the hedgerows. These are S41 habitats of principal importance. However, all ponds and woodland blocks are to be retained throughout development as shown in the proposals at Appendix A, although a single crossing through Wellfield Wood may be required which will need to be carefully designed to minimise impacts on ecology. This woodland is also covered by a TPO so permission will be sought from the Council if tree removal is required. Hedgerows will be lost to development but will be suitably mitigated for on site in the final design.
- 5.7 There is adequate space for creation of any new habitats required for mitigation within the two new proposed country parks within the site boundary.
- 5.8 The watercourses and mature tree lines crossing the site are also of high ecological value as they offer foraging, commuting and breeding opportunity for a range of species. These watercourses and tree lines are to be retained. However, road and bridge crossing points will be required. These will be carefully designed and micro-sited to minimise impacts on features of ecological value and any losses will be mitigated within the new country parks as discussed in Section 7.0.
- 5.9 The areas of grassland and arable crops across the site are to be lost to development, however these are of little ecological value.

5.10 Himalayan balsam has been recorded on site. A management plan for removal of this species will be produced to support the development.

5.11 No protected plant species were recorded on site.

Fauna

Bats

5.12 All British bats are European protected species, afforded full protection under the Conservation of Habitats & Species Regulations 2010 (as amended) and partial protection under the Wildlife and Countryside Act 1981 (as amended). Bats are protected from killing or injury, and from disturbance at the place of rest. Bat roosts are also protected from obstruction, damage or destruction (whether or not a bat is in occupation at the time).

5.13 There are a number of trees on site with low, moderate and high potential to support roosting bats. Further survey of these trees will be undertaken as detailed in Section 7.0.

5.14 There are a number of farm buildings associated with the two farms on site which will require further survey to determine their potential to support roosting bats. Surveys recommended to support development and a future planning application are discussed in Section 7.0.

5.15 The trees, hedgerows and woodland within the site and along the boundaries offer foraging and commuting potential for bats. Bat activity surveys will be undertaken to determine the use of the site by the local bat population as discussed in Section 7.0.

5.16 Should roosting bats be identified and unavoidably impacted there is suitable habitat on site for mitigation for the loss of bat roosts. New roost boxes can be installed within retained trees across the site.

Amphibians

5.17 Great crested newts (GCN) and their habitats are protected under the Conservation of Habitats & Species Regulations 2010 (as amended) and the Wildlife & Countryside Act 1981 (as amended).

5.18 Two ponds are present on site with another eight present within 500m with direct connectivity to site. Further survey of these ponds will be undertaken to determine the presence or absence of GCN as discussed in Section 7.0.

5.19 Should GCN be confirmed on site, any required mitigation, such as the creation of new ponds, will be included within the two new country parks on site.

Water vole

5.20 The water vole is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 and is a priority conservation species.

5.21 The watercourses running across the site have potential to support breeding water vole. Further survey for this species will be undertaken as detailed in Section 7.0.

- 5.22 If mitigation is required for this species, there is adequate space for mitigation within the two new country parks present on site.

Badger

- 5.23 Badgers are fully protected under 'The Protection of Badgers Act 1992'. No evidence of badger was identified on site, however habitats present are capable of supporting badger and have sett building potential. Further survey for this species will be undertaken prior to development as detailed in Section 7.0.

Birds

- 5.24 Native nesting birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981 (as amended) from damage and destruction, from the time of nest construction to fledging of the young. This is a risk if vegetation clearance or lopping of trees is carried out in the nesting period (generally considered to be between March to August inclusive, although some species nest outside this period).
- 5.25 The site also has potential to support protected wintering bird species. Further survey for wintering birds will be undertaken as detailed in Section 7.0.

Other

- 5.26 The site has suitability to support both brown hare and hedgehog and records of both species have been returned on site. A Reasonable Avoidance Method Statement (RAMS) will be produced to ensure there are no negative effects on these species.

6.0 Recommendations

- 6.1 This section sets out appropriate recommendations for impact avoidance, mitigation and enhancement. Any requirement for further surveys is also described, where relevant.
- 6.2 The site is currently being considered for release in the new Warrington Local Plan. This information relates to further survey, mitigation, avoidance and enhancement measures required should the site be taken forward for a detailed planning application.
- 6.3 The proposed development, as shown in the conceptual masterplan (Ref: 630DC-21D) includes areas of residential development within the centre of the site, a new country park to the north of site and a large area of POS to the east. These areas provide significant opportunity for ecological enhancement on site and can be used for mitigation of species impacts if required.

Designated Sites

- 6.4 Hitchfield Wood LWS lies in the east of site. Measures will be detailed within a Construction Environmental Management Plan (CEMP) to ensure there are no impacts from wind or waterborne pollution. Measures will also be included to ensure there is no accidental encroachment into the LWS, or tree root protection zones, during development. Measures detailing protection of retained trees within Hitchfield Wood LWS are included within the Arboricultural Report produced by TEP and will be adhered to throughout the development.
- 6.5 There may be increased public pressure on the site for amenity use and for dog walking. This is to be mitigated through the creation of a new country park in the north of site and a large area of Public Open Space (POS) in the east of site which will provide a significant amount of publically accessible land for recreational use.

Habitats and Flora

- 6.6 The habitats of highest importance on site are the ponds, hedgerows and the woodland blocks present across site. The ponds and woodland blocks are to be retained, with the exception of a single crossing of Wellfield Wood which may be required and will entail removal of approximately 5m of woodland belt. The crossing point will be informed by detailed ecological and arboricultural survey to identify the location with the lowest ecological impact, and to address the issues relating to TPO loss. The loss of woodland will be offset within the newly created country parks.
- 6.7 An Arboricultural Report has been produced by TEP. The recommendations made in this report will be adhered to throughout the development to ensure all retained trees are suitably protected during development.
- 6.8 Mature hedgerows are to be lost during development. These hedgerows are S41 habitats of principal importance and their loss will be mitigated for by the creation of new species rich native hedgerows within the country parks.

- 6.9 A number of mature trees may also be affected by development. Replacement native tree planting will be undertaken to mitigate for the loss of any trees on site at a rate of two for one within the new country parks.
- 6.10 New bridge and road crossings will be required across the watercourses on site. These will be designed with wildlife in mind, avoiding mature trees and other features of ecological value where possible. Their placement will also take into account the results of the water vole survey as discussed below.

Invasive Species

- 6.11 Himalayan balsam is present within the south of site. This is listed under Schedule 9 of the Wildlife and Countryside Act 1981, as amended, which makes it an offence to grow or otherwise cause this species to spread in the wild. A site specific management plan will be produced detailing the management and removal of this species prior to development and this will be included within the CEMP. There are also records of several other non-native invasive species within 1km of the site. To ensure there has been no spread of invasive species on to site, an updated survey will be undertaken to map all invasive species prior to works commencing.

Bats

- 6.12 There are a number of trees with bat roosting potential on site. Prior to submission of a detailed planning application an updated ground based assessment of trees with bat potential will be undertaken to identify any change in the trees since the last survey.
- 6.13 Trees with moderate or high potential should ideally be retained. However if removal is necessary these will first be climbed, if possible, under supervision of a licensed bat consultant, to further investigate potential roosting features using an endoscope.
- 6.14 If aerial survey is inconclusive, or not feasible, or trees are confirmed as having moderate or high potential to support roosting bats, dusk emergence or dawn re-entry surveys will be undertaken. Trees with moderate potential will require two surveys and those with high potential will require three surveys in line with advice provided in the Bat Conservation Trust Guidelines 2016. Should dusk emergence or dawn re-entry surveys be required these can only be undertaken between May and August.
- 6.15 If roosting bats are confirmed, and a tree requires removal, a licence would first be gained from Natural England. Should mitigation for loss of roosts be required, there is adequate space for this to be undertaken within the two proposed country parks.
- 6.16 Any trees identified as containing low potential to support roosting bats, can be felled under the supervision of a licensed bat consultant.
- 6.17 The buildings on site associated with Tanner's Farm and Leatherbarrow Farm will, prior to submittal of a detailed planning application, be subject to a detailed internal and external bat survey, by a licensed bat surveyor, to confirm their potential to support roosting bats. If the buildings are found to have potential to support roosting bats further survey will be required.

- 6.18 Buildings with low potential will be subject to one dusk emergence or dawn re-entry survey, those with moderate potential will be subject to two surveys and those with high potential will be subject to three surveys. If roosting is confirmed in any buildings to be lost a licence will be required from Natural England.
- 6.19 Should mitigation be required for loss of building roosts mitigation will be undertaken through creation of replacement features within the new areas of proposed housing.
- 6.20 There are a number of tree lines and waterways across the site and site boundaries. Further survey will be undertaken prior to development to determine if these are important foraging or commuting routes for bats.
- 6.21 The habitats on site have moderate suitability to support bats. Therefore, one dusk or dawn transect survey visit per month will be undertaken (April to October) including at least one survey incorporating both dusk and dawn within a 24hr period. Static monitoring will also be required at two locations per transect and must be left on site for five consecutive nights in suitable weather conditions.
- 6.22 If important bat foraging and commuting routes are identified on site a detailed mitigation strategy will be produced prior to development. This will include details on retention of important habitats, creation of suitable mitigation measures and details on a suitable lighting strategy for the site.

Great Crested Newt

- 6.23 Two ponds are present on site with a further eight located within 500m. These will be subject to further survey prior to development. Initially eDNA assessment of any of the ponds within influencing distance of the site will be undertaken. This involves water samples being collected from the pond by a suitably licensed ecologist and sent to a lab for testing. This survey would confirm the presence or absence of GCN only. This survey can be undertaken between 15th April and 30th June only.
- 6.24 Should the eDNA analysis confirm the presence of GCN then traditional surveys involving bottle trapping, egg searching and torchlight survey would be undertaken. A total of six surveys are required across March to June to confirm the population size with three surveys during the peak season of mid-April to mid-May.
- 6.25 If GCN are found to be present on site a licence would be required from Natural England to enable works. There have recently been a number of new policies introduced by Natural England in relation to GCN mitigation. The most appropriate method for mitigating newts on site should be reviewed at the time of submittal for planning.
- 6.26 If on-site mitigation is required, there is adequate space within the new country parks for mitigation to be undertaken including the construction of new ponds.
- 6.27 It is also likely that common toad and other common amphibians will be present on site. As part of the CEMP an Amphibian Reasonable Avoidance Method Statement will be produced to prevent harm to amphibians during site clearance works.

Water vole

- 6.28 The majority of development on site will contain at least a 5m buffer between the banks of the watercourses and closest development, avoiding any potential impacts. However, road and bridge crossings are required across the water courses on site to allow connection of new roads. To ensure there are no adverse impacts on water vole detailed survey of the watercourses will be undertaken to inform siting of the new crossings.
- 6.29 Water vole surveys, which require two site visits, should be undertaken one between mid-April and June and the other between July and September with the surveys undertaken at least two months apart.
- 6.30 If any evidence of water vole is found, the first step should be to adjust the crossing location to avoid any impacts. The bridge would also need to be designed in such a way as to not limit commuting for water vole along the watercourse. If this is not possible and this species is to be directly impacted by development, a licence may be required from Natural England.

Badger

- 6.31 No evidence of badger was recorded on site, however, badgers are highly transient. Therefore, prior to submittal of a detailed planning application, an updated survey for presence of badger activity on site will be undertaken.
- 6.32 No development should take place within 30m of a badger sett. Where this is not possible the activity status of each sett entrance must first be established. The activity survey involves monitoring each hole identified on site for a period of four weeks using sand traps, hair traps and camera traps to determine if the holes are in use. If holes are found to be present within 30m of development, and are found to be active during the monitoring period, they may then need to be closed under licence from Natural England.
- 6.33 Should a replacement sett be required there is adequate space within the new country parks for creation of an artificial sett and other mitigation required for badgers.

Birds

- 6.34 To avoid adverse impact on birds, any vegetation clearance, or lopping of trees, should be completed outside of the nesting period (typically taken to be March to August inclusive). Where this is not practicable, a nesting bird check must be carried out by a suitably qualified ecologist a maximum of 24 hours in advance of works to confirm no active nests are present. In the event that an active nest is identified, works within the surrounding area (radius dependent on species and context) must halt until the chicks have fledged.

- 6.35 Given the size of the site, the habitats present and the clear flight lines, the site is considered suitable for supporting wintering bird species. A full winter bird survey will be undertaken prior to submittal of a detailed planning application. Winter bird surveys involve a total of five surveys across September to April. Surveys will cover the entire site as well as land within 100m of the site boundary. Each survey will take place for one hour either side of high tide, when birds are more likely to be feeding/roosting on farmland.
- 6.36 Should an important population of wintering birds be identified on site then mitigation will be required. Details of suitable mitigation can only be provided following completion of the surveys and identification of the species using the site.

Hedgehog and Brown hare

- 6.37 There is potential for both brown hare and hedgehog to use this site. A Reasonable Avoidance Method Statement (RAMS) will be produced to ensure that there are no negative impacts on either of these species during site clearance works. This will be included within the CEMP for the site.

Biodiversity Enhancement

- 6.38 Potential biodiversity enhancement measures which could be implemented on the site include:
- Installing a selection of bird boxes on the site will enhance nesting opportunities for a range of birds.
 - Enhancement of roosting opportunities could be provided via the installation of bat boxes around the site. A range of bat boxes could be installed on retained trees or, where feasible, within the structure of the new build.
 - Landscaping proposals should consider provision of pockets of wildflower/grassland planting. The new planting mix should include an appropriate native grassland/wildflower seed mix which should enhance the ecological value of the site.
 - Within the proposed country parks provision should be made to expand the amount of woodland present on site through inclusion of new native broadleaf woodland blocks.
 - New hedgerow planting should be included within the country park to maintain connectivity across the site. Hedgerows should be mixed native double hedgerows to offer maximum value to local wildlife.
 - Consideration should be given for the inclusion of new ponds or wetland habitats within the proposed country parks.
 - Any ornamental/landscape planting should aim to include berry-bearing and nectar rich species which are native or of known wildlife value. These can provide a foraging resource for a range of wildlife species including invertebrates, and will also provide a foraging resource for birds and bats.

Biodiversity net gain

- 6.39 It is considered likely that prior to submission of a detailed planning application for this site the Environment Bill will pass through parliament and will be written into law. There will be a requirement within this that each development site achieves a minimum 10% net gain in biodiversity. Therefore, any detailed planning application for this site will be accompanied by a completed biodiversity metric using the methods set out below.

Site survey

- 6.40 A site survey will be undertaken in line with the requirements of the Biodiversity Metric 3.0, using methodologies provided in both the Biodiversity Metric 3.0 user guide⁷ and Technical Supplement⁸.
- 6.41 In brief the site survey comprises an assessment of the habitats present on using the UKHAB survey methodology to determine the type of habitats present. Alongside this a condition assessment of each individual habitat is undertaken using the condition assessment sheets within the technical supplement.

Completion of the metric

- 6.42 The habitat information (type and size) and condition are then fed into the Biodiversity Metric 3.0 for habitats pre and post development, split out between area and linear habitats. An assessment of the sites strategic significance is then undertaken and also entered into the metric for each habitat.
- 6.43 Once all the above data is entered the Biodiversity Metric 3.0 will provide a value for the loss or gain in biodiversity units.
- 6.44 A report will be produced detailing the methods and outcome of the assessment and will also identify, in scenarios where there is a loss of habitat units, the best approach to gain credits.

Mitigating for habitat loss

- 6.45 Where there is a loss of biodiversity units on site or 10% gain is not achieved the first approach will be to develop the landscape scheme for the site to gain additional credits. In general species rich meadow grassland, mixed native scrub and woodland planting should be targeted as these achieve a high score post development and offer significant foraging, commuting and in the case of new trees nesting/roosting potential to local species. There are however trading rules within Metric 3.0 which specify like for like replacement for habitats of high value, these would be adhered to during any mitigation proposals.

⁷ STEPHEN PANKS A, NICK WHITE A, AMANDA NEWSOME A, JACK POTTER A, MATT HEYDON A, EDWARD MAYHEW A, MARIA ALVAREZ A, TRUDY RUSSELL A, SARAH J. SCOTT B, MAX HEAVER C, SARAH H. SCOTT C, JO TREWEEK D, BILL BUTCHER E and DAVE STONE A 2021. Biodiversity metric 3.0: Auditing and accounting for biodiversity – User Guide. Natural England.

⁸ STEPHEN PANKS A, NICK WHITE A, AMANDA NEWSOME A, JACK POTTER A, MATT HEYDON A, EDWARD MAYHEW A, MARIA ALVAREZ A, TRUDY RUSSELL A, SARAH J. SCOTT B, MAX HEAVER C, SARAH H. SCOTT C, JO TREWEEK D, BILL BUTCHER E and DAVE STONE A 2021. Biodiversity metric 3.0: Auditing and accounting for biodiversity – Technical Supplement. Natural England.

APPENDIX A: Proposed Development

Area measures:

Total site area	97.12 ha
Developable area	19.34 ha
Spine road	4.19 ha
Open Space	32.62 ha
Culcheth Country Park	38.48 ha
Allotments	0.82 ha
Formal sport	1.40 ha
Allotments/sports car park	0.27 ha

This site could deliver up to 600 units at 31 dwellings per hectare.



Key

- Proposed site boundary
- Proposed Green Belt boundary
- Existing vegetation
- Existing watercourses and waterbodies
- Proposed tree and woodland planting
- Proposed development cell
- Proposed Culcheth Country Park (retained within Green Belt)
- Proposed open space
- Potential school extension
- Sites with planning applications / recently developed
- Proposed new sports pitches
- Retained PRoWs
- Proposed pedestrian links
- Proposed primary road
- Proposed secondary road
- Proposed car parks
- Proposed vehicular access from Warrington Road (priority junction or roundabout)
- Proposed vehicular access from Twiss Green Lane
- Proposed access to Culcheth High School
- Potential emergency link
- Proposed allotments
- Proposed SuDS
- Proposed NEAP/LEAP

NB: Masterplan subject to change following detailed survey work.



Warrington Local Plan Sites

**North East Culcheth
Post Plan Period Illustrative Masterplan**

Drwg No: 630DC-21D
Drawn by: SR
Rev by: SR
QM Status: Checked
Scale: NTS

Date: 07.06.19
Checker: SR
Rev checker: SR
Product Status: Issue

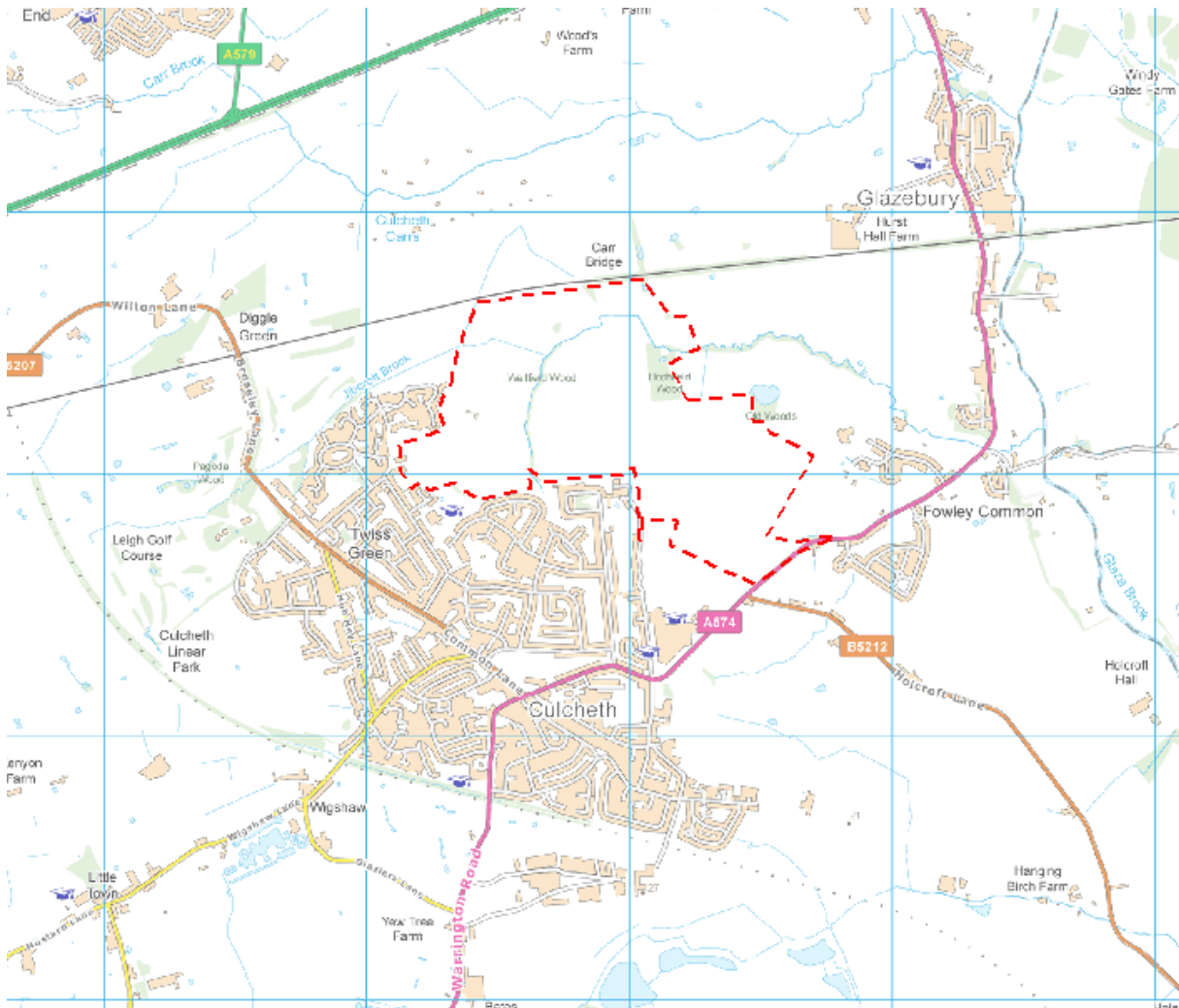
APPENDIX B: Desk Study

**Desk Based Ecology Assessment
Land NE of Culcheth
Approximate Central Grid Reference: SJ6598296090**

Contents

- **Site Location Plan**
- **Extract from Local Plan**
- **Extracts of Relevant Planning Policies**
- **SSSI Impact Risk Zones**
- **International Site Designations**
- **National Site Designations**
- **Habitat Inventory Records**
- **Local Site Designations**
- **Local Species Records**
- **Wildlife Site Citations**

Site Location Plan



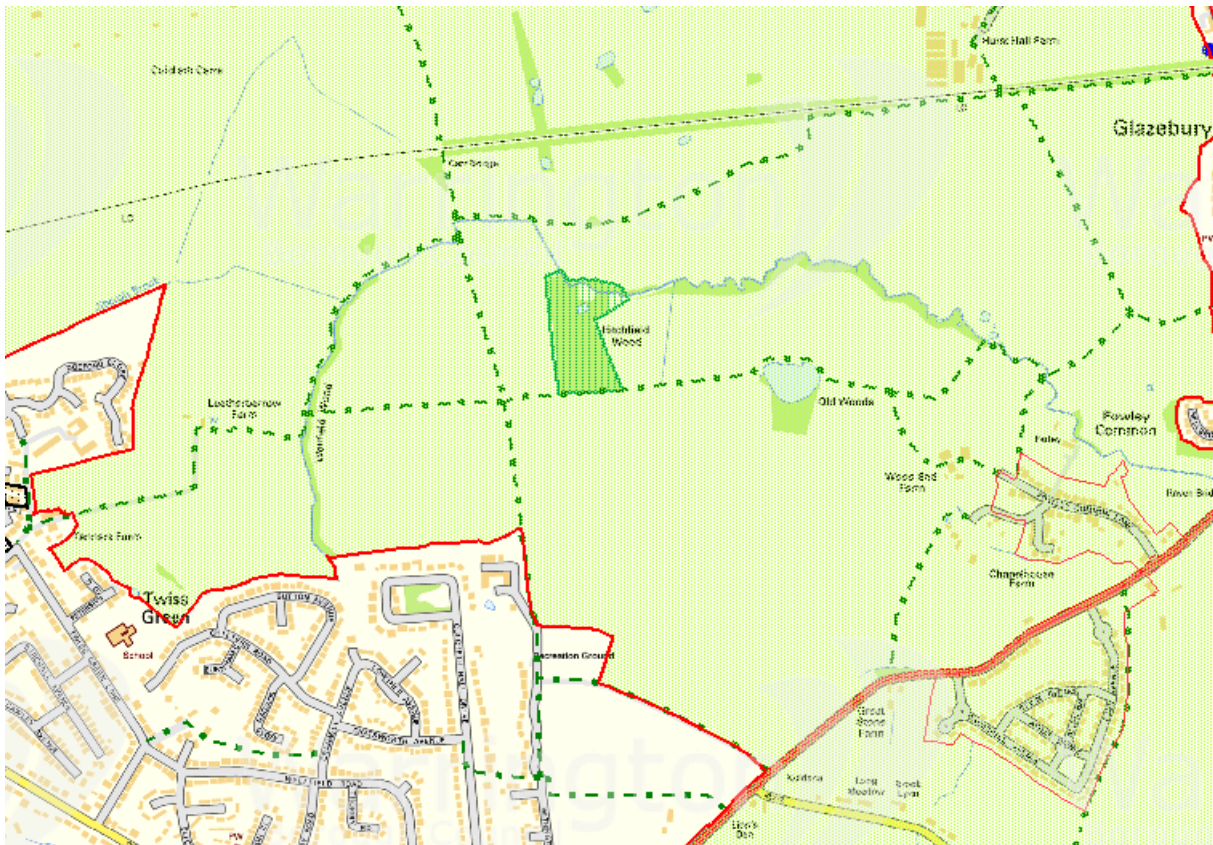
Contains Ordnance Survey data © Crown copyright and database right 2017

Extract of Warrington Borough Council Local Plan (adopted 2014) and Supporting Key

The site is within the local authority area of Warrington Borough Council, however approximately 1.6km to the north east is Wigan Metropolitan Borough Council and approximately 1.3km to the south east is Salford City Council.

The Warrington Borough Council Core Strategy was adopted in July 2014. Warrington BC are currently undertaking a review on the adopted Local Plan Core Strategy. Consultation on the Local Plan Preferred Development Option is running from 18th July 2017 to 12th September 2017, which sets out the proposed approach to meeting Warrington's needs.

Warrington Borough Council - Core Strategy Policies Map



Designations

- Green Belt (Policy CS5)
- Overall Spatial Strategy Green Belt (Policy CS5)
- Local Wildlife Site – Hitchfield Wood (Policy QE5)
- Active Travel Greenway Network (Policy MP3)

Tree Preservation Orders



Core Strategy Planning Policies

Policy CS 1 - Overall Spatial Strategy - Delivering Sustainable Development

Throughout the borough, development proposals that are sustainable will be welcomed and approved without delay.

To be sustainable, development must accord with national and local planning policy frameworks, taking into account other material considerations, and must, in no particular order, have regard to:

- the planned provision made for economic and housing growth;
- the requirement to provide for recognised and identified development needs;
- the priority afforded to the protection of the Green Belt and the character of the countryside;
- the priority afforded to accommodating growth in Inner Warrington through the use of previously developed land;
- the importance of sustaining and enhancing the vitality and viability of the Town Centre and other designated centres that act as community hubs; the need to develop sites, services and facilities in appropriate locations accessible by public transport, walking and cycling;
- the need to make the best use of existing transport, utility, social and environmental infrastructure within existing settlements, and ensure additional provision where needed to support development;
- the need to address the causes of and be resilient to the effects of climate change;
- **the need to sustain and enhance the borough's built heritage, biodiversity and geodiversity;**

- the importance of prudently using resources and maximising re-use, recovery and recycling where possible;
- the need to safeguard environmental standards, public safety, and residential amenity;
- **the delivery of high standards of design and construction, that have regard to local distinctiveness and energy efficiency; and**
- The need to improve equality of access and opportunity.

The Council's approach will always be to work proactively with applicants jointly to find solutions which mean that proposals can accord with the development plan and be approved without delay wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.

Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the Council will grant permission unless material considerations indicate otherwise - taking into account whether:

- Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or

Specific policies in that Framework indicate that development should be restricted.

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 CS 6 Overall Spatial Strategy – Strategic Green Links

The Council will work with partners to develop and adopt a strategic approach to the care and management of the borough's Green Infrastructure. A key focus of these efforts will be on reinforcing, and maximising the environmental and socio-economic benefits from, those Strategic Green Links which connect the borough to the wider sub-region such as:

- The Bridgewater Canal
- The Mersey Valley;
- The River Bollin;
- Sankey Valley Park and St. Helens Canal;
- The Transpennine Trail; and
- Bold Forest Park

The Council is committed to supporting wider programmes and initiatives which seek to connect the borough's Strategic Green Links with employment areas, residential communities, and Green Infrastructure Assets including the Manchester Mosses, Mersey Forest, Walton Hall Estate and the potential significant country park in the Arpley area when landfill operations have finished and restoration is complete. In accordance with Policy QE3 the Development Management Process will contribute to the objectives of this Policy.

Policy QE 3 Green Infrastructure

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

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

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 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 CC 2 Protecting the Countryside

Development proposals in the countryside which accord with Green Belt policies set out in national planning policy will be supported provided that;

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

Extracts of Relevant Planning Policies and Supplementary Planning Guidance

Design and Construction SPD (2016)

Landscaping and the Environment

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

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

ensuring that there is sufficient space for plants to thrive without constant maintenance and attention; and minimising the requirement for importing topsoil and using artificial irrigation.

- New development should be designed to harvest rainwater which can be used for irrigation of the site's landscaping.
- New development with flat roofs can also be designed to be "green roofs" such as sedum roofs.
- These will help improve biodiversity and provide extra insulation to buildings without needing irrigation or significant maintenance.
- Hard landscaping should also be designed and constructed with thought to future maintenance and ensuring a long life. This includes considering the durability of materials, the ease and cost of providing and installing replacements and the route of underground services and access to repair and renewal.

Environmental Protection SPD (2010)

Section 4.6.4 Japanese Knotweed – "Neither the EA nor the Council are responsible for controlling Japanese knotweed, other than that growing on Council-owned land. Managing knotweed is the responsibility of the landowner of a site"

Warrington Updated Proposed Submission Version Local Plan 2021 - 2038 (September 2021) – Relevant Policies

Policy GB1 - Green Belt

General Principles

1. The Council will maintain the general extent of the Borough's Green Belt, as defined on the Local Plan Policies Map, throughout the Plan Period and to at least 2050.
2. The Council will plan positively to enhance the beneficial use of the Green Belt as part of Warrington's Green Infrastructure Network.

Policy DC3 – Green Infrastructure

Strategic Green Infrastructure

1. The Council, in partnership with other agencies and stakeholders will adopt a strategic approach to the care and management of all the Borough's green infrastructure and seek to protect, enhance and extend the multifunctional network in order to maintain and develop the wider public health, active travel, flood management, climate change, ecological and economic benefits it provides.

Green Infrastructure Opportunities

2. A key focus of these efforts will be on reinforcing and maximising the environmental and socio-economic benefits from, the following strategic green links which connect the Borough to the wider sub-region:
 - a. The Mersey Valley;
 - b. Sankey Valley Park and St. Helens Canal;
 - c. The Bridgewater Canal;
 - d. The River Bollin; and

- e. The Trans Pennine Trail
3. The Council is committed to supporting wider programmes and initiatives which seek to connect the Borough's Strategic Green Infrastructure assets with residential communities, employment areas and other green infrastructure assets both within and outside of the Borough, including:
 - a. Great Manchester Wetlands Nature Improvement Area;
 - b. Bold Forest Park;
 - c. Walton Hall Estate;
 - d. The Mersey Forest;
 - e. The Circular Parklands; and
 - f. The River Mersey frontage where it passes through the Town Centre.
4. The Council will work with partners to strengthen and expand the network of ecological sites, corridors and stepping stone habitats to:
 - a. secure a net gain in biodiversity;
 - b. to expand tree cover in appropriate locations across the Borough;
 - c. to improve landscape character, water and air quality;
 - d. to help adapt to flood risk and mitigate the impacts of climate change;
 - e. to contribute to the development of the Mersey Forest;
 - f. to contribute to the wider regional nature recovery network of wetland sites by enhancing the wetlands across Warrington; and
 - g. to support the retention of underused farmland for habitat creation and management.

Development Proposals affecting Green Infrastructure

5. . All development proposals should, as appropriate to their nature and scale:
 - a. protect existing green infrastructure and the functions it performs, especially where this helps to mitigate the causes of and addresses the impacts of climate change;
 - b. increase the functionality of existing and planned green infrastructure especially where this helps to mitigate the causes of and addresses the impacts of climate change;
 - c. improve the quality of existing green infrastructure, including local networks and corridors, specifically to increase its attractiveness as a sport, leisure and recreation opportunity and its value as a habitat for biodiversity;
 - d. protect and improve access to and connectivity between existing and planned green infrastructure to develop a continuous right of way and greenway network and integrated ecological system/network;
 - e. secure new green infrastructure in order to cater for anticipated increases in demand arising from development particularly in areas where there are existing deficiencies assessed against standards set by the Council in accordance with Policy DC5; and
 - f. provide long-term management arrangements for new and enhanced green infrastructure within development sites.
6. Where a loss of, or negative impact on green infrastructure functionality or ecological system/network is unavoidable, development proposals should demonstrate what mitigation measures are proposed and/or replacement green infrastructure will be provided. Any replacement or mitigation measure should seek to secure a net gain in biodiversity assessed against the latest version of the DEFRA Metric and be deployed as closely as possible to the affected green infrastructure asset.

Policy DC4 – Ecological Network

1. The Council will work with partners to conserve, restore and enhance biodiversity and secure a measurable net gain for biodiversity and enhance public access to nature across the Plan area. These efforts will be guided by the principles set out in the National Planning Policy Framework and those which underpin the strategic approach to the care and management of the Borough's Green Infrastructure in its widest sense contained in Policy DC3.
2. Sites and areas that make up the Borough's ecological network and are recognised for their nature and geological value are shown on the Policies Map and include:
 - a. European Sites of International Importance
 - b. Sites of Special Scientific Interest
 - c. Regionally Important Geological Sites
 - d. Local Nature Reserves
 - e. Local Wildlife Sites
 - f. Wildlife Corridors/Natural Improvement Areas

The specific sites covered by the above designations at the time of publication are detailed in Appendix 4 of the draft local plan.

Development affecting Sites of International Importance

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;
 - a. there is no alternative solution; and
 - b. there are imperative reasons of over-riding public interest for the development or land use change and where suitable mitigation or compensatory provision has been made. Any mitigation or compensatory provision must be assessed in a project-related Habitats Regulations Assessment and be fully functional before any likely adverse effect arises.

Development affecting Sites of National Importance

4. 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 and the loss can be mitigated through off-site habitat creation to achieve a measurable net gain in biodiversity/geodiversity assessed against the latest version of the DEFRA metric.

Development affecting Sites of Regional and Local Importance

5. 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 and the loss can be mitigated through off-site habitat creation to achieve a measurable net gain in biodiversity/geodiversity assessed against the latest version of the DEFRA metric.

Development affecting Protected and/or Priority Species and Priority Habitats

6. Proposals for development which may adversely affect the integrity or continuity of UK priority habitats, irreplaceable 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.
7. All development proposals affecting protected sites, wildlife corridors, priority habitats, irreplaceable habitats, EU Protected Species or priority species (as identified in Local Biodiversity Action Plans) should be accompanied by information proportionate to their nature conservation value including;
 - a. a site survey carried out by suitably qualified or experienced person to establish the presence, extent and density of these species and identify features of nature and geological conservation importance; an assessment of the likely impacts of the development proposals for the protection and management of features identified for retention;
 - b. an assessment of whether the reasons for the development clearly outweigh the nature conservation value of the site, area or species; and
 - c. proposals for compensating for features damaged or destroyed during the development process, including mitigation through habitat creation to achieve a measurable net gain in biodiversity/geodiversity assessed against the DEFRA metric.
 - d. proposals for compensating for any negative impacts on species during the development process, including mitigation through off-site habitat creation.

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.



MAGIC Map search for SSSI Impact Risk Zones for Site Only

Site Check Report Report generated on Tue Aug 29 2017
 You selected the location: Centroid Grid Ref: SJ858961
 The following features have been found in your search area:

SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)

1. DOES PLANNING PROPOSAL FALL INTO ONE OR MORE OF 2. IF YES, CHECK THE CORRESPONDING DESCRIPTION(S) BELOW. LPA SHOULD CONSULT NATURAL ENGLAND ON LIKELY RISKS FROM THE FOLLOWING:

All Planning Applications

Infrastructure

Airports, helipads and other aviation proposals.

Wind & Solar Energy

Minerals, Oil & Gas

Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.

Rural Non Residential

Residential

Rural Residential

Air Pollution

Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, pig & poultry units, slurry lagoons > 750m³ & manure stores > 3500t).

Combustion

General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.

Waste

Composting

Discharges

Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream (NB This does not include discharges to mains sewer which are unlikely to pose a risk at this location).

Water Supply

Notes

GUIDANCE – How to use the Impact Risk Zones

[/Metadata for magic/SSSI IRZ User Guidance MAGIC.pdf](#)

1. DOES PLANNING PROPOSAL FALL INTO ONE OR MORE OF 2. IF YES, CHECK THE CORRESPONDING DESCRIPTION(S) BELOW. LPA SHOULD CONSULT NATURAL ENGLAND ON LIKELY RISKS FROM THE FOLLOWING:

All Planning Applications

Infrastructure

Airports, helipads and other aviation proposals.

Wind & Solar Energy

Minerals, Oil & Gas

Rural Non Residential

Residential

Rural Residential

Air Pollution

Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, pig & poultry units, slurry lagoons > 750m³ & manure stores > 3500t).

Combustion

General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.

Waste

Composting

Discharges

Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream (NB This does not include discharges to mains sewer which are unlikely to pose a risk at this location).

Water Supply

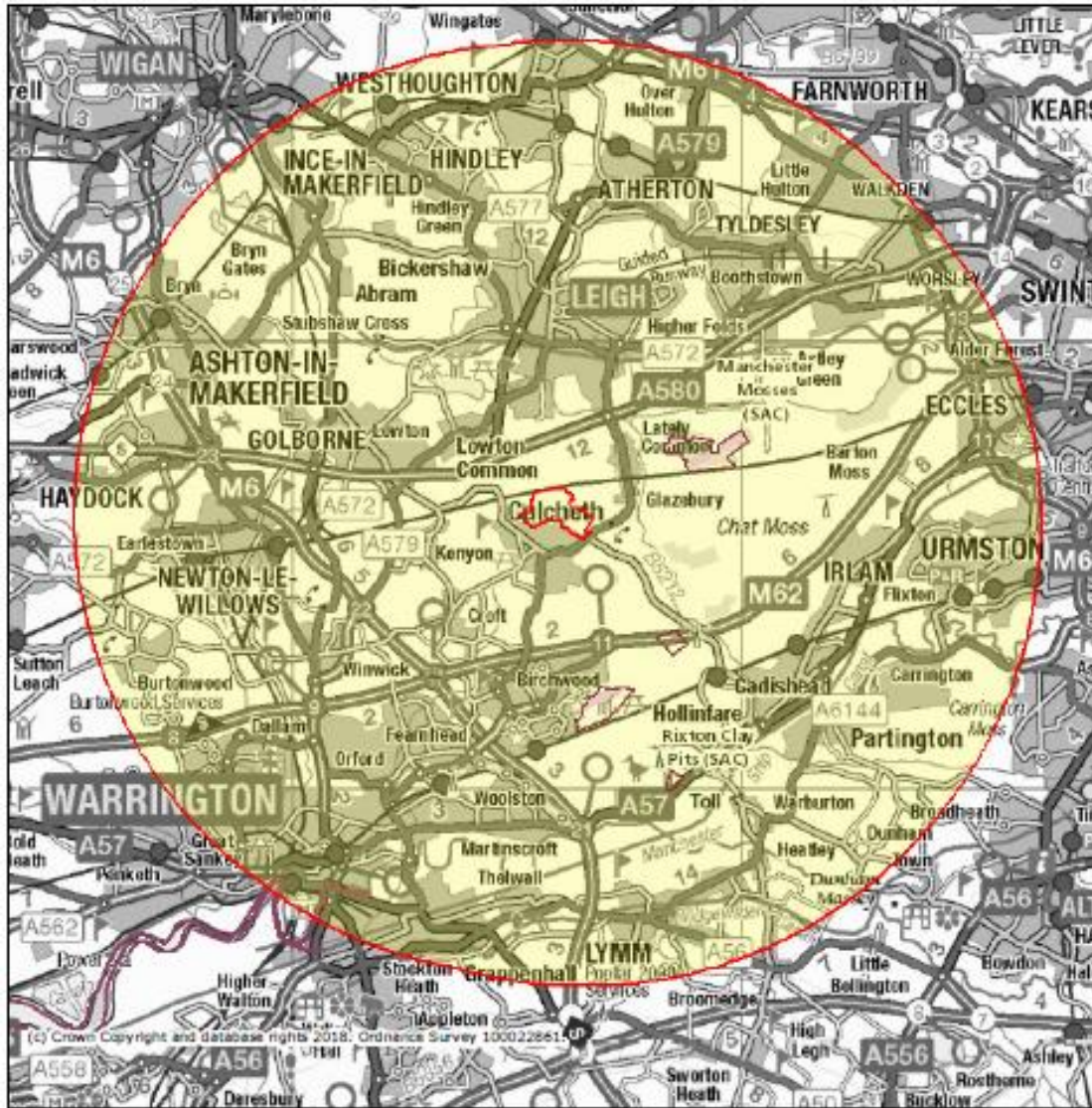
Notes

GUIDANCE – How to use the Impact Risk Zones

[/Metadata for magic/SSSI IRZ User Guidance MAGIC.pdf](#)

MAGIC Map 10km Search Zone for Internationally Designated Wildlife Sites – Map

MAGiC International Designations



Legend

- Special Areas of Conservation (England)

0 3.5 7
km

Projection = OSGB36
xmin = 342400
ymin = 382800
xmax = 389200
ymax = 407500

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MAGIC Map 10km Search Zone for Internationally Designated Wildlife Sites – Report

Special Areas of Conservation (England) - points

Name

RIXTON CLAY PITS

Reference

UK0030265

Hectares

13.5

Hyperlink<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?euocode=UK0030265>**Name**

MANCHESTER MOSSES

Reference

UK0030200

Hectares

171.52

Hyperlink<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?euocode=UK0030200>

Special Areas of Conservation (England)

Name

RIXTON CLAY PITS

Reference

UK0030265

Hectares

13.5

Hyperlink<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?euocode=UK0030265>**Name**

MANCHESTER MOSSES

Reference

UK0030200

Hectares

171.52

Hyperlink<http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?euocode=UK0030200>

MAGIC Map 1km Search Zone for Nationally Designated Wildlife Sites – Map

There are no nationally designated sites within 1km of the Site



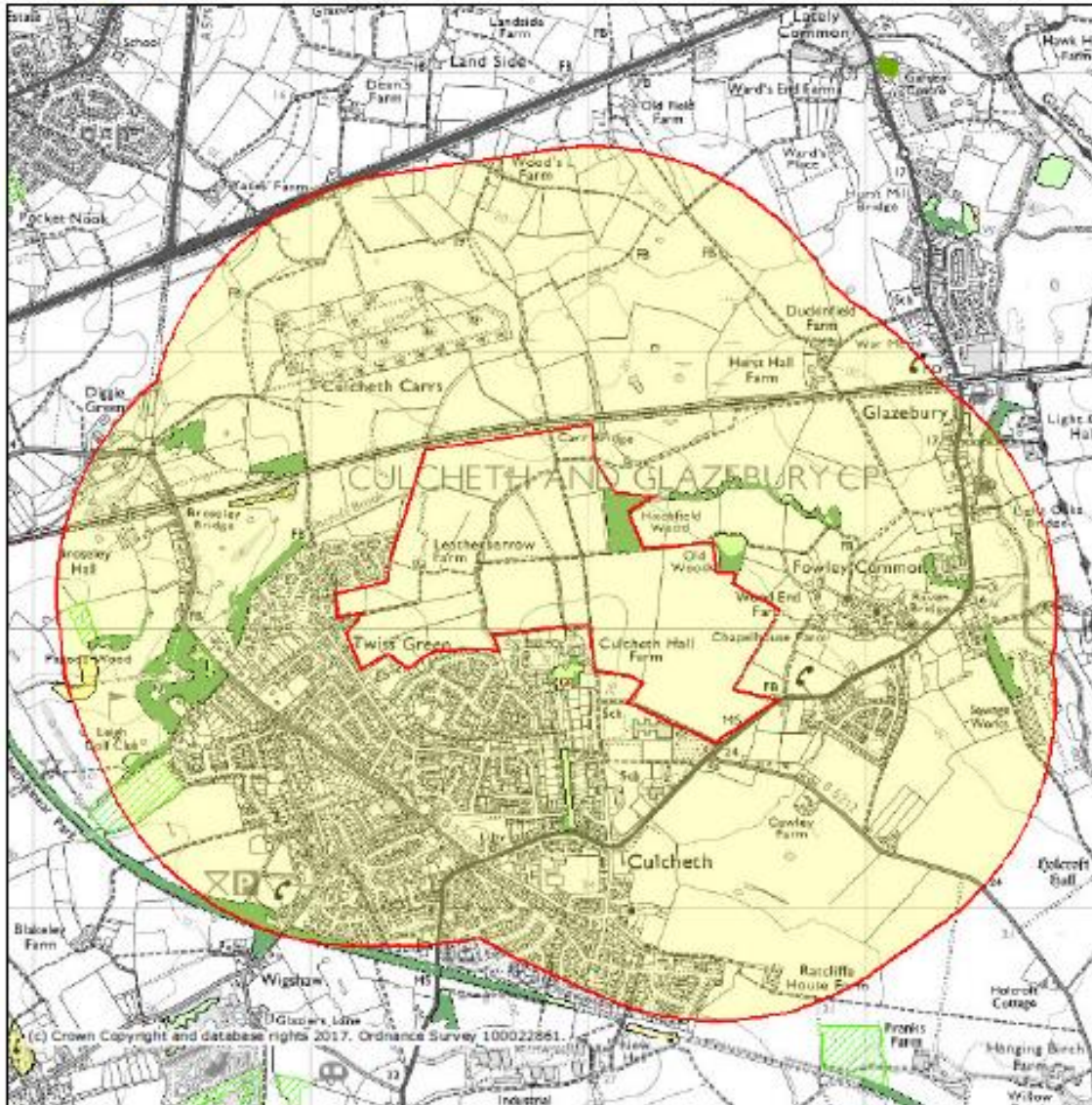
MAGIC Map 1km Search Zone for Nationally Designated Wildlife Sites – Report

There are no nationally designated sites within 1km of the Site

MAGIC Map 1km Search Zone for Habitat Inventory Data



Land at Culcheth



Legend	
	Priority Habitat inventory - Coastal Saltmarsh (England)
	Priority Habitat inventory - Coastal Sand Dunes (England)
	Priority Habitat inventory - Coastal Vegetated Shingle (England)
	Priority Habitat inventory - Maritime Cliffs and Slopes (England)
	Priority Habitat inventory - Mudflats (England)
	Priority Habitat inventory - Saline Lagoons (England)
	Saline Lagoons (Wales)
	Saltmarsh (Wales)
	Sand Dunes (Wales)
	Priority Habitat inventory - Calaminarian Grassland (England)
	Priority Habitat inventory - Coastal and Floodplain Grazing Marsh (England)

Projection = OSGB36
 xmin = 362100
 ymin = 394200
 xmax = 369600
 ymax = 398300
 Map produced by MAGIC on 29 August, 2017.
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Extract of Species Data Provided by RECORD within 1km

Designated Species Summary

Taxa	Designation Name	Occurrence in Cheshire tetrads between 2006-2017 (%)	Occurrence in Cheshire tetrads all years (%)
Brambling (<i>Fringilla montifringilla</i>)	Wildlife and Countryside Act - Schedule 1	9%	23%
Brown Hare (<i>Lepus europaeus</i>)	Local Biodiversity Action Plan Species, NERC S41, UK BAP Priority Species	21%	80%
Bullfinch (<i>Pyrrhula pyrrhula</i>)	Local Biodiversity Action Plan Species, Birds of Conservation Concern [RSPB] - Amber, NERC S41	20%	70%
Canada Goose (<i>Branta canadensis</i>)	Invasive Non-Native Species, Wildlife and Countryside Act Schedule 9	26%	53%
Common Frog (<i>Rana temporaria</i>)	Wildlife and Countryside Act - Schedule 5	33%	63%
Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	Wildlife and Countryside Act - Schedule 5, NERC S41, Conservation (Habs and Sp) Regulations 2010 - Schedule 2	39%	42%
Corn Bunting (<i>Emberiza calandra</i>)	Local Biodiversity Action Plan Species, Birds of Conservation Concern [RSPB] - Red, NERC S41	2%	38%
Cornflower (<i>Centaurea cyanus</i>)	NERC S41, UK BAP Priority Species	3%	6%
Fieldfare (<i>Turdus pilaris</i>)	Wildlife and Countryside Act - Schedule 1, Birds of Conservation Concern [RSPB] - Red	19%	39%
Grey Partridge (<i>Perdix perdix</i>)	Local Biodiversity Action Plan Species, Birds of Conservation Concern [RSPB] - Red, NERC S41, UK BAP Priority Species	8%	60%
Grey Wagtail (<i>Motacilla cinerea</i>)	Birds of Conservation Concern [RSPB] - Amber	14%	45%
Himalayan Cotoneaster (<i>Cotoneaster simonsii</i>)	Wildlife and Countryside Act Schedule 9	1%	3%
Hollyberry Cotoneaster (<i>Cotoneaster bullatus</i>)	Wildlife and Countryside Act Schedule 9	<1%	1%
House Martin (<i>Delichon urbicum</i>)	Birds of Conservation Concern [RSPB] - Amber	23%	67%
House Sparrow (<i>Passer domesticus</i>)	Local Biodiversity Action Plan Species, Birds of Conservation Concern [RSPB] - Red, NERC S41, UK BAP Priority Species	35%	84%
Indian Balsam (<i>Impatiens glandulifera</i>)	Invasive Non-Native Species, Wildlife and Countryside Act Schedule 9	24%	36%
Japanese Knotweed (<i>Fallopia japonica</i>)	Invasive Non-Native Species, Wildlife and Countryside Act Schedule 9	18%	31%
Kestrel (<i>Falco tinnunculus</i>)	Birds of Conservation Concern	35%	80%

[RSPB] - Amber			
Lapwing (<i>Vanellus vanellus</i>)	Local Biodiversity Action Plan Species, Birds of Conservation Concern [RSPB] - Red, NERC S41, UK BAP Priority Species	28%	79%
Little Grebe (<i>Tachybaptus ruficollis</i>)	Birds of Conservation Concern [RSPB] - Amber	11%	29%
Mallard (<i>Anas platyrhynchos</i>)	Birds of Conservation Concern [RSPB] - Amber	42%	82%
Meadow Pipit (<i>Anthus pratensis</i>)	Birds of Conservation Concern [RSPB] - Amber	13%	45%
Mistle Thrush (<i>Turdus viscivorus</i>)	Birds of Conservation Concern [RSPB] - Amber	23%	82%
Montbretia (<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>)	Invasive Non-Native Species, Wildlife and Countryside Act Schedule 9	6%	14%
Palmate Newt (<i>Lissotriton helveticus</i>)	Wildlife and Countryside Act - Schedule 5	2%	4%
Peregrine (<i>Falco peregrinus</i>)	Wildlife and Countryside Act - Schedule 1	11%	19%
Pink-footed Goose (<i>Anser brachyrhynchus</i>)	Birds of Conservation Concern [RSPB] - Amber	8%	15%
Pochard (<i>Aythya ferina</i>)	Birds of Conservation Concern [RSPB] - Amber	6%	19%
Redwing (<i>Turdus iliacus</i>)	Wildlife and Countryside Act - Schedule 1, Birds of Conservation Concern [RSPB] - Red	18%	38%
Reed Bunting (<i>Emberiza schoeniclus</i>)	Local Biodiversity Action Plan Species, Birds of Conservation Concern [RSPB] - Amber, NERC S41, UK BAP Priority Species	19%	73%
Scots Pine (<i>Pinus sylvestris</i>)	Nationally Scarce	24%	45%
Skylark (<i>Alauda arvensis</i>)	Local Biodiversity Action Plan Species, Birds of Conservation Concern [RSPB] - Red, NERC S41	20%	85%
Smooth Newt (<i>Lissotriton vulgaris</i>)	Wildlife and Countryside Act - Schedule 5	14%	35%
Snipe (<i>Gallinago gallinago</i>)	Birds of Conservation Concern [RSPB] - Amber	13%	54%
Song Thrush (<i>Turdus philomelos</i>)	Local Biodiversity Action Plan Species, Birds of Conservation Concern [RSPB] - Red	33%	87%
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Local Biodiversity Action Plan Species, Wildlife and Countryside Act - Schedule 5, NERC S41, Conservation (Habs and Sp) Regulations 2010 - Schedule 2, UK BAP Priority Species	29%	32%
Starling (<i>Sturnus vulgaris</i>)	Local Biodiversity Action Plan Species, Birds of Conservation Concern [RSPB] - Red, NERC S41	30%	86%
Swallow (<i>Hirundo rustica</i>)	Birds of Conservation Concern [RSPB] - Amber	44%	87%

Swift (<i>Apus apus</i>)	Birds of Conservation Concern [RSPB] - Amber	22%	81%
Tree Sparrow (<i>Passer montanus</i>)	Local Biodiversity Action Plan Species, Birds of Conservation Concern [RSPB] - Red, NERC S41, UK BAP Priority Species	10%	72%
Tufted Duck (<i>Aythya fuligula</i>)	Birds of Conservation Concern [RSPB] - Amber	13%	31%
West European Hedgehog (<i>Erinaceus europaeus</i>)	NERC S41, UK BAP Priority Species	24%	44%
Whitethroat (<i>Sylvia communis</i>)	Birds of Conservation Concern [RSPB] - Amber	17%	70%
Yellowhammer (<i>Emberiza citrinella</i>)	Local Biodiversity Action Plan Species, Birds of Conservation Concern [RSPB] - Red, NERC S41, UK BAP Priority Species	14%	77%

Species Report

AMPHIBIAN

Map



Common Frog (*Rana temporaria*) (1,2)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Warrington	SJ659947	1	24/03/2011	None	Present	Field Record
Culcheth Hall Barns, land off Withington Avenue, Culcheth, Cheshire	SJ65959588	2	02/07/2014	Juvenile	1	Field Record

Smooth Newt (*Lissotriton vulgaris*) (2)

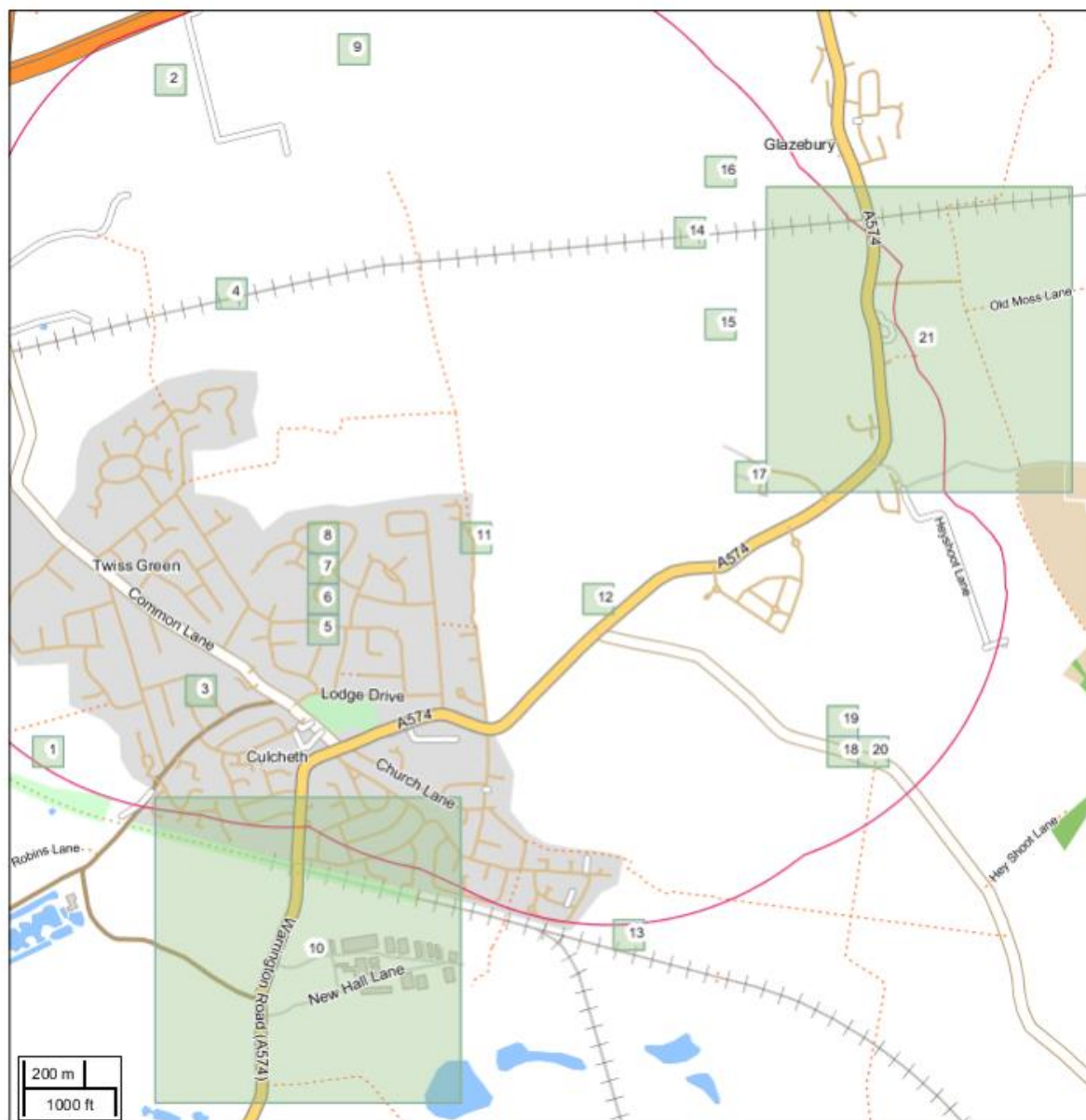
RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth Hall Barns, land off Withington Avenue, Culcheth, Cheshire	SJ65959588	2	02/07/2014	None	Present	Field Record

Palmate Newt (*Lissotriton helveticus*) (2)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth Hall Barns, land off Withington Avenue, Culcheth, Cheshire	SJ65959588	2	02/07/2014	None	Present	Field Record



Fieldfare (*Turdus pilaris*) (1,5,13)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
	SJ655955	5	13/02/2007	None	40	Field Record
Culcheth, Glazebury & Croft - CP, N. of Linear Park	SJ646951	1	14/01/2012	Adult	2	Field Record
	SJ665945	13	18/01/2013	None	12	Field Record
Culcheth, Warrington	SJ655955	5	20/12/2009	None	5	Field Record
Culcheth, Warrington	SJ655955	5	23/10/2010	None	30	Field Record
Culcheth, Warrington	SJ655955	5	05/01/2009	None	6	Field Record
Culcheth, Warrington	SJ655955	5	28/10/2009	None	100	Field Record
Culcheth, Warrington	SJ655955	5	20/10/2010	None	70	Field Record
Culcheth, Warrington	SJ655955	5	25/12/2010	None	8	Field Record

House Martin (*Delichon urbicum*) (5)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Glazebury & Croft - CP	SJ655955	5	10/09/2007	None	100	Field Record
Culcheth	SJ655955	5	30/08/2006	None	20	Field Record
Culcheth, Warrington	SJ655955	5	02/09/2010	None	5	Field Record

Canada Goose (*Branta canadensis*) (5,21)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Glazebury & Croft - CP	SJ6796	21	26/06/2012	Adult	11	Field Record
Culcheth	SJ655955	5	11/09/2006	None	15	Field Record
Culcheth	SJ655955	5	11/09/2006	Adult	15	Field Record

Kestrel (*Falco tinnunculus*) (5,13,18,19,21)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Glazebury & Croft - CP,	SJ672951	18	12/2012-12/2012	None	Present	Field Record

Culcheth (just outside).						
Culcheth, Glazebury & Croft - CP	SJ6796	21	26/06/2012	Adult	1	Field Record
	SJ672952	19	23/11/2011	Adult	1	Field Record
Culcheth	SJ655955	5	28/12/2006	Female	1	Field Record
Culcheth	SJ655955	5	18/02/2007	None	1	Field Record
	SJ665945	13	18/01/2013	None	2	Field Record
Windy Bank Wood	SJ6796	21	12/07/2011	Adult	1	Field Record

Mallard (*Anas platyrhynchos*) (10,13,21)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Glazebury & Croft - CP	SJ6796	21	26/06/2012	Adult Female	10	Field Record
Windy Bank Wood	SJ6796	21	12/07/2011	Adult Female	10	Field Record
	SJ665945	13	18/01/2013	None	32	Field Record
Culcheth Linear Line	SJ6594	10	27/05/2009	None	Present	Field Record

Grey Wagtail (*Motacilla cinerea*) (5,6)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
	SJ655955	5	15/08/2006	None	2	Field Record
Culcheth, Warrington	SJ655956	6	27/12/2008	None	1	Field Record
	SJ655955	5	15/08/2006	None	2	Field Record
Culcheth, Warrington	SJ655955	5	18/12/2010	None	1	Field Record

Bullfinch (*Pyrrhula pyrrhula*) (5,17)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Warrington	SJ655955	5	11/01/2009	None	1Pr	Field Record
Hebden Avenue	SJ669960	17	24/05/2010	Adult Male	2	Field Record
Culcheth, Warrington	SJ655955	5	19/12/2009	Male	1	Field Record

Grey Partridge (*Perdix perdix*) (5,9,11)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth	SJ655955	5	18/02/2007	Adult	3	Field Record
	SJ6561997467	9	2007	None	4	Field Record
	SJ6609795856	11	2007	None	5	Field Record

Lapwing (*Vanellus vanellus*) (2,4,12,13,15)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
field north of railway	SJ65209665	4	13/03/2012	None	2	Field Record
	SJ665945	13	18/01/2013	None	27	Field Record
	SJ6647495626	12	2007	None	2	Field Record
	SJ6505997306	2	2007	None	11	Field Record
	SJ6683496581	15	2007	None	100	Field Record

Little Grebe (*Tachybaptus ruficollis*) (13)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
	SJ665945	13	18/01/2013	None	1	Field Record

Meadow Pipit (*Anthus pratensis*) (13)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
	SJ665945	13	18/01/2013	None	1	Field Record

Corn Bunting (*Emberiza calandra*) (20)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Holcroft Lane, Culcheth	SJ673951	20	09/07/2010	None	4	Field Record
Holcroft Lane, Culcheth	SJ673951	20	05/06/2010	Male	3	Field Record
Holcroft Lane, Culcheth	SJ673951	20	01/05/2009	None	3	Field Record

Mistle Thrush (*Turdus viscivorus*) (21)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Windy Bank Wood	SJ6796	21	12/07/2011	Adult	Occasional	Field Record

House Sparrow (*Passer domesticus*) (3,5)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Warrington	SJ655955	5	01/01/2009	None	20	Field Record
Culcheth, Warrington	SJ655955	5	01/02/2009	None	20	Field Record
Culcheth, Warrington	SJ655955	5	18/12/2010	None	20+	Field Record
Culcheth, Warrington	SJ655955	5	29/12/2009	None	35	Field Record
birchall street croft	SJ651953	3	19/06/2012	Summer	Present	Field Record

Brambling (*Fringilla montifringilla*) (5)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Warrington	SJ655955	5	18/12/2010	Female	2	Field Record

Tufted Duck (*Aythya fuligula*) (13)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
	SJ665945	13	18/01/2013	Adult Male	2	Field Record

Yellowhammer (*Emberiza citrinella*) (5,6,21)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Glazebury & Croft - CP	SJ6796	21	26/06/2012	Adult	1	Field Record
	SJ655956	6	24/04/2008	Male	1	Field Record
	SJ655955	5	23/03/2008	None	3	Field Record
Culcheth, Warrington	SJ655955	5	10/05/2010	None	3	Field Record
Culcheth, Warrington	SJ655955	5	12/04/2010	Male	2	Field Record
Culcheth, Warrington	SJ655955	5	03/03/2010	Male	1	Field Record
Culcheth, Warrington	SJ655955	5	03/12/2010	None	4 3M/1	Field Record
Culcheth, Warrington	SJ655955	5	30/11/2010	Male	1	Field Record
Culcheth, Warrington	SJ655955	5	16/04/2009	Male	1	Field Record
Culcheth, Warrington	SJ655955	5	27/12/2010	None	5	Field Record
Culcheth,	SJ655955	5	18/12/2010	None	9	Field Record

Warrington						
Culcheth, Warrington	SJ655955	5	04/12/2010	None	9	Field Record
Culcheth, Warrington	SJ655955	5	14/02/2010	Male	1	Field Record
Culcheth, Warrington	SJ655955	5	01/01/2010	Male	1	Field Record
Culcheth, Warrington	SJ655955	5	22/12/2009	Female	1	Field Record

Pink-footed Goose (*Anser brachyrhynchus*) (5,6,7,8)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
	SJ655955	5	27/10/2008	None	54	Field Record
	SJ655955	5	28/10/2008	None	200	Field Record
	SJ655956	6	16/11/2008	None	500+	Field Record
	SJ655957	7	21/12/2008	None	200	Field Record
	SJ655958	8	27/12/2008	None	180	Field Record
	SJ655955	5	12/10/2008	None	92	Field Record
Culcheth	SJ655955	5	18/02/2006	None	Present	Field Record
Culcheth	SJ655955	5	12/10/2006	None	Present	Field Record
Culcheth	SJ655955	5	25/11/2006	None	Present	Field Record
Culcheth	SJ655955	5	28/11/2006	None	Present	Field Record
Culcheth	SJ655955	5	05/10/2007	None	Present	Field Record
Culcheth	SJ655955	5	10/10/2007	None	Present	Field Record
Culcheth	SJ655955	5	26/11/2007	None	Present	Field Record

Pochard (*Aythya ferina*) (13)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
	SJ665945	13	18/01/2013	None	8	Field Record

Starling (*Sturnus vulgaris*) (5,16,21)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
	SJ6680197004	16	2007	None	20	Field Record
Windy Bank Wood	SJ6796	21	12/07/2011	Adult	Occasional	Field Record
Culcheth, Warrington	SJ655955	5	27/12/2010	None	15	Field Record
Culcheth,	SJ655955	5	24/12/2010	None	500	Field Record

Warrington

Redwing (*Turdus iliacus*) (1,5,13)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Glazebury & Croft - CP, N. of Linear Park	SJ646951	1	14/01/2012	Adult	30	Field Record
	SJ665945	13	18/01/2013	None	6	Field Record
Culcheth, Warrington	SJ655955	5	25/10/2009	None	50	Field Record
Culcheth, Warrington	SJ655955	5	26/12/2010	None	6	Field Record

Peregrine (*Falco peregrinus*) (6)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
	SJ655956	6	21/12/2008	Female	1	Field Record

Snipe (*Gallinago gallinago*) (13)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
	SJ665945	13	18/01/2013	None	8	Field Record

Swallow (*Hirundo rustica*) (5)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth	SJ655955	5	30/08/2006	None	10	Field Record
Culcheth, Warrington	SJ655955	5	04/10/2010	None	2	Field Record
Culcheth, Warrington	SJ655955	5	02/09/2010	None	20+	Field Record

Song Thrush (*Turdus philomelos*) (5,21)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
	SJ655955	5	29/08/2006	None	1	Field Record
Culcheth, Glazebury & Croft - CP	SJ6796	21	26/06/2012	Adult	1	Field Record
Culcheth, Warrington	SJ655955	5	27/12/2010	None	1	Field Record
Culcheth, Warrington	SJ655955	5	19/04/2009	None	1	Field Record

Swift (*Apus apus*) (5,6,21)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth	SJ655955	5	15/08/2006	None	50	Field Record
Culcheth	SJ655955	5	22/08/2006	None	2	Field Record
Culcheth	SJ655955	5	13/08/2006	None	12	Field Record
Culcheth, Glazebury & Croft - CP	SJ6796	21	26/06/2012	Adult	Occasional	Field Record
	SJ655956	6	26/06/2008	None	100	Field Record
Windy Bank Wood	SJ6796	21	12/07/2011	Adult	Occasional	Field Record
Culcheth, Warrington	SJ655955	5	07/05/2010	None	6	Field Record
Culcheth, Warrington	SJ655955	5	26/06/2008	None	100	Field Record

Whitethroat (*Sylvia communis*) (21)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Glazebury & Croft - CP	SJ6796	21	26/06/2012	Adult	1	Field Record
Windy Bank Wood	SJ6796	21	12/07/2011	Adult	1	Field Record

Reed Bunting (*Emberiza schoeniclus*) (5,21)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Glazebury & Croft - CP	SJ6796	21	26/06/2012	Adult	1	Field Record
Culcheth, Warrington	SJ655955	5	03/12/2010	Female	4	Field Record
Culcheth, Warrington	SJ655955	5	20/12/2009	Female	1	Field Record
Culcheth, Warrington	SJ655955	5	10/01/2009	None	2	Field Record
Culcheth, Warrington	SJ655955	5	12/04/2010	None	5	Field Record
Culcheth, Warrington	SJ655955	5	23/02/2010	None	7	Field Record
Culcheth, Warrington	SJ655955	5	02/12/2010	None	3	Field Record
Culcheth, Warrington	SJ655955	5	30/11/2010	Male	1	Field Record

Culcheth, Warrington	SJ655955	5	18/04/2009	None	3	Field Record
Culcheth, Warrington	SJ655955	5	18/12/2010	None	13	Field Record
Culcheth, Warrington	SJ655955	5	21/02/2010	None	5	Field Record
Culcheth, Warrington	SJ655955	5	23/12/2009	Female	2	Field Record

Tree Sparrow (*Passer montanus*) (14,17)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
hebden avenue	SJ669960	17	20/05/2010	Adult Male	1	Field Record
	SJ6677996801	14	2007	None	Present	Field Record

Skylark (*Alauda arvensis*) (5)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Warrington	SJ655955	5	23/10/2010	None	40	Field Record
Culcheth, Warrington	SJ655955	5	10/11/2010	None	25	Field Record

CONIFER

Map



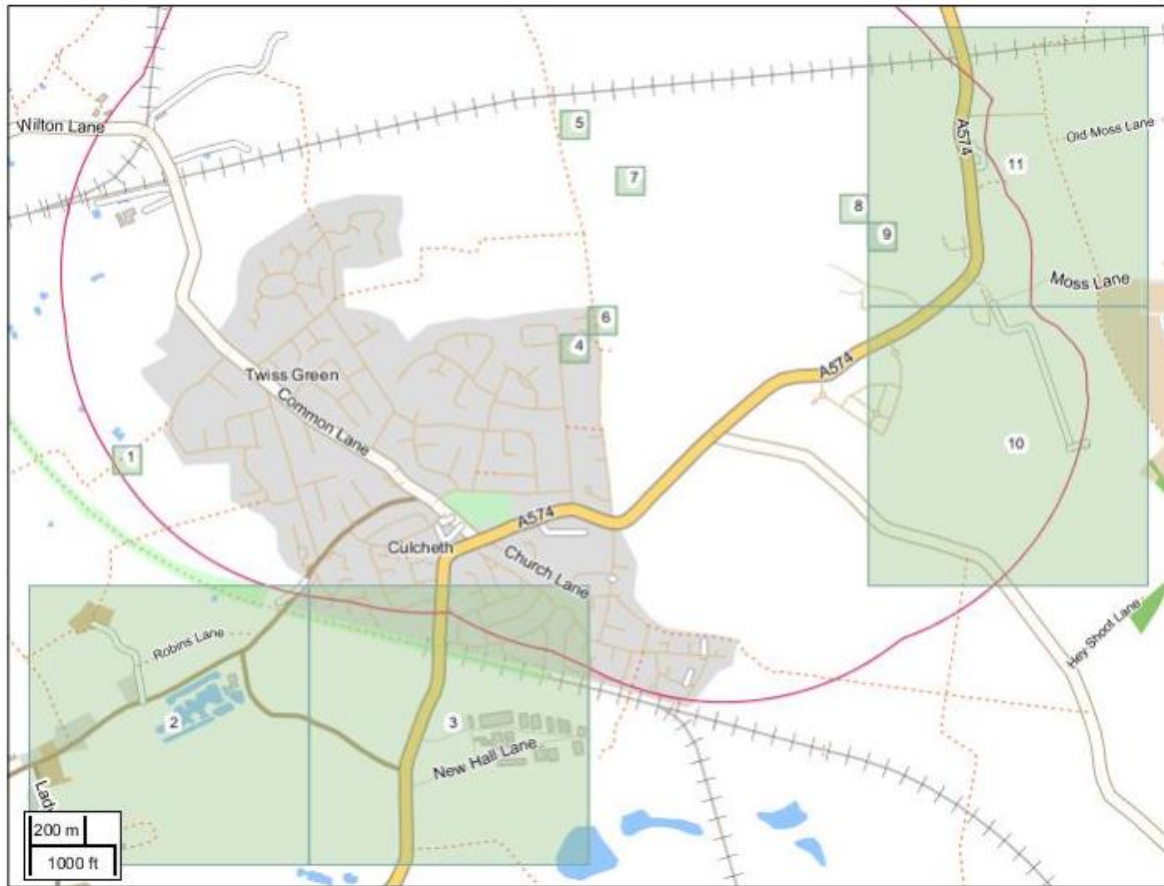
Scots Pine (*Pinus sylvestris*) (1)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Glazebury & Croft - CP	SJ6796	1	26/06/2012	Inleaf	Occasional	Field Record

FLOWERING PLANT

Map



Indian Balsam (*Impatiens glandulifera*) (1,4,5,6,7,8,9,11)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth, Glazebury & Croft - CP	SJ6796	11	26/06/2012	Flowering	Occasional	Field Record
Culcheth Hall Barns, land off Withington Avenue, Culcheth, Cheshire	SJ65969588	4	02/07/2014	None	Small Amount	Field Record
Culcheth Hall Barns, land off Withington Avenue, Culcheth, Cheshire	SJ660959	6	02/07/2014	None	Small Amount	Field Record
	SJ659966	5	09/08/2009	Flowering	Dominant	Field Record
Field edge	SJ661964	7	09/08/2009	Flowering	Dominant	Field Record
	SJ6702096287	9	2007	None	Present	Field Record
	SJ6691996381	8	2007	None	Present	Field Record
Windy Bank Wood	SJ6796	11	12/07/2011	Flowering	Occasional	Field Record
	SJ643954	1	21/07/2010	Flowering	Locally Dominant	Field Record

Montbretia (*Crocossia pottsii* x *aurea* = *C. x crocosmiiflora*) (2,3)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth Linear Park.	SJ6594	3	27/05/2009	None	Present	Field Record
Culcheth Linear Park	SJ6494	2	24/01/2009	None	Present	Field Record

Himalayan Cotoneaster (*Cotoneaster simonsii*) (3)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
culcheth linear line	SJ6594	3	27/05/2009	None	Present	Field Record

Hollyberry Cotoneaster (*Cotoneaster bullatus*) (3)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
culcheth linear line	SJ6594	3	27/05/2009	None	Present	Field Record

Japanese Knotweed (*Fallopia japonica*) (3)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth Linear Line	SJ6594	3	27/05/2009	None	Present	Field Record

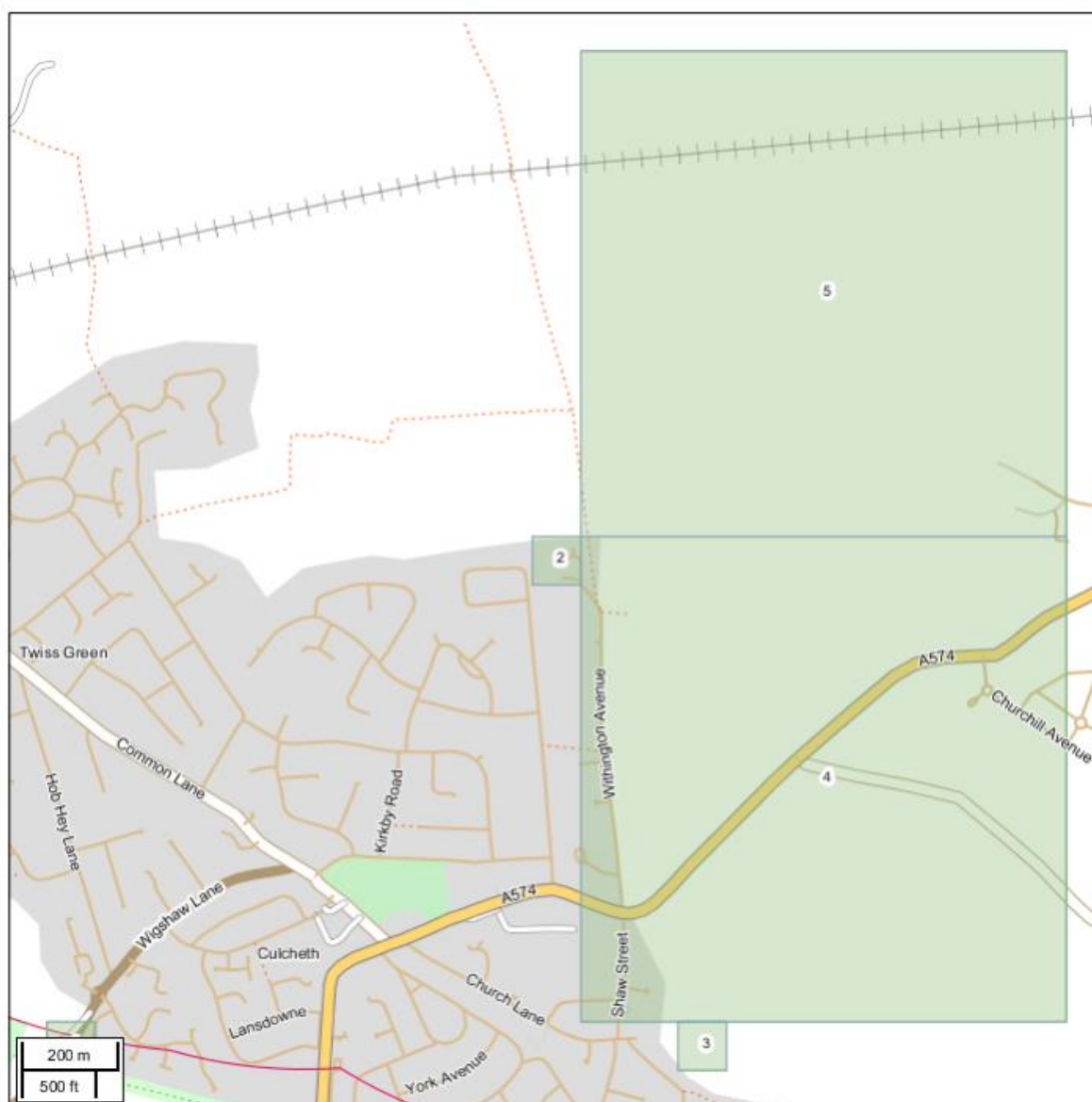
Cornflower (*Centaurea cyanus*) (10)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Fowley Common	SJ6795	10	13/06/2009	None	Present	Field Record

TERRESTRIAL MAMMAL

Map



Common Pipistrelle (*Pipistrellus pipistrellus*) (2)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Culcheth Hall Barns, land off Withington Avenue, Culcheth, Cheshire	SJ659959	2	02/07/2014	None	<5	Field Record

Brown Hare (*Lepus europaeus*) (3,4,5)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
In woods	SJ6696	5	13/03/2011	None	1	Field Record
Fields betwixt Warrington Road and Hebden Avenue	SJ6695	4	13/03/2011	None	2	Field Record
Culcheth, Glazebury & Croft - CP, field adjoining the graveyard at the rear of Newchurch Parish Chur	SJ662949	3	23/04/2011	None	Present	Field Record

Soprano Pipistrelle (*Pipistrellus pygmaeus*) (2)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
1 culcheth Hall Farm barns	SJ65989591	2	11/07/2015	None	300	Aural Bat Detector
Warrington, Cheshire, WA3 4AN.	SJ65989592	2	17/07/2015	None	300	Field Record

West European Hedgehog (*Erinaceus europaeus*) (1)

RECORD

Location	Grid ref.	Grid ID	Date	Sex/Stage	Abundance	Record type
Road-bridge over linear park	SJ649949	1	21/06/2009	Adult	1	Dead On Road
Culcheth, Glazebury & Croft - CP, Road-bridge over linear park	SJ649949	1	21/06/2009	Adult	1	Dead On Road



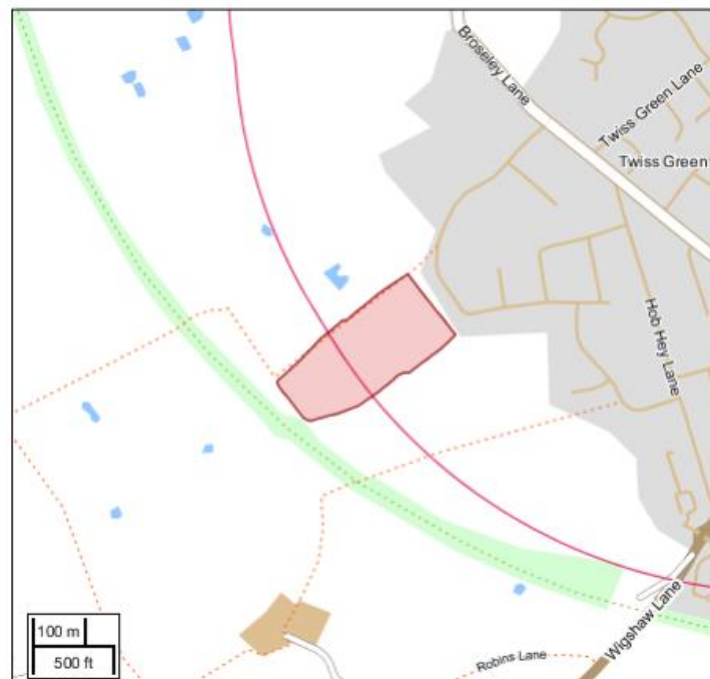
Local Sites Data Provided by RECORD within 1km

Local Sites

Local Wildlife Sites

Eleven Acre Common / WA008

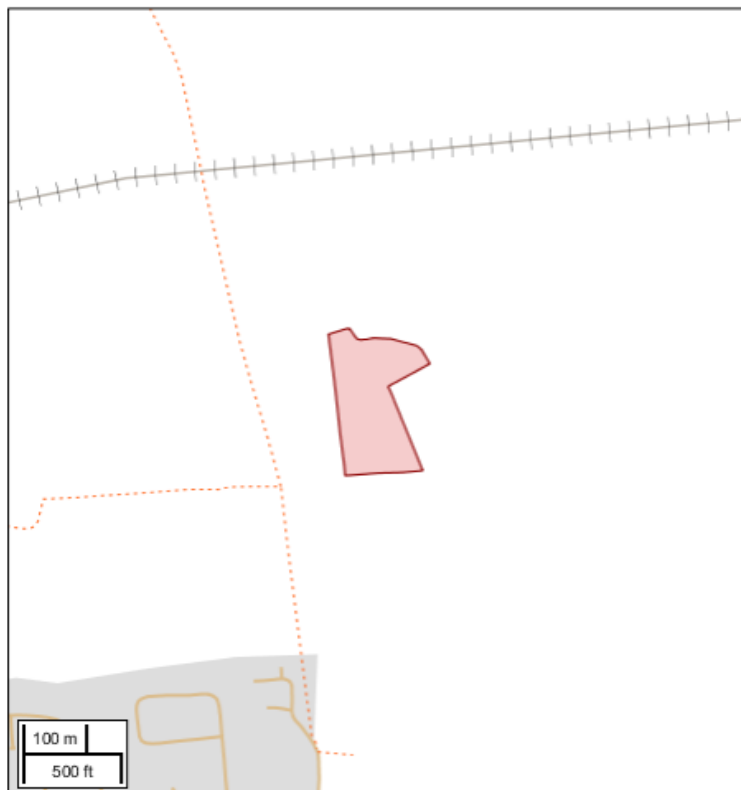
Map



Site name	Eleven Acre Common
Site code	WA008
Authority	Warrington Local Wildlife Sites Partnership
Site centroid	SJ6436795381

Hitchfield Wood / WA016

Map



Site name	Hitchfield Wood
Site code	WA016
Authority	Warrington Local Wildlife Sites Partnership
Site centroid	SJ6613496448



APPENDIX C: Target Notes

Target Note 1

A small area of modified neutral grassland.

<i>Arrhenatherum elatius</i>	False Oat-grass	A
<i>Holcus lanatus</i>	Yorkshire-fog	A
<i>Cirsium arvense</i>	Creeping Thistle	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Heracleum sphondylium</i>	Hogweed	F
<i>Lolium perenne</i>	Perennial Ryegrass	F
<i>Plantago lanceolata</i>	Ribwort Plantain	F
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Urtica dioica</i>	Nettle	F
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Epilobium hirsutum</i>	Great Willowherb	O
<i>Equisetum arvense</i>	Field Horsetail	O
<i>Galium aparine</i>	Cleavers	O
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O
<i>Senecio jacobaea</i>	Common Ragwort	O
<i>Taraxacum officinale</i> agg.	Dandelion	O
<i>Agrostis stolonifera</i>	Creeping Bent	R
<i>Corylus avellana</i>	Hazel	R
<i>Plantago major</i>	Greater Plantain	R

Target 2

An area of broadleaved woodland in the east of site

<i>Holcus lanatus</i>	Yorkshire-fog	D
<i>Hedera helix</i>	Ivy	A
<i>Quercus robur</i>	English Oak	A
<i>Corylus avellana</i>	Hazel	F
<i>Urtica dioica</i>	Nettle	F
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Pinus sylvestris</i>	Scots Pine	R

Target Note 3

A mature English oak with moderate potential to support roosting bats.

Target Note 4

This is a mature broadleaved woodland with areas of standing water and hollows which may hold water during wet periods. The woodland in general is wet throughout. The woodland is dominated by oak and beech with a poor understory and ground flora. There is evidence of disturbance from dog walkers and some previous management of the ditch and drain system.

<i>Fagus sylvatica</i>	Beech	D
<i>Quercus robur</i>	English Oak	D
<i>Holcus lanatus</i>	Yorkshire-fog	A
<i>Rubus fruticosus</i> agg.	Bramble	A
<i>Silene dioica</i>	Red Campion	A
<i>Acer pseudoplatanus</i>	Sycamore	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Geranium robertianum</i>	Herb-Robert	F
<i>Impatiens glandulifera</i>	Himalayan Balsam	F
<i>Aesculus hippocastanum</i>	Horse-chestnut	O
<i>Anthriscus sylvestris</i>	Cow Parsley	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Dryopteris dilatata</i>	Broad Buckler-fern	O
<i>Ilex aquifolium</i>	Holly	O
<i>Poa nemoralis</i>	Wood Meadow-grass	O
<i>Rosa canina</i> agg.	Dog Rose	O
<i>Salix species</i>	Willow species	O
<i>Sorbus aucuparia</i>	Rowan	O
<i>Rumex sanguineus</i>	Wood Dock	R

Target Note 5

This area is a former arable field that has gone rank due to lack of management and is dominated by tall ruderal species.

<i>Senecio jacobaea</i>	Common Ragwort	D
<i>Taraxacum officinale</i> agg.	Dandelion	D
<i>Cirsium arvense</i>	Creeping Thistle	A
<i>Arrhenatherum elatius</i>	False Oat-grass	F
<i>Epilobium hirsutum</i>	Great Willowherb	F
<i>Epilobium montanum</i>	Broad-leaved Willowherb	F
<i>Holcus lanatus</i>	Yorkshire-fog	F
<i>Ranunculus repens</i>	Creeping Buttercup	F
<i>Rumex obtusifolius</i>	Broad-leaved Dock	F
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Plantago major</i>	Greater Plantain	O
<i>Poa annua</i>	Annual Meadow-grass	O
<i>Trifolium repens</i>	White Clover	O
<i>Dipsacus fullonum</i>	Teasel	R
<i>Juncus effusus</i>	Soft Rush	R
<i>Juncus inflexus</i>	Hard Rush	R
<i>Lolium perenne</i>	Perennial Ryegrass	R
<i>Rosa canina</i> agg.	Dog Rose	R

Target Note 6

This is another field which has been left unmanaged and become dominated by tall ruderal vegetation.

<i>Rumex obtusifolius</i>	Broad-leaved Dock	D
<i>Cirsium arvense</i>	Creeping Thistle	A
<i>Ranunculus repens</i>	Creeping Buttercup	A
<i>Chamerion angustifolium</i>	Rosebay Willowherb	F
<i>Cirsium vulgare</i>	Spear Thistle	F
<i>Epilobium hirsutum</i>	Great Willowherb	F
<i>Senecio jacobaea</i>	Common Ragwort	F
<i>Trifolium pratense</i>	Red Clover	F
<i>Urtica dioica</i>	Nettle	F
<i>Plantago major</i>	Greater Plantain	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Taraxacum officinale</i> agg.	Dandelion	O

Target Note 7

A field of recently cut species poor semi improved grassland.

<i>Plantago major</i>	Greater Plantain	A
<i>Ranunculus acris</i>	Meadow Buttercup	A
<i>Cirsium arvense</i>	Creeping Thistle	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Holcus lanatus</i>	Yorkshire-fog	F
<i>Plantago lanceolata</i>	Ribwort Plantain	F
<i>Ranunculus repens</i>	Creeping Buttercup	F
<i>Trifolium pratense</i>	Red Clover	F
<i>Lolium perenne</i>	Perennial Ryegrass	O
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O
<i>Festuca rubra</i>	Red Fescue	R

Target Note 8

A small isolated woodland parcel with mature trees. It contains a poor understory and ground flora.

<i>Acer pseudoplatanus</i>	Sycamore	A
<i>Aesculus hippocastanum</i>	Horse-chestnut	A
<i>Galium aparine</i>	Cleavers	A
<i>Hedera helix</i>	Ivy	A
<i>Urtica dioica</i>	Nettle	A
<i>Salix species</i>	Willow species	F
<i>Quercus robur</i>	English Oak	O
<i>Alnus glutinosa</i>	Alder	R
<i>Impatiens glandulifera</i>	Himalayan Balsam	R
<i>Sambucus nigra</i>	Elder	R

Target Note 9

A woodland strip dominated by oak with poor groundflora. It lies adjacent to the arable land with a wet ditch which meanders along the edge. There is signs of disturbance from dog walkers.

<i>Quercus robur</i>	English Oak	D
<i>Holcus lanatus</i>	Yorkshire-fog	A
<i>Acer pseudoplatanus</i>	Sycamore	F
<i>Carex pendula</i>	Pendulous Sedge	F
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Fagus sylvatica</i>	Beech	F
<i>Fraxinus excelsior</i>	Ash	F
<i>Hedera helix</i>	Ivy	F
<i>Impatiens glandulifera</i>	Himalayan Balsam	F
<i>Rubus fruticosus agg.</i>	Bramble	F
<i>Rumex obtusifolius</i>	Broad-leaved Dock	F
<i>Acer campestre</i>	Field Maple	O
<i>Alnus glutinosa</i>	Alder	O
<i>Dryopteris dilatata</i>	Broad Buckler-fern	O
<i>Ilex aquifolium</i>	Holly	O
<i>Silene dioica</i>	Red Campion	O
<i>Galium aparine</i>	Cleavers	R
<i>Tilia x europaea</i>	Common Lime	R
<i>Ulmus glabra</i>	Wych Elm	R

Target Note 10

A set aside field of modified neutral grassland

<i>Dactylis glomerata</i>	Cock's-foot	A
<i>Elytrigia repens</i>	Common Couch	A
<i>Holcus lanatus</i>	Yorkshire-fog	A
<i>Cirsium arvense</i>	Creeping Thistle	F
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	F
<i>Ranunculus repens</i>	Creeping Buttercup	F
<i>Heracleum sphondylium</i>	Hogweed	O
<i>Lolium perenne</i>	Perennial Ryegrass	O
<i>Poa trivialis</i>	Rough Meadow-grass	O

Target Note 11

An unmanaged woodland parcel bordering the site.

<i>Quercus robur</i>	English Oak	D
<i>Hedera helix</i>	Ivy	A
<i>Lonicera periclymenum</i>	Honeysuckle	A
<i>Rubus fruticosus agg.</i>	Bramble	A
<i>Urtica dioica</i>	Nettle	A
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Fraxinus excelsior</i>	Ash	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Ilex aquifolium</i>	Holly	O
<i>Sambucus nigra</i>	Elder	O
<i>Corylus avellana</i>	Hazel	R

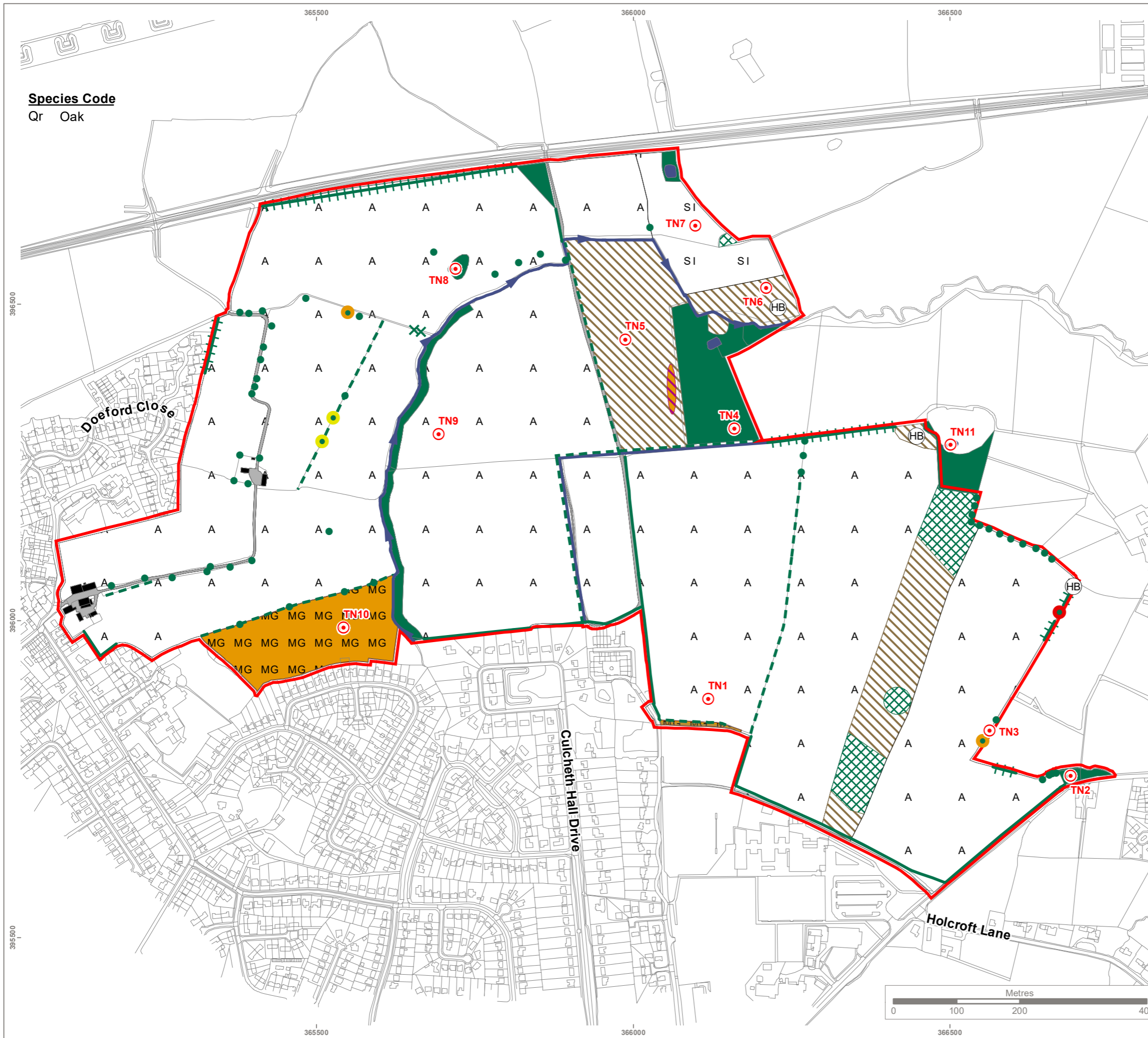
Target Note 12

An area of marshy grassland which is likely to hold water for at least part of the year due to undulating land.

<i>Juncus effusus</i>	Soft Rush	A
<i>Juncus inflexus</i>	Hard Rush	A
<i>Carex pendula</i>	Pendulous Sedge	F
<i>Solanum dulcamara</i>	Bittersweet	O

KEY - D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

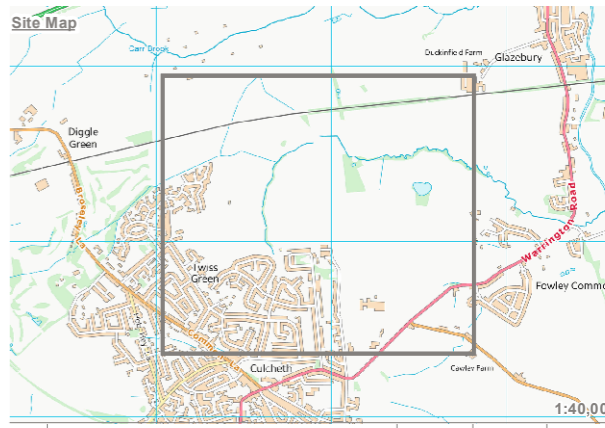
DRAWINGS



Species Code
Qr Oak

- KEY**
- Site Boundary
 - (HB) Himalayan Balsam
 - Target Notes
 - X Scattered Scrub
 - Scattered Broad-leaved Trees
 - Broad-leaved Tree with Low Bat Potential
 - Broad-leaved Tree with Moderate Bat Potential
 - Broad-leaved Tree with High Bat Potential
 - Running Water
 - Species-poor Intact Hedge
 - Species-poor Defunct Hedge
 - Species-poor Defunct Hedge with Ditch
 - Species-poor Hedge and Trees
 - Semi-natural Broad-leaved Woodland
 - Dense/Continuous Scrub
 - Modified Neutral Grassland
 - Marsh/Marshy Grassland
 - Poor Semi-improved Grassland
 - Tall Ruderal
 - Standing Water
 - Arable
 - Buildings
 - Hardstanding

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Rev	Description	Drawn	Approved	Date

THE ENVIRONMENT PARTNERSHIP

Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Peel Sites, Warrington - Land NE of Culcheth

Title
Phase 1 Habitat Survey

Drawing Number
G6929.01.009

Drawn	Checked	Approved	Scale	Date
JS	AP	AP	1:6,000 @ A3	28/06/2018

Heritage Appraisal

Warrington Local Plan – Land North East of Culcheth

June 2018 (Updated November 2021)

Introduction

1. This Heritage Appraisal has been prepared on behalf of Peel L&P Holdings (UK) Limited in connection with Land North East of Culcheth (the 'Appraisal Site'). It identifies heritage assets with potential to be affected by development of the Appraisal Site and broadly describes their significance and setting. The appraisal identifies whether there are heritage constraints to development and how these constraints could be resolved or mitigated.
2. This Appraisal was originally prepared in July 2018. It has since been updated to refer to the revised NPPF (2021) and provides a review of the proposed masterplan (Development Prospectus, November 2021) in light of the key heritage considerations originally identified.

The Appraisal Site

3. This Appraisal Site consists of an extensive plot of land to the north east of the settlement of Culcheth and Twiss Green. To the north is the Liverpool and Manchester Railway line which cuts across part of the site. The western boundary of the site abuts Twiss Green Lane and the Culcheth (Newchurch) Conservation Area. To the east are numerous open agricultural fields to Glazebury and to the south are large areas of modern residential development (along Culcheth Hall Drive and Chiltern Road). The site itself consists of a number of large open agricultural fields, divided by extant mature hedgerows and trees.
4. Historically, the Appraisal Site and the surrounding area consisted of open agricultural fields on the outskirts of Culcheth and Twiss Green. The land to the east of the site historically formed part of the grounds of Culcheth Hall which was principally constructed in the 18th century (although the site holds origins dating back to the 13th century). This arrangement is illustrated on the 1847 Ordnance Survey Map which shows a clear division between the land; agricultural and former parkland. The parkland to Culcheth Hall included a thick tree belt (known as 'Wellfield Wood') which screened the area to the west from the hall. The western parts of the site consisted of farmsteads (Leatherbarrow Farm and Tanners Farm). The northern parts of the site and surrounding area were split by the construction of the Liverpool to Manchester railway line which opened in c.1830. Further to the west of the site was Kenyon Hall and its associated grounds.
5. By the late 19th and early 20th century, the area of Twiss Green began to be developed exclusively with numerous turn of the century houses. Also in the 20th century, Newchurch Hospital (also known as 'Culcheth Cottage Homes') was constructed to the immediate west of the Appraisal Site. With the exception of additional residential dwellings within Twiss Green to the south west and the reconfiguring of Kenyon Hall into the Leigh Golf Course (and club), there were no changes to the site and the surrounding area at this time.

6. The area around and including Twiss Green and Culcheth was largely developed with post-war housing during the mid-20th century. Culcheth Hall was also demolished during this time (c.1958) and the southern grounds redeveloped. The northern parts of the grounds were returned to agricultural use; with some extant parkland features retained such as Wellfield Wood etc. There appears to have been no other significant changes to the site or the surrounding area in the late 20th or early 21st century.

The Heritage Assets

7. The NPPF (2021) defines a heritage asset as:

“A building, monument, site, place, area, or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest”¹.

8. The setting of a heritage asset is defined by the NPPF (2021) as:

“The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral”².

9. A site visit was completed on 29 May 2018 to assess the potential for designated and non-designated heritage assets to be affected by future development of the Appraisal Site for residential use. These assets are set out below and are then followed by a broad assessment of their significance (including the contribution made by setting and the Appraisal Site).

Asset Name	Asset Type and Grade	Location, relative to Appraisal Site
Culcheth (Newchurch) Conservation Area	Conservation Area	Outside the site, to the western boundary
Milestone	Listed Building (Grade II)	Outside the site, to the south eastern boundary

Culcheth (Newchurch) Conservation Area

Special Character and Appearance

10. The Culcheth (Newchurch) Conservation Area was designated by Warrington Borough Council in 1993. The conservation area is centred on the former Newchurch Hospital which was constructed in the early 20th century (c.1903) as a ‘model home’ / ‘cottage home’ for deprived children before being converted into an operational residential facility for the physically and mentally disabled. It’s location on the outskirts of Culcheth could be due to its countryside location (providing fresh air for the children to improve their health) and/or due to a local benefactor from nearby Culcheth Hall or Kenyon Hall.
11. The core of the area forms a pleasing composition of 14 Arts and Crafts style houses arranged around an oval driveway and approached along a straight tree-lined driveway. The majority of the buildings are symmetrically designed and constructed from red brick, render, plain and ornamental hanging clay tiles and timber casement windows. Also to one side of the

¹ MHCLG (2021) National Planning Policy Framework (NPPF) – Annex 2: Glossary

² MHCLG (2021) National Planning Policy Framework (NPPF) – Annex 2: Glossary

conservation area is a distinctly separate area for larger institutional buildings including a school, hospital administrative and workshop (with water tower).

Contribution made by Setting to Significance

Physical Surroundings

12. As set out earlier, the Newchurch Hospital was originally constructed on the outskirts of Culcheth and Twiss Green and was originally surrounded by open agricultural fields. In the 20th century, residential development was constructed to the north east, south east and the south west. To the north west were the grounds of Kenyon Hall and latterly the Leigh Golf Course which included a tree belt between the grounds and the hospital. This arrangement remains today but now the trees within and surrounding the conservation area have matured, which has resulted in a largely wooded and secluded setting to the west and a suburban character to the east.

Experience of the Asset

13. Due to its largely enclosed setting (woods to the west and houses to the east), there are limited views to and from the Culcheth (Newchurch) Conservation Area. From the south, the principal approach into the conservation area is experienced alongside Twiss Green Lane with its mature trees and modern boundary treatment. This has since been subsumed by modern development along the road and now forms part of a continuous modern streetscape. There are no other aspects of the conservation area appreciable from this area.
14. The eastern part of the conservation area is experienced from its immediate east along the unnamed road off Twiss Green Lane. It is here that the more administrative parts of the conservation area (such as the former workhouse and water tower) are experienced. Due to the height of the tower and its landmark quality, it is appreciable in short and long range views from the open agricultural fields to the east (forming the Appraisal Site).

Associative Attributes

15. The conservation area has no known associative attributes.

Contribution made by the Appraisal Site

16. The eastern part of the Appraisal Site has no historic, functional or visual relationship with the Culcheth (Newchurch) Conservation Area due to its distance, the topography of the land and extent of intervening vegetation. The conservation area, principally the water tower, is experienced in short and distant views from the western part of the site and holds a limited visual relationship.
17. The Appraisal Site is considered to contribute to a degree to the significance of the Culcheth (Newchurch) Conservation Area; however this contribution is principally attributed to the land in the western part of the site and views of the water tower. The remainder of the site is not considered to contribute to the significance of the conservation area.

Milestone (Grade II Listed)

Special Architectural and Historic Interest

18. The Milestone is located on the south eastern side of Warrington Road and is a small triangular structure erected between 1894-1908.³ It is cast iron (painted white) and has a straight back with a downward sloping top with lettering reading 'NEWCHURCH TOWNSHIP OF CULCHETH' above which reads 'TO WARRINGTON 7 MILES' and 'TO LEIGH 3 ¾ MILES'. The milestone is of significance for its functional and historic interest, marking the boundary of Culcheth and the distance between Warrington and Leigh.

Contribution made by Setting to Significance

Physical Surroundings

19. As aforementioned, the milestone is located on the south eastern side of Warrington Road, beyond which is agricultural fields. To the north west is the road itself beyond which is the Appraisal Site. Both sides of the road are lined with mature hedgerows.

Experience of the Asset

20. The milestone is primarily experienced from along Warrington Road to its immediate north west but this is restricted due to the overgrown nature of the hedgerow which severely restricts views of the structure. Due to the mature nature of the hedgerow and the location and size of the structure, it is almost completely hidden from view and is not readily appreciable from the surrounding area.

Associative Attributes

21. The structure has no known associative attributes with the exception of other extant milestones constructed during the same period along the same route.

Contribution made by the Appraisal Site

22. The milestone is a purely functional structure which illustrates the areas transport history during the turn of the century. The site holds no historic or functional connections with the listed structure. With the exception of the hedgerows to the north western boundary of Warrington Road, there is no visual connection between the listed structure and the site. Overall, the Appraisal Site does not contribute to the significance of the listed milestone.

Overview of Legislation, Key National Planning Policy Considerations and Guidance

Statutory Duty (1990 Act)

23. Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 states that:

"In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses."

24. The concept of 'preserve' has been interpreted through case law to mean 'to cause no harm'.

³ Historic England (2008) List Entry Description for Milestone

The National Planning Policy Framework, revised 2021

25. Conservation areas are 'designated heritage assets' within the meaning of the NPPF. Paragraph 190 of the NPPF states that local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In developing this strategy, local planning authorities should take into account of:
- The desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
 - The wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
 - The desirability of new development making a positive contribution to local character and distinctiveness; and
 - Opportunities to draw on the contribution made by the historic environment to the character of a place.
26. Paragraph 195 sets out the principles guiding the determination of applications affecting designated and non-designated heritage assets, and states that:
- 'Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal . . . They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.'*
27. Paragraph 197 elaborates that local planning authorities should take account of the desirability of sustaining and enhancing the significance of heritage assets, putting them into viable uses consistent with their conservation, as well as the desirability of new development making a positive contribution to local character and distinctiveness.
28. Paragraph 199 requires when considering the impact of a Proposed Development on the significance of a designated heritage asset, that great weight should be given to the asset's conservation and the more important the asset, the greater that weight should be. Paragraph 200 confirms that significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting and any harm or loss requires clear and convincing justification.
29. In the event that harm is perceived to arise from proposals, the NPPF provides a policy framework at paragraphs 201 and 200 within which such harm can then be weighed against public benefits (202) or substantial public benefits (201) bearing in mind the considerable importance and weight that should be attached to the statutory duty of the Act.
30. Paragraph 206 requires local planning authorities look for opportunities for new development within the setting of heritage assets to better reveal their significance. With respect to setting, the policy notes that proposals that preserve those elements of setting that make a positive contribution to or better reveal the significance of the asset should be treated favourably.

31. The setting of a conservation area is not enshrined in legislation and does not attract the weight of statutory protection.⁴ It is however a consideration as set out in the NPPF and has therefore been addressed in this report.

Good Practice Advice Note 3: The Setting of Heritage Assets, Historic England (2017)

32. Historic England has published guidance in respect of the setting of heritage assets, providing detail on understanding setting and the associated assessment of the impact of any changes. The guidance confirms that setting is not a heritage asset, nor a heritage designation, rather its importance lies in what it contributes to the significance of the relevant heritage asset itself.

Key Heritage Considerations

33. There are no significant heritage constraints to redevelopment of the Appraisal Site. As set out earlier, the site does contribute (to a degree) to the significance of the Culcheth (Newchurch) Conservation Area but this is largely attributed to its western side. In relation to the grade II listed milestone, the Appraisal Site is not considered to contribute to its significance.
34. Notwithstanding the above, the following measures could be considered:
- An area of open space could be retained to the immediate west of the Appraisal Site, adjacent to the Culcheth Conservation Area to assist in reinforcing its former semi-rural position.
 - The water tower within Culcheth (Newchurch) Conservation Area is visible from various points across the Appraisal Site. There is an opportunity to align any new routes through the site to focus on the tower.
 - The existing mature trees contribute to the landscape character and former parkland qualities of the site and should be retained where possible. The arrangement, scale, massing and design of the proposed development could perpetuate the characteristics of the Appraisal Site.
 - The 'Wellfield Wood' runs down the centre of the site together with other extant parkland features such as tree plantations. These could be incorporated into any future development.
 - Although not listed or identified on the local list, consideration could be given to the retention of buildings on the site which contribute to the historic development of the area, such as Leatherbarrow Farm and Tanners Farm.
35. The Masterplan (Appendix 1) has been informed by the identified key heritage considerations. Open space has been retained to the west of the site, aligning routes to the water tower and areas of mature trees and landscaping have been retained. Development of the type and arrangement identified in the Masterplan will sustain the significance of nearby heritage assets.

⁴ APP/H1705/A/14/2219070 & APP/U3935/V/14/2216792

Appendix 1: Masterplan

Area measures:

Total site area	97.12 ha
Developable area	19.34 ha
Spine road	4.19 ha
Open Space	32.62 ha
Culcheth Country Park	38.48 ha
Allotments	0.82 ha
Formal sport	1.40 ha
Allotments/sports car park	0.27 ha

This site could deliver up to 600 units at 31 dwellings per hectare.



Key

- Proposed site boundary
- Proposed Green Belt boundary
- Existing vegetation
- Existing watercourses and waterbodies
- Proposed tree and woodland planting
- Proposed development cell
- Proposed Culcheth Country Park (retained within Green Belt)
- Proposed open space
- Potential school extension
- Sites with planning applications / recently developed
- Proposed new sports pitches
- Retained PRoWs
- Proposed pedestrian links
- Proposed primary road
- Proposed secondary road
- Proposed car parks
- Proposed vehicular access from Warrington Road (priority junction or roundabout)
- Proposed vehicular access from Twiss Green Lane
- Proposed access to Culcheth High School
- Potential emergency link
- Proposed allotments
- Proposed SuDS
- Proposed NEAP/LEAP

NB: Masterplan subject to change following detailed survey work.



Warrington Local Plan Sites

**North East Culcheth
Post Plan Period Illustrative Masterplan**

Drwg No: 630DC-21D
Drawn by: SR
Rev by: SR
QM Status: Checked
Scale: NTS

Date: 07.06.19
Checker: SR
Rev checker: SR
Product Status: Issue



LAND NORTH EAST OF CULCHETH

WARRINGTON



FLOOD RISK AND UTILITIES APPRAISAL

Shepherd Gilmour Infrastructure Ltd.

[Redacted]

[Redacted]

[Redacted]

[Redacted]



Report Title: Land North East of Culcheth, Warrington
Flood Risk and Utilities Appraisal

Client: Peel Investments (North) Ltd

Report Status: Version Rev V6

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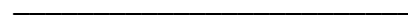
Date of Last Issue: 12th June 2019

Prepared by:



Natalia Marsden BA (Hons)

Checked & Approved:



Dean O'Reilly BSc (Hons)

Version	Date	Initials	Comments
V2	28.09.2017	NCM	Updated to reflect new masterplan
[Redacted]	4.07.2018	DOR	Updated to reflect new masterplan
V4	15.05.2019	NCM	Size of site amended
V5	11.06.2019	NCM	Updated to reflect new masterplan
V6	12.06.2019	NCM	Updated to reflect Walker Morris comments



Limitations

All findings, recommendations and conclusions contained in this report are based on information provided to us during investigations. Shepherd Gilmour Infrastructure Ltd. has created the report based on the assumption that all the information is accurate and accepts no liability should additional information exist or become available.

Unless otherwise requested by the client, Shepherd Gilmour Infrastructure Ltd. is not obliged to and disclaims any obligation to update the report for events taking place after the date noted on the report.

Shepherd Gilmour Infrastructure Ltd. makes no representation whatsoever concerning the legal significance of its findings or the [REDACTED] report. The information presented and conclusions drawn are based on [REDACTED] for guidance purposes only. The study provides no guarantee against the flooding of the study site or elsewhere, nor of the absolute accuracy of water levels, flow rates, and associated probabilities.

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APPENDIX G HSE PRE-PLANNING ADVICE



SECTION I INTRODUCTION

I.1. Shepherd Gilmour Infrastructure Ltd (SGi) has been engaged by Peel Investments (North) Limited (hereafter “the Applicant”) to provide Preliminary Planning Advice in support of development known as Land North East of Culcheth in the forthcoming representations to the Warrington Local Plan.

SITE LOCATION

I.2. The proposed site is located to the immediate north-east of the village of Culcheth in Warrington. The site extends to 96.1ha in total and consists of agricultural fields and isolated areas of woodland.

- Nearest Postcode: WA3 4AN
- OS Coordinates: 3 [REDACTED]
- OS Grid Reference [REDACTED]

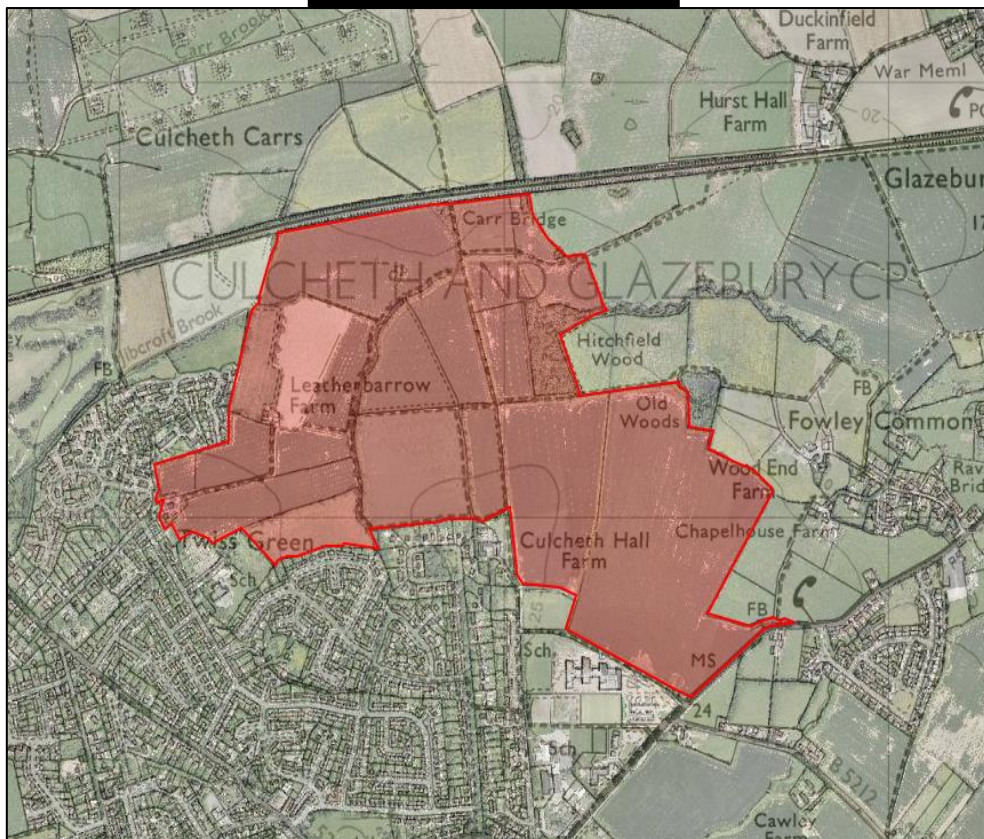


Figure I.1 Red Line Boundary



TOPOGRAPHY

- I.3. Based on Ordnance Survey maps, the site ranges in level between 20-25m AOD and generally falls in level from the south to the north/north east.

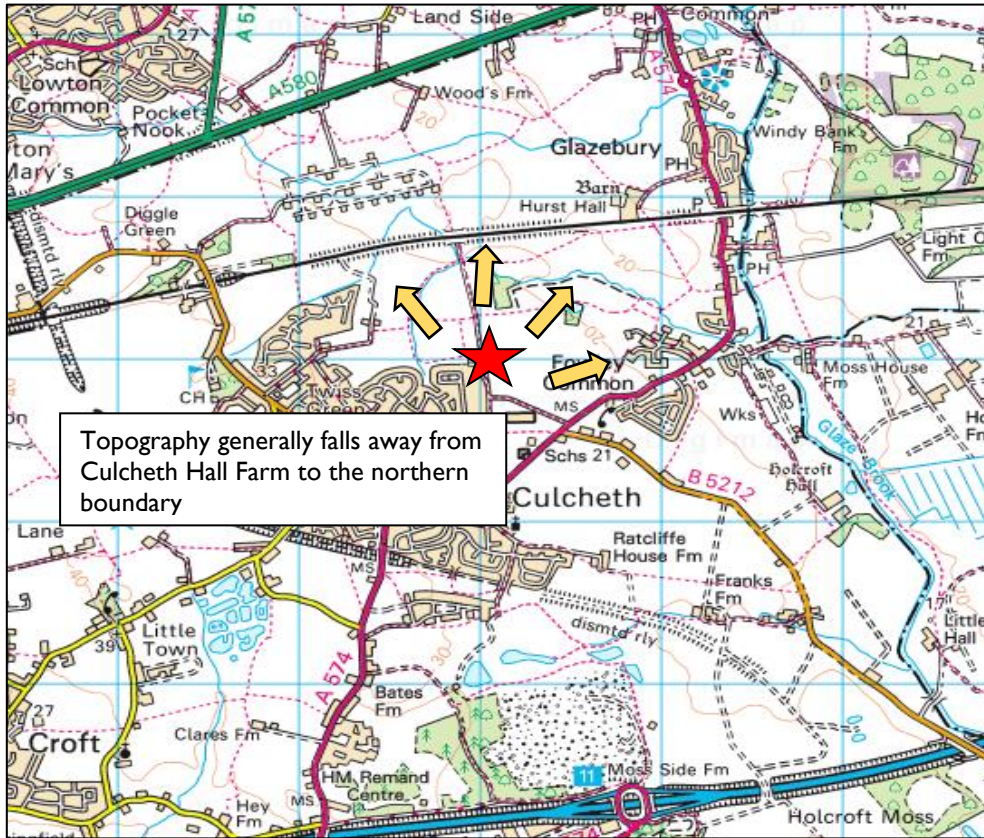


Figure I.2 Site Plan (OS Map)



PRELIMINARY PROPOSALS

I.4. The client’s conceptual masterplan is shown in **Figure I.3 and Appendix A**. This estimates that up to 600 homes could be delivered within the southern and western section of the site. The remainder of the development will consist of country parks to provide a landscape buffer and existing features such as Wellfield Wood, Hitchfield Wood and Jibcroft Brook will be retained and protected.



Figure I.3 Conceptual Masterplan (Randall Thorp)



SECTION 2 PRELIMINARY FLOOD RISK ADVICE

GOV.UK PLANNING ADVICE MAPS

2.1. The Gov.UK online Flood Maps provide initial information on any flood zoning onsite. These maps indicate that the majority of the site is located within Flood Zone 1 (low probability of fluvial flooding) with some small areas close to Jibcroft Brook indicated as Flood Zones 2 and 3 (medium to high probability of fluvial flooding).

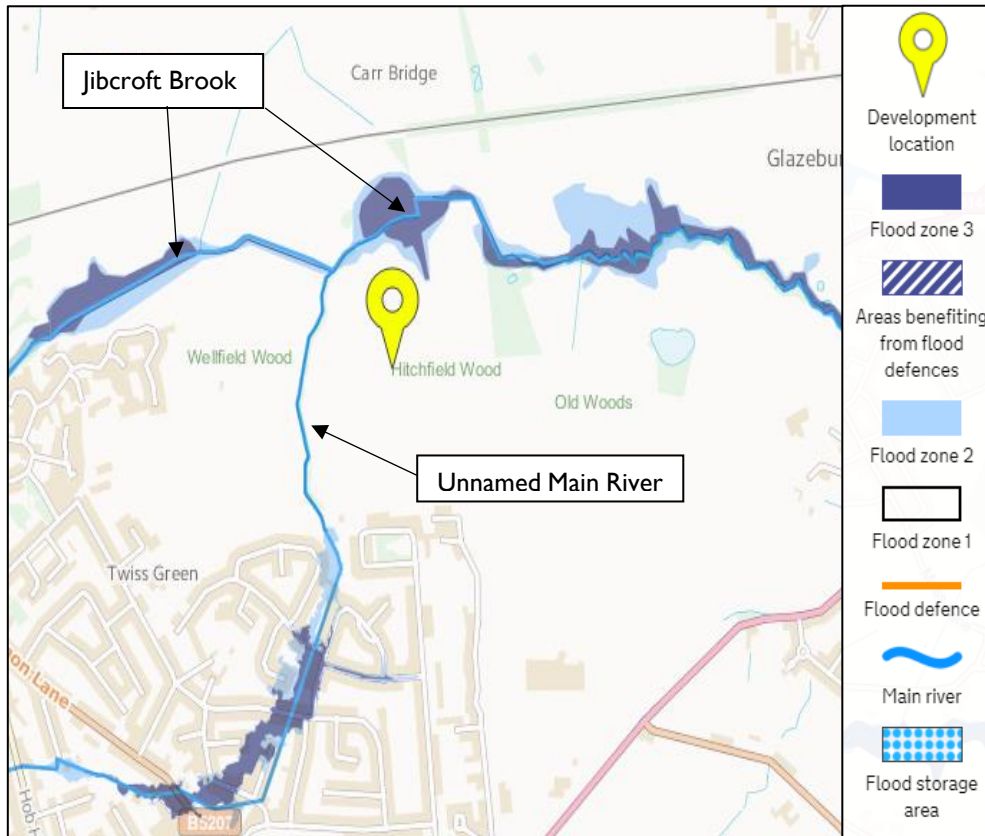


Figure 2.1 Gov.UK Flood Map for Planning



ENVIRONMENT AGENCY DATA

2.2. The latest flood data and maps have been obtained from the Environment Agency (EA) and indicate the same flood zones (**Figure 2.2**). The Product 4 data also includes estimated flood levels which can be used in conjunction with a topographical survey during the detailed design stage to ascertain if there is any risk of flooding to the site. This information has been included within **Appendix B**.

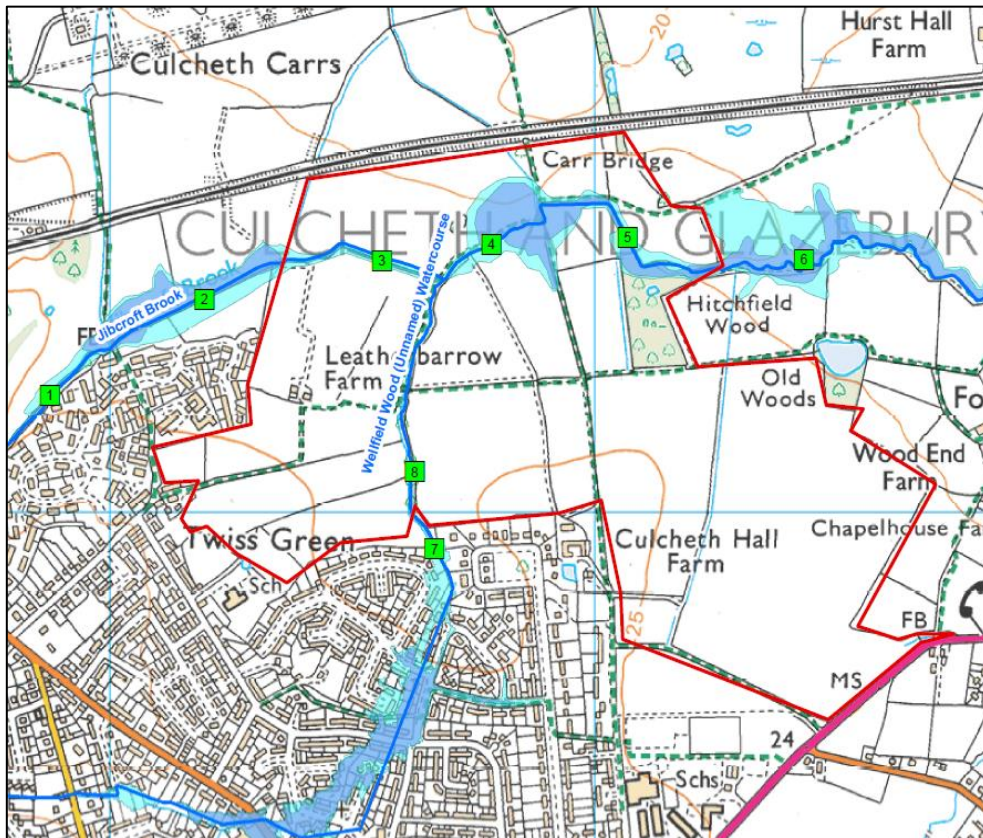


Figure 2.2 Detailed Flood Map (EA)



FLOOD ZONE GUIDANCE

2.3. The Flood Risk and Coastal Change Guidance indicates which, development type is suitable for each Flood Zone as shown in **Table 2.1 & 2.2**.

Flood Zone	Flood Risk Vulnerability Classification				
	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
1	✓	✓	✓	✓	✓
2	✓	Exception Test Required	✓	✓	✓
3a	Exception Test Required	x	Exception Test Required	✓	✓
3b	Exception Test Required			x	✓

Table 2.2 Development Types (Abstract)

Highly Vulnerable	<ul style="list-style-type: none"> • Police stations, Ambulance stations and Fire stations and Command Centres. • Emergency dispersal points. • Basement dwellings. • Caravans, mobile homes & park homes intended for permanent residential use. • Installations requiring hazardous substances consent.
More Vulnerable	<ul style="list-style-type: none"> • Hospitals. • Residential institutions • Residential dwelling, student halls, drinking establishments/nightclubs and hotels. • Non-residential - Health services, nurseries and educational establishments. • Landfill and sites used for waste management facilities for hazardous waste.
Less Vulnerable	<ul style="list-style-type: none"> • Police, ambulance and fire stations which are not required during a flood. • Shops; financial, professional and other services; restaurants and cafes; hot food takeaways; offices; general industry; storage and distribution; non-residential institutions not included in 'more vulnerable'; and assembly and leisure. • Land and buildings used for agriculture and forestry. • Waste treatment (except landfill and hazardous waste facilities). • Minerals working and processing (except for sand and gravel working). • Water treatment works which are not required during times of flood. • Sewage treatment works.

Table 2.2 Development Types (Abstract)

2.4. The conceptual masterplan indicates that all residential development (i.e. more vulnerable development) will be in the southern and western part of the site, with a landscaped corridor around the unnamed main river through Wellfield Wood. Consequently all 'more vulnerable' development will be located within Flood Zone

1. Therefore, the client's preliminary proposals meet the requirements of the NPPF.

SECTION 3 EXISTING DRAINAGE INFRASTRUCTURE

PUBLIC SEWERS

- 3.1. The public sewers in the vicinity of the proposed site are owned and maintained by United Utilities (UU). Copies of their records have been requested and are included in **Appendix C** of this report.

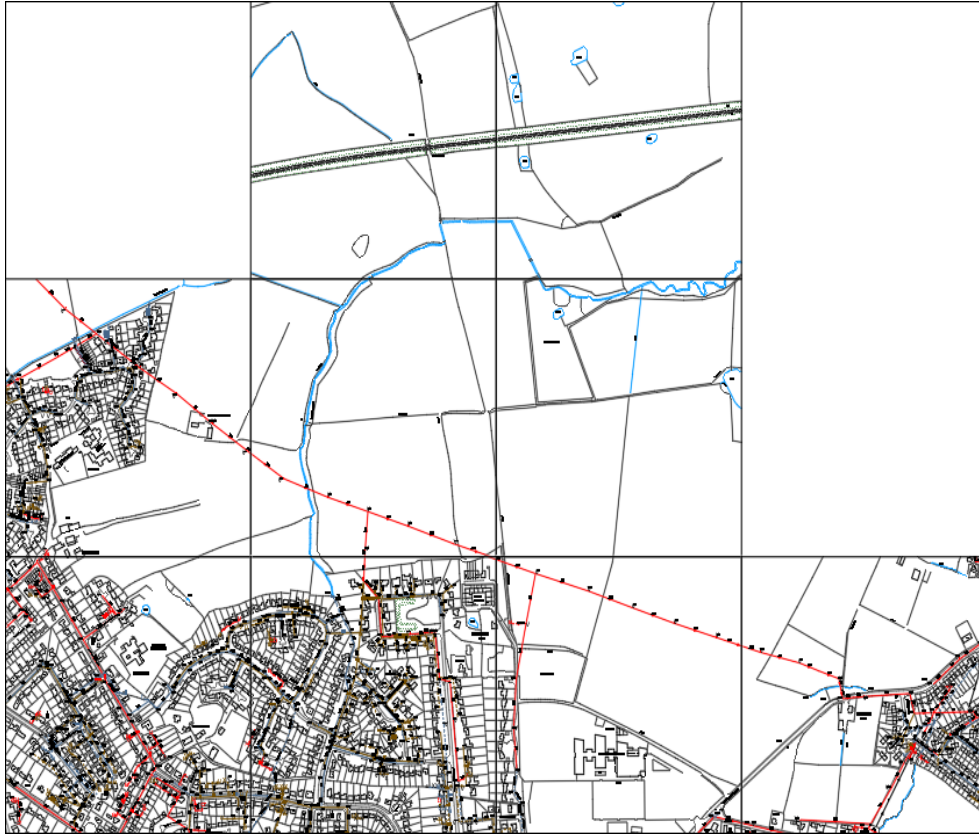


Figure 3.1 Combined UU Sewer Plan

Surface Water Sewers

- 3.2. According to United Utilities records there does not appear to be any surface water sewers onsite. The surface water sewers that collect and convey runoff from the surrounding developments discharge into the surrounding waterbodies.

Foul Water Sewers

- 3.3. According to United Utilities records there does not appear to be any foul water sewers onsite. Foul water sewers which collect effluent from the surrounding developments discharge directly/indirectly into the onsite combined sewer.

Combined Water Sewers

- 3.4. [REDACTED] According to United Utilities records there is a 450mm diameter combined water sewers which passes through the site. The sewer flows in a west to east direction [REDACTED]



and is between 2m and 4m deep. Based on the diameter and depth there is likely to be a requirement for a 4m offset each side of the centreline of the sewer (Sewers for Adoption 6th Edition).

PRIVATE DRAINAGE

3.5. There is no known private drainage onsite.

PRELIMINARY DEVELOPMENT DRAINAGE

Surface Water Drainage

3.6. Based on the topography and development proposals/location it should be possible to discharge any runoff from the development into the onsite waterbodies. This is in accordance with the runoff destination hierarchy set out in Paragraph 080 of the Flood Risk and Coastal Cl...

3.7. Note that any surface water discharge must be agreed by the Environment Agency and/or Lead Local Flood Authority, dependent on the type of watercourse.

Foul Water Drainage

3.8. Foul effluent generated by the development should be able to connect into the onsite combined sewer. At the stage the need for off-site reinforcement is unknown and United Utilities should be consulted as soon as practically possible.

Sewer Diversions

3.9. At this stage, it is difficult to assess if any sewer diversions would be required. More information is required and any diversion can be addressed at a later stage.

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SECTION 4 UTILITIES INFRASTRUCTURE

ELECTRICITY

- 4.1. Electricity in the area is supplied by Electricity North West (ENW). Their records identify a 33kV overhead transmission line passing through the centre of the site and 11kV cables within Warrington Road and Hurst Lane. There are also LV cables to the south, west and eastern boundaries which serve the existing residential areas.
- 4.2. The need for offsite reinforcement to meet the power demands of the development is unknown. Discussions with ENW should be undertaken as soon as practically possible.

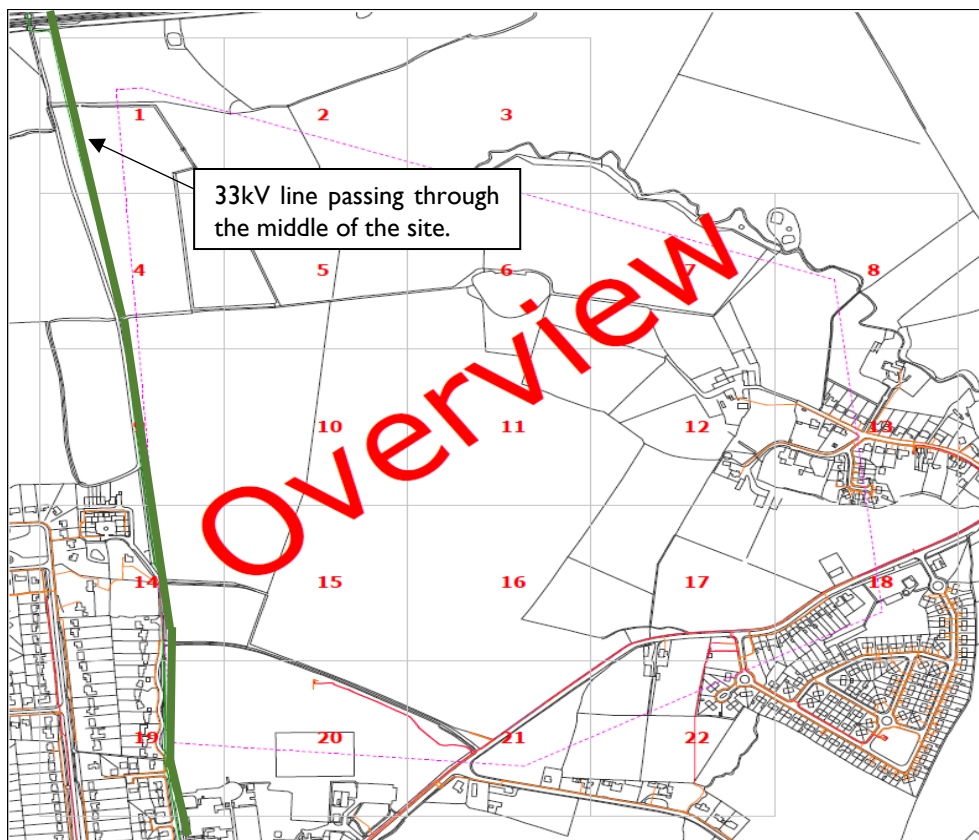


Figure 4.1 Electricity Assets- East of Site (ENW)

- 4.3. A copy of the ENW asset records has been included within **Appendix D**.

TELECOMMUNICATION

- 4.4. Openreach records show services around the perimeter of the site serving the existing dwellings. Their records do not show any services onsite but telecom poles and overhead cables were noted onsite. These appear to be serving the onsite farm buildings.

- 4.5. A supply from the existing perimeter infrastructure may be possible but it is unknown if there is sufficient capacity available at this time. Discussions with Openreach should be undertaken as soon as practically possible.
- 4.6. A copy of Openreach records has been included within **Appendix E**.

MAINS WATER

- 4.7. United Utilities records show services around the perimeter of the site and a 6” PV main passing through the eastern section of the site. These appear to be serving the onsite farm buildings.

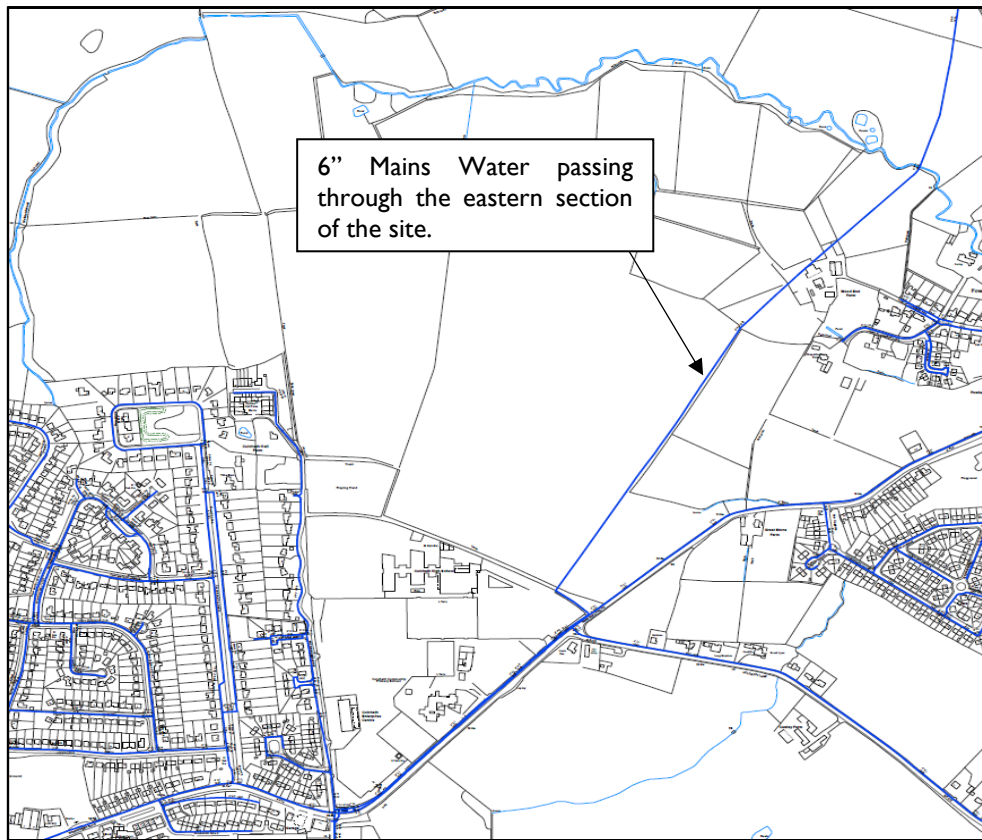


Figure 4.2 UU Eastern Record Plans

- 4.8. It is unknown at this stage whether there is sufficient capacity available for the proposals, or whether offsite reinforcement to meet the water supply demands of the development will be required. Discussions with UU should be undertaken as soon as is practical.
- 4.9. [REDACTED] A copy of the UU asset records has been included within **Appendix C**.

[REDACTED]
[REDACTED]
[REDACTED]

GAS

4.10. Cadent/National Grid records show services around the perimeter of the site and a National High Pressure main (NHP) passing through the centre of the site. Due to the scale/quality of the records any further information such as size, depth etc. is obscured. This NHP main is likely to have an associated easement but the exact dimensions are unknown at this stage.

4.11. The need for offsite reinforcement to meet the gas supply demands of the development is unknown. Discussions with Cadent/National Grid should be undertaken as soon as practically possible.

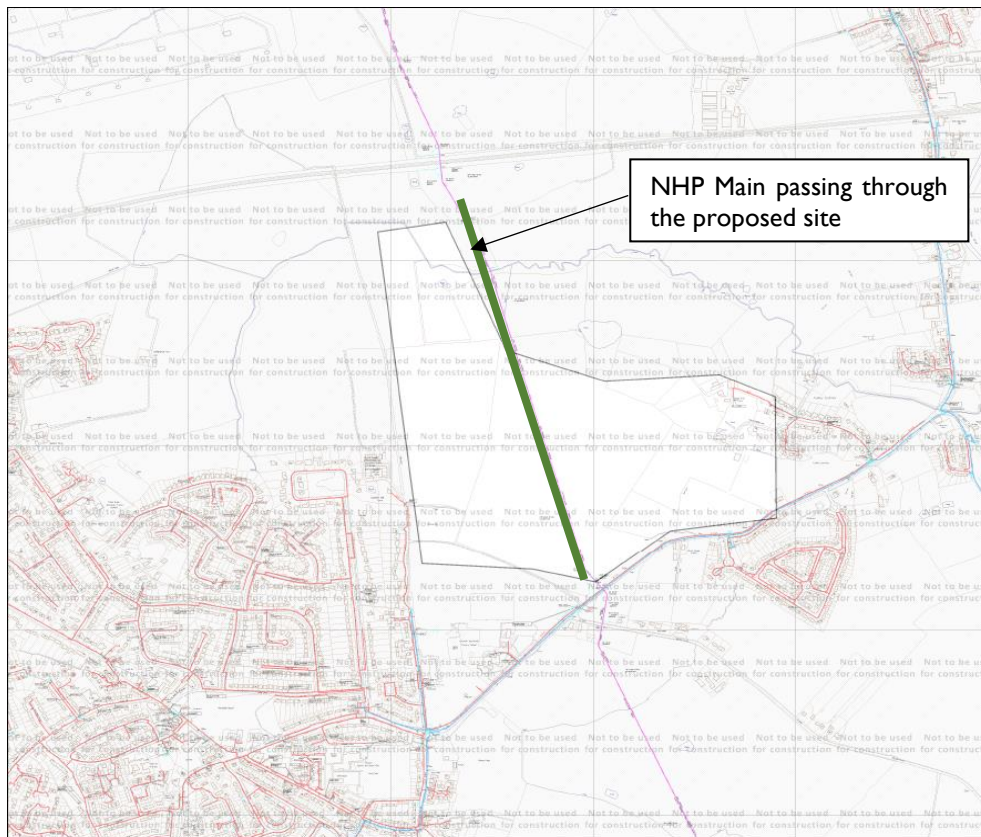


Figure 4.3 Cadent Gas Record Plans

4.12. A copy of Cadent/National Grid records has been included within **Appendix F**.



SECTION 5 HEALTH AND SAFETY EXECUTIVE CHECK

5.1. A preliminary consultation with the Health and Safety Executive indicated that the proposed site is located near or on a major hazard site or major accident hazard pipeline. The plans provided highlighted two risk areas.

NHP MAIN

5.2. The National High Pressure main that passes through the centre of the site is considered a major accident hazard pipeline. The HSE have assessed the risk and applied a “consultation distance” which consists of three zones.

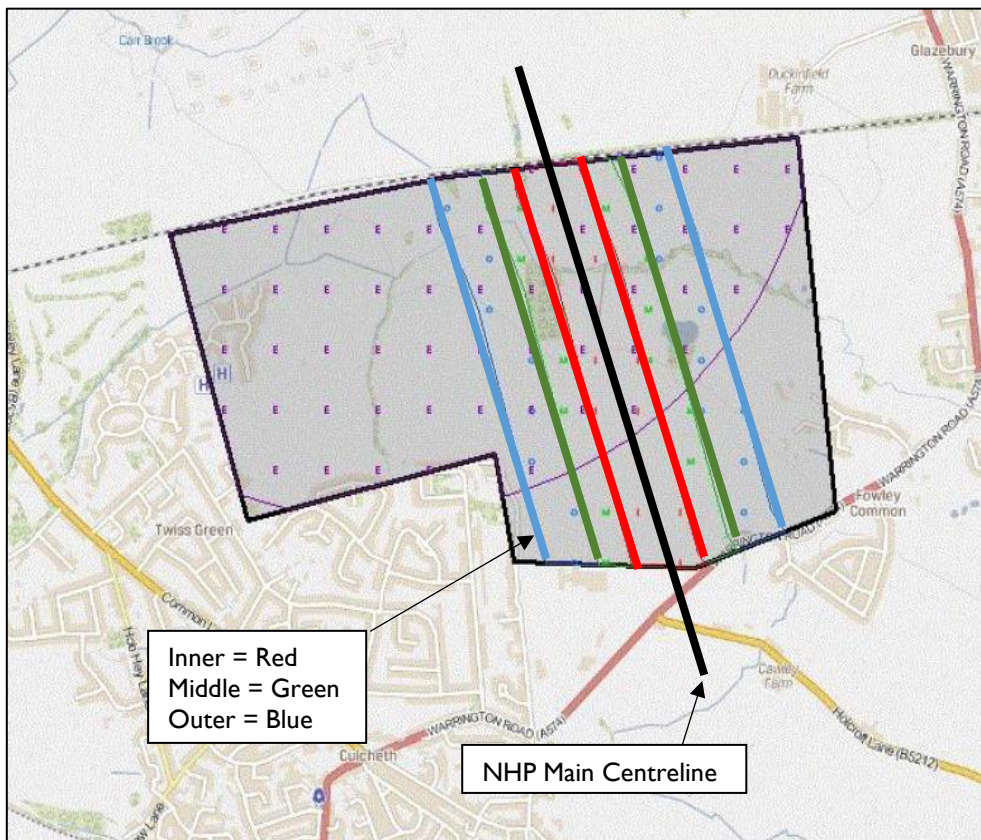


Figure 5.1 Planning Advice Map – NHP Main (HSE)

Consultation Zoning

5.3. The consultation distance consists of three zones known as the Inner, Middle and Outer. These zones along with the sensitivity level of the development (**Table 5.1**) will determine if the HSE will advise against the proposed development (**Table 5.2**).



Development Type	Examples	Development Detail and Size	Justification
DT2.1 Housing	Houses, flats, retirement flats / bungalows, residential caravans, mobile homes	Developments up to and including 30 dwelling units and at a density of no more than 40 per hectare (Level 2)	Development where people live or are temporarily resident. It may be difficult to organise people in the event of an emergency
	Exclusions		
	Very small developments including infill and back land developments	DT2.1 x 1 Developments of 1 or 2 dwelling units (Level 1)	Minimal increase in numbers at risk
	Larger developments	DT2.1 x 2 Larger developments for more than 30 dwelling units (Level 3)	Substantial increase in numbers at risk
	Larger developments for infilling of more than 40 dwelling units per hectare (Level 3)		High density development

Table 5.1 HSE Development Classification

Level of Sensitivity	Developments in Inner Zone	Development in Middle Zone	Development in Outer Zone
1	Don't Advise Against	Don't Advise Against	Don't Advise Against
2	Advise Against	Don't Advise Against	Don't Advise Against
3	Advise Against	Advise Against	Don't Advise Against
4	Advise Against	Advise Against	Advise Against

Table 5.2 HSE Decision Matrix

5.4. The development proposals would be considered a **Level 3** type and as such should only occur in the outer zone. Due to the scale of the proposals, the Additional Rule I would apply and it would be considered a Straddling development.

Straddling Development

5.5. Development types that 'straddle' over zone boundaries will normally be considered as being in the innermost zone to the major hazard unless the following conditions

are met, in which case the development type will be considered to be in the outermost of the zones:

- Less than 10% of the area marked on the application for that particular development type is inside that boundary

- Only landscaping (including house gardens), car parking, parks and open spaces, golf courses or access roads etc. associated with the development; that are permitted in the inner of the zones.

5.6. The site conceptual masterplan shows that no housing is proposed within the inner zone, and only a small portion within the middle zone. The land within the inner zone is designated as a country park and open land which is permitted in this zone.

5.7. Discussions with Cadent are currently ongoing in order to ascertain the material of the LHP pipe main, and whether it is a heavy walled pipe. If the pipe is 'heavy walled' then, after discussion with the HSE, the consultation distances may be narrowed.

GLAZEBURY ORICA EXPLOSIVES STORAGE DEPOT

5.8. The Glazebury Orica Explosive Storage Depot is located to north of the site and is classed as a major hazard [REDACTED] the risk and indicated an explosive interest zone as shown [REDACTED]

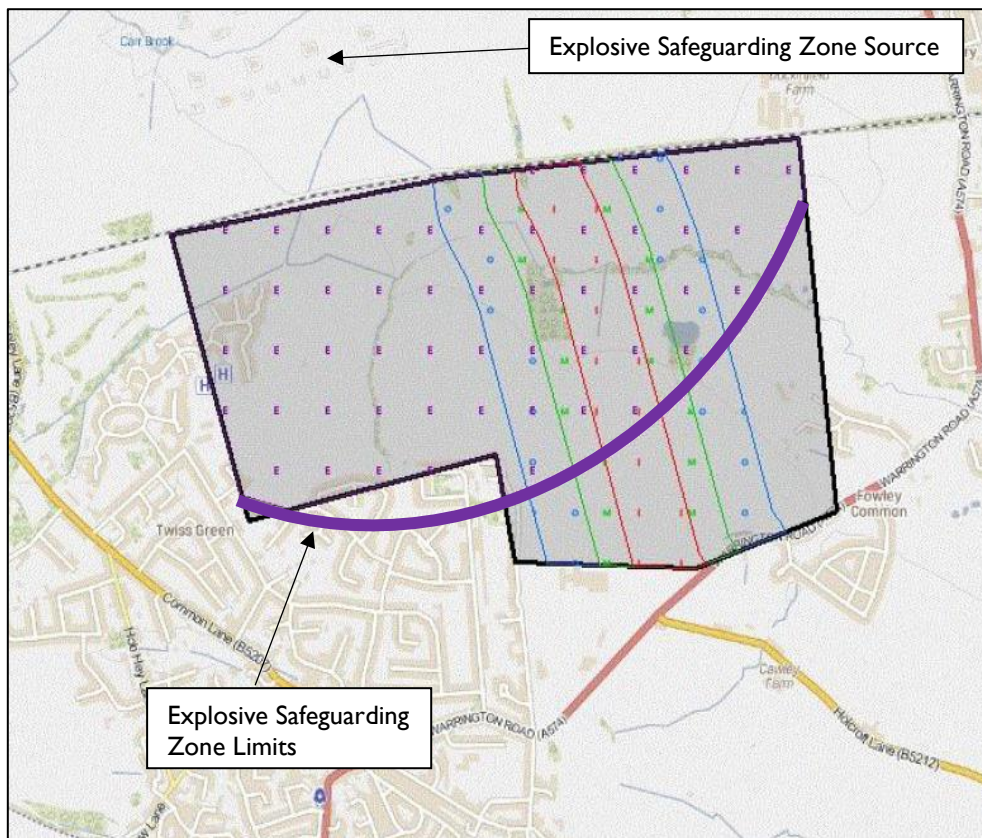


Figure 5.2 Planning Advice Map – Glazebury Orica (HSE)

5.9. [REDACTED] We would recommend that discussions with the HSE Explosives Inspectorate are undertaken as soon as practically possible to assess whether this zoning has any [REDACTED] impact on the development proposals.

SECTION 6 CONCLUSION

6.1. This preliminary planning advice statement provides an overview of the existing infrastructure on or around the proposed site and evaluates flood risk issues that may potentially influence the conceptual masterplan. In summary, the statement confirms that:

- a) The proposed residential areas are located within Flood Zone 1 (low probability of fluvial flooding). In accordance with the Flood Risk and Coastal Change Guidance, all development proposals are acceptable in the flood zones.
- b) The proposed surface water runoff generated by the proposals should discharge to one or more of the onsite waterbodies. Flow rates to be agreed with the Environment Agency or Lead Local Flood Authority (in the status of waterbody).
- c) The proposed foul water [REDACTED] the onsite combined water sewer that flows through the centre of the site in a west to east direction. Flow rates and any offsite/onsite upgrade works are to be agreed with United Utilities.
- d) Any combined water sewer diversions should be investigated further once the masterplan layout is fixed.
- e) Early discussions with Electricity North West are required to establish the proposed electricity route(s) to the site.
- f) The existing Openreach infrastructure that surrounds the site could be able to cater for the site proposals. Consultation with Openreach should be undertaken to confirm this.
- g) Discussions with United Utilities is required to establish the proposed mains water route(s) to the site.
- h) Consultation with Cadent is ongoing to confirm the pipe material of the NHP main and its associated onsite easement. Discussion is also required to establish the future proposed gas main route(s) to the site.
- i) Further discussions with Health and Safety Executive are required to confirm [REDACTED] distances associated with the NHP main and the Glazebury Orica site. Upon [REDACTED] nation, the conceptual masterplan can be adjusted to suit to avoid any future [REDACTED] ections during the planning process.
[REDACTED]



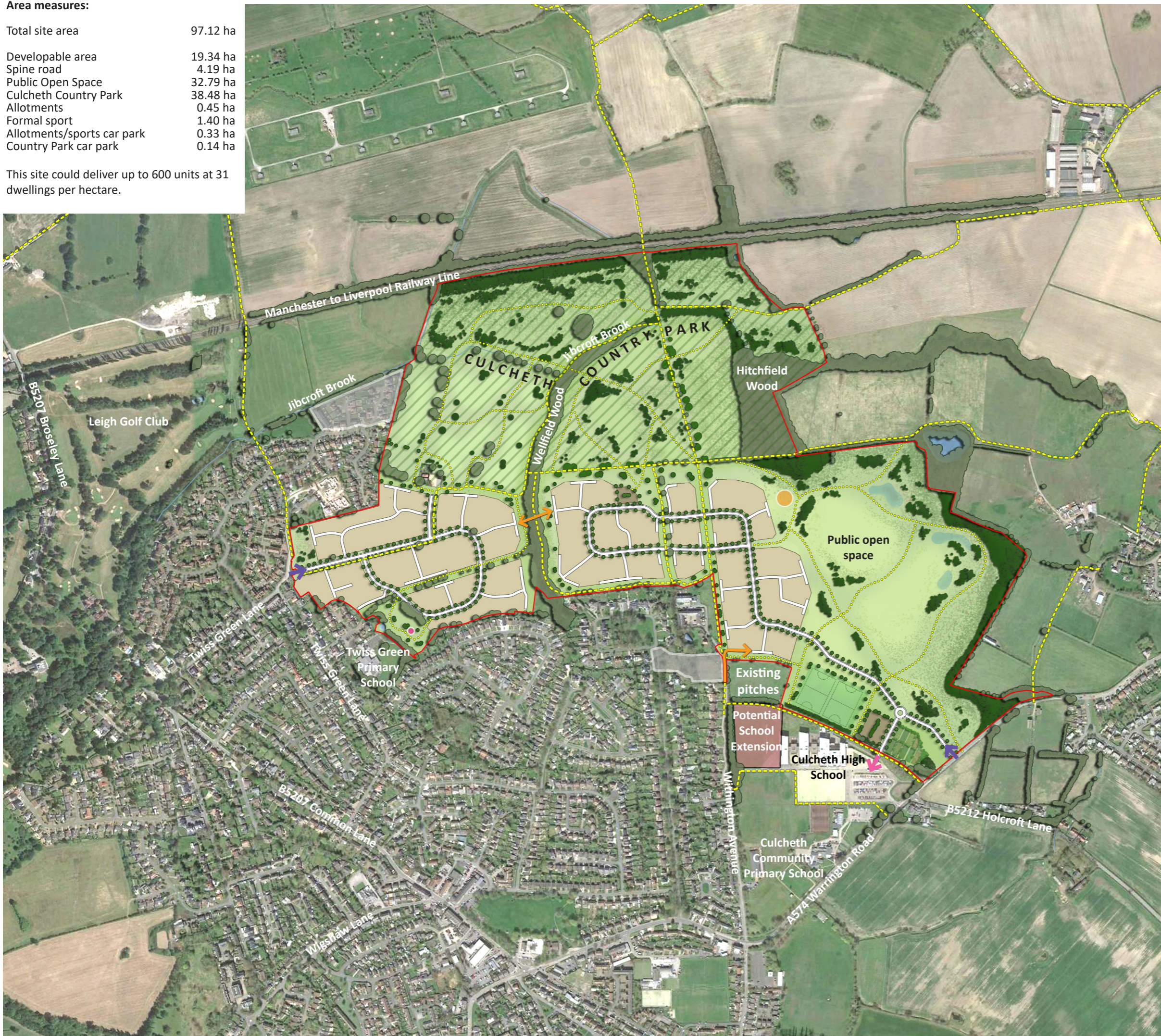
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Consulting Engineers

APPENDIX A

Area measures:

Total site area	97.12 ha
Developable area	19.34 ha
Spine road	4.19 ha
Public Open Space	32.79 ha
Culcheth Country Park	38.48 ha
Allotments	0.45 ha
Formal sport	1.40 ha
Allotments/sports car park	0.33 ha
Country Park car park	0.14 ha

This site could deliver up to 600 units at 31 dwellings per hectare.



Key

- Proposed site boundary
- Existing vegetation
- Existing watercourses and waterbodies
- Proposed woodland buffer
- Proposed tree and woodland planting
- Proposed development cell
- Proposed Culcheth Country Park
- Proposed open space
- Potential school extension
- Sites with planning applications / recently developed
- Proposed new sports pitches
- Retained PROWs
- Proposed pedestrian links
- Proposed primary road
- Proposed secondary road
- Proposed car parks
- Proposed vehicular access
- Proposed access to Culcheth High School
- Potential emergency link
- Proposed allotments
- Proposed SuDS
- Proposed NEAP
- Proposed LEAP

NB: Masterplan subject to change following detailed survey work



Warrington Local Plan Sites

**North East Culcheth
Illustrative Masterplan**

Drwg No: 630DC-21
Drawn by: SR
Rev by:
QM Status: Checked
Scale: NTS

Date: 07.06.19
Checker: SR
Rev checker:
Product Status:
Confidential Review



Shepherd Gilmour
Consulting Engineers

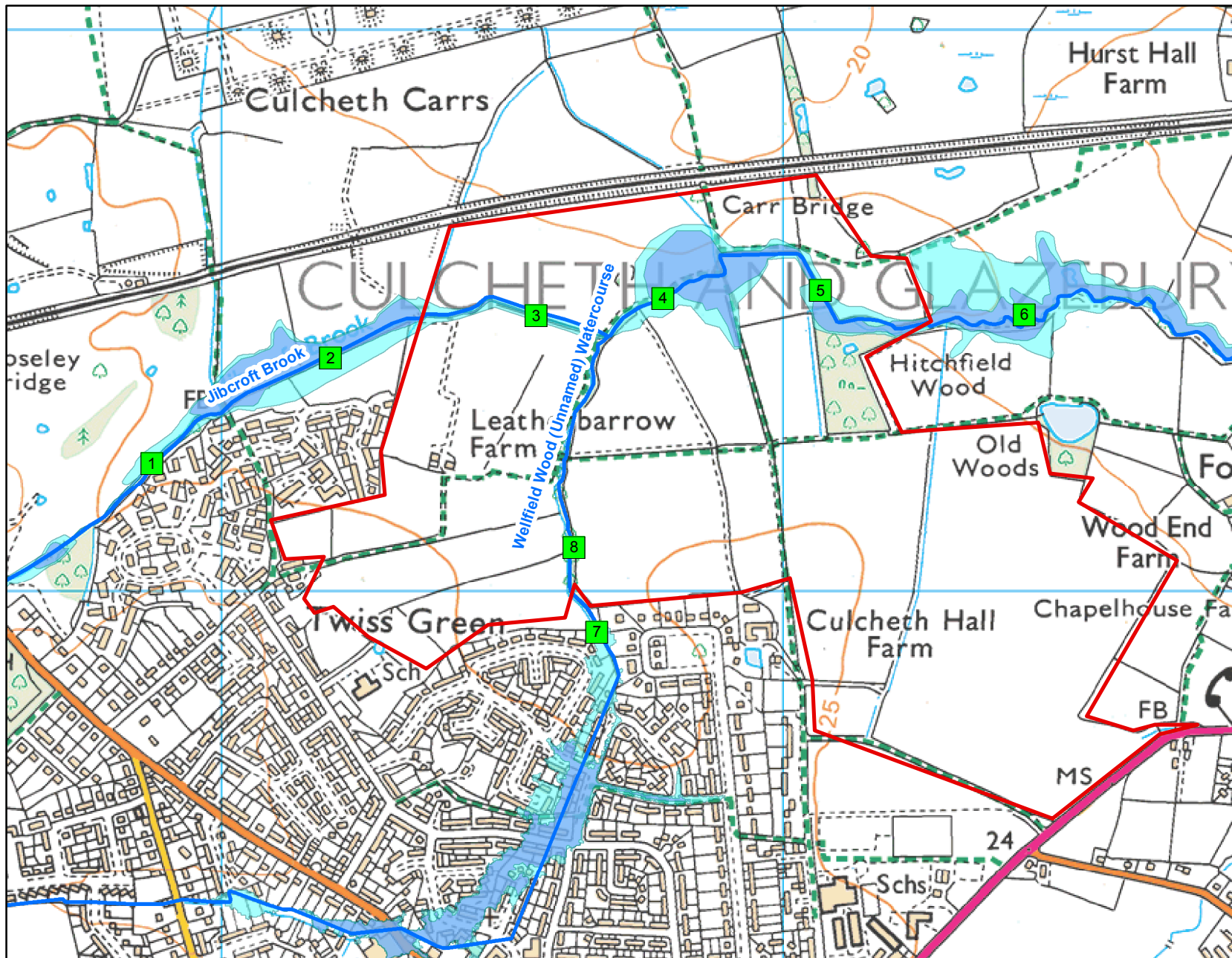
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(44)0161 837 1500

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APPENDIX B

Detailed Flood Map centred North-East of Culcheth, Warrington. Created 08/08/2017 [GMM55801AB]



1:10,001



Legend

- Site Location
- Model Measurements
- Main River
- Flood Zone 3
- Flood Zone 2

Map Reference	Model Node Reference	Easting	Northing	Data	Undefended		
					1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year) + Climate Change*	0.1 % AEP (1 in 1000 year)
1	Jibcroft Brook 2008	364877	396228	Modelled Water Level (m aodN)	23.33	23.40	23.51
				Modelled Flow (cumecs)	4.81	5.77	9.03
2		365195	396416	Modelled Water Level (m aodN)	21.37	21.40	21.46
				Modelled Flow (cumecs)	4.81	5.77	9.03
3		365561	396491	Modelled Water Level (m aodN)	20.03	20.09	20.20
				Modelled Flow (cumecs)	5.19	6.22	9.66
4		365787	396522	Modelled Water Level (m aodN)	19.31	19.38	19.52
				Modelled Flow (cumecs)	6.27	7.52	11.48
5		366068	396536	Modelled Water Level (m aodN)	17.98	18.04	18.17
				Modelled Flow (cumecs)	6.27	7.52	11.48
6	366431	396493	Modelled Water Level (m aodN)	17.22	17.29	17.45	
			Modelled Flow (cumecs)	7.02	8.42	12.74	
7	Wellfield Wood Unnamed 2010	365670	395928	Modelled Water Level (m aodN)	22.12	22.16	22.19
				Modelled Flow (cumecs)	1.97	2.19	2.33
8		365629	396079	Modelled Water Level (m aodN)	20.77	20.82	20.85
				Modelled Flow (cumecs)	1.96	2.19	2.33

Model data taken from Jibcroft Brook 2008 Study & Wellfield Wood Unnamed 2010 Study

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

cumecs - cubic metres per second

Notes:

*Climate Change Scenario - 20% increase in flow. We only hold climate change measurements based on the previous climate change guidance. The new climate change guidance is available at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment. For further guidance on climate change within the GMMC area please see the attachment 'Flood risk assessments: Climate change allowances'. Particularly section 3, table B which shows the Local precautionary allowances for potential climate change impacts.



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APPENDIX C



United Utilities Water Limited

Shepherd Gilmour Infrastructure

FAO: Natalia Marsden

Dear Sirs

Location:

I acknowledge with thanks your request dated 18/08/17 for information on the location of our services.

Please find enclosed plans showing the approximate position of our apparatus known to be in the vicinity of this site.

The enclosed plans are being provided to you subject to the United Utilities terms and conditions for both the wastewater and water distribution plans which are shown attached.

If you are planning works anywhere in the North West, please read our access statement before you start work to check how it will affect our network.

<http://www.unitedutilities.com/work-near-asset.aspx>

I trust the above meets with you requirements and look forward to hearing from you should you need anything further.

If you have any queries regarding this matter please telephone us on 0370 7510101.

Yours Faithfully,

Karen McCormack
Property Searches Manager

Date: 21/8/2017


TERMS AND CONDITIONS - WASTERWATER & WATER DISTRIBUTION PLANS

These provisions apply to the public sewerage, water distribution and telemetry systems (including sewers which are the subject of an agreement under Section 104 of the Water Industry Act 1991 and mains installed in accordance with the agreement for the self-construction of water mains) (UUWL apparatus) of United Utilities Water Limited "(UUWL)".

TERMS AND CONDITIONS:

1. This Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out in this agreement or the documents referred to in it.
2. This Map and any information supplied with it is provided for general guidance only and no representation, undertaking or warranty as to its accuracy, completeness or being up to date is given or implied.
3. In particular, the position and depth of any UUWL apparatus shown on the Map are approximate only and given in accordance with the best information available. The nature of the relevant system and/or its actual position may be different from that shown on the plan and UUWL is not liable for any damage caused by incorrect information provided save as stated in section 199 of the Water Industry Act 1991. UUWL strongly recommends that a comprehensive survey is undertaken in addition to reviewing this Map to determine and ensure the precise location of any UUWL apparatus. The exact location, positions and depths should be obtained by excavation trial holes.
4. The location and position of private drains, private sewers and service pipes to properties are not normally shown on this Map but their presence must be anticipated and accounted for and you are strongly advised to carry out your own further enquiries and investigations in order to locate the same.
5. The position and depth of UUWL apparatus is subject to change and therefore this Map is issued subject to any removal or change in location of the same. The onus is entirely upon you to confirm whether any changes to the Map have been made subsequent to issue and prior to any works being carried out.
6. This Map and any information shown on it or provided with it must not be relied upon in the event of any development, construction or other works (including but not limited to any excavations) in the vicinity of UUWL apparatus or for the purpose of determining the suitability of a point of connection to the sewerage or other distribution systems.
7. No person or legal entity, including any company shall be relieved from any liability howsoever and whensoever arising for any damage caused to UUWL apparatus by reason of the actual position and/or depths of UUWL apparatus being different from those shown on the Map and any information supplied with it.
8. If any provision contained herein is or becomes legally invalid or unenforceable, it will be taken to be severed from the remaining provisions which shall be unaffected and continue in full force and affect.
9. This agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts, save that nothing will prevent UUWL from bringing proceedings in any other competent jurisdiction, whether concurrently or otherwise.



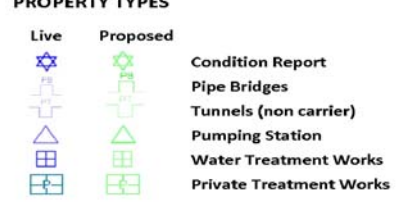
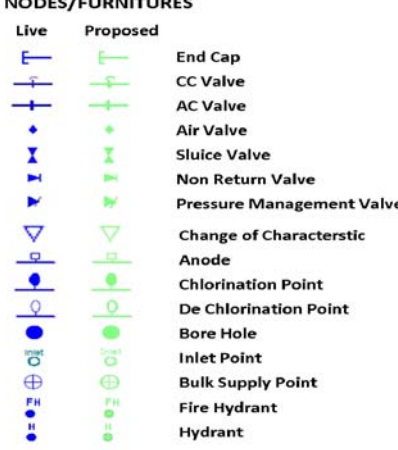
WASTE WATER SYMBOLOGY

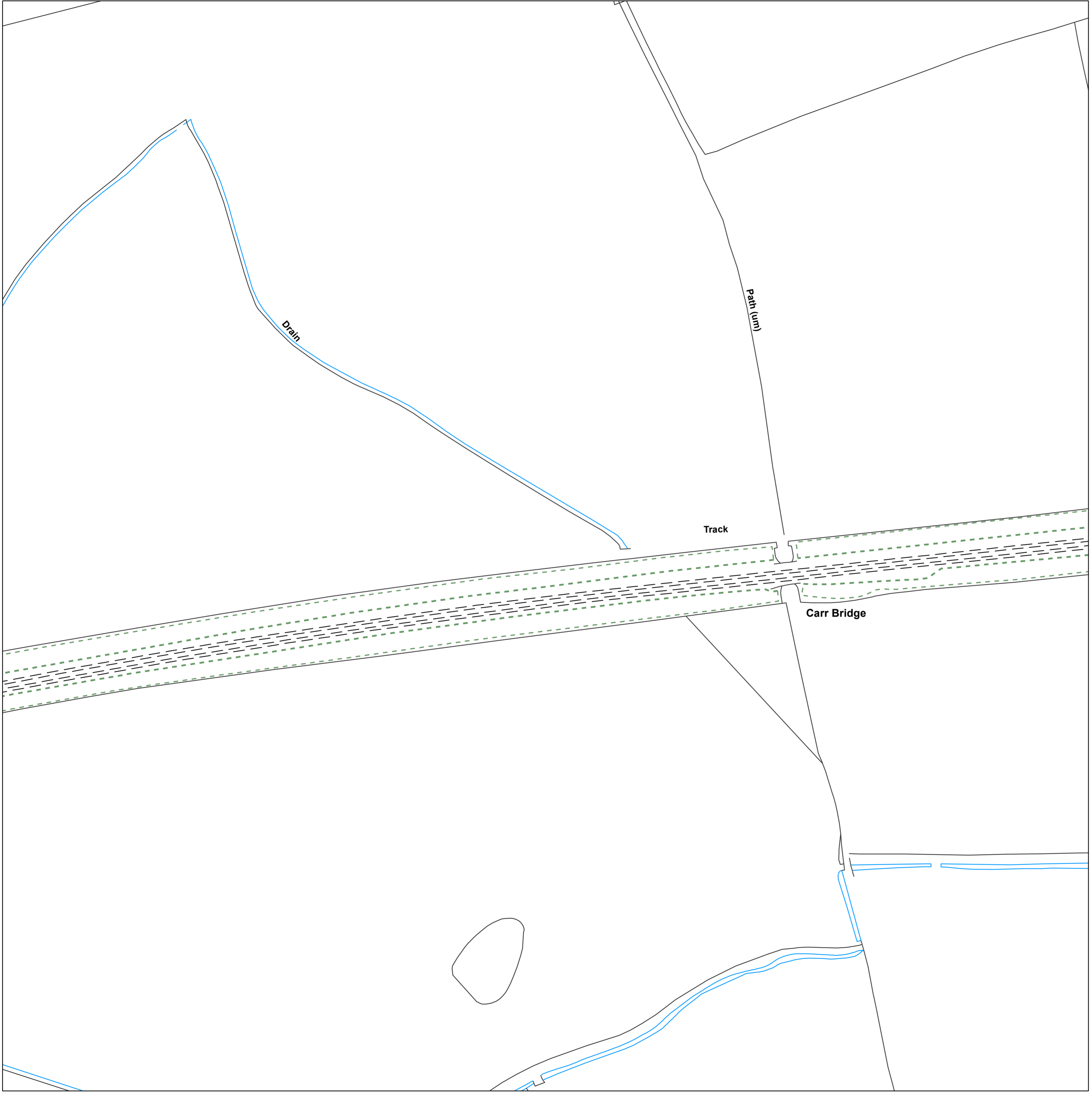
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Legend

MANHOLE FUNCTION	SEWER SHAPE	
FO Foul	CI Circular	TR Trapezoidal
SW Surface Water	EG Egg	AR Arch
CO Combined	OV Oval	BA Barrel
OV Overflow	FT Flat Top	HO HorseShoe
	RE Rectangular	UN Unspecified
	SQ Square	
SEWER MATERIAL		
AC Asbestos Cement	DI Ductile Iron	
BR Brick	VC Vitrified Clay	
CO Concrete	PP Polypropylene	
CSB Concrete Segment	PF Pitched Fibre	
CSU Concrete Segment	MA Masonry, Coursed	
CC Concrete Box Culverted	MA Masonry, Random	
PSC Plastic / Steel	RP Reinforced Plastic	
GR Glass Reinforced	CI Cast Iron	
GRP Glass Reinforced	SI Spun Iron	
PVC Polyvinyl Chloride	ST Steel	
PE Polyethylene	U Unspecified	

CLEAN WATER SYMBOLOGY

<p>PIPE WORK</p> <p>Live Proposed</p> 	<p>ABANDONED PIPE</p> 	<p>PROPERTY TYPES</p> <p>Live Proposed</p> 	<p>NODES/FURNITURES</p> <p>Live Proposed</p> 	<p>Legend</p> <table border="0"> <tr> <td>MATERIAL TYPES</td> <td>LINING TYPES</td> </tr> <tr> <td>AC ASBESTOS CEMENT</td> <td>CL CEMENT LINING</td> </tr> <tr> <td>CI CAST IRON</td> <td>TB TAR OR BITUMEN</td> </tr> <tr> <td>CU COPPER</td> <td>ERL EPOXY RESIN</td> </tr> <tr> <td>CO CONCRETE</td> <td></td> </tr> <tr> <td>DI DUCTILE IRON</td> <td>INSERTION TYPES</td> </tr> <tr> <td>GI GALVANISED IRON</td> <td>DD DIE DRAWN</td> </tr> <tr> <td>GR GREY IRON</td> <td>DR DIRECTIONAL DRILLING</td> </tr> <tr> <td>OT OTHERS</td> <td>MO MOLING</td> </tr> <tr> <td>PB LEAD</td> <td>PI PIPELINE</td> </tr> <tr> <td>PV UPVC</td> <td>SL SLIP LINED</td> </tr> <tr> <td>SI SPUN IRON</td> <td></td> </tr> <tr> <td>ST STEEL</td> <td></td> </tr> <tr> <td>UN UNKNOWN</td> <td></td> </tr> <tr> <td>PE POLYETHYLENE</td> <td></td> </tr> </table>	MATERIAL TYPES	LINING TYPES	AC ASBESTOS CEMENT	CL CEMENT LINING	CI CAST IRON	TB TAR OR BITUMEN	CU COPPER	ERL EPOXY RESIN	CO CONCRETE		DI DUCTILE IRON	INSERTION TYPES	GI GALVANISED IRON	DD DIE DRAWN	GR GREY IRON	DR DIRECTIONAL DRILLING	OT OTHERS	MO MOLING	PB LEAD	PI PIPELINE	PV UPVC	SL SLIP LINED	SI SPUN IRON		ST STEEL		UN UNKNOWN		PE POLYETHYLENE	
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PE POLYETHYLENE																																		



Refo	Cover Func	Invert	Size	x	Size	y	Shape	Mat	Length	Grad

WASTE WATER SYMBOLOGY

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ABANDONED PIPE

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LEGEND

MANHOLE FUNCTION

FO	Foul
SW	Surface Water
CO	Combined
OV	Overflow

SEWER SHAPE

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

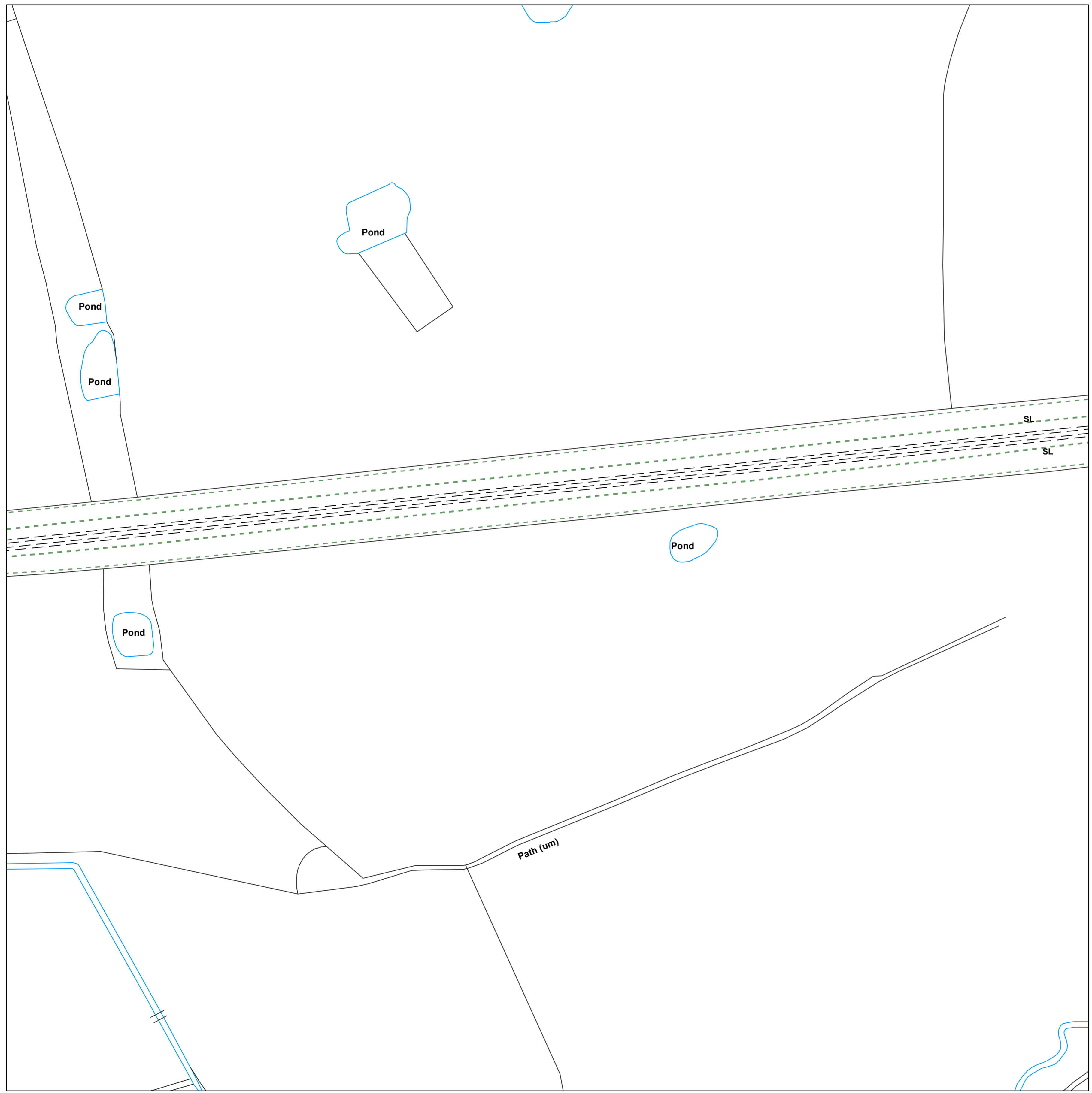
SEWER MATERIAL

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

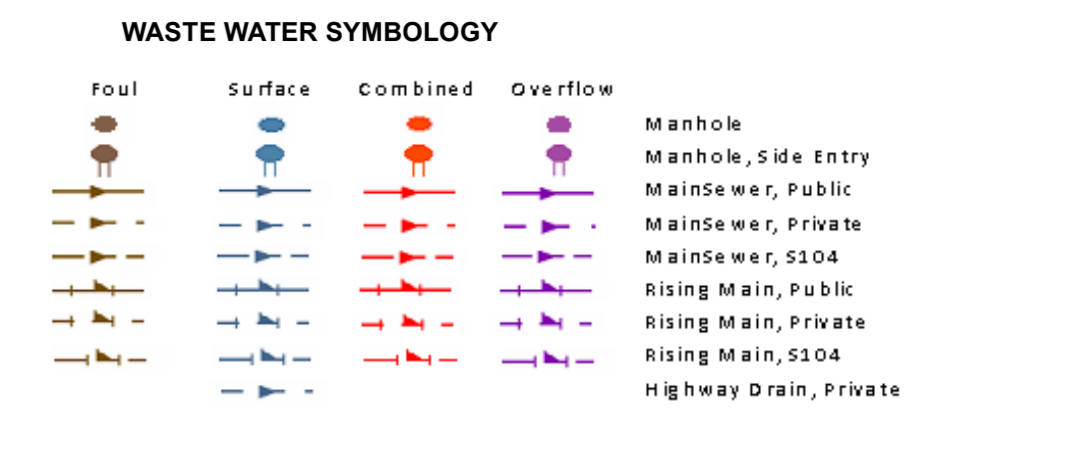
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 Sheet 1 of 1





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LEGEND

MANHOLE FUNCTION
 FO Foul
 SW Surface Water
 CO Combined
 OV Overflow

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

SEWER MATERIAL

AC	Asbestos Cement	DI	Ductile Iron
BR	Brick	PVC	Polyvinyl Chloride
PE	Polyethylene	CI	Cast Iron
RP	Reinforced Plastic Matrix	SI	Spun Iron
CO	Concrete	ST	Steel
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GRC	Glass Reinforced Concrete	MAR	Masonry, Random
GRP	Glass Reinforced Plastic	U	Unspecified

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7000	23.51	CO							
7001	23.83	CO	19.24	450		CI	CO	98.4	229
8000	24.24	CO							
9000	24.91	CO							

WASTE WATER SYMBOLOGY

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ABANDONED PIPE

--	--	--	--

MANHOLE FUNCTION

FO	Foul
SW	Surface Water
CO	Combined
OV	Overflow

SEWER SHAPE

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

SEWER MATERIAL

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GRP	Glass Reinforced Plastic	U	Unspecified

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 Sheet 1 of 1



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Reho Cover Func Invert Size x Size y Shape Mat Length Grad Reho Cover Func Invert Size x Size y Shape Mat Length Grad

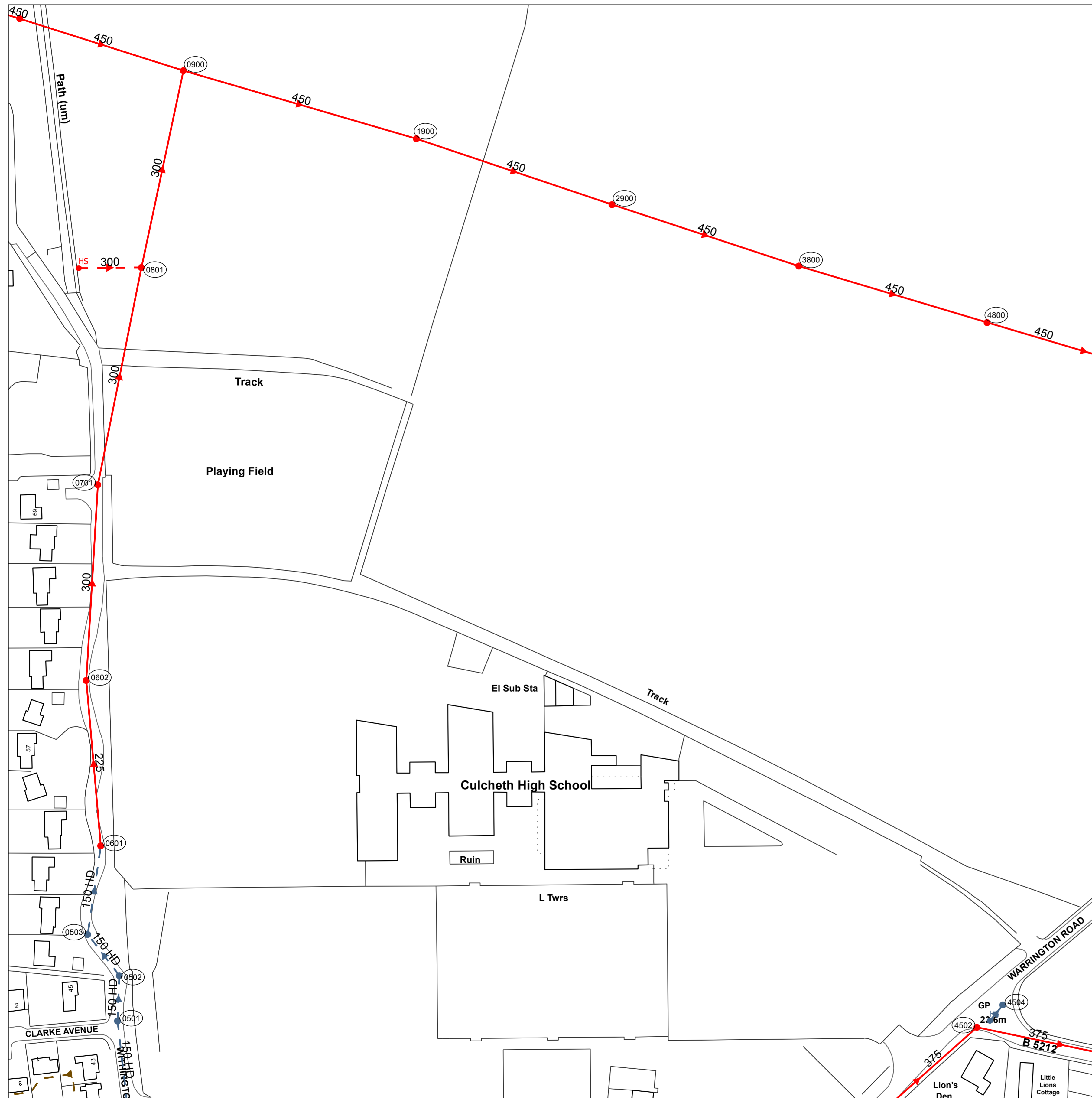
WASTE WATER SYMBOLOGY			
Foul	Surface	Combined	Overflow

LEGEND			
MANHOLE FUNCTION			
FO	Foul		
SW	Surface Water		
CO	Combined		
OV	Overflow		
SEWER SHAPE			
CI	Circular	TR	Trapezoidal
EG	Egg	AR	Arch
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GRC	Glass Reinforced Concrete	MAR	Masonry, Random
GRP	Glass Reinforced Plastic	U	Unspecified

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown. Crown copyright and database rights [2016] Ordnance Survey 100022432.

OS Sheet No: SJ6696SW
 Scale: 1:1250 Date: 21/08/2017
 0 Nodes
 Sheet 1 of 1





Reho	Cover Func	Invert	Size	Size	yShape	Mat	Length	Grad
0501	26.09	SW	24.02	150	CI	VC	20.94	81
0502	25.27	SW	23.76	150	CI	VC	23.84	85
0503	25.04	SW						
0601	24.75	CO	22.82	225	CI	VC	76.28	123
0602	24.55	CO	22.2	300	CI	VC	89.84	150
0701	24.84	CO						
0801	24.27	CO						
0900	23.8	CO						
0901	24.44	CO						
1900	22.4	CO						
2900	22.6	CO						
3800	22.94	CO						
4502	23.41	CO						
4504		SW						
4800	22.55	CO	0	300	CI	VC	28.75	
0802		CO						
4505		SW						

WASTE WATER SYMOLOGY

					Manhole
					Highway Drain, Private

	WW Site Termination		Sludge Main, Public
	Air Valve		Sludge Main, Private
	Sludge Main, S104		Sludge Main, S104

ABANDONED PIPE

	MainSewer
	Rising Main
	Highway Drain
	Sludge Main

LEGEND

MANHOLE FUNCTION

FO	Foul
SW	Surface Water
CO	Combined
OV	Overflow

SEWER SHAPE

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

SEWER MATERIAL

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

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OS Sheet No: SJ6695NW
 Scale: 1:1250 Date: 21/08/2017
 17 Nodes
 Sheet 1 of 1

Extract from Map of Water Mains

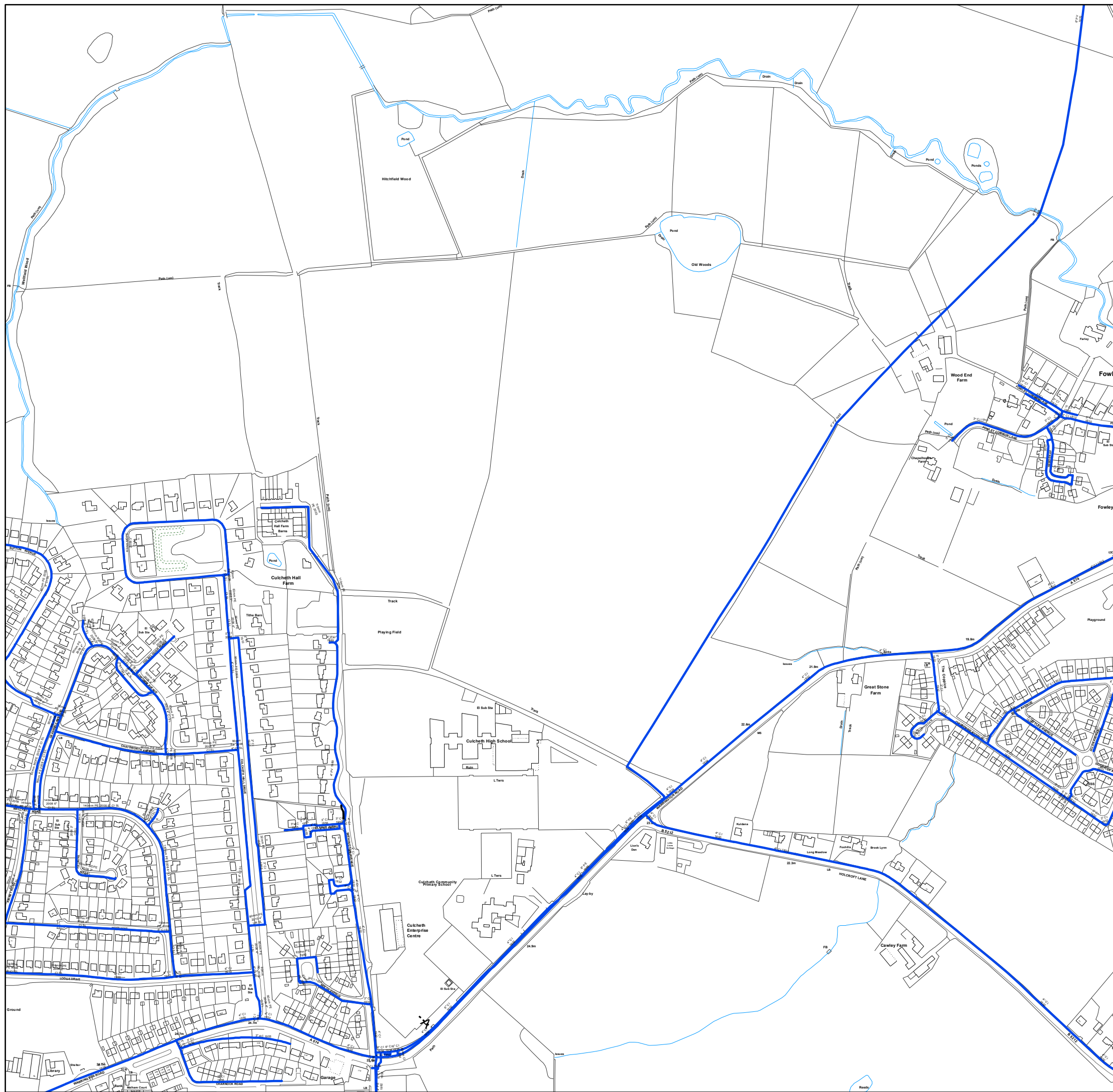
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United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown. Crown copyright and database rights [2016] Ordnance Survey 100022432.

United Utilities Water Limited 2014

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Land At Culcheth - East Of Site

Printed By: Property Searches Date: 21/08/2017

DO NOT SCALE
Approximate Scale: 1:5000





United Utilities Water Limited

Shepherd Gilmour Infrastructure
SGi Consulting Colchester House
40 Peter Street

Manchester
M2 5GP

FAO:

Dear Sirs

Location:

I acknowledge with thanks your request dated 17/08/17 for information on the location of our services.

Please find enclosed plans showing the approximate position of our apparatus known to be in the vicinity of this site.

The enclosed plans are being provided to you subject to the United Utilities terms and conditions for both the wastewater and water distribution plans which are shown attached.

If you are planning works anywhere in the North West, please read our access statement before you start work to check how it will affect our network.

<http://www.unitedutilities.com/work-near-asset.aspx>

I trust the above meets with you requirements and look forward to hearing from you should you need anything further.

If you have any queries regarding this matter please telephone us on 0370 7510101.

Yours Faithfully,

Karen McCormack
Property Searches Manager

Date: 18/8/2017

United Utilities Water Limited


TERMS AND CONDITIONS - WASTERWATER & WATER DISTRIBUTION PLANS

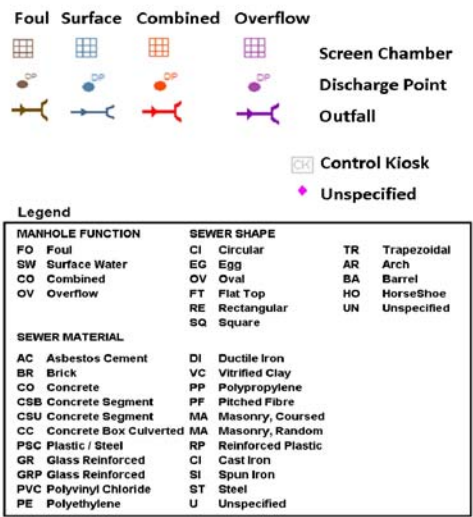
These provisions apply to the public sewerage, water distribution and telemetry systems (including sewers which are the subject of an agreement under Section 104 of the Water Industry Act 1991 and mains installed in accordance with the agreement for the self-construction of water mains) (UUWL apparatus) of United Utilities Water Limited "(UUWL)".

TERMS AND CONDITIONS:

1. This Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out in this agreement or the documents referred to in it.
2. This Map and any information supplied with it is provided for general guidance only and no representation, undertaking or warranty as to its accuracy, completeness or being up to date is given or implied.
3. In particular, the position and depth of any UUWL apparatus shown on the Map are approximate only and given in accordance with the best information available. The nature of the relevant system and/or its actual position may be different from that shown on the plan and UUWL is not liable for any damage caused by incorrect information provided save as stated in section 199 of the Water Industry Act 1991. UUWL strongly recommends that a comprehensive survey is undertaken in addition to reviewing this Map to determine and ensure the precise location of any UUWL apparatus. The exact location, positions and depths should be obtained by excavation trial holes.
4. The location and position of private drains, private sewers and service pipes to properties are not normally shown on this Map but their presence must be anticipated and accounted for and you are strongly advised to carry out your own further enquiries and investigations in order to locate the same.
5. The position and depth of UUWL apparatus is subject to change and therefore this Map is issued subject to any removal or change in location of the same. The onus is entirely upon you to confirm whether any changes to the Map have been made subsequent to issue and prior to any works being carried out.
6. This Map and any information shown on it or provided with it must not be relied upon in the event of any development, construction or other works (including but not limited to any excavations) in the vicinity of UUWL apparatus or for the purpose of determining the suitability of a point of connection to the sewerage or other distribution systems.
7. No person or legal entity, including any company shall be relieved from any liability howsoever and whensoever arising for any damage caused to UUWL apparatus by reason of the actual position and/or depths of UUWL apparatus being different from those shown on the Map and any information supplied with it.
8. If any provision contained herein is or becomes legally invalid or unenforceable, it will be taken to be severed from the remaining provisions which shall be unaffected and continue in full force and affect.
9. This agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts, save that nothing will prevent UUWL from bringing proceedings in any other competent jurisdiction, whether concurrently or otherwise.

WASTE WATER SYMBOLOGY

<p>Foul</p> 	<p>Surface</p> 	<p>Combined</p> 	<p>Overflow</p> 	<p>Foul</p> 	<p>Surface</p> 	<p>Combined</p> 
--	---	--	--	---	--	---

<p>Foul</p> 	<p>Surface</p> 	<p>Combined</p> 
---	--	---

<p>Foul</p> 	<p>Surface</p> 	<p>Combined</p> 	<p>Overflow</p> 
--	---	--	---

MANHOLE FUNCTION		SEWER SHAPE	
FO	Foul	CI	Circular
SW	Surface Water	EG	Egg
CO	Combined	OV	Oval
OV	Overflow	FT	Flat Top
		RE	Rectangular
		SQ	Square
		TR	Trapezoidal
		AR	Arch
		BA	Barrel
		HO	HorseShoe
		UN	Unspecified

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

CLEAN WATER SYMBOLOGY

PIPE WORK

<p>Live</p> 	<p>Proposed</p> 
--	--

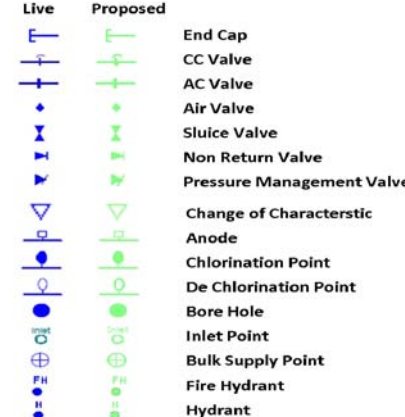
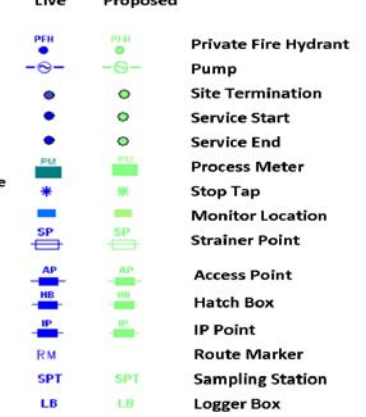
ABANDONED PIPE



PROPERTY TYPES

<p>Live</p> 	<p>Proposed</p> 
--	--

NODES/FURNITURES

<p>Live</p> 	<p>Proposed</p> 
---	--

Legend

MATERIAL TYPES	LINING TYPES
AC ASBESTOS CEMENT	CL CEMENT LINING
CI CAST IRON	TB TAR OR BITUMEN
CU COPPER	ERL EPOXY RESIN
CO CONCRETE	
DI DUCTILE IRON	
GI GALVANISED IRON	
GR GREY IRON	
OT OTHERS	
PB LEAD	
PV UPVC	
SI SPUN IRON	
ST STEEL	
UN UNKNOWN	
PE POLYETHYLENE	
	INSERTION TYPES
	DD DIE DRAWN
	DR DIRECTIONAL DRILLING
	MO MOLING
	PI PIPELINE
	SL SLIP LINED



Reho	Cover	Func	Invert	Size	Size y	Shape	Mat	Length	Grad
5100	22.28	CO	19.38	450		CI	CO	95.32	886
6100	22.04	CO	19.19	450		CI	CO	85.22	
7000	23.51	CO							
7001	23.83	CO							
8000	24.24	CO	19.24	450		CI	CO	98.4	229
9000	24.91	CO							

WASTE WATER SYMBOLOGY

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

ABANDONED PIPE

--	--	--	--

MANHOLE FUNCTION

FO	Foul
SW	Surface Water
CO	Combined
OV	Overflow

SEWER SHAPE

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

SEWER MATERIAL

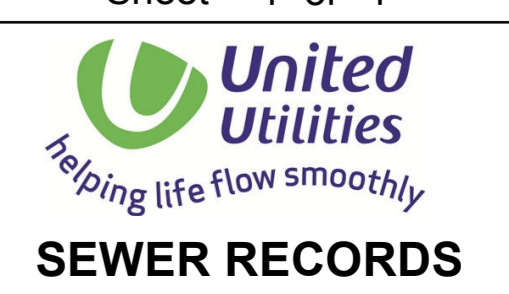
AC	Asbestos Cement	DI	Ductile Iron
BR	Brick	PVC	Polyvinyl Chloride
PE	Polyethylene	CI	Cast Iron
RP	Reinforced Plastic Matrix	SI	Spun Iron
CO	Concrete	ST	Steel
CSB	Concrete Segment Bolted	VC	Vitrified Clay
CSU	Concrete Segment Unbolted	PP	Polypropylene
CC	Concrete Box Culverted	PF	Pitch Fibre
PSC	Plastic/Steel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

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OS Sheet No: SJ6596SE
 Scale: 1:1250 Date: 18/08/2017
 6 Nodes
 Sheet 1 of 1

Printed By: Property Searches

OS Sheet No: SJ6596SE
 Scale: 1:1250 Date: 18/08/2017



Extract from Map of Water Mains

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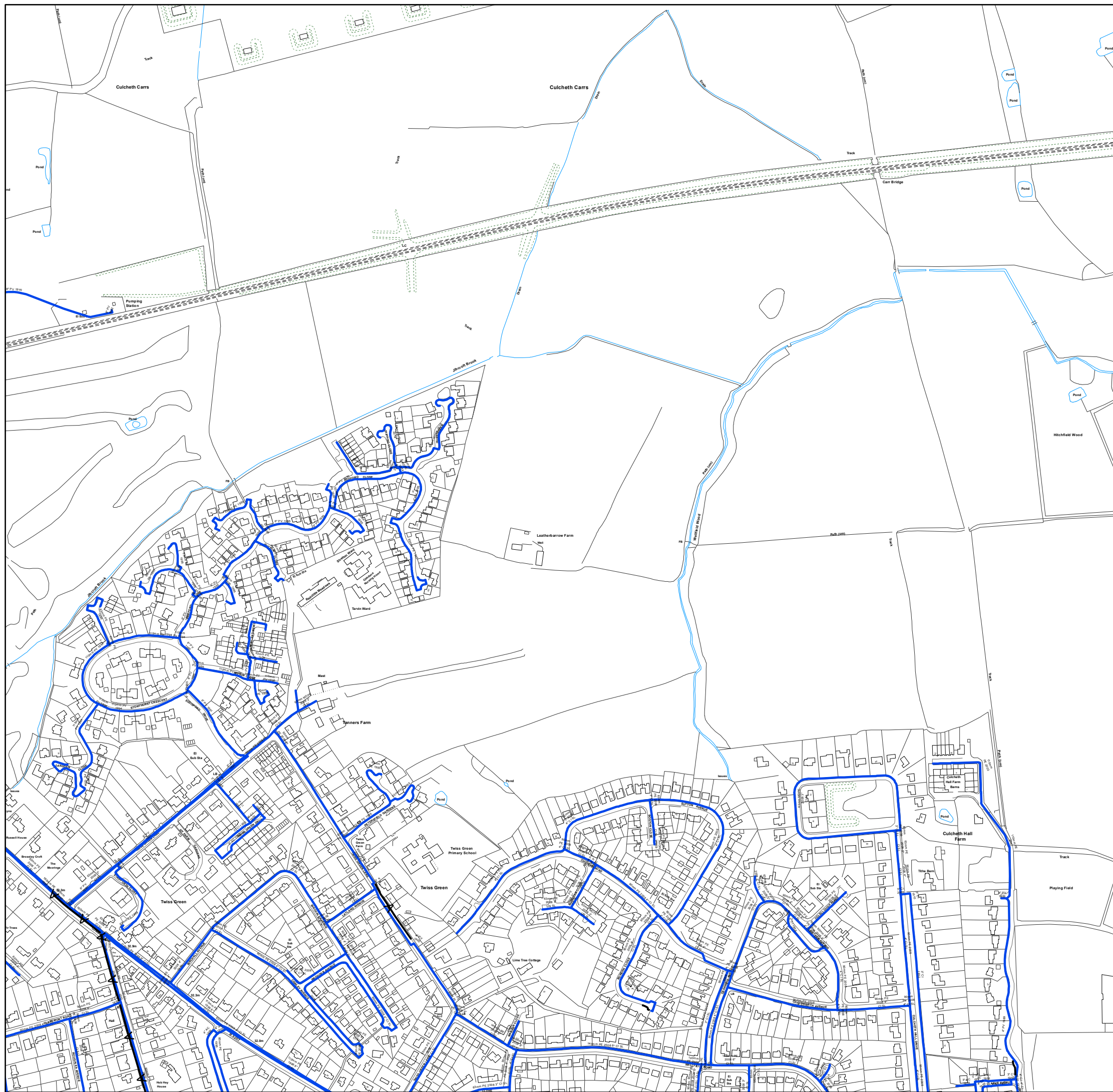
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Land At Culcheth West Of Site

Printed By: Property Searches Date: 18/08/2017

DO NOT SCALE
Approximate Scale: 1:5000







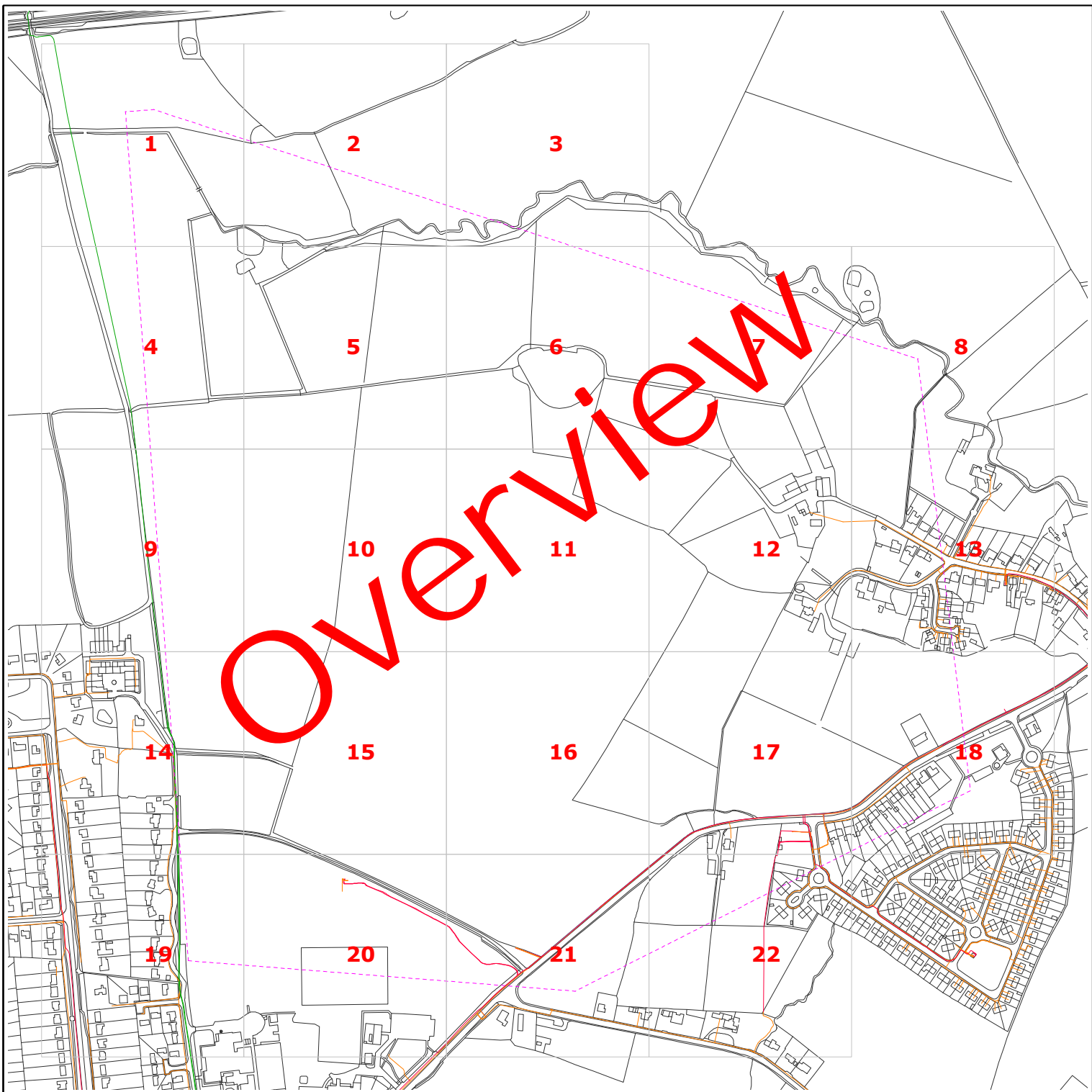
Shepherd Gilmour
Consulting Engineers

Colchester House, 40 Peter Street, Manchester M2 5GP

(44)0161 837 1500

www.shepherd-gilmour.co.uk

APPENDIX D



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L^t
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

Data Management
 Electricity North West
 Linley House
 Dickinson Street
 Manchester, M1 4LF
 Phone: 0800 195 4141
 Email: planrequest@enwl.co.uk

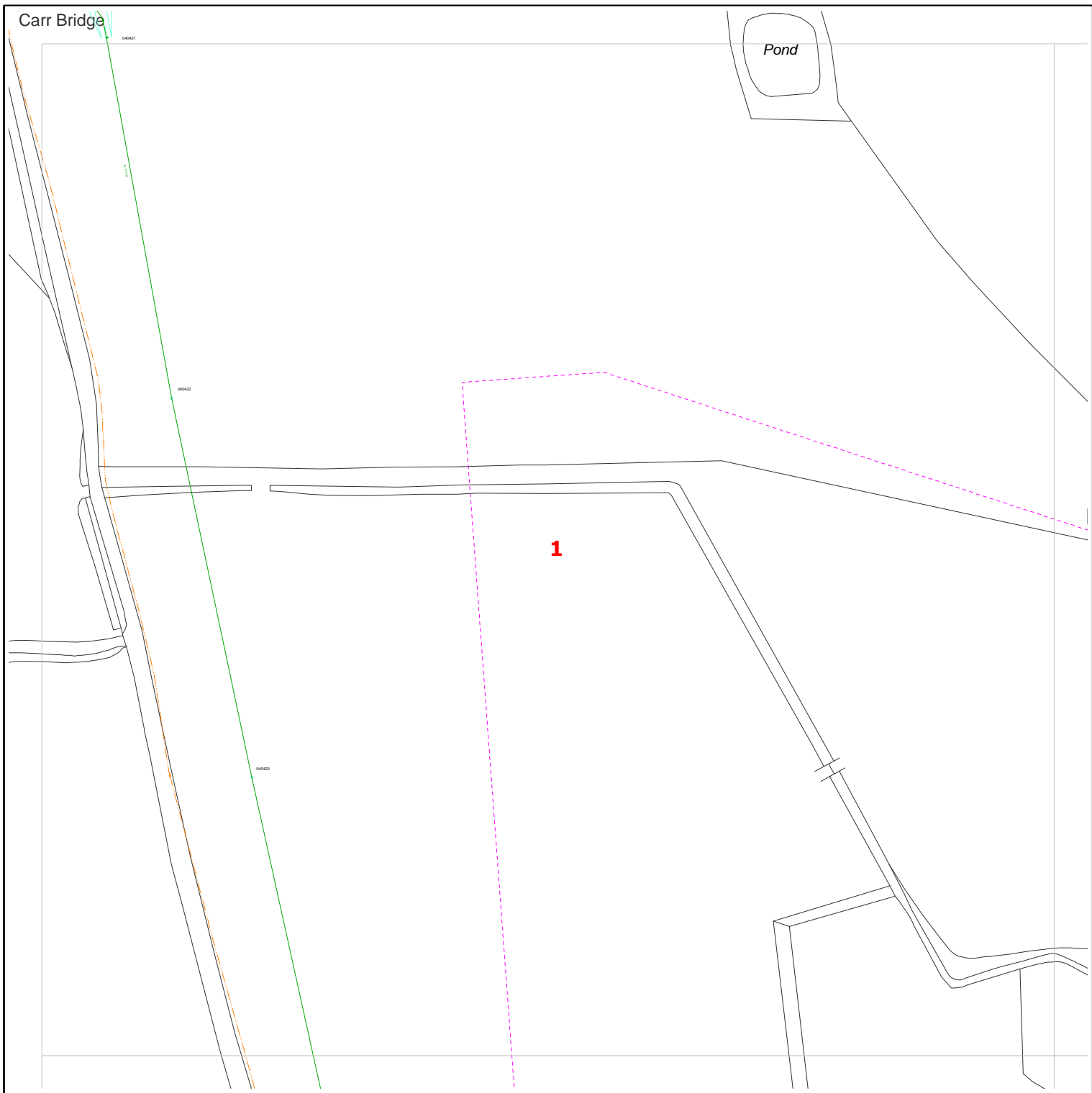
Unless otherwise indicated the depth of Electricity North West Limited cables are in accordance with NJUG (450mm for Low Voltage & 600mm for 11kV cables) 33kV and 132kV cables are laid at depths as marked. The depth and positions of Electricity North West Limited equipment was accurate as shown when the equipment was installed. However third parties may have altered the level & other reference data. Therefore Electricity North West Limited accept no responsibility for the position of Electricity North West Limited equipment being different from shown. No person, body or company, shall be relieved from liability for damage caused to Electricity North West Limited equipment by reason of being located differently to the indications on this drawing. Service cables are not necessarily shown but must be assumed to exist to all premises, streetlights and signs. There may be other Electricity North West Limited apparatus in the vicinity which is not indicated on the cable records. Other apparatus may also be present which is owned by a third party other than Electricity North West Limited.

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Electricity North West Limited 304 Bridgewater Place, Birchwood Park, Warrington WA3 6XG. Registered in England and Wales. Registered No 02366949

Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

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 Electricity North West
 Linley House
 Dickinson Street
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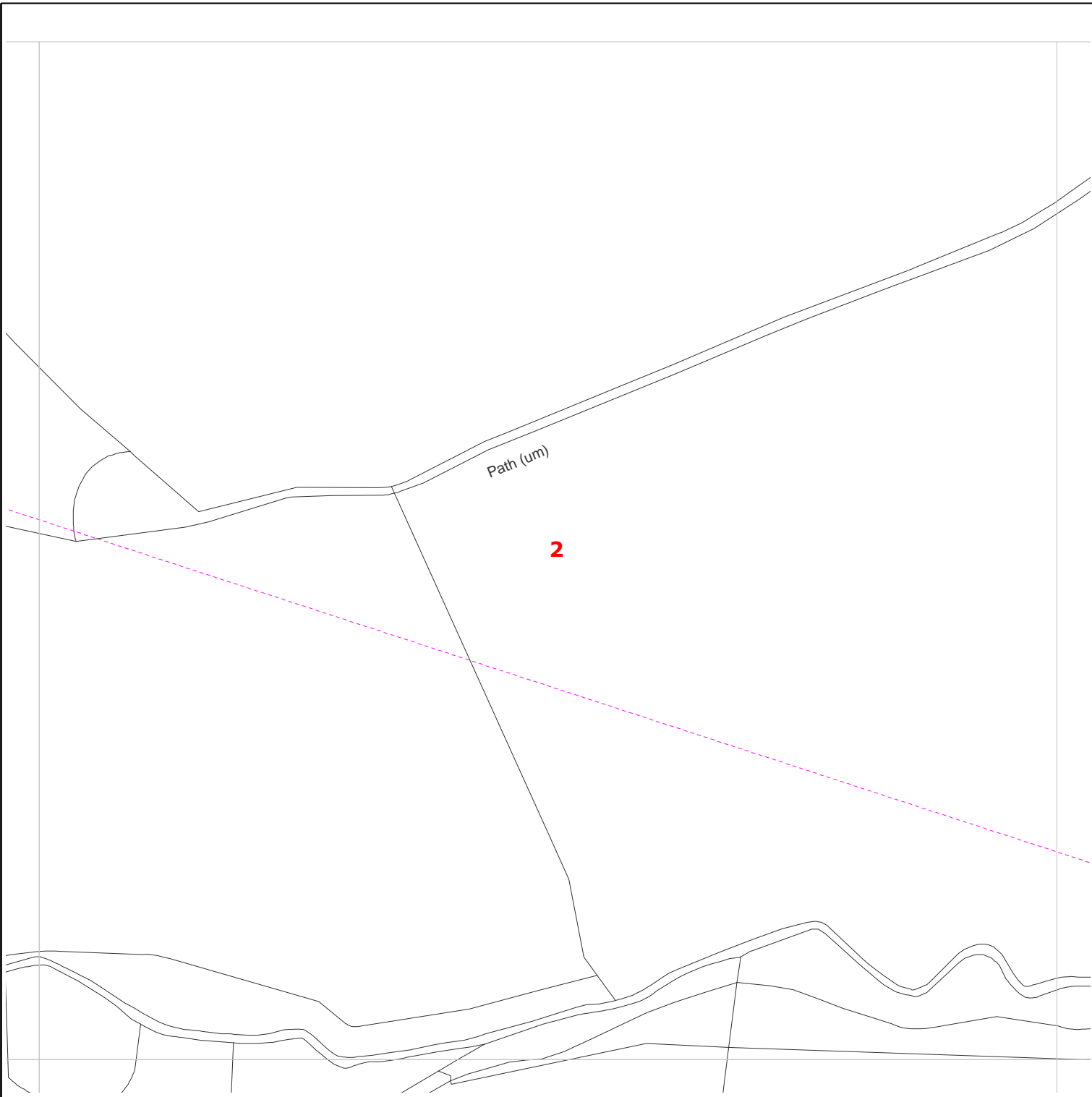
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



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Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Dig Sites:
 Area  Line 

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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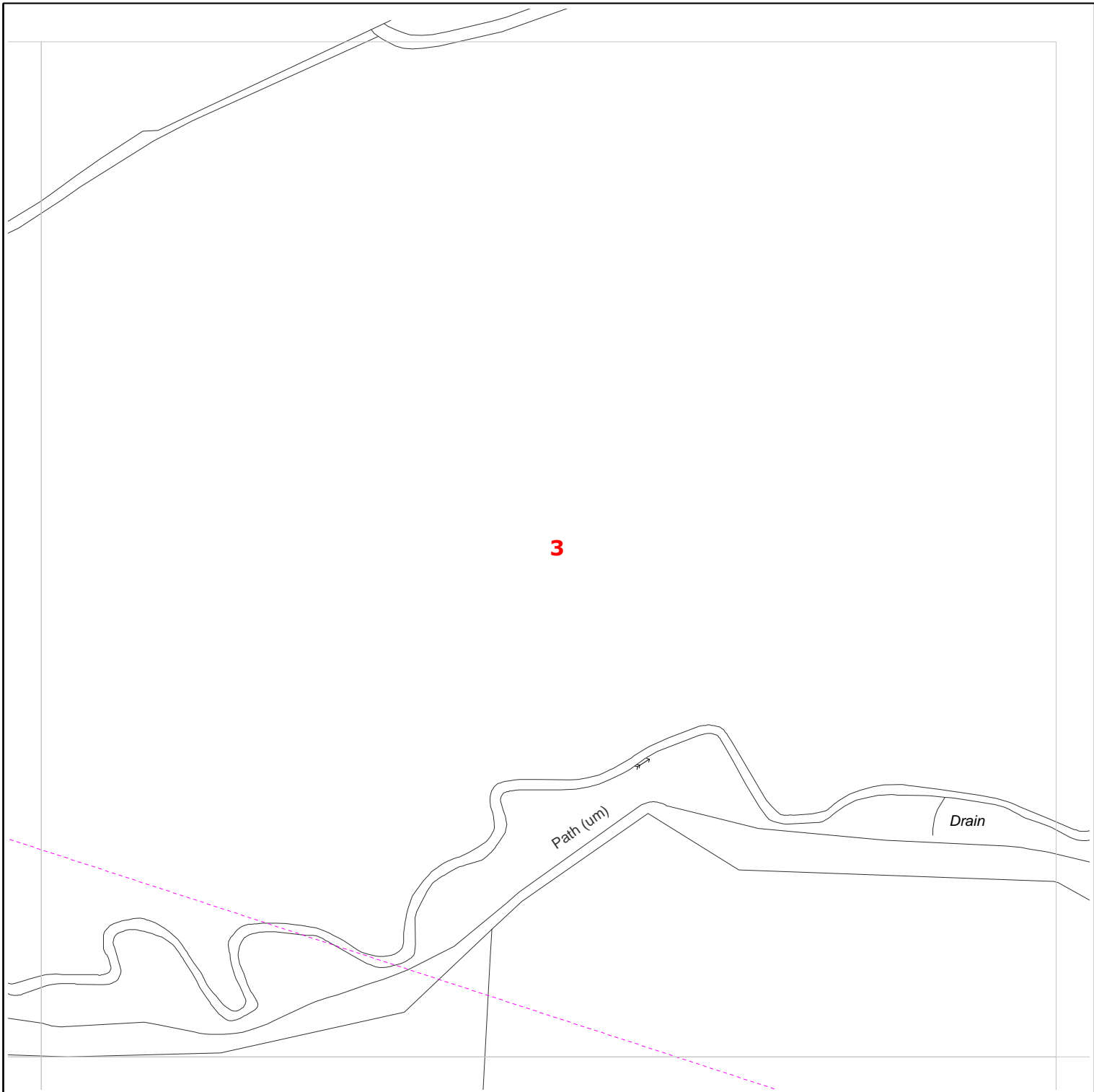
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

Data Management
 Electricity North West
 Linley House
 Dickinson Street
 Manchester, M1 4LF
 Phone: 0800 195 4141
 Email: planrequest@enwl.co.uk

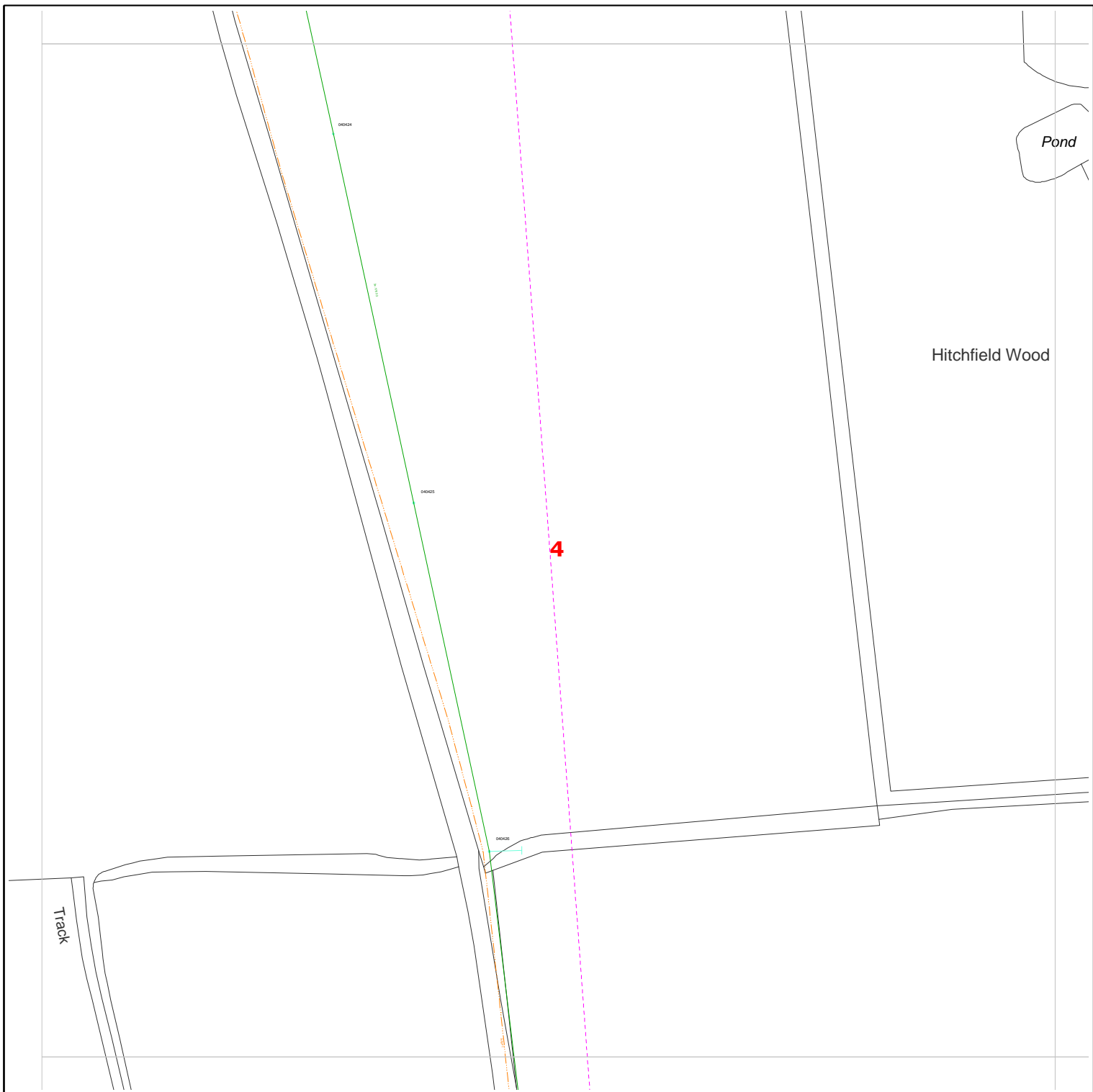
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C1

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

Data Management
 Electricity North West
 Linley House
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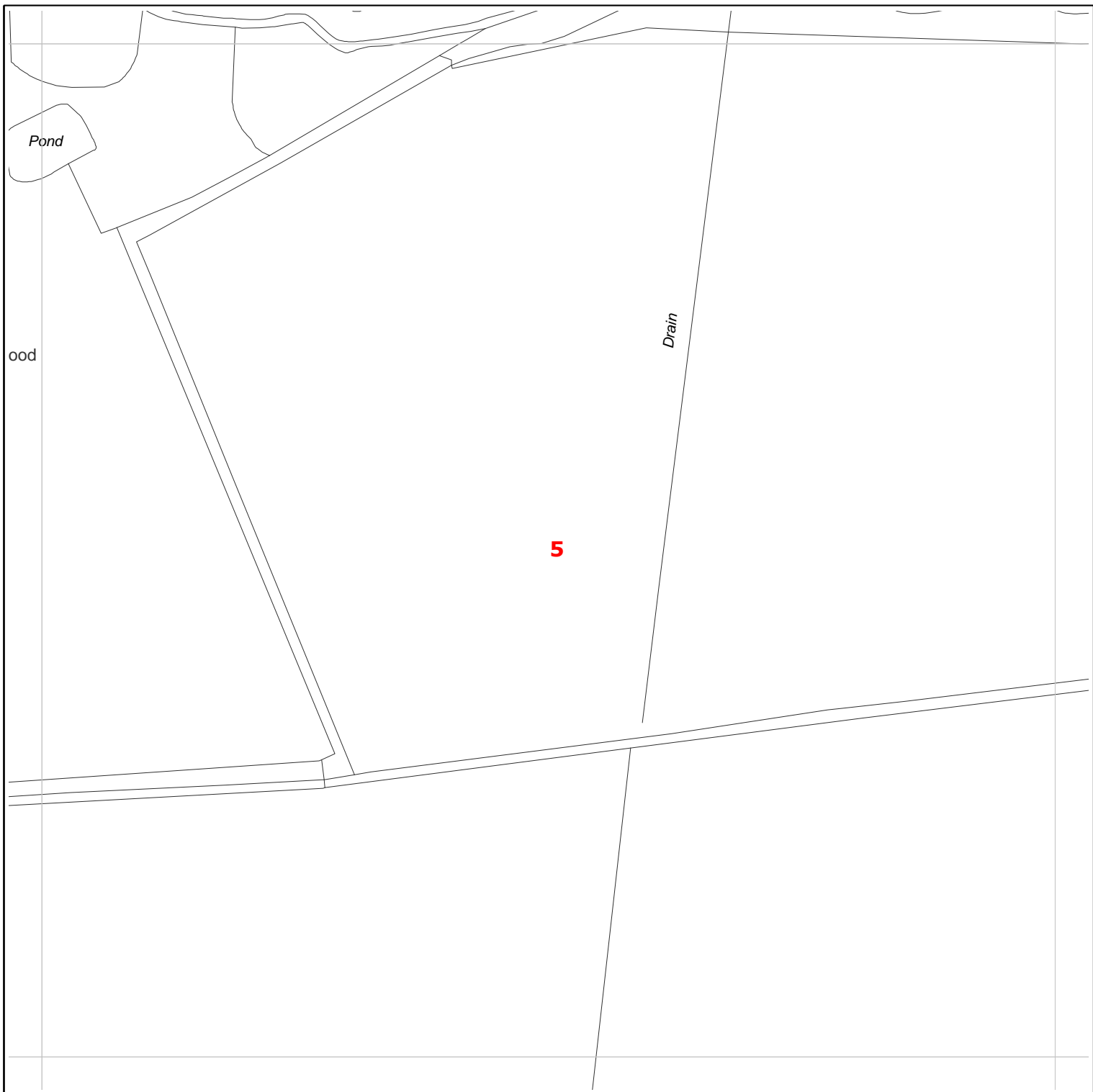
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Dig Sites:
 Area Line

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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 Electricity North West
 Linley House
 Dickinson Street
 Manchester, M1 4LF
 Phone: 0800 195 4141
 Email: planrequest@enwl.co.uk

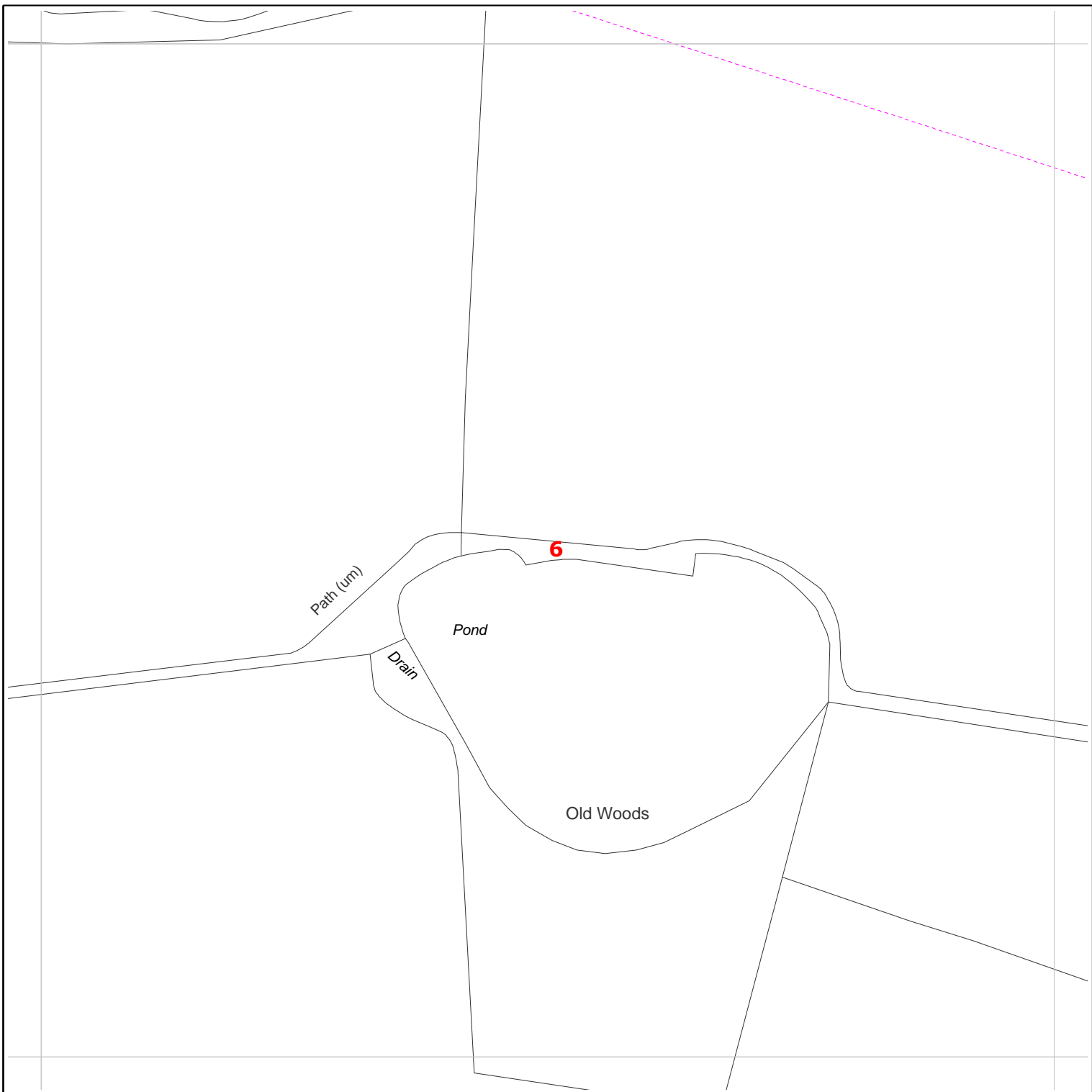
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

Data Management
 Electricity North West
 Linley House
 Dickinson Street
 Manchester, M1 4LF
 Phone: 0800 195 4141
 Email: planrequest@enwl.co.uk

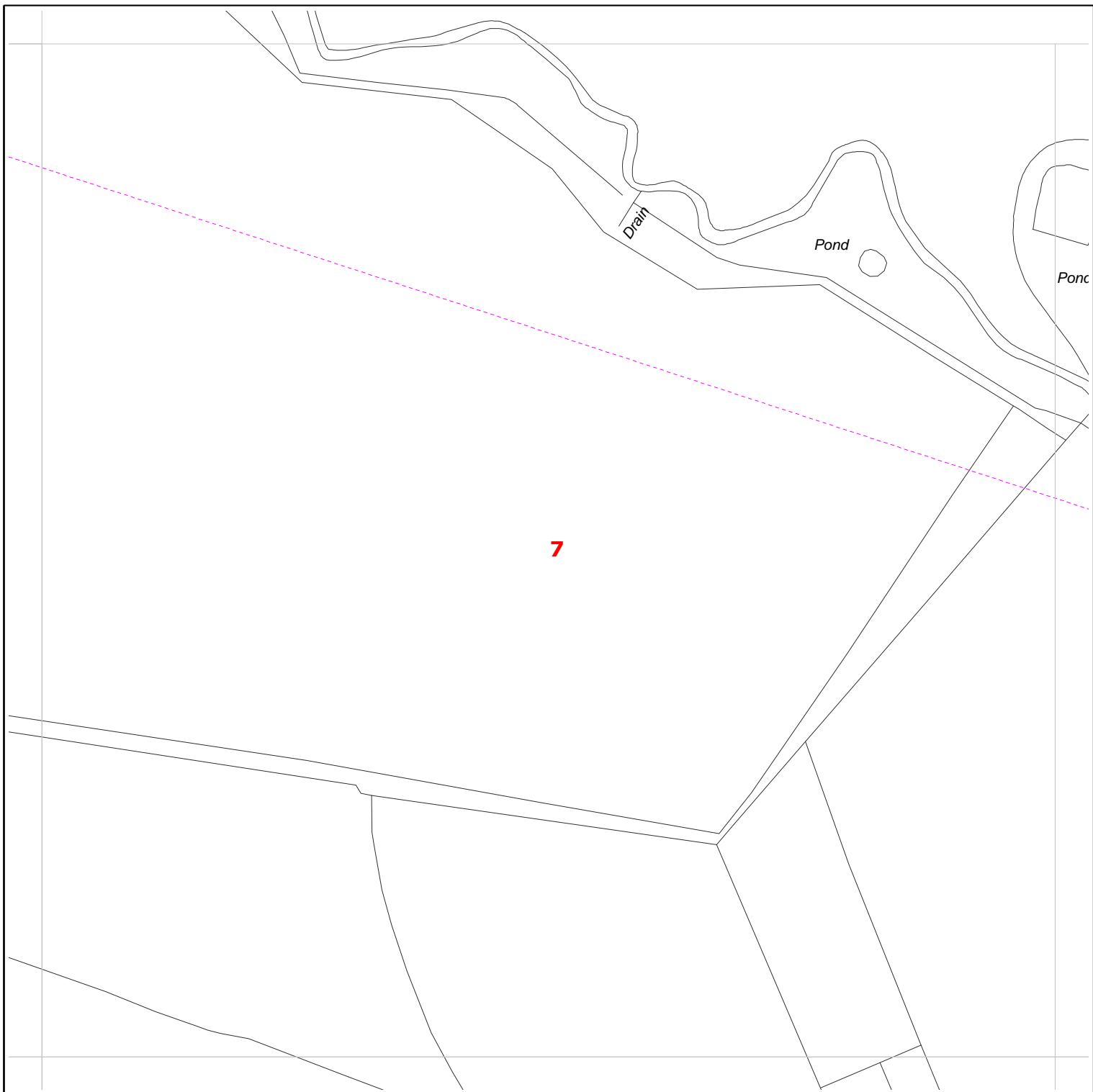
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Dig Sites:
 Area Line

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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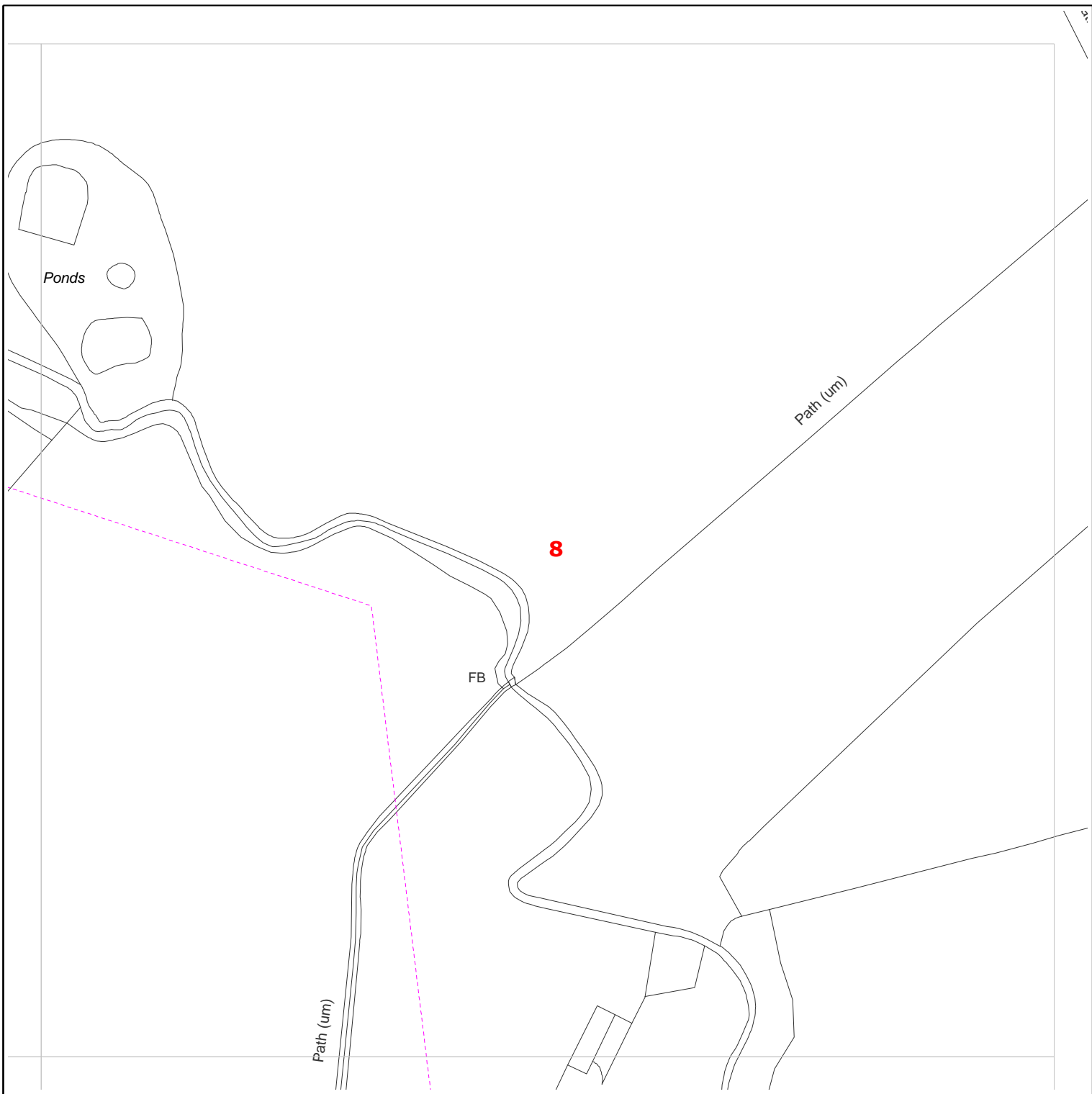
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Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Dig Sites:
 Area  Line 

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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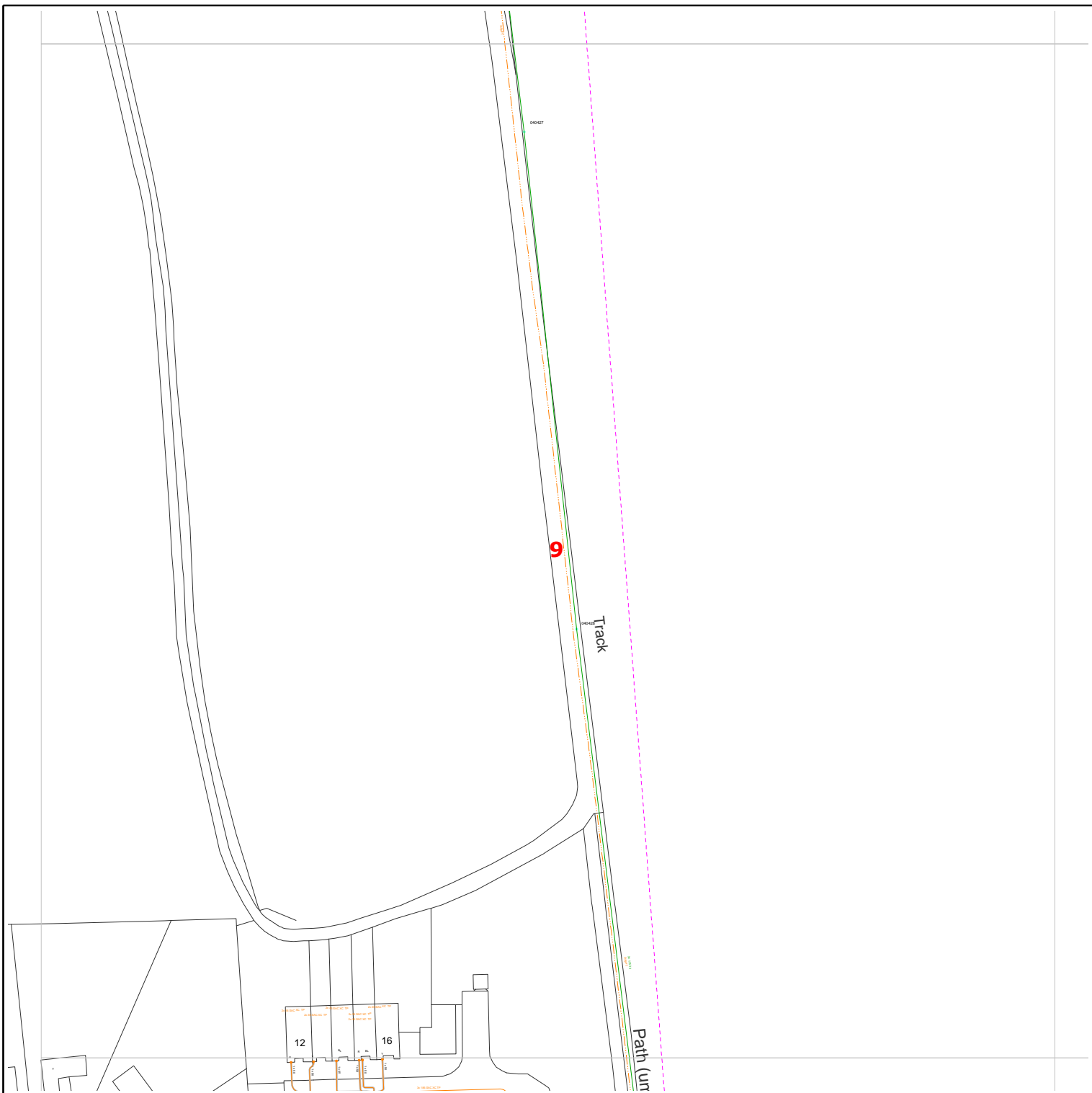
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Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C1

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

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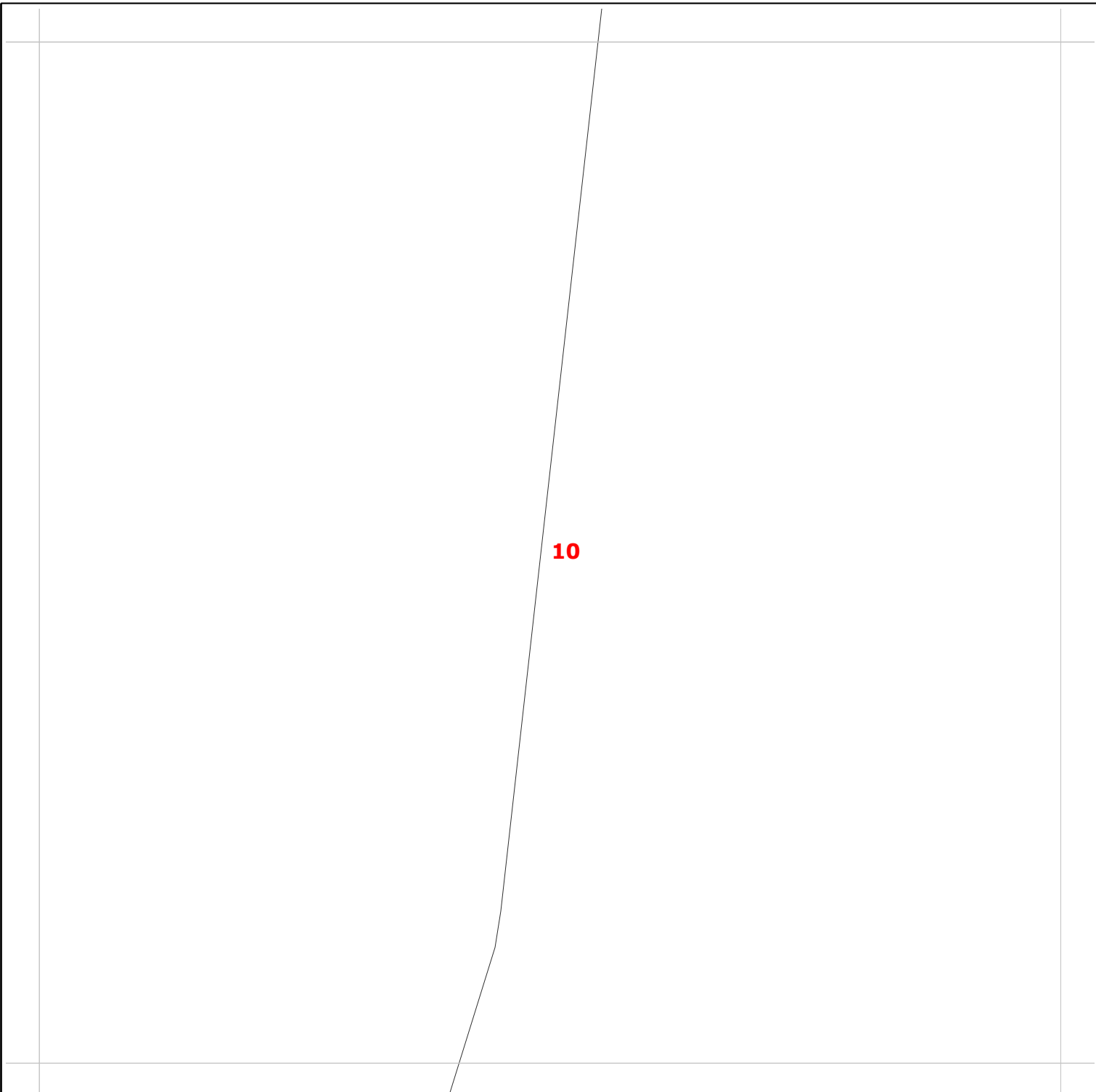
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



10

Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Dig Sites:
 Area  Line 

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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Scales on A4 paper:
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11

Requested by: Shepherd Gilmour
Company: Shepherd Gilmour Infrastructure L
Date Requested: 10/08/2017
Job Reference: 10978245
Your Scheme/Reference: Land North East C

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
Area  Line 

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Phone: 0800 195 4141
Email: planrequest@enwl.co.uk

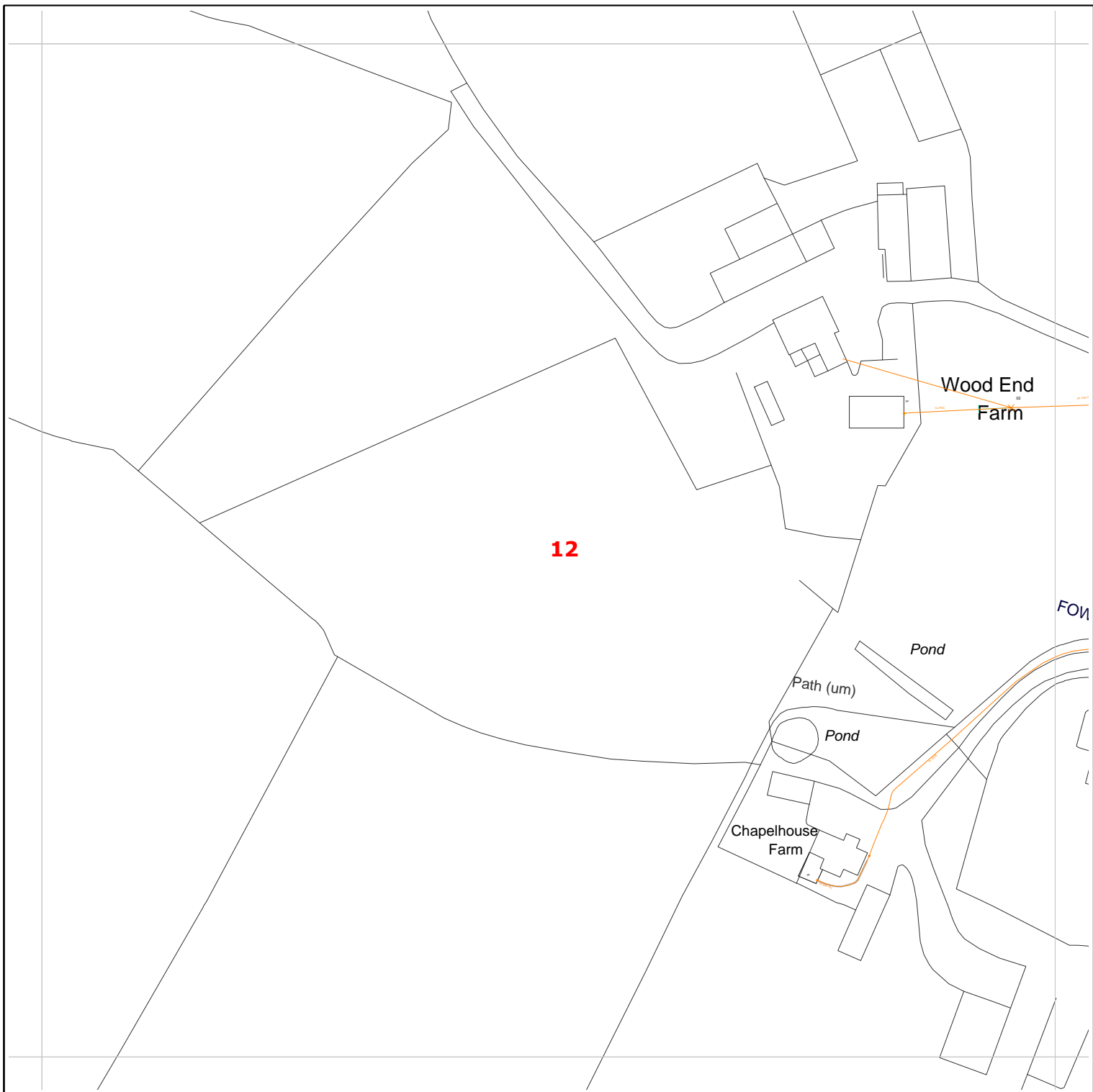
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Scales on A4 paper:
1:1250 Area dig site
1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

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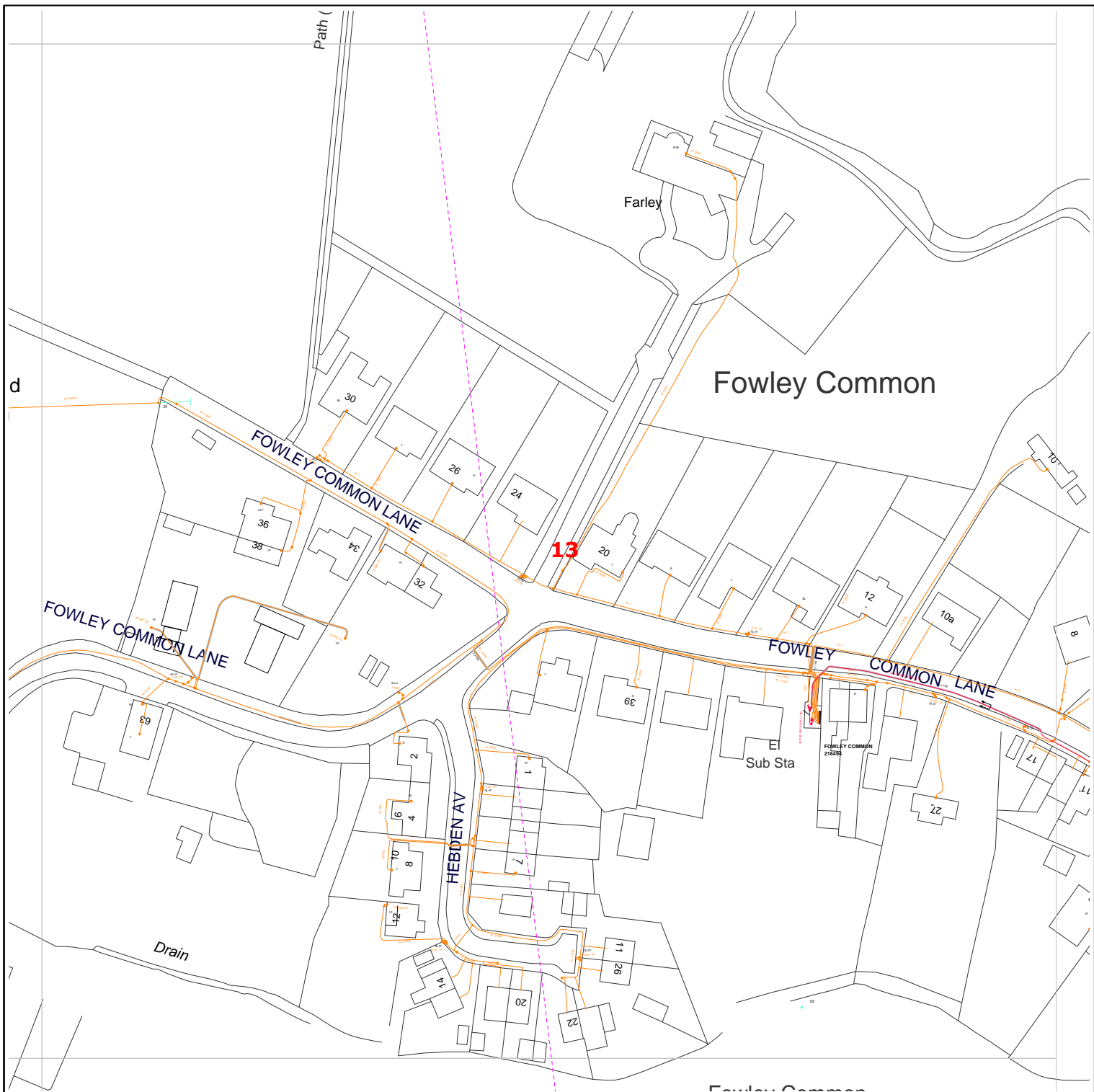
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Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L'
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C1

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

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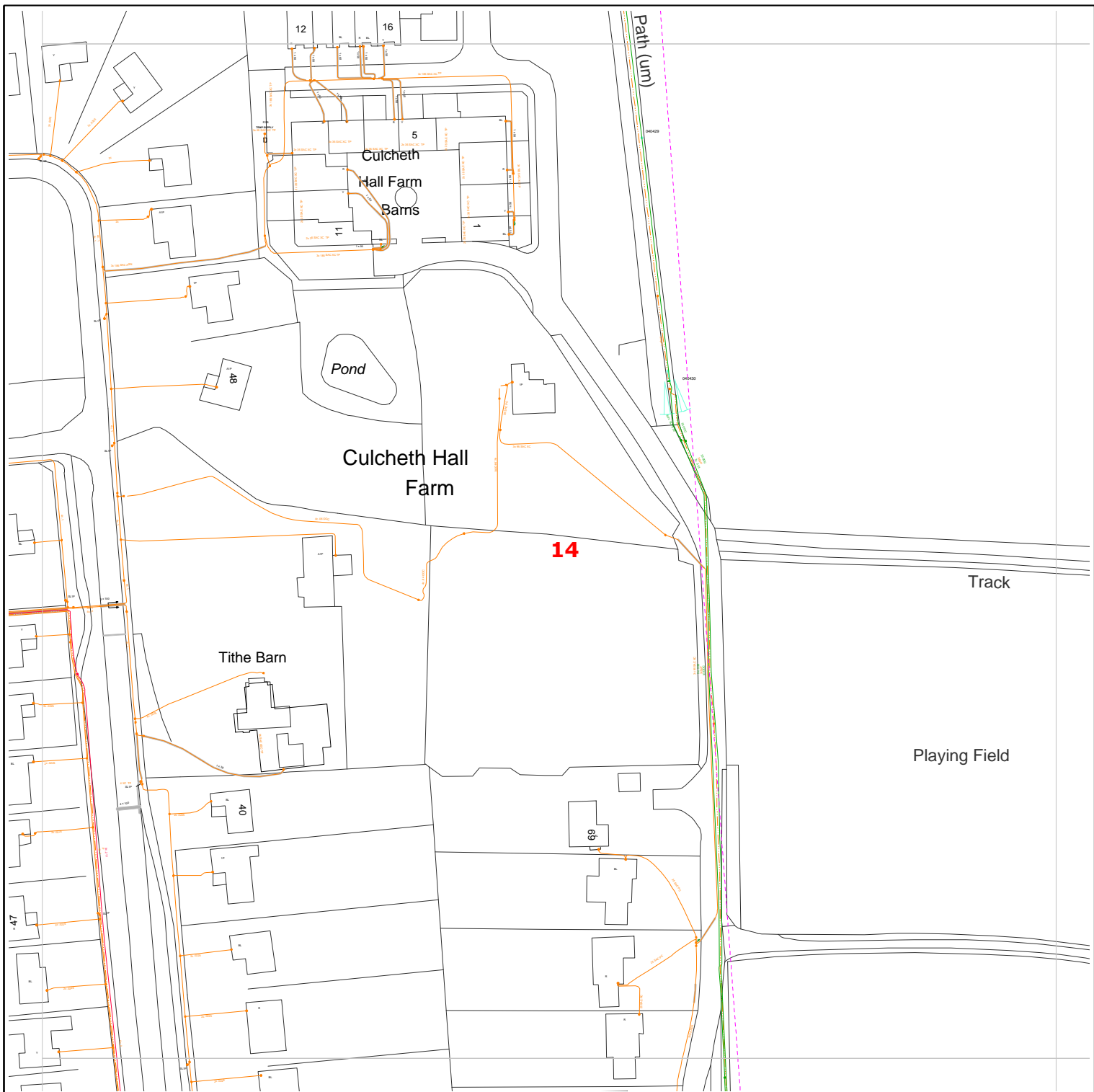
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Scales on A4 paper:
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Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L^t
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C1

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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Dig Sites:
 Area Line

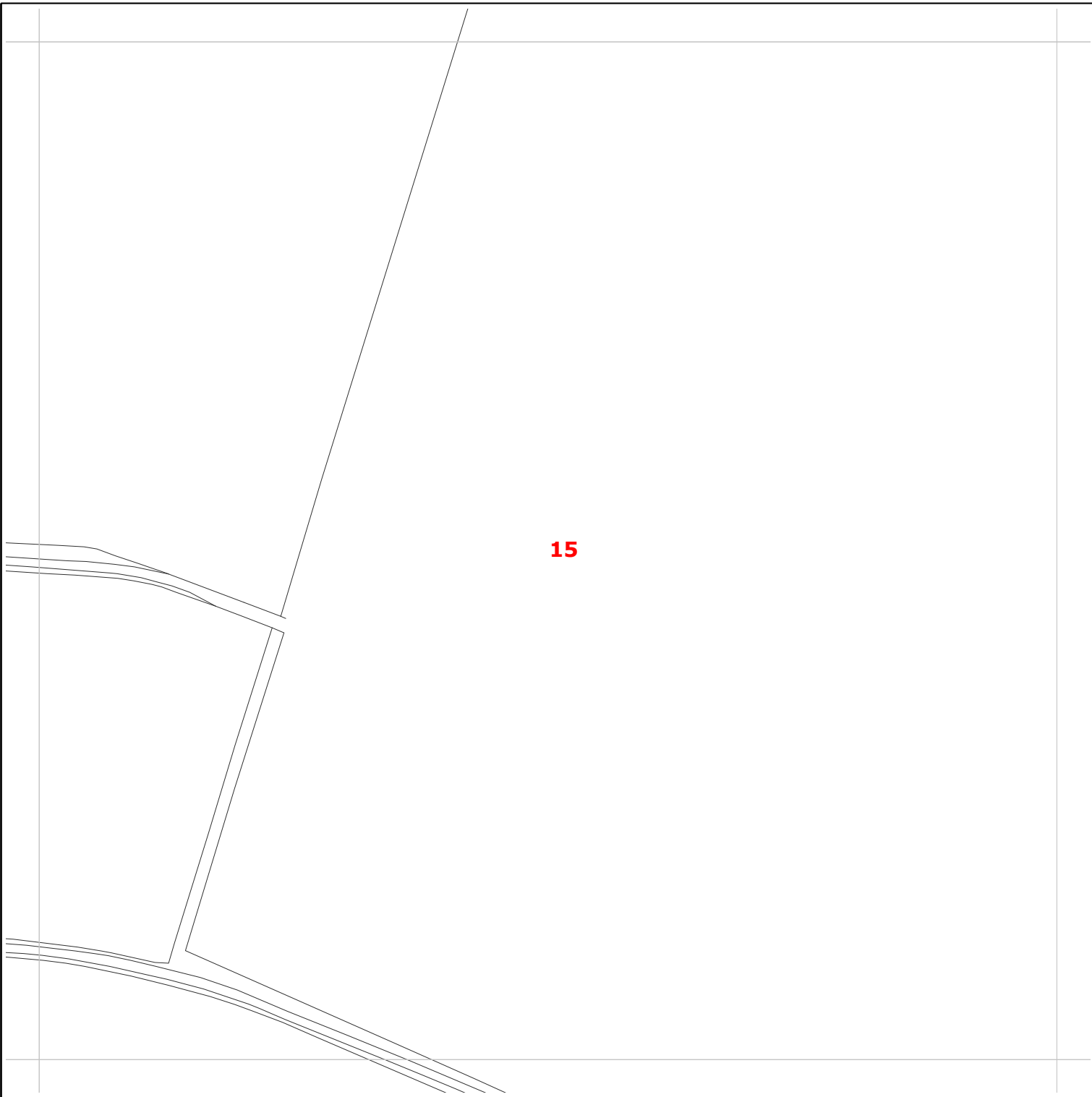
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15

Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Dig Sites:
 Area  Line 

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site

16

ISSUE

Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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Dig Sites:
 Area  Line 

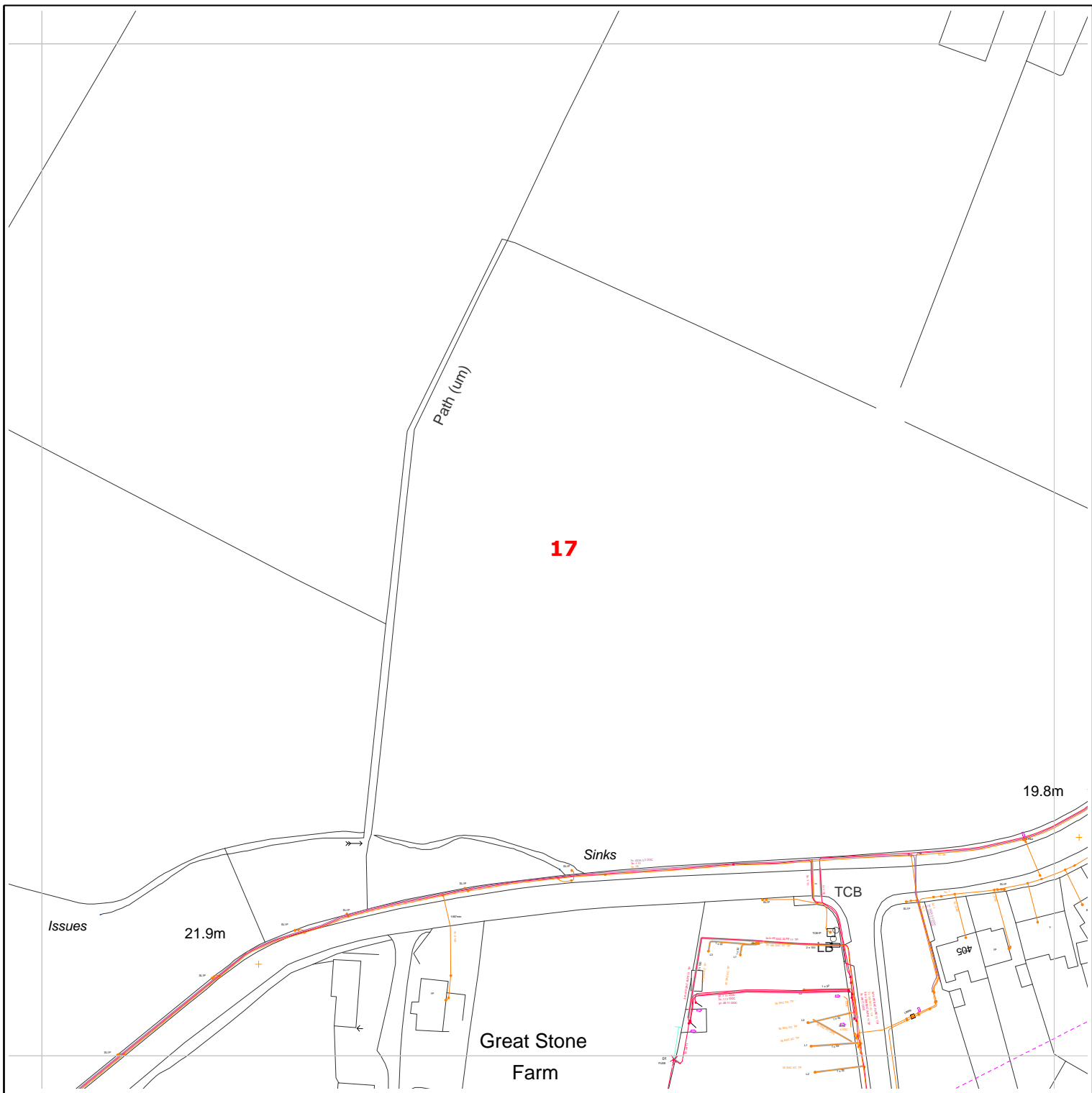
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Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

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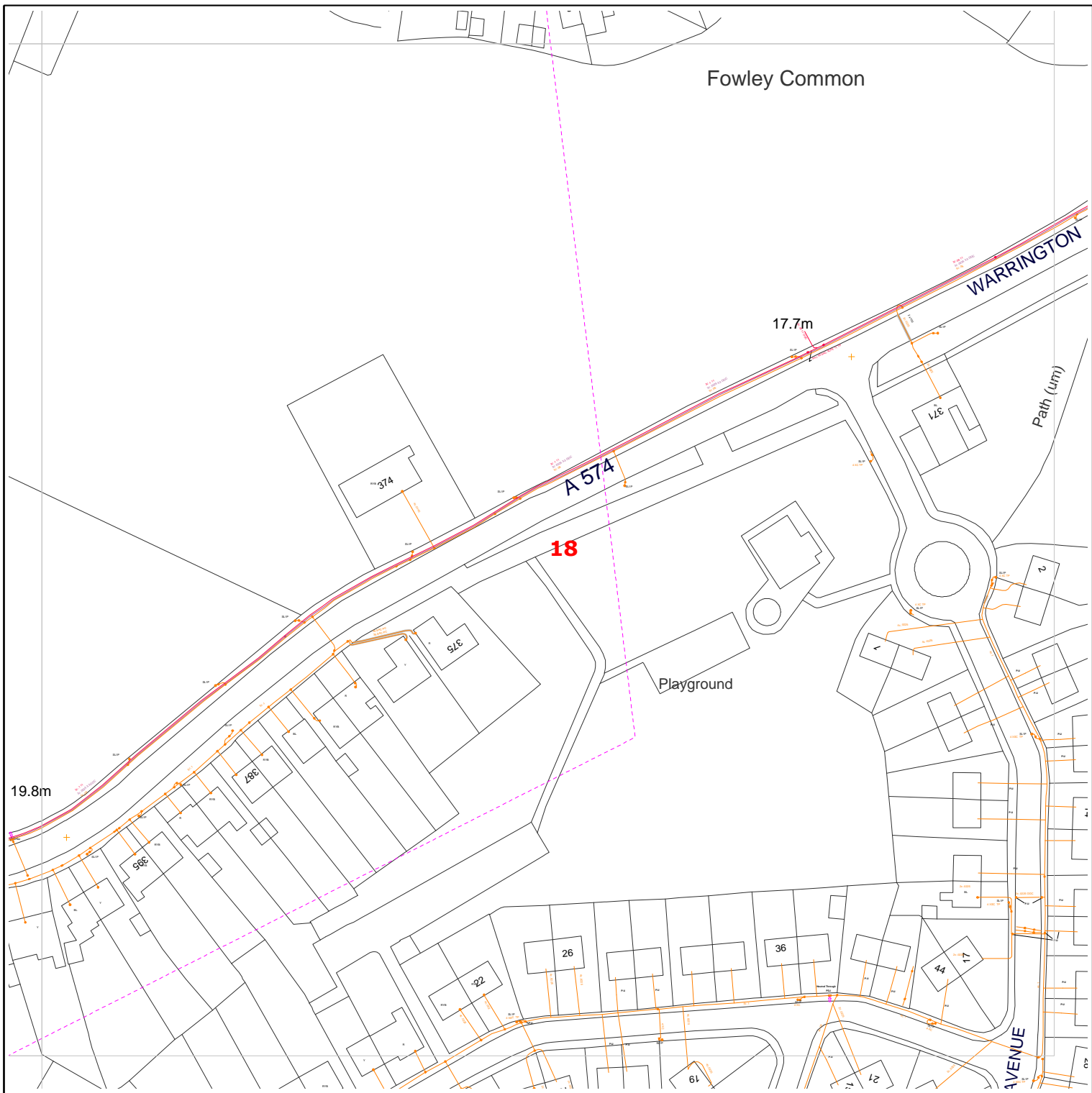
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site

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Electricity North West Limited 304 Bridgewater Place, Birchwood Park, Warrington WA3 6XG. Registered in England and Wales. Registered No 02366949



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L^t
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

Data Management
 Electricity North West
 Linley House
 Dickinson Street
 Manchester, M1 4LF
 Phone: 0800 195 4141
 Email: planrequest@enwl.co.uk

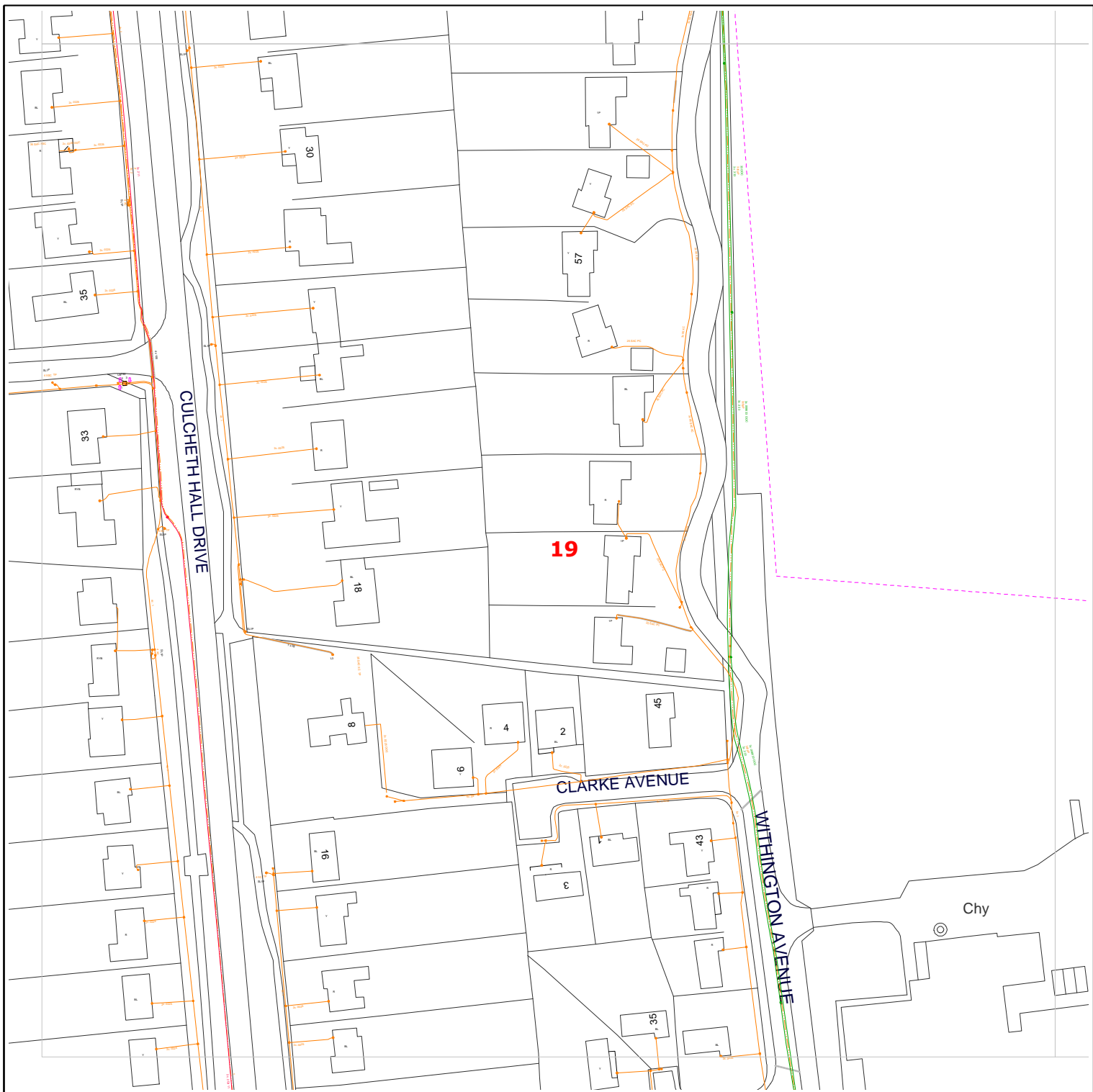
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L^t
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C1

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

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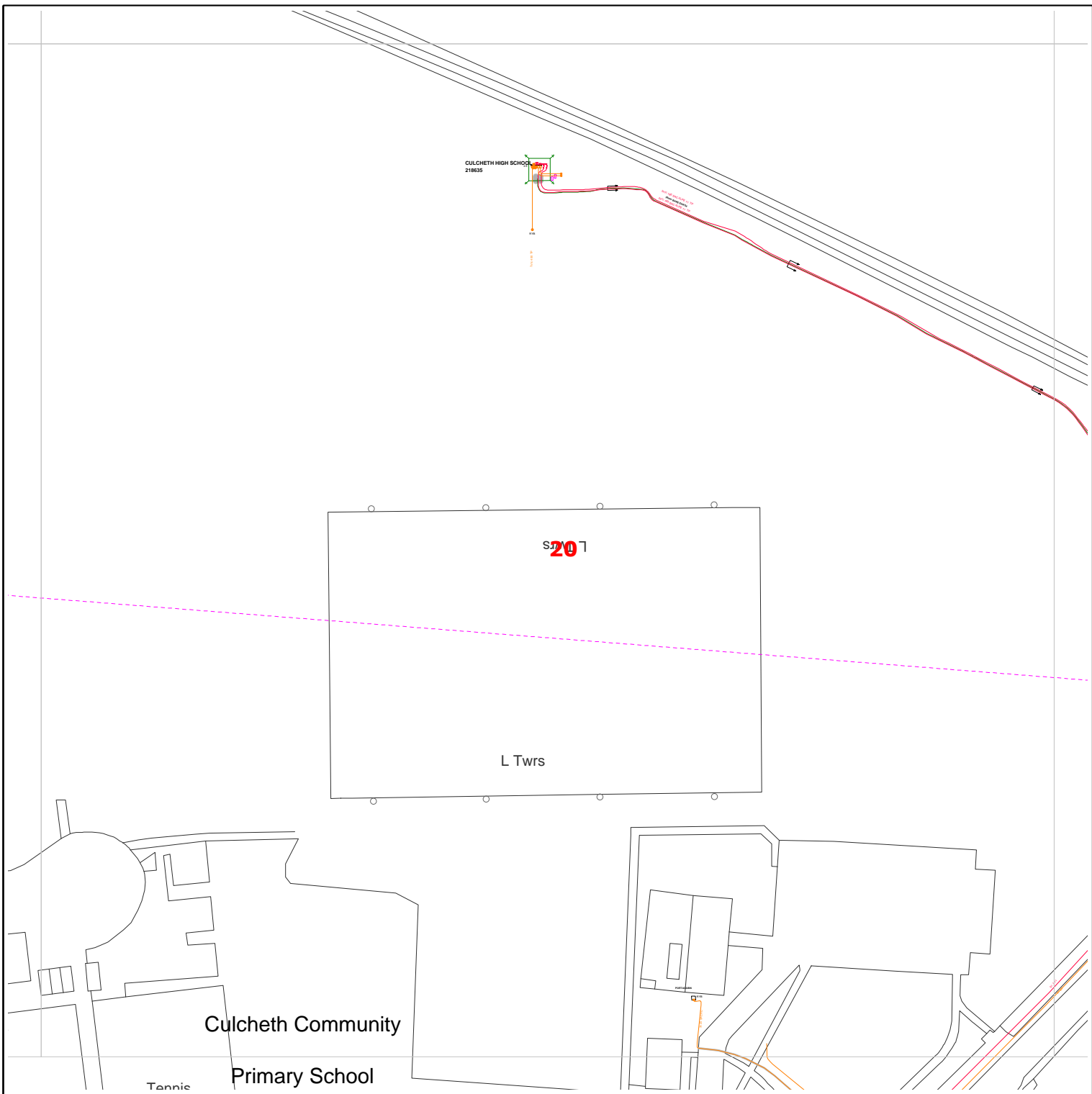
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C

Dig Sites:
 Area Line

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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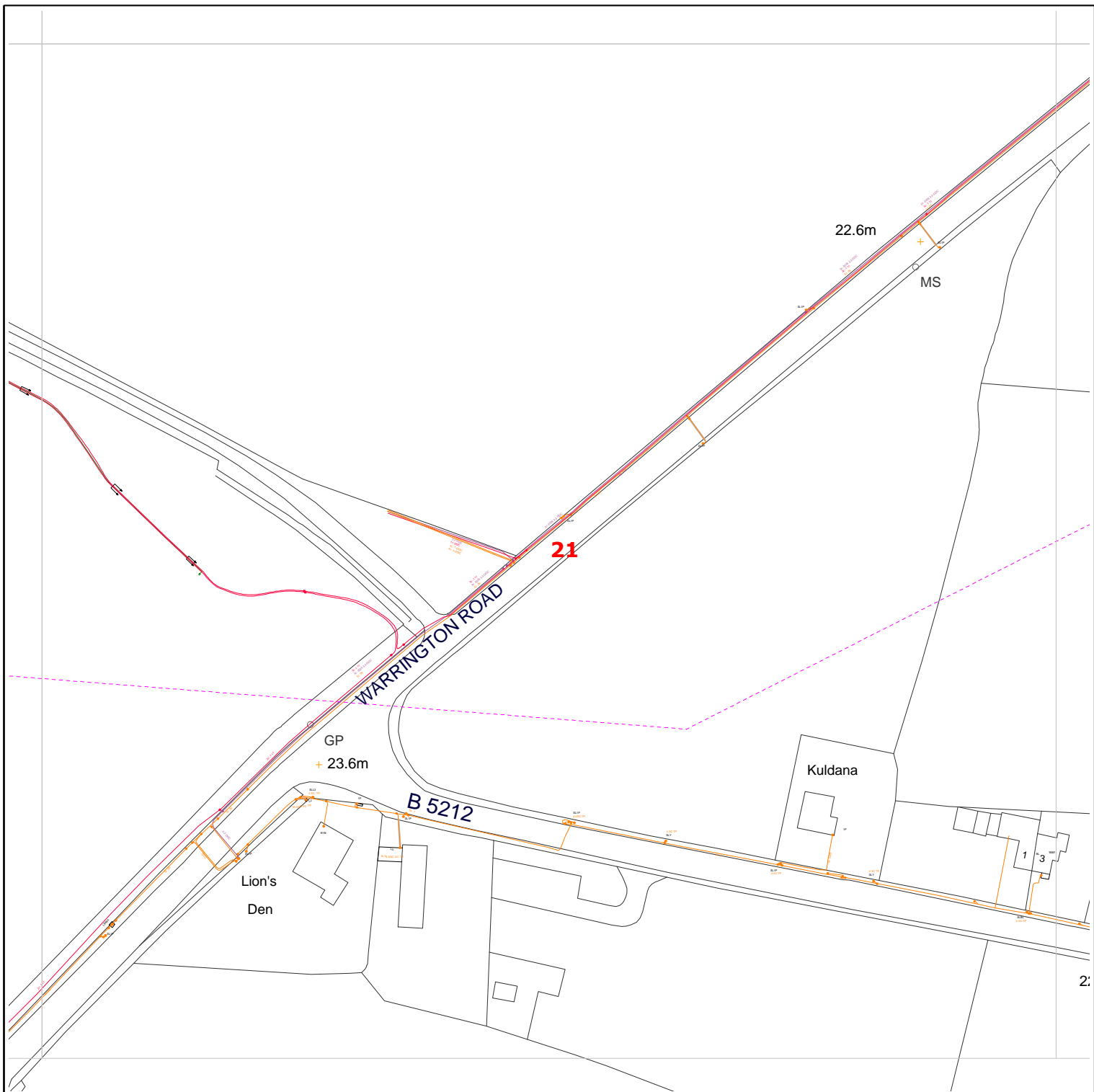
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Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L^t
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C1

Dig Sites:
 Area Line

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
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LV	Orange	
Unknown Voltage	Brown	



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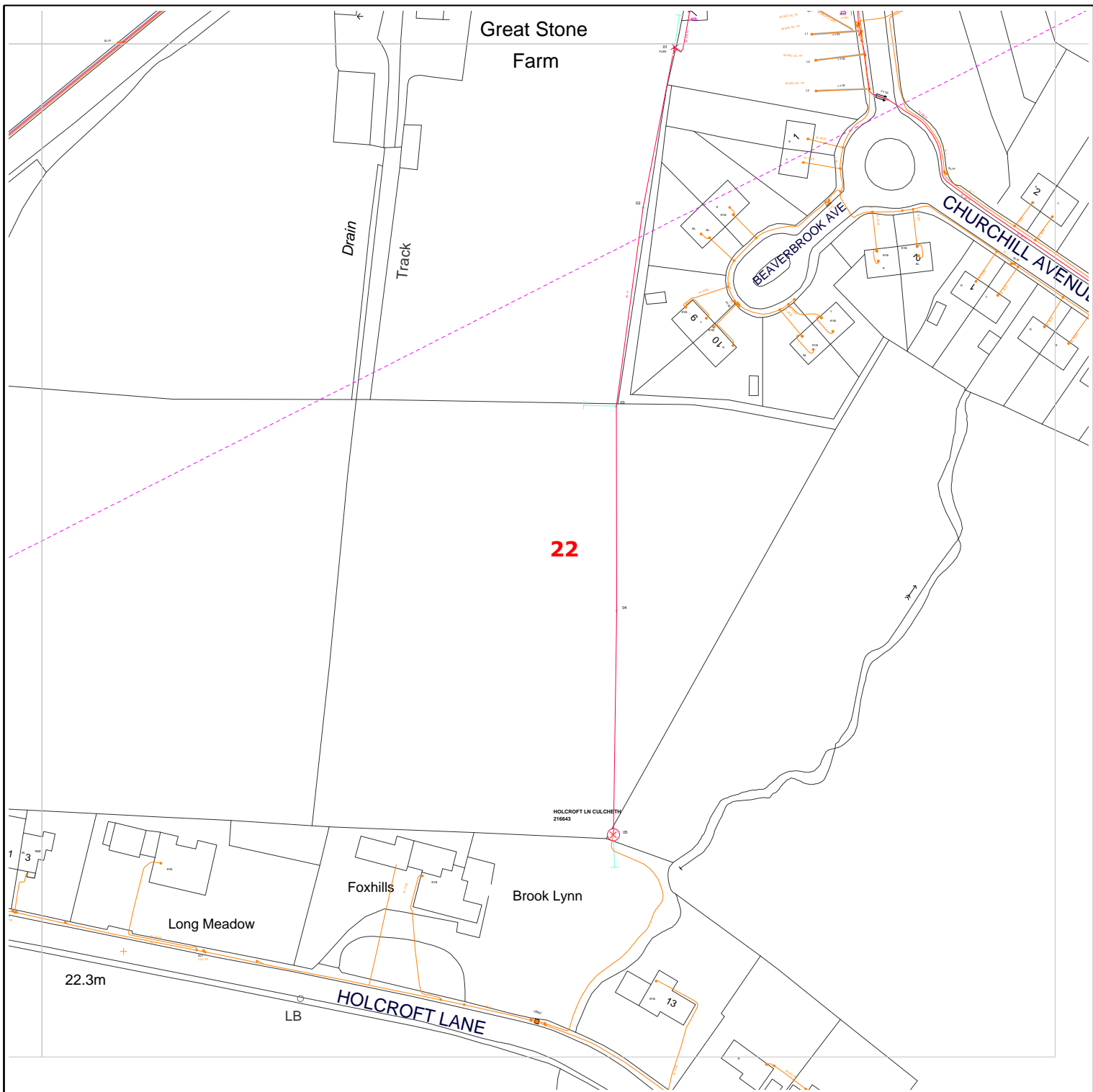
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Scales on A4 paper:
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 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L^t
 Date Requested: 10/08/2017
 Job Reference: 10978245
 Your Scheme/Reference: Land North East C1

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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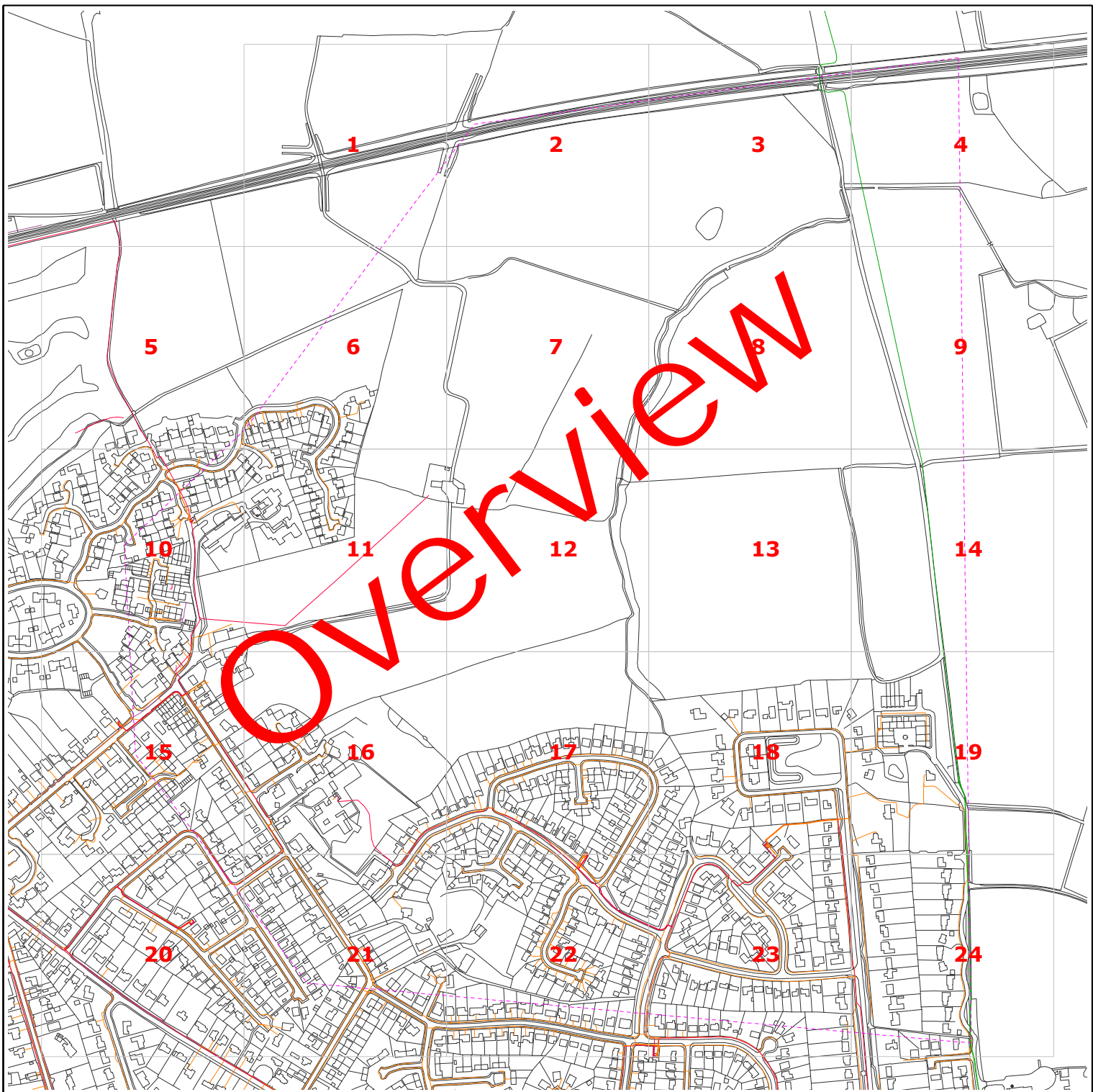
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L^t
 Date Requested: 08/08/2017
 Job Reference: 10978425
 Your Scheme/Reference: Land at Culcheth

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
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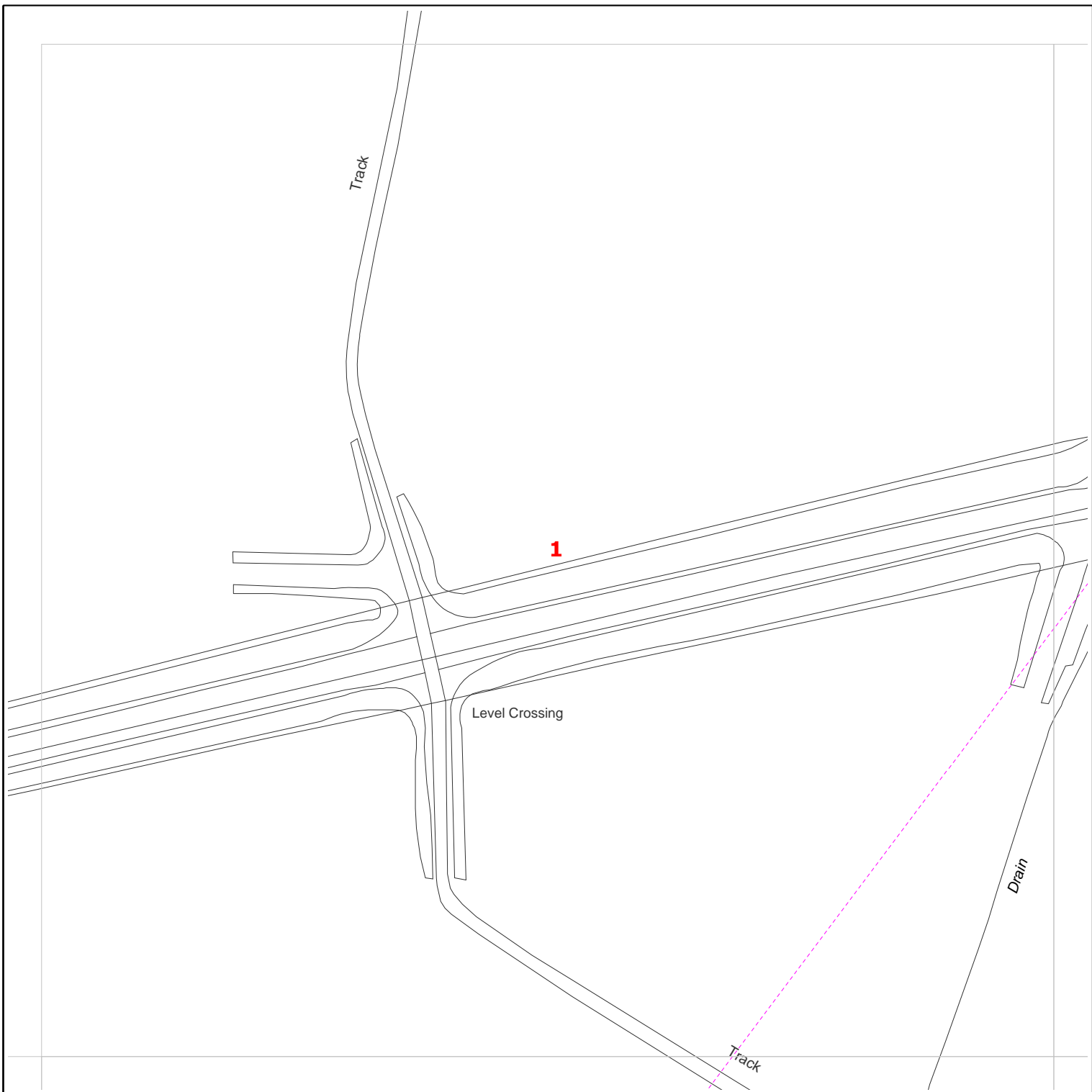
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 08/08/2017
 Job Reference: 10978425
 Your Scheme/Reference: Land at Culcheth

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
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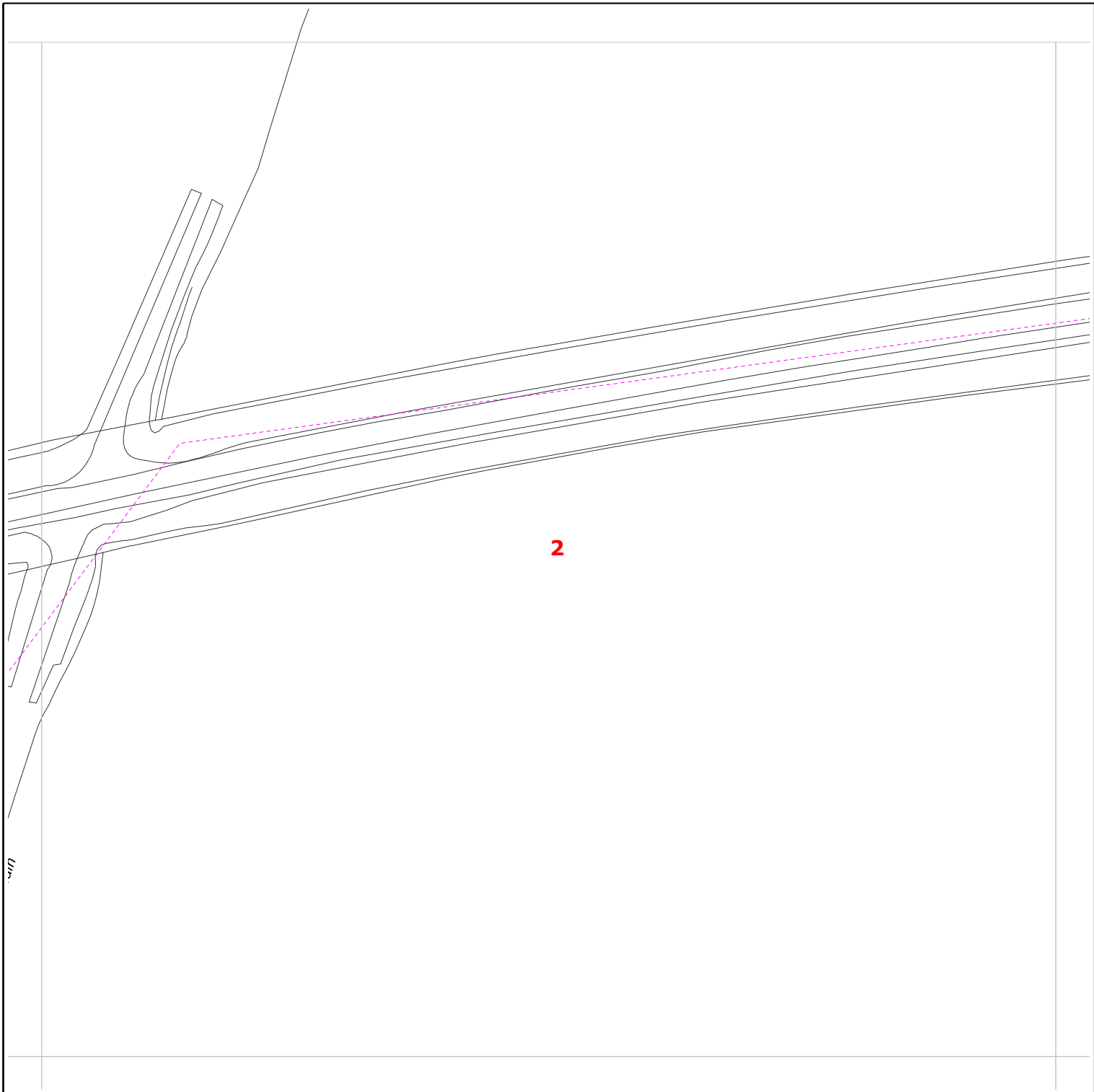
Scales on A4 paper:
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Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 08/08/2017
 Job Reference: 10978425
 Your Scheme/Reference: Land at Culcheth

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
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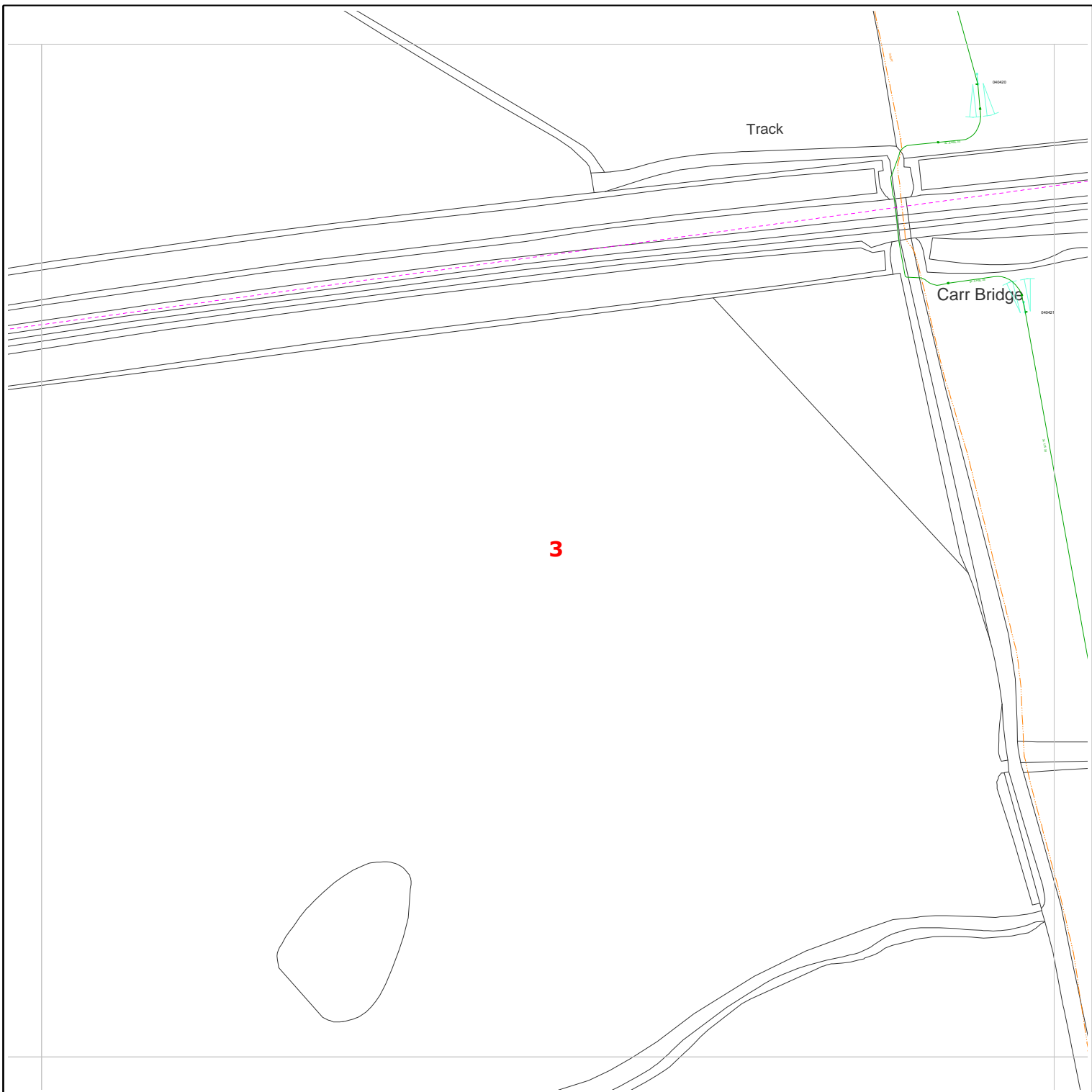
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 08/08/2017
 Job Reference: 10978425
 Your Scheme/Reference: Land at Culcheth

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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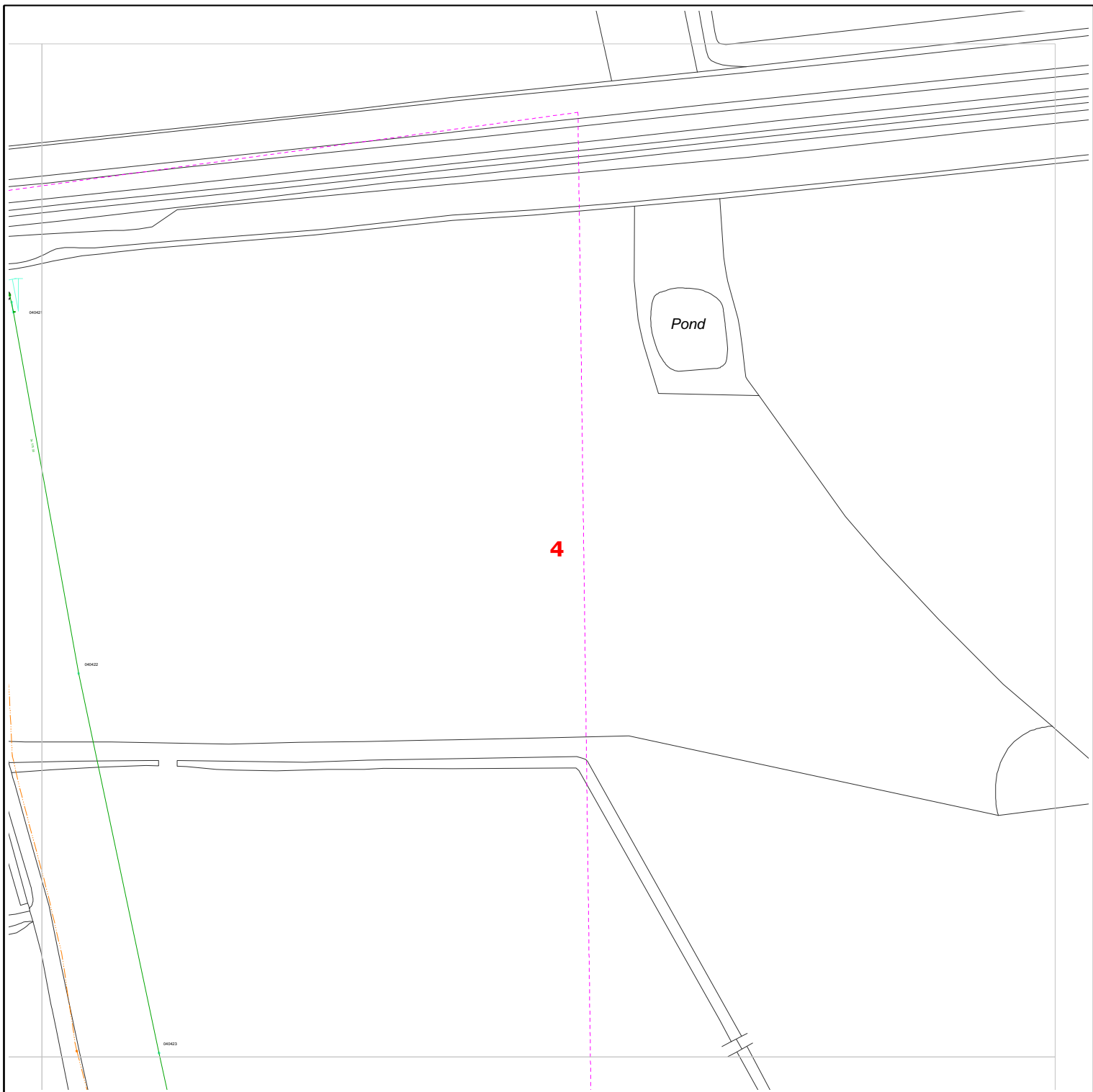
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Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 08/08/2017
 Job Reference: 10978425
 Your Scheme/Reference: Land at Culcheth

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
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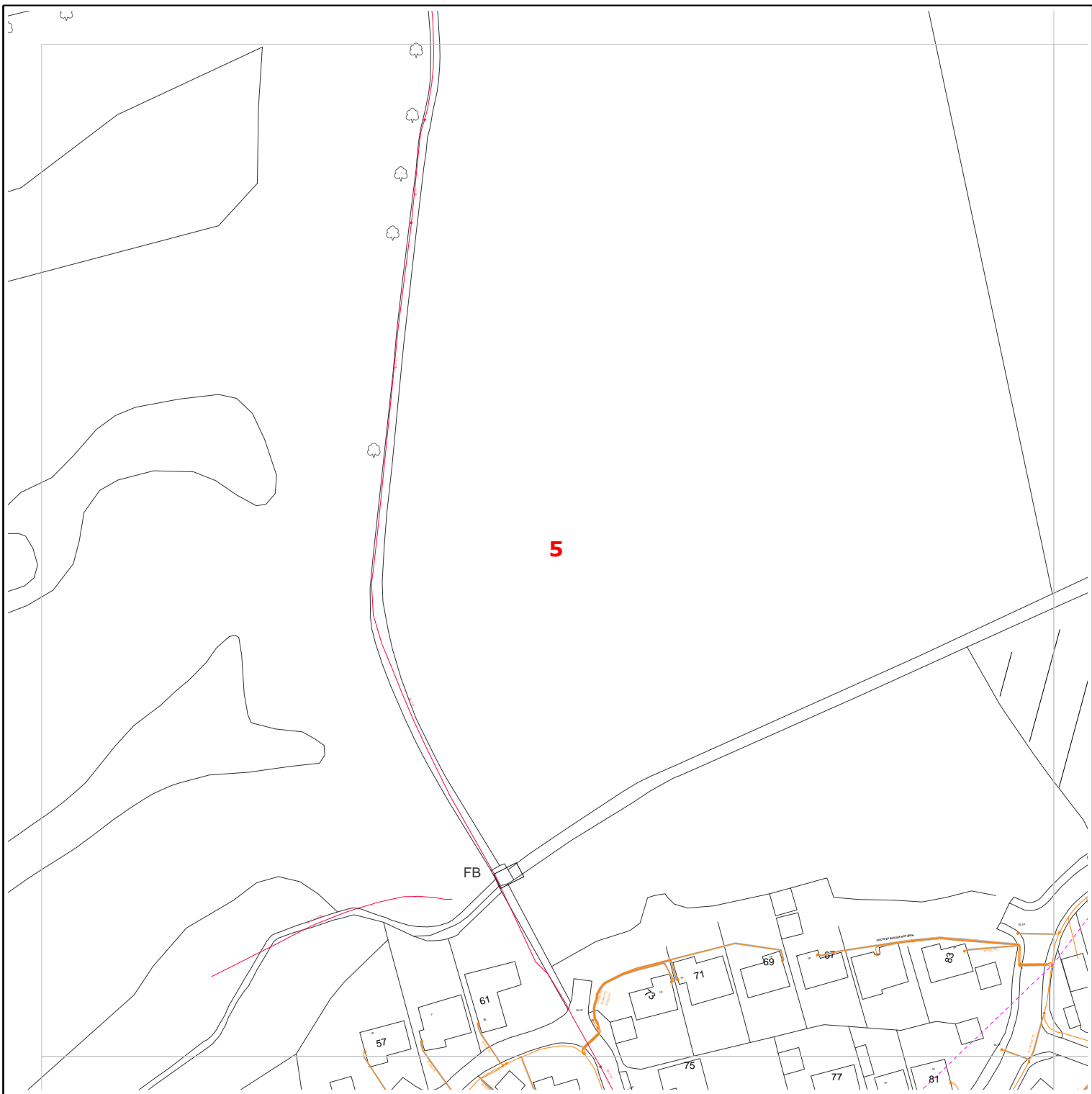
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Scales on A4 paper:
 1:1250 Area dig site
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Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 08/08/2017
 Job Reference: 10978425
 Your Scheme/Reference: Land at Culcheth

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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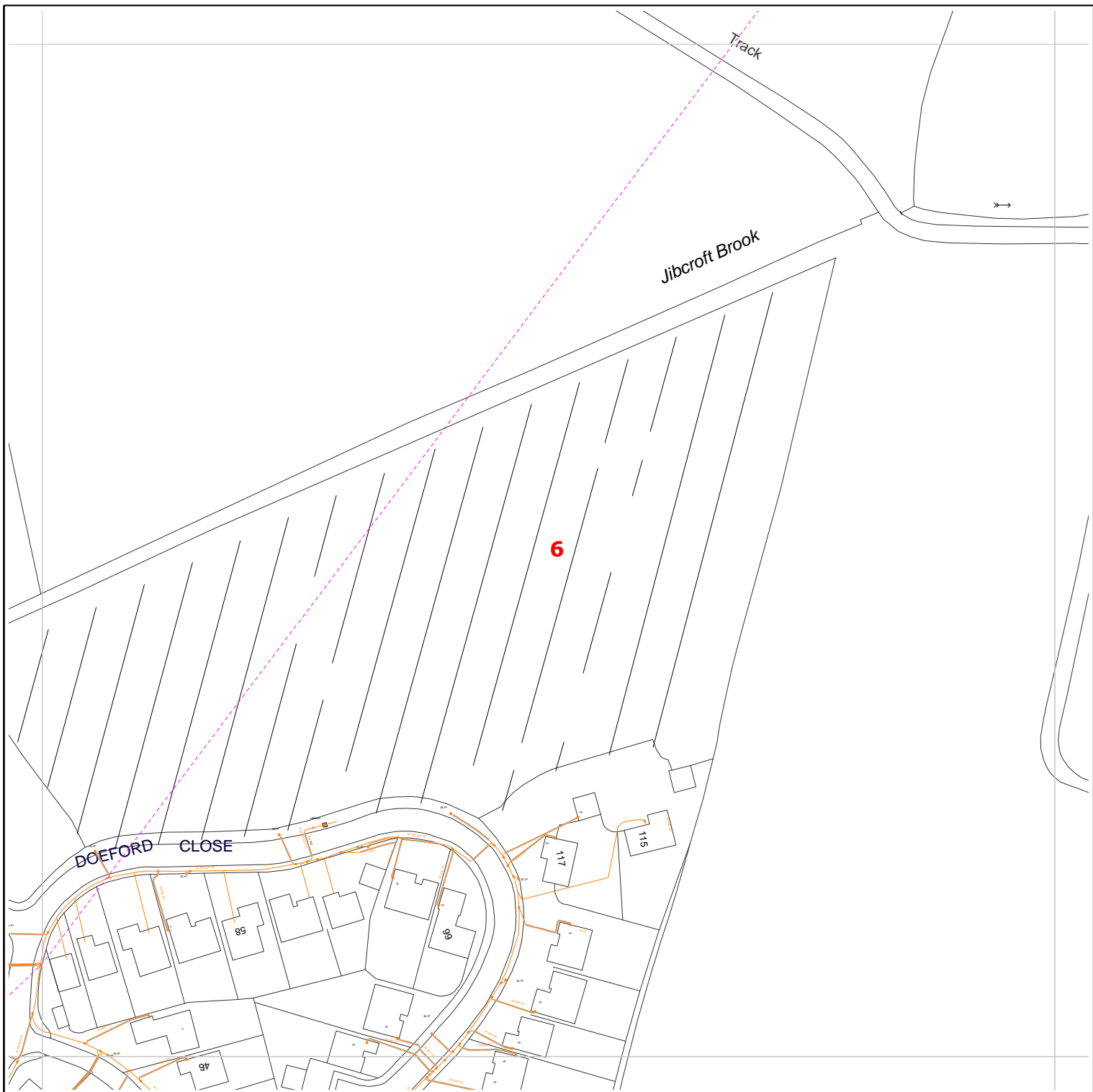
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Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 08/08/2017
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 Your Scheme/Reference: Land at Culcheth

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33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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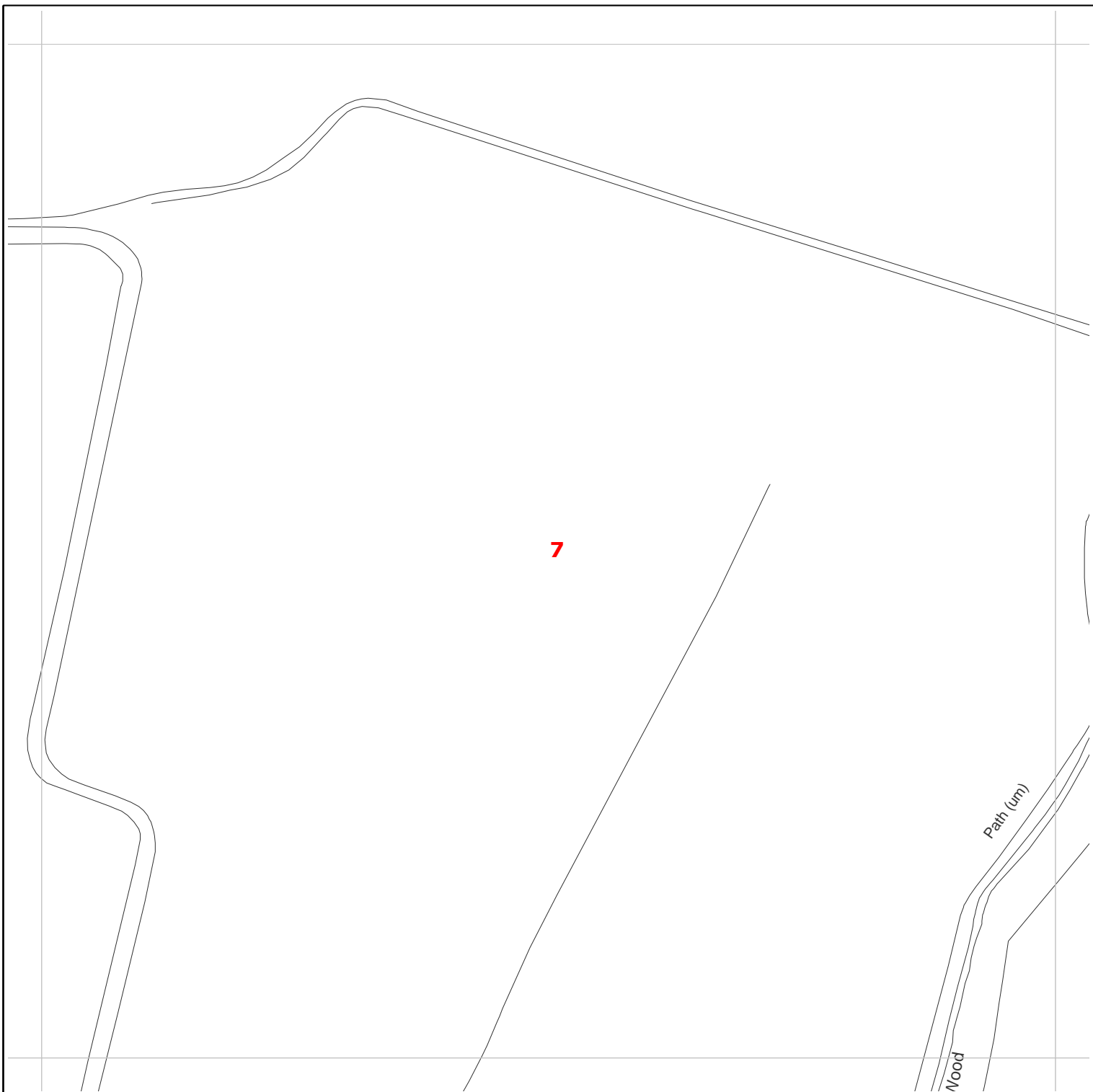
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Operating Voltage	Colour Code	Line Colour
132kV	Black	
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1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

Data Management
 Electricity North West
 Linley House
 Dickinson Street
 Manchester, M1 4LF
 Phone: 0800 195 4141
 Email: planrequest@enwl.co.uk

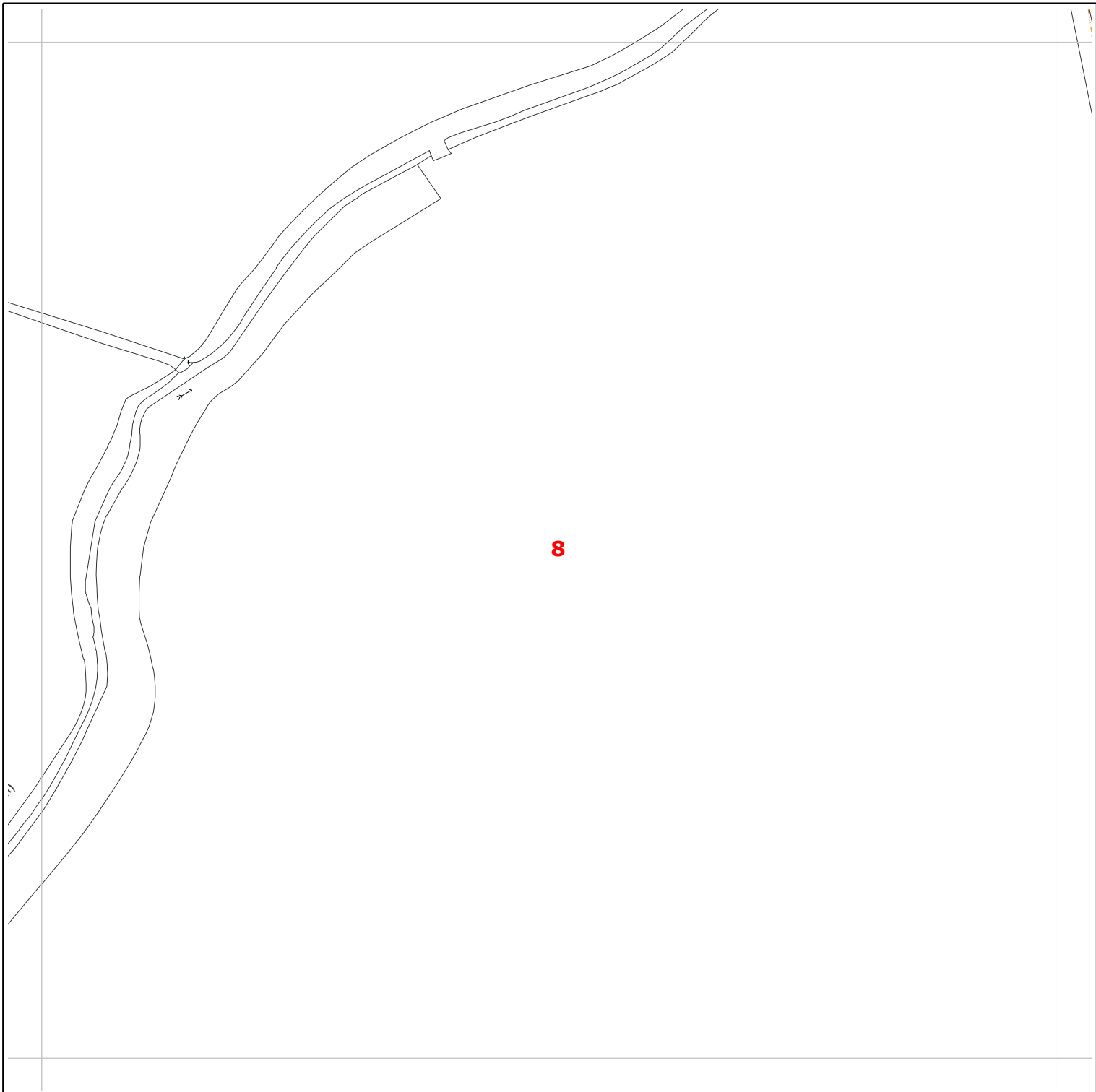
Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site

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8

Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 08/08/2017
 Job Reference: 10978425
 Your Scheme/Reference: Land at Culcheth

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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 1:250 Line dig site



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 Job Reference: 10978425
 Your Scheme/Reference: Land at Culcheth

Dig Sites:
 Area Line

Operating Voltage	Colour Code	Line Colour
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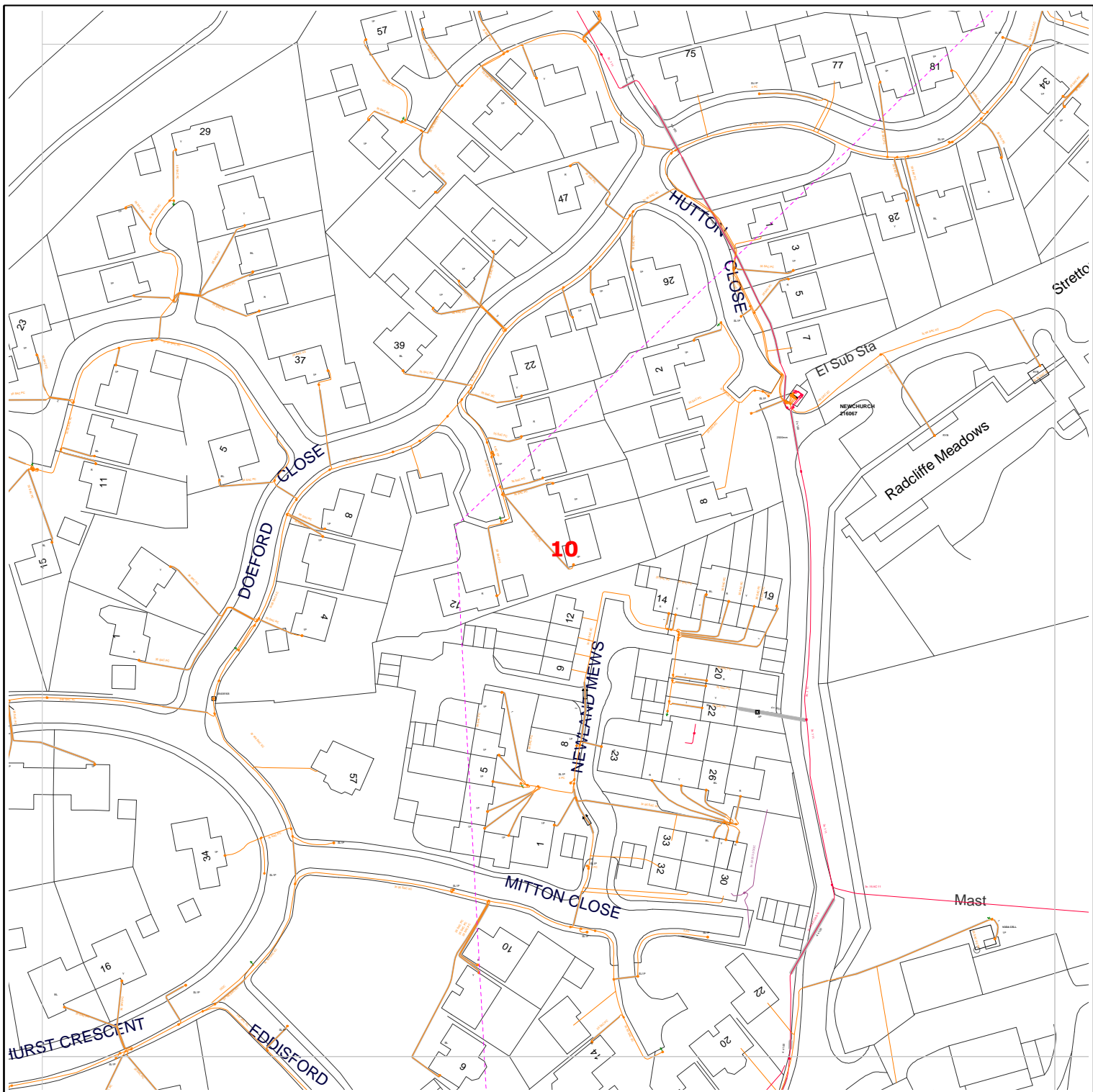
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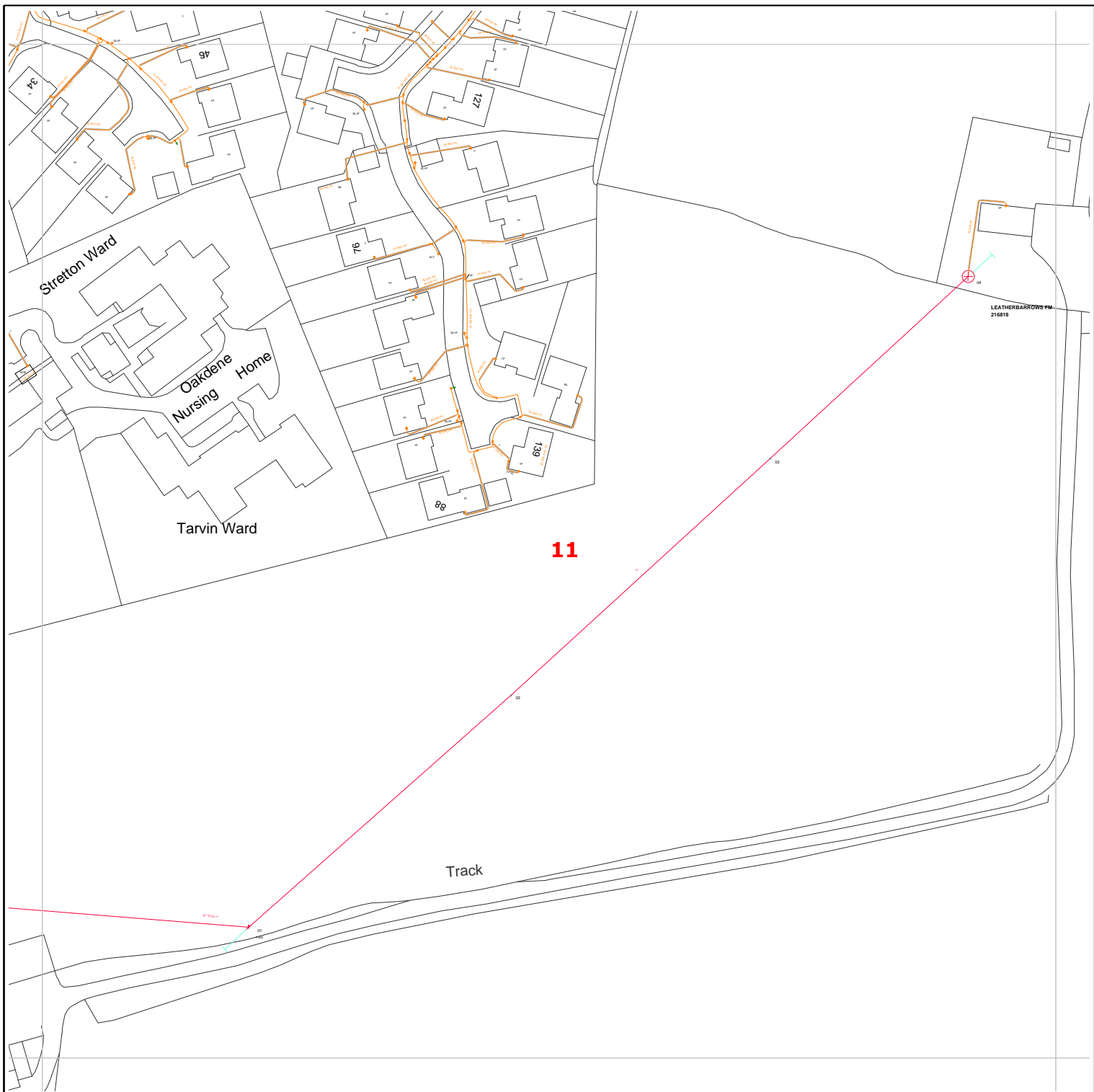
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Dig Sites:
 Area  Line 

Operating Voltage	Colour Code	Line Colour
132kV	Black	
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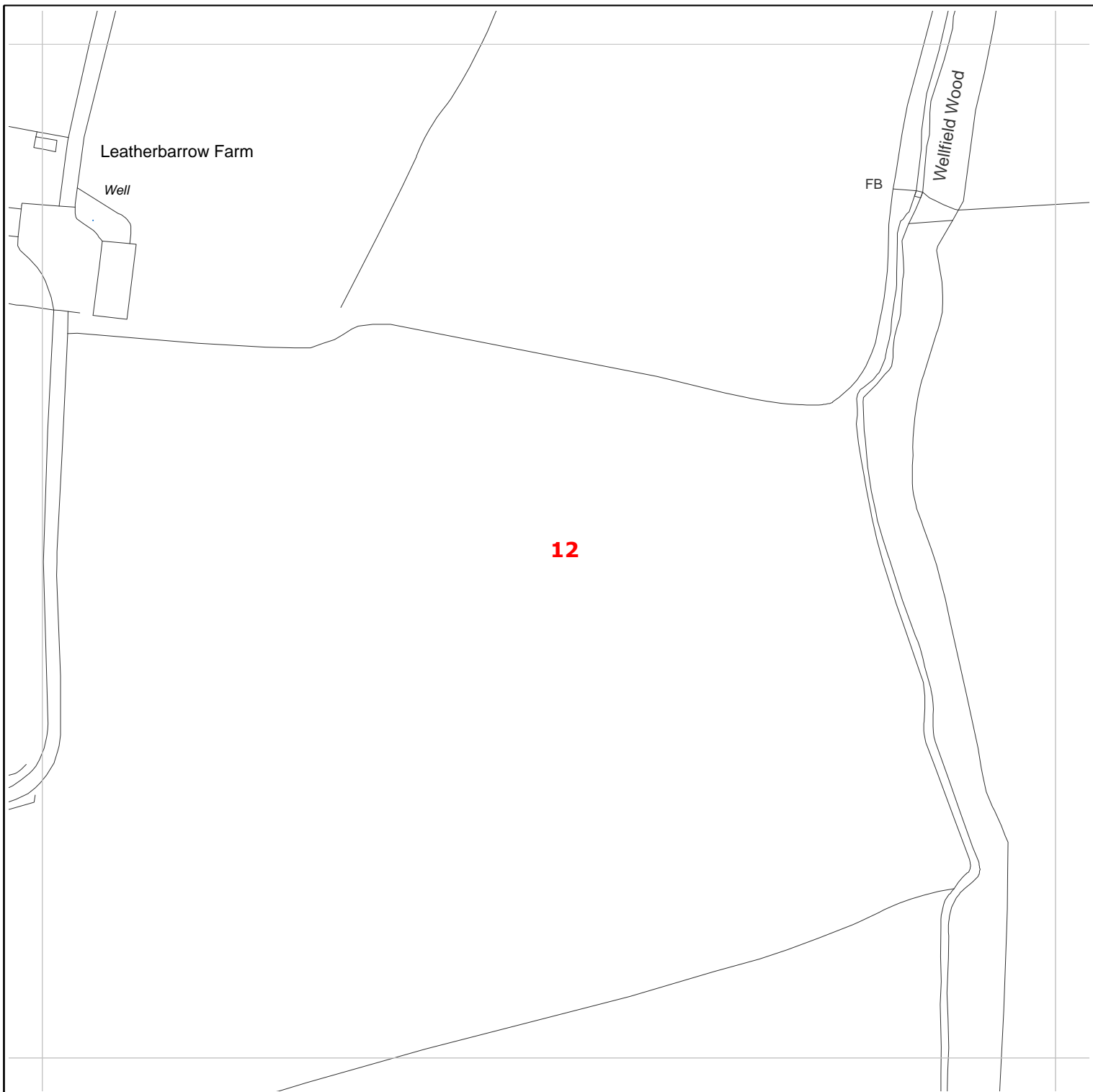
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 Job Reference: 10978425
 Your Scheme/Reference: Land at Culcheth

Dig Sites:
 Area  Line 

Operating Voltage	Colour Code	Line Colour
132kV	Black	
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Unknown Voltage	Brown	



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Path (um)

Track

13

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 Company: Shepherd Gilmour Infrastructure L
 Date Requested: 08/08/2017
 Job Reference: 10978425
 Your Scheme/Reference: Land at Culcheth

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area  Line 

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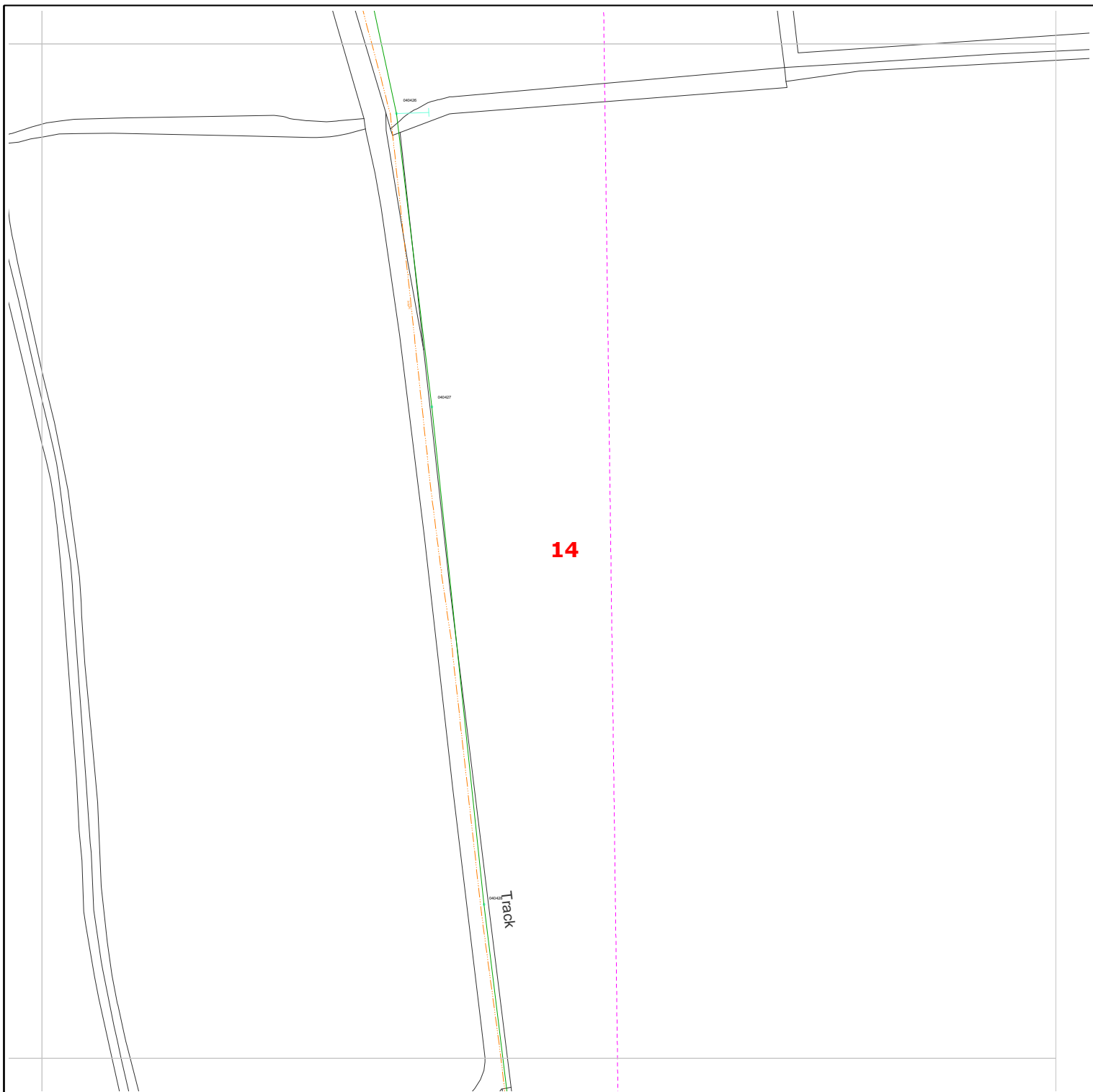
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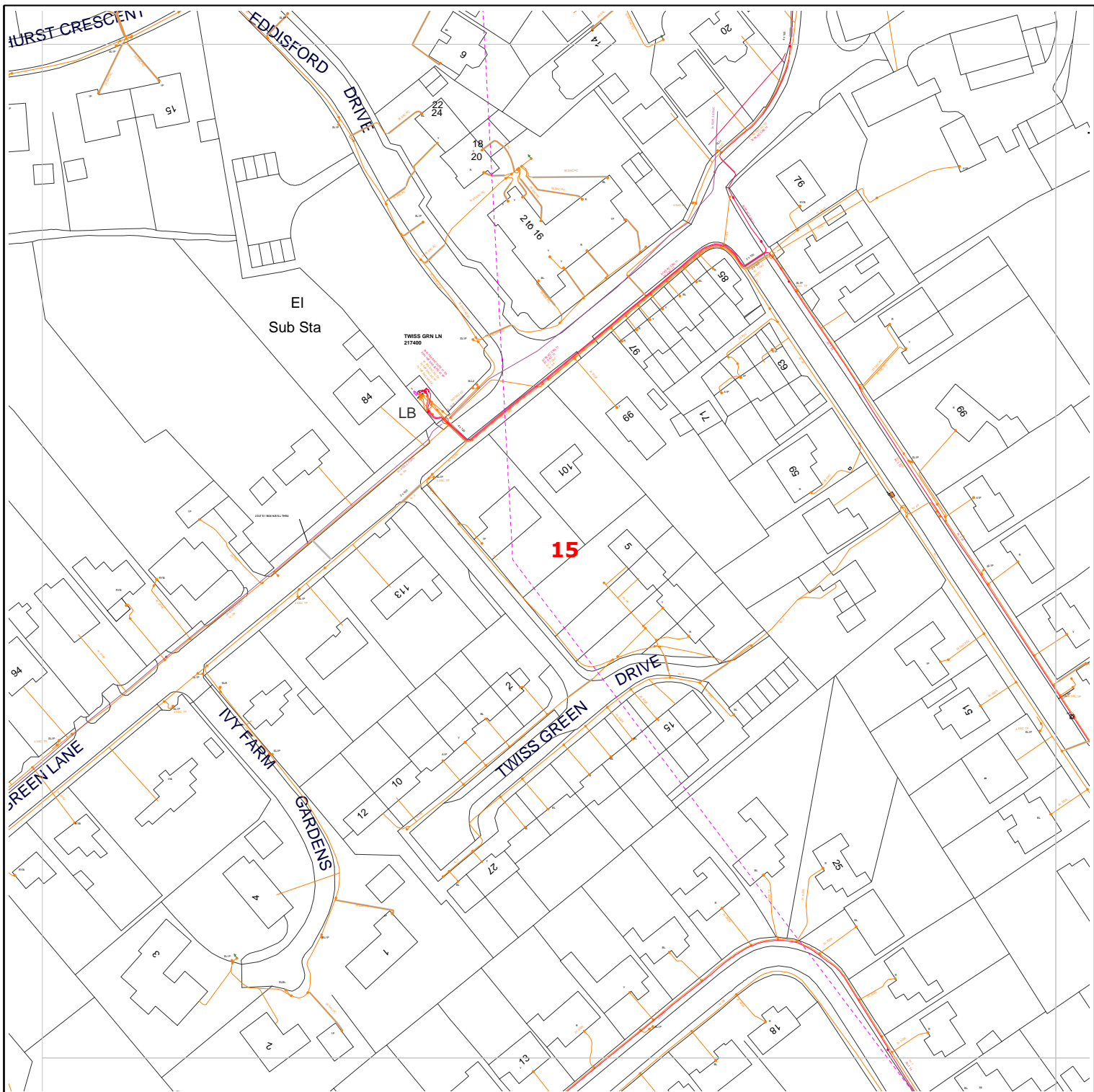
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Operating Voltage	Colour Code	Line Colour
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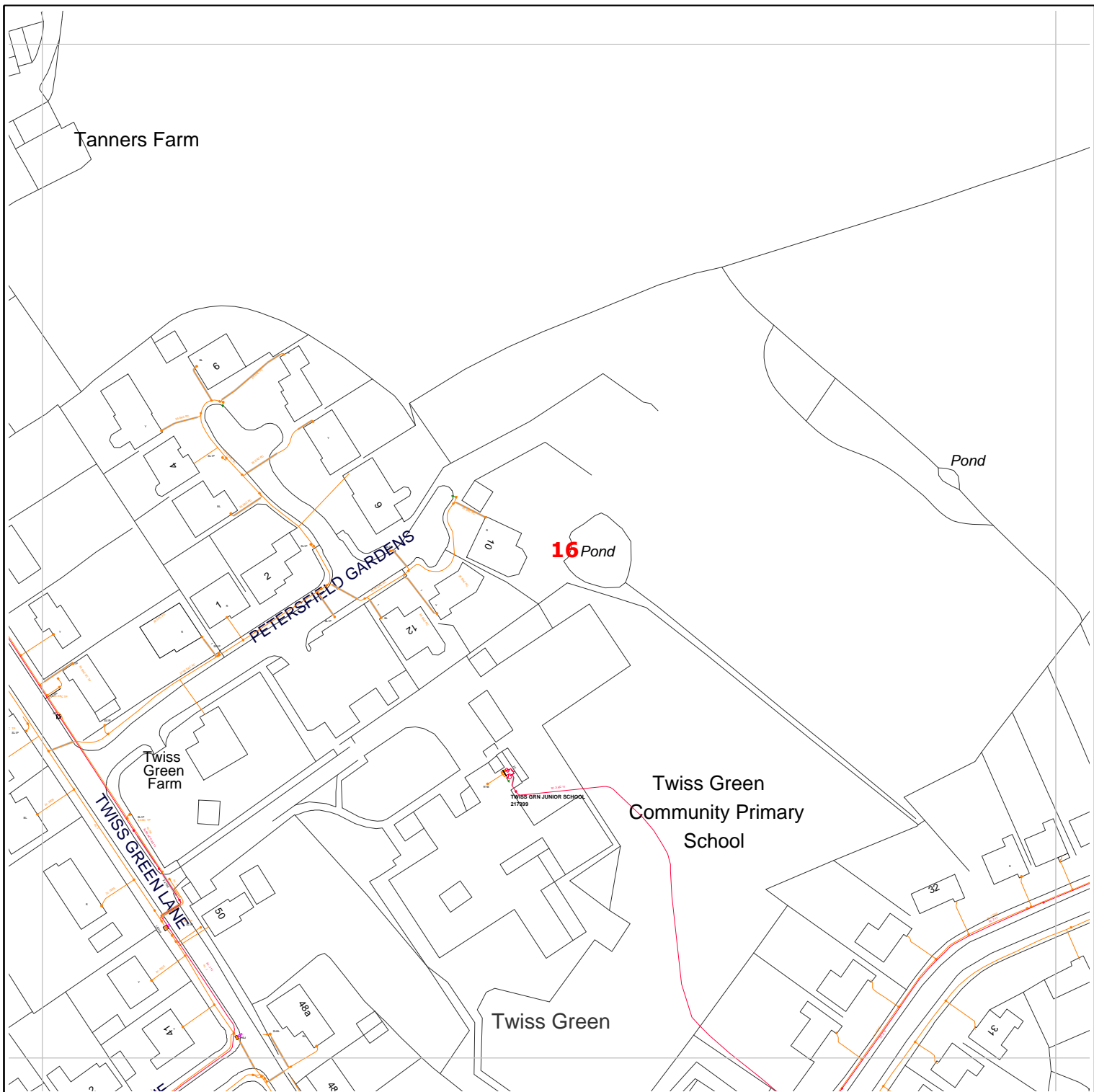
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 Area  Line 

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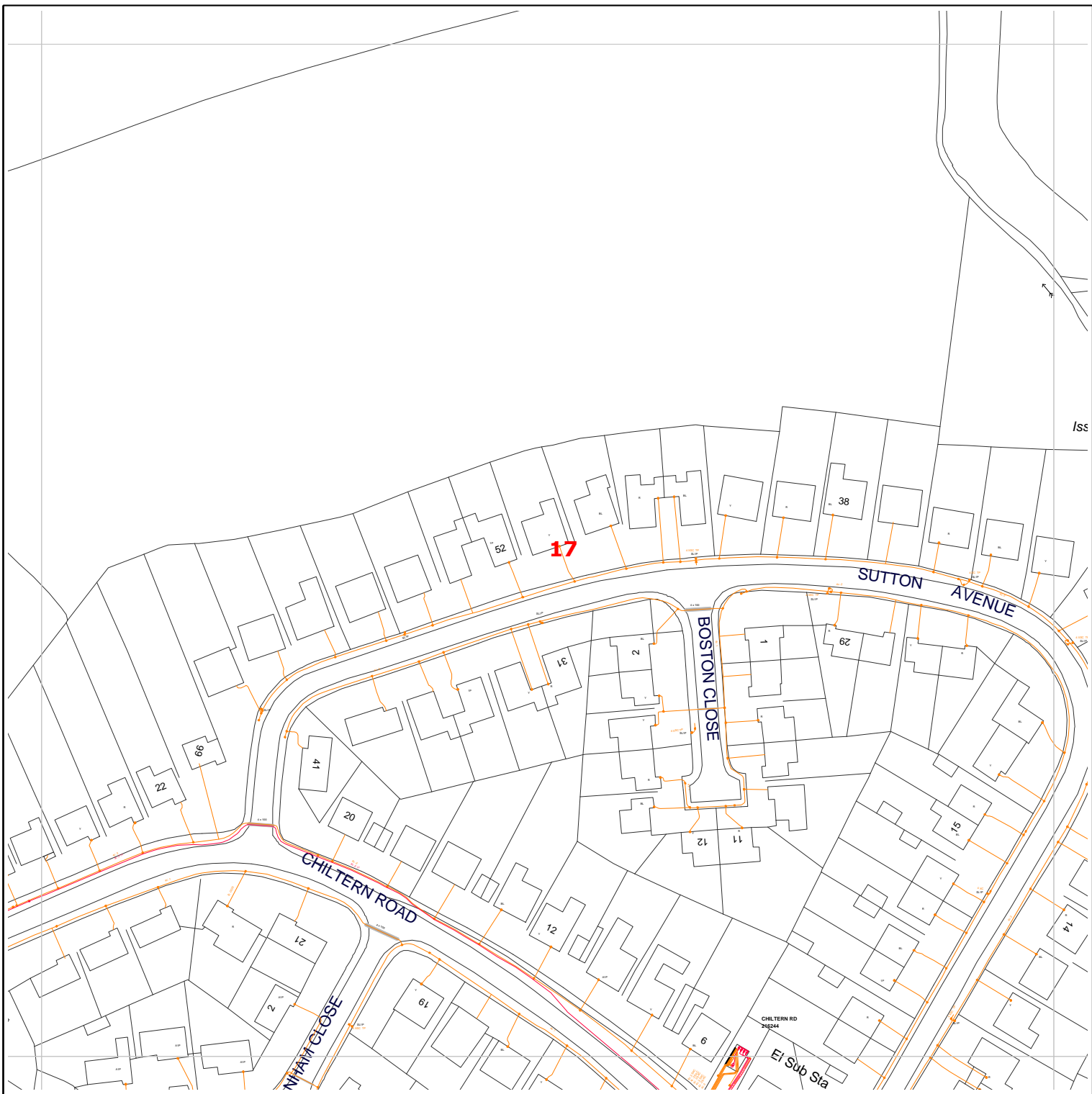
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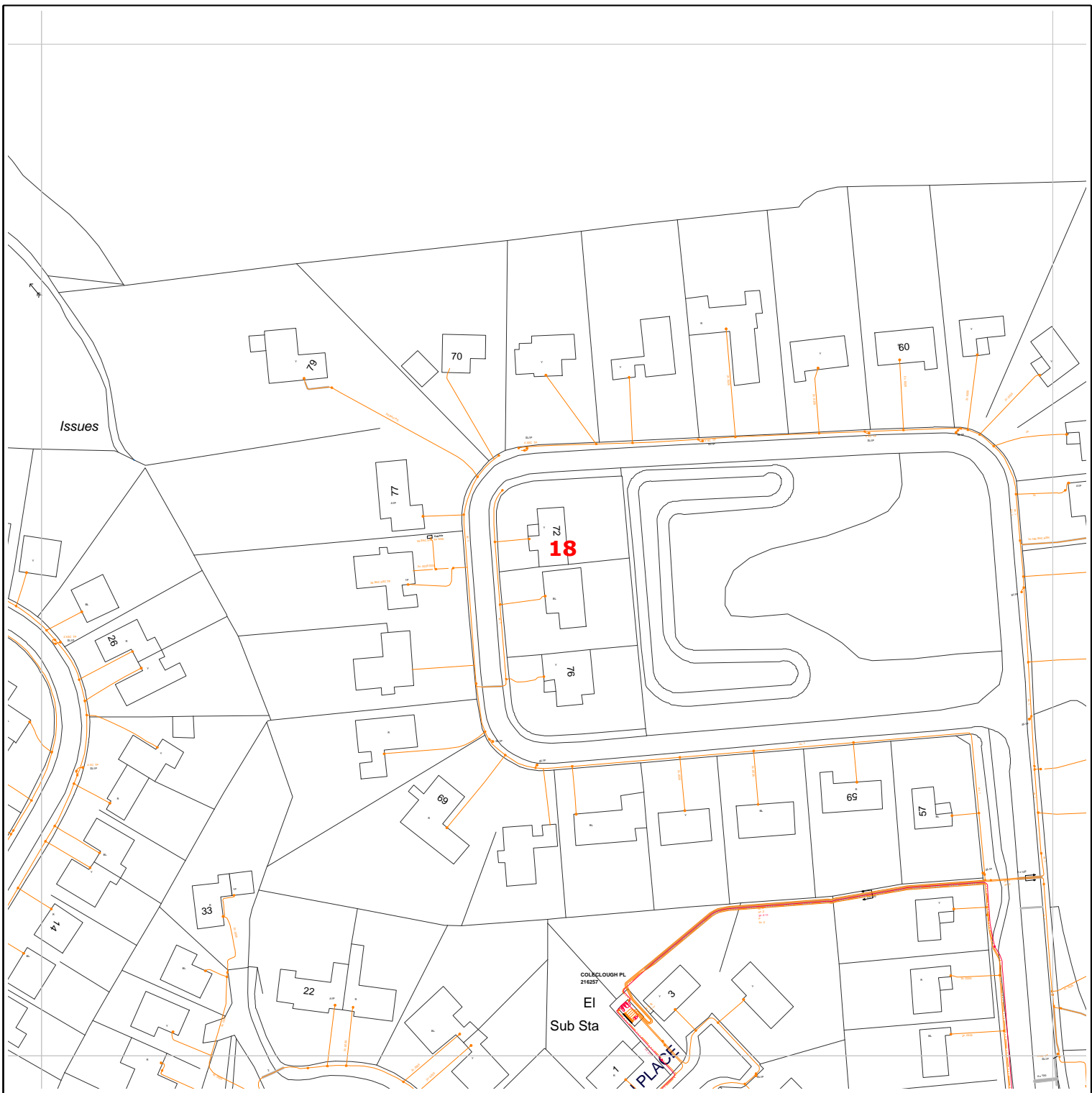
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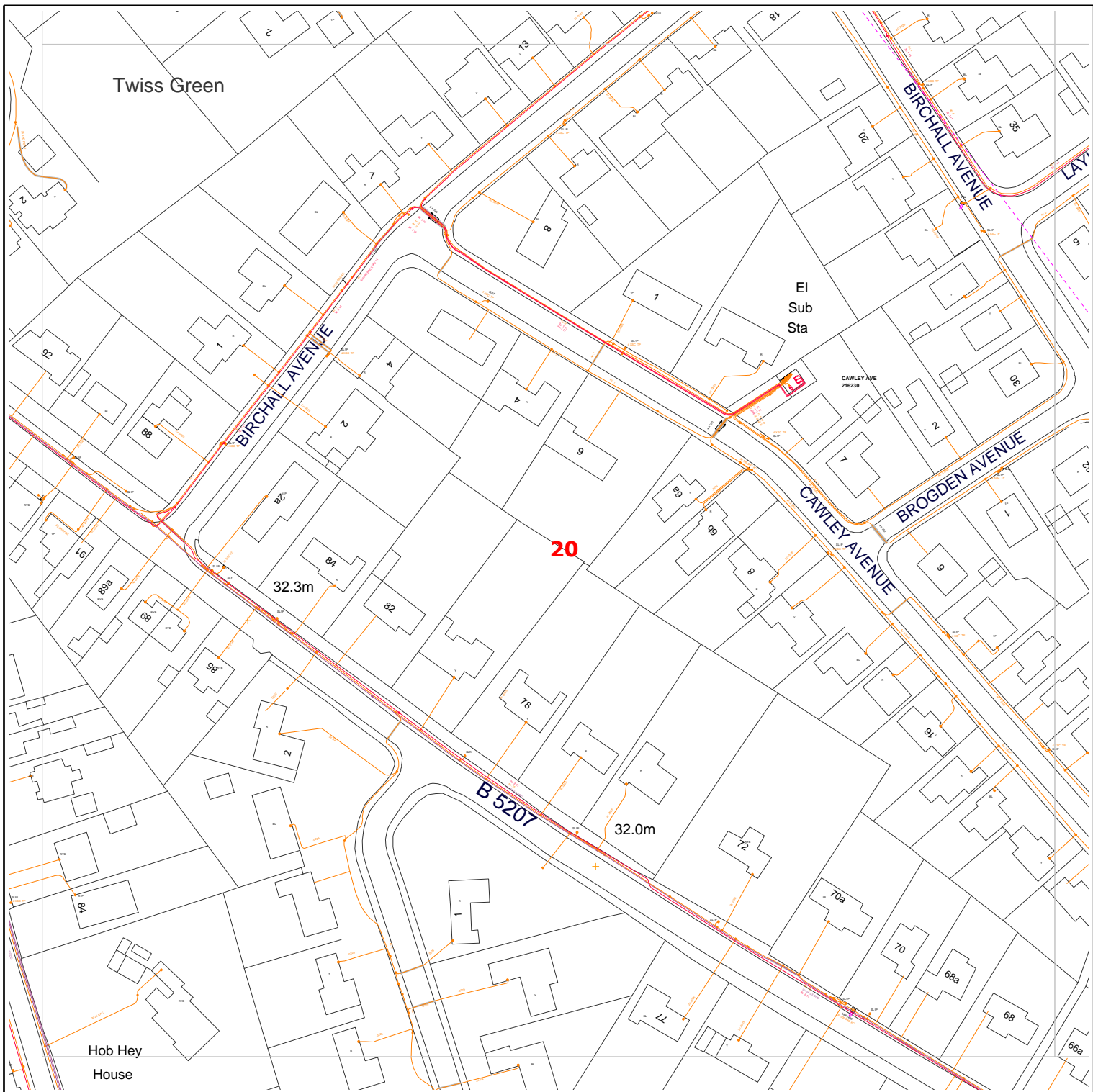
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Scales on A4 paper:
 1:1250 Area dig site
 1:250 Line dig site



Requested by: Shepherd Gilmour
 Company: Shepherd Gilmour Infrastructure L'
 Date Requested: 08/08/2017
 Job Reference: 10978425
 Your Scheme/Reference: Land at Culcheth

Operating Voltage	Colour Code	Line Colour
132kV	Black	
33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



Dig Sites:
 Area Line

Data Management
 Electricity North West
 Linley House
 Dickinson Street
 Manchester, M1 4LF
 Phone: 0800 195 4141
 Email: planrequest@enwl.co.uk

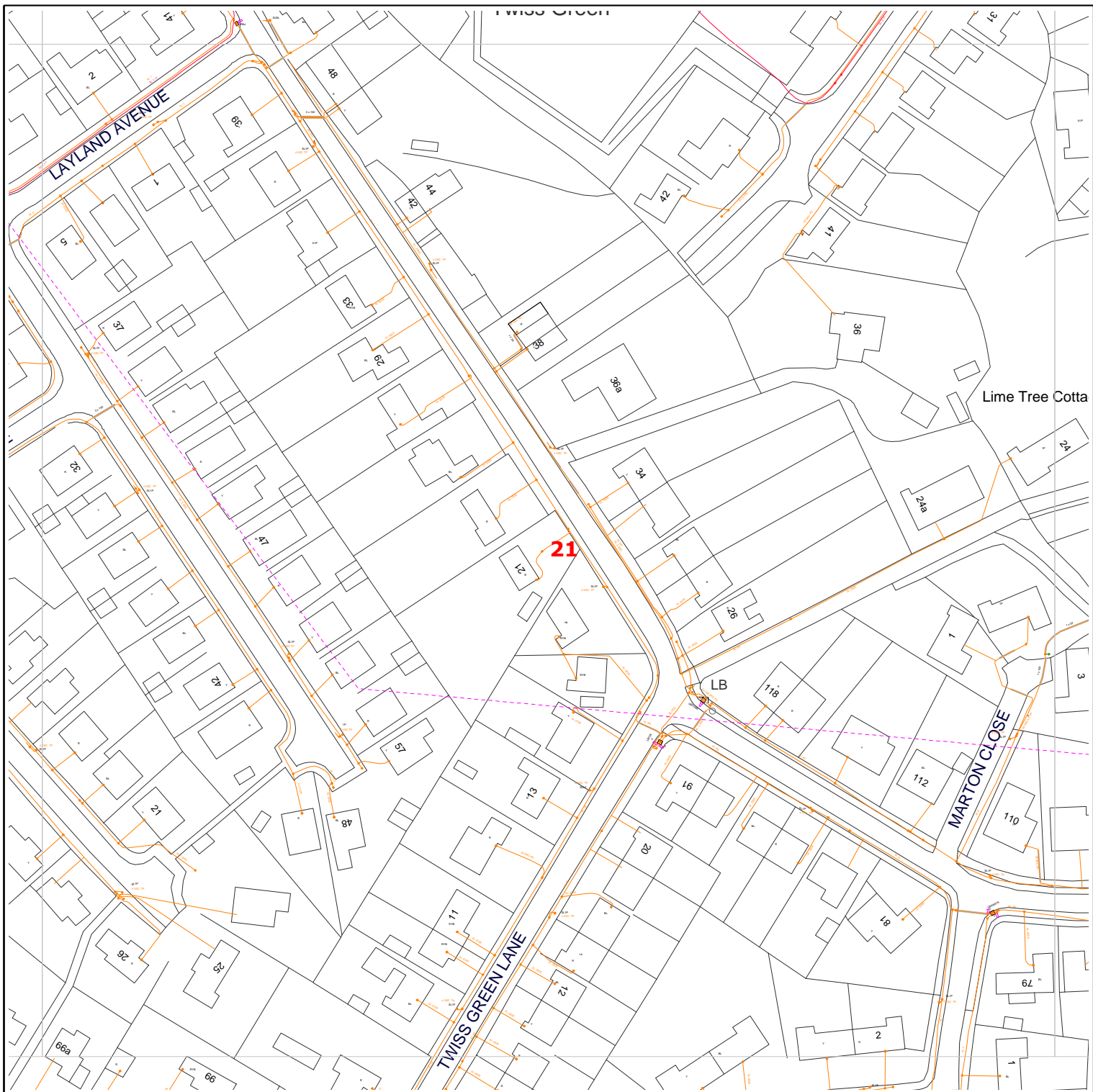
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Unknown Voltage	Brown	



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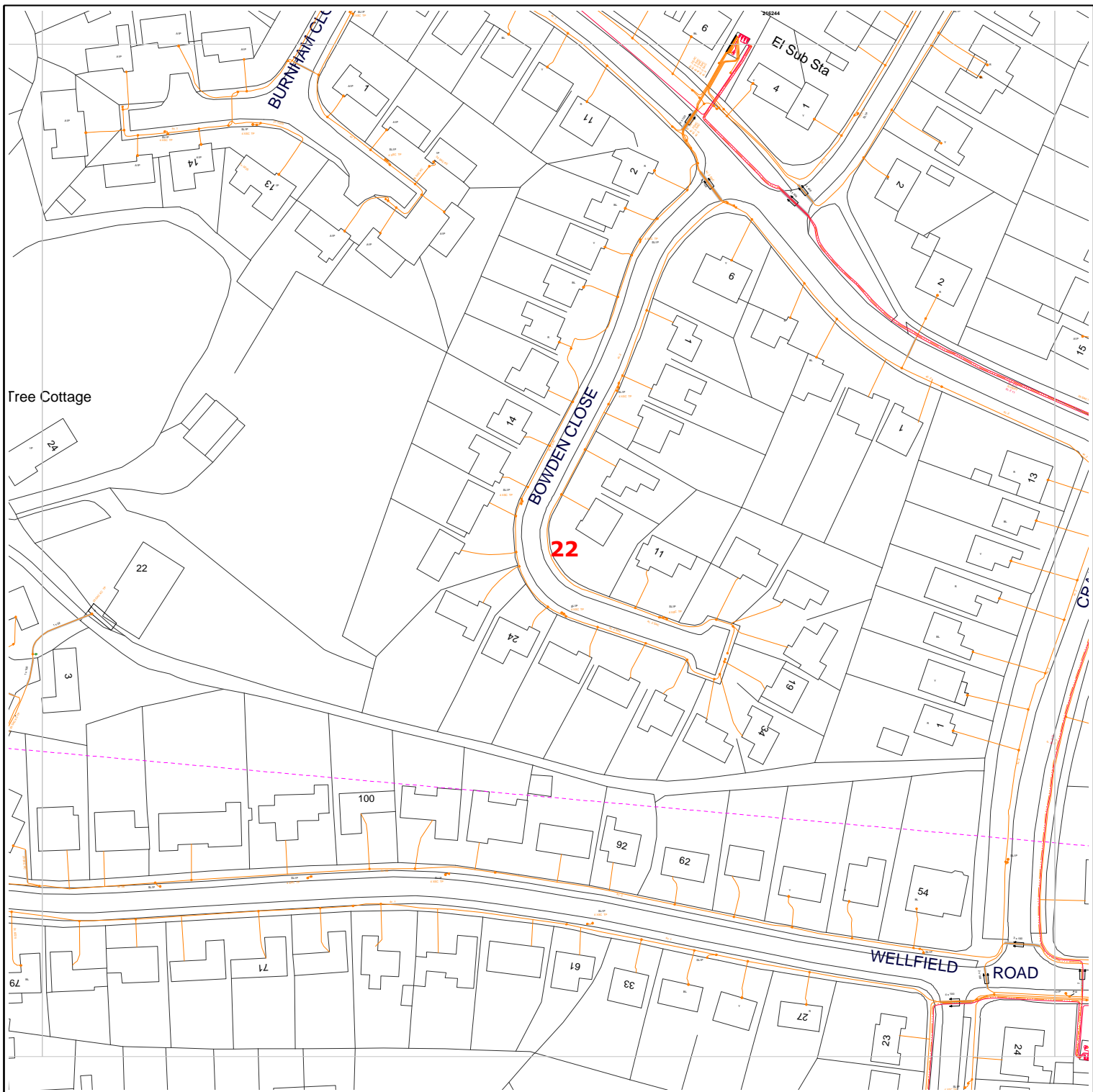
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Unknown Voltage	Brown	



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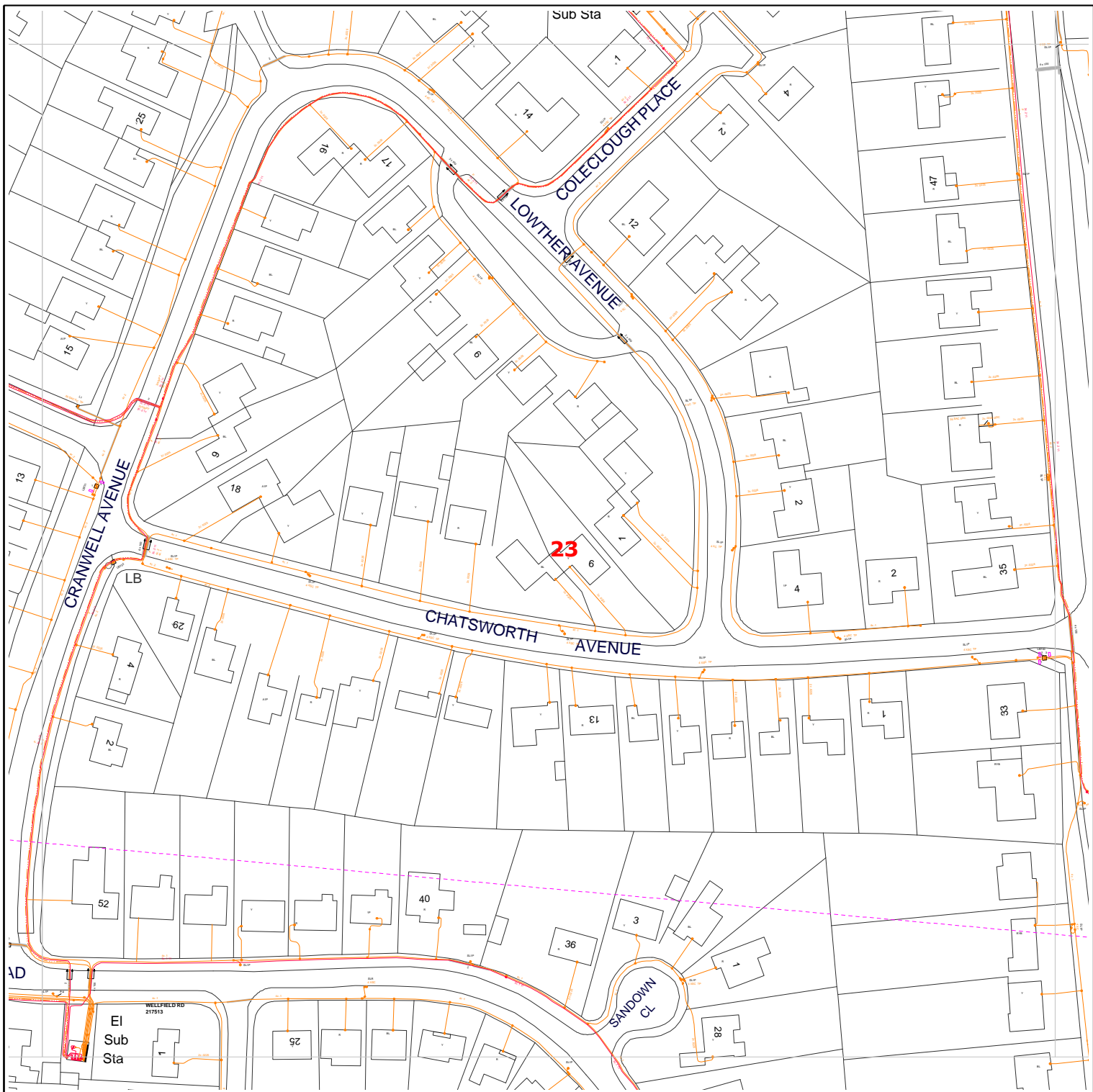
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33kV	Green	
22kV-25kV	Yellow	
11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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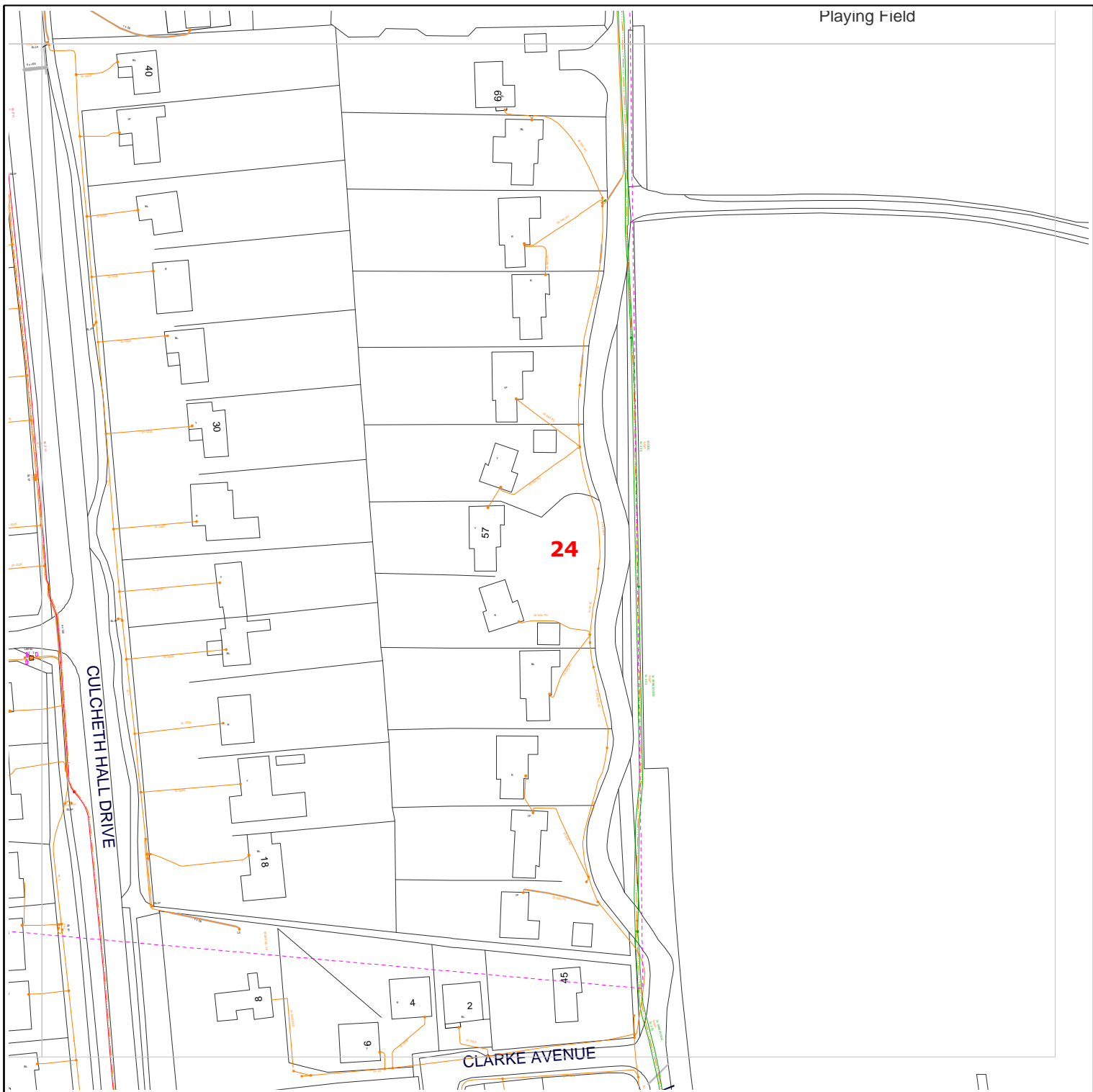
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 Area Line

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11kV	Red	
6kV-6.6kV	Blue	
1kV-6kV	Violet	
LV	Orange	
Unknown Voltage	Brown	



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Shepherd Gilmour
Consulting Engineers

Colchester House, 40 Peter Street, Manchester M2 5GP

(44)0161 837 1500

www.shepherd-gilmour.co.uk

APPENDIX E



Point N

Point M

Point O

Point L

Point P

Point K

Point A

Point J

Point I

Point B

Point C

Point D

Point H

TWISS GREEN

Culcheth High School

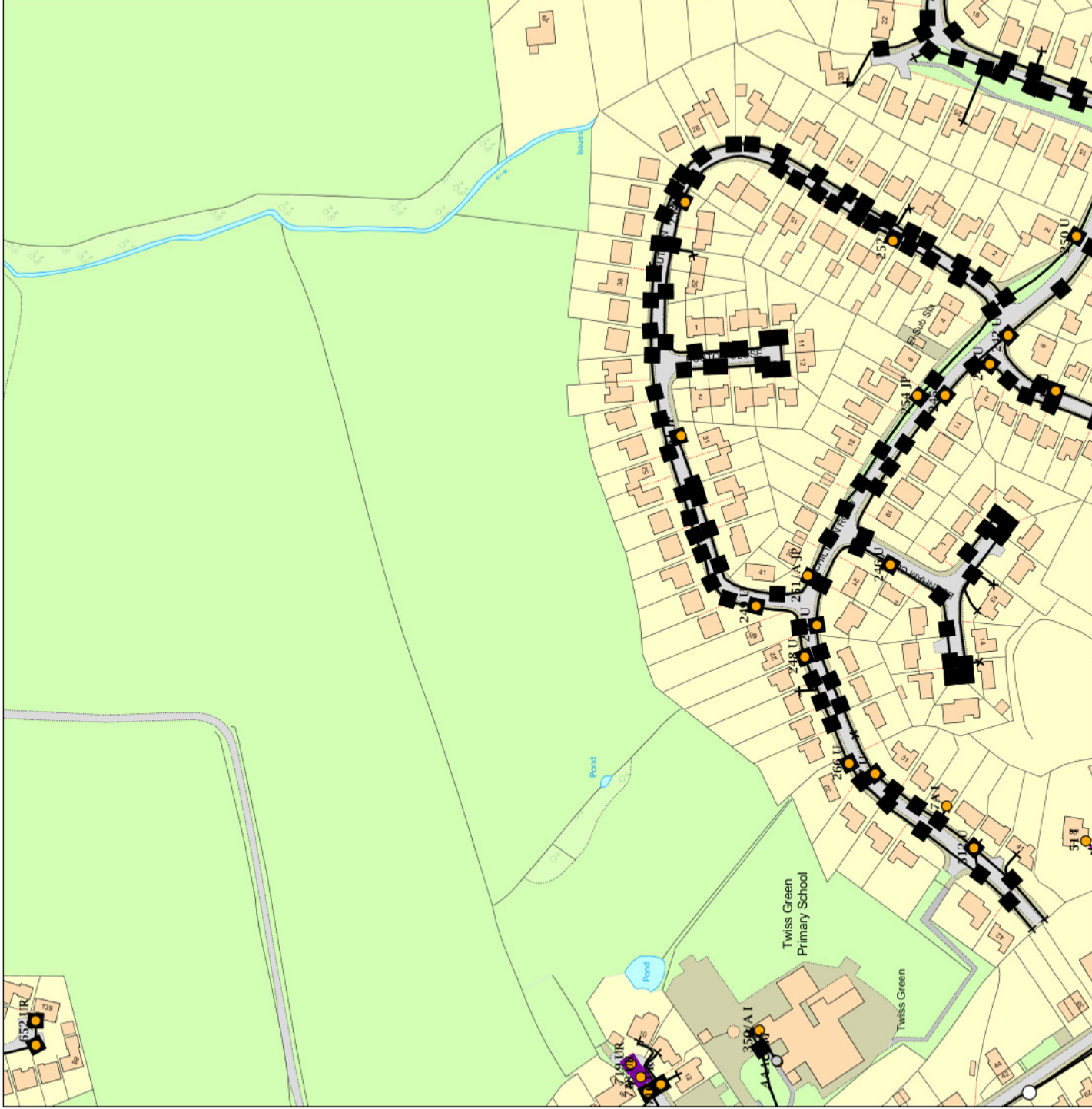
Point G

Warrington Rd

Point F

Holcroft Ln

Maps by email Plant Information Reply



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KEY TO BT SYMBOLS

Planned DP	DP
Planned DP	DP
PCP	PCP
Planned PCP	PCP
Built	Built
Planned	Planned
Inferred	Inferred
Building	Building
Kiosk	Kiosk
Hatchings	Hatchings

Pole	Pole
Planned Pole	Planned Pole
Joint Box	Joint Box
Change Of State	Change Of State
Split Coupling	Split Coupling
Duct Tee	Duct Tee
Planned Box	Planned Box
Manhole	Manhole
Planned Manhole	Planned Manhole
Cabinet	Cabinet
Planned Cabinet	Planned Cabinet

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation



BT Ref : FDA11243X
Map Reference : (centre) SJ654769595Q
Easting/Northing : (centre) 365476,395950
Issued : 08/08/2017 11:24:20

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KEY TO BT SYMBOLS

Planned DP	DP	Planned Pole	Pole
PCP	PCP	Joint Box	Joint Box
Planned PCP	Planned PCP	Change Of State	Change Of State
Built	Built	Split Coupling	Split Coupling
Planned	Planned	Duct Tee	Duct Tee
Inferred	Inferred	Planned Box	Planned Box
Building	Building	Manhole	Manhole
Kiosk	Kiosk	Planned Manhole	Planned Manhole
Hatchings	Hatchings	Cabinet	Cabinet
		Planned Cabinet	Planned Cabinet

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Information valid at time of preparation

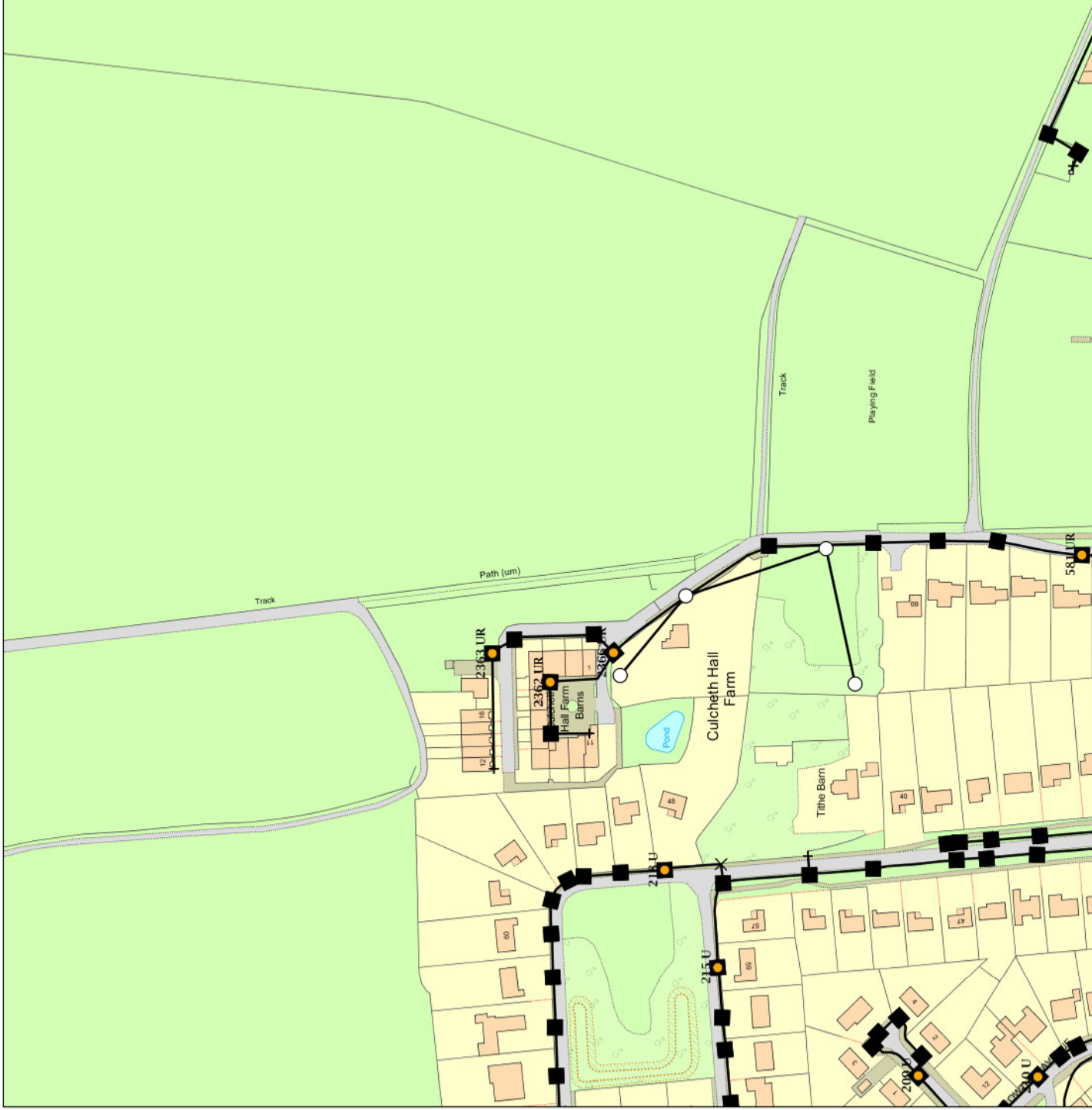
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BT

BT Ref : **WNV11266V**
Map Reference : (centre) **SJ6578096028**
Easting/Northing : (centre) **365 780,396**
Issued : **08/08/2017 11:26:26**

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KEY TO BT SYMBOLS

Planned DP	DP	Planned Pole	Pole
PCP	PCP	Joint Box	Joint Box
Planned PCP	Planned PCP	Change Of State	Change Of State
Built	Built	Split Coupling	Split Coupling
Planned	Planned	Duct Tee	Duct Tee
Inferred	Inferred	Planned Box	Planned Box
Building	Building	Manhole	Manhole
Kiosk	Kiosk	Planned Manhole	Planned Manhole
Hatchings	Hatchings	Cabinet	Cabinet
		Planned Cabinet	Planned Cabinet

Other proposed plant is shown using dashed lines.
BT Symbols not listed above maybe disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation



BT Ref : IVD111261N

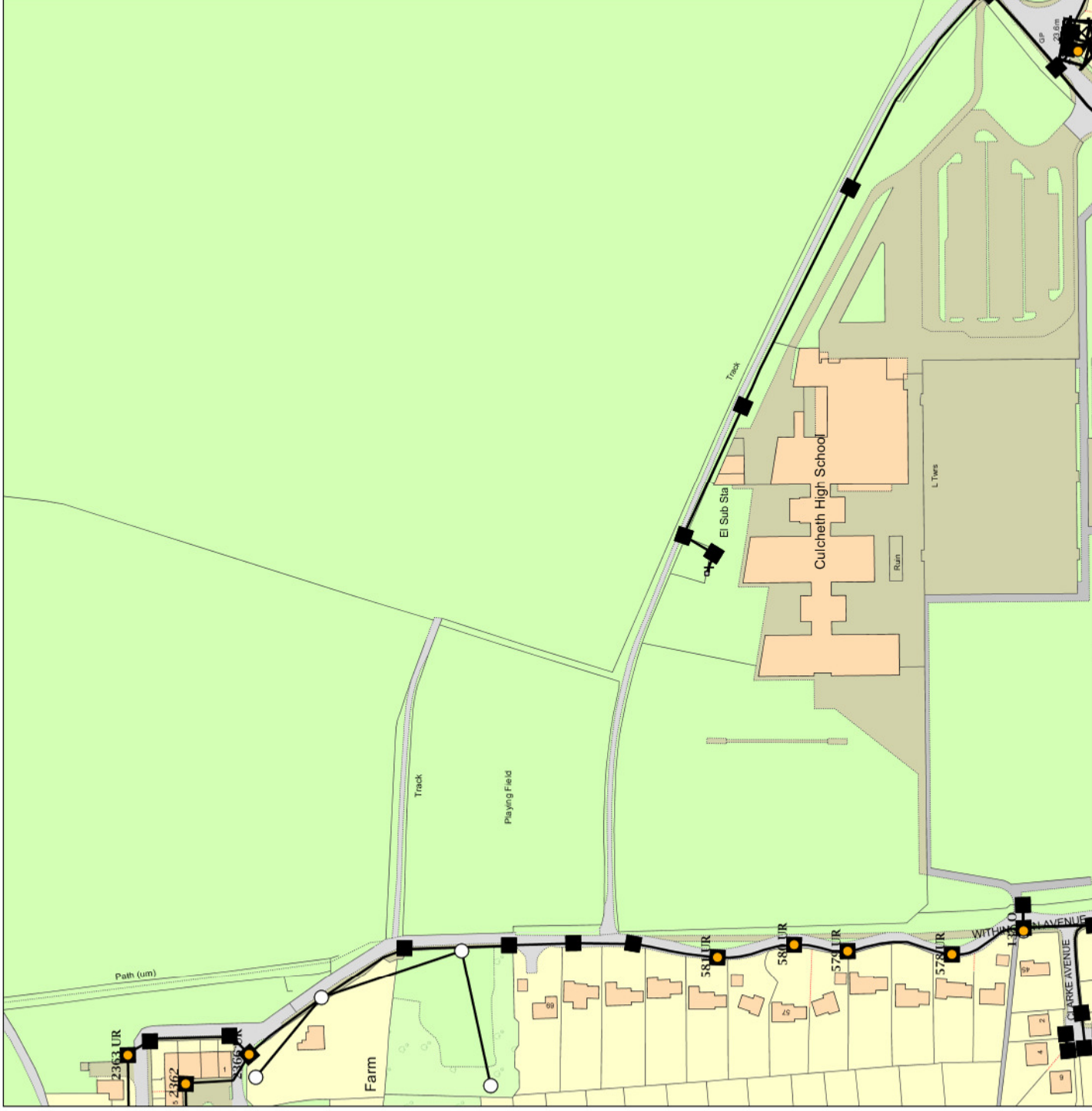
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Easting/Northing : (centre) 366035,395936

Issued : 08/08/2017 11:27:06

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KEY TO BT SYMBOLS

Planned DP	DP
Planned PCP	PCP
Built	Built
Planned	Planned
Inferred	Inferred
Building	Building
Kiosk	Kiosk
Hatchings	Hatchings

Pole	Pole
Planned Pole	Planned Pole
Joint Box	Joint Box
Change Of State	Change Of State
Split Coupling	Split Coupling
Duct Tee	Duct Tee
Planned Box	Planned Box
Manhole	Manhole
Planned Manhole	Planned Manhole
Cabinet	Cabinet
Planned Cabinet	Planned Cabinet

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BT Ref : AUJ11276Y
Map Reference : (centre) SJ6621695769
Easting/Northing : (centre) 366216,395769
Issued : 08/08/2017 11:28:01

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KEY TO BT SYMBOLS

Planned DP	DP	Planned Pole	Pole
PCP	PCP	Joint Box	Joint Box
Built	Built	Change Of State	Change Of State
Planned	Planned	Split Coupling	Split Coupling
Inferred	Inferred	Duct Tee	Duct Tee
Building	Building	Planned Box	Planned Box
Kiosk	Kiosk	Manhole	Manhole
Hatchings	Hatchings	Planned Manhole	Planned Manhole
		Cabinet	Cabinet
		Planned Cabinet	Planned Cabinet

Other proposed plant is shown using dashed lines.
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 Information valid at time of preparation

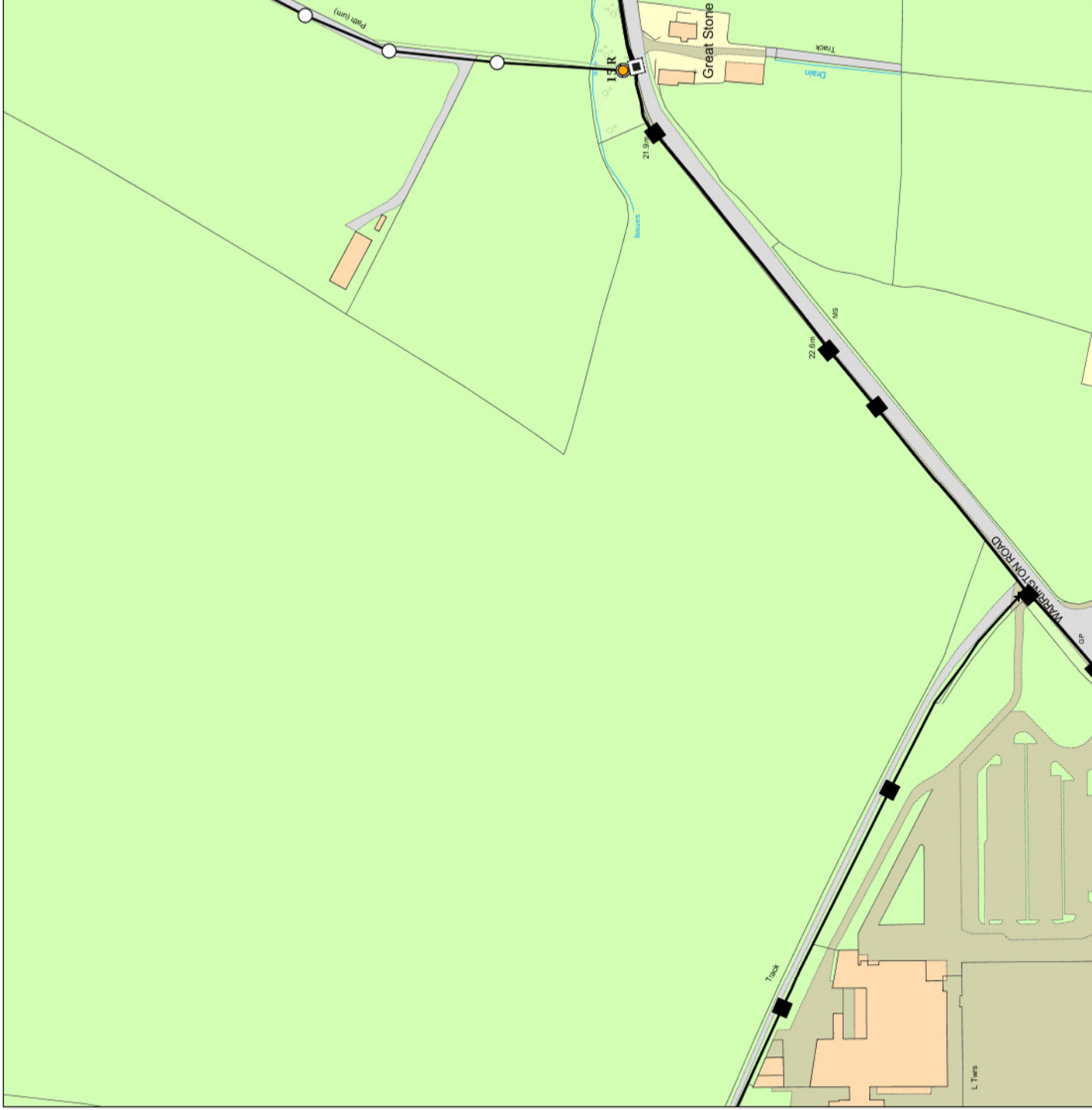
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BT Ref : OZR11293X
 Map Reference : (centre) SJ6649095658
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 Issued : 08/08/2017 11:29:37

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KEY TO BT SYMBOLS

Planned DP	DP	Planned Pole	Pole
PCP	PCP	Joint Box	Joint Box
Planned PCP	Planned PCP	Change Of State	Change Of State
Built	Built	Split Coupling	Split Coupling
Planned	Planned	Duct Tee	Duct Tee
Inferred	Inferred	Planned Box	Planned Box
Building	Building	Manhole	Manhole
Kiosk	Kiosk	Planned Manhole	Planned Manhole
Hatchings	Hatchings	Cabinet	Cabinet
		Planned Cabinet	Planned Cabinet

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BT Ref : UBX11309W
 Map Reference : (centre) SJ6648795787
 Easting/Northing : (centre) 366487,395
 Issued : 08/08/2017 11:30:59

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KEY TO BT SYMBOLS

Planned DP	DP	Planned Pole	Pole
Planned PCP	PCP	Joint Box	Change Of State
Built	Built	Split Coupling	Split Coupling
Planned	Planned	Duct Tee	Duct Tee
Inferred	Inferred	Planned Box	Planned Box
Building	Building	Manhole	Manhole
Kiosk	Kiosk	Planned Manhole	Planned Manhole
Hatchings	Hatchings	Cabinet	Cabinet
		Planned Cabinet	Planned Cabinet

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Information valid at time of preparation



BT Ref : JOR113178

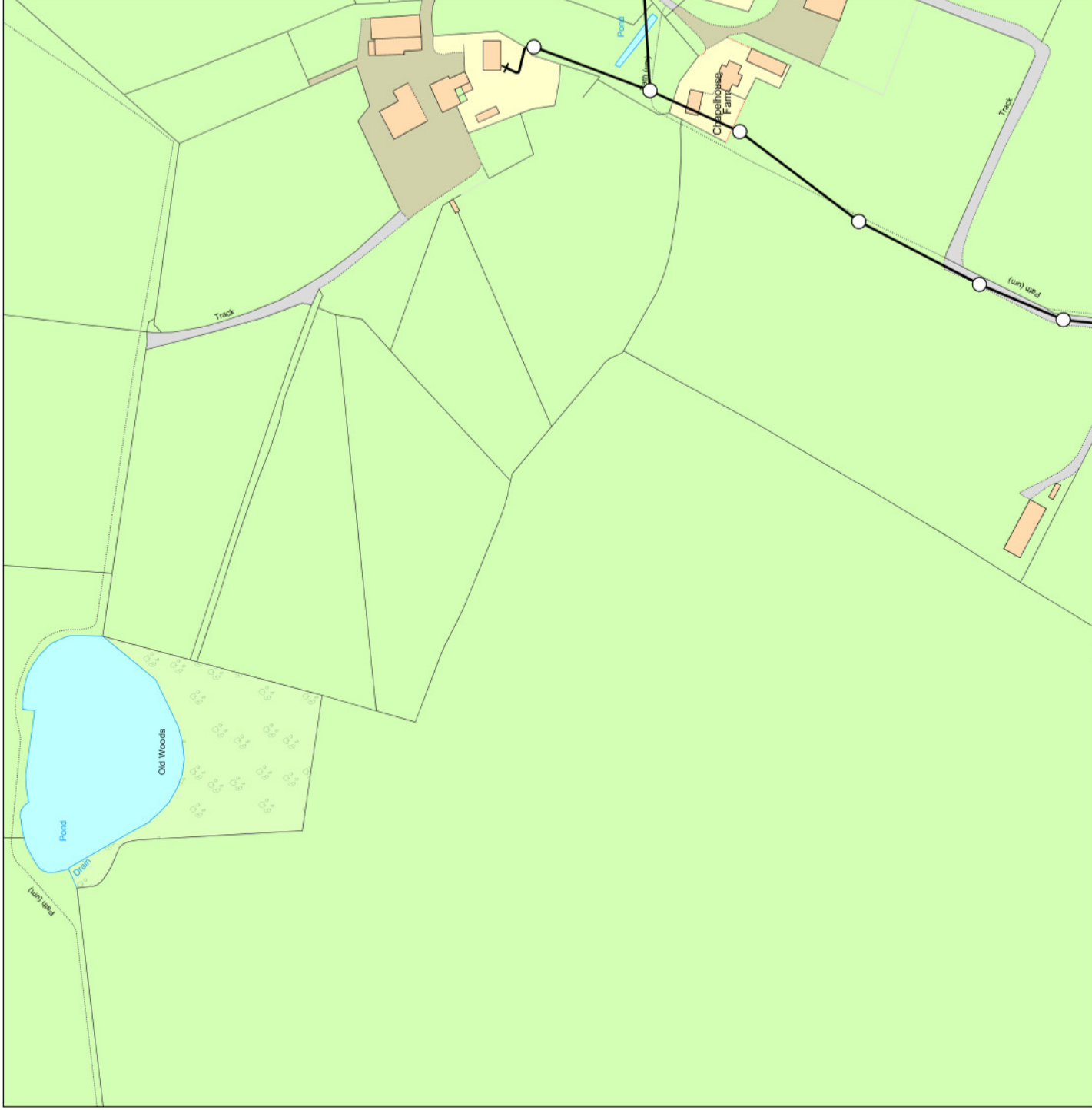
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Easting/Northing : (centre) 366611,395963

Issued : 08/08/2017 11:31:24

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KEY TO BT SYMBOLS

Planned DP	DP
Planned PCP	PCP
Built	Built
Planned	Planned
Inferred	Inferred
Building	Building
Kiosk	Kiosk
Hatchings	Hatchings

Pole	Pole
Planned Pole	Planned Pole
Joint Box	Joint Box
Change Of State	Change Of State
Split Coupling	Split Coupling
Duct Tee	Duct Tee
Planned Box	Planned Box
Manhole	Manhole
Planned Manhole	Planned Manhole
Cabinet	Cabinet
Planned Cabinet	Planned Cabinet

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation



BT Ref : ISA11326B

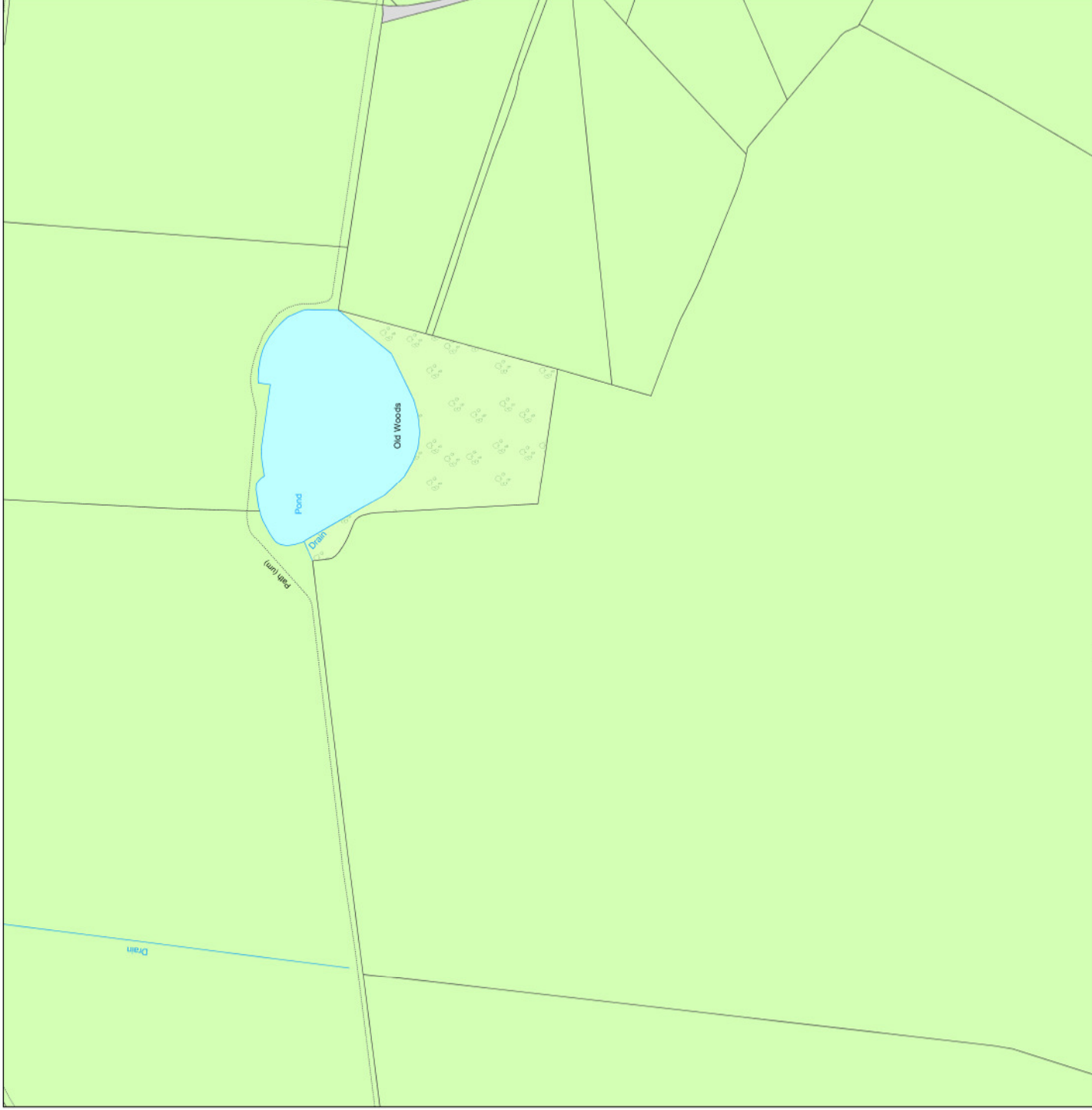
Map Reference : (centre) SJ6660896096

Easting/Northing : (centre) 366608,396609

Issued : 08/08/2017 11:32:41

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply



IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy.

It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.



CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email cbyd@openreach.co.uk

ADVANCE NOTICE REQUIRED

(Office hours: Monday - Friday 08:00 to 17:00)
www.openreach.co.uk/cbyd

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KEY TO BT SYMBOLS

Planned DP	DP	Pole
Planned PCP	PCP	Planned Pole
Built	Built	Joint Box
Planned	Planned	Change Of State
Inferred	Inferred	Split Coupling
Building	Building	Duct Tee
Kiosk	Kiosk	Planned Box
Hatchings	Hatchings	Manhole
		Planned Manhole
		Cabinet
		Planned Cabinet

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation



BT Ref : MVP11331S

Map Reference : (centre) SJ6646196204

Easting/Northing : (centre) 366461,396

Issued : 08/08/2017 11:33:12

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply



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KEY TO BT SYMBOLS

Planned DP	DP	Planned Pole	Pole
PCP	PCP	Joint Box	Joint Box
Built	Built	Change Of State	Change Of State
Planned	Planned	Split Coupling	Split Coupling
Inferred	Inferred	Duct Tee	Duct Tee
Building	Building	Planned Box	Planned Box
Kiosk	Kiosk	Manhole	Manhole
Hatchings	Hatchings	Planned Manhole	Planned Manhole
		Cabinet	Cabinet
		Planned Cabinet	Planned Cabinet

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation



BT Ref : FJW11341F

Map Reference : (centre) SJ6621096250

Easting/Northing : (centre) 366210,396210

Issued : 08/08/2017 11:34:35

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply



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KEY TO BT SYMBOLS

Planned DP	DP
Planned PCP	PCP
Built	Built
Planned	Planned
Inferred	Inferred
Building	Building
Kiosk	Kiosk
Hatchings	Hatchings

Pole	Pole
Planned Pole	Planned Pole
Joint Box	Joint Box
Change Of State	Change Of State
Split Coupling	Split Coupling
Duct Tee	Duct Tee
Planned Box	Planned Box
Manhole	Manhole
Planned Manhole	Planned Manhole
Cabinet	Cabinet
Planned Cabinet	Planned Cabinet

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation



BT Ref : JNS11344H

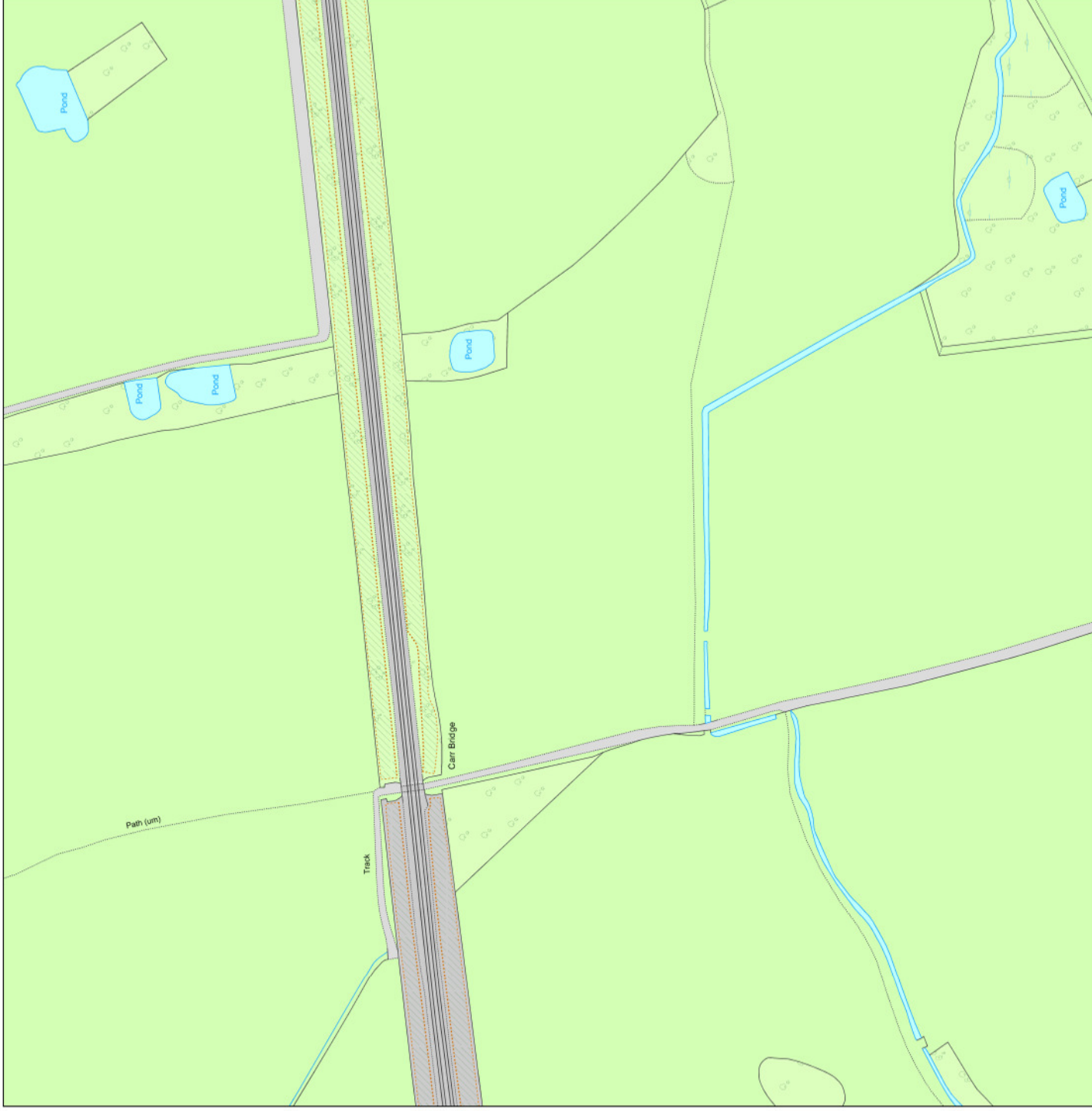
Map Reference : (centre) SJ6608096461

Easting/Northing : (centre) 366080,396080

Issued : 08/08/2017 11:35:02

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply



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KEY TO BT SYMBOLS

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Planned PCP	PCP	Joint Box	Joint Box
Built	Built	Change Of State	Change Of State
Planned	Planned	Split Coupling	Split Coupling
Inferred	Inferred	Duct Tee	Duct Tee
Building	Building	Planned Box	Planned Box
Kiosk	Kiosk	Manhole	Manhole
Hatchings	Hatchings	Planned Manhole	Planned Manhole
		Cabinet	Cabinet
		Planned Cabinet	Planned Cabinet

Other proposed plant is shown using dashed lines.
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Information valid at time of preparation

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a BT Group business



BT Ref : BSH113511C

Map Reference : (centre) SJ6596896679

Easting/Northing : (centre) 365968,3966

Issued : 08/08/2017 11:35:53

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KEY TO BT SYMBOLS

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PCP	PCP	Joint Pole	Joint Pole
Planned PCP	Planned PCP	Change Of State	Change Of State
Built	Built	Split Coupling	Split Coupling
Planned	Planned	Duct Tee	Duct Tee
Inferred	Inferred	Planned Box	Planned Box
Building	Building	Manhole	Manhole
Kiosk	Kiosk	Planned Manhole	Planned Manhole
Hatchings	Hatchings	Cabinet	Cabinet
		Planned Cabinet	Planned Cabinet

Other proposed plant is shown using dashed lines.
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Existing BT Plant may not be recorded.
Information valid at time of preparation



BT Ref : RCQ11377A

Map Reference : (centre) SJ635 4696648

Easting/Northing : (centre) 365 546,396

Issued : 08/08/2017 11:37:19

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

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KEY TO BT SYMBOLS

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PCP	PCP	Joint Box	Joint Box
Planned PCP	Planned PCP	Change Of State	Change Of State
Built	Built	Split Coupling	Split Coupling
Planned	Planned	Duct Tee	Duct Tee
Inferred	Inferred	Planned Box	Planned Box
Building	Building	Manhole	Manhole
Kiosk	Kiosk	Planned Manhole	Planned Manhole
Hatchings	Hatchings	Cabinet	Cabinet
		Planned Cabinet	Planned Cabinet

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation



BT Ref : YCB11376H

Map Reference : (centre) SJ6538396445

Easting/Northing : (centre) 365383,396

Issued : 08/08/2017 11:38:06

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply



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KEY TO BT SYMBOLS

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PCP	PCP	Joint Box	Joint Box
Planned PCP	Planned PCP	Change Of State	Change Of State
Built	Built	Split Coupling	Split Coupling
Planned	Planned	Duct Tee	Duct Tee
Inferred	Inferred	Planned Box	Planned Box
Building	Building	Manhole	Manhole
Kiosk	Kiosk	Planned Manhole	Planned Manhole
Hatchings	Hatchings	Cabinet	Cabinet
		Planned Cabinet	Planned Cabinet

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation



BT Ref : HWO113840

Map Reference : (centre) SJ65333396259

Easting/Northing : (centre) 365333,396259

Issued : 08/08/2017 11:38:27

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk



Shepherd Gilmour
Consulting Engineers

Colchester House, 40 Peter Street, Manchester M2 5GP

(44)0161 837 1500

www.shepherd-gilmour.co.uk

APPENDIX F

Natalia Marsden

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Date: 09/08/2017

[Redacted]

RE: Proposed Works, North West Culcheth, East

Thank you for your enquiry which was received on 09/08/2017.
Please note this response and any attached map(s) are valid for 28 days.

An assessment has been carried out with respect to Cadent Gas Ltd, National Grid Electricity Transmission plc's and National Grid Gas plc's apparatus. Please note it does not cover the items listed in the section "Your Responsibilities and Obligations", including gas service pipes and related apparatus.
For details of Network areas please see the Cadent website (<http://cadentgas.com/Digging-safely/Dial-before-you-dig>) or the enclosed documentation.

As your works are at a "proposed" stage, any maps and guidance provided are for information purposes only. This is not approval to commence work. You must submit a "Scheduled Works" enquiry at the earliest opportunity and failure to do this may lead to disruption to your plans and works. Plant Protection will endeavour to provide an initial assessment within 14 days of receipt of a Scheduled Works enquiry and dependent on the outcome of this, further consultation may be required.

In any event, for safety and legal reasons, works must not be carried out until a Scheduled Works enquiry has been completed and final response received.

Your Responsibilities and Obligations

The "Assessment" Section below outlines the detailed requirements that must be followed when planning or undertaking your scheduled activities at this location.

It is your responsibility to ensure that the information you have submitted is accurate and that all relevant documents including links are provided to all persons (either direct labour or contractors) working for you near Cadent and/or National Grid's apparatus, e.g. as contained within the Construction (Design and Management) Regulations.

This assessment solely relates to Cadent Gas Ltd, National Grid Electricity Transmission plc (NGET) and National Grid Gas plc (NGG) and apparatus. This assessment does **NOT** include:

- Cadent and/or National Grid's legal interest (easements or wayleaves) in the land which restricts activity in proximity to Cadent and/or National Grid's assets in private land. You must obtain details of any such restrictions from the landowner in the first instance and if in doubt contact Plant Protection.
- Gas service pipes and related apparatus
- Recently installed apparatus
- Apparatus owned by other organisations, e.g. other gas distribution operators, local electricity companies, other utilities, etc.

It is **YOUR** responsibility to take into account whether the items listed above may be present and if they could be affected by your proposed activities. Further "Essential Guidance" in respect of these items can be found on the National Grid Website (<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=8589934982>).

This communication does not constitute any formal agreement or consent for any proposed development work; either generally or with regard to Cadent and/or National Grid's easements or wayleaves nor any planning or building regulations applications.

Cadent Gas Ltd, NGG and NGET or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law nor does it supersede the express terms of any related agreements.

If you require further assistance please contact the Plant Protection team via e-mail ([click here](#)) or via the contact details at the top of this response.

Yours faithfully

Plant Protection Team

ASSESSMENT

Affected Apparatus

The apparatus that has been identified as being in the vicinity of your proposed works is:

- National Gas Transmission Pipelines and associated equipment
- Low or Medium pressure (below 2 bar) gas pipes and associated equipment. (As a result it is highly likely that there are gas services and associated apparatus in the vicinity)

Requirements

BEFORE carrying out any work you must:

- Carefully read these requirements including the attached guidance documents and maps showing the location of apparatus.
- Contact the landowner and ensure any proposed works in private land do not infringe Cadent and/or National Grid's legal rights (i.e. easements or wayleaves). If the works are in the road or footpath the relevant local authority should be contacted.
- Ensure that all persons, including direct labour and contractors, working for you on or near Cadent and/or National Grid's apparatus follow the requirements of the HSE Guidance Notes HSG47 - 'Avoiding Danger from Underground Services' and GS6 – 'Avoidance of danger from overhead electric power lines'. This guidance can be downloaded free of charge at <http://www.hse.gov.uk>
- In line with the above guidance, verify and establish the actual position of mains, pipes, cables, services and other apparatus on site before any activities are undertaken.

GUIDANCE

High Pressure Gas Pipelines Guidance:

If working in the vicinity of a high pressure gas pipeline the following document must be followed: 'Specification for Safe Working in the Vicinity of Cadent and/or National Grid High Pressure Gas Pipelines and Associated Installations - Requirements for Third Parties' (SSW22). This can be obtained from: <http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33968>

National High Pressure Gas Pipelines Guidance:

<http://www.nationalgrid.com/NR/rdonlyres/9934F173-04D0-48C4-BE4D-82294822D29C/51893/Above7barGasGuidance.pdf>

Dial Before You Dig Pipelines Guidance:

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33969>

Excavating Safely - Avoiding injury when working near gas pipes:

http://www.nationalgrid.com/NR/rdonlyres/2D2EEA97-B213-459C-9A26-18361C6E0B0D/25249/Digsafe_leaflet3e2finalamends061207.pdf

Standard Guidance

Essential Guidance document:

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=8589934982>

General Guidance document:

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=35103>

Excavating Safely in the vicinity of gas pipes guidance (Credit card):

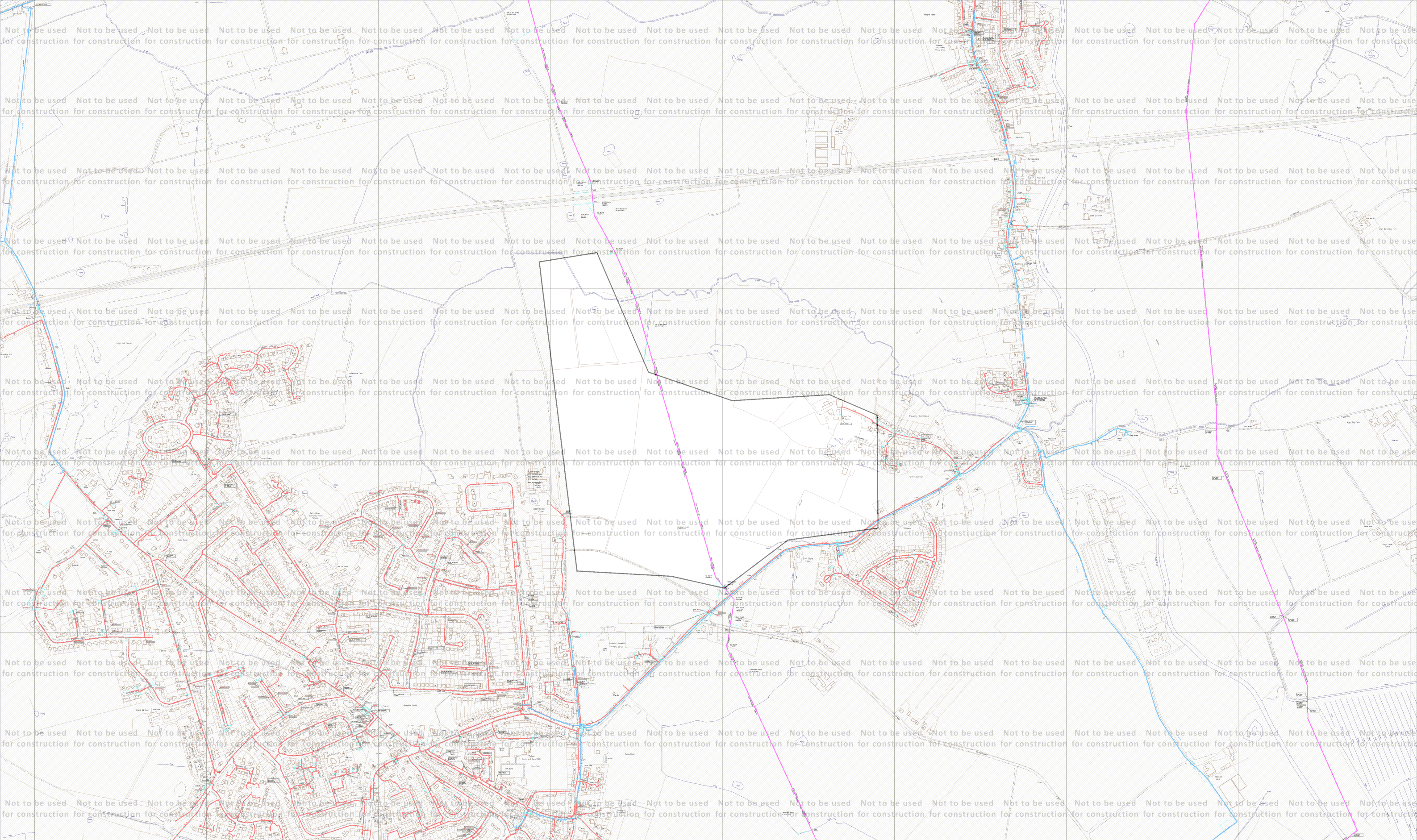
<http://www.nationalgrid.com/NR/rdonlyres/A3D37677-6641-476C-9DDA-E89949052829/44257/ExcavatingSafelyCreditCard.pdf>







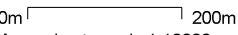






Excavating Safely in the vicinity of electricity cables guidance (Credit card):

<http://www.nationalgrid.com/NR/rdonlyres/35DDEC6D-D754-4BA5-AF3C-D607D05A25C2/44858/ExcavatingSafelyCreditCardelectricitycables.pdf>

Copies of all the Guidance Documents can also be downloaded from the National Grid Website:

<http://www.nationalgrid.com/uk/Gas/Safety/work/downloads/>



ID: NW_TW_Z1_3SWX_353251		View extent: 4120m, 2440m		Map not to be used for construction		Map 1 of 1 (GAS)	
USER: nmarsden		LP MAINS  MP MAINS  IP MAINS  LHP MAINS  NHP MAINS 		This plan shows those pipes owned by National Grid Gas plc in its role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc., are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by National Grid Gas plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.		MAPS Plot Server Version 1.9.0  Your Gas Network Requested by: Shepherd Gilmour Infrastructure	
DATE: 09/08/2017		0m  200m Approximate scale 1:10000 on A3 Colour Landscape				This plan is reproduced from or based on the OS map by National Grid Gas plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved. Ordnance Survey Licence number 100024886	
DATA DATE: 08/08/2017		Some examples of Plant Items:      					
REF: Culcheth East							
MAP REF: SJ6696							
CENTRE: 366460, 396117							

ENQUIRY SUMMARY

Received Date

09/08/2017

Your Reference

Culcheth East

Location

Centre Point: 366460, 396117

X Extent: 988

Y Extent: 978

Postcode: WA3 4AN

Location Description: North West Culcheth, East

Map Options

Paper Size: A3

Orientation: LANDSCAPE

Requested Scale: 10000

Actual Scale: 1:10000 (GAS)

Real World Extents: 4120m x 2440m (GAS)

Recipients

[REDACTED]

Enquirer Details

Organisation Name: Shepherd Gilmour Infrastructure

Contact Name: Natalia Marsden

[REDACTED]

[REDACTED]

[REDACTED]

Description of Works

Currently only in the initial planning stages for potential housing development, East of site

Enquiry Type

Proposed Works

Activity Type

Development Project

Work Types

Work Type: Plans Only

Natalia Marsden

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Date: 09/08/2017

[Redacted]

RE: Proposed Works, Land North East of Culcheth, West

Thank you for your enquiry which was received on 09/08/2017.
Please note this response and any attached map(s) are valid for 28 days.

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If you require further assistance please contact the Plant Protection team via e-mail ([click here](#)) or via the contact details at the top of this response.

Yours faithfully

Plant Protection Team

ASSESSMENT

Affected Apparatus

The apparatus that has been identified as being in the vicinity of your proposed works is:

- National Gas Transmission Pipelines and associated equipment
- Low or Medium pressure (below 2 bar) gas pipes and associated equipment. (As a result it is highly likely that there are gas services and associated apparatus in the vicinity)

Requirements

BEFORE carrying out any work you must:

- Carefully read these requirements including the attached guidance documents and maps showing the location of apparatus.
- Contact the landowner and ensure any proposed works in private land do not infringe Cadent and/or National Grid's legal rights (i.e. easements or wayleaves). If the works are in the road or footpath the relevant local authority should be contacted.
- Ensure that all persons, including direct labour and contractors, working for you on or near Cadent and/or National Grid's apparatus follow the requirements of the HSE Guidance Notes HSG47 - 'Avoiding Danger from Underground Services' and GS6 – 'Avoidance of danger from overhead electric power lines'. This guidance can be downloaded free of charge at <http://www.hse.gov.uk>
- In line with the above guidance, verify and establish the actual position of mains, pipes, cables, services and other apparatus on site before any activities are undertaken.

GUIDANCE

High Pressure Gas Pipelines Guidance:

If working in the vicinity of a high pressure gas pipeline the following document must be followed: 'Specification for Safe Working in the Vicinity of Cadent and/or National Grid High Pressure Gas Pipelines and Associated Installations - Requirements for Third Parties' (SSW22). This can be obtained from: <http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33968>

National High Pressure Gas Pipelines Guidance:

<http://www.nationalgrid.com/NR/rdonlyres/9934F173-04D0-48C4-BE4D-82294822D29C/51893/Above7barGasGuidance.pdf>

Dial Before You Dig Pipelines Guidance:

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33969>

Excavating Safely - Avoiding injury when working near gas pipes:

http://www.nationalgrid.com/NR/rdonlyres/2D2EEA97-B213-459C-9A26-18361C6E0B0D/25249/Digsafe_leaflet3e2finalamends061207.pdf

Standard Guidance

Essential Guidance document:

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=8589934982>

General Guidance document:

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=35103>

Excavating Safely in the vicinity of gas pipes guidance (Credit card):

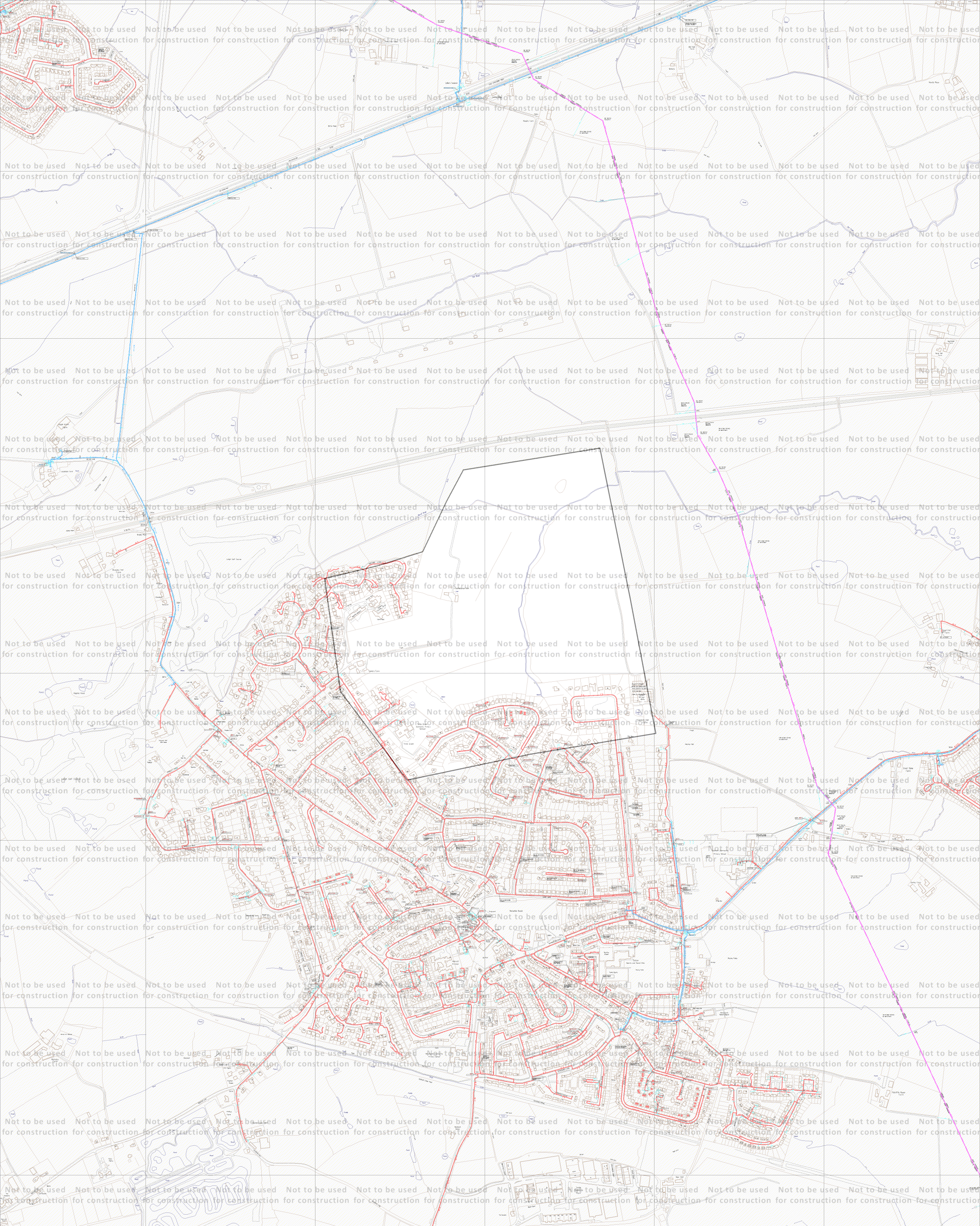
<http://www.nationalgrid.com/NR/rdonlyres/A3D37677-6641-476C-9DDA-E89949052829/44257/ExcavatingSafelyCreditCard.pdf>

Excavating Safely in the vicinity of electricity cables guidance (Credit card):

<http://www.nationalgrid.com/NR/rdonlyres/35DDEC6D-D754-4BA5-AF3C-D607D05A25C2/44858/ExcavatingSafelyCreditCardelectricitycables.pdf>

Copies of all the Guidance Documents can also be downloaded from the National Grid Website:

<http://www.nationalgrid.com/uk/Gas/Safety/work/downloads/>



ID: NW_TW_Z1_3SWX_353246
 USER: nmarsden
 DATE: 09/08/2017
 DATA DATE: 08/08/2017
 REF: Culcheth West
 MAP REF: SJ6596
 CENTRE: 365516, 396177

View extent: 2890m, 3670m

LP MAINS
 MP MAINS
 IP MAINS
 LHP MAINS
 NHP MAINS

0m 200m
 Approximate scale 1:10000
 on A3 Colour Portrait

Map not to be used for construction

This plan shows those pipes owned by National Grid Gas plc in its role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc., are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by National Grid Gas plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

Map 1 of 1 (GAS)

MAPS Plot Server Version 1.9.0

Cadent
 Your Gas Network

Requested by: Shepherd Gilmore Infrastructure

Some examples of Plant Items:

Valve	Depth of Cover	Syphon	Diameter Change	Material Change	Out of Standard Service

This plan is reproduced from or based on the OS map by National Grid Gas plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved. Ordnance Survey Licence number 100024886

ENQUIRY SUMMARY

Received Date

09/08/2017

Your Reference

Culcheth West

Location

Centre Point: 365516, 396176

X Extent: 980

Y Extent: 995

Postcode: WA3 4AN

Location Description: Land North East of Culcheth, West

Map Options

Paper Size: A3

Orientation: PORTRAIT

Requested Scale: 10000

Actual Scale: 1:10000 (GAS)

Real World Extents: 2890m x 3670m (GAS)

Recipients

[REDACTED]

Enquirer Details

Organisation Name: Shepherd Gilmour Infrastructure

Contact Name: Natalia Marsden

[REDACTED]

[REDACTED]

[REDACTED]

Description of Works

Currently only in the initial planning stages for potential housing development- west of the site

Enquiry Type

Proposed Works

Activity Type

Development Project

Work Types

Work Type: Plans Only



Shepherd Gilmour
Consulting Engineers

Colchester House, 40 Peter Street, Manchester M2 5GP

(44)0161 837 1500

www.shepherd-gilmour.co.uk

APPENDIX G

M15 4LZ

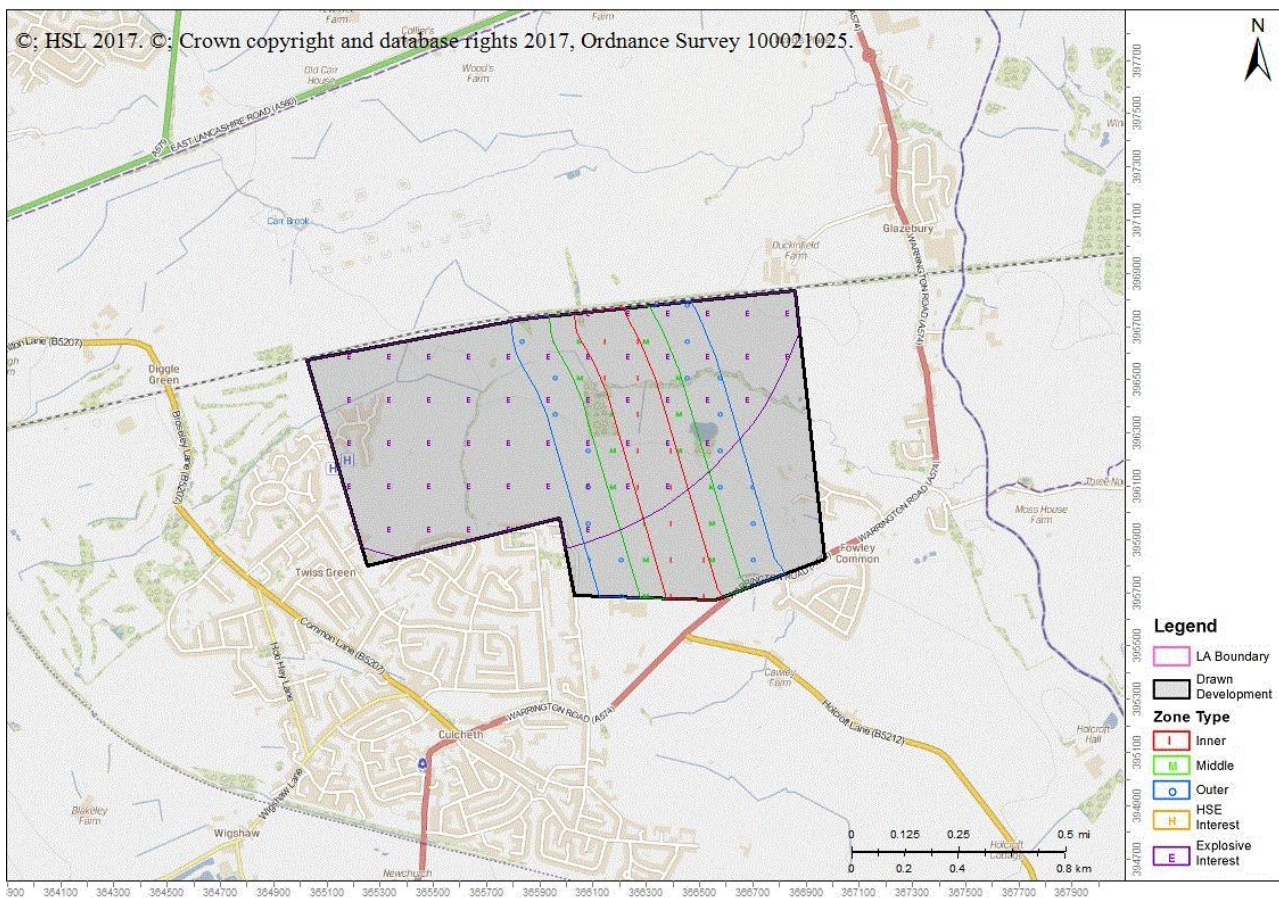
Advice : HSL-170814100504-432 Crosses Consultation Zone

Please enter further details about the proposed development by continuing with the enquiry on the HSE's Planning Advice Web App from the Previous Enquiries tab either now or at a later time, unless the Web App has stopped the process and notified you to contact HSE.

Your Ref: Land at Culcheth

Development Name:

Comments:



Commercial In Confidence

The proposed development site which you have identified currently lies within the consultation distance (CD) of at least one major hazard site and/or major accident hazard pipeline; HSE needs to be consulted on any developments on this site.

This advice report has been generated using information supplied by Dean O'Reilly at Shepherd Gilmour Infrastructure on 14 August 2017.

You will also need to contact the pipeline operator as they may have additional constraints on development near their pipeline.

- 6754_1038 National Grid Gas PLC

HSL/HSE accepts no liability for the accuracy of the pipeline routing data received from a 3rd party. HSE/HSL also accepts no liability if you do not consult with the pipeline operator.

You may wish to contact HSE's Planning Advice team to discuss the above enquiry result on 01298 218159 or by email at lupenquiries@hsl.gsi.gov.uk.

Shepherd Gilmour Infrastructure
Castlefield House, 29 Ellesmere Street,
Manchester



M15 4LZ

Advice : HSL-170814100504-432 Crosses Explosive Safeguarding Zones

Your Ref: Land at Culcheth

Development Name:

Comments:

The site which you have identified currently lies within one or more Explosives Safeguarding Zones; please contact the HSE Explosives Inspectorate.

The Explosives Inspectorate can be contacted at:

Health and Safety Executive

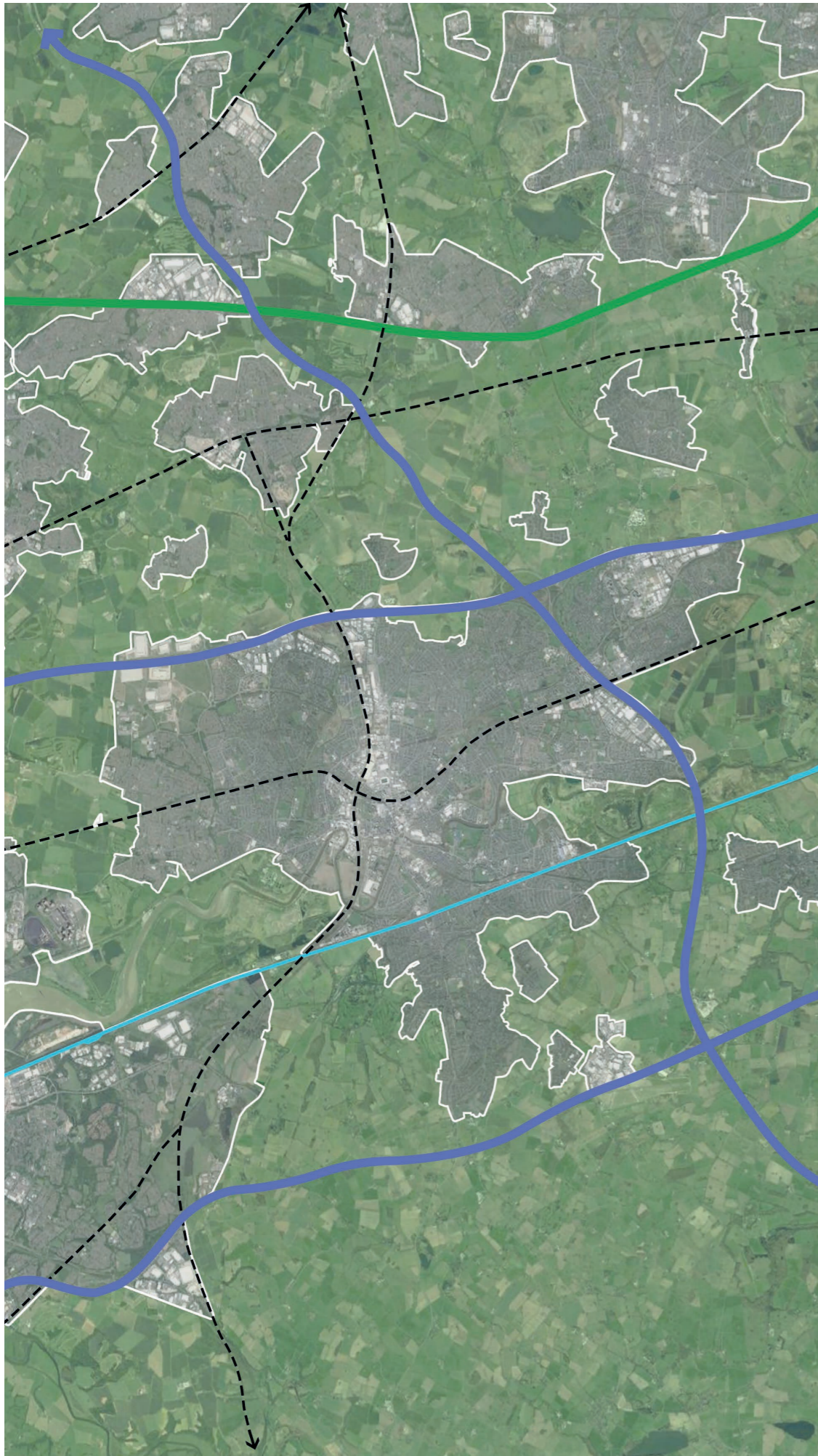


Commercial In Confidence

Please note that this advice is based on the specific information provided by Dean O'Reilly on behalf of Shepherd Gilmour Infrastructure and the explosive safeguarding zone data held by HSE on this date.



Land North East of Culcheth Warrington



Landscape, Townscape and
Visual Sensitivity Assessment
and Development Appraisal



**RANDALL
THORP**

November 2021

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Randall Thorp Document Control

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Overview

Randall Thorp LLP has been commissioned by Peel Holdings to produce a Landscape, Townscape and Visual sensitivity assessment.

This report has been prepared in response to the proposed allocation of sites within Warrington Borough Council's Updated Proposed Submission Version Local Plan (2021) (UPSVLP).

These reports will assist in demonstrating the need for new residential development within the outlying settlements of the Borough, and broadly appraise the suitability of these outlying settlements to accommodate new residential development in relation to landscape character, townscape character and visual sensitivity.

Introduction

The purpose of this report is to provide an assessment of the landscape, townscape and visual sensitivity of the Land North East of Culcheth site and demonstrates the sites ability to accommodate development in principle without undue impacts on the surrounding landscape.

This report has been prepared in response to the Warrington Borough Council Local Plan Settlement Profiles – Outlying Settlements document, published in July 2017, which states that a sustainable settlement extension to Culcheth *“could have detrimental impacts on Green Belt and the character of Culcheth”*.

The settlement of Culcheth is located within the north eastern part of the Borough, close to the junction of the M6 and M62 to the south west and the A580 to the north. The site is located immediately adjacent to the settlement of Culcheth, enclosed by residential development to the south and west, and by the wooded embankment of the Manchester to Liverpool railway line to the north. The strategic location of Culcheth within the Warrington Borough and the site location are shown on **Figure 1** (Page 5).

This report considers the existing character and visibility of the site. The report reviews the landscape, adjacent townscape and visual baseline in order to provide evidence to support the allocation of the site and inform the future masterplanning of the site for residential development.

An illustrative masterplan is provided to demonstrate one possible solution for the development of the site indicating the findings of this report.

The site is located in Landscape Character Type 1: Undulating Enclosed Farmland. **Volume 1: Analysis of the Warrington Landscape Character Assessment, 2007** considers this Landscape Character Type to be suitable for new development. **Volume 2: Landscape, townscape and visual appraisal of the outlying settlements and individual SHLAA sites** considers this site suitable for development with landscape, townscape and visual mitigation.

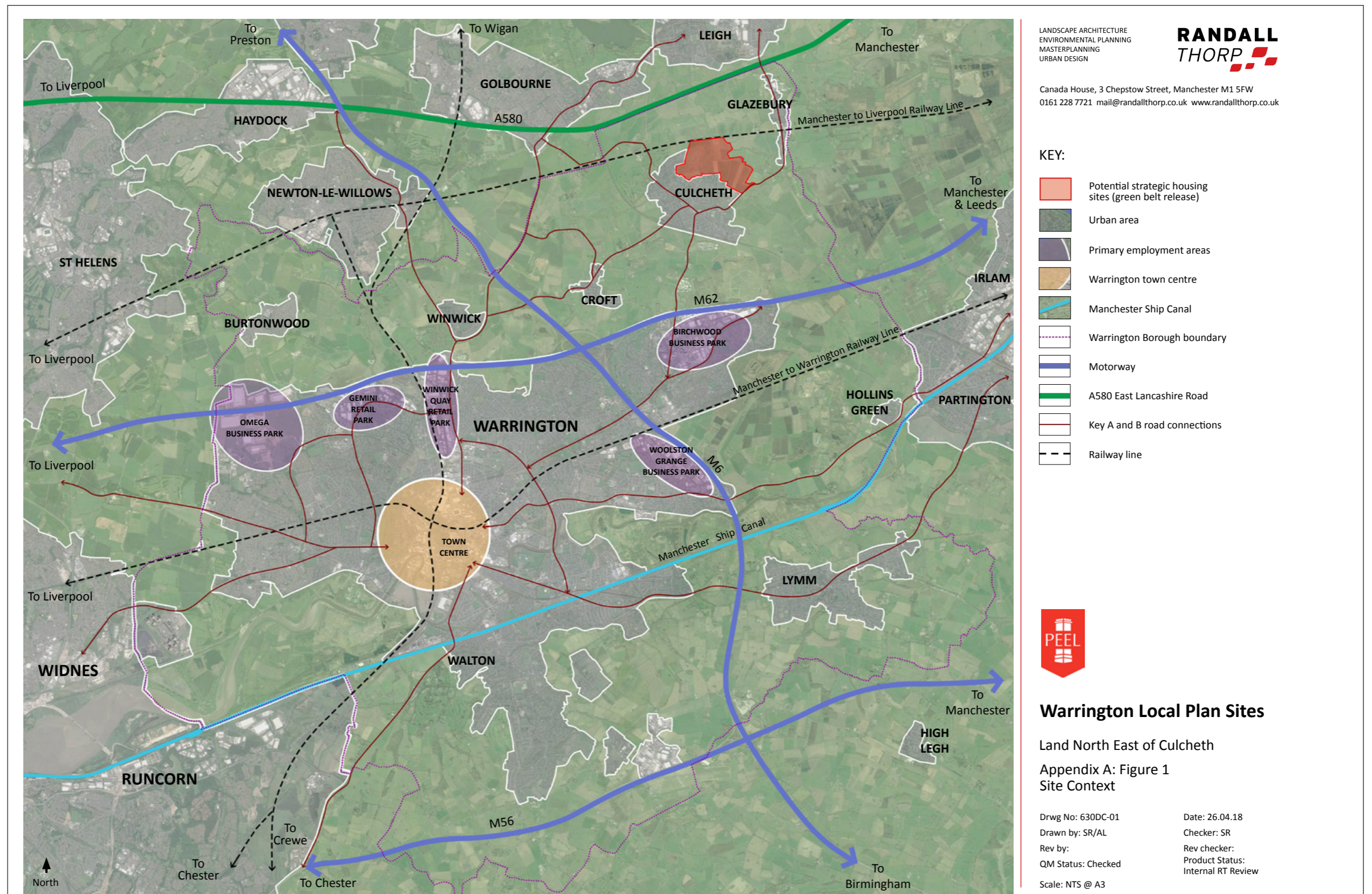


Figure 1 - Site context

Methodology

Guidance

This Landscape, Townscape and Visual Sensitivity Assessment has been prepared in accordance with “Guidelines for Landscape and Visual Impact Assessment” (GLVIA3), Third Edition. These guidelines explain that it is necessary to tailor Landscape and Visual Appraisals to the specific nature of the proposals, and that a prescriptive approach should not be applied.

Study area

For the purposes of the report a landscape study area, which encompasses the site and its surrounding landscape and townscape context has been adopted. **Figure 2** (Page 7) illustrates the study area.

Approach

An appropriate level of assessment has been carried out for the purposes of demonstrating that the site is suitable for allocation.

The principle objectives of the assessment are:

- Identify the planning policy constraints;
- Consider the published Landscape Character Assessments;
- An evaluation of the landscape and townscape character;
- Identify visual receptors;
- Describe and evaluate the existing landscape character of the site and its immediate surroundings;
- Assess the landscape and visual sensitivity of the site and its immediate surroundings; and
- Advise on the development potential of the site, taking into account the landscape and visual sensitivity and the evaluation of the adjoining townscape as set out above.

Baseline studies

The baseline study identifies the landscape, townscape and visual character and components of the site within the study area shown in **Figure 2** (Page 7).

The following documents have been reviewed as part of the desk study:

- Landscape Institute and the Institute of Environmental Management and Assessment – Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition (2013);
- Landscape Institute Townscape Character Assessment Technical Information Note 05/2017
- Warrington: A Landscape Character Assessment – Prepared 2007 (Warrington LCA, 2007)
- Warrington Local Plan Core Strategy – Adopted July 2014
- Warrington Borough Council PSLP (2019)
- Warrington Borough Council Local Plan – Settlement Profiles July 2017
- Culcheth (Former Newchurch Hospital) Conservation Area Leaflet – December 2000

Initial field work was undertaken in April 2018; the field work establishes an understanding of the landscape within and around the site, its component parts and subdivisions, as well as the contribution currently made by different areas in terms of landscape quality and character, value, green infrastructure functions and accessibility. It also establishes the visual baseline to identify the range of views of the site, and whether there are any public viewpoints which are important in terms of appreciating the character of the site.

Photographs have been taken from publicly accessible locations as an aide memoire.

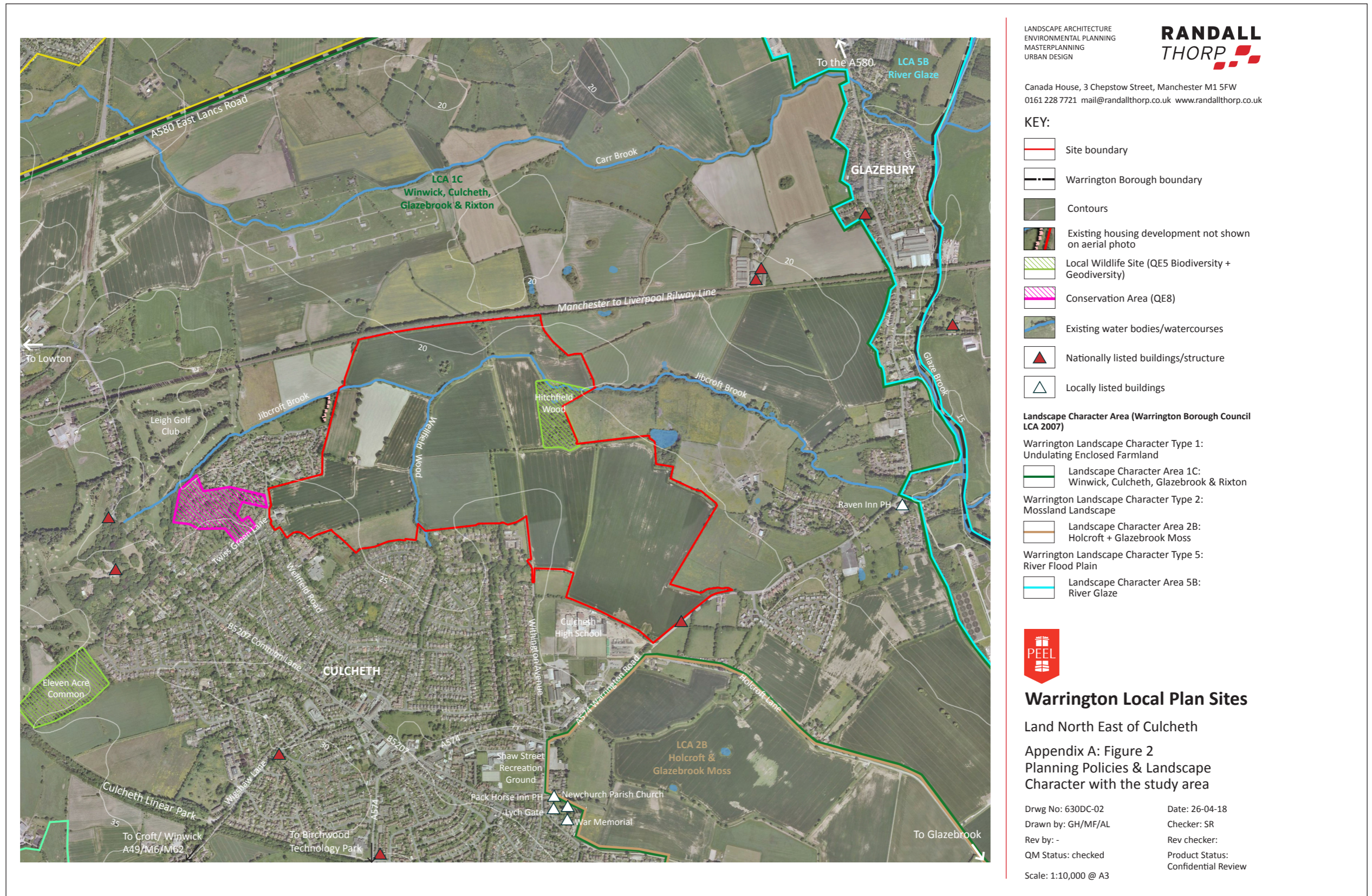


Figure 2 - Planning policies and landscape character within the study area

Methodology for appraising the sensitivity of the landscape

The guidance in GLVIA3 underpins the complete process of landscape and visual impact assessment and states that the value of the landscape should be considered as part of the baseline studies. ‘Landscape value’ and ‘susceptibility to change’ are taken into account when establishing the overall sensitivity of a landscape prior to making an assessment of the landscape impacts. In broad terms landscape ‘sensitivity’ is defined as a considered combination of the value of the landscape with its susceptibility to change.

GLVIA3 suggests two approaches to determining landscape value, the first applies to areas where there are existing landscape characterisation studies and where there are landscape designations in place, and the second applies when there is no existing evidence base. It goes on, however to suggest (para 5.29) that in practice a combination of these approaches is most effective.

In the case of this settlement there is a published assessment, Warrington: A Landscape Character Assessment (LCA) (Prepared in 2007), which sets out the key landscape characters in the Warrington Borough. This LCA does not attach any values to any particular landscape type or landscape area. It is an objective assessment of the 2007 landscapes within Warrington Borough.

In addition Box 5.1 on page 84 of GLVIA lists a range of factors that are generally agreed to help in valuing landscapes.

Box 5.1

Range of factors that can help in the identification of valued landscapes

- **Landscape quality (condition):** A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.
- **Scenic quality:** The term used to describe landscapes that appeal primarily to the senses (primarily but not wholly the visual senses).
- **Rarity:** The presence of rare elements or features in the landscape or the presence of a rare Landscape Character Type.
- **Representativeness:** Whether the landscape contains a particular character and/or features or elements which are considered particularly important examples.
- **Conservation interests:** The presence of features of wildlife, earth science or archaeological or historical and cultural interest can add to the value of the landscape as well as having value in their own right.
- **Recreation value:** Evidence that the landscape is valued for recreational activity where experience of the landscape is important.
- **Perceptual aspects:** A landscape may be valued for its perceptual qualities, notably wildness and/or tranquillity.
- **Associations:** Some landscapes are associated with particular people, such as artists or writers, or events in history that contribute to perceptions of the natural beauty of the area.

Based on Swanwick and Land Use Consultants (2002)

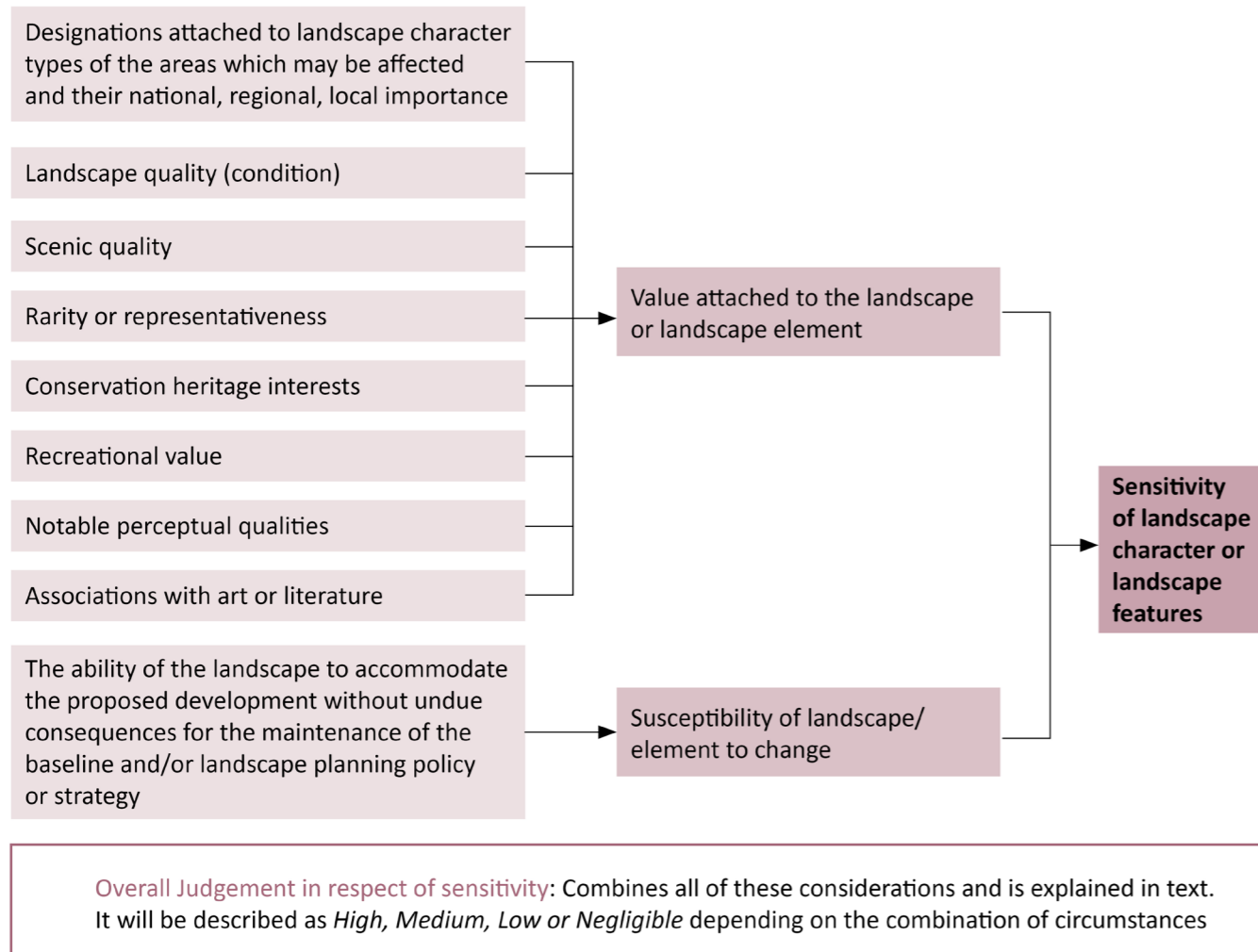
The value of the landscape is assessed in this report using a combination of the considerations set out in Box 5.1 of GLVIA3 and the key characteristics identified in the Warrington LCA, 2007.

‘Susceptibility to change’ is defined at paragraph 5.40 of GLVIA3 which states:

“This means the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of planning policies and strategies”.

The level of susceptibility to change of any landscape will depend on both its existing characteristics and on the characteristics of the development being proposed. A landscape may have a high susceptibility to change if the elements are proposed which are completely new/alien in the context of the landscape, or where new elements would be highly visible in an open view. Likewise a landscape would have a low susceptibility to change if the site is not widely visible and the new elements proposed are already found in the existing environment.

The following diagram summarises some of the considerations contributing to the evaluation of landscape sensitivity.



Methodology for evaluating the townscape character

Using GLVIA and the Landscape Institute Townscape Character Assessment Technical Information Note 05/2017 (TIN) this report includes an evaluation of the townscape character within close proximity of the site.

Townscape is described in GLVIA3, paragraph 2.7:

“the landscape within the built-up area, including the buildings, the relationship between them, the different types of urban open spaces, including green spaces and the relationship between buildings and open spaces.”

Consideration of the townscape character will provide an understanding of how a place has evolved and developed over time to respond to natural, social and economic drivers; and how this is reflected in the layout of the streets, the architecture of the buildings and materials used; and the historic development of the surroundings.

A study of the historic development; movement and connectivity; urban structure and built form; heritage assets; green infrastructure and public realm and tranquility has been carried out in order to evaluate the townscape relevant to the site and surrounding area.

This evaluation will provide an understanding of the intrinsic character and qualities of a place and can be used as a guide to the location, design, scale, massing and type of development that can be accommodated.

Methodology for appraising the sensitivity of the visual receptors

In line with GLVIA a visual appraisal has been carried out to identify the sensitivity of the visual receptors.

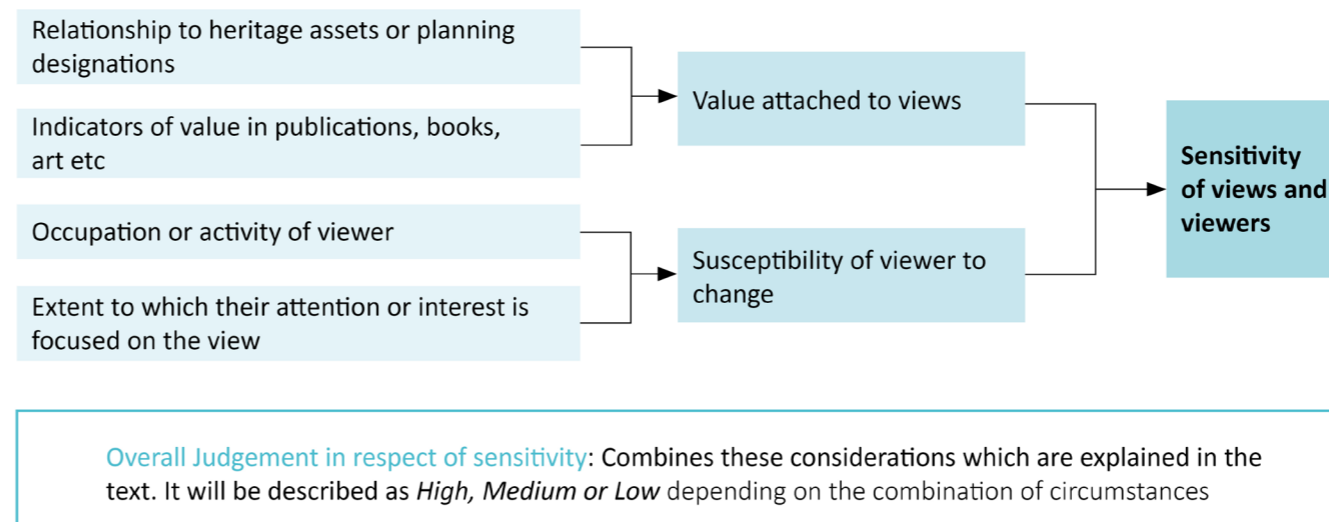
Visual sensitivity is a considered combination of the value attached to a view and the susceptibility of the viewer to change.

The value attached to views takes account of the recognition of value through planning designation and value attached through appearance in tourist literature.

The susceptibility of visual receptors to change will vary according to the occupation or activity of those experiencing the view and the extent to which their attention is focused on the view.

Viewpoints considered representative of potentially sensitive receptors situated within the study area at varying distances and directions have been identified. Views from public viewpoints, such as Public Rights of Way (PRoW) and roads in the vicinity have been considered.

The following diagram summarises some of the considerations contributing to the evaluation of visual sensitivity.



Planning policy and published landscape character assessment

Planning policy

The Warrington Local Plan Core Strategy was adopted by Warrington Borough Council (WBC) on 21st July 2014 and replaced the previously Adopted Unitary Development Plan.

The majority of the landscape that surrounds the settlement of Culcheth and the site is indicated as Green Belt, which is set out within Policy CS 5 – Overall Spatial Strategy – Green Belt. This is a spatial policy which is not specifically related to landscape quality objectives.

Warrington Borough Council recognises the need for Green Belt release in order to accommodate the Borough's housing and economic requirements.

Figure 2 (Page 7) shows the planning policies within the study area. Culcheth (Former Newchurch Hospital) Conservation Area is located in the north western part of the settlement and is identified in Policy QE8 – Historic Environment. The Local Plan recognises the value of the heritage assets within the Borough and sets out this policy to appropriately protect and enhance these areas.

Hitchfield Wood is located to the north east of Culcheth, within the site. It is designated and protected as a Local Wildlife Site by Policy QE5 – Biodiversity and Geodiversity of the Local Plan.

There are a number of nationally and locally listed buildings or structures within the study area, although very few of these have any interaction with the site. A Grade II listed Milestone is located along the A574 Warrington Road, adjacent to part of the eastern site boundary.

The draft version of the Warrington PSLP was approved for consultation in March 2019. This includes emerging landscape policies that require consideration as part of the site promotion. Once adopted, the PSLP will replace the Local Plan Core Strategy (2014).

Published landscape character assessment

Figure 2 (Page 7) shows the extent of the Landscape Character Areas within the study area.

Warrington LCA, 2007 sets out and describes, on an area by area basis, the Borough's landscape, its cultural history, landscape sensitivity and landscape change, together with recommended management and landscape objectives. The Borough is divided into broad Landscape Character Types; these are then divided into more detailed Landscape Character Areas.

The settlement of Culcheth and the landscape surrounding it fall within Landscape Character Type 1 "Undulating Enclosed Farmland", and within Landscape Character Areas 1C "Winwick, Culcheth, Glazebrook and Rixton." The landscape surrounding Culcheth to the south and south-east falls within Landscape Character Type 2 "Mossland Landscape" and Landscape Character Area 2B "Holcroft and Glazebrook Moss. The landscape around Glazebury to the east is classified as Landscape Character Type 5 "River Flood Plain and Landscape Character Area 5B "River Glaze."

Appendix B includes extracts of the relevant Landscape Character Area descriptions from the Warrington LCA, 2007.

Landscape Character Area 1C –

Winwick, Culcheth, Glazebrook and Rixton

The relevant key characteristics of Landscape Character Area 1C are:

- Sweeping views to the north and east from the areas of Culcheth and Glazebrook;
- Medium to often large-scale mainly arable fields;
- Lack of hedgerow trees;
- Hedgerows between fields often fragmented;
- Deciduous wooded backdrops;

Landscape Character Area 1C is described within the Warrington LCA, 2007 as:

"These areas typify undulating enclosed farmland with a medium to large-scale field pattern. The area stretches in an arc from the River Mersey in the south, through Glazebrook to Culcheth in the north and finally wrapping around Winwick in the west."

"The agriculture predominantly consists of arable fields, intensely cropped, with poorly maintained remnant hedgerow with few hedgerow trees. Small deciduous woodlands form backdrops to views within the landscape."

Landscape Character Area 2B – Holcroft and Glazebrook Moss

The relevant key characteristics of Landscape Character Area 2B are:

- "Level" basin form to mossland areas;
- Expansive views towards the Pennines;
- General absence of hedgerows and hedgerow trees;
- Predominantly expansive arable farmland;
- Visually dominant elevated sections of disused railway;
- Visually dominant landfill site at Silver Lane;

- Open and exposed;

Landscape Character Area 2B is described within the Warrington LCA, 2007 as:

“Holcroft and Glazebrook Moss form a continuous area of mossland separated from Risley and Rixton Mosses to the south-west by a narrow causeway known as Old Hall Lane, situated on slightly higher land between Milverton Farm and New Hall Farm.”

“Their landscape character is similar to that of the adjacent Rixton Moss, although field sizes become larger from south to north with fewer dividing ditches. Arable crops appear more extensive and less varied. The impression of ‘isolation’ within the area is less marked with views tending more towards the east and the Pennines.”

“The edges of the mossland are indistinct, visually feathering into bordering areas.”

“The landfill site at Silver Lane is a dominant and alien feature in an otherwise flat landscape. The site is currently active, although completed sections are now ‘over soiled’ and planted with mainly native woodland species.”

Landscape Character Area 5B – River Glaze

The relevant key characteristics of Landscape Character Area 5B are:

- Flat land associated with the floodplain
- Narrow, linear river corridor
- Small scale
- Mainly rural character

- Small ‘river cliffs’ and levees
- Enclosed views
- Associated linear footpath route
- Notable absence of trees to the river bank

Landscape Character Area 5B is described within the Warrington LCA, 2007 as:

“The River Glaze forms the north-eastern boundary to the Borough, flowing in a southerly direction from Lately Common, Glazebury in the north to its confluence with the River Mersey adjacent to Hollins Green in the south. The river has cut a small discreet valley profile locally with low ‘river cliffs’ and has a narrow, discontinuous floodplain. This has created linear enclosed views along the river.”

“The floodplain areas present an attractive, largely rural character consisting of grazing pasture although small areas of residential and commercial land have also been developed on the floodplain at Lately Common. Trees to the riverbanks are noticeably absent.”

“The river appears to have been straightened artificially in some sections and flows mainly between raised levee banks. Its character however, still retains a ‘natural’ feeling, being set in a rural landscape. Roads and development generally have ‘turned their backs’ to the river, affording little in the way of views or access. However a footpath route known as the Glazebrook Trail runs adjacent to the river on the eastern bank outside the Borough boundary.”

“The river is relatively narrow and crossings by small bridges to farms and farmland are easily afforded. More substantial bridges include

the A580 Pennington Bridge, the railway bridge at Glazebury, the M62 bridge at Holcroft Moss and the A57 bridge at Hollins Green.”

Summary of the landscape character of the site and its surroundings

The site itself sits in Landscape Character Area 1C Winwick, Culcheth, Glazebrook and Rixton.

The landscape within the site and immediate setting is divided from the wider landscape character area by the existing railway line to the north. The site is typical of the landscape character area, and is an example of medium - large scale arable fields that have been intensely farmed. Deciduous woodland is also present within the site and surroundings. Although typical of the landscape character area, large field parcels and areas of woodlands are not rare or unusual features and can be found in other landscape character areas within Warrington.

The site comprises a series of arable field parcels, the setting is strongly influenced by the existing large residential development at Culcheth.

Development within the site will be in keeping with the adjacent suburban land uses.

Landscape/townscape character and visual receptors

Landscape character of the study area

The landscape of the study area surrounding the north and east of Culcheth is primarily agricultural in its use with a medium to large scale, irregular field pattern. Vegetation is generally restricted to these field boundaries with hedgerows, isolated trees and linear woodlands all present.

The Manchester to Liverpool railway line, which is raised on wooded embankments runs east to west to the north of Culcheth. A now disused railway line sweeps around the south-western extent of the settlement within Landscape Character Areas 1C and 2B. Part of this disused line is currently used as Culcheth Linear Park.

Carr Brook and Jibcroft Brook both meander through the study area from west to east, with the former located to the north of the Manchester to Liverpool railway line and the latter to the south. Both of these watercourses feed into Glaze Brook in the east of the study area, with the topography gently sloping in this direction. Jibcroft Brook is set within a woodland corridor for the majority of its journey through the study area, providing strong definition and enclosure to some of the agricultural fields.

Townscape character of the study area

The townscape adjacent to the site comprises the northern parts of Culcheth, including Culcheth High School and the Culcheth (Former Newchurch Hospital) Conservation Area.

Historical development

“Culcheth was originally a small village probably founded after 1066, but was certainly in existence in 1212.” (Warrington LCA, 2007).

Historically, *“its development originally based around the junction of Warrington Road, Wigshaw Lane and Common Lane. Originally the settlement was close to the road junction, where a few older buildings are located.”* (Warrington LCA, 2007) Since this time, the settlement has expanded in all directions to encompass the junction of Warrington Road, Wigshaw Lane and Common Lane within the town centre.

The built form along the southern and western edges of the site is primarily residential in its use. The properties adjacent to the western boundary of the site within the Conservation Area are post 1920's, with those along the western boundary outside of the Conservation Area being post 1990's. The southern boundary primarily consists of post 1960's properties. There is a mix of styles throughout, with predominant use of red brick and occasional use of render.

Movement and connectivity

A network of A and B roads cut through the study area providing good links to the wider area. Culcheth is described as *“a large nucleated settlement”* (Warrington LCA, 2007) and sits at the junction of the A574 Warrington Road, the B5207 Common Lane, and Wigshaw Lane. These roads provide connections to the wider area including Glazebury

and the A580 to the north east, Birchwood Technology Park to the south, Lowton to the north west, and Croft, Winwick, the A49 and the Motorway network to the south west. To the east of Culcheth, the B5212 Holcroft Lane joins Warrington Road, providing access to Glazebury to the south-east.

Urban structure and built form

The character and condition of the settlement of Culcheth is described as being: *“augmented by a series of conventional private housing estates of low architectural merit, many interconnected through a maze of loop roads. The village is sited on a generally gently north sloping area of undulating land”* (Warrington LCA, 2007). Culcheth is considered to be a *“particular example of poorly-planned housing estate expansion”* (Warrington LCA, 2007).

Heritage assets

There are a number of nationally and locally listed buildings within the study area although these are primarily concentrated within the southern and western parts of the town. A grade II listed Milestone is located along the A574 Warrington Road. The Culcheth (Former Newchurch Hospital) Conservation Area is located in the western part of Culcheth and consists of a group of houses set around an oval driveway within a mature wooded setting. Larger more institutional buildings are located in the eastern part of the Conservation Area, next to Twiss Green Lane and include a former school and hospital annex, administrative and workshop buildings, and a *“dominant water tower”* (Culcheth Conservation Area Leaflet, 2000). With the exception of the water tower, which is visible from Twiss Green Lane and the

surrounding landscape, the buildings within this conservation area are surrounded by existing residential properties of Culcheth and have little interaction with the surrounding landscape.

Green infrastructure and public realm

Culcheth is focused around a central green at the junction of the A574 Warrington Road and the B5207 Common Lane. Street trees are generally present throughout the townscape and recreational facilities are generally located on the fringes of the settlement. Leigh Golf Club is located on the western edge of Culcheth with Shaw Street Recreation Ground located on the eastern edge. The Culcheth (Former Newchurch Hospital) Conservation Area has a character “*redolent of the early Garden-Suburb movement*” (Culcheth Conservation Area Leaflet, 2000) with generous front gardens and designed landscape treatments. Pockets of informal greenspace are found throughout the various residential areas.

Tranquility

Due to the presence of major transport corridors nearby, including the M62, M6, A580 and Manchester to Liverpool railway line, Culcheth does not experience any strong sense of tranquility.

Site description

Figure 3 (Page 15) shows the site in relation to Culcheth, its landscape features and context.

The site is situated at the north-eastern edge of Culcheth and is currently in use as arable farmland with an irregular field pattern. It is contained by existing residential development along the majority of its western boundary with an existing field boundary forming the remainder. The southern boundary is defined by existing residential development and Culcheth High School.

The site is well contained to the north by the existing Manchester to Liverpool railway line which runs from east to west on a raised, wooded embankment. The eastern boundary of the site follows the existing field boundaries through the landscape before following the A574 Warrington Road. These field boundaries are defined by existing hedgerows, trees and woodlands, including Hitchfield Wood, which is designated as a Local Wildlife Site.

The topography of the site generally slopes from higher land in the south towards the north. There are two watercourses within the site. Jibcroft Brook flows from west to east through the northern part of the site alongside existing field boundaries, which are well treed. It then skirts along the northern edge of Hitchfield Wood and continues east within a woodland belt towards Glaze Brook. The second watercourse within the site is a tributary to Jibcroft Brook, entering the site from

the southern boundary and flowing north through Wellfield Woods, before joining the west to east branch of Jibcroft Brook in the northern part of the site.

Wellfield Wood is a strong feature within the landscape and divides the site into two sections, providing a sense of enclosure within the western parts of the site. The field pattern within this western part of the site is smaller than that to the east of Wellfield Wood, and the field boundaries within the western part of the site contain more trees.

The fields within the eastern part of the site are larger, with fewer trees along their boundaries. The exception being the wooded embankment of the Manchester to Liverpool railway line to the north, and the field boundaries that form the eastern edge of the site. Hitchfield Wood is a dominant feature in the landscape and helps to create a visually well contained landscape in combination with the other woodland belts along the eastern edge of the site.

There are nine Public Rights of Way that run through the site, providing connections from Culcheth to the wider landscape to the north and east. These routes are confined to the existing field boundaries and provide connections to the landscape to the north of the railway line, and Glazebury to the north-east of Culcheth. Two non-definitive footpaths are located within the site and complement the existing PRow network. These routes are also signposted as per the rest of the PRow network.

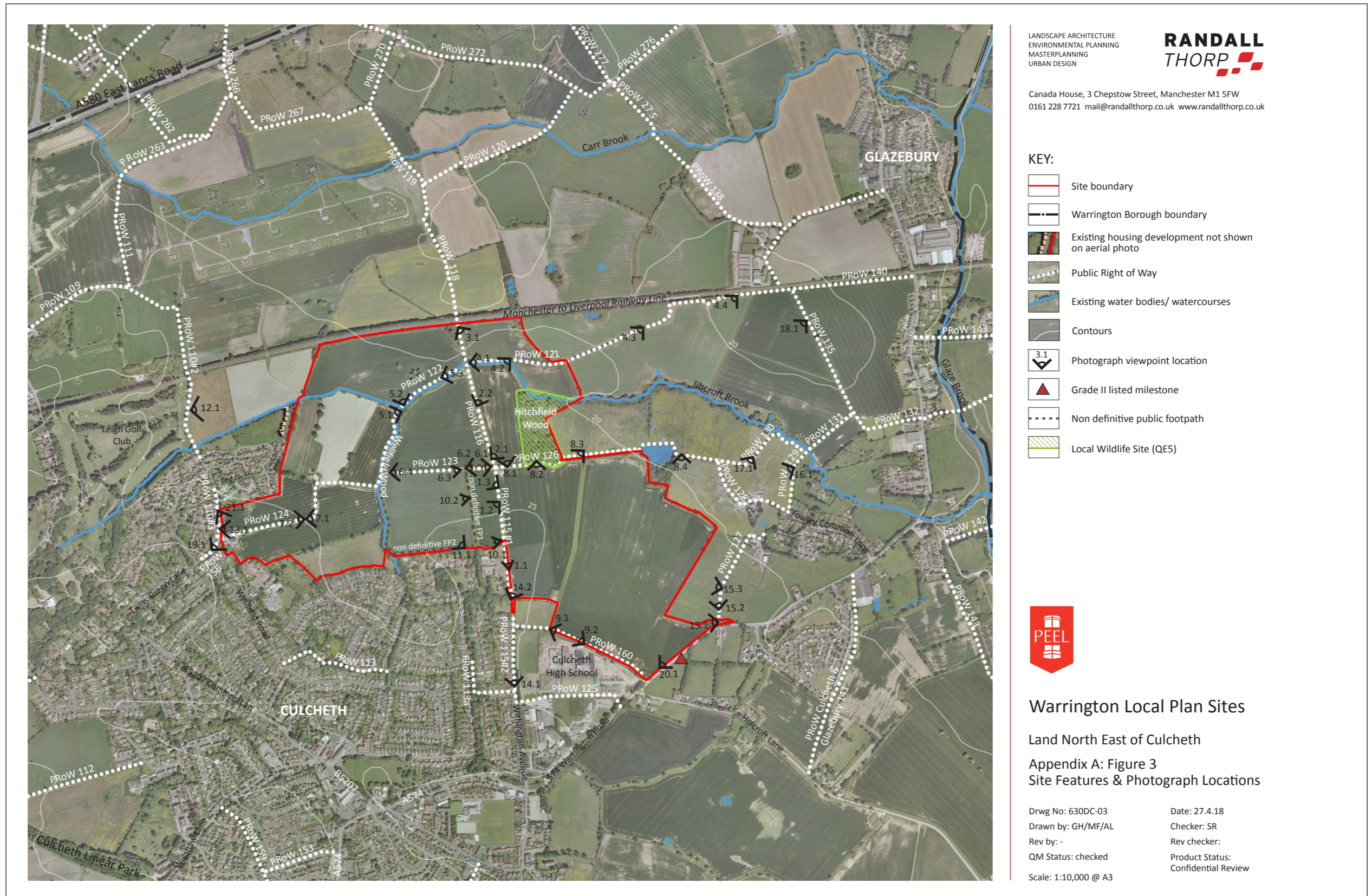


Figure 3 - Site features and photograph locations

Visual receptors and views of the site

Figure 3 (Page 15) illustrates the locations of the viewpoint photographs taken from the visual receptors within and around the site.

Figures 4 – 17 (Pages 19-32) include the photographs 1.1 – 21.1 which are taken from publicly accessible viewpoints within and around the site. Views from private residencies have not been considered, any consideration of residential amenity would need to be carried out as a separate assessment.

Observations made during the site visit identified the following publicly accessible visual receptors:

Public Rights of Way within the site

1. Pedestrians using PRoW FP Culcheth and Glazebury 115#1
2. Pedestrians using PRoW FP Culcheth and Glazebury 116
3. Pedestrians using PRoW FP Culcheth and Glazebury 118
4. Pedestrians using PRoW FP Culcheth and Glazebury 121
5. Pedestrians using PRoW FP Culcheth and Glazebury 122
6. Pedestrians using PRoW FP Culcheth and Glazebury 123
7. Pedestrians using PRoW FP Culcheth and Glazebury 124
8. Pedestrians using PRoW FP Culcheth and Glazebury 126
9. Pedestrians using PRoW FP Culcheth and Glazebury 160
10. Pedestrians using non-definitive footpath 1
11. Pedestrians using non-definitive footpath 2

Public Rights of Way surrounding the site

12. Pedestrians using PRoW FP Culcheth and Glazebury 110#2
13. Pedestrians using PRoW FP Culcheth and Glazebury 110#3

14. Pedestrians using PRoW FP Culcheth and Glazebury 115#2
15. Pedestrians using PRoW FP Culcheth and Glazebury 127
16. Pedestrians using PRoW FP Culcheth and Glazebury 129
17. Pedestrians using PRoW FP Culcheth and Glazebury 130
18. Pedestrians using PRoW FP Culcheth and Glazebury 135
19. Pedestrians using PRoW FP Culcheth and Glazebury 156

Roads surrounding the site

20. Motorists using the A574 Warrington Road
21. Motorists using Twiss Green Lane

The following Public Rights of Way were considered to have limited/no views of the site and their sensitivity has not been assessed in Chapter 5. PRoW FP Culcheth and Glazebury 128 was inaccessible at the time of the site visit due to a sign stating that the route was closed. Therefore, the sensitivity of this route has not been assessed. Despite this, it is likely to have a similar sensitivity to PRoW's FP Culcheth and Glazebury 129 and 130 due to its close proximity to these routes.

Public Rights of Way surrounding the site that were inaccessible during the site visit

- Pedestrians using PRoW FP Culcheth and Glazebury 128

Public Rights of Way surrounding the site with limited/no views of the site

- Pedestrians using PRoW FP Culcheth and Glazebury 125
- Pedestrians using PRoW FP Culcheth and Glazebury 131
- Pedestrians using PRoW FP Culcheth and Glazebury 132
- Pedestrians using PRoW FP Culcheth and Glazebury 140

Description of the Public Rights of Way surrounding the site

1 PRoW FP Culcheth and Glazebury 115#1

This route runs in a north/south alignment connecting Withington Avenue to the central part of the site. The route begins from the southern boundary of the site, along a tarmacked track flanked by the vegetated boundaries of the residential properties on its western side and the hedgerow field boundary of the site on its eastern side. As the route continues north, the route has open views across the field immediately to the west with the hedgerow boundary continuing along its eastern side, filtering views of the site to the east. The route finishes at a “crossroads” with three other PRoW's at the corner of the field in the centre of the site, with views of the site to the north.

2 Pedestrians using PRoW FP Culcheth and Glazebury 116

This route continues along the same north/south alignment as PRoW 115#1 from the “crossroads” in the centre of the site. It is flanked by a hedgerow along its western side with open views across the field immediately to its east with Hitchfield Wood forming the backdrop. Jibcroft Brook is visible from the more northerly parts of the route, as is the land to the north of Hitchfield Wood. There are no views from this route beyond the site boundary due to the presence of the wooded Manchester to Liverpool railway line embankment.

3 Pedestrians using PRoW FP Culcheth and Glazebury 118

A short section of PRoW 118 runs through the centre of the site along a north/south alignment and acts as a continuation of PRoW's 115#1 and 116. The route is flanked by existing vegetation along its western side with views across the north eastern part of the site before it crosses the railway line via a tunnel and continues through

the agricultural landscape to the north of the site. The railway line embankment screens any views of the site from this part of the route.

4 Pedestrians using PRow FP Culcheth and Glazebury 121

This route begins from the northern central part of the site and runs in an easterly direction from the junction of PRow's 116 and 118. It initially follows the route of Jibcroft Brook with the fields to the north and south of the route viewed with the backdrops of the railway line and Hitchfield Wood respectively. The route continues in a north easterly direction through the surrounding agricultural landscape, initially flanked by a row of trees along its northern edge before meeting the railway line and continuing east alongside its fence line. When approaching the site along this route from the east, views of the site are generally confined to the north eastern corners of the site due to the influence of the vegetation alongside Jibcroft Brook and Hitchfield Wood.

5 Pedestrians using PRow FP Culcheth and Glazebury 122

This route follows the western edge of Wellfield Wood through the centre of the site, providing a connection from PRow 124 to PRow 116/121. It has open views across the western parts of the site with the existing settlement edge of Culcheth visible on the western site boundary. Views across the northern parts of the site are foreshortened by the wooded embankment of the Manchester to Liverpool railway line and Wellfield Wood filters/screens views of the eastern parts of the site.

6 Pedestrians using PRow FP Culcheth and Glazebury 123

PRow 123 is located within the central part of the site, connecting PRow 122 and Wellfield Wood to the junction of PRow's 115#1, 116 and 126. The route crosses through the centre of a field with open views foreshortened by vegetated field boundaries to the north and east, with the existing settlement edge of Culcheth visible to the south.

7 Pedestrians using PRow FP Culcheth and Glazebury 124

This route is located in the south western part of the site, providing a connection from Twiss Green Lane to Wellfield Wood and PRow's 122 and 123. The majority of the route follows the tarmacked farm track which provides access to the isolated property within the site. It then follows the existing field boundary along a west to east alignment to meet Wellfield Wood. Wellfield Wood foreshortens any views further east across the site, with views limited to the agricultural fields to the north and south of the route. The existing settlement edge of Culcheth forms the backdrop to views to the south and west, with the railway line forming the backdrop to views to the north.

8 Pedestrians using PRow FP Culcheth and Glazebury 126

PRow 126 forms the fourth arm of the central "crossroads" of footpaths within the central part of the site. It is flanked by a hedgerow on its southern side, allowing views north across the field immediately adjacent to the western edge of Hitchfield Wood. The route then runs through the southern edge of Hitchfield Wood becoming very enclosed, before becoming more open again as it runs further east outside of the site with views north across the agricultural land towards Jibcroft Brook. The existing hedgerow and vegetation defining the site boundary on the southern side of this route heavily filters views of the site from this location. The route continues past

an existing pond and follows existing field boundaries further east to connect to the wider PRow network.

9 Pedestrians using PRow FP Culcheth and Glazebury 160

This route connects the A574 Warrington Road to Withington Avenue. It is flanked by tall hedgerows on both sides with Culcheth High School located to the south and the site to the north. There are intermittent views of the site from existing field entrances and gaps in the vegetation along the route but generally it is well enclosed. At its western end there are views of the site beyond the existing sports pitches that lie adjacent to the site boundary.

10 Pedestrians using non-definitive footpath 1

This route connects PRow 115#1 to PRow 123 via the existing field boundary to the south and west of these routes. It has open views across the central field within the site, with the existing settlement edge of Culcheth and Wellfield Wood forming the backdrops. It is flanked by an existing hedgerow and isolated trees on its western side.

11 Pedestrians using non-definitive footpath 2

This route follows the existing settlement edge of Culcheth along the southern boundary of the site, before continuing north through Wellfield Wood, connecting non-definitive footpath 1 to PRow's 123 and 124. The route is generally enclosed on either its southern or western sides with views north and east across the central agricultural field within the site.

Description of the Public Rights of Way surrounding the site

12 Pedestrians using PRoW FP Culcheth and Glazebury 110#2

This route runs along a north to south alignment to the west of the site. It connects the landscape to the north of the railway line to the northern settlement edge of Culcheth along the edge of Leigh Golf Club. It has framed views east towards the site, defined by the railway line embankment to the north and Jibcroft Brook and the existing settlement edge of Culcheth to the south.

13 Pedestrians using PRoW FP Culcheth and Glazebury 110#3

This route essentially runs along Twiss Green Lane between the edge of the Culcheth (Former Newchurch Hospital) Conservation Area and the western site boundary and through an existing residential estate. There are views of the western parts of the site from this route, framed by existing housing to the north and south, and foreshortened by Wellfield Wood.

14 Pedestrians using PRoW FP Culcheth and Glazebury 115#2

This route connects Withington Avenue to PRoW 115#1 within the site. It runs along Withington Avenue, which is a tree lined street primarily flanked by residential dwellings to the west and Culcheth High School to the east. The northerly part of the route has views of the existing playing fields adjacent to the site and the eastern parts of the site where it connects to PRoW 160.

15 Pedestrians using PRoW FP Culcheth and Glazebury 127

This route is accessed from the A574 Warrington Road via a small woodland within the south eastern corner of the site. It runs along a

north to south alignment, initially with a strong hedgerow boundary along its western side, before becoming more open with views towards the site from the more northerly section of the route.

16 Pedestrians using PRoW FP Culcheth and Glazebury 129

This route connects Fowley Common Lane to the wider footpath network to the north. The southern part of the route is well enclosed by vegetation and the boundary of an existing property, before the route becomes more open as it approaches Jibcroft Brook. There are views in a south westerly direction across the agricultural fields towards the site, with the existing farm buildings visible in the foreground.

17 Pedestrians using PRoW FP Culcheth and Glazebury 130

PRoW 130 follows the edge of the woodland alongside Jibcroft Brook in the east before turning south west in order to follow the existing field boundaries to meet PRoW's 126 and 128. This route has views across the existing agricultural landscape towards the site, with Culcheth High School visible on the horizon.

18 Pedestrians using PRoW FP Culcheth and Glazebury 135

PRoW 135 is located within the north east of the study area and runs along an existing field boundary, which is defined by a hedgerow. The route has an open character with the large scale agricultural fields of the foreground dominating. The existing vegetation associated with Jibcroft Brook and the intervening field boundaries form the backdrop to these views and allow filtered glimpses of the landscape beyond, including Culcheth High School beyond the site.

19 Pedestrians using PRoW FP Culcheth and Glazebury 156

This is a short route near to the western edge of the site along Twiss Green Lane, linking to PRoW 110#3 and 124. There is a framed view of a small area of the western part of the site with the existing residential properties forming the backdrop.

Description of the roads surrounding the site

20 Motorists using the A574 Warrington Road

The A574 Warrington Road is a historic route that connects Culcheth to Glazebury. The south eastern boundary of the site lies adjacent to a short section of this road which has a pavement on one side of it. A well-established Hawthorn hedgerow separates the site from the road visually, with a much lower hedgerow on the opposite side of the road defining a small group of fields. Existing residential development is located on the southern side of the road to the north of the site, and a mini roundabout providing access to Holcroft Lane and Culcheth High School marks the beginning of the approach into Culcheth to the south of the site boundary.

21 Motorists using Twiss Green Lane

A short section of Twiss Green Lane runs adjacent to the western boundary of the site. This route is less well used than the A574 Warrington Road as it only provides access to a small housing development adjacent to the site. A wide green verge separates the footway and site boundary from the road and the Water Tower within the Culcheth (Former Newchurch Hospital) Conservation Area is a dominant feature in views.

Boundary of existing
properties

Site boundary

Photo 1.1 - View from PRoW FP Culcheth and Glazebury 115#1, looking north towards the site.

PRoW FP Culcheth
and Glazebury 115#1

Existing properties in
Culcheth

Wellfield Wood

Photo 1.2 - View from PRoW FP Culcheth and Glazebury 115#1, looking south west towards the southern site boundary and the edge of Culcheth.

Wellfield Wood

Trees on the Manchester to
Liverpool Railway Line embankment


PRoW FP Culcheth and
Glazebury 115#1

Photo 1.3 - View from PRoW FP Culcheth and Glazebury 115#1, looking north west across the site.

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Warrington Local Plan Sites

Land North East of Culcheth

Appendix A: Figure 4

Viewpoint Photographs

Drwg No: 630DC-04	Date: 03.04.18
Drawn by: AL	Checker: SR
Rev by: -	Rev checker: xxx
QM Status: Checked	Product Status: Confidential Review
Scale: NTS	

Figure 4 - Viewpoint photographs



Photo 2.1 - View from PRoW FP Culcheth and Glazebury 116, looking north east across the site.



Photo 2.2 - View from PRoW FP Culcheth and Glazebury 116, looking north east across the site.



Photo 3.1 - View from PRoW FP Culcheth and Glazebury 118, looking south east across the site.

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Appendix A: Figure 5
Viewpoint Photographs

Drwg No: 630DC-05	Date: 03.04.18
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Rev by: -	Rev checker: xxx
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Figure 5 - Viewpoint photographs



Photo 4.1 - View from PRoW FP Culcheth and Glazebury 121, looking east across the site.



Photo 4.2 - View from PRoW FP Culcheth and Glazebury 121, looking south west across the site.



Photo 4.3 - View from PRoW FP Culcheth and Glazebury 121, looking south west towards the north eastern site boundary.

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Warrington Local Plan Sites

Land North East of Culcheth

Appendix A: Figure 6
Viewpoint Photographs

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Scale: NTS

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Rev checker: xxx
Product Status:
Confidential Review

Figure 6 - Viewpoint photographs



Photo 4.4 - View from PRoW FP Culcheth and Glazebury 121, looking south west towards the site.



Photo 5.1 - View from PRoW FP Culcheth and Glazebury 122, looking south west across the site towards Culcheth.



Photo 5.2 - View from PRoW FP Culcheth and Glazebury 122, looking north towards the Manchester to Liverpool Railway Line.

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Appendix A: Figure 7
Viewpoint Photographs

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Figure 7 - Viewpoint photographs

PRoW FP Culcheth and Glazebury 118 Trees on the Manchester to Liverpool Railway Line embankment PRoW FP Culcheth and Glazebury 122 Jibcroft Brook PRoW FP Culcheth and Glazebury 116 Hitchfield Wood

PRoW FP Culcheth and Glazebury 123 Wellfield Wood Trees on the Manchester to Liverpool Railway Line embankment Jibcroft Brook

PRoW FP Culcheth and Glazebury 123 Hitchfield Wood PRoW FP Culcheth and Glazebury 115#1 Culcheth High School Existing properties in Culcheth

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Warrington Local Plan Sites

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Appendix A: Figure 8
Viewpoint Photographs

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Figure 8 - Viewpoint photographs



Photo 6.3 - View from PRoW FP Culcheth and Glazebury 123, looking west.

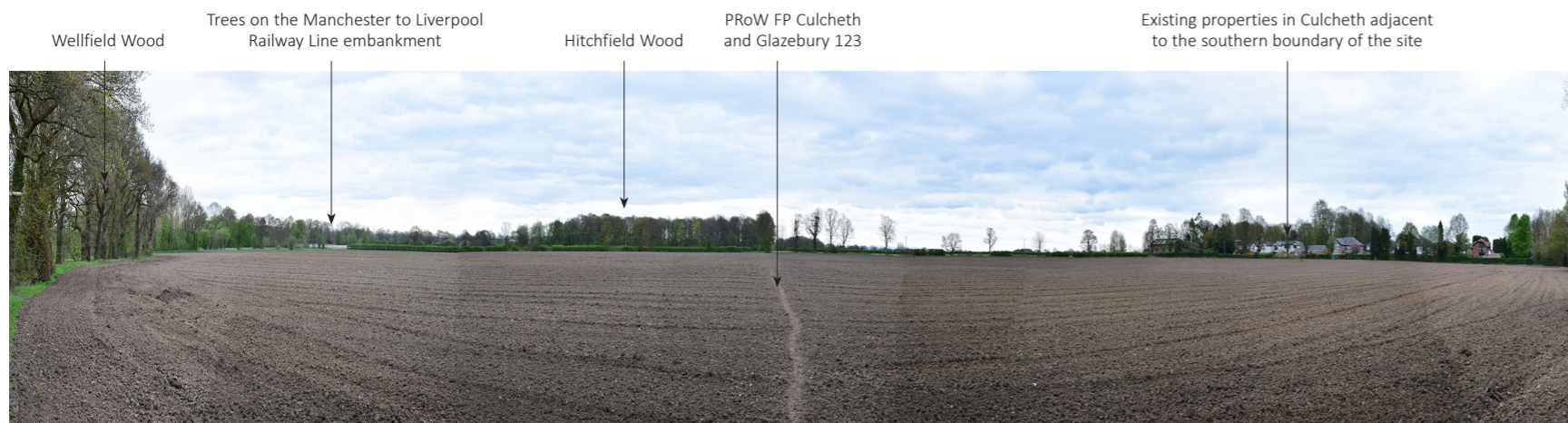


Photo 6.4 - View from PRoW FP Culcheth and Glazebury 123, looking east.



Photo 7.1 - View from PRoW FP Culcheth and Glazebury 124, looking east towards Wellfield Wood.

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Appendix A: Figure 9
Viewpoint Photographs

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Figure 9 - Viewpoint photographs

Existing properties in Culcheth adjacent to the western boundary of the site

PRoW FP Culcheth and Glazebury 124

Water Tower within Culcheth Conservation Area adjacent to western boundary of the site

Existing properties in Culcheth adjacent to the western boundary of the site

Photo 7.2 - View from PRoW FP Culcheth and Glazebury 124, looking west.

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PRoW FP Culcheth and Glazebury 116

Trees on the Manchester to Liverpool Railway Line embankment

Hitchfield Wood


Photo 8.1 - View from PRoW FP Culcheth and Glazebury 126, looking north.

Culcheth High School

Existing properties in Culcheth adjacent to the southern boundary of the site

PRoW FP Culcheth and Glazebury 115#1

Photo 8.2 - View from PRoW FP Culcheth and Glazebury 126, looking south through a gap in the vegetation.



Warrington Local Plan Sites
Land North East of Culcheth

Appendix A: Figure 10
Viewpoint Photographs

Drwg No: 630DC-10	Date: 03.04.18
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Figure 10 - Viewpoint photographs



Photo 8.3 - View from PRoW FP Culcheth and Glazebury 126 where it runs outside the site, looking west towards Hitchfield Wood.



Photo 8.4 - View from PRoW FP Culcheth and Glazebury 126, looking south towards the site.



Photo 9.1 - View from PRoW FP Culcheth and Glazebury 160, looking east.

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Warrington Local Plan Sites

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Appendix A: Figure 11
Viewpoint Photographs

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Figure 11 - Viewpoint photographs

Culcheth High School



Photo 9.2 - View from PRoW FP Culcheth and Glazebury 160, looking west.

Boundaries of existing properties within Culcheth adjacent to the southern site boundary




Photo 10.1 - View from non definitive footpath 1, looking west.

Boundaries of existing properties within Culcheth adjacent to the southern site boundary



Photo 10.2 - View from non definitive footpath 1, looking west.

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Appendix A: Figure 12
Viewpoint Photographs

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Figure 12 - Viewpoint photographs



Photo 11.1 - View from non definitive footpath 2, looking north west.



Photo 12.1 - View from PRow FP Culcheth and Glazebury 110#2, looking east towards the site.



Photo 13.1 - View from PRow FP Culcheth and Glazebury 110#3, looking east across the site.

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Warrington Local Plan Sites

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Appendix A: Figure 13 Viewpoint Photographs

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Figure 13 - Viewpoint photographs



Photo 14.1 - View from PRoW FP Culcheth and Glazebury 115#2, looking north along Withington Avenue.

PRoW FP Culcheth and Glazebury 115#1



Photo 14.2 - View from PRoW FP Culcheth and Glazebury 115#2, looking north across the site.

PRoW FP Culcheth and Glazebury 160 Culcheth High School



Photo 15.1 - View from PRoW FP Culcheth and Glazebury 127, looking north east.

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Warrington Local Plan Sites

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Appendix A: Figure 14
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Figure 14 - Viewpoint photographs

PRoW FP Culcheth and Glazebury 127



Photo 15.2 - View from PRoW FP Culcheth and Glazebury 127, looking north.

Existing trees on the eastern site boundary

Wellfield Wood

Hitchfield Wood



Photo 15.3 - View from PRoW FP Culcheth and Glazebury 127, looking west towards the site.

Existing farm buildings

Existing trees on the eastern site boundary

Hitchfield Wood



Photo 16.1 - View from PRoW FP Culcheth and Glazebury 129, looking west towards the site.

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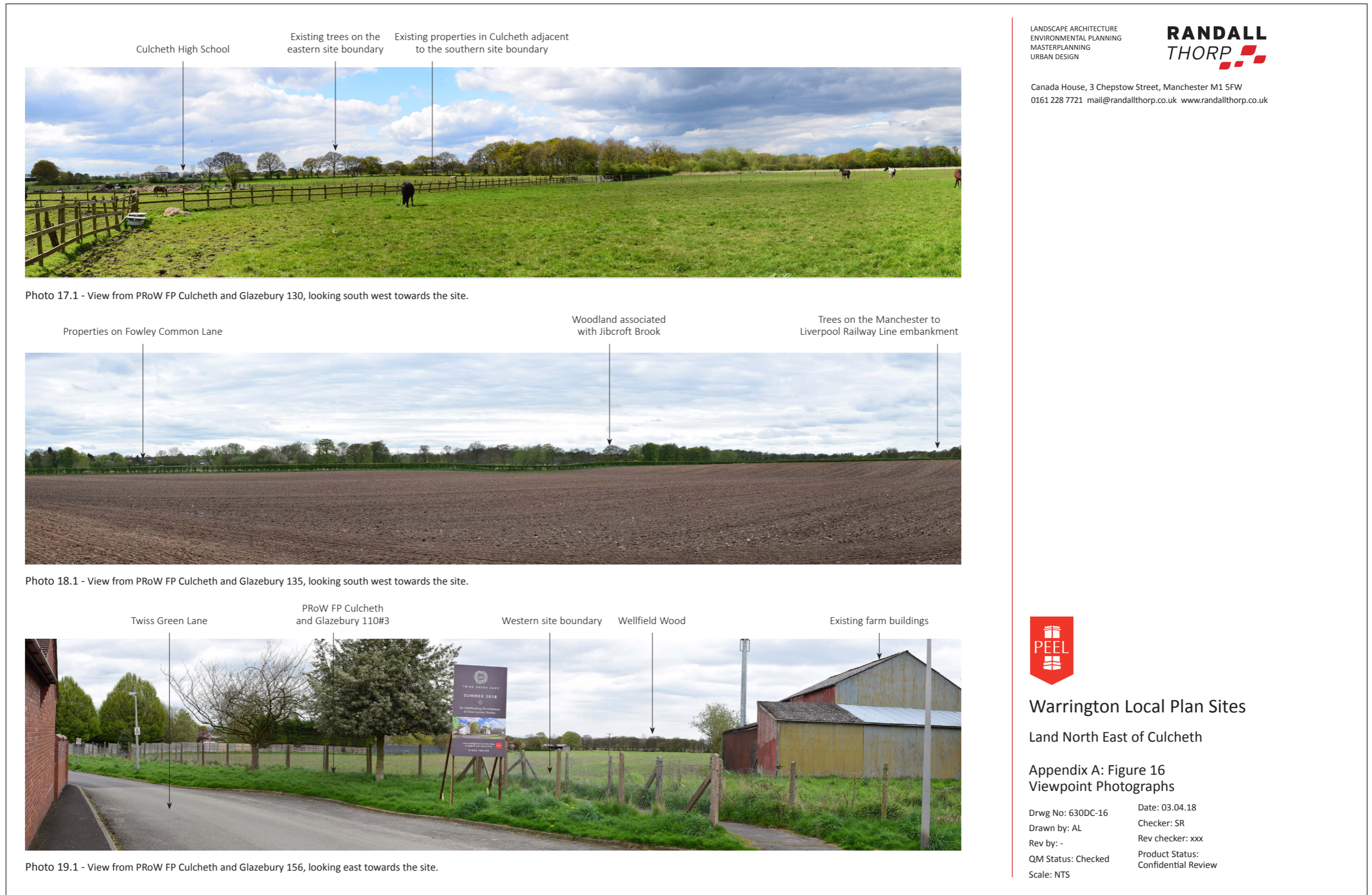
Warrington Local Plan Sites

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Appendix A: Figure 15 Viewpoint Photographs

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Figure 15 - Viewpoint photographs



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Warrington Local Plan Sites
Land North East of Culcheth

Appendix A: Figure 16
Viewpoint Photographs

Drwg No: 630DC-16	Date: 03.04.18
Drawn by: AL	Checker: SR
Rev by: -	Rev checker: xxx
QM Status: Checked	Product Status: Confidential Review
Scale: NTS	

Figure 16 - Viewpoint photographs



Photo 20.1 - View from the A574 Warrington Road, looking north east.



Photo 21.1 - View from Twiss Green Lane, looking south east.

LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING
MASTERPLANNING
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Warrington Local Plan Sites

Land North East of Culcheth

Appendix A: Figure 17 Viewpoint Photographs

Drwg No: 630DC-17	Date: 03.04.18
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Figure 17 - Viewpoint photographs

Landscape and visual sensitivity

The landscape within the study area is not designated for its landscape value.

The value of the landscape within the site and its immediate surroundings is considered in the adjacent table using the guidelines of GLVIA3 Box 5.1.

The landscape is not designated for its landscape value and based on the range of factors identified in Box 5.1 is considered to be of **Medium** value.

LANDSCAPE VALUE
LANDSCAPE QUALITY (CONDITION)
The landscape surrounding Culcheth is primarily agricultural. To the north and east <i>“The agriculture predominantly consists of arable fields, intensely cropped, with poorly maintained remnant hedgerows with few hedgerow trees. Small deciduous woodlands form backdrops to views within the landscape.”</i> (Warrington LCA, 2007)
SCENIC QUALITY
The <i>“intensely cropped”</i> (Warrington LCA, 2007) agricultural landscape is not renowned for its scenic quality due to its openness and the presence of major transport corridors. The woodlands to the north east of Culcheth <i>“help to create backdrops and form a more interesting landscape, breaking down the long, interrupted views”</i> (Warrington LCA, 2007) providing attractive landscape features and some scenic quality in places.
RARITY
There are no elements within the site that are considered to be rare.
REPRESENTATIVENESS
The majority of the site and its surroundings within the study area are representative of an agricultural landscape with an irregular field pattern and some areas of woodland. The landscape of the site does not contain elements which are considered to be particularly important examples.
CONSERVATION INTERESTS
There is local conservation interest in Hitchfield wood, the Local Wildlife Site within the site, and some trees to the north east of Culcheth which are protected by Tree Preservation Orders.
RECREATION VALUE
There is an extensive Public Right of Way network within the landscape to the north east of Culcheth, including the site. There are formal sports pitches associated with schools adjacent to the southern boundary of the site.
PERCEPTUAL ASPECTS
The Manchester to Liverpool railway line forms the northern boundary of the site with the settlement edge of Culcheth defining the southern boundary and Glazebury located further east. The M6 and M62 motorways are not within the study area but are located nearby and traffic noise can be heard from the site. It is therefore not valued for any wildness or tranquil qualities.
ASSOCIATIONS
There are no known associations of the site with any published art, literature or folklore which would add to its landscape value.

Susceptibility to change

Due to the Manchester to Liverpool railway line and existing settlement edge of Culcheth defining the northern and southern site boundaries, plus the “*intensely cropped*” (Warrington LCA, 2007) arable farmland forming the majority of the landscape within the site. The susceptibility to change of the site and its immediate surroundings is considered to be **Low**.

Conclusion in respects of the landscape sensitivity

As can be ascertained from the description of the site and its value, there is nothing to indicate that there is anything about the character of the site that should be considered remarkable or out of the ordinary. The assessment identifies some features of value within the site that are site specific and would be subject to further assessment or mitigation measures.

The landscape sensitivity of the site and its immediate surroundings results from the consideration of the landscape value and its susceptibility to change. As the **landscape value is considered to be Medium, and the susceptibility to change is considered to be Low.**

The landscape sensitivity of the site and its immediate surroundings is considered to be **Medium - Low**.

Value and sensitivity of views and visual receptors

In line with GLVIA and Diagram 2 within the methodology, the sensitivity of the visual receptor is a considered combination of the value of the view and the susceptibility to change of the visual receptor.

The following **Table 1** illustrates the sensitivity of the identified visual receptors.

The landscape is not designated nationally or locally for its landscape value and is not valued for its scenic quality.

Table 1: Sensitivity of visual receptors

VISUAL RECEPTOR TYPE	VALUE OF THE VIEW	SUSCEPTIBILITY TO CHANGE	RESULTING SENSITIVITY
PUBLIC RIGHTS OF WAY WITHIN THE SITE			
Receptor 1 (Photos 1.1 – 1.3) Pedestrians using PRoW FP Culcheth and Glazebury 115#1	Low Enclosed view along track before opening up to west towards Wellfield Wood. No views of designated features or buildings.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium
Receptor 2 (Photos 2.1 – 2.2) Pedestrians using PRoW FP Culcheth and Glazebury 116	Medium Hitchfield Wood a dominant feature within views to the east, designated as Local Wildlife Site.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium - High
Receptor 3 (Photo 3.1) Pedestrians using PRoW FP Culcheth and Glazebury 118	Medium View of open landscape to east with Jibcroft Brook and Hitchfield Wood visible. Hitchfield Wood designated as Local Wildlife Site.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium - High
Receptor 4 (Photos 4.1 – 4.4) Pedestrians using PRoW FP Culcheth and Glazebury 121	Medium View of open agricultural landscape with Hitchfield Wood a dominant feature and designated as a Local Wildlife Site. Railway line becomes more dominant to east.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium - High
Receptor 5 (Photos 5.1 – 5.3) Pedestrians using PRoW FP Culcheth and Glazebury 122	Medium Ends of route have views of either Hitchfield Wood or Water Tower in Conservation Area. However, majority of route viewing fields with backdrop of residential or railway line.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium - High

VISUAL RECEPTOR TYPE	VALUE OF THE VIEW	SUSCEPTIBILITY TO CHANGE	RESULTING SENSITIVITY
Receptor 6 (Photos 6.1 – 6.4) Pedestrians using PRoW FP Culcheth and Glazebury 123	Medium View of agricultural land with Wellfield Wood, existing settlement edge and Hitchfield Wood forming backdrop to west/south/east. Hitchfield Wood designated as Local Wildlife Site.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium - High
Receptor 7 (Photos 7.1 – 7.2) Pedestrians using PRoW FP Culcheth and Glazebury 124	Medium Views foreshortened by Wellfield Wood to east. Settlement edge visible to south and west. Water Tower within Conservation Area dominant in views to west.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium - High
Receptor 8 (Photos 8.1 – 8.4) Pedestrians using PRoW FP Culcheth and Glazebury 126	Medium Views from within site dominated by Hitchfield Wood, which is designated as a Local Wildlife Site. Further east, enclosed agriculture.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium - High
Receptor 9 (Photos 9.1 – 9.2) Pedestrians using PRoW FP Culcheth and Glazebury 160	Low No views of designated features or buildings	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium
Receptor 10 (Photos 10.1 – 10.2) Pedestrians using non-definitive footpath 1	Low View of agricultural landscape with existing settlement edge and Wellfield Wood forming backdrop. No views of designated features or buildings.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium

VISUAL RECEPTOR TYPE	VALUE OF THE VIEW	SUSCEPTIBILITY TO CHANGE	RESULTING SENSITIVITY
Receptor 11 (Photo 11.1) Pedestrians using non-definitive footpath 2	Low View of agricultural landscape with existing settlement edge and Wellfield Wood forming backdrop.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium
PUBLIC RIGHTS OF WAY SURROUNDING THE SITE			
Receptor 12 (Photo 12.1) Pedestrians using PRow FP Culcheth and Glazebury 110#2	Low Framed view defined by railway line embankment and existing settlement edge. No views of designated features or buildings	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium
Receptor 13 (Photo 13.1) Pedestrians using PRow FP Culcheth and Glazebury 110#3	Medium Water tower within Conservation can be a dominant feature. Western part of site visible in context of existing settlement edge.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium - High
Receptor 14 (Photos 14.1 – 14.2) Pedestrians using PRow FP Culcheth and Glazebury 115#2	Low Primarily residential properties with school grounds on opposite side of road. No views of designated features or buildings.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium
Receptor 15 (Photos 15.1 – 15.3) Pedestrians using PRow FP Culcheth and Glazebury 127	Low Enclosed/semi-enclosed route accessed from A574 Warrington Road. No views of designated features or buildings.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium
Receptor 16 (Photo 16.1) Pedestrians using PRow FP Culcheth and Glazebury 129	Low Part of the route is enclosed by vegetation. Farm buildings dominant in views towards the site. No views of designated features or buildings.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium

VISUAL RECEPTOR TYPE	VALUE OF THE VIEW	SUSCEPTIBILITY TO CHANGE	RESULTING SENSITIVITY
Receptor 17 (Photo 17.1) Pedestrians using PRow FP Culcheth and Glazebury 130	Low No views of designated features or buildings.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium
Receptor 18 (Photo 18.1) Pedestrians using PRow FP Culcheth and Glazebury 135	Medium Expansive view across agricultural landscape. Hitchfield Wood visible on horizon.	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium - High
Receptor 19 (Photo 19.1) Pedestrians using PRow FP Culcheth and Glazebury 156	Low No views of designated features or buildings	High The landscape setting is likely to be valued by those engaged in recreational activity	Medium
ROADS SURROUNDING THE SITE			
Receptor 20 (Photo 20.1) Motorists using A574 Warrington Road	Medium No recognised value attached to the views. Views of the highway corridor and associated buildings/vegetation.	Low Taking in to account their speed of travel, the fleeting views and because their interest is focused on the road and driving rather than the views.	Medium - Low
Receptor 21 (Photo 21.1) Motorists using Twiss Green Lane	High Water Tower within Conservation Area visible. Slow vehicle speeds due to route only providing access to housing estate. Views of the highway corridor and associated buildings/vegetation.	Low Due to speed of travel, short length of interaction with site and because their interest is focused on the road and driving rather than the views.	Medium

Development potential of the site

The evaluation of landscape, townscape and visual receptors below highlights any sensitivities of the site. Any proposed masterplan should take into consideration these sensitivities in order to demonstrate good design and contribute to the landscape and its existing character. The Constraints and Opportunities plan on Page 39 and appended to this report (**Appendix C**) illustrates the relevant considerations for the site. These are explained in more detail below.

Evaluation of the landscape

The landscape sensitivity of the site and its surroundings is considered to be **Medium - Low** in Chapter 5 of this report.

The landscape within the site is currently in use for agriculture with trees and hedgerows confined to the existing field boundaries and the edges of the site. Some large individual trees are present within the western parts of the site with Wellfield Wood broadly dividing the site in two. It follows the course of Jibcroft Brook which further adds to the ecological value of the site. Hitchfield Wood is designated as a Local Wildlife Site and should be preserved and enhanced alongside the landscape features described above.

The Warrington LCA, 2007 sets out several recommended management and landscape objectives for the Landscape Character Area within which the site sits. The relevant objectives that could be met through any development of the site are:

- *To conserve and manage existing woodlands to encourage habitat diversity;*
- *To conserve and manage remaining hedgerows;*

- *To consider additional native woodland planting; and*
- *To consider the use of native planting to soften and screen new development.*

The existing vegetation and watercourses within the site should be preserved within the green infrastructure network of any proposed development. A landscape strategy of planting new hedgerows and woodland around the northern and eastern boundaries of the site as part of any proposed development would enhance woodland connectivity, screen the new development and strengthen existing field boundaries in keeping with the objectives of the Warrington LCA, 2007. It would also allow a new defensible Green Belt boundary to be created, by utilising the strong landscape feature of the Manchester to Liverpool Railway Line embankment, which would not impact on *“the strategic importance of the Green Belt between Culcheth and the main urban area of Warrington.”* (Warrington BC Local Plan: Settlement Profiles – Outlying Settlements Document, 2017).

Evaluation of the townscape

The key elements of built form that contribute towards the townscape character adjacent to the site within Culcheth have been identified in Chapter 4 of this report.

Culcheth is located immediately south west of the site with the town centre and historic origins of the settlement approximately 800m from the nearest part of the site. The settlement edge abuts the western and southern boundaries of the site with residential development generally backing onto the site. Culcheth High School and associated playing fields abut the southern boundary and look out over the eastern parts of the site.

The visibility of the Water Tower and edge of the Culcheth (Former Newchurch Hospital) Conservation Area from within the western part of the site is a key consideration from a townscape perspective. Any new development needs to maintain views of the Water Tower within the Conservation Area and interact appropriately with the existing residential edges along the other boundaries of the site, which generally back onto the site with either fenced or densely vegetated garden boundaries.

The south eastern boundary of the site abuts the A574 Warrington Road, which is a historic route into Culcheth, with a Grade II Listed Milestone located on its eastern side, although this is currently hidden beneath a hedgerow and there is no pavement on that side of the road to be able to view it closely. This is a main route into Culcheth from Glazebury and the A580. The sense of arrival into Culcheth at present is at the point of crossing the roundabout junction with Holcroft Lane and Culcheth High School, immediately south of the site. Any development within the site needs to be sensitive to maintaining this sense of arrival and the character of the A574 Warrington Road on approach to Culcheth.

Evaluation of the visual receptors

The sensitivity of each visual receptor with views of the site has been assessed in Chapter 5 of this report.

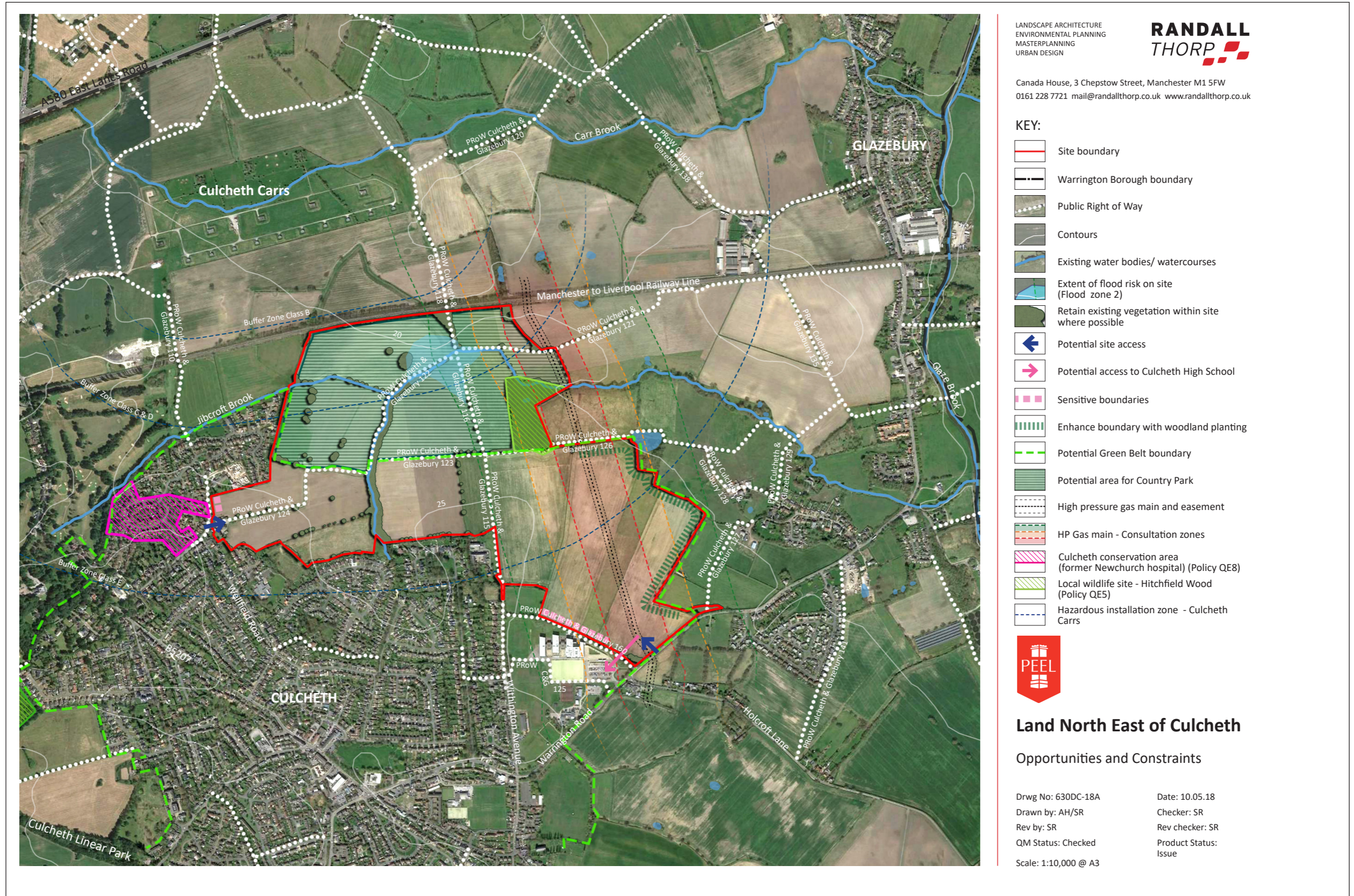
The most sensitive visual receptors to any potential development are the Public Rights of Way within the site. These should be set within the green infrastructure network of any development and maintain key view lines towards attractive landscape and townscape features, such as the Water Tower within the Conservation Area, Hitchfield Wood and Jibcroft Brook. The strengthening of the north eastern boundary of the site through woodland and tree planting would help to filter any views of development from the PRow network within the north east of the study area.

Development should be set back from the PRow network behind green corridors and overlook the routes to promote natural surveillance. Development should also be set back from the south eastern boundary of the site in order to preserve the character of the A574 Warrington Road and the approach to Culcheth along this historic route.

Development potential of the site

A well-designed development that preserves the existing landscape features and Public Rights of Way within a green infrastructure network and responds sensitively to the setting of the existing Conservation Area and surrounding townscape character would avoid any significant effects on the character of Culcheth or the wider landscape of the study area.

For the reasons outlined above, this report considers the Land North East of Culcheth site to be a sustainable and achievable location to be allocated for new housing development within the new Warrington Borough Local Plan without having any significant *“detrimental impacts on Green Belt and the character of Culcheth”* which are alluded to in the Warrington Borough Council Local Plan: Settlement Profiles – Outlying Settlements Document (July 2017).



Constraints and Opportunities

Illustrative masterplan

The opportunities and constraints identified through the landscape and visual appraisal have been combined with analysis of site constraints and opportunities from other consultants in relation to arboriculture, ecology, heritage, noise, transport, flood risk and utilities. This resultant illustrative masterplan has been prepared to demonstrate the potential development opportunities of the site with an allocation for housing.

The land north east of Culcheth presents an opportunity to develop a sustainable extension to Culcheth, providing around 600 new homes.

The development would support the existing community with a high quality residential development; an extension to the existing secondary school, and an extensive area of open space for informal recreational uses, including areas of natural and semi natural open spaces and parkland areas. The development would be designed to support walking and cycling promoting sustainable travel to existing and proposed local amenities.

The illustrative masterplan proposes a new Green Belt boundary which will create a new logical edge to the settlement providing an opportunity to create a new country park and an extensive area of open space for new and existing residents of Culcheth.

The development would ensure that important ecological assets within the site are preserved with opportunities to provide additional habitats and enhanced biodiversity.

The development on the site would preserve and where possible enhance the setting of nearby heritage assets including the Culcheth (Former Newchurch Hospital) Conservation Area.



Illustrative masterplan



Prepared for:

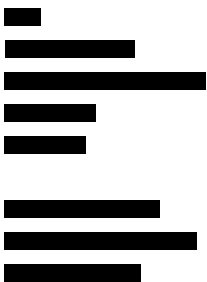


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**LAND NORTH EAST OF CULCHETH
WARRINGTON
ARBORICULTURAL WALKOVER SURVEY AND
DESKTOP ASSESSMENT
JUNE 2019**



Document Title	Arboricultural Walkover Survey and Desktop Assessment
Prepared for	Peel Holdings (Land and Property) Limited
Prepared by	TEP - Warrington
Document Ref	6929.02.006

Author	Tom Popplewell
Date	June 2019
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Approved	Jonathan Smith

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0.1	06/07/18	TDP	JGS	Checking	Draft
1.0	06/07/18	TDP	JGS	Approval	Superseded
2.0	21/05/19	RMG	JGS	Addition of preliminary assessment of effects	Superseded
3.0	12/06/19	RMG	JGS	Updated Illustrative Masterplan and addressed client comments	Final

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APPENDICES

APPENDIX A: Tree Survey Data

DRAWINGS

Drawing 1 - Arboricultural Desktop Overview

Drawing 2 - Arboricultural Survey Overview

Drawing 3 - North East Culcheth Conceptual Masterplan

Executive Summary

1. TEP has been commissioned by Peel Holdings (Land and Property) Limited to conduct a walkover survey and desktop assessment of land at north east Culcheth and a review of designations, policies and other instruments of relevance to arboriculture. This report presents the results of the assessment and the anticipated interaction of trees with residential development.
2. The Illustrative Masterplan comprises 23.53ha of land that could deliver up to 600 units (300 units to be delivered during the plan period and a further 300 units to be safeguarded) with a further 73.59ha allocated for green infrastructure including the provision for a Country Park.
3. Approximately 13.98ha of tree cover and c. 2,169m of hedgerow was recorded on or within influencing distance of the site. They are spread across the site within a matrix of woodland blocks and linear features, including hedgerow, hedgerow with mature trees and linear woodland belts.
4. The desktop review and site survey identified eight Tree Preservation Orders; no trees within a Conservation Area; no ancient woodland; no veteran trees; 6.33ha of Habitat of Principal Importance *Deciduous Woodland*; and c. 2,196m of Habitat of Principal Importance *Hedgerow*. The site is also within the Mersey Forest community forest.
5. The Illustrative Masterplan demonstrates it would be possible to develop the site whilst incorporating nearly all of the existing trees (13.82 ha); in principal, only 1% of the existing cover would require removal. It would also provide an opportunity for substantial new planting that could increase species diversity and create habitat types not currently present on the site. On this basis mitigation for the loss of trees could be adequately delivered within the site proposals and is likely to result in a net gain in long-term canopy cover.
6. An Arboricultural Impact Assessment (AIA) will be required in support of a reserved matter/detailed application. This will identify, evaluate and possibly mitigate the impacts of developing land on the existing tree resource. The AIA should be based on a detailed tree survey undertaken according to BS5837:2012 that assess and reports on: canopy spread of existing trees and groups; a Root Protection Area (RPA) calculated in accordance with BS 5837; and tree quality category that identifies the quality and value (in a non-fiscal sense) of the existing tree stock, to allow informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.

1.0 Instruction and scope

- 1.1 TEP has been commissioned by Peel Holdings (Land and Property) Limited to conduct a preliminary arboricultural survey and desktop assessment of Land north east of Culcheth. This report presents the results of a site walkover and desktop exercise to identify potential constraints to future development. It also reports on the preliminary assessment effects of the nominated masterplan for the site.
- 1.2 A site visit was undertaken on 14th June by Tom Popplewell, an experienced arboriculturist and Professional Member of the Institute of Chartered Foresters with a BSc (hons) in arboriculture.
- 1.3 During the survey, all accessible areas of the site were visited and a visual inspection of the distribution, condition and quality of trees was made. Access to land not in Peel ownership in the west of the site was not possible. These areas are identified on Drawing 2. A remote visual inspection of some trees within these areas was made from within the site and public spaces. This included some boundary trees associated with Leatherbarrow Farm.
- 1.4 Access was not restricted by terrain. The weather during the survey was fine and visibility was good.
- 1.5 The extent of tree and hedgerow cover shown has been digitised from aerial photography and National Tree Map data and should be regarded as approximate.
- 1.6 The survey identifies broad vegetation types based on the categories used in the National Forest Inventory. It should not be regarded as a detailed assessment of tree risk or an assessment of the type and quality of each individual tree.

2.0 Site description

Site name

- 2.1 The site is known as land north east of Culcheth. The approximate extents of this combined area is shown in Figure 1.

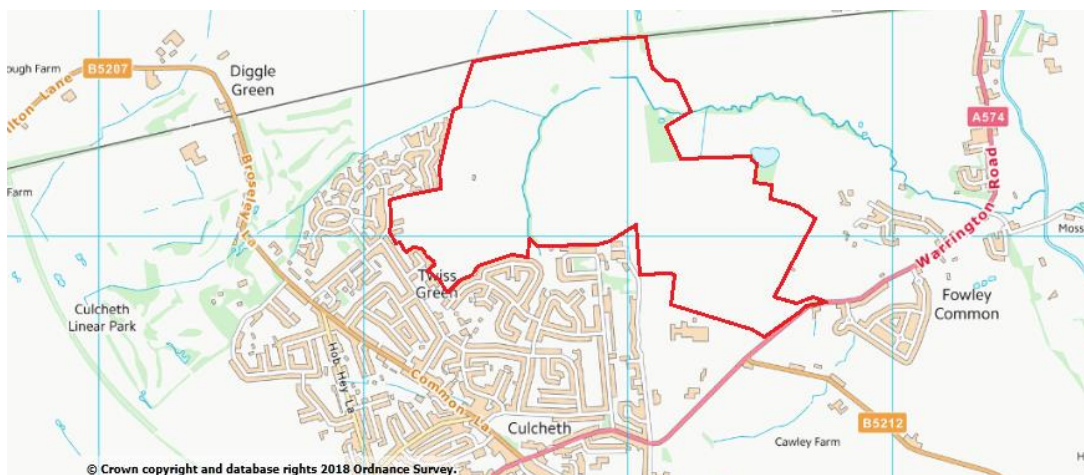


Figure 1 Site location and approximate boundary (OS VectorMap® District Resampled)

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Address/location

- 2.2 The site is on the north-eastern edge of Culcheth.
- 2.3 The boundaries are defined by existing field boundaries to the east, Warrington Road and Culcheth High School to the south-east, the current edge of Culcheth to the west and south, and a railway line to the north.

Approximate area

- 2.4 The site is approximately 97.12ha.

Current use

- 2.5 The site comprises agricultural fields with pockets and belts of woodland two farms in the west (Tanners Farm and Leatherbarrow Farm).
- 2.6 There are tracks and footpaths from Culcheth Hall Farm in the south to a railway crossing at the north; along the southern boundary adjacent to Culcheth High School; and east to west between Wood End Farm and Leatherbarrow Farm.

Local authority

- 2.7 The local authority is Warrington Borough Council.
- 2.8 The local authority's tree officer can be contacted by email at stwigg@warrington.gov.uk or by telephone on 01925 444 108.

3.0 Statutory protection, designations and guidance

Tree Preservation Orders

- 3.1 Local authorities can create Tree Preservation Orders (TPO) to protect the amenity of trees, groups of trees, woodland or all the trees within a defined area¹. Cutting down, lopping (including roots), topping, uprooting, and wilful damage or destruction are prohibited by TPO unless done with the Local Authority's written consent.
- 3.2 The council's online mapping facility confirmed that there are a number of TPOs on or adjacent to the site.

Table 1 Tree preservation Orders

Location	Order reference	Feature description
Four trees north of Tanners Farm	235: Newchurch Conservation Area, Culcheth (Newlands)	T2: Elm T3: <i>Sorbus</i> T4: Cherry T5: Holly
Twenty-two trees along the boundary with properties on Hurst Green	496: Doeford Close, Culcheth	T21, T24 and T26: Swedish Whitebeam T23: Whitebeam T25, T35 and T39: Beech T22 and T27 to T34: Lime T36, T37, T40 and T42: Ash T38 and T41: Oak
Row of trees along a fiend boundary to the north-east of Leatherbarrow Farm	68: Culcheth Hall Farm, North	A2: Beech and Elm (Area excluded at confirmation of order, most trees no longer present, not protected)
Wellfield Wood	68: Culcheth Hall Farm, North	W1: Oak, Sycamore, Lime and Poplar
Stand of trees around a small pond to the north of Wellfield Wood	68: Culcheth Hall Farm, North	G1: Willow

¹ Exemptions apply, see <https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas>

Location	Order reference	Feature description
Triangular woodland compartment south of Carr Bridge railway crossing	68: Culcheth Hall Farm, North	W3: Ash, Beech, Sycamore, Elm
Short row of trees south of Carr Bridge	68: Culcheth Hall Farm, North	G7: Elm (felled no replacement, some dead trees remaining, not protected)
Group of trees along track in centre of site (northerly of two)	68: Culcheth Hall Farm, North	G6: Elm (felled no replacement, some dead trees remaining, not protected)
Group of trees along track in centre of site (southerly of two)	68: Culcheth Hall Farm, North	G5: 2 Sycamore, 1 Oak, 4 Elm, 1 Horse Chestnut
Group of trees along track in centre of site (runs north-south, then east from northern end)	68: Culcheth Hall Farm, North	G4: 9 Sycamore (4 Elm and 2 Sycamore excluded at confirmation of order, status unclear)
Five trees around the access to Culcheth Hall Farm Barns (outside site)	412: The WBC (Culcheth Hall Farm, Culcheth No.2) TPO 2003	T1: Horse Chestnut
	516: Culcheth Hall Drive	T1: Copper Beech
	66: Culcheth Hall Farm, North	T4: Sycamore (listed as 'Historic TPO' but no note on exclusion from order, status unclear)
	504: Culcheth Hall Drive	T2: Ash and T3: Ash
Two trees around the access to Culcheth Hall Farm Barns (within site)	66: Culcheth Hall Farm, North	T6: Excluded from order at confirmation (not protected) T7: Excluded from order at confirmation (not protected)

Location	Order reference	Feature description
Three trees in the rear gardens of 12 to 16 Culcheth Hall Farm Barns	66: Culcheth Hall Farm, North	T1: Excluded from order at confirmation (not protected) T2: Excluded from order at confirmation (not protected) T3: Excluded from order at confirmation (not protected)
Groups of trees along the western and southern boundary and in the grounds of Culcheth Hall Farm (listed approximately north to south)	66: Culcheth Hall Farm, North	G2: 18 Sycamore and 2 Birch
	468: 54 Culcheth Hall Drive	G1: Sycamores
	66: Culcheth Hall Farm, North	G3: 4 Sycamores
		G4: 1 Ash, 2 Beech and 3 Sycamore
		W1: Area of woodland consisting mainly of Sycamore and Ash
A1: Ash, Beech, Cherry, Hawthorn (listing implies Ash are excluded from order, status unclear)		
Hitchfield Wood	68: Culcheth Hall Farm, North	W2: Horse Chestnut, Poplar, Sycamore, Willow and Oak
Small stand of trees to the north of Hitchfield Wood	68: Culcheth Hall Farm, North	G3: 9 Oak, 4 Hawthorn (excluded at confirmation of order, not protected)
Small woodland compartment around pond adjacent to railway line north of Hitchfield Wood	68: Culcheth Hall Farm, North	G2: 14 Willow

- 3.3 Copies of all relevant Tree Preservation Orders can be viewed online at http://mapping.warrington.gov.uk/wml/Map.aspx?MapName=Planning_and_LLC_External.

Conservation Area

- 3.4 Trees within Conservation Areas are protected by Section 211 of The Town and Country Planning Act 1990. The local authority must be notified 6 weeks before the any tree² in a Conservation Area is removed, uprooted, lopped, topped, wilfully destroyed, or wilfully damaged. During this period the Council may consider serving a Tree Preservation Order to prevent the proposed work from being undertaken.
- 3.5 The council's online mapping facility confirmed that no part of the site is within a Conservation Area. Culcheth Newchurch Hospital Conservation Area, 1993 is adjacent to a short section of the western boundary.

Ancient Woodland and Veteran Trees

- 3.6 Ancient woodland and ancient or veteran trees are irreplaceable and amongst the most valuable and sensitive habitats. Ancient woodland is any area that has been wooded since at least 1600. Individual trees of exceptional age, size, biodiversity or cultural significance are regarded as 'veterans'. Neither category has legal protection but they have strong protection in planning policy. Any works to veteran or ancient trees and woodland should be undertaken with the utmost sensitivity and under specialist advice.³
- 3.7 The Forestry Commission is a non-statutory consultee for development within 500m of an Ancient Woodland. Natural England and Forestry Commission publishes Standing Advice which reinforces the assumption in NPPF that development within an Ancient Woodland normally requires exceptional circumstances. A minimum buffer of 15m is recommended between any new development and ancient woodland.
- 3.8 Natural England's ancient woodland inventory⁴ shows no ancient woodland within or adjacent to the site. The inventory is provisional and may not show woodland smaller than 2ha. It is therefore possible that smaller or unmapped ancient woodland exists. The current and previous land use is thought to make this unlikely.
- 3.9 Veteran trees are also regarded as an irreplaceable habitat with similar provisions to ancient woodland. There is a presumption in NPPF against development that would result in loss or deterioration of a veteran tree. It is not possible to replace veteran trees and any such effects must be weighed in the planning balance against need and benefits.
- 3.10 There is no comprehensive register of veteran trees. The Woodland Trust maintains a verified register of ancient, veteran and notable trees on behalf of the Ancient Tree Forum, which contains no records for the site.
- 3.11 The walkover survey recorded no veteran trees within the site.

² Exemptions apply, see <https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas>

³ See <https://www.forestry.gov.uk/anwpracticeguide> for further information

⁴ <http://www.natureonthemap.naturalengland.org.uk/magicmap.aspx>

- 3.12 It is possible that the survey did not record all veteran trees because of the access restrictions in some areas, the level of survey detail afforded by a walkover, and the lack of ancient tree inventory detail.
- 3.13 It is not considered that access constraints have significantly impeded the mapping of character and distribution of vegetation within the areas that were surveyed. However, identification of individual trees of significance such as veteran trees should be regarded as provisional. A comprehensive survey should be undertaken to inform any planning application. This should pay particular regard to areas not previously surveyed to the west and the compartments containing mature trees and semi-natural woodland identified in the table below. These are the most likely to contain currently unmapped veteran trees.

Table 2 Distribution of veteran trees

Compartments with identified veteran trees	Compartments most likely to contain unidentified veteran trees
None	C10; C12; C16

Felling Licences

- 3.14 It is an offence under the Forestry Act (1967) to fell trees without a licence unless an exemption applies.
- 3.15 Pruning; small scale felling; hazard and nuisance abatement; and felling in a domestic garden, orchard, churchyard or designated open space are amongst those works that may be exempt.⁵
- 3.16 There are parts of the site that should be considered exempt from felling licence jurisdiction, including domestic gardens. Also, certain operations are exempt and advice should be sought when considering tree works. In the absence of a detailed planning permission, any tree works may require a felling licence.

Hedgerow Regulations

- 3.17 The Hedgerow Regulations (1997) protect hedgerows that meet certain criteria⁶. This report does not include an assessment to determine which, if any, features would be protected under the Regulations. Hedges less than 20m long, in domestic gardens, or younger than 30 years are less likely to be protected.
- 3.18 Any removal of a protected hedgerow or a section of a protected hedgerow must only be done with the written consent of the Local Authority.

⁵ See <https://www.forestry.gov.uk/england-fellinglicences> for details

⁶ See <https://www.gov.uk/guidance/countryside-hedgerows-regulation-and-management> for details

- 3.19 The site contains numerous hedges along boundaries, internal tracks and around residential curtilages. Hedgerow that is mapped on Drawing 2 may qualify as 'Important' hedgerow under the Regulations on the grounds of woody species and ecological criteria. It is possible that linear vegetation including scrub and trees that is not mapped as hedgerow might qualify but a full assessment has not been undertaken.

Habitats of Principal Importance

- 3.20 The Natural Environment and Rural Communities Act 2006 places a duty on public bodies to show regard for biodiversity in the normal discharge of their functions. The Act requires a schedule of Habitats of Principal Importance to be maintained. This schedule (section 41 in England) is used by public bodies as a guide to the interpretation of their duty to conserve biodiversity. The list of habitats is based on the previously published list of Biodiversity Action Plan 'Priority Habitats'. For this reason, mapping tends to follow broad habitat types and requires verification in the field.
- 3.21 There are a number of habitat types that pertain to trees: *Deciduous Woodland*; *Hedgerows*; *Wood Pasture and Parkland*; and *Traditional Orchards*.
- 3.22 *Deciduous Woodland* is used to represent a range of woodland types that are not mapped individually.
- 3.23 Mapping of *Deciduous Woodland* is based on remote digital analysis; the walkover survey was therefore used to test the publicly available deciduous woodland data. Pockets of woodland are widespread but mostly small. With the exception of scattered and widely-spaced trees along boundaries, hedgerow and trees in domestic gardens, all woody vegetation present is a type of deciduous woodland. Compartments 10, 12 and 24 are the largest woodland areas but smaller compartments 6, 14, 16, 18, 21 and 22 contribute around a fifth of the total. The extent of deciduous woodland that was recorded within the site and shown on Drawing 2 is approximately 6.33ha.
- 3.24 *Hedgerows* are defined as any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees or shrub species are less than 20m wide. It is likely that the most of the hedgerows on the site would meet the criteria for inclusion in this habitat type. It is possible that other vegetation could be considered to be hedgerow which has been recorded as woodland edges, for example where vehicles pass existing trees and trim growth to a clear edge. Circa 2,169m of hedgerows are shown approximately on Drawing 1.
- 3.25 *Wood Pasture and Parkland* is a less common and easily overlooked type of woodland habitat in which trees are a principal structural component but within an open and grazed context rather than high woodland. Veteran and ancient trees are often a feature and the presence of deadwood and grazing animals create niche habitats for a range of lichens, insects, fungi and flora that occur exclusively in this habitat. None of the site is mapped as *Wood Pasture and Parkland*. The survey identified nothing to refute this.

- 3.26 *Traditional Orchard* includes most non-commercial and non-intensive orchards. There are no records of Traditional Orchards on or adjacent to the site. The survey identified nothing to refute this

Community Forest

- 3.27 The site is within the Mersey Forest community forest. It is also within the recently announced Northern Forest. These may provide a useful vehicle for coordinating, consulting on, planning, funding, or maximising benefits delivered by tree and woodland management. In view of the tree population present, it is suggested that the Mersey Forest should be consulted on proposed development and mitigation options.
- 3.28 Within the Mersey Forest Plan the majority of site falls within the *Agricultural land around the M62, Burtonwood, Winwick, Croft and Culcheth (W5)* area. The indicative woodland cover target for this area is 20% and the relevant policy is:

(i) *Create small woodlands and copses within a restored pattern of hedgerows and hedgerow trees. Create linear woodlands along highways, roads, and rights of way, around farm boundaries, and along the River Glaze, Sankey Brook, and Phipps Brook. Provide multi-use recreational corridors, for example connecting Burtonwood to Bold Forest Park in St. Helens and links to Rixton Clay Pits. Planting should soften any new development. Replant orchards around Croft. This area is of importance for farmland birds.*

- 3.29 A proportion of the site also falls within the *Urban edges, motorways and highways (W3)* area. This area includes a buffer of approximately 250m around the existing built-up area of Culcheth. The indicative woodland cover target for this area is 30% and the relevant policy is:

(i) *Increase woodland planting density and create linear woodlands, including along strategic green links such as the Bridgewater Canal and the Trans Pennine Trail.*

Other Designations and Status

- 3.30 None known.

4.0 Planning Policy

- 4.1 All trees are a material consideration. All other things being equal, the removal or deterioration of a tree, woodland or hedgerow should be regarded as an adverse effect and may therefore require mitigation to achieve no net loss.
- 4.2 Mitigation in the form of new planting is unlikely to deliver equivalent functions and benefits to existing trees, particularly where these are mature. Temporal delays in delivery, higher planting ratios, or additional measures may therefore form a necessary part of any mitigation strategy.

National Planning Policy Framework (NPPF)

- 4.3 The National Planning Policy Framework (NPPF) is a material consideration in the planning process and promotes a presumption in favour of sustainable development. In terms of the natural environment, development should minimise impacts on biodiversity and provide a net gain in biodiversity where possible.
- 4.4 The application of national planning policy, particularly the assessment of net impacts on tree cover and quality, is reinforced by published guidance in the form of BS5837:2012 Trees in relation to design, demolition and construction - Recommendations. It should be assumed that any necessary tree removal should be mitigated or offset and that any application should be supported by an assessment of residual impact by a qualified arboriculturist. It should also be assumed that all ancient woodland and veteran trees are sacrosanct and must be incorporated appropriately within any development.
- 4.5 The NPPF assumes protection of all ancient woodland and veteran trees unless there are wholly exceptional reasons and a suitable compensation strategy exists. In this respect ancient woodland is defined as an area which has been wooded continuously since at least 1600 AD and a veteran as a tree of exceptional value for wildlife, in the landscape, or culturally because of its great age, size or condition.
- 4.6 The absence of veteran trees on Drawings 2 should be confirmed in due course by detailed ground surveys.

Local Planning Policy

- 4.7 Warrington Borough Council has a number of adopted policies pertaining to trees and nature conservation in the Core Strategy. They are reproduced hereafter.

Policy QE 3

Green Infrastructure

- 4.8 The Council will work with partners to develop and adopt an integrated approach to the provision, care and management of the borough's Green Infrastructure. Joint working and the assessment of applications will be focussed on:
 - (i) protecting existing provision and the functions this performs;

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

Policy QE 5

Biodiversity and Geodiversity

- 4.9 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.
- 4.10 Sites and areas recognised for their nature and geological value are shown on the Policies Map and include:
- (i) European Sites of International Importance
 - (ii) Sites of Special Scientific Interest
 - (iii) Regionally Important Geological Sites
 - (iv) Local Nature Reserves
 - (v) Local Wildlife Sites
 - (vi) Wildlife Corridors
- 4.11 The specific sites covered by the above designations at the time of publication are detailed in Appendix 3. [NB. This includes Moore Nature Reserve]
- 4.12 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.

- 4.13 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.
- 4.14 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.
- 4.15 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.
- 4.16 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;
- (i) importance; an assessment of the likely impacts of the proposed development proposals for the protection and management of features identified for retention;
 - (ii) an assessment of whether the reasons for the development clearly outweigh the nature conservation value of the site, area or species; and
 - (iii) proposals for compensating for features damaged or destroyed during the development process
- 4.17 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 QE 6

Environment and Amenity Protection

- 4.18 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:
- (i) The integrity and continuity of tidal and fluvial flood defences;
 - (ii) The quality of water bodies, including canals, rivers, ponds and lakes;

- (iii) Groundwater resources in terms of their quantity, quality and the ecological features they support;
- (iv) Land quality;
- (v) Air quality;
- (vi) Noise and vibration levels and times when such disturbances are likely to occur;
- (vii) Levels of light pollution and impacts on the night sky;
- (viii) Levels of odours, fumes, dust, litter accumulation and refuse collection/storage.
- (ix) 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;
- (x) The effect and timing of traffic movement to, from and within the site and car parking including impacts on highway safety;
- (xi) 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.

- 4.19 Proposals may be required to include detailed assessments in relation to any of the above criteria to the Council for approval.
- 4.20 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.
- 4.21 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.
- 4.22 Additional guidance to support the implementation of this policy is provided in the Design and Construction and Environmental Protection Supplementary Planning Documents.

Relevance to this site

- 4.23 The application and relevance of the above policies to any development on this site should be explored within an Arboricultural Impact Assessment. The function of woodland as habitat and in delivering ecosystem services such as stormwater interception should be evaluated in terms of policy compliance and in the context of other conservation objectives.

5.0 Tree Population Summary

- 5.1 Trees cover a relatively small proportion of the total site area. They are spread across the site within a matrix of woodland blocks and linear features, including hedgerow, hedgerow with mature trees and linear woodland belts.
- 5.2 There is reasonably good connectivity along the eastern edge of the survey area and also from north to south via Wellfield Wood. This connectivity is poorer along the northern boundary because of tree works undertaken along the railway embankment which have removed or reduced many trees in size and quality. In other areas, connectivity is reliant on gappy hedgerow or rows of individual open-grown trees as 'stepping stones' and these links could be improved.
- 5.3 There is evidently a gap in the treescape where elm trees were once more common and larger in stature, which has yet to be filled. There are dead elms in some areas and elms are also listed in historic TPOs across the site.
- 5.4 Trees provide good delineation of internal and perimeter boundaries and are a ubiquitous backdrop in most areas. Mature trees and hedges also soften the appearance of Culcheth High School, the railway and adjacent dwellings. The site includes a number of mature specimen trees such as oaks around Leatherbarrow Farm as well as woodland of excellent quality to the east of the survey area.
- 5.5 Small pockets of woodland such as compartment C6, C14, C16 and C21 contain good quality trees and habitats but may be vulnerable due to their size and fragmentation. Compartment C21 for example, contains trees in poor condition which currently have some habitat interest due to dead wood, cracks and splits and the complexity of vegetation. However, there is little regeneration and the group may ultimately be diminished to a shrubby character as the existing trees mature and decline.
- 5.6 The survey categorised woody vegetation into the broad types shown in the table below. These are based on the categories used by the National Forest Inventory remote assessment method, which are mapped on Drawing 1. The survey confirmed the actual extents of these vegetation types within accessible areas and a more accurate representation of the vegetation present is shown on Drawing 2 for comparison.
- 5.7 Reference numbers as per the table below relating to types of tree cover are used in Appendix A. Each area of tree cover that is spatially distinct or with a distinct character from surrounding vegetation was mapped as a separate 'Compartment'. Where a secondary descriptor was useful to add texture to the description and to more clearly identify the characteristics of the compartment, these were added to the survey data but are not presented graphically.

Table 3 Approximate quantum of woody habitats

Reference	Woody habitat type	Area
1	Broadleaved	13.29 ha
2	Conifer	0.0 ha
3	Coppice	0.0 ha
4	Coppice with standards	0.0 ha
5	Failed	0.0 ha
6	Felled	0.0 ha
7	Ground preparation	0.0 ha
8	Low density	0.0 ha
9	Mixed mainly broadleaved	0.69 ha
10	Mixed mainly conifer	0.0 ha
11	Shrub	0.0 ha
12	Windthrow	0.0 ha
13	Young trees	0.0 ha

- 5.8 Mature individual trees are also shown approximately on the survey plans. These identify mature trees that are not within woodland as well as trees within woodland that are notable for their size or difference from surrounding vegetation, either individually or as a collective feature. Strong linear features comprising individual trees whose primary function is as a group are recorded as groups but may be excluded from deciduous woodland area calculations.
- 5.9 A short description of each surveyed compartment is included in the survey data at Appendix A.

6.0 Preliminary Assessment of Effects

- 6.1 Wherever development occurs, there is a potential for effects on trees. This might comprise the removal of trees that would physically prevent the development but also those that are nearby and vulnerable to changes in local conditions that would arise because of construction.
- 6.2 Trees are a material consideration in the planning process. There should be a common sense ambition to limit tree loss to that which is strictly necessary to facilitate the proposal, and to ensure that the condition and safety of all remaining trees would not be compromised by the development. The quality and distribution of trees should also be considered amongst other constraints in the development of the proposed design and may not always have the highest priority.
- 6.3 The approximate extents of woody vegetation and relevant designations and status are shown on Drawing 2. This should be used as a basis for masterplanning and feasibility studies but should not be relied upon for detailed layout design. The following text gives an overview of the likely impact of the masterplan proposals on key metrics of existing trees where these are known or can be estimated. Actual effects will be determined at the detailed design stage. It is assumed that any future design will be broadly similar to the Masterplan (reproduced at Drawing 3) but may be influenced by the constraints and opportunities presented in this report and by other technical disciplines.

Development Proposals

- 6.4 The proposed development area promotes delivery of up to 600 units (300 units to be delivered during the plan period and a further 300 units to be safeguarded). Including provision for associated infrastructure, the developable area incorporates 23.53ha of the site, all of which is currently agricultural. The masterplan also indicates a further 73.59ha allocated to new green infrastructure including the provision for a Country Park and natural and semi-natural greenspaces.

Canopy Cover

- 6.5 The primary tree and hedgerow losses would occur where new access is proposed off Warrington Road to the east and Twiss Green Lane to the west and where new internal access routes dissect existing field boundaries (C2, C3, C5, C26 and C27 in particular). Based on the tree cover mapped on Drawings 1 and 2 an estimated 0.06ha of tree cover and c. 160m of hedgerow would be removed.
- 6.6 Two areas identified as 'potential emergency links' if integrated into the development scheme as shown on the masterplan would likely result in the further loss of 0.1ha of compartment C24 (Wellfield Wood) and small sections of hedgerow compartment C1. This impact of the element of development could be lessened with detailed design at future reserved matters stages.
- 6.7 New access points off Warrington Road plus further internal access routes would also result in the loss of c. 170m of existing hedgerow.

- 6.8 Access to the western side of the site was not possible and the magnitude of impact cannot be measured in the same way as that to the east. However, it is likely that the majority of trees could be retained should the site be developed in broad accordance with the masterplan with only a small amount of trees removed to upgrade the existing access track for Tanners Farm and Leatherbarrow Farm.
- 6.9 The eastern extent of the site comprises a vegetated corridor of variable width, intactness and quality, beginning with compartment C6 in the south and running to compartment C16 in the north. This is an important link, partly because it includes three of the better woodlands on the site. Along with the tree cover across the north the masterplan indicates these would be conserved and strengthened where possible within the two large areas of proposed green infrastructure.

Table 4 Approximate quantum of woody habitats that would be removed

Woody habitat type	NFI Primary Vegetation Descriptor Ref.	Area
Broadleaved	1	0.16* ha

** 0.1ha of this may be retained if the potential emergency route is not developed in its current location*

Opportunities

- 6.10 There is a significant amount of new planting proposed on the masterplan within the natural and semi natural greenspace and parks and gardens which would eventually result in a net gain of both long term tree cover and quality. There is also an opportunity for the proposed formal and informal avenue network along internal access routes to eventually increase the habitat connectivity than that which exists currently.

Tree Quality

- 6.11 A simple assessment of quality has been made as a proxy for the likely magnitude of adverse effects or requirements for and anticipated difficulty in providing mitigation associated with tree loss in different parts of the site.
- 6.12 Compartments of Poor Quality are those that have identified defects or shortcomings. These may be remediable.
- 6.13 Compartments of Fair Quality are those that have no noteworthy defects or shortcomings, and no particular merit beyond the basic value of all trees and their function as part of the wider treescape, which is material.
- 6.14 Compartments of Good Quality are those with significant identified and material merit. They would tend to be more diverse, mature and delivering a range of benefits and functions than those in lower categories.
- 6.15 Compartments of Excellent Quality are those with substantial material merit. They are likely to be exceptional in their characteristics or the provision of benefits and functions. They may represent mature or climax vegetation or be associated with a higher incidence of veteran trees and protected species.

Table 5 Quality of surveyed compartments

Excellent Quality	Good Quality	Fair Quality	Poor Quality
3	20	4	1

- 6.16 A breakdown of canopy loss estimate by quality assessment is provided in the following table.

Table 6 Approximate Quality of woody habitats that would be removed

Woody habitat type	Excellent Quality	Good Quality	Fair Quality	Poor Quality	Total
Broadleaved	0.00ha	0.16ha*	0.00ha	0.0ha	0.16ha*

** 0.1ha of this may be retained if the potential emergency route is not developed its current location*

Veteran Trees

- 6.17 No veteran trees were identified during the walkover assessment but it is not possible to rule out their presence in areas where access was restricted. It will be necessary for any future layout to respond to the presence of veteran trees should they be identified during more detailed survey work.

7.0 Recommendations

Tree Works

- 7.1 Whilst the purpose of the walkover survey was not to identify tree works, the recommendations in Appendix A are based on observations that were made during the survey and should be considered to prevent future problems.
- 7.2 All works should be undertaken by a suitably qualified, competent and insured contractor. It is recommended that at least three quotations should be sought for works

Permissions

- 7.3 Authority to undertake the works recommended in Appendix A or any other routine maintenance works must be sought in advance of commencement.
- 7.4 The permission of the owner of the land around the base of the tree must be sought. For trees on boundaries, this may be more than one party.
- 7.5 Any tree works that are required to deliver development that has detailed consent will not normally require additional permissions, unless they are done under licence from Natural England because they would affect a protected species.
- 7.6 Works affecting any tree within an area covered by an active planning permission may risk breach of that planning permission except those expressly permitted by planning consent. Further works should not be undertaken until it has been determined that they are permitted or otherwise acceptable to the relevant consenting authority.
- 7.7 Based on the results of the desktop survey, some of the tree works recommended in Appendix A would be subject to TPO and require an application.
- 7.8 The recommended works may require a felling licence⁷ and any other thinning, felling or tree removal works that are not exempted may also require a felling licence. Such licences typically include requirements to replant trees.
- 7.9 It is considered unlikely that recommended works will affect protected hedgerow. If in doubt, the Local Authority should be contacted.
- 7.10 Additional consenting mechanisms may apply in certain circumstances including for works affecting protected species; close to overhead lines; in churchyards; close to airports; and for which access is required across or above land owned by third parties (including the Highways and Local Authorities).

⁷[https://www.forestry.gov.uk/pdf/FellingLicenceApplicationFormEnglandv2.doc/\\$FILE/FellingLicenceApplicationFormEnglandv2.doc](https://www.forestry.gov.uk/pdf/FellingLicenceApplicationFormEnglandv2.doc/$FILE/FellingLicenceApplicationFormEnglandv2.doc)

Detailed Tree Survey

- 7.11 A detailed tree survey undertaken according to BS5837:2012 will be required to inform a detailed design. This should record all trees, groups of trees, woodland, and hedgerow within influencing distance of the site. It should assess and report on: canopy spread of existing trees and groups; a Root Protection Area (RPA) calculated in accordance with BS 5837; and tree quality category that identifies the quality and value (in a non-fiscal sense) of the existing tree stock, to allow informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.
- 7.12 The level of detail in the tree survey may vary, providing greater resolution in areas of anticipated activity. Interior trees within larger groups or in areas of minimal intervention may be subject to a more general appraisal but should still be included in the survey.

Other types of Arboricultural Assessment

- 7.13 In order to assess the functions and benefits provided by existing trees, to quantify loss, and to justify any mitigation proposals it may be useful to undertake types of assessment that look at specific outcomes rather than simply tree quality (according to BS5837). In particular, *iTree Eco* quantitative modelling of ecosystem services and a biodiversity offsetting analysis may be useful tools within the planning process.

Arboricultural Impact Assessment

- 7.14 An Arboricultural Impact Assessment (AIA) will be required in support of a reserved matter/detailed application. This will identify, evaluate and possibly mitigate the impacts of developing land on the existing tree resource.
- 7.15 One function of the AIA process will be the consideration of trees alongside other project disciplines (layout, drainage, utilities etc.) in order to minimise future conflict and avoid uncalculated expense or undesirable tree loss.
- 7.16 The AIA should include a detailed Tree Removal Plan outlining the proposed schedule of tree works. It may also include details of any tree protection measures that would be required during the construction phase. In certain circumstances it may be appropriate to set out a heads of terms for tree protection and defer the detail to a Condition of planning consent.

Mitigation Planting & Landscaping

- 7.17 The National Planning Policy Framework (NPPF) is a material consideration in the planning process and promotes a presumption in favour of sustainable development. In terms of the natural environment, development should minimise impacts on biodiversity and provide a net gain in biodiversity where possible. In respect of trees, a sustainable development will be one whereby the total number, value or function provided by trees is maintained or increased or where the long-term prospects of the existing tree stock can be substantially improved.

- 7.18 Mitigation for the loss of trees as a result of development will be delivered via the creation of new planting within proposed green infrastructure; this would include an area of approximately 32.79ha of natural and semi-natural greenspace in the east and an area approximately 38.48ha in size for Culcheth Country Park. Further planting would be implemented along the sites internal road networks.
- 7.19 Approximately 0.16 hectares of tree cover and c. 170m of hedgerow would be removed if the development was carried out in strict accordance with the Masterplan but this may be subject to modification at the detailed design stage. The Masterplan indicates that in general, existing tree cover and arboreal connectivity across the site would be retained. Discussion is provided on the interrelationship of key arboricultural features in Section 6.
- 7.20 Based on the estimated tree loss figures provided above, mitigation for the total loss of tree cover could be delivered within the site proposals and would greatly improve existing tree cover once established.
- 7.21 The extent of replacement tree planting required to mitigate adverse effects should be assessed as part of the AIA process. The advice of a qualified Arboricultural Consultant should be sought during planting plan preparation to ensure species and placement suitability. Any new planting should not be viewed principally as an exercise in landscape architecture and aesthetic design but should be strongly informed by conservation and habitat objectives.

Post Development Management

- 7.22 As much of the site as possible should receive long-term management. Ideally, this would be through a single management plan to allow a single and coherent approach to inform the management of most areas. The objectives for this management plan should be set following consultation with a range of local and national stakeholders and experts.
- 7.23 Areas of the site that will be open to public access should be surveyed regularly for developing hazards. Trees are dynamic living organisms whose structure is constantly changing; even those in good condition can suffer from damage or stress. There is no set approach or period for tree inspection and the best approach should be determined when the future usage, management and ownership of the site has been determined.

APPENDIX A: Tree Survey Data

APPENDIX A: Tree Survey Data



Surveyor Tom Popplewell
Survey date 22nd May 2018
Site Land north east of Culcheth
Town Warrington

Ref	Main woody species	Primary Vegetation Descriptor	Secondary Vegetation Descriptor	Maturity	Quality	Description	Works Recommendations
	(Common name)	NFI	NFI	Young, Middle Age, Mature, Ancient, Young to Middle Age, Middle Age to Mature, Young to Mature	Excellent, Good, Fair, Poor		

Compartments

C1	Hawthorn; ash; grey willow; sycamore; elder	1		Middle Age	Good	Hedges with occasional trees; adjacent to track and with internal ditch; hedge around recreational field	
C2	Hawthorn	1		Middle Age	Good	Hedge with ditch	
C3	Hawthorn; grey willow; ash; silver birch	1		Middle Age	Good	Double hedge with footpath between; occasional trees on southern side	
C4	Sycamore	1		Middle Age to Mature	Good	Small stand by lane end	
C5	Hawthorn	1		Middle Age	Good	Hedge by road	
C6	Oak; hazel; alder	1		Middle Age to Mature	Good	Good quality oak dominated small remnant woodland stand in corner of field; heavy bramble and ivy on stems; small standing dead stem	Strengthen links to hedges and plant to extend out into field corner
C7	Hawthorn; oak; elder	1		Middle Age to Mature	Good	Gappy hedge in cluding mature hawthorn and elder with boundary trees	Infill planting to improve connectivity to C6
C8	Oak; hawthorn; hazel; holly	1		Middle Age to Mature	Good	Hedge with trees; some mature with cavities and aerial dead wood; good habitat feature; specimen trees are all oaks	
C9	Oak; elm; hawthorn; hazel	1		Middle Age to Mature	Good	Mature oaks on boundary with middle aged moribund and dead elm (not imminently hazardous); patchy hedge; oaks in good condition	Add oaks at southern end to complete link
C10	Oak; birch; rowan; hawthorn; grey willow; alder; beech; sycamore	1		Middle Age to Mature	Excellent	Mixed broadleaved woodland overhanging site; shallow ditch in some places on boundary; seasonally wet ponds; structurally diverse	
C11	Oak; hawthorn; sycamore	1		Middle Age to Mature	Good	Hawthorn hedge with oak trees; hedge managed on the sides	
C12	Hornbeam; crack willow; oak; hawthorn; hazel; grey willow; sycamore; ash; horse chestnut; holly; beech; yew	1		Middle Age to Mature	Excellent	High canopy diversity; footpaths on boundaries; standing dead stems; excellent structure and diversity of regeneration; pond boggy and with Himalayan balsam	Thin sycamore; eradicate Himalayan balsam
C13	Hawthorn; ash; oak; sycamore; hazel	1		Middle Age	Good	Lapsed hedgerow and small trees; unmanaged on top; some gaps	Infill planting to strengthen

APPENDIX A: Tree Survey Data

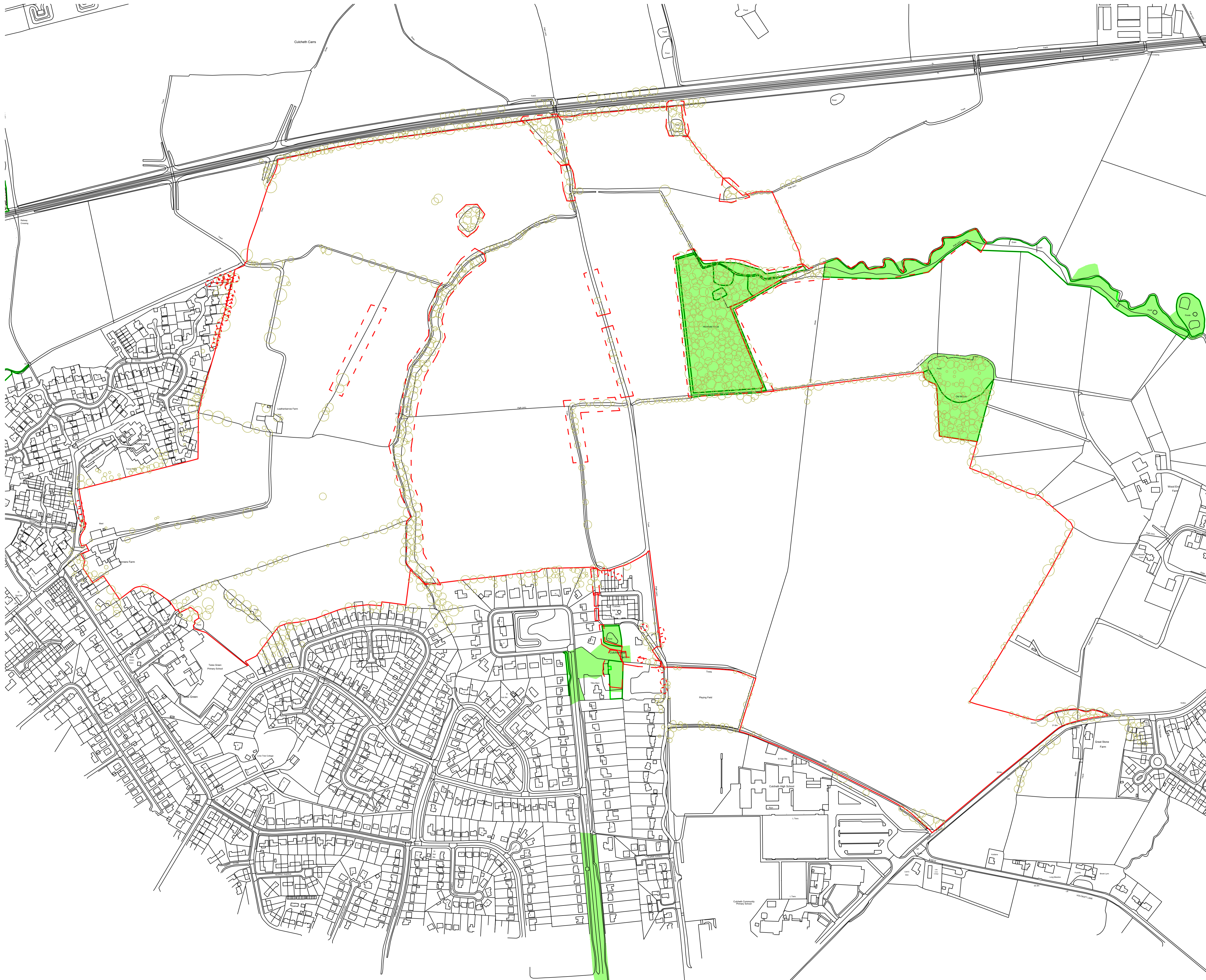
Ref	Main woody species	Primary Vegetation Descriptor	Secondary Vegetation Descriptor	Maturity	Quality	Description	Works Recommendations
	(Common name)	NFI	NFI	Young, Middle Age, Mature, Ancient, Young to Middle Age, Middle Age to Mature, Young to Mature	Excellent, Good, Fair, Poor		
C14	Oak; hazel; sycamore; birch' hawthorn	1		Middle Age to Mature	Fair	Small stand of oak with hazel understorey; occasional middle aged and mature hawthorn	
C15	Hawthorn; oak; grey willow; silver birch	1		Middle Age to Mature	Good	Thick hedge; good connectivity; ditch	Thicken with 10m wide planting strip to west
C16	Crack willow; alder; oak; hawthorn; sycamore	1		Mature	Excellent	Around pond; crack willow with typical failure and resprouting cycle; complex structure; good wet habitat	Give buffer of >10m
C17	Sycamore; wych elm; horse chestnut; crack willow; hawthorn	1		Middle Age to Mature	Fair	Moribund and dead elms; sycamore dominated; leggy; occasional hawthorn, willow and horse chestnut; partial screening of railway	Plant tall species inside boundary to improve screening
C18	Sycamore; oak; ash; elder; horse chestnut; wych elm; English elm; hawthorn	1		Middle Age to Mature	Good	Small woodland by railway	
C19	English elm; hawthorn; ash; grey poplar	1		Middle Age	Poor	Dead elm over natural regeneration and resprouting forming a rough hedge	Remove dead stems and replace with grey poplar or white poplar
C20	Alder; blackthorn; hawthorn; horse chestnut	1		Middle Age to Mature	Good	Trees along ditch	
C21	Horse chestnutp white willow; sycamore; hawthorn; ash	1		Middle Age to Mature	Fair	Messy and with many failures; standing dead wood; some habitat value	
C22	Ash; hawthorn; sycamore; oak	1		Middle Age to Mature	Good	Small stand by railway crossing	
C23	Oak; grey willow; elder; hawthorn; elm; ash; beech; hazel; elder	1		Middle Age to Mature	Good	Mature trees and some hedged sections; open grown form; key landscape element	
C24	English elm; wych elm; field maple; ash; oak; sycamore; sycamore; hawthorn	1		Middle Age to Mature	Good	By stream; strong feature; mature oaks; footpaths	
C25	Cypress; sycamore; birch; apple; hawthorn	9		Middle Age to Mature	Fair	Rear garden trees and hedgerow	
C26	Hawthorn	1		Middle Age to Mature	Good	Hedge east of footpath; overhead line (low voltage)	

APPENDIX A: Tree Survey Data

Ref	Main woody species	Primary Vegetation Descriptor	Secondary Vegetation Descriptor	Maturity	Quality	Description	Works Recommendations
	(Common name)	NFI	NFI	Young, Middle Age, Mature, Ancient, Young to Middle Age, Middle Age to Mature, Young to Mature	Excellent, Good, Fair, Poor		
C27	Sycamore; ash; oak; hawthorn; elm; horse chestnut	1		Middle Age to Mature	Good	Hedge with trees; occasional dead elm; footpath; TPO trees to north not present	
C28	Oak; hawthorn; hazel; blackthorn	1		Middle Age	Good	Early middle aged oak by grass area adjacent to footpath; hedge of hazel, hawthorn and blackthorn at southern end opposite C26	

DRAWINGS

- Drawing 1 - Arboricultural Desktop Overview**
- Drawing 2 - Arboricultural Survey Overview**
- Drawing 3 - North East Culcheth Conceptual Masterplan**



KEY

(This drawing must be reproduced in colour)

- Site Boundary
 - National Tree Map (c.941 trees)
- Mapped designations and classifications**
- Ancient Woodland (with 15m buffer) (None)
 - Tree Preservation Order (Warrington Borough Council) (Yes)
 - Habitat of Principal Importance (NERC: Deciduous Woodlands) (2.28ha)
 - Habitat of Principal Importance (NERC: Wood Pasture and Parkland) (None)
 - Habitat of Principal Importance (NERC: Traditional Orchard) (None)
 - Community Forest (Mersey Forest and Northern Forest) (All)
 - Ancient/Veteran/Notable Tree (Ancient Tree Inventory) (None)
 - Conservation Area (Warrington Borough Council) (None)

- Vegetation type (National Forest Inventory)**
- Assumed woodland (0ha)
 - Broadleaved (2.38ha)
 - Conifer (0ha)
 - Coppice (0ha)
 - Coppice with standards (0ha)
 - Failed (0ha)
 - Felled (0ha)
 - Ground preparation (0ha)
 - Low density (0ha)
 - Mixed mainly broadleaved (0ha)
 - Mixed mainly conifer (0ha)
 - Shrub (0ha)
 - Windthrow (0ha)
 - Young trees (0ha)

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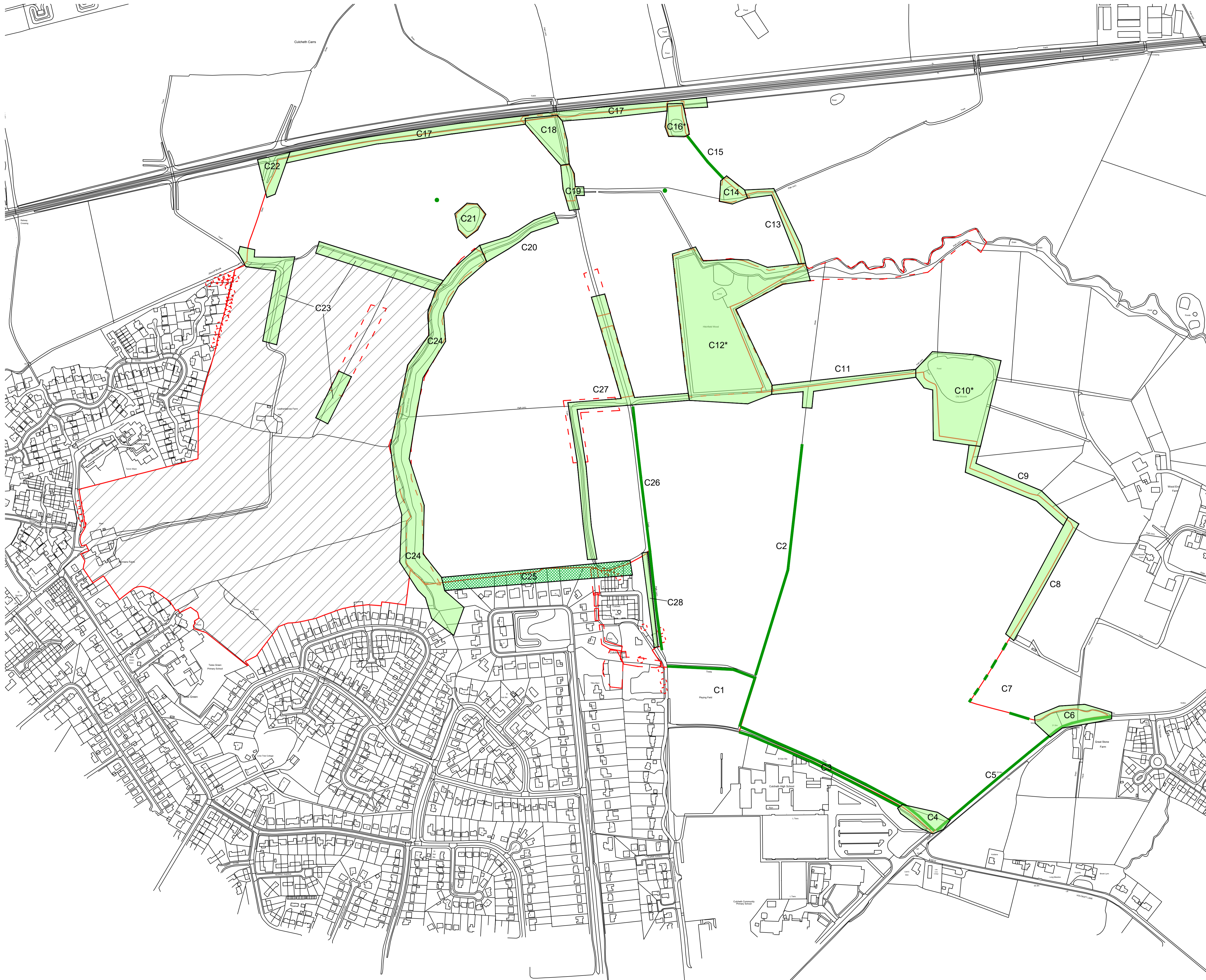
Rev	Description	Drawn	Approved	Date

THE ENVIRONMENT PARTNERSHIP
 Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
 Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
North East Culcheth, Arboricultural Walkover and Desktop
 Title
Arboricultural Desktop Overview

Drawing Number
D6929.02.020

Scale 1:3,000 @ A1	Date 11/05/2018
Drawn TDP	Checked JGS
	Approved JGS



KEY
 [This drawing must be reproduced in colour]

Site Boundary
 [Red line]

Not accessible for survey
 (Land not in Peel ownership)
 [Hatched area]

Designations and classifications (ground truthed)

[Purple square]	Ancient Woodland (15m buffer)	(None)
[Red dashed line]	Tree Preservation Order (Warrington Borough Council)	(Yes)
[Green outline]	Habitat of Principal Importance (NERC: Deciduous Woodland)	(6.33ha)
[Purple outline]	Habitat of Principal Importance (NERC: Wood Pasture and Parkland)	(None)
[Orange outline]	Habitat of Principal Importance (NERC: Traditional Orchard)	(None)
[Green outline]	Habitat of Principal Importance (NERC: Hedgerow)	(2,169m)
[Blue outline]	Community Forest (Mersey Forest and Northern Forest)	(All)
[Blue circle]	Veteran Tree 15m buffer (Compartments most likely to contain further veterans marked *)	(None)
[Yellow square]	Conservation Area (Warrington Borough Council)	(None)

Vegetation type (measurements taken within the boundary)

[Green dot]	Mature trees (non-woodland or notable)	
[Light green square]	Broadleaved	(13.29ha)
[Yellow-green square]	Conifer	(0ha)
[Purple square]	Coppice	(0ha)
[Purple square with dots]	Coppice with standards	(0ha)
[Red square]	Failed	(0ha)
[Brown square]	Felled	(0ha)
[Orange square]	Ground preparation	(0ha)
[Light green square]	Low density	(0ha)
[Green square]	Mixed mainly broadleaved	(0.69ha)
[Yellow-green square]	Mixed mainly conifer	(0ha)
[Blue square]	Shrub	(0ha)
[Purple square]	Windthrow	(0ha)
[Yellow square]	Young trees	(0ha)

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Rev	Description	Drawn	Approved	Date

THE ENVIRONMENT PARTNERSHIP
 Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
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Project
North East Culcheth, Arboricultural Walkover and Desktop
 Title
Arboricultural Walkover Overview

Drawing Number
D6929.02.021

Scale 1:3,000 @ A1	Date 11/05/2018
Drawn TDP	Checked JGS
	Approved JGS

Area measures:

Total site area	97.12 ha
Developable area	10.14 ha
Spine road	2.67 ha
Public Open Space	29.59 ha
Culcheth Country Park	38.48 ha
Allotments	0.45 ha
Formal sport	1.40 ha
Allotments/sports car park	0.33 ha
Country Park car park	0.14 ha
Proposed safeguarded land	13.92 ha

Potential development yield: 300 dwellings @ 30 dwellings per hectare



LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING
MASTERPLANNING
URBAN DESIGN



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Key

- Proposed site boundary
- Existing vegetation
- Existing watercourses and waterbodies
- Proposed tree and woodland planting
- Proposed development cell
- Proposed Culcheth Country Park
- Proposed open space
- Potential school extension
- Sites with planning applications / recently developed
- Safeguarded land for future development
- Proposed new sports pitches
- Retained PRoWs
- Proposed pedestrian links
- Proposed primary road
- Proposed secondary road
- Proposed car parks
- Proposed vehicular access
- Proposed access to Culcheth High School
- Potential emergency link
- Proposed allotments
- Proposed SuDS
- Proposed NEAP
- Proposed LEAP

NB: Masterplan subject to change following detailed survey work



Warrington Local Plan Sites

**North East Culcheth
Illustrative Masterplan Option B**

Drwg No: 630DC-22
Drawn by: SR
Rev by:
QM Status: Checked
Scale: NTS

Date: 07.06.19
Checker: SR
Rev checker:
Product Status:
Confidential Review



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November 2021

Peel L&P Holdings (UK) Limited

Predicted Agricultural Land Classification

at

Land North East of Culcheth, Warrington

Beechwood Court,
Long Toll, Woodcote,
RG8 0RR

01491 684 233

readingagricultural.co.uk

1 Introduction

- 1.1 Reading Agricultural Consultants Ltd (RAC) is instructed by Peel L&P Holdings (UK) Limited to assess the Agricultural Land Classification (ALC) of land to the north-east of Culcheth, Warrington, by means of a desktop appraisal of soil and site characteristics.
- 1.2 Guidance for assessing the quality of agricultural land in England and Wales is set out in the Ministry of Agriculture, Fisheries and Food (MAFF) revised guidelines and criteria for grading the quality of agricultural land (1988)¹, and summarised in Natural England's Technical Information Note 049².
- 1.3 Agricultural land in England and Wales is graded between 1 and 5, depending on the extent to which physical or chemical characteristics impose long-term limitations on agricultural use. The principal physical factors influencing grading are climate, site and soil which, together with interactions between them, form the basis for classifying land into one of the five grades.
- 1.4 Grade 1 land is excellent quality agricultural land with very minor or no limitations to agricultural use, and Grade 5 is very poor quality land, with severe limitations due to adverse soil, relief, climate or a combination of these. Grade 3 land is subdivided into Subgrade 3a (good quality land) and Subgrade 3b (moderate quality land). Land which is classified as Grades 1, 2 and 3a in the ALC system is defined as best and most versatile agricultural land.

2 Site and climatic conditions

General features, land form and drainage

- 2.1 The site extends to 97.12ha, most of which is agricultural land in arable use. Non-agricultural land comprises Hitchfield Wood in the east and the Leatherbarrow Farm buildings in the west.
- 2.2 The site is bounded to the south and west by the settlement of Culcheth, to the north by a railway line, and to the east by other agricultural land and Warrington Road.

¹ **MAFF (1988)**. *Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land*. MAFF Publications.

² **Natural England (2012)**. *Technical Information Note 049 - Agricultural Land Classification: protecting the best and most versatile agricultural land*, Second Edition.

2.3 The topography is gently sloping to level, at around 25m above Ordnance Datum (AOD) in the south-west, falling to 20m AOD to the north and east.

Agro-climatic conditions

2.4 Agro-climatic data for the site have been interpolated from the Meteorological Office's standard 5km grid point data set at a representative altitude of 25m AOD, and are given in Table 1. Climate at the site is wet and moderately warm with moderate to moderately small moisture deficits. The number of field capacity days is greater than is typical for lowland England and is unfavourable for providing opportunities for agricultural field work.

Table 1: Local agro-climatic conditions

Parameter	Value
Average Annual Rainfall	894mm
Accumulated Temperatures >0°C	1,421 day°
Field Capacity Days	212 days
Average Moisture Deficit, wheat	85mm
Average Moisture Deficit, potatoes	72mm

Soil parent material and soil type

2.5 The underlying geology mapped by the British Geological Survey³ is reddish-brown medium-grained sandstone of the Wilmslow Sandstone Formation. The distribution of superficial deposits is complex and includes:

- glaciofluvial sand and gravel deposits in the north and south of the site;
- glacial till in the centre of the site;
- glaciolacustrine clay and silt in the south-east and north-west; and
- alluvial clay, silt, sand and gravel associated with a small water course in the north-west.

2.6 The Soil Survey of England and Wales soil association mapping⁴ (1:250,000 scale) shows the Salop association across the site. These soils are mainly loamy or clayey with slowly permeable subsoils in reddish drift. Soils within this association tend to be waterlogged for long periods in winter and are commonly assessed as Wetness Class (WC) IV. Soils can potentially be assessed as WC III with improved drainage⁵.

³ **British Geological Survey (2021).** *Geology of Britain viewer*, <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

⁴ **Soil Survey of England and Wales (1984).** *Soils of Midland and Western England (1:250,000)*, Sheet 3

⁵ **Ragg et al. (1984).** *Soils and Their Use in Midland and Western England, Soil Survey of England and Wales*, Bulletin 12. Harpenden

3 Agricultural land quality

Existing data

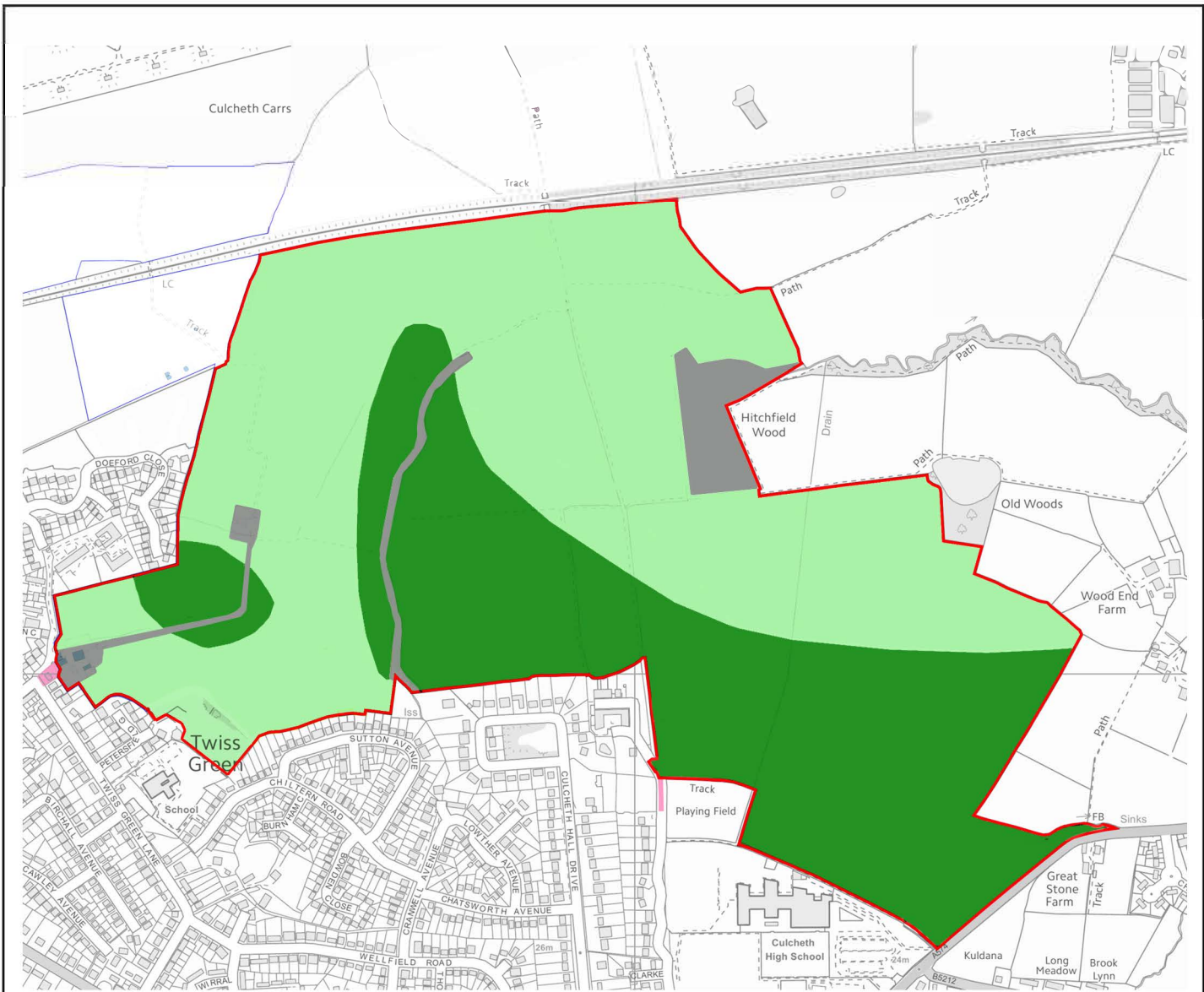
- 3.1 Provisional ALC mapping shows the site as undifferentiated Grade 3. However, Natural England's TIN049 explains that:

"These maps are not sufficiently accurate for use in assessment of individual fields or development sites, and should not be used other than as general guidance. They show only five grades: their preparation preceded the subdivision of Grade 3 and the refinement of criteria, which occurred after 1976. They have not been updated and are out of print. A 1:250 000 scale map series based on the same information is available. These are more appropriate for the strategic use originally intended ..."

- 3.2 Detailed ALC survey data is available for approximately half of the site, in the west and south-west, and shows the land to be of Grades 2 to 3b.
- 3.3 Soil profiles of Grade 2 include medium clay loam or sandy clay loam topsoils overlying sandy clay loam or sandy loam upper subsoil, passing to sand or loamy sand which extends to depth. The profiles are well drained (WC I) and limited slightly by droughtiness to Grade 2.
- 3.4 Soils of Subgrade 3a are similar in characteristics although they are gleyed in the subsoils and are classed as WC II or III. The main limitation to these profiles is soil wetness.
- 3.5 Profiles of Subgrade 3b contrastingly include clay subsoils which are gleyed and slowly permeable. Profiles are of WC IV and limited more severely by soil wetness.
- 3.6 Extrapolation of the pattern of land quality across the site results in the likely areas of each ALC grade given in Table 2 and shown in Figure RAC8025-1e.

Table 2: Agricultural land classification

Grade	Description	Area (ha)	%
2	Very good quality	3.0	3
3a	Good quality	35.7	37
3b	Moderate quality	54.5	56
Non-Agricultural		3.9	4
Total		97.1	100



- | | | |
|-----------------------------|--------------------------------|--------------------------------|
| Grade 1 - excellent quality | } Best and most versatile land | Subgrade 3b - moderate quality |
| Grade 2 - very good quality | | Grade 4 - poor quality |
| Subgrade 3a - good quality | | Grade 5 - very poor quality |
| Not Present | | |



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Scale 1:10,000@A4 Nov 2021

Figure RAC8025-1e: MAFF and Predicted ALC

Site: Land North East of Culcheth, Warrington

Client: Peel L&P Holdings (UK) Limited

**Reading
Agricultural
Consultants**



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NOISE SCREENING ASSESSMENT

on behalf of

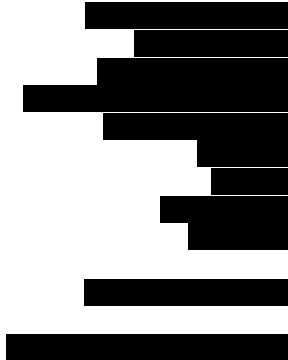
PEEL L&P HOLDINGS (UK) LIMITED

for the site at

NORTH EAST OF CULCHETH

REPORT DATE: 11TH NOVEMBER 2021

REPORT NUMBER: 101864_V3



Company registration number 5201673

Summary



Miller Goodall Ltd (MG) has, on behalf of Peel L&P Holdings (UK) Ltd, undertaken a desktop noise screening assessment, a preliminary walk over survey and preliminary noise measurements to review the potential issues associated with noise on a proposed residential development comprised of 900 homes of mixed tenure (including affordable housing) and a large country park. The study has been undertaken to support the promotion of the land through the Warrington Local Plan.

The study concludes that noise should not be a barrier to residential development on all parcels land except for areas in close proximity to industrial areas or transport uses where additional noise mitigation may be required. The impact of the proposed HS2 route has also been discussed within the assessment.

In relation to the impact of the developments on the noise environment, information is limited and significance will need to be assessed via detailed modelling at a later date and mitigation measures considered.

For some of the proposed site, given the location of the railway, road network and industrial noise sources full noise assessments would be required at the planning stage to ensure all noise sources are fully assessed and appropriate mitigation measures identified as part of a full application.

Record of changes

Prepared By	James Sharpe AMIOA	Reviewed By	Jo Miller MIOA CIEH
Signed		Signed	
Date	11th November 2021	Date	11th November 2021

Version	Date	Change	Initials
1	6 th July 2018	Final issue	JLM
2	4 th November 2021	Minor Amendments	JS
3	11 th November 2021	Minor Amendments	JS

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Appendix 4b: DEFRA Night time Railway Noise Mapping, L_{Aeq} , Night, 8hr 27

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1 Introduction

- 1.1 This noise screening assessment is submitted in support of a proposed housing allocation within the Warrington Local Plan for a site located on the land west of North East of Culcheth. The site sits within the administrative boundary of Warrington Metropolitan Borough Council (WMBC).
- 1.2 This report provides a review of the existing noise sources in proximity to the proposed development site and assesses the potential impact of the proposed development on the local noise environment.
- 1.3 The external noise in urban areas is generally dominated by road traffic sources, along with industrial and commercial sources in some areas. Generally residential areas do not generate significant noise sources of concern.
- 1.4 Noise impacts need to be considered as part of the planning process both to ensure the new development does not create adverse noise impacts on existing receptors and also that new developments are not impacted by the existing noise sources.
- 1.5 An initial review of the area has been undertaken to determine existing and future noise sources and noise sensitive receptors and any potential key noise issues have been identified together with any additional work which may be required.

2 Site Description

- 2.1 The site is approximately 97.12 ha in size and currently comprises a mix of agricultural land and woodland. The Manchester to Liverpool Railway Line runs along the northern site boundary, beyond this there are agricultural fields. There are residential dwellings to the west of the site, to the east of the site there is a mixture of woodland, agricultural fields and residential dwellings. To the south of the site there is Culcheth High School, Twiss Green Community Primary School and residential dwellings. The site location is shown in Appendix 1.

3 Proposed Development

- 3.1 The proposed development consists of approximately 900 homes of mixed tenure (including affordable housing), a large country park and a natural/semi natural green space. There is also a potential school extension proposed at the site along with proposed new sports pitches. The draft illustrative masterplan is provided in Appendix 2.

4 Policy Context

4.1 Noise Policy Statement for England

- 4.1.1 The Noise Policy Statement for England (NPSE¹), published in March 2010, sets out the long-term vision of Government noise policy. The Noise Policy aims, as presented in this document, are:

¹Noise Policy Statement for England, Defra, March 2010

“Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- avoid significant adverse effects on health and quality of life;
- mitigate and minimise adverse effects on health and quality of life; and
- where possible, contribute to the improvement of health and quality of life.”

4.1.2 The NPSE makes reference to the concepts of NOEL (No Observed Effect Level) and LOAEL (Lowest Observed Adverse Effect Level) as used in toxicology but applied to noise impacts. It also introduces the concept of SOAEL (Significant Observed Adverse Effect Level) which is described as the level above which significant adverse effects on health and the quality of life occur.

4.1.3 The first aim of the NPSE is to avoid significant adverse effects, taking into account the guiding principles of sustainable development (as referenced in Section 1.8 of the Statement). The second aim seeks to provide guidance on the situation that exists when the potential noise impact falls between the LOAEL and the SOAEL, in which case:

“...all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development”.

4.1.4 Importantly, the NPSE goes on to state:

“This does not mean that such adverse effects cannot occur”.

4.1.5 The Statement does not provide a noise-based measure to define SOAEL, acknowledging that the SOAEL is likely to vary depending on the noise source, the receptor and the time in question. NPSE advises that:

“Not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available”

4.1.6 It is therefore likely that other guidance will need to be referenced when applying objective standards for the assessment of noise, particularly in reference to the SOAEL, whilst also taking into account the specific circumstances of a proposed development.

4.2 National Planning Policy Framework

4.2.1 The National Planning Policy Framework (NPPF²) initially published in March 2012, was updated in July 2021. One of the documents that the NPPF replaces is Planning Policy Guidance Note 24 (PPG 24) “Planning and Noise”³.

² National Planning Policy Framework, Ministry of Housing, Communities and Local Government, July 2021

³ Planning Policy Guidance 24: Planning and Noise, DCLG, September 1994

4.2.2 The revised NPPF advises that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives). One of these is an environmental objective which is described in par. 8 (c):

“to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.”

4.2.3 At par. 174 we are advised that:

“Planning policies and decisions should contribute to and enhance the natural and local environment by:

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans.

4.2.4 Par. 185 goes on to state:

“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;

b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

4.2.5 Par. 187 seeks to ensure that any development does not prejudice the legally permitted operations and activities of other, existing non-residential uses, stating:

“Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or ‘agent of change’) should be required to provide suitable mitigation before the development has been completed.”

4.3 Planning Practice Guidance – Noise

4.3.1 As of March 2014, a Planning Practice Guidance⁴ for noise was issued which provides additional guidance and elaboration on the NPPF, the guidance was updated in July 2019. It advises that when plan-making and decision-taking, the Local Planning Authority should consider the acoustic environment in relation to:

- Whether or not a significant adverse effect is occurring or likely to occur;
- Whether or not an adverse effect is occurring or likely to occur; and
- Whether or not a good standard of amenity can be achieved.

4.3.2 In line with the Explanatory Note of the NPSE, the PPG goes on to reference the LOAEL and SOAEL in relation to noise impact. It also provides examples of outcomes that could be expected for a given perception level of noise, plus actions that may be required to bring about a desired outcome. However, in line with the NPSE, no objective noise levels are provided for LOAEL or SOAEL although the PPG acknowledges that:

“...the subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any particular situation”.

4.3.3 Examples of these factors include:

- The source and absolute noise level of the source along with the time of day that it occurs;
- Where the noise is non-continuous, the number of noise events and pattern of occurrence;
- The frequency content and acoustic characteristics of the noise;
- The effect of noise on wildlife;
- The acoustic environment of external amenity areas provided as an intrinsic part of the overall design;
- The impact of noise from certain commercial developments such as night clubs and pubs where activities are often at their peak during the evening and night.

4.3.4 The PPG also provides general advice on the typical options available for mitigating noise. It goes on to suggest that Local Plans may include noise standards applicable to proposed developments within the Local Authority’s administrative boundary, although it states that:

“Care should be taken, however, to avoid these being implemented as fixed thresholds as specific circumstances may justify some variation being allowed”.

4.3.5 The PPG was amended in December 2014 to clarify guidance on the potential effect of noise from existing businesses on proposed new residential accommodation. Even if existing noise levels are intermittent (for example, from a live music venue), noise will need to be carefully considered and appropriate mitigation measures employed to control noise at the proposed accommodation.

⁴ Planning Practice Guidance – Noise, <https://www.gov.uk/guidance/noise--2> 22nd July 2019.

5 Acoustic Standards and Guidance

5.1 ProPG: Planning & Noise – Professional Practice Guidance on Planning & Noise – New Residential Development – May 2017

5.1.1 ProPG: Planning and Noise is new guidance with the aim of delivering sustainable development and promoting good health and well-being through the effective management of noise which may impact on new residential developments. The guidance aims to complement the national planning policy and encourages the use of good acoustic design at the earliest phase of the planning process. It builds upon the recommendations of various other guidance documents including NPPF, NPSE and PPG-Noise, BS 8233 and WHO.

5.1.2 The guidance is applicable to new residential developments which would be exposed predominantly to noise from existing transport sources. The ProPG advocates a risk based approach to noise using a two-stage process:

- Stage 1 – an initial noise risk assessment of the proposed development site; and
- Stage 2 – a systematic consideration of four key elements: –
 - Element 1 – demonstrating a ‘Good Acoustic Design Process’;
 - Element 2 – observing internal ‘Noise Level Guidelines’;
 - Element 3 – undertaking an ‘External Amenity Area Noise Assessment’; and
 - Element 4 – consideration of ‘Other Relevant Issues’.

5.1.3 The ProPG approach is underpinned by the preparation and delivery of an ‘Acoustic Design Statement’ (ADS), whereby the higher the risk for noise at the site, the more detailed the ADS. The ADS should address the following issues:

- Present the initial site noise risk assessment, including the pre-development acoustic conditions prior to development;
- Describe the external noise levels that occur across the site both before and after any necessary mitigation measures have been incorporated. The external noise assessment with mitigation measures in place should use an informed judgement of typical worst-case conditions;
- Demonstrate how good acoustic design is integrated into the overall design and how the proposed acoustic design responds to specific circumstances of the site;
- Confirm how the internal noise level guidelines will be achieved, including full details of the design measures and building envelope specifications;
- A detailed assessment of the potential impact on occupants should be undertaken where individual noise events are expected to exceed 45 dB $L_{AF,max}$ more than 10 times a night inside bedrooms;

- Priority should be given to enable the use of openable windows where practical across the development. Where this is not practical to achieve the internal noise level guidelines with windows open, then full details of the proposed ventilation and thermal comfort arrangements must be provided;
- Present the findings of the external amenity area noise assessment;
- Present the findings of the assessment of other relevant issues;
- Confirm for a low risk site how adverse impacts of noise will be mitigated and minimised;
- Confirm for a medium or high noise risk site how adverse impacts of noise will be mitigated and minimised and clearly demonstrate that a significant adverse noise impact has been avoided.

5.1.4 ProPG target noise levels are based on existing guidance from BS 8233 and WHO (see below). Table 1 below outlines the guidance noise levels for different room types during day and night times.

Table 1: ProPG guideline indoor ambient noise levels for dwellings

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living Room	35 dB $L_{Aeq,16hr}$	-
Dining	Dining room/area	40 dB $L_{Aeq,16hr}$	-
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq,16hr}$	30 dB $L_{Aeq,8hr}$ 45 dB $L_{Amax,F}$

5.1.5 The footnotes to this table suggest that internal noise level limits can be relaxed by up to 5 dB where development is considered necessary or desirable, and still represent “reasonable” internal conditions. They also suggest that in such cases, external levels which exceed WHO guidance target levels (see WHO section below) may still be acceptable provided that reasonable internal noise levels are achieved. Although, where the acoustic environment of external amenity areas is intrinsic to the overall design, “noise levels should ideally not be above the range 50 – 55 dB $L_{Aeq,16hr}$ ”. The wording of ProPG (and BS 8233:2014) is clear that exceedance of guideline noise levels in external areas should not prohibit the development of desirable developments in any event.

5.2 BS 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings

5.2.1 This standard provides recommended guideline values for internal noise levels within dwellings which are similar in scope to guideline values contained within the World Health Organisation (WHO) document, Guidelines for Community Noise (1999)⁵. These guideline noise levels are shown in Table 2, below.

⁵ World Health Organisation Guidelines for Community Noise, 1999

Table 2: BS 8233: 2014 guideline indoor ambient noise levels for dwellings

Location	Activity	07:00 to 23:00	23:00 to 07:00
Living Room	Resting	35 dB $L_{Aeq,16hr}$	-
Dining room/area	Dining	40 dB $L_{Aeq,16hr}$	-
Bedroom	Sleeping (daytime resting)	35 dB $L_{Aeq,16hr}$	30 dB $L_{Aeq,8hr}$

5.2.2 BS 8233:2014 advises that:

“regular individual noise events...can cause sleep disturbance. A guideline value may be set in terms of SEL⁶ or $L_{Amax,F}$ depending on the character and number of events per night. Sporadic noise events could require separate values”.

5.2.3 BS 8233:2014 adopts guideline external noise values provided in WHO for external amenity areas such as gardens and patios. The standard states that it is “desirable” that the external noise does not exceed 50 dB $L_{Aeq,T}$ with an upper guideline value of 55 dB $L_{Aeq,T}$ whilst recognising that development in higher noise areas such as urban areas or those close to the transport network may require a compromise between elevated noise levels and other factors that determine if development in such areas is warranted. In such circumstances, the development should be designed to achieve the lowest practicable noise levels in external amenity areas.

5.3 World Health Organisation (WHO) Guidelines for Community Noise 1999

5.3.1 The WHO Guidelines 1999 recommends that to avoid sleep disturbance, indoor night-time guideline noise values of 30 dB L_{Aeq} for continuous noise and 45 dB L_{AFmax} for individual noise events should be applicable. It is to be noted that the WHO Night Noise Guidelines for Europe 2009⁷ makes reference to research that indicates sleep disturbance from noise events at indoor levels as low as 42 dB L_{AFmax} . The number of individual noise events should also be taken into account and the WHO guidelines suggest that indoor noise levels from such events should not exceed approximately 45 dB L_{AFmax} more than 10 – 15 times per night.

5.3.2 The WHO document recommends that steady, continuous noise levels should not exceed 55 dB L_{Aeq} on balconies, terraces and outdoor living areas. It goes on to state that to protect the majority of individuals from moderate annoyance, external noise levels should not exceed 50 dB L_{Aeq} .

⁶ Sound exposure level or L_{AE}

⁷ WHO Night Noise Guidelines for Europe 2009

5.4 BS 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound'

5.4.1 BS 4142:2014+A1:2019⁸ provides guidance on the assessment of the likelihood of complaints relating to noise from industrial sources. It replaced the 1997 edition of the Standard in October 2014 and was amended in June 2019. The amended version corrected a number of printing errors and further clarified that the standard is used to assess external noise levels, and not internal noise levels (although this can form part of the discussion regarding context). The key aspects of the Standard are summarised below.

5.4.2 The standard presents a method of assessing potential noise impact by comparing the noise level due to industrial sources (the Rating Level) with that of the existing background noise level at the nearest noise sensitive receiver in the absence of the source (the Background Sound Level).

5.4.3 The Specific Noise Level - the noise level produced by the source in question at the assessment location - is determined and a correction applied for certain undesirable acoustic features such as tonality, impulsivity or intermittency. The corrected Specific Noise Level is referred to as the Rating Level.

5.4.4 In order to assess the noise impact, the Background Sound Level is arithmetically subtracted from the Rating Level. The standard states the following:

- *Typically, the greater this difference, the greater the magnitude of the impact,*
- *A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context,*
- *A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context,*
- *The lower the Rating Level is relative to the measured Background Sound Level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the Rating Level does not exceed the Background Sound Level, this is an indication of the specific sound source having a low impact, depending on the context.*

5.4.5 In addition to the margin by which the Rating Level of the specific sound source exceeds the Background Sound Level, the 2014+A1:2019 edition places emphasis upon an appreciation of the context, as follows:

An effective assessment cannot be conducted without an understanding of the reason(s) for the assessment and the context in which the sound occurs/will occur. When making assessments and arriving at decisions, therefore, it is essential to place the sound in context.

5.4.6 The 2014 edition of BS 4142 also introduces a requirement to consider and report the uncertainty in the data and associated calculations and to take reasonably practicable steps to reduce the level of uncertainty.

⁸ BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound

5.5 Sport England: Artificial Grass Pitch (AGP) Acoustics – Planning Implications 2015

5.5.1 Sport England have produced a guidance document on noise from AGPs with the aim of:

- Increasing awareness of good design in sports facilities;
- Helping key building professions, clients, user representatives and other stakeholders to follow best practice; and
- Encouraging well designed sports facilities that meet the needs of sports and are a pleasure to use.

5.5.2 The guidance discusses the use of other guidance such as the World Health Organisation 'Guidelines for Community Noise', which states that to avoid 'moderate annoyance' during the daytime and evening the noise level should not exceed 50 dB $L_{Aeq(T)}$. However the guidance also states:

'Exceedance of the WHO guideline values does not necessarily imply significant noise impact and indeed it may be that significant impacts do not occur until much higher levels of noise exposure are reached'.

5.5.3 The guidance then discusses the comparison of the AGP noise against the existing noise climate and states:

'A 'slight' impact is considered for an increase less than 3 decibels'.

5.5.4 This increase is generally in line with acoustic principles that a 3 dB(A) increase is the minimum perceptible under normal conditions.

5.5.5 As part of drafting the guidance measurements were taken of noise levels during nine sports sessions on three separate AGP's with sports including; football, hockey and rugby, in order to obtain a 'typical' noise level generated from a 'typical' AGP sports session.

5.5.6 The most significant source of noise from a typical AGP was voice noise levels and the measured data provided a 'typical' free-field noise level of 58 dB $L_{Aeq(1 \text{ hour})}$ at a distance of 10 m from the sideline halfway marking from an APG.

5.5.7 The guidance recommends predicting the impact of the AGP based on the data provided within the guidance and topographical information about the site, along with the buildings and site layout. The guidance then recommends the determining noise criterion for AGP's proximity to residential properties to avoid moderate annoyance in the daytime and evenings as set by the WHO guidelines is 50 dB $L_{Aeq(1 \text{ hour})}$ upper noise limit external to residential properties with external living areas.

5.5.8 The guidance suggests that on level ground a sports pitch should be located a minimum of 40m distant (measured from the sideline) from the nearest ground level noise sensitive receptor in order to achieve WHO guideline noise levels at the receptor and to avoid moderate annoyance.

6 Impact of Existing Noise Sources on the Development

6.1 Measurements of Existing Noise Sources

6.1.1 Indicative noise measurements were undertaken at one location identified in Appendix 1 in accordance with BS 7445-1: 2003⁹ by Steve Maslivec of Miller Goodall Ltd. The calibration of the sound level meter was checked before and after measurements with negligible deviation (<0.1 dB). Details of the equipment used are shown in Table 3, below.

Table 3: Noise monitoring equipment

Equipment Description	Type Number	Manufacturer	Serial No.	Date Calibrated	Calibration Certification Number
Class 1 Integrating Real Time 1/3 Octave Sound Analyser	NOR 140	Norsonic	1406017	23/05/17	03238/2
Microphone	NOR 1225	Norsonic	151206	23/05/17	03238/2
Class 1 Calibrator ¹⁰	Type 4231	Brüel & Kjær	2478249	18/05/17	03238/1

6.1.2 Specific, background and ambient noise monitoring was undertaken at the times specified in Table 4, below. Weather conditions were determined both at the start and on completion of the survey. It is considered that meteorological conditions were appropriate for environmental noise measurements.

Table 4: Dates, times and weather conditions during noise measurements

Measurement Location	Date	Time	Weather conditions
MP1	06/06/2018	12:00	Sunny, no wind, dry and 15°C

6.1.3 Measurements were taken to establish an estimate of the noise levels in the area. Further more detailed noise monitoring would be required to support a full noise assessment for the site.

6.1.4 The measurement locations are detailed below and indicated on Appendix 1.

- MP1 Approximately 20 m from the railway line, open field setting, railway on embankment about 10 - 12 m higher.

6.1.5 The noise sources within the vicinity of the measurement locations are summarised in Table 5, below:

⁹ BS 7445-1: 2003 Description and measurement of environmental noise - Part 1: Guide to quantities and procedures

¹⁰ IEC 60942 (2003) Electroacoustics – Sound calibrators

Table 5: Description of noise sources affecting the site

Measurement Locations	Noise Sources
MP1	Railway line, distant road traffic, birdsong and children playing within the various schools located around the site.

6.2 Monitoring Results

6.2.1 A summary of the broadband measurement data is provided in Table 6 below. All data are sound pressure levels in dB re 20 μ Pa.

Table 6: Summary of noise measurements

Measurement Location	Start Time	$L_{Aeq,T,5}$ mins (dB)	Overall L_{AFmax} (dB)	$L_{AF10,5}$ mins (dB)	$L_{AF90,5}$ mins (dB)
MP1	12:00:01	57.0	78.5	43.7	31.1
MP1	12:05:01	37.0	62.4	38.9	30.3
MP1	12:10:01	49.0	69.6	45.6	31.4
MP1	12:15:01	60.7	83.9	53.0	32.4
MP1	12:20:01	53.8	74.7	42.5	33.7
MP1	12:25:01	41.2	60.8	44.5	33.5
MP1	12:30:01	42.2	56.0	45.9	33.6
MP1	12:35:01	47.0	67.2	41.3	30.7
MP1	12:40:01	64.1	88.6	48.4	31.0
MP1	12:45:01	52.9	62.4	56.4	44.8

6.2.2 Each measurement period consisted of sequential 5-minute samples.

6.2.3 An average of the results of the noise monitoring have been assessed against the ProPG noise risk levels to determine the potential effect of noise on the proposed site without mitigation measures. The risk level has been determined based on the measured daytime noise levels at the monitoring position.

6.2.4 The results indicate that at the monitoring position the noise levels are within the guideline values for ProPG, although the site is a large site the location of the monitoring position was closest to the railway line and therefore likely to be the loudest location. The monitoring was purely undertaken to obtain a guide of the levels of noise on the site. No night-time noise measurements have been undertaken to date.

Table 7: ProPG Noise Risk Level Assessment

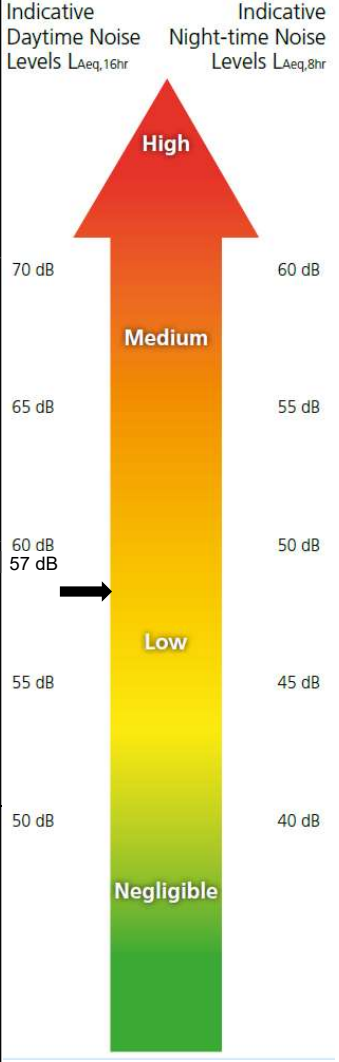
Noise Risk Assessment	Potential Effect Without Noise Mitigation	Pre-Planning Application Advice
	<p>Increasing risk of adverse effect</p>	<p>High noise levels indicate that there is an increased risk that development may be refused on noise grounds. This risk may be reduced by following a good acoustic design process that is demonstrated in a detailed ADS. Applicants are strongly advised to seek expert advice.</p> <p>As noise levels increase, the site is likely to be less suitable from a noise perspective and any subsequent application may be refused unless a good acoustic design process is followed and is demonstrated in an ADS which confirms how the adverse impacts of noise will be mitigated and minimised, and which clearly demonstrate that a significant adverse noise impact will be avoided in the finished development.</p> <p>At low noise levels, the site is likely to be acceptable from a noise perspective provided that a good acoustic design process is followed and is demonstrated in an ADS which confirms how the adverse impacts of noise will be mitigated and minimised in the finished development.</p> <p>These noise levels indicate that the development site is likely to be acceptable from a noise perspective, and the application need not normally be delayed on noise grounds.</p>

Table Notes:

- a. Indicative noise levels should be assessed without inclusion of the acoustic effect of any scheme specific noise mitigation measures.
- b. Indicative noise levels are the combined free-field noise level from all sources of transport noise and may also include industrial/commercial noise where this is present but is not dominant.

6.2.5 As can be seen in Table 7 above, the noise levels measured at the site indicate “low adverse effect”, where some form of noise mitigation shall be required during the detailed design phase, however as previously stated these levels are a short-term indication of the noise levels for the site and do not include night-time levels.

6.3 Noise Mapping

6.3.1 Environmental noise mainly consists of noise from transport sources, such as road, rail and aviation. Department for Environment, Food and Rural Affairs (DEFRA) is responsible for creating noise maps and drawing up Action Plans under the Environmental Noise (England) Regulations 2006 (as amended), which requires Defra to:

- adopt noise maps which show people's exposure to environmental noise;
- adopt action plans based on the results of noise mapping
- aims to preserve environmental noise quality where it is good; and
- provides information to the public on environmental noise and its effects.

6.3.2 Noise mapping has been undertaken by the Department of Environment Food and Rural Affairs (DEFRA) in 2017. Maps have been provided for main noise sources including road traffic noise and railway lines. The daytime and night time noise maps for the area are shown for both road traffic noise and railway noise in Appendices 3a, 3b, 4a and 4b respectively. The results show the predicted $L_{Aeq, Daytime, 16hour}$ and $L_{Aeq, Night, 8hour}$ results around the site, taken at a grid height of 4 m.

6.4 Road Traffic Noise

6.4.1 The main existing road traffic noise source which has the potential to impact on the site is from the A574, located at the south east corner of the site, adjacent to Culcheth Community Campus. At this point road traffic noise levels are likely to exceed 55 dB $L_{Aeq, 16hour}$ in the daytime and 50 dB $L_{Aeq, 8hour}$ in the night time. Therefore, a more detailed assessment will be necessary to determine the impact of this noise source on any proposed housing.

6.4.2 For the remainder of the site, road traffic noise is likely to be insignificant in terms of impact and so no further assessments will be necessary.

6.5 Railway Noise

6.5.1 Results of the noise mapping produced on behalf of DEFRA for the railway are provided in Appendix 4a and 4b for daytime and night time levels.

6.5.2 The railway line runs horizontally to the north boundary of the site. The railway line consists of the Manchester to Liverpool Railway line. The railway line is approximately 10 – 12 m higher than the site level.

6.5.3 The height of the railway line may create an issue in relation to noise mitigation for the external amenity areas, since the height of the source of the noise is higher than the receptors. The level of noise in the external garden areas would need to be carefully considered at the design stage of the planning application. The noise mapping indicates areas where the noise levels are in excess of 55 dB $L_{Aeq, 16hours}$ in the daytime and 50 dB $L_{Aeq, 8hours}$ in the night time. These specific areas to the north of the site would obviously require careful assessment at the detailed planning application stage to determine the extent of mitigation of railway noise.

6.5.4 The proposed HS2 railway line runs to the south of the NE Culcheth site and is approximately 1.5 km from the nearest point of the development. We would therefore not envisage that the proposed HS2 line would impact significantly on the site.

6.6 Industrial/Commercial Noise

- 6.6.1 The main commercial/industrial areas and noise sources which have the potential to impact on the development site have been identified from a desktop internet search and observations during a site visit.
- 6.6.2 There is only one likely noise source of concern and this is the Culcheth Community Campus. The campus is located at the south east corner of the development site on the A574/Warrington Road. The types of noise source associated with the campus include outdoor sports areas, plant and machinery and car parking.
- 6.6.3 There are a number of farmsteads to the west and to the east of the development site, but in terms of noise impact all are considered to be not significant.
- 6.6.4 A detailed noise assessment has not been undertaken in relation to these noise sources and consequently a noise assessment would be prepared and submitted alongside future applications to consider these sources in more detail.

7 Impact of Noise from the Proposed Development

7.1 Transport Noise

- 7.1.1 New residential developments will result in additional vehicles on the local road network. Assuming that every household on the site regularly uses one or two cars for commuting, this will result in a maximum of around 1,800 extra cars being added to the nearby traffic environment at peak times.
- 7.1.2 Design Manual for Roads and Bridges – Noise and Vibration November 2011 (DMRB) states that a change in noise level of 1 dB $L_{A10,18\text{hour}}$ would result from a 25% increase or 20% decrease in traffic flow (assuming other factors remain unchanged). A change of 3 dB $L_{A10,18\text{hour}}$ is equivalent to a 100% increase or 50% decrease in traffic flow. A change of 3 dB correlates well with the threshold at which a change in noise level begins to become subjectively perceptible.
- 7.1.3 The site is likely to require some degree of DMRB assessment for planning.

7.2 Construction Noise and Vibration Impacts

- 7.2.1 It is common for the control of construction noise, vibration and dust emission to be addressed by the application of Best Practicable Means (BPM) and detailed within a Construction and Environmental Management Plan (CEMP). The impact of construction noise from a development of this size is likely to be the main noise impacting on existing noise sensitive receptors, albeit over a relatively short period of time.
- 7.2.2 Prior to commencement of works, a quantitative noise impact assessment using guidance in BS 5228¹¹ on site may also be required but in our experience is usually unnecessary, unless there are nearby high risk or noise sensitive receptors, provided a robust CEMP is in place and agreed upon by the Local Authority.

¹¹ BS 5228 Noise and Vibration Control on Construction and Open Sites - Part 1: Noise: 2009+A1:2014

7.2.3 Warrington Borough Council are likely to have their own recommended wording for planning conditions relating to the control of noise and vibration from construction works.

7.3 New Commercial and Educational developments

7.3.1 Any new commercial, retail and educational developments will need to be considered as part of the planning application for the site, this will include the proposed extension to Culcheth High School. The likely noise sources from these areas will need detailed prediction to ensure their impact is not significant on existing or future residential uses.

7.3.2 Good acoustic design incorporated at an early stage in the development of the site will help to reduce the impact of existing noise on these sources along with protecting existing noise sensitive receptors.

7.4 New Sports Pitches

7.4.1 Noise from the proposed new sport pitches will need to be considered as part of the planning application. Sport England guidance should be followed.

7.4.2 On level ground any sports pitches should be located a minimum of 40m (measured from the sideline) from the nearest ground level noise sensitive receptor in order to achieve external WHO guideline noise levels of 50 dB $L_{Aeq}(1 \text{ hour})$.

7.5 Protecting areas from increased noise

7.5.1 The NPPF recommends protecting areas of tranquillity and areas prized for their recreational and amenity value. No specific areas have been identified close to the proposed site and given the nature of the development it is unlikely that there will be any specific concerns in relation to tranquil areas.

8 Summary and Conclusions

8.1 A noise screening assessment, site visit and preliminary noise measurements have been undertaken to identify any potential noise sources which are likely to have an impact on the development of a site for a significant housing and infrastructure development. The information indicates that the impact of noise would not be a barrier to residential development on most of the land under consideration.

8.2 It is recommended that;

- Noise from transportation sources, including road transport and railway around the site would need to be considered as part of the detailed masterplan for the site and considered as part of the planning submission which is likely to require an Environmental Impact Assessment.
- Noise from industrial and commercial sources located around the periphery of the site would need to be assessed in more detail as part of a detailed planning submission for the site.
- Noise from proposed sport pitches will need to be considered and assessed as part of the full planning application.
- There are areas within the site and located close to the site which are considered tranquil areas and careful design of the masterplan should aim to protect the noise environment at these locations.

- 8.3 An assessment of the impact of the development in terms of noise from; transport, new infrastructure, construction noise and commercial and retail sources would need to be assessed as part of the planning submission for the application site. Good acoustic design should be considered as part of the development of the masterplan to protect existing noise sensitive receptors.

APPENDICES

Appendix 1: Site Location



Legend

 Site outline



1	04/06/2018	Initial Issue	RM	JM
Rev.	Date	Purpose of revision	Drawn By	Approved By

MILLER GOODALL
ACOUSTICS AND AIR QUALITY

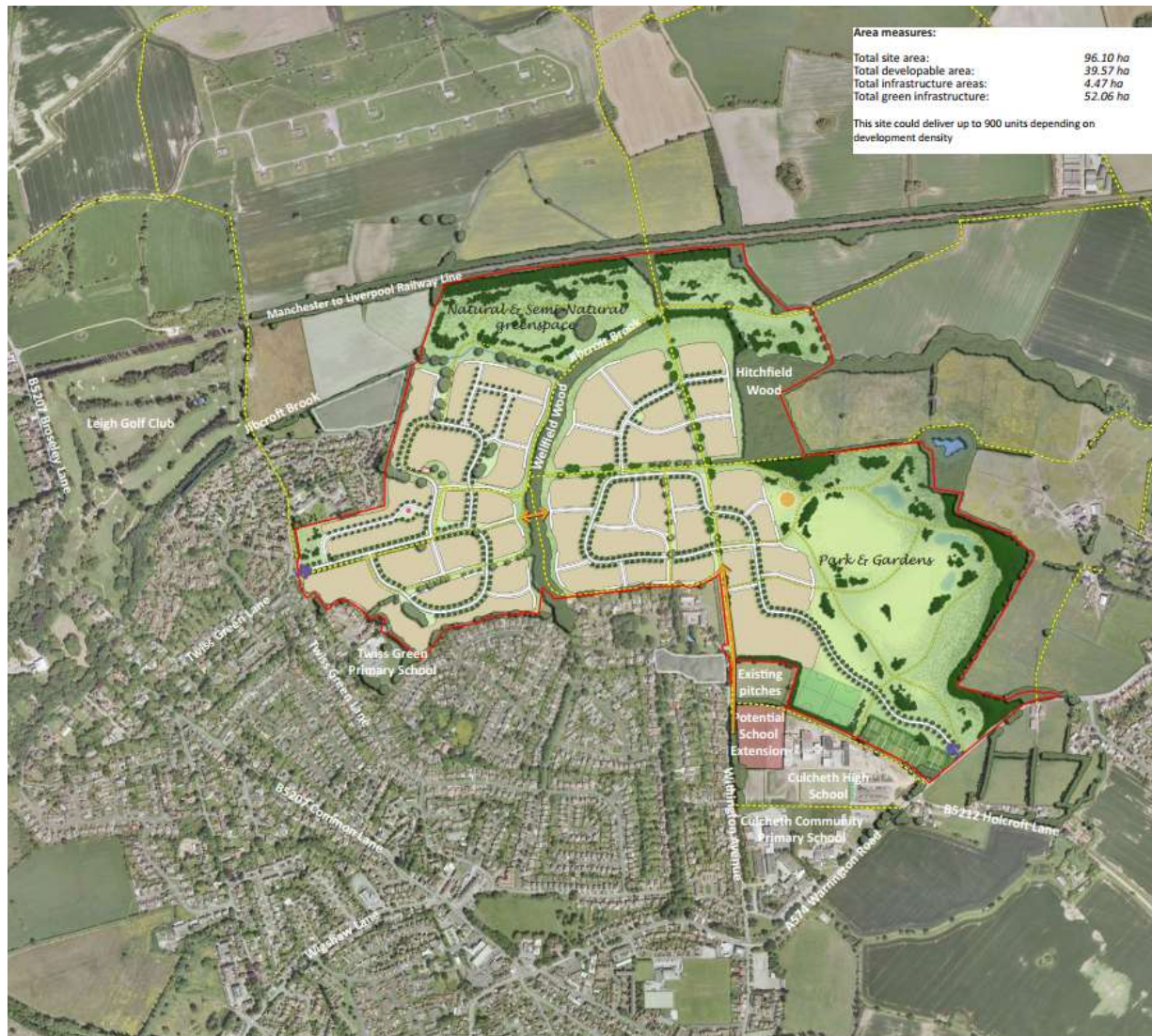
Project: Warrington Developments, North East Culcheth

Client: Peel L&P Holdings (UK) Limited

Report Number: 101864

Scale @ A4: 1:11,854

Appendix 2: Draft Illustrative Masterplan



LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING
MASTERPLANNING
URBAN DESIGN

RANDALL THORP

Canada House, 3 Chestow Street, Manchester M1 5FW
0161 228 7721. mail@randallthorp.co.uk www.randallthorp.co.uk

- Key**
- Proposed site boundary
 - Existing vegetation
 - Existing watercourses and waterbodies
 - Proposed woodland buffer
 - Proposed development cell
 - Proposed open space
 - Potential school extension
 - Sites with planning applications / recently developed
 - Proposed new sports pitches
 - Retained PROws
 - Proposed pedestrian links
 - Proposed primary road
 - Proposed secondary road
 - Proposed vehicular access
 - Potential emergency link
 - Proposed allotments
 - Proposed SuDS
 - Proposed NEAP
 - Proposed LEAP

NB: Masterplan subject to change following detailed survey work

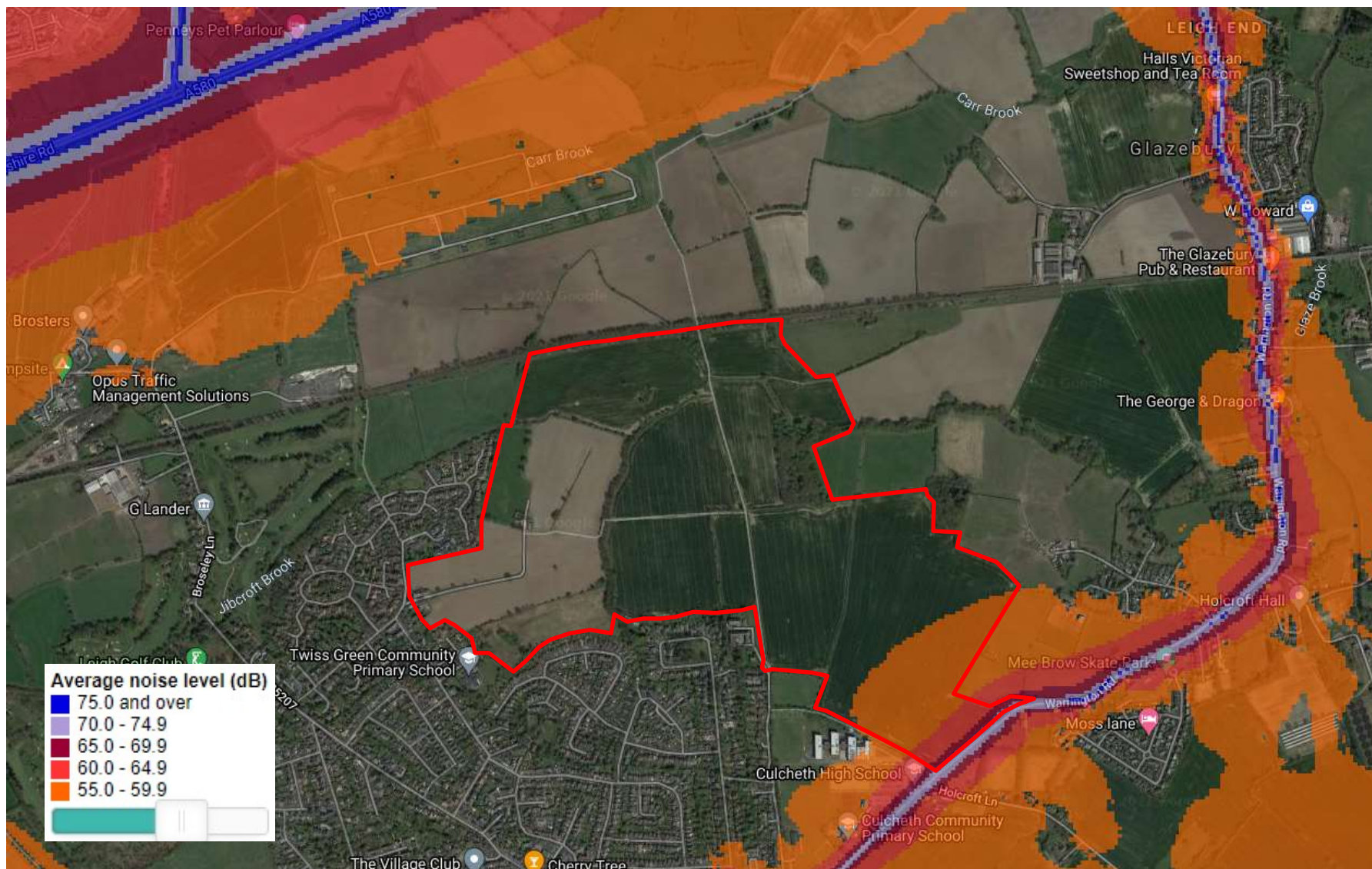


Warrington Local Plan Sites

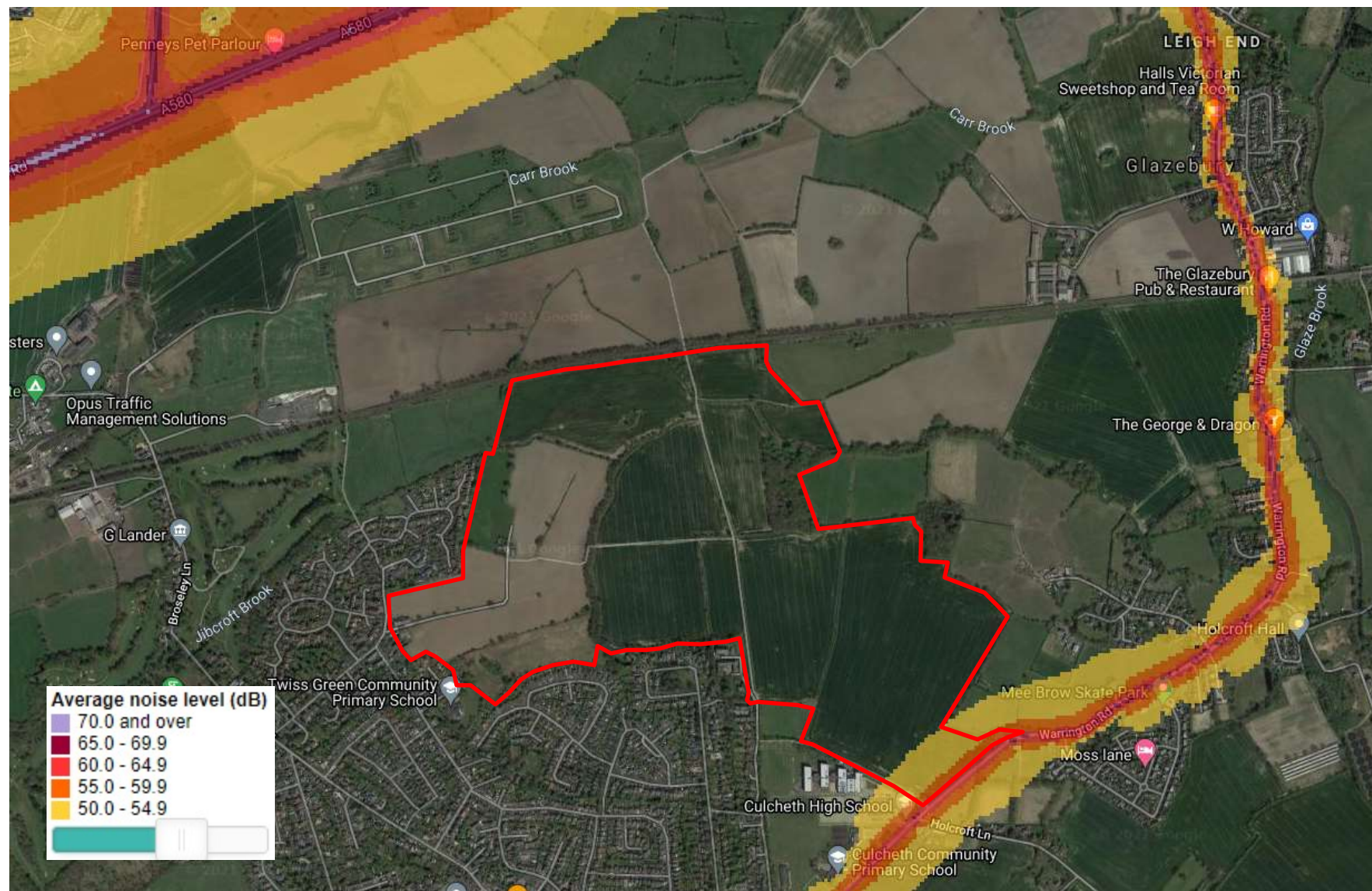
North East Culcheth
Conceptual Masterplan

Drwg No: 6300C-20	Date: 22.06.18
Drawn by: AH	Checker: SR
Rev by:	Rev checker:
QM Status: Checked	Product Status: Confidential Review
Scale: NTS	

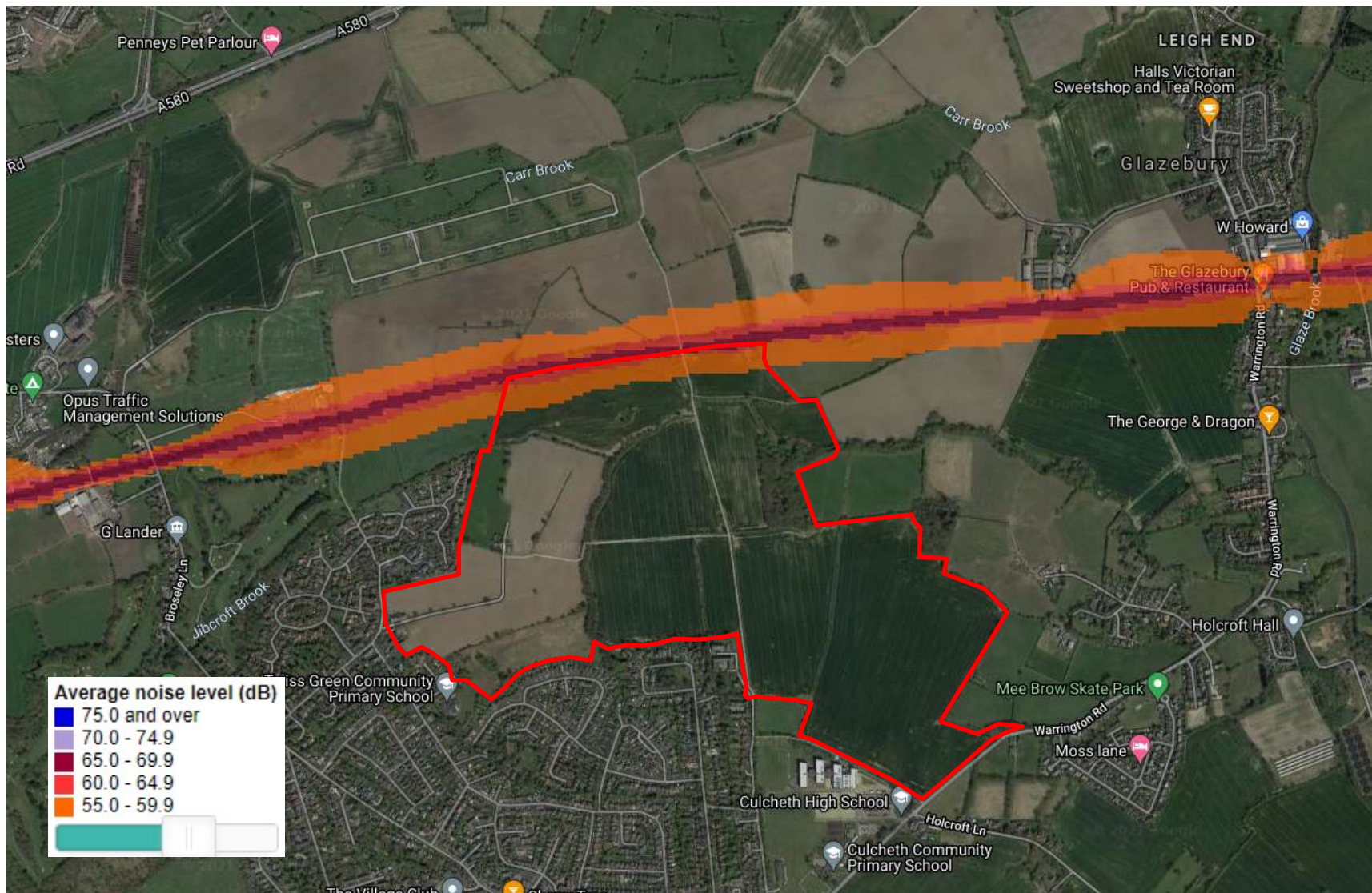
Appendix 3a: DEFRA Daytime Road Traffic Noise Mapping, L_{Aeq} , Daytime, 16hr



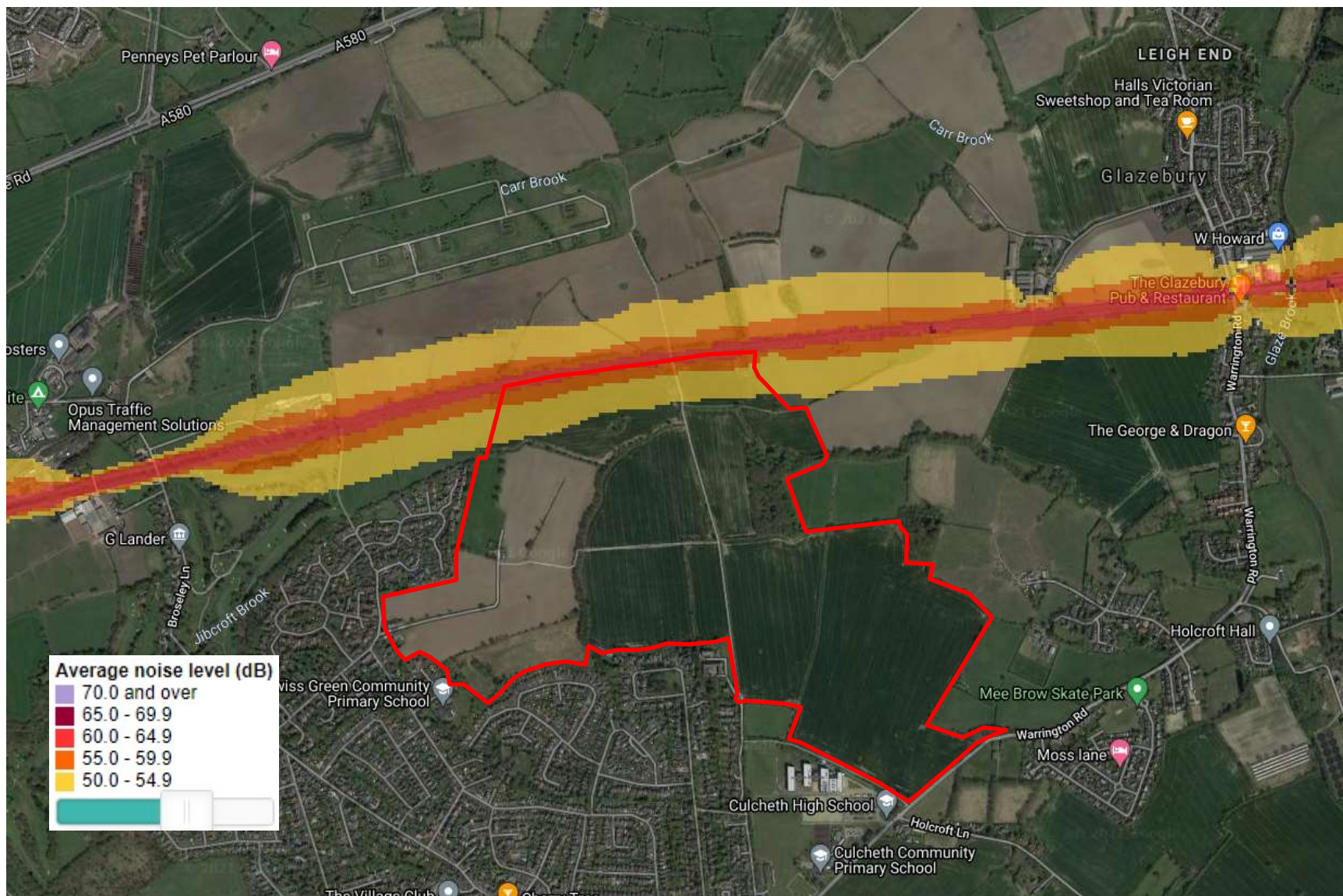
Appendix 3b: DEFRA Night time Road Traffic Noise Mapping, L_{Aeq} , Night, 8hr



Appendix 4a: DEFRA Daytime Railway Noise Mapping, L_{Aeq} , Daytime, 16hr



Appendix 4b: DEFRA Night time Railway Noise Mapping, L_{Aeq} , Night, 8hr



Glossary of Terms

- Decibel (dB)** The unit used to quantify sound pressure levels; it is derived from the logarithm of the ratio between the value of a quantity and a reference value. It is used to describe the level of many different quantities. For sound pressure level the reference quantity is 20 μPa , the threshold of normal hearing is in the region of 0 dB, and 140 dB is the threshold of pain. A change of 1 dB is usually only perceptible under controlled conditions.
- dB L_A** Decibels measured on a sound level meter incorporating a frequency weighting (A weighting) which differentiates between sounds of different frequency (pitch) in a similar way to the human ear. Measurements in dB L_A broadly agree with an individual's assessment of loudness. A change of 3 dB L_A is the minimum perceptible under normal conditions, and a change of 10 dB L_A corresponds roughly to halving or doubling the loudness of a sound. The background noise level in a living room may be about 30 dB L_A ; normal conversation about 60 dB L_A at 1 meter; heavy road traffic about 80 dB L_A at 10 meters; the level near a pneumatic drill about 100 dB L_A .
- $L_{A90,T}$** The A weighted noise level exceeded for 90% of the specified measurement period (T). In BS 4142: 1997 it is used to define background noise level.
- $L_{Aeq,T}$** The equivalent continuous sound level. The sound level of a notionally steady sound having the same energy as a fluctuating sound over a specified measurement period (T). $L_{Aeq,T}$ is used to describe many types of noise and can be measured directly with an integrating sound level meter.
- L_{Amax}** The highest A weighted noise level recorded during the time period. It is usually used to describe the highest noise level that occurred during the event.
- NOEL** No observed effect level: the level of noise exposure below which no effect at all on health or quality of life can be detected.
- LOAEL** Lowest observed adverse effect level: the level of noise exposure above which adverse effects on health or quality of life can be detected.
- SOAEL** Significant observed adverse effect level: the level of noise exposure above which significant adverse effects on health or quality of life can be detected.

MILLER GOODALL 
ACOUSTICS AND AIR QUALITY



Warrington Borough Council Local Plan

Land North East of Culcheth

Transport Appraisal

Client: Peel L&P Holdings (UK) Limited

i-Transport Ref: SEE/JO/dc/ITM13246-002C R

Date: 12 November 2021

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Quality Management

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ITM13246-002AR	Revised Draft	11/06/19	Steven Eggleston	Steven Eggleston
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SECTION 1 Introduction

1.1 Warrington Local Plan Review

- 1.1.1 Warrington Borough Council (WBC) is currently consulting on its Updated Proposed Submission Version Local Plan (UPSVL) which will guide development in the Borough to 2038.
- 1.1.2 WBC's consultation document of September 2021 sets out how the UPSVL was developed, including the work undertaken to develop its Spatial Strategy which has emerged following the 'call for sites' and large number of representations made to previous Local Plan consultations. The UPSVL identifies main development areas within the urban area and further development is planned throughout within Warrington's outlying settlements.
- 1.1.3 The Local Plan Key Diagram, identifying the main areas proposed for development is included as Figure 3 of the UPSVL.

1.2 Peel's Land Interests

- 1.2.1 Peel is a major North West based investor and development company with a successful track-record in delivering growth and major projects including the Trafford Centre and Media City UK. Peel owns c.1.2million sqm of property and 20,000 acres of land and water. Peel has significant interests in Warrington Borough including at Port Warrington and the South West Urban Extension (proposed for allocation in the 2019 Proposed Submission Version Local Plan) and in the outlying settlements.
- 1.2.2 Peel has specific interests at land North East of Culcheth which is capable of delivering a new community, integrated with the existing settlement. It can accommodate up to 600 new homes as well as a range of complementary facilities.
- 1.2.3 The main representations prepared by Turley explain why further development in Culcheth is needed and how the site can make a very significant contribution to meeting the housing needs of Warrington over the plan period.

1.3 Report Structure

- 1.3.1 This transport appraisal considers the key transport and highways related aspects of the sustainable development proposals at Culcheth.

1.3.2 The background to the consideration of sites by WBC and the overall policy position, focussing on transport, is set out in Section 2.0. Section 3.0 explains the development proposals including the opportunity that development at Culcheth presents to deliver a sustainable community. The key 'tests' of the National Planning Policy Framework (NPPF) paragraphs 110 and 111 are then considered: Section 4.0 shows that the site will be accessible and sustainable; Section 5.0 demonstrates how access will be provided to the site; and Section 6.0 outlines the traffic impacts of the proposals.

1.4 Conclusions

1.4.1 A summary of the overall conclusions is presented at Section 7.0. The key conclusions of this appraisal are:

- i Culcheth has a wide range of existing facilities and services and good public transport services that will support and promote sustainable development and travel patterns, will result in most day-to-day needs being met locally and which confirm its suitability as a location for development.
- ii The site will meet the transport related objectives of the Council's UPSVLP; specifically it will meet objective W4 of the UPSVLP and strongly meet four of the five specific accessibility criteria defined by the Council.
- iii Therefore the development of the site will fully accord with the NPPF objective related to sustainable travel, with opportunities for such modes taken up.
- iv Feasibility level designs of accesses to the site have been produced and the capacity of these considered. All will operate satisfactorily. Site access is controlled by Peel and is deliverable and achievable and has been designed to the appropriate design guidance. It is therefore also concluded that satisfactory access can be provided in accordance with the NPPF.
- v There are no constraints on the local highway network infrastructure that will prevent further development and growth in Culcheth.
- vi The residual cumulative traffic impacts of development on the site will not be severe and therefore, in accordance with NPPF, development should not be prevented on transport grounds.

1.4.2 Overall, it is therefore concluded that the site at North East Culcheth is suitable for allocation in the Council's Local Plan and will form a sustainable development that can provide much needed housing.

SECTION 2 Background

2.1 Transport Policy Context

2.1.1 This section considers both national and local policy related to transport and, in particular, how this frames the consideration of development proposals. Policy aspects of WBC's consideration of the UPSVLP and allocation of sites are set out in Section 2.2 below and, where relevant, in Sections 4.0, 5.0 and 6.0 related to accessibility, access and traffic impacts.

National Planning Policy Framework (NPPF)

2.1.2 Paragraph 11 of the NPPF sets out the presumption in favour of sustainable development noting that at plan-making stage, local planning authorities should positively seek opportunities to meet the development needs of an area.

2.1.3 The specific transport policies of the Framework are contained within its Part 9. Paragraph 110 sets out the key 'tests' for the consideration of the transport aspects of development proposals, stating that:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- ***appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;***
- ***safe and suitable access to the site can be achieved for all users;***
- ***the design of streets, parking areas, other transport element and the content of associated standards reflects current national guidance, including the National Design Guide and National Model Design Code; and***
- ***any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."***

2.1.4 Paragraph 111 goes on to confirm:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

2.1.5 Issues related to the sustainability of the site, access and traffic impacts are set out in Sections 4.0, 5.0 and 6.0 respectively.

2.1.6 Paragraph 104 sets out the principal transport matters that should be considered during the preparation of Local Plans:-

“Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

- a the potential impacts of development on transport networks can be addressed;***
- b opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;***
- c opportunities to promote walking, cycling and public transport use are identified and pursued;***
- d the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and***
- e patterns of movement, streets, parking and other transport consideration are integral to the design of schemes, and contribute to making high quality places.”***

2.1.7 Paragraph 105 goes on to note:

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

2.1.8 Paragraph 106 notes that planning policies should, amongst others:

“a. support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;

c. identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;

d. provide for attractive and well-designed walking and cycling networks and supporting facilities such as cycle parking (drawing on Local Cycling and Walking Infrastructure Plans);”

2.1.9 These submissions will demonstrate that the proposals will facilitate and maximise the use of sustainable travel modes. The proposals at Culcheth are adjacent to the high school and close to primary schools, allowing local travel, and will be near the extensive range of facilities and services in Culcheth village, including health, retail and leisure facilities, thus minimising journey lengths. This is considered in Section 4.0.

2.1.10 Planning Practice Guidance (PPG) sets out further guidance on how the policies in the Framework should be applied and this has been considered in the preparation of this transport appraisal.

Warrington Local Plan

2.1.11 Warrington's Local Plan will provide the statutory planning framework for the Borough for the period 2021 to 2038. The Local Plan will replace the 2014 Local Plan Core Strategy.

2.1.12 The UPSVLP has a series of objectives that include:

“W4. To provide new infrastructure and services to support Warrington's growth; address congestion; promote safer and more sustainable travel; and encourage active and healthy lifestyles.”

2.1.13 Section 7 of the UPSVLP sets out policies related to objective W4 and these include:

“Policy INF1 – Sustainable Travel and Transport

To deliver the Council objectives of improving the safety and efficiency of the transport network, tackling congestion, reducing carbon emissions and improving air quality, promoting sustainable transport options, reducing the need to travel by private car and encouraging healthy lifestyles, the Council will expect development to:

- 1 **General Transport Principles:**
 - a ***Be located in sustainable and accessible locations, or in locations that can be made sustainable and accessible;***
 - b ***Ensure priority is given to walking, cycling and public transport within its design, and reducing the need to travel by private car;***
 - c ***Provide infrastructure for the charging of plug-in and other ultra-low emission vehicles, in line with the Council's Parking Standards SPD (2015);***
 - d ***Support proposals that reduce the level of trips made by single occupancy cars;***
 - e ***Consider demand management measures including the effective allocation of road space in favour of public transport, pedestrians and cyclists;***

- f Mitigate its impact(s) or improve the performance of Warrington's Transport Network, including the Strategic Road Network, by delivering site specific infrastructure which will support the proposed level of development;*
 - g Ensure traffic generated by development is appropriate to the type and nature of the routes available and that there is no adverse impact on the local community;*
 - h Improve and develop appropriate road, rail and water freight transport routes and associated multimodal freight transport facilities in order to assist in the sustainable and efficient movement of goods, in accordance with other relevant Local Plan policies;*
 - i Consider the impacts of the wider region's Strategic Road Network and work with adjoining Local Planning Authorities and wider stakeholders to assess the impacts of the transport initiatives outside the Borough, where impacts have been identified and need to be mitigated; and*
 - j Consider how development can be futureproofed, through the provision of measures to support new and emerging technologies, such as Autonomous Vehicles.*
- 2 Improve Walking and Cycling Facilities (Active Travel) including:**
- a Give a high priority to the needs and safety of pedestrians and cyclists in new developments, through the provision of high quality cycling and walking networks that seamlessly integrate with existing networks;*
 - b Improve way finding (including route signage);*
 - c Enhance and develop integrated networks of continuous, attractive and safe networks for walking and cycling including well designed and improved roads, Rights of Way and the Greenway Network (as shown on the adopted Policies Map). This should include appropriate segregation of users and high priority should be given to users at junctions. Where appropriate, the Council will consider the use of planning conditions or planning obligations to secure the required improvements;*
 - d Increase accessibility for all members' of society through improvements and the provision of new infrastructure to make the most of potential environmental, social and health benefits;*
 - e Give priority to routes linking residential areas (especially those in recognised areas of deprivation) with employment areas, transport interchanges and hubs, schools, Warrington Hospital and other local services and facilities;*
 - f Supporting the provision of new or improved routes between Warrington and surrounding local authority areas; and*
 - g Provide high quality secure and conveniently located bicycle parking facilities at new developments, at transport interchanges and hubs, the town centre and community facilities.*
- 3 Improve Public Transport Including:**

- a ***Secure improvements to public transport infrastructure and services (to include bus, rail, taxi and private hire) in partnership, where appropriate with operators and delivery partners;***
- b ***Be located in areas with easy access to high quality regular public transport services, to ensure public transport is a viable and attractive option by integrating the development with existing public transport infrastructure and services;***
- c ***Providing additional public transport infrastructure and services that are related in scale to the proposed development where existing facilities are not available or are in need of improvement or an appropriate subsidy to help mitigate the impacts of the proposed development;***
- d ***Consider options to enhance Bus Priority at junctions and the provision of dedicated Bus lanes;***
- e ***Support proposals for new public transport networks and services, such as future Mass Transit systems and low or zero emissions vehicles;***
- f ***Support proposals for rail infrastructure and services and the provision of rail facilities appropriate; and***
- g ***Engage in proposals for the delivery of High Speed Rail and Northern Powerhouse Rail.***

7 Transport Assessments and Travel Plans

All major development proposals that are likely to generate significant movements will be accompanied by a Transport Assessment and a Travel Plan in line with Council guidance which will address the following requirements:

- a ***That the proposed development will not result in an unacceptable impact on safety;***
- b ***That trips generated by the development can adequately be served by Warrington's Transport Network, including the Strategic Road Network;***
- c ***Identify where there are any significant effects on Warrington's Transport Network and/or the environment and ensure that appropriate mitigation measures including the required infrastructure are identified and in place before the development is brought into use;***
- d ***Show how the Transport Assessment and associated Travel Plan have demonstrated how the proposed development will link into and enhance existing walking, cycling or public transport infrastructure;***
- e ***Commit to the implementation of a series of measures and initiatives to facilitate and encourage the use of sustainable travel (walking, cycling or public transport use); and***
- f ***Developments will be required to monitor the effectiveness of the travel plan and the traffic generated by that development and share this data with the Local Authority, on an agreed annual basis."***

2.1.14 The various aspects of this policy are considered throughout this appraisal and are referenced, where appropriate, in Sections 4.0 – 6.0.

Warrington Fourth Local Transport Plan

2.1.15 This document sets out the Fourth Local Transport Plan (LTP) strategy for the period until 2040. The vision and objectives of the plan are as follows:

“Vision

Warrington will be a thriving, attractive and well-connected place with popular, high quality walking, cycling, and public transport networks supporting our carbon-neutral future”

And

“Objectives-through LTP4 we will:

- ***Provide people with a choice about how they travel for each journey***
- ***Encourage a culture change that reduces the need for people to travel by car***
- ***Improve access to the town centre for all sustainable modes***
- ***Develop a resilient and efficient transport network that supports the town’s growth***
- ***Reduce traffic congestion***
- ***Reduce both exhaust and non-exhaust emissions from transport***
- ***Maintain and improve all transport infrastructure***
- ***Encourage healthier lifestyles by increasing day-to-day activity***
- ***Improve safety for all highway users***
- ***Make Warrington a more disabled friendly place.”***

2.1.16 The plan includes seven themes related to different aspects of transport and these are considered in this report: Active Travel, Public Transport, Smarter Choices and Cleaner Fuels (Section 4.0 – Sustainability and Accessibility); Safety and Security (Section 5.0 – Access); and Network Management (Section 6.0 – Traffic Impacts).

2.2 Growth in Outlying Settlements

2.2.1 Peel's proposals North East of Culcheth comprise the development of up to 600 residential dwellings. The UPSVLP proposes limited growth in the outlying settlements with only 200 new homes identified at Culcheth (via Policy 0S3).

2.2.2 A large number of the sites in the proximity of the outlying settlement were submitted as part of the Local Plan 'call for sites' and during the Preferred Development Option (PDO) consultation. The Council therefore adopted a site selection methodology to confirm the sites proposed to be allocated in the previous Proposed Submission Draft Local Plan from 2019. Therefore information on the PDO consultation is presented below.

2.2.3 As per the 2019 Submission Draft Local Plan, the process adopted by the Council to derive the UPSVLP does not appear to take account of any detailed numerical analysis of the transport system that would result in a cap on growth in Culcheth or any of the other outlying settlements.

2.2.4 The PDO, which included 300 dwellings at Culcheth, was derived using a four-stage process. Stage 1 identified development needs and land requirements and Stage 2 set the objectives for the Local Plan. Stage 3 assesses high level spatial options with option 3 being extension in one or more settlements with the remainder of the growth adjacent to the main urban area. The Council's 'Area Profiles and Options Assessment' Technical Note (July 2017) states:-

"For the outlying settlements, the Council applied the following assumptions in defining the growth scenarios:

(i) 'Incremental growth' – based on a level of development that could be accommodated by existing infrastructure, subject to minor expansion of that infrastructure, up to 10% of settlement size."

2.2.5 The process adopted stated that the evidence base for stage 3 included a 'Transport Review'. Further detail is given at 4.46 and 4.47 of the PDO document, noting:-

"In order to help inform the options appraisal process, the Council prepared Area Profiles for... each of the outlying settlements" (4.46)

and

"these profiles provide a detailed assessment of the capacity of... the transport network." (4.47)

2.2.6 Examination of the area profile for Culcheth includes consideration of the assessment criteria for objective W4 which relates to the local and strategic road networks, public transport and active travel as well as implications on school and health facilities. This notes:-

“Local Highways Network. Small amount of peak hour congestion in centre of village. No planned local highways improvements in village.”

Other criteria related to the strategic highways network, public transport and active travel did not raise constraints.

2.2.7 It is understood that the transport review which was input to the PDO did not include any quantitative analysis. No analysis of the capacity of the existing transport system, the impacts of traffic generated by development and the potential to introduce improvements to facilitate growth had been undertaken. Indeed, the PDO noted that the development numbers in each settlement will depend on detailed assessment including transport impacts.

2.2.8 Specifically, it is understood no analysis had been undertaken of the road network in the centre of Culcheth village. Section 6.0 considered off-site traffic impacts and showed that the network will not constrain development of the scale envisaged at North East Culcheth.

2.2.9 The Council undertook further transport modelling, reported in the ‘PDO: Transport Model Testing of Alternative Scenarios’ report. This noted that the model was not available during the consultation stage of the PDO development.

2.2.10 The report noted that the purpose of the testing was to demonstrate that the PDO did not result in a breakdown of the Warrington transport network and to demonstrate that the transport impacts of alternative development scenarios were not materially better than the PDO.

2.2.11 Six alternative scenarios to the PDO were considered in the report with scenario 3 the only one that tested significant additional growth in the outlying settlements, with dwelling numbers increased from 1,190 (as the PDO) to 4,900. Details were not provided of the specific locations of the additional growth. The results of model testing of the scenarios were presented initially at the aggregate level across the Borough as a whole and this adopted key performance indicators related to travel distances, times and lengths, average speeds and public transport modal share.

2.2.12 Considering each of these the report concluded:

- Total vehicle hours: scenario 3 was the best performing scenario although there was negligible variation between scenarios.
- Total vehicle kilometres: again, scenario 3 was the best performing scenario but there was negligible variation between scenarios.
- Average trip length: the PDO was the best performing scenario but there was limited variation between the scenarios. The average trip length for scenario 3 was only 0.53% greater than the PDO (a distance of only 50m).
- Public Transport trips and mode share: there was negligible variation between the scenarios with scenario 3 having a slightly higher public transport modal share than the PDO (by 0.69%) and slightly lower number of public transport trips than the PDO (by 0.65%).
- Average speed: the report notes that average speed is an indicator of delay / congestion and that there was little variation between scenarios at the network wide level (scenario 3 had a slightly higher average speed than the PDO, by 0.7%).
- Journey times: there was limited variation between scenarios in journey times through the urban area.

2.2.13 Overall, the analysis showed that greater levels of development in the outlying settlements did not result in adverse travel characteristics. The report concluded that there was no evidence, from the model, that the transport impacts of other scenarios were materially better than the PDO. By definition, they were not materially worse.

2.2.14 The Council's report 'Transport Model Testing of the WBC Local Plan' does not consider specific locational issues and does not identify any detail of constraints at Culcheth.

2.2.15 There is therefore no justification, based on sound evidence of transport capacity, to limit development in Culcheth (or the other outlying settlements) at the level suggested by the Council. This report, which complements the main submissions prepared by Turley, identifies the potential of the site north east of Culcheth to contribute to growth in the borough in a sustainable manner.

SECTION 3 Development Proposals

3.1 Site Location

- 3.1.1 The site is located adjacent to and immediately to the north-east of the existing built development at Culcheth. It is c.800m from the centre of Culcheth at the Warrington Road/Common Lane junction. The location of the site is shown on Appendix A.
- 3.1.2 Given its position, the site is well related to many and a wide range of facilities and services within the settlement of Culcheth with its western and southern boundaries adjoining residential properties and, on its southern side, Culcheth High School. The site's eastern boundary is part-formed by Warrington Road and its northern boundary by the Liverpool to Manchester railway line.
- 3.1.3 The site is 97.12 hectares in size and currently comprises a mix of agricultural land and small pockets of woodland. The site is designated as Green Belt within the Warrington Unitary Development Plan.

3.2 Masterplan

- 3.2.1 Illustrative masterplans of the site have been developed and are included in the main representations prepared by Turley.
- 3.2.2 Two development proposals are presented informed by the appraisal of site opportunities and constraints. These both present viable and deliverable proposals for the site. The first shows development of 300 dwellings coming forward during the plan period with a second phase of safeguarded land. The masterplan for the larger area shows residential development of up to 600 dwellings (i.e. with the safeguarded land delivering an additional 300 dwellings). These collectively show how the site can be delivered over two separate phases should the phased release of the site be considered appropriate. The larger option (i.e. 600 dwellings) is considered in this report.
- 3.2.3 Given the presence of Wellfield Wood, it is envisaged that the areas to its east and west will be accessed independently with a pedestrian/cyclist/emergency vehicle connection between the two as shown on the masterplan.

- 3.2.4 Access to the site is considered in detail in Section 5.0 below: the main access to the eastern part of the site will be off Warrington Road with an emergency access via Withington Avenue. The western part of the site will be accessed via an extension of Twiss Green Lane.
- 3.2.5 The masterplan shows a large country park and public open space wrapping around the northern and eastern sides of the proposed built development on the site. The proximity of the site to the adjacent Culcheth High School and nearby primary schools will afford opportunities for education trips to be made locally, thus reducing car travel. If necessary, the High School can be expanded using land on the site. The masterplan also shows a new access to the High School, located off the development access road that connects with Warrington Road, providing benefits by relocating the access from its current position close to the Warrington Road / Holcroft Lane junction.
- 3.2.6 Several public rights of way (public footpaths) run through the site connecting the potential development with the existing street network in Culcheth; the PRoW are indicated on the concept masterplan. Existing green links and corridors will be extended through the site and these will connect the green space infrastructure. The green links could also accommodate pedestrian and cycle routes, with an emphasis on safe routes to school. Sustainable urban drainage features will create further amenity for the open space as well as creating a new habitat to promote diversity of wildlife species.
- 3.2.7 The design and layout of transport corridors within the site and connections off it will focus on creating places. Street and place design will start with pedestrians and cyclists having priority with managed car access. Street design will follow the principles of Manual for Streets, 'Living Streets' and modern design guidance such as the Handbook for Cycle Friendly Design; this will result in streets that are destinations worth visiting. Shared surfaces will be encouraged. Speed limits will be low with an appropriate street hierarchy developed, making it the norm to travel slowly within the new community. The site will be designed for the mobility impaired with account taken of 'Inclusive Mobility' requirements.
- 3.2.8 Thus the design philosophy of the masterplan will encourage sustainable travel with local trip making, contributing to the site forming sustainable development in the context of the NPPF. The masterplan has also been designed to reflect national guidance in the context of the NPPF.

3.3 Locational Benefits of Development in Culcheth

3.3.1 Development at Culcheth, as proposed by Peel, has many features and advantages which will create sustainable development patterns: the size of the site can support new facilities and sustainable travel modes; and the sites location, adjacent to the existing built area and in close proximity to key facilities and services and public transport networks, will further encourage use of non-car travel modes. Thus Culcheth and the site presents an excellent opportunity to promote sustainable transport and reduce vehicular traffic generations. These matters are explored further in Section 4.0.

3.3.2 The location of the site in the northern part of the Borough also has benefits in terms of its proximity to the location of existing and future jobs, in and close to, Warrington Borough. Much of the existing and proposed employment related development in the Borough is located in and north of the town centre. Residential development at Culcheth therefore presents an opportunity to locate workers (in the new households) close to major centres of employment, thus minimising journey lengths and facilitating the use of public transport.

3.3.3 Appendix B shows the proximity of the Culcheth site to major areas of employment. Those on the northern side of Warrington include:-

- Birchwood – c.3.5km south of the site.
- Omega – c.11km south west of the site.
- Parkside in St Helens – c.6km west of the site.

3.3.4 Thus locating a 'pool' of workers close to major employment areas will provide opportunities for reduced travel distances. Over time, it is expected that jobs at Birchwood, for example, would be filled by workers in close proximity, such as at Culcheth, with resultant reduced 'in-commuting' from outside the Borough. This follows a 'gravity model' principle with trips more likely to be made to/from nearby areas, all else being equal.

3.3.5 At present, the journey to work data for the MSOAs in the Birchwood area indicates that only 32% of workers originate in Warrington Borough with the largest inflows from Wigan (10%), St Helens (6%), Cheshire West and Chester (5%), Halton (4%) and Trafford (4%). Thus locating development in areas close to Birchwood, at Culcheth and in other nearby settlements, has the potential to reduce travel distances and in-commuting to the Borough as a whole.

3.3.6 Furthermore, the size of the site is such that bespoke bus routes and services focussed on employment areas could be created, with benefits not only for the proposed site but also for the existing community at Culcheth.

SECTION 4 Sustainability And Accessibility

4.1 The Case for Development at Culcheth

4.1.1 Culcheth is a self-contained settlement with many local facilities and services and follows the 'Walkable Neighbourhood' principles – there are a range of facilities within walking distance of residential areas which residents can access comfortably on foot.

4.1.2 The TEMPRO database has been used to identify the proportions of trips made by residents in Culcheth for different journey purposes by all modes of travel, using data from MSOA 1 and 2:

Table 4.1: TEMPRO Journey Purposes – Culcheth

Journey Purpose	Proportion of All Trips ¹
Education	14.9%
Shopping	24.4%
Personal Business	8.2%
Recreation / Social	11.5%
Visiting Friends & Relatives	9.9%
Holiday / Day Trips	2.9%
Work	24.6%
Employer's Business	3.5%

¹ Average weekday all modes

4.1.3 Thus trips are made for a variety of journey purposes, many associated with meeting day-to-day needs such as travel to school (c.15%), shopping (c.24%), personal business (c.8%), recreation and social (c.12%) and visiting friends and relatives (c.10%). The many facilities and services in Culcheth also provide a source of employment, along with the major employment areas nearby.

4.1.4 It is important to consider the trips likely to be made for each journey purpose with the availability of local facilities and services; this demonstrates that Culcheth is a sustainable settlement and a suitable location for new development where trips can be made locally by sustainable travel modes.

Education

4.1.5 Around 15% of daily trips by residents are made for education purposes. There are three primary schools (Culcheth, Twiss Green and Newchurch) and a secondary school (Culcheth High School) in Culcheth, providing for the day-to-day education needs of residents. TEMPRO data indicates

that only 24% of education trips are by a car driver, with these likely to be parents dropping children off at school (the average car occupancy is 2.6 people per car). Thus the majority of trips are made by sustainable modes – walking (27%), cycling (1%), car passenger (38%) and public transport (11%).

4.1.6 The compact size of Culcheth (approximately 1.8km on the east-west axis and 1.2km on the north-south axis) and the location of the schools means that many trips can be made on foot, as evidenced by TEMPRO. The IHT’s document ‘Providing for Journeys on Foot’ suggests a walking distance to school of up to 2km. The distance between residential areas and schools varies by area but the compact nature of the settlement facilitates easy trip making and data from the National Travel Survey (NTS) confirms there is a very good prospect of the vast majority of school trips being made locally or adjacent to the site. Information from the NTS demonstrates that trips to local schools (e.g. within one mile of the home address) are predominantly made on foot:-

Table 4.2: NTS Modal Split of Trips to School

Main Mode	Aged 5 – 10 Years		Aged 11 – 16 Years	
	Under 1 mile (1.6km)	All lengths	Under 1 mile (1.6km)	All lengths
Walk	80%	46%	95%	39%
Bicycle	1%	1%	2%	3%
Car/Van	18%	47%	3%	26%
Bus	1%	5%	1%	29%
Other	-	1%	-	4%
Total	100%	100%	100%	100%

NTS Table 0614 for England 2019

Shopping and Personal Business

4.1.7 A third, c.33%, of trips are made for shopping or personal business reasons. Culcheth includes a range of facilities that will again satisfy day-to-day needs and facilitate local trip making, particularly on-foot. These include:-

- Sainsburys’ Supermarket and Co-op Foodstore and a wide range of other shops;
- A library and Post Office;
- GP surgery (Culcheth Medical Centre), three dental practices (The Village, Bhawani’s and Hob Hey) and pharmacies (the Well Pharmacy and Tims and Parker);

- A range of cafes, restaurants and pubs.

4.1.8 The TEMPRO data shows that half (50%) of the journeys for shopping and personal business are made as a car driver. Again, the compact nature of the settlement means that the central location of most of the facilities and services provides the opportunity for residents to walk or cycle for trips to locations nearby and within walking and cycling distance.

Recreation, Visiting Friends and Holidays

4.1.9 These journey purposes account for a significant number of trips – around 24% of the daily total. There are opportunities for such trips to be made locally (e.g. Culcheth Linear Park, Culcheth Sports Club, Shaw Street Recreation Ground) whilst recognising that the nature of such trips means that some will be made over longer distances and by car. In this respect Culcheth provides an accessible location close to M6/M62 motorways and A580 but with public transport connections to Warrington to the south-west. Around 47% of these trips are made by car drivers (from TEMPRO) with the majority therefore made by more sustainable modes.

4.1.10 Culcheth also benefits from transport networks that fulfil both a place and movement function such as the network of quiet streets, Public Rights of Way and Culcheth Linear Park that provide a range of quality connections and recreational routes.

Working and Employer's Business

4.1.11 Around a quarter (28%) of all trips are made for these purposes. There are jobs available in Culcheth, at the local facilities and services, and at major employment areas close to the settlement. Around 18% of residents of MSOAs 1 and 2 (which include Culcheth) work at home whilst a further 13% work locally. Around 8% work at Birchwood with a further 18% elsewhere in Warrington. Of the work trips made within the MSOAs, over a third are made on foot or by bicycle.

4.1.12 The other trips by residents are to a range of destinations including Wigan, Salford, Trafford and Manchester (each around 6%), the remainder of Greater Manchester (c.4%) Cheshire and Halton (c.5%) and Merseyside (c.6%). Bus connections are available to Warrington.

Overall

4.1.13 Thus, the combination of the size of the settlement at Culcheth and the range of facilities and services available within it makes for the use of integrated and accessible transport.

Development in Culcheth can be focussed on making walking, cycling and bus the most attractive forms of local transport, with residents able to meet their day-to-day needs locally.

4.1.14 Modal split data from TEMPRO identifies this potential with the following mode shares for all journey purposes combined:-

Table 4.3: TEMPRO Modal Shares – Culcheth

Mode	Proportion of Trips ¹
Walk	14.7%
Cycle	1.5%
Car Driver	51.8%
Car Passenger	25.2%
Bus / Train	6.8%

¹Average weekday all journey purposes

4.1.15 Locating development in Culcheth close to a range of services – schools, shops etc – and close to good transport connections – bus and walking routes – will therefore facilitate increased use of sustainable travel modes.

4.1.16 Considering the national and local policies set out earlier in this report:

- Development in Culcheth will facilitate the use of sustainable modes of transport, given the short-distances involved and availability of buses – meeting NPPF Para 110 UPSVLP Policy INF1.
- The need to travel can be minimised and use of suitable modes can be maximised – meeting NPPF Para 105.
- Day-to-day activities and key facilities such as primary schools and local shops will be located within walking distance of properties – meeting NPPF Para 105 and UPSVLP Policy INF1.

4.1.17 Thus Culcheth has many existing characteristics which will support and promote sustainable development and sustainable travel patterns, will result in most day-to-day needs being met locally and which confirm its suitability as a location for development.

4.2 Overview of the Site's Accessibility

4.2.1 The previous section of this report has set out the case for development at Culcheth in terms of encouraging and promoting the use of sustainable travel modes. This focuses on the availability

of a comprehensive range of facilities and services within the settlement, capable of meeting the majority of residents' day-to-day needs and, as a result, with walking, cycling and public transport designed to be the most attractive forms of local transport.

4.2.2 Considering the advantages of these factors, the potential development at North East Culcheth is located within the built area of the settlement, close to the centre and nearby schools as well as a comprehensive range of health, retail and leisure uses. Thus the location of the site will promote sustainable travel patterns and the use of sustainable travel modes, reducing car use, particularly that for single occupancy travel.

4.2.3 The transport strategy for the site will therefore focus on promoting sustainable travel modes and reducing car use, particularly that for single occupancy travel. Within this context, the travel and transport strategy for the site is to:

- i Take advantage of the site's existing locational characteristics close to Culcheth village to;
- ii Maximise opportunities for walking and cycling trips, particularly over shorter distances;
- iii Encourage external trips to/from the site to be made on foot, by bike, by public transport or through shared transport (e.g. a Car Club);
- iv Encourage commuting trips to Warrington and other destinations including nearby major employment destinations such as Birchwood to be made by bus; and
- v Where absolutely necessary, mitigate the impacts of residual car borne trips by the introduction of highways improvements.

4.2.4 As well as achieving modal shift, the travel strategy for the site will assist in creating a coherent new community and will reduce the vehicular traffic flows generated by the site.

4.2.5 Strategies and measures for encouraging walking/cycling, public transport and the Travel Plan are included in Sections 4.3 – 4.5 with the locational characteristics of the site and existing sustainable travel networks also set out. The accessibility of the site is then considered in Section 4.6.

4.2.6 The site will provide a range of benefits as outlined in the submissions made by Turley. Specific transport benefits of the proposals will include:-

- Everyday facilities located close to the development in walkable neighbourhoods, thus putting place first, enhancing inclusion, promoting sustainable lifestyle choices and behavioural change.
- Viable bus services and high quality bus infrastructure that will connect the site with key destinations and will also provide enhanced connectivity for existing residents in Culcheth.
- Specific and targeted travel plan measures again designed to promote sustainable travel modes.
- Provision of on-plot and on-street electric vehicle charging points and an electric vehicle car club to encourage some vehicular journeys to be made by low emission vehicles.
- Existing access provision off several places on the local road network which can accommodate the traffic generated by the proposals and which will spread traffic around the local networks (considered in Sections 5.0 and 6.0).

4.3 Local Connectivity of the Site

4.3.1 The sites lies immediately adjacent to the existing built development within Culcheth village thus affording the opportunity to make direct and high quality connections as noted above when considering the site masterplan. The Council's Settlement Profile for Culcheth notes that **"Active Travel is clearly beneficial in terms of reducing the impact on the highway network as well as the obvious environmental, health and amenity benefits"**.

4.3.2 All the adjacent streets have footways and the site can connect to these. Most of the roads in Culcheth are identified by the Council as having the top 'cycleability' gradation, with reference to the WBC Cycle Map that is included in Appendix C.

4.3.3 Several PRoW cross the site and these can be enhanced as set out at 3.2 above, also enabling the opportunity (alongside the proposed footway network within the new community) for existing residents of Culcheth village to easily and safely access the proposed country park.

4.3.4 Improvements to the pedestrian/cyclist environment will be investigated in detail and, where appropriate, implemented in line with development coming forward. At this stage it is envisaged these could include:-

- i Improvements to the several PRoW that run across the site and their connections to the external street network. Such improvements could include widening, better surfacing /

drainage, signing and lighting. Sensitivity will be needed where PRow access the proposed country park.

- ii Delivery of a high quality pedestrian and cycle route from the site to Culcheth centre via Withington Avenue which is lightly trafficked and has good quality footways. FP113a also offers a connection from Withington Avenue to Culcheth Hall Drive and on to Lodge Drive to access the village centre uses.
- iii Provision of a widened footway along Warrington Road.
- iv A potential direct pedestrian connection between the site and Culcheth High School and/or improvement of FP125.
- v Subject to the availability of land, provision of cycle parking within the centre of Culcheth, close to the cluster of shops and leisure premises at Lodge Drive/Common Lane.

4.3.5 The above will be complemented by measures included in the Travel Plan for the site (see Section 4.5 below).

4.3.6 The Council's Settlement Profile notes that Culcheth has poor cycling and walking connections to Warrington, Birchwood and Winwick and that any transport strategies developed to support development must allow for this transport mode and provide the appropriate facilities and schemes.

4.3.7 The connections to Warrington, Birchwood and Winwick are largely a function of distance. All are outside walking distance from Culcheth but, whilst trips to employment locations are important, many trips can be made locally for other purposes within Culcheth (education, health, retail, leisure etc) with a whole range of day-to-day facilities within an easy walk or cycle ride. Similarly, cycle connectivity is largely a function of distance: the locations noted are at the limit of cycling distance and such trips may be better made by bus (see 4.4 below). Nevertheless, Peel will work with WBC to investigate the provision of a high quality cycle route between Culcheth and Birchwood, connecting with the strategic cycle routes at the latter (3- Woolston to Birchwood; B2S – Birchwood to Sankey Way).

4.3.8 The accessibility of the site is considered at 4.6 below but the location of the site, proximity to many every-day facilities in Culcheth village and the short-distances involved affords a real opportunity to focus movement on slow modes of travel and thereby reduce car use.

4.4 Maximising Use of Public Transport

Existing Provision

- 4.4.1 There are existing bus routes and services in the vicinity of the site as summarised on Appendix D and in the table below.

Table 4.4 Existing Bus Services

Service No.	Route / Destinations Served	Frequency					
		Mon – Fri		Saturday		Sunday	
		Day	Eve	Day	Eve	Day	Eve
28/28A/28E	Leigh – Culcheth – Padgate – Warrington	60 ¹	60	120	120	60	-
19	Leigh – Culcheth – Croft – Winwick – Warrington	60 ¹	60 ²	60	-	60	-

1 Additional peak service; 2 Early Evening

- 4.4.2 Thus these are half-hourly bus services between Culcheth and Warrington (and also Leigh) and hourly services to Birchwood (28/28A/28E) and Winwick (19) but with an additional bus service in the peak hours. The closest bus stops to the site are: in the southern direction on Warrington Road opposite the high school and c.170m from the site; and in the northbound direction on Warrington Road to the east of Churchill Avenue, c300m from the site. Bus stops could be provided along the site frontage.
- 4.4.3 The closest railway station to the site is at Birchwood, connected by the 28 and 28E bus service.

Potential Improvements

- 4.4.4 The size of the site is such that it may support improved bus services, creating a revenue stream and providing enhanced connectivity for the site and existing residents and businesses in Culcheth. If necessary, the development can provide a subsidy to cover any short-fall between additional bus operating costs and the revenues generated along the new/improved routes, the latter from both the dwellings on the site and increased 'background' patronage and revenues.
- 4.4.5 There are several options available which can be developed as the proposals are progressed, housing delivery rates are established, travel patterns are monitored and the position is established more fully regarding external attractions e.g. development at Omega and Parkside. Several options are available:-

- i Improve the frequency of existing bus services, the 28/28A/28E and/or the 19 – improving services to Warrington, Birchwood and Winwick as well as destinations outside the Borough such as Leigh.
- ii Develop a bespoke new bus service from the site and Culcheth to Warrington town centre via Birchwood, with potential connections to Birchwood and/or Padgate railway stations.
- iii Develop a new service to Warrington town centre via Parkside and Winwick Quay.
- iv New bus service between the site/Culcheth and Omega via Parkside, Winwick Quay and Gemini retail park.
- v Combinations of the above e.g. a 'loop' service serving Culcheth – Birchwood – town centre – Winwick Quay – Parkside – Culcheth.

4.4.6 In practice bus provision will be phased and be responsive to both development completions and actual bus usage, the latter monitored by the bus operator(s) and the Travel Plan Co-ordinator (see 4.5 below). A package of funded bus improvements can be agreed with WBC and 'Warrington's Own Buses'.

4.4.7 Given the current uncertainty of the allocation of the site and timescales over which development will be phased, then the delivery of specific proposals cannot be identified in detail at this stage. However, it is considered that it will be possible to deliver viable improved bus services bringing benefits to the site and the existing community at Culcheth.

4.4.8 It is therefore proposed that, subject to the confirmation of an allocation in the Local Plan, further liaison is undertaken with the Council and 'Warrington's Own Buses' with the aim of establishing a framework for the provision of bus services and a mechanism to fund such services.

4.4.9 The 'framework' (effectively a service specification) will include details of destinations to be served, operating times (first and last buses by day of the week), service frequencies/headways (again by day of the week and time of the day), size and quality (e.g. age) of the buses to be used along the routes.

4.4.10 The 'mechanism' will include details of the costs of such services, how fare revenues will be collected and allocated to the site, how background revenues will be identified and allocated to the services and how any revenues in excess of costs will be apportioned. The mechanism will need to determine (through liaison with the Council and 'Warrington's Own Buses') whether bus services are provided solely by the developer(s) or whether funds are paid by the developer to

an appropriate collecting authority who will provide and deliver the bus services. The latter will allow better co-ordination and potentially economies of scale.

4.4.11 Further measures to promote bus (and rail) use can be delivered as part of the Travel Plan, see 4.5 below.

4.4.12 In conclusion, the size of the site is such that it could support new or enhanced existing bus services ensuring the site is accessible by bus and is sustainable, in line with the NPPF and Local Policy aspirations. Improved bus services will also bring enhanced connectivity for existing residents at Culcheth.

4.5 **Promoting Sustainable Travel Choices**

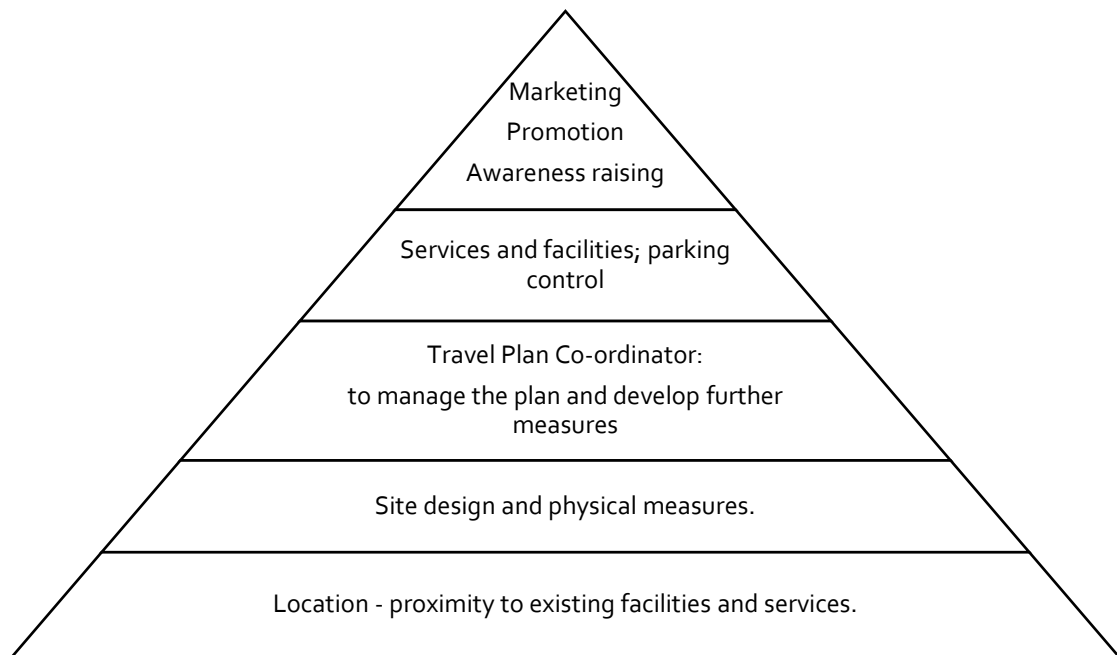
Overview

4.5.1 As well as the physical measures to promote walking, cycling and public transport set out above in Sections 4.3 and 4.4, the development of the site will include the production of a comprehensive travel plan to support the proposals. This will primarily identify the delivery of 'soft' measures to encourage the use of sustainable modes, to complement the physical measures, mix of uses and high quality design approach.

Travel Plan Philosophy

Travel Plan Pyramid

- 4.5.2 The DfT document 'Making residential travel plans work: guidelines for new development' notes that the travel plan can be viewed as a pyramid of measures and actions:



- 4.5.3 At the base of the pyramid is the location of the site. The proposals are adjacent to Culcheth High School and close to primary schools. There is a range of other facilities and services available within Culcheth including health, retail and leisure uses. The location of the site itself will therefore encourage active travel.
- 4.5.4 The DfT note that the next stage should include the fundamental characteristics that need to be incorporated into the design of the site to support the use of sustainable modes. The design approach will focus on creating a sense of place, integrating the site with the existing community and promoting sustainable travel making, particularly active travel within the site.
- 4.5.5 The next tier is the Travel Plan Co-ordinator who will develop and manage the travel plan process, be responsible for the delivery of the plan and liaison with the Council, organise monitoring and reviews of the plan and ensure that travel plan targets are achieved.
- 4.5.6 The next level is the services and facilities that will be delivered at the site such as the bus services described above but also a range of other measures outlined below.

4.5.7 The final top tier is the promotion and marketing of the travel plan and services, raising awareness of the plan through various information initiatives and delivered by the travel plan co-ordinator.

Travel Plan Objectives and Targets

4.5.8 The detailed objectives and targets for the travel plan will be discussed and agreed with the Council and other key stakeholders, at the appropriate time. Broad objectives have been considered at this stage:

- i Bring together the design of the site and travel plan measures such that the need to travel is reduced.
- ii Provide measures and initiatives that are inclusive, promote cohesion and provide alternatives for all residents and other users on the site.
- iii Promote 'hard' and 'soft' measures such that sustainable modes are the first mode(s) of choice, rather than the car.
- iv Minimise the traffic generated by the development proposals.
- v Assist in developing a sense of place within the site.
- vi Promote healthy lifestyle choices through the use of non-car modes with emphasis on active travel.

4.5.9 Specific SMART targets will be developed for the plan focusing on two key aspects:

- First, meeting modal share targets and a maximum proportion of car driver trips; and
- Secondly, ensuring that the actual traffic flows generated by the site are consistent with those adopted in future transport assessments, such that there is no severe impact from additional car trips.

4.5.10 Formal monitoring arrangements will be agreed to assess the achievement of objectives and targets on an on-going basis.

Travel Plan Measures

4.5.11 Detailed assessment and evaluation will be undertaken to establish the most appropriate measures for the site should the site be allocated. The size of the site is such that a comprehensive package of initiatives will be needed to achieve objectives and targets. There will be general measures to be applied across the site and all modes, specific measures to promote

walking and cycling and public transport, measures to reduce residual vehicular trips and information/awareness raising that can be rolled out across the whole site. The measures are summarised below.

Generic Measures

4.5.12 These will include:

- Travel Plan Co-ordinator: the TPC will be responsible for the overall delivery of the plan including liaison with WBC. They will monitor the plan against objectives and targets and identify measures to promote sustainable travel.
- Personalised travel planning: the TPC will liaise with individual householders to plan specific journeys and show how these can be undertaken by sustainable modes.
- Welcome Packs: these will be provided to every new household on first occupation and will set out the benefits of travel plan measures, details of sustainable travel modes (e.g. bus maps), the initiatives available on the site and contact details for any further information.
- Broadband: all homes will be equipped with broadband, enabling working from home etc.

Measures to Promote Walking and Cycling

4.5.13 Physical measures, including new footway/cycleways to connect the site with Culcheth village centre, are considered above. Additional measures will include:-

- Bicycle user group: the TPC will investigate the potential for a BUG to be established at the site to encourage residents to meet and exchange tips on cycle routes and maintenance. The TPC will forge links with cycle shops to arrange discounts on purchases and repairs, if possible.
- Travel voucher: a voucher will be offered to each new household which can be used to purchase equipment or part purchase a bicycle.
- Cycle storage and stands: secure weather protected cycle storage and/or stands will be provided throughout the site.

- Safe routes to school and walking bus: the main pedestrian routes on the site towards the local schools will be designed and audited using 'Safe Routes to School' principles with funding for the advertising of walking bus schemes and the provision of fluorescent vests for children and walking bus 'drivers'.
- Cycling proficiency schemes at local primary schools: funded for a period to be agreed with the Council.
- Cycle training: this will be offered to residents who are less confident regarding the use of a bike. The BUG can co-ordinate this.
- Bike buddy: volunteers will be sought to 'buddy-up' with less confident cyclists and the TPC will promote this and seek recruits.

Measures to Promote Public Transport

4.5.14 New bus services and supporting infrastructure may be delivered using the framework as set out above. Further measures will promote the use of buses including:

- Travel vouchers/travel cards/bus tickets: a monthly bus pass will be supplied to each household on first occupation. The TPC will seek to obtain discounts from bus operators for these tickets or tickets for extended periods.
- Bus buddying: this is used in other towns where trained volunteers provide one-to-one support to older people, learning disabled people, people with physical and sensory impairments etc. to aid their understanding of using public transport and to help them gain confidence.

Reducing Car Use and Emissions

4.5.15 Residents will make some journeys by car and the following can be delivered on the site to reduce the impacts of travel:

- The proposed development may be of a sufficient size to sustain a viable Car Club. Car clubs provide their members with convenient access to newer, cleaner (low emission) vehicles without the expense of ownership. Car clubs also enable communities to share assets and can improve accessibility and support sustainable travel initiatives.
- Car sharing schemes: car sharing will be promoted from first occupation of the dwellings by the TPC. A bespoke car sharing scheme could be developed or existing car sharing initiatives could be used.

- Electric car charging will be provided in the residential dwellings on the site.

Information and Awareness

4.5.16 Raising awareness of the measures and initiatives that will be available at the site is important and therefore information will be provided as follows:-

- Site specific travel guide: a foldable map, setting out the details of bus services and walk and cycle routes, will be developed. It will be included in sales literature and updated regularly for distribution by the TPC. A digital version will be considered.
- Website: a Travel Plan website will be developed for the site giving residents access to up-to-date travel information.
- Notice boards: these will be located within sales offices and at strategic points around the development, displaying up-to-date information on sustainable modes and setting out the benefits of these and other travel plan measures.
- Campaigns: the TPC will hold events and campaigns related to national and local initiatives such as 'Bike to Work' day and local organised cycle rides.

4.5.17 The TPC and travel plan measures will be funded by the developer and/or their successors in title.

4.5.18 The Travel Plan measures will thus encourage both active travel and the use of public transport, consistent with the NPPF and the transport related objectives and policies of the UPSVLP.

4.6 Accessibility of the Site

Overview

4.6.1 Strategic objective W4 of the UPSVLP includes the promotion of sustainable travel with the Sustainability Appraisal objectives including those related to reducing the need to travel and enhancing accessibility for essential services and facilities.

4.6.2 As set out at 4.1 above, there are many facilities in Culcheth that provide for day-to-day needs. Local facilities and services within the vicinity of the site are shown on Appendix E and the distance from the closest of the site accesses (with pedestrian/cycle connections) to the key destinations in the local area are set out in the table below.

Table 4.5 Distance to Key Facilities and Services

Use	Name	Distance
	Culcheth Community Primary School	0.4km
	Newchurch Community Primary School	1.5km
	Twiss Green Community Primary School	0.3km
Secondary School	Culcheth High School	0.3km
Health	Culcheth Medical Centre	1.1km
	Well Pharmacy	1.0km
	Hob Hey Dental Centre	1.9km
	The Village Dental Practice	0.4km
Retail and Leisure	Sainsbury's	1.1km
	Culcheth Post Office	1.1km
	Culcheth Library	1.0km
	BP Garage & Convenience Store	0.7km
	Shops in Culcheth	1.0km
	Country park on the site	On-site
	Culcheth Sports Club	1.0km

- 4.6.3 Manual for Streets (MfS) notes that walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (c.800m) walking distance of residential areas which residents may access comfortably on foot. It does however go on to note that this is not an upper limit and quotes (the now superseded) PPS13 which stated walking has the greatest potential to replace short car trips, particularly those under 2km.
- 4.6.4 The IHT document 'Providing for Journeys on Foot' includes suggested acceptable walking distances. The preferred maximum distances for commuting / school / sight-seeing are 2km with 1,200m suggested elsewhere. It is concluded 2km represents an appropriate distance for the consideration of walk distances between households and facilities and services.
- 4.6.5 In terms of cycle distances, DfT Local Transport Note 1/20 'Cycle Infrastructure Design' notes that many personal trips are less than five miles (c.8km) in length, which an achievable distance to cycle for most people.
- 4.6.6 Thus consideration of Table 4.5 confirms that the many day-to-day facilities close to the site and within Culcheth are within walking and cycling distance, ensuring that the site will form a walkable neighbourhood within the existing built area of Culcheth.

Accessibility to Education

- 4.6.7 There are three primary schools within Culcheth, two very close to the site. Twiss Green CPS is located off Twiss Green Lane, only c.300m from the proposed western site access. Culcheth CPS is located off Warrington Road, only c.400m from the proposed eastern site access also off Warrington Road.
- 4.6.8 The site lies adjacent to Culcheth High School with connections available from Warrington Road and Withington Avenue and potentially a new access direct from the site. Pupils from the western part of the site can either walk through the site or along the quiet residential roads between the site and the school such as Wellfield Road and Chatsworth Avenue.
- 4.6.9 All of the residential dwellings will easily be within one mile (1.6km) of the nearby primary schools and Culcheth High School, the vast majority at distances much less than this. School aged children will therefore be able to walk to their local schools with very few car trips likely to be made.
- 4.6.10 Both primary and secondary schools are therefore within a very short walking distance of the site. Considering the picture of travel to school set out at Table 4.2, it is concluded that the accessibility to education facilities is excellent.

Accessibility to Health Facilities

- 4.6.11 The nearest medical centre within Culcheth is at Jackson Avenue, within an easy walk of the site. There is a pharmacy at the medical centre and Lodge Drive and Hob Hey Dental Centre on Hob Hey Lane as well as the Village Dental Practice is located off Warrington Road, close to Culcheth CPS.
- 4.6.12 The accessibility to local health facilities is therefore excellent with these clearly catering for 'day-to-day' needs of residents on the site.

Accessibility to Retail and Leisure Facilities

- 4.6.13 The centre of Culcheth, around Lodge Drive/ Common Lane/ Wigshaw Lane/ Warrington Road includes several retail and leisure facilities including Sainsbury's and Co-op food store, Post Office, library and several other shops as well as cafes and public houses. There is a convenience store at the BP garage on Warrington Road. Culcheth Sports Club, at Charnock Road off Warrington Road, provides a range of sporting and social activities for the community and the

play areas and country park on the site will be readily accessible. These are all within walking or cycling distance of the site.

4.6.14 Thus a range of retail and leisure facilities will be available locally, encouraging active travel. The accessibility of the site to these facilities is also concluded to be excellent.

Summary

4.6.15 The Council's Sustainability Appraisal Accessibility Objective related to Accessibility includes criteria as follows, with commentary given on the site:

- ACC1: How accessible is the site to the nearest primary school on foot – schools located nearby within a short walk. Therefore significant positive effects likely.
- ACC2: How accessible is the site to the nearest Secondary School – site adjacent to Culcheth High School. Therefore significant positive effects likely.
- ACC3: How well served is the site by a bus service – existing bus services run along the site frontage which are regular (using WBC's definition) in the peak hours with potential to improve. Therefore significant positive effects likely.
- ACC4: How accessible is the site to the nearest train station – the nearest station at Birchwood is some distance away albeit it is connected by bus. Therefore significant negative effects likely using WBC's definition which is simply distance based.
- ACC5: What is the overall distance to a GP service or health centre – GP practice is located within walking distance in Culcheth. Therefore significant positive/positive effects likely.

4.6.16 In conclusion, a range of facilities and services will be available locally within walking and/or cycling distance. These include: primary schools, the adjacent Culcheth High School, play areas and Country Park on the site, health facilities including doctors, dentist and pharmacy in Culcheth and shops and leisure facilities in Culcheth village centre.

4.6.17 Buses already serve Culcheth and travel along the site's Warrington Road frontage. The bus strategy can provide enhanced connections to various destinations including Warrington and Birchwood and offer the potential to connect the site to a range of job opportunities as well as Birchwood railway station.

4.6.18 The location of the site close to these many facilities and also to bus stops provides an opportunity for achieving modal shift, with increased use of active travel modes and public transport.

4.6.19 It is therefore concluded that the site is sustainable and accessible via a range of travel modes and will therefore be in accordance with the NPPF and UPSVLP's policies and objectives.

SECTION 5 Site Access Arrangements

5.1 Overview

5.1.1 The concept masterplan shows that the site will be delivered in two parts delivering up to 600 dwellings in total.

5.1.2 The site has frontage on to Warrington Road and connections to both Withington Avenue and Twiss Green Lane. It is therefore proposed that access provision will be as follows:

- East of Wellfield Wood
 - access provided off Warrington Road.
 - additional emergency access via Withington Avenue.
- West of Wellfield Wood
 - access via a new connection to Twiss Green Lane
 - Emergency access via a combined pedestrian/cycle/emergency vehicle route from the eastern site.

5.1.3 It is concluded that this approach is consistent with design guidance, including Manual for Streets (MfS) and the Council's Residential and Industrial Estates Road Design Guide.

5.2 Access Proposals

Warrington Road

5.2.1 A single access is proposed to serve the site off Warrington Road. Options include a priority controlled junction or a signalised T-junction as an alternative. Both will allow for the potential of the proposed access to provide access to the adjacent School car park and provide a drop-off zone within the site for the school, resulting in benefits that will be material and significant. The detailed access arrangements can be determined at planning application stage including through discussions with the Council.

5.2.2 Appendix F (drawing numbers ITM13246-GA-008 and 009) show a priority 'T' junction with a ghost-island right turn lane providing access to the site and a signalised T-junction with a right turn lane flare. The position of the junction is the same and they are located c.80m from the site boundary with FP125/Culcheth High School. For both schemes the right-turn lane and two running lanes are shown to be 3.5m wide. The priority arrangement will provide an 35m long right turn lane, consistent with the speed limit. Visibility for the priority arrangement is shown

based on the posted speed limit and MfS with greater visibility achievable if observed speeds are higher than 30mph, albeit measures could be considered to reduce speeds if necessary.

- 5.2.3 A widened footway will be provided along the site side of Warrington Road, connecting with existing footways at the extremities of the site frontage.

Withington Avenue

- 5.2.4 Withington Avenue is a typical residential street that serves mainly residential properties including those off Beech Avenue and Clarke Avenue. For the majority of its length it is straight with a width of c.5.5m. It has footways and is street-lit. North of Clarke Avenue, the road becomes 'windy' with a combination of footways provided alongside the carriageway and/or through the adjacent landscaped areas.

- 5.2.5 Near the access to Culcheth Hall Farm, Withington Avenue provides a potential connection to the site. At this stage it is envisaged that an emergency vehicle access is provided to the site combined with a pedestrian/cyclist connection. The potential emergency access option is shown on Appendix G (drawing number ITM13246-GA-004).

Twiss Green Lane

- 5.2.6 Twiss Green Lane provides a potential connection to the western part of the site and connects with Common Lane at two places. It is a typical residential street, generally of c.5.5m width with footways on both sides and with street lighting. As well as serving residential properties, it also provides access to Twiss Green Community Primary School.

- 5.2.7 Peel controls number 76 Twiss Green Lane and this can be used to access the site, with the road network re-configured as shown on Appendix H (drawing number ITM13246-GA-005). A footway would be provided on the southern side of the new access road with a 1m wide verge on the northern side. Visibility splays of 2.4m x 25m are shown, based on MfS and consistent with the 20mph speed limit.

- 5.2.8 Vehicles currently park on-street outside numbers 85 – 97 Twiss Green Lane and these could block the visibility splay from Twiss Green Lane. MfS notes that parking in visibility splays in built-up areas is quite common but it does not appear to create significant problems in practice. Speeds are expected to be very low and vehicles will not be over taking and therefore this is not considered to significantly affect the proposed access.

Summary

5.2.9 All of the access designs will be subject to refinement and road safety audit at the appropriate time. At this stage it is concluded that access is deliverable and therefore achievable.

5.3 Capacity of the Accesses

5.3.1 Traffic surveys have been undertaken to assess the capacity of the proposed access arrangements. Details are given in Section 6.0. Peak hour traffic flows have been derived and converted to passenger car units (PCU) for use in traffic capacity assessment. The peak hours are 08:00- 09:00 and 17:00 – 19:00. The peak hour traffic flows at Warrington Road and Twiss Green Lane (noting that the latter are taken as the flows at Common Lane and therefore represent a worst case) are as follows:

Table 5.1 Existing Peak Hour Traffic Flows – Warrington Road

Peak Hour	Direction		
	Northbound	Southbound	Total
AM Peak Hour	545	922	1,467
PM Peak Hour	835	494	1,329

Table 5.2: Existing Peak Hour Traffic Flows – Twiss Green Lane

Peak Hour	Direction		
	Eastbound	Westbound	Total
AM Peak Hour	55	109	164
PM Peak Hour	83	55	138

5.3.2 As part of previous representations to the Local Plan, forecast traffic flows considered growth to 2037 which was the previous end of plan year. This used factors from TEMPRO, adjusted to account for the exclusion of land-use related growth. The growth factors used were c.10%. The growth factors have been reviewed using the latest TEMPRO NTM Dataset (RTF 2018 Scenario 1 Reference) and the growth factors from 2017 to 2038 are still c.10% and are marginally lower than those adopted previously reducing from 10.6% to 10.5% in the AM peak period and in the PM peak period from 9.8% to 9.7%. Therefore the 2037 traffic flows have been retained and taken to represent 2038 traffic levels. The traffic flows used in the junction assessments in the previous Local Plan representations therefore provide a robust assessment and are presented Section 6. Development traffic has been derived using the approach set out in Section 6.0. For

the purposes of this appraisal, it has been assumed that 300 dwellings would be served off each of the Warrington Road and Twiss Green Lane accesses as indicated on the masterplan. The effects of re-assigned school traffic will be considered at planning application stage.

5.3.3 The results of the capacity assessment of the priority junction site accesses are summarised in the table below.

Table 5.3: Priority Controlled Site Access Capacity Assessment Results

Access	Movement	AM Peak Hour		PM Peak Hour	
		Max RFC	Max Queue	Max RFC	Max Queue
Warrington Road	Site Access Left Turn	0.03	0	0.01	0
	Site Access Right Turn	0.48	1	0.22	1
	Warrington Road Right Turn	0.01	0	0.02	0
Twiss Green Lane	Site Access	0.25	0	0.19	0
	Twiss Green Lane Right Turn	0.12	0	0.17	0

5.3.4 The assessment results demonstrate that the site accesses will comfortably operate within capacity and it is concluded that the potential priority junction site accesses off Warrington Road and Twiss Green Lane will operate satisfactorily in conformity with the NPPF.

5.3.5 The alternative signalised site access junction arrangement has also been assessed and the summary results are presented below.

Table 5.4: Alternative Signalised Site Access Capacity Assessment Results

Access	Movement	AM Peak Hour		PM Peak Hour	
		DoS (%)	MMQ	DoS (%)	MMQ
Warrington Road	Site Access	63.6%	4	31.0%	1
	Warrington Road East	65.7%	12	35.4%	4
	Warrington Road West	41.4%	5	63.6%	11

5.3.6 The assessment results demonstrate that the signalised site access will operate within capacity and it is concluded that the potential alternative signal junction site accesses off Warrington Road will operate satisfactorily in conformity with the NPPF.

- 5.3.7 Withington Avenue will act as an emergency access and it is considered its junction with Warrington Road will operate satisfactorily.

Conclusions

- 5.3.8 It is concluded that the site accesses will operate within capacity, confirming that satisfactory access to the land north east of Culcheth can be provided in accordance with the NPPF.

SECTION 6 Traffic Impacts

6.1 The Case for Development in Culcheth

6.1.1 It is understood the Council has not published any detailed assessment of the potential traffic impacts resulting from development in the outlying settlements, including the proposed development at North East Culcheth. The modelling work reported at Section 2.2 noted that the aggregate level model results published by the Council do not show adverse travel conditions as a result of further development in the outlying settlements compared to the (then) PDO. Peel is keen to engage with WBC to assess the site and demonstrate how the traffic flows generated by the development can be accommodated on the surrounding highway network.

6.1.2 In terms of traffic conditions in Culcheth, WBC's Settlement Profile notes with respect to the local road network:

"Small amount of peak hour congestion in centre of village. No planned local highways improvements in village."

The profile also notes that Culcheth is in close proximity to M6(J22) and M62(J11).

6.1.3 It is understood the Council's above conclusion is not based on detailed analysis of the road network but it does suggest that traffic congestion should not act as a significant constraint on development. An initial indication of peak hour traffic conditions has been obtained from Google traffic maps with these given in Appendix I for the AM and PM peak hours. There is the possibility that the current Google traffic maps includes data which is within Covid-19 restrictions and this may impact on traffic speeds, Therefore the Google traffic maps from the previous representations (in 2019) and latest Google traffic maps have both been presented. Google uses four gradations to define traffic speeds from fast to slow: green, orange, red and dark red. These are relative to the speed limits with 'fast' indicating little delay.

6.1.4 The 2019 and 2021 traffic maps indicate that many roads in and around Culcheth have 'fast' traffic speeds. In 2019, in the AM peak, the A574 towards Birchwood through Culcheth village is graded orange, as is the southbound route between Glazebury and Holcroft Lane. In the PM peak hour, the routes through Culcheth are graded orange in the northbound direction as is Warrington Road to Glazebury. Parts of the northbound A574 both south of Glazebury and north of Glazebury towards A580 are graded red. These indicated there is limited congestion in

the peak hours, with this resulting from delays at junctions as is typical of urban road networks in the peak hours.

- 6.1.5 In 2021, the AM peak illustrates that the A574 westbound through Culcheth village is graded orange, with all other routes graded green. In the PM peak the routes through Culcheth are graded orange in the northbound direction on the A574 Warrington and between Warrington Road and Wigshaw Lane in both directions in the centre of Culcheth. The northbound A574, north of Glazebury towards the A580 is graded red.
- 6.1.6 The traffic conditions through Culcheth village partly reflect peak hour traffic movements to and from Birchwood. Analysis of journey to work data indicates that a significant proportion of trips to Birchwood could use A574, with some of these possibly choosing this route as an alternative to the motorway network. The analysis identifies c.12% of workers are likely to use this route and up to 25% in total could use A574 through Culcheth. Improvements to the motorway network (e.g. the smart motorway at M60) including those in the longer term (e.g. North West Quadrant) could reduce traffic flows through Culcheth. Furthermore, many of the trips to Birchwood originate outside the Borough. With a better balancing of local workers and jobs (by locating workers in households in Culcheth), there is the potential for existing trips to be reduced along A574.
- 6.1.7 Existing traffic conditions in Culcheth have been assessed in more detail using traffic survey data collected specifically for this assessment. The survey data has been obtained to provide a picture of existing traffic conditions in Culcheth, focussing on locations close to Peel's site where traffic impacts of the proposals will be highest.
- 6.1.8 Traffic surveys, comprising traffic counts and queue length surveys, were undertaken at the following junctions on Thursday 19 October 2017:
- A574 Warrington Road / Holcroft Lane
 - A574 Warrington Road / Withington Avenue
 - A574 Warrington Road / Common Lane
 - A574 Warrington Road / Twiss Green Lane East
 - A574 Warrington Road / Twiss Green Lane West
 - Daten Avenue / Warrington Road / Birchwood Park Avenue

6.1.9 The traffic data has been processed to obtain the peak hour flows and the data has been converted to Passenger Car Units (PCU) for use in traffic capacity assessments. The peak hours are 08:00 – 09:00 and 17:00 – 18:00. The peak hour surveyed traffic flows are given on Appendix J. The 2017 observed traffic flows have been growth to the end of the plan period (Forecast Year) as set out above. The Forecast Year baseline traffic flows are given in Appendix K.

6.1.10 It is anticipated that peak hour traffic growth is unlikely to materialise. Data from a DfT traffic count on A574 south of Culcheth (www.dft.gov.uk/traffic-counts) has been analysed to assess the long-term trends in traffic on the A574. The count only provides 24 hour AADT traffic flow data but this identifies the following:

Table 6.1: Observed Traffic Flows on A574

Year	Two-Way AADT Flow	Change Since 2000
2000	14,244	-
2005	13,940	-2.1%
2010	12,273	-13.8%
2015	12,005	-15.7%
2017	12,297	-13.7%
2019	12,804	-10.1%

6.1.11 Thus the DfT traffic flow data indicates that traffic flows along the A574 corridor have reduced with no observed growth over nearly a 20 year period.

6.1.12 The Forecast Year baseline traffic flows have been input to the ARCADY and PICADY programs contained within JUNCTIONS 9 and used to assess the performance of the local highway network. At the mini-roundabout junctions of Holcroft Lane and Common Lane with Warrington Road, intercept corrections have been included in the models and flat traffic profiles used (based on analysis of existing traffic data) such that the outputs from the traffic models validate against queue survey data. A flat traffic profile has also been used at the junction of Daten Avenue with Birchwood Park Avenue. The results are summarised in the table below.

Table 6.2: Forecast Year Baseline Capacity Assessment Results

Junction	Movement	AM Peak Hour		PM Peak Hour	
		Max RFC	Max Queue	Max RFC	Max Queue
	Warrington Road North	0.94	13	0.46	1

Junction	Movement	AM Peak Hour		PM Peak Hour	
		Max RFC	Max Queue	Max RFC	Max Queue
Warrington Road / Holcroft Lane	Holcroft Lane	0.94	10	0.70	2
	Warrington Road South	0.74	3	0.89	7
Warrington Road / Withington Avenue	Shaw Street	0.53	1	0.59	1
	Warrington Road East Right Turn	0.04	0	0.01	0
	Withington Avenue	0.18	0	0.08	0
	Warrington Road West Right Turn	0.06	0	0.05	0
Warrington Road / Common Lane	Warrington Road East	0.83	5	0.55	1
	Warrington Road West	0.40	1	0.89	8
	Common Lane	0.84	5	0.58	1
Common Lane / Twiss Green Lane East	Twiss Green Lane Left Turn	0.10	0	0.06	0
	Twiss Green Lane Right Turn	0.04	0	0.04	0
	Common Lane Right Turn	0.05	0	0.06	0
Common Lane / Twiss Green Lane West	Twiss Green Lane	0.30	0	0.13	0
	Common Lane Right Turn	0.09	0	0.14	0
Daten Avenue / Birchwood Park Avenue	Daten Avenue	0.26	0	0.46	1
	Warrington Road South	0.04	0	0.44	1
	Birchwood Park Avenue	0.42	1	0.50	1
	Warrington Road North	0.79	4	0.24	0

6.1.13 The results demonstrate that the road network in Culcheth is generally expected to operate within capacity. The two mini-roundabout junctions are predicted to be approaching capacity, largely as a result of the traffic growth applied which is considered to be onerous (given the analysis presented in Table 6.1). The assessments for these two junctions have therefore been re-run without peak hour traffic growth applied and the results are summarised below, showing that they will operate within capacity.

Table 6.3: 2017 Baseline Capacity Assessment Results

Junction	Movement	AM Peak Hour		PM Peak Hour	
		Max RFC	Max Queue	Max RFC	Max Queue
Warrington Road / Holcroft Lane	Warrington Road North	0.84	5	0.42	1
	Holcroft Lane	0.76	3	0.61	2
	Warrington Road South	0.66	2	0.79	4
	Warrington Road East	0.73	3	0.50	1

Warrington Road / Holcroft Lane / Common Lane	Warrington Road West	0.36	1	0.79	4
	Common Lane	0.75	3	0.51	1

6.1.14 The analysis confirms WBC’s general conclusion that there is a small amount of peak hour congestion in the centre of Culcheth. It is therefore concluded that there are no existing highways infrastructure constraints that should prevent development in the settlement.

6.1.15 The next sections consider the specific impacts of the development proposals at North East Culcheth.

6.2 Development Traffic Flows

6.2.1 Traffic flows have been calculated for 600 residential dwellings.

Trip Generation

6.2.2 Trip generation rates for the proposed development have been derived from the TRICS database using the ‘Houses Privately Owned’ category for sites with at least 100 dwellings. At this stage, no allowance has been made for lower trip rates associated with affordable housing on the site.

6.2.3 The trip generation rates and the resultant generated traffic flows are shown in the table below for the morning and evening peak hours for both development options.

Table 6.4: North East Culcheth – Trip Generation

Peak Hour	Direction	Trip Rate (per unit)	No. Trips
AM Peak	Arrival	0.127	76
	Departure	0.377	226
	Total	0.504	302
PM Peak	Arrival	0.309	185
	Departure	0.164	98
	Total	0.473	283

6.2.4 Thus the full development of 600 dwellings could generate up to 280 – 300 vehicular trips in each of the peak hours.

6.2.5 TEMPRO has been used to identify the potential journey purposes travelled by residents. In the peak periods this identifies for the Culcheth area:-

Table 6.5: North East Culcheth – Journey Purposes of Car Travel

Trip Purpose	Proportion of Trips	
	AM Peak Period	PM Peak Period
Work	56%	41%
Employer's business	7%	6%
Education	11%	5%
Shopping	15%	19%
Personal business	5%	7%
Recreation/Social	3%	9%
Visiting friends/relatives	1%	10%
Holiday/day trips	2%	3%

6.2.6 Considering the above, and the analysis presented earlier in this report related to the availability of local facilities and services, there is potential for some of the peak hour trips to be made locally and by active travel modes rather than the car: to the primary schools or high school nearby; and to the facilities and services within Culcheth village. In the AM and PM peak periods, 37% and 53% of trips respectively are made for reasons other than journeys to work or on employer's business.

Trip Distribution and Assignment

6.2.7 The potential routes of car trips within and out of Culcheth have been derived using 2011 Census journey to work patterns from the local area. This will over-estimate trips on the surrounding highway network as, as noted above, there is potential for many journeys to be made locally whereas work related trips tend to be made over longer distances.

6.2.8 The Census data shows the following general distribution of trips:

Table 6.6: North East Culcheth – Overall Trip Distribution

Destination/District	Proportion of Trips
Warrington Borough	41%
Salford	8%
Trafford	7%
Manchester	7%
Wigan	9%
Halton	3%
Cheshire West & Chester	2%
Cheshire East	2%

Destination/District	Proportion of Trips
Other	21%
Total	100%

6.2.9 Of the trips to 'other' destinations, larger proportions are made to the rest of Greater Manchester (5%) and Merseyside (9%). The above does not take account of new job opportunities in the area (e.g. at Parkside, Omega).

6.2.10 Trips have been assigned to destinations using the fastest routes based on Google mapping. Account has been taken of the different access points serving parts of the site. The resultant destination points on the road network surrounding the site are as follows:

Table 6.7: North East Culcheth – Trip Assignment

Location	Proportion
M62 East via Birchwood Way	12.9%
Glazebrook Lane	16.6%
M62 West via Birchwood Way	5.5%
Birchwood Park Avenue	26.6%
Southworth Lane	13.3%
A579 Winwick Lane	4.3%
B5207 Church Lane	2.3%
A580 West	4.2%
Warrington Road N of A580	3.2%
A580 East	6.8%
Within Culcheth	4.2%
Total	100.0%

6.2.11 The traffic flows generated by 600 dwellings and assigned to the road network surrounding the site are given on Appendix L, noting these are considered to be an over-estimate for the reasons set out above.

6.3 Traffic Impacts

6.3.1 The local highway network in the vicinity of the site is shown on Appendix M. A574 runs through Culcheth, connecting with A580 East Lancs Road to the north of Glazebury and running through Birchwood Park to the south. Holcroft Lane joins A574 at a mini-roundabout close to the site and runs to the south-east towards the A57 at Cadishead. Common Lane runs through Culcheth

and joins A574 in the village centre, also at a mini-roundabout. Connections to the motorway network are available at Birchwood (M6J11) and north-east of Winwick, via Winwick Lane (M6J22).

6.3.2 The development generated traffic flows derived at 6.2 above (and shown in Appendix L) have been compared with the Forecast Year baseline traffic flows derived at 6.1 above (shown in Appendix K). The resultant total traffic flows at junctions on the local road network close to the site are given in the table below:-

Table 6.8: Proportional Impacts of Development Generated Traffic

Junction	AM Peak Hour			PM Peak Hour		
	Forecast Year Baseline Flow	Development Flow	Proportional Impact	Forecast Year Baseline Flow	Development Flow	Proportional Impact
		600 Units	600 Units		600 Units	600 Units
Warrington Road / Holcroft Lane	2,111	176	8.3%	1,808	164	9.1%
Warrington Road / Withington Avenue	1,818	151	8.3%	1,653	142	8.6%
Warrington Road / Common Lane	2,045	219	10.7%	1,895	206	10.9%
Common Lane / Twiss Green Lane East	752	125	16.6%	616	117	19.0%
Common Lane / Twiss Green Lane West	863	103	11.9%	702	96	13.7%
Daten Avenue / Birchwood Park Avenue	2,862	136	4.8%	2,588	128	4.9%

6.3.3 The Guidelines for Environmental Assessment of Road Traffic state that the day-to-day variation of traffic on a road is frequently at least some + or – 10%. The above table demonstrates that the generated traffic flows associated with a development of 600 dwellings will be within typical daily variations at most locations. Impacts are therefore unlikely to be discernible.

6.3.4 The detailed impacts of the traffic flows generated by the proposals have been assessed at junctions on the local road network surrounding the site by comparing the base forecast year assessment results (as set out in Table 6.2) with those when the development traffic is added. The results are summarised in the table below for the 600 unit development.

Table 6.9: Impacts of Development Generated Traffic at Junctions

Junction	Movement	Forecast Year Baseline				Forecast Year with Development			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
Warrington Road / Holcroft Lane	Warrington Road North	0.94	13	0.46	1	1.05	67	0.51	1
	Holcroft Lane	0.94	10	0.70	2	1.05	28	0.78	3
	Warrington Road South	0.74	3	0.89	7	0.80	4	0.99	25
Warrington Road / Withington Avenue	Shaw Street	0.53	1	0.59	1	0.63	2	0.66	2
	Warrington Road East Right Turn	0.04	0	0.01	0	0.05	0	0.01	0
	Withington Avenue	0.18	0	0.08	0	0.21	0	0.10	0
	Warrington Road West Right Turn	0.06	0	0.05	0	0.07	0	0.06	0
Warrington Road / Common Lane	Warrington Road East	0.83	5	0.55	1	0.95	13	0.61	2
	Warrington Road West	0.40	1	0.89	8	0.45	1	1.01	35
	Common Lane	0.84	5	0.58	1	0.96	13	0.68	2
Common Lane / Twiss Green Lane East	Twiss Green Lane Left Turn	0.10	0	0.06	0	0.19	0	0.09	0
	Twiss Green Lane Right Turn	0.04	0	0.04	0	0.04	0	0.04	0
	Common Lane Right Turn	0.05	0	0.06	0	0.08	0	0.14	0
Common Lane / Twiss Green Lane West	Twiss Green Lane	0.30	0	0.13	0	0.47	1	0.19	0
	Common Lane Right Turn	0.09	0	0.14	0	0.13	0	0.25	1
Daten Avenue / Birchwood Park Avenue	Daten Avenue	0.26	0	0.46	1	0.28	0	0.48	1
	Warrington Road South	0.04	0	0.44	1	0.04	0	0.46	1
	Birchwood Park Avenue	0.42	1	0.50	1	0.43	1	0.54	1
	Warrington Road North	0.79	4	0.24	0	0.84	5	0.26	0

6.3.5 The analysis demonstrates that all junctions will operate within capacity other than the mini-roundabout junctions of Holcroft Lane and Common Lane with Warrington Road.

6.3.6 Given the analysis of existing traffic growth set out above (Table 6.1), and that the inclusion of traffic growth clearly represents a worst case and very onerous assumption, assessments have been re-run without the application of background traffic growth to observed traffic flows. The results are summarised in the table below.

Table 6.10: Capacity Assessment Results: No Traffic Growth

Junction	Movement	2017 Baseline				With Development			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue	Max RFC	Max Queue
Warrington Road / Holcroft Lane	Warrington Road North	0.84	5	0.42	1	0.94	14	0.47	1
	Holcroft Lane	0.76	3	0.61	2	0.89	7	0.69	2
	Warrington Road South	0.66	2	0.79	4	0.72	3	0.89	8
Warrington Road / Holcroft Lane / Common Lane	Warrington Road East	0.73	3	0.50	1	0.85	5	0.56	1
	Warrington Road West	0.36	1	0.79	4	0.41	1	0.91	9
	Common Lane	0.75	3	0.51	1	0.86	5	0.61	2

6.3.7 With the addition of the traffic generated by 600 dwellings, both junctions operate within capacity. Queues increase but it is concluded that the impacts, in terms of increases in queue lengths, are not severe.

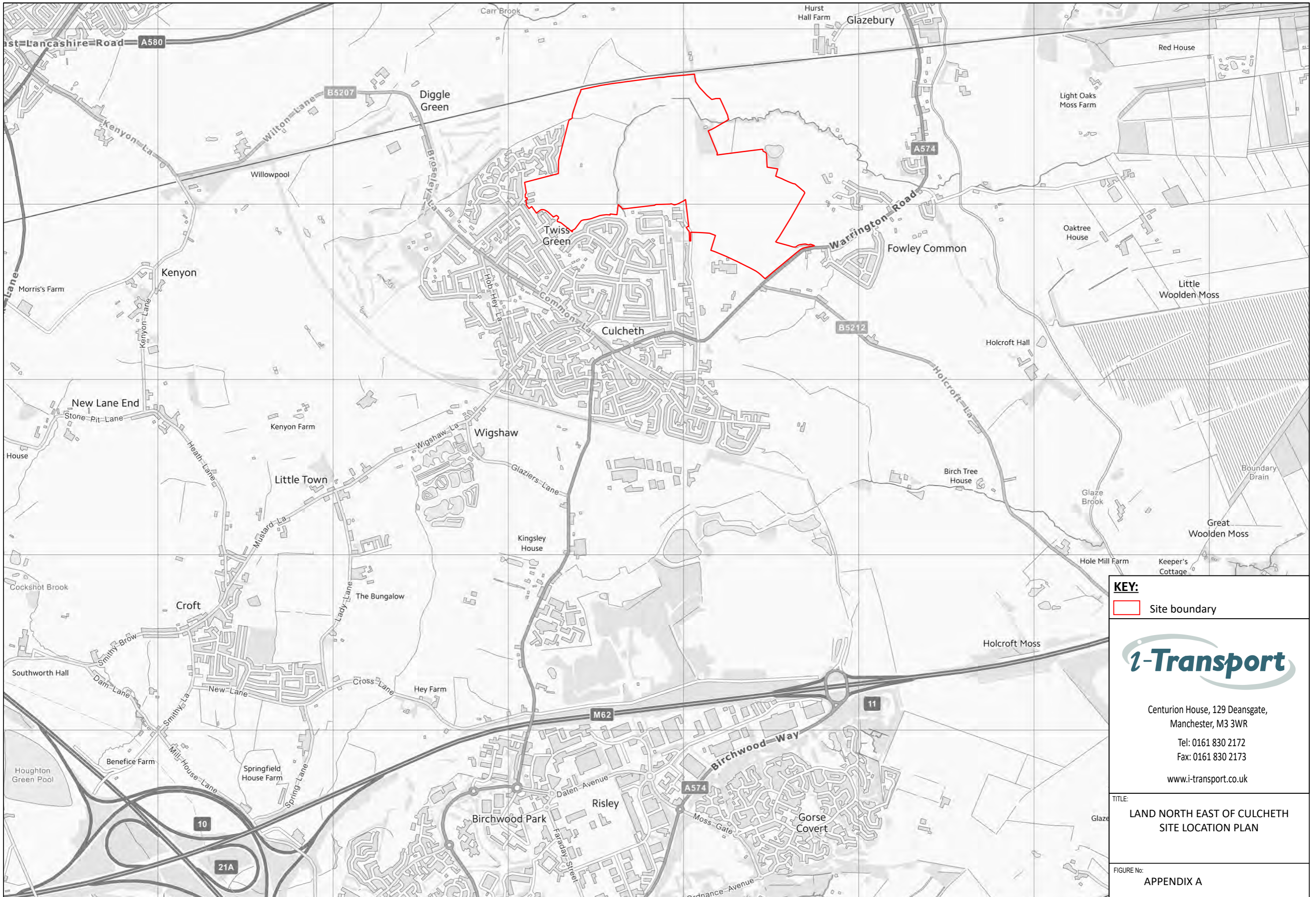
6.3.8 On this basis it is concluded that, in accordance with the NPPF, development should not be prevented on transport grounds as the residual cumulative impacts of development will not be severe.

SECTION 7 Conclusions

- 7.1 This report has considered the transport and highways implications of Peel's land interests north east of Culcheth. These are capable of accommodating a new community, integrated with the existing settlement, of up to 600 dwellings.
- 7.2 The Council's proposed allocation at Culcheth is for an additional 200 dwellings. No detailed quantitative analysis has been published which analyses the capacity of the transport system and the impacts of higher levels of development other than at an aggregate level which concludes there is no material difference to what was the PDO. There is therefore no justification, based on sound evidence, to limit development in Culcheth on transport grounds.
- 7.3 Culcheth is a self-contained settlement with many local facilities and services providing for day-to-day needs. These will help to create sustainable development and travel patterns. Development in Culcheth can therefore be focused on making walking, cycling and bus the most attractive means of transport. In this respect the settlement is a suitable location for development.
- 7.4 Similarly, detailed analysis of existing traffic conditions identifies that there are no significant highway capacity constraints that should prevent land in Culcheth being allocated for development.
- 7.5 A transport strategy for the site is outlined which will promote sustainable travel modes and provide benefits for both the development and existing residents in Culcheth. The strategy will include improvements to existing PRoW and the delivery of new pedestrian/cycle connections with the size of the site creating a 'critical mass' that will support bus services. These will be complemented by a Travel Plan. The site also offers the potential to provide an improvement to the secondary school car park and provision of a drop off point, to be accessed through the site access off Warrington Road.
- 7.6 A range of facilities and services will be available locally within walking and cycling distance of the site. These include: country park on the site; the adjacent Culcheth high school; nearby primary schools and health, shopping and leisure facilities in Culcheth including those at the nearby centre.
- 7.7 The site will therefore meet the transport related objectives of the UPSVLP. Furthermore, it will strongly meet four of the five specific accessibility criteria defined by the Council.

- 7.8 It is therefore concluded that the development of the site will fully accord with the NPPF objective related to sustainable travel, with opportunities for such modes taken up.
- 7.9 Access to the site is proposed in several locations and feasibility level designs have been produced and the capacity of these considered. All will operate satisfactorily. Site access is controlled by Peel and is deliverable and achievable. It is therefore also concluded that satisfactory access can be provided in accordance with the NPPF.
- 7.10 The impacts on the surrounding road network of the traffic increases as a result of the development have been assessed in detail and this shows that traffic impacts are not significant. On this basis it is concluded that, in accordance with the NPPF, development should not be prevented on transport grounds as the residual cumulative impacts of development will not be severe.
- 7.11 Overall, it is therefore concluded that the site at North East Culcheth is suitable for allocation in the Council's Local Plan and will form a sustainable development that can provide much needed housing.

APPENDIX A. Site Location Plan



KEY:
 Site boundary

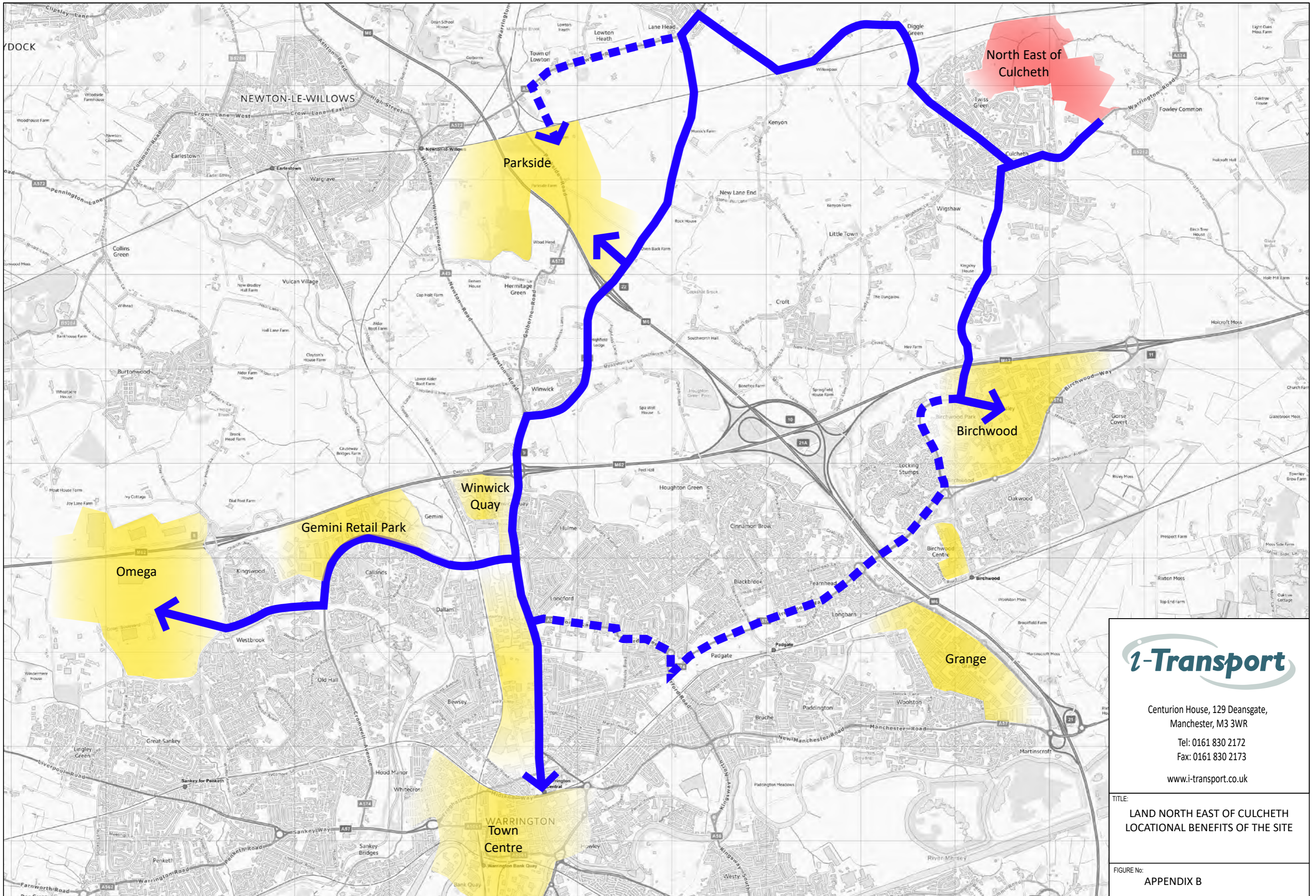


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TITLE:
**LAND NORTH EAST OF CULCHETH
 SITE LOCATION PLAN**

FIGURE No:
APPENDIX A

APPENDIX B. Locational Benefits Of The Site



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TITLE:
**LAND NORTH EAST OF CULCHETH
LOCATIONAL BENEFITS OF THE SITE**

FIGURE No:
APPENDIX B

APPENDIX C. Warrington Cycle Map



CYCLE MAP

Warrington & THE SURROUNDING AREA

Warrington & THE SURROUNDING AREA CYCLE MAP



Every effort has been taken to provide an accurate and useful guide. If you have any comments on the guide please contact us:

activetravel@warrington.gov.uk

TravelWarrington

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www.fourfourtwo.co.uk
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How to use this guide...

The Warrington Cycle Map has been created to assist all cyclists with planning the best route for your journey.

Roads graded → Increasing difficulty
cycleability gradations, in increasing experience

The road network shown on the map is graded according to the degree of skill and experience needed to cycle each route. If you are a beginner or haven't cycled for some time, you should build up your confidence and basic skills on the yellow roads where traffic is lighter and speeds are low.

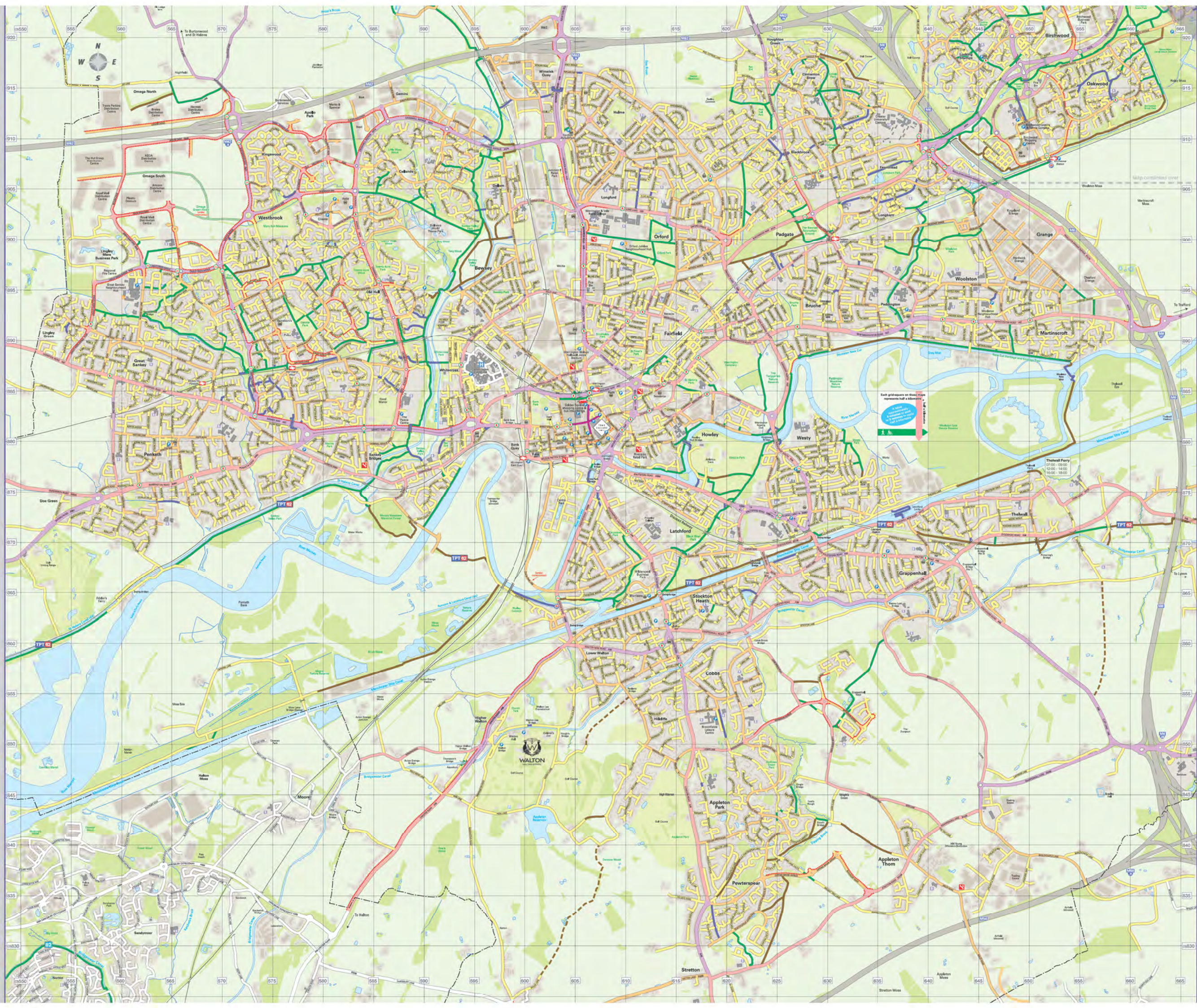
As your cycling skills increase, you can explore the orange roads. When you are able to deal with heavier and faster traffic you can venture onto the pink and purple routes.

Greenways and shared-use paths still require caution and low speed, especially at junctions. Wherever paths are shared with pedestrians, please be considerate; make sure that others are aware of you, and pass slowly leaving as much room as possible. In all cases of shared and segregated pavement cycling the right of way remains with the pedestrian.

Key

Cycleability gradations, in increasing experience

- 1 2 3 4
- Tarmac surfaced cycle paths
- Unsurfaced cycle paths
- Bridleway
- Pedestrian links
- Shared-use cycle path
- Pedestrian & Cycle Zone
- Motorway
- One way / One way with contra flow cycling permitted
- National Cycle Network route number & Trans-Pennine Trail
- Railway station
- Bus interchange
- Schools
- Colleges
- Hospital
- Library
- Supermarket
- Cycle parking
- Bike shop
- Bridge
- Pedestrian crossing
- Toucan crossing
- Underpass
- Wheeling ramp



Each grid square on this map represents half a kilometre

Health Walks

Available at different locations throughout Warrington, there is no better way to get some fresh air in your lungs.

Contact our lifestyles team on **0300 003 0818**

Cycle shops

There are various cycle shops across the town, most offer at least a partial maintenance service. They are:

- GO Outdoors**
Wilson Paton Street WA1 1PS
- Cyclehouse**
Buckley Street WA2 7NS
- D & M Cycles**
Hood Lane, Sankey Bridges WA5 1EJ
- Halfords**
Riverside Retail Park, Wharf Street WA1 2GZ
- Cheshire Cycles**
Burley Lane, Appleton Thorn, Warrington WA4 4RP
- Decathlon**
Jubilee Way/Winwick Road WA2 8HE
- Ron Spencer Cycles**
Crossley Street WA1 2PF



Lymm

Each grid square on these maps represents half a kilometre.

Burtonwood

Each grid square on these maps represents half a kilometre.

Winwick

Each grid square on these maps represents half a kilometre.

Warrington town centre

Each grid square on these maps represents half a kilometre.

Culcheth

Each grid square on these maps represents half a kilometre.

Cycle safety

Lights for night riding must be used - dynamos are greener and cheaper than batteries in the long term (some flashing LED lights are now allowed but check to make sure yours are acceptable).

It is also a legal requirement to have front and rear reflectors on your bike.

Consider wearing reflective and bright clothing to make you more visible.

A cycle helmet is optional but can help to protect you against head injury.

Another way to help improve your cycling skills and safety is through cycle training.

Cycle training

Warrington has a full programme of free high quality Bikeability cycle training in schools.

Level 2 is offered to all 10 year olds and takes place on quiet roads around their primary schools.

Level 3 is offered to all teenagers 16 and under, and includes more advanced skills for busier roads.

Adult cycle training is also available to anyone over 16 who lives, works or studies in Warrington. These **Freewheeling** courses are for absolute beginners through to more experienced riders, providing the skills and confidence to ride safely in traffic. This training is delivered by fully accredited instructors and can be arranged during daytime, evenings or weekends. Apply at www.bikeright.co.uk or call 0161 230 7007.

Cycle parking

Cycle parking can be found across Warrington, with at least 200 spaces around the town centre. These are shown on the map by a

Keep your bike safe and secure

- Sign up to BikeRegister (www.bikeregister.com) and get your bike security-marked
- In public, lock your bike at dedicated cycle parking sites
- Use a strong 'D' lock and attach the frame of your bike close to the stand
- Remove any parts which could be stolen like your lights
- Lock up your bike at home too. Don't leave it in communal hallways, gardens or sheds
- Know your bike's make, colour and frame number, and keep a picture of it.

Warrington Overview Map

How long to cycle a mile?
 10 minutes at leisure 5 minutes at moderate pace 3 minutes at speed

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Highways maintenance & streetlighting

How to report a fault?

To report a fault or pothole complete the web form on www.warrington.gov.uk



Advice to motorists & cyclists

Motorists should...

- Be aware of cyclists and take extra care at junctions, traffic lights and roundabouts.
- Give cyclists plenty of room when overtaking, usually 2m (6 feet) - if there isn't room to overtake, be patient.
- Obey speed limits.
- Obey Advanced Stop Lines (green boxes at traffic signals designed to give cyclists a head start).
- Not park in or obstruct cycle lanes.
- Expect cyclists to leave cycle lanes at certain times for manoeuvres such as right turns.

Cyclists should...

- Ensure the cycle is in good working order and appropriately lit at night.
- Not cycle on the footway unless it is signed as a shared access route.
- Be considerate and give priority when sharing with pedestrians, especially alongside canals and waterways.
- Never cycle through red lights.
- On road, cycle at least 1m from the kerb where cars can see you and away from grids and gullies.
- Take care passing alongside slow moving traffic.
- Watch out for left turning vehicles as you could be in their blind spot.
- Get and read a copy of "Cyclecraft" - considered the definitive guide to safe and confident cycling.



Birchwood

Each grid square on these maps represents half a kilometre.

Key

Cycleability gradations, in increasing experience

1	2	3	4
Tarmac surfaced cycle paths	Unsurfaced cycle paths	Bridleway	Pedestrian links
Shared-use cycle path	Pedestrian & Cycle Zone	Motorway	One way / One way with contra flow cycling permitted

National Cycle Network route number & Trans-Pennine Trail

- Railway station
- Bus interchange
- Schools
- Colleges
- Hospital
- Library
- Supermarket
- Cycle parking

Bike shop
 Bridge
 Pedestrian crossing
 Toucan crossing
 Underpass
 Wheeling ramp

Signs & symbols

Common road signs and markings that you may come across when cycling through the borough.

- No entry (for all vehicles including cyclists)
- No cycling
- Route for use by pedal cycles only
- With flow cycle lane ahead
- Cycle route
- Motor vehicles prohibited (cycles permitted)
- Be aware of cyclists
- Segregated route
- Shared route for cyclists and pedestrians
- Cycle lane
- Cycle route forming part of the National Cycle Network

Advanced stop lines

- Advanced stop lines enable cyclists to negotiate junctions safely.
- When the traffic signals are red, cyclists move ahead to a 'reservoir' area to position themselves safely ahead of motorists.

Why you should give cycling a go

It's good for your heart
You could enjoy better fitness levels, a stronger heart and lungs, and you could live longer.

It helps you control your weight
Exercise produces fat burning enzymes, which then burn calories even when you're resting.

It helps the environment
Do your bit and get on your bike, especially for those short journeys when you don't really need to take the car.

It's fun
Remember all those hours playing on your bike when you were a child. Warrington has many parks and open spaces where you can relive those fun times in a safe environment and get some great exercise as well.

It saves you money
Cut down your spending on parking and petrol.

It's for everyone
Cycling for those with disabilities is becoming increasingly popular. Tricycles that offer more stable support and hand cycles for wheelchair users or those with severe weakness are available. Warrington based 'Cycling Projects' (www.cycling.org.uk) is a national UK cycling charity which promotes inclusive cycling through its 'Wheels for All' programme.

With all these things and more in mind, now is the time to get cycling!



Greenways code of conduct

- Shared Pathway
- Please be considerate and polite to others at all times
- Dispose of litter in bins or take it home
- Keep left or pass right
- Slow
- Be prepared to slow down, stop and give way to pedestrians if necessary
- Bell
- Be seen and heard - use your bell but be aware that others may not see or hear you
- Keep dogs under control

Inclusive Cycling Wheels for All

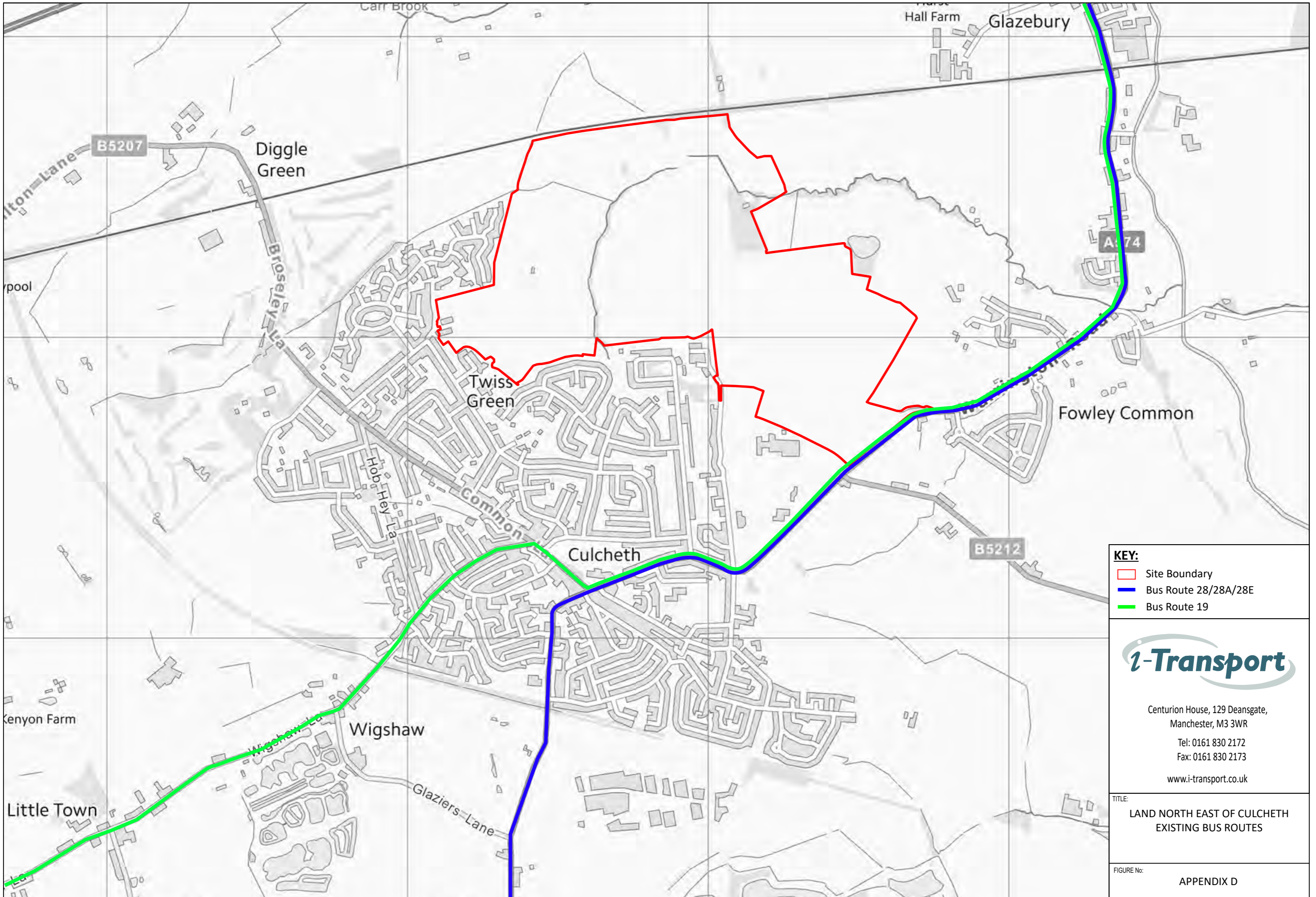
www.cycling.org.uk 01925 234213

We are the national charity for inclusive cycling.
Experience the fun and freedom of cycling in a safe, traffic-free setting.




At Victoria Park Athletics Track, Warrington WA4 1DQ On Fridays between 10am and 2:30pm.

We offer a friendly welcome, expert guidance and a range of bikes including tricycles, four wheelers, side by side, hand pedals and wheelchair transporters. Helmets also provided.

APPENDIX D.Existing Bus Routes



KEY:

	Site Boundary
	Bus Route 28/28A/28E
	Bus Route 19

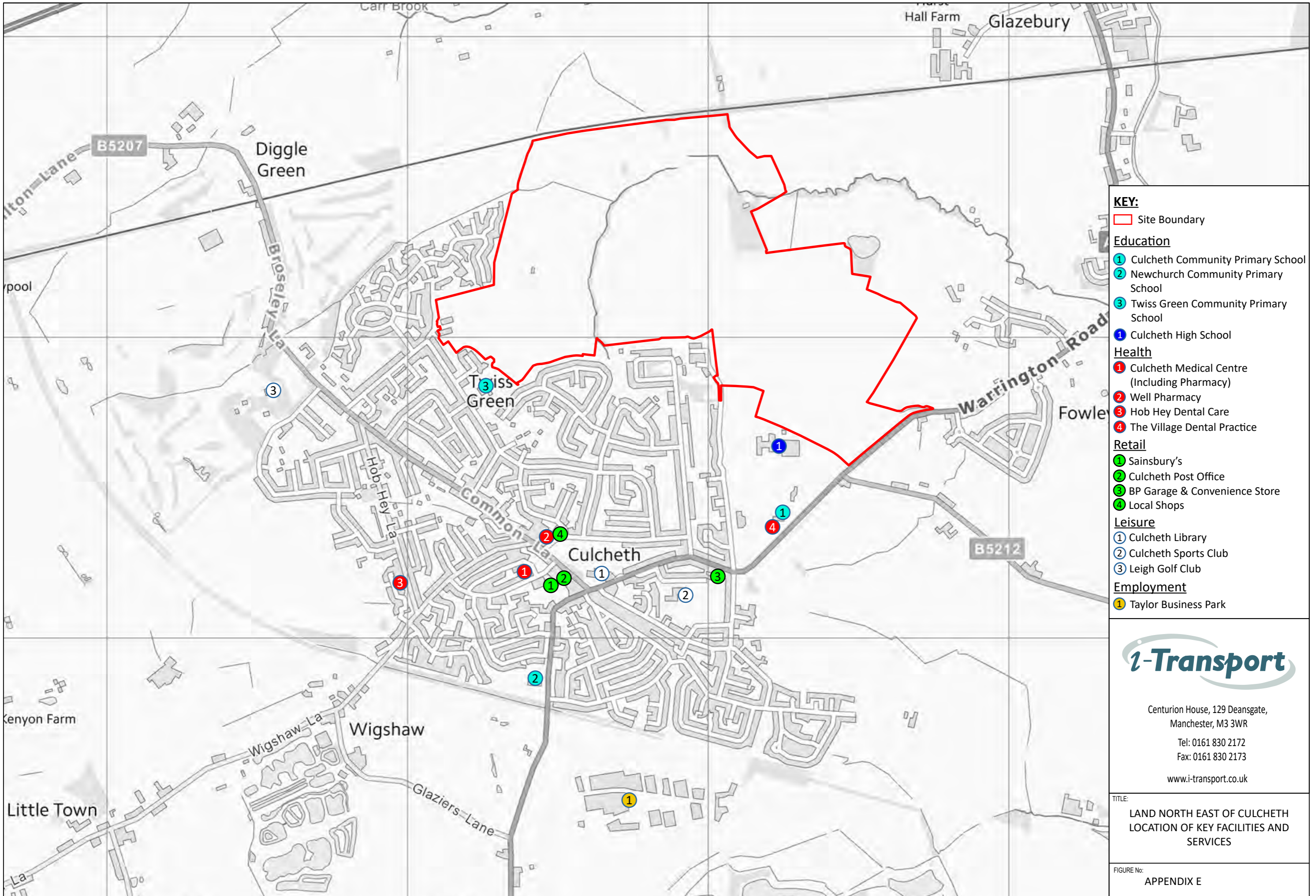


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TITLE:
 LAND NORTH EAST OF CULCHETH
 EXISTING BUS ROUTES

FIGURE No:
 APPENDIX D

APPENDIX E. Location Of Key Facilities And Services



- KEY:**
- Site Boundary
- Education**
- ① Culcheth Community Primary School
 - ② Newchurch Community Primary School
 - ③ Twiss Green Community Primary School
 - ④ Culcheth High School
- Health**
- ① Culcheth Medical Centre (Including Pharmacy)
 - ② Well Pharmacy
 - ③ Hob Hey Dental Care
 - ④ The Village Dental Practice
- Retail**
- ① Sainsbury's
 - ② Culcheth Post Office
 - ③ BP Garage & Convenience Store
 - ④ Local Shops
- Leisure**
- ① Culcheth Library
 - ② Culcheth Sports Club
 - ③ Leigh Golf Club
- Employment**
- ① Taylor Business Park

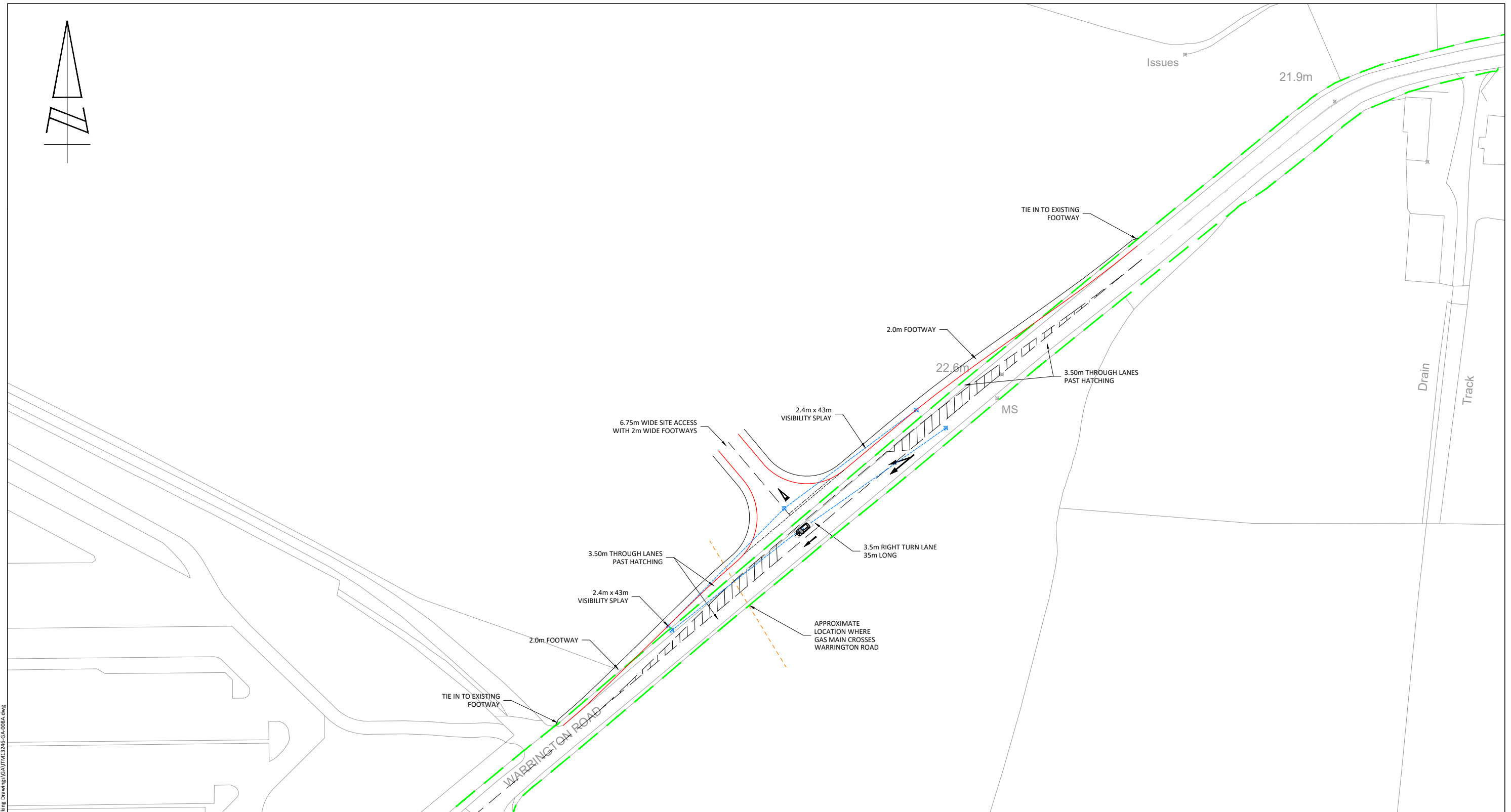
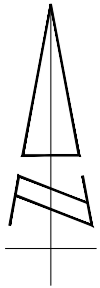


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TITLE:
 LAND NORTH EAST OF CULCHETH
 LOCATION OF KEY FACILITIES AND
 SERVICES

FIGURE No:
 APPENDIX E

APPENDIX F. Potential Site Access From Warrington Road



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SCALE BAR @ 1:1000



--- HIGHWAY BOUNDARY



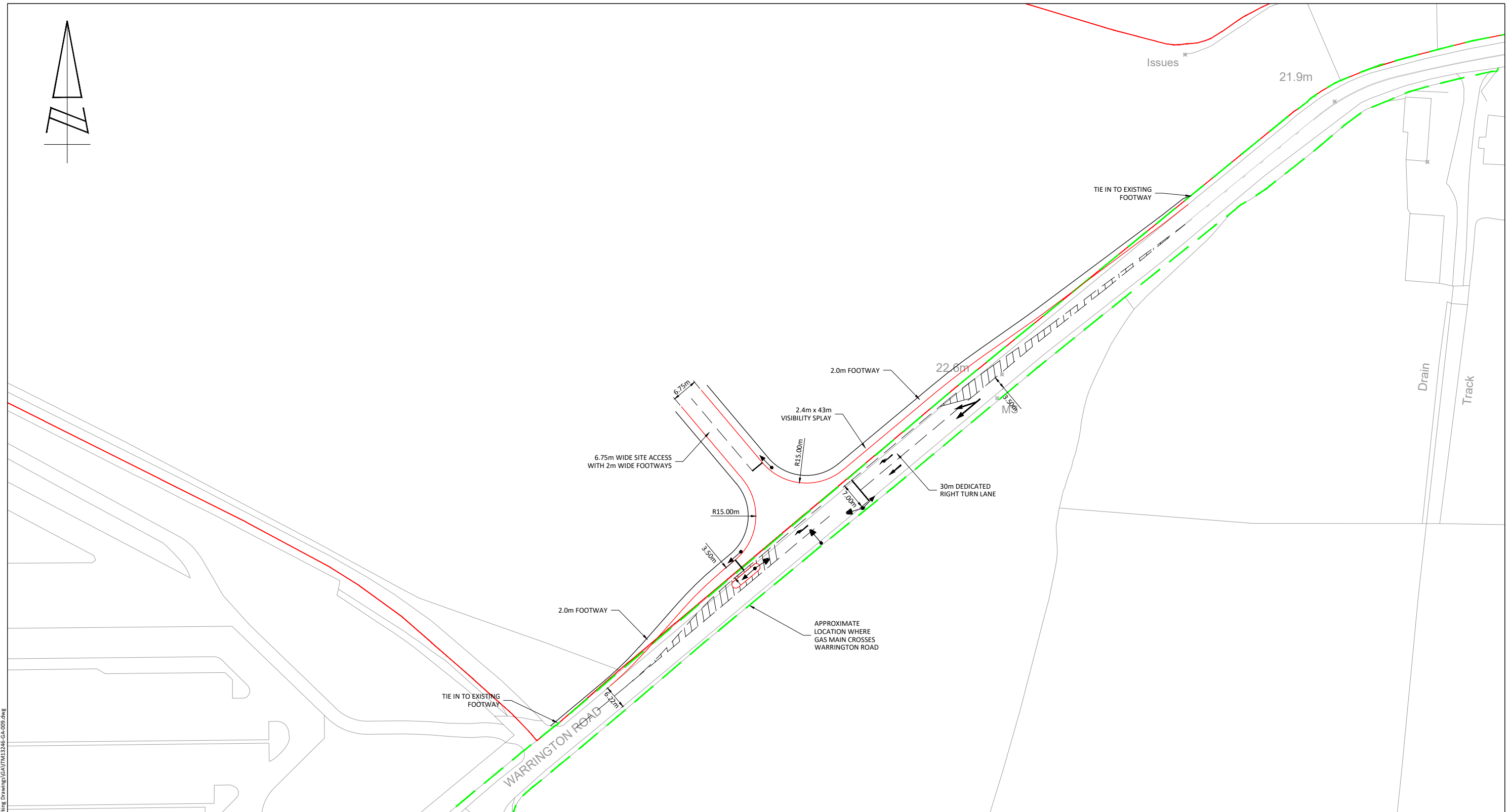
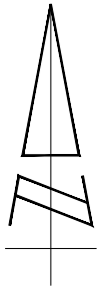
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REV	DATE	BY	DESCRIPTION	CHK	APD
A	12.11.21	JB	CLIENT INFO UPDATED	JO	SE
STATUS: DRAFT					

TITLE: POTENTIAL SITE ACCESSES FROM WARRINGTON ROAD	
PROJECT: LAND NORTH EAST OF CULCHETH	CLIENT: PEEL L&P HOLDINGS (UK) LIMITED

SCALE @ A3: 1:1000	CHECKED: SEE	APPROVED: SEE
FILE REF: ITM13246-GA	DRAWN: PH	DATE: 22.06.2018
DRAWING No: APPENDIX F (ITM13246 - GA - 008)		
PROJECT No: ITM13246		REV: A

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SCALE BAR @ 1:1000



--- HIGHWAY BOUNDARY



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REV	DATE	BY	DESCRIPTION	CHK	APD

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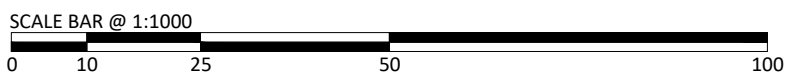
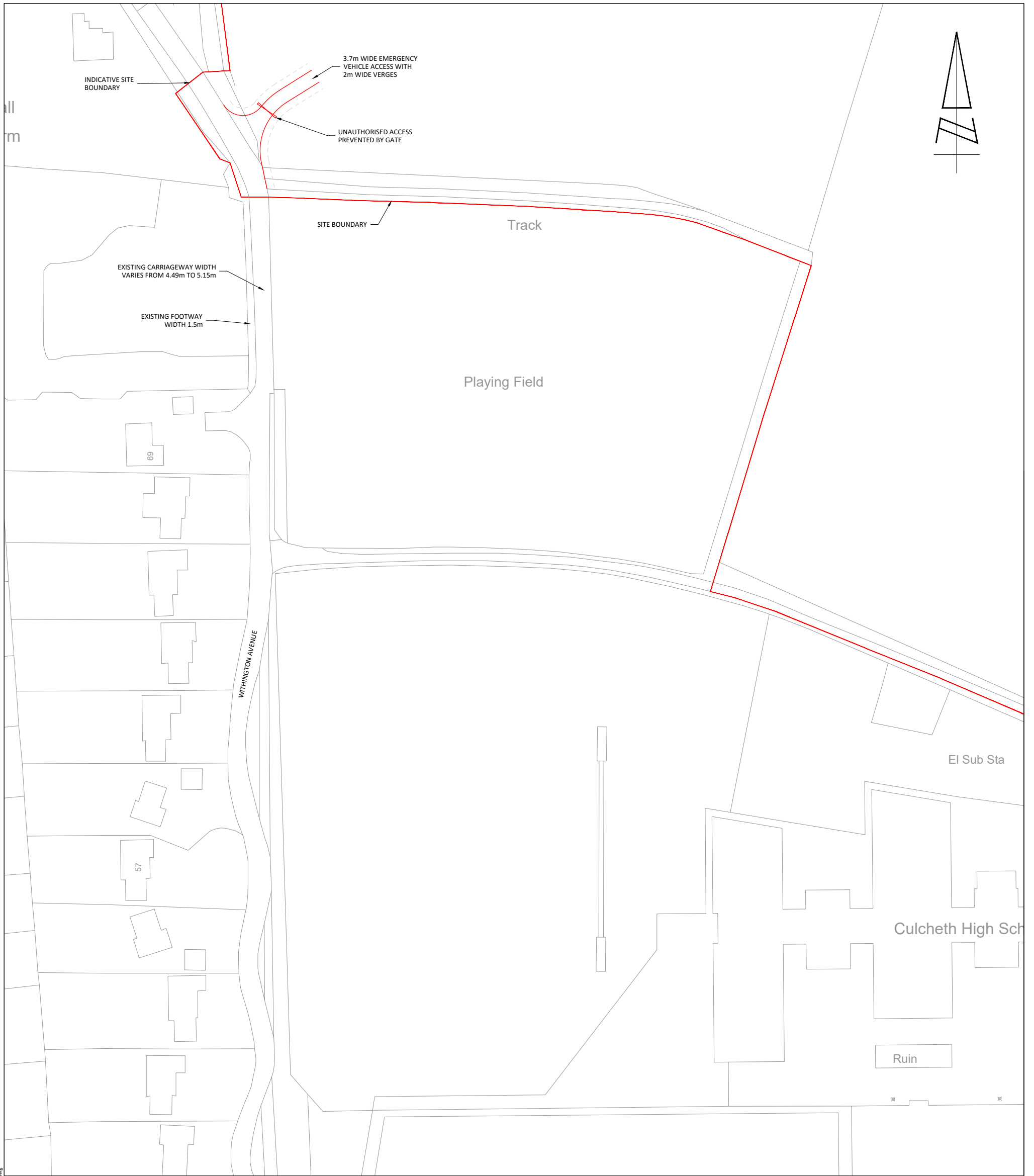
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PROJECT: LAND NORTH EAST OF CULCHETH
CLIENT: PEEL L&P HOLDINGS (UK) LIMITED

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FILE REF: ITM13246	DRAWN: JB	DATE: 09.11.21

DRAWING No: **APPENDIX F - (ITM13246 - GA - 009)**
PROJECT No: ITM13246
REV: -

APPENDIX G. Potential Emergency Vehicle Access From Withington Avenue



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CLIENT:

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A	12.11.21	JB	CLIENT INFO UPDATED	JO	SE

STATUS:

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SCALE @ A3: 1:1000	CHECKED: SEE	APPROVED: SEE
FILE REF: ITM13246 - GA	DRAWN: PH	DATE: 31.08.2017
DRAWING No: APPENDIX G (ITM13246 - GA - 004)		
PROJECT No: ITM13246	REV: A	



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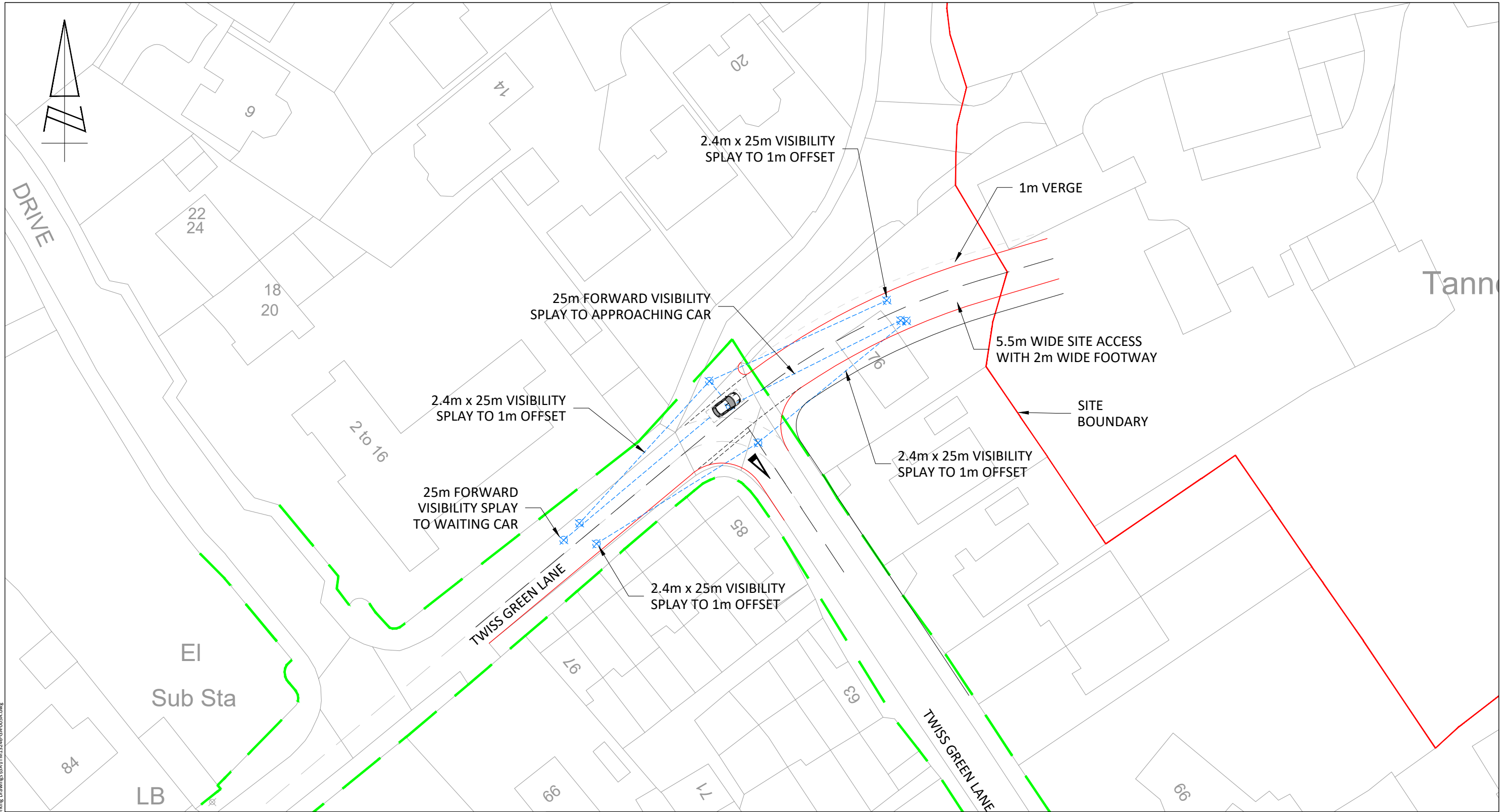
TITLE:

POTENTIAL EMERGENCY VEHICLE ACCESS FROM
WITHINGTON AVENUE

PROJECT:

LAND NORTH EAST OF CULCHETH

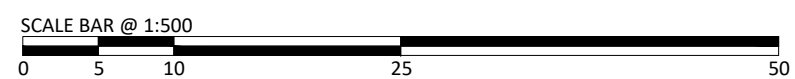
APPENDIX H.Potential Site Access From Twiss Green Lane



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A	12.11.21	JB	CLIENT INFO UPDATED	JO	SE

STATUS: DRAFT

TITLE: POTENTIAL SITE ACCESS FROM TWISS GREEN LANE

PROJECT: LAND NORTH EAST OF CULCHETH

CLIENT: PEEL L&P HOLDINGS (UK) LIMITED

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FILE REF: ITM13246-GA	DRAWN: PH	DATE: 31.08.2017

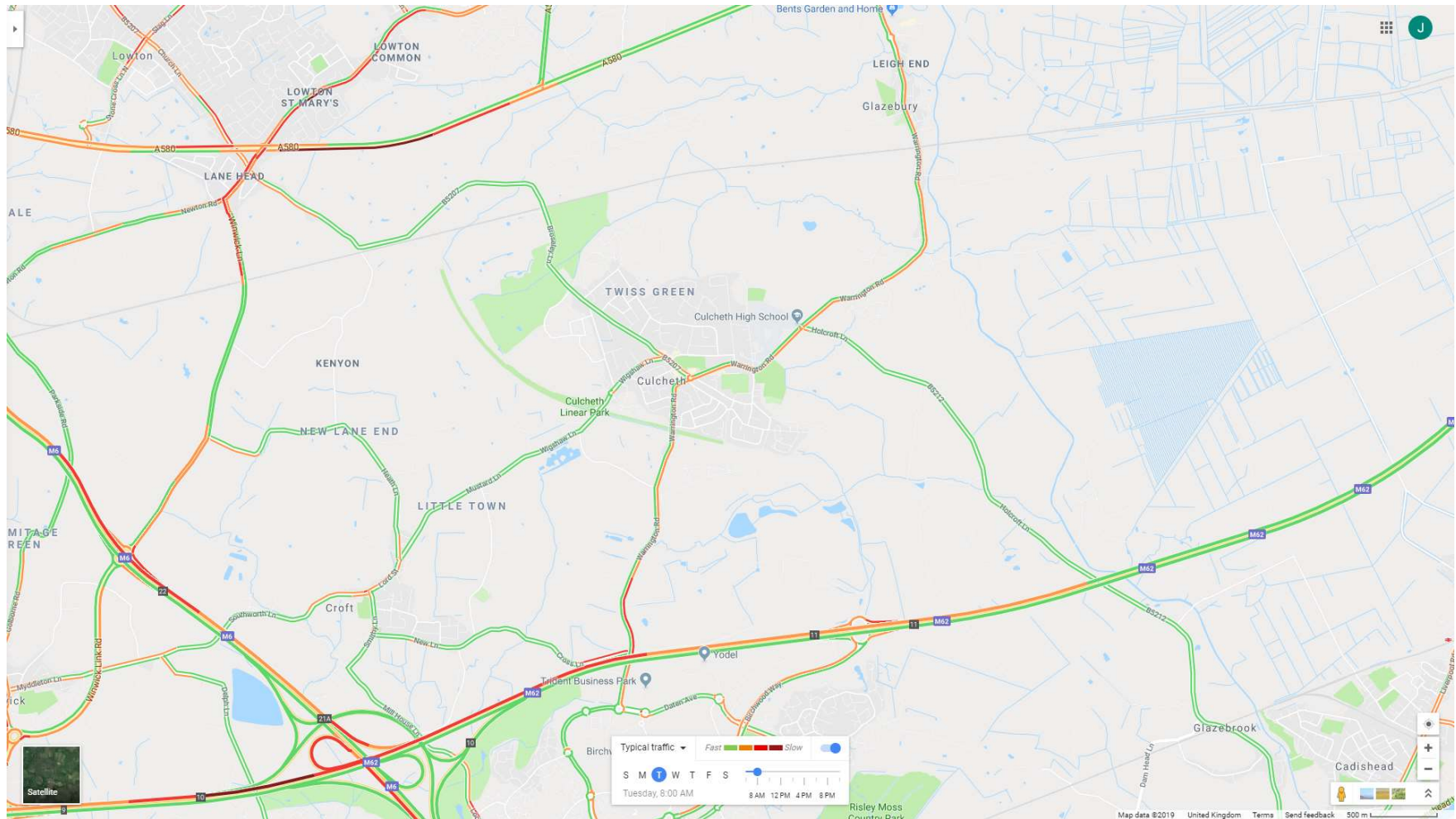
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PROJECT No: ITM13246

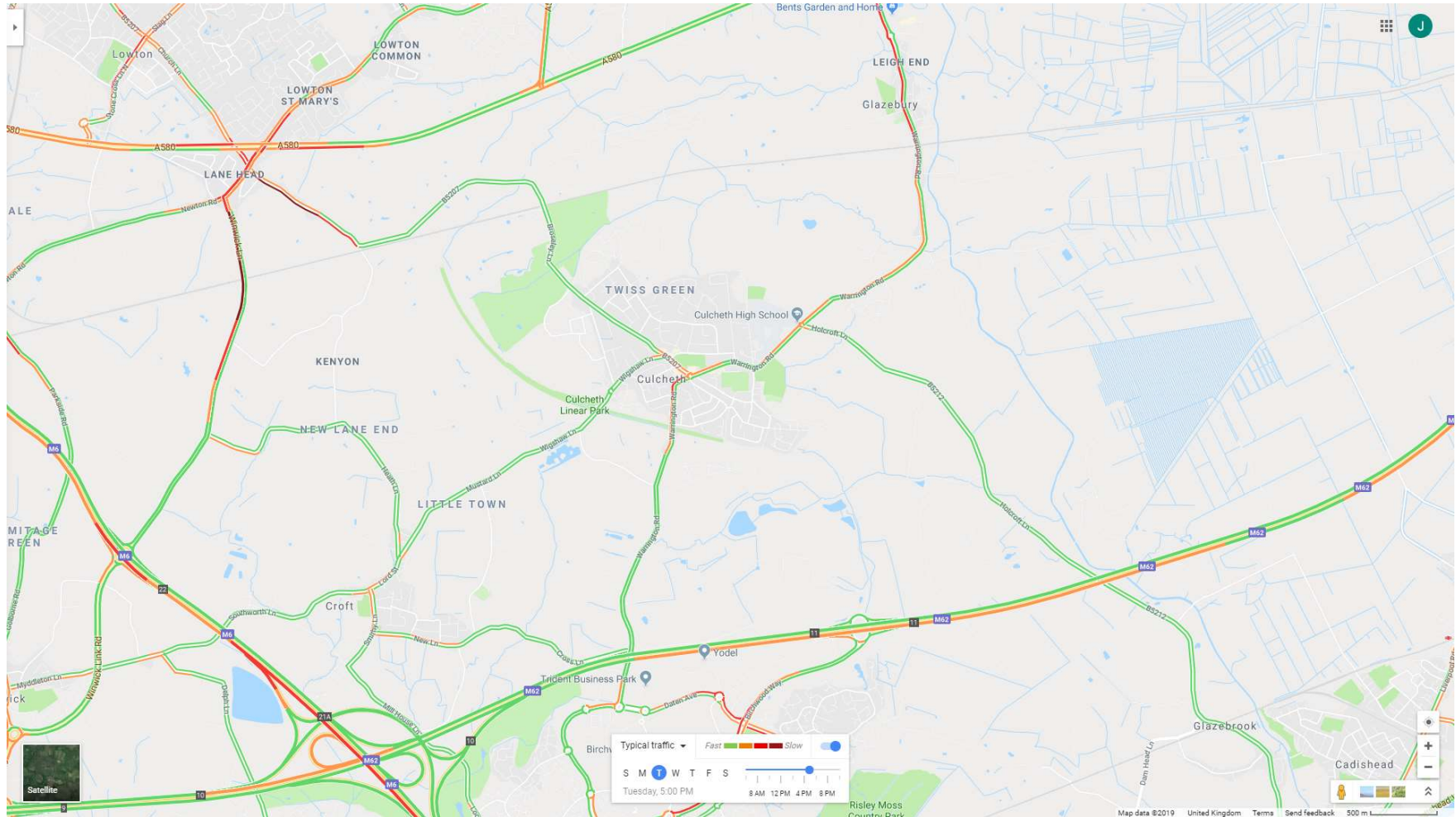
REV: A

APPENDIX I. Google Traffic Maps

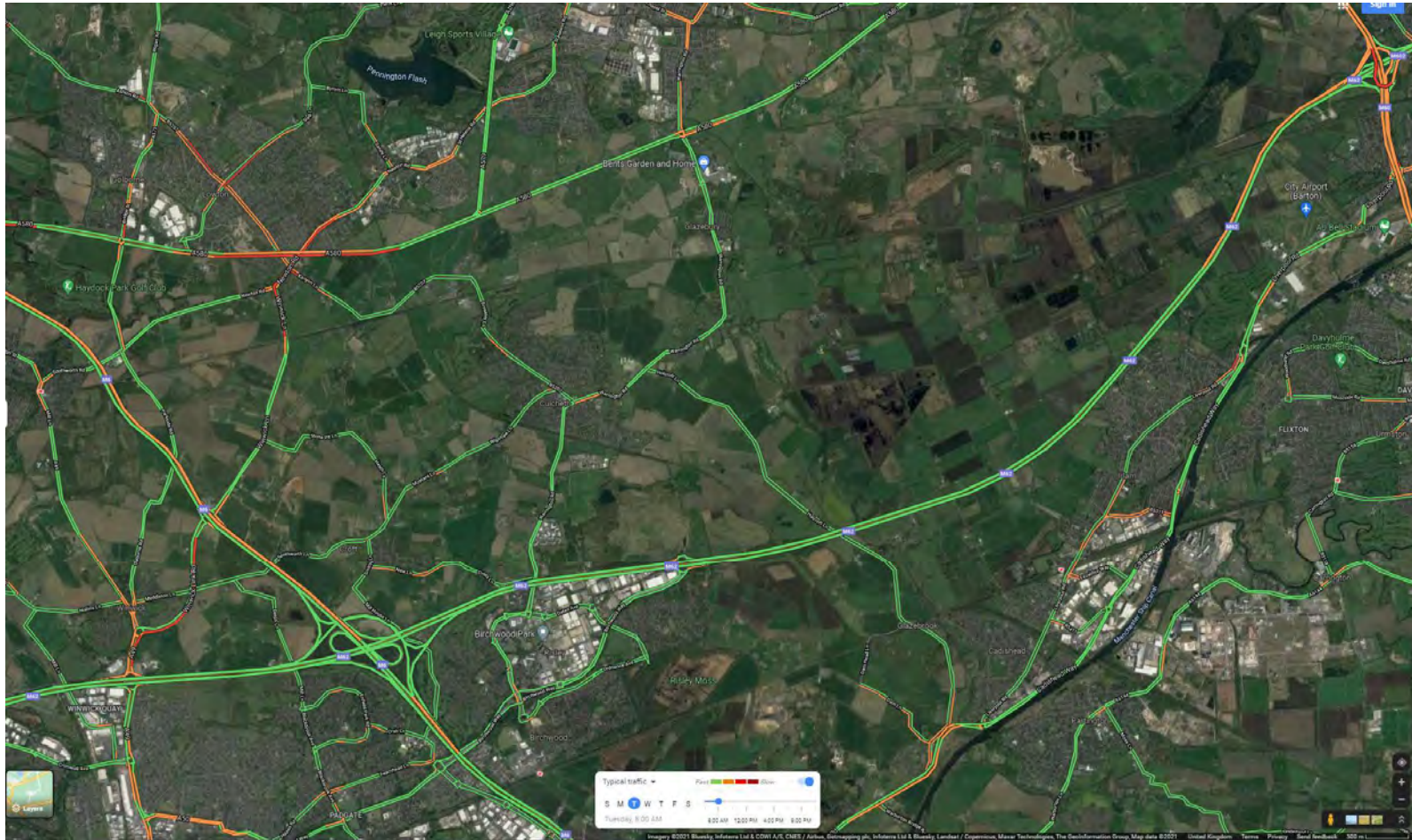
Culcheth – AM Peak (08:00)



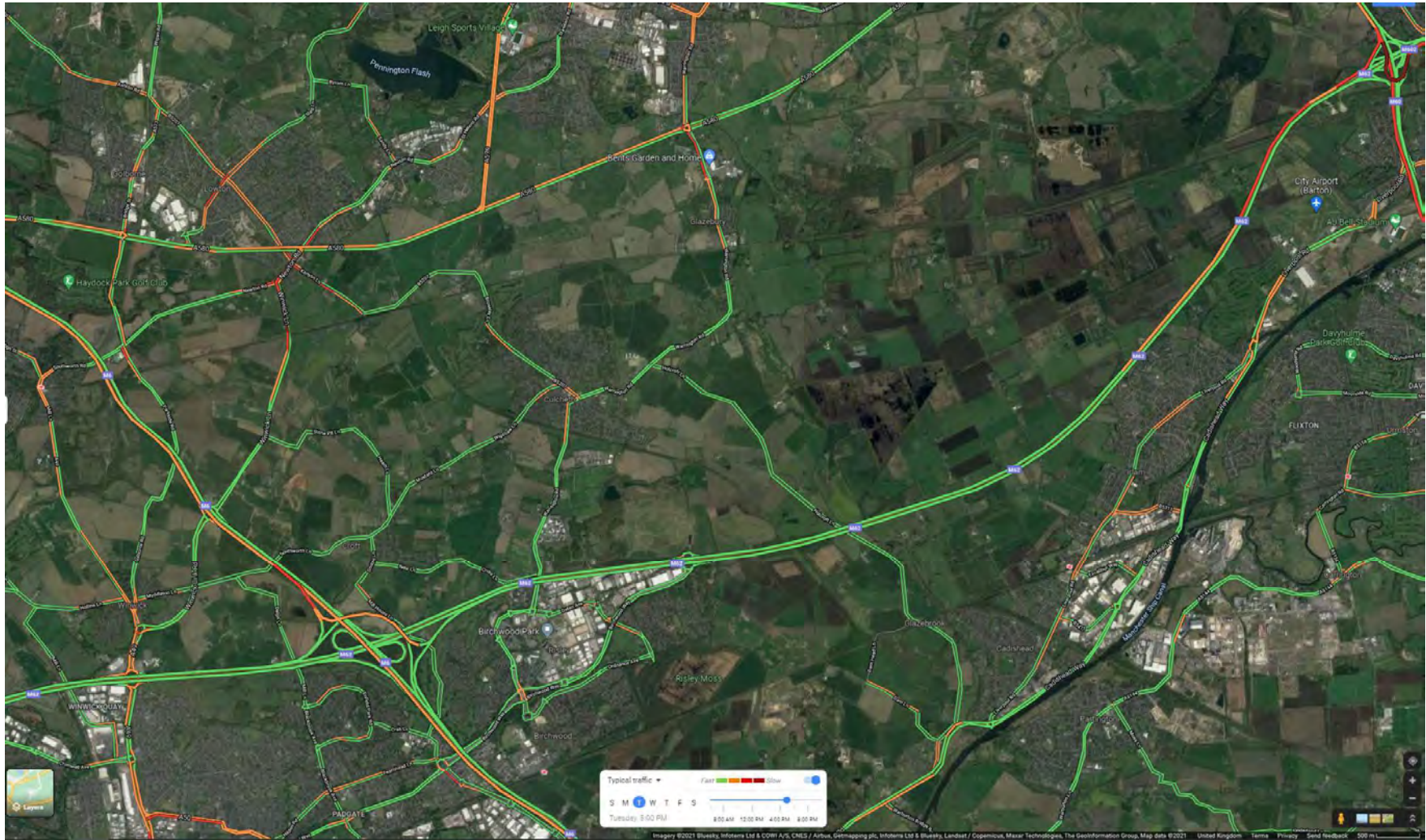
Culcheth – PM Peak (17:00)



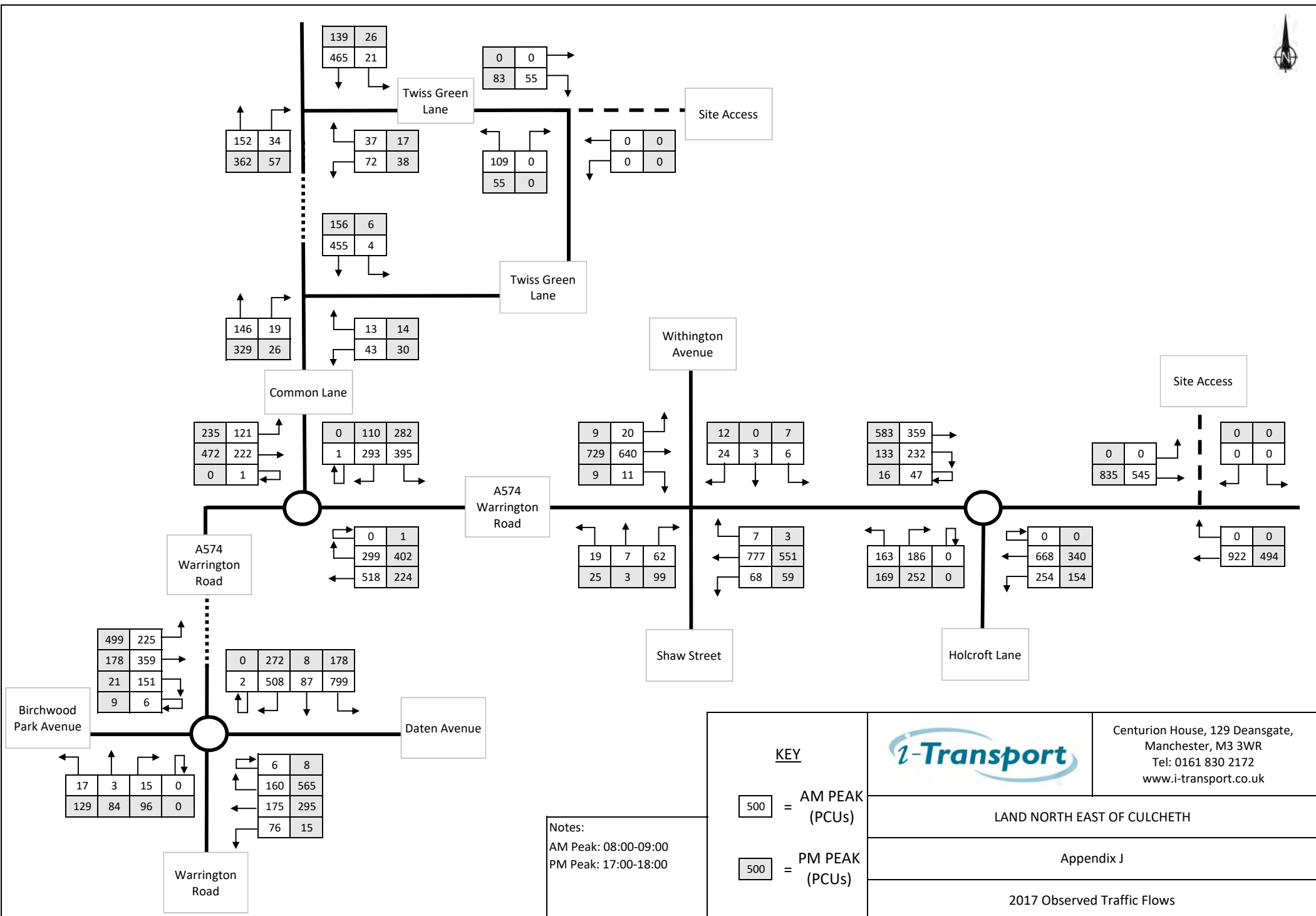
Culcheth – AM Peak (08:00)



Culcheth – PM Peak (17:00)



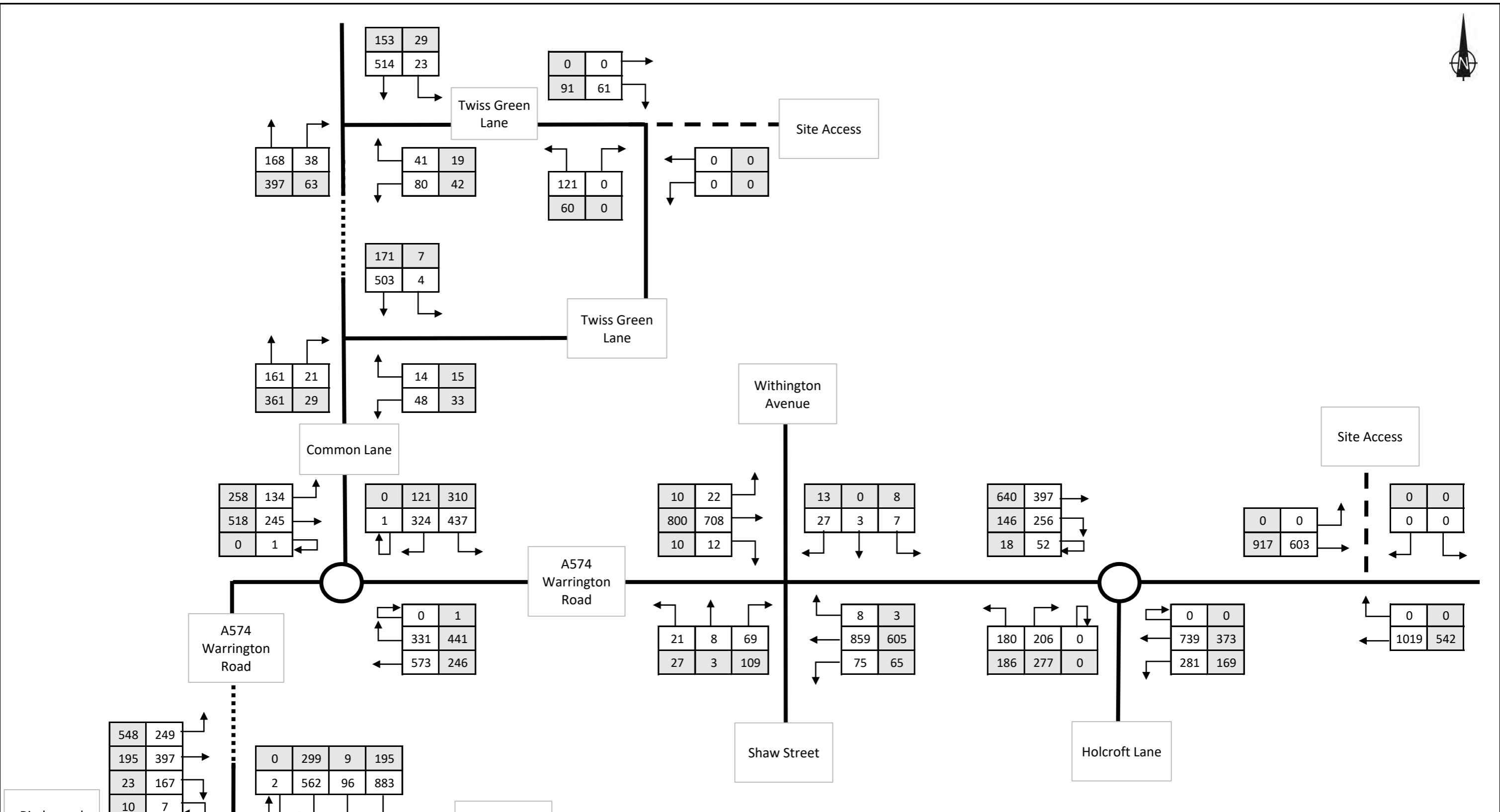
APPENDIX J. 2017 Baseline Traffic Flows



Notes:
 AM Peak: 08:00-09:00
 PM Peak: 17:00-18:00

<p>KEY</p> <p><table border="1"><tr><td>500</td></tr></table> = AM PEAK (PCUs)</p> <p><table border="1"><tr><td>500</td></tr></table> = PM PEAK (PCUs)</p>	500	500		Centurion House, 129 Deansgate, Manchester, M3 3WR Tel: 0161 830 2172 www.i-transport.co.uk
	500			
	500			
	LAND NORTH EAST OF CULCHETH			
Appendix J				
2017 Observed Traffic Flows				

APPENDIX K. Forecast Year Baseline Traffic Flows



Notes:
#N/A

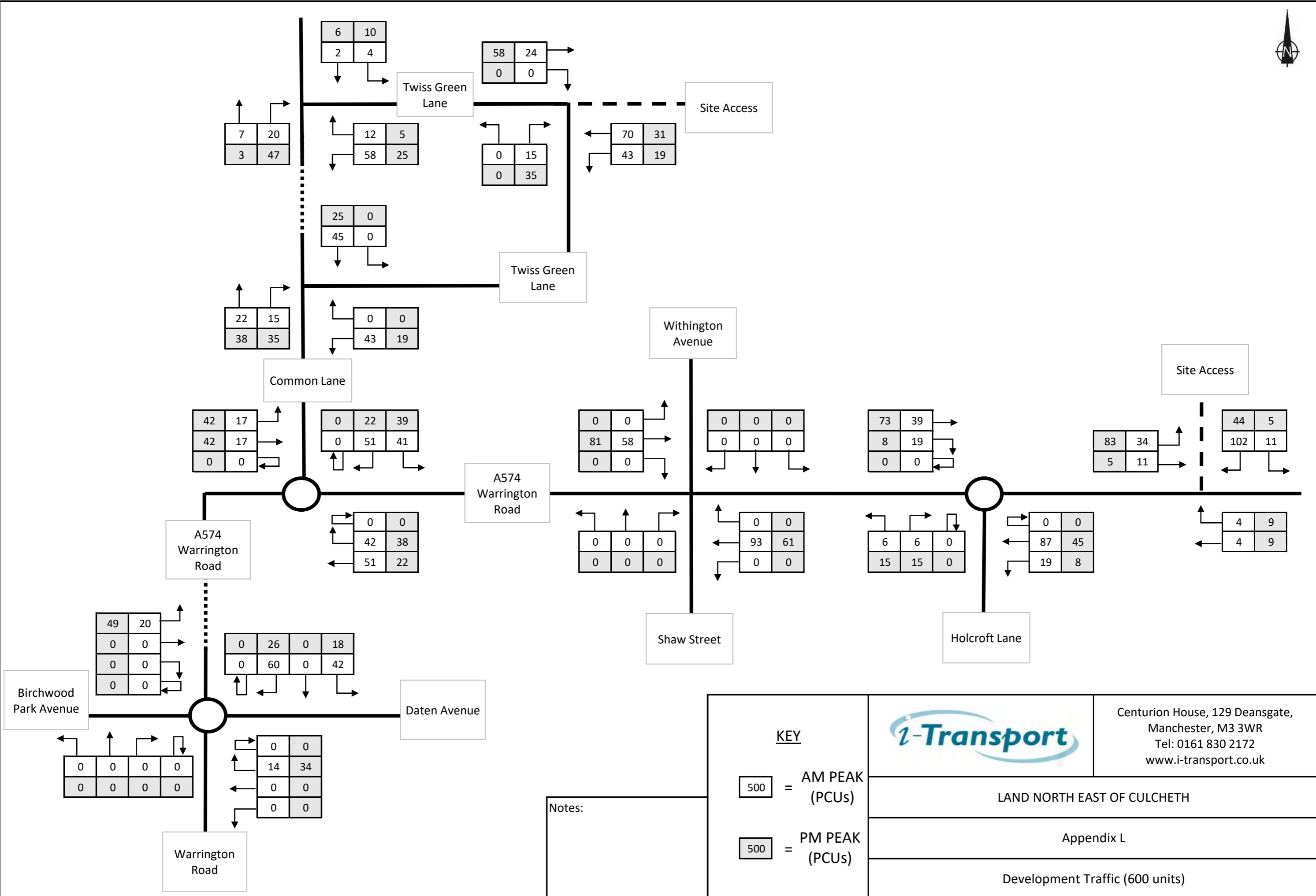
KEY	
500	= AM PEAK (PCUs)
500	= PM PEAK (PCUs)



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LAND NORTH EAST OF CULCHETH
Appendix K
Forecast Year Base

APPENDIX L. Development Traffic Flows



Notes:

KEY	
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500	= PM PEAK (PCUs)



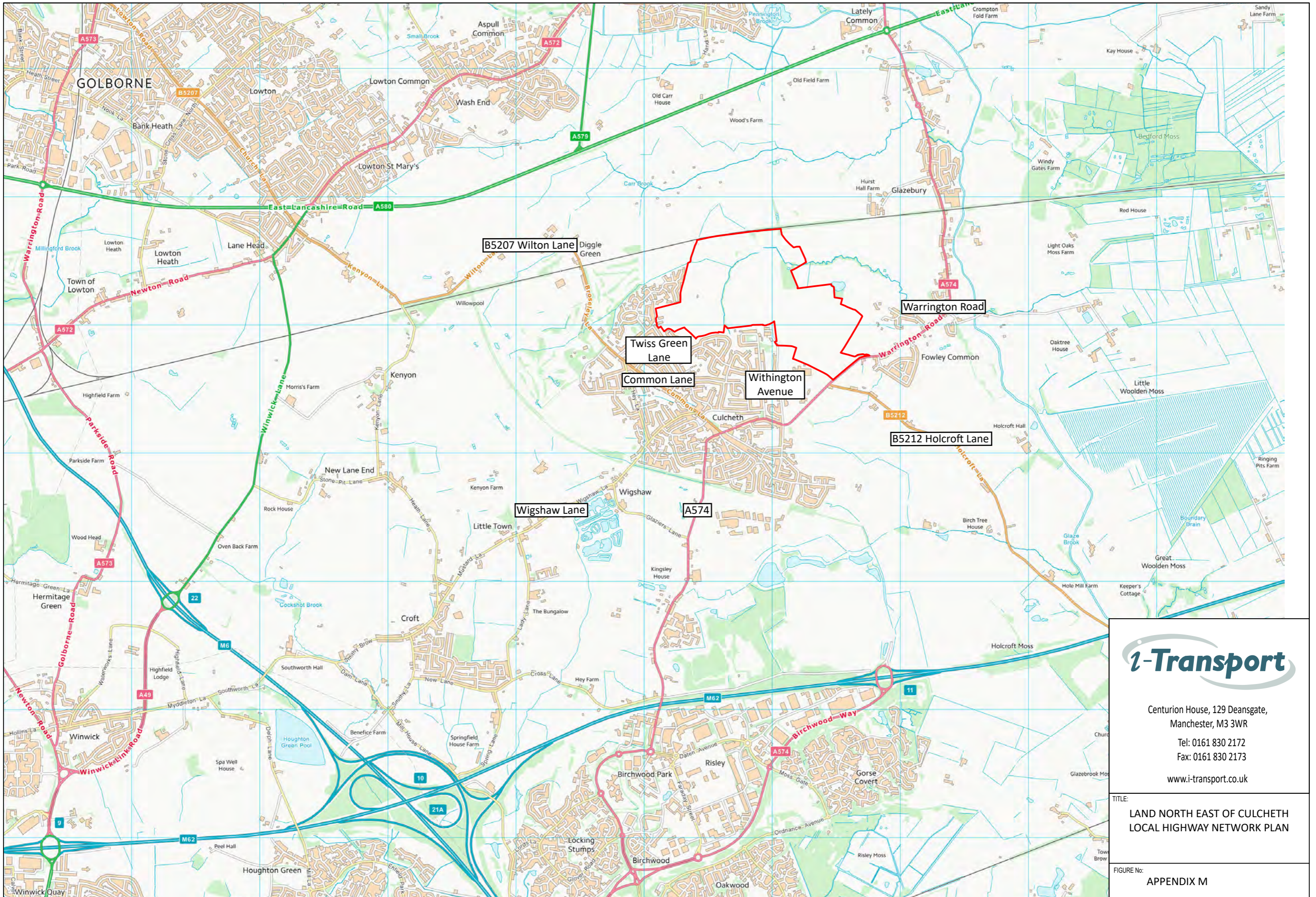
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LAND NORTH EAST OF CULCHETH

Appendix L

Development Traffic (600 units)

APPENDIX M. Local Highway Network Plan



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TITLE:
**LAND NORTH EAST OF CULCHETH
 LOCAL HIGHWAY NETWORK PLAN**

FIGURE No:
APPENDIX M

