
Land off New Brighton Road, New Brighton

Preliminary Ecological Appraisal Report.

Compiled by Ecology Services Ltd.

on behalf of

Stewart Milne Homes NW England Ltd.

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1.0 Introduction

- 1.1 Ecology Services Limited was commissioned by Stewart Milne Homes NW England Ltd. in June 2018 to carry out an ecological appraisal on land off New Brighton Road, New Brighton, Mold, CH7 6RQ; National Grid Reference; (NGR) 325193, 365564. See Drawing 1 showing the location of the site.
- 1.2 The preliminary ecological appraisal is required to assess the ecological value of the area of land being used for the development and of wildlife habitat bordering this development area.
- 1.3 The site is proposed for residential development with associated infrastructure and landscaping (see Drawing 2).

Site Description

- 1.4 The site is located to the north of the village of New Brighton, 2km to the north east of the town of Mold. To the south of the site is the A5119 and the residential housing of New Brighton. To the south west of the site is a small area of residential housing with farmland beyond into the wider landscape. Directly to the north and east of the site is New Brighton Road with farmland and areas of woodland within the wider landscape.
- 1.5 To conduct an ecological appraisal at the site, the aims of the survey were to:
- Undertake an Ecological Desktop Study up to 2km of the site;
 - Undertake a Data Base Assessment (DBA) using existing maps of the area up to 250m of the development site;
 - Undertake an Extended Phase 1 Habitat Survey of the development site and up to 30m from the development site; and
 - Identify any further detailed survey requirements.
- 1.6 The sites ecological values will be assessed in context with current UK planning and legislative policy, including:
- Statutory Protected Species
 - UK Species/Habitat of Principal Importance
 - Local Biodiversity Action Plan Habitat/Species
 - Statutory Protected Sites
 - Non-Statutory Protected Sites or Species of Conservation Concern
- 1.7 The purpose of this report is to state the survey methodology, presents the results of the survey, evaluates the findings, assesses the impacts and makes recommendations concerning the protection of existing ecological features within and bordering the development plot.
- 1.8 Further surveys will be recommended, where required. If further surveys are recommended, then this report should be read in conjunction with any recommended survey reports.

2.0 Methodology

Ecological Desktop Study

- 2.1 Ecological data and historic records of protected species and sites for up to 2km from the sites were collated from the following sources; listed in Table 1.

Table 1: Ecological Desktop Study Results and Record Centres Consulted

| Source of information | Information supplied |
|---|---|
| Local Biodiversity Action Plan | Identification of Local BAP Species and Habitats known to occur in the region. |
| Natural Environment and Rural Communities (NERC) Act 2006 | Review of UK Habitats/Species of Principal Importance known to occur in the region. |
| Multi Agency Geographical Information Centre www.magic.gov.uk | To identify Nature Reserves, Sites of Special Scientific Interest, UK Habitats of Principal Importance, non-statutory protected sites or features of interest within 1km of the site. |
| COFNOD- North Wales Environmental Information Service | To identify locally protected sites or species of interest within 1km of the site. |

Data Base Assessment

2.2 A Data Base Assessment (DBA) is undertaken using existing maps of the area (up to 250m of the development site) to identify any features of ecological interest. For example; a pond that may support amphibian species such as great crested newts (*Triturus cristatus*) or common toad (*Bufo bufo*).

Extended Phase 1 Habitat Survey

2.3 The Extended Phase 1 Habitat Survey was undertaken of the site and within 30m of the site where access was permitted. Habitats were assessed by using Phase 1 Habitat Survey techniques, which is a system for environmental audit widely used within the environmental consultancy field.

2.4 The Extended Phase 1 Habitat Survey followed Phase 1 Habitat Survey Methodology (JNCC, 2010). This involves walking over the site, mapping and target noting any semi-natural habitats. The survey area includes the footprint of the proposed development and up to 30m from the proposed development site.

2.5 A habitat map will be prepared to show the locations and extent of habitats and detailed descriptions of the principal and important plant communities will be provided as Target Notes.

2.6 Plant species abundances were recorded within the target notes, using DAFOR ratings, as Dominant, Abundant, Frequent, Occasional or Rare (Rare in the sense of having a very low abundance). Species recorded as locally abundant are abundant only in certain parts of the target noted habitat, rather than being abundant throughout. The ratings have no precise definition and are affected by plant size and season of survey however they have been shown to correlate with more quantitative measures.

2.7 The Extended Phase 1 Habitat Survey is a modified approach to the Phase 1 Habitat Survey, extended for use in environmental assessment (Institute of Environmental Assessment, 1995). The survey will record any signs of protected species/species of principal importance or other valuable ecological components of the site. Features of note recorded during the survey are mapped (Figure 1) and marked with target notes; target note descriptions are provided in Appendix 1. Photos of habitats and features of ecological importance are provided in Appendix 2.

2.8 The locations of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and others were also mapped.

Timing

- 2.9 The Extended Phase 1 Habitat Survey was undertaken on the 27th June 2018 which is an optimal time of year to undertake such a survey.

Weather Conditions

- 2.10 Weather conditions during the survey were reasonable, with no appreciable rain or wind affecting survey.

Personnel

- 2.11 All survey works were carried out by Consultant Ecologist Miss C. Wood.

Constraints

- 2.12 Surveys only provide a snapshot of habitats and species that are there at that time and further surveys at additional times of the year are likely to find additional species. However, the survey was undertaken during the optimum period for this type of survey and also for the vegetation types present on site. Therefore, survey is considered to provide a robust assessment of the importance for the site and its surrounds, for protected/notable species and associated habitats.

3.0 Results

Ecological Desktop Study

Protected Sites

- 3.1 The ecological desktop study identified the following records of statutory protected sites located within 2km of the proposed development:
- Deeside and Buckley Newt sites UK0030132 Special Area of Conservation (SAC), located 1km (at closest) to the north east of the site.
 - Buckley Claypits and Commons 2592 Site of Special Scientific Interest (SSSI), located 1.5km (at closest) to the east of the site.
 - Maes y Grug 1423 (SSSI), located 1km (at closest) to the north east of the site.

Non-statutory Protected Sites

- 3.2 The ecological desktop study identified eleven records of non-statutory protected sites within 2km of the proposed development:
- The Maes Gruffydd Wetland 26NW03 Local Wildlife Site (LWS), located 925m west of the site,
 - Coed Argoed LWS 26SE14, located 1110m south of the site,
 - Coed Andrew LWS 26NW02, located 1130m northwest of the site,
 - Soughton Hall and Gorse Wood LWS 26NW16, located 1185m north of the site,
 - Cobbler's and Stonybeach Woods LWS 26NE02, located 1235m northeast of the site,
 - Coed Ffoulkes LWS 26NW11, located 1235m west of the site,
 - Fford Argoed Wetland 26SW12 LWS, located 1500m south-west of the site,
 - Gwysaney Alder Carr, Marsh and Pools 26NW12 LWS, located 1630m west of the site,
 - Warred Woods LWS 26NE05, located 1765m northeast of the site,
 - Gwysaney Hall LWS 26NW18, located 1835m east of the site,
 - Tyn y Caeau LWS 26NW22, located 1955m south of the site.

Protected Species

- 3.3 The ecological desktop study identified the following records of protected species within 2km of the proposed development:
- Great crested newt
 - Pipistrelle sp. (*Pipistrellus sp.*)
 - Noctule bat (*Nyctalus noctula*)

- Myotis sp. (*Myotis sp.*)
- Daubenton's bat (*Myotis daubentonii*)
- Lesser Horseshoe bat (*Rhinolophus hipposideros*)
- Badger (*Meles meles*)
- Barn owl (*Tyto alba*)
- Kingfisher (*Alcedo atthis*)
- Water vole (*Arvicola terrestris*)
- Grass snake (*Natrix natrix*)
- Bluebell (*Hyacinthoides non-scripta*) (Partial protection)

Invasive Species

3.4 The ecological desktop study identified the following invasive species within 2km of the proposed development:

- American mink (*Neovison vison*)
- Giant hogweed (*Heracleum mantegazzianum*)
- Himalayan balsam (*Impatiens glandulifera*)
- Rhododendron (*Rhododendron ponticum*)
- Cotoneaster sp. (*Cotoneaster sp.*)
- Japanese knotweed (*Fallopia japonica*)
- Montbretia (*Crocasmia x crocosmiiflora*)
- Variegated yellow archangel (*Lamium galeobdolon subsp. argentatum*)

Environment (Wales) Act 2016

3.5 The Environment (Wales) Act 2016, sets out the requirement for the 'sustainable management of natural resources' together with new ways of working to achieve this. Part 1 of the Environment Act sets out Wales' approach to planning and managing natural resources at a national and local level with a general purpose linked to statutory 'principles of sustainable management of natural resources' defined within the Act.

Section 6 – Biodiversity and resilience of ecosystems duty

3.6 Section 6 under Part 1 of the Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (the S6 duty) for public authorities in the exercise of functions in relation to Wales.

3.7 The S6 duty requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems.

Section 7 - Biodiversity lists and duty to take steps to maintain and enhance biodiversity

3.8 This section replaces the duty in Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006. The Welsh Ministers will publish, review and revise lists of living organisms and types of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales.

3.9 The Welsh Ministers must also take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section, and encourage others to take such steps. Part 1 of the Act, including Sections 6 and 7, came in to force on May 21, 2016.

Priority Habitats

3.10 The ecological desktop study identified the following Wales Habitats of Principal Importance within 2km the proposed development:

- Woodlands

- Hedgerows
- Ponds
- Rivers
- Arable field margins

Priority Species

3.11 The ecological desktop study identified the following Wales Species of Principal Importance within the 2km of the development site:

- Amphibians – Great crested newt*, common toad
- Birds – Black-headed gull (*Chroicocephalus ridibundus*), bar-tailed godwit (*Limosa lapponica*)*, bullfinch (*Pyrrhula pyrrhula*), cuckoo (*Cuculus canorus*), curlew (*Numenius arquata*), dunnoek (*Prunella modularis*), grey partridge (*Perdix perdix*), herring gull (*Larus argentatus*), house sparrow (*Passer domesticus*), kestrel (*Falco tinnunculus*), northern lapwing (*Vanellus vanellus*), common linnet (*Carduelis cannabina*), marsh tit (*Poecile palustris*), pied flycatcher (*Ficedula hypoleuca*), reed bunting (*Emberiza schoeniclus*), skylark (*Alauda arvensis*), song thrush (*Turdus philomelos*), spotted flycatcher (*Muscicapa striata*), starling (*Sturnus vulgaris*), tree sparrow (*Passer montanus*) and willow tit (*Poecile montanus*).
- Invertebrates - Small heath (*Coenonympha pamphilus*), grayling (*Hipparchia semele*), grey dagger (*Acronicta psi*) and ghost moth (*Hepialus humuli*),
- Reptiles – Grass snake*, adder (*Vipera berus*)*, common lizard (*Zootoca vivipara*)* and slow worm (*Anguis fragilis*)*.
- Mammals – Bats (Several species)*, Western European hedgehog (*Erinaceus europaeus*), badger*, water vole*, otter (*Lutra lutra*)*, polecat (*Mustela putorius*)* and brown hare (*Lepus europaeus*).
- Fish - European eel (*Anguilla anguilla*), Atlantic salmon (*Salmo salar*), brown/sea trout (*Salmo trutta*).

NB: Those listed with an asterisk (*) are also statutorily protected.

Local Development Plan

3.12 Local key habitats/species in Wales that are considered to be rare or declining in the area are highlighted in a Local Development Plan, which has replaced a Local Biodiversity Action Plan (LBAP). For Flintshire, this is still being prepared. After communication with COFNOD-North Wales Environmental Information Service, the Environment (Wales) Act (2016) Section 7 is being used in the interim period. Section 7 highlights the habitats and species to be taken into consideration in planning.

3.13 The Local Planning Authority will expect account to be taken of these species/habitats in the overall layout and landscape strategy for the development.

3.14 Based on information gathered from the sources listed in Table 1 and the surveyor's knowledge, the following protected species were considered when the site assessment was carried out:

- Amphibians
- Badger
- Bats (all species)
- Water vole
- Otter
- Polecat
- Birds (all species)
- Reptiles (all species)

Extended Phase 1 Habitat Survey

- 3.15 An Extended Phase 1 Habitat Survey of the site was undertaken during June 2018. Descriptions of the principal habitats are provided below and are illustrated on Drawing 1.
- 3.16 The development site contains the following habitats:
- Scattered Trees
 - Scrub (Scattered)
 - Neutral Semi-improved Grassland (species -poor)
 - Tall Ruderal
 - Hedgerows
- 3.17 The wider survey area, includes habitats within 30m of the development sites and features of ecological interest located up to 250m from the development sites, contain the following habitats:
- Scattered Trees
 - Scrub (Scattered)
 - Neutral Semi-improved Grassland (species-poor)
 - Amenity Grassland
 - Tall Ruderal
 - Standing Water (Ponds)
 - Hedgerows
 - Buildings
- 3.18 Descriptions of the principal habitats types that are to be impacted by the development found within the Extended Phase 1 Habitat Survey are reviewed within the following sections. This will also cover habitats that may support protected species. Features of ecological interest located within the wider survey area that are affected by the development works are also described. Features separated from the site that are unaffected by the development have been omitted.
- 3.19 Target Notes have been provided for all semi-natural habitats that are deemed either ecologically important or have the potential to support protected species/species of priority importance; see Appendix 1 for Extended Phase 1 Habitat Survey Target Notes.

Scattered Trees

- 3.20 The wider survey area contains scattered trees, mainly in association with hedgerows and former field boundaries. Species include; common ash (*Fraxinus excelsior*), oak sp. (*Quercus sp.*), lombardy poplar (*Populus nigra 'italica'*), cherry sp. (*Prunus sp.*) and silver birch (*Betula pendula*).
- 3.21 The site contains several scattered trees, some are associated with the boundary hedgerows (TN1, 2, 3 & 4). There is a line of mature trees running north to south through the site that could possibly have been an old hedgerow as there are still remnants of this on the boundary with New Brighton Road to the north of the site (TN6). They are generally semi-mature to mature in age and species include; common ash, oak sp., sycamore (*Acer pseudoplatanus*), silver birch, black poplar (*Populus nigra*), willow sp. (*Salix sp.*) and aspen (*Populus tremula*).

Scrub Dense/Scattered

- 3.22 Scrub is relatively common habitat throughout the local vicinity and is found at several locations within the wider survey area. There is an area of unmanaged land to the south east of the site, which is established dense scrub containing species such as; abundant bramble and rare elder (*Sambucus nigra*).

- 3.23 The development sites contain small areas of scattered scrub in associated with field edges, hedgerows and under the row of scattered trees at (TN6) dominated by bramble (*Rubus fruticosus*).

Neutral Poor Semi-Improved Grassland

- 3.24 Small areas of semi-improved grassland are found in the wider survey area mainly in association with road verges, some of which were uncut at the time of the survey and in the field to the north-west of the site, which had been cut at the time of the survey. Grass species included; frequent false oat-grass (*Arrhenatherum elatius*), occasional perennial rye-grass (*Lolium perenne*), Yorkshire fog (*Holcus lanatus*), cock's foot (*Dactylis glomerata*), couch (*Elytrigia repens*), meadow foxtail (*Alopecurus pratensis*) and rough meadow-grass (*Poa trivialis*). Associated species include; frequent broad-leaved dock, locally frequent silverweed (*Potentilla anserine*), bracken (*Pteridium aquilinum*), soft rush (*Juncus effusus*), occasional hogweed (*Heracleum mantegazzianum*) and dandelion sp. (*Taraxacum officinale* agg.)

- 3.25 The site mainly consists of semi-improved species-poor grassland, that was subject to cutting. Although more ecologically diverse than improved grasslands, they are still of low ecological value. Grass species include; frequent perennial rye-grass and Yorkshire fog, locally frequent (especially around the edges, which had a longer sward) crested dog's tail (*Cynosurus cristatus*), cock's foot and soft rush, occasional common couch, rough meadow-grass and meadow foxtail. Associated species include; locally frequent black knapweed (*Centaurea nigra*), bird's foot-trefoil (*Lotus corniculatus*), greater stitchwort (*Stellaria holostea*), occasional creeping buttercup (*Ranunculus repens*), meadow buttercup (*Ranunculus acris*), broad-leaved dock, white clover (*Trifolium repens*) and thistle sp.

Tall Ruderal

- 3.26 Small areas of tall ruderal were located within the wider survey area and the site in association with field edges.

- 3.27 Species recorded in the wider survey area include; frequent great willow herb (*Epilobium hirsutum*), and common nettle (*Urtica dioica*).

- 3.28 Species recorded within the site included; abundant common nettle, occasional great willow-herb, rosebay willow-herb (*Chamerion angustifolium*) and broad-leaved dock.

Standing Water

- 3.29 The database assessment identified two ponds located within the wider survey area. One (Lake Offa) is located approximately 80m to the north of the site and one is located approximately 215m to the north west of the site. Access could not be gained to Lake Offa on the day of the survey.

- 3.30 The pond to the north west of the site was surveyed during the walkover. It is undulating in shape and has a perimeter of approximately 170m. The banks are varying with some shallow and some steep up to 1m high. The western and south eastern banks have scrub growing up to the edges and the northern banks are shallow and marshy with frequent soft rush. There was evidence of cattle poaching of the banks and fish and waterfowl were present.

Amenity Grassland

- 3.31 Small areas of mown amenity grassland are found in the wider survey area in the gardens and associated road verges on Cae Isa to the north of the site and on the road verges adjacent to the A5119 to the south of the site.

Hedgerows

- 3.32 The wider survey area and site contains several hedgerows which are species rich. Species poor hedgerows are also found in the wider survey area and in association with the site boundaries.
- 3.33 The species-rich hedgerow at TN1 runs the full length of the northern boundary of the site adjacent to New Brighton Road. The hedgerow is approximately 2m high and up to 2m wide, it looks to be managed, although uncut at the time of the survey. Species include; frequent common hawthorn (*Crataegus monogyna*), occasional bramble, hazel (*Corylus avellana*) and sycamore with rare gorse (*Ulex gallii*), elder, oak sp., holly (*Ilex aquifolium*) and rose sp. (*Rosa sp.*) Ground flora includes; frequent nettle, locally frequent soft rush, occasional rosebay willow-herb, broad-leaved dock, honeysuckle (*Lonicera periclymenum*) and rare hogweed, common ragwort (*Senecio jacobaea*) and foxglove (*Digitalis purpurea*).
- 3.34 The species-rich hedgerow at TN2 is located either side of what could possibly be an old track running north to south within the site from New Brighton Road, which diminishes and becomes a row of scattered trees further south in to the site. The hedgerow is connected to TN1 on the boundary and is unmanaged. The hedgerow is 3m+ high and species include frequent bramble, common hawthorn, occasional common ash, rare elder, rose sp., hazel, honeysuckle and holly. The ground flora merges with the edge of the grassland.
- 3.35 The species-rich hedgerow and associated trees at TN3 runs along the western and south-western boundary of the site. It is 3m+ tall and over 3m wide and managed. Species include; frequent holly, occasional bramble, common hawthorn, rose sp., alder sp., (*Alnus sp.*), aspen, silver birch, honeysuckle, rare oak sp., hazel and black poplar. Associated ground flora includes the edges of the grassland and occasional ivy and foxglove.
- 3.36 The species-rich hedgerow and associated trees at TN4 runs along the south western boundary of the site. It is 2m+ tall and managed. The part of the hedgerow that runs adjacent to the A5119 on the southern boundary of the site is 3m+ in height and managed. Species include; abundant common hawthorn, frequent oak sp., occasional bramble, hazel and rare holly and common ash. Associated ground flora includes the edges of the grassland and frequent cleavers, common nettle and occasional ivy.

Buildings & Structures

- 3.37 The wider survey area contains numerous residential properties, which will not be impacted by the proposed development and are therefore excluded from further appraisal in this report.
- 3.38 The following section evaluates habitats and their suitability to support species that are affected by the proposed development works.

4.0 Evaluation

Habitat Evaluation

Statutory Protected Sites

- 4.1 The desktop study found three records of European protected sites within 2 km of the proposed development site.

Special Area of Conservation (SAC)

- 4.2 Special Areas of Conservation are designated under the EC Habitats Directive. Article 3 of the Habitats Directive requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as

amended). The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds).

- 4.3 Deeside and Buckley Newt sites (UK0030132) SAC was designated in 2004. It has three component SSSI's two of which are described below: Buckley Claypits and Commons, Maes y Grug. The third, Connah's Quay Ponds and Woodlands is located approximately 2.5km to the east of Queensferry adjacent to the River Dee. The site was designated for its large population of great crested newts and secondarily for its oak woodland.

Site of Special Scientific Interest (SSSI)

- 4.4 Sites of Special Scientific Interest are designated under The Wildlife and Countryside Act (WCA) 1981 (as amended). The WCA 1981 (as amended) is the domestic implementation of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention).

- 4.5 Buckley Claypits and Commons 2592 (SSSI) was designated in 2002. It is located approximately 800m to the north of Buckley. The site was previously mined for coal and clay. The water bodies support a large population of great crested newts, common toad and other common amphibian species. There are areas of mosaic habitat including dry, wet and marshy grasslands, dry and wet heath, scrub and woodland. Other notable species that the site supports are water vole and reed bunting.

- 4.6 Maes y Grug 1423 (SSSI) is located 3km to the north east of Mold. The site was previously used for coal mining and was then given over to nature conservation and agriculture including the creation of water bodies and associated wetland features. It was designated in 1997 for the large population of great crested newts, common toad and other common amphibian species.

- 4.7 There will be no direct or indirect impacts on the above statutory protected sites as a result of the current development proposals, therefore, the above statutory protected sites are excluded from further appraisal in this report.

Non-Statutory Protected Sites

- 4.8 The desktop study found eleven non-statutory protected Local Wildlife Sites (LWS) within 2km of the development site, indicating that the development site is located relatively close to areas of high biological diversity, particularly relating to botanical species.

- 4.9 Local Wildlife Sites (LWS) are designated in a Local Authority Unitary Development Plan for their nature conservation value. In 2006 Defra issued guidance on their identification, selection and management. The guidance recommends that County-wide partnerships be established to manage Local Site systems for each county.

- 4.10 None of the eleven LWS are located within 500m of the site and there are no specific connections with the site. There will be no direct or indirect impacts to these LWS's as a result of the current development proposals. Therefore, LWS sites are excluded from further appraisal in this report.

- 4.11 The following sections briefly evaluate the importance of each habitat of ecological value and the species it is considered suitable to support.

Scattered Trees

- 4.12 Scattered trees are located within the wider survey area and the proposed development site. Trees within the site are mainly in association with hedgerow boundaries and the tree-line that runs from north to south across the site.

4.13 Under the Planning Policy Wales (2018) trees are of great importance for biodiversity and planning authorities should protect trees where they have ecological value, contribute to the character or amenity of a particular locality, or perform a beneficial and identified green infrastructure function. Where trees are removed as part of a proposed scheme, developers will be expected to provide compensatory planting.

4.14 Scattered trees are important features within the landscape. Trees support a wide range of terrestrial invertebrates which in turn support foraging bats and birds. They are also important for breeding birds and can provide suitable bat roost habitat if they contain crevices.

Scrub Scattered

4.15 Scrub is both scattered and dense throughout the wider survey area, this is not affected by the proposals.

4.16 There are very small patches of scattered scrub within the development site which is of limited value to fauna.

Neutral Grasslands Semi-Improved Species-Poor Grassland

4.17 Semi-improved species-poor grassland is the main habitat located within the site. This grassland is mainly species poor, but there are areas especially around the edges where the sward is more floristically diverse. The semi-improved-poor grassland in the site is not thought to fall into the Environment (Wales) Act (2016) Section 7 species-rich grassland habitat categories.

4.18 Semi-improved species-poor grasslands can provide suitable habitat for birds (foraging), mammals (brown hare, hedgehog, foraging bats and badger), amphibians (forage and limited refuge) and terrestrial invertebrates.

4.19 The development is likely to affect most of semi-improved species-poor grassland.

Tall Ruderal

4.20 Small areas of tall ruderal are scattered throughout the wider survey area and the site. Although these habitats comprise of small areas, they are mainly linked to the field boundaries and hedgerows and provide a more diverse range of habitats throughout the site.

4.21 Tall ruderal can be important for invertebrate species, but the limited size of the habitat onsite reduces its ecological value.

Standing Water

4.22 Ponds are located in the wider survey area, generally they form ecological hotspots within the wider countryside. Several Wales Species of Principal Importance are intimately associated with them (e.g. Great crested newt). In July 2008 a new UK Pond Habitat Action Plan (PondHAP) was introduced, which aims to identify 'Priority Ponds' as part of the Million Ponds Project, led by Pond Conservation. Not all ponds will fall under the criteria i.e. not all ponds are classified as a Wales Habitat of Principal Importance and it is estimated that around 40% of all UK ponds will meet this.

4.23 The ponds located within the wider survey area meet the initial criteria of being either permanent/seasonal water bodies up to 2ha in size to be assessed under the Wales Habitat of Principal Importance Pond plan. To be considered further, additional criterion has to be met, which includes the pond/s supporting key species of plants and/or animals. It is considered very unlikely the ponds would meet this classification.

4.24 Ponds located within the wider survey area are an important landscape feature which provides suitable habitat to support protected species such as great crested newts and common toad. The ponds will not be affected by the development proposals and are therefore excluded from further appraisal in this report.

Amenity Grassland

4.25 Amenity grassland is present in small areas within the wider survey area. The grasslands have limited value to fauna and will not be affected by the development proposals. Therefore, they are excluded from further appraisal in this report.

Hedgerows

4.26 Certain hedgerows are protected under the Hedgerow Regulations 1997. The hedgerows located around the site boundaries of the development site are species-rich and therefore may fall under the Hedgerow Regulations 1997.

4.27 Hedgerows that are over 20m in length and are composed of at least 80% of one or more UK native species are classed as a Wales Habitat of Principal Importance for their conservation value within the landscape.

4.28 The hedgerows located within the wider survey area and located around the boundaries of the development sites are considered to be a Wales Habitat of Principal Importance as they are over 20m in length and are composed of at least 80% of one or more UK native species.

4.29 Hedgerows are also important as a landscape feature, as they form wildlife corridors throughout the landscape and their function is essential for fauna migration, dispersal and potentially for genetic interchange.

4.30 Fauna species that benefit from hedgerows include birds (breeding and foraging), mammals (foraging bats, brown hare, badger and hedgehog), amphibians (foraging, refuge and hibernation) and terrestrial invertebrates.

Other

4.31 All wild plant species in Britain are protected from intentional uprooting by unauthorised persons. However, no plant species fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) were found on the site.

Protected Species Evaluation

4.32 As part of the Extended Phase 1 Habitat Survey, surveyors also recorded any wildlife observed. Particular emphasis was placed upon sightings of protected species or species of conservation interest. Direct observations of the species were noted. Furthermore, sites/habitats with potential to support the species were also noted, even if direct signs of presence were not apparent. This was done in order to scope the potential for protected species being present so that the Client could be advised on the basis of a precautionary approach before undertaking works.

4.33 The desktop study identified several protected species within 2km of the proposed development site; great crested newt, bats (several species), badger, barn owl, kingfisher, water vole, otter, polecat and grass snake.

Amphibians

4.34 The desktop study found records of great crested newt, common toad, smooth newt, palmate newt and common frog within 2km of the development site.

- 4.35 Over one hundred great crested newt records were located within 2km of the development site. Most of the records are located in clusters mainly in association with the SSSI sites (Maes y Grug and Buckley Claypits and Commons) and the SAC (Deeside and Buckley newt sites) to the north east and south east of the site, which are over 500m from the site.
- 4.36 There are four records located within 250m of the site these are; two records from the pond located to the north-west of the site (located within 250m of the site), one record is immediately south of the site and one record to the north-east of the site within neighbouring properties. Records range in date from 1995 to 2015.
- 4.37 The wider survey area contains also contains suitable terrestrial and aquatic habitat to support amphibian species.
- 4.38 The development site contains suitable terrestrial habitats for foraging and refuge and hedgerows for migration and dispersal.
- 4.39 Great crested newts and the habitat they use for protection and shelter are protected under Conservation of Habitats & Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended).
- 4.40 Common toad and great crested newt are Wales Species of Principal Importance listed under the Environment (Wales) Act (2016) Section 7 and a material consideration for planning.
- 4.41 Further surveys are required to enable a full evaluation of the development upon amphibian species.
- Badger**
- 4.42 The desktop study found twenty records of badger within 2km of the development site. One record is located to the east approximately 100m from the site and all other records are located over 500m from the site and are scattered across the landscape.
- 4.43 The wider survey area and the development site contain habitats suitable to support badger. No evidence of badger was found at the time of the survey.
- 4.44 A guideline distance of 30m from any active sett provides an indication of the potential for disturbance to badgers. No badger setts were found within the proposed development site.
- 4.45 Badgers and their setts are protected under the Protection of Badgers Act (1992). Sett interference includes: disturbing badgers whilst they are occupying a sett, as well as destroying a sett or obstructing it.
- Bats**
- 4.46 The desktop study found numerous records of bats within 2km of the development site. The records date from 1982 to 2017. One record is from within the development site and the others are located between 50m and 1900m from the site. Species include; Common pipistrelle, Soprano pipistrelle (*Pipistrellus pygmaeus*), Noctule, Daubenton's, Lesser horseshoe and Myotis sp. (*Myotis sp.*).
- 4.47 The wider survey area contains buildings and scattered trees that are considered to be suitable for roosting bats. Linear features within the wider landscape such as hedgerows are likely to be those associated with greatest bat activity and disturbance should be minimised where possible. Habitats within the local area are considered ideal for foraging

bats, especially the waterbodies to the north of the site and woodlands and it is highly likely that bats are present in the survey area.

- 4.48 The development site contains scattered trees around the perimeter and in a line through the site that may provide suitable bat roost habitat. Any trees affected by the proposed development will require further surveys to determine their potential as bat roost habitat and bat activity surveys before a full evaluation can be made.
- 4.49 Suitable foraging habitats within the site take the form of boundary feature trees and hedgerows, the tree line through the site. Habitats within the site and the immediate wider survey area are considered to offer low potential for foraging bats, overall. Further bat habitat surveys are required to enable an evaluation of on bats using the site.
- 4.50 All British bats and their roosts are afforded protection under the 1981 Wildlife & Countryside Act (as amended) and are listed under Annex IV of the Habitats Directive as in need of protection.
- 4.51 Certain species of bat are Wales Species of Principal Importance under the Environment (Wales) Act (2016), including; Noctule, Soprano pipistrelle, Common pipistrelle and Lesser horseshoe.

Water vole

- 4.52 The desktop study identified two water vole records to the south west of the site, both are over 1km from the development site both are close to the River Alyn.
- 4.53 The site does not contain any suitable habitat to support water voles such as rivers, ditches or ponds and there is no connectivity to suitable habitat within the wider survey area. Therefore, water voles have been excluded from further appraisal in this report.
- 4.54 American mink has also been recorded within 2km of the site. Mink prey on water voles and can eradicate whole populations.

Birds

- 4.55 The desktop study found four records of barn owl to be present within 2km of the development site. The records date from 2006 to 2010 and all are found to the south west of the site within farmland. The wider survey area contains habitat suitable for foraging barn owl. The grassland management regime on site, lacks the structure that barn owl favour for hunting. The site does not contain habitat suitable for roosting. Therefore, barn owl have been excluded from further appraisal.
- 4.56 The desktop study found three records of Kingfisher within 2km of the development site. One record is from the SSSI site Maes y Grug, to the north east of the site. The additional records are from the River Alyn to the south west of the site. The habitat within the site is unsuitable for foraging or roosting Kingfisher, therefore, they are excluded from further appraisal within this report.
- 4.57 Numerous records of several priority species of birds were found within 2km of the development site across the landscape.
- 4.58 The wider survey area provides a range of habitats suitable for birds such as scattered trees in association with hedgerows, areas of dense scrub, scattered scrub in conjunction with roadside verges and grassland.
- 4.59 The development sites contain habitats suitable for foraging birds such as grassland, scattered trees, scattered scrub and boundary hedgerows. The grassland is relatively small

in size, enclosed and is of limited value for ground nesting species under its current management regime.

- 4.60 Habitats within the site, especially around the boundaries of the site are suitable for breeding birds and include: trees, scrub and hedgerows. These are suitable to support the following Priority species; bullfinch, dunnock and song thrush, with potentially grey partridge and tree sparrow.
- 4.61 The Wildlife and Countryside Act (WCA) 1981 (as amended), states that all wild birds are protected at all times against killing or injury. Under the WCA, it is an offence to kill, injure or take any wild bird, to take damage or destroy the nest of any wild bird, or to take or destroy the egg of any wild bird.
- 4.62 Schedule 1 birds are afforded additional protection against disturbance during the breeding bird season at or near the nest. Options to avoid disturbance for Schedule 1 species will need implementing if a Schedule 1 species is found to be present on site during the breeding bird season.

Reptiles

- 4.63 The desktop study found numerous records of grass snake within 2km of the development site dating from 1990 to 2017, located from 50m to 1500m across the landscape. A large collection of records is from the Maes y Grus SSSI and one record is located adjacent to the site.
- 4.64 There are several records of adder and common lizard, over 1km from the development site.
- 4.65 Habitats in the wider survey area are considered to be suitable to support common reptile species such as grass snake and common lizard.
- 4.66 Habitats within the site including the grassland edges, hedgerows and scrub are considered suitable for reptile species such as grass snake and common lizard. Habitats on site are not considered to be optimal for adder. Further reptile surveys are required before a full evaluation can be undertaken.
- 4.67 Common reptiles receive some degree of protection through the Wildlife and Countryside Act 1981 (as amended). They are protected against killing and injuring. The habitats for these widespread species are not protected. Therefore, in practice this requires a reptile protection scheme before implementing planning permission. No specific licence is required. It is not an offence under the Wildlife and Countryside Act 1981 (as amended) to possess these animals.

Otter

- 4.68 The desktop study identified eleven records of otter within 2km of the development site. The majority of the records are associated with the River Alyn which is approximately 1.5km to the south of the site.
- 4.69 The site does not contain habitat suitable to support otter and is isolated from habitats that are suitable such as rivers and woodland. Therefore, otters are excluded from further appraisal in this report.
- 4.70 Otters are a Wales Species of Principal Importance listed under the Environment (Wales) Act (2016) Section 7. Otters are protected under the Wildlife and Countryside Act 1981 (as amended) and Annex IV of the EC Habitats Directive which has been transposed into

national legislation by means of the Conservation of Habitats and Species Regulations 2017.

Polecat

- 4.71 The desktop study identified seven records of polecats scattered across the landscape within 2km of the development site.
- 4.72 Polecats are a highly transient species and often move large distances across the landscape. The habitats on site are not considered suitable to support polecat and therefore they are excluded from further appraisal within this report.
- 4.73 Polecats are a Wales Species of Principal Importance listed under the Environment (Wales) Act (2016) Section 7 and are protected under the Wildlife and Countryside Act 1981 (as amended) and Section 6 which prohibits certain methods of killing or taking animals, which are specified in Section 11.

Invasive Species Evaluation

- 4.74 The desktop study found forty-three records of invasive species within 2km of the development site, dating from 2005 to 2017. Forty-three of the records were for invasive plant species and one was a record of American mink. All of the records were located in the wider survey area with the closest being approximately 100m from the site.
- 4.75 No invasive species were recorded during the survey within the site or the immediate surrounding area and therefore invasive species has been omitted from further appraisal.
- 4.76 Schedule 9 of The Wildlife & Countryside Act 1981 (as amended) lists invasive non-native plant species that are considered to have a detrimental effect upon native flora wherever they occur. It is therefore an offence to “plant or otherwise cause them to grow in the wild”. This includes allowing the species to grow/spread, spreading the species or transferring polluted ground material from one area to another. Any waste containing these species is classed as controlled waste under the Environmental Protection Act (Duty of Care) Regulations 1991, which requires all producers, carriers and disposers of waste to follow a code of practise and keep records.
- 4.77 Section 23 of the Infrastructure Act 2015 amended the Wildlife and Countryside Act 1981 by inserting a new Schedule 9A to introduce a statutory regime of species control agreements and orders. This schedule ensures that, in appropriate circumstances, landowners take action on Schedule 9 invasive species, or permit others to enter the land and carry out those operations, to prevent their establishment and spread.
- 4.78 Under Section 23 of the Infrastructure Act 2015, the environmental authority has powers to make a species control order to require an owner to take action against an invasive non-native species. The environmental authorities with the powers to make species control agreements or orders in England are the Secretary of State, Natural England, the Environment Agency and the Forestry Commissioners.
- 4.79 The EU Invasive Alien Species Regulation (1143/2014) came into force on 1 January 2015. The Regulation imposes strict restrictions on a list of species known as “species of Union concern”. These are species whose potential adverse impacts across the European Union are such that concerted action across Europe is required, the European Commission added a further 12 species to the list of species of European Union concern on the 13th July 2017.
- 4.80 The regulation ensures that a landowner must act responsibly and not allow an invasive species to grow or spread outside your land, which could be an offence and/or contrary to

the Regulation. Where this cannot be guaranteed the landowner is required to consider safely removing and disposing of any listed plant.

5.0 Impacts & Recommendations

Habitats Impacts and Recommendations

- 5.1 The survey found the site to contain Wales Habitats of Principal Importance including hedgerows.
- 5.2 Habitats within the wider survey area and the development site are considered suitable to support European and Statutory Protected Species and Wales Species of Principal Importance.
- 5.3 In brief the Planning Policy Wales Edition 10 (December 2018) sets out the Welsh Government's objectives for biodiversity and ecological networks. Development plan strategies, policies and development proposals must consider the need to: support the conservation of biodiversity, in particular the conservation of wildlife and habitats; ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats; ensure statutorily and non-statutorily designated sites are properly protected and managed; safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.
- 5.4 The following sections briefly evaluate each habitat that is impacted by, or adjacent to the site that may be impacted by the proposed development, provides advice upon each habitat of ecological value and the species it is considered suitable to support.

Scattered Trees

- 5.5 Planning Policy Wales states that trees are of great importance for biodiversity and planning authorities should protect trees where they have ecological value, contribute to the character or amenity of a particular locality, or perform a beneficial and identified green infrastructure function. Where trees are removed as part of a proposed scheme, developers will be expected to provide compensatory planting.
- 5.6 The following points need to be taken in to consideration.
- Impacts to trees should be minimised where possible and trees to be retained will require adequate provision for root protection prior to any works.
 - If there is a loss of scattered trees to development then mitigation works should be undertaken to replace trees on a minimum like for like basis to ensure that there is no net loss of biodiversity at the site. Tree species should be native and of local provenance.
 - Any trees that are affected by development should be checked prior to any works, to see if they fall under any Tree Preservation Order's (TPO).
 - The works should be carried out according to BS 5837:2012 Trees in relation to design, demolition and construction.
- 5.7 Regard for tree dwelling species such as breeding birds and roosting bats may also need to be taken into consideration.

Scrub (Scattered)

- 5.8 There are small areas of scattered scrub within the site, which is of limited value due to its small size. It is important to ensure that areas of scrub are incorporated in to the final development plan, but it is considered that small losses can easily be replaced with a sensitively designed Landscape Scheme.
- 5.9 Any works within scrub habitat may need to consider protected and priority species prior to works. Please refer to the relevant species section prior to works.

Neutral Poor Semi-Improved Grassland

- 5.10 The majority of the site contains poor semi-improved grassland which is classified as species poor (with areas that are more diverse) and although the grassland within the site contains relatively low ecological value, it does contain value to fauna species at a site level. Losses of this habitat will occur, but it is considered that areas of higher biodiversity value could be created to compensate for such losses.
- 5.11 It is recommended that a wildflower meadow is planted in part of the site to enhance species diversity and this should be placed under a long-term management plan. Ideally wildflower meadows should be designed in conjunction with other landscape features such as hedgerows to increase connectivity and value of both habitats and species.
- 5.12 Any works within grassland habitat may need to take into account protected and priority species prior to works. Please refer to the relevant species section prior to works.

Tall Ruderal

- 5.13 Small areas of tall ruderal will be lost to development. It is important to ensure that areas of tall ruderal are incorporated in to the final development plan, but it is considered that small losses can easily be replaced with a sensitively designed Landscape Scheme.

Hedgerows

- 5.14 The hedgerows located around the perimeter of the site are important both at a site and landscape level and should be retained, wherever possible.
- 5.15 It is recommended that where the report has indicated there are species-rich hedgerows, an assessment as to whether or not it constitutes an 'important' hedgerow under the Hedgerow Regulations 1997 should be carried out. This includes TN1, TN2, TN3 and TN4.
- 5.16 Any works near to hedgerows should be carried out with adequate provision for root protection.
- 5.17 Works in or affecting hedgerows may need to take in to account the Hedgerow Regulations 1997 and protected and priority species prior to works.

Species Impacts & Recommendations

- 5.18 The following sections provide impacts and recommendations upon species that the development has the potential to affect. Species reviewed in Section 4 that are not affected by the proposals have been omitted.

Amphibians

- 5.19 The wider survey area contains both suitable aquatic and terrestrial habitats and the site contains suitable terrestrial habitats including; semi-improved poor grassland, scattered scrub and hedgerows to support Amphibian species; including great crested newt and common toad.

- 5.20 To adhere to current guidance, an amphibian presence/absence survey will be required in support of this application. The information from the survey is required before a full evaluation of the development and impacts on amphibians can be made.
- 5.21 The presence/absence survey should follow standard methodologies in accordance with best practice guidelines at a suitable time of year (Spring). If great crested newts are found a population size class assessment will be required.
- 5.22 If great crested newts or common toad are present and will be impacted by the proposed development, the Local Planning Authority will need to agree and approve a method statement for the protection of such species prior to the granting of planning permission. If great crested newts are found at the site a European Protected Species (EPS) development licence will be required to legally permit the development, prior to any works commencing, which can only be applied for once planning permission has been granted. There are timing implications in relation to implementation of amphibian mitigation and obtaining an EPS licence, should one be required.
- 5.23 It is considered likely that great crested newts will be present in the wider survey area, due to previous records in the ponds within 250m of the site. It is recommended that suitable terrestrial habitats are enhanced with consideration for amphibians within the landscape plan.
- Badger**
- 5.24 Habitats within the wider survey area and the development site are suitable to support badger. No signs of badger were found during the Extended Phase 1 Habitat Survey within the development site or within 30m of the proposed works. Therefore, at the time of the survey, there are no apparent implications in relation to protection of badgers and their setts.
- 5.25 As there are badger records in the area and habitats are suitable to support badger on site, it is recommended; during the development that any open pits are either covered over night or have means of escape, to prevent trapping a badger.
- 5.26 As they are a highly transient species, as best practice, it is recommended that a pre-development badger survey is undertaken immediately prior to development works. The pre-development survey will inform whether any further action is needed regarding this species and inform any mitigation works if necessary.
- Bats**
- 5.27 The wider survey area contains habitats that are considered ideal for bat species including roosting and foraging habitats. Therefore, it is highly likely that bats are present within the survey area and features such as trees and hedgerows, should be retained, as these provide connectivity between the site and the wider survey area.
- 5.28 The development site is of a relatively large size and given the low suitability of habitats within the site and the wider survey area, it is recommended that bat habitat surveys are undertaken, over the survey season from April to September. The results from these surveys shall advise the development design.
- 5.29 The scattered trees at TN6 and the trees within the boundary hedgerows (TN1, TN2, TN3 and TN4) are of a size and age that they may contain bat roost potential. The trees are important at both a site and landscape level, providing connectivity between habitats and should be retained.

5.30 The trees and habitats on the site have been subject to further surveys and therefore, recommendations with regard to roosting, foraging and commuting bats are provided in the subsequent reports titled: ESL Protected Species Report (Bats) - New Brighton Flintshire – (January 2019) v3 and ESL - New Brighton - Bat Transect & Automated Survey Report (January 2019) v3.

Birds

5.31 Habitats within the wider survey area and the site are suitable for breeding and foraging birds.

5.32 The development will result in the loss of grassland areas; the perimeter features such as hedgerows and trees will be mostly retained.

5.33 Although the grassland within the site contains relatively low ecological level, it does contain value to bird species at a site level for foraging, it is considered unlikely to be used by ground nesting species. To compensate for losses of grassland, in respect to birds, it is considered that areas of higher biodiversity value should be created, that will target Wales Priority species.

5.34 A sensitively designed landscape scheme should include the following;

- Creation of wildflower meadows to increase the grassland diversity for foraging bird species.
- Creation of areas of scrub and native hedgerows will benefit birds.
- Any tree planting should select fruit-bearing species such as Rowan, for species such as bullfinch to provide food sources during the winter months.
- Tree sparrow boxes could be installed on semi-mature trees around the boundaries of the site.
- Bird boxes could also be incorporated in to the design of the residential houses/garages to support species such as house sparrow.
- It is inevitable that residential garden areas will also provide suitable nesting and foraging habitats for birds, but there can be no guarantee of the quality of these habitats.

5.35 The enhancement of these habitats will also help to encourage other bird species into the area and increase the overall biodiversity of the site.

5.36 If works to any areas of habitat suitable for breeding birds are to be undertaken during the breeding bird season, which runs from March to September inclusive, then an assessment by an ecologist for breeding birds should be undertaken prior to works. If breeding birds are found, it is likely that works will have to be delayed until breeding has ceased. Ideally, all affected breeding bird habitat should be cleared either at the end of breeding bird season. It is good practice to replace any breeding bird habitat lost to development. All replacement should be made on a minimal like for like basis.

Reptiles

5.37 Habitats within the site and the wider survey area are considered suitable for common reptiles such as grass snake and common lizard.

5.38 It is recommended that a reptile survey of the site is undertaken to fully evaluate and assess the impacts upon the common reptile species and development. Detailed impacts and recommendations will be made in the subsequent reptile survey report.

- 5.39 If reptiles are found to be present, a Method Statement will need to be produced to remove suitable habitats within the site in a way that does not result in killing or injury and takes in to account other protected species on site such as amphibians.

Other Recommendations

Wildlife Friendly Landscape Proposals

- 5.40 It is recommended that any planting schemes within the development should adhere to local planning policy and use native species of local provenance. Planting schemes should aim to meet Local BAP targets. The landscape proposals should also show the locations and provide details of habitat and species mitigation measures, advice should be sought from the acting ecological consultant.

Other Recommendations

Planting Schemes

- 5.41 It is recommended that any planting schemes within the development adhere to local planning policy and use native species of local provenance. Planting schemes should aim to meet Local BAP targets.

Biodiversity Recommendations

- 5.42 In line with current planning policy new developments should ensure that there is a minimum of no net loss of biodiversity at a site and result in an overall biodiversity gain.
- 5.43 Landscape proposals should ensure that there is no net loss of habitats of ecological value, including hedgerow and trees. There is scope to enhance existing ecological features but all loss should be replaced on a like for like basis.
- 5.44 Additional compensation towards habitat losses at the site, particularly the loss of poor semi-improved grassland includes the following;
- The creation of species-rich hedgerows between the proposed residential garden boundaries using native species of local provenance, aiming to create a UK Habitat of Principal Importance and Local BAP Habitat.
 - Increase links between the garden areas by planting up front and rear gardens with native or wildlife friendly berry/nectar rich shrubs.
- 5.45 Further possible recommendations to ensure that there is an overall biodiversity gain are as follows:
- Installation of bat boxes on trees to be retained and within any new build works at the site. Bat boxes should be placed away from well-lit areas, at suitable locations.
 - Installation of nesting bird boxes.
 - Gaps beneath garden fences to allow hedgehogs to move between gardens.
 - Sedum roofs on garage roofs.
 - Trellice on fencing and on walls for nectar rich wall climbers.
 - The use of Sustainable Urban Drainage Systems (SUDS).

6.0 References

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Appendix 1: **Extended Phase 1 Habitat Survey Target Notes**

TN1 –Species-rich Hedgerow

Hedgerow running the full length of the northern boundary of the site adjacent to New Brighton Road. The hedgerow is approximately 2m high and up to 2m wide, it appears to be managed, although uncut at the time of the survey. Species include; frequent common hawthorn, occasional bramble, hazel and sycamore with rare elder, oak sp., holly and rose sp. Ground flora includes; frequent common nettle, locally frequent soft rush, occasional rosebay willow-herb sp., broad-leaved dock, honeysuckle and rare hogweed, gorse, common ragwort and foxglove.

TN2 – Species-rich Hedgerows and Scattered Trees

Hedgerows either side of what appears to be an old track running north to south within the site from New Brighton Road, which diminish and become a row of scattered trees further south in to the site. The hedgerow is connected to TN1 on the boundary and is unmanaged. The hedgerow is 3m+ high and species include frequent bramble, common hawthorn, occasional common ash, rare elder, rose sp., hazel, honeysuckle and holly. The ground flora merges with the edge of the grassland.

TN3 – Hedgerow and Scattered Trees

Hedgerow running along the western and south-western boundary of the site. It is 3m+ tall and over 3m wide and managed. Species include; frequent holly, occasional bramble, common hawthorn, rose sp., alder sp., aspen, silver birch, honeysuckle, rare oak sp., hazel and a notable black poplar. Associated ground flora includes the edges of the grassland and occasional ivy and foxglove.

TN4 – Hedgerow and Scattered Trees

Hedgerow containing scattered trees running along the south western boundary of the site. It is 2m+ tall and managed. The part of the hedgerow that runs adjacent to the A5119 on the southern boundary of the site is 3m+ in height and managed. Species include; abundant common hawthorn, frequent oak sp., occasional bramble and rare common ash. Associated ground flora includes the edges of the grassland and frequent cleavers, common nettle and occasional ivy. The scattered trees within the hedgerow are mature with features that could potentially be used by roosting bats.

TN5-Poor Semi-Improved Grassland

The main habitat within the site is grassland. It had been recently cut at the time of the survey although the management regime is not fully known. Grass species include; frequent Yorkshire fog, perennial rye-grass and rough meadow-grass, locally frequent (especially around the edges, which had a longer sward) crested dog's-tail, cock's-foot and soft rush, with occasional common couch. Associated species include; locally frequent black knapweed, bird's foot-trefoil, greater stitchwort, occasional creeping buttercup, meadow buttercup, broad-leaved dock, white clover and thistle sp.

TN6- Scattered Trees

The scattered trees associated with the hedgerow at TN2 form a line from north to south across the site. The trees are mature in age and species include; occasional common ash, rare sycamore and oak sp. Some of the trees have features suitable for use by roosting bats.

Appendix 2:
Desktop Study Records

Drawing 1:
Extended Phase 1 Habitat Survey Map

Drawing 1:
Extended Phase 1
Habitat Survey Map.

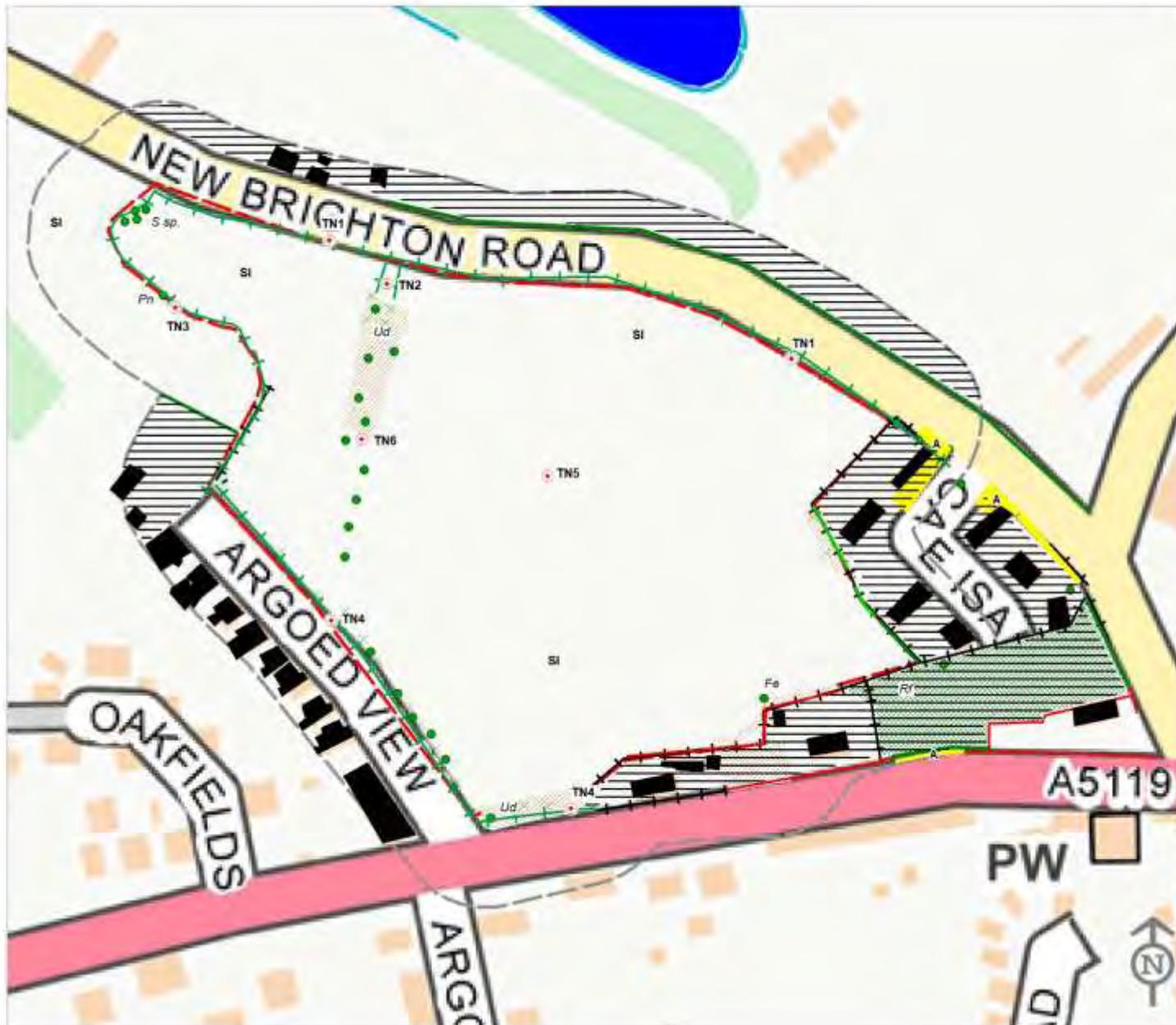
Map Ref. (NGR) 325193, 365564
Map Scale: 1:1,200 @ A3

Key:

-  Site boundary
-  30m buffer
-  Scattered tree (broad-leaved)
-  Dense scrub
-  Scattered scrub
-  Semi-improved-poor Grassland
-  Tall ruderal
-  Pond
-  Amenity grassland
-  Hedgerow (species-rich)
-  Hedgerow (species-poor)
-  Hedgerow (coniferous)
-  Building
-  Wall
-  Fence
-  No access
-  Target note

Dominant Species Code:

Fe = Common ash
Ud = Common nettle
S sp. = Willow sp.
Pn = Black Poplar



Drawing 2:
Proposed Planning Layout (Rev K)

Argoed View, Nr Mold

Proposed Sketch Layout - 1:500

Planning Layout Legend

-  Proposed dwelling and Dwelling type.
-  Proposed dwelling handing.
-  Proposed detached garage.
-  Access to dwellings.
-  Plot numbers.
-  Affordable Dwellings.
-  Proposed dual aspect units.
-  Proposed SUDS pond.
-  Proposed indicative tree position. (refer to landscaping layout for detail)
-  Existing Category A trees to be retained. (refer to tree report for detail)
-  Existing Category B trees to be retained. (refer to tree report for detail)
-  Existing Category C trees to be retained. (refer to tree report for detail)
-  Hard Landscaping Treatment A
Alternative surface material other than
-  Hard Landscaping Treatment B
Block Paving
Non-slip concrete paved surfaces, foot paths and private driveways
Grass Paved
-  Soft Landscaping
Soft landscaping with landscaping plant to include and stock
-  Boundary Treatment A
Yellow high beam boundary fence
-  Boundary Treatment B
Yellow high beam boundary fence
-  Application Site boundary.
-  Existing Easement.



STEWART
Milne
HOMES

Schedule of Accommodation

| Mews Dwelling Types | AFFORDABLE | SQFT | No | Total Sqft | | |
|--|------------|------------|----|---------------|---------------|-------------------|
| ES | 10% | 653 | 10 | 6530 | 30% | |
| TD | 19% | 799 | 18 | 14382 | | |
| RVD | 1% | Rydal | 1 | 630 | | |
| Total dwellings and sqft | | | | 29 | 21,542 | |
| Mews Dwelling Types | | SQFT | No | Total Sqft | | |
| AT | 3% | Aston | 2 | 1500 | 60% | |
| AR | 24% | Argyll | 16 | 14256 | | |
| CW | 13% | Castwellan | 9 | 9234 | | |
| CP | 21% | Caplewood | 14 | 13370 | | |
| 1 Bed Detached Dwellings | | | | SQFT | No | Total Sqft |
| CV | 6% | Castvale | 4 | 3800 | 6% | |
| 4 Bed Detached Dwellings | | | | SQFT | No | Total Sqft |
| CA | 3% | Carlton | 2 | 2158 | 25% | |
| WES | 4% | Westwood | 3 | 3435 | | |
| PW | 3% | Parlwood | 2 | 2380 | | |
| DU | 4% | Dukeswood | 3 | 3780 | | |
| GL | 3% | Glenmore | 2 | 2716 | | |
| HA | 7% | Hampfield | 5 | 6430 | | |
| 5 Bed Detached Dwellings | | | | SQFT | No | Total Sqft |
| HE | | Heddon | 1 | 1504 | 9% | |
| LA | | Laurieston | 2 | 3196 | | |
| KI | | Kingsmoor | 3 | 4821 | | |
| Total dwellings and sqft - CMS | | | | 68 | 64,563 | |
| Total dwellings and sqft - Including Affordable | | | | 97 | 94,122 | |
| Gross Site Area in Acres | | | | 8.80 | | |
| Undevelopable area in acres | | | | 1.96 | | |
| POD | | | | 0.54 | | |
| SUDS | | | | 0.72 | | |
| SSR | | | | 0.7 | | |
| Net Site Area in Acres | | | | 6.34 | | |
| Density (units per acre) | | | | 15 | | |
| Density (units per hectare) | | | | 38 | | |
| Nett Square foot / Acre | | | | 14,848 | | |

| | | | |
|---|---|----------|-----|
| K | re-design to entrance and SUDS pond following information received from engineers. W22 blocks referenced. | 18.04.19 | CMc |
| J | Schedule amended to reflect proposed development. -1 DE + 1 HA | 08.03.19 | CMc |
| H | Layout revised following comments from SCP | 22.01.19 | CMc |
| G | Vis Splays added 2.4x43. Pedestrian link to plots 1-5 | 20.12.18 | CMc |
| F | Mix amended to suit layout. Plot positions amended | 20.12.18 | CMc |
| E | Mix amended following Layout Review 12.12.18 | 12.12.18 | CMc |
| D | Schedule Amended. | 07.12.18 | CMc |
| C | Re-draw following pre-app meeting with LPA. Additional unit gained, mixed changed. | 30.11.18 | CMc |
| B | Verisu amends following land meeting 10.11.18. Including changes to affordable policy requirements | 24.10.18 | CMc |
| A | Site access amended to suit plans provided by SCP | 12.09.18 | CMc |

| DATE | 07.2018 | DRAWN | CMc |
|-------|---------|-------|-----|
| SCALE | 1:500 | CHK | DJM |

Argoed View, Nr Mold

Proposed Planning Layout

| | | | |
|--------|----------------|-----|---|
| Dwg No | SK296/NBM/PL03 | Rev | K |
|--------|----------------|-----|---|

