JOHN WALTER BURKE

CALTRAGH LRD
NEWTOWNHOLMES ROAD,
CALTRAGH AND CORNAGEEHA
CO. SLIGO

SCREENING FOR APPROPRIATE ASSESSMENT

APRIL 2024

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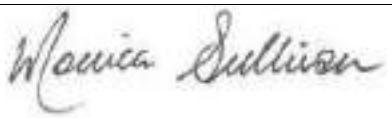
April 2024		

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CONTENTS

1 INTRODUCTION

1.1 BACKGROUND

Jennings O'Donovan & Partners Limited have been commissioned by Rhatigan Architects to carry out a Stage I Appropriate Assessment Screening under Article 6(3) of Council Directive 92/43/EEC (Habitats Directive) for the Provision of a Housing Development at Newtownholmes Road, Caltragh and Cornageeha, Co. Sligo. John Walter Burke wishes to construct a housing development on the site. The works hereafter in this report will be identified as 'the Project'.

The purpose of this report is to assess the various elements of the Project in terms of potential impacts to European Sites within the Zone of Influence (ZoI) of the Project. Potential cumulative impacts of the overall project, individually and in-combination with other plans and projects within the area of the waterbody catchment were also. Locations where works were carried out were surveyed for the presence of protected habitats and species as set out in the Birds and Habitats Directives.

This proposal is not necessary for the conservation management of a European Site.

1.2 AUTHOR'S QUALIFICATION AND EXPERTISE

This Stage I Appropriate Assessment Screening has been prepared by Dr. Monica Sullivan, Principal Environmental Scientist and Lead Ecologist at Jennings O'Donovan & Partners Limited. She is a full member of the Chartered Institute of Ecology and the Environmental Management and a chartered Environmentalist. Dr. Sullivan has over 36 years' experience in the natural sciences, specialising in fisheries management, aquatic ecology and freshwater invertebrate taxonomy. She has lectured since the mid 1990's – 2017 in invertebrate zoology, ecology and environmental pollution control to both masters and degree students. She was the examiner for the freshwater biology module for the Institute of Fisheries Management, England. Monica's experience includes invasive species surveys, management plans, ecological studies, Environmental Impact Assessment (EIA) screenings, Appropriate Assessment (AA) screenings, Natura Impact Statements (NIS), otter surveys, badger surveys, freshwater macroinvertebrate and instream flora surveys.

Qualified to doctorate level, Monica previously worked as a partner in an environmental consultancy, undertaking fieldwork and specialising in Environmental Assessments of medium to large scale infrastructural projects and the coordination and management of AA and Environmental Impact Assessment processes. She has a clear understanding of the legislative framework governing the extent of environmental investigations, assessments and reports required to secure the necessary approvals on all types of projects. She has extensive experience in management of specialist sub-consultants and working in a team environment and a history of collaborating with participants on research projects. Dr. Sullivan was author and researcher on an Environmental Government Program on invasive species. She is chief author of a chapter in the book Zebra Mussels in Europe and has published many papers on the topic. She spent several years working as both English and Scientific editor for international scientific journals. In 2017, she was expert advisor for 'horizon scan' invasive species workshop.

1.3 REGULATORY CONTEXT

Under Section 177U (1) of the Planning Acts, a Screening for AA of the Project shall be carried out by the competent authority (in this case, Sligo County Council) to assess in view of best scientific knowledge, if the Project, individually or in combination with other plans or projects, is likely to have a significant effect(s) on any European Sites.

Collectively, Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are referred to as the Natura 2000 Sites. The legal basis on which SACs are selected and designated is the EU Habitats Directive, 92/43/EEC transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended. The designation features of SACs are referred to as Qualifying Interests (QI) and include both species (excluding birds) and habitats. Similarly, Special Protection Areas (SPA's) are legislated in the Birds Directive 2009/147/EC. The designation features of SPAs are referred to as Special Conservation Interests (SCIs) which comprise bird species as well as wetland bird habitats.

In general terms, SACs and SPAs are considered to be of exceptional importance in terms of rare, endangered or vulnerable habitats and species within the European Community.
Article 6, paragraph 3 of the Habitats Directive states that:

> *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in-combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public".*

The statutory agency responsible for the European Sites is the National Parks and Wildlife Service of the Department of Culture, Heritage and the Gaeltacht.

This report has been prepared in accordance with current guideline documents:

- Assessment of plans and projects significantly effecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (EC, 2001)
- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DEHLG 2009, Revised February 2010)
- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (DoEHLG, 2009, revised 2010)
- OPR Practice Note PN01: Appropriate Assessment Screening for Development Management, March 2021, Office of the Planning Regulator
- Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg, (EC, 2000a)
- European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No.477 of 2011).

- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013).
- EU Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC (EC, 2007)
- Managing Natura 2000 Sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018)
- Strict Protection of Animal Species, NPWS, 2021

The following European Court and Irish High Court rulings have been considered:

- C-127/02 Waddenzee v Staatssecretaris
- C-258/11 Sweetman v An Bord Pleanála
- C-512/12 Briels
- C-387/12 & C388/15 Orleans and others v Vlaams Gewest
- C-142/15 Moorbug
- C-323/17 People Over Wind and Peter Sweetman v Coillte
- C-162/17 Grace and Sweetman
- C-883/18 Holohan and others v An Bord Pleanála
- IEHC 84 (2019) - Kelly v An Bord Pleanála

Relevant plans from national to local scales are critical to inform a robust assessment of in-combination impacts; these are listed below:

- National Biodiversity Action Plan, for the period 2017-2021
- River Basin Management Plan for Ireland 2018-2021
- Sligo County Development Plan 2017-2023 (Under Review) (Proposal to extend to July 2024)
- Sligo County Development Plan 2023-2029 (Pre-Draft Public Consultation)

1.4 THE STAGES IN AN APPROPRIATE ASSESSMENT

There are 4 stages in an Appropriate Assessment as outlined in the European Commission Guidance document (2001). The following is a brief summary of these steps:

Stage 1 – Screening: This stage examines the likely effects of a project either alone or in-combination with other projects upon a European Site and considers whether it can be objectively concluded that these effects will not be significant.

Stage 2 – Appropriate Assessment: In this stage, the impact of the project on the integrity of the European Site is considered, with respect to the conservation objectives of the site and to its structure and function.

Stage 3 – Assessment of Alternative Solutions: Should the Appropriate Assessment determine that adverse impacts are likely upon the European Site, this stage examines alternative ways of implementing the project that, where possible, avoid these adverse impacts.

Stage 4 – Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider

whether compensatory measures will or will not effectively offset the damage to the European Site will be necessary.

As part of this Screening for Appropriate Assessment, a desk-based study of the European Site within the ZoI of the Project is required.

1.5 SCREENING METHODOLOGY

The function of the Screening Assessment is to identify whether or not the project will have a likely significant effect on any European Site. In this context "likely" refers to the presence of doubt with regard to the absence of significant effects (ECJ case C-127/02) and "significant" means not trivial or inconsequential but an effect that has the potential to undermine the site's conservation objectives (ECJ case C-127/02). In other words, any effect that compromises the functioning and viability of a site and interferes with achieving the conservation objectives for the site would constitute a significant effect.

The nature of the likely interactions between the Project and the integrity of a European Site will depend upon the sensitivity of the European Site's qualifying features to potential impacts arising from the Project; the current conservation status of the European Site and its qualifying features; and any likely changes to key environmental indicators (e.g. water quality) that underpin the conservation status of European Sites and their qualifying features, in-combination with other plans and projects.

The European Commission (2018) Guidelines outline the stages involved in undertaking a Screening Assessment of a project that has the potential to have likely significant effects on European Sites. The methodology adopted for this Screening Assessment is informed by these guidelines and was undertaken in the following steps:

1. Define the project and determine whether it is directly connected with or necessary for the conservation management of European Sites
2. Identify other plans or projects that, in-combination with the project, have the potential to effect European Sites
3. Assess whether or not the project is likely to have significant effects on European Sites in the view of its conservation objectives.

1.6 DESK STUDY

A desk study was carried out to collate the available information on the ecological environment of the Project area. The National Parks and Wildlife Service (NPWS) database was consulted concerning designated conservation areas and records of rare and protected plant and animal species in the vicinity of the Project. The National Biodiversity Data Centre (NBDC) website was also consulted. One kilometre Grid square 'G6834' incorporates the entire site; with one protected species recorded, namely the common wood pigeon (*Columba palumbus*). Much of the land boundaries with this Grid and close environs are delineated by hedgerow/treeline habitat which the pigeon is likely to favour.

The Sligo County Development Plan 2017-2023 (proposal to extend to July 2024), the Sligo County Development Plan 2023 – 2029 (Pre-Draft Public Consultation) and the Sligo County Council planning

enquiry website were reviewed to identify any proposed plans or projects which may have a direct, indirect or cumulative impact with the Project.

1.7 FLOODING

Office of Public Works (OPW) website and the CFRAM study were accessed (May, 2023) to determine flood areas within and near the Proposed Housing Development. **Figure 1.1** shows the probability of flooding at the site, along with records of past flood events. There are no recurring flood events recorded within the site of the Proposed Housing Development. The nearest flood event occurred at Carrowroe in November 2009 located approx. 600 metres south of the site.

Figure 1.1: 2 Flood Map for the Proposed Housing Development (Source: FloodInfo.ie, 2023)

The associated ground waterbody (GWB) Cranmore West (EPA Code IE_WE_G_0040) is 'Karstic' and covers an overall area of approximately 44km^2. The Water Framework Directive (WFD) latest status for this GWB is 'Not at risk'. The 2016-2021 overall groundwater status is 'Good', indicating no change from the previous monitoring periods 2013-2018 and 2010-2015 status.

2 PROJECT DESCRIPTION

2.1 SITE LOCATION

The Proposed Housing Development is located at Newtownholmes Road, Caltragh and Cornageeha in Sligo. The proposed site is currently a greenfield site bounded by the N4 to the west (Figure 2.1). The site is bordered by a residential housing estate to the east. An individual dwelling and active residential construction site borders to the north. There is an area of scrubland to the south. The wider surrounding landscape is comprised of Sligo town and its amenities, residential and commercial areas, and improved agricultural grasslands.

Figure 2.1: Location of the Project

2.2 PROPOSED WORKS

The Proposed works will consist of the following:

- the construction of 118 no. residential units to include:
  - 8 no. 2 bedroom semi-detached houses
  - 40 no. 3 bedroom semi-detached houses
  - 8 no. 4 bedroom detached houses
  - 33 no. 4 bedroom semi-detached houses
  - 1 no. 5 bedroom semi-detached house
  - 8 no. 1 bedroom apartments
  - 20 no. 2 bedroom apartments
- the development of 1 no. creche facility with associated outdoor play areas and parking
- the ancillary structures including ESB substations and associated switch rooms, bicycle and bin stores
- public and communal open spaces, private open space, site landscaping, public lighting, footpaths, roads, parking, foul and surface water drainage and all associated site development works
- the application includes the provision of 2 no. access roads and construction of footpath and cyclepath along the Newtownholmes Road.

All drawings associated with the Project are located in Appendix I.

3 RECEIVING ENVIRONMENT

3.1 GEOLOGY AND SOILS

The quaternary sediments at the site of the Project are classified as 'Till derived from Metamorphic rocks'. The Project is located within the Dartry Limestone Formation. This bedrock formation is described by the Geological Survey of Ireland as 'dark fine-grained cherty limestone'. Corine 2018 denote this area as *pastures*. The sequence of strata encountered generally consisted of topsoil on sandy gravelly clay. As the depth increased cobbles were observed with increasing frequency (Trial hole reports, Appendix III).

3.2 HYDROLOGY AND HYDROGEOLOGY

The site overlies bedrock which is classified as a '*Regionally Important Aquifer – Karstified.'* The groundwater vulnerability at the site is classified as 'High'.

Figure 3.1: WFD River Sub Basin (RSB) and orthographic view of surrounding landscape

The Project is wholly located within the Knappagh (Sligo)_010 WFD River Sub Basin (RSB) covering an area of approximately 18km^2 (Figure 3.1). The RSB had 'Moderate' ecological status for the 2016-2021 period remains unchanged from the 2013-2018 period. The 2010-2015, 2010-2012 and the 2007-2009 periods are unassigned.

The order 5 Garavogue River (Segment Code: 35_4183) lies approximately 1.5km north of the Project (Figure 3.2). The Garavogue River flows in a north westerly direction for approximately 2.1km and discharges into Cummeen Strand and subsequently the Atlantic Ocean.

The order 1 Knappagh (35) stream (Segment Code: 35_4783) lies approximately 1.6km northwest of the Project (Figure 3.2). The Knappagh stream flows in a northwesterly direction for approximately 2km and discharges into the Cummeen Strand which is part of the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC and Cummeen Strand SPA. It subsequently flows into Drumcliff Bay and the Atlantic Ocean. The are no other water features proximate to the Project.

Figure 3.2: Watercourses and waterbodies in the vicinity of the Project

Currently, the groundwater in the area has no significant underlying pressures, including waste abstraction, agriculture, anthropogenic, aquaculture, atmospheric, extractive industry, hydro morphology, invasive species, urban runoff or otherwise (EPA Water Maps, accessed September 21st, 2023). The Project is however within a groundwater area denoted as SAC habitat sensitive, and SAC species sensitive (EPA Maps website, accessed September 2023).

The EPA Maps (Water) website was also accessed (September 2023) to examine the Project area and its environs for nitrate and phosphorus loading and Pollutant Impact Potential (PIP). PIP maps for Nitrogen (N) and Phosphorus (P) have been generated by the EPA to show the highest risk areas in the landscape for losses of N and P to waters. The PIP model estimates the annual nutrient losses from agricultural land at specific locations, using spatial data from farm management, soils and hydrogeology. This model estimates loads at an annual temporal resolution.

The Project site is located in a landscape largely given to improved agricultural grassland and residential dwellings and currently has a Phosphorus ranking of 7 (with 7 being the lowest ranking). The wider

landscape surrounding the Proposed Housing Development is ranked between 4 and 7. This ranking likely reflects some fertiliser use on local lands in the past.

PIP Nitrogen at the Project has a Nitrate ranking of 6. Adjacent lands moving southward also have a low ranking at 6.

Overall, the Critical Source Areas Maps for the Proposed Housing Development Site and adjacent lands do not indicate a Site where either phosphorus or nitrates are a significant issue.

As noted earlier in Section 3.2, the Proposed Housing Development is within the WFD River Sub Basin Knappagh (Sligo)_010. Currently, there are no significant nitrogen or phosphorus pressures from the Project on this River Sub Basin.

3.3 HABITATS:

A site visit was carried out on September 28th, 2023 on a cloudy, damp day with an ambient temperature of 13 degrees Celsius. The survey consisted of traversing the entire Project, being conscious of adjacent lots and any invasive species either overhanging the Project or rooted near/within the site.

The site slope varies from c.47.32m in the northeast to c.42.52m in the northwest. It then slopes down to c.33.85m on its central western end and up to c.42.71m at its central eastern end. The slopes goes upward to c.49.83m at its south eastern end and down to c.47.49m at its southwestern end.
Jennings O'Donovan carried out site investigations in October 2023 and noted that the ground conditions were as expected for the area (underlain by Dartry Limestone Formation) with the sequence of strata encountered generally consisted of topsoil on sandy gravelly clay. As the depth increased cobbles were observed with increasing frequency. No groundwater was encountered during the trial hole excavations.

Six general habitat types (according to Fossitt, 2000) were noted within the survey area, namely BL3: Building and Artificial Surfaces, WL1: Hedgerow, WL2: Treeline, WS1: Scrub, GA1: Improved Agricultural Grassland: GS4: Wet Grassland. No Annex I habitat occurs within or adjacent to the Project.

No rare, threatened, or protected species of plants as per the Red Data Book (Curtis and McGough, 1988) were found. No species listed in the Flora Protection Order (2022) were found to be growing within or adjacent to the Project works.

BL3: Building and Artificial Surfaces

This broad category incorporates all the areas of the Project that are covered with artificial surfaces. Such surfaces are limited onsite and restricted to the field boundaries and include a cement plastered wall approx. 1.5m tall x 0.3m wide that is located under the cover of overhead vegetation from trees rooted in the neighbouring field and provides dense bramble support on its northside. Mosses have

successfully gained a foothold in this shaded environment, but no herbaceous vegetation, with the exception of a very limited amount of *Hedera hibernica* (ivy). A second wall (stone and plaster wall, capped with cement) exists for a brief section of the eastern site boundary. Similarly, no vegetation has gained a foothold on this artificial substrate. There are several variations of fencing (post and wire most common) around and within the site, which sometimes support bramble (*Rubus fruiticosus* agg.).

Plate 3.1 Artificial substrate at the south end of the site.

GA1: Improved Agricultural Grassland

This is the predominant habitat onsite and represents most of the fields/land on a moderately sloping terrain. On occasion, the land retains water and where poorly drained, the habitat transitions to wet grassland habitat. The grassland has been grazed (and possibly used for silage making), keeping the sward height relatively low and the land heavily poached over much of the site.

This habitat can be classified as highly modified agricultural grassland that has been reseeded and/or regularly fertilised. Overall species richness is poor with the grass species heavily dominated by *Lolium perenne* (rye-grass). *Holcus lanatus* (Yorkshire fog), *Poa* spp. (meadow grass), *Cynosurus cristatus* (Crested dog's tail) are present but do not dominate the composition. *Agrostis stolonifera* (creeping bent) was also noted closer to the field margins, intertwining with bramble. *Trifolium repens* (white clover) is abundant throughout this habitat and also heavily represented in the wet grassland (GS4) habitat also. Agricultural herbs include *Ranunculus repens* (creeping buttercup), *R acris* (meadow buttercup), *Plantago lanceolata* (narrow-leaved plantain), *Rumex obtusifolius* (broad-leaved dock), *R. crispus* (curled dock), *Cirsium arvense* (creeping thistle), *Cirsium dissectum* (meadow thistle), *Cirsium vulgare* (spear thistle), *Rumex acetosa* (common sorrel), *Potentilla anserina* (silverweed) and *Taraxacum* spp. (Dandelion). Ungrazed stands of *Jacobea vulgaris* (ragwort) are common throughout the fields.

Plate 3.2 Improved agricultural grassland is the primary habitat onsite

GS4: Wet grassland

As noted above, there are areas of wet grassland where the land is poorly drained and heavily poached. Alongside the species composition noted above for habitat GA1, rushes (*Juncus effusus*) are a

conspicuous component of this habitat type. *Cirsium palustre* (marsh thistle) and *Irish pseudacorus* (yellow iris) are also present on occasion.

The floral composition however shows signs that this habitat has been modified in the past, as diversity is relatively poor and reflects poorly drained soils. Underlying the upright vegetation are abundant mosses. Tussocks of soft rush (*Juncus effusus*) and hard rush (*Juncus inflexus*) are both common, in addition to grasses such as cock's foot (*Dactylus glomerata*), Yorkshire-fog (*Holcus lanatus*) and creeping bent (*Agrostis stolonifera*). Marsh thistle (*Cirsium palustre*), meadow thistle (*Cirsium dissectum*) and spear thistle (*Cirsium vulgare*) are present. Both meadow buttercup (*Ranunculus acris*) and creeping buttercup (*R. repens*) are well represented, mixed with clovers (*Trifolium* spp.), dandelion (*Taraxacum* sp.), narrow-leaved plantain (*Plantago lanceolata*), broad-leaved plantain (*Plantago major*) and daisy (*Bellis perennis*) amongst others. Broad-leaved dock (*Rumex obtusifolius*) and bush vetch (*Vicia sepium*) are also present onsite. Towards the south end of this habitat, there is an area where young willow saplings have gained a foothold and are between 1.25 – 1.5m (approximately) tall. Also, bramble (*Rubus fruiticosus* agg.) is creating a dense strip area along the riparian zone merging with this wet grassland habitat. Cleavers (*Galium aparine*) are utilsing the bramble as a foothold to gain height and spread. Great willowherb (*Epilobium hirsutum*) and Angelika (*Angelica archangelica*) are also located at the south end of the field where conditions are wetter.

Plate 3.3 Wet grassland habitat (GS$) in the southwest corner of the site.

WL2: Treeline/ WL1: Hedgerow/ WS2: Scrub

There are several treelines on site, some of which are continuous and mature, others are discontinuous with reduced maturity. The western and southern boundaries appear to be rooted in the adjacent fields with heavy overhanging encroachment of the site by associated trees/boughs, and on occasion trunks.

Overall tree count is approximately 63 trees with approximately 50% early mature and 44% mature and 11% mature; the remaining trees are either semi-mature or young. There is a clustered area that includes mature sycamore and conifers.

There are seven hedgerows onsite of different age groups and structure; they predominantly support native species, including *Fraxinus excelsior* (ash), *Crataegus monogyna* (hawthorn), *Salix fragilis* (crack willow), *Salix caprea* (goat willow), *Sambucus nigra* (elder), *Prunus spinosa* (Blackthorn), *Alnus glutinosa* (alder) and *Betula pendula* (silver birch). Other species include *Sorbus torminalis* (wild service /chequers tree) and *Acer pseudoplatanus* (sycamore). Many of the hedgerows are heavily encroached by *Rubus fuitcosus* agg (bramble), so much so, in fact, that there are hedgerows (<2m tall) that are >90% comprised of bramble alone.

Scrub areas are generally dominated by bramble, nettles (*Urtica dioica*) and willowherb (*Epilobium* spp.) with a mix of different tree species as noted above. These areas extend some 6 x15m, 20 x 4m with smaller areas also present.

Plate 3.4 Treeline / hedgerow / scrub habitats onsite.

An arboricultural report has been carried out on the site by Charles McCorkell Arboricultural consultancy (Appendix IV).

3.4 INVASIVE SPECIES

No invasive alien species as listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No. 477 of 2011) Part 1 or 2 or of Union Concern were recorded within the Project or its close environs (incorporating 7m in all directions, to allow for any Japanese knotweed root system).

4 SCREENING FOR APPROPRIATE ASSESSMENT

This AA Screening examined the likely significant effects of the Project, either alone or in-combination with other projects or plans on European Sites, that were situated within a ZoI, or a distance that has a potential source-pathway-receptor (SPR), both direct and indirect with the Project.

A total of eleven European Sites (6 SACs and 5 SPAs) occur within a wider 15km radius of the Project and are listed in Table 4.1.

Table 4.1: European Sites within a 15km radius

No.	European Sites within 15km radius	Distance between the Project and European Sites
	SAC	
1	Lough Gill SAC (001976)	1.8km
2	Cummeen Strand/Drumcliff Bay SAC (000627)	1.9km
3	Ballysadare Bay SAC (000622)	4.0km
4	Union Wood SAC (000638)	4.7km
5	Unshin River SAC (001898)	5.1km
6	Benbulben, Gleniff and Glenade Complex SAC (000623)	9.2km
	SPA	
1	Cummeen Strand SPA (004035)	2.2km
2	Ballysadare Bay SPA (004129)	4.0km
3	Drumcliff Bay SPA (004013)	7.0km
4	Sligo/Leitrim Uplands SPA (004187)	7.4km
5	Ballintemple and Ballygilgan SPA (004234)	10.2km

4.1 EUROPEAN SITES WITHIN THE ZONE OF INFLUENCE (ZOI) OF THE PROJECT

The European Sites identified as being within the Project Zone of Influence (ZoI) using the Source Pathway Receptor (SPR) principle, will be assessed to examine the likelihood of significant effects of the Project either alone or in-combination with other plans or projects, on any European Sites.

The Environmental Protection Agency (EPA) maps were used to identify European Sites that could potentially be located within the ZoI and possibly be connected to the Project site via pathways. In this instance, given the size and scale of the Project, the short-term temporary nature of the works, works will be contained within the Project site, a terrestrial /airborne distance of 500m from the Project has been identified as the ZoI for any European Site. Other European Sites with a hydrological link either upstream or downstream are also considered to have a potential wider ZoI and are assessed separately. in Section 4.2. European Sites closest to the Project are outlined in Figures 4.1 and 4.2 and include Lough Gill SAC, Cummeen Strand/Drumcliff Bay SAC and Cummeen Strand SPA.

4.2 IDENTIFICATION OF SOURCE PATHWAY RECEPTOR (SPR) MODEL PATHWAYS

The nearest European Site, namely **Lough Gill SAC** is located approx. 1.8km north of the proposed Project. This European Site is designated for ten qualifying interests (QI); Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210], Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0], Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, *Alnion incanae*, *Salicion albae*) [91E0], *Austropotamobius pallipes* (White-clawed Crayfish) [1092], *Petromyzon marinus* (Sea Lamprey) [1095], *Lampetra planeri* (Brook Lamprey) [1096], *Lampetra fluviatilis* (River Lamprey) [1099], *Salmo salar* (Salmon) [1106] and *Lutra lutra* (Otter) [1355].

Since the Project site is not hydrologically linked via surface water to this SAC, there is no potential for significant effects on the aquatic associated QI (potentially two habitats [91E0] alluvial woodland >2km east and [3150] natural eutrophic lakes >2.5km southeast and six aquatic related species). Ground investigations (trial pits) were conducted in October of 2023 and January of 2024 (Appendix II). Trial pits was carried out; no groundwater was encountered in the trial pits. Based on these onsite tests, it is anticipated that the groundwater table will not be above the excavated level for the foundations and services required for the delivery of the construction and operational phases of this Project, therefore the QI of the SAC are unlikely to be impacted via the groundwater pathway.

Similarly, there is no potential for significant effects on the terrestrial QI [6210] and [91A0] due to the extensive intervening distance including Sligo town and its amenities, regional roads (R287) and other local roads, etc. from the proposed works to these habitats. The nearest mapped old sessile oak woodland is located over 6km southeast of the site (NPWS, 2021) on the southwestern slopes of Killery mountain and east of Slieve Daeane (329m). Semi-natural grassland habitat [6210] is located near the northern shores of the lake at a similar distance of over 6km. Significant effects on any of the QI of Lough Gill SAC are considered unlikely. It can be concluded without any scientific doubt, that there is no Source Pathway Receptor (SPR) from the Project and the proposed works to Lough Gill SAC.

Cummeen Strand/Drumcliff Bay SAC is located 1.9km northwest of the proposed Project. This European Site is designated for twelve qualifying interests (QI); Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Embryonic shifting dunes [2110], Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120], Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130], *Juniperus communis* formations on heaths or calcareous grasslands [5130], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210], Petrifying springs with tufa formation (Cratoneurion) [7220], *Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014], *Petromyzon marinus* (Sea Lamprey) [1095], *Lampetra fluviatilis* (River Lamprey) [1099], *Phoca vitulina* (Harbour Seal) [1365].

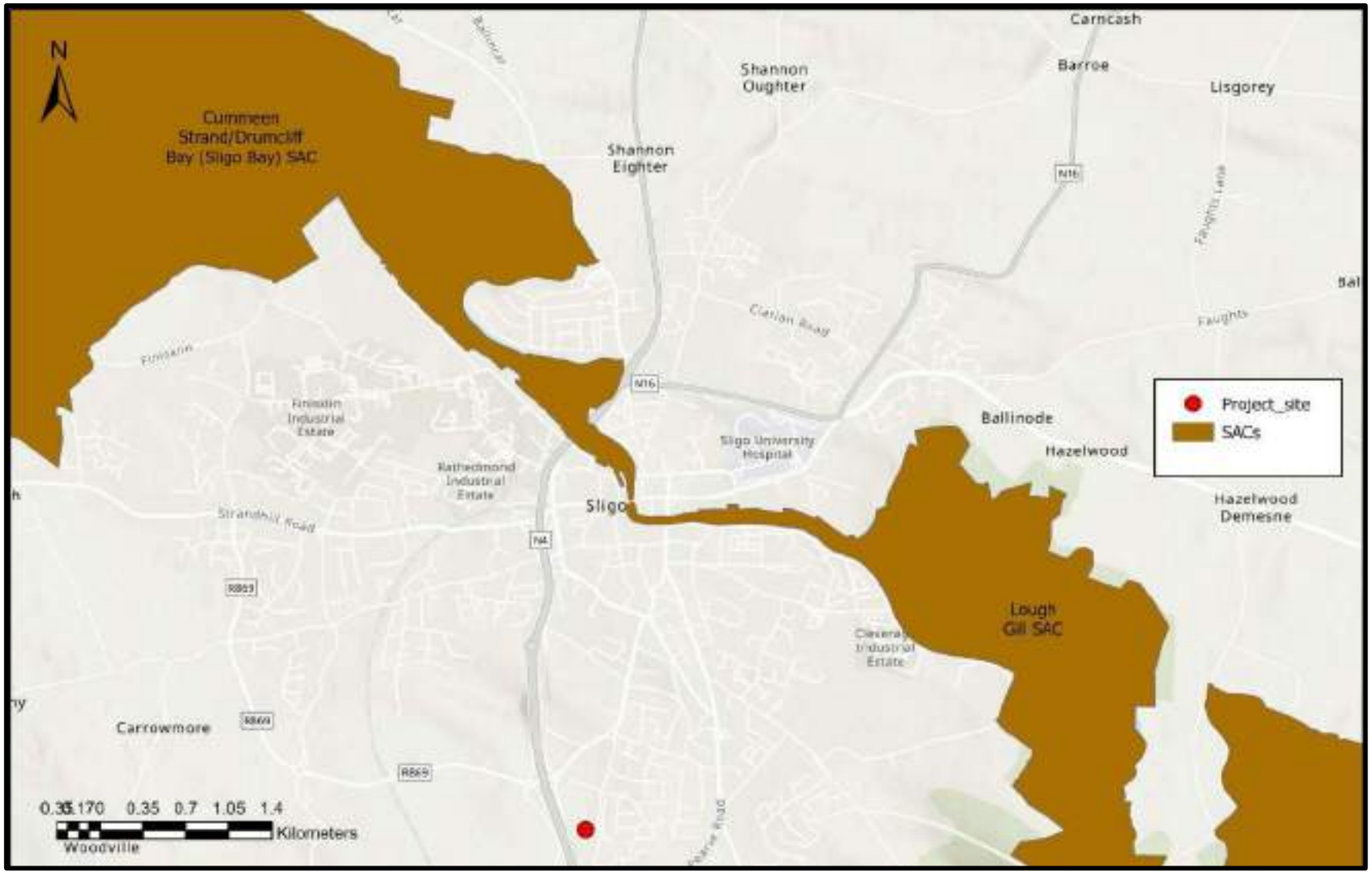

Figure 4.1: Project site showing the closest European SAC Sites

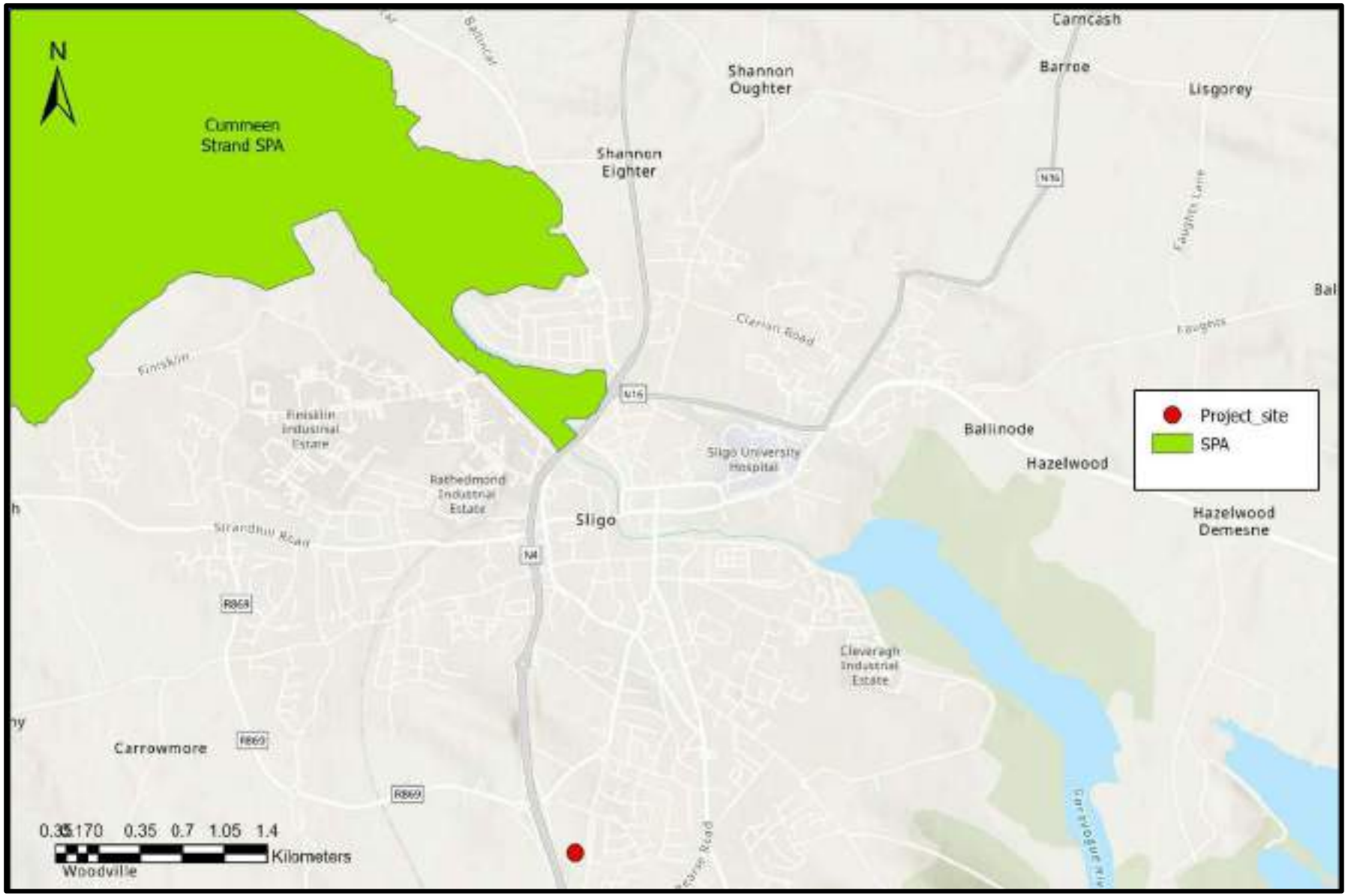

Figure 4.2: Project site showing the closest European SPA Site

There is no surface water or groundwater hydrological link to this SAC and the respective aquatic dependent QI species. Significant effects (direct or indirect) on any of the aquatic dependent species are not anticipated during either the construction or operation phases of the Project. Works will not occur within the SAC, so direct impacts are not anticipated.

The groundwater flood mapping confirmed that the site is not at risk from groundwater flooding with no historic record of groundwater flooding at the Project site. Given that the entirety of bedrock at the proposed work area is of Dartry Limestone, there is little risk of groundwater flooding. In addition, there is no risk of tidal or pluvial flooding at this site. Also, given that works will be carried out according to the methodology outlined in Section 2.2, pathways carrying nutrients, silt or contaminants to SAC groundwater are considered unlikely. Groundwater will not be reached during all site works.

Groundwater investigation trial holes noted no groundwater at a maximum depth of 2m excavation works; significant effects on groundwater as a result of the construction and operation are considered unlikely. Therefore, despite the Project being located within and area where the groundwater is sensitive for SAC habitat and species, there is unlikely to be any significant impact on these QI species and /or habitats.

Estuarine [1130] and mudflat and sandflat [1140] habitats are located over 1.5km north of the Project (Map 3 and 4 respectively, NPWS 2013). Significant effects of the Cornageeha development are also not considered likely due to the intervening development of Sligo town and associated urban sprawl and no groundwater was noted during the trial hole excavations.

Dune QI systems [2110], [2120], [2130] and [5130] are all located over 7.5km northwest of the Project (Map 6 and 7 respectively NPWS 2013); due to the intervening urban landscape, the there is no potential SPR from the Project to these QI, therefore direct or indirect effects are not anticipated.

Petrifying springs are located over 5.0km northwest of the Project (Map 7, NPWS 2013); due to the lack of a hydrological link to this QI, intervening urban landscape and no groundwater onsite there is no potential SPR from the Project to this QI, therefore direct or indirect effects are not anticipated.

Vertigo angustior [1017] are located over 7.5km northwest of the Project (Map 7, NPWS 2013); due to the intervening urban landscape, there is no potential SPR from the Project to this QI, therefore direct and/or indirect effects are not anticipated during either the construction or operation phases.

Similarly, there is no potential for significant effects on the terrestrial QI due to the extensive intervening distance from the proposed Site of works to this habitat, including Sligo town and its amenities, regional roads (R287) and other local roads, etc.

The Project will not result in perceptible emissions to air. Significant adverse air emissions to any QI are not anticipated during construction or operation.

Human disturbance to a European Site can occur as an indirect impact arising as a result of land use activities generated by a project. An example of such an indirect impact is an increase in human presence and associated pressures within a European Site. The potential for a human disturbance pathway, through which a proposed development could generate activity within European Sites and result in disturbance to qualifying habitats or species is also identified as a potential pathway requiring examination. Given that the intervening landscape is primarily comprised of an urban landscape and is currently subject to heavy human traffic from the town and proximate residential properties, the increase in human activity is unlikely to pose a new or combined significant effect on any qualifying interest of the nearby European Sites or any other European Site.

It can be concluded without any scientific doubt, that there is no Source Pathway Receptor (SPR) from the Project and the proposed works to Cummeen Strand/Drumcliff Bay SAC.

Cummeen Strand SPA is located 1.7km (at its nearest point at Hughes bridge) north of the Project. This European Site is designated for four qualifying interests (QI); Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Oystercatcher (*Haematopus ostralegus*) [A130], Redshank (*Tringa totanus*) [A162] and Wetland and Waterbirds [A999]. The SPA is an important component of the much larger Sligo Bay complex and is a Ramsar Convention site.

Cummeen Strand is a large shallow bay stretching from Sligo town westwards to Coney Island. It is one of three estuarine bays within Sligo Bay and is situated between Drumcliff Bay to the north and Ballysadare Bay to the south. The Garavogue River flows into the bay and forms a permanent channel. At low tide, extensive sand and mud flats are exposed. These support a diverse macro-invertebrate fauna which provides the main food supply for the wintering waterfowl.

As noted above there is no surface water or groundwater hydrological link from the proposed site of works to the waterways in this area and similarly there is therefore unlikely to be any significantly effects on the QI of Cummeen Strand SPA. The wintering waterbird populations are unlikely to be disturbed (visually or by noise interference) by any of the Project works due to the intervening urbanisation of Sligo town and the lack of visual connectivity between the SPA and the Project.

In relation to mobile species listed as qualifying features of European Sites, the following guidance was used to identify whether it recommends the European Site is located within the ZoI of the Project:

- SPAs with mobile bird species: "Assessing connectivity with Special Protection Areas (SPAs)" (2016) guidance document was used to identify connectivity between the Project site and SPAs in the wider surrounding area (SNH, now Natural Scotland) as applicable.
- SACs with bats as a qualifying feature were included when the Project occurred within the core sustenance zone of the qualifying bat population. No SACs occurred within a 5km radius designated for this qualifying feature.
- SACs with marsh fritillary as a qualifying feature are included where suitable marsh fritillary habitat occurs within the Project site footprint and where the Project site is located within a 10km radius of a marsh fritillary population. No suitable habitat (Devil's bit scabious) was detected during the multi-disciplinary site walkover. It is also noted that no SACs occurred within a 10km radius designation for this qualifying feature.

All other European Sites as outlined in Table 4.1 were deemed to be outside of the ZoI (including all sites at a greater distance from the Project and also further downstream). No SPR exists between any European site and this Project.

4.3 IN-COMBINATION EFFECTS

Planning Permission Applications

While effects on European Sites are not expected as a result of the construction and operation of the Project, the potential for cumulative effects on these designated sites due to other plans and projects acting in-combination with the Project are considered. The Sligo County Council on-line planning application portal was used to search planning applications close to the Project (April, 2024). A five-year search timeframe was assessed; Retention, refused and withdrawn planning applications were excluded. **Table 4.3** shows the planning applications in close proximity to the Project (circa 500m).

Table 4.3: Planning applications in close proximity to the Project.

Planning Reference	Description of Development	Site Address	Decision Date	Distance from Site
2360056	development consisting of the following: a) A total of 65 no. residential units consisting of 19 no. – Type A – 2 bed semi-detached and terraced houses, 10 no. – Type B – 3 bed semi-detached and terraced houses, 23 no. – Type C – 3 bed semi-detached, terraced and detached houses, 13 No. – Type D – 5 bed semi-detached and detached houses b) Pedestrian, cycle and vehicular access/egress with Newtownholmes Road, c) All	Newtownhomes Road, Caltragh, Sligo	19/05/2023	adjacent to the project site

Planning Reference	Description of Development	Site Address	Decision Date	Distance from Site
	car parking, landscaping, boundary treatments, pedestrian links, public lighting, service connections and all associated site works.			
2338	development consisting of revisions to previously approved planning application ref. no. 22/181. The revisions include the change of house numbers 3 and 14 from 2 bed semi-detached houses to 3 bed semi-detached houses and associated site works	Newtownholmes Road, Caltragh, Sligo, Co. Sligo	18/05/2023	approx. 370m from the project site
19120	Development consisting of the construction a single storey extension to the rear of dwelling house with all associated works.	222 Rusheen Crescent, Caltragh, Sligo	24/05/2019	approx. 170m from the project site
21363	development consisting of a ground floor extension to rear and side of existing house and extension to bedroom on the first floor to side of house and widening of the entrance gate to front drive	No. 91, Crozon Park, Knocknaganny , Sligo	17/12/2021	approx. 170m from the project site

There were no other planning applications in the area at the time of writing (April, 2024). Planning application 19120 and 21363 have been progressed and therefore in-combination effects during construction will not occur; these developments include individual residential dwellings. In-combination operational effects are considered unlikely.

This Project is separated from all other planning applications identified above and will be carried out over a very short period of time and according to the Method Statement in Appendix II.

The AA Screening Assessment has shown there will be no likely significant effects to any European Site during the construction or operation of the Project. Works will be contained within the site; it is anticipated that there will be no in-combination impacts from any local planning applications.

5 SCREENING ASSESSMENT – CONCLUSION

It can be objectively concluded without any scientific doubt that there are not likely to be any significant effects on any European Site as a result of the construction or operation of the Project at Newtownholmes Road, Caltragh & Cornageeha, Co. Sligo. Therefore, an Appropriate Assessment is not required.

6 RECOMMENDATIONS

- New trees/shrubs should only be sourced from Irish nurseries to prevent fungal pathogens arriving from European nurseries.
- Plant only native trees/shrubs. Plant trees that are semi-mature where possible, to support biodiversity and provide early establishment onsite.
- Wildflower seed should also only be sourced from Ireland (native flowering plants to support biodiversity) and not random wildflower seed package which generally contain many non-native species.

7 REFERENCES

Curtis, T.G.F. & McGough, H.N.(1988) The Irish Red Data Book 1: Vascular Plants. The Stationery Office, Dublin.

European Commission (2001) Assessment of Plans and Projects significantly affecting European Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.

European Commission (2013) Interpretation manual of European Union habitats EUR 28. European Commission, DG Environment.

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European Union Birds Directive (1979) Council Directive 79/209/EEC of 2 April 1979 on the conservation of wild birds. Brussels: The Council of the European Communities.

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National Parks and Wildlife Service (2013) Conservation Objectives: Cummeen Strand SPA 004035. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

National Parks and Wildlife Service (2013) Site Synopsis: Cummeen Strand SPA 004035. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

National Parks and Wildlife Service (2013) Conservation Objectives: Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC 000627. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

National Parks and Wildlife Service (2013) Site Synopsis: Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC 000627. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

National Parks and Wildlife Service (2021) Conservation Objectives: Lough Gill SAC 001976. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

National Parks and Wildlife Service (2021) Site Synopsis: Lough Gill SAC 001976. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage

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Parnell, J. & Curtis, T. (2012) Webb's An Irish Flora. Cork University Press, Cork.

Scannell, M J P and Synott, D M, 1987, Census Catalogue of the Flora of Ireland. Stationary Office, Dublin.

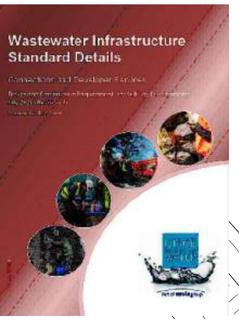
Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants (2006) Appropriate Assessment of Plans.

Sligo County Council (2023), Planning Map, **https://sligococo.maps.arcgis.com/apps/webappviewer/index.html?id=c020a4e3d5564f96a40eeee995412ba3**

SNH, Marine Scotland Information, NatureScot https://marine.gov.scot/data-owners/naturescot-previously-snh

APPENDIX I

DRAWINGS



NOTE: CONTRACTOR IS TO REFER TO REVISION 4 OF THE IRISH WATER STANDARD DETAILS DATED JULY 2020 FOR WASTEWATER INFRASTRUCTURE DETAILS. THIS BOOKLET HAS BEEN INCLUDED IN PART OF THE CIVIL/STRUCTURAL PACKAGE.

ALL WORKS TO BE CARRIED OUT TO IRISH WATER CODE OF PRACTICE DOCUMENT CDS-5030-03

FOUL WASTE WATER LAYOUT TO BE INSTALLED IN ACCORDANCE WITH IRISH WATER STANDARD DETAIL STD-WW-02 REGARDING GENERAL LAYOUT.

ALL FOUL WASTEWATER DRAINAGE PIPE WORK, INCLUDING SERVICE CONNECTIONS TO COMPLY WITH SECTION 3.6 OF I.W. CODE OF PRACTICE REGARDING PIPE WORK GRADIENTS.

ALL FOUL WASTEWATER PIPE WORK MATERIAL TO COMPLY WITH SECTION 3.13 OF THE IRISH WATER CODE OF PRACTICE.

ALL MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH I.W. STD-WW-10 and I.W. STD-WW-12.

WHERE FOUL AND SURFACE WATER MANHOLES AREA ADJACENT THEIR POSITIONS SHOULD BE STAGGERED TO ALLOW FOR CROSSING OVER OF SEWERS AS PER SECTION 3.5.13 OF I.W. CODE OF PRACTICE.

WHERE 0.3m SEPERATION DISTANCE CANNOT BE ACHIEVED BETWEEN FOUL AND STORM PIPES, THE PIPES SHALL BE SURROUNDED IN LEAN MIX CONCRETE.

ALL WASTEWATER PIPE WORK SHALL BE INSTALLED IN ACCORDANCE WITH I.W. STD-WW-05, STD-WW-06, AND STD-WW-06A REGARDING SEPARATION DISTANCES.WHERE SEPARATION DISTANCES CANNOT BE ACHIEVED, PIPES SHALL BE SURROUND IN LEAN MIX CONCRETE.

INSPECTION CHAMBERS TO BE INSTALLED ON ALL CONNECTIONS FROM FOUL AND SURFACE WATER SEWER WITHIN INDIVIDUAL PROPERTIES IN ACCORDANCE WITH I.W. STD-WW-03-1 IN COMPLIANCE WITH IRISH WATER CODE OF PRACTICE AND STANDARD DETAILS

FOUL SEWER DROP MANHOLES TO BE INSTALLED TO IW WASTEWATER CODE OF PRACTICE STANDARD DETAIL STD-WW-12.

HDPE TWINWALL PIPES TO BE USED FOR ALL STORM SEWER PIPES UNLESS OTHERWISE SPECIFIED. ALL FOUL SEWER PIPES TO BE IN ACCORDANCE WITH IRISH WATER CODES OF PRACTICE.

PIPES ARE TO BE BBA (BRITISH BOARD OF AGRÉMENT) OR SIMILAR APPROVED AND HAPAS (HIGHWAYS AGENCY PRODUCT APPROVAL SCHEME) OR SIMILAR CERTIFIED.

WHERE 0.9m COVER TO THE ROADWAY CANNOT BE ACHIEVED, PIPES SHALL BE SURROUNDED IN LEAN MIX CONCRETE.

GENERAL NOTES:

1 FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
2 ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE.
3 ENGINEER TO BE INFORMED OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES.
4 THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.

LEGEND

SITE BOUNDARY shown thus

PROPOSED 1200MM D400 STORM/FOUL MANHOLE shown thus

PROPOSED DROPPED INVERT 1200MM D400 STORM/FOUL MANHOLE shown thus

PROPOSED CONCRETE SURROUND FOR LOW COVER STORM/FOUL PIPES shown thus

PROPOSED STORM WATER NETWORK shown thus — SW

PROPOSED FOUL NETWORK shown thus — FW

PROPOSED SURFACE WATER CONNECTIONS shown thus

PROPOSED FOUL WATER CONNECTIONS shown thus

PROPOSED STORM/FOUL WATER AJs shown thus

PROPOSED STORM/FOUL WATER BOUNDARY BOX TO IW-STD-WW-13 shown thus

PROPOSED ROAD GULLIES shown thus RG

EXISTING STORM WATER PIPE shown thus — SW

EXISTING FOUL WATER PIPE shown thus — FW

S03-5 C.L : 43.595 I.L : 42.405
F02-5 C.L : 43.510 I.L : 42.15
S03-3-1 C.L : 40.655 I.L : 39.035
F02-3-1 C.L : 40.440 .L : 38.700
S03-2 C.L : 41.450 I.L : 38.000
F02-2 C.L : 41.410 I.L : 37.500
Foul Ref. 8401 Ex.C.L : 34.374 I.L : 31.174
Storm Ref 8402 Ex. C.L : 34.371 I.L : 31.491
F01-2 C.L : 36.145 I.L : 34.700
S03-1-2 C.L : 36.135 I.L : 34.975
S03-1-1 C.L : 36.160 I.L : 34.890
F01-1 C.L : 36.130 I.L : 34.510
F01 C.L : 36.315 D.I.L : 34.760 I.L : 34.160
KLARGESTER NSBE040 PETROL INTERCEPTOR OR EQUAL APPROVED
Foul Ref. 8403 Ex.C.L : 35.691 C.L : 36.280 D.I.L : 34.145 I.L : 32.967
Storm Ref 8404 Ex.C.L : 35.659 C.L : 36.260 I.L : 33.362
F02 C.L : 36.470 I.L : 35.175
S03 C.L : 36.530 D.I.L : 35.350 D.I.L : 35.070 I.L : 34.500
S02 C.L : 36.500 I.L : 34.340
Foul Ref. 9302 Ex.C.L :37.593 C.L : 39.070 I.L : 33.926
Storm Ref 9303 Ex C.L : 37.223 C.L : 39.000 I.L : 34.293
S04-2 C.L : 37.350 I.L : 36.190
F03-2 C.L : 37.380 I.L : 36.630
S04-1 C.L : 39.080 I.L : 35.550
F03-1 C.L : 39.180 I.L : 36.045
S07-2 C.L : 43.490 I.L : 40.000
F06-1 C.L : 43.550 I.L : 40.000
S07-3 C.L : 41.895 I.L : 40.580
F06-2 C.L : 41.870 I.L : 40.400
F07-2 C.L : 46.750 I.L : 45.960
S08-2 C.L : 46.770 I.L : 45.935
F07-1 C.L : 46.380 I.L : 45.480
S08-1 C.L : 46.430 I.L : 45.605
Storm Ref 9205 Ex C.L : 49.077 I.L : 46.026
Foul Ref. 9202 Ex.C.L : 49.052 I.L : 45.567
Foul Ref. 9208 Ex.C.L : 50.731 I.L : 46.691
Storm Ref 9207 Ex C.L : 50.641 I.L : 47.031
F02-4 C.L : 45.210 I.L : 41.750
S03-4 C.L : 45.210 I.L : 42.210
S03-3 C.L : 44.760 D.I.L : 42.180 I.L : 38.580
F02-3 C.L : 44.750 D.I.L : 41.690 I.L : 37.710
F02-1 C.L :37.870 I.L : 36.155
S03-1 C.L : 37.740 D.I.L : 36.250 I.L : 35.650
F04-3 C.L : 45.540 I.L : 43.650
S05-3 C.L : 45.500 I.L : 42.890
STORM TECH ATTENUATION TANK VOLUME = 1026m³ DEPTH = 1.6m FILTRATION RATE = 0.03370 m/hr TtHE = 1419 min C.L. = 36.500m I.L. = 33.880m
F04-2 C.L : 41.715 I.L : 40.285
S05-2 C.L : 41.640 D.I.L : 40.340 I.L : 39.740
S04 C.L : 39.250 D.I.L : 36.900 I.L : 35.270
F03 C.L : 39.300 D.I.L : 37.415 I.L : 35.920
F04-1 C.L : 40.680 I.L : 39.255
S05-1 C.L : 40.640 I.L : 38.240
F04 C.L : 40.470 I.L : 38.955
S05 C.L : 40.500 D.I.L : 38.240 I.L : 37.700
S06 C.L : 42.370 I.L : 38.470
F05 C.L : 42.750 I.L : 39.245
Foul Ref. 9306 Ex.C.L : 42.730 C.L : 42.730 I.L : 39.925
Storm Ref 9305 Ex C.L : 42.680 C.L : 42.680 I.L : 40.281
S07 C.L : 44.230 I.L : 42.960
F06 C.L : 44.285 D.I.L : 42.620 I.L : 39.410
S07-1 C.L : 43.900 D.I.L : 42.485 I.L : 39.790
Foul Ref. 9201 Ex.C.L : 45.960 C.L : 46.310 I.L : 40.098
Storm Ref 9204 Ex C.L : 46.030 C.L : 46.360 I.L : 40.340
F07 C.L : 46.410 I.L : 45.320
S08 C.L : 46.500 I.L : 45.400

KILKENNY ROAD

Red Line Area:-
37,960 m² 3.796 Hectares

ITM Co-Ordinates of site:- 568884, 834363
Irish Grid Co-Ordinates: 168926, 334357

Rev.	Modifications	By	Chkd	Aprvd	Date
P.04	Revised Site Layout	PC	EM	EM	29.04.24
P.03	Revised Site Layout	KK	EM	EM	24.04.24
P.02	Issued for PLANNING	PC	EM	EM	22.03.23
P.01	Issued for LRD	PC	EM	EM	05.10.23

Layout Ref.:
File P:\Jod-jobs\6736 Burkes Cornageeha\700 Drawings\703 Planning\01 WIP\6736-JOD-XX-ZZ-DR-C-200-001-SWFW Layout.dwg

Client
JOHN WALTER BURKE

Project
CALTRAGH LRD

Stage
PLANNING

Title
PROPOSED STORM AND FOUL WATER LAYOUT

Scale
1:400 @ A1

Surveyed	Drawn	Checked	Date
OSI	PC	EM	OCT '23

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Email: info@jodireland.com

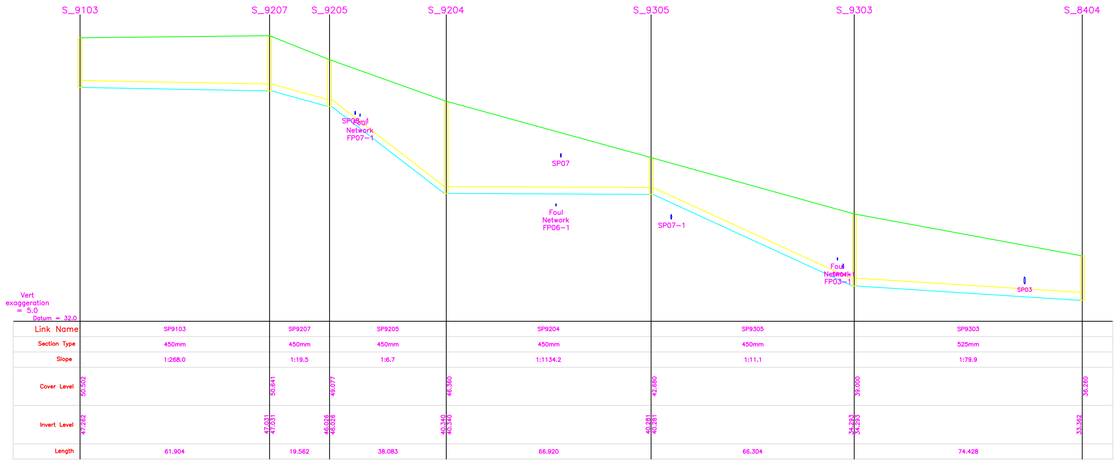
Drawing No. 6736-JOD-XX-ZZ-DR-C-200-001
Revision P.04

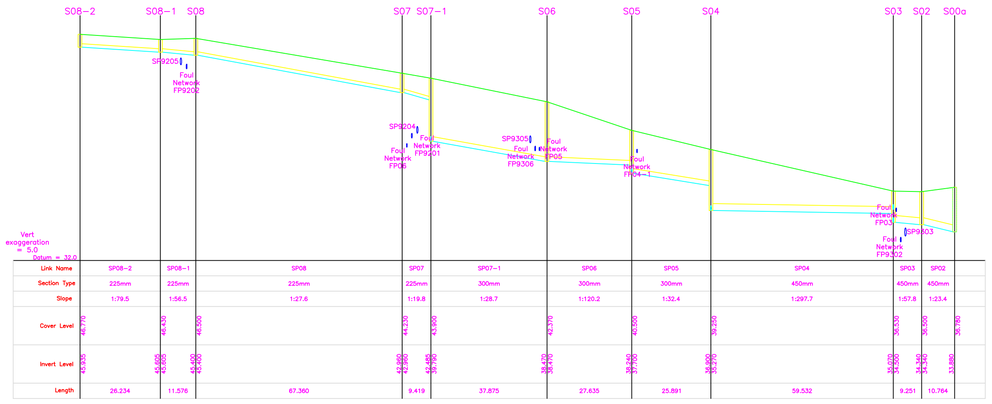
STORM NETWORK

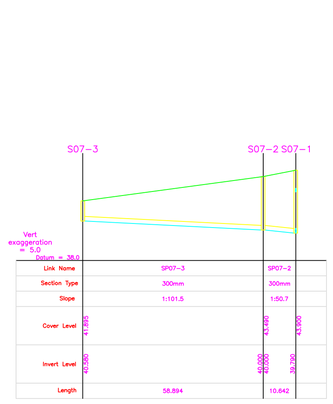
PIPE ID	UPSTREAM NODE	DOWNSTREAM NODE	LENGTH (m)	US IL (mOD)	DS IL (mOD)	SLOPE (1:X)	DIA (mm)
P9103	S_9103	S_9207	61.904	47.262	47.031	268	450
P9207	S_9207	S_9205	19.562	47.031	46.026	19.5	450
P9205	S_9205	S_9204	38.083	46.026	40.340	6.7	450
P9204	S_9204	S_9305	66.920	40.340	40.281	1134.2	450
P9305	S_9305	S_9303	66.304	40.281	34.293	11.1	450
P9303	S_9303	S_8404	74.428	34.293	33.362	79.9	525
P08-2	S08-2	S08-1	26.234	45.935	45.605	79.5	225
P08-1	S08-1	S08	11.576	45.605	45.400	56.5	225
P08	S08	S07	67.360	45.400	42.960	27.6	225
P07	S07	S07-1	11.671	42.960	42.485	24.6	225
P07-3	S07-3	S07-2	58.894	40.580	40.000	101.5	300
P07-2	S07-2	S07-1	8.390	40.000	39.790	40	300
P07-1	S07-1	S06	36.703	39.790	38.470	27.8	300
P06	S06	S05	28.135	38.470	38.240	122.3	300
P05-3	S05-3	S05-2	50.919	42.890	40.340	20	225
P05-2	S05-2	S05-1	51.965	39.740	38.240	34.6	300
P05-1	S05-1	S05	15.191	38.240	37.700	25.3	300
P05	S05	S04	25.891	37.700	36.900	35	300
P04-2	S04-2	S04-1	47.190	36.190	35.550	73.7	300
P04-1	S04-1	S04	8.547	35.550	35.270	30.5	300
P04	S04	S03	59.532	35.270	35.070	297.7	450
P03-5	S03-5	S03-4	57.572	42.405	42.210	295.2	225
P03-4	S03-4	S03-3	8.359	42.210	42.180	278.6	225
P03-3-1	S03-3-1	S03-3	60.192	39.035	38.580	132.3	225
P03-3	S03-3	S03-2	42.932	38.580	38.000	74	300
P03-2	S03-2	S03-1	48.570	38.000	36.250	27.8	300
P03-1	S03-1	S03	17.773	35.650	35.350	59.2	300
P03-1-2	S03-1-2	S03-1-1	8.432	34.975	34.890	99.2	225
P03-1-1	S03-1-1	S03	44.581	34.890	34.500	114.3	225
P03	S03	S02 (Infiltration tank)	9.251	34.500	34.340	57.8	450

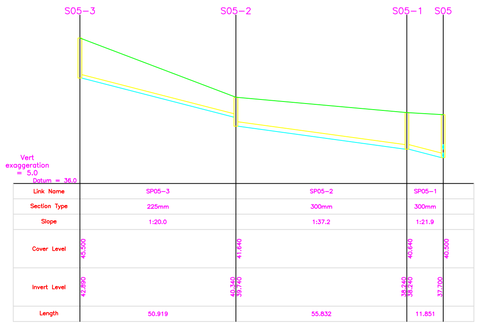
FOUL NETWORK

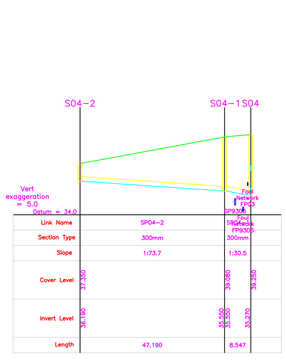
PIPE ID	UPSTREAM NODE	DOWNSTREAM NODE	LENGTH (m)	US IL (mOD)	DS IL (mOD)	SLOPE (1:X)	DIA (mm)
FP9105	9105	9208	62.396	46.962	46.691	230.2	300
FP9208	9208	9202	19.190	46.691	45.567	17.1	300
FP9202	9202	9201	38.529	45.567	40.098	7	300
FP9201	9201	9306	66.091	40.098	39.925	382	300
FP9306	9306	9302	66.931	39.925	33.926	11.2	300
FP9302	9302	8403	75.754	33.926	32.967	79	300
FP07-2	F07-2	F07-1	28.879	45.960	45.48	60.2	150
FP07-1	F07-1	F07	9.740	45.480	45.32	60.9	150
FP07	F07	F06	64.396	45.320	42.62	23.9	150
FP06-2	F06-2	F06-1	59.146	40.400	40	147.9	150
FP06-1	F06-1	F06	18.630	40.000	39.41	31.6	150
FP06	F06	F05	31.809	39.410	39.245	192.8	225
FP05	F05	F04	41.213	39.245	38.955	142.1	225
FP04-3	F04-3	F04-2	50.849	43.650	40.285	15.1	150
FP04-2	F04-2	F04-1	52.015	40.285	39.255	50.5	225
FP04-1	F04-1	F04	16.241	39.255	38.955	54.1	225
FP04	F04	F03	22.425	38.955	37.415	14.6	225
FP03-2	F03-2	F03-1	49.835	36.630	36.045	85.2	150
FP03-1	F03-1	F03	7.334	36.045	35.92	58.7	150
FP03	F03	F02	63.484	35.920	35.175	85.2	225
FP02-5	F02-5	F02-4	57.654	42.150	41.75	144.1	150
FP02-4	F02-4	F02-3	9.054	41.750	41.69	150.9	150
FP02-3-1	F02-3-1	F02-3	59.520	38.700	37.71	60.1	150
FP02-3	F02-3	F02-2	42.282	37.710	37.5	201.3	225
FP02-2	F02-2	F02-1	46.361	37.500	36.155	34.5	225
FP02-1	F02-1	F02	18.547	36.155	35.175	18.9	225
FP02	F02	F01	20.161	35.175	34.76	48.6	225
FP01-2	F01-2	F01-1	11.459	34.700	34.51	60.3	150
FP01-1	F01-1	F01	21.163	34.510	34.16	60.5	150
FP01	F01	8403	3.294	34.160	34.145	219.6	225
8403 EXG	8403	8401	92.235	32.967	31.174	51.4	300

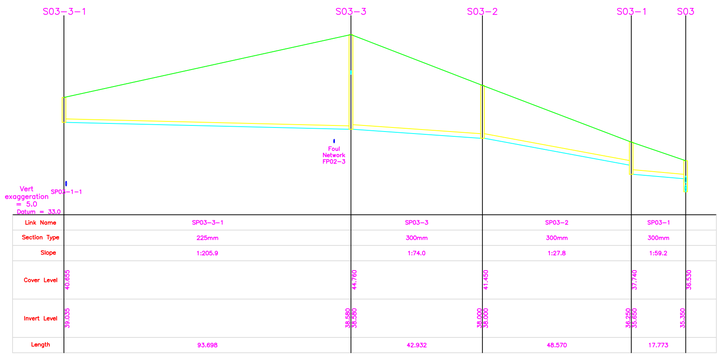


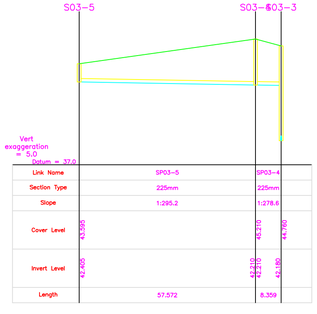


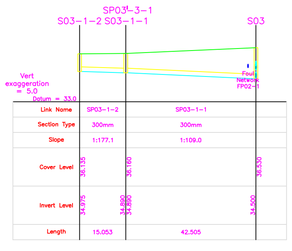












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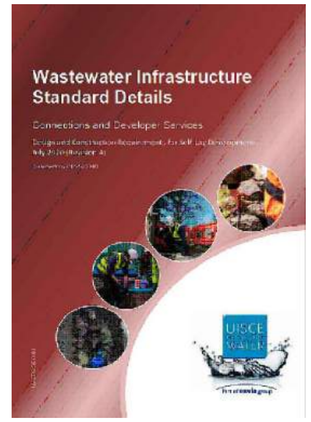

NOTE: CONTRACTOR IS TO REFER TO REVISION 4 OF THE IRISH WATER STANDARD DETAILS DATED JULY 2020 FOR WASTEWATER INFRASTRUCTURE DETAILS.

rev.	modifications	by	chkd	date
P.02	Issued for PLANNING	PC	EM	22.03.24
P.01	Issued for LRD	PC	EM	05.10.23

Layout Ref.:

file: P:\Jod-jobs\6736 Burkes Cornageeha\700 Drawings\703 Planning\01 WIP\6736-JOD-XX-ZZ-DR-C-200-002-003-SWFW Longsections.dwg

client
JOHN WALTER BURKE

project
CALTRAGH LRD

stage
PLANNING

title
PROPOSED STORM SEWER SECTIONS

scale
HORIZ: 1:1000, VERT: 1:200 @ A1

surveyed	drawn	checked	date
	PC	EM	OCT '23

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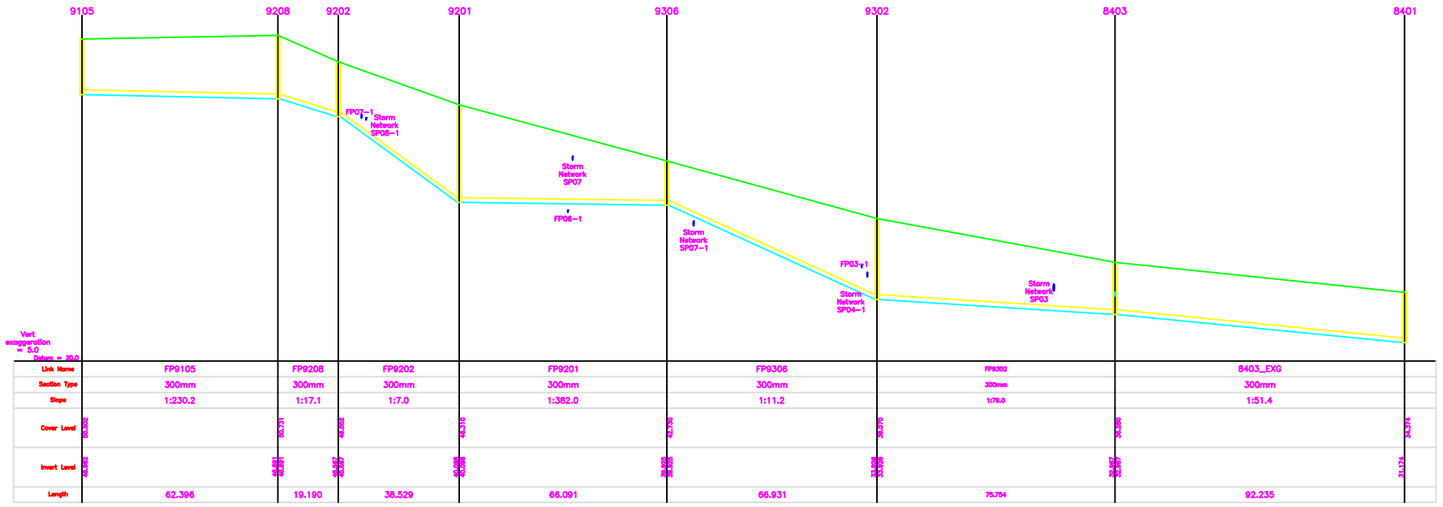
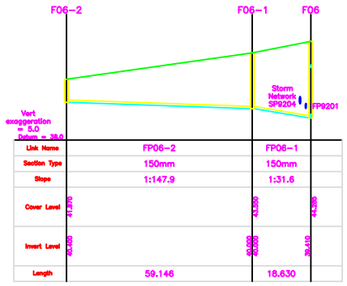
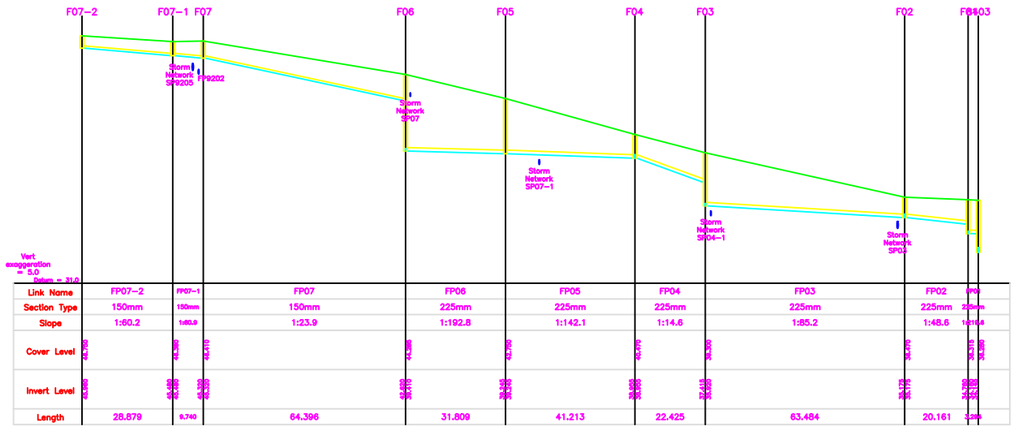
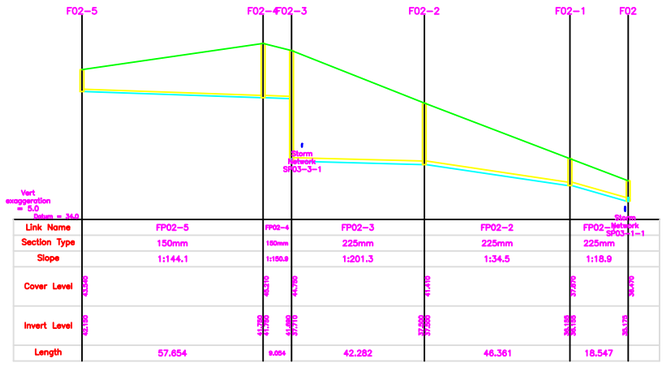
drawing no.
6736-JOD-XX-ZZ-DR-C-200-002

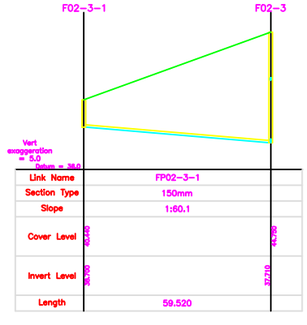
revision
P.02

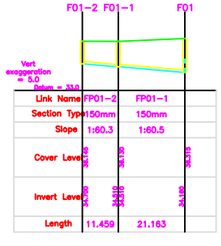












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NOTE: CONTRACTOR IS TO REFER TO REVISION 4 OF THE IRISH WATER STANDARD DETAILS DATED JULY 2020 FOR WASTEWATER INFRASTRUCTURE DETAILS.

rev.	modifications	by	chkd	date
P.02	Issued for PLANNING	PC	EM	22.03.24
P.01	Issued for LRD	PC	EM	05.10.23

Layout Ref.:

file: P:\Jod-jobs\6736 Burkes Cornageeha\700 Drawings\703 Planning\01 WIP\6736-JOD-XX-ZZ-DR-C-200-002-003-SWFW Longsections.dwg

client
JOHN WALTER BURKE

project
CALTRAGH LRD

stage
PLANNING

title
PROPOSED FOUL SEWER SECTIONS

scale
HORIZ: 1:1000, VERT: 1:200 @ A1

surveyed	drawn	checked	date
	PC	EM	OCT '23

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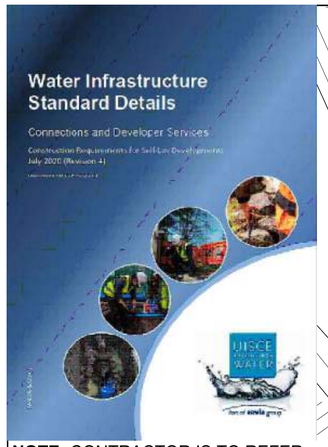
drawing no.	revision
6736-JOD-XX-ZZ-DR-C-200-003	P.02



NOTE: CONTRACTOR IS TO REFER TO REVISION 4 OF THE IRISH WATER STANDARD DETAILS DATED JULY 2020 FOR WATER INFRASTRUCTURE DETAILS. THIS BOOKLET HAS BEEN INCLUDED AS PART OF THE CIVIL/STRUCTURAL PACKAGE.

NOTES:-

ALL WORKS TO BE CARRIED OUT TO IRISH WATER CODE OF PRACTICE DOCUMENT CDS-5020-03 AND STANDARD DETAILS CDS-5020-01

FOUL WASTE WATER LAYOUT TO BE INSTALLED IN ACCORDANCE WITH IRISH WATER STANDARD DETAIL STD-WW-02 REGARDING GENERAL LAYOUT.

ALL FOUL WASTEWATER DRAINAGE PIPE WORK, INCLUDING SERVICE CONNECTIONS TO COMPLY WITH SECTION 3.6 OF I.W. CODE OF PRACTICE REGARDING PIPE WORK GRADIENTS.

ALL FOUL WASTEWATER PIPE WORK MATERIAL TO COMPLY WITH SECTION 3.13 OF THE IRISH WATER CODE OF PRACTICE.

ALL MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH I.W. STD-WW-10 and I.W. STD-WW-12.

WHERE FOUL AND SURFACE WATER MANHOLES AREA ADJACENT THEIR POSITIONS SHOULD BE STAGGERED TO ALLOW FOR CROSSING OVER OF SEWERS AS PER SECTION 3.5.13 OF I.W. CODE OF PRACTICE.

WHERE 0.3m SEPERATION DISTANCE CANNOT BE ACHIEVED BETWEEN FOUL AND STORM PIPES, THE PIPES SHALL BE SURROUNDED IN LEAN MIX CONCRETE.

ALL WASTEWATER PIPE WORK SHALL BE INSTALLED IN ACCORDANCE WITH I.W. STD-WW-05, STD-WW-06, AND STD-WW-06A REGARDING SEPARATION DISTANCES.WHERE SEPARATION DISTANCES CANNOT BE ACHIEVED, PIPES SHALL BE SURROUND IN LEAN MIX CONCRETE.

INSPECTION CHAMBERS TO BE INSTALLED ON ALL CONNECTIONS FROM FOUL AND SURFACE WATER SEWER WITHIN INDIVIDUAL PROPERTIES IN ACCORDANCE WITH I.W. STD-WW-03-1 IN COMPLIANCE WITH IRISH WATER CODE OF PRACTICE AND STANDARD DETAILS

FOUL SEWER DROP MANHOLES TO BE INSTALLED TO IW WASTEWATER CODE OF PRACTICE STANDARD DETAIL STD-WW-12.

HDPE TWINWALL PIPES TO BE USED FOR ALL STORM SEWER PIPES UNLESS OTHERWISE SPECIFIED. ALL FOUL SEWER PIPES TO BE IN ACCORDANCE WITH IRISH WATER CODES OF PRACTICE.

WHERE 0.9m COVER TO THE ROADWAY CANNOT BE ACHIEVED, PIPES SHALL BE SURROUNDED IN LEAN MIX CONCRETE.

NOTES

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LEGEND

LEGEND

SITE BOUNDARY shown thus

PROPOSED ON-LINE FIRE HYDRANT (IW-STD-W-18) shown thus

PROPOSED SLUICE VALVE (IW-STD-W-15) shown thus

PROPOSED SCOUR VALVE (IW-STD-W-30B) shown thus

PROPOSED DOUBLE AIR VALVE (IW-STD-W-22) shown thus

PROPOSED BULK WATER METER TO INCL. KIOSK TO STD-W-36 AND METER CHAMBER TO STD-W-26 shown thus

WATERMAIN SUPPLY Ø 110mm OUTSIDE DIAMETER PE100, PIPE MATERIAL SHALL BE IN COMPLIANCE WITH IRISH WATER SECTION 3.9 OF THE CODE OF PRACTICE shown thus

WATERMAIN SUPPLY Ø 180mm OUTSIDE DIAMETER PE100, PIPE MATERIAL SHALL BE IN COMPLIANCE WITH IRISH WATER SECTION 3.9 OF THE CODE OF PRACTICE shown thus

EXISTING Ø 150MM INSIDE DIAMETER uPVC WATERMAIN shown thus

PROPOSED WATER SUPPLY CONNECTION (25mm O.D. PE PIPE) shown thus — Public / Private

PROPOSED LEVELS shown thus

46M HYDRANT RADIUS shown thus

Red Line Area:-
37,960 m^2 3.796 Hectares

ITM Co-Ordinates of site:- 568884, 834363

Irish Grid Co-Ordinates: 168926, 334357

Rev.	Modifications	By	Chkd	Aprvd	Date
P.05	Revised Site Layout	PC	EM	EM	29.04.24
P.04	Revised Site Layout	KK	EM	EM	24.04.24
P.03	Issued for PLANNING	PC	EM	EM	22.03.24
P.02	Air valve label added	PC	EM	EM	14.11.23
P.01	Issued for LRD	PC	EM	EM	05.10.23

Layout Ref.:

File P:\Jod-jobs\6736 Burkes Cornageeha\700 Drawings\703 Planning\01 WIP\6736-JOD-XX-ZZ-DR-C-200-007-Watermain Layout.dwg

Client
JOHN WALTER BURKE

Project
CALTRAGH LRD

Stage
PLANNING

Title
PROPOSED WATERMAIN LAYOUT

Scale
1:400 @ A1

Surveyed	Drawn	Checked	Date
OSI	PC	EM	OCT '23

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Drawing No.	Revision
6736-JOD-XX-ZZ-DR-C-200-007	P.05

YIELD

YIELD SIGN RUS 028 TO 5.3.1 TO 5.3.10 DTTS TRAFFIC SIGNS MANUAL AUG 2019
LOCATED OFF FOOTWAY MIN 2.3M HIGH

YIELD SIGN MARKING M 115 TO 7.5.4 DTTS TRAFFIC SIGNS MANUAL FEB 2019

YIELD LINE MARKING RRM 018 TO 7.2.13 DTTS TRAFFIC SIGNS MANUAL FEB 2019

STOP

STOP SIGN RUS 027 TO 5.2.1 TO 5.2.9 DTTS TRAFFIC SIGNS MANUAL AUG 2019
LOCATED OFF FOOTWAY MIN 2.3M HIGH

STOP LINE MARKING RRM 017 TO 7.2.2 DTTS TRAFFIC SIGNS MANUAL AUG 2019

STOP

STOP SIGN MARKING M 114 TO 7.5.3 DTTS TRAFFIC SIGNS MANUAL AUG 2019

30
km/h
Cross Mall
SLOW ZONE

30KM/H SLOW ZONE SIGN F 403 TO 4.5 DTTS TRAFFIC SIGNS MANUAL AUG 2019

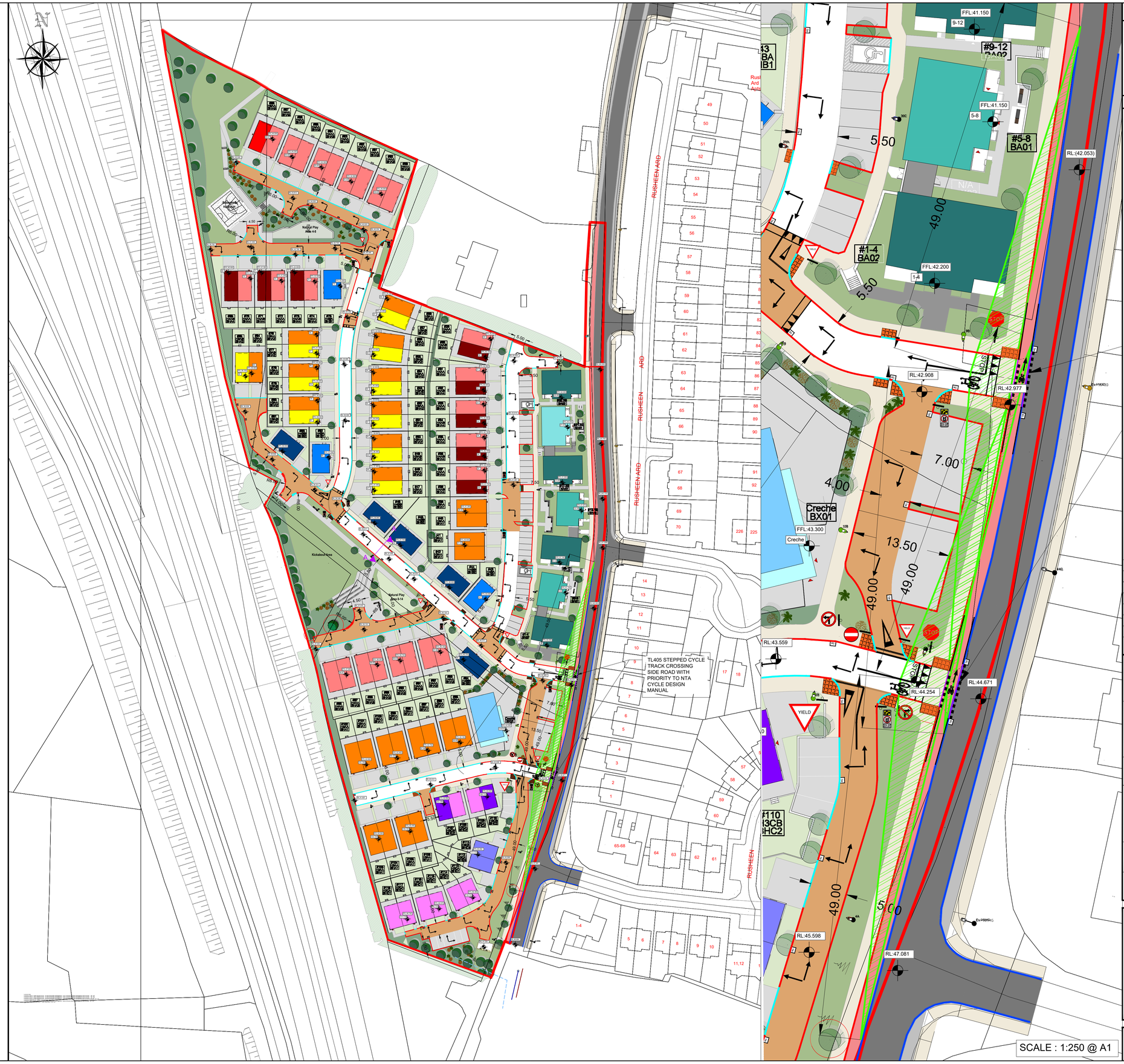
TRAFFIC CALMING TRIANGLES M 112 TO 7.17.3 DTTS TRAFFIC SIGNS MANUAL ON ALL RAMPS

NO ENTRY LINE RRM 019 TO 7.2.19 DTTS TRAFFIC SIGNS MANUAL

NO LEFT TURN RUS 013 TO 5.10 DTTS TRAFFIC SIGNS MANUAL

NO RIGHT TURN RUS 012 TO 5.10 DTTS TRAFFIC SIGNS MANUAL

NO ENTRY SIGN RUS 050 TO 5.9 DTTS TRAFFIC SIGNS MANUAL



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LEGEND

SITE BOUNDARY shown thus

PROPOSED ROAD GULLEY shown thus

PROPOSED BUFF COLOURED TACTILE PAVING (400MMX400MM) (See TII CC-SCD-05030) shown thus

PROPOSED DIRECTION OF CAMBER shown thus

PROPOSED HOMEZONE OUTLINE shown thus

PROPOSED ROAD KERB shown thus

PROPOSED DROP KERB shown thus

PROPOSED HOMEZONE AREA. FINISH AND COLOR OF ASPHALT TO ARCHITECTS SPECIFICATION shown thus

SIGHT LINE shown thus

ROAD EDGE shown thus

NOTES :

All YIELD and STOP signage line markings are to be thermo plastic and conform with the Department of Transport, Tourism and Sport Traffic Sign Manual.

All line markings are to be thermo plastic and in accordance with the Department of Transport, Tourism and Sport Traffic Sign Manual.

All signage to conform with the with the Department of Transport, Tourism and Sport Traffic Sign Manual.

Red Line Area:-
37,960 m^2 3.796 Hectares

ITM Co-Ordinates of site:- 568884, 834363
Irish Grid Co-Ordinates: 168926, 334357

Rev.	Modifications	By	Chkd	Aprvd	Date
P.05	Site Layout Revised	PC	EM	EM	29.04.24
P.05	Site Layout Revised	KK	EM	EM	24.04.24
P.04	updated to Architects revisions	AW	EM	EM	08.04.24
P.03	Issued for PLANNING	PC	EM	EM	22.03.24
P.02	Amended creche road to one way	PC	EM	EM	10.10.23

Layout Ref.:

File P:\Jod-jobs\6736 Burkes Cornageeha\700 Drawings\703 Planning\01 WIP\6736-JOD-XX-ZZ-DR-C-200-008-Road Layout.dwg

Client
JOHN WALTER BURKE

Project
CALTRAGH LRD

Stage
PLANNING

Title
PROPOSED ROAD LAYOUT

Scale
1:400 @ A1

Surveyed	Drawn	Checked	Date
OSI	PC	EM	OCT '23

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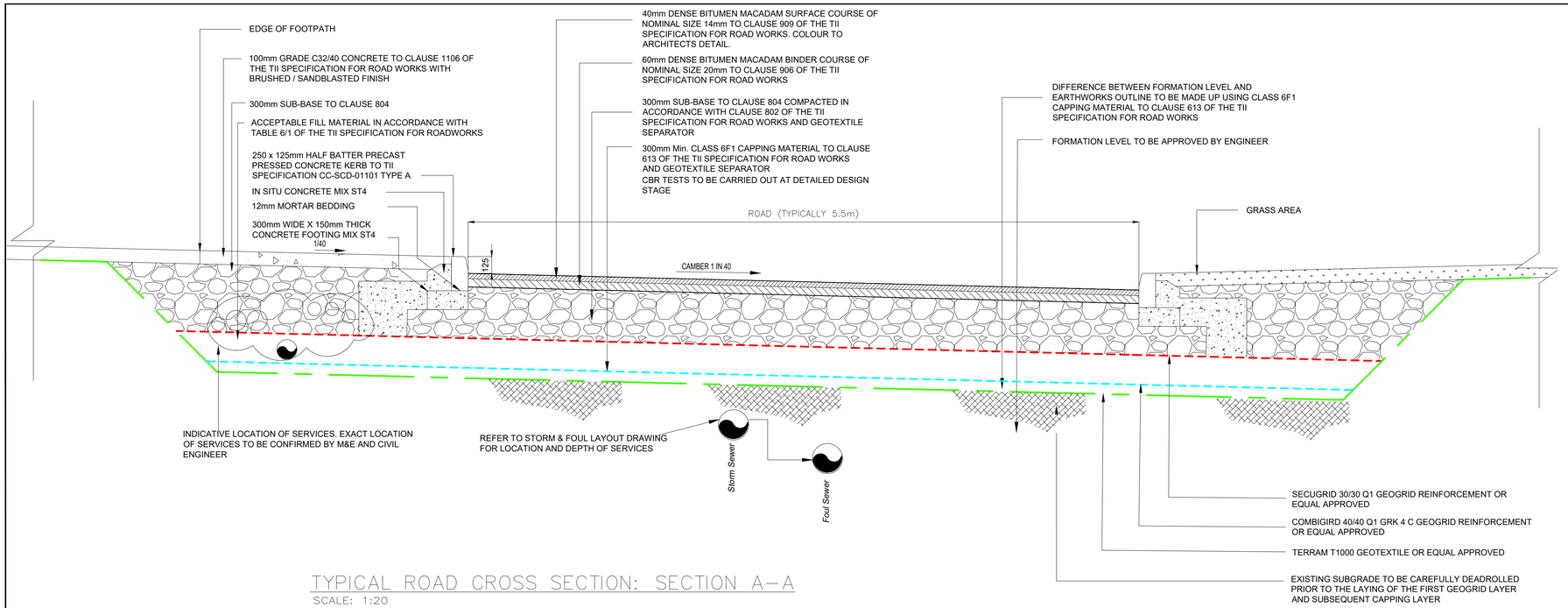
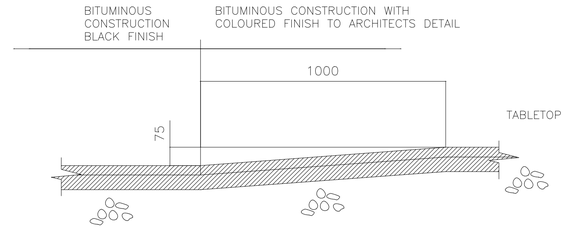
Drawing No. 6736-JOD-XX-ZZ-DR-C-200-008

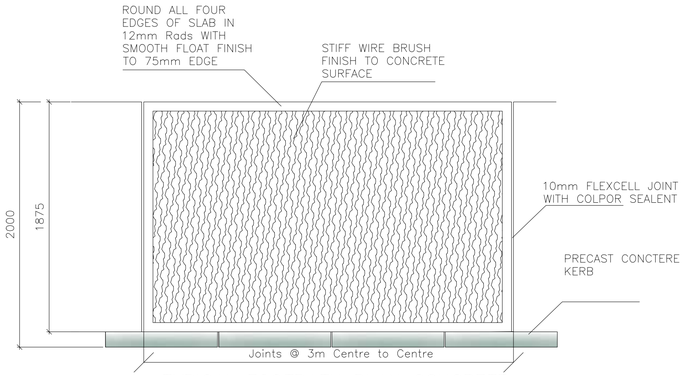
Revision P.06



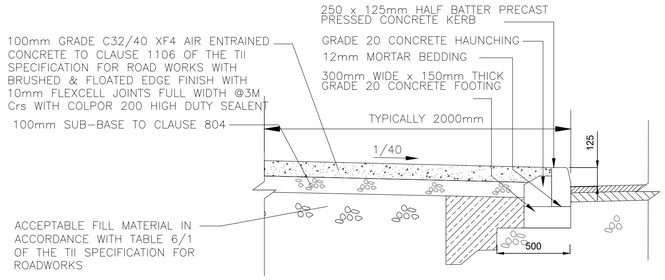
TYPICAL ROAD CROSS SECTION: SECTION A–A
SCALE: 1:20



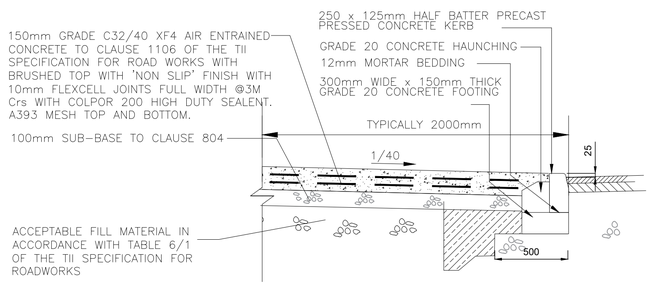
TRANSITION RAMP
SCALE: 1:12.5



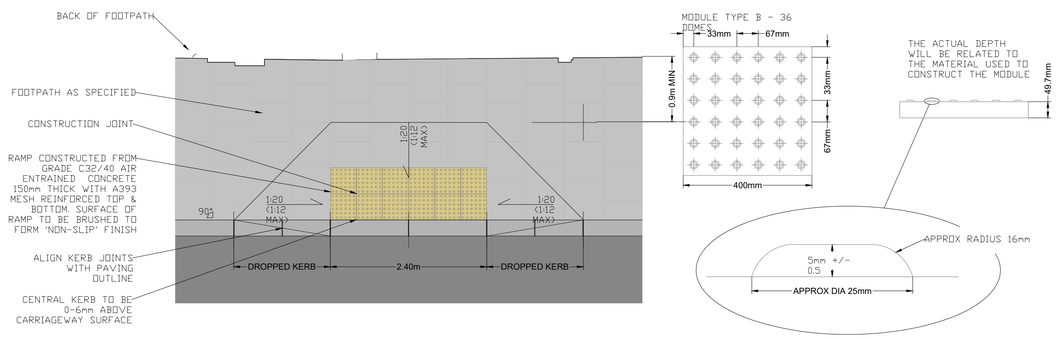
TYPICAL FOOTPATH PLAN CONCRETE
SCALE: 1:25



TYPICAL CONCRETE FOOTPATH CROSS SECTION
SCALE: 1:20



TYPICAL CONCRETE FOOTPATH CROSS SECTION AT DRIVEWAY ENTRANCES
SCALE: 1:20



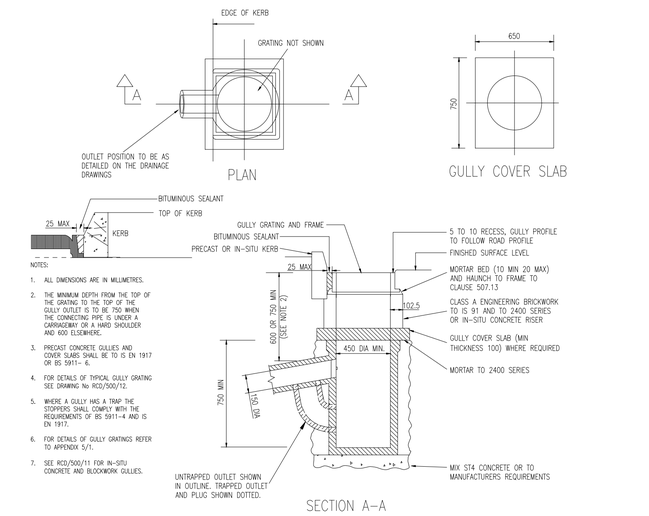
NOTES:

1. THE TACTILE DOMES ON THE TILES MUST BE LINED UP TO GIVE THE DIRECTION OF TRAVEL IN ORDER TO CROSS THE CARRIAGEWAY STRAIGHT
2. UTILITY CABINETS/CHAMBERS MUST NOT BE LOCATED WITHIN THE TACTILE PAVING AREA
3. REFER TO TACTILE PAVING GUIDANCE DOCUMENTATION
4. TACTILE BLISTER PAVING SHALL BE BEDDED ON 25 MM MOIST SAND/CEMENT MORTAR (3:1), JOINTS FILLED WITH 4:1 MIX WITHIN 2mm OF THE PAVING SURFACE

LEGEND

TACTILE PAVIOUR 400x400 BUFF FINISH (5mm JOINT) TACTILE TO BE LAID SO BLISTER PATTERN IS IN LINE WITH CROSSING

DROPPED KERB GEOMETRY AND EXCERPT FROM TII -TACTILE AND PAVING DETAILS AND RECOMMENDED GRADIENTS AT UNCONTROLLED PEDESTRIAN CROSSING CC-SCD-05136



NOTES

GENERAL NOTES:

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
3. ENGINEER/EMPLOYERS REPRESENTATIVE, AS APPROPRIATE, TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
4. THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES
5. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD
6. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS. CONTRACTOR TO VERIFY THE ACCURACY OF THIS PROPOSAL TO THE ENGINEER AND ALLOW FOR MINOR CORRECTIONS AS DEEMED NECESSARY WITH A REASONABLE TIMEFRAME.

Rev.	Modifications	By	Chkd	Aprvd	Date
P.03	Added transition ramp detail	PC	EM	EM	29.04.24
P.02	Issued for PLANNING	PC	EM	EM	22.03.24
P.01	Issued for LRD	PC	EM	EM	05.10.23

Layout Ref.:
File: P:\Jod-jobs\6736 Burkes Cornageeha\700 Drawings\703 Planning\01 WIP\6736-JOD-XX-ZZ-DR-C-200-008-Road Layout.dwg

Client: JOHN WALTER BURKE

Project: CALTRAGH LRD

Stage: PLANNING

Title: PROPOSED ROAD SECTION A-A AND ROAD CONSTRUCTION DETAILS

Scale: As Shown @ A1

Surveyed	Drawn	Checked	Date
	PC	EM	OCT '23

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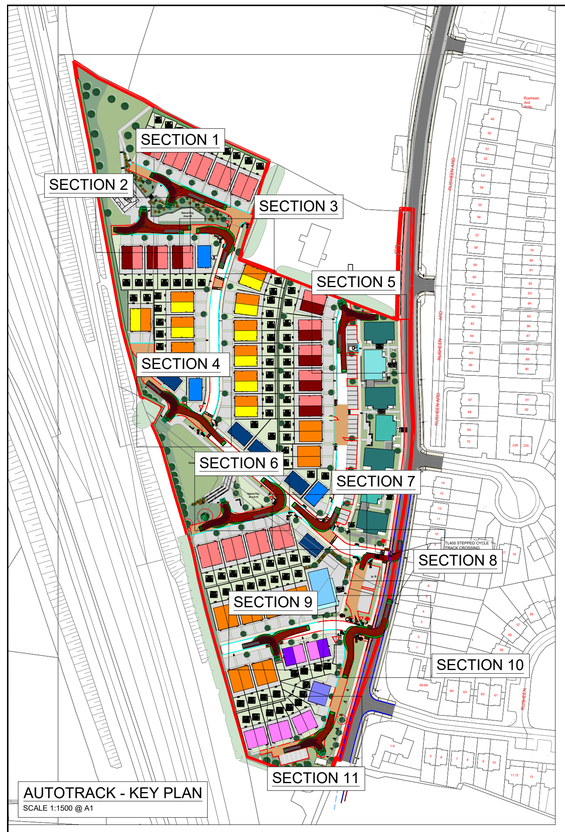
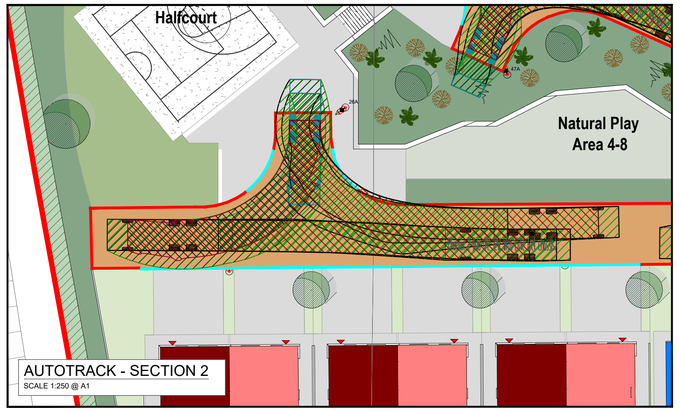
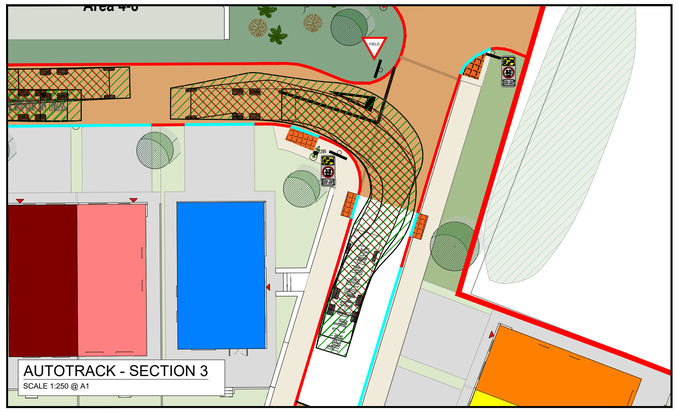
Email: info@jodireland.com

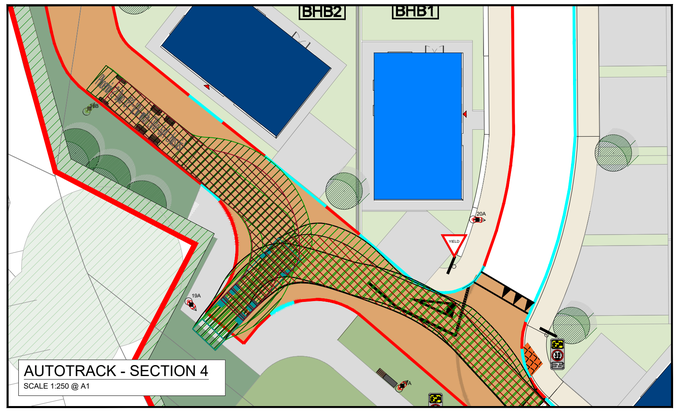
Drawing No.: 6736-JOD-XX-ZZ-DR-C-200-009

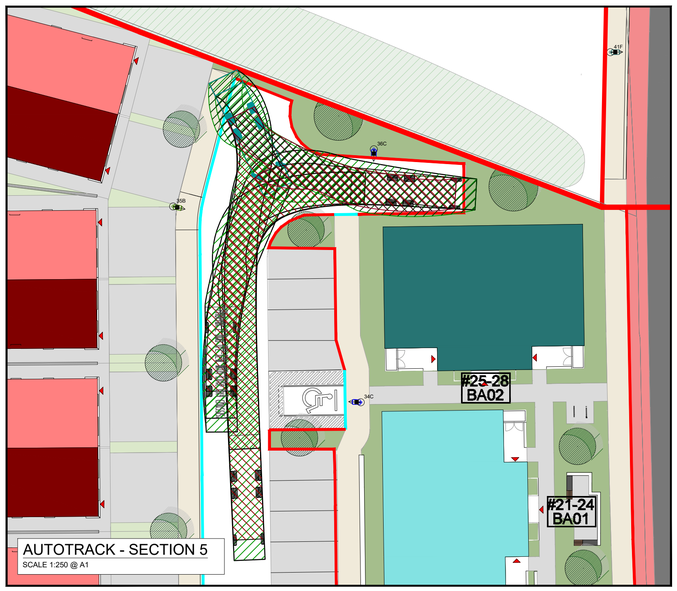
Revision: P.02

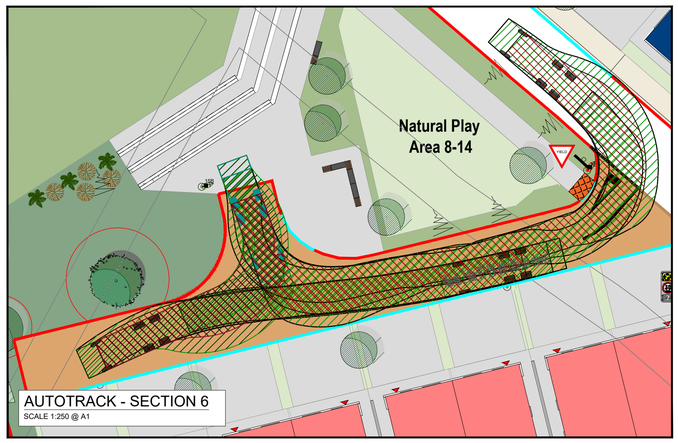


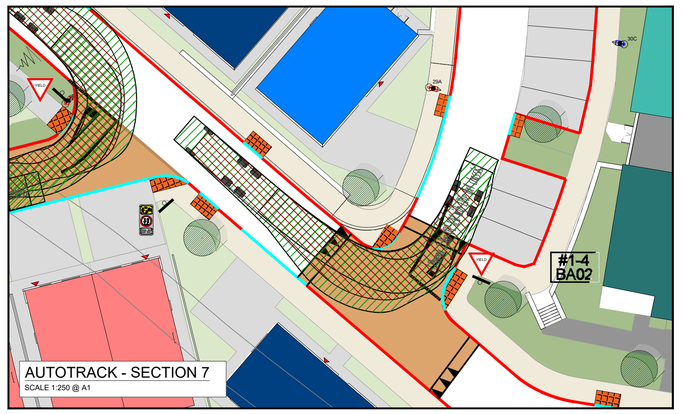












NOTES

GENERAL NOTES:

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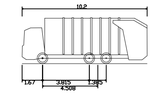
3. ENGINEER TO BE INFORMED OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES.
4. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.

LEGEND



Phoenix 2 Duo (P2-12W with Elite 6x4 chassis)	
Overall Length	10.200m
Overall Width	2.530m
Overall Body Height	3.745m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	7.800m

CHASSIS PATH shown thus

BODY PATH shown thus

Red Line Area:-
37,960 m^2 3.796 Hectares

ITM Co-Ordinates of site:-
568884, 834363

Irish Grid Co-Ordinates:
168926, 334357

Rev.	Modifications	By	Chkd	Aprvd	Date
P.04	Amended site layout	PC	EM	EM	29.04.24
P.03	Issued for PLANNING	PC	EM	EM	22.03.24
P.02	Amended creche road to one way	PC	EM	EM	10.10.23
P.01	Issued for LRD	PC	EM	EM	05.10.23

Layout Ref.:
File P:\Jod-jobs\6736 Burkes Comageeha\700 Drawings\703 Planning\01 WIP\6736-JOD-XX-ZZ-DR-C-200-011-012-Autotrack Analysis.dwg

Client
JOHN WALTER BURKE

Project
CALTRAGH LRD

Stage
PLANNING

Title
PROPOSED ROAD LAYOUT - SWEPT PATH ANALYSIS SHEET 1 OF 2

Scale
AS SHOWN @ A1

Surveyed	Drawn	Checked	Date
	PC	EM	OCT '23

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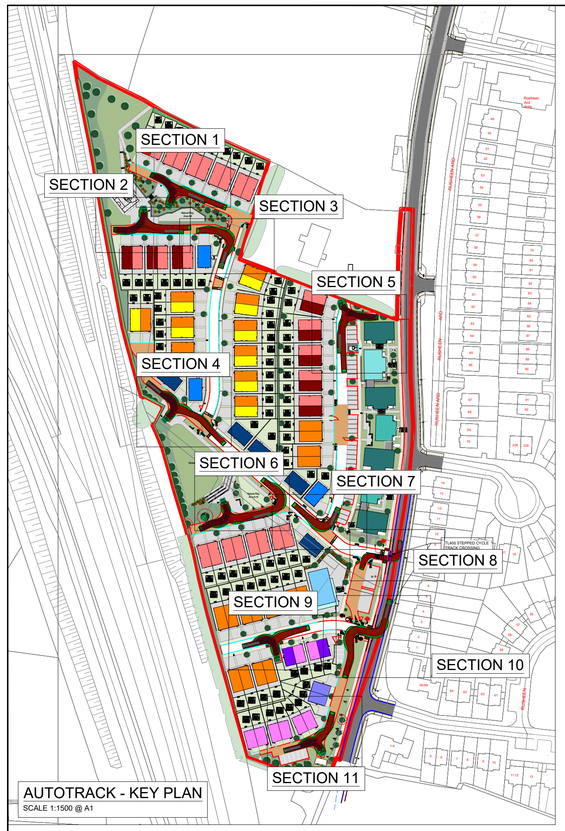
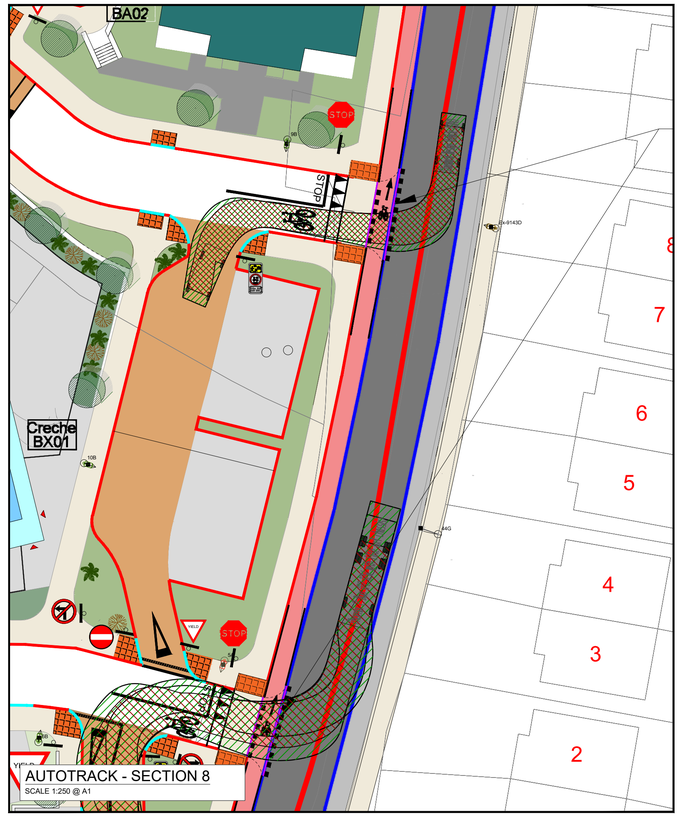
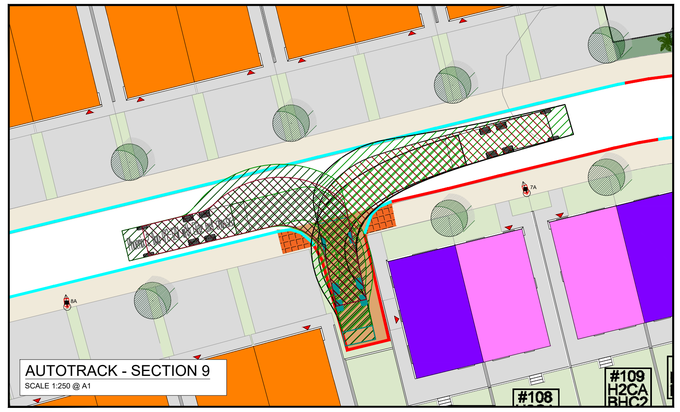
Drawing No.	Revision
6736-JOD-XX-ZZ-DR-C-200-011	P.04



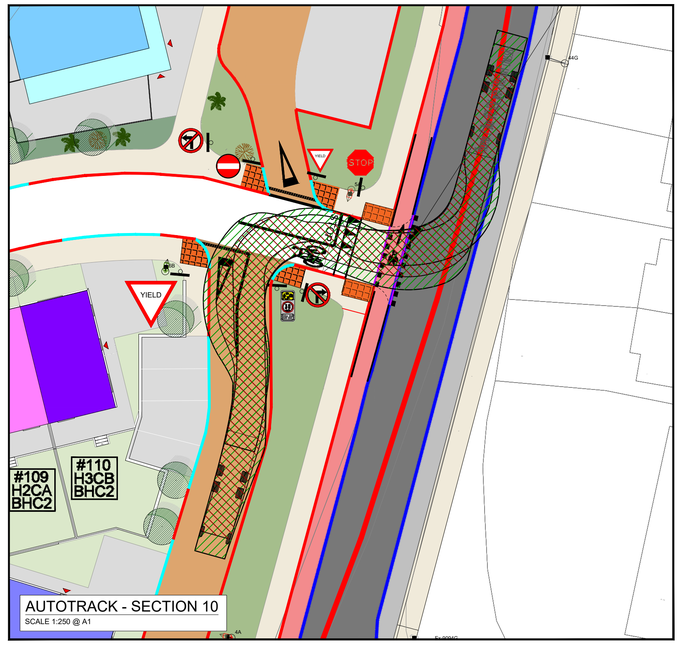
AUTOTRACK - KEY PLAN
SCALE 1:1500 @ A1



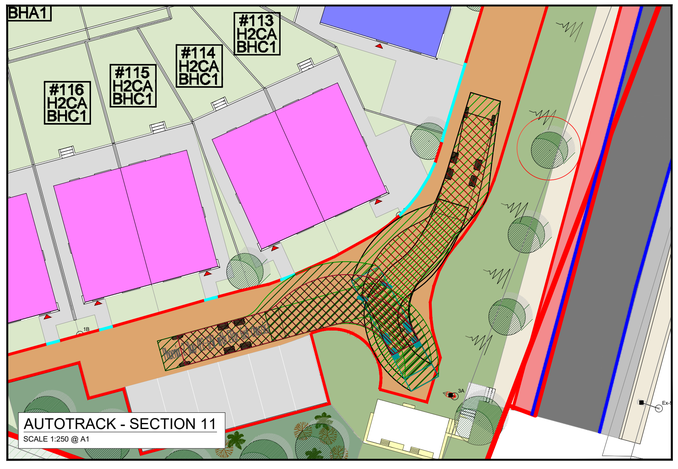
AUTOTRACK - SECTION 8
SCALE 1:250 @ A1



AUTOTRACK - SECTION 9
SCALE 1:250 @ A1



AUTOTRACK - SECTION 10
SCALE 1:250 @ A1



AUTOTRACK - SECTION 11
SCALE 1:250 @ A1

NOTES

GENERAL NOTES:

1 FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
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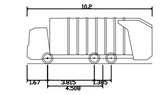
4 THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.

LEGEND



Phoenix 2 Duo (P2-12W with Elite 6x4 chassis)	
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Overall Width	2.530m
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Lock-to-lock time	4.00s
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CHASSIS PATH shown thus

BODY PATH shown thus

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Rev.	Modifications	By	Chkd	Aprvd	Date
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Layout Ref.:
File P:\Jod-jobs\6736 Burkes Cornageeha\700 Drawings\703 Planning\01 WIP\6736-JOD-XX-ZZ-DR-C-200-011-012-Autotrack Analysis.dwg

Client
JOHN WALTER BURKE

Project
CALTRAGH LRD

Stage
PLANNING

Title
PROPOSED ROAD LAYOUT - SWEPT PATH ANALYSIS SHEET 2 OF 2

Scale
AS SHOWN @ A1

Surveyed	Drawn	Checked	Date
	PC	EM	OCT '23

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Drawing No.	Revision
6736-JOD-XX-ZZ-DR-C-200-012	P.04

APPENDIX II

METHOD STATEMENT

JOHN WALTER BURKE

Caltragh LRD
at Newtownholmes Rd.,
Caltragh and Cornageeha

Co. Sligo

Outline Method Statement

6736-JOD-XX-RP-C-0002

April 2024

Jennings O'Donovan & Partners Limited,

Consulting Engineers,
Finisklin Business Park,
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Project, Civil and Structural Consulting Engineers,
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SLIGO,
IRELAND.

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Email info@jodireland.com
Web Site www.jodireland.com

DOCUMENT APPROVAL

PROJECT	Caltragh LRD at Newtownholmes Rd., Caltragh and Cornageeha, Co. Sligo	
CLIENT / JOB NO	John Walter Burke	6736
DOCUMENT TITLE	Outline Method Statement	

	Prepared by	**Reviewed/Approved by**
Document **FINAL**	Name Eamon Morrissey	Name Eamon Morrissey
Date October 2023	Signature	Signature

Document **FINAL**	Name Eamon Morrissey	Name Seamus Lee
Date April 2024	Signature	Signature

1 INTRODUCTION

This report has been prepared to give an outline construction method for the Caltragh LRD at Newtownholmes Rd., Caltragh and Cornageeha, Co. Sligo. The proposed development consists of the construction of 118 no. new residential units and 1 no. new Creche. The dwellings are a mixture of semi-detached dwellings, detached dwellings, terraced dwellings, and apartment dwellings. The development also includes public areas to the North and Central sections of the development.

The proposed site, which consists of approximately 3.765 hectares, is a greenfield site. The site is located in Caltragh Co. Sligo, west of Newtownholmes Rd. It is proposed to access the site directly by vehicle via two entrances on the Newtownholmes Rd, at the eastern boundary of the site. There will be pedestrian permeability on the eastern boundary to the Newtownholmes Rd via a footpath / cycleway that will be in line with an Active Travel route.

2 METHOD STATEMENT

This method statement is prepared to give an indicative outline construction methodology, the Contractor carrying out the works will prepare their own detailed Method Statements to set out how they will carry out the works.

The construction tasks will be as follows.

2.1 Site Clearance

- Set up site boundary fencing where required.
- Prepare Contractors compound including parking, offices, and welfare facilities.
- Fell trees and remove vegetation where required, taking appropriate legislation and the Arborist's report into account.
- Clear and stockpile topsoil on site.
- Carry out bulk earthworks to bring site levels to design level.

2.2 Building Construction

- Excavate for foundations.
- Construct building strip foundations.
- Construct service connections.
- Construct rising walls and ground floor slabs.
- Construct above ground portion of buildings.

2.3 Site Services

- Construct main storm and foul water drainage runs including manholes.

- Install storm water attenuation / percolation tanks and petrol interceptor.
- Construct tie-in to existing Irish Water (Uisce Éireann) foul public network.
- Construct watermain network.
- Construct electrical ducting network and erect lighting columns.

2.4 Landscaping and finishing

- Construct garden walls and fences.
- Place topsoil to gardens and public green spaces.
- Construct development roads, footpaths kerbing.
- Plant new trees and hedging.
- Level and seed topsoil.

3 NOTES

The document should be read in conjunction with the associated drawings, layouts and specifications. This document is not intended to be used as a construction stage document.

APPENDIX III

TRIAL HOLES

JENNINGS O'DON & P CONSULTING ENGI	INSPECTION REPORT	
	JOB: Burkes Cornageeha	
	JOB NO.: 6736	DATE: 23-01-24

INSPECTION BY: Patrick Carr	SIGNED: PC	
WEATHER CONDITIONS	Very wet, very windy, rain, cloudy	
INSPECTION RECORD	Comments	
Visual inspection of works to date	No.	Description
	1.	Two trial pits dug for the purpose of Soil Infiltration testing. Calculation in folder 802-1. Appendix A photos in folder 804.
	2.	ITM Location of TP 01 actual = 568852, 834350 ITM Location of TP 02 actual = 568822, 834409
	3.	Infiltration Rate : 0.03370 meters per hour
WORK IN PROGRESS		

LOCATION	DESCRIPTION
Newtownholmes Road, Caltragh, Co. Sligo	Soil Infiltration Test

GENERAL REMARKS

Appendix A

SOIL INFILTRATION TEST - BRE DIGEST 365				
DOCUMENT NO.	**6736-JOD-00-XX-CA-C-3001**			
PROJECT	6736		**START TIME**	12:26
SITE	Caltragh		**FINISH TIME**	09:28
TEST LOCATION	TP03		**FINISH DATE**	24.01.24
ITM COORDINATE (estimate)	568852	834350		
TEST DATE	23.01.24			

	Width(m)	**Length (m)**
Test Pit Top Dimensions	1.4	2.8
Test Pit Bottom Dimensions	1.4	2.8

Test Pit Depth (m)	2.65
Test Pit Water Depth (m)	1.95
Depth to Ground water before adding water (m)	0

Time (HH:MM)	**Time Ascending (HH:MM)**	**Depth of Water in Pit (m)**	**Depth BGL to Water Surface (m)**	**Time Ascending (Min)**
12:26	00:00	1.95	0.7	0
12:27	00:01	1.93	0.72	1
12:28	00:02	1.91	0.74	2
12:30	00:04	1.87	0.78	4
12:31	00:05	1.85	0.8	5
12:32	00:06	1.84	0.81	6
12:34	00:08	1.82	0.83	8
12:36	00:10	1.79	0.86	10
12:37	00:11	1.77	0.88	11
12:39	00:13	1.75	0.9	13
12:41	00:15	1.72	0.93	15
12:43	00:17	1.71	0.94	17
12:44	00:18	1.69	0.96	18
12:43	00:17	1.67	0.98	17
12:48	00:22	1.66	0.99	22
12:50	00:24	1.64	1.01	24
12:55	00:29	1.61	1.04	29
12:58	00:32	1.59	1.06	32
13:02	00:36	1.57	1.08	36
13:04	00:38	1.57	1.08	38

13:09	00:43	1.56	1.09	43
13:13	00:47	1.54	1.11	47
13:19	00:53	1.5	1.15	53
13:22	00:56	1.49	1.16	56
13:27	01:01	1.47	1.18	61
13:35	01:09	1.45	1.2	69
13:39	01:13	1.43	1.22	73
13:43	01:17	1.43	1.22	77
13:52	01:26	1.4	1.25	86
13:56	01:30	1.38	1.27	90
14:05	01:39	1.36	1.29	99
14:36	02:10	1.29	1.36	130
16:04	03:38	1.09	1.56	218
17:20	04:54	0.88	1.77	294

NOTES: Pit sides unstable, sections of the pit wall collapsed during the test
@13:04, pit wall collapse affected water level
@ 240124-09:28 - Pit was fully drained

SOIL INFILTRATION TEST - BRE DIGEST 365

DOCUMENT NO.	**6736-JOD-00-XX-CA-C-3002**			
PROJECT	6736		**START TIME**	15:17
SITE	Caltragh		**FINISH TIME**	09:24
TEST LOCATION	TP04		**FINISH DATE**	24.01.24
ITM COORDINATE (estimate)	568822	834409		
TEST DATE	23.01.24			

	Width(m)	**Length (m)**
Test Pit Top Dimensions	1.3	2.3
Test Pit Bottom Dimensions	1.3	2.3

Test Pit Depth (m)	2.5
Test Pit Water Depth (m)	2.05
Depth to Ground water before adding water (m)	0

Time (HH:MM)	**Time Ascending (HH:MM)**	**Depth of Water in Pit (m)**	**Depth BGL to Water Surface (m)**	**Time Ascending (Min)**
15:17	00:00	2.05	0.45	0
15:23	00:06	1.95	0.55	6
15:25	00:08	1.92	0.58	8
15:28	00:11	1.89	0.61	11
15:30	00:13	1.87	0.63	13
15:32	00:15	1.84	0.66	15
15:33	00:16	1.82	0.68	16
15:38	00:21	1.77	0.73	21
15:42	00:25	1.73	0.77	25
15:45	00:28	1.71	0.79	28
15:48	00:31	1.68	0.82	31
15:52	00:35	1.65	0.85	35
15:56	00:39	1.63	0.87	39
15:59	00:42	1.61	0.89	42
16:09	00:52	1.53	0.97	52
16:14	00:57	1.5	1	57
16:19	01:02	1.48	1.02	62
16:28	01:11	1.45	1.05	71
16:38	01:21	1.41	1.09	81
16:44	01:27	1.39	1.11	87
16:52	01:35	1.36	1.14	95
17:01	01:44	1.34	1.16	104

17:10	01:53	1.32	1.18	113
17:13	01:56	1.31	1.19	116

NOTES: Pit sides unstable, small sections of the pit wall collapsed during the test

09:24	16:11	0.54	1.96	971
17:11	23:56	0.32	2.18	1436

Appendix B

Trial Pit 03

Trial Pit 04

Project:	**Caltragh LRD**	Job No:	**6736**
Prepared by:	**Patrick Carr**	Date:	**05/10/2023**
Approved by:	**Eamon Morrissey**	Date:	**05/10/2023**

TRIAL PIT REPORT

1. INTRODUCTION

This report has been prepared by Jennings O'Donovan & Partners Limited to record the information obtained from two trial pits excavated on the Caltragh LRD site at Newtownholmes Road, Caltragh, Co. Sligo.

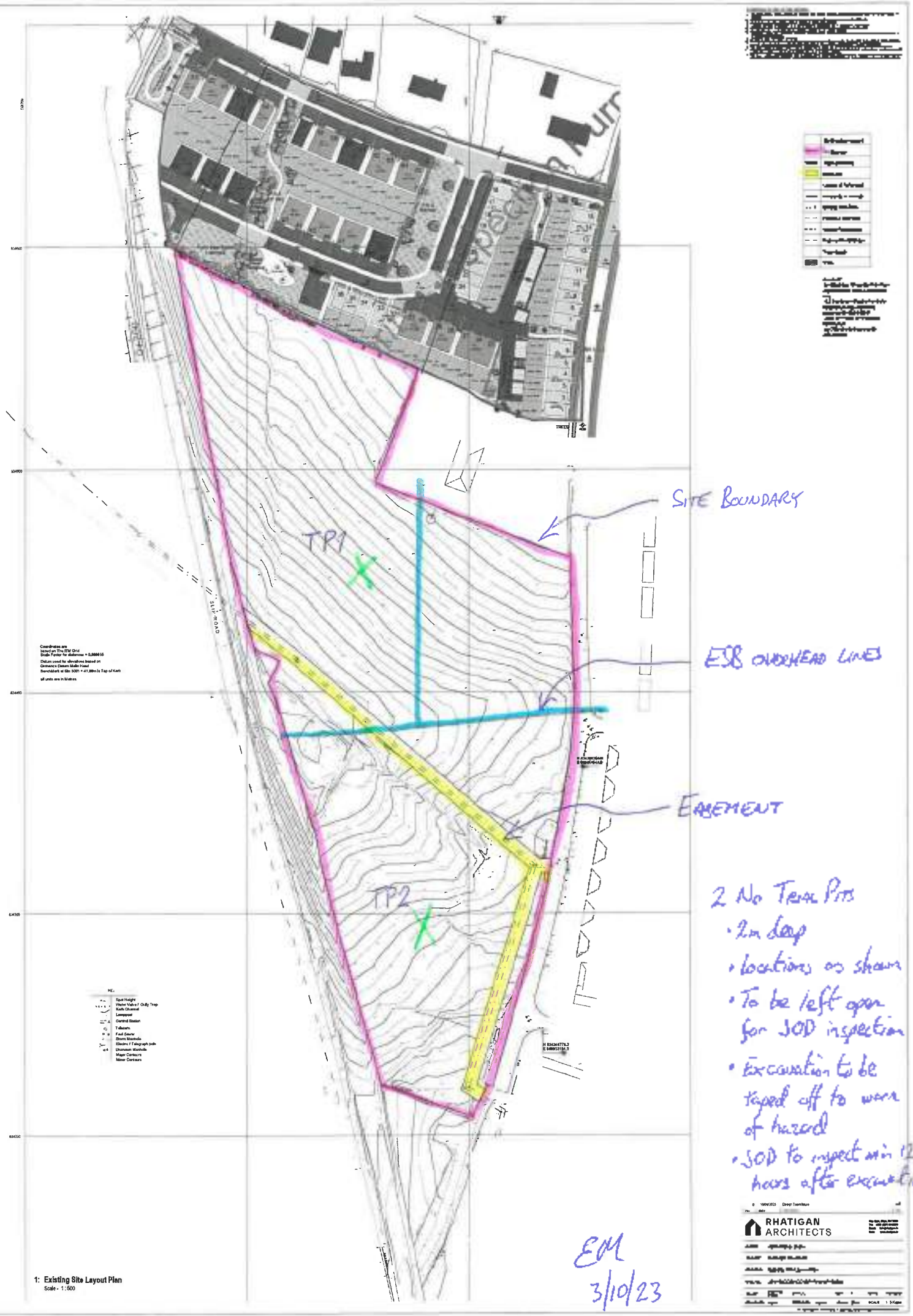
2. SITE NOTES

Two trial pits were excavated in accordance with the attached sketch on the morning of Wednesday 04/10/2023. The trial pit depth of 2m was selected to match the formation level of the deepest excavations to be dug on site. No groundwater ingress was observed.

The trial pits were inspected on the afternoon of Thursday 05/10/2023. No groundwater was present in either of the trial pits. The exposed soil comprised approximately 300mm of topsoil on sandy gravelly clay. As the depth increased cobbles were observed with increasing frequency.

3. SITE PHOTOGRAPHS – TRIAL PIT 1

4. SITE PHOTOGRAPHS – TRIAL PIT 2



1: Existing Site Layout Plan
Scale - 1:500

APPENDIX IV

ARBORICULTURAL REPORT

Arboricultural Report

Tree Survey,

Arboricultural Impact Assessment &

Arboricultural Method Statement

In relation to the development proposal at:

Newtownholms Road

Caltragh

Co. Sligo

April 2024

230320-PD-11-A

CHARLES MCCORKELL
ARBORICULTURAL CONSULTANCY

Contents

Section 1: Arboricultural Impact Assessment

1 Summary

1.1 This arboricultural report has been instructed by John Walter Burke (the 'Applicant').

1.2 The proposal is for the construction of a residential development at Newtownholmes Road, Caltragh, Co. Sligo (the 'Application Site').

1.3 This report includes:

- an assessment of the trees, their quality and value in accordance with BS 5837:2012 - Trees in relation to design, demolition and construction;
- the site context and observations on the trees;
- local planning policies relevant to the consideration of trees on the site;
- the impact of the proposed development on the tree population in and around the site;
- methods of reducing impacts on trees; and
- measures to be taken to protect trees during the proposed works.

1.4 Tree and hedgerow removals are required to facilitate the development. These removals have been assessed and their loss will not have a significant impact on the character and appearance of the local surrounding landscape.

1.5 The proposal includes sufficient space for new high-quality tree and hedgerow planting that will mitigate the proposed removals and positively impact the amenities and visual appearance of the development and local surrounding landscape in the future.

1.6 In conclusion, the proposed development is achievable in both arboricultural terms and in relation to local planning policy as it relates to trees. Tree impacts have been assessed and tree protection measures have been specified in accordance with best practice and are sufficient to safeguard retained trees during the proposed works.

2 Introduction

Instructions

2.1 This arboricultural report has been instructed by John Walter Burke to provide information to assist all parties involved in the planning process to make balanced judgements with regard to the arboricultural features in relation to the proposed development at Newtownholmes Road, Caltragh, Co. Sligo (the 'Application Site').

Development proposal

2.2 The proposal is for the construction of a residential development with associated car parking, landscaping, and all site infrastructure and engineering works necessary to facilitate the development.

Qualification and experience

2.3 This report has been prepared by Charles McCorkell. Charles is a Chartered Arboricultural Consultant dealing with trees in relation to all forms of human activity, including the built environment. He is a Professional Member of the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association, a qualified professional tree inspector (LANTRA), and has a BSc Honours Degree in Arboriculture from the University of Central Lancashire.

Scope and limitations

2.4 The survey is not a health and safety inspection of trees; however, trees identified as imminently dangerous will have been highlighted and recommendations made, where appropriate.

2.5 The contents of this report are the copyright of *Charles McCorkell Arboricultural Consultancy* and may not be distributed or copied without the author's permission.

Methodology and guidance

2.6 The author has referred to *British Standard 5837: Trees in relation to design, demolition and construction (2012)* which provides a methodology for the assessment of trees and other significant vegetation on development sites.

2.7 BS 5837:2012 is intended to assist decision making with regard to existing and proposed trees and sets out the principles and procedures to be applied in order to achieve a harmonious relationship between existing and new trees and structures that can be sustained for the long term.

2.8 The BS 5837:2012 recommends the National Joint Utilities Group (NJUG) document *Guidelines for the planning, installation and maintenance of utility apparatus in the proximity to trees.* Volume 4, issue 2. London: NJUG, 2007, as a normative reference for guidance on the installation of utilities within proximity to trees.

Supporting information

2.9 This report should be read in conjunction with the following supporting documents attached to this report.

Document	Reference	Location
Arboricultural Method Statement	N/A	Section 2
Tree Schedule	230320-PD-10	Appendix A
Tree Work Schedule	230320-PD-12	Appendix A
Tree Survey & Constraints Plan	230320-P-10	Appendix B
Tree Works Plan	230320-P-11	Appendix B
Tree Protection Plan	230320-P-12	Appendix B

Definitions

2.10 **Root Protection Area (RPA)** – a layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree.

2.11 **Tree Protection Zone (TPZ)** – an area based on the RPA in m^2 identified by an arboriculturist, to be protected during development, including demolition and construction work, by the use of barriers and/or ground protection fit for purpose to ensure the successful long-term retention of a tree.

3 Observations & Context

Site visit

3.1 The site was visited by Charles McCorkell on 28 April 2023, to survey on and off-site trees and vegetation which may be of significance to the proposed development. The survey was carried out in accordance with BS 5837:2012 and from ground level only.

Site location and description

3.2 The Application Site is located in the Caltragh Townland in the environs of Sligo Town (Map 1). The boundaries to the site are formed by the Newtownholmes Road to the East, The N4 to the West, greenfield land to the South and the North of the site is bounded by an existing dwelling house and a greenfield site which has had an application for a new residential development.

3.3 The vegetation cover on the Application Site contains a mix of native hedgerows, mature trees and areas of naturally regenerated scrub and young trees. The main tree and hedge cover is located within the southern section of the site and predominantly contains hawthorn and ash with some spruce, sycamore and Austrian pine.

Map 1 (Google 2023): *Dashed yellow line highlighting the location of the site within the local area.*

Views of the site and trees

Photo 1: *View of the northern boundary hawthorn hedgerow H252 & H253.*

Photo 2: *View of the mature hawthorn hedgerows (H258 & H260) and ash trees (T211 to T230) located within the southern section of the site which is at a much lower level than the northern boundary.*

Photo 3: *Second view showing the mature hawthorn hedgerow (H260) and ash trees (T211 to T219).*

Photo 4: *View of the eastern boundary ash trees (T261 to T265) and brambles (S267).*

Photo 5: *View of the mature sycamore trees T199 & T201.*

Photo 6: *View of the poor quality ash T190 & T192 and the low quality spruce T189, T191 & T193.*

4 Local Planning Policy

Sligo County Development Plan 2017 – 2023 – Extended to July 2024

4.1 The Sligo County Development Plan 2017 – 2023 (Extended to July 2024) was adopted on 31 July 2017 and contains the following policies that relate to trees, woodlands and hedgerows.

P-WTH-1: Protect trees, woodlands and hedgerows from development that would impact adversely upon them. Promote new tree and woodland planting and the enhancement of existing hedgerows by seeking increased coverage, in conjunction with new development using native species of local provenance, where possible.

P-WTH-2: Discourage the felling of mature trees to facilitate development and, where appropriate make use of tree preservation orders to protect important trees and groups of trees which may be at risk or have an important amenity or historic value.

P-WTH-3: Require the planting of native broadleaved species, and species of local provenance, in new developments.

5 Technical Information

Tree data

5.1 The Tree Survey & Constraints Plan at Appendix B illustrates the location of trees and hedgerows, the extent of the spread of their crowns and their root protection areas. Dimensions, comments and information for each tree and hedgerow are given in the Tree Schedule at Appendix A.

Life stage analysis

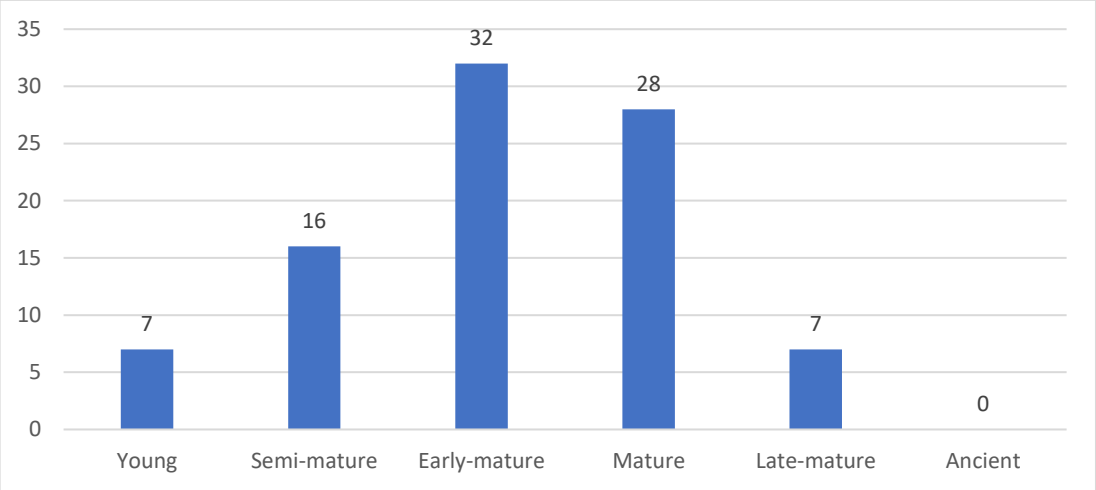


Figure 1: *Life stage analysis of the 90 survey entries recorded.*

BS5837 (2012) category breakdown

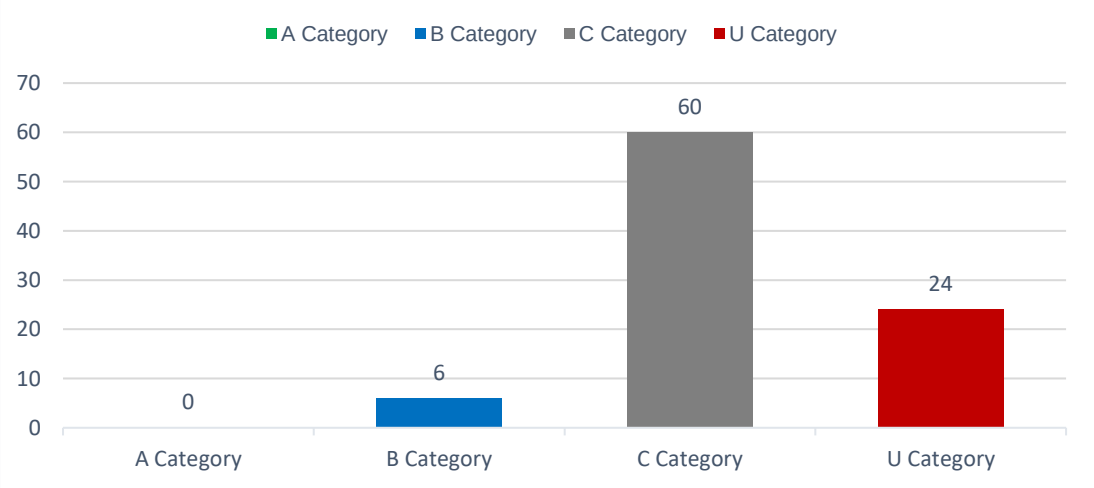


Figure 2: *Breakdown of BS5837:2012 categories of the 90 survey entries recorded.*

6 Analysis of the Proposal in Respect of Trees

Arboricultural Impacts

6.1 ***Loss of trees –*** The majority of trees and hedgerows located on the site are required to be removed to facilitate the proposed development. This includes 63 trees, one group of trees, seven hedgerows and seven groups of brambles.

6.2 Of the proposed removals, five trees and one hedgerow are of moderate quality and value (B Category), 36 trees, one tree group, six hedgerows and seven groups of brambles are of low quality and value (C Category) and 22 trees are of poor quality (U Category).

6.3 Details of the proposed tree removals are specified within the Tree Work Schedule at Appendix A and their location within the site is highlighted in the Tree Works Plan at Appendix B. A breakdown of tree removals according to their BS5837:2012 category is outlined in Figure 3.

Figure 3: *Breakdown of the proposed tree removals required to facilitate the development.*

6.4 The loss of trees and hedgerows required to facilitate the development will have an initial impact on the surrounding landscape and local canopy cover. This impact is not deemed to be significant as the majority of trees and hedgerows to be removed are of low and poor quality and sufficient space for compensatory tree and hedge planting has been provided as part of the development design.

6.5 ***Pruning works –*** To facilitate the proposed development and to provide sufficient space for construction operations, the lateral growth of neighbouring trees and

hedgerows is required to be pruned back to the boundary line. The extent of the pruning works required have been highlighted on the Tree Works Plan at Appendix B.

6.6 The works proposed are not considered to be significant and will not be detrimental to the health of the trees and hedgerows concerned. Details of the proposed works are specified within the Tree Work Schedule at Appendix A.

6.7 ***Compound area*** – The proposed site compound area has not yet been designed; however, there is sufficient space available throughout the site to avoid any unnecessary impacts to retained trees and hedgerows, provided the tree protection measures, as detailed within the Tree Protection Plan at Appendix B, are adhered.

6.8 ***Excavation works within tree RPAs –*** Excavation works to construct the proposed development are required within the RPAs of neighbouring trees. Each incursion is highlighted on the Tree Protection Plan at Appendix B.

6.9 The proposed excavation works will result in the loss of tree roots that in some instances may impact the long term health of the tree concerned. It is recommended that the excavation works required within tree RPAs is carried out under the supervision and guidance of the arboricultural consultant.

6.10 Where the pruning of roots is required, these must first be assessed by the arboricultural consultant and any remedial works recommended to ensure trees are not left unsafe. Where pruning works to neighbouring trees is required, they must be discussed and agreed with by the tree owner.

6.11 ***Drainage and services*** – The proposed drainage layout is shown in the Tree Protection Plan at Appendix B. The proposal has been designed to avoid impacting retained trees and hedgerows.

6.12 ***Boundary treatments –*** Details of the proposed boundary treatments is currently unknown. Where new boundaries are required to be installed adjacent to retained trees, a low impact design should be used. This would include a post and panel style fence, instead of block walls that would require the excavation of strip foundations and would result in the loss of tree roots.

6.13 ***Tree protection measures –*** Retained trees can be protected during the proposed development works by using robust fencing measures which comply with the recommendations outlined within BS 5837:2012. The location and specification of tree protection measures are highlighted in the Tree Protection Plan at Appendix B.

Arboricultural mitigation

6.14 There is sufficient space available on the site to carry out new high-quality tree planting that can help mitigate the loss of trees and have a positive impact on the character and appearance of the surrounding local landscape.

6.15 A diverse selection of native and naturalised tree species, that are tolerable to coastal locations, should be planted to increase the resilience of the tree population on the site and within the local area due to the current risks posed by pests, diseases and climate change.

6.16 All new tree planting should take into consideration the mature growing size of the trees proposed to ensure that a harmonious relationship between proposed structures (buildings and hard landscaping) can be sustained for the long-term without the need for unnecessary removal or pruning works.

7 Discussion & Conclusion

General Change

7.1 The proposed removal of trees and hedgerows has been assessed and their loss will have an initial impact on the visual appearance and canopy cover of the immediate surrounding landscape. This impact has been taken into consideration and sufficient space for new high-quality tree and hedge planting that can mitigate the proposed removals has been provided.

Proposal in relation to local planning policy

7.2 The proposed development complies with local planning policies as they relate to trees. Although a large number of trees are required to be removed, these are not of high quality or historical value. The trees to be removed are mainly of low and poor quality and value.

7.3 The development proposal has taken the loss of trees into consideration and has provided sufficient space for new high-quality tree planting to be carried out. Such planting can enhance the public amenity value of the site and have a positive impact on its visual appearance within the local area.

7.4 The proposal has been assessed in accordance with best practice BS5837:2012 and provided the recommendations as detailed within this report are followed, retained trees and hedgerows can be successfully protected for the duration of construction.

Conclusion

7.5 The proposal has been assessed in accordance with BS5837:2012 and where required, special working methods have been recommended to minimise tree impacts.

7.6 Retained trees can be successfully protected during the development by following the information provided within this report and adhering to industry best practice.

7.7 Provided the recommendations and methods of work as outlined within this report are followed, the proposed development can be successfully carried out without having a significant impact on the character or appearance of the surrounding landscape.

Section 2: Arboricultural Method Statement

Introduction	
This report has been prepared in accordance with British Standard 5837: Trees in relation to design, demolition and construction – Recommendations (2012) which provides a methodology for the assessment and protection of trees and other significant vegetation on development sites.	
Sequence of Operations	
• Proposed tree works. • Installation of tree protection measures. • Enabling works, including the installation of a site compound. • Construction, including the installation of drainage and services. • Landscaping. *Alternative sequences can be discussed and agreed with the local authority and project manager if required.*	
Supervision	
All key / critical activities that will affect trees during construction will be inspected and monitored by the approved arboricultural consultant. • Pre-commencement meeting with the site manager; • Inspection of tree works and tree protection measures prior to the commencement of works; • Supervision during all excavation works within tree RPAs; and • Supervision during all working operations within tree RPAs.	
Arboricultural Method Statement	
Scope	**Methodology**
Pre-commencement meeting	Prior to the commencement of works, a meeting between the arboricultural consultant and site manager will be held to discuss the tree protection measures and proposed works required in close proximity to trees. Contact details of all parties will be circulated to ensure all team members are able to communicate correctly.

	The site manager will be responsible for the protection of all retained trees for the duration of the project. Whenever necessary, the site manager will engage the arboricultural consultant to ensure trees are adequately protected. The appointed arboricultural consultant will be available for verbal advice throughout the site works.
Tree Works	Please refer to the Tree Work Schedule at Appendix A for a list of all proposed tree works. The location of trees to be removed is highlighted on the Tree Works Plan at Appendix B. It is the responsibility of the Site Manager to ensure all tree works have been approved by the local planning authority. All tree works will be carried out by a reputable arboricultural contractor in accordance with the recommendations given in BS 3998:2010 – Tree Work Recommendations. All tree works should be carried out in accordance with Section 40 of the Wildlife Act 1976 and Section 46 of the Wildlife (Amendment) Act 2000. It is the responsibility of the arboricultural contractor to ensure that no protected species are harmed whilst carrying out site clearance or tree surgery works.
Tree Protection	The position of tree protection measures is shown on the Tree Protection Plan at Appendix B. Protective fencing will be constructed and installed in accordance with BS5837:2012, please refer to the Tree Protection Plan for the specification. Alternatives to those shown must be agreed upon in advance by the arboricultural consultant. No materials or equipment other than those required to erect protective fencing will be delivered to the site before the fencing is installed. Signs will be fixed to every third panel stating, *'Tree Protection Area Keep Out – Any incursion into the protected area must be with the agreement of the local authority or arboricultural consultant'*. The main contractor will inform the arboricultural consultant that tree protection is in place before site clearance works commence. No alteration, removal or repositioning of the tree protection will take place without the prior consent of the arboricultural consultant.

Compound Area	The proposed site compound area has not yet been designed; however, the considerations below must be followed: The site compound must be located outside the designated TPZs as highlighted in the Tree Protection Plan at Appendix B. No excavation works within tree RPAs are permitted to install temporary services for site cabins and facilities. Any temporary services within tree RPAs must be above ground and protected accordingly. No operating generators or toxic liquids will be stored within the RPAs of retained trees during construction. Overhanging tree canopies must be taken into consideration when transporting, installing and removing site cabins near tree crowns. A banksman will be present during this process to ensure that all operations are carried out in a controlled manner and no part of the cabin meets overhanging tree crowns.
Drainage and Service Installation	All methods of work for the installation of drainage runs or services within the RPAs of retained trees will follow the guidance within Table 3 of BS 5837 (2012), or National Joint Utilities Group (NJUG) *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees*. Volume 4, issue 2, London NJUG 2007.
Excavation within tree RPAs	Excavation works within the RPAs of trees, as highlighted in the Tree Protection Plan, will be carried out under arboricultural supervision. Root pruning will only be carried out under the guidance of the arboricultural consultant, using sharp, sterile tools suitable to the size of the root to be cut. Where possible roots will be pruned cleanly back to a side branch. Once excavated, the edge of the trench will be lined using 1000-gauge polythene to prevent any liquid cement from leaching into the surrounding soil.
General Principals to Avoid Damage to Trees	All tree works will be carried out in accordance with the recommendations given in BS 3998 (2010). No fires will be permitted within 20m of the crown of any tree. No materials, vehicles, plant or personnel will be permitted into the tree protection zones at any time without the prior consent of the arboricultural consultant.

	Any liquid materials spilt on site will be immediately cleared up and removed from the site. If liquid fuel or cement products are spilt within 2m of the tree protection zone, the contractor will report the incident to the arboricultural consultant immediately. The contractor will report any damage to trees or shrubs, whether caused by construction activities or from any other cause, to the arboricultural consultant immediately.
Landscape Operations	All landscape operations within the protected area will be carried out by hand, using hand tools only, unless otherwise agreed with by the arboricultural consultant. No dumping of spoil or rubbish, parking of vehicles or plant, storage of materials or temporary accommodation will be undertaken within the TPZs. All tree roots within the RPAs greater than 25mm diameter will be retained and worked around. Soil levels will not be increased or reduced within the RPAs of trees without prior agreement from the arboricultural consultant.

Appendix A – Schedules

Document	Reference	Revision
Tree Schedule	230320-PD-10	-
Tree Work Schedule	230320-PD-12	A

230320-PD-10-Tree schedule

CHARLES MCCORKELL
ARBORICULTURAL CONSULTANCY

230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T187	1	Picea sitchensis (Sitka Spruce)	15.0	43	1	2.5		3.0		3.5		3.0		2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Minor. Foreign object - Ingrown metal. Ivy or climbing plant. Root damage - Mammal. Raised surface roots.	28/04/2023	83.6	5.2	10-20	C2
Tree T188	1	Picea sitchensis (Sitka Spruce)	14.0	40	1	3.0		3.0		3.0		3.5		2.0		Early Mature	Structural condition Fair. Physiological condition Poor. Bark exudation. Die-back - Upper crown. Decline - Suspected. Deadwood - Minor. Foreign object - Ingrown metal. Ivy or climbing plant. Root damage - Mammal. Raised surface roots.	28/04/2023	72.4	4.8	0-10	U
Tree T189	1	Picea sitchensis (Sitka Spruce)	16.0	45	1	2.5		3.0		3.5		3.0		1.5		Early Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Minor. Foreign object - Ingrown metal. Ivy or climbing plant. Root damage - Mammal. Raised surface roots. Suppressed crown - Minor.	28/04/2023	91.6	5.4	10-20	C2
Tree T190	1	Fraxinus excelsior (Ash)	13.0	110	1	7.5		6.5		6.0		7.5		5.0		Late Mature	Structural condition Poor. Physiological condition Poor. Die-back - Throughout crown. Decline - Evident / observed. Deadwood - Major. Decay / structural defect - Suspected.	28/04/2023	547.4	13.2	0-10	U
Tree T191	1	Picea sitchensis (Sitka Spruce)	11.0	27	1	3.5		3.5		3.0		4.0		1.5		Early Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Minor. Foreign object - Ingrown metal. Ivy or climbing plant. Root damage - Mammal. Raised surface roots.	28/04/2023	33.0	3.2	10-20	C2
Tree T192	1	Fraxinus excelsior (Ash)	13.5	80	1	7.0		7.5		5.0		7.0		6.0		Mature	Structural condition Poor. Physiological condition Poor. Access to inspect base - Restricted / obscured. Die-back - Throughout crown. Decline - Evident / observed. Deadwood - Major. Decay / structural defect - Suspected. Ivy or climbing plant.	28/04/2023	289.5	9.6	0-10	U

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

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230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T193	1	Picea sitchensis (Sitka Spruce)	7.0	28	1	5.0		3.0		2.0		3.5		1.5		Early Mature	Structural condition Poor. Physiological condition Fair. Deadwood - Minor. Foreign object - Ingrown metal. Ivy or climbing plant. Root damage - Mammal. Raised surface roots. Suppressed crown - Major. Unbalanced crown - Major.	28/04/2023	35.5	3.4	10-20	C2
Tree T194	1	Acer pseudoplatanus (Sycamore)	19.0	83	1	9.0		9.0		6.5		9.0		1.5		Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Ivy or climbing plant. Suppressed crown - Minor.	28/04/2023	311.7	10.0	40+	B2
Tree T195	1	Pinus nigra (Black Pine)	20.0	70	1	5.0		8.0		6.0		6.0		3.0		Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Leaning trunk - Minor.	28/04/2023	221.7	8.4	20-40	B2
Tree T196	1	Picea sitchensis (Sitka Spruce)	11.0	19	1	1.0		2.5		1.0		1.0		1.5		Semi Mature	Structural condition Poor. Physiological condition Dead. Dead tree / trees.	28/04/2023	16.3	2.3	0-10	U
Tree T197	1	Picea sitchensis (Sitka Spruce)	22.0	56	1	3.5		5.0		5.0		5.0		0.0		Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Suppressed crown - Minor. Unbalanced crown - Minor.	28/04/2023	141.9	6.7	20-40	C2
Tree T198	1	Pinus nigra (Black Pine)	17.0	35	1	3.0		3.0		3.0		3.0		10.0		Mature	Structural condition Poor. Physiological condition Fair. Bark wound - Mammal. Bark wound - Major. Fallen tree / trees - Partial collapse. Leaning trunk - Major. Root plate movement - Current (suspected unstable).	28/04/2023	55.4	4.2	0-10	U
Tree T199	1	Acer pseudoplatanus (Sycamore)	11.0	54	1	7.0		10.0		4.0		7.5		2.0		Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Leaning trunk - Minor. Unbalanced crown - Minor.	28/04/2023	131.9	6.5	20-40	C2
Tree T200	1	Pinus nigra (Black Pine)	16.0	35	1	4.0		6.0		5.0		3.0		8.0		Mature	Structural condition Poor. Physiological condition Fair. Bark wound - Mammal. Bark wound - Major. Leaning trunk - Minor.	28/04/2023	55.4	4.2	0-10	U

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

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230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T201	1	Acer pseudoplatanus (Sycamore)	17.0	78	1	6.0		8.0		7.0		10.0		1.0		Mature	Structural condition Fair. Physiological condition Good. Competition - Adjacent trees. Deadwood - Minor. Foreign object - Ingrown metal. Ivy or climbing plant.	28/04/2023	275.2	9.4	40+	B2
Tree T202	1	Acer pseudoplatanus (Sycamore)	10.0	26	1	1.0		4.5		4.0		3.5		1.5		Semi Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Suppressed crown - Major. Unbalanced crown - Major.	28/04/2023	30.6	3.1	10-20	C2
Tree T203	1	Crataegus monogyna (Common Hawthorn/Quick/May)	5.0	44 COM	4	4.0		4.0		5.5		4.0		0.0		Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Minor. Multi-stemmed. Root damage - Mammal. Raised surface roots.	28/04/2023	87.6	5.3	20-40	C2
Tree T204	1	Fraxinus excelsior (Ash)	13.0	45 COM	3	6.5		5.0		5.5		5.0		1.0		Early Mature	Structural condition Fair. Physiological condition Fair. Epicormic growth - Base. Ivy or climbing plant.	28/04/2023	93.6	5.5	10-20	C2
Tree T205	1	Fraxinus excelsior (Ash)	8.0	20	1	3.0		3.5		3.5		2.5		1.5		Semi Mature	Structural condition Fair. Physiological condition Fair. Ivy or climbing plant.	28/04/2023	18.1	2.4	10-20	C2
Tree T206	1	Fraxinus excelsior (Ash)	8.0	25	1	4.0		3.5		4.5		4.0		1.5		Semi Mature	Structural condition Fair. Physiological condition Poor. Die-back - Upper crown. Deadwood - Minor. Ivy or climbing plant. Tree is infected with ash dieback.	28/04/2023	28.3	3.0	0-10	U
Tree T207	1	Fraxinus excelsior (Ash)	12.5	37	1	5.0		5.0		5.0		5.0		1.5		Early Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Minor.	28/04/2023	61.9	4.4	20-40	C2
Tree T208	1	Fraxinus excelsior (Ash)	7.0	35	1		2.0		4.0		6.0		4.0	1.0		Early Mature	Structural condition Poor. Physiological condition Fair. Deadwood - Minor. Shedding limb / limbs - Historic. Weak live growth.	28/04/2023	55.4	4.2	10-20	C2
Tree T209	1	Fraxinus excelsior (Ash)	10.0	39 COM	2		7.5		5.5		5.0		6.0	1.0		Early Mature	Structural condition Poor. Physiological condition Fair. Deadwood - Minor. Decay / structural defect - Base. Shedding limb / limbs - Historic.	28/04/2023	70.1	4.7	10-20	C2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

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230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T210	1	Fraxinus excelsior (Ash)	8.0	20	1		2.5		2.5		3.0		3.0	1.5		Semi Mature	Structural condition Fair. Physiological condition Good.	28/04/2023	18.1	2.4	20-40	C2
Tree T211	1	Fraxinus excelsior (Ash)	17.0	51	1		6.0		6.5		6.5		6.5	4.0		Mature	Structural condition Good. Physiological condition Fair. Deadwood - Minor.	28/04/2023	117.7	6.1	20-40	B2
Tree T212	1	Fraxinus excelsior (Ash)	15.0	68	1		6.5		7.0		4.5		5.0	2.0		Late Mature	Structural condition Fair. Physiological condition Fair. Buttresses / buttress roots - Major adaptive growth / strong development. Crack - Longitudinal / shear crack. Deadwood - Minor. Decay / structural defect - Suspected. Ivy or climbing plant.	28/04/2023	209.2	8.2	10-20	C2
Tree T213	1	Fraxinus excelsior (Ash)	15.0	70	1		6.0		5.0		8.5		6.0	3.0		Mature	Structural condition Poor. Physiological condition Fair. Bark exudation. Deadwood - Major. Decay / structural defect - Base. Decay / structural defect - Principal stems. Ivy or climbing plant. Leaning trunk - Minor. Bacterial canker of Ash - Extensive.	28/04/2023	221.7	8.4	0-10	U
Tree T214	1	Fraxinus excelsior (Ash)	17.0	68 COM	2		9.5		5.0		9.5		6.0	1.0		Mature	Structural condition Fair. Physiological condition Poor. Die-back - Upper crown. Deadwood - Minor. Ivy or climbing plant. Shedding limb / limbs - Historic. Tree is infected with ash dieback.	28/04/2023	209.2	8.2	0-10	U
Tree T215	1	Fraxinus excelsior (Ash)	14.0	42	1		0.0		1.5		9.5		4.0	2.0		Early Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Suppressed crown - Major. Unbalanced crown - Major.	28/04/2023	79.8	5.0	10-20	C2
Tree T216	1	Fraxinus excelsior (Ash)	14.0	29	1		3.0		3.0		10.0		3.0	2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Suppressed crown - Major. Unbalanced crown - Major.	28/04/2023	38.0	3.5	10-20	C2
Tree T217	1	Fraxinus excelsior (Ash)	20.0	90	1		12.0		5.0		10.0		7.5	3.0		Mature	Structural condition Poor. Physiological condition Fair. Ivy or climbing plant. Shedding limb / limbs - Historic. Shedding limb / limbs - Major. Unbalanced crown - Minor.	28/04/2023	366.4	10.8	10-20	C2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

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230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T218	1	Fraxinus excelsior (Ash)	5.0	60	1		1.5		1.5		1.5		1.5	0.0		Mature	Structural condition Poor. Physiological condition Poor. Monolith. Shedding limb / limbs - Major. Storm damage.	28/04/2023	162.9	7.2	0-10	U
Tree T219	1	Fraxinus excelsior (Ash)	18.0	77 COM	2		9.5		8.0		6.0		6.5	1.0		Mature	Structural condition Fair. Physiological condition Poor. Branch - Suspended. Die-back - Upper crown. Decline - Suspected. Decay / structural defect in crown limb / limbs - Localised. Deadwood - Minor. Decay / structural defect - Base. Ivy or climbing plant. Pruning wounds - Decayed. Tree is infected with ash dieback.	28/04/2023	273.7	9.3	0-10	U
Tree T220	1	Fraxinus excelsior (Ash)	16.0	48	1		6.0		12.0		4.0		0.0	3.0		Early Mature	Structural condition Poor. Physiological condition Fair. Ivy or climbing plant. Leaning trunk - Major. Root plate movement - Historic (suspected unstable).	28/04/2023	104.2	5.8	0-10	U
Tree T221	1	Fraxinus excelsior (Ash)	20.0	105	1		10.0		12.0		11.0		12.0	1.0		Late Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Major. Ivy or climbing plant. Shedding limb / limbs - Historic. Shedding limb / limbs - Major.	28/04/2023	498.8	12.6	20-40	B2/B3
Tree T222	1	Fraxinus excelsior (Ash)	18.0	52 COM	2		4.0		5.5		6.0		7.0	3.0		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant.	28/04/2023	124.9	6.3	10-20	C2
Tree T223	1	Fraxinus excelsior (Ash)	20.0	60	1		6.5		8.0		7.0		7.0	2.0		Mature	Structural condition Fair. Physiological condition Poor. Deadwood - Minor. Ivy or climbing plant.	28/04/2023	162.9	7.2	10-20	C2
Tree T224	1	Fraxinus excelsior (Ash)	16.0	63 COM	4		5.5		6.0		5.0		4.0	1.5		Mature	Structural condition Poor. Physiological condition Fair. Coppice stool - Coppice origin / Mature stems. Fork - Weak with included bark. Ivy or climbing plant. Multi-stemmed. Root damage - Mammal.	28/04/2023	184.1	7.7	10-20	C2
Tree T225	1	Fraxinus excelsior (Ash)	9.0	25	1		7.0		3.0		5.0		2.0	5.0		Semi Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Suppressed crown - Major. Unbalanced crown - Major.	28/04/2023	28.3	3.0	10-20	C2

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230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T226	1	Fraxinus excelsior (Ash)	15.0	36 COM	2		7.0		3.0		1.0		3.0	2.0		Early Mature	Structural condition Poor. Physiological condition Fair. Competition - Adjacent trees. Fork - Weak with included bark. Suppressed crown - Minor. Unbalanced crown - Major.	28/04/2023	61.3	4.4	10-20	C2
Tree T227	1	Fraxinus excelsior (Ash)	14.0	35	1		6.0		4.0		4.5		6.5	2.0		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant.	28/04/2023	55.4	4.2	10-20	C2
Tree T228	1	Fraxinus excelsior (Ash)	16.0	105	1		8.5		8.0		7.0		7.0	1.5		Late Mature	Structural condition Fair. Physiological condition Fair. Bark exudation. Decline - Suspected. Decay / structural defect - Suspected. Ivy or climbing plant.	28/04/2023	498.8	12.6	10-20	C2
Tree T229	1	Fraxinus excelsior (Ash)	16.0	65	1	7.5		6.5		6.5		4.0		2.5		Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant. Suppressed crown - Minor. Unbalanced crown - Minor.	28/04/2023	191.1	7.8	10-20	C2
Tree T230	1	Fraxinus excelsior (Ash)	22.0	91	1	6.0		7.0		8.0		6.0		1.5		Late Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Ivy or climbing plant. Pruning wounds - Decayed.	28/04/2023	374.6	10.9	10-20	C2
Tree T231	1	Fraxinus excelsior (Ash)	22.0	95	1	10.5		7.0		4.0		7.0		1.5		Late Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Deadwood - Minor. Decay / structural defect - Base. Decay / structural defect - Bole. Ivy or climbing plant. Unbalanced crown - Minor.	28/04/2023	408.3	11.4	10-20	C2
Tree T232	1	Fraxinus excelsior (Ash)	19.0	50	1	5.0		2.0		5.0		7.0		1.5		Early Mature	Structural condition Poor. Physiological condition Fair. Access to inspect base - Not possible. Competition - Adjacent trees. Deadwood - Minor. Decay / structural defect - Suspected. Ivy or climbing plant. Suppressed crown - Major. Unbalanced crown - Major. Unable to inspect tree closely due to ivy cover.	28/04/2023	113.1	6.0	0-10	U

Stem **green** Estimated value
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230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T233	1	Fraxinus excelsior (Ash)	14.5	61 COM	2	9.0		8.0		8.0		5.5		1.0		Early Mature	Structural condition Poor. Physiological condition Fair. Fork - Cracked. Fork - Weak with included bark. Main included union is cracked.	28/04/2023	171.8	7.4	0-10	U
Tree T234	1	Fraxinus excelsior (Ash)	6.0	50	1	3.0		5.0		5.0		3.0		0.0		Late Mature	Structural condition Poor. Physiological condition Fair. Crack - Longitudinal / shear crack. Decay / structural defect - Extensive. Fungal fruiting body - structural decay suspected. Ivy or climbing plant. Ganoderma australe fungal fruiting bodies on stem base.	28/04/2023	113.1	6.0	0-10	U
Tree T235	1	Fraxinus excelsior (Ash)	8.0	41 COM	3	5.0		4.0		5.0		5.0		1.0		Early Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Minor. Ivy or climbing plant.	28/04/2023	78.4	5.0	10-20	C2
Tree T236	1	Fraxinus excelsior (Ash)	10.0	37 COM	2	4.5		4.0		4.0		3.5		1.5		Early Mature	Structural condition Fair. Physiological condition Fair. Deadwood - Minor. Rubbing limbs.	28/04/2023	63.7	4.5	10-20	C2
Tree T237	1	Crataegus monogyna (Common Hawthorn/Quick/May)	5.0	35	1	4.5		3.5		4.0		4.5		1.0		Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Restricted / obscured. Ivy or climbing plant. Unable to inspect tree closely due to dense undergrowth.	28/04/2023	55.4	4.2	20-40	C2
Tree T238	1	Fraxinus excelsior (Ash)	6.0	13	1	2.5		2.5		2.0		2.0		3.0		Semi Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Restricted / obscured. Competition - Adjacent trees.	28/04/2023	7.6	1.6	10-20	C2
Tree T239	1	Crataegus monogyna (Common Hawthorn/Quick/May)	6.0	35	1	3.0		3.0		3.0		3.0		0.0		Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Restricted / obscured. Ivy or climbing plant. Unable to inspect tree closely due to dense undergrowth.	28/04/2023	55.4	4.2	20-40	C2
Tree T240	1	Fraxinus excelsior (Ash)	7.0	28	1	4.0		4.0		4.0		4.0		1.5		Semi Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible. Ivy or climbing plant. Unable to inspect tree closely due to dense undergrowth.	28/04/2023	35.5	3.4	20-40	C2

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230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T241	1	Fraxinus excelsior (Ash)	5.0	20	1	2.5		2.5		3.0		3.0		1.5		Semi Mature	Structural condition Poor. Physiological condition Fair. Access to inspect base - Not possible. Unable to inspect tree closely due to dense undergrowth. Bacterial canker of Ash.	28/04/2023	18.1	2.4	0-10	U
Tree T242	1	Crataegus monogyna (Common Hawthorn/Quick/May)	3.0	15	1	2.0		3.0		2.0		2.0		0.0		Early Mature	Structural condition Fair. Physiological condition Fair.	28/04/2023	10.2	1.8	20-40	C2
Tree T243	1	Fraxinus excelsior (Ash)	5.0	12	1	2.0		2.0		2.0		2.0		0.0		Young	Structural condition Poor. Physiological condition Poor. Decline - Evident / observed. Tree is infected with ash dieback.	28/04/2023	6.5	1.4	0-10	U
Tree T244	1	Fraxinus excelsior (Ash)	3.5	12	1	2.0		2.0		2.0		2.0		0.0		Young	Structural condition Poor. Physiological condition Poor. Decline - Evident / observed. Tree is infected with ash dieback.	28/04/2023	6.5	1.4	0-10	U
Tree T245	1	Sambucus nigra (Elder)	3.0	12	1	2.0		2.0		2.0		2.0		0.0		Semi Mature	Structural condition Fair. Physiological condition Fair.	28/04/2023	6.5	1.4	20-40	C2
Tree T246	1	Fraxinus excelsior (Ash)	4.5	12	1	2.0		2.0		2.0		2.0		0.0		Young	Structural condition Fair. Physiological condition Poor. Decline - Evident / observed. Tree is infected with ash dieback.	28/04/2023	6.5	1.4	0-10	U
Shrub S247	1	Rubus fruticosus s. (Blackberry/Bramble)	1.0	1	1									1.0		Early Mature	Structural condition Fair. Physiological condition Fair. Group of brambles. Quantities not recorded. Height and stem diameter are average for group.	28/04/2023	0.0	0.1	10-20	C2
Shrub S248	1	Rubus fruticosus s. (Blackberry/Bramble)	1.0	1	1									1.0		Early Mature	Structural condition Fair. Physiological condition Fair. Group of brambles. Quantities not recorded. Height and stem diameter are average for group.	28/04/2023	0.0	0.1	10-20	C2

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L.B. Height of lowest branch attachment (m) - where relevant

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230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Shrub S249		Rubus fruticosus s. (Blackberry/Bramble)	1.0	1	1									1.0		Early Mature	Structural condition Fair. Physiological condition Fair. Group of brambles. Quantities not recorded. Height and stem diameter are average for group.	28/04/2023	0.0	0.1	10-20	C2
Hedge H250	1	Crataegus monogyna (Common Hawthorn/Quick/May)	7.0	40 AVE	1									0.0		Mature	Structural condition Fair. Physiological condition Fair. Relict hawthorn hedgerow with an understorey of brambles. Several large gaps throughout hedgerow. Ownership unknown as trees on both sides of the fence. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	72.4	4.8	20-40	C3
	1	Rubus fruticosus s. (Blackberry/Bramble)																				
Shrub S251	1	Rubus fruticosus s. (Blackberry/Bramble)	1.0	1	1									1.0		Early Mature	Structural condition Fair. Physiological condition Fair. Group of brambles. Quantities not recorded. Height and stem diameter are average for group.	28/04/2023	0.0	0.1	10-20	C2
Hedge H252	1	Crataegus monogyna (Common Hawthorn/Quick/May)	6.0	40 AVE	1									0.0		Mature	Structural condition Fair. Physiological condition Fair. Relict hawthorn hedgerow with an understorey of brambles. Several large gaps throughout hedgerow. Ownership unknown. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	72.4	4.8	20-40	C3
	1	Rubus fruticosus s. (Blackberry/Bramble)																				
Hedge H253	1	Crataegus monogyna (Common Hawthorn/Quick/May)	6.0	40 AVE	1									0.0		Mature	Structural condition Fair. Physiological condition Fair. Relict hawthorn hedgerow with an understorey of brambles. Several large gaps throughout hedgerow. Ownership unknown. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	72.4	4.8	20-40	C3
	1	Rubus fruticosus s. (Blackberry/Bramble)																				

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L.B. Height of lowest branch attachment (m) - where relevant

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230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Group G254	1	Cupressus sp. (Cypress sp.)	7.5	25	1									0.0		Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent trees. Die-back - Mid crown. Neighbouring cypress tree group overhanging boundary. Trees 1m off boundary line. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	28.3	3.0	10-20	C2
Tree T255	1	Salix fragilis (Crack Willow)	11.0	60 COM	4	6.0		6.0		6.0		6.0		1.5		Early Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible. Fork - Weak with included bark. Multi-stemmed. Unable to inspect tree closely as located in neighbouring property.	28/04/2023	162.9	7.2	10-20	C1

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Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Group G256	1	Acer platanoides (Norway Maple)	8.0	25 AVE	1									0.0		Semi Mature	Structural condition Fair. Physiological condition Fair. Mixed tree and shrub group located within neighbouring property. Marginally overhanging boundary. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	28.3	3.0	20-40	C2
	1	Berberis sp. (Barberry sp.)																				
	1	Betula jacquemontii (Himalayan Birch)																				
	1	Betula pendula (Silver Birch)																				
	1	Cornus sp. (Dogwood sp.)																				
	1	Fagus sylvatica (Common Beech)																				
	1	Chamaecyparis sp. (False Cypress)																				
	1	Rubus fruticosus s. (Blackberry/Bramble)																				
	1	Sorbus aucuparia (Rowan/Mountain Ash)																				
	1	Viburnum sp. (Viburnum sp.)																				

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230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Group G257		Buddleja davidii (Buddleja)	7.0	25 AVE	1									0.0		Semi Mature	Structural condition Fair. Physiological condition Fair. Mixed tree and shrub group located within neighbouring property. Marginally overhanging boundary. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	28.3	3.0	20-40	C2
	1	Fagus sylvatica f. purpurea (Purple Beech)																				
Hedge H258	1	Crataegus monogyna (Common Hawthorn/Quick/May)	6.0	30 AVE	1									0.0		Mature	Structural condition Fair. Physiological condition Fair. Relict hawthorn hedgerow with some self-seeded ash and an understorey of brambles. Several gaps within the hedgerow. Trees are located on both sides of the ditch. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	40.7	3.6	20-40	C2
	1	Fraxinus excelsior (Ash)																				
	1	Rubus fruticosus s. (Blackberry/Bramble)																				
Hedge H259	1	Crataegus monogyna (Common Hawthorn/Quick/May)	6.0	30 AVE	1									0.0		Mature	Structural condition Fair. Physiological condition Fair. Relict hawthorn hedgerow with some self-seeded ash and an understorey of brambles. Several gaps within hedgerow. Trees located on both sides of the ditch. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	40.7	3.6	20-40	C2
	1	Fraxinus excelsior (Ash)																				
	1	Rubus fruticosus s. (Blackberry/Bramble)																				

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230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Hedge H260		Crataegus monogyna (Common Hawthorn/Quick/May)	7.0	35 AVE	1									0.0		Mature	Structural condition Fair. Physiological condition Fair. Relict hawthorn hedgerow with some self-seeded ash and an understorey of brambles. Several gaps within hedgerow. Trees located on both sides of the ditch. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	55.4	4.2	20-40	C2
	1	Fraxinus excelsior (Ash)																				
	1	Rubus fruticosus s. (Blackberry/Bramble)																				
	1	Salix caprea (Goat Willow/Great Sallow)																				
	1	Sambucus nigra (Elder)																				
Tree T261	1	Fraxinus excelsior (Ash)	3.5	10	1	1.5		1.5		1.5		1.5		0.0		Young	Structural condition Poor. Physiological condition Poor. Decline - Evident / observed. Tree is infected with ash dieback.	28/04/2023	4.5	1.2	0-10	U
Tree T262	1	Fraxinus excelsior (Ash)	3.5	10	1	1.5		1.5		1.5		1.5		0.0		Young	Structural condition Poor. Physiological condition Poor. Decline - Evident / observed. Tree is infected with ash dieback.	28/04/2023	4.5	1.2	0-10	U
Tree T263	1	Fraxinus excelsior (Ash)	5.0	15	1	2.5		2.5		2.5		2.5		2.0		Semi Mature	Structural condition Fair. Physiological condition Poor. Decline - Evident / observed. Tree is infected with ash dieback.	28/04/2023	10.2	1.8	0-10	U
Tree T264	1	Crataegus monogyna (Common Hawthorn/Quick/May)	4.0	20	1	3.0		3.0		3.0		3.0		0.0		Early Mature	Structural condition Fair. Physiological condition Good.	28/04/2023	18.1	2.4	20-40	C2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T265	1	Fraxinus excelsior (Ash)	7.0	15	1	2.5		2.5		2.5		2.5		2.0		Semi Mature	Structural condition Fair. Physiological condition Fair.	28/04/2023	10.2	1.8	10-20	C2
Tree T266	1	Fraxinus excelsior (Ash)	3.5	10	1	1.5		1.5		1.5		1.5		0.0		Young	Structural condition Poor. Physiological condition Poor. Decline - Evident / observed. Tree is infected with ash dieback.	28/04/2023	4.5	1.2	0-10	U
Shrub S267	1	Rubus fruticosus s. (Blackberry/Bramble)	1.0	1	1									1.0		Early Mature	Structural condition Fair. Physiological condition Fair. Group of brambles. Quantities not recorded. Height and stem diameter are average for group.	28/04/2023	0.0	0.1	10-20	C2
Tree T268	1	Fraxinus excelsior (Ash)	3.5	10	1	1.0		1.0		1.0		1.0		0.0		Young	Structural condition Poor. Physiological condition Poor. Decline - Evident / observed. Tree is infected with ash dieback.	28/04/2023	4.5	1.2	0-10	U
Shrub S269	1	Rubus fruticosus s. (Blackberry/Bramble)	1.0	1	1									1.0		Early Mature	Structural condition Fair. Physiological condition Fair. Group of brambles. Quantities not recorded. Height and stem diameter are average for group.	28/04/2023	0.0	0.1	10-20	C2
Hedge H270	1 1 1	Crataegus monogyna (Common Hawthorn/Quick/May) Rubus fruticosus s. (Blackberry/Bramble) Sambucus nigra (Elder)	7.0	35 AVE	1									0.0		Mature	Structural condition Fair. Physiological condition Fair. Relict hawthorn hedgerow with an understorey of brambles. Several gaps within hedgerow. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	55.4	4.2	20-40	B2

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Hedge H271	1	Crataegus monogyna (Common Hawthorn/Quick/May)	5.0	20 AVE	1									0.0		Mature	Structural condition Fair. Physiological condition Fair. Relict hawthorn hedgerow with some elder and an understorey of brambles. Several gaps within hedgerow. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	18.1	2.4	20-40	C2
	1	Rubus fruticosus s. (Blackberry/Bramble)																				
	1	Sambucus nigra (Elder)																				
Group G272	1	Crataegus monogyna (Common Hawthorn/Quick/May)	6.0	12 AVE	1									0.0		Semi Mature	Structural condition Fair. Physiological condition Fair. Mixed young and semi-mature tree group located immediately adjacent to boundary. Lateral growth overhanging site boundary. Ash trees showing symptoms of ash dieback. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	6.5	1.4	20-40	C2
	1	Fraxinus excelsior (Ash)																				
	1	Prunus spinosa (Blackthorn/Sloe)																				
	1	Rubus fruticosus s. (Blackberry/Bramble)																				
	1	Salix caprea (Goat Willow/Great Sallow)																				
	1	Sambucus nigra (Elder)																				
	1	Sorbus torminalis (Wild Service Tree)																				

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Group G273	1	Alnus glutinosa (Common Alder)	9.0	20 AVE	1									0.0		Early Mature	Structural condition Fair. Physiological condition Fair. Mixed semi-mature and early-mature tree group located immediately adjacent to boundary. Lateral growth overhanging site boundary. Some Ash trees showing symptoms of ash dieback. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	18.1	2.4	20-40	C2
	1	Betula pendula (Silver Birch)																				
	1	Crataegus monogyna (Common Hawthorn/Quick/May)																				
	1	Fraxinus excelsior (Ash)																				
	1	Prunus spinosa (Blackthorn/Sloe)																				
	1	Rubus fruticosus s. (Blackberry/Bramble)																				
	1	Salix caprea (Goat Willow/Great Sallow)																				
	1	Sambucus nigra (Elder)																				

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

230320 - Newtownholms Road

Tree ID	No.	Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m) N	NE	E	SE	S	SW	W	NW	Crown clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Group G274	1	Acer pseudoplatanus (Sycamore)	7.0	15 AVE	1									0.0		Semi Mature	Structural condition Fair. Physiological condition Fair. Small group of self-seeded trees, mainly ash and elder. Height and stem diameter are average for group. Quantities not recorded, only species mix.	28/04/2023	10.2	1.8	10-20	C2
	1	Crataegus monogyna (Common Hawthorn/Quick/May)																				
	1	Fraxinus excelsior (Ash)																				
	1	Sambucus nigra (Elder)																				
Shrub S275	1	Rubus fruticosus s. (Blackberry/Bramble)	1.0	1	1									1.0		Early Mature	Structural condition Fair. Physiological condition Fair. Group of brambles. Quantities not recorded. Height and stem diameter are average for group.	28/04/2023	0.0	0.1	10-20	C2
Shrub S276	1	Crataegus monogyna (Common Hawthorn/Quick/May)	2.0	10 AVE	1									1.0		Early Mature	Structural condition Fair. Physiological condition Fair. Group of brambles with some hawthorn. Quantities not recorded. Height and stem diameter are average for group.	28/04/2023	4.5	1.2	10-20	C2
	1	Rubus fruticosus s. (Blackberry/Bramble)																				

Stem **green** Estimated value
Stem **AVE** Average stem diameter for tree groups
Stem **COM** Combined stem diameter in accordance with BS5837
L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Generated By MyTREES tree management software

Table 1 of BS5837 (2012) **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	* Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) * Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline * Trees infected with pathogens of significance to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7			**RED**
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Tree that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	Trees, groups or woodlands of particular visual importance as arboricutural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	**GREEN**
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural value.	**BLUE**
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value.	**GREY**

230320-PD-12-A - Planning Tree Works Schedule

230320 - Newtownholms Road

ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T188	1 *Picea sitchensis* Sitka Spruce	U	Good arboricultural practice Fell - Ground level. Notify owner to fell tree due to poor condition.	Proposed
T189	1 *Picea sitchensis* Sitka Spruce	C2	To facilitate development Fell - Ground level.	Proposed
T190	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T191	1 *Picea sitchensis* Sitka Spruce	C2	To facilitate development Fell - Ground level.	Proposed
T192	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level. Due to bat potential - prior to removing the tree, it will require 2 emergence/re-entry surveys between May and September in accordance with BCT guidance or will require an endoscope survey of potential roosting features.	Proposed
T193	1 *Picea sitchensis* Sitka Spruce	C2	To facilitate development Fell - Ground level.	Proposed
T194	1 *Acer pseudoplatanus* Sycamore	B2	To facilitate development Fell - Ground level.	Proposed
T195	1 *Pinus nigra* Black Pine	B2	To facilitate development Fell - Ground level.	Proposed
T196	1 *Picea sitchensis* Sitka Spruce	U	To facilitate development Fell - Ground level.	Proposed
T197	1 *Picea sitchensis* Sitka Spruce	C2	To facilitate development Fell - Ground level.	Proposed
T198	1 *Pinus nigra* Black Pine	U	To facilitate development Fell - Ground level.	Proposed
T199	1 *Acer pseudoplatanus* Sycamore	C2	To facilitate development Fell - Ground level.	Proposed
T200	1 *Pinus nigra* Black Pine	U	To facilitate development Fell - Ground level.	Proposed
T201	1 *Acer pseudoplatanus* Sycamore	B2	To facilitate development Fell - Ground level.	Proposed
T202	1 *Acer pseudoplatanus* Sycamore	C2	To facilitate development Fell - Ground level.	Proposed
T203	1 *Crataegus monogyna* Common Hawthorn/Quick/May	C2	To facilitate development Fell - Ground level.	Proposed
T204	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T205	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed

ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T206	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T207	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T208	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T209	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T210	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T211	1 *Fraxinus excelsior* Ash	B2	To facilitate development Fell - Ground level.	Proposed
T212	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T213	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T214	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T215	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T216	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T217	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T218	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T219	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T220	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T221	1 *Fraxinus excelsior* Ash	B2/B3	To facilitate development Fell - Ground level. Due to bat potential - prior to removing the tree, it will require 2 emergence/re-entry surveys between May and September in accordance with BCT guidance or will require an endoscope survey of potential roosting features.	Proposed
T222	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T223	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level. Due to bat potential - soft felling is recommended, where tree limbs are cut and left grounded overnight to allow any bats to make their way out. Works must be carried out in September/October.	Proposed
T224	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed

ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T225	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T226	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T227	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T228	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T229	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T230	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T232	1 *Fraxinus excelsior* Ash	U	Good arboricultural practice Fell - Ground level. Notify owner to fell tree due to poor condition.	Proposed
T233	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T234	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T235	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T236	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T237	1 *Crataegus monogyna* Common Hawthorn/Quick/May	C2	To facilitate development Fell - Ground level.	Proposed
T238	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T239	1 *Crataegus monogyna* Common Hawthorn/Quick/May	C2	To facilitate development Fell - Ground level.	Proposed
T240	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T241	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T242	1 *Crataegus monogyna* Common Hawthorn/Quick/May	C2	To facilitate development Fell - Ground level.	Proposed
T243	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T244	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T245	1 *Sambucus nigra* Elder	C2	To facilitate development Fell - Ground level.	Proposed

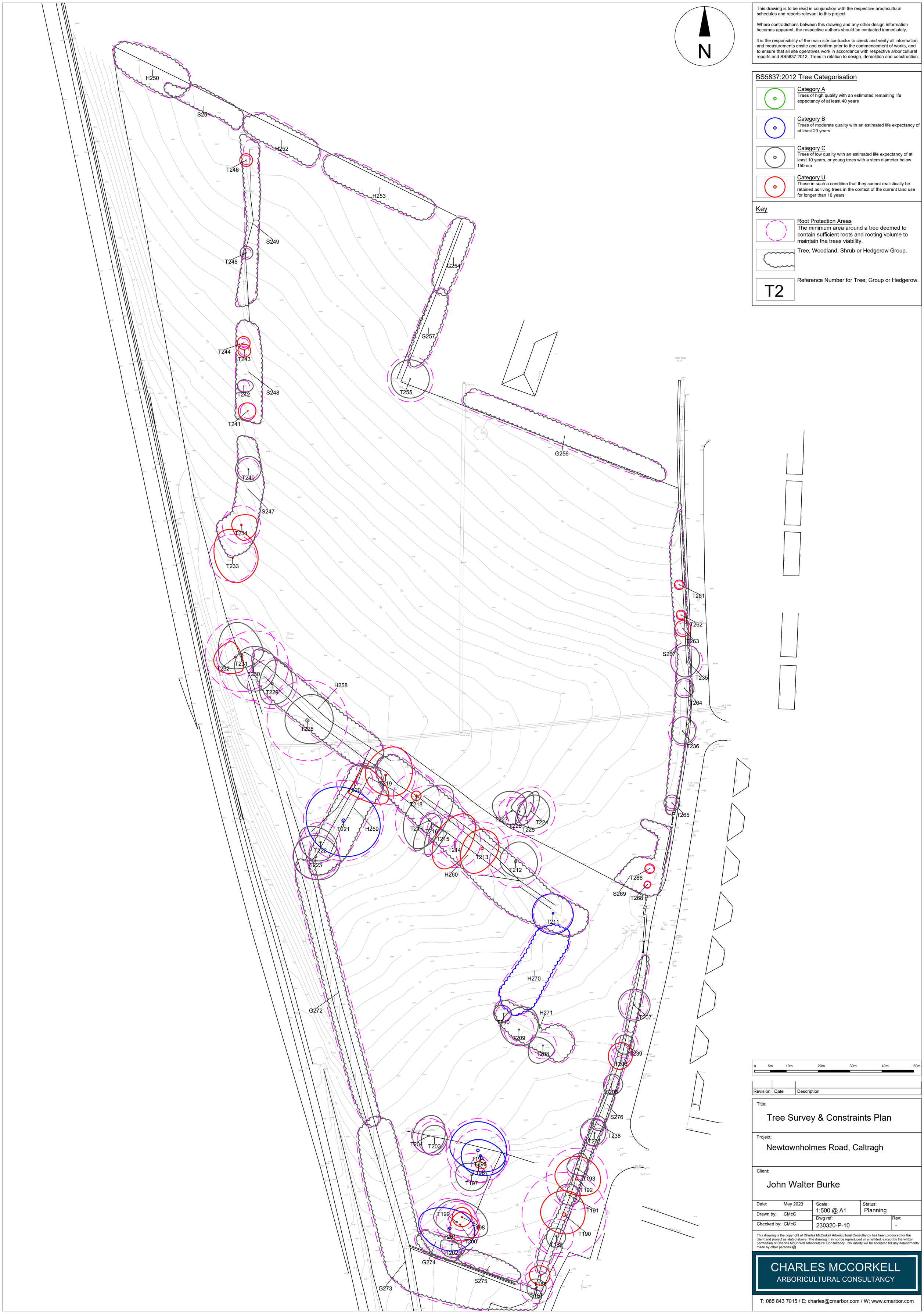
ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T246	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
S247	1 *Rubus fruticosus s.* Blackberry/Bramble	C2	To facilitate development Fell - Ground level.	Proposed
S248	1 *Rubus fruticosus s.* Blackberry/Bramble	C2	To facilitate development Fell - Ground level.	Proposed
S249	1 *Rubus fruticosus s.* Blackberry/Bramble	C2	To facilitate development Fell - Ground level.	Proposed
H252	1 *Crataegus monogyna* Common Hawthorn/Quick/May 1 *Rubus fruticosus s.* Blackberry/Bramble	C3	To facilitate development Fell - Ground level.	Proposed
H253	1 *Crataegus monogyna* Common Hawthorn/Quick/May 1 *Rubus fruticosus s.* Blackberry/Bramble	C3	To facilitate development Fell - Ground level.	Proposed
T255	1 *Salix fragilis* Crack Willow	C1	To facilitate development Reduce lateral limb / limbs. Reduce overhanging lateral growth back to site boundary line.	Proposed
H258	1 *Crataegus monogyna* Common Hawthorn/Quick/May 1 *Fraxinus excelsior* Ash 1 *Rubus fruticosus s.* Blackberry/Bramble	C2	To facilitate development Fell - Ground level.	Proposed
H259	1 *Crataegus monogyna* Common Hawthorn/Quick/May 1 *Fraxinus excelsior* Ash 1 *Rubus fruticosus s.* Blackberry/Bramble	C2	To facilitate development Fell - Ground level.	Proposed
H260	1 *Crataegus monogyna* Common Hawthorn/Quick/May 1 *Fraxinus excelsior* Ash 1 *Rubus fruticosus s.* Blackberry/Bramble 1 *Salix caprea* Goat Willow/Great Sallow 1 *Sambucus nigra* Elder	C2	To facilitate development Fell - Ground level.	Proposed
T261	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed

ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T262	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T263	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
T264	1 *Crataegus monogyna* Common Hawthorn/Quick/May	C2	To facilitate development Fell - Ground level.	Proposed
T265	1 *Fraxinus excelsior* Ash	C2	To facilitate development Fell - Ground level.	Proposed
T266	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
S267	1 *Rubus fruticosus s.* Blackberry/Bramble	C2	To facilitate development Fell - Ground level.	Proposed
T268	1 *Fraxinus excelsior* Ash	U	To facilitate development Fell - Ground level.	Proposed
S269	1 *Rubus fruticosus s.* Blackberry/Bramble	C2	To facilitate development Fell - Ground level.	Proposed
H270	1 *Crataegus monogyna* Common Hawthorn/Quick/May 1 *Rubus fruticosus s.* Blackberry/Bramble 1 *Sambucus nigra* Elder	B2	To facilitate development Fell - Ground level.	Proposed
H271	1 *Crataegus monogyna* Common Hawthorn/Quick/May 1 *Rubus fruticosus s.* Blackberry/Bramble 1 *Sambucus nigra* Elder	C2	To facilitate development Fell - Ground level.	Proposed
G272	1 *Crataegus monogyna* Common Hawthorn/Quick/May 1 *Fraxinus excelsior* Ash 1 *Prunus spinosa* Blackthorn/Sloe 1 *Rubus fruticosus s.* Blackberry/Bramble 1 *Salix caprea* Goat Willow/Great Sallow 1 *Sambucus nigra* Elder 1 *Sorbus torminalis* Wild Service Tree	C2	To facilitate development Reduce lateral limb / limbs. Reduce overhanging lateral growth back to site boundary line.	Proposed

ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
G273	1 *Alnus glutinosa* Common Alder 1 *Betula pendula* Silver Birch 1 *Crataegus monogyna* Common Hawthorn/Quick/May 1 *Fraxinus excelsior* Ash 1 *Prunus spinosa* Blackthorn/Sloe 1 *Rubus fruticosus s.* Blackberry/Bramble 1 *Salix caprea* Goat Willow/Great Sallow 1 *Sambucus nigra* Elder	C2	To facilitate development Reduce lateral limb / limbs. Reduce overhanging lateral growth back to site boundary line.	Proposed
G274	1 *Acer pseudoplatanus* Sycamore 1 *Crataegus monogyna* Common Hawthorn/Quick/May 1 *Fraxinus excelsior* Ash 1 *Sambucus nigra* Elder	C2	To facilitate development Fell - Ground level.	Proposed
S275	1 *Rubus fruticosus s.* Blackberry/Bramble	C2	To facilitate development Fell - Ground level.	Proposed
S276	1 *Crataegus monogyna* Common Hawthorn/Quick/May 1 *Rubus fruticosus s.* Blackberry/Bramble	C2	To facilitate development Fell - Ground level.	Proposed

Appendix B - Plans

Document	Reference	Revision
Tree Survey & Constraints Plan	230320-P-10	-
Tree Works Plan	230320-P-11	A
Tree Protection Plan	230320-P-12	A



This drawing is to be read in conjunction with the respective arboricultural schedules and reports relevant to this project.

Where contradictions between this drawing and any other design information becomes apparent, the respective authors should be contacted immediately.

It is the responsibility of the main site contractor to check and verify all information and measurements onsite and confirm prior to the commencement of works, and to ensure that all site operatives work in accordance with respective arboricultural reports and BS5837:2012, Trees in relation to design, demolition and construction.

BS5837:2012 Tree Categorisation

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years

Category B
Trees of moderate quality with an estimated life expectancy of at least 20 years

Category C
Trees of low quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter below 150mm

Category U
Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

Key

Root Protection Areas
The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the trees viability.

Tree, Woodland, Shrub or Hedgerow Group.

T2 — Reference Number for Tree, Group or Hedgerow.

0 5m 10m 20m 30m 40m 50m

Revision	Date	Description

Title:
Tree Survey & Constraints Plan

Project:
Newtownholmes Road, Caltragh

Client:
John Walter Burke

Date:	May 2023	Scale: 1:500 @ A1	Status: Planning
Drawn by:	CMcC	Dwg ref: 230320-P-10	Rev: -
Checked by:	CMcC		

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This drawing is to be read in conjunction with the respective arboricultural schedules and reports relevant to this project.

Where contradictions between this drawing and any other design information becomes apparent, the respective authors should be contacted immediately.

It is the responsibility of the main site contractor to check and verify all information and measurements onsite and confirm prior to the commencement of works, and to ensure that all site operatives work in accordance with respective arboricultural reports and BS5837:2012, Trees in relation to design, demolition and construction.

BS5837:2012 Tree Categorisation

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years

Category B
Trees of moderate quality with an estimated life expectancy of at least 20 years

Category C
Trees of low quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter below 150mm

Category U
Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

Key

Root Protection Areas
The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the trees viability.

Tree, Woodland, Shrub or Hedgerow Group.

T2 — Reference Number for Tree, Group or Hedgerow.

Trees and groups to be removed to facilitate the development shown shaded grey and dashed.

Trees and groups to be removed to facilitate the new highway shown shaded orange and dashed.

Extent of trees and hedgerows to be reduced to facilitate the development shown shaded green.

Trees located off-site. Notify owner to remove T232 due to its poor condition.

Due to bat potential - prior to removing the tree, it will require 2 emergence/re-entry surveys between May and September in accordance with BCT guidance or will require an endoscope survey of potential roosting features.

Due to bat potential - soft felling is recommended, where tree limbs are cut and left grounded overnight to allow any bats to make their way out. Works must be carried out in September/October.

Due to bat potential - prior to removing the tree, it will require 2 emergence/re-entry surveys between May and September in accordance with BCT guidance or will require an endoscope survey of potential roosting features.

RUSHEEN ARD

RUSHEEN ARD

Revision	Date	Description
A	Apr 2024	Updated layout

Title: Tree Works Plan

Project: Newtownholmes Road, Caltragh

Client: John Walter Burke

Date:	Aug 2023	Scale: 1:500 @ A1	Status: Planning
Drawn by:	CMcC		
Checked by:	CMcC	Dwg ref: 230320-P-11	Rev: A

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BS5837:2012 Tree Categorisation

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Category B
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Trees of low quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter below 150mm

Category U
Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

Key

Root Protection Areas
The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the trees viability.

Tree, Woodland, Shrub or Hedgerow Group.

T2 — Reference Number for Tree, Group or Hedgerow.

Tree Protection Zone - Protective fencing to be installed as per Specification. Designated Construction Exclusion Zone.

Excavation works to be carried out under arboricultural supervision highlighted in cyan.

3 no. trees to be removed following detailed bat assessments and recommended mitigation measures.

N

H250
S251
44548
43640
44000
43400
44250
43500
42950
44500
42400
44800
45000
42132
43812
44000
Basketball Halfcourt
41839
41800
Natural Play Area 4-8
44100
45025
T224
41707
42465
44100
39700
41405
43724
44540
G254
G257
T255
43350
42525
42900
G256
40400
40850
41500
41950
42500
42950
43500
41850
42050
41400
41600
40723
40950
40800
36150
36600
40500
40350
40000
39650
36838
39059
39550
39200
49215
36400
37250
38300
35920
48265
37350
36453
36546
36800
36817
37700
Kickabout Area
37465
36500
38081
38650
40800
Natural Play Area 8-14
38154
37425
50375
T221
37953
37360
T223
49615
48665
49165
48265
40814
42908
42977
43300
43100
42750
42400
52465
43550
44671
4193?
43200
42850
42050
42450
45250
64.29
47081
46350
T192
46575
46750
47.50
S275
T188
T187
G272
G273
44450
52967
44200
50717
587
42337
50642
41222
40728
49917
41869
49917
50967
42117
Trees located off-site. Notify owner to remove T232 due to its poor condition.
T232
T231
Due to bat potential - prior to removing the tree, it will require 2 emergence/re-entry surveys between May and September in accordance with BCT guidance or will require an endoscope survey of potential roosting features.
Due to bat potential - soft felling is recommended, where tree limbs are cut and left grounded overnight to allow any bats to make their way out. Works must be carried out in September/October.
Due to bat potential - prior to removing the tree, it will require 2 emergence/re-entry surveys between May and September in accordance with BCT guidance or will require an endoscope survey of potential roosting features.
RUSHEEN ARD
RUSHEEN ARD
82
83
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225
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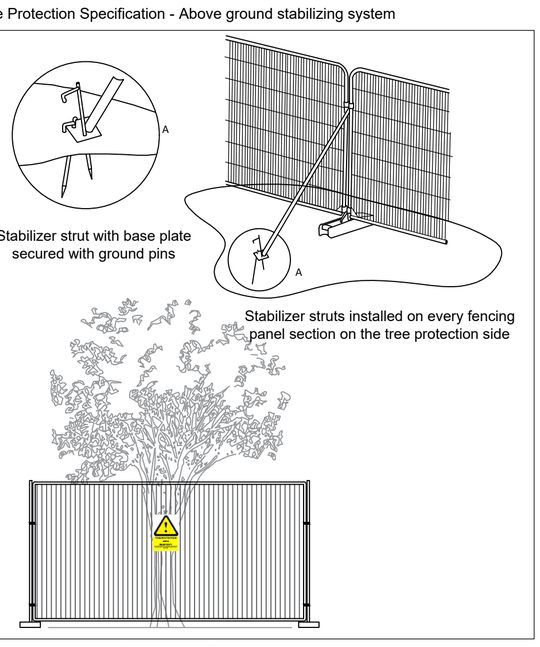
56
57
58
59
65-68

Tree Protection Specification - Above ground stabilizing system



Stabilizer strut with base plate secured with ground pins

Stabilizer struts installed on every fencing panel section on the tree protection side

BS5837:2012 Figure 3

Revision	Date	Description
A	Apr 2024	Updated layout

Title: Tree Protection Plan

Project: Newtownholmes Road, Caltragh

Client: John Walter Burke

Date: Aug 2023	Scale: 1:500 @ A1	Status: Planning	
Drawn by: CMcC	Dwg ref: 230320-P-12	Rev: A	
Checked by: CMcC			

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