

**CO-OP PETROL STATION, HIGH
STREET, COEDPOETH, WREXHAM**

**ARBORICULTURAL IMPACT
ASSESSMENT**

A Report to: Williams Southern Ltd

Report No: RT-MME-127752-03

Date: April 2018



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REPORT VERIFICATION

This study has been undertaken in accordance with British Standard 5837:2012 "Trees in relation to design, demolition and construction - Recommendations".

Report Version	Date	Completed by:	Checked by:	Approved by:
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Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

VALIDITY OF DATA

The findings of this study are based upon the data provided by the client (listed within Table 1.1, Section 1.4). If the development proposals change then this report will require updating to assess the impact of the amended development.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

In March 2018, Williams Southern Ltd commissioned Middlemarch Environmental Ltd to compile an Arboricultural Impact Assessment in respect of the proposed development of land at the Co-op Petrol Station on High Street in Coedpoeth, Wrexham.

Middlemarch Environmental Ltd has previously carried out an Arboricultural Survey at this site. The findings of this survey are detailed in Report RT-MME-127752-01.

This report details the impact that the proposed development will have upon the site's existing tree stock and sets out recommendations for the subsequent mitigation or avoidance of impact. The study has been completed in accordance with guidance contained within British Standard BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

1.2 SITE DESCRIPTION

The site under consideration, hereinafter referred to as the study area, is an "L" shaped parcel of land of approximately 0.16 ha in size which is located on High Street in Coedpoeth, Wrexham at Ordnance Survey Grid Reference SJ 28089 51445.

The study area is located within a predominantly residential area in Coedpoeth, a village west of Wrexham, Wales. The surrounding area consists of mainly residential development, whilst the wider landscape is dominated by fields.

The northern boundary of the study area is delineated by High Street, beyond which is a residential area, to the east the study area runs adjacent to a row of residential properties, whilst to the south it borders Bryn-Y-Wern, beyond which is the River Clywedog and a large area of fields. To the west of the study area is Smelt Road and Old Smelt Road.

The study area is dominated by hardstanding and all notable vegetative features are located adjacent to or beyond its boundaries.

The topography of the study area is generally flat with no notable topographic features evident.

The location of the trees surveyed can be found on Middlemarch Environmental Ltd Drawing Number C127752-01-01, contained within Section 6 of this report.

1.3 DEVELOPMENT PROPOSALS

The proposed development of the site is the demolition of the existing retail unit and neighbouring dwelling and the construction of a new retail building, a new petrol station canopy and associated car parking spaces and landscaping.

The proposed development has been designed so that safe and healthy existing trees are retained wherever possible and that those trees to be retained are not significantly impacted upon by the development.

1.4 DOCUMENTATION PROVIDED

This assessment is based upon the information provided by the client in addition to information collected by Middlemarch Environmental Ltd during a survey of the site undertaken in March 2018 (RT-MME-127752-01). The documents and drawings considered are detailed within Table 1.1.

Author	Document	Drawing Number	Date
archerarchitects	Site Location Plan	6036 (P) 100	Aug 2017
archerarchitects	Existing Site Plan	6036 (P) 502	Aug 2017
archerarchitects	Proposed Site Plan	6036 (P) 503	Aug 2017

Table 1.1: Documentation Provided

2. STATUTORY PROTECTION

2.1 TREE PRESERVATION ORDER AND CONSERVATION AREA DESIGNATIONS

John Brewin (Wrexham County Borough Council, 2018, *Pers. Comm.*) confirmed by email on the 29th March 2018 that there are no Tree Preservation Orders within or closely surrounding the site and that the site is not situated within a Conservation Area.

2.2 PROTECTED SPECIES

Bats

Mature trees often contain cavities, hollows, peeling bark or woodpecker holes which provide potential roosting locations for bats. Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2010 (Habitats Regulations 2010, as amended). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. Consequently causing damage to a bat roost constitutes an offence.

Generally should the presence of a bat roost be suspected whilst completing works on any trees on site then an appropriately licensed bat worker should be consulted for advice.

Birds

Trees and hedgerows offer potential habitat for nesting birds which are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties. This legislation makes it an offence to intentionally or recklessly damage or destroy an active bird nest or part thereof.

As the trees on, and adjacent, to the site provide potential habitat for nesting birds all tree work should ideally be completed outside the nesting bird season (Generally March to September).

If this is not possible then the vegetation should be subject to a nesting bird inspection by a suitably experienced ecologist prior to commencement of works. If any active nests are identified then the vegetation, and a defined buffer zone, will need to remain in place until the young have naturally fledged.

3. ARBORICULTURAL IMPACT ASSESSMENT

3.1 INTRODUCTION

This section of the report details the potential impacts that the proposed development may have upon the sites tree stock. The assessment has been based upon the documents detailed in Table 1.1 with reference to the results of the Arboricultural Survey undertaken in March 2018 (RT-MME-127752-01).

The location of the trees can be found on Drawing Number C127752-01-01 in Section 6 and a schedule of the trees surveyed can be found within the Arboricultural Survey (RT-MME-127752-01).

3.2 IMPACTS FROM DEVELOPMENT LAYOUT

3.2.1 Tree Removal

The proposed development has been designed so that, where possible, existing trees are retained. In particular the retention of the Category B hedgerow adjacent to the western boundary of the site, which has good screening value, is to be retained. However to accommodate the proposed development it will be necessary to remove a small number of trees within the site.

The trees to be removed are detailed within Table 3.1 additionally they are identified on the Draft Tree Protection Plan – Demolition Phase, Drawing Number C127752-03-01, in Section 6 of this report.

Tree Number	Species	BS5837 Category	Reason for Removal
G1	Mixed species	C2	Removal required due to being located within footprint of proposed building.
<u>Key</u> *: Partial removal of trees within group.			

Table 3.1: Tree Removal

Overall the proposed development will require the complete removal of one group of trees.

It should be noted that the group of trees identified for removal were considered to be of a low retention value in the Arboricultural Survey. It is not considered that the removal of these trees should be seen as a constraint to the development of the site as they are not in such a condition that they are likely to make a lasting contribution to the landscape character of the site.

3.2.2 Tree Pruning

In addition to the proposed tree removal there is one area on site where it will be necessary to undertake access facilitation pruning works to retained trees present on the site to minimise the potential for branch damage to occur during construction. The only area where pruning works will be required is to trees within hedgerow H1. In this location it is recommended that overhanging trees are crown lifted to a height of 3.5 m to provide adequate clearance for demolition and construction works. It is recommended that the extent of pruning required is identified in a pre-commencement site meeting. These tree pruning works are likely to be of a minor extent and of a routine nature. As such it is not considered that they will have a significant impact upon the long-term health, or visual quality, of the trees.

3.3 IMPACTS FROM DEMOLITION AND RELATED OPERATIONS

3.3.1 Building Demolition

There is one area on site where the demolition of existing buildings is required within close proximity to trees. However, the feather edge fencing in front of the affected hedgerow will act as a Tree Protection Barrier during the demolition stage of the proposed development and will help to protect retained trees and such no significant impacts from this aspect of the development are considered likely.

3.3.2 Removal of Hard Surfaces

There are no existing areas of hardstanding present within the Root Protection Areas (RPA) of retained trees that will require removal to facilitate the proposed development of the site. As such, no impacts are expected.

3.3.3 Removal of Services

There are no areas on site where the removal of existing underground services are likely to require works within the RPAs of retained trees. As such, no impacts are expected to occur.

3.3.4 Ground Remediation

No information regarding proposed soil remediation works have been considered. However the previous usage of the site is considered unlikely to have resulted in areas of soil contamination that would require excavation and disposal, or treatment works, to be undertaken. As such it is not considered that ground remediation works are likely to impact upon retained trees.

3.3.5 Ancillary Operations

Access to the site for demolition plant will be via the existing entrance off High Street. No access facilitation pruning works will be required to facilitate this aspect of the development as there are no retained trees in proximity of the site entrance.

3.4 DIRECT IMPACTS FROM CONSTRUCTION

3.4.1 Works within RPAs

The proposed development has been designed so that major works are not required within the RPAs of retained trees. However, as detailed within Table 3.2, there are some aspects of the development that will require works to be undertaken within the RPAs of retained trees.

Tree Number	Species	BS5837 Category	Works within RPA
H1	Leyland Cypress	B2, 3	Demolition of existing retail unit and construction of cycle storage.

Table 3.2: Works in RPAs

It should be noted that the areas of the RPAs affected by works to construct the new cycle storage are already hard surfaced. As such it is likely that root development in the affected areas will have been restricted and on this basis it is considered that the potential for harm to occur to the trees as a result of the works is minimal. However, the demolition works to remove the existing Co-op retail unit do have the potential to affect the roots of trees within hedgerow H1. This potential impact will be mitigated by the adoption of appropriate demolition methodologies and the use of the existing feather edge fencing as a tree protection barrier.

Whilst in some locations, construction will require works to be undertaken within the RPAs of retained trees so long as such works are completed in accordance with the protective measures outlined in Section 4 of this report no significant impact upon the retained trees is likely to occur.

3.4.2 Works within Canopy Spreads

The demolition of the existing retail unit will require works to be undertaken beneath the canopies of retained trees within hedgerow H1. To minimise the potential for branch damage to occur some access facilitation pruning works will need to be undertaken. Following on from this the adoption of an appropriate working methodology will ensure that harm to the retained trees is avoided.

3.4.3 Working Space

There are no areas on site where working space for the construction of new buildings will need to be provided within the RPAs of retained trees.

3.5 IMPACTS FROM CONSTRUCTION RELATED OPERATIONS

3.5.1 Site Access

It is understood that construction access to the site will be provided along the existing access entrance off High Street. It will not be necessary to undertake any access facilitation pruning works in this area as there are no retained trees within proximity of the site access.

3.5.2 Delivery and Storage of Materials

Material deliveries to the site will utilise the existing access entrance off High Street. Areas for material storage within the site have not been identified at this stage, however the nature of the site is such that ample opportunities for the storage of materials in areas well away from retained trees exist.

As noted in Section 3.5.1, there are no retained trees within proximity of the entrance to the site and as such, no impacts related to the delivery and storage of materials are expected to occur.

3.5.3 Site Compound

The proposed location for the contractor's compound during development of the site has not been identified at this stage, however the nature of the site is such that several opportunities to create a site compound in areas away from retained trees exist.

3.5.4 Contractor's Parking

The locations for contractor's parking have not been identified at this stage. There are multiple areas throughout the site where car parking could be provided outside of the RPAs of retained trees.

3.6 POST-DEVELOPMENT IMPACTS

3.6.1 Shading

The proposed new buildings have been sited so that they are not in such close proximity to retained trees that shading is likely to occur. As such it is not considered that a significant conflict between retained trees and the proposed development as a result of shading is likely to occur.

3.6.2 Direct Damage to Structures

There are no areas on site where retained trees will be in such close proximity to the new development that direct damage, through branch whipping or root growth, are likely to occur.

3.6.3 Future Pressure for Removal

The layout of the site has been designed so that the buildings have been located at sufficient distances from retained and proposed trees such that future pressure for tree removal is unlikely to result.

3.6.4 Seasonal Nuisance

The nature of the development is such that seasonal nuisance due to leaf litter is unlikely to occur.

3.7 SUMMARY OF IMPACTS

In summary it is considered that the proposed development of the site will not have a significant impact upon the visual amenity of the local area as a result of the proposed tree removal necessary to implement it. Additionally the proposed works are unlikely to impact significantly upon the long-term health of retained trees. Whilst some works are to be undertaken within the RPAs of retained trees the nature of those works are such that they can be completed without impacting significantly upon the trees subject to the adoption of appropriate working practices.

4. MITIGATION AND PROTECTION

4.1 INTRODUCTION

This section of the report details the initial protection, mitigation and avoidance measures suggested to prevent harm to the retained trees.

4.2 GENERAL TREE PROTECTION

4.2.1 Construction Exclusion Zone

To minimise the potential for harm to occur to the root systems and canopies of retained trees during development it will be necessary to implement construction exclusion zones throughout the site. These are areas surrounding the trees' RPAs and canopies in which no construction works, or related activities, will be undertaken.

It is recommended that the exclusion zones are afforded protection at all times through the use of tree protection barriers and/or ground protection (specified in accordance with BS5837:2012). No works that cause compaction of the soil or severance of tree roots, except where undertaken in accordance with the guidance provided within this document, will be undertaken within any exclusion zone.

Where construction operations, such as the installation of the acoustic fence, are to be undertaken within the construction exclusion zone the working practices detailed in Section 4.3 should be followed.

4.2.2 Tree Protection Barriers

Tree protection barriers will not require installation for this site as the existing feather edge fencing in the west of the site will act as a tree protection barrier and will protect trees within hedgerow H1. This is detailed on the Draft Tree Protection Plan – Demolition Phase – Drawing Number C127752-03-01.

4.2.3 Ground Protection

There are no areas on site where ground protection measures will require installation on this site.

4.3 MITIGATION OR AVOIDANCE OF IMPACTS

4.3.1 Design Amendments

It is not considered that design amendments are required on this site as the trees requiring removal are typically of a low value and there are no areas where significant conflicts between the proposed development and retained trees will occur.

4.3.2 Site Setup and Logistics

Prior to commencement of development a plan should be prepared detailing the locations in which activities related to the establishment of a site compound, contractors car parking areas, material storage areas and associated works are to occur. All such areas should be located outside of the RPAs of retained trees.

5. ARBORICULTURAL METHOD STATEMENT

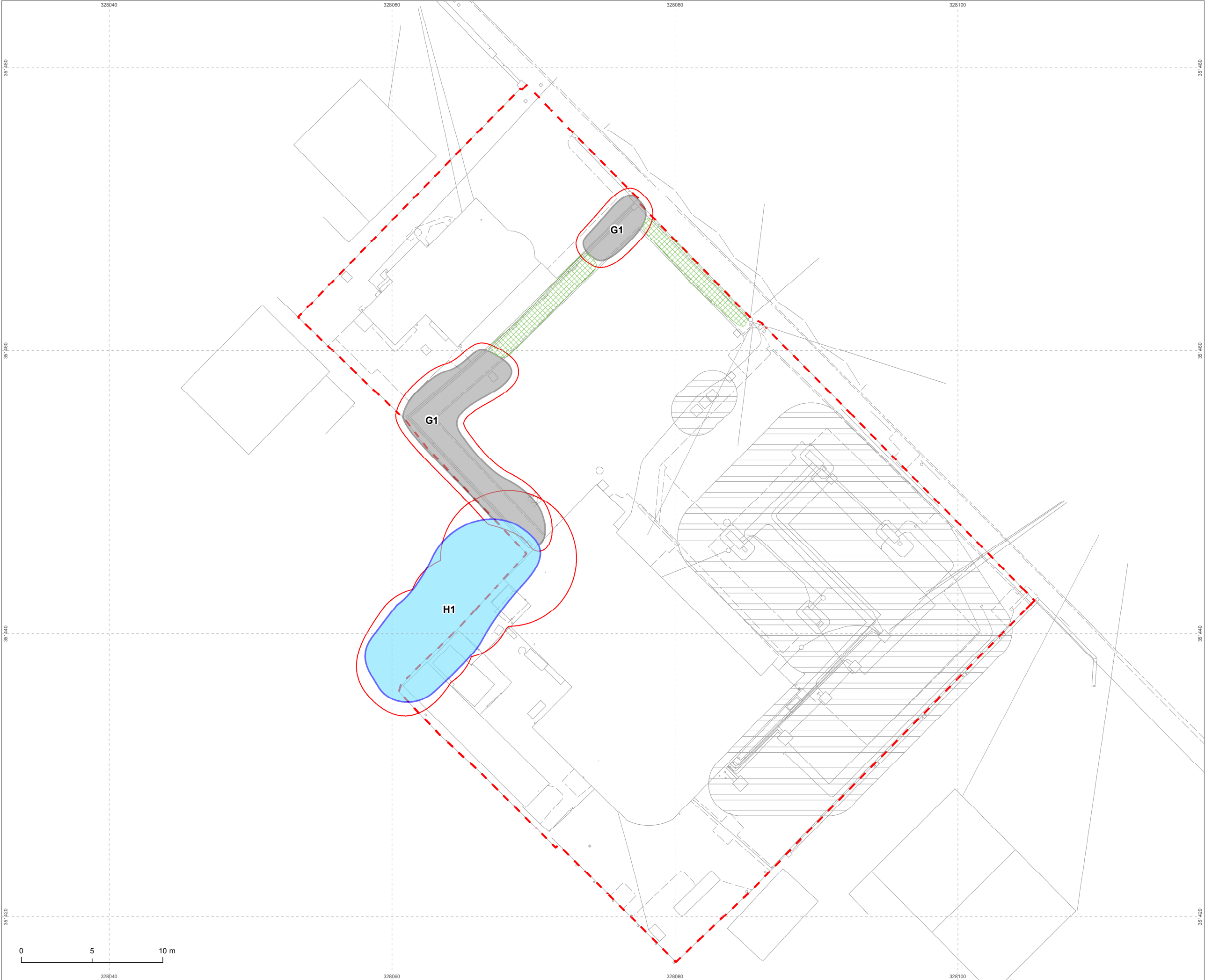
An Arboricultural Method Statement will not be required for the site as few aspects of the proposed development will require works to be undertaken within the RPAs of retained trees.

6. DRAWINGS

Drawing Number C127552-01-01 – Tree Constraints Plan

Drawing Number C127552-03-01 – Draft Tree Protection Plan – Demolition Phase

Drawing Number C127552-03-02 – Draft Tree Protection Plan – Construction Phase



C127752-01-01

Legend

Category B hedgerow

Category C group

Shrub bed

Root Protection Area

Site boundary

The original of this drawing was produced in colour - a monochrome copy should not be relied upon

Project

Drawing

Client

Drawing Number

Scale @ A3

Approved By

Revision

Date

Drawn By

Co-op Petrol Station,
High Street, Coedpoeth, Wrexham

Tree Constraints Plan

William Southern Ltd

C127752-01-01

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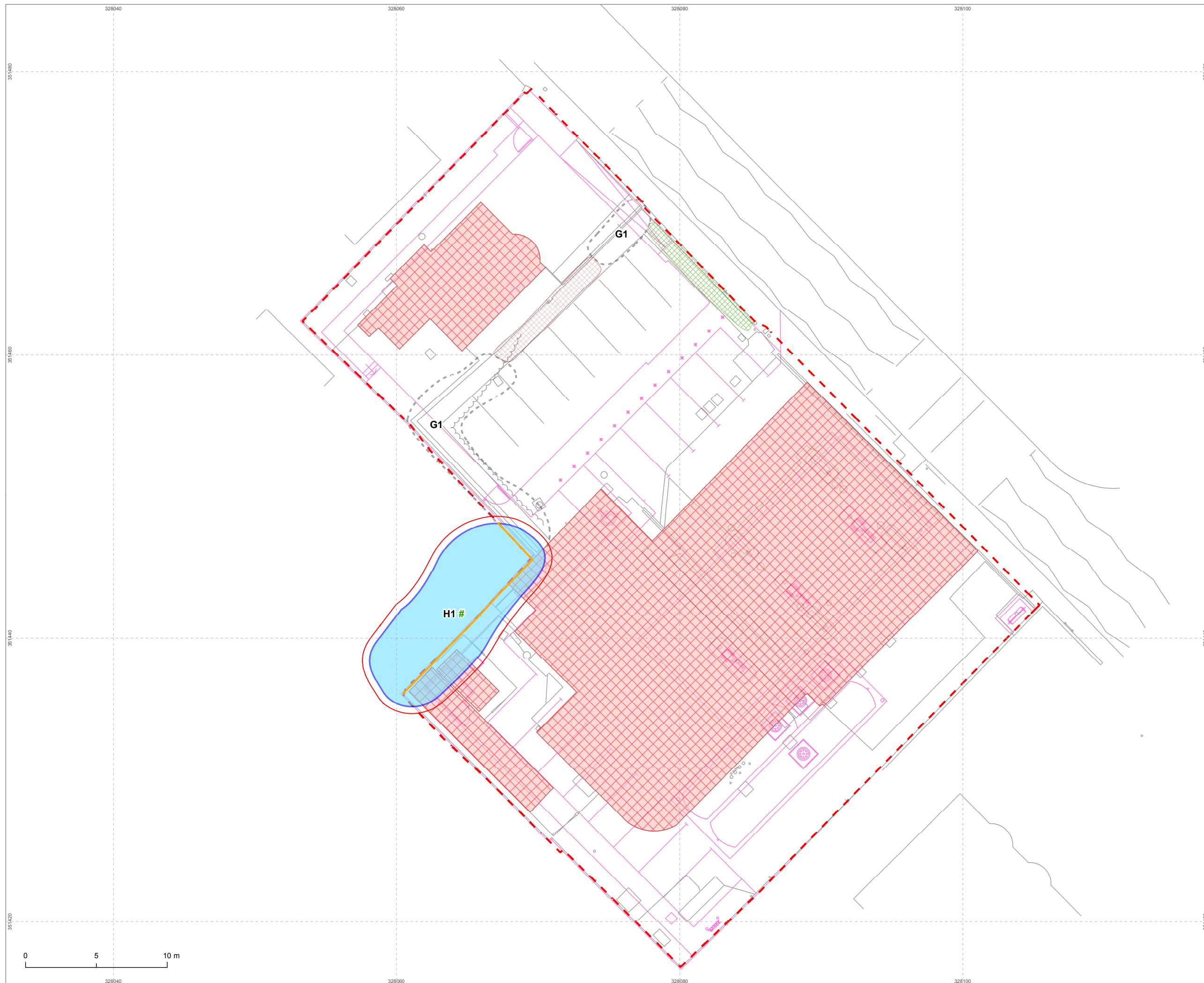
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C127752-03-01

Legend

-  Category B hedgerow
-  Category C group to be removed
-  Shrub bed
-  Shrub bed to be removed
-  Demolition Phase
-  Feather edge fencing to act as Tree Protection Barrier
-  Root Protection Area
-  Site boundary
-  Proposed plan
-  Pruning works required

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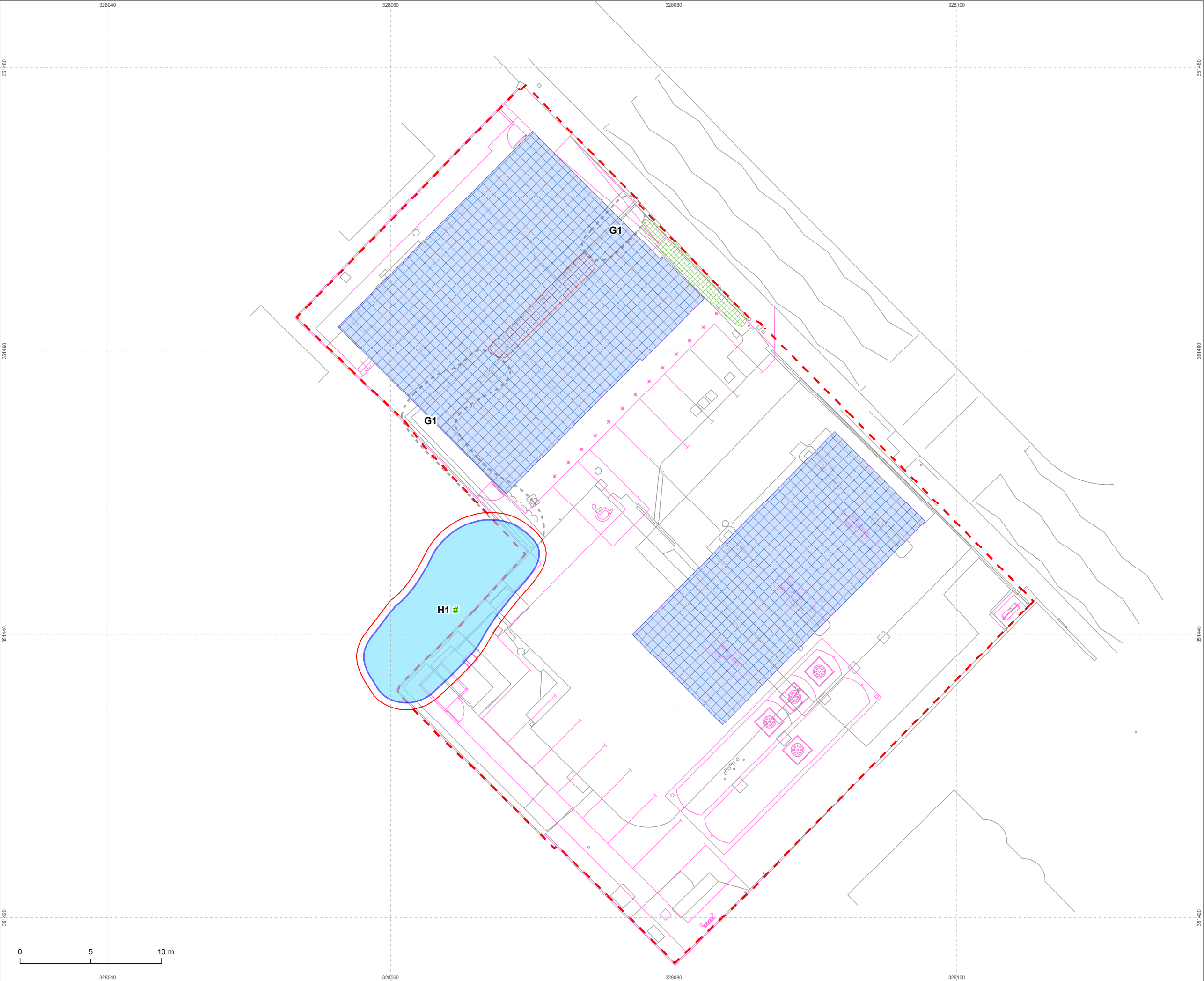


Project	Co-op Petrol Station, High Street, Coedpoeth, Wrexham		
Drawing	Draft Tree Protection Plan Demolition Phase		
Client	William Southern Ltd		
Drawing Number	C127752-03-01	Revision	00
Scale @ A3	1:250	Date	April 2018
Approved By	DM	Drawn By	GP



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C127752-03-02

Legend

Category B hedgerow

Category C group to be removed

Shrub bed

Shrub bed to be removed

Construction Phase

Root Protection Area

Site boundary

Proposed plan

Pruning works required

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Project

Co-op Petrol Station,
High Street, Coedpoeth, Wrexham

Drawing

Draft Tree Protection Plan
Construction Phase

Client

William Southern Ltd

Drawing Number

C127752-03-02

Revision

00

Scale @ A3

1:250

Date

April 2018

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