



Land at Clywedog Rd East (Site 3) Wrexham Industrial Estate

Habitat Mitigation and Management Plan

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Land at Clywedog Road East (Site 3)
Habitat Mitigation & Management Plan



1 Introduction

1.1 Planning Background

Wrexham County Borough Council approved First Investment Real Estate Management (FI-REM) Limited's planning application (ref: P/2018/1085) for the erection of a B2/ B8 industrial unit with associated access, services, parking and landscape treatment with an ecological mitigation zone on the 29th January 2021.

The ecological effects of the proposals were assessed and mitigation measures proposed in Kingdom Ecology Reports (2018a¹ and 2018b²).

Planning Condition 3 of the Planning Permission states:-

'3. The development shall not commence until a detailed habitat mitigation and management plan has been submitted to and approved in writing by the local planning authority. The scheme shall be prepared in accordance with the principles laid out in the Outline Habitat Management Plan document ref: KE1849.02 Version 3 dated 23 November 2018 authored by Richard Roe of Kingdom Ecology Ltd. The development shall be carried out in accordance with the details as may be approved.'

In addition and as part of a Section 106 agreement for the development, and detailed within a Unilateral Undertaking (UU) signed on the 22nd December 2020, there is a requirement for the developer to submit a Habitat Management Plan to the council for approval and to manage and maintain 'Ecology Areas' as identified within the UU.

The extent of the two proposed ecology areas are shown on Drawing Number 0513 in the Appendix. These comprise of an area of land immediately contiguous to the site plus a further offsite area located approximately 70m to the east of the site, and located further along Clywedog Road East.

In order to address Planning Condition 3 and the requirements of the S106 agreement, Kingdom Ecology have produced this Habitat Mitigation and Management Plan to support the proposed development of the site.

¹ Kingdom Ecology (2018a)- Land at Clywedog Rd East (Site 3); Wrexham Industrial Estate; Ecological Assessment Report; 21st November 2018

² Kingdom Ecology (2018b)- Land at Clywedog Rd East (Site 3); Wrexham Industrial Estate; Outline Habitat Management3 Report; 23rd November 2018

Section 2 of the report provides background information on the habitats present at the on-site and off-site Ecology Mitigation Areas.

Section 3 identifies conservation objectives. And proposes methods for habitat creation including the installation of discreet features for wildlife including bat and bird boxes and the creation of butterfly mounds.

Section 4 identifies methods for future habitat management including management of grassland, scrub and woodland habitats.

Section 5 identifies objectives for future monitoring, wardening and reporting of the mitigation sites.

2 Existing Habitats

2.1 Site Overview and Mitigation Habitats

The proposed development site is an approximate 1.2ha area of land located adjacent to Unit 73, Clywedog Road East, Wrexham Industrial Estate, LL13 9XE (National Grid Reference- SJ 372 493).

The proposed mitigation area comprises of an existing 0.23ha triangular patch of land located at the southeast corner of the site.

The additional, off-site mitigation area measures approximately 2.4ha in area and is located approximately 70m to the east of the site, further along Clywedog Road East. This offsite Ecology Area backs on to the rear gardens of the adjacent Pentre Maelor housing estate.

2.1.1 Habitats at the Development Site

An initial desk study and an Extended Phase 1 Habitat Survey of the Site was carried out on the 19th September 2017. Further surveys comprising of botanical, butterfly and reptile surveys were completed in Spring/Summer 2018.

To summarise, the Site was found to comprise of an area of regularly mown, species-poor, semi-improved grassland habitat with scattered ornamental trees within the grassland.

The grassland habitats were found to support habitats and species that are of relatively low botanical interest and are commonly occurring throughout the UK within similar less intensively managed sites.

There is a continuous band of broadleaved woodland which runs along the southern boundary of the site.

The woodland forms part of a more-or-less unbroken corridor of semi-natural vegetation which runs for approximately 1600m from the southern boundary of the study site on Bridge Road South, through the wider Industrial Estate, before joining Redwither Brook approximately 950m to the east of the site.

The woodland is considered to be of relatively low botanical interest, however owing to its likely function as one of the main wildlife corridors through the Industrial Estate, the woodland is considered to be a feature of locally important biodiversity value.

The woodland lies outside of the proposed development area.

Further surrounding landuses largely comprise of industrial units with associated areas of hardstanding and patches of amenity grassland.

2.1.2 Proposed Mitigation Area at Site 3

The proposed mitigation area comprises of an existing 0.23ha triangular patch of land located at the southeast corner of the site.

The area currently comprises of regularly mown, species-poor, semi-improved grassland. The grass is cut several times a year and the arisings are currently left *in situ*. The grass sward is therefore relatively short throughout the year. The grassland supports a range of coarse grasses with herbs throughout.

Grasses present comprise of frequent perennial rye-grass with occasional red fescue, rough meadow-grass, cock's foot, Yorkshire fog, sweet vernal grass, meadow foxtail and common bent.

Herbs present include frequent creeping buttercup and dandelion, with occasional creeping cinquefoil, bird's-foot trefoil, white clover, red clover, ribwort plantain, common knapweed, yarrow and meadow vetchling.

2.1.3 Proposed Off Site Mitigation Area

The off-site Mitigation Area measures approximately 2.4ha in area and is located approximately 70m to the east of the site, further along Clywedog Road East.

Habitats within Site the offsite Mitigation Area comprise of a range of successional habitats that have developed on an area of unmanaged grassland. The site largely comprises of an area of grassland habitat that has remained irregularly managed for several years. A range of successional habitats have developed including areas of coarse, unimproved, neutral grassland which grades into areas of tall herb community, bramble scrub and thorny scrub.

The grassland habitats are mostly representative of a typical MG1 community ((false oat-grass grassland community) as defined by the National Vegetation Classification system Rodwell 1992³). The site principally comprises of patches of herb-rich grassland with frequent umbellifers, creeping thistle and common knapweed amongst the grasses. There are some with some areas of wetter grassland dominated by meadow sweet, and several areas of more trampled grassland where footpaths and off-road vehicle tracks pass through the site.

³ Rodwell, J.S. (ed) 1992. *British Plant Communities. Volume 3. Grassland and Montane Communities*. Cambridge University Press.

The grassland grades into areas of bramble underscrub plus areas dominated by hawthorn and blackthorn scrub. The woodland areas comprise predominantly of oak trees of varying ages with other woody species also present.

There is a band of broadleaved oak woodland which runs around the western and northern edge of the site.

The two woodland blocks are linked to a larger, more-or-less unbroken corridor of semi-natural, woodland vegetation which runs from the southwestern edge of the Industrial Estate, through the estate itself, before joining Redwither Brook approximately 650m to the east of the site. Redwither Brook eventually flows into the River Clywedog at the south-eastern edge of the Industrial Estate.

The woodland is likely to function as a wildlife corridor through the Industrial Estate.

The site is bounded to the east by Clywedog Road East, to the south by Bridge Road, to the west by the gardens of an adjacent housing estate and to the north by commercial units associated with the Industrial Estate. Habitats at the site are linked at the northwest corner to a similar area of derelict land also comprising of grassland/scrub/woodland mosaic.

2.1.4 Key Species

The Wrexham Industrial Estate is acknowledged as maintaining important populations of the dingy and grizzled skipper butterfly. Both of these butterflies are 'Species of Principal Importance' as listed under Section 7 of the Environment (Wales) Act 2016.

A review of existing data and site surveys did not record the presence of either of these butterflies at the proposed development site. In addition, the habitat assessments of these sites did not indicate that they were potentially viable for the presence of these species.

Although neither species was recorded within the study site, the adoption of habitat creation and management within and outside of the site has the potential to provide additional resources and contribute to the maintenance and enhancement of the butterfly, and other invertebrate, populations within the Wrexham Industrial Estate.

Other wildlife that could use the site include small mammals, common bat species plus farmland and woodland bird assemblages.

3 Habitat Mitigation Proposals

3.1 Overview

3.1.1 Development Proposals

Development proposals are to construct an industrial unit at the site with associated areas of hardstanding. This will result in the loss of approximately 1.34ha of species-poor grassland habitats. The proposed development would include the retention of a 0.23ha area of grassland which would be managed principally for its conservation benefit.

The grassland area would require some re-profiling to create a small SUDS (Sustainable Urban Drainage System) attenuation basin which would allow some storage of flood water during extreme storm events. However, this area would in the main, remain dry.

The off-site mitigation area measures approximately 2.4ha in area and is located approximately 100m to the east of the Development Site further along Clywedog Road East

3.1.2 Mitigation Plan Aims

The habitat management plan for the on-site and off-site mitigation habitat has been designed around the following key principles and aims:-

- Where possible, retain blocks of interlinked habitat as opposed to isolated pockets of habitat;
- Maximise the biodiversity value of retained habitats at the site;
- Promote botanical interest within grassland habitats;
- Where possible include suitable habitat for notable invertebrate species;
- Ensure the long-term viability of the proposed ecology sites by appropriate, long-term management and long-term protection of the sites;
- Allow for a flexible and iterative process with regards to the management of the habitats through an annual review of the habitats present and the management plan to allow biodiversity opportunities to be explored and promoted.

3.1.3 Management Plan Delivery

FI-REM will make provision for the appointment of an appropriate managing organisation who will be responsible for the maintenance and management of the FI-REM owned habitat compensation areas across the Wrexham Industrial Estate.

Funding for the ongoing management of the sites would need to include for the following:-

- Initial habitat preparation and creation
- Ongoing management and maintenance
- Wardening and monitoring of the sites
- Production of an annual report for the sites
- A contingency fund to allow for any modifications to the habitat management plan or ad-hoc remediation works

3.2 Initial Habitat Preparation/ Habitat Creation

3.2.1 Overview

There are two proposed mitigation areas, one is located immediately adjacent to the proposed development site and the other is located approximately 100m to the east of the site. Both areas support habitats which would benefit from long term management for their conservation benefit.

Habitat management proposals for the two areas will aim to maintain areas of species-rich grassland including flower-rich neutral grassland and south facing calcareous grassland on proposed butterfly banks and mounds. There are further proposals to manage woodland and scrub habitats to optimise their conservation value.

The on-site Mitigation Area will include a small SUDS (Sustainable Urban Drainage System) attenuation basin which would allow some storage of flood water during extreme storm events. However, this area would in the main, remain dry.

There are further recommendations to provide a bat and bird box scheme within surrounding woodland habitats.

Proposed habitat management prescriptions are shown on Figures 2 and 3 in the Appendix. Proposals within the two mitigation area will include:-

- Demarcation of mitigation areas
- Creation of south facing butterfly banks/mounds
- Management of existing areas of grasslands
- Management of areas of scrub and woodland habitat

An Ecological Clerk of Works (EcOW) will be appointed to oversee and advise on sensitive stages of the initial ground works.

It is advised that the mitigation areas are prepared in advance of the wider site clearance as this will allow opportunities to identify and translocate flower-rich grassland turves into the mitigation areas from the proposed development area and other areas of suitable habitat under FI-REM's ownership.

Site 2, which will be developed in conjunction with Site 3 supports some areas of unimproved grassland. It is proposed that habitats from this site are used to enhance habitats within the proposed Mitigation Area.

3.2.2 Demarcation and Protection of Habitats

The first item of works will be to fence the boundaries of the mitigation area with demarcation fencing and to identify and demarcate any areas of grassland and soils to be translocated to the mitigation areas. This is to ensure that the areas are not damaged during site clearance works. The mitigation area and the any areas of key grassland habitat should be fenced with Heras fencing or similar as soon as practicable.

Some part so the Ecology Mitigation Area will need to be accessed during the creation of the SUDS basin. The demarcation fencing can be temporarily removed for this stage of works. However, once these works have been completed and the land restored the Heras fencing must be restored in order to ensure that this area is protected from further damage during the main construction works.

An initial site meeting will be undertaken between the EcOW and the construction contractors to work through this management plan and to mark out any areas of grassland to be protected for translocation.

3.2.3 Creation of Butterfly Bank/Mounds

It is recommended that south facing butterfly banks and butterfly mounds are constructed within the off-site mitigation area.

The on-site mitigation area is shaded by the adjacent woodland on its southern boundary and so is not suitable for butterfly mounds.

It is recommended that 3 x 10m long butterfly mounds are created within the open grassland habitats of the offsite Ecology Area (see Figure 3).

Each mound will be approximately 1-1.5m in width and 50-70cm in height. Each mound will either comprise completely of coarse aggregate rubble or will comprise of a mound of subsoil or topsoil from elsewhere at the development sites but with a depth of at least 10cm of stone chippings/ aggregate.

The banks and mounds should be constructed from a medium-coarse aggregate material with a limestone or other high pH material preferable as it facilitates the development and maintenance of an open, species-rich sward. Crushed brick or clean builder rubble is also a suitable stone aggregate, though any rubbish will need to be removed first.

Once the mounds are in place, topsoil and cut turfs from the protected areas of grassland habitat at either Development Site 2 or Site 3 will be translocated across to the mounds. Species-rich turfs will be cut to a depth of approximately 15cm, with topsoil also gathered from the top 10cm of the soil horizon. It is envisaged that the seedbank of the gathered topsoil will also support target plant species desired for the butterfly mounds.

Ideally, grassland turves should be moved when soils are warm and moist and immediately prior to rainfall. Turves will be transported immediately to the donor site. Turves must be planted immediately after harvesting and cannot be stored. If no rainfall is forthcoming then turves will require supplementary watering.

The mounds will be partially vegetated with turf and part with a fine scattered of the gathered topsoil (approximately 5cm depth). The target for the south facing slope and crest of the bank will be to provide a 30% covering of turf, a 50% covering of topsoil and 20% of the banks left bare.

The north face of the bank can be laid with further grass turfs or gathered topsoil. As this face of the bank will likely be in heavy shade, it is likely to be of a lesser conservation importance compared with the south face.

These works should be overseen by the EcOW who will ensure that turves are correctly cut, transported and planted.

The proposed locations for Butterfly Mounds are shown on Figure 3 in the Appendix.

3.2.4 Bat and Bird Boxes

A bat and bird box scheme will be implemented within woodland habitats at the offsite Mitigation area and surrounding the on-site Ecology Mitigation Area..

It is recommended that the following models and numbers of bat and bird boxes are installed on mature trees at the site:-

- 6 x Schwegler 1B Bird boxes with 32mm entrances
- 3 x Schwegler 1B Bird boxes with 26mm entrances
- 5 x Schwegler 1FS Bat boxes
- 2 Schwegler 2FN Bat boxes
- 1 x Schwegler 2FN Bat boxes

Any variation to the models of bat and bird boxes recommended (e.g. through lack of availability) should first be agreed with the EcOW.

Bat boxes should be positioned to face in a more-or-less southerly direction; should be located at a minimum height of 4m and should be located so that flight lines to the bat box are not obstructed by vegetation.

Bird boxes should be located at a minimum height of 3m and should be positioned in a sheltered location.

The exact location for the bat boxes would be determined on site by the EcOW.

3.2.5 SUDS Basin

Development proposals in the on-site Ecology Area will include the installation of a SUDS attenuation basin which will likely only hold water during extreme flood events. The basin will be dry for the majority of the time.

The attenuation basin will have gradually sloping sides and will be located approximately 1m below the surrounding ground levels.

The attenuation basin will provide opportunities for wildlife at the site by creating a more varied topography, the basin will likely support damp soils and consequently the site may be able to support a greater variety of grassland habitats including marshy grassland.

The basin will also create dry, south facing slopes which can be of value to invertebrates.

Following construction, the SUDS basin and any other areas of bare ground should be re-seeded with an appropriate wildflower mix (e.g. Emorsgate Seeds EM8- Meadow Mixture for Wetlands).

Ground preparation and aftercare would follow the recommendations provided by Emorsgate Seeds, with the preparation of an appropriate soil tilth, followed by sowing of the seeds ideally during the autumn or spring or at other times of the year if there is sufficient warmth and moisture. Once sown, the seeds will be firmed in with a roll, or by treading, to give good soil/seed contact.

Most sown meadow wildflower and grass species are perennial; they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season which may grow up and obscure the meadow seedlings beneath. This annual weed growth can be controlled by topping or mowing.

The newly sown grassland will be mown regularly throughout the first year of establishment to a height of 40-60mm, removing cuttings if dense. This will control annual weeds and help maintain balance between faster growing grasses and slower developing wildflowers. Any residual perennial weeds should be spot treated or dug out.

4 Habitat Management Proposals

4.1 Management Plan Delivery and Responsibilities

The Habitat Mitigation Areas will be managed in accordance with this Habitat Management Plan for a minimum of 20 years.

First Investment Real Estate Management Ltd will be responsible for the management and maintenance costs and for arranging the required monitoring, management and maintenance activities.

Annual ecological monitoring would be undertaken at the site for a minimum of 20 years. The monitoring works will record habitats present, confirm whether management prescriptions are being completed and will make adjustments to the management plan, where required.

An Ecological Compliance Audit will be completed during the construction phase and for the first three years post construction to ensure that the Habitat Management Plan is being appropriately followed.

First Investment Real Estate Management Ltd will appoint an appropriately qualified ecologist to undertake monitoring works and to complete the Ecological Compliance Audit.

4.2 Habitat Management

4.2.1 Grassland Management

Habitat management at the Ecology Mitigation Sites should seek to encourage a diverse range of habitats.

This will be achieved within grassland habitats through the maintenance of low nutrient soils, through the control of scrub encroachment and by careful timing of cuts to allow grasses and herbs to flower and set seed. No fertiliser should be applied to the mitigation grasslands.

Mowing regimes should aim to provide a variety of grassland habitat types with an uneven sward in order to provide suitable habitats for dingy and grizzled skipper as well as to promote their botanical diversity.

Habitat management should be carried out once a year in August/September and should comprise of strimming of some areas whilst others would be left to provide a patchwork of grassland habitats with retained scrub and tall herb habitats. Approximately 50% of grassland habitats should be strimmed each year.

The grassland habitats would be managed to provide a mosaic of long (10-50cm) and short (<10cm) grassland with an abundance of spring nectar sources, butterfly larval food plants in short or bare ground, seed heads from the previous years as roosting sites for adult butterflies and scrub patches/edge for shelter.

Grassland management therefore needs to be piecemeal and rotational with bare areas (minimum size 2x2m) created periodically to provide suitable butterfly breeding habitat. It is recommended that five such patches of bare ground are created each spring within the off-site mitigation grassland.

If parts of the grassland are becoming too lush, it may be necessary to introduce an additional early spring cut of vegetation within some parts of the site to encourage areas of short sward grassland. Any recommendation for alterations to the mowing regimes would be determined during the annual ecological monitoring surveys.

Grassland mowing should be carried out on a rotation so that there are always uncut areas on-site, allowing plants to flower and set seed and insects to nectar and overwinter in uncut areas.

Management of grassland/herb habitats should be undertaken using a strimmer to allow patches of short sward habitat to be created rather than large blocks uniform habitat. Approximately 50% of the grassland habitats should be cut each year in small patches of approximately 5 x 5m throughout the grassland habitats.

After each cut, the mown material should always be removed from the sward. Failure to do so will result in a build-up of litter forming a dense mat which can impact upon plant diversity.

It may not be necessary to frequently cut the vegetation from the butterfly banks. The banks should be monitored by an appropriate ecologist in the summer and they will determine whether parts of the bank will require strimming during the autumn.

4.2.2 Management of Woodland and Scrub Habitats

The biodiversity value of the woodland and scrub habitats at the offsite Mitigation Areas and adjacent to the proposed development site should be enhanced.

To increase the value of the offsite woodland (Woodland/Scrub 2 on Figure 3) it is recommended that it is thinned out and that any higher value trees are encouraged to come through. This can be achieved through 'haloing' (haloing involves the felling and pruning back of surrounding low-value trees and scrub so that they do not shade out and stunt the development of the more valuable adjoining trees). The thinning out of the woodland should allow more light through to the field layer potentially enhancing conditions for woodland ground flora.

Thinning of the woodland should be completed once every 10 years.

Some log piles and areas of dead wood should be retained within the woodland to provide additional habitat for invertebrates.

Dense blackthorn and hawthorn scrub at the offsite Mitigation Area should be cut back on a 10-year rotation. With half the scrub cleared in years 1 and 10 the other half in years 5 and 15. Hawthorn and blackthorn scrub can be rich in insects and birds in the early and middle stages of growth. This cycle of cutting will retain early stage scrub habitats.

Works to the woodland and scrub should be undertaken outside of the nesting bird season (March-August inclusive).

Management of habitats should be carried out for at least 20 years, following the completion of construction.

A summary of Management proposals along with frequency and time of year is provided in Table 1 below.

Land at Clywedog Road East (Site 3)
Habitat Mitigation & Management Plan



Table 1- Habitat Management Summary

<i>Habitat</i>	<i>Frequency of Management</i>	<i>Time of Year</i>	<i>Management Proposal</i>
Grassland Management	Annual management of established starting in year 1 of construction. Patches of grassland strimmed annually. Frequency/extent may be increased/decreased pending findings of monitoring surveys.	Works to be undertaken August/September to allow plants to flower and set seed.	Approximately 50% of established grassland to be cut each year in small patches of approximately 4 x 5m. Frequent cuts of newly seeded grassland required in first year to control weed growth All cuttings/ arisings to be removed. No fertiliser to be applied.
Bare ground	Annually, unless determined otherwise by previous summer's monitoring survey	Any time of year	5 x Bare areas (2m x 2m) created each year to provide suitable butterfly breeding habitat.
Woodland management	Year 1 or 2 and then every 10 years on rotation.	Avoid nesting bird season (March-August inclusive)	Woodland to be thinned out around higher value trees. Log piles and areas of dead wood to be retained within the woodland
Scrub management adjacent to woodland	To be cut on a 10 year rotation with 50% cut in Year 1 and 50% in year 5.	Avoid nesting bird season (March-August inclusive)	All arisings to be removed.
Ecological Monitoring Survey	To be completed annually	To be completed during the summer	Ecological site visit to be conducted annually with findings and recommendations for management presented before late summer habitat management works

5 Wardening, Monitoring and Reporting

5.1 Wardening

Land at Wrexham Industrial Estate can suffer some anti-social behaviour including fly tipping, unauthorised use of off-road vehicles and use of land by unauthorised gypsy and traveller encampments.

The Ecology area adjacent to the development site is set back from the road and behind the proposed industrial unit. Consequently, vehicular access is restricted and the risk of the described undesirable activities are considered to be low.

Nevertheless, some infrequent wardening of the site should be carried out at least once every three months.

The offsite Ecology Area is in a more vulnerable location. Fencing around the site should be maintained and monthly wardening should be carried out.

Where identified during wardening visits, remediation works should be promptly carried out at each site. This could include repair of fencing, clearance of fly-tipped debris, litter picking etc.

5.2 Monitoring

Monitoring of the site should be carried out annually during the summer to assess the success of the habitat management plan, to allow for any refinement of management practices and to check on the integrity of bat and bird boxes. The monitoring works should be completed by an appropriately qualified ecologist.

Monitoring should comprise of an assessment of the botanical value of the site and also an assessment of the suitability of habitats for dingy and grizzled skipper butterflies.

The ecologist will determine whether any additional works to the standard mowing regime are required in the following Summer/Autumn including any strimming of the butterfly banks and whether any further patches of earth should be scraped back to provide areas of bare ground habitat.

An annual monitoring report with management recommendations (where relevant) would be produced and submitted to the council.

5.3 Ecological Compliance Audit

A biodiversity compliance audit will also be undertaken by the appointed ecologist to confirm that the site recommendations have been undertaken and appropriately completed.

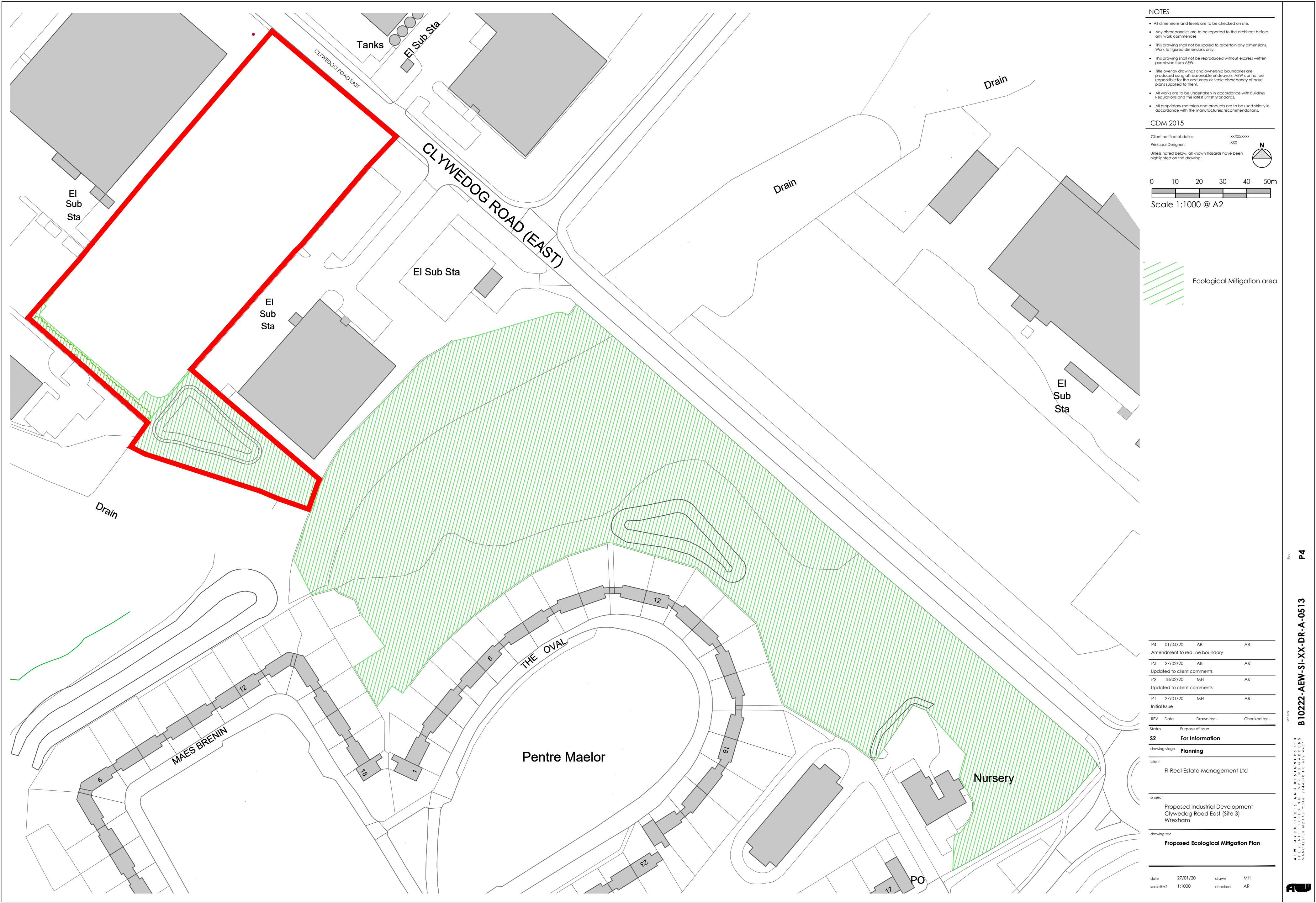
The compliance audit would last for the duration of construction works and for the first three years of the ongoing habitat management works. After this period, monitoring and reporting of the site will continue for the minimum 20 year habitat management period with the follow-on report available to the Council, NRW or any other interested bodies.

The appointed Ecological Consultant will submit the annual Compliance Audit to Wrexham CBC.

The Compliance Audit will require that the following Key Performance indicators are completed/undertaken.

1. A suitably experienced ecologist will be appointed for the project duration and for monitoring of the future habitat management works.
2. Prior to the start of any works, the ecologist will confirm that appropriate fencing has been installed to protect the Ecology Mitigation Areas including any grassland habitats to be used for habitat creation works.
3. Prior to the start of site clearance, confirmation that the butterfly mounds have been created, installed and seeded with species-rich turf and appropriate seed-rich topsoil.
4. Prior to the completion of construction, confirmation that the bat and bird boxes installed.
5. Confirmation that the proposed Ecology Mitigation Areas have been suitably retained and protected during construction works.
6. Confirmation that the SUDS basin has been suitably reseeded with a wetland seed mix and that appropriate preparation and aftercare methods have been followed.
7. Implementation of post development habitat/site management and maintenance and, annual habitat monitoring as described above.
8. Successful implementation of the management plan to achieve habitat goals including a mosaic of woodland, short grassland, tall grassland, scrub and bare ground habitats.

6 Figures



- NOTES
- All dimensions and levels are to be checked on site.
 - Any discrepancies are to be reported to the architect before any work commences.
 - This drawing shall not be scaled to ascertain any dimensions. Work to figured dimensions only.
 - This drawing shall not be reproduced without express written permission from AEW.
 - Title overlay drawings and ownership boundaries are produced using all reasonable endeavors. AEW cannot be responsible for the accuracy or scale discrepancy of base plans supplied to them.
 - All works are to be undertaken in accordance with Building Regulations and the latest British Standards.
 - All proprietary materials and products are to be used strictly in accordance with the manufactures recommendations.

CDM 2015

Client notified of duties: XXX/XX/XXXX
Principal Designer: XXX

Unless noted below, all known hazards have been highlighted on the drawing:

0 10 20 30 40 50m

Scale 1:1000 @ A2

Ecological Mitigation area

P4	01/04/20	AB	AR
Amendment to red line boundary			
P3	27/02/20	AB	AR
Updated to client comments			
P2	18/02/20	MH	AR
Updated to client comments			
P1	27/01/20	MH	AR
Initial issue			
REV	Date	Drawn by: -	Checked by: -
Status Purpose of issue			
S2	For Information		
drawing stage			
Planning			
client			
FI Real Estate Management Ltd			
project			
Proposed Industrial Development Clywedog Road East (Site 3) Wrexham			
drawing title			
Proposed Ecological Mitigation Plan			
date			
27/01/20	drawn	MH	
scale@A2	1:1000	checked	AR

**Figure 2- On Site Ecology Area
(Site 3)**



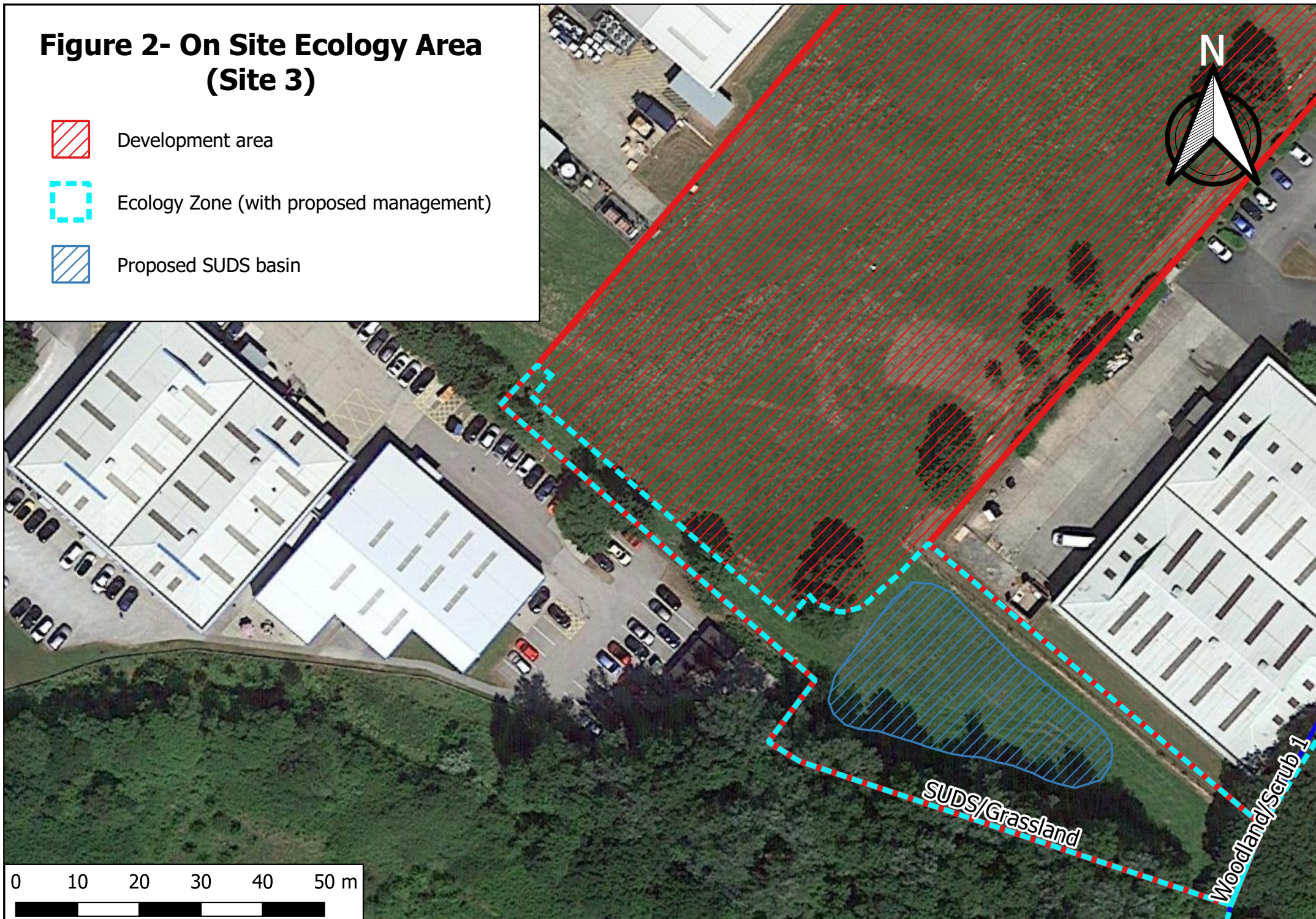
Development area



Ecology Zone (with proposed management)



Proposed SUDS basin



0 10 20 30 40 50 m

**Figure 3- Off Site Ecology Area
(Site 3)**

-  Off Site Ecology Zone Boundary
-  Ecology Zone (with proposed management)
-  Butterfly bank location

