

GCRE

Phase 1A Wildlife Corridor Scheme.

To inform Discharge of Condition 15 of Outline Planning Permission 21/0559/OUT

Scheme No. & Name	GCRE Planning Conditions - 21006904
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Reviewer	Caroline Morris (Director, Dalcour Maclaren)
Revision	001
Date of Issue	31 st May 2023

1.1 Introduction

- 1.1.1 The Global Centre of Rail Excellence (GCRE) is a rail testing centre project that will be delivered by GCRE Ltd on behalf of the Welsh Government. The GCRE Site occupies 475 hectares of land within and surrounding the Nant Helen Surface Mine and Onllwyn Coal Washery (approximate centroid Ordnance Survey Grid Reference (OSGR) SN 82890 10976). It is located within the counties of Powys and Neath Port Talbot.
- 1.1.2 The first phase of the development, “Phase 1A”, is contained within the northern extent of the Onllwyn Coal Washery Site and will involve the construction of rolling stock storage sidings, along with supporting 25 kV overhead line infrastructure. The extent of the Phase 1A Site is illustrated on Figure 1 in Appendix 1.
- 1.1.3 An outline planning application submitted by Ove Arup & Partners Ltd (Arup) (on behalf of the Welsh Ministers (Department for the Economy and Transport)) to Neath Port Talbot Council (planning reference P2021/0327) and Powys County Council (21/0559/OUT) was granted conditional approval in July 2021 for the following:

“Development of a Global Centre of Rail Excellence, comprising of two test tracks of loop configuration including an electrified high speed rolling stock test track of 6.9 km in length and an electrified low speed infrastructure test track of 4.5 km, with overhead line equipment (OLE) and dual platform station test environment; together with operations and control offices (including staff accommodation and welfare), shunter cabins (2 no.), research and development, education and training, rolling stock storage

siding and maintenance/cleaning/decommissioning facilities; associated drainage, internal vehicular accesses, branch line rail connection, staff and visitor car parking, lighting, electrical infrastructure, (including substations and lineside shore supplies and transformers), fencing (perimeter security, acoustic and stock proof), land reformation and hard and soft landscaping, together with demolition of existing building/structures.”

1.1.4 The permission is subject to planning conditions. Condition 15 states:

1.1.5 *“No development shall take place in each phase of development as identified in condition 7 (including demolition, ground works, site or vegetation clearance) until a scheme to maintain and enhance wildlife corridors has been submitted to and approved in writing by the Local Planning Authority. The scheme shall be in line with, implement and demonstrate compliance with the approach set out in the strategy agreed under condition 14, and shall be implemented as approved.”*

1.2 Purpose of report

1.2.1 The purpose of this Phase 1A Wildlife Corridor Scheme (P1A-WCS) is to provide the information necessary to allow the discharge of Condition 15 of Outline Planning Permission 21/0559/OUT for Phase 1A of the development. The P1A-WCS illustrates the way in which the project will be designed to maintain and enhance wildlife corridors supporting wildlife movement within and immediately beyond the Phase 1A Site.

1.2.2 The contents of this P1A-WCS may need to be amended and updated depending on the outcome of review by the Council during discharge of Condition 15. The P1A-WCS is therefore draft until Condition 15 has been discharged.

1.3 Supporting Documentation

1.3.1 Documents have been submitted to inform discharge of pre-commencement Conditions 13 to 18 inclusive relating to ecology and biodiversity. These include:

- Phase 1A Ecological Protection Plan (EPP)
- Phase 1A Biodiversity Plan (PBP)
- Phase 1A Reptile Mitigation Strategy (RMS)
- The Washery Ecological Management and Monitoring Plan (EMMP)
- Strategic Biodiversity Plan (SBP)

- Wildlife Connectivity Strategy (WCS)

1.3.2 The detail of the PBP, EPP and EMMP documents account for the working plans for Phase 1A of the development. The SBP and WCS provides wider strategies that sets out the basis for Phase 1A and subsequent phases of the GCRE development.

1.3.3 This P1A-WCS should be read in conjunction with the above documents, in addition to other supporting documentation, including:

- Soft Landscape Management and Maintenance Plan (LMMP) (which will detail the landscape and planting schedules for Phase 1A of the development).
- The Lighting Strategy (which will set out operational-phase lighting specifications for the GCRE development).
- The Fencing Strategy (which will set out operational-phase fencing specifications for the GCRE development).
- The Construction Environment Management Plan (CEMP) (which will set out construction-phase fencing details, lighting, and measures to control nuisances (such as noise and vibration)).

1.4 Baseline Ecological Conditions

1.4.1 A suite of ecological surveys was undertaken by Ove Arup & Partners Ltd to inform the Ecological Impact Assessment within Chapter 7 of the Environmental Statement (ES)¹, and to update the ecological baseline post consent.

1.4.2 The initial baseline survey reports are provided in Appendices 7C to 7P of the ES and contain full details of the baseline ecological data for GCRE development.

1.4.3 Additional survey work has been undertaken within the Phase 1A Site during 2022 to update the baseline. The work has included:

- Botanical survey²
- A check for notable plant species³
- Riparian mammal and badger survey⁴
- Bat roost survey⁵
- Reptile survey⁶

¹ Arup (2021) GCRE Environmental Statement. Welsh Government.

² Dalcour Maclaren (2022a) Technical Note. 21006904 – GCRE Planning Conditions.

³ Sturgess Ecology (2022) GCRE Phase 1A: check for notable plant species. Issued to Dalcour Maclaren

⁴ BSG Ecology (2022a) Global Centre of Rail Excellence Phase 1A. 2022 Riparian Mammal and Badger Survey Report. Issued to Dalcour Maclaren

⁵ BSG Ecology (2022b) Global Centre of Rail Excellence Phase 1A. 2022 Bat Survey Report. Issued to Dalcour Maclaren.

⁶ Dalcour Maclaren (2022b) GCRE: Phase 1A and Adjacent Receptor Site. Reptile Survey Report. July 2022.

- 1.4.4 A full summary of the survey results for the Phase 1A Site is presented in Sections 2 and 3 of the Phase 1A EPP.

Habitats and designated sites

- 1.4.5 The Phase 1A Site is predominantly bare ground and spoil with scattered colonisation by ephemeral and short-perennial vegetation. Marshy and neutral grassland surrounding several balancing ponds is present in the western part of the Site, and an area of acid grassland (part of the Onllwyn Coal Washery Site of Importance to Nature Conservation (SINC)) in the east. A mosaic of marshy grassland, close-grazed semi-improved grassland, and scrub woodland is within the northern boundary of the Site and forms the southern extent of the Gorsllwyn Meadows SINC. A wet ditch and small pond are also present within the overlap area of the SINC and the Site.
- 1.4.6 The Gorsllwyn Meadows SINC forms the northern boundary of the Phase 1A Site, and is designated for supporting purple moor-grass and rush pasture habitat (a Section 7 habitat of principal importance for biodiversity in Wales). Approximately 0.6 ha of the SINC, containing a mosaic of marshy grassland, semi-improved acid grassland, open mosaic habitat, scrub and mixed scrub woodland, pond and ditches, is within the Phase 1A Site.
- 1.4.7 The Onllwyn Coal Washery SINC includes approximately 1.1 ha of semi-improved grassland and open mosaic habitats in the eastern extent of the Phase 1A Site. The wider SINC comprises open mosaic habitats on previously developed land (a Section 7 habitat of principal importance for biodiversity in Wales), largely made up of a raised area of reclaimed coal tip.
- 1.4.8 In addition, the ditch along the northern boundary of the Phase 1A Site forms part of the Afon Dulais catchment which is a component of the Neath Port Talbot Watercourses SINC.

Species

- 1.4.9 The open mosaic habitat within the Phase 1A Site supports several species of notable plants, a small population of common lizard *Zootoca vivipara*. Reptiles will be translocated away from the Phase 1A Site following methods set out in the Phase 1A RMS and EPP. Notable plants will also be translocated to retained habitats at the boundaries of the Site prior to ground works commencing (as detailed in the EPP).

- 1.4.10 No bats or evidence of roosting bats were confirmed within the buildings / structures located in the Phase 1A boundary (BSG Ecology, 2022b). No bat roosts were identified in the earlier survey work (Arup, 2020a⁷). However, two bat roosts (each supporting low numbers of common pipistrelle bat) were recorded in buildings within the Washery Site, but outside of the Phase 1A Site during the 2022 work. No trees within the Phase 1A Site were considered to be suitable to support roosting bats; however, the tree and scrub corridor along the northern boundary of the Site is likely to be used by foraging and commuting bats.
- 1.4.11 No conclusive evidence of badger *Meles meles* was recorded during the 2022 survey work (BSG Ecology, 2022a) or the 2020 surveys (Arup, 2020b⁸). However, several mammal tracks were identified in 2020 that may indicate the presence of badger in the wider area. A badger hair was found on a barbed-wire fence forming the northern boundary of the Phase 1A Site in early 2022 (Dalcour Maclaren, 2022a), indicating that badger move through the area.
- 1.4.12 Survey work in 2022 recorded a possible otter *Lutra lutra* spraint within the ditch in the western part of the Phase 1A Site, and possible otter runs in other sections of the ditch along the northern boundary of the Phase 1A Site.
- 1.4.13 Signs of otter presence (spraint) were confirmed within a watercourse located approximately 2.3 km south-west of the Phase 1A boundary in 2019. No potential holts or natal dens were identified within the wider GCRE Site.

Summary of key wildlife corridors

- 1.4.14 The results of baseline survey work undertaken at the Phase 1A Site identifies the main wildlife corridors to be:
- The woodland and scrub line along the northern boundary of the Site for foraging and commuting bats.
 - The mosaic of open grassland, woodland and scrub along the northern, western and eastern boundaries of the Site for foraging and commuting badger.
 - The ditch network along the western and northern boundaries of the Site for commuting otter.
- 1.4.15 These form the general broad corridor identified in **Figure 2**.

⁷ Arup (2020a) Bat Roost Survey Report. Global Centre for Rail Excellence (GCRE). Welsh Government

⁸ Arup (2020b) Riparian Mammal Survey Report. Global Centre for Rail Excellence (GCRE). Welsh Government

1.5 Post-construction Wildlife Corridors

Construction phase requirements

- 1.5.1 All retained habitats will be protected by using a robust barrier fence during site preparation and construction. The fencing will prevent incursion / disturbance to retained habitats and allow animals to move around the periphery of the Site. The work will result in a temporary impact on mobile animals as a result of isolation of the land within the Site boundary. Movements of mammals will be restricted by the barrier fence, and reptiles and amphibians will be prevented from accessing the Site through installation of reptile fencing. Further details are presented in the EPP.
- 1.5.2 Night working should be avoided where possible to minimise adverse impacts on bat behaviour. If Site lighting is used, the following points will be considered to avoid and reduce impacts on bats:
- As a guide, the retained habitats (beyond the protective fencing) should be subject to less than 0.5 lux, with the exception of access and haulage routes to the Site which will have low level lighting as far feasible given other constraints such as safety.
 - Light spill towards retained habitats can be reduced using cowls, reduced height columns, lower intensity lamps, and motion activation.
 - Lights will not be left on when the Site is unoccupied. If security lamps are required, these will be motion activated.

Operation phase requirements

Fencing and lighting

- 1.5.3 A fencing strategy for the GCRE Site is being developed by 5th Studio, and will set out full details of the operation phase fence design. However, the following principles will apply.
- 1.5.4 Security fencing will follow the boundary of the Phase 1A Site. Welded mesh panel fencing of 1.8 m height will be provided around the Washery Site. The foot of the fencing will be at ground level, and will prevent access for animals such as badger and otter. Fencing will not bisect retained or newly created watercourses (including wet ditches and swales). Culverted watercourses will allow free passage of larger animals (such as otter) overground to avoid obstructing movement.
- 1.5.5 Some Operational lighting will be required during the period May to September but this will be limited to low level bollard lighting operated by PIR, with dark corridors surrounding the Site being retained. The risk of

visual disturbance and displacement of nocturnal mammals will, therefore, be avoided.

Boundary habitats

1.5.6 A Final landscape plan for the Phase 1A Site is presented in Figure 3 (JCLA Drawing OW181.P.00.LP).

1.5.7 Higher quality habitats beyond the boundary of the Site will be retained to allow continued use by mobile animals. Habitat loss within the Site is presented in Table 2 of the PBP, and will include:

- 0.74 ha of marshy grassland.
- 1.7 ha of semi-improved acid grassland.
- 0.32 ha of neutral grassland.
- 0.1 ha of mixed woodland.
- 0.57 ha of scrub.
- 80 m length of wet ditch.

1.5.8 Compensation for these losses has been designed to retain habitat connectivity along the periphery of the Phase 1A Site, and avoid habitat fragmentation. The landscape plans are presented in **Figure 3**, and include:

- Management of retained marshy grassland within the Gorsllwyn Meadows SINC and new planting of wet meadow, marginal and channel vegetation alongside drainage features at the northern boundary of the Site.
- Re-seeding and long-term management of damaged areas of the Onllwyn coal washery SINC.
- New planting of 78 multi-stemmed / standard trees and 67 whips of local provenance along the northern boundary of the Site.
- Replacement of a section of ditch to retain the riparian corridor along the northern boundary of the Site.

1.5.9 Creation of the new ditch section will take place prior to infill of the original ditch section to retain water flow. This will also ensure continued connectivity for species such as otter. The area surrounding the new ditch will also serve as a receptor site for some species of translocated plants (as identified in the EPP), and will need to be in place prior to earthworks within the Site commencing. Vegetation management (removal of bramble scrub) and landscape planting around the ditch and affected areas of the Gorsllwyn Meadows SINC will take place alongside or ahead of translocation of notable plants to avoid disturbing receptor sites by later

landscape works. The general profile of the northern boundary of the Phase 1A Site will follow the below inset drawing (taken from the Phase 1A LMMP).

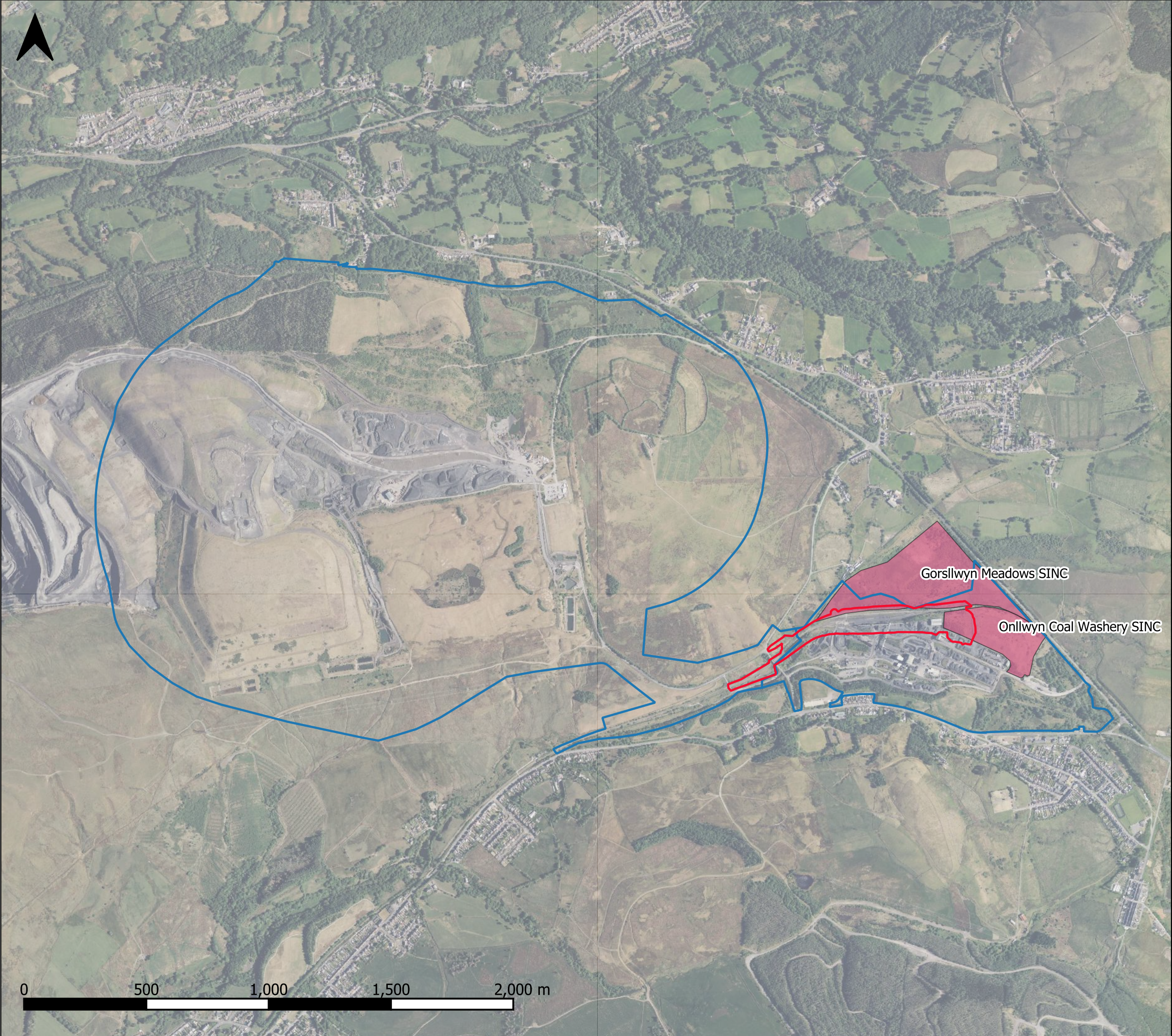
1.5.10 **Drawing 1. Proposed ditch profile** (taken from JCLA (2022) Soft Landscape Management & Maintenance Plan OW181.Doc02.MS)



- 1.5.11 Tree planting and seeding of new grassland areas in the western and eastern (within the Onllwyn coal washery SINCC) parts of the Phase 1A Site will take place following completion of earthworks. Detailed planting schedules and management prescriptions are provided in the Phase 1A LMMP.
- 1.5.12 These measures will retain and enhance habitat structure at the northern, western and eastern boundaries of the Phase 1A Site. This will allow continued use of, and movement around the Site periphery and wider area by bats, badger and otter, and meets the connectivity objectives set out by the wider GCRE WCS.

Appendix 1: Figures

(Overleaf)



- Legend
- Phase 1A Site
 - GCRE Development Boundary
 - SINC Locations

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JOB REF: P21-913

PROJECT TITLE
Wildlife Corridor Scheme
Phase 1A

DRAWING TITLE
Figure 1: Site Boundary

DATE: 04.05.2023
DRAWN: GL
CHECKED: GL
APPROVED: GL
SCALE: 1:15,000
VERSION: 1.0

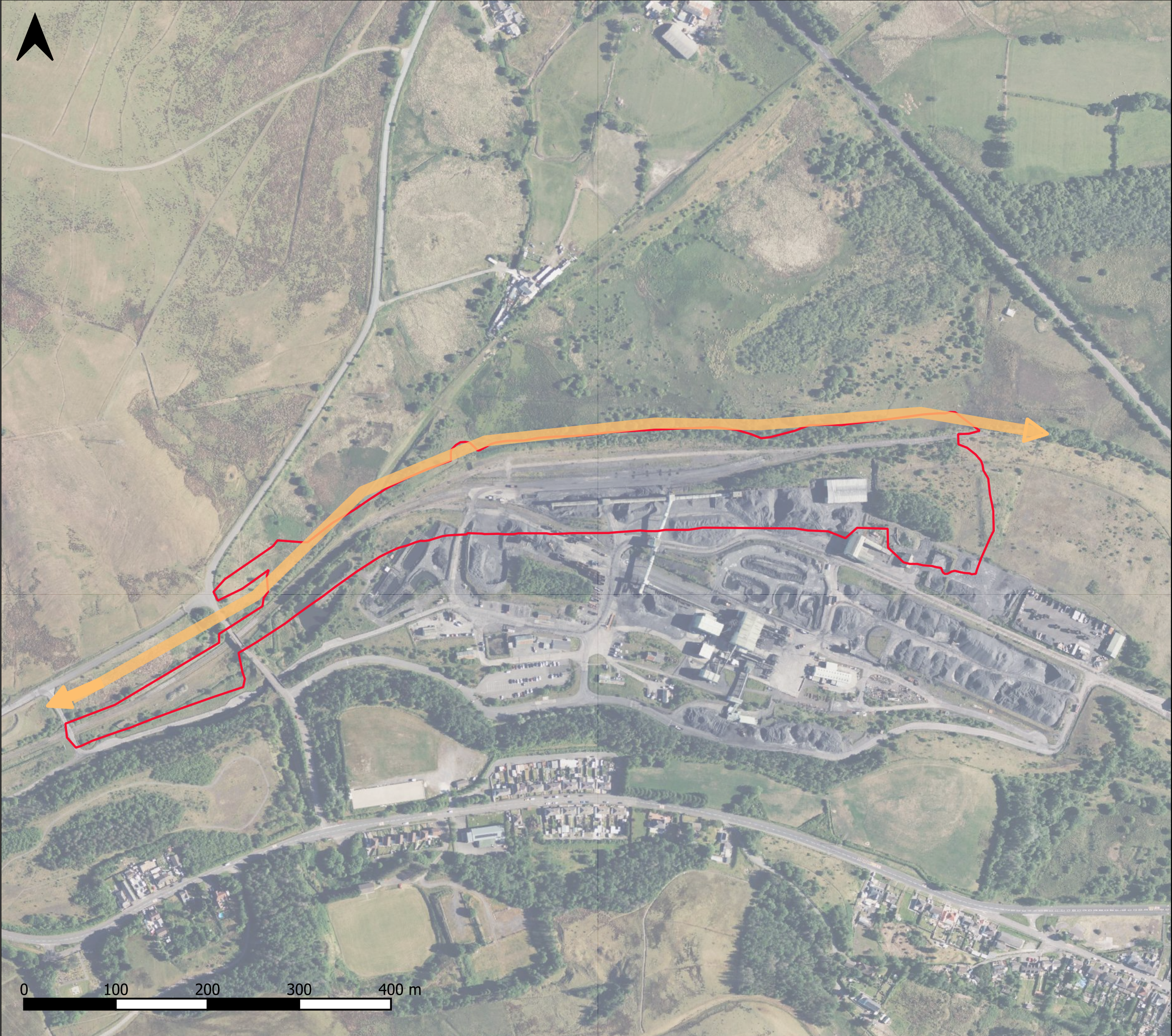
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All dimensions are to be checked on site.
Area measurements for indicative purposes only.

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Sources: GCRE Ltd



- Legend
- Phase 1A Site Boundary
 - Main Wildlife Corridor

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JOB REF: P21-913

PROJECT TITLE
Wildlife Corridor Scheme
Phase 1A

DRAWING TITLE
Figure 2: Main Wildlife Corridor

DATE: 10.05.2023	CHECKED: JB	SCALE: 1:15,000
DRAWN: GL	APPROVED: JB	VERSION: 1.0

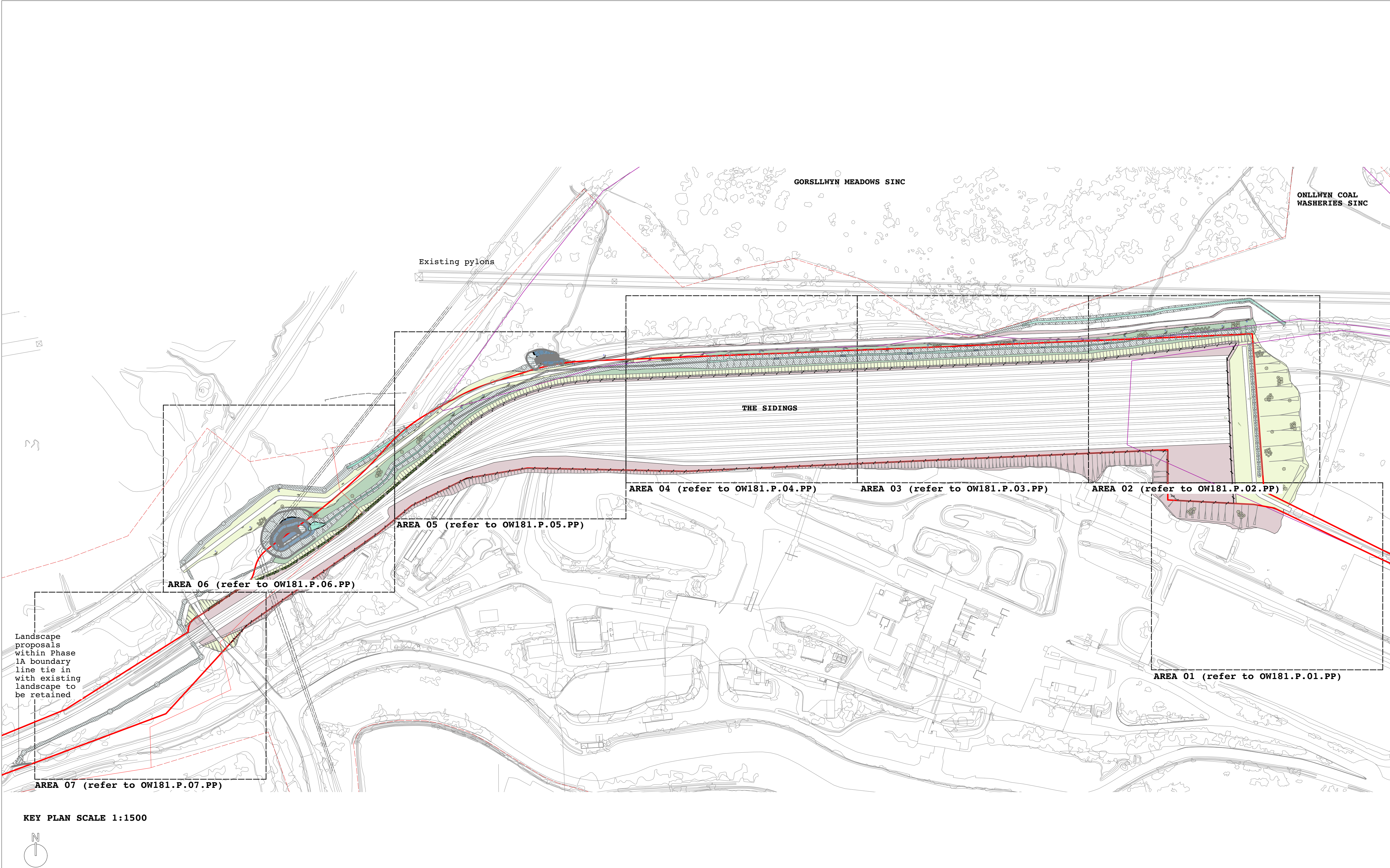
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Do not scale from this drawing. Any discrepancies or queries should be brought to the attention of the authors. Dimensions are to be verified on site prior to construction.

To be read in conjunction with all relevant Architects', Services and Structural Engineers' drawings.

All existing site, tree and building information has been compiled from different sources.

Refer to current revisions of all referenced files.

Notes:

- Refer to ecologists information for Phase1A SINC & Receptor area mitigation measures and enhancements.
- To be read in conjunction with Soft Landscape Maintenance plan: **OW181.Doc2.MP**.
- To be read in conjunction with Planting schedule: **OW181.Doc1.PS**.
- Refer to Engineers drawings for earthworks, hard landscape, levels and drainage information.

- Key:
- Refer to planting plans for detailed species information
- SINC Boundaries - illustrative only
 - Planning Application Boundary
 - PHASE 1A Boundary
 - OPEN MOSAIC HABITAT
 - LOWLAND DRY ACID GRASSLAND
 - GRASSLAND TERRACE
 - WET MEADOW
 - MARGINAL TERRACE
 - AQUATIC TERRACE
 - SUBMERGED / OPEN WATER
 - CHANNEL VEGETATION (SWALE)
 - FENCE LINE TO ARCHITECTS DETAILS
 - PROPOSED TREES

Rev	Date	Description
P01	22.12.2022	FOR PLANNING

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Client
GCRE

Project
OW181 GCRE Phase 1A

Drawing Title
Proposed Soft Landscape Plan

Drawing Status	
FOR PLANNING	
Date	Scale
22.12.2022	1:1500 @ A1
Drawing Number	Revision
OW181.P.00.LP	P01



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