

SAFE GAS, FABIAN WAY

PRELIMINARY ECOLOGICAL REPORT

26 September 2022



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Document Ref: Doc 01 – 26/09/2022

Issue	Revision	Stage	Date	Prepared by
1		DRAFT FOR REVIEW	09/08/2022	David Rees
2		FINAL	11/08/2022	David Rees
3	Text amendment & addition of bird box plan	FINAL	26/09/2022	David Rees

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SUMMARY

Bay Ecology was commissioned by Asbri Planning Ltd care of Safe Gas to undertake an ecological appraisal of a parcel of land located at their Safe Gas site situated south of Ffordd Amazon on Fabian Way. It is my understanding that the site is proposed to be the location of a gas tank refurbishment facility.

The desk study identified that no designated sites were located within or immediately adjacent to the site. The Crymlyn Bog SAC & SSSI, Crymlyn Bog & Pant-Y-Sais NNR, Fabian Way Wildflower Verge SSSI and Amazon Woodland were located in close proximity to site but were considered to be of no relevance due to the habitats onsite, physical separation of the designations from site and lack of hydrological connectivity. The desk study identified no records of protected species onsite. However, multiple records were identified within a 1km radius.

The field survey was comprised of a limited range of habitats dominated by hard standing & bare earth, with small areas of short perennial habitat and an earth bank that had been colonised by improved grassland and scrub; whilst the site footprint was accessed via a concrete road running north from Fabian Way. The hard standing and bare earth that dominated the majority of site was considered to be the most suitable areas to be support the development. The small areas of short perennial habitat and the northern earth bank that had been colonised by grassland scrub were considered to be of limited botanical interest. However, the habitats were considered to be of local ecological interest due to their potential to support nesting birds, foraging and commuting birds and common reptile species.

The scrub habitat and grassland located on the northern earth bank was considered potentially suitable to support individual common reptile species. It is recommended that a sensitive directional vegetation clearance to retained habitats allowing dispersion is adopted allowing any reptiles to disperse or be removed to the retained habitats offsite.

The marginal scrub was considered suitable habitat for breeding birds and it is recommended that these features be retained where practicably possible to maintain these resources. Given the likelihood of birds utilising the scrub, any proposed site clearance works should be undertaken outside the bird-breeding season (i.e. clearance between September and March inclusive) or preceded by a visual check for nesting birds.

1.0 INTRODUCTION

- 1.1 Bay Ecology was commissioned by Asbri Planning Ltd care of Safe Gas to undertake an ecological appraisal of a parcel of land located at their Safe Gas site situated south of Ffordd Amazon on Fabian Way (Grid Ref: SS 70459 93391) (Appendix I). It is my understanding that the site is proposed to be the location of a gas tank refurbishment facility (Appendix II).
- 1.2 The site footprint is comprised of a limited range of habitats dominated by hard standing & bare earth with small areas of poor semi improved grassland, short perennial habitat and scrub; whilst the site footprint was accessed via a concrete road leading north from Fabian Way. The site footprint is immediately surrounded by the Safe Gas existing recycling depot to the south and east, with a carpark (hard standing foundations of a former factory) located further to the south. The Ffordd Amazon was located to the north and the Bay Field Hospital (vaccination centre) was located to the west.
- 1.3 This report provides a summary of the preliminary ecological appraisal undertaken in January 2022, and includes recommendations on any ecological constraints/ opportunities associated with the proposed development.

2.1 METHODOLOGY

- 2.2 In order to establish the baseline ecological conditions on site and in the adjoining habitats, a combination of desk-based consultation and walkover survey were undertaken in January 2022.

Desk study

- 2.3 This element of the work primarily involved a SEWBRc data search to identify any records of rare, protected or notable flora and fauna within the proposed development site boundary (see plan in Appendix I) and surrounding 1 km area.

Extended Phase I Habitat Survey

- 2.4 Fieldwork was undertaken on the 27th January 2022 by a suitably qualified ecologist and followed standard Phase 1 Habitat Survey protocol (JNCC 1990) as amended by the Institute of Environmental Assessment (1995). All habitats within the proposed development site were classified. All habitats considered having potential to support rare, protected or otherwise notable species of flora and fauna were noted, as were any direct signs of these species (e.g. Badger setts and dung-pits). The survey also incorporated a subjective, ground-based assessment of the potential of mature trees or structures on site to support roosting bats.
- 2.5 During the field survey, any trees immediately adjacent to the site were assessed for their potential to support roosting bats and were categorised in relation to the bat roosting features (BCT, 2016). The categories are as follows:
- Known or confirmed roost
 - High – A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
 - Moderate – A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
 - Low – A tree of sufficient size and age to contain Potential Roosting Features (PRFs) but with none seen from the ground or features seen with only very limited roosting potential.
 - Negligible - Negligible habitat features on site likely to be used by roosting bats.

- 2.6 Additionally any species listed as a pernicious weed under Schedule 9, Section 14 of the Wildlife and Countryside Act 1981 (as amended) were also noted during the field survey. Examples of such species include Japanese Knotweed *Fallopia japonica* and Himalayan Balsam *Impatiens glandulifera*.

3.0 RESULTS

Desk study

- 3.1 The data search identified that no designated sites were located within or immediately adjacent to the site. However, Crymlyn Bog Special Area of Conservation (SAC) & Site of Special Scientific Interest (SSSI) is located approximately 175m north of the site. The Crymlyn Bog & Pant-Y-Sais National Nature Reserve (NNR) was also located 175m north of site; whilst the Amazon Woodland was located 25m north (across Ffordd Amazon) and 95m east of site. Due to the nature of the habitats onsite, lack of obvious hydrological connectivity and physical separation of the proposed development from the designations it was considered that there would be no adverse impact upon the designations. The Fabian Way Wildflower Verge Site of Importance for Nature Conservation (SINC) was located adjacent to the southern extent of the access road but will not be affected by the proposed development due to existing levels of traffic along the roads.
- 3.2 No records of protected species were associated with the site. However, records of common reptile species such as Common Lizard *Zootoca vivipara* and Grass Snake *Natrix Helvetica* were associated with Crymlyn Bog located 175m north of site and were considered to be of the most relevance to site. However, Ffordd Amazon separated site from the records limiting connectivity. A number of records were associated with the Tennant Canal that was located approximately 175m north of site and included mobile species such as Noctule *Nyctalus noctule*, Common Pipistrelle *Pipistrellus pipistrellus* and Soprano Pipistrelle *Pipistrellus pygmaeus*; with Otter *Lutra lutra* and Water Vole *Arvicola amphibius* also identified. However, no watercourses were identified onsite. Ground nesting birds such as Lapwing *Vanellus vanellus* and Skylark *Alauda arvensis* were also identified in a 1km radius of site.

Field Survey

Overview

- 3.3 The site footprint is comprised of a limited range of habitats dominated by hard standing & bare earth with small areas of poor semi improved grassland, short perennial habitat and scrub; whilst the site footprint was accessed via a concrete road leading north from Fabian Way. See Appendix III for Phase 1 habitat map.

Hard Standing & Bare Earth

- 3.4 The site was accessed via a hard standing concrete road that ran north from Fabian Way (Photo 1). The road continued along the existing southern boundary of the Safe Gas site which is comprised of several red brick buildings that are not included in the currently planning application (Photo 2).
- 3.5 The majority of the site foot print was comprised of bare earth and hard standing and was currently being utilised as a storage facility for refurbished gas tanks (Photo 3).

Poor Semi-improved Grassland & Scrub

- 3.6 An earth bank was located at the northern extent of site and had been colonised by species poor grassland that included such species as Yorkshire Fog *Holcus lanatus*, Common Knapweed *Centaurea nigra*, Plantain *Plantago lanceolata*, Willowherb *Epilobium sp.*, with small stand of Common Reed *Phragmites australis*.
- 3.7 The earth bank was also being colonised by scrub species such as Butterfly Bush *Buddleja davidii*, Bramble *Rubus fruticosus* and Gorse *Ulex europaeus*.

Short Perennial Habitat

- 3.8 It was evident that the less disturbed marginal areas of site were being colonised by short perennial habitat which included such species as Creeping Buttercup *Ranunculus repens*, Hawkbit *Leontodon sp.*, Willowherb sp. and Buddleia.

Photo 1: Road running north from Fabian Way (view looking north).



Photo 2: Access road running west to Safe Gas entrance bordered by Safe Gas red brick buildings (view looking west).



Photo 3: Gas cylinders on bare earth yard (view looking east).



Photo 4: Northern earth bund colonised by poor semi-improved grassland and scrub (view looking east).



Photo 5: Short perennial habitat colonising undisturbed bare earth.



Fauna

3.9 In the course of the survey, a search for field signs of protected or notable species was undertaken and the potential of the habitats to support these species considered. In the context of this report notable species were those considered to meet any of the following criteria:

- Species protected by British or International law;
- Environment (Wales) Act Section 7 Priority Species or local BAP species;
- Nationally rare or nationally scarce species;
- Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red or Amber Lists)

Birds

3.10 The marginal scrub habitat onsite was considered potential suitable habitat for nesting birds. The habitats onsite were not considered suitable for ground nesting birds. Nesting birds are protected by the Wildlife and Countryside Act (1981) as amended.

Reptiles

3.11 The majority of the site footprint was comprised of hard standing and bare and was considered to be unsuitable habitat to support common reptile species. However, the northern earth bund that had been colonised by poor semi-improved grassland and scrub was considered potentially suitable habitat for common reptile species such as Common Lizard and Grass Snake were identified within 200m of site. However, Ffordd Amazon separated the records from the development site.

4.0 LEGISLATION, POLICIES AND PLANS

- 4.1 The following international, national and local legislation and planning policies relating to nature conservation and biodiversity are considered of relevance to the current proposals.

National Planning Policy

- 4.2 In terms of planning policy, a number of over-arching policies are of relevance not least of which are those described within Planning Policy Wales (PPW), which sets out land use planning policies of the Welsh Assembly Government with Chapter 5 dealing with Conserving and Improving Natural Heritage and Coast.

Environment (Wales) Act, 2016

- 4.3 Part 1 of the Environment Act Wales' came into force in May 2016 and sets out the approach to planning and managing natural resources at a national and local level with a general purpose linked to statutory 'principles of sustainable management of natural resources' defined within the Act.

Section 6 - Biodiversity and resilience of ecosystems duty

- 4.3 Section 6 of the Act places a duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'.

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

- 4.4 This section lists living organisms and types of habitat in Wales which are considered of key significance to maintaining and enhancing biodiversity in relation to Wales. The Welsh Ministers are required to take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section, and encourage others to take such steps.

Planning Policy Wales (2021)

- 4.5 This document set out the land use planning policies of the Welsh Government with Chapter 6 relating to Distinctive and Natural Places and in particular Section 6.4 Biodiversity and Ecological Networks, which states how the planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement. Addressing the consequences of climate change should be a central part of any measures to conserve biodiversity and the resilience of ecosystems.

- 4.6 The Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (Section 6 Duty). This duty applies to public authorities in the exercise of their functions in relation to Wales and will help maximise contributions to achieving the well-being goals.
- 4.7 The planning system must help to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement. Addressing the consequences of climate change should be a central part of any measures to conserve biodiversity and the resilience of ecosystems.
- 4.8 In fulfilling this duty, planning authorities must have regard to the list of habitats and species of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 201.
- 4.9 The broad framework for implementing the Section 6 Duty and building resilience through the planning system includes addressing:
- Diversity;
 - Extent;
 - Condition;
 - Connectivity;
 - Adaptability to change.

Future Wales the National Plan 2040

- 4.10 Future Wales – the National Plan 2040 is our national development framework, setting the direction for development in Wales to 2040. It is a development plan with a strategy for addressing key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems and improving the health and well-being of our communities.

Policy 9 – Resilient Ecological Networks and Green Infrastructure

To ensure the enhancement of biodiversity, the resilience of ecosystems and the provision of green infrastructure, the Welsh Government will work with key partners to:

- identify areas which should be safeguarded and created as ecological networks for their importance for adaptation to climate change, for habitat protection, restoration or creation, to protect species, or which provide key ecosystems services, to ensure they are not unduly compromised by future development; and
- identify opportunities where existing and potential green infrastructure could be maximised as part of placemaking, requiring the use of nature-based solutions as a key mechanism for securing sustainable growth, ecological connectivity, social equality and well-being.

- 4.11 Planning authorities should include these areas and/or opportunities in their development plan strategies and policies in order to promote and safeguard the functions and opportunities they provide. In all cases, action towards securing the maintenance and enhancement of biodiversity (to provide a net benefit), the resilience of ecosystems and green infrastructure assets must be demonstrated as part of development proposals through innovative, nature-based approaches to site planning and the design of the built environment

Local Planning Policy

- 4.12 The LDP for Neath Port Talbot was adopted in 2016 superseding the Unitary Development Plan, and provides the basis for decisions on land use planning in the County Borough up to 2026. Policies of relevance to the development include:

Policy SP 15

Biodiversity and Geodiversity. Important habitats, species and sites of geological interest will be protected, conserved, enhanced and managed through the following measures:

1. *The identification of the following Internationally and Nationally designated sites within the County Borough to enable their protection:*
 - (a) *Special Areas of Conservation (SACs) and Ramsar Sites;*
 - (b) *Sites of Special Scientific Interest (SSSIs);*
 - (c) *National Nature Reserves (NNRs).*
2. *The identification and protection of sites of regional and local importance;*
3. *The protection of important natural heritage features.*

Policy EN 6

Important Biodiversity and Geodiversity Sites Development proposals that would affect Regionally Important Geodiversity Sites (RIGS), Local Nature Reserves (LNRs), Sites of Interest for Nature Conservation (SINCs), sites meeting SINC criteria or sites supporting Local Biodiversity Action Plan (LBAP) or S42 habitats or species will only be permitted where:

1. *They conserve and where possible enhance the natural heritage importance of the site; or*
2. *The development could not reasonably be located elsewhere, and the benefits of the development outweigh the natural heritage importance of the site. Mitigation and/or compensation measures will need to be agreed where adverse effects are unavoidable.*

Policy EN 7

Important Natural Features Development proposals that would adversely affect ecologically or visually important natural features such as trees, woodlands, hedgerows / field boundaries, watercourses or ponds will only be permitted where:

1. *Full account has been taken of the relevant features in the design of the development, with measures put in place to ensure that they are retained and protected wherever possible; or*
2. *The biodiversity value and role of the relevant feature has been taken into account and where removal is unavoidable, mitigation measures are agreed.*

5.0 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 The field survey was comprised of a limited range of habitats dominated by hard standing & bare earth, with small areas of short perennial habitat and an earth bank that had been colonised by poor semi improved grassland and scrub; whilst the site footprint was accessed via a concrete road running north from Fabian Way. The hard standing and bare earth that dominated the majority of site was considered to be the most suitable areas to support the development. The small areas of short perennial habitat and the northern earth bank that had been colonised by grassland scrub were considered to be of limited botanical interest. However, the habitats were considered to be of local ecological interest due to their potential to support nesting birds, foraging and commuting birds and common reptile species.
- 5.2 The data search identified that no designated sites were located within or immediately adjacent to the site. The Crymlyn Bog SAC & SSSI, Crymlyn Bog & Pant-Y-Sais NNR, Fabian Way Wildflower Verge SSSI and Amazon Woodland were located in close proximity to site but were considered to be of no relevance due to the habitats onsite, physical separation of the designations from site and lack of hydrological connectivity.

Reptiles

- 5.3 The marginal vegetation and earth bund covered by grassland and scrub habitat was considered potentially suitable to support individual common reptile species. It is recommended that if these features are to be affected by the development a sensitive directional vegetation clearance to retained habitats allowing dispersion is adopted allowing any reptiles to disperse or be removed to the retained habitats offsite. All common reptiles are protected against intentional killing or injury under the Wildlife and Countryside Act 1981 (as amended).

Birds

- 5.4 The marginal scrub associated with the earth bund was considered potentially suitable habitat for breeding birds and as such it is recommended that any clearance works be undertaken outside the bird-breeding season (i.e. clearance between September and March inclusive) or preceded by a visual check for nesting birds. All wild birds are protected against killing and injury under the Wildlife and Countryside Act 1981 (as amended) and their nests against damage or destruction whilst in use or being built.

Biodiversity Enhancement

- 5.5 The proposed development will include SuDS located immediately north of the site boundary in the form of a 0.5m deep infiltration basin (Appendix IV shows two examples of SuDS location within the proposed development). The floor of the basin will be plug planted with a Wetland Meadow Mix of species that will include Purple Loosestrife *Lythrum salicaria*, Ragged Robin *Silene flos-cuculi*, Common Fleabane *Pulicaria*

dysenterica, Devil's-bit Scabious *Succisa pratensis*, Knapweed *Centaurea nigra* and Bird's foot Trefoil *Lotus corniculatus* (see Appendix V for details); whilst the slopes will also be seeded with a Wildflower Meadow Mix. Once established, implement meadow management of grassland areas and periodic maintenance of basin vegetation.

- 5.6 The proposed structure will have two Swift nest boxes i.e. Vivara Pro WoodStone Swift Nest Box or similar erected on the northern gable end of the building at a height of at least 5m.

REFERENCES

- Bat Conservation Trust (2016). *Bat Surveys – Good Practice Guidelines*. Third Edition. Bat Conservation Trust, London.
- EUROPA. (2007). *Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC; Final version, February 2007*.
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- Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004), 3rd Edition Bat Workers' Manual, 178 pages b/w photos, softback, ISBN 1 86107 558 8
- Joint Nature Conservation Committee (JNCC). 1990. *Handbook for Phase I Habitat Survey. A technique for environmental audit*. JNCC, Peterborough.

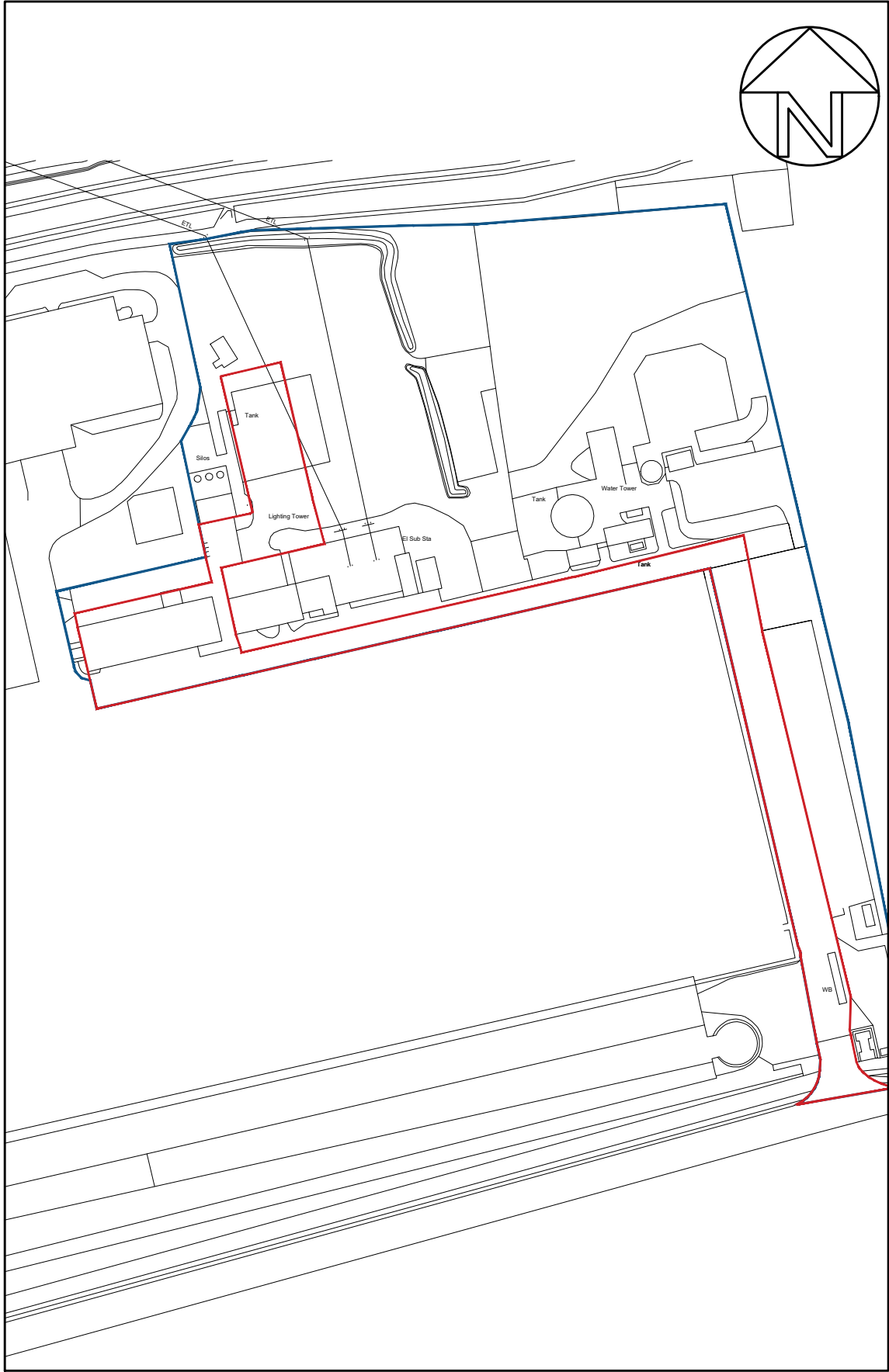
APPENDIX I SITE LOCATION PLAN

SITE BLOCK PLAN & LOCATION PLAN

SAFE GAS CYLINDERS LTD, FABIAN WAY, SWANSEA, SAI 8QJ



Site Block Plan 1:1250



Site Location Plan 1:2000

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Revision:	Description:	Date:

- Application Site
- Land Owned by Applicant

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Client:
Safe Gas Cylinders Ltd

Project Title:
The Proposal of a Workshop
and Storage Facility at Safe Gas
Cylinders Ltd, Swansea

Drawing Title:
Site Block Plan & Location Plan

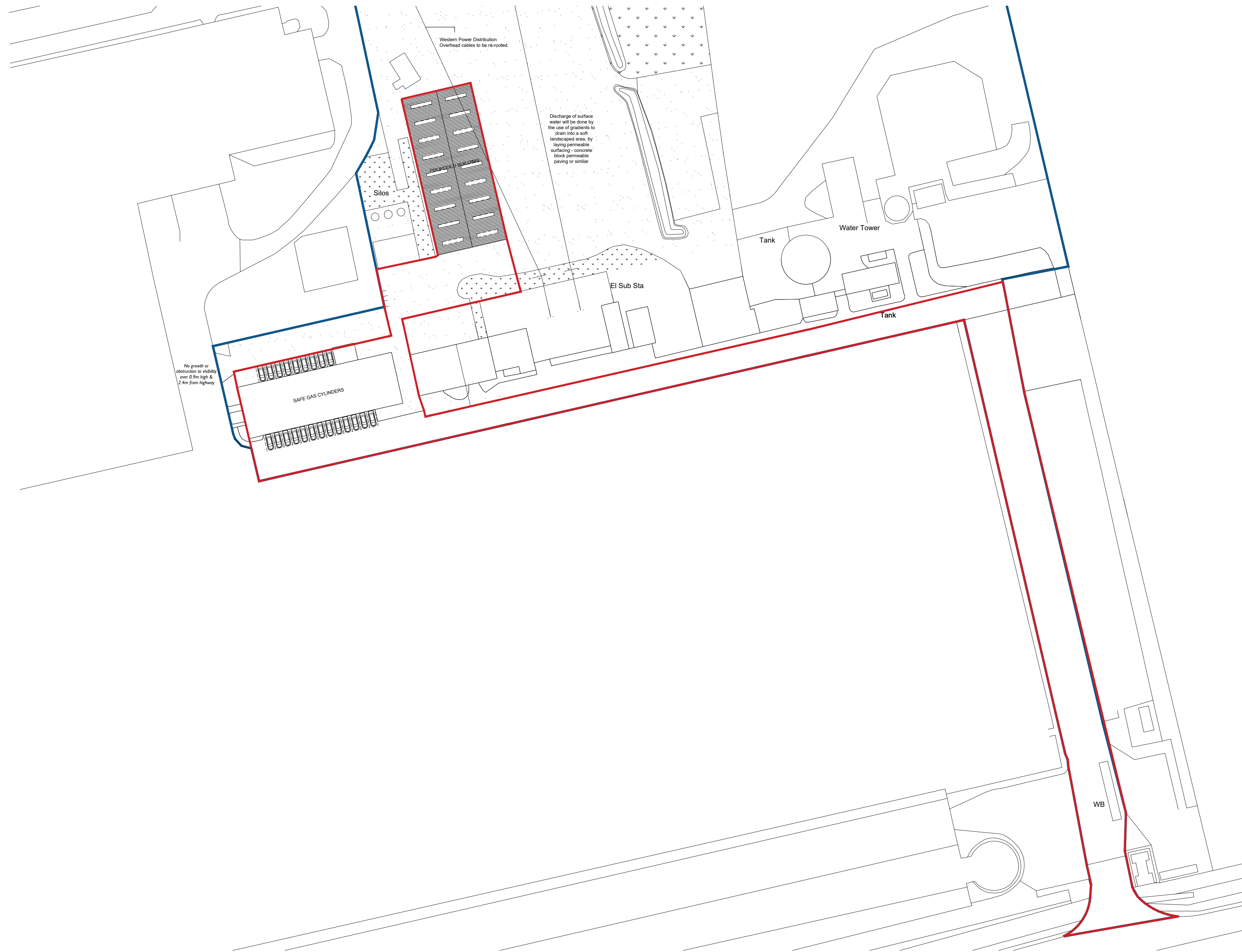
Scale:
1:1250&1:2000 @ A3
Date:
July 2021

Job No:	Drawing No:	Rev:
902	03	-

APPENDIX II – PROPOSED DEVELOPMENT LAYOUT

PROPOSED SITE PLAN

SAFE GAS CYLINDERS LTD, FABIAN WAY, SWANSEA, SAI 8QJ



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Revision:	Description:	Date:

- Application Site
- Land Owned by Applicant

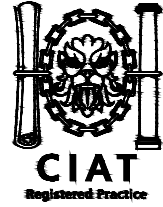
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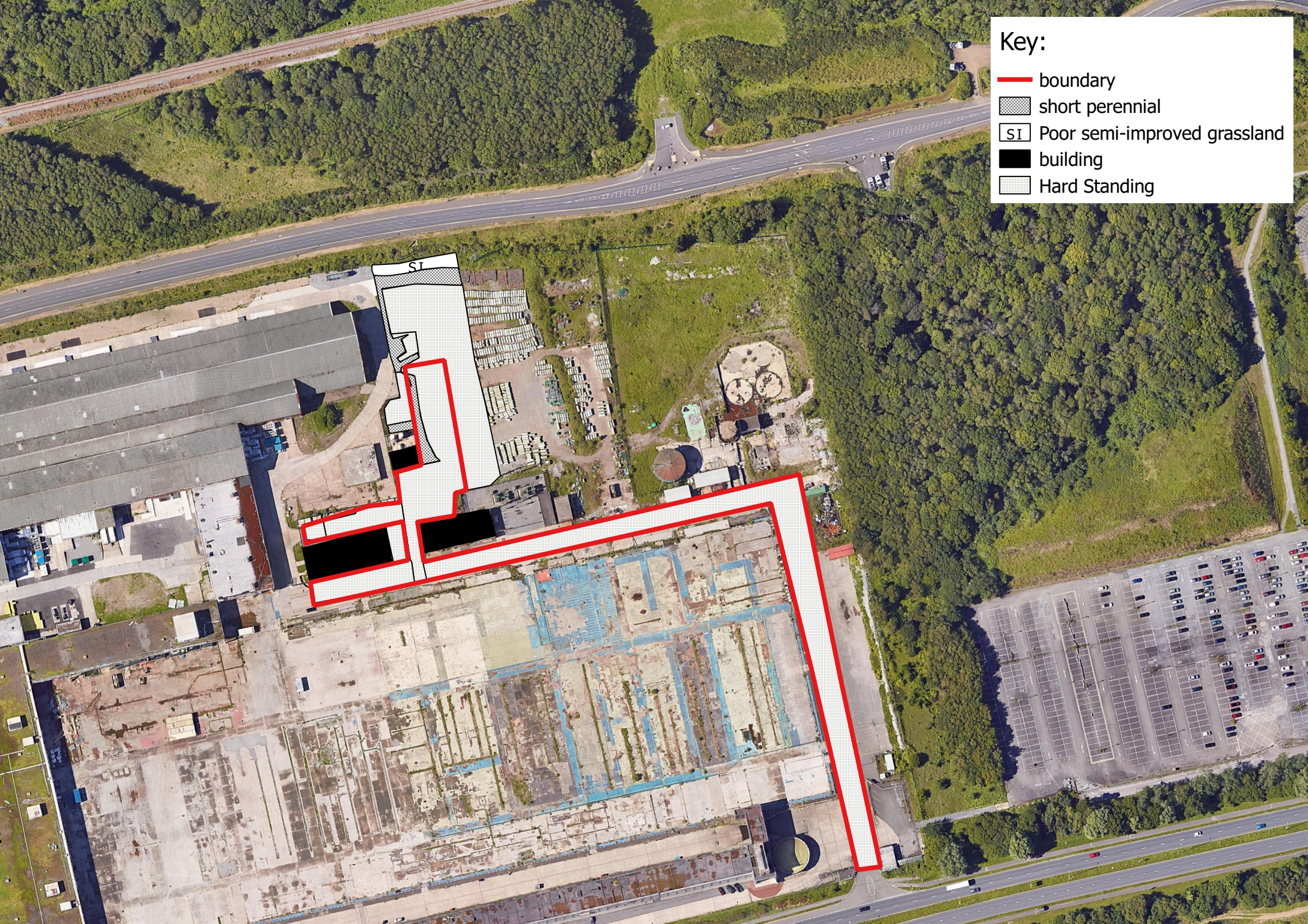
Project Title:
The Proposal of a Workshop
and Wind Turbine at Safe Gas
Cylinders Ltd, Swansea

Drawing Title:
Proposed Site Plan

Scale:	Date:
1:750 @ A2	July 2021

Job No:	Drawing No:	Rev:
902	02	-

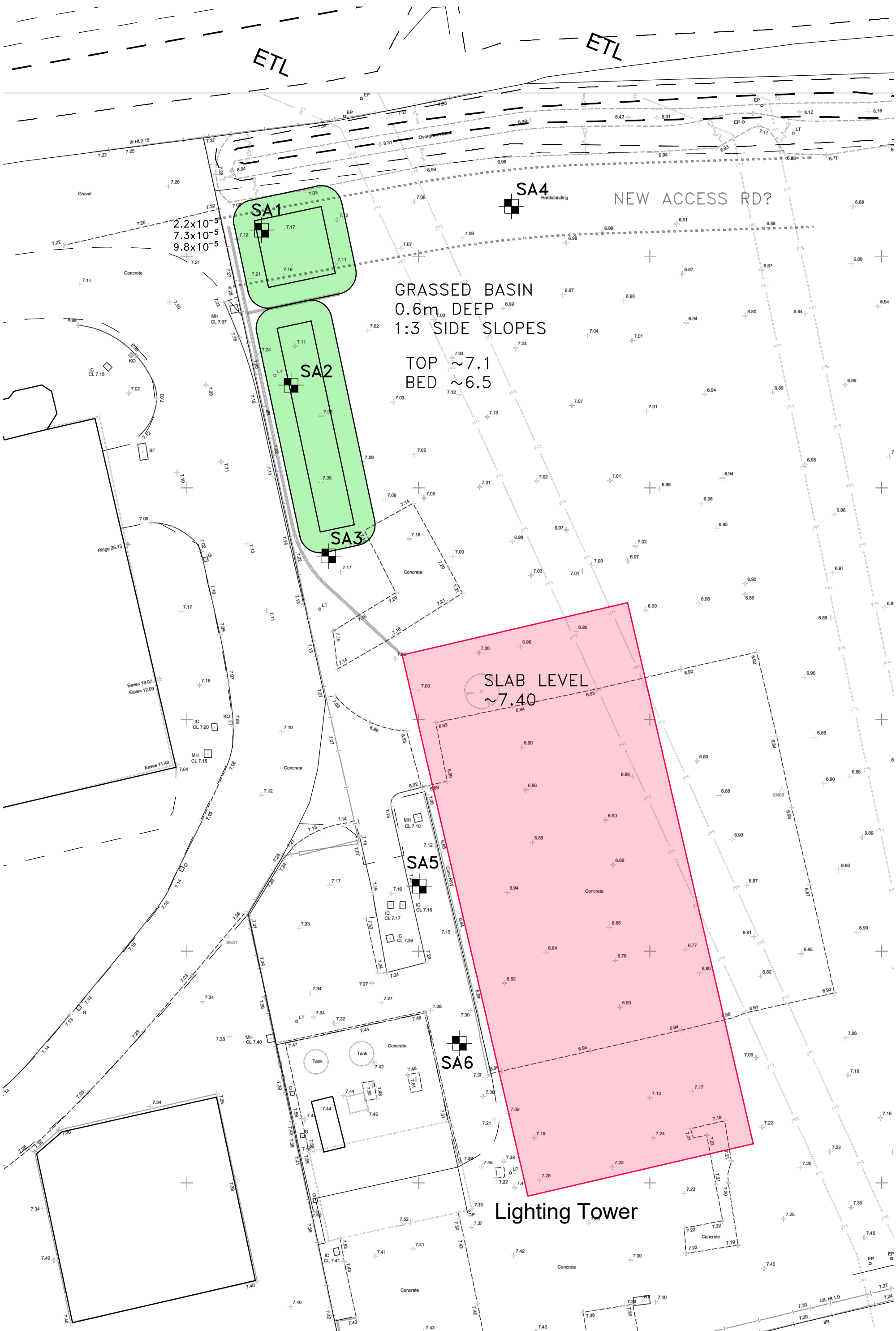
APPENDIX III PHASE 1 MAP



Key:

- boundary
- short perennial
- SI Poor semi-improved grassland
- building
- Hard Standing

APPENDIX IV EXAMPLE OF SUDS LOCATION



2.2x10⁻⁵
7.3x10⁻⁵
9.8x10⁻⁵

GRASSED BASIN
0.6m DEEP
1:3 SIDE SLOPES

TOP ~7.1
BED ~6.5

SLAB LEVEL
~7.40

Lighting Tower

APPENDIX V SuDS BASIN DETAIL

- NATIVE WILDFLOWER PLUG PLANTS WITH A PLANTING DENSITY OF 10 PER SQM (MINIMUM OF 8 SPP):
- PURPLE LOOSESTRIFE
 - RAGGED ROBIN
 - HEMP AGRIMONY
 - OXEYE DAISY
 - MEADOW CRANESBILL
 - COMMON BIRD'S-FOOT TREFOIL
 - ZIG-ZAG CLOVER
 - SNEEZWORT
 - COMMON FLEABANE
 - MUSK MALLOW
 - KNAPWEED
 - FIELD SCABIOUS
 - DEVIL'S-BIT SCABIOUS
 - YARROW

RECOMMENDED SUPPLIER:
CELTIC WILDFLOWERS LTD, GORSEINON

IN CONJUNCTION WITH SOWING A STANDARD FLOWERING LAWN MIXTURE AT 4g PER SQM

RAINGARDEN TOP WIDTH x LENGTH : SEE TABLE

ALL INFLOW FROM NEW DWELLING ROOF/PAVED AREAS
INTO BASIN SURFACE VIA DISHED SURFACE CHANNEL/SETTS

COBBLED ENTRY APRON TO DISSIPATE FLOW ENERGY:
60-100mm COBBLES SET IN 150mm CONCRETE BED

TURFED SIDE SLOPES
(NOT PLANTED)

500mm
BASIN
DEPTH

600mm
SOIL
DEPTH



ALTERNATIVE RAINGARDEN INLET:
PRECAST CONCRETE UNIT BY ACO

SOIL SPEC:
500mm DEPTH
50% BY VOLUME SHARP RIVER-WASHED SAND
45% BY VOL SANDY LOAM TOPSOIL (55% SAND, 30% SILT, 15% CLAY TO BS3882: 2015).
pH RANGE 5.5-7.0
HAND-RAKED TO FINE TILTH 50mm DEPTH

100mm THICK BASE LAYER
OF 10/12mm PEA GRAVEL

RAINGARDEN BED WIDTH x LENGTH : SEE TABLE

RAINGARDEN PLAN AREA:

	TOP	BED
RAINGARDEN 1	4.5m x 7.6m (33m ² area)	1.5m x 4.7m (7.0m ² area)
RAINGARDEN 2	5.7m x 7.4m (38m ² area)	2.7m x 4.5m (10.5m ² area)

RAINGARDEN

APPENDIX VI SWIFT BOX LOCATION

