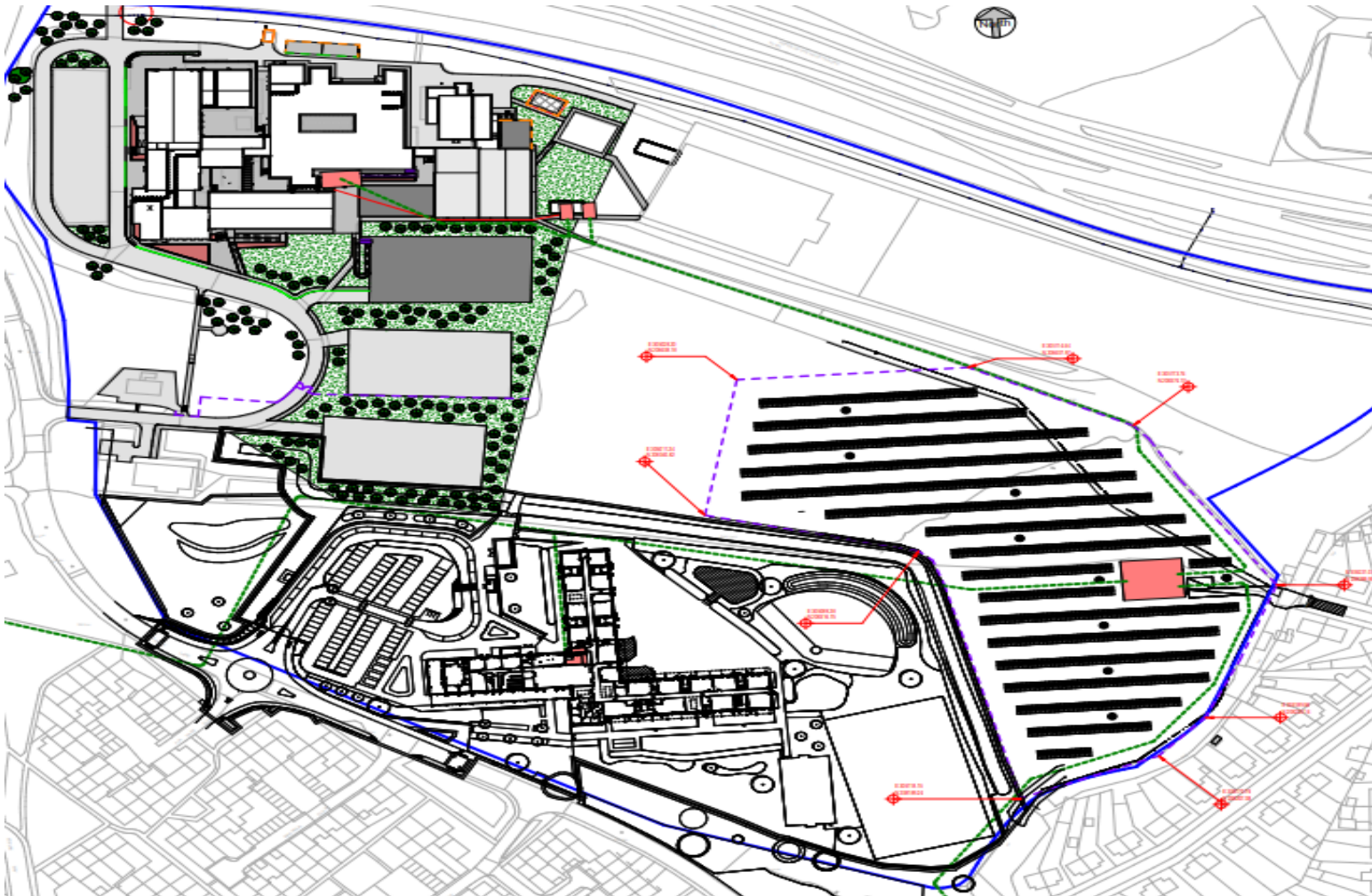


MORGAN SINDALL

CONSTRUCTION

Pen Y Dre PV Array & Private Wire

Rev 1 May 2025



MERTHYR TYDFIL
County Borough Council
Cyngor Bwrdeistref Sirol
MERTHYR TYDFIL

Pen-Y-Dre High
Comprehensive
School,
Gurnos Estate,
Merthyr Tydfil
CF47 9BY

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1.0 Introduction

INTRODUCTION

This method statement outlines our build proposals for the new construction of the Pen Y Dre PV Array located in Merthyr Tydfil as part as the Pen Y Dre High School Project (NZC).

The area of works are above our Goetre Primary School Project.

Our strategy considers the site's position and sets out how we will respond to the needs of the local community and surrounding area during the construction of this key project.

Working hours will be limited to the following to limit noise impacts on any neighbours:

- 08:00 – 18:00 Monday to Friday
- 09:00 – 1400 Saturdays
- Proposed no working on Sundays or Bank Holidays. Special permissions will be requested to the LA if its is deemed to be required, if granted, letter drops to the local resident to keep then informed.

PROJECT SCOPE

The project consists of the design and build of a new PV Array.

- Ecology Works
- PV panels & Associated ducting/Cabling
- New secure perimeter fencing
- New services, drainage and Swale.
- External Compound and Kiosks
- New CCTV & Lighting
- Civil Works

PURPOSE OF DOCUMENT

Set out within this document is the principal methodology we intend to implement during the construction of the new school and associated external works.

The document provides an overview of the construction activities and how these will be managed and controlled to minimise their effect on the existing adjacent school and nearby residential properties.

Through close control and an open approach, we will work with the local community, environmental stakeholders and Authorities to develop the site in a professional and practical manner.



Fig.1.1 – Proposed PV and Boundary Fence

1.0 Introduction

Project Execution Plan & Key Control Documents

All works will be carried out in accordance with the Morgan Sindall Integrated Management System (IMS) which is ISO 9001 (QA) and ISO 14001 (Environmental) accredited.

Key Morgan Sindall IMS documents and procedures that we will adhere to include:

- Project Execution Plan [SE PLN1] which sits at the top of the hierarchy
- Environmental Management Plan [SE PLN1 Pt 3]
- Environmental Auditing [SE PLAN1 EA]
- Register of Environmental Effects [SE PLN Section 4]
- Construction Phase Health and Safety Plan [SH PLN1] will be produced prior to start on site and includes sections on traffic management, noise and dust, fire and emergency, public interfaces, method statements and site inductions, COSHH, Lifting Operations, Temporary Works, Underground and Overhead Services.
- Tender stage Environmental Survey, as per IMS document ref. [SE FRM10]
- Noise and Vibration Management [SE GUID9a]
- Noise Control [SE PLN Section 3.5]
- Dust and Air Quality Controls [SE GUID9b]
- Mud and Dust Control [SE PLN Section 3.23]

- Pollution Prevention [SH PLN1]
- Pumping and Over-pumping – Pollution Prevention [SE GUID11]
- We will carry out regular inspections as per our Environmental Inspection Checklist [SE FRM7]
- Management & Disposal of Waste [SE GUID7]
- Ecology and Biodiversity [SHE PLN 1]
- COSHH [SH PLN1], [SH FRM5], [SH STD5]
- Storage of Fuels, Oil & COSHH [SE PLN Section 3.1]
- Asbestos [SH5 STD1], [SH5 GUID1], [SH5 FRM's1-6]
- Demolition [SH PLN Section 3.5]
- Waste Management [SE PLN1 Section 2.11]



View Of Goitre Primary School from the Southwest off Goitre Lane

Introduction

LOCATION / NATURE OF THE SITE

The site is located on the field above the new Goetre Primary School site in the Gurnos Estate.

Both Pen Y Dre School and the new Goetre School have separate entrances and there is no direct route in the new PV Array. The Gurnos ring road is located north of the site along with first avenue to the west however, these roads are bounded to site but access can't be gained from these roads..

The site is bounded by residential properties and private gardens. The north boundary is bounded near the A465 Road which is currently having extensive road works.

During the design and development of the site, a careful and sensitive approach is being taken to ensure that the new development will be well-integrated into the area and add value to the existing architecture, urban structure and spaces. In addition, the construction methods set out in this document respond to its location and surroundings and ecology.



Fig.1.2 – Aerial View of the proposed PV Array with the site access through Sixth Avenue.



Fig.1.3 – Existing Access looking West from Sixth Avenue



Fig.1.4 – Pedestrian Access to the school from Sixth Avenue east of the site



Fig.1.5 – View of Pen Y Dre school with the Goetre site & PV array area shaded.



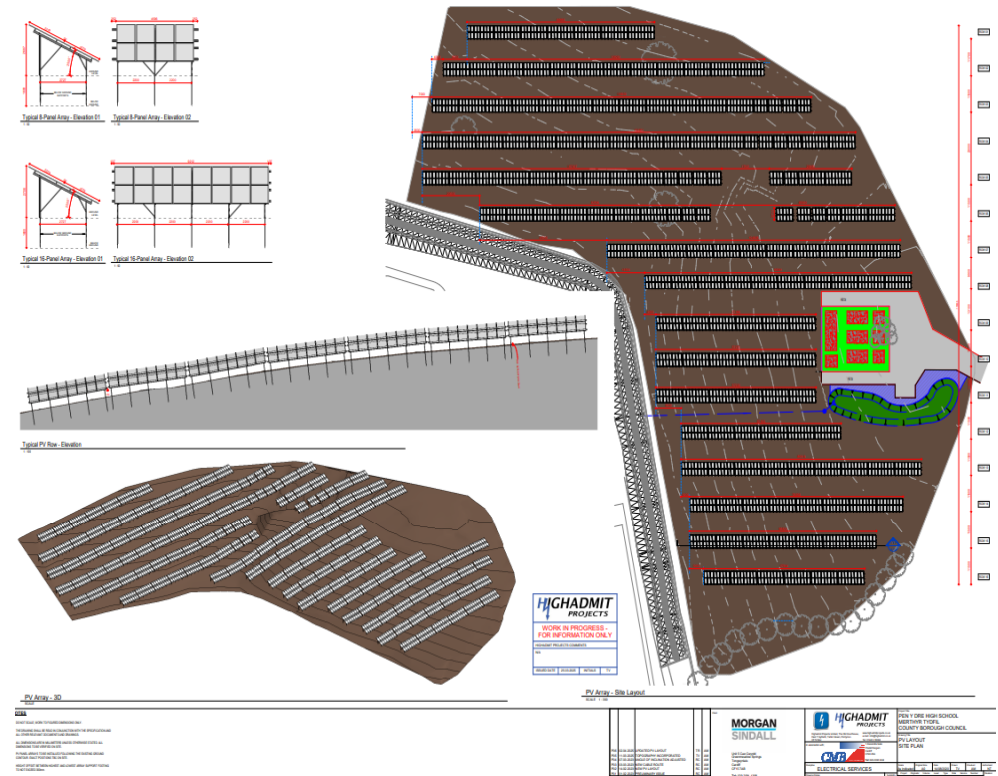
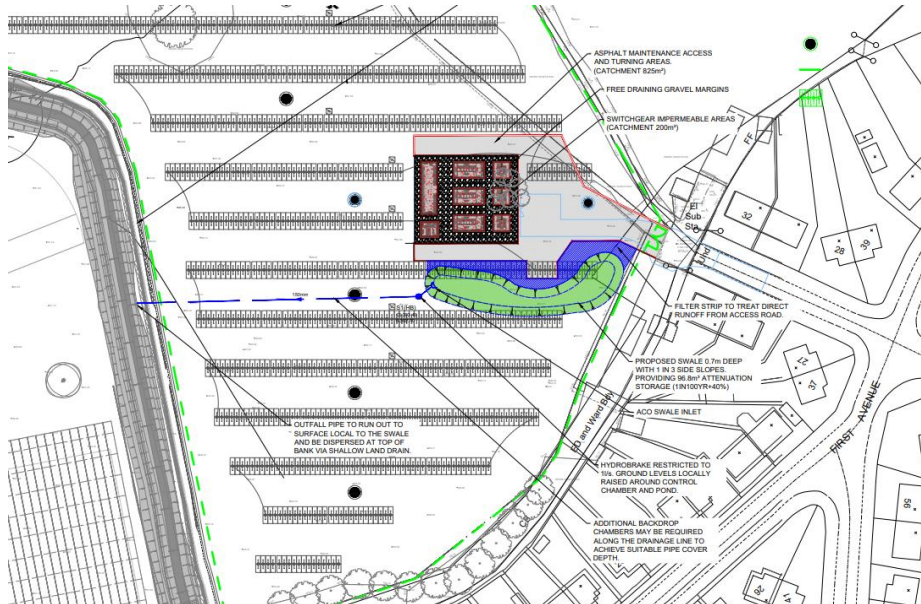
Fig.1.6 – View of the school from the south on Goitre Lane

Introduction

PROJECT ACTIVITIES Include the below

Commence June 2025 – February 26

- Ground investigation Surveys
- Delap Surveys
- Site Clearance and Ecology Surveys /2 stage Grass Cutting
- Secure Site
- Site enabling works and compound set up.
- Existing service diversions
- Temporary/permanent connections to existing swale
- Installation of temporary services
- Site set up operations
- Perimeter Secure Fencing
- Ducting /Cabling
- PV Table installations
- Civil works to Substation Area
- Install new lighting and CCTV Systems.
- New Sub stations & Switch Gear Installations.



Figs.1.9 – Proposed Plan & Tables (Right) Hardstanding/GPR Kiosk/Substation /SABS & Entrance off Sixth Avenue.

Introduction

ACCESSING THE SITE

During construction, site signage will commence with off-site direction boards to ensure that vehicle traffic including delivery vehicles follow the designated routes to and from the site.

All Morgan Sindall suppliers and contractors will be formally advised as part of their contractual agreement / subcontract order, to approach the site from the A470/New head of the Valley Road onto the Gurnos Road.

This will avoid any construction traffic minor and residential roads in the area minimising any disruption from our construction traffic.

Information on delivery routes will be contained within a delivery / goods information pack given to each contractor (and form part of the subcontract order) to advise them of the site delivery requirements and restrictions.

Particular attention will be given to the methodology for 'on site' controls whilst also requesting the contractor to confirm their planned deliveries a minimum of 48 hours in advance, thereby allowing controlled / timed deliveries to be made throughout the day to avoid peak periods and to ease traffic congestion locally.

No deliveries will be before 8am or after 5pm weekdays and will adhere to the agreed working hours set out by MTCBC planners.



Fig.1.10 – Route to site

Project Information

SITE ACCESS

Access Point onto the Site for the PV Array

This entrance/exit to the main site will be controlled by a dedicated full time gate person/MS Management with coordinated and scheduled deliveries. Appropriate signage will be provided to 'warn' other road users, pedestrians and cyclists.

Security

We will have 24 hour Security guarding (Evenings & weekends)with rapid response providing early detection and deterrence of intruders. During the construction stage manned security will be present out of site working hours due to the nature of the works and high value plant being installed over the course of the construction stage.

This is particularly important when the Cabling/PV tables/Substation and Switch gear works commence, where expensive equipment is vulnerable to theft and damage. Only personnel inducted onto site will be allowed to enter through the controlled turnstile. Telephone contacts for non-working hours emergencies and will include the Project Manager, Site Manager and other appropriate staff will be displayed at the main entrance.

Holding Area

A clean hard standing holding area will be created inside the gates where the permanent car park is being located to avoid congestion public highways. Wheel washing facility will be provided if deemed necessary at this exit to ensure no mud or debris is discharged onto the main highway and this will be supplemented with an intermittent road sweeping facility.

Deliveries

Delivery vehicles will be limited in size where possible and will be booked in to specific time slots with vehicles arriving outside of their allotted times turned away. Accepted vehicles will drive into the site through a set of vehicular gates where the banksperson will direct the vehicles to an offloading area. Once the vehicle has been offloaded it will leave the site through the same gate under the supervision of the banksperson

The site areas prevent delivery vehicles from turning around in a forward gear, reversing vehicles will be controlled by a banksman at all times.

All delivery drivers will be briefed by the banks person prior to entering the site.

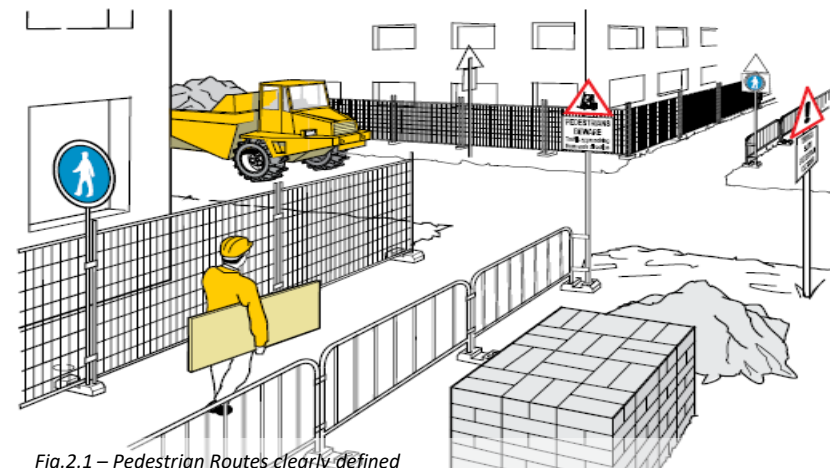


Fig.2.1 – Pedestrian Routes clearly defined

Access & Egress to the Site Compound and Welfare Facilities

Site Offices and Welfare within the new site boundary area.

Access to the site will be through the controlled entry point similar to that shown in Fig 2.2.

This will prevent unauthorised access to the site.

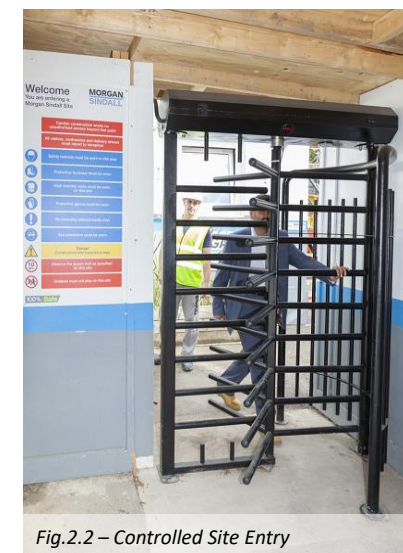


Fig.2.2 – Controlled Site Entry

Project Information

CONSTRUCTION TRAFFIC MANAGEMENT

All site traffic and deliveries will be tightly controlled with our robust traffic management plan / procedures with pre-booked time slots. Stringent rules on no parking and/or waiting within the surrounding area will be enforced.

Deliveries will be initially met by a banksperson from the relevant contractor (and signage) at the site entrance point who will instruct drivers accordingly and direct deliveries to one of the working areas.

A clear traffic management plan will be displayed at the site entrance and other areas of the site.



Fig.2.3 – Gatehouse / Controlled Entry

In order to mitigate any safety risks associated with construction vehicle movements we will regularly brief the local business's & residents to ensure our proposals are understood, particularly at Phase changes and at points where there is a direct effect on the public.

The key element of this is the production of a **Traffic Management Plan** and following review and acceptance this will be displayed on the site and form part of our induction training.



Fig.2.4 – TMP Prominently Displayed

TRAFFIC MANAGEMENT PLAN

The Traffic Management Plan will detail all aspects of construction related traffic, both vehicular and pedestrian and the impacts and risks to both site personnel and the general public. The Traffic Management Plan will be developed by the Morgan Sindall Project Manager as a live document updated regularly to reflect the changing works.

At this point we have produced a Pre-construction Traffic Management Plan which includes details and controls for site access and egress, and measures taken to ensure the safety of pedestrians at all times.

This document will remain live for the duration of the Contract, evolving when necessary to take into account changing site conditions/phases and processes.

- All deliveries will be carefully planned, managed and controlled
- The agreed routing will be implemented for the duration of project

Morgan Sindall will ensure that all vehicles including those of subcontractors, suppliers or others employed on the site only use the agreed routes and comply with the requirements and Traffic Regulations as set out within the plan.

Figure 2.5, 2.6 and 2.7 overleaf provides an outline of our phased logistics and traffic management proposals.

Project Information – Site Layout & Traffic Management Plan

Logistics and Traffic Management

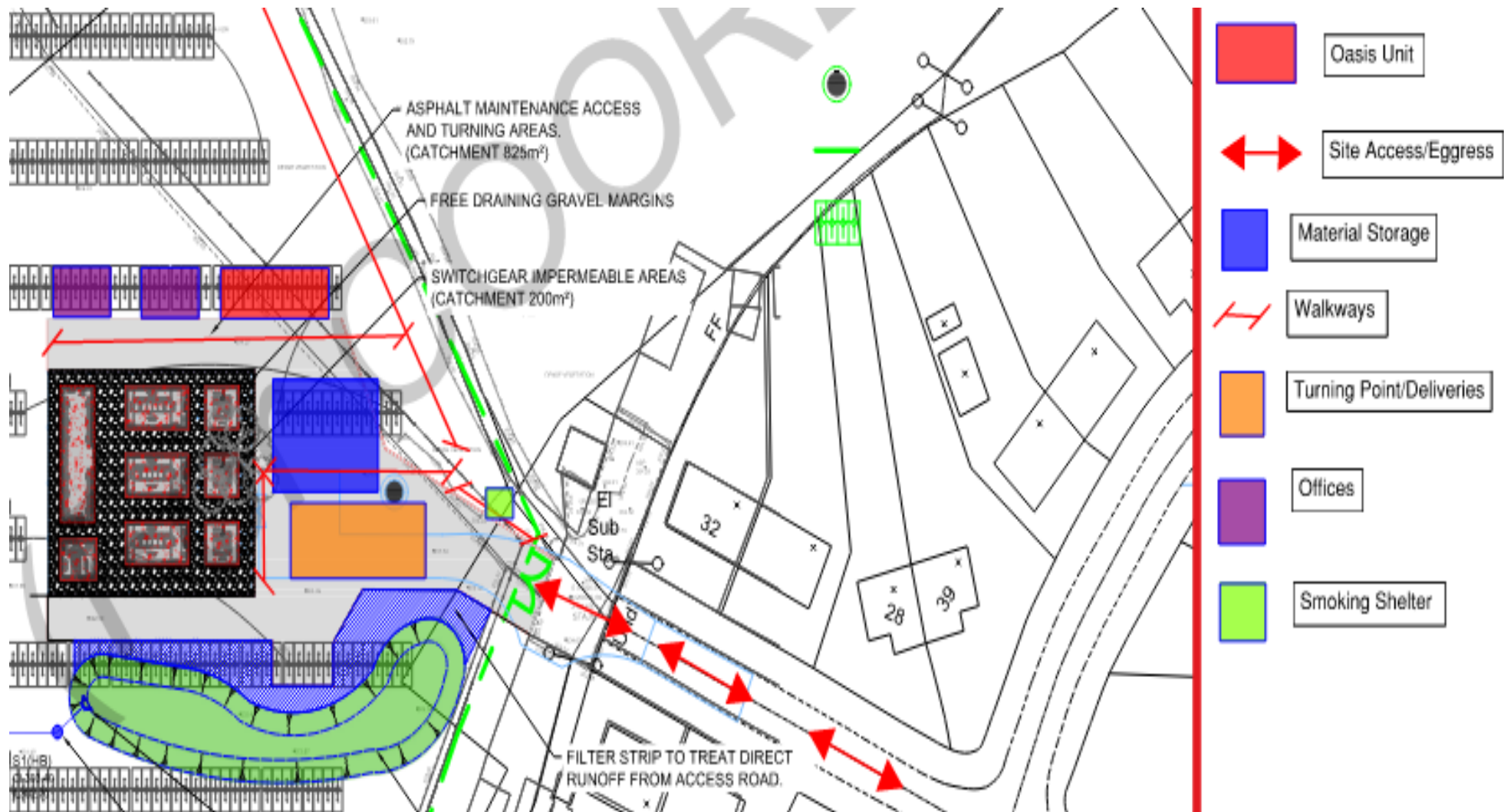


Fig.2.5 – Logistics and Traffic Management Early Works

Project Information

TEMPORARY WORKS

Temporary works is an integral part of our planning process allowing us to always maintain safety and we therefore also gives us the opportunity to forecast what the requirements will be for every individual project specifically. This will be considered as a live document and when a separate brief is required, then this will be added to the temporary work design brief and design checks undertaken before we proceed with any work.

Where the Temporary Works is considered to be SIGNIFICANT, an assessment of the extent of the Design Check must be made and procedures followed accordingly.

Our Temporary Works process and procedures fall into the following Categories:

Category 0 - Standard solutions only – compatibility with site conditions check only.

- (To ensure the site conditions do not conflict with the scope or limitations of the chosen solution.)

Category 1 - Simple design – check can be another member of the design team

- (These may include: formwork; false work (where top restraint is not assumed); needling and propping to brickwork openings in single storey construction for instance.)

Category 2 & 3 - Fully Independent Design and checking process, without reference to the designer's calculations using only the design brief, design statement, drawings specification and associated information not produced by the designer.

- (More complex or involved designs for excavations, foundations, structural steelwork connections, reinforced concrete, complex or innovative designs, which result in complex sequences of moving and/or construction of either the temporary works or permanent works.)

Temporary Works that typically would NOT be classified as SIGNIFICANT include:

- Minor formwork including
- Ground slab edge formwork and
- Minor wall formwork
- Simple access scaffolds without complex layouts and with simple foundation arrangements
- Minor battered excavations without attendant risks and non-engineered solutions.

Pen-Y-Dre – Temporary Works Schedule

Management System

FORM

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CONSTRUCTION

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INFRASTRUCTURE

Temporary Works Schedule (TW1)

Schedule Owner: Temporary Works Co-ordinator

Contract: Penydre HS, Merthyr Tydfil

Revision: 1

Date: 4/3/2022

Ref No	TVWs Item Description	Risk Class BS 5975 Table 1	Designer	Checker	Design Check Cat BS 6975- Table 2	TVWs Supervisor	Planned Site Start Date	Brief Issue Date	Reqd by Date	Design Complete Date	Checked Approved Date	Permit To Load Issued	Permit To Dismantle Issued	Third Party Approval
1.	Scaffolding - Access staircase - Structure & Base - Loading Bays - Edge Protection to roof - Waste Shoots - Loading bays into structures - Pedestrian fans - Lift install - Slab edge protection - Deck over floor penetrations	M	S/C	MES	2	MS								
2.	Pedestrian Ramps	M	S/C	MES	1	MS								
3.	Hoarding systems - Demountable Hoarding System – say hoard it - Timber Hoarding Systems - Internal Hoarding systems - Internal and external crowd resistant hoarding - Vehicle appropriate hoarding systems - Temporary <u>Hettas</u> or similar	M	S/C	MES	2	MS								
4.	Silo Base	M	S/C	MES	1	MS								
5.	Excavations - Drag Box - Manhole shaft - Buried tanks and propping - Large Manhole shafts	M	S/C	MES	1	MS								

Fig.2.8 – Section of the Temporary Works Schedule

3.0 Ecology & Environmental Protection

ENVIRONMENTAL PROTECTION

The principal document under which the environmental considerations of the project will be delivered will be the Morgan Sindall Environmental Management Plan [SE PLN1 Pt 3] supplemented further by our Register of Environmental Effects [SE PLN Section 4], a tender stage version of which has already been produced to inform this document. Regular auditing (Environmental Audit [SE PLAN1 EA]) will be carried out by our SHEQ advisor. Our IMS sets out how the works will be carried out and the standard with which we will comply. These will include the guidelines provided under PPG 6 and their replacement series now issued as 'Guidance for Pollution Prevention' (GPPs).

With the PPG series currently under review, we will be working to the latest guidelines as they are published and maintain a close relationship with National Resources Wales as appropriate and especially at times when our activities are likely to be at a greater risk of affecting the local environment.

The guidelines which are particularly relevant to this site include:

PPG 1: Understanding your environmental responsibilities – good environmental practices
GPP 2: Above ground oil storage tanks – NEW 2017
PPG 6: Working at construction and demolition sites
PPG 7: Safe storage – The safe operation of refuelling facilities
GPP 8: Safe storage and disposal of used oils
GPP 13: Vehicle washing and cleaning
GPP 21: Pollution incident response planning
GPP 22: Dealing with spills
GPP 26: Safe storage – drums and intermediate bulk containers

Controlling Noise

All works will be carried out and monitored in accordance with BS5228 Pt. 1 'Control of Noise & Vibration on Construction and Open Sites'. We will also manage noise as per our Controlling Noise procedure [SE PLN S3.5].

Prior to commencement, if deemed necessary we will produce a Noise and Vibration Assessment and identify operations that have the potential to cause excessive noise/vibration. We will then look to try and avoid these activities altogether or use a quieter means e.g. non-percussive. Where this cannot be avoided, we will look to provide acoustic barriers and the like to contain at source. We do not envisage any activity with regards noise or vibration causing any issues.

A 'Noise Monitoring plan' will be produced prior to commencement, if we do have complaints, we will take daily readings at both the boundary and at source. A 'Noise Complaints Procedure' will also be produced and managed personally by the Morgan Sindall Project Manager.

In the event that BS5228 Pt 1 monitored limits are exceeded we will stop work and adjust the activity in order to adhere to the recommended limits. Similarly, if we receive a legitimate complaint from the school/residents we will investigate, and cease works as necessary and find an alternative means of construction or mitigate to suit. The way in which this will be monitored and implemented will be set out within our Project Execution Plan [SE PLN1]

We will also abide by the following Morgan Sindall procedure:

- Noise and Vibration Management [SE GUID9a]

All construction activities are restricted to between 8:00am and 5:00pm, Monday to Friday with any weekend working taking place on Saturdays between 8:00am and 2:00pm. There will be no construction works on Sunday's or bank holidays unless agreed with the LA. We will ensure that our activities do not exceed the current noise and vibration levels around the perimeter of the site for the duration of our works. Limited instances of out of hours working may be required for essential works/maintenance which is weather and temperature dependant, this will go into night time hours. Out of hours working will be limited in nature and communicated to the LA and local community by newsletter as far in advance as possible with mitigation measure put into place where possible.

This will be achieved by the following:

- Any generators that have to be used will be 'silenced' type and positioned away from the residential areas
- Low-noise processes and acoustic barriers/screens will be employed, as identified by noise assessment
- Work strictly within agreed time periods
- Early identification of noise sensitive areas and times through noise assessment procedures
- Notify neighbours and local authority of any forthcoming noisy activities
- Use of non-percussive processes where possible.
- Location of plant away from sensitive areas including fences/physical barriers as appropriate

- Project Noise Monitoring will be implemented if necessary, and stations will be in areas where our activities might cause concern to residents and the operation of the existing school.
- Works activities adjusted to respond to noise monitoring data
- Vibration dampers to be used or equipment sited on absorbent standings
- Ensure plant/equipment is well maintained
- Consider, alternative methods, temporary screening
- Reacting quickly and positively to any complaints from nearby residents or the school.

We will be proactive in promoting and maintaining acceptable noise levels during the construction period. Working with our supply chain to review and ensure that the correct tools and methods are adopted for specific operations and construction activity.



Fig.3.1 – Noise Monitoring Stations to be used

Controlling Vibration

We would propose to carry out vibration assessment where necessary/type of activity dependant due to the proximity of the surrounding houses, although we do not anticipate any of our operations will have an adverse effect, there is some screw piling on the project, there will be no significant vibration from this outside of the boundary lines other than from our standard construction operations.

Prior to commencement we will carry out a dilapidation survey and identify any nearby buildings that are in poor structural repair. If necessary, we will utilise the structural consultant to provide us with advice and set permissible vibration levels that can be monitored throughout, if necessary.

If excessive vibration is anticipated operations, we will mitigate by alternative means. The use of slit/isolation trenches may be required for excavation works.

The cut and fill operations/foundation & drainage construction will involve some large plant and re-modelling of small area of ground to form the compound, some activity does have the potential to cause vibration. While it is unlikely that this will cause any damage, it may cause some nuisance to the nearby residences, we will however monitor this once the work starts to ensure it does not cause any undue discomfort to personnel nearby and mitigate/reduce where possible.



Fig.3.2 – Vibration control slit trench

Controlling Dust

Dust will be managed as per our procedure 'Airborne Dust & Air Quality' [MS REF: SE GUID9b]. We shall seek to eliminate dust at source and lay base-coarse tarmac early in the project to provide clean site haul roads.

In addition, Morgan Sindall will carry out an air monitoring if deemed necessary and adopt whatever means are appropriate to control the generation of dust on the site, especially during the main groundwork's phases. Having reviewed all possible mitigation measures to reduce dust at source (eg extraction equipment)

Further dust reduction measures will include:

- Spraying will be adopted to mitigate dust and assist with suppression.
- Consideration at material procurement stage to reduce the need for 'on-site' cutting of materials and then only allowing site cutting in designated areas
- Dampening down of dust generating activities
- Covered wagons to be used for the transportation of dust generating material
- Existing roads will be kept clean and maintained
- Dust water suppression system on required operations such as cutting
- Low speed limit in compound area
- Use of road sweepers as necessary
- Dust extraction equipment

Particular care to the mitigation of dust will be implemented during any earthworks/ cut/ fill activities, namely, damping down and spraying to reduce airborne dust.

This will also apply to the Early works of the new road formation to site. The management of dust-generating activities will be stated in appropriate method statements together with the associated control measures to be implemented.

Keeping the Roads Clean

Wheel washing facilities/hard standings and suitable drainage will be provided at our site gate. All dirty vehicles will be cleaned before being allowed on the highway.

All local roads including the immediate surrounding areas will be maintained in a clean and tidy condition by the use of a road sweeper where required for the duration of the site works.

In addition, we will be undertaking litter picking along the site boundary.

Waste/Recycling Strategy

A Site Waste Management Plan (SWMP) will be put in place, prior to works commencing, setting targets for waste reduction and recycling.

We will implement the plan and keep up to date records of our progress and report it at the monthly progress meetings.

All licenses and transfer notes will be retained as proof of correct disposal.

All site waste will be removed from the building daily in wheeled bins and placed directly into the central waste collection areas located in our Site Storage Area.

Our site team will enforce a strict 'housekeeping' policy to ensure that the building is checked daily and cleared for safe access and to eliminate the risks of injury and fire.

Waste materials generated from site production will be segregated on site into designated recycling skips. Attention will be given to panel sizes of materials such as plasterboard to ensure that cutting of sheets and waste is minimised. Overall, and in accordance with Morgan Sindall's sustainability policy, we will be targeting 90% of waste to be recycled thereby reducing land fill.

The waste and recycling areas will be located away from the live school within a designated areas and will be located such that run-off will be contained in a manner to avoid contamination of the ground or watercourse. Details of this will be developed and agreed.



Fig.3.3 – Road sweeping by specialists

Road sweeping services will be employed particularly during the ground works operations and demolition phases where more vehicle movements are anticipated.



Waste materials will be stored in a designated area close to entrance gates to allow ease of removal without addition traffic around the site.

Hazardous materials will be stored in lockable skips.

Materials will be segregated in line with our strict targets under SWMP.

Chemicals will be located in designated storage areas and gas bottles in locked cages away from accommodation.

Fig.3.4 – Recycling area – waste segregation – extract from main Construction Site Layout



Fig.3.5 – Recycling skips

Ecological Protection

A preliminary ecological assessment and Bat Survey has been carried out by Ecological services Ltd. During the Bat Survey no bats were seen or overserved during the dusk surveys.

The tree protection plan indicates that there are no protected trees on site however, measures are in place with regards to cutting any hedgerows or shrubs on site and must be done outside of the nesting season between March – August. Any tree loss within the site boundary will be compensated for with tree planting in future development proposals. Furthermore, trees must be retained where possible as they provide shelter and food for birds and small mammals.

Before any works will commence a Precautionary Working Method Statement (PWMS) will be prepared covering all protected species that maybe impacted by the proposed development, once agreed with the LPA ecologist this will then be communicated to the Morgan Sindall Site team and the supply chain to ensure works carried will be in line with this method statement. The below documents have been considered in development of the CEMP

- 'Bats & Trees Survey Report; Goitre Field School, Merthyr Tydfil' V2 dated 1st March 2024 by Ecological Services Ltd
- 'Updated Preliminary Ecological Assessment; Goitre Field School' V3 dated 13th December 2023
- 'Reptile Survey Report; Goitre Field School, Merthyr Tydfil' V3 dated 13th December 2023
- 'Invertebrate Survey Report; Goitre Field - Merthyr') Christian Owen Bio-Surveys (dated October 2022)
- 'Arboricultural Report Including Tree Survey Data & Tree Constraints Plan, Arboricultural Impact Assessment, Tree Protection Plan and Arboricultural Method Statement' dated 8th April 2024 by ArbTS
- Ecological Impact Assessment V2 22nd April 2024
- 26CB01-SBC-00-XX-DR-L-0400 rev P02 'Strategic Soft Landscape Plan' by Soltys Brewster
- 26CB01-SBC-00-XX-DR-L-0402 rev P03 'West off-site Habitat Compensation Sketch Design' by Soltys Brewster
- 26CB01-SBC-00-XX-DR-L-0403 rev P02 'South off-site Habitat Compensation Sketch Design' by Soltys Brewster

Asbestos Control

Ground testing will also take place to determine any asbestos trace within the ground and any remediation strategy's that may be required. To date there is no ground contamination envisaged.

This will be undertaken in a controlled manner and in accordance with *British Standard 8520 Equipment used in the controlled removal of asbestos containing materials* and associated industry guidelines.

This removal work will be closely monitored by Morgan Sindall to ensure strict compliance with the standards with works method statements identifying critical 'hold-points' for checks to be undertaken and verification of working practices.

The following MS procedures will be adhered to: [SH5 STD1], [SH5 GUID1], [SH5 FRM's 1-6]

Run-off Pollution

Siltation and run-off can cause a nuisance and environmental problems. As part of our Environmental Management Plan, we will produce a pollution prevention plan that will be developed as we make final preparations to start on site. We will make contact with the NRW/LA to discuss our proposals if deemed necessary, an outline of which is presented on page 16 (Pollution Prevention Plan) with any permits required etc.

Existing Drainage Protection



Fig.3.7 – Silt fence

Water run-off containing silt / debris will be prevented through the use of proprietary drain covers and silt fences used to manage water flow to prevent it entering the existing drainage system or watercourse. Such run-off will be contained on site and suitably disposed of.

Fig.3.8 – MH cover



Wildlife Activity

The initial ecology assessment concluded that there were no protected species within the site boundary, therefore confirming that no EPS licenses are required for this project.

All operatives on site will be briefed during the induction process that if any wildlife activity is identified that it is reported to Morgan Sindall so that further survey and assessments can be carried out.

Ecological Considerations during the Construction Period

- Any tree removal within the site boundary will be completed outside of the bird nesting season of March to August inclusive. If this is not achievable an ecologist must inspect any trees or ground vegetation with the potential for birds to be present, for active birds' nests prior to removal works beginning. If an active nest or activity indicating a nest might be present is identified a buffer zone of at least 5m, up to 20m depending on species, around the nest must be observed until the chicks have fledged. Only then can the vegetation be removed.
- All site contractors will be given a toolbox talk which covers the legal protection given to reptiles, what they look like, where they may be found, and what to do if herptiles are found on site. Information on reptiles will be included within the site induction pack.
- Install Heras fencing around all areas of vegetation to be retained. Heras fencing must take into account Root Protection Zones (RPZs) and arboricultural advice provided by ArbTS - Arboricultural Technician Services Ltd. A clear fence line around the construction footprint will ensure contractors do not work within or negatively affect adjacent habitat outside of the development site.

Vegetation Clearance – Grassland Vegetation

- All areas of grassland within the site will be cut in stages and undertaken during the months of April - September inclusive when reptiles are active and likely to relocate of their own accord. Whilst the presence of hibernating reptiles is considered unlikely, this timing constraint will be implemented as a precaution. Grassland cutting will start along the southern edge of the development site and progress northwards to retained habitat areas outside of the construction site.
- First Stage Cut - vegetation will be cut, using hand tools or an adjustable height flail, to a height of between 100-150mm. The cut material will be raked and removed from the site to avoid potential future colonisation by reptiles. The cut material must be removed the same day it is cut. Work area must be left for 24hrs once the first stage cut is completed.
- Second Stage Cut - vegetation will be cut to ground level (a maximum height of 50mm) and the arisings raked and removed from the site as above. Any reptiles or other fauna will be treated as above.
- Any herptiles present should naturally move away of their own accord due to the disturbance from cutting. However, in the unlikely event that any reptiles or other fauna are encountered during this operation all cutting work will stop and the on call Ecologist will be consulted.

- Any reptiles present should naturally move away of their own accord due to the disturbance from cutting. However, in the unlikely event that any reptiles or other fauna are encountered during this operation all cutting work will stop and the on call Ecologist will be consulted. Reptiles will either be carefully collected and moved away to the retained vegetation to the north of the development site or be allowed to do so of its own accord.

Vegetation Clearance – Trees

- First Stage Cut - The first stage cut of trees will be required outside of the bird nesting season. Trees, hedgerow and dense scrub will be cut to a height of 0.5m between the months of September to February inclusive. All cuttings will be collected and removed from the site to prevent future colonisation by birds and or reptiles.
- Second Stage Cut - tree roots will be grubbed up using a toothed bucket of a JCB or an appropriately sized digger. The roots will be removed under ecological supervision and any reptiles found will be captured and moved to adjacent habitat. The roots systems will be removed slowly and gently to allow any reptiles present to escape. All roots will then be removed from the proposed development site.]
- Once all suitable vegetation has been cleared from within the site boundary, the construction site footprint must remain in a vegetation free state. This will help to reduce the likelihood of reptiles using the site while construction works are underway.

Wildlife Activity

The initial ecology assessment concluded that there were no protected species within the site boundary, therefore confirming that no EPS licenses are required for this project.

All operatives on site will be briefed during the induction process that if any wildlife activity is identified that it is reported to Morgan Sindall so that further survey and assessments can be carried out.

Existing Site Habitat Plan

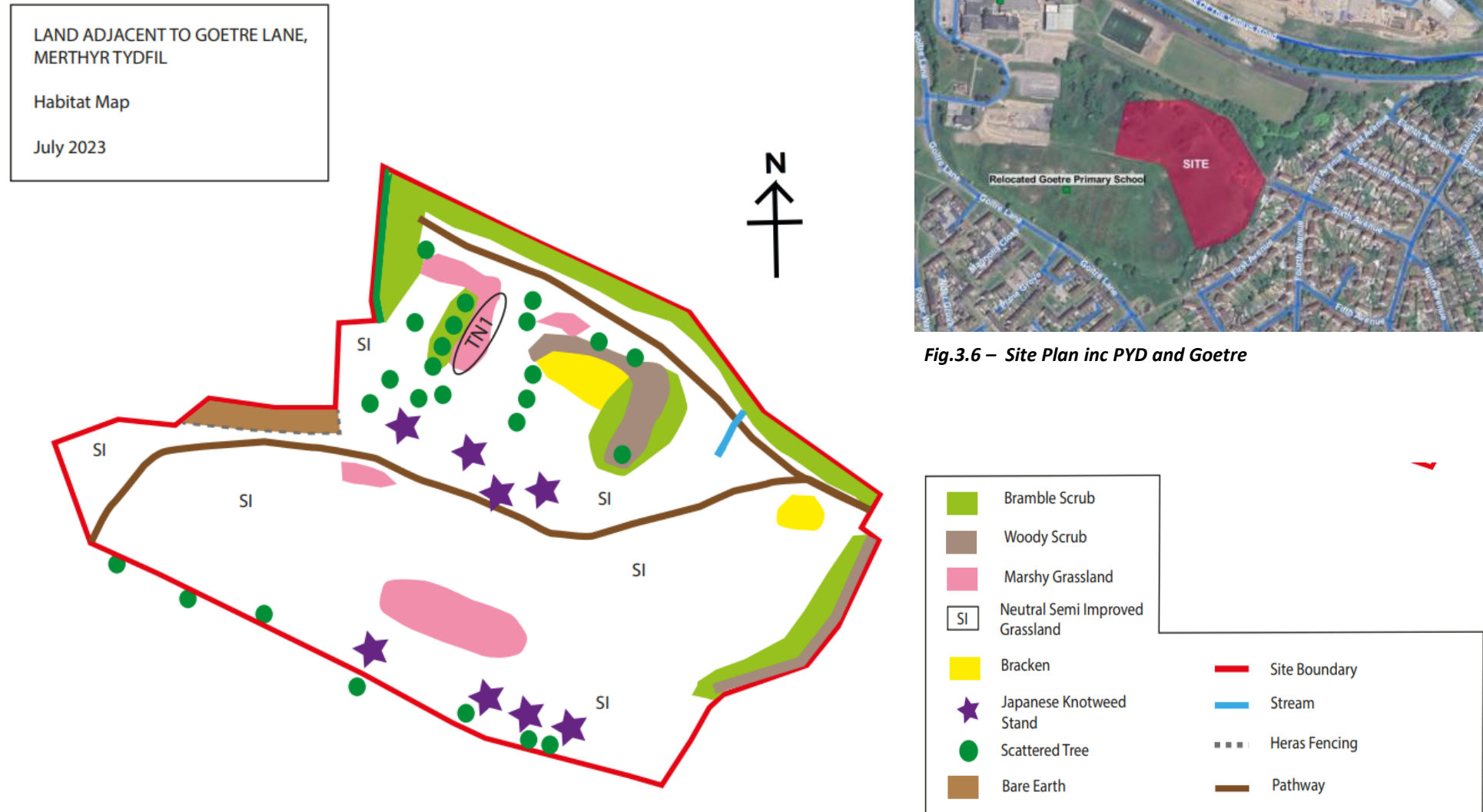


Fig.3.6 – Site Plan inc PYD and Goetre

Ecology & Environmental Protection

Site Water & Silt

Precautions will be taken when excavating to ensure silts are not allowed to migrate to any watercourse with the site boundary.

There are no open watercourses in the immediate vicinity of the site, however the existing site and the surrounding area drain to the newly formed swale (part of the PYD/Goetre Projects) into the storm network, including the existing storm culvert. (All permissions/permits have been completed for this inc the OWC permit)

Our solution for excavating of drainage and substructure ground works will be closely developed with the groundwork's specialist in conjunction with the relevant testing/reports to control site de watering operations.

Protection measures can include geo-textile silt fences, as necessary around excavations to prevent migration of silts into any watercourse. Where site dewatering is required a method statement will be produced on our specific dewatering solution and issued for comment and approval by key stakeholders.

Due to the nature of the works, we do not envisage any issues, this due to the nature of the works, minimal earthworks, topography of the site and only to the compound area, drainage and ducting activity, the large are of works are the PV tables which are screw piled into the existing land/level. A silt buster and demarcated controls will be adopted within the site area for concrete wagons/ mortar silos to wash out to avoid any contamination to the ground/ground water. The silt buster/basins/water treatment plant will filter out contaminants from these operations, from the excavations/working areas to bring the water to a suitable level for discharge into the agreed location.



Silt fence & Boom



Land drain / grip



Manhole/Drain Covers



Fig.3.9 – Siltbuster settlement tank



Fig.3.10 – Concrete wagon cleaning

Any earth moving plant will be controlled to reduce the risk of construction silt combining with any site run off. Any Surface water runoff and general site de-watering (minimal) can be managed on site, this meaning local pumping on to the existing land /grass areas as it's a large site, with minimal civil works, no cut/fill or major earthworks/land re modelling to be completed.

Compound & Works Lighting

Generally, the external lighting within the site's boundary will be designed and installed to provide adequate illumination of vehicular routes, pedestrian walkways, permanent car parking areas and fire escape routes with minimal light spillage onto boundary edges and adjacent residences.

The luminaires will be selected to give minimal upward light distribution and will have optical controllers to minimise horizontal light emission at an angle greater than 70°.

Lights will be placed and angled to minimise/avoid over-spill light at the site boundary onto hedgerow, wet ground areas and areas designated for wildlife to minimise the influence of artificial light on the movements of bats and other wildlife.

Glare to neighbours from the site will be considered and luminaire mounting heights will be kept as low as possible to avoid direct vision into the lamp source of the fitting from distant locations.

The works will not affect the existing lighting outside of the site so no lighting will be included outside of the hoardings



Fig.3.11 – Hoarding lighting

Task lighting will be provided local to all work faces as required to ensure safe working by our operatives, any lighting in the nights will only be for site security and will be minimal.

Spills Procedure

To minimise the risk of contamination from spills of oil, fuels and chemicals they will be stored within a safe storage area within the site contractor's compound, as shown on the pollution prevention plan.

Operatives will be trained in the refuelling of vehicles and attendance to spillage and spill procedures. These designated areas will be away from any draining points and suitable bund and drip trays will be used to collect material and prevent ground contamination.

Fuel oil will be stored in a bund fuel bowser able to hold 110% of its capacity. Chemicals will be stored in a designated COSHH storage area. All plant and machinery will have a spill kit to be used in the event of spillage taking place. A spill kit will be located in specific area of the site to and clearly marked.

All operatives will be briefed on these and other site specific controls at induction stag.

In the event of a spillage the Morgan Sindall emergency spill response will be adhered to.

The Project Manager will appoint responsible persons to react to any environmental incidents.



Fig.3.12 – Local task lighting

4.0 Site Enclosure / Offices & Operations

Compound

Site Accommodation & Welfare facilities will be located near the sub station compound area (refer to logistics plan) This will ensure the maximum space around the site for logistics and parking without the need to move the units and parking during the works.

There is limited on site parking, whilst we will do our utmost to provide on site/compound parking for subcontractors, due to the site constraints this may not be achievable at all times, we will advise all our contractors that they must park both safe and legal, also being courteous to the local residents and surroundings at all times, again due to the nature of the works there will not be many vehicles contractors on site (Max 10 -20 operatives) , we can also use PYD and Goetre site parking if necessary.

Site Compound Set-up and Establishment

To manage the site effectively and efficiently we have given considerable thought to our site set up proposals - reviewing the following key aspects:

- Maintaining a safe site throughout the project
- Clear & concise [site wide] signage
- Safe pedestrian walkways throughout the site
- Specific traffic routing and segregation from pedestrian and working areas
- Clearly located fire muster points
- Efficient compound and material store
- Safe and unobstructed delivery routes
- Clear and designated lorry turning areas
- Adequate parking for the project team, contractors and visitors.
- Well located eye wash stations
- Efficient 'Just In Time' delivery and material storage

Our site compound area will comprise project offices, welfare facilities and vehicle parking with areas for materials holding and waste management established within the site boundary. Vehicular access to the works will be via controlled gates and pedestrian access via a turn style system – located adjacent to the main gate. Pedestrian traffic from the welfare from the site will be via designated routes to limit the mixing of construction workers and school users. We will construct the majority of the permanent hard standings including roads, car parks and play areas up to base course from the outset of the project ensuring clean and safe routing throughout the project build period (thereby reducing dust in this period and the transfer of clay/earth on the carriageway), with the final tarmacadam, pavings and white-lining completed just prior to handover.

Hoardings & Secure Site

The site perimeter will be fenced with V Mesh/Heras fencing and the permanent fencing to prevent unwanted entry and to define our boundary. This is shown on our Logistics and Traffic Management Plans/Boundary Treatment Plan

Dedicated manned and gated access and egress routes will be established to maintain and control traffic flow and security at all times. Access onto site will be granted following proof of CSCS compliance and the receipt of site-specific induction, ensuring only approved personnel have access to the working areas.

All construction staff, client representatives and visitors will sign in on arrival at the gatehouse, receive a site induction and sign out on departure. No activity will take place outside the site boundary without the agreement of the Employer and other relevant authorities.

Moveable barriers will be utilised to control vehicle movements and segregate operatives' from the access and egress in and out of the compound area - reinforcing safety in compliance with our Traffic Management Plan. Visitors will gain access through an intercom system linked directly into the project office.

24 hour CCTV/Manned security monitoring will be provided throughout the project to provide early warning of intruders with a rapid reaction service to provide on site presence in the event of an intrusion.

The project will also be registered with the Considerate Constructors Scheme(Part of PYD Scheme)

Identifying if construction activity is registered:

We are considerate constructors

If you see posters, banners or vehicle stickers like those shown here, it indicates registration with the Considerate Constructors Scheme.

We are considerate constructors

Some registered sites will display Ultra Site branding as shown here. These projects have made a commitment to operate to the highest levels of considerate construction.

constructionmap

The Construction Map allows you to search and view details of any company or project registered with the Considerate Constructors Scheme. Please visit www.constructionmap.info to search for construction activity near you.

What is the Considerate Constructors Scheme?

The Considerate Constructors Scheme is a non-profit-making, independent organisation founded in 1997 by the construction industry to improve its image. Construction sites, companies and suppliers voluntarily register with the Scheme and agree to abide by the Code of Considerate Practice.

What is expected of registration?

Registered sites, companies and suppliers commit to adhere to a Code of Considerate Practice. They will:

- Care about Appearance
- Respect the Community
- Protect the Environment
- Secure everyone's Safety
- Value their Workforce

All registrations with the Scheme are monitored by an experienced industry professional to assess their performance against this Code, and should do all they can to reduce any negative impact they may have on the area in which they are working.

The Considerate Constructors Scheme seeks to:

- Minimise any disturbance or negative impact caused by any construction activity to the neighbourhoods and communities, including noise, dirt, dust, parking, behaviour, inconvenience, or any other inconsiderate practice.
- Encourage even higher levels of consideration towards all those affected by construction activity.
- Recognise and reward constructors' commitments to raise standards of site management, safety and environmental awareness beyond statutory requirements.

What does this mean for you?

If you have any complaints or comments regarding the activities of a registered site, company or supplier, please contact them on the number displayed on their poster or contact the Scheme's administration office on 0800 783 1423 (UK) or 1800 939 109 (Ireland).

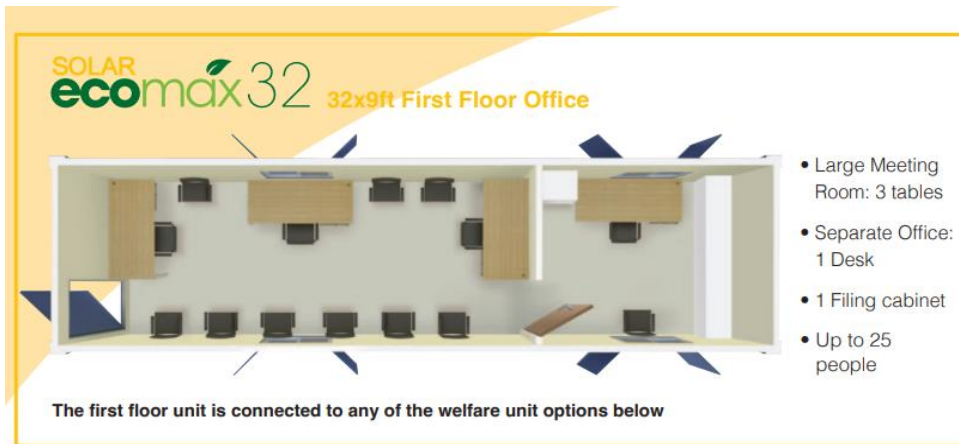
Alternatively, please visit the Scheme's website www.ccscheme.org.uk

Site Enclosure / Offices & Operations

Site Compound /Welfare

Our main accommodation will be established early to provide full office and welfare provision throughout the project. A site entrance will be formed and on site parking will be available to ensure construction traffic does not park on the public highway and in the residential areas.

The placement of the accommodation and parking offsite maximises working area on the site ensuring adequate space for material management, waste collection and vehicle marshalling. Due to limited site services (Power/Water/Foul) we will using the EcoMax options (examples below) these can be self sufficient, eco friendly for both ourselves and the residents, including noise as the power generator is built with the unit/Solar so they do not run permanently.



TOILETS
solarGO

Generator-free solar toilets

Oasis SolarGo Toilets utilise renewable solar energy to deliver 100% silent and generator-free instant start toilet facilities.

Helping you to provide high quality, sustainable welfare for staff on site, while reducing environmental and community impact.

Renewable energy from the solar panels powers all electrical loads in the unit.

Three cubicles, **Two** toilets, **One** urinal...GO!



Why SolarGo?

- ✓ Compact footprint
- ✓ Self-contained
- ✓ Solar technology
- ✓ No generator

Benefits

- ✓ Carbon reduction
- ✓ Silent operation
- ✓ Inclusive facilities
- ✓ Staff wellbeing



Fig.4.2 – Self sufficient oasis unit single level. Actual accommodation type may vary in size & appearance

Site Enclosure / Offices & Operations

Deliveries, Offloading, Lifting and Storage

The gate person will be informed of all deliveries to site with deliveries booked in 48 hours in advance avoiding the embargo periods in the Planning Consent. Two-way radios will be used, so regular communication can be kept between banksman and gateman ensuring off-loading can be managed effectively.

Reversing is only permitted under supervision of a trained banksman ensuring turning and management of delivery vehicles on the site is undertaken safely. Materials will be delivered on a 'just in time' basis ensuring unloading areas remains clear for incoming deliveries and only small amounts of materials are stored on site.

Upon arrival delivery drivers will sign in and be briefed on site rules, given a delivery drivers induction and will be directed to ensure they enter the correct area of the site, wear correct PPE and do not expose themselves to any hazards which maybe present on the project at that time. The delivery booking system will ensure vehicles are not left waiting to enter site with delivered that are not booked in turned away.

All offloading will be undertaken in the designated offloading area. If access is required onto the trailer a fall prevention system will be in place. Any mechanical offloading by forklift or crane will only be permitted within the site compound and risk assessments and method statements will be required in the form of detailed lifting plans. Any slinger/signaller duties must be undertaken by a competent certified person working in accordance with the approved Lifting Plan

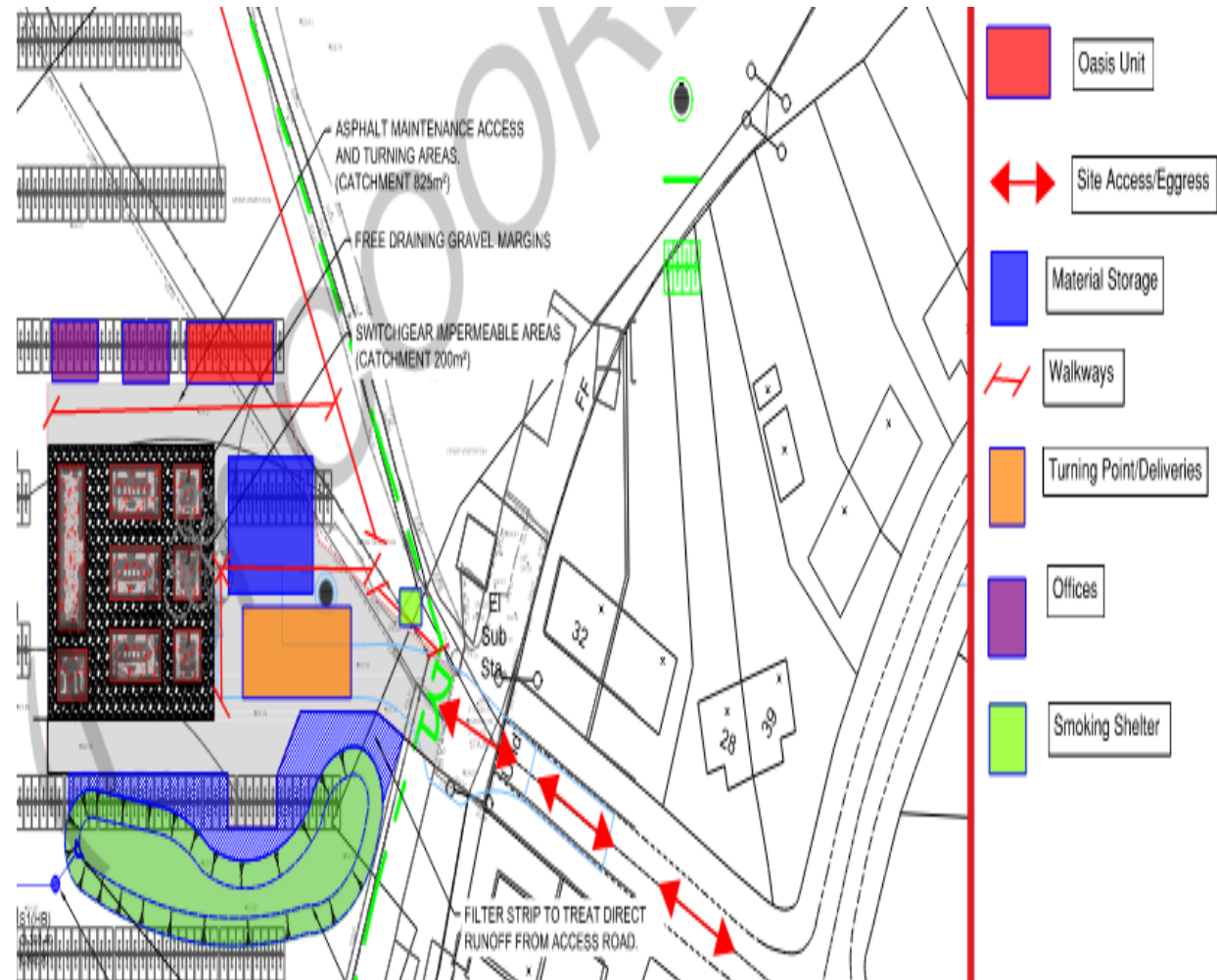


Fig.4.3 – Site materials management and waste skips compound

Site Enclosure / Offices & Operations

General Traffic and Car Park Management

As part of our Site Traffic Management Plan (including all works areas) we will provide details of all temporary signage, barriers, crossings etc., whilst communicate to all visitors via signage, notices, briefings and presentations.

Contractor parking will be limited to designated areas. No parking will be allowed in the live school premises or other surrounding local roads. This will be specified within subcontractor orders and reinforced during site inductions and briefings.

Vehicle routes on site will be clearly separated from pedestrian areas with temporary Heras fencing and barriers with suitable signage.

Pedestrian Management

The site accommodation is located at an offsite location in close proximity to the works. All staff, operatives and visitors will sign in to the site offices before attending site. Turnstile access control will prevent unauthorised access. Walking routes between the works and the welfare will be agreed and clearly signposted.

Pedestrian and traffic routes will be maintained to minimise disruption to the surrounding areas particularly during the early stages of the works and before completing the new accesses especially where pedestrians and vehicular movement coincide.

Highway Works (outside the compound/secure area)

Highway works including the new temporary/ permanent entrance will be programmed as part as the early/enabling works.

The new entrance and agreed highways improvements will be complete prior to the handover of the PV Array.

Before these works commence we will prepare our method statements in conjunction with our subcontractors and liaise closely with the Highways department to agree programme, sequencing, protection and traffic management logistics as well as specifications and handover procedures.

Works to the highways required under the Safer Route to School assessment noted in the Planning Consent will be agreed with the Local Highway Authority with full engineering and method statements agreed prior to any works commencing



Fig.4.4 – Indicative new vehicle entrance off Sixth Avenue

5.0 Demolition & Waste (No Demolitions works Planned)

Managing Demolitions of Existing School Premises

Any demolition work will be carried out by a recognised Demolition Contractor, who are members of the National Federation of Demolition Contractors (NFDC), and will be rigorously assessed by Morgan Sindall. Prior to the commencing demolition, a pre-demolition/planning meeting will take place with the appointed demolition contractor. During the course of this meeting full consideration will be made to sensitive environments in which the work is being undertaken, existing structural reports, available relevant drawings, details of existing services, wildlife survey (bats) and potential hazardous materials, for example the removal of asbestos, the control of dust and noise. All these factors will be addressed in detail in the Demolition Method Statement.



Abiding by the principles of BS5228 Pts. 1 & 2 'The Control of Noise/Vibration on Construction and Open Sites', a demolition-stage Noise and Vibration Assessment will be produced prior to commencement of any demolition. This plan will identify any operations with the potential to cause excessive noise and demolition. Any such activities will be mitigated so that noise/vibration levels can be reduced. This will be achieved by one of the following means;

- Isolation cuts
- Use of smaller machinery
- Using burning gear
- Use of hydro-demolition
- Provision of acoustic screening

Noise Monitoring will be undertaken daily, and action taken if the BS5228 levels are exceeded.

Waste Management

Our robust Waste management and environmental plans set out our strategy with clear measurable targets. Our experience and systems demonstrate our commitment to waste management to our supply chain with an effective site setup geared in every respect to deal with waste in the most efficient way.

Our site specific induction is setup to ensure all construction site workers and managers on the project are fully aware of their commitments and targets in this respect.

WRAP/CL:AIRE

Key to this project will be the compliance with funding award and delivery of WRAP targets. For this reason this project will ensure the level; of recycled and reused content in the products and materials selected will be 15% of the value of those materials used. During design development and supplier selection Morgan Sindall will seek to achieve these targets by reviewing the specification of specific components during the detailed design and procurement stages.

More detailed assessments will be undertaken at subsequent design phases.

We will look to minimise waste removal from site and to reduce material consumption in the building works throughout. This, in turn will reduce waste disposal volumes and costs, and reduce embodied carbon. This strategy will be the key deliverable when preparing the overarching Project Execution Plan and Site Waste Management Plan (SWMP). This will include some re use of the excavated materials on site cover within the DOW:COP:CL:AIRE.

Waste Disposal

Within the compound for the site, a specific waste segregation area will be set up. This area will be completely enclosed with access granted to only approved operatives, forklift driver and skip lorry driver. Recycling points, signage and hoarding areas will be established with progress charts displayed setting out targets and progress against these.

The segregation/holding area for waste will be suitably enclosed and controlled such that material or run-off from the area will not be allowed to enter the SINC to the north of the site.

The waste compound will have an appropriate number of skips in order to segregate as much waste as possible to reach the target of 95% of waste diverted from landfill.

All targets for waste management will be outlined in the site waste management plan (SWMP). The waste management contractor will be selected dependent on their recycling figures and service offered. The Morgan Sindall environmental champion will audit all waste management and ensure good practice is adhered to throughout the project.

On site we will use wheelie bins to provide adequate waste management and collecting facilities at each of the work faces.

Our waste management and targets will be monitored to meet the strict requirements set out as part of the NZC process and in line those set by Morgan Sindall themselves.

6.0 Earthworks

The existing site levels, topography and grassland will largely remain the same, the only area where levels/earthworks are required is the swale/compound area (shown opposite) All area where the PV tables are located will remain as per, other than trenching for ducts/cables and the screw piling.

Retaining structures may have to be introduced where necessary to the new compound/Swale area, the height of these retaining structures has been designed to support material retention on site.

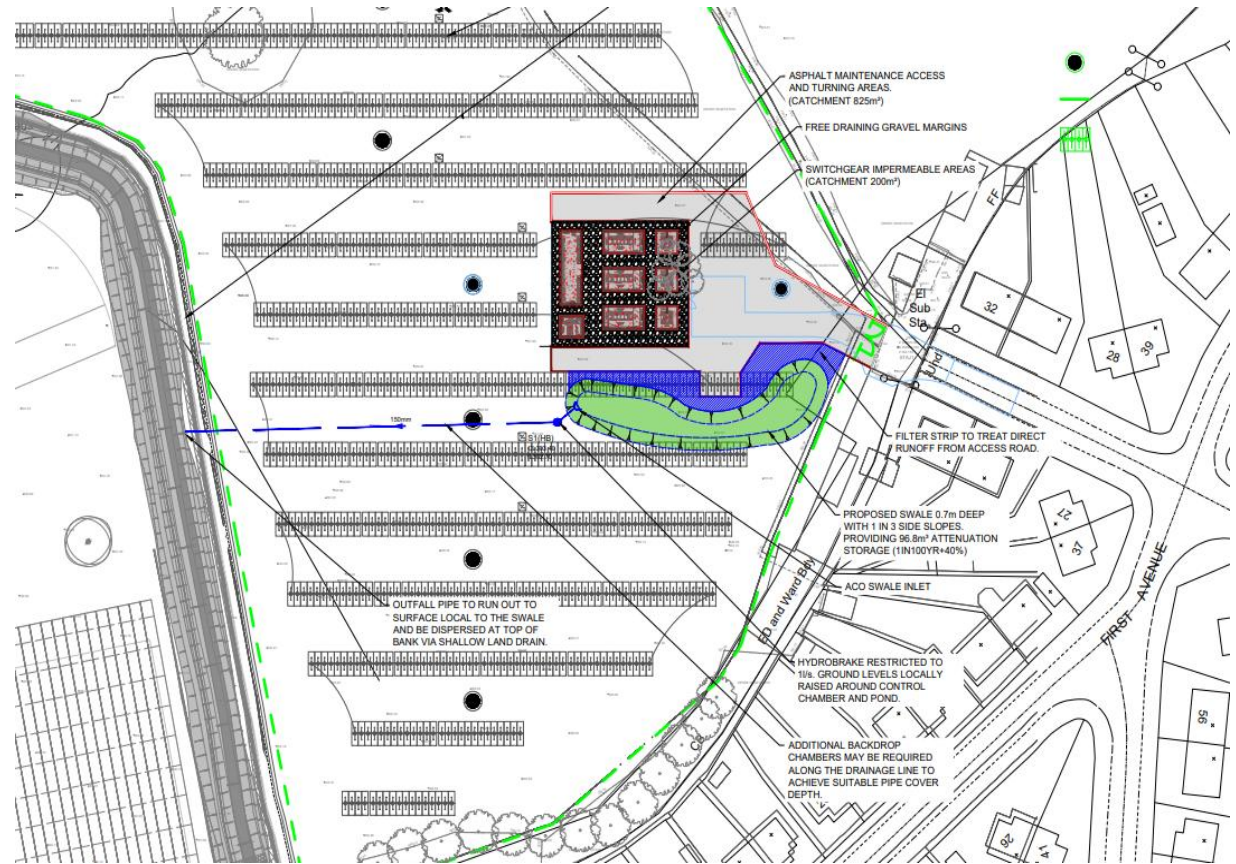


Fig.5.1 – Compound/Swale Area

7.0 Public Safety

Public Safety Overview

The site will be set-up and operated in accordance with HSE ACOP 151 *Protecting the Public*. This provides clear guidelines and sets the standard for delivering a project which provides the public with the safest possible interface with our construction operations. Most of these considerations and control measures have previously been addressed in this document. Fortunately we have no high level risks such as scaffolding or multi-storey building work located on the site boundary itself.

We will also abide by the principals of the considerate constructors scheme, and look to achieve a minimum score of 43/50.

We will carry out neighbour consultation by means of monthly newsletter and open-evenings managed by our on site Project Manager.



Safety, Health and Environmental Policy Statement

Management System

Policy

**MORGAN
SINDALL**
CONSTRUCTION

Safety, Health, Wellbeing and Environment (SHE) policy

At Morgan Sindall Construction we are committed to protecting people's safety, health, wellbeing and the provision of safe and healthy working conditions. We are also committed to minimising the impact of our operations and improving the environment and the communities we work in.

We strive for a high standard of performance in respect of our employees, delivery partners and others involved, recognising that everyone has the right to be safe and healthy. We will provide adequate resources, information, instruction and training to ensure that we can deliver this policy and to achieve this we will:

- Provide effective leadership to create a culture of communication and consultation, engagement and safe working
- Integrate safety, occupational health, wellbeing, and environmental matters into our business arrangements and decisions
- Ensure effective arrangements are in place for the effective participation, engagement and consultation with all our employees and the workforce
- Make sure that we have effective operational controls in place for the effective management of our Safety, Health, Wellbeing and Environmental performance
- Continually improve the Integrated Management System (IMS), and evaluate any changes which may affect the intended outcomes of the IMS
- Maintain strong governance by monitoring, reporting and reviewing progress against targets and objectives and by ensuring compliance with any associated legal and other requirements
- Engage with our delivery partners to support our objectives to continually improve Safety, Health, Wellbeing and Environmental performance
- Develop designs that benefit people and the environment, and which consider lifecycle impact including decommissioning and disposal
- Identify hazards and impacts associated with our activities and manage risk and opportunities by applying a hierarchy of controls beginning with elimination which primarily focus on prevention, and if not reasonably practicable then effectively manage the risks that remain to people, the environment, stakeholders and any other interested parties
- Remaining risks could include the immediate working environment, the use of plant, equipment and new technology, interface with other work environments, competency requirements, and specific risks such as the purpose of driving for work
- Establish clear lines of responsibility that allow people to do their job in a safe manner, report any unsafe acts or conditions and enable anyone to stop work and ask for guidance if they believe they are working unsafely or being asked to work in an unsafe manner
- Use of technology and innovation to support our ongoing improvement in Safety, Health, Wellbeing and Environmental performance in our field
- Reduce the impact of significant environmental aspects, by protecting the environment, enhancing biodiversity and using sustainable products and materials
- Effectively prevent pollution to air, land and water
- Efficiently and sustainably use energy and natural resources, and control environmental effects
- Manage and minimise waste, carbon emissions and water consumption

We will communicate this policy to our employees, delivery partners and interested parties and review on an annual basis.



Signed

Pat Boyle
Managing Director - Construction

June 2021



MORGAN SINDALL

CONSTRUCTION

Invasive Non Native Species Action Plan



MERTHYR TYDFIL
County Borough Council
Cyngor Bwrdeistref Sirol
MERTHYR TUDFUL

Pen-Y-Dre High
Comprehensive
School,
Gurnos Estate,
Merthyr Tydfil
CF47 9BY

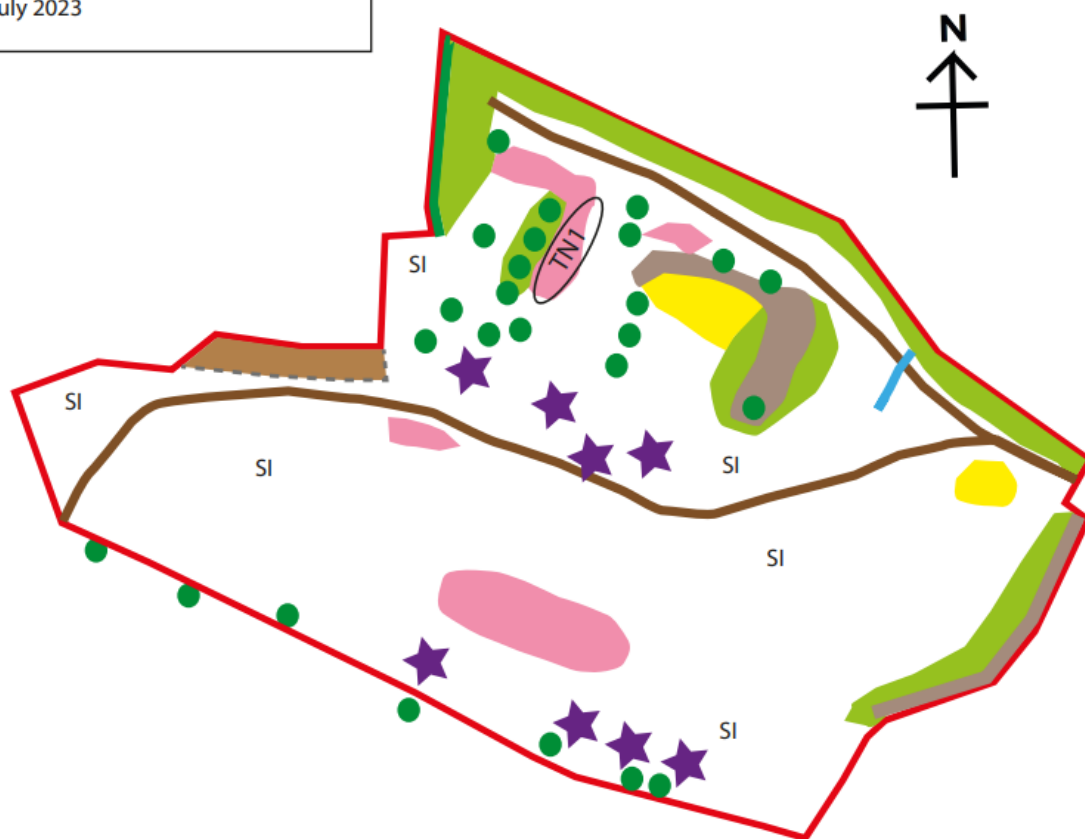
Invasive Non Native Species Action Plan

Existing Site Habitat Plan

LAND ADJACENT TO GOETRE LANE,
MERTHYR TYDFIL

Habitat Map

July 2023



Actions/Proposals

Areas of Japanese Knotweed have been identified on site as indicated in the below drawing, we are seeking advice from a specialist contactor, it is proposed that this will be removed from site or treat the stands of the knotweed at 6 week intervals. All areas will be fenced off during any construction period.

