



Penally Training Camp

Outline Drainage Statement for Planning

For Avison Young

Date *30 August 2024*

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1. Executive Summary

This report comprises a high-level appraisal for the proposed civil engineering strategy, including the indicative levels and SuDS strategy for future SAB approval.

Aspect	Summary
Site Levels	<p>Existing ground levels at the site range from circa 8.95m AOD at the site entrance up to a maximum level of 36.40m AOD at the northern boundary. The average slope/ gradient of the existing ground is circa 1 in 10 however steeper embankments at 1 in 3 are located at various points across the site. It is assumed that these have been produced through earthworks activities throughout the site's historic use in order to create "level" plateaus for training and parade exercises. The site also contains numerous smaller level plateaus in the locations of the various buildings, shelters and other facilities across the site.</p> <p>As indicated in the high-level review information, it is assumed that the future adopted highway serving the development will need to wind through the site in order to be constructed at a sensible gradient typically no steeper than 1 in 20 (5%). In lieu of the architect's masterplan, various indicative level plateaus have been indicated as part of the initial level strategy.</p> <p>Existing embankments and steeper sections across the site have been noted as not being viable areas for redevelopment without significant earthworks exercises being carried out and retaining features being implemented.</p>
Foul Water Drainage	<p>The existing foul water network discharges to an onsite pumping station near the southern boundary. From there it is assumed that the foul is pumped to the existing rising main that is located in the A4139 highway. The rising main discharges foul to the existing treatment works some 3km away from the site near Gumfreston.</p> <p>Through reviewing the existing utilities and services survey provided by Landmarc Support Services, it is understood that a sizeable portion of the surface water runoff from the site's impermeable area (5,500m² - circa 36%) drains to the existing foul network. The high-level review proposals and any future development will aim to forbid all impermeable areas from draining to the foul water work thus increase the capacity of the existing foul network downstream.</p> <p>The proposed development considers 215 new dwellings being constructed on the site and therefore it has been deduced that the foul flows from the development (9.85l/s) will be an increase to the estimated existing flows (2.75l/s) however this will be more than offset by the surface water removal as mentioned above.</p>
Surface Water Drainage and SuDS Strategy	<p>It is envisaged that the entire site's surface water runoff will be treated and conveyed by various SuDS features such as bioretention areas and swales and finally discharge to the existing locations (TBC subject to additional survey information) but will do so at a rate half of the calculated brownfield rate. In order to achieve this, areas totalling 2,600m² are to be made available for attenuation basins directly upstream of the discharge locations. Flow control devices are likely to be required in order to limit the rate of discharge.</p>

2. Introduction

2.1 General

This report describes the civil engineering strategy and concept design for the potential future redevelopment of Penally Training Camp, Pembrokeshire. The purpose of this report is to provide commentary on the engineering design progress to date, design assumptions, engineering concepts, site constraints and to provide a basis for future design.

The site currently is currently in a good state of maintenance and has recently been in operation as a MoD training camp and, more recently, accommodation for asylum seekers.

2.2 Basis of Report

This report has been based on the following information:

- » Topographical survey undertaken by Maltby Surveys Ltd.
- » Existing utilities survey provided by Landmarc Support Services
- » Asbestos survey information provided by Client
- » Phase 1 Land Quality Assessment undertaken by WSP
- » Transport & Access Assessment undertaken by WSP
- » Site Visits
- » Client Engagement Meetings

2.3 Site Information

The site is located in the village of Penally off A4139, West of Tenby, Pembrokeshire SA70 7QL

Table 1: Site referencing information

OS X (Eastings)	210999m
OS Y (Northings)	198934m
National Grid ref.	SS109989 / SS1099998934
Nearest Post Code	SA70 7QL
Latitude	51.657329
Longitude	-4.7338307

The proposed development site is bounded by:

- » Agricultural land to the north and west
- » Existing residential development to the east
- » Existing highway A4139 to the south

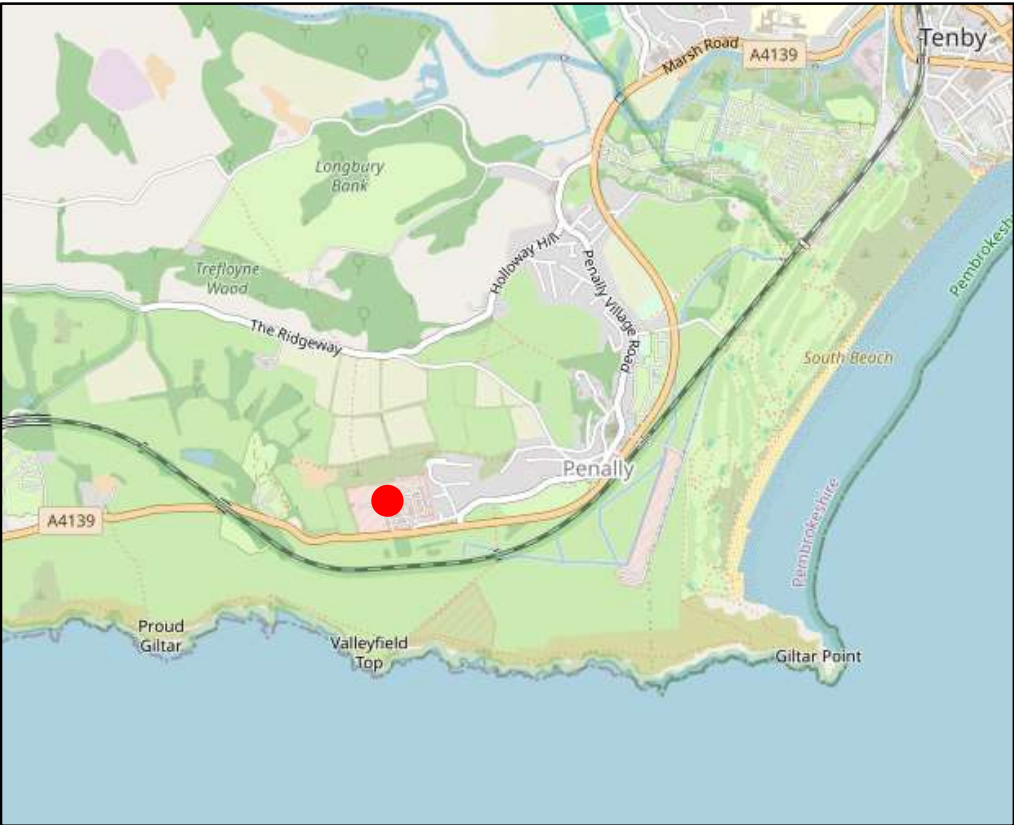


Figure 1: Extract from Open Maps showing Existing Site Location



Figure 2: Satellite Image of the existing site (ref: Google Map Data 2024)

2.4 Development History

Using the National Library of Scotland online mapping tool, <https://maps.nls.uk/geo/explore/>, maps dating back to 1830s are available to ascertain the outline development history of the site.

1830s - 1880s

1955 - 1961

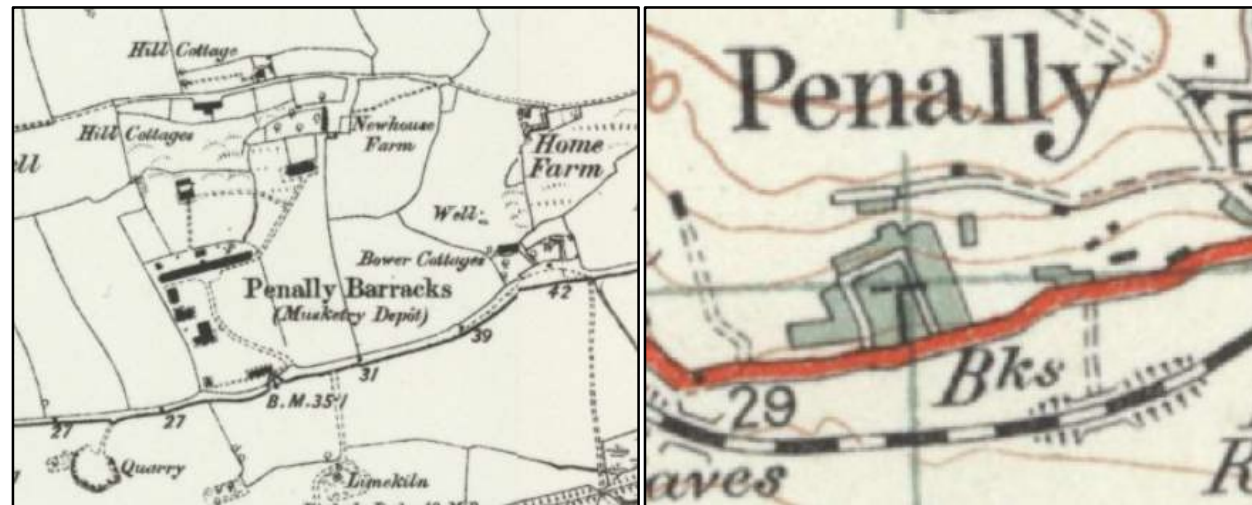


Figure 3: NLS 1830s - 1961 OS Map

From the above images as well as online research, it is understood that the site was initially used as a musketry training facility in the 1800s and has been used for various military training and accommodation over the last century. The site has most recently been used to house asylum seekers during the Covid-19 pandemic however, shortly after their arrival, Welsh Government deemed the site unfit for purpose and the residents were relocated and the site was put up for sale.

2.5 Site Topography & Notable Features

A topographical survey has been undertaken across the site by Maltby Surveys Ltd. and is presented in the figure adjacent. Generally, levels rise from the lower south level of 8.95m AOD to a maximum of 36.40m AOD at the northern tip of the site. This reflects a level difference of approximately 28m across the site with an average gradient/ slope of 1 in 10. However, additional steeper embankments are present across the site and it is assumed that these have been produced through historic earthworks activities in order to create "level" plateaus suitable for training and various drill exercises.

The site also contains numerous smaller level plateaus in the locations of the various buildings, shelters and other facilities across the site.



Figure 4: Extract from existing topographical survey

2.6 Existing Access

The site can be accessed via vehicle at two locations, one directly from the existing A4139 highway as well as another via an adopted road off of the existing highway.

2.7 Building and Structures

Currently the site contains a large number of buildings and existing structures which have been constructed using different methods and materials (typically brick/ blockworks and corrugated sheet material). Due to the age of the site and the various extensions that have taken place since its first use, this is not surprising but is to be considered if and when demolition takes place. An indicative asbestos map provided by the Client has identified buildings which do, or are likely to, contain asbestos however a form survey will be required in the future in order to understand the full extent of asbestos as well as other hazards that may arise through the demolition process.

2.8 Existing Buried Services/ Statutory Undertakers

Utilities survey information has been provided by Landmarc Support Services dated January 2022. A large number of existing services have been located across that site which have been assessed and their impact to the future redevelopment noted in Hydrock drawing 35098-HYD-XX-XX-DR-C-0500 - Existing Constraints Plan as well as been subjected to further assessment by WSP (see Phase 1 Utilities Statement). A number of services will need to be abandoned/ removed in order to accommodate future redevelopment and other existing utilities that are required to remain in use (such as BT, LV & HV electric cables and gas etc.) will require additional protection or diversion, subject to the future site layout. Relevant asset owners will need to be contacted in order to discuss such measures and ample time for discussions and diversion works are to be considered in the project programme as well as budget.

2.9 Flood Risk

In accordance with NRW Development Advice Map and Planning Maps the site does not reside within any recognised flood risk zones.



Figure 5: NRW Flood Risk Development Advice Map

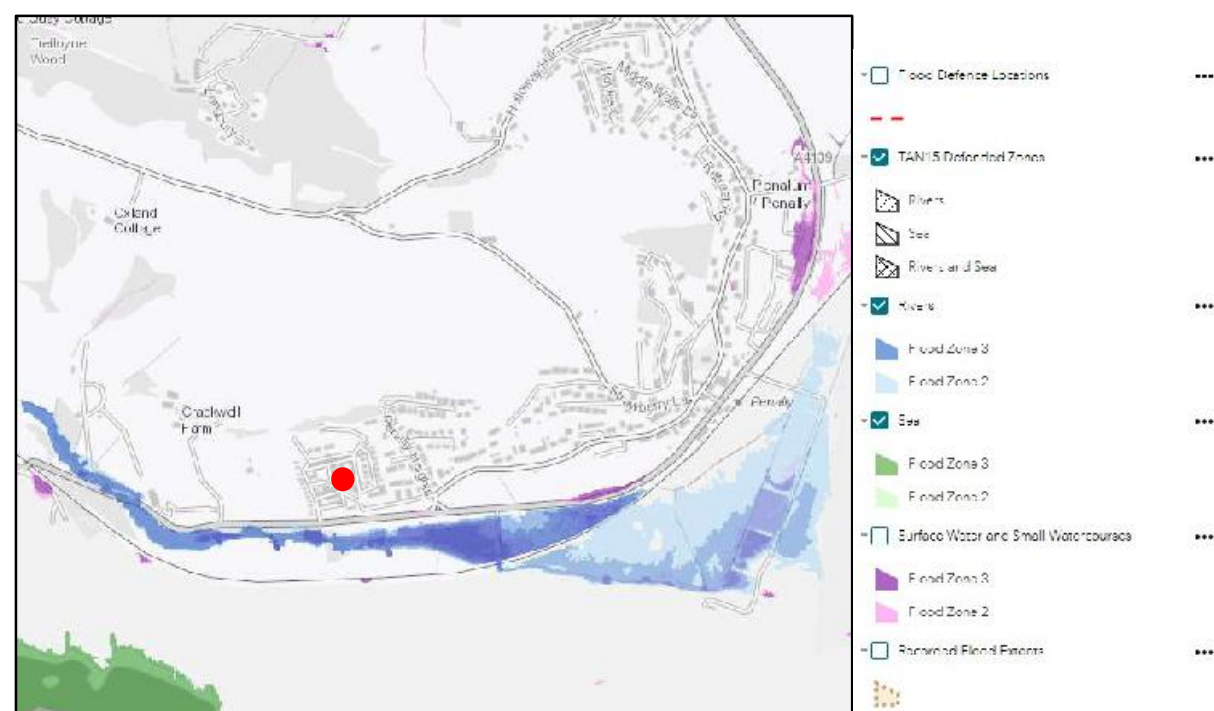


Figure 6: NRW Flood Risk Maps for Planning, Fluvial Flood Risk (Blue)

While the existing site is not subject to flooding, it can be seen that the lower areas to the south of the A4139 highway are at risk of flooding from rivers and small watercourses and as such, any redevelopment will seek to reduce the discharge rate to half of the existing rate as a means of flood mitigation. It is worth noting that in lieu of additional survey information, it is currently unclear where the existing site's surface water network drains to.

3. Civil Engineering

3.1 Surface water drainage strategy

3.1.1 Requirements

As the site is over 100m² and will be considered a new development if repurposed for residential use, the proposed surface water drainage will be subject to SAB (SuDS Approval Body) approval by the corresponding local authority (Pembrokeshire County Council) and will therefore be designed in accordance with the statutory national standards for sustainable drainage systems outlined in Schedule 3 of the Flood & Water Management Act 2010.

The statutory standards set out basic principles that SuDS should meet, these include:

- » Managing water on or as close to the surface and as close to the source of the runoff as possible;
- » Treat rainfall as a valuable resource;
- » Ensure pollution is prevented at source, rather than relying on the drainage system to treat or intercept it;
- » Manage rainfall to help protect people from increased flood risk, and the environment from morphological and associated ecological damage resulting from changes in flow rates, patterns and sediment movement caused by the development;
- » Take account of likely future pressures on flood risk, the environment and water resources such as climate change and urban creep;
- » Use the SuDS Management Train, using drainage components in series across a site to achieve a robust surface water management system (rather than using a single "end of pipe" feature, such as a pond, to serve the whole development);
- » Maximise the delivery of benefits for amenity and biodiversity;
- » Seek to make the best use of available land through multifunctional usage of public spaces and the public realm;
- » Perform safely, reliably and effectively over the design life of the development taking into account the need for reasonable levels of maintenance;
- » Avoid the need for pumping where possible;
- » Be affordable, taking into account both construction and long-term maintenance costs and the additional environmental and social benefits afforded by the system.

The statutory standards contain six technical standards that the SuDS system needs to conform with to be deemed acceptable by the SAB, these standards are:

- » Standard S1 - Surface water runoff destination;
- » Standard S2 - Surface water runoff hydraulic control;
- » Standard S3 - Water quality;
- » Standard S4 - Amenity;
- » Standard S5 - Biodiversity;
- » Standard S6 - Design of drainage for Construction, Operation and Maintenance and Structural Integrity

3.1.2 Target strategy

The site is proposed to contain a wide coverage of soft SuDS features to receive, intercept, treat, convey and store surface water runoff. Some of these features (such as conveyance swales and attenuation basins) have been indicatively shown on the WIP outline site layout design, without adversely affecting the building layout and the access requirements. Further information in the form of architectural masterplan/ site layout is required in order to indicate a more extensive, detailed and accurate SuDS strategy however this will be addressed once the required information has been issued by the architect.

Due to the topography of the site, the general direction of surface water drainage will be toward the south and likely be split into two separate catchments, east and west of the site access. Surface water runoff for both catchments will be subject to treatment, attenuation and flow rate reduction in the form of various SuDS features in order to comply with National standards.

Possible SuDS features that could be implemented across the site exist in various forms. These include:

- » Rainwater harvesting
- » Green roofs
- » Rain gardens and bio-retention areas
- » Attenuation basins/ ponds
- » Porous asphalt
- » Permeable paved driveways/ parking bays
- » Underground cellular storage tank
- » Flow control chambers

While not all SuDS features perform a surface water attenuation storage role, they are present in the location shown for interception and water quality purposes. Without them the SuDS scheme would not be deemed compliant and would likely not achieve SAB approval, which is a mandatory aspect of any new development in Wales as of January 2019.

3.2 SuDS strategy

3.2.1 Water re-use

Rainwater harvesting is currently an option worth exploring for the development however it is often the case for residential developments that this is not financially viable due to the low yield ratio per dwelling. This can be investigated further through discussions with the Client and reviewing the masterplan/ site layout in due course.

3.2.2 Discharge destination

Due to insufficient drainage survey information, it is currently unknown where the existing surface water serving the training camp discharges to however the future development will look to discharge future surface water runoff in accordance with relevant guidance and the priorities/ preferred discharge locations as laid out in standard S1 - Surface water runoff destination.

Infiltration testing has not yet been carried out on site and therefore the viability of utilising soakaways as a means of discharging surface water is currently unknown however, due to the age of the developed site and land quality information currently available (see WSP LQA report), it is currently assumed that soakaways will not be viable due to contaminated ground and will therefore likely need to be conveyed to existing water courses/ surface water sewers in the immediate vicinity of the site.

3.2.3 Water quantity

The current total brownfield runoff rate for all surface water entering both foul and surface water systems has been calculated as **141.65L/s** (refer to Appendix E).

The current proposal looks to offer a 50% betterment/ reduction to the brownfield rate currently entering the surface water network (90L/s pre-development reduced to 45L/s post development).

The current drainage strategy and hydraulic model proposes to discharge surface water runoff at a rate of 50% of the existing brownfield rate, for all storm events up to the critical duration 1:100 year + 30% CC + 10% UC event.

Pre-development greenfield runoff rate (Q_{bar}) = 1.40L/s

Pre-development brownfield runoff rate (total)= 141L/s

Pre-development brownfield runoff rate (to SW network) = 90.05L/s

Post-development controlled discharge rate ($S_{100+40\%}$) = 45.03L/s

All of the SuDs features proposed across the site contribute towards the overall reduction in discharge rate but the main attenuation items are listed below, with the large attenuation basins providing the majority of the storage volume required.

- | | |
|---|---------------------|
| » Raingardens and bioretention areas | Underdrained swales |
| » Attenuation basins/ ponds | Porous asphalt |
| » Permeable paved driveways/ parking bays | |



Figure 7: Extract from SuDS Strategy Plan showing indicative spread of SuDs features, connecting pipework and attenuation basins

Surface water will be managed on site to prevent as far as possible any discharge from the site for the majority of rainfall events of less than 5mm. This will likely be achieved using numerous SuDs such as bioretention areas and permeable paving. These features will as far as possible be designed in accordance with the guidance of SuDS guidance Table G2.1 and achieve deemed compliance. Interception features that have been included in the drainage strategy and SuDS layout are listed below:

- » Raingardens and bioretention areas
- » Underdrains swales
- » Attenuation basins/ ponds
- » Permeable paved driveways/ parking bays
- » Porous asphalt

3.2.4 Water quality

Water quality standard S3 addresses the drainage design requirements to minimise the potential pollution risk posed by the surface water runoff to the receiving water body.

The SuDS system provides pollution prevention by means of a treatment train. The suitability of the pollution mitigation has been assessed via the simple index approach as referenced in the SuDS manual Ciria C753. This is summarised below in Table 1.

Standard S3 Water Quality Criteria					
Treatment for surface water runoff should be provided to prevent negative impacts on the receiving water quality and/or protect downstream systems, including sewers.					
Land Use	Pollution Hazard Level / Indices (A)	SuDS/ Drainage Components	Approach	Mitigation Indices (B)	B ≥ A (C)
Roof (Other:non-resi)	Low TSS = 0.3 Metals = 0.4 H = 0.05	Green Roof	Rainwater discharged to/captured by Green roof systems prior to discharge	TSS = 0.95* Metals = 0.95* H = 0.95*	✓
		Swale	Downpipes discharge above soil level into swale	TSS = 0.5 Metals = 0.5 H = 0.6	✓
Roadway - non-residential car parking with frequent change	Medium TSS = 0.7 Metals = 0.6 H = 0.7	Bio-retention system	Flows are directed to bio-retention systems	TSS = 0.8 Metals = 0.8 H = 0.8	✓
		Permeable Paving	Flows are directed to permeable paving	TSS = 0.7 Metals = 0.6 H = 0.7	✓
		Attenuation basin/ pond	Flows are directed to ponds for treatment/ storage	TSS = 0.7 Metals = 0.7 H = 0.5	✓
Hardstanding - Footway	Low TSS = 0.5 Metals = 0.4 H = 0.4	Bioretention system	Flows directed to bioretention systems	TSS = 0.8 Metals = 0.8 H = 0.8	✓

Table 1: Water Quality Assessment

TSS = Total suspended solids / H = Hydrocarbons

* - Minimum assumed where the SuDS Manual does not specify.

Column C demonstrates that the treatment measures proposed will deliver greater than adequate treatment for all developed land uses where:

Total SuDS mitigation index ≥ pollution hazard index

The simple index approach shows that all surface water runoff generated by the new development would receive a sufficient amount of pollution mitigation before leaving the site's drainage system with the exception of the two attenuation basins/ ponds where a shortfall of 0.2 mitigation indices is present for hydrocarbons however, as the ponds will be the last feature in the "SuDS train" and treatment through other SuDS features will have already occurred, all surface water leaving the site will be subject to an acceptable level of pollution removal/ treatment prior to discharging offsite.

Early engagement with PCC SAB team in the future is encouraged in order to gauge their response to the proposals for the site prior to submission of a formal pre-app.

The following items are included within the drainage strategy and SuDS layout that contribute to the water treatment and quality improvements:

- » Green roofs
- » Attenuation basins
- » Porous asphalt
- » Trapped gullies and drainage channel sumps for leaf, silt and grit removal
- Raingardens and bioretention areas
- Underdrained swale
- Permeable paved parking bays

Calculations on the previous page are based on the criteria set out in tables 26.2 and 26.3 taken from the SuDS Manual and provided below;

TABLE 26.2 Pollution hazard indices for different land use classifications				
Land use	Pollution hazard level	Total suspended solids (TSS)	Metals	Hydrocarbons
Residential roofs	Very low	0.2	0.2	0.05
Other roofs (typically commercial/ industrial roofs)	Low	0.3	0.2 (up to 0.8 where there is potential for metals to leach from the roof)	0.05
Individual property driveways, residential car parks, low traffic roads (eg cul de sacs, homezones and general access roads) and non-residential car parking with infrequent change (eg schools, offices) ie < 300 traffic movements/day	Low	0.5	0.4	0.4
Commercial yard and delivery areas, non-residential car parking with frequent change (eg hospitals, retail), all roads except low traffic roads and trunk roads/motorways ¹	Medium	0.7	0.6	0.7
Sites with heavy pollution (eg haulage yards, lorry parks, highly frequented lorry approaches to industrial estates, waste sites), sites where chemicals and fuels (other than domestic fuel oil) are to be delivered, handled, stored, used or manufactured; industrial sites; trunk roads and motorways ¹	High	0.8 ²	0.8 ²	0.9 ²

TABLE 26.3 Indicative SuDS mitigation indices for discharges to surface waters			
Type of SuDS component	Mitigation indices ¹		
	TSS	Metals	Hydrocarbons
Filter strip	0.4	0.4	0.5
Filter drain	0.4 ²	0.4	0.4
Swale	0.5	0.6	0.6
Bioretention system	0.8	0.8	0.8
Permeable pavement	0.7	0.6	0.7
Detention basin	0.5	0.5	0.6
Pond ⁴	0.7 ³	0.7	0.5
Wetland	0.8 ³	0.8	0.8
Proprietary treatment systems ^{5,6}	These must demonstrate that they can address each of the contaminant types to acceptable levels for frequent events up to approximately the 1 in 1 year return period event, for inflow concentrations relevant to the contributing drainage area.		

3.2.5 Ownership and maintenance

Surface water drainage features serving single properties at the new development will become privately owned by the corresponding homeowner and therefore they will become responsible for the maintenance of said private assets (typically private driveways, pipework and small bioretention areas. However, a large extent of the site's surface water drainage network will be adopted by PCC SAB/ Highways and therefore maintained by the relevant departments within the local authority. An extensive maintenance plan would be produced denoting all features to be maintenance by the local authority, what maintenance activities are to be carried out including total replacement) and how regular.

3.3 Foul water drainage strategy

The new development will require an on-site foul drainage system that is connected to a suitable point on the public sewer network. An existing on-site foul pumping station is located directly east of the existing western access from the A4139 highway and therefore provision for a new replacement pumping station to suit the demand from the future development is to be made.

The existing foul infrastructure includes a pumped rising main which is assumed to connect into the existing rising main within the highway which eventually leads to a waste water treatment works some 3km to the northeast near Gurfreston. Therefore, provisions are also to be made for a new rising main to replace the existing one serving the existing training camp.



Figure 8: Extract from DCWW sewer mapping showing existing foul rising main leading east and existing gravity system serving adjacent residential development.

Dwr Cymru Welsh Water should be consulted at an early stage (RIBA Stage 2 if possible) in order to comment on the proposals for the new development when made available. Confirmation that the surface water removal strategy will outweigh the increased foul flows from the new development will need to be gained.

Excepting private foul networks serving single dwellings, the gravity foul drainage system, pumping station and offsite rising main will all need to be offered for adoption under S104 & S10 approvals and will require traffic management and road reinstatement for the associated works.

Spatial allowance will need to be made for new foul pumping station and associated access infrastructure. DCWW will need to provide confirmation on their vehicular access requirements and subsequent vehicle tracking exercises will need to be undertaken in order to ensure the system can be easily access for operation and maintenance purposes.

4. Next Steps and Further Investigations

4.1 Opportunities & upcoming actions

» TBC

4.2 Approvals required

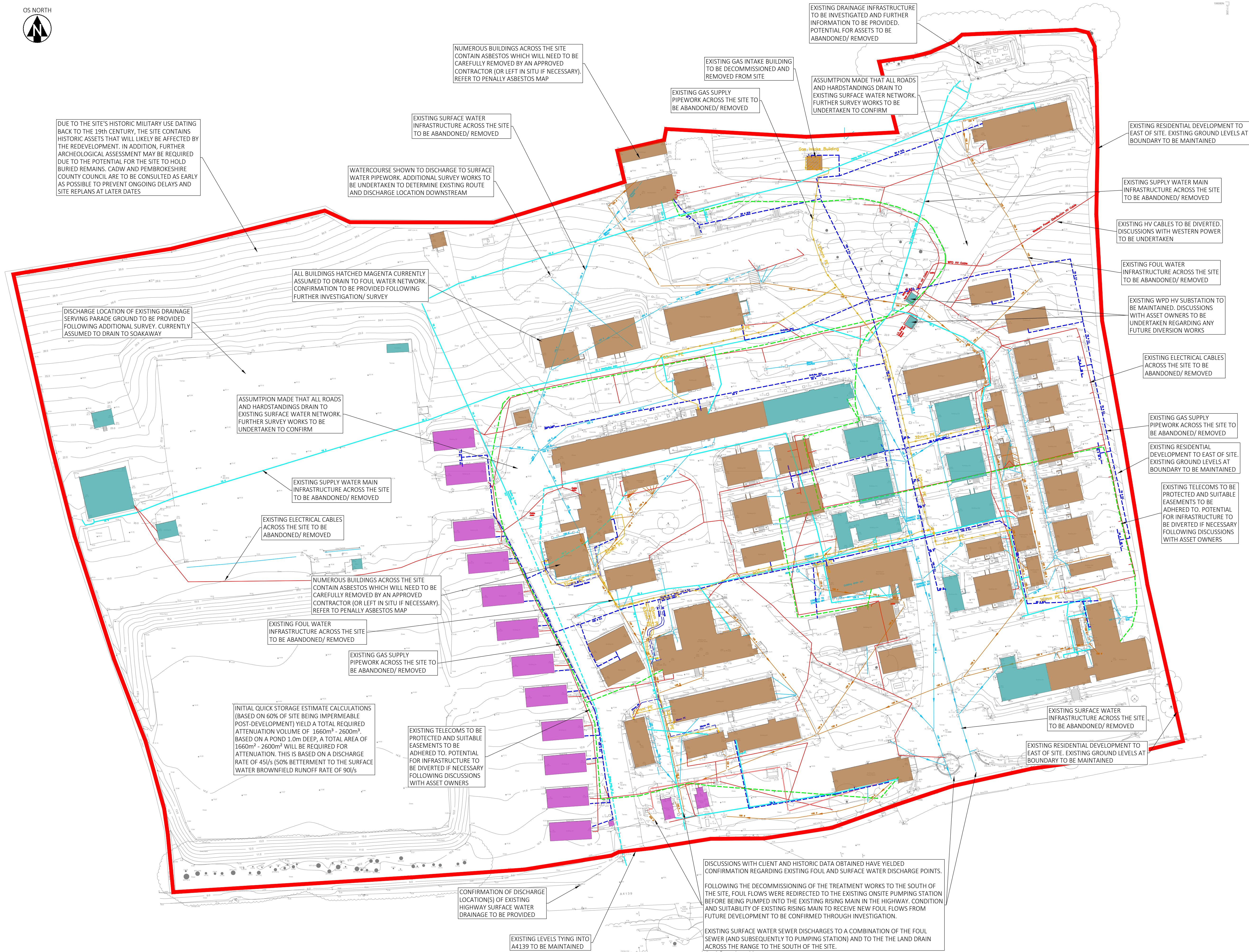
The statutory approvals required through Stage 4 and beyond relating to drainage and general infrastructure will be as follows:

- » **Pre-app SAB submission** - PCC SAB
- » **Full SAB submission and approval** - PCC SAB
- » **Section 104 agreement** - DCWW
- » **Section 106 agreement** - DCWW
- » **Section S278 approval** - PCC Highways
- » **Section 38 approval** - PCC Highways
- » **Ordinary watercourse consent (if required)** - PCC land drainage / private land owners
- » **FRAP (if required)** - NRW

Appendix A

35098-HYD-XX-XX-DR-C-0500 - Existing Constraints Plan

Filename: Y:\35000-35999\35098 - Penally Training Camp\01 - WPD\01 - Drawing\35098-HYD-XX-XX-DR-C-0500-P01 - Existing Constraints Plan.dwg



DO NOT SCALE

1. DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT PROJECT DRAWINGS AND WITH THE HEALTH AND SAFETY INFORMATION PROVIDED AND/OR WITHIN THE PRE-CONSTRUCTION INFORMATION.
2. USE OF THIS DRAWING DOES NOT ABSOLVE THE CLIENT FROM HIS RESPONSIBILITIES UNDER THE HEALTH AND SAFETY: THE CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015. THE PRINCIPAL DESIGNER IS REQUIRED TO CONTACT HYDROCK CONSULTANTS PRIOR TO PERMITTING THIS DRAWING TO BE USED IN CONNECTION WITH ANY CONSTRUCTION WORKS.
3. BEFORE COMMENCEMENT OF ANY WORKS ASSOCIATED WITH THE DRAWING REFER TO ALL RELEVANT HEALTH AND SAFETY INFORMATION FOR THE WORKS INCLUDING RESIDUAL RISK INFORMATION.
4. THE CONTRACTOR SHOULD COMPLY WITH HS(G) 47 "AVOIDING DANGER FROM UNDERGROUND SERVICES" WHEN PLANNING, LOCATING AND EXCAVATING AROUND EXISTING SERVICES. IT IS KNOWN THAT EXISTING UTILITY COMPANY UNDERGROUND SERVICES AND APPARATUS ARE PRESENT WITHIN THE PROPOSED WORKS AREA AND IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE EXISTING SERVICES ON SITE ACCURATELY.
5. INFORMATION REGARDING THE LOCATION AND DEPTH OF EXISTING SERVICES CANNOT BE GUARANTEED BY THE STATUTORY UNDERTAKER.
6. THE CONTRACTOR SHALL CONDUCT THE WORKS WITH DUE REGARD FOR THE ECOLOGICAL AND ENVIRONMENTAL REQUIREMENTS OF THE SCHEME.
7. THE DRAWING SHALL BE USED FOR THE INTENDED PURPOSE ONLY AND THIS DRAWING HAS BEEN BASED ON INFORMATION PROVIDED. BY OTHER PARTIES AND HYDROCK DO NOT WARRANT THE ACCURACY OF THIS INFORMATION. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL DIMENSIONS AND LEVELS ON SITE FOR THE ACTUAL SETTING OUT OF THE WORKS. DIMENSIONS MARKED 'DIMENSIONS TO BE SITE CHECKED' ARE SUBJECT TO CONFIRMATION BY THE CONTRACTOR BEFORE THE WORKS COMMENCE.
8. HYDROCK IS NOT RESPONSIBLE FOR CHECKING DIMENSIONS ON SITE.
9. HYDROCK IS NOT RESPONSIBLE FOR SETTING OUT GRID LINES, BUILDING LINE ETC
10. HYDROCK IS NOT RESPONSIBLE FOR DIMENSIONS USED IN THE ORDERING AND MANUFACTURING OF EQUIPMENT AND THIS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. ALL FIGURED LEVELS ARE IN METRES AND RELATED TO EXISTING SURVEY GRID & DATUM UNLESS NOTED OTHERWISE

KEY

- INDICATIVE SITE BOUNDARY
- EXISTING SURFACE WATER SEWER
- EXISTING FOUL WATER SEWER
- EXISTING ELECTRIC
- EXISTING WATER MAIN
- EXISTING LP GAS
- EXISTING GAS
- EXISTING TELECOMS
- EXISTING OVERHEAD LINES
- EXISTING CABLES
- EXISTING BUILDINGS DRAINING TO SW NETWORK
- EXISTING BUILDINGS DRAINAGE TO FW NETWORK
- EXISTING BUILDINGS ASSUMED DRAINING TO FW NETWORK

REVISIONS

P02	Second Issue	15/11/24	KG	RB	RB
P01	First Issue	30/07/24	KG	RB	RB
Rev.	Revision Notes	Date	Drawn By	Checked	Approved



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CLIENT

AVISON YOUNG

PROJECT

PENALLY TRAINING CAMP

TITLE

EXISTING CONSTRAINTS PLAN

HYDROCK PROJECT NO.

C-35098

SCALE @ A1

1:500

STATUS DESCRIPTION

SUITABLE FOR INFORMATION

STATUS

S2

DRAWING NO.

35098-HYD-XX-XX-DR-C-0500

REVISION

P02

Appendix B

35098-HYD-XX-XX-DR-C-0510 - SuDS Strategy Plan