Design, Access & Sustainability Statement

For

Accommodation Blocks, Rollestone Camp

Ministry of Defence

Prepared by:

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Bush are appointed as sub-consultant by Fairhurst

For
Landmarc / DIO

Defence Infrastructure Organisation

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1.0 Introduction

Landmarc Support Services have been awarded the National Training Estate Prime contract (NTEP) for the management, control and operation of the Defence Training Areas and Ranges, management and administration of both the built and rural estate and the provision of hard and soft facilities management services in the UK in order to provide a fully operational estate that meets statutory and mandatory requirements. Occasionally, this will also include additional works to improve the estate as separate projects.

The NTEP contract is in service until 31st October 2021. The service period can be extended for another 5 years if required.

The NTEP comprises a number of training camps, training areas and firing ranges within the UK. This is sub-divided into six geographical regions, as follows:

1. DIO Defence Training Estate SCOTLAND AND NORTHERN IRELAND (Head Office – Edinburgh)
2. DIO Defence Training Estate NORTH (including RAF Spadeadam) (Head Office – Wathgill)
3. DIO Defence Training Estate EAST (Head Office – West Tofts)
4. DIO Defence Training Estate WALES and WEST (Head Office – Sennybridge)
5. DIO Defence Training Estate SOUTH EAST (Head Office – Longmoor)
6. DIO Defence Training Estate SOUTH WEST (Head Office – Tilshead)

With the Changes in Regular Army Basing the reduction of the UK estate and the increase in UK based troops, core sites will be used significantly more for the future and will need improved facilities to deliver the tri-service training requirement. The Basing Plan is providing the facilities to enable nearly 100 units to relocate, reconfigure, disband or re-role and deliver the Government's 2010 Strategic defence and Security Review commitment to bring all units back from Germany by 2020.

As a result of the need to improve the facilities for the tri-service training requirement, 11 sites have been chosen across 6 regions, throughout the United Kingdom for a number of upgrades, including, and as part of this application, the accommodation facilities.

The upgrade approach will be carried out in 3 phases, with a total number of 65 accommodation blocks, over the next few years. This total is split up and delivered in the following way: Phase 1 - 18 Blocks, Phase 2 - 22 Blocks & Phase 3 - 25 Blocks.

To date, 49 accommodation blocks have been granted planning consent, with 15 completed blocks so far

Rollestone Camp has been identified as one of the core sites and will therefore be required to continue to provide training facilities, accommodation and catering for these additional troops. Rollestone camp is part of DIO Defence Training Estate South West. The Camp is situated North West of Amesbury Town and North of Salisbury.

2.0 Proposed Accommodation Blocks

2.1 Need

The current accommodation blocks have failed with upkeep and continuing maintenance is extremely expensive. The blocks have dated heating and lighting systems with minimal if any insulation and consequently are highly energy inefficient. Due to their age, and in many other respects, they don't meet Health and safety regulations.

The application for the development includes the provision of new accommodation blocks to provide accommodation, ablution and utility services.

There is no requirement to increase the number of bedspaces on the site. With the demolition of the dilapidated existing blocks and the introduction of the new accommodation blocks the equivalent number of bedspaces is met, resulting in no net increase of bed spaces on the site. This is arranged as follows:

Existing bedspaces	Existing accommodation blocks	Existing bedspaces to be removed	Existing blocks to be demolished	Proposed new bedspaces	Proposed new blocks	Bedspaces on completion
503	27	443 + 14	24	457	10 (1 x 43 beds 9 x 46 beds)	503

Note: the above figures represent all 3 phases. 443 bedspaces will be lost through the demolition of the existing accommodation blocks. A further 14 bedspaces are set for removal in the retained existing accommodation blocks in order to avoid increasing the bedspace numbers on site.

2.2 Summary and description of elements of the proposed development.

The total proposed site area covers less than 1 hectare; to include the main buildings, plant blocks and new pedestrian walkways.

2.3 The construction activities may include the following:

The development will include the preparation of the proposal site for the placement of factory manufactured 'modular units'. Consequently the anticipated construction activities will include

- Excavation to form reduced levels for buildings
- Digging and laying foundations

- Digging out service trenches
- Laying and backfilling of underground services
- Placement of modular building elements and other ancillary structures
- Placement of materials and components for infrastructure and buildings
- Fitting out and finishing of buildings

The following vehicles and machinery/ equipment will typically be used during the proposed construction:

- Construction vehicles e.g. Heavy goods and light vehicles (HGVs & LVs)
- Construction contractors vehicles
- Inspectors vehicles
- Lorries e.g. delivery lorries and trucks
- Mobile crane(s)
- Excavators
- Concrete and cement mixers
- Handheld tools

Due to the modular construction adopted, construction works on site are anticipated to be as short at 10 weeks on site per block.

All the activities during the construction period will be managed to ensure that adverse impacts to personnel, flora and fauna are kept to a minimum.

2.4 Demolition:

The demolition of the existing accommodation blocks will be phased in order to maintain full operational capacity throughout the entire construction process.

The training load across the Salisbury plain is expected to be significantly higher in the coming years, than previously, and the sites operability must be retained while the works are being carried out.

This application forms part of a strategy to upgrade Rollestone Camp. The strategy also includes for a new built kitchen / diner and a training facility block, which will be submitted as separate applications. The indicative locations for these are shown on the proposed location plan and details for these should be taken from the individual planning applications.

3.0 Location

Rollestone Camp is located North West of Amesbury Town. The camp is also located approximately 10 miles North of Salisbury.

The proposed development site is accessible from the camp's main entrance and will utilise an existing road network. The proposed site is located over some of the existing run down accommodation blocks to the South West end of the camp. 24 No. existing accommodation blocks will have to be demolished for the proposed units.

The proposed site is surrounded in the immediate proximity by a large number of trees / wood. The proposed site is only visible from the South side of the camp off the bordering road however, this view is partly obstructed by trees and hedges. The surrounding area is predominantly training ground and / or agricultural land.

The site is predominantly level, although a small fall occurs from North West to South East and this will require a marginal build up to create a level surface.

The orientation of the buildings on the site also lends itself to a number of sustainable features. The South and South East facing mono pitch roofs will house an array of photovoltaics. All windows will be manually controlled aiding natural ventilation. Air source heat pumps will be located externally against the plant room where they are easily accessible.

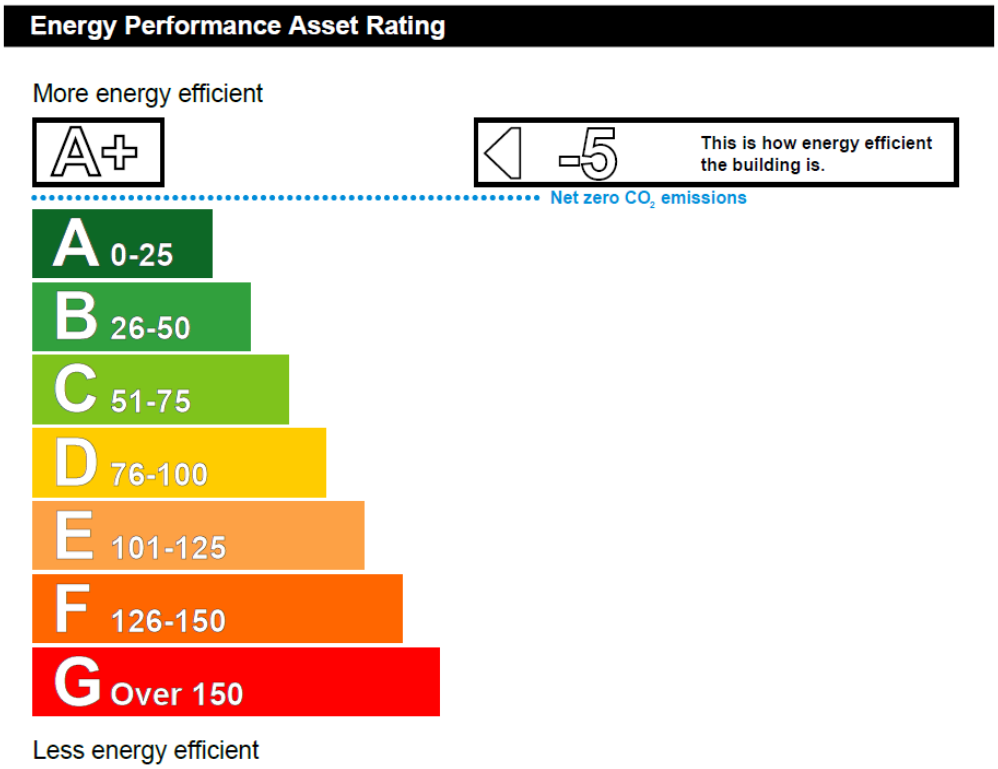
The choice of elevational treatments have been based on creating an efficient design in both appearance and practicality.

Vehicle access for deliveries will come in along the main existing site road network. Temporary stops on the roadsides adjacent the building for deliveries should be acceptable due to the width of the existing roads.

4.0 Development Proposals

The target for the entire the National Training Estate is to provide efficient, long lasting buildings which are easy to maintain and run, with limited impact on the environment. A benchmark for Net Zero Carbon Emissions has been set for all the proposed accommodation blocks.

A prototype block has already been constructed at the Westdown Camp in Wiltshire which has achieved an A rating, falling just short of this target by 12 points. Modifications are incorporated for the future blocks which will apply to those proposed within this application which are predicated to gain an A+ rating (Carbon Zero). These modifications have come in the form of smart building technologies, increased PV's and changes to materials used. The below EPC has been created from the tested phase 1 blocks at Nesscliff Camp. This is the benchmark going forward.



The accommodation blocks have been designed with the principles of the energy hierarchy, whereby energy associated with heating, ventilation, cooling and lighting energy demand is minimized through a passive fabric first approach. A carefully designed fabric first approach will ensure a robust, efficient and sustainable design throughout the lifetime of the building, which is affordable to the developer. Furthermore, it reduces the reliance on technologies, which overtime will require maintenance or replacing.

To minimise the space heating demand, the u-values, air tightness and thermal bridging factor have been designed to improve upon current regulation standards. Heat recovery ventilation is installed to wet rooms to capture some of the heat which would otherwise be wasted, to temperate the incoming fresh air to these spaces.

The dorm rooms have been designed to achieve good levels of daylighting in accordance with DREAM standards i.e. 2.00% average daylight factor. The highly efficient LED lighting is paired with daylight sensors, which will automatically switch off the lighting in the room when the room is unoccupied or the daylight is sufficient in the room to further minimise energy use.

To future proof the energy strategy and move away from fossil fuels, within the accommodation space heating and hot water is generated via electric air to water heat pumps with a seasonal efficiency of >350%.

The energy and carbon generated by the accommodation is offset by roof mounted solar photovoltaics, to achieve Net Zero Carbon for regulated energy which is a significant improvement, 100% improvement beyond current building regulation standards.

The size and number of the buildings have been governed by the need to accommodate a set number of people and for a set camp capacity. MOD guidance stipulates the size and number of rooms that is required to provide a sufficient service for the required number of users. The form of the building has developed from existing MOD facilities of a similar nature and a recognized system to provide the service.

A small block attached to one side of the main accommodation blocks is provided to house the mechanical and electrical plant equipment. Access to the plant rooms is provided by an external footpath around the perimeter of the main building.

Building Areas:

Gross External Area (GEA) - 334m2
Gross Internal Area (GIA) - 313m2

4.1 Materials

The external materials proposed are represented on the elevational drawings and are as follows:

External Envelope Materials Palette:

Walls.
Insulated horizontally laid profiled colour coated steel cladding panels fixed back to the modular units with pressed metal colour coated flashing / surrounds (colours to match cladding panel finish). Plant blocks to receive the same system.

Roof.
Mono pitched roof: composite insulated cladding panels, on purlins fixed back to structural truss framework. Flat roof to plant block: to be a plywood deck with firestone membrane laid to fall.

Fascia, gutters and soffits to be pressed metal colour coated (colour: to match cladding).

Doors.
Personnel Access Doors: Double glazed PPC aluminium framed (Colour: RAL 7016).
Plant doors: Solid steel framed, steel faced with a louvred section above (Colour: RAL 7016)

Windows & Vents
All double glazed windows (and incorporated ventilation louvres above within the ceiling void zone) to be PPC aluminium (Colour: RAL 7016).

4.2 Supporting Information

An Ecological Survey Report has been prepared to accompany the full planning application describing the potential effects of the proposed development of the Accommodation Blocks at Rollestone Training Camp on existing habitat and their surroundings.

This report is included as a part of the planning submission information and is accompanied by a Heritage and Geotechnical assessment.

4.2 External Lighting

The building will typically be occupied only at the beginning and end of each day (sleeping accommodation only).

During winter months this will mean that illumination of the site and its surroundings will be necessary for safe access and egress from the building for personnel.

Pedestrian circulation around the building will be facilitated by low level bollard lighting that provide illumination to designated pedestrian walkways, these, together with any internal lights visible externally in hours of darkness will all be switched off when the building is unoccupied through central switching at the final exit point.

4.3 **Example Photos** - Constructed phase 1 blocks at the Nesscliff site













5.0 Site Location Plan (not to scale)

