

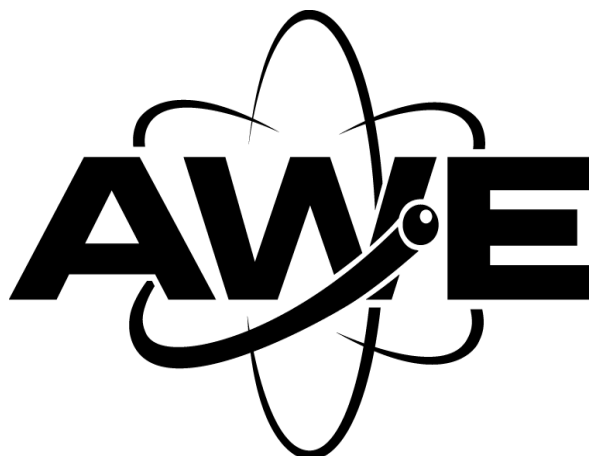


AWE Aldermaston

Conventional Manufacturing
Rationalisation facility

Design and Access Statement

May 2008



Design and Access Statement

Application for proposed new Conventional Manufacturing Rationalisation Facility of 9,675m² Gross Floor Area plus associated landscaping, and including sustainable drainage features, disabled car parking for 6 vehicles, plus 20 cycle parking spaces, and Construction related infrastructure.

AWE Burghfield, Berkshire

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1. INTRODUCTION

1.1 This Design & Access Statement (DAS) supports the planning application for a Conventional Manufacturing Rationalisation Facility with associated access, disabled parking and temporary construction related facilities at the Atomic Weapons Establishment (AWE), Burghfield site.

1.2 The proposed building is 9,675 square metres (m²) gross floor area within the context of the existing manufacturing buildings at AWE Burghfield site. The gross floor area of the existing facilities at AWE Aldermaston is approximately 10,416 square metres (m²). The proposed building therefore represents a reduction in the floor area by 741 m².

1.3 This statement provides information about the proposed development and its settings with details of construction techniques, which is designed to propose a high quality sustainable development. This statement does not form part of the planning application as stated in the Circular 01/2006. The aim of this statement is to set out the rationale behind the development proposals in terms of the use, amount, layout, scale, landscaping, appearance and access.

Purpose of the Proposed Development

1.4 The purpose of the development is to construct a single modern replacement facility for conventional manufacturing operations at AWE Burghfield. This will replace and relocate the existing operations, which are currently undertaken in isolated buildings at AWE Aldermaston. Figure 3 identifies those buildings within AWE Aldermaston site from which existing facilities will be relocated. These buildings were built in the 1940s and the working conditions are below the standards required today. The AWE Aldermaston and AWE Burghfield sites have co-existed historically, and provide significant employment and economic benefits to the local community. The process of modernisation of AWE is outlined in the Site Development Context Plan (SDCP) 08 and includes refurbishing and replacing facilities constructed in the 1940s, 1950s and 1960s. This includes the relocating of conventional manufacturing facilities to the northeastern corner of AWE Burghfield. Figure 4 identifies the area where the new modern facility is proposed.

1.5 RPS Group plc in liaison with the CMR Design Team and Mott Mac Donald Architects, who wrote the original feasibility study considered various options for the provision of the new facility. Four options were considered:

- “Do nothing”;
- Refurbishment;
- Off-site Provision; and
- New build.

1.6 Having considered these four options (See section 4 of the Defence Exempt Environmental Appraisal (DEEA) for details), it was decided that a new build option would be an effective solution for the conventional manufacturing operations presently operated in separate buildings at AWE Aldermaston. This option could bring all the operations under one roof; increase efficiency and reduce dispersion of the manufacturing processes and tasks between buildings which fragment the production chain; improve working conditions for staff; and reduce the need for movement and transportation of goods between workshops. In addition to this it also works towards the Government’s aims to make sites and buildings more sustainable.

1.7 This new CMR Facility is proposed at Burghfield site. In accordance with the SDCP 08, the figures appended in the document are as follows:

- Figure 1: The Site Location Plan
- Figure 2: The Opportunities and Constraints Plan
- Figure 3: The Location of Existing Facilities Plan
- Figure 4: The Location of Proposed Facilities Plan
- Figure 5: Design Principles/Concept Diagram

National and Local Policy Context

1.8 The design principles used in this site are based on National and Local Guidance including:

- Design and Access Statements, how to write, read and use them, CABI, 2006, reprinted 2007.
- DCLG Circular 10/2006 Guidance on changes to the Development Control System, June 2006.
- Planning Policy Statement (PPS) 1: Delivering Sustainable Development, ODPM (February 2005).
- Better Places to Live – A Companion Guide to PPS3, DTLR and CABI (2001).
- The Value of Urban Design, CABI, UCL & DETR (2001).
- Urban Design Compendium, English Partnerships (August 2000).
- West Berkshire Local Plan Policies.

1.9 The report is structured on the guidance provided by CABI on DASs. However, it is important to be aware of the particular circumstances of this case, predominantly due to the very specific nature of the planned development and the heavily constrained context in which it is being proposed. These factors limit the scope for decision-making in respect of the use, amount and location of the proposed development, which are partially predetermined by the operational requirements of such a facility and the sensitivity of its surroundings.

1.10 Notwithstanding this, in addition to design guidance, decisions about the overall scale, massing and appearance of the proposals must be carefully considered and measured against the recommendations of AWE's long-term SDCP 08 as well as potential impacts of such proposals on the wider site context.

1.11 The overall approach to Burghfield is to consolidate operational uses in the northern part of the site, with the progressive clearance of the remainder of the site working from north to south. To enable this consolidation the Pingewood Gate will provide access to construction traffic including heavy goods vehicle (HGVs) to the site.

1.12 The context for development is defined within the parameters of the SDCP 08 and drawn up in relation to the operational requirements of AWE. It was supported by a Strategic Sustainability Appraisal of the predicted development programme over a 10 year plan in accordance with the Defence Estates Sustainability Handbook.

1.13 A subsequent sustainability appraisal of the detailed design proposals undertaken in May 2006 in accordance with the AWE Environmental Management System (EMS), has informed the process of decision making to help ensure that any potential environmental impact is minimised.

1.14 The SDCP 08 requires that the current proposals will be considered in light of a wider Transport Strategy that will involve the adoption of demand management through more control of on-site parking, the implementation of a travel plan, and by managing movements both on and off site. Where it is feasible to do so, all future development proposals should be measured against these travel plan initiatives. The Sites Development Travel Plan 2007, sets out a series of objectives in relation to promoting more sustainable transport choices for existing and future staff, contractors and visitors, and where feasible, construction workers.

1.15 This planning application forms part of an ongoing strategy in reassessing the existing operational requirements of the site, and where possible, consolidating these within the northern sector. The proposal for a new Conventional Manufacturing Facility to replace those already in operation, will allow the intensification of existing land uses to the north, and pave the way for a site wide programme of rationalisation involving the demolition of redundant buildings and the clearance of land.

2. SITE APPRAISAL

Site Location

2.1 AWE Burghfield is located approximately 0.5 km east of Burghfield village and 6 km to the south west of Reading. Open fields and occasional woodland areas mainly surround AWE Burghfield. A railway line lies approximately 0.5 km to its east and several residential properties lie to its west. The M4 Motorway is 1 km to the north. The application site is located within the northeast portion of the Burghfield site as shown in Fig 1: Site Location Plan. AWE Burghfield covers an area of approximately 87 hectares (ha) and the application site area is 6.43 ha including construction enclave, open areas, access roads and The Mearings, beyond the site fence line between AWE Burghfield Main Gate and Reading Road. The site is predominantly flat-grassed land. This area has been subject to ground disturbance, hence is part made-up land. The details are included in Chapter 7 of the DEEA, Volume 1 March 2008.

History

2.2 The Ministry of Defence (MOD) requisitioned the site in 1938, with 225 acres of land set aside for the construction of a Royal Ordnance Factory. At this time the site was used for the manufacture of munitions up until the late 1940s when Burghfield became part of the atomic production programme. The site was gradually developed throughout this period in light of the requirement for specialist buildings and bunkers, and the distinctive 'Gravel Gerties', so nicknamed because of the gravel reinforcement of their concrete domed roof and reinforced concrete walls. There are no trees on the proposed CMR site.

Character and Built Form

2.3 The character of the site may be described as resolutely functional, with an over-ground, elevated network of pipes and cables extending alongside roads, and large areas of grass mounding to act as blast bunds around individual buildings. It is in part an operational nuclear licensed site containing occupied and unoccupied buildings and structures used for a variety of industrial processes; the proposed CMR site falls outside the licensed areas. The absence of any form of landscaping beyond the occasional individual tree, and the internalised nature of much of the built form, makes the site difficult to navigate without any form of natural way marking.

2.4 The built form of the Burghfield site comprises mainly regular buildings spread throughout the site with a regular grid street structure. The buildings within the site vary considerably in terms of size, scale and appearance. There is no standard or consistent form of development other than the general trend towards large floor plate, single storey buildings of an industrial appearance, usually set within an area of grassland with parking located remotely.

Access & Movement to the site

2.5 Access to the site during operations will be via the northwest main gate, via the road called 'The Mearings'. This will be the primary access to the application site and AWE Burghfield. This encompasses the existing access extending east west across the AWE site (through to and including The Mearings to the junction with Reading Road), and vacant and cleared land to the southwest of Pingewood Gate. AWE Burghfield is enclosed by a high security fence and is subject to strict controls. A new access road will be constructed parallel to the existing site perimeter security road to the north and east of the site via Burnthouse Lane through Pingewood Gate as shown in Figure 2 Opportunities and Constraints. Pingewood Gate is presently closed to all traffic other than security, but is proposed to be opened to allow construction traffic including heavy goods vehicles (HGVs), which can gain access through both gates to the CMR site.

2.6 Vehicles enter the site at a controlled gate, and circulate quickly along the loop road to the specific car park serving the destination building. Vehicular and pedestrian movement within the inner fenceline of the site is completely restricted. The majority of vehicular activity takes place in the north of the site.

Landscape & Visual Analysis

2.7 The AWE Burghfield site lies on the southern side of the Kennet valley, where the landform begins to rise into the long ridges of the Thames Basin Heaths. The landscape character of the immediate surroundings can be described as being:

- Burghfield Open Farmland, in which groups of small woodlands and the planting around Burghfield village and Grazeley Green contrast with the trimmed hedgerows of the large, usually low-lying fields – the site is a distinctive sub-area marked by the perimeter fencing and the built development.
- Poundgreen Wooded Farmland lies to the east and south, with gently rolling topography and a dispersed pattern of settlement and small woodlands amongst the farmland.
- Burghfield Common Fringes lie to the west, with heavily wooded slopes with many small stream valleys masking the majority of properties around the edge of housing on Burghfield Common.
- Kennet Valley Gravel Beds lie to the north, where extensive water bodies, extraction and landfill mark the river floodplain, with the edge of urban Reading to the north and east.

2.8 While the study area is essentially rural in character, there are a number of detracting factors such as electricity transmission lines, raised sections of the M4 motorway, and the prominent commercial buildings around junction 11 of this road.

2.9 The AWE Burghfield site itself reads as an accumulation of low-level structures and buildings, including the existing catenary structure, the central boiler house, two white silos near the eastern edge, and the perimeter fencing. The site lies at about 42 to 47 metres above ordnance datum (m AOD) on a gentle slope falling broadly southwest to northeast, and is effectively located in a shallow vale formed by the Burghfield Brook and its tributaries.

2.10 Vegetation within the site is largely confined to extensive areas of poor semi-improved grassland with pockets of good semi-improved grassland, dry dwarf shrub heath and some broadleaved plantation. There are occasional scattered trees including some mature oaks.

2.11 While it is essential to retain open views alongside the perimeter fence for the purposes of security, there may well be scope for some additional structure planting to help increase screening of the site in general.

2.12 The decanting and relocation of new and existing uses towards the north of the site, will require careful consideration of the possible visual impacts of any such development on the surrounding landscape, particularly in respect of views from the north and east.

Ecology

2.13 There are no recognised designated sites within the site boundary. However, the AWE Burghfield Conservation Group has designated five areas of mainly good semi-improved grassland within the site as Site Conservation Areas.

2.14 There are no statutory sites within 1km of the site. There are two non-statutory Ancient Woodland areas within 1km of AWE Burghfield, namely Pinge Wood, Pitchkettle Wood and Amners Wood/Walkers Shaw.

2.15 There are no internationally protected sites within 5km radius of the site.

2.16 Protected species records exist for the site and a presence and absence survey has been carried out in order to determine potential impacts. It was concluded that the general location of the proposed development

was of low ecological value, with the caveat that some of the buildings and a willow tree could potentially support species that have some level of legal protection and conservation interest.

2.17 With this in mind, development proposals will need to consider the potential for managing and mitigating potential impacts on existing flora and fauna.

2.18 This could be partially achieved through a well-considered landscaping scheme that includes a combination of on and off-site woodland planting and the management of grassland sward as a summer flowering meadow.

Hydrology

2.19 The AWE Burghfield site is supplied with water via licensed abstraction boreholes, from where it is pumped to onsite storage tanks.

2.20 The AWE Burghfield site is drained to the western arm of Burghfield Brook, which flows through the site along an engineered channel inside of the southern and eastern perimeters. There are eight outfalls to Burghfield Brook, all of which can be shut in case of emergency. Existing buildings drain to these consented outfalls via French drains and culverts.

2.21 The CMR application site is located outside the 1 in 100 year and 1 in 1000-year floodplains of the surrounding watercourses.

2.22 Foul sewerage is dealt with via a dedicated sewerage treatment works owned by the AWE and located on site.

2.23 There appear to be no constraints in relation to the existing site hydrology. The new development will utilise existing infrastructure in the supply and disposal of water.

2.24 Opportunities to incorporate a Sustainable Drainage Scheme (SuDs) should be explored as part of the new development proposals, and indeed this is being provided as part of the application material.

2.25 Figure 2 provides an extract from the SCDP produced in 2008 showing the basic opportunities and constraints affecting the development of the Burghfield site.

3. DESIGN PRINCIPLES

Refer to Fig 5: Design Principles/Concept Diagram

Use

3.1 The future use of the proposed development is fixed as a conventional manufacturing facility. This use is predetermined by the operational requirements of the Site Development Strategy for AWE.

Location

3.2 The proposed development shall be located on the northern part of the AWE Burghfield site. This will allow efficient integration between existing and proposed facilities and consolidate those processes currently taking place at AWE Aldermaston and AWE Burghfield, into a single manufacturing building.

3.3 This decision will help meet the strategic objectives outlined in the Sites Development Travel Plan by making it easier for employees to coordinate travel plans and reduce single occupancy car dependency.

3.4 Locating the proposed development within the northern sector of the Burghfield site will comply with the strategic aims of the SDCP 08; in that it will facilitate the ongoing characterisation, and subsequent clearance of other parts of the AWE estate.

3.5 Locating the proposed development within the context of an existing area of industrial manufacturing, will help offset the potential visual impact of new development, forming part of an already established view framework as opposed to an individual building located in open ground elsewhere.

Amount

3.6 The amount of new development will be related to the specific operational requirements of the conventional manufacturing process. The proposal considers the short, medium and long-term flexibility of proposed building, and how these could be internally altered or extended in a controlled future expansion.

Size, Scale and Massing

3.7 The size and scale of proposed development should be limited as far as possible in the context of the operational manufacturing process required to minimise any potential visual impact from within the wider surrounding area. Building heights should be restricted in response to landscape and visual considerations and generally sit well within the wider countryside context.

3.8 As a general rule, buildings should be regularly arranged and geometrically aligned with the road network, allowing efficient access and servicing.

3.9 Other than the former site tip to the south, the existing access roads and infrastructure there are no physical constraints to the overall extent of the proposals, apart from those factors that should be considered as an integral part of any development proposals involving the provision of new manufacturing/ office space. These include the provision of adequate levels of natural light and ventilation, the provision of emergency access to all parts of the building.

3.10 Existing buildings at AWE Burghfield vary considerably in terms of size and scale according to the specific operational requirements. In the case of the proposed manufacturing facility, thought should be given to the way in which the design of new development could be lifted beyond the purely utilitarian requirements of a functional building.

3.11 Valid design approach could be one in which the requirements are met with distinctive structural/architectural aesthetic that has the benefit of ensuring proposals respond more robustly to the task of lifting the overall quality of public realm, and gradually promote an increasingly distinctive and legible working environment.

Layout

3.12 The building is located inside the secure fence line and should relate well into the site, with the existing site tip forming a buffer between the access road and gates into the site and the circulation space around the building for HGV and pedestrian movement. This should leave enough room for landscaping and access arrangements around the site.

Access and Parking

3.13 The proposed development should take access from the main road utilising as far as practicable the existing internal access road, which forms the primary access into the site. This is identified on the Concept Plan as HGV route, which incorporates the pedestrian route within it. There is another access into the site from Pingewood, which should also be utilised. There is a security gate at the entrance of the site where the two accesses meet.

3.14 The building should contain appropriate shower and changing facilities to encourage bicycle use.

Landscape

3.15 Development proposals should be set within a landscaped area and consider existing opportunities for an area, with a favourable aspect, to be used as a breakout space for employees. This space should be provided with seating / benches and hard landscaped to provide a durable, free draining surface. Appropriate low-level screen planting should also be provided within the grounds in addition to controlling the height of the building

3.16 Ground modelling should be tied into the SuDS scheme, together with utilisation of existing outfalls.

3.17 Opportunities for standard tree planting within the setting of the building should be considered as a way of helping to provide a pleasant outdoor environment and assist ecological objectives for the site. Care should be given to the positioning of any trees to ensure that eventual canopy size and spread does not interfere with the operation of the building or the secure fence line.

3.18 Landscape design should be considered in relation to the final design of the building, the arrangement of fenestration, choice of materials and location of access points etc. This ensures that the building and landscape read as a single intervention and contribute equally to the improvement of the public realm.

3.19 Landscape design proposals should be drawn up with advice from an ecologist in respect to species choice and habitat creation.

Appearance

3.20 The individual aesthetic should be driven by factors such as the need to respond to wider concerns about the sustainability of new development and its impact on the environment, the quality of employee facilities and the need to promote an accessible and equitable working environment.

3.21 This complies with the strategic aims set out in the SDCP in relation to improving the standards of design, enhancing environmental performance, and reducing environmental impact.

3.22 Individual materials, styles and finishes have been chosen to reflect the progressive and modern building ethic that underpins the strategic aims of the SDCP. Hence, it was considered appropriate to utilise pre-assembled components such as external cladding or sheet metal roofing to help reduce the duration of the construction period and assist in the eventual decommissioning of the building, when they can be recycled with minimal wastage.

3.23 Consideration should also be given to the large areas of blank façade, however due to the nature of the facility windows and doors can be added to areas where it has been possible by integrating landscaping around the building to conceal the mass of the building. The shadow lines, high-level glazing, ventilation points or the use of contrasting materials or colours within the elevations. The use of panels, rainwater outlets, external doors and canopies can be incorporated in the design of external appearance of the building with canopies forming a design feature for entrances.

3.24 The final design proposals should be drawn up with advice from an ecologist in respect to species choice and habitat creation.

4. DESIGN PROPOSAL

Design

4.1 The design approach for this proposal is one in which the requirements of the brief are met within a high quality, distinctive structural / architectural aesthetic that has the benefit of ensuring proposals respond more robustly to the task of lifting the overall quality of the public realm, and gradually promote a distinctive and legible working environment. The new building would address the shortcomings of a refurbished scheme. To deliver optimum efficiencies and benefits the new building will accommodate all required processes within a single building, with equipment placed in a logical manner with respect to location, process, flow, juxtaposition and interaction with other functions.

Design Evolution

4.2 The design process has incorporated the following key issues:

- Creating a working environment that facilitates business effectiveness and efficiency;
- Providing a modern working environment for staff; and
- Working towards Government's aims to make sites and buildings more sustainable.

Size, Scale and Massing

4.3 The design of the proposed conventional manufacturing facility is one large rectangular structure with an arched roof encompassing single storey elements within the convex curved aluminium roof. It is a single storey structure 11 metre high with offices and some plant accommodation on the mezzanine level. Thus allowing flexibility for industrial and office uses within the building. This structure is made of steel with grey metal cladding on the external surface and full height block work on the internal surface. Standard block work is used for partitions to divide spaces internally. The ground floor consists of ground bearing slab, foundations are shallow pad footings under columns and shallow strip or trench fill footings under the perimeter and major walls. A stone-filled trench will be constructed between the building and the former site tip for passive ventilation of potential soil gas.

4.4 The proposed scale of the structure that is necessary to fulfil design, operational and safety requirements has dictated building location and orientation. Building height is restricted to 11 metres above filled floor level; this is in response to the landscape and visual considerations, and generally sits well within the wider countryside context. Landform, mature woodlands and hedgerows largely screen it.

Appearance/Materials

4.5 The building will have a structural steel frame with external metal cladding designed as a whitish grey chequer board pattern to break up the scale of the building. The roof consists of insulated standing seam composite aluminium sheeting, on a convex curved frame. Material selection has been made with reference to 'The Building Research Establishment Green Guide to Specification' and aims to achieve a high grade.

4.6 Limited storage has been provided within the building for materials that are in process only. Once these products are finished they are proposed to be transported to other sites within AWE Aldermaston and AWE Burghfield. Various outside storage areas are proposed in line with health and safety requirements, good working practice, and operational efficiency.

4.7 The design has considered in detail all appropriate technologies for sustainability and energy efficiency to reduce energy consumption within the remit of AWE requirements. High-level windows are provided for office areas, meeting rooms and mess rooms along the north and east elevation to maximise natural daylight. Windows have been excluded from workshop areas to avoid direct sunlight to the manufacturing machines. Glazing will be installed at low levels on southern façades, to the ground and mezzanine office accommodation on the southern and eastern facades. Due to the sites counter terrorism and security measures, low windows are not permitted apart from at the main entry point and reception.

4.8 Where mechanical plant or extraction flues cannot be accommodated discretely to the rear of the building, these have been considered from the outset and honestly expressed as a feature of the facade. Solar shading devices have been incorporated to the south and east elevations of the building.

Sustainability and Energy Efficiency

4.9 Since 2nd January 2007 there has been a requirement to assess the environmental performance of new buildings. It is regarded by the UK's construction & property sectors as the measure of best practice in environmental design and management.

4.10 When designing the new facility all sustainable methods of construction and materials were considered. It responds to Draft South East Plan Policy CC4. It adopts and incorporates sustainable construction standards and techniques, which include:

- High standards of energy efficiency that exceed current standards required by the Building Regulations and reflect best practice;
- Designing to increase the use of natural lighting, heat and ventilation, and the provision on a proportion of energy demand from renewable sources;
- Reduction and increased recycling of construction and demolition waste and procurement of low-impact materials; and
- Designing for flexible use and adaptation to reflect changing lifestyles and needs and the principle of 'whole life costing'.

4.11 The design of the building aims to achieve an excellent BREEAM rating. This is based on a preliminary assessment undertaken on the Proposed Facility. Sustainability Chapter 16 of the DEEA discusses in detail AWE's commitment to adopt the principles of sustainability in all new developments. The development strategy incorporates energy efficiency within the design. A combined heat and power (CHP) system will be incorporated, which includes the provision of suitable absorption chillers, thus offering environmental benefits compared to existing and conventional methods. The mechanical cooling systems will be of modern design, with a relatively low global warming potential and the usage/leakage subject to better control and comply with the Fluorine (F) Gas Regulations. All insulation materials will have a global warming potential of less than 5. The development aims to achieve 10% of the total energy from local renewable or low zero carbon sources in accordance with recent AWE guidance on energy use, in order to contribute to achieving this target by 2010. Further an efficient filtration system will be installed to reduce dust from graphite and ceramic machining.

4.12 AWE's aim is to achieve sustainable development, which meets the needs of the present, without compromising the ability of future generations to meet their own needs. Sustainability is a core part of the Site Development Context Plan (SDCP), which will guide the implementation of the proposed development through the following strategies:

- Energy and water efficient building design and reduction of carbon dioxide (CO₂), emissions through the AWE Energy Strategy;
- Minimising environmental impact and disruption to local residents during construction through the AWE CoCP;
- Reducing single occupancy car travel and encouraging sustainable transport modes through AWE travel plan;
- Managing and minimising construction waste through the CoCP; and
- Delivering the SDCP and maintaining biodiversity.

Waste

4.13 Wherever possible, materials have been selected from the Waste and Resources Action Programme building material approved list. This is primarily to take advantage of their environmental and recyclable

properties, as well as their material qualities both now and when the building is eventually decommissioned in the future.

Drainage

4.14 All drainage proposals comply with the MOD Sustainability Handbook. The objectives that apply to this development are to safeguard fresh water resources and water quality; safeguard the health and productivity of inland waters and seas; reduce the threat of persistent or diffuse pollutants to the environment and human health; prevent damage to property by flooding; and ensure that the waters are clean to sustain wildlife and communities.

4.15 The details of the measures taken to minimise pollution and control surface water run off are discussed in detail in the DEEA. The AWE Surface Water Drainage Strategy informs the Sustainable Drainage System (SuDS) incorporated into the design. Several surface water attenuation ponds will also be provided to receive, store and release surface water run off at a controlled rate using a manual cut off mechanism. This will enable the ponds to be isolated in emergency situations and control water to the existing watercourses and the SuDS system.

Accessibility

4.16 The design of the development has incorporated the requirements of all users as required by Part M of Building Regulations 2004 and other guidance as stated in the DEEA where reasonable and practical. The details of all the access requirements are listed in the DEEA.

4.17 In summary, the proposed facility achieves maximum possible accessibility for all users of the building, except the machine workshop facility. Due to the nature of the activity which takes place in the workshop, where there will be criss-cross moving forklifts in areas not occupied by machinery. It is not considered advisable for health and safety reasons to provide access to wheel chair users and those with sight or hearing impairment. Further, the machine workshop facilities are exempt from Disability Discrimination Act (DDA) compliance.

4.18 To enable all users access to the facility, there is a public transport system that delivers people within walking distance to the site. For those using the road, six disabled car parking spaces have been provided at the entrance of the building, which is linked with a path to the entrance of the building. This access has a level gradient and tactile pavers as required by the DDA.

4.19 Toilets for staff with disabilities will be provided in the vicinity of the entrance areas. There is lift to the mezzanine floor, which is DDA compliant, and all staircases have refuges and are designed to accord with Part M of Building Regulations. All internal surface finishes and communal furniture are compliant to DDA requirements. Where possible level access has been provided to all entry points, and vision panels are included in all doors not classed a security risk. All internal corridors are a minimum of 1800 mm, thus providing sufficient circulation space. The doors generally open inwards, and are of the type that will be suitable for wheel chair use with low opening force and controlled closure.

4.20 Toilets for disabled staff are provided on both the ground and mezzanine floor of the building towards the offices and entrance areas, and a shower facility is provided for male and female in the locker rooms. Access to the toilets is greater than the 40 metre horizontal maximum requirement due to the flow processes that occur within certain dedicated rooms/workshops. As only fully able-bodied personnel are allowed to work within said areas a waiver will be sought for this.

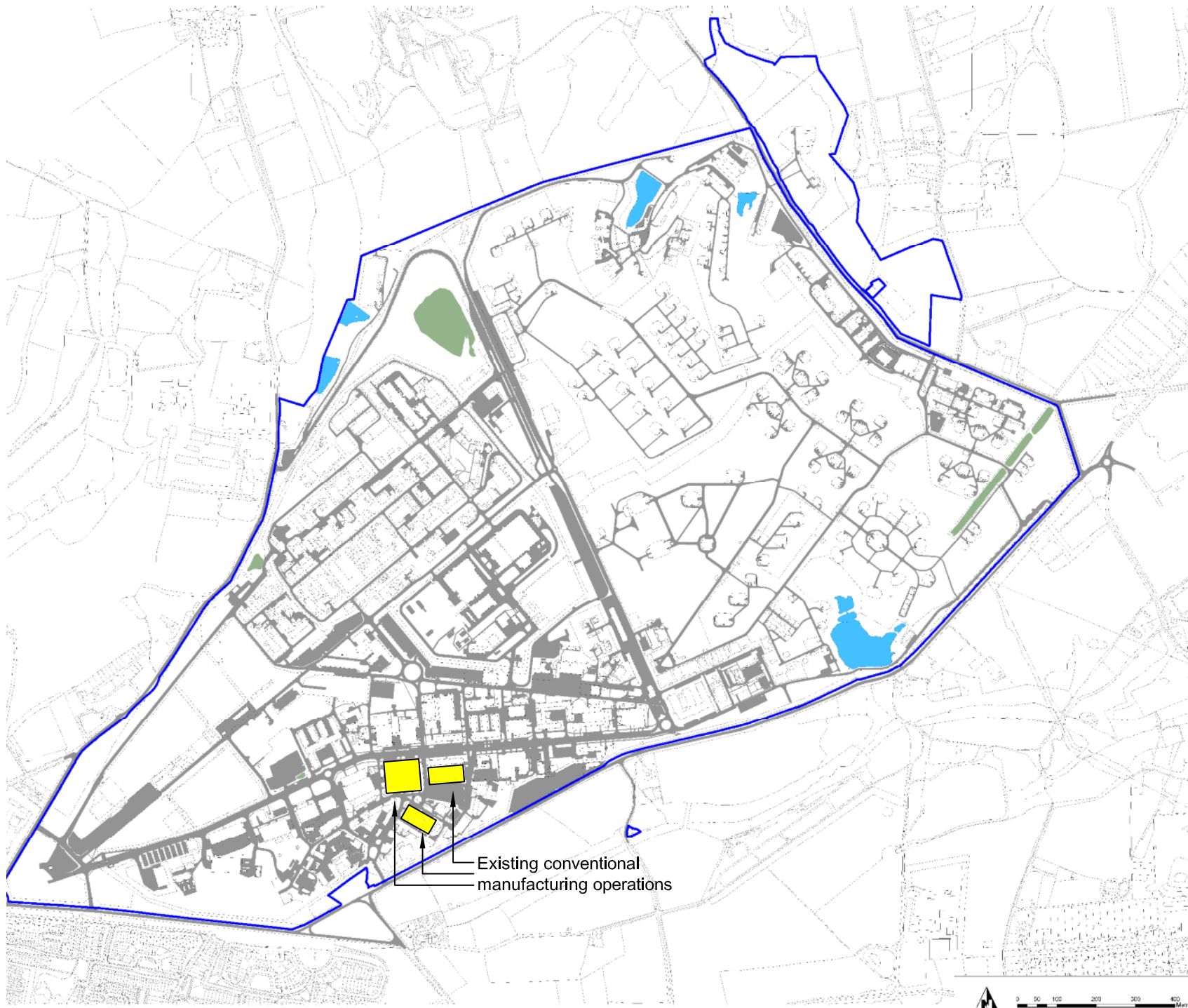
4.21 In the accommodation areas full access to the building facilities is maintained as outlined below.

4.22 The final colour scheme is still to be confirmed but the colours chosen will take note of the need to provide full colour contrast with relation to spatial needs such as walls, floors and doors.

5. CONCLUSION

- 5.1 This statement shows how the proposed development has been informed by the very specific operational constraints in place at the Burghfield site, along with concern for the wider issues affecting the sustainability of the AWE sites as set out in the SDCP 08.
- 5.2 The current proposal calls for a significant departure from previous eras of development in which the specific function of the building was predominately the driving factor in its siting, design and external appearance.
- 5.3 The proposed building exceeds the basic requirements of the brief to provide a manufacturing facility, and adds value in respect of its unique approach to design for the following reasons:
- 5.4 The building will be distinctive in its own right.
- 5.5 The building will be discrete when viewed from within the wider surrounding landscape. Contained within a defined footprint, with plant and service areas concealed to the rear of the building. The external materials will blend into the established visual framework of nearby buildings.
- 5.6 The building will be functional for visitors and staff. The design of the façade, entrance and internal space will define a clear point of arrival and reception for visitors, with office space, meeting rooms and toilet facilities easily accessible. Elsewhere within the building, a single span portal frame will allow the flexible internal space to be easily partitioned into individual workshops linked by a central circulation corridor. Externally, mechanical plant and storage can be combined into a service facility to the rear of the building, accessed from a single road.
- 5.7 The building will provide an enhanced working environment for existing and future employees. Dedicated employee changing and rest rooms will provide comfortable, quiet space between working hours. Shower rooms are required for working conditions and will give staff the option of cycling to work or taking exercise between times, without sacrificing comfort. An external break out space designed as part of the buildings landscaping scheme and located with an open aspect, will provide staff with outdoor rest space between times.
- 5.8 The building will be efficient, bringing together all the conventional manufacturing processes that currently operate across various buildings at Aldermaston, and combining these into a single operation linked to the existing process plant.
- 5.9 The building will be sustainable, designed with its eventual decommissioning in mind and incorporating sustainable building technology such as the use of SuDs to help reduce the amount of surface water runoff from the large roof area into surrounding streams. Bringing together a disparate manufacturing processes into a single site, will make car sharing more feasible and give employees greater choice when deciding how to travel to work.
- 5.10 For these reasons it is considered that the current development proposals will provide a good benchmark for the ongoing redevelopment and rationalisation of the Burghfield site, setting a high standard of design in the process of meeting the present and future operational requirements at AWE.
- 5.11 The proposed building meets the standards required by Defence Estates, Joint Services Publications, it is capable of withstanding a postulated threat, and complies with BS7799 to enable component manufacture.
- 5.12 The Code of Construction Practice will be adopted during the construction process.
- 5.13 The sustainability measures applied to the development have been designed to achieve a BREEAM excellent rating.

Drawing Ref: RVA.0467_Burghfield\Work in Progress\JWA.0467-03-Proposed Site Layout

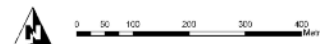


Existing conventional
manufacturing operations

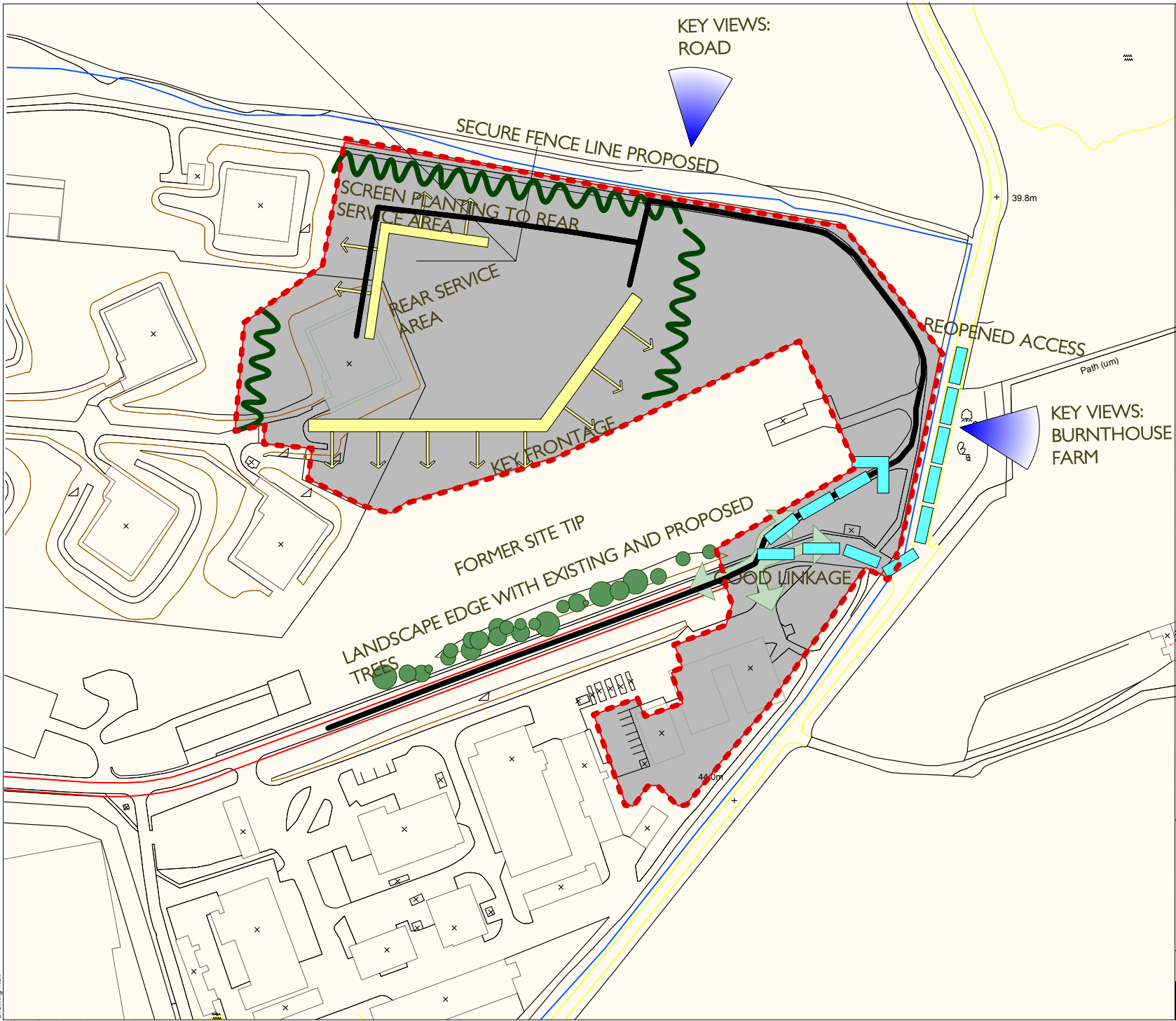


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Client: AWE Burghfield
Project: CMR
Title: Location of existing facilities
Date: 11Mar08 Scale: as shown Original Paper Size: A3
Drawn: GP Checked: PK Job Ref: JWA.0467
Figure Number: 3 Rev:



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- Legend**
- Secure Fence Line
 - Site Area
 - Screen Planting
 - Reopened Access via Burnthouse Lane
 - Access
 - Good Linkages
 - Existing Trees
 - Key Views
 - Key Frontages

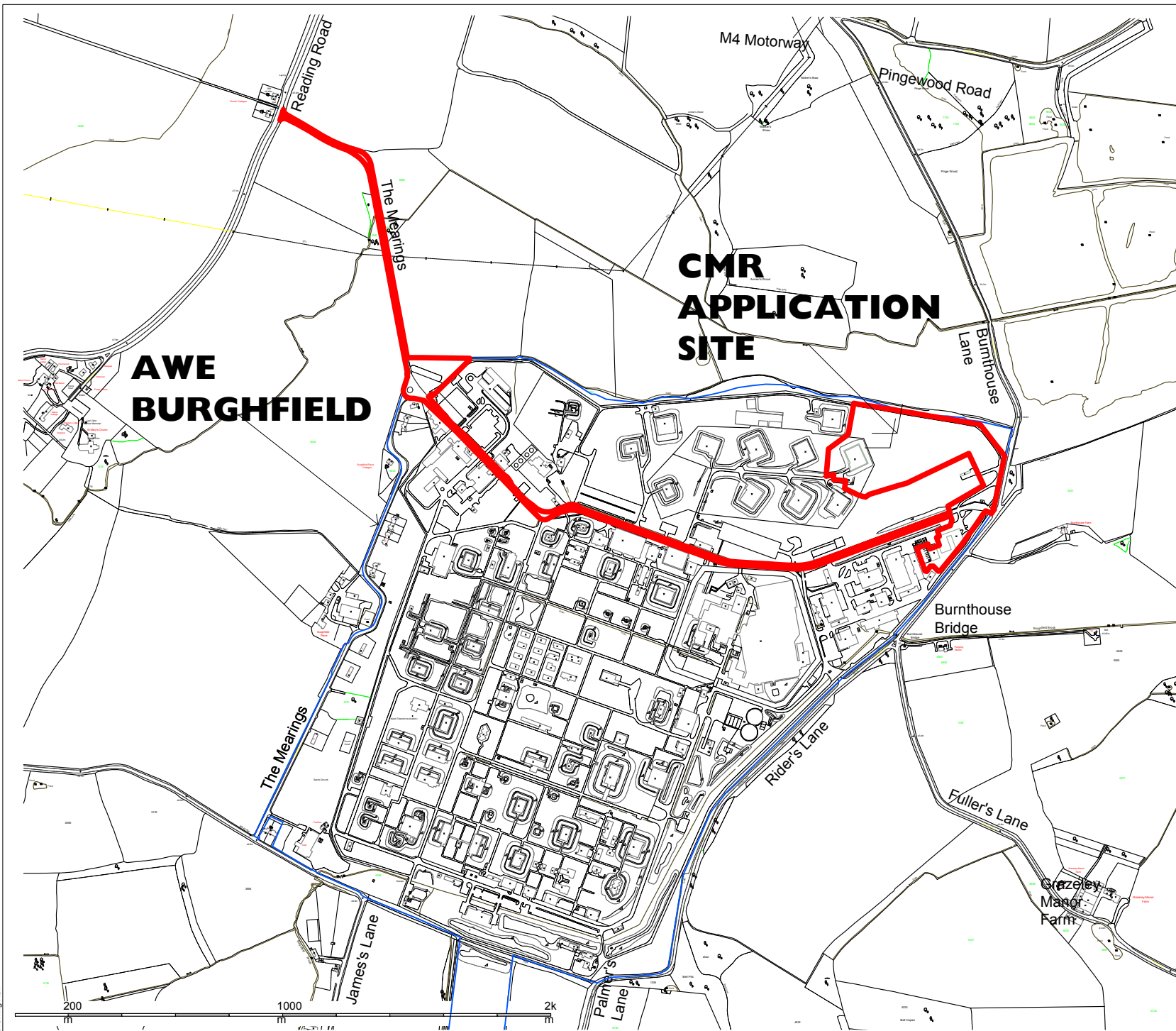


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
Client:	AWE Burghfield
Project:	CMR
Title:	Opportunities and Constraints
Date:	17 April 08
Scale:	NTS
Original Paper Size:	A4
Drawn:	SB
Checked:	PK
Job Ref:	JWA.0467
Figure Number:	2
Rev:	1

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Drawing Ref.



Key

-  Site Area
-  AWE Burghfield Boundary

**CMR
APPLICATION
SITE**

**AWE
BURGHFIELD**



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Client:	AWE Burghfield
Project:	CMR
Title:	Site Location Plan
Date:	17Apr08 Scale: NTS Original Paper Size: A0
Drawn:	SB Checked: PK Job Ref: JWA.0467
Figure Number:	1 Rev: B

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Drawing Ref:



THE SUDS SYSTEM SHOWING A SERIES OF SHALLOW SURFACE WATER STORAGE PONDS. THESE PONDS HAVE A NATURALISTIC PROFILE AND THEIR MARGINS WILL BE SELECTIVELY PLANTED WITH REED BEDS

SECURITY FENCING

SECURITY LIGHTING

INFORMAL GROUPING OF GROUND MODELLING TO ENHANCE THE AMENITY AND ECOLOGICAL VALUE OF THE ATTENUATION PONDS

SOUTH FACING BUILDING ENTRANCE PROVIDING PRIMARY DISABLED AND PEDESTRIAN ACCESS

FORMER SITE TIP

SECURITY CONTROLLED GATES

EXISTING AND PROPOSED TREES TO BE RETAINED

PRIMARY ACCESS INTO THE SITE VIA MAIN GATE

REINSTATE EXISTING GRASSED AREAS

SUB STATION AND OUTSIDE STORAGE BUILDINGS

DISABLED SPACES AND CYCLE STORAGE

HGV ACCESS INCLUDING PEDESTRIAN ACCESS

TEMPORARY CONSTRUCTION ENCLAVE PROVIDING 70 CAR PARKING SPACES

Client: AWE

Project: CMR Buryfield

Title: Design Principles/Concept Plan

Date: 12/Mar/08 Scale: 1:1250 Original Paper Size: A3

Drawn: GP/SB Checked: AS/PK Job Ref: A.0467

Figure no.: 5

CMR Application Boundary

AWE Site Boundary

Existing features

Existing vegetation to be retained

Perimeter Access Road

Proposed Landscape Features

New access road and vehicle handstanding

Paved pedestrian area

Woodland Copse

Internal Estate Hedgerows (with semi-mature trees)

Wetland Coppice

Business Centres

Ornamental planting

Grassed Areas/Lawns

External Storage and compounds

Periphery carway for emergency and maintenance vehicles

Semi-mature trees

Gate

Construction related building

Gas vent trench

SUDs features

Ponds and side slopes

Swales and side slopes

Bio Retention Area

Dry Basin with Wetland Coppice Planting

Sub-surface drain

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