TOWN AND COUNTRY PLANNING ACT 1990

West Berkshire Council

RPS Group
Mr Edward Nabbs
20 Weston Avenue
Milton Park
Milton
Abingdon
OX14 4SH

Applicant:
Defence Infrastructure Organisation

PART I - DETAILS OF APPLICATION

Date of Application
15th December 2020

Application No.
20/02966/COMIND

THE PROPOSAL AND LOCATION OF THE DEVELOPMENT:

Proposed Multi-Material Facility (MMF) development site to include the MMF Building, ancillary buildings to support the function of the MMF building, drainage infrastructure, landscape and ecological planting, and internal roads and delivery areas

AWE Burghfield, Burghfield, Reading, RG30 3RP

PART II - DECISION

In pursuance of its powers under the Town and Country Planning Act 1990, West Berkshire District Council GRANTS planning permission for the development referred to in Part I in accordance with the submitted application form and plans, subject to the following condition(s):-

1. Commencement of development

The development hereby permitted shall begin not later than three years from the date of this decision.

Reason: To comply with Section 91 of the Town and Country Planning Act 1990 (as amended by Section 51 of the Planning and Compulsory Purchase Act 2004).

2. Approved plans

The development hereby permitted shall be carried out in accordance with the following approved plans/documents:

- 10255-0043-02 site location with application boundary and ownership boundary
- B-MMFRIBA3-BAK-12-00-DRW-AR-200-89B-000201-R-00 location plan
- B-MMFRIBA3-BAK-12-00-DRW-AR-200-89B-000203-R-02 existing layout
- B-MMFRIBA3-BAK-12-00-DRW-AR-200-89B-000204-R-01 proposed MMF site plan

- B-MMFRIBA3-BAK-12-00-DRW-CE-900-89B-000341-R-01 drainage process diagram
- B-MMFRIBA3-BAK-12-00-DRW-CE-900-89B-000342 Rev P5 STORM & FOUL WATER DRAINAGE
- AWE Burghfield MMF Drainage Analysis RT002 R02-00, April 2021
- B-MMFRIBA3-BAK-12-XX-DRW-AR-200-89B-000205-R-02 site sections A-A B-B
- B-MMFRIBA3-BAK-12-XX-DRW-AR-200-89B-000206-R-01 site elevations
- Planning Statement MER-89B-000989 (prepared by RPS, reference OXF10255, dated December 2020, version 4).
- Design and Access Statement MER-89B-000990 (prepared by RPS, reference OXF10255, dated December 2020, version 4).

Ancillary Buildings:
- B-MMFRIBA3-BAK-12-XX-DRW-AR-200-89B-000207-R-01 ANCILLARY BUILDINGS 4,6,8 &12 - PLANS & ELEVATIONS
- B-MMFRIBA3-BAK-12-XX-DRW-AR-200-89B-000208-R-00 ANCILLARY BUILDING 3 PLANS & ELEVATIONS
- B-MMFRIBA3-BAK-12-XX-DRW-AR-200-89B-000209-R-01 ANCILLARY BUILDING 11 - PLANS AND ELEVATIONS
- B-MMFRIBA3-BAK-12-XX-DRW-AR-200-89B-000210-R-01 ANCILLARY BUILDING 9 & 10 - PLANS & ELEVATIONS
- B-MMFRIBA3-BAK-12-XX-DRW-AR-200-89B-000211-R-00 ANCILLARY BUILDING 2 - PLANS & ELEVATIONS
- B-MMFRIBA3-BAK-12-XX-DRW-AR-200-89B-000212-R-00 ANCILLARY BUILDING 1 - PLAN & ELEVATIONS
- B-MMFRIBA3-BAK-12-XX-DRW-AR-200-89B-000213-R-1 ANCILLARY BUILDING 5 - PLAN & ELEVATIONS

Floor Plans:
- B-MMFRIBA3-BAK-13-00-DRW-AR-200-89B-000214-R-02 LEVEL 00 - GROUND FLOOR
- B-MMFRIBA3-BAK-13-01-DRW-AR-200-89B-000215-R-02 LEVEL 01 - FIRST FLOOR
- B-MMFRIBA3-BAK-13-02-DRW-AR-200-89B-000216-R-02 LEVEL 02 - PLANT FLOOR
- B-MMFRIBA3-BAK-13-03-DRW-AR-200-89B-000217-R-02 ROOF PLAN

Sections and Elevations:
- B-MMFRIBA3-BAK-13-XX-DRW-AR-200-89B-000218-R-03 SECTIONS A-A & B-B
- B-MMFRIBA3-BAK-13-XX-DRW-AR-200-89B-000219-R-03 SECTIONS C-C & D-D
- B-MMFRIBA3-BAK-13-XX-DRW-AR-200-89B-000220-R-03 SOUTH & WEST ELEVATIONS
- B-MMFRIBA3-BAK-13-XX-DRW-AR-200-89B-000221-R-03 NORTH & EAST ELEVATIONS

Landscaping:
- MER-89B-000121-R-01 Landscape Masterplan
- MER-89B-000122-R-01 Landscape General Arrangement Plan
- MER-89B-000123-R-01 Soilworks Plan
- MER-89B-000124-R-01 Hardworks Plan
- MER-89B-000125-R-01 Softworks Plan
- MER-89B-000126-R-01 Landscape Sections

- o MER-89B-000127-R-01 Detailed Pond Planting Plan

Environmental Appraisal Report MER-89B-000991 (prepared by RPS, reference OXF11716, dated December 2020) and Appendices comprising:

- o Construction Environmental Management Plan
- o Landscape and Visual Impact Assessment
- o Ecological Impact Assessment
- o Heritage Statement
- o Flood Risk Assessment and Surface Water Drainage Strategy
- o Ground Conditions Appraisal
- o Transport Statement
- o Noise Appraisal
- o Air Quality Assessment
- o Human Health Appraisal

Reason: For the avoidance of doubt and in the interest of proper planning.

3. Environmental mitigation

The development shall be carried with the incorporation of the mitigation measures identified within the Environmental Appraisal Report MER-89B-000991 (prepared by RPS, reference OXF11716, dated December 2020) and Appendices.

Reason: To ensure the environmental mitigation measures proposed within the supporting documentation are implemented. This condition is applied in accordance with the National Planning Policy Framework, Policies CS13, CS14, CS16, CS17, CS18 and CS19 of the West Berkshire Core Strategy 2006-2026, and Policies OVS.5 and OVS.6 of the West Berkshire District Local Plan 1991-2006 (Saved Policies 2007).

4. CEMP

The development shall be carried out in accordance with the Construction Environmental Management Plan (Site-Specific) MER-89B-000992 (RPS OXF10255, dated December 2020).

Reason. To minimise the impacts of the development on the local environment, amenity and highway network during construction. This condition is applied in accordance with the National Planning Policy Framework, Policies CS13 and CS14 of the West Berkshire Core Strategy 2006-2026, and Policies OVS.5 and OVS.6 of the West Berkshire District Local Plan 1991-2006 (Saved Policies 2007).

5. Hours of work (construction/demolition)

No demolition or construction works shall take place outside the following hours, unless otherwise agreed in writing by the Local Planning Authority:
7:30am to 6:00pm Mondays to Fridays;
8:30am to 1:00pm Saturdays;
No work shall be carried out at any time on Sundays or Bank Holidays.

Reason: To safeguard the amenities of adjoining land uses and occupiers. This condition is applied in accordance with the National Planning Policy Framework, and Policy CS14 of the West Berkshire Core Strategy 2006-2026.

6. Landscape and Biodiversity Strategy

The development shall be carried out in accordance with the Landscape and Biodiversity Strategy contained within Annex A of the submitted Landscape and Visual Impact Assessment (prepared by LUC, reference 10051 - AWE, version 3.0, dated 17/11/2020), and the associated Stage 3 Landscape Drawings within Appendix 1 of the strategy. The soft landscaping shall be carried out in accordance with the plant scheduled in section 8.4 of the document, or in accordance with any alternative details approved by the Local Planning Authority pursuant to this condition.

All hard landscaping works shall be completed before first occupation of the development, unless otherwise agreed in writing by the Local Planning Authority. All soft landscaping works shall be completed in accordance with the approved strategy, and any subsequent approved details, within the first planting season following completion of building operations or first occupation (whichever occurs earlier). Any trees, shrubs, plants or hedges planted in accordance with the approved scheme which are removed, die, or become diseased or become seriously damaged in the opinion of the Local Planning Authority within five years of completion of this completion of the approved soft landscaping scheme shall be replaced within the next planting season by trees, shrubs or hedges of a similar size and species to that originally approved.

Reason: Landscaping is an integral element of achieving high quality design. This condition is applied in accordance with the National Planning Policy Framework, Policies CS14 and CS19 of the West Berkshire Core Strategy (2006-2026), and the Quality Design SPD.

7. Materials

The construction of the development shall not proceed above slab until samples (or a sample panel), together with an accompanying schedule of materials, of all materials to be used in the construction of the external surfaces of the development have been submitted to (or made available on site if agreed with the LPA) and approved in writing by the Local Planning Authority. These details shall include materials used within the landscaping of the site. The development shall be carried out in accordance with the approved details. Any sample panels constructed on site shall not be removed from the site until after the completion of the development, and with the agreement in writing of the Local Planning Authority.

Reason: To ensure that the external materials respect the character and appearance of the area. This condition is applied in accordance with the National Planning Policy Framework, Policies CS14 and CS19 of the West Berkshire Core Strategy (2006-2026), and Supplementary Planning Document Quality Design (June 2006).

8. Sustainable drainage measures

No development shall take place until details of sustainable drainage measures to manage surface water within the site have been submitted to and approved in writing by the Local Planning Authority. These details shall provide details of how surface water will be managed and contained within the site during any construction works to prevent silt migration and pollution of watercourses, highway drainage and land either on or adjacent to the site. The development shall be carried out in accordance with the approved details.

Reason: To ensure that surface water will be managed in a sustainable manner; to prevent the increased risk of flooding; to improve and protect water quality, habitat and amenity and ensure future maintenance of the surface water drainage system can be, and is carried out in an appropriate and efficient manner. This condition is applied in accordance with the National Planning Policy Framework, Policy CS16 of the West Berkshire Core Strategy (2006-2026), Part 4 of Supplementary Planning Document Quality Design (June 2006) and SuDS Supplementary Planning Document (Dec 2018). A pre-condition is necessary because insufficient detailed information accompanies the application; sustainable drainage measures may require work to be undertaken throughout the construction phase and so it is necessary to approve these details before any development takes place.

9. Verification report

The development shall not be first occupied until a verification report carried out by a qualified drainage engineer has been submitted to and approved in writing by the Local Planning Authority. The report shall demonstrate that the system has been constructed in accordance with the approved scheme, and include plans and details of any key drainage elements (surface water drainage network, attenuation devices/areas, flow restriction devices and outfalls) and details of any management company managing the SuDS measures thereafter. Any future management shall be in accordance with the approved details.

Reason: To ensure the drainage measures on site are acceptable, having regard to the National Planning Policy Framework, Policy CS16 of the West Berkshire Core Strategy (2006-2026), Part 4 of Supplementary Planning Document Quality Design (June 2006) and SuDS Supplementary Planning Document (Dec 2018).

10. DREAM

The development shall achieve an Excellent rating under DREAM (or any such equivalent national measure of sustainable building which replaces that scheme). The development shall not be first occupied until a final Certificate has been issued certifying that this rating has been achieved, and a copy has been provided to the Local Planning Authority.

Reason: To ensure the development contributes to sustainable construction. This condition is applied in accordance with the National Planning Policy Framework, Policy CS15 of the West Berkshire Core Strategy 2006-2026, and Supplementary Planning Document Quality Design (June 2006).

The decision to grant Planning Permission has been taken having regard to the policies and proposals in the National Planning Policy Framework, South East Plan 2006-2026, West Berkshire District Local Plan 1991-2006 (WBDLP) Saved Policies 2007, the Waste Local Plan for Berkshire, adopted 1998, the Replacement Minerals Local Plan for Berkshire 1991-2006 (incorporating the alterations adopted in December 1997 and May 2001) and to all other relevant material considerations, including Government guidance, Supplementary Planning Document; and in particular guidance notes and policies:

The reasoning above is only intended as a summary. If you require further information on this decision please contact the Council via the Customer Call Centre on 01635 519111.

INFORMATIVE:

1 The applicant's attention is drawn to the fact that above conditions must be complied with in full before any work commences on site, failure to do so may result in enforcement action being instigated.

2 The above Permission may contain pre-conditions, which require specific matters to be approved by the Local Planning Authority before a specified stage in the development occurs. For example, "*Prior to commencement of development written details of the means of enclosure will be submitted to and approved in writing by the Local Planning Authority"*. This means that a lawful commencement of the approved development cannot be made until the particular requirements of the pre-condition(s) have been met. A fee is required for an application to discharge conditions.

3 This decision has been made in a positive way to foster the delivery of sustainable development having regard to Development Plan policies and available guidance to secure high quality appropriate development. The local planning authority has worked proactively with the applicant to secure a development that improves the economic, social and environmental conditions of the area.

Decision Date :- 16th April 2021

Gary Lugg
Head of Development and Planning

TOWN AND COUNTRY PLANNING ACT 1990

Notification to be sent to an applicant when a local planning authority refuse planning permission or grant it subject to conditions

Appeals to the Secretary of State

- If you are aggrieved by the decision of your local planning authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under section 78 of the Town and Country Planning Act 1990.
- If you want to appeal against the local planning authority's decision then you must do so within 6 months of the date of this notice.
- Appeals must be made using a form which you can get from the Planning Inspectorate at Temple Quay House, 2 The Square, Temple Quay, Bristol BS1 6PN or online using the Planning Portal at www.planningportal.co.uk.
- The Secretary of State can allow a longer period for giving notice of an appeal, but he will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.
- The Secretary of State need not consider an appeal if it seems to him that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.
- In practice, the Secretary of State does not refuse to consider appeals solely because the local planning authority based their decision on a direction given by him.

Purchase Notices

- If either the local planning authority or the Secretary of State refuses permission to develop land or grants it subject to conditions, the owner may claim that he can neither put the land to a reasonably beneficial use in its existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.
- In these circumstances, the owner may serve a purchase notice on the Council in whose area the land is situated. This notice will require the Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990.

CASE OFFICER'S (MBB) REPORT ON APPLICATION NUMBER 20/02966/COMIND

Site: AWE Burghfield
Burghfield
Reading
RG30 3RP

Member expiry date: 20th January 2021
EOT: 16th April 2021
SuDS pre-commencement condition agreed: 7th April 2021

INTRODUCTION

This application seeks planning permission for a Multi Materials Facility [MMF] at the north western portion/sector of the present AWE Burghfield site. It has a site area of just under 2.4ha. The building will be an important component of the overall Site Development Context Plan [SDCP] for AWE which seeks to optimise the future production of the UK capability for nuclear warhead production. As such this new modular building will make such production far more efficient and cost effective.

The MMF building would comprise a structural steel frame building occupying an area of approximate 6,553 m2 (gross external area). The building would be approximately 94 metres x 69 metres in plan, with a maximum built height (excluding ventilation flues and stacks) of 18.7 metres. The flue height will be 25.5m above the local ground level. The eaves height will be 15.5m. The AOD level at the barrel roof apex will be just over 62m, whilst the height of the catenary towers to the rear [south] are 87m to provide some comparison.

The facility will comprise several distinct areas over two-storeys, with the main features comprising the following:
- Front of house accommodation. Ground floor to contain reception and exhibition space, production office and restaurant/seating. First floor to contain conference and VR suite with gym and changing facilities, occupational health, multi-faith room.
- Production areas, comprising co-located manufacturing capability processes within secure and modular reconfigurable production cells.
- Plant rooms, forming the roof of the production cells.
- Curved roof structure, with photovoltaic cells.

In addition there is to be 991m2 of ancillary space supporting the new building, which will comprise such uses as substations, bin stores and waste compounds.

There is however to be no additional car parking laid out on the site for the additional staff required [about 50 in number who are to be largely transferred from the Aldermaston site] as the site has sufficient capacity already. The red line notes that access will be taken from the existing Pingewood Gate access to the east. HGV construction traffic will also use this principal access point.

In association with the scheme there will be a new SuDS basin and landscaped area around the building, with associated cycle parking.

PLANNING HISTORY

The history of the site is very considerable since the sites inception and there is little point in replicating all of this in this report.
However the most relevant is a pre-application enquiry number 20/00131/PREAPP, issued on the 1st October 2020. This concluded that the application was likely to be acceptable in both principle and scale.

PROCEDURAL MATTERS

EIA: On the 8th December 2020 the Council issued an EIA screening opinion letter under reference 20/02635/SCREEN which noted that NO ES was required to be submitted to accompany the planning application.

Publicity: Three site notices displayed around the site perimeter on the 23rd December 2020. Allowing for the intervening 3 bank holidays the expiry date was posted as the 16th January 2021. A public notice was also published in the Reading Chronicle on the 7th January 2021.

CIL: Whilst CIL liability would be confirmed separately by the CIL Charging Authority, the application submissions indicate that the development is unlikely to be CIL liable.

CONSTRAINTS AND DESIGNATIONS

Within the open countryside as designated in the WBCS of 2006 to 2026.
In the East Kennet Valley designation.

PLANNING POLICY

Planning law requires that applications for planning permission must be determined in accordance with the development plan, unless material considerations indicate otherwise. The relevant policies of the statutory development plan for West Berkshire are listed below. These policies can be read online at www.westberks.gov.uk/planningpolicy.

West Berkshire Core Strategy 2006-2026
Policies: ADPP1, ADPP6, CS5, CS9, CS10, CS13, CS14, CS15, CS16, CS17, CS18 and CS19.

The following are relevant materials considerations:
- The National Planning Policy Framework (Feb 2019) (NPPF)
- The Planning Practice Guidance (PPG)
- West Berkshire Landscape Character Assessment 2019

CONSULTATION RESPONSES

Wokefield Parish Council: No response.

Burghfield Parish Council (adjacent): No objections.

Highway Authority: No objections raised.

Lead Local Flood Authority: After some negotiations on the proposed outfall detail, the application is recommended for conditional approval.

Environment Agency: No response received.

Office for Nuclear Regulation: Does not advise against the proposal.

Conservation Officer: No assets of heritage importance will be harmed / affected by the scheme so no objections are raised.

Tree Officer: No TPOs or conservation areas affected. The application will require the removal of one or two small trees, however this loss will be significantly offset by the planting proposed. No objections subject to landscaping being completed.

Thames Valley Police: Do not raise any security concerns in regard to the application.

Archaeology: No implications hence no objections.

Emergency Planning Officer: Accept the application as being appropriate.

Thames Water Utilities: Initially advised that a condition be placed on any permission to ensure that if any additional foul waste arose from the site a pre-condition re capacity was required. The applicant has since confirmed that all waste produced on site will be dealt with via an existing waste treatment plant, so the condition is not needed. Case officer concurs.

Environmental Health: No objections/ no conditions recommended.

PUBLIC CONSULTATION RESPONSES

Total received: Nil.

PRINCIPLE OF DEVELOPMENT

According to Policy ADPP1, most development will be within or adjacent to the settlements in the hierarchy, and related to their transport accessibility and level of services. The urban areas will be the focused for most development. The scale and density of development will be related to the site's accessibility, character and surroundings. Only appropriate limited development in the countryside (outside of the defined settlement boundaries) will be allowed, focused on addressing identified needs and maintaining a strong rural economy.

The application site is located within the East Kennet Valley, the name given to the rural south-east of the district that lies east of Thatcham and outside of the AONB. Policy ADPP6 is the spatial strategy for the East Kennet Valley. According to the policy, the character of all the settlements in this area will be conserved and enhanced by ensuring that any development responds positively to the local context. Development in the open countryside will be strictly controlled. The supporting text identifies that the Atomic Weapons Establishment (AWE) has two bases in this area, at Aldermaston and Burghfield. AWE is an important provider of local jobs but has implications for the future level of development in this area.

According to Policy CS9, business development will be supported on existing employment sites, particularly on those sites seen as strategically important for the District's economy, including, amongst others, AWE. The policy provides that proposals for business development should be in keeping with the surrounding environment, not conflict with existing uses, and promote sustainable transport. More efficient use of existing sites and premises should be made in order to attract inward investment, respond to modern business requirements, and meet the demand for employment land over the plan period. The Council will promote the intensification, redevelopment, and upgrade of (amongst others) existing employment sites and premises for business development.

Paragraph 5.60 of the supporting text notes that the Atomic Weapons Establishment (AWE) is one of three strategically important employment locations for the West Berkshire economy. It comprises a large amount of business floorspace and is a large local employer. The Council will support business development within these sites, particularly that which enhances the contribution to the local economy.

Policy CS10 identifies the need to support the rural economy. Although this policy is predominantly directed towards smaller scale schemes, the principle remains relevant in this context, given the rural location of the AWE site.

In addition, the policy in para 95[b] of the NPPF specifically encourages local planning authorities to recognise and support development for UK operational defence capability and security purposes, which the proposed MMF is one. In addition it is very clear that the application site location is brownfield, and within the context of the existing AWE site. So although it lies in the rural area in policy terms, this makes the principle of the development acceptable.

In addition the Council's Economic Development Strategy 2020-2023 was adopted in April 2020 and is thus a material consideration. It notes the importance generally of supporting the wider economy in the district, for reasons of future regeneration, prosperity, and job creation. The strategy states that the AWE is an important provider of local jobs, and that the Council will consider how it can support sustainable growth on these sites, ensuring that AWE's status as a world leader in innovation and employment opportunities is allowed to grow. In all these ways the proposal is accordingly supported, and the economic benefits are integral to the support within the Local Plan for supporting development at AWE. In addition it is clear that the new facility functions to maintain the UK Nuclear Deterrent, which is in accordance with current Government policy. In addition it is understood the DEPZ will not alter from the present situation.

DESIGN, CHARACTER AND APPEARANCE

Policy CS19 states that particular regard will be given to (a) the sensitivity of the area to change, (b) ensuring that new development is appropriate in terms of location, scale and design in the context of the existing settlement form, pattern and character, and (c) the conservation and, where appropriate, enhancement of heritage assets and their settings.

The case officer has visited the application site, and has examined the submitted plans. It is acknowledged that the new MMF is a large building given its floorspace and height of nearly 19m, rising to almost 26m with the stacks. This is a scale of building which would not normally be acceptable in the open countryside designation, but exceptionally it lies within the AWE site, will be relatively well screened visually by surrounding buildings to the east, west and south [but not the north], and will be also well screened across the wider landscape given the local topography and natural features. At the specific request of the officer a "field scene" from the north elevation has been submitted based on LIDAR which provides a modelled accurate visual representation of the new building from the north elevation if it were to be viewed from the public footpath which runs to the north east of the application site. It also provides a useful benchmark against which other buildings to the east can be seen in the overall context, and the relative height of the catenary towers, which are substantially higher than the proposal [over 20 m greater]. Although this building would be lower, it would have solid mass that would increase its visibility within the landscape.

The application is accompanied by a Landscape and Visual Impact Assessment (LVIA), which is informed by the relevant landscape character assessments applicable to the area. It provides a landscape strategy for the site, and gives an assessment of the construction and operational effects of the development.

It is clear, notwithstanding the well prepared LVIA which the officer has examined, that there will be a degree of visual impact arising from the new MMF, which to a degree will be harmful. This in itself

would be contrary to policy CS19, which seeks to protect the nature and character of the quality of the countryside across the district. Having said that, the new building will be viewed in the context of existing built form, notably the catenary towers, and the fact that it is understood that the height of the building is specifically required in order to facilitate production processes for nuclear warhead purposes. This of course is in the National Defence interest so a degree of harm, is accepted on balance by the officer, in recommending approval to the application on this [part] basis.

In terms of design, the building makes no pretence of being a functional/industrial unit, which is considered to be appropriate in the context of the military-industrial and commercial character of the AWE site. The barrel roof assists in reducing the overall impact particularly on the important north elevation, i.e. the principal public view from close-range viewpoints. The proposed materials are acceptable, providing a modern and relatively attractive appearance, notwithstanding its functional design. It will certainly help to modernise the present AWE site. The flues will be an "unfortunate" but clearly necessary addition to the roof scape, but the additional harm is limited by their slim profile. In addition the introduction of the PV cells on the roof will not be viewed from "street" level so reflectivity will not be a problem in this regard.

Finally a degree of additional structural landscaping is proposed on the northern boundary, which will assist to a degree in softening the impact of the building, but only to a relative degree given the substantial mass and scale.

On balance, it is considered that given the constraints identified, the design, mass and scale and location is justifiable and so overall accords with policy CS19 and the NPPF despite a degree of landscape and visual harm.

HIGHWAYS

The Council highways officer has formally responded to the proposal. He notes that the site location is reasonably sustainable in that there are number of bus services which pass the site to the west as do a number of Sustrans Cycle Routes. As to projected increase in traffic generation due to the increase in the number of employees on site, this is to be 45 movements in the AM peak and 31 in the PM peak. It is apparent to the case officer that the impact of these additional private vehicle movements on the local highways network will not be severe in terms of paragraph 109 of the NPPF. Accordingly, in principle, the application would not be rejected on the grounds of increased and unacceptable traffic generation.

Turning to wider sustainability issues, the AWE has an existing Travel Plan which applies to all staff and it is noted in the supporting detail with the application that this would continue. The Council Transport Policy team has not however responded to the application. Related to this it is notable that a covered [and obviously secure] cycle store is intended to be provided on the application red line site. The highways officer has accepted the lack of any additional parking on site given the existing high spare capacity already at the AWE site, so there will be no additional parking impact on the local highways.

In terms of the construction phase, there will be a rise of 37 vehicle movements during the AM peak and 27 during the PM peak for light vans etc. Again this is not considered to be significant and in any event will only be on a temporary basis over the construction period. As to HGV movements these are controlled by a Code of Construction Practice which ensures no HGV movements go in or out of the site outside the hours of 8.30am to 4pm, unless of course it is an emergency or for an exceptional need.

Accordingly the case officer considers that whilst of course there will be a degree of impact upon the local network, this will be acceptable, having due regard to policy CS13 and the policy in chapter 9 of the NPPF on highways matters.

DRAINAGE

The sustainable drainage issues on the site have been resolved by the submission of additional details, which will be duly conditioned.

NOISE

The applicants have submitted a noise impact assessment of the impact on local residents of the increased construction traffic, and the noise impacts of the actual construction, involving piling and foundation works. Finally an assessment has been made of the noise impacts arising from the future operational phase of the building as a whole.

The case officer has considered this report, and in addition has noted the response of the Council EHO who has raised no objections/comments on the application.

The conclusions of the assessment all point to the lack of any noticeable impact on local amenity due to noise, and as such it is considered the scheme will comply with the aims of saved policy OVS6 in the WBDLP of 1991 to 2006. In addition the assessment concludes that there would be a negligible to low noise impact from the operation of the MMF. On the basis of the above and in conclusion, noise from the proposed development would be mitigated, through the application of best available techniques, such that it does not cause a significant adverse impact, as defined by the NPSE and PPG. The potential for noise affecting living and working conditions has therefore been minimised, in line with the requirements of the NPPF and WHO guidelines on these issues.

Air Quality

The applicant has submitted a report examining the potential impact upon local air quality arising from the scheme both during the construction and operational phases. This examines the following principal issues: emissions from construction and operational traffic; construction dust; operational emissions from the discharge flues, arising from the gas-fired Combined Heat and Power (CHP) plant and four gas-fired Low Temperature Hot Water (LTHW) boilers; and operational process emissions from the discharge stacks.

The case officer has examined the report and notes the EHO response. The conclusions of the report regarding dust emissions and the emissions are accordingly accepted.

HERITAGE

Policy CS19 sets out the need for the Council as LPA to examine any new development in the light of future potential impacts on the archaeological resource, and that of other heritage assets such as listed buildings and conservation areas. The applicants have submitted a helpful Heritage report in this regard.

The conclusions are that no archaeological value is attached to the localised application site itself, given the historic and substantial amount of past works undertaken on the site itself being part of the ROF and then the AWE. The Council archaeologist has accepted this in her response. In addition there are no listed buildings in close proximity to the application site whose setting would be detrimentally affected and so harmed by the MMF. The Council conservation officer has agreed this in his view on the pre-application enquiry. Accordingly, having due regard to the policy in Chapter 16 of the NPPF and policy CS19 it is anticipated that the scheme will not harm any matters of heritage significance.

PLANNING BALANCE AND CONCLUSION

The application before the Council comprises a very significant investment in the national defence infrastructure for the country. The local economic benefit of supporting development at AWE is substantial, and in accordance with the aforementioned policies of the Local Plan. This weighs heavily in the planning balance, in economic terms, but also in terms of wider national defence/security issues having regard to the NPPF.

In environmental terms there will inevitably be a degree of short term impact during the construction phase on local traffic movements, noise and dust, but during the operational phase the principal impact will be landscape and visual. The case officer notes that there will be a degree of harmful visual impact caused by the MMF, but these impacts must be viewed in the context of existing development at the established AWE site. This has to be weighed against the wider benefits noted above, including increased employment, particularly during the construction phase. In social terms the development impact is taken to be generally neutral.

In policy terms the application is considered to be in accordance with the statutory development plan, and the relevant material considerations do not otherwise indicate that permission should be refused.

RECOMMENDATION

Grant conditional planning permission.

AWE BURGHFIELD: MULTI-MATERIAL FACILITY

Design and Access Statement

MER-89B-000990.pdf

OXF10255
Final
December 2020

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
1	Draft	Benjamin Priest	Edwards Nabbs	Camilla Fisher	23/10/20
2	Planning Issue (incorporating AWE review comments).	Peter King	Camila Fisher	Amy Robinson	02/12/20
3	Planning Issue (incorporating Additional AWE review comments).	Peter King	Camila Fisher	Amy Robinson	03/12/20
4	Planning Issue (updated QA pages).	Peter King	Camila Fisher	Amy Robinson	08/12/20

Approval for issue

Camilla Fisher	8 December 2020

Prepared by:

RPS

Camilla Fisher
Associate

20 Western Avenue
Milton Park
Abingdon, Oxfordshire OX14 4SH

T +44 1235 821 888

Prepared for:

AWE

John Steele

AWE Aldermaston, Reading,
Berkshire, RG7 4PR

Contents

1 INTRODUCTION

1.1 This Design and Access Statement is submitted in support of a planning application for a Multi-Material Facility (MMF). The development is required to aid the facilitation of the UK Nuclear Weapon Programme.

1.2 The site is illustrated in Figure 1 Site Location Plan and is located at the Atomic Weapons Establishment (AWE) site at Burghfield, Berkshire. The proposed MMF application boundary is illustrated in Figure 2.

1.3 The Design and Access Statement should be read in conjunction with the supporting documents and plans submitted as part of the planning application. These include a Planning Statement and an Environmental Appraisal.

Development Context

1.4 AWE Burghfield is owned by the Secretary of State for Defence and together with AWE Aldermaston delivers the warhead contribution to the nationally and internationally significant nuclear deterrent.

1.5 The current infrastructure at AWE Burghfield is large, aged and costly to run such that there is a clear need for the provision of improved and updated facilities. AWE has therefore been engaged in a programme of site optimisation, which aims to deliver the following outcomes:

- rebalancing the cost of the programme more towards the product and less towards the cost of operating the estate;
- the business to be ready for any decisions about any future product; and
- management of the capability risk caused by an ageing infrastructure.

1.6 In doing so, the site optimisation process would generate the following outputs:

- adaptable capability space to meet future requirement;
- increased productivity with staff working more effectively;
- lower site costs and a greater percentage of the budget for core work;
- greater resilience - less reliance on legacy infrastructure;
- optimisation - greater spatial efficiency and economy;
- co-location - less infrastructure and better collaboration;
- staff retention - and easier to attract specialist staff; and
- adaptability - designed to allow for reconfiguration.

Proposed Development

MMF

1.7 The MMF site is located within the northern part of AWE Burghfield, comprising approximately 5 hectares and includes:

- the MMF development site, which occupies an area of approximately 2.39 hectares within the northern part of the existing AWE Burghfield site;
- existing internal access routes between the highway and the MMF development site (within AWE Burghfield);

- existing vehicle check areas at the entrance to the AWE Burghfield site; and
- an area to be used for temporary construction parking.

1.8 The final design of the MMF has considered its two primary functions; front of house accommodation and a production area, reflected in their proposed designs. The front of house accommodation draws inspiration from modern science park facilities incorporating elements such as large glass curtains. It would provide modern shared facilities for use by AWE Burghfield personnel and become the first point of call for visitors to Burghfield. As such, the accommodation would become the 'front door' of the AWE Burghfield site and the MMF building has therefore been designed to incorporate a modern reception facility. The design approach for the MMF production area is based on the use of a universal modular panel system, in line with the cladding approach used on other recent / modern buildings on the AWE Burghfield site, such as Phoenix (11/00029) and Mensa (08/02287).

1.9 The MMF building would comprise a structural steel frame building occupying an area of approximately 6,553 m^2 (gross external area). The building would be approximately 94 metres x 69 metres in plan, with a maximum built height (excluding ventilation flues and stacks) of 18.7 metres. The facility will comprise several distinct areas over two-storeys, with the main features comprising the following.

- Front of house accommodation. Ground floor to contain reception and exhibition space, production office and restaurant/seating. First floor to contain conference and VR suite with gym and changing facilities, occupational health, multi-faith room.
- Production areas, comprising co-located manufacturing capability processes within secure and modular reconfigurable production cells.
- Plant rooms, forming the roof of the production cells.
- Curved roof structure, with photovoltaic cells.

Indicative Floor Areas – MMF

Component	Area (m^2)
Production Area	5,213 (GIFA)
Front of House Accommodation Ground Floor (Level 00)	890 (GIFA)
Front of House Accommodation First Floor (Level 01)	1,149 (GIFA)
Total	**7,252 (GIFA)**
Plantroom floor (Level 02)	6,235

1.10 The MMF building would comprise a two-storey building, with an additional intermediate floor provided in the front of house area. The floor to floor heights are 5 metres from ground floor (Level 00) to office level (Level 01) in the front of house area and 10 metres from ground floor (Level 00) to the plant floor level (Level 02) in the production areas. A full plant room is proposed above the production cells. The roof to the building would be a curved barrel roof, with an apex height of 18.7 metres in the middle falling to perimeter gutters at 15.4 metres above ground level. Photovoltaic cells are proposed on the roof.

1.11 Stacks are required in two locations either side of the building (for gaseous emissions from laboratory/glovebox activities) and would be up to 25.5 metres in height. In addition, flues are required for the combined heat and power (CHP) plant and for the boiler. The height of the flues has been determined through a flue height evaluation modelling exercise and is likely to be 25.5 metres.

1.12 The front of house accommodation is anticipated to include the following across two floors:

- office area for production teams, with meeting space;
- 150 person conference facilities, with the ability to sub-divide into smaller meeting room, and a VR suite;
- kitchenette areas, kitchen/servery and restaurant seating;
- exhibition area incorporating the reception desk;
- occupational health facility;
- gym and associated change; and
- multi-faith room.

1.13 The production areas would provide flexible manufacturing capability processes within secure, free-spanning, modular, reconfigurable production cells.

1.14 The plantroom would incorporate a shared electrical workshop, a shared mechanical workshop and a machine workshop.

Ancillary/Support Buildings

1.15 Around the perimeter of the MMF building there would be a series of external enclosures and compounds for substations, local stores, trade waste systems, evacuation centres and fenced areas for chiller plant and gas bottle storage.

Indicative External Areas - Ancillary Buildings

	Gross External Area (m^2)
Open plant compound	151
West substation	224
East substation	195
Bin store – open enclosure	41
Cycle store	20
Evacuation processing x 3	42 (x3)
Trade Waste x 2	34 (x2)
Store	40
Combined temporary waste store	126
Total Ancillary	**991**

1.16 No new permanent parking is proposed as part of the MMF development.

1.17 The proposed Layout Plan can be seen at Figure 3.

Purpose of the Design and Access Statement

1.18 The purpose of the Design and Access Statement is to provide a summary of the rationale of the current planning application in design terms so that the proposals may be clearly and succinctly understood in terms of the principles and concepts that have informed them.

1.19 This statement is submitted in accordance with the requirements referenced in the Town and Country Planning Development Management Procedure (England) Order 2015 which sets out that applications where the proposed development consists of a building with a floor space of 100 m^2 or more, must be accompanied by a Design and Access Statement which must:

- explain the design principles and concepts that have been applied to the proposed development;

- demonstrate the steps taken to appraise the context of the proposed development, and how the design of the development that context into account;
- explain the policy adopted as to access, and how policies relating to access in relevant local development documents have been taken into account;
- state what, if any, consultation has been undertaken on issues relating to access to the development and what account has been taken of the outcome of any such consultation; and
- explain how any specific issues which might affect access to the development have been addressed.

1.20 The design principles used during evolution of the MMF are based on national and local guidance including:

- The Town and Country Planning (Development Management Procedure (England) Order 2015;
- Design and Access Statements, how to write, read and use them, CABE, 2006, reprinted 2007;
- Better Places to Live – A Companion Guide to PPS3, DTLR and CABE (2001);
- The Value of Urban Design, CABE, UCL & DETR (2001);
- Urban Design Compendium, English Partnerships (August 2000);
- West Berkshire Core Strategy (2006-2026) and Local Plan Policies (saved 2007); and
- National Planning Policy Framework (NPPF) & Planning Practice Guidance (PPG).

1.21 This Design and Access Statement is structured based on the guidance provided by CABE. However, it is important to be aware of the particular circumstances of this application, 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 essentially predetermined by the operational requirements of such a facility and the sensitivity of its surroundings.

1.22 Notwithstanding, in addition to design guidance, any 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 Site Development Context Plan as well as potential impacts of such proposals on the wider site context.

2 SITE APPRAISAL

Site Location and Context

2.1 AWE Burghfield is located in West Berkshire approximately 3 km south west of Reading, 900 metres east of Burghfield village and 1 km east of Burghfield Common. It is situated approximately 1 km south of the M4 motorway which provides routes to south Wales to the west and London to the east and is accessed *via* the A33 located to the east of AWE Burghfield. The north-south orientated Reading to Basingstoke Railway lies approximately 500 metres east of the AWE Burghfield site boundary. The area around AWE Burghfield predominantly comprises the local road network with interspersed agricultural land. AWE Burghfield is bound to the north by agricultural land, the east by Riders Lane (becoming Palmers Lane as it moves south along the boundary), Burghfield Brook to the south and The Mearings (part of the local highway network) and Woodside Recycling.

2.2 There are two vehicular access points into AWE Burghfield. The vehicular accesses are located on the north eastern and north western corners of AWE Burghfield with both points having security gates. Further, the entire site is enclosed by a security fence and is subject to stringent security controls. The MMF site is located in the northern area of AWE Burghfield, within an area that is currently clear of buildings and in recent history has been used as a car park and an area for spoil storage of nearby facilities. The area around the site is consistent with the urban character of AWE Burghfield.

2.3 AWE Burghfield extends to 91 hectares. The planning application boundary for the MMF extends to 5 hectares which includes the existing access routes giving rise to the irregularly shaped red line boundary. The new MMF facility will involve re-development of approximately 2.39 hectares, including landscaping and drainage. The land remaining, approximately 2.61 hectares including access roads, will be used to provide access and to manage construction activities through uses such as construction parking and laydown.

Character and Built Form

2.4 Buildings across AWE Burghfield are generally arranged on a rectangular grid, with the adherence to this structure less stringent in the northernmost parts. Structures across AWE Burghfield comprise a mix of one, two and three storey buildings, up to 12 metres in height as workshops, stores and offices. These date from the 1940s and 1950s to the present day and are utilitarian in appearance, comprising red brick, steel cladding and painted masonry, flat-roofed, pitched roofed or domed-roof structures. Chimneys, silos, and steel-lattice catenary (lightning) towers add increased height of up to 45 metres. Ongoing construction work also forms part of the character, albeit for the short term.

2.5 The application site and the wider AWE Burghfield site are urban in nature and relatively flat. AWE Burghfield lies on the edge of the Kennet Valley on the relatively flat valley floor. The existing ground levels across AWE Burghfield range from approximately 40 metres above ordnance datum (AOD) in the north eastern corner of the AWE site to 47 metres AOD in the south western corner. The application site therefore slopes gently down from the MMF development site to the access point at the Pingewood Gate to the east.

Access and Movement to the MMF Development Site

2.6 AWE Burghfield has two access points, the Main Gate, the current principal access point located off The Mearings in the north western corner and Pingewood Gate located off Burnthouse Lane in the North eastern corner. It is evident that the current Main Gate has been upgraded through the construction of a (mini) roundabout to improve access. At Pingewood gate no roundabout is

present, instead a T-junction is present. Gates are present at each access point for security checks. It is proposed that construction access and egress, and MMF operational access will be from Pingewood Gate accessed from the A43 *via* the local highway network. Construction HGVs would also access the site *via* Pingewood Gate and use the existing internal road network to reach the site. Prior to accessing the site, HGVs would be searched in the construction logistics search area.

Environmental Appraisal

Landscape Character

2.7 The landscape character framework of the study area from the national level through to county and district scale based upon existing character assessments undertaken by Natural England, Berkshire County Council, West Berkshire Council (formerly Newbury District Council), Wokingham District Council, Basingstoke and Deane District Council and Hart District Council is detailed in the Landscape and Visual Impact Assessment (LVIA) that has been submitted in support of the application. This also describes the local landscape within and adjacent to AWE Burghfield.

2.8 At the district level, AWE Burghfield is described in the West Berkshire Landscape Character Assessment (2019) as lying within the context of the CL1: Grazeley Open Clay Lowland landscape character area. Further west, and inclusive of the settlement of Burghfield Common, is landscape character area WH5: Burghfield Woodland and Heathland Mosaic whilst, to the north, and inclusive of the Kennet Valley, is landscape character area RO1: Kennet Lower River with Open Water. To the east, and within Wokingham District, is landscape character area I3: Grazeley Farmed Clay Lowland.

2.9 A detailed site-wide landscape character assessment has been used to inform various previous landscape assessments and planning applications. The proposed development site would fall within (9) Contained Valley Grassland with Buildings, within the northern part of AWE Burghfield. This character area is classified as having an Ordinary condition and Low value.

2.10 Overall, the LVIA concluded that the proposed development would not result in any significant landscape effects throughout its construction or operational phase. No long term significant adverse effects have been identified. All other potential landscape and visual effects of the proposed development are assessed as not significant.

Ecology

2.11 An Ecological Impact Assessment has been undertaken and submitted in support of this application. This included both a desk study for an area that extended 2 km from the application site and a Phase 1 Habitat Survey (including site walkover) of the application site. This was undertaken in September 2020 to map the habitats present within the redline application boundary. The Phase 1 Habitat Survey also assessed the habitats for their potential to support protected species. Ecological records were requested from national and local consultees and records centres.

2.12 The desk study consultation concluded that neither the MMF development site nor the wider application boundary was designated for their ecological value. The land proposed for the MMF development site itself was- partially occupied by a spoil heap used to store materials associated with other construction activities on the AWE Burghfield site with no buildings present. This has now been removed from the site. Several standalone trees at the site boundary and well-maintained amenity grassland offer the potential for foraging habitat.

2.13 Regarding habitats, an assessment of Biodiversity Net Gain (BNG) of the proposed MMF has been undertaken, taking into account the proposed landscape strategy for the development. This

indicates that the MMF development site would achieve a net gain of 22.17% of habitat (non-linear) units and provides 0.5 hedgerow (linear) units (no hedgerow was present prior to development and therefore a percentage change is not provided). This represents a notable contribution to improved biodiversity value within the MMF development site.

2.14 Regarding birds, compensation for the loss of some existing trees on the site would be achieved through the proposed landscape strategy, which includes new native trees and hedgerow planting. Nest bricks/boxes will be provided to create permanent nesting features for small species of birds either within the fabric of the new ancillary buildings where possible or on suitable retained trees (boxes only). The new landscape planting on the site such as scrub of native origin would provide food sources and nesting habitat for birds.

2.15 Regarding bats, the proposed landscaping would result in invertebrate habitat and subsequently improved foraging opportunity for both bats and birds. Much of the site is currently well lit for security reasons. Lighting would be designed to prevent lighting levels from exceeding current levels. At present the site does not offer suitable roosting areas for bats. Simple bat boxes and tubes would be incorporated into the new ancillary buildings where possible or on the retained site trees.

2.16 Regarding herpetofauna, the site offers no potential habitat. The development of the MMF on the bare ground is unlikely to have any significant effect upon these species. Regular maintenance of the amenity grassland on site for security reasons will ensure it does not become a suitable habitat for reptile's overtime.

2.17 Due to the distance, no effects are anticipated to the non-statutory sites recorded within 2 km from the MMF development site. It is assumed good practice guidelines would be adhered to during the construction phase to ensure nearby buildings, roads and open spaces would be protected from contamination, dust etc. during construction.

Cultural Heritage

2.18 A Heritage Statement has been produced to assess the potential impacts of the proposed site on nearby receptors of cultural or historic merit.

2.19 There are no heritage assets within or directly adjacent to the application site although there are multiple assets within 2 km. The nearest listed building, the Grade II Church of St Mary the Virgin in Burghfield, is located approximately 900 metres west of the application site. Amner's Farmhouse, Grade II listed is located 1 km north east; Poundgreen Farmhouse, Grade II listed is located 1.5 km south east and Culverlands on Man's Hill, Grade II listed is located 1.93 km south west.

2.20 A programme of Historic Landscape Characterisation (HLC) for West Berkshire has been undertaken with the results available for viewing *via* the West Berkshire Council website. Information shows that the AWE Burghfield site is situated in an HLC recorded as Military Establishment. In addition, HLC sensitivity was also mapped concluding the application site is considered in the context of the study to be of medium sensitivity.

2.21 In 2015 an overall AWE Heritage Strategy for both AWE Burghfield and Aldermaston was undertaken (Atkins, 2015). This identified the application site falls within several historic character areas. The western part of the application site falls within historic character area B5: stores. The Atkins study identifies this as characterised by '*the surviving elements of an array of large RPF non-metallic component storage buildings with earth embankments topped by characteristic roof structures comprising protruding vertical elements with concrete flat roofs extending beyond them'* (Atkins, 2015). The eastern part of the application site is within historic character area B9: New Process Area. The area was previously comprised of old ROF stores and open ground which was redeveloped in 2010 with new steel-clad buildings and paved hard standing. Some parts of the

application site were found to fall in historic character area B2: Administration and Amenity, including several ROF/AWRE buildings and some more recent AWE buildings.

2.22 The heritage assessment concluded that no designated heritage assets would be physically impacted by any part of the proposed development. Potential effects on designated assets in the form of loss of significance as a result of change within the setting of the asset has been assessed as very unlikely. This is due to a combination of the distance from any designated heritage asset along with the presence of the existing buildings within this part of AWE Burghfield.

2.23 In addition, there may be some impact on potential archaeological features within the application site, however the MMF development site has been subject to considerable disturbance as a result of the construction, operation and demolition of structures and infrastructure associated with the previous use of the site as an ROF and subsequently as part of the AWRE. An archaeological watching brief undertaken during geotechnical investigations in August 2020 confirmed the extent of this disturbance and it is recommended that no further archaeological mitigation should be undertaken before or during construction of the proposed MMF development.

Flood Risk

2.24 A Flood Risk Assessment and Surface Water Drainage Strategy (FRA) has been conducted in the support of the planning application for the proposed MMF. The aim of the FRA is to outline the potential for the MMF development site to be impacted by flooding, the potential impacts of the development on flooding both on-site and in the surrounding area, and the proposed measures which can be incorporated into the development to mitigate the identified risks.

2.25 There is a minor surface water feature located approximately 20 metres to the north of the MMF development site. Beyond this, the nearest surface watercourse is a tributary of Foundry Brook, named Clayhill Brook, located approximately 200 metres to the north of the MMF development site. The drainage channel joins this watercourse to the north. The Burghfield Brook is located approximately 515 metres to the south east of the MMF development site and runs south west to north east along the southern and eastern boundary of the AWE Burghfield site.

2.26 The site is located almost entirely within Flood Zone 1, which is classed as being at a low probability of fluvial flooding (less than 1 in 1000 annual probability). Flood Zone 2 (between a 1 in 100 and 1 in 1,000 annual probability of river flooding), associated with Burghfield Brook, encroaches onto the south western boundary of the site. The majority of the MMF development site is at ‘very low’ risk of surface water flooding (less than 1 in 100 but greater than 1 in 1,000). Small areas, mainly along internal roadways, are classified as having a ‘low’ to ‘high’ risk of surface water flooding.

2.27 No significant risks have been identified in relation to flooding from non-fluvial or pluvial sources. Provision of the surface water drainage system will result in a decrease in surface water flood risk at the site and help ensure that off-site flood risk is not increased.

2.28 Overall, it has been demonstrated that the development would be at a low risk of flooding, would not increase flood risk elsewhere, and that a positive reduction in flood risk would be achieved through the incorporation of SuDS features.

Ground Conditions

2.29 A ground conditions appraisal has been prepared to support the planning application for the proposed MMF. The purpose of the appraisal is to provide an appraisal of the ground conditions at the application site, develop a Conceptual Side Model (CSM) highlighting potential contamination sources, pathways and receptors and to undertake a risk assessment to determine risks to sensitive receptors from identified contamination sources.

2.30 A site walkover survey of the proposed MMF development site was undertaken by ground conditions specialist on 15th March 2018 and by other RPS personnel in early 2020. At the time of the site visits, the southern part of the site comprised a level car park with a tarmacadam surface. The majority of the remainder of the site comprised an area of stockpiled soils approximately 2 to 3 metres in height, surrounded by heras fencing. The stockpiled soils were overgrown, however no obvious evidence of contamination was noted during the site inspection.

2.31 A number of ground investigations have been undertaken at or in close proximity to the MMF development site. No significant radioactive soil contamination has been identified on site and therefore no pollutant linkages between radioactive sources and receptors have been identified. Overall, a low potential risk of contamination was identified and no further quantitative risk assessment is deemed necessary.

2.32 The identified, potential receptors at risk form contamination comprise: human health receptors including site end users and construction workers; perched water within the underlying Unproductive Strata (London Clay Formation); groundwater in the combined Secondary Aquifer (Lambeth Group) and Principal Aquifer (Upper Chalk) underlying the London Clay Formation; surface water (includes tributary of Clayhill Brook, Clayhill Brook to the north and Burghfield Brook to the south east of the proposed MMF development site); and users of future buildings associated with the proposed development.

2.33 To conclude, the CSM undertaken for the MMF has identified a low, negligible or very low risk for the majority of contamination sources. A low/moderate risk has been identified for ground gases. Previous investigations identified very low ground gas concentrations including CO2 and CH4 on the proposed MMF area, although this was based upon a limited gas monitoring dataset. The Boiler House ground investigation, conducted in 2010, indicated a Characteristic Situation 2 gas regime to be present to the south-west of the MMF development site, although this conclusion was also drawn upon a limited dataset.

2.34 It is considered that the available ground investigation dataset is adequate for a general assessment of the ground conditions at the planning application stage. On this basis, no further ground investigation of the MMF area is considered necessary for the purpose of planning but would provide a more comprehensive assessment of baseline ground conditions for construction purposes.

Transport

2.35 A Transport Statement has been prepared for the application. The statement considers the highways and transport matters associated with the proposed MMF.

2.36 The road network immediately surrounding AWE Burghfield is comprised of local roads with The Mearings running alongside the western boundary and Palmers Lane/Rider's Lane/Burnthouse Lane on the eastern boundary. The current principal access point to the AWE Burghfield site is the Main Gate off The Mearings in the north west corner of the site. A further access point is via Pingewood Gate off Burnthouse Lane in the north east of the site.

2.37 Baseline pedestrian and cycle provision in the vicinity of the AWE Burghfield site is generally limited, reflecting the relatively isolated location of the site.

2.38 AWE has produced a Code of Construction Practice (CoCP), which sets out the overarching requirements for all construction activities at AWE Aldermaston and Burghfield. A Construction Environmental Management Plan (CEMP) has been produced for the MMF development, which incorporates and expands on AWE's existing CoCP.

2.39 With regard to the construction phase, AWE estimate that the peak construction workforce would be 93 staff per day in late spring/early summer of 2022. Previous construction projects, undertaken at AWE Aldermaston, have demonstrated that approximately 70% of these staff would car share. Application of this proportion to the 93 construction workers suggests that 65 additional cars/vans,

giving a total of 130 vehicle movements (65 in/65 out), would be generated each day at the peak of construction worker attendance.

2.40 It is estimated by AWE that HGV movements would peak in 2021 with 21 HGVs per day, giving a total of 42 HGV movements per day (21 in / 21 out).

2.41 Overall, construction vehicle movements are predicted to peak in late Spring / early Summer 2022 with 140 vehicle movements per day, comprising 130 car / van movements and 10 HGV movements. These historic flows have previously been accommodated on the surrounding highway network without causing adverse impacts. It is therefore, considered that such increases in car / van and HGV movements would be imperceptible, and as such would have a negligible impact on the surrounding highway network and would not have an unacceptable impact on highway safety.

2.42 With regard to the operational phase, many of the staff who would work in and utilise the MMF already work at AWE Burghfield. However, it is anticipated that approximately 50 staff currently working at AWE Aldermaston would transfer to AWE Burghfield.

2.43 Applying current mode share to the 50 new staff suggests that 45 additional car trips would be generated by staff during each of the AM and PM peak periods. Using the current arrival and departure times of existing employees suggests this equates to approximately one additional car movement every 2.25 minutes in the AM peak hour and one additional car movement every 3 minutes in the PM peak hour.

2.44 Overall, it is considered that such increases in car movements would be imperceptible, and as such would have a negligible impact on the surrounding highway network and would not have an unacceptable impact on highway safety.

Noise

2.45 A noise appraisal has been undertaken for the MMF application to ascertain potential noise impacts of the development at construction and operational phases.

2.46 The appraisal has considered all Noise Sensitive Receptors (NSR's) within approximately 1 km of the MMF development site. The closest of which include: Burghfield Place Cottages, located approximately 350 metres to the west of the MMF site; residential properties on the Mearings, located approximately 370 metres to the south-west of the MMF site; Burghfield Place, located approximately 550 metres to the south-west of the MMF site; Burnt House Farm, located approximately 780 metres to the east of the MMF site; and residential properties on James Lane, located approximately 880 metres to the south-west of the MMF site.

2.47 RPS undertook a baseline noise survey on behalf of AWE between 27 February and 09 March 2018, and several baseline noise surveys on behalf of AWE between 26 July and 02 August 2011, which have been used to inform the noise assessment. Surveys were undertaken at all NSR's identified above as well as others included in the full noise appraisal document.

2.48 With regard to the construction phase, assessment concluded that the noise impacts at the worst affected receptors during piling, foundation and substructure works (the most noise generating phase of construction works) are likely to be negligible to low.

2.49 Traffic data have been provided for the base year (2020) and the peak construction traffic (2021). The assessment indicates that the noise change on all of the road links would be less than 3 dB and, therefore, the noise impact from construction traffic would be negligible.

2.50 Regarding the operation phase, the predicted specific sound levels from the MMF will be significantly lower than the noise level of 50 dB LAeq,T that is specified in WHO guidance for the onset of annoyance during the daytime. Thus, based on the absolute noise level assessment, it is considered that the development would not result in an adverse impact to amenity.

2.51 At night, the specific sound level at all residential receptors is below the level for the onset of sleep disturbance contained in WHO Guidance of 45 dB LAeq,8h. Consequently, noise from the MMF is considered unlikely to result in sleep disturbance, even if the MMF was to operate at night.

2.52 There would be no new HGV movements associated with the operation of the MMF. The only traffic generated would be cars associated with staff commuting to and from work, which would equate to a total of 90 vehicle movements per day that would be interspersed on the local road network. This quantity of traffic would result in lower noise impacts at NSRs then construction traffic, which has been evaluated as negligible. Therefore, a quantitative assessment of noise from road traffic has not been considered necessary.

Air Quality

2.53 An air quality assessment has been undertaken for the MMF, covering both the construction and operational phase of the development. For the construction phase the assessment focused on an evaluation of the temporary effects from fugitive construction dust. For the operational phase the assessment focused on an evaluation of the impacts of emissions from the CHP plant and LTHW boiler flues on the local area.

2.54 Neither the application site nor the wider AWE Burghfield site is located within an Air Quality Management Area (AQMA). The nearest AQMA is designated along Bath Road, Reading, which is located approximately 4 km north of the MMF development site.

2.55 Impacts during the construction phase of the proposed development, such as dust generation and plant vehicle emissions, are predicted to be of short duration and only relevant during the construction phase. The results of the risk assessment of construction dust impacts undertaken using the Institute of Air Quality Management (IAQM) dust guidance indicates that, before the implementation of mitigation and controls, the risk of dust impacts would be medium. Implementation of the highly-recommended mitigation measures described in the IAQM construction dust guidance would reduce the residual dust effects to a level categorised as ‘not significant’.

2.56 The operational effects of NOX emissions from the gas-fired CHP plant and four gas-fired boiler flues have been predicted using best practice approaches. The assessment has been undertaken based on several worst-case assumptions, including using the worst-case meteorological conditions. The results show that with the gas-fired CHP plant and four gas-fired LTHW boilers operational, the predicted concentrations are below the relevant air quality standards.

2.57 Using professional judgement in the context of published impact descriptors, the resulting air quality effect of the proposed development is considered ‘not significant’ overall. The proposed development does not, in air quality terms, conflict with national or local policies. There are no constraints to the development in the context of air quality.

Population and Human Health

2.58 A population and health scoping exercise has been undertaken to identify the potential for effects on people and health as a result of the MMF, at both construction and operational phases. The scoping exercise has adopted the ‘source-pathway-receptor’ approach to identify potential effects on population and human health that are directly attributable to the MMF. An identified hazard source itself does not constitute a health risk: it is only when there is a sensitive receptor and a pathway of exposure present, that a hazard source may become a potential risk to human health.

2.59 The scoping exercise has framed potential health impacts with regard to the assessments previously mentioned, i.e. health impacts from ground conditions, transport, noise and air quality, therefore the baseline conditions the assessment are also based on these assessments.

2.60 In addition to considering impacts that may affect human health from the physical environment, the scoping exercise has also considered the effects to human health as a result of impacts of additional employment that would be generated by the MMF.

2.61 Activities with the potential to adversely impact upon health would be limited during the construction phase of the MMF and would be associated with temporary and local changes in air quality, noise, traffic and any existing on-site contamination. However, none are considered significant in health terms.

2.62 Once operational, the MMF would not change the broad scope, scale or nature of the AWE Burghfield site and does not seek to extend it. This is the primary reason that no significant health effects are anticipated (adverse or beneficial).

2.63 On the above basis, all potential health determinants are already addressed through embedded mitigation measures and project design. A full HIA is not deemed necessary in this instance and has therefore been scoped out from the appraisal report.

Site Appraisal Summary

2.64 The MMF development site is located in the central northern part of AWE Burghfield on land that has previously been used for car parking and spoil storage from developments in the surrounding AWE Burchfield site. The proposed development would see redevelopment of the site with the addition of the MMF building. This facility forms the basis of the planning application.

2.65 The proposed development has been assessed through an environmental appraisal, featuring focused evaluations of the potential impacts regarding landscape, ecology, cultural heritage, flood risk and drainage, ground conditions, transport, noise, air quality and human health at both constructional and operational phases of the MMF development.

2.66 Overall, the individual assessments have each concluded the proposed development will not have any significant negative impacts relating to the environmental parameters it has been assessed against.

3 DESIGN PRINCIPLES

3.1 The design principles formulated for the MMF incorporate the following key requirements.

- The need for a free-spanning structure of secure production cells with flexible layout for optimised process flows.
- Adaptability of the overall buildings as a modular form to allow configuration of production cells to suit a variety of production processes.
- The need for construction flexibility of cells for non-bespoke production processes with minimised refurbishment costs to meet changing requirements of AWE production.
- Co-location to allow for sharing of common facilities, resulting in reduced footprint and personnel levels.
- Co-location of different processes within a single building envelope and structural frame to allow increased efficiency in terms of total building envelope area and frame tonnage compared to single buildings.

3.2 The application for these design principles is set out below.

Use

3.3 The use of the proposed development does not contain a requirement for extending the MMF in the future. However, in-line with the design principles, options for extending the facility to the north are considered as well as the increasing of Production Cell floorspace through the use of lightweight mezzanine floor structures. These considerations are in-keeping with the flexible and adaptable layout requirements. This approach will assist with creating adaptable space.

Location

3.4 The MMF development site is located on the AWE Burghfield site in a central location toward the northern boundary. The MMF would be located on the route from Mensa (08/02287) to Phoenix (11/00029), between the existing boiler house and water reservoir. This allows for the proposed MMF development to be located on the main access road through the site, key to its use as the first point of call for visitors including VIPs. The MMF would essentially be the front door to AWE Burghfield and as such, should be considered as a modern reception building on a science park, with a clearly defined entrance, rather than a utilitarian production facility. This provides a strong modern ‘face’ with a clearly defined entrance to the façade facing the main road / pedestrian routes, with the large expanses of glazing allowing views into and out of the common areas.

3.5 The proposed development has been positioned here to avoid the existing, buried multi-utility service route to the south and, although not anticipated, allow for future extension to the north boundary if needed. This would, however, require adjustment to the existing landscape proposals agreed under the planning application for the Mensa facility together with the realignment of MMF external works. The MMF building is orientated to be parallel to the existing internal road; the existing car park at the front of the new building has been replaced with landscaping.

3.6 Locating the development within the context of the existing area previously used for spoil storage and previous car parking helps to offset the potential visual impact that the proposed development may have. However, impacts may still manifest, owing to the change of site use.

Amount

3.7 The amount of new development is related to the specific operational requirements of the MMF facility for its multiple uses and flexible and adaptable ethos. It should consider the short, medium

and long-term flexibility of the proposed building, and how these could be internally altered or extended in a controlled future expansion.

Size, Scale and Massing

3.8 The MMF building would comprise a structural steel frame building occupying an area of approximately 6,553 m^2 (gross external area). The building would be approximately 94 metres x 69 metres in plan, with a maximum built height (excluding ventilation flues and stacks) of approximately 18.7 metres high.

3.9 The MMF building would comprise a two-storey building, with an additional intermediate floor provided in the front of house area. The floor to floor heights are 5 metres from ground floor (Level 00) to office level (Level 01) in the front of house area and 10 metres from ground floor (Level 00) to the plant floor level (Level 02) in the production areas. A full plant room is proposed above the production cells. The roof to the building would be a curved barrel roof, with an apex height of 18.7 metres in the middle falling to perimeter gutters at 15.4 metres above ground level. Photovoltaic cells are proposed on the roof.

3.10 Stacks are required in two locations either side of the building (for gaseous emissions from laboratory/glovebox activities) and would be up to 25.5 metres in height. In addition, flues are required for the combined heat and power (CHP) plant and for the boiler. The height of the flues has been determined through a flue height evaluation modelling exercise and is likely to be 25.5 metres.

3.11 The clear height of the production cells is to be approximately 8.3 metres which will provide for the largest anticipated process equipment and allow for any possible mezzanines in the future. Placing plant and equipment above the processing area is a key determinant of building height but creates adaptable space.

Access and Parking

3.12 The proposed development will see the main access point to the site, for both construction and operation, switched from both the Main Gate and current principal access point, located off The Mearings in the north western corner, to Pingewood Gate, located off Burnthouse Lane in the North eastern corner of AWE Burghfield.

3.13 No additional car parking will be provided as there are adequate spaces on the existing AWE Burghfield site even taking into account when the 50 employees switch from AWE Aldermaston to AWE Burghfield.

Landscape

3.14 The proposed development will be set within a landscaped area and maximise existing opportunities within the application area. The wider area that has been included in the application site to be used for construction purposes is to remain in its present condition .

3.15 The landscape strategy is shown on Figure 4. Landscape design proposals will be advised by an ecologist, in respect to species choice, habitat creation and biodiversity net gain.

Surface Water Management

3.16 At this stage, AWE Burghfield as a whole does not discharge at greenfield run-off rate. However, a surface water management strategy has been agreed between AWE and West Berkshire Council to enable AWE to meet this target across the AWE Burghfield site in the longer term.

3.17 An indicative surface water drainage strategy for the MMF development site has been undertaken by Baker Hicks. It has been developed in line with the principles set out for the wider AWE

Burghfield site in the AWE surface water management strategy. This strategy is predicted to achieve a runoff rate of 13 litres per second (l/s) for all storm events up to and including a 1 in 200 year plus 40% climate change event. This is noted to be as close as possible to the QBAR (mean annual flood) greenfield rate of 10.5 l/s, taking into account constraints at the site, most notably site levels.

3.18 Any surface water management features should follow the principles of SuDS and be integrated with the landscaping proposal in order to maximise biodiversity opportunities. The proposed SuDS strategy proposed for the MMF facility would take the form of attenuation ponds/basins seeded with wet meadow grass mix.

4 DESIGN PROPOSAL

Design Approach

4.1 The design approach for this proposal is for a sustainable and high-quality development that addresses the utilisation of all land, infrastructure and buildings to ensure value for money while also increasing the efficiency and effectiveness of the land and facilities.

4.2 The new MMF building will have a distinctive structural/architectural aesthetic that has the benefit of providing a strong modern 'face' to AWE Burghfield while also lifting the overall quality of the public realm and providing a space that facilitates a number of key site activities within a single building envelope and structural frame.

4.3 The project's architectural appearance will enhance the appearance of the existing site by incorporating various architectural elements in line with other recent/modern buildings on site like Phoenix (11/00029) and Mensa (08/02287).

4.4 In order to deliver optimum efficiencies and benefits the new MMF project will accommodate all the required processes within a single building laid in a logical manner with respect to location, process, flow, juxtaposition. Interaction with the front of house accommodation will be the first thing encountered before moving through to production areas.

4.5 The design has considered, in detail, all appropriate technologies for sustainability and energy efficiency to reduce energy consumption within the remit of AWE requirements.

4.6 Elevations of the MMF building are provided at Appendix A.

The Proposal

4.7 The proposed design of the MMF building is in two broad parts, the front of house accommodation and the production areas. These are constructed in two phases, with Phase 1 being the front of house accommodation and shell, and Phase 2 the fit out of the production cells. The dimensions of the MMF in its entirety are approximately 94 metres long by 69 metres wide and 18.7 metres high. The front of house accommodation will be split over two storeys and occupy an overall area of 2,039 m^2. Where large sections of inclined glazed curtain walling (to both ground and first floor) and High level over sailing brise-soleil is not used, this part of the structure will be clad in primarily flat, metal faced, long span insulated composite panels.

4.8 The production area occupies 5,213 m^2 and is housed in the same building footprint as the front of house accommodation. It will be constructed using a universal modular panel system which is in line with cladding used on other recent/modern buildings on site such as Phoenix (11/00029) and Mensa (08/02287). This section will be clad in a specialist proprietary secure panel system – Remtech, this is predominantly installed from the ground to the underside of the roof and incorporates sealed joint gapping/cover strips for weather sealing. Where required, Remtech CPNI MFES Base Cladding panel will be installed while in other places the Remtech Non-secure cladding panel will be provided. Phenolithic foam will be used as the insulation in the composite panel which provides 90-minute fire protection. Between the cladding for the front of house accommodation and the production areas louvre profiled panelling will be used vertically to disguise the different horizontal modules. A critical objective of the design of the MMF is to provide a weather line to the building, and security requirements to the secure Production Cells, providing CPNI baseline rating.

4.9 The curved 'barrel' roof to the main building, stair towers and projecting roof to the office area on level 1 is proposed as a built-up insulated mill finish aluminium standing seam roof, with outboard gutters and external rainwater pipes (RWP's) to the stairs and main roof. It will be 18.7 metres high in the middle, falling to perimeter gutters at 15.4 metres to the ground level. The curve provides a low maintenance, joint free roof covering and reflects similar language of the curve roofs used on

neighbouring Phoenix and Mensa buildings. Further, photovoltaic solar panels will be installed on the roof structure.

Use and Amount

4.10 The proposed facility provides a space for cross disciplinary uses associated with front of house accommodation and production areas under one building envelope. It has a total 7,252 m^2 gross internal floor area with a maximum height of 18.7 metres (excluding flues and stacks) and the middle falling to perimeter gutters at 15.4 metres. Stacks are required in two locations either side of the building and would be up to 25.5 metres each in height.

Layout

4.11 The proposed development site is within the perimeter security fencing of the AWE Burghfield site. Around the perimeter of the MMF there are a series of external enclosures and compounds for substations, local stores, trade waste systems, evacuation centres of which there are fenced areas for chiller plant and gas bottle storage.

4.12 The layout is driven by the need to facilitate multiple disciplines in one footprint while also retaining adaptability in the production module layout.

Size, Scale and Modelling

4.13 The clear height of the production cells is to be approximately 8.3 metres which will provide for the largest anticipated item of process equipment and allow for any possible mezzanines in the future, creating adaptable space.

4.14 The entrance to the MMF has been designed to be the ‘front door’ of AWE Burghfield. The clearly defined entrance has been achieved through the use of large inclined sections of a glazed curtain walling to both the ground and first floor, either side of a projecting entrance core, with high level over sailing brise-soleil to minimise solar gain, on the south elevation. This provides a strong modern ‘face’ with a clearly defined entrance.

Appearance and Design Evolution

4.15 As the aim of the proposed development is to optimise and consolidate the existing operations at AWE Burghfield, the co-location with, or proximity to, existing services and facilities was identified as a key consideration. By locating the proposed MMF within the existing AWE Burghfield site, the new facilities would be able to deliver continuous operation with the required improvement and increased efficiency and resilience. Three key siting options were considered. Site 1 offered a pedestrian link to the Phoenix building but would still require van delivery for receipt/despatch. Other existing facilities provided constraints to the optimum arrangement and process cell spans. Site 3 was identified as being of a suitable size for the MMF. It is currently in use for construction of the MENSA facilities and would not therefore be available for use within the required programme. The selected siting option (site 2) was considered to provide a site of suitable size, without significant constraints, such that it could provide the most potential for optimum configuration of required facilities.

4.16 An optioneering process for Best Available Techniques (BAT) in terms of combustion technologies proposed for the MMF was also undertaken against criteria such as applicability to site, safety, ease of maintenance and energy demands among others. Several conclusions were drawn from the process including:

- boilers would be selected for natural gas fuel;
- the heating distribution system would be Low Temperature Hot Water (LTHW);

- boilers would have an efficiency of not less than 95%; and
- boiler nitrous oxide (NOx) emissions would be no greater than 46.7 mg/m3 or 40 mg/kWh.

4.17 Any emissions to air which are the result of Environmentally Permitted operations will be suitably abated and reported. Best Available Techniques (BAT) reports are in preparation and will be completed when more detailed process information is available.

Landscaping

4.18 The landscape strategy for the MMF (Figure 4) takes influence from the wider context of AWE Burghfield's setting, integrating the MMF into the surrounding natural landscape, whilst simultaneously reinforcing the AWE 'campus' environment to create attractive spaces for the AWE community. The landscape masterplan includes:

- new trees, hedge planting, species rich meadows and drainage/pond to the south to make a distinctive arrival experience and sense of place;
- creation of new habitat contributing to a net gain in biodiversity across the MMF development site;
- an informal, transitional landscape around all elevations of the MMF, absorbing the built structures into the surrounding landscape;
- woodland buffer to the north and west boundary to screen long distance views and enhance biodiversity links; and
- sustainable urban drainage features.

4.19 The MMF building will be set back from the main circulation road around AWE Burghfield which facilitates a landscaped setting with avenue fronting the road. A linear avenue of trees is also proposed in front of the large SuDS feature to the south. Existing trees to the north of the application site are proposed to be retained while small areas of woodland planting are proposed to the north and north western parts of the MMF development site. The attenuation ponds to the north and south of the MMF building would be surrounded by wildflower meadow planting, blending into surrounding amenity grassland. Existing vegetation features within the northern boundary of the site are to be retained, reinforcing the relationship with the surrounding structural landscape and increasing boundary screening.

4.20 The access, operations and delivery yard are of functional use. The yard would consist of a simple mix of concrete hardstanding or permeable block paving with suitable build-up to allow for heavy loadings and trafficking. Concrete curbs would be present and would contain marked bays for loading/unloading goods.

4.21 New macadam access roads are proposed around the north, west and eastern elevations of the main building and would provide a convenient and legible route off the estate's primary access road.

Sustainability and Energy Efficiency

4.22 AWE aims to achieve a DREAM rating of 'Excellent' for the MMF site under the New Build Commercial, Hangars and Workshop criteria. A DREAM pre-assessment has been undertaken, which indicates that the initial design is on course to achieve an 'Excellent' rating.

4.23 The design of the MMF would incorporate energy efficiency and optimisation measures, which would be achieved by applying best practice design techniques and referring to industry energy benchmarks for similar buildings. The renewable and sustainable technologies proposed for the MMF include Photo-Voltaic (PV) panels and a combined heat and power plan. It is proposed to employ natural ventilation where practicable, this includes ground floor offices, restaurants eating and occupational health treatment rooms.

Waste

4.24 All operational waste would be assayed before it leaves the MMF building, with the waste collected and sealed into drums at source within the production cell and stored locally until assayed. Solid waste would be separated and packaged for shipment to other areas of AWE Burghfield for removal. Each process would have a separate, above ground, collection tank for aqueous waste allowing for assaying and transport to the site drain or to be removed by tanker for specialised disposal. The MMF would produce some operational waste in the form of normal office and visitor wate including packaging, printer toners, paper and food wate as well as wastewater. Operational waste from the site would be reused or recycled, where possible. An external area to collect general and recyclable waste would be provided.

Drainage

4.25 Drainage infrastructure would be provided within the MMF site and connected to the AWE Burghfield site wide drainage infrastructure prior to discharge, to ensure that surface water flow from the MMF site should be controlled.

4.26 A Surface Water Management Strategy (SWMS) that has agreement in principle with West Berkshire Council has been produced by HR Wallingford. The full title is “Surface water management strategy for Aldermaston and Burghfield – Concept and design criteria guide” October 2017. This provides a general approach to site wide surface water management for both the AWE Burghfield and Aldermaston sites, and includes a guide to drainage concepts and design criteria for planning purposes.

4.27 Currently AWE Burghfield does not discharge at greenfield discharge rates. The SWMS aims to provide flexibility for site development up to 2080. The details for the drainage strategy are discussed in more detail in the Flood Risk Assessment and include design features for a range of rainfall events, storm events and details of SuDS elements proposed.

4.28 This strategy is predicted to achieve a runoff rate of 13 litres per second (l/s) for all storm events up to and including a 1 in 200 year plus 40% climate change event. This is noted to be as close as possible to the QBAR (mean annual flood) greenfield rate of 10.5 l/s, taking into account constraints at the site, most notably site levels.

Accessibility

4.29 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 supporting reports, where reasonable and practical.

4.30 No new parking is proposed for operational staff in connection with the proposed development. This is because the majority of the users of the MMF would already be based at AWE Burghfield and the 50 new operational staff who are transferring from AWE Aldermaston would park within existing spare car parking at the AWE Burghfield site.

4.31 Disabled drop off facilities are available at the main site entrance.

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.

5.2 The proposed facility will provide a flexible manufacturing capability, with associated support areas (offices, receipt/dispatch etc.) and common site facilities for use by all Burghfield personnel, referred to as the front of house accommodation. The flexible manufacturing capability is accommodated within separate secure free-spanning, modular reconfigurable Production Cells, co-located within a single lightweight envelope. The facility will make use of what is mostly brownfield land previously used for spoil storage and car parking.

5.3 The design approach for this proposal is for a sustainable and high-quality development that addresses the utilisation of all land, infrastructure and buildings to ensure value for money while also increasing the economy, efficiency and effectiveness of land and facilities. The design strikes a medium between practicality required for production cells and providing a strong modern ‘face’ to AWE Burghfield through distinctive architectural aesthetic including large curtains of glass on the front of house accommodation and entrance.

5.4 The modern design of the building will be set within a sensitive integrated landscaping scheme including hard and soft landscaping features, surface water attenuation ponds and associated planting with significant biodiversity elements. This would result in a considerable improvement of the local character of the site.

5.5 The introduction of the building roofline at 18.7 metres and the stacks at 25.5 metres in conjunction with existing Mensa and Phoenix buildings would be seen within views as part of this group of buildings and within an industrial landscape setting. Whilst new planting implemented as part of the proposed development would have fully established by Year 15 and, along with other landscape design elements, would provide an enhanced landscape setting to the new building, it would have relatively little effect upon the absolute visibility of the MMF building within more distant views from the wider study area out with AWE Burghfield.

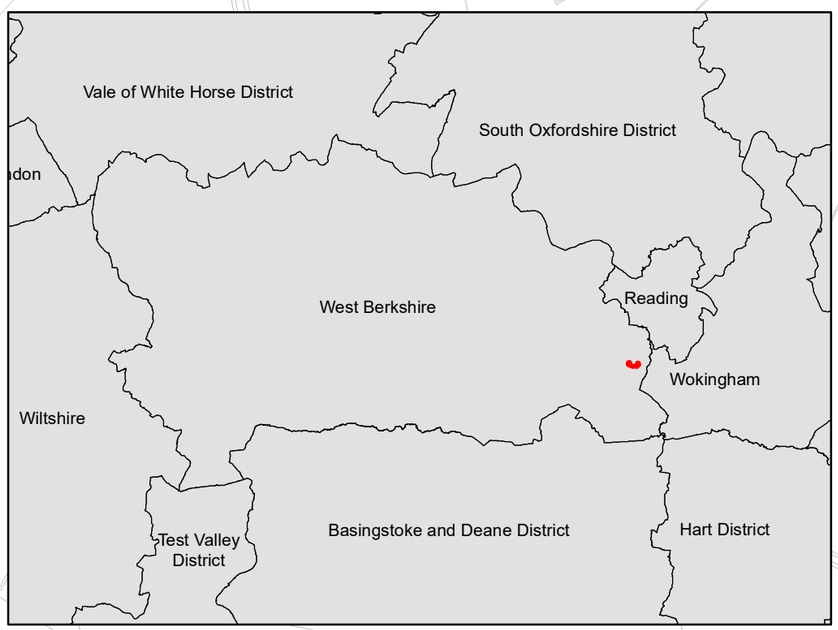
5.6 For these reasons it is considered that the current development proposals will provide a good benchmark for the ongoing redevelopment and rationalisation of the Burghfield site, setting a high standard of design in the process of meeting the present and future operational requirements at AWE.

Notes
1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.

Legend

- Application Boundary
- AWE Burghfield Site Boundary

Rev	Description	By	CB	Date



MAKING COMPLEX EASY

20 Western Avenue, Milton Park, Abingdon, Oxfordshire, OX14 4SH
T: +44(0)1235 821 888 E: rpsox@rpsgroup.com

Client AWE

Project MMF

Title Site Location Plan

Status	Drawn By	PM/Checked By
FINAL	RM	MR
Project Number	**Scale @ A3**	**Date Created**
OXF10255	1:5,000	SEP 2020
Figure Number		**Rev**
1		-

rpsgroup.com

Y:\AWE\10255 Project SMaRT Burghfield\Tech\Drawings\10255-0035-02.mxd

Notes
1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.

Legend

- Application boundary
- MMF Development Site
- Existing internal access routes
- Vehicle check & construction parking

Rev	Description	By	CB	Date

20 Western Avenue, Milton Park, Abingdon, Oxfordshire, OX14 4SH
T: +44(0)1235 821 888 E: rpsox@rpsgroup.com

Client AWE

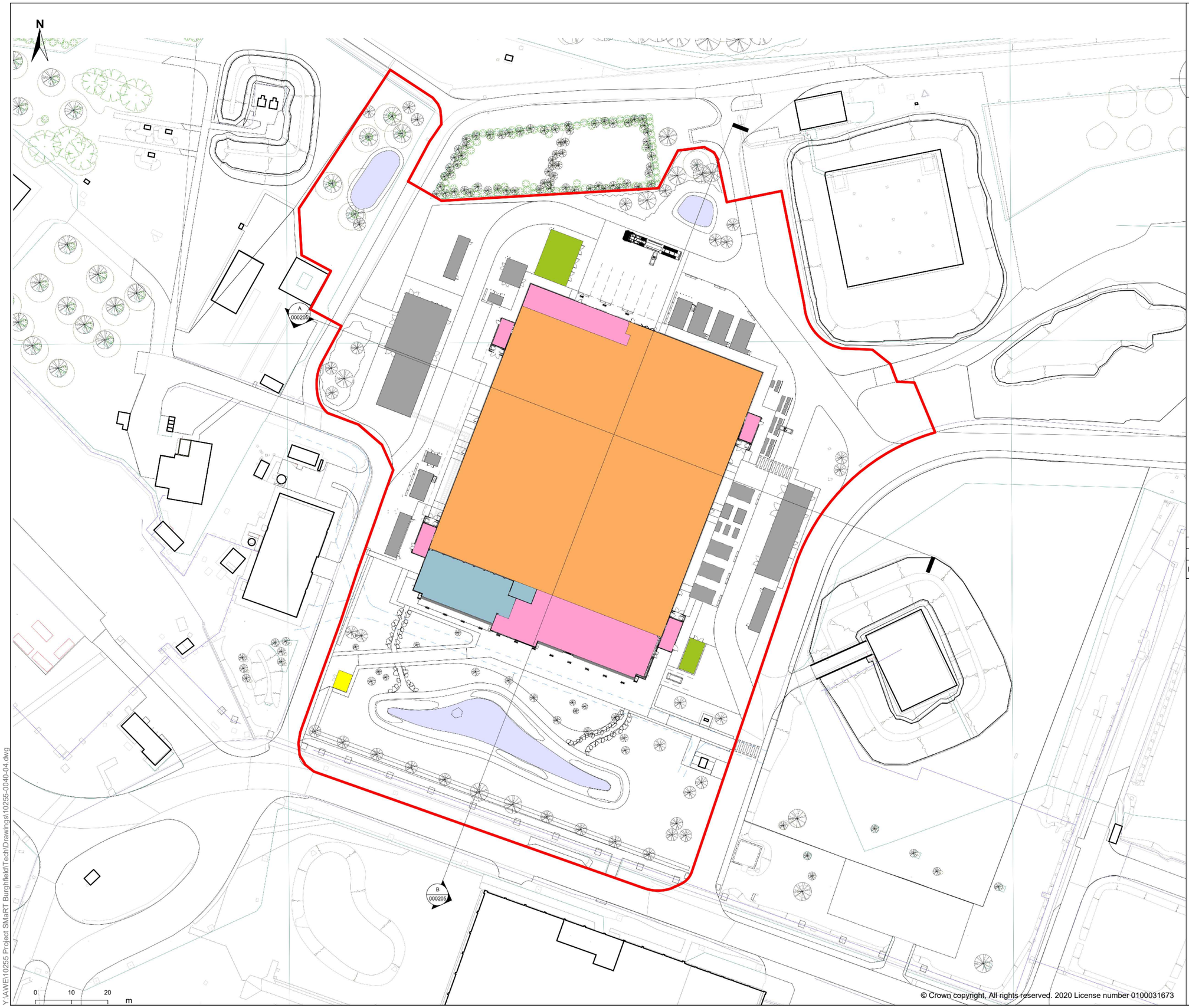
Project MMF

Title Application Boundary

Status	Drawn By	PM/Checked By
FINAL	RM	AR
Project Number	**Scale @ A3**	**Date Created**
OXF10255	1:2,800	NOV 2020
Figure Number		**Rev**
2		**-**

rpsgroup.com

Y:\AWE\10255 Project SMaRT Burghfield\Tech\Drawings\10255-0036-04.mxd



Notes
1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.

Legend

- MMF Development Site

Zones key plan

- Offices
- Workshop
- Storage
- Ancillary
- Plant
- Cycle shelter
- SUDS features

Rev	Description	By	CB	Date

MAKING COMPLEX EASY

20 Western Avenue, Milton Park, Abingdon, Oxfordshire, OX14 4SH
T: +44(0)1235 821 888 **E:** rpsox@rpsgroup.com

Client AWE

Project MMF

Title Layout Plan

Status	Drawn By	PM/Checked by
FINAL	RM	AR
Job Ref	**Scale @ A3**	**Date Created**
OXF10255	1:1,000	Nov 2020
RPS Drawing/Figure Number		**Rev**
3		.

rpsgroup.com

Y:\AWE\10255 Project SMaRT Burghfield\Tech\Drawings\10255-0040-04.dwg

Y:\AWE\10255 Project SMaRT Burghfield\Tech\Drawings\10255-0040-04.dwg

Notes
1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.

Legend

- MMF Development Site
- Existing trees retained
- Proposed trees
- Proposed native woodland planting
- Proposed hedgerow
- Proposed aquatic and marginal planting
- Amenity grass
- Meadow grass
- Wet meadow grass
- Boulders
- Water
- Pedestrian walkway and plaza - high quality exposed aggregate block paving
- Maintenance access - high quality block paving
- Hardstands and roads to BakerHicks details.

Rev	Description	By	CB	Date

MAKING COMPLEX EASY

20 Western Avenue, Milton Park, Abingdon, Oxfordshire, OX14 4SH
T: +44(0)1235 821 888 **E:** rpsox@rpsgroup.com

Client AWE

Project MMF

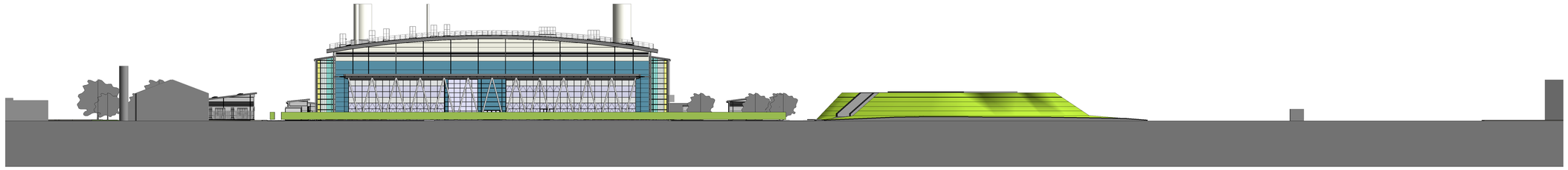
Title Landscape Masterplan

Status	Drawn By	PM/Checked by
FINAL	RM	AR
Job Ref	**Scale @ A3**	**Date Created**
OXF10255	1:1,000	Nov 2020
RPS Drawing/Figure Number		**Rev**
4		.

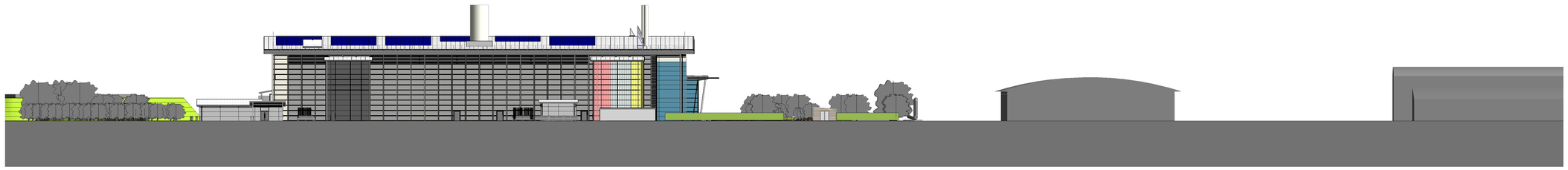
rpsgroup.com

Y:\AWE\10255 Project SMaRT Burghfield\Tech\Drawings\10255-0034-06.dwg

Appendix A: Elevations

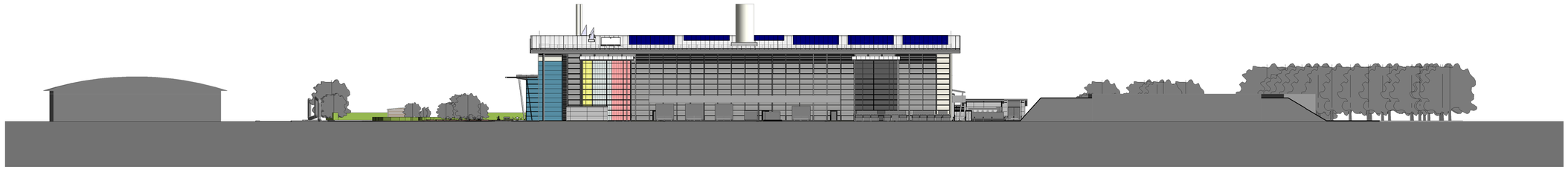


South Site Elevation - Planning
Scale: 1 : 500



West Site Elevation - Planning
Scale: 1 : 500

North Site Elevation - Planning
Scale: 1 : 500



East Site Elevation - Planning
Scale: 1 : 500

0 5 10 25 50
Scale 1: 500 @ A1 (1: 1000 @ A3)

Significant Health, Safety and Environmental Information Relating to CDM

Health:

Safety:

Environmental:

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an agreed method statement.

HealthSafetyEnviro_v1.0

REV.	COMMENTS	DATE	DRWN	CHCKD	APRVD
P3	COLOUR AMENDMENT ISSUED FOR PLANNING.	24/11/20	01	02	03
P2	ISSUED FOR PLANNING	16/04/20	01	02	03
P1	ISSUED FOR COMMENT	24/01/20	01	02	03

CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	
CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	
CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	
CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	

FS1	B
FS2	MMFRIBA3
FS3	B - BUILDING FABRIC
FS4	BA - STRUCTURAL HIERARCHY
FS5	BA03 - BUILDING

DIMS IN mm	VAULT	DOCUMENT SUB CATEGORY
mm	89B	ELEVATION

Scale	ISSUING OFFICE	PROJECT NUMBER
1:500	WARWICK	30002171

ORIGINATOR
BAKERHICKS
ONE WARWICK TECHNOLOGY PARK
GALLOWS HILL, WARWICK, CV34 6YL

CLIENT
AWE
ALDERMASTON, READING
BERKSHIRE. RG7 4PR

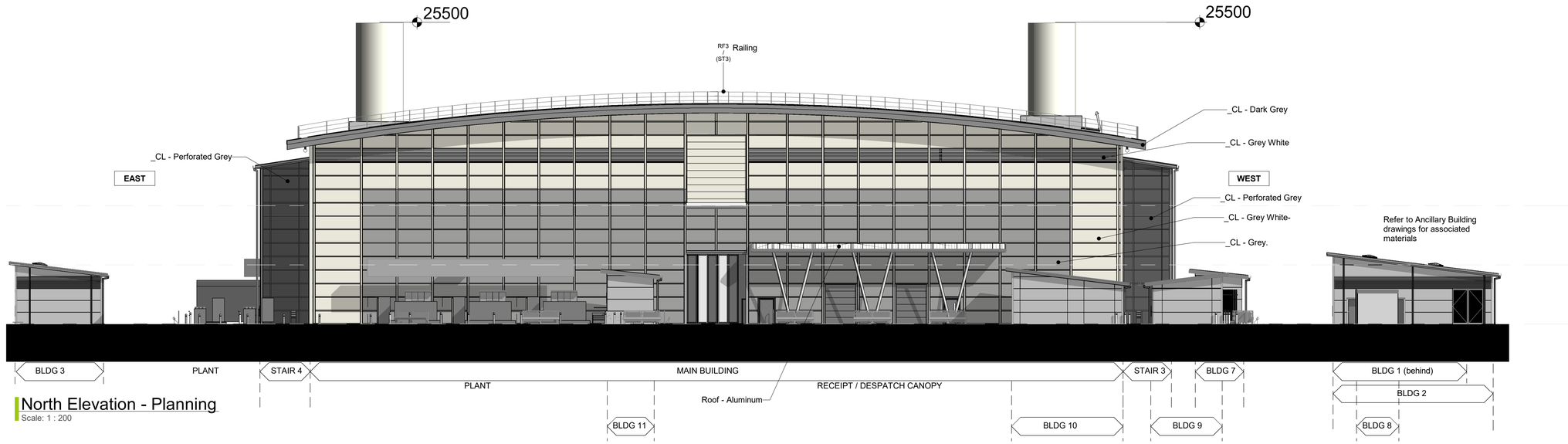
PROJECT
MMF - WORK PACKAGE 1 - RIBA STAGE 3 DESIGN

TITLE
ELEVATION
SITE ELEVATIONS
PLANNING

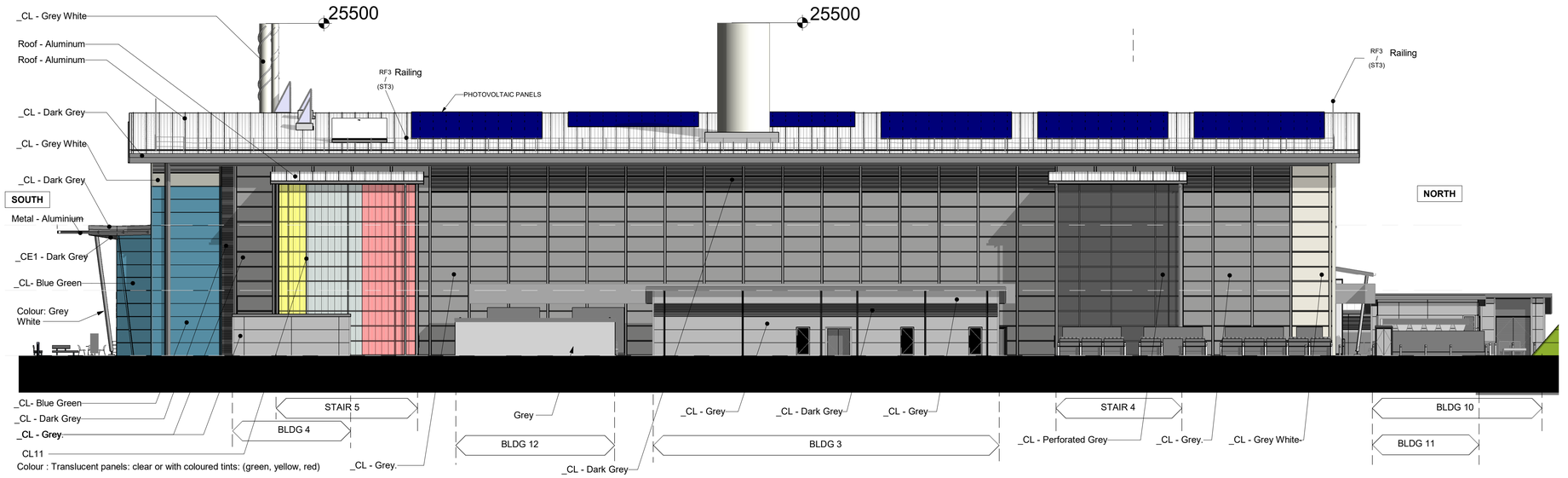
PROTECTIVE MARKING
OFFICIAL

AWE ENDURING DRAWING NUMBER	SHT	DOC Rev	DWG Rev	
	001 OF 001		P3	A1

PROJECT DRAWING NO. (DO NOT REFERENCE IN THROUGH LIFE DOCUMENTATION)
B-MMFRIBA3-BAK-12-XX-DRW-AR-200-89B-000206



North Elevation - Planning
Scale: 1 : 200



East Elevation - Planning
Scale: 1 : 200

0 2 4 10 20
Scale 1: 200 @ A1 (1: 400 @ A3)

Significant Health, Safety and Environmental Information Relating to CDM

Health:

Safety:

Environmental:

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an agreed method statement. HealthSafetyEnviro_v1.0

REV.	COMMENTS	DATE	DRWN	CHCKD	APRVD
P5	GRIDLINES REMOVED. ISSUED FOR PLANNING.	24/11/20	01	02	03
P4	LEVEL COMMENTS INCORPORATED. ISSUED FOR PLANNING	17/11/20	01	02	03
P3	FURTHER COMMENTS INCORPORATED. ISSUED FOR PLANNING	02/10/20	01	02	03
P2	ISSUED FOR PLANNING	16/04/20	01	02	03
P1	ISSUED FOR COMMENT	24/01/20	01	02	03

CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	
CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	
CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	
CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	

FS1	B
FS2	MMFRIBA3
FS3	B - BUILDING FABRIC
FS4	BA - STRUCTURAL HIERARCHY
FS5	BA03 - BUILDING

DIMS IN mm	VAULT	DOCUMENT SUB CATEGORY
mm	89B	ELEVATION

Scale	ISSUING OFFICE	PROJECT NUMBER
1 : 200	WARWICK	30002171

ORIGINATOR
BAKERHICKS
ONE WARWICK TECHNOLOGY PARK
GALLOWS HILL, WARWICK CV34 6YL

CLIENT
AWE
ALDERMASTON, READING
BERKSHIRE, RG7 4PR

PROJECT
MMF - WORK PACKAGE 1 - RIBA STAGE 3 DESIGN

TITLE
ELEVATION
NORTH & EAST ELEVATIONS
PLANNING

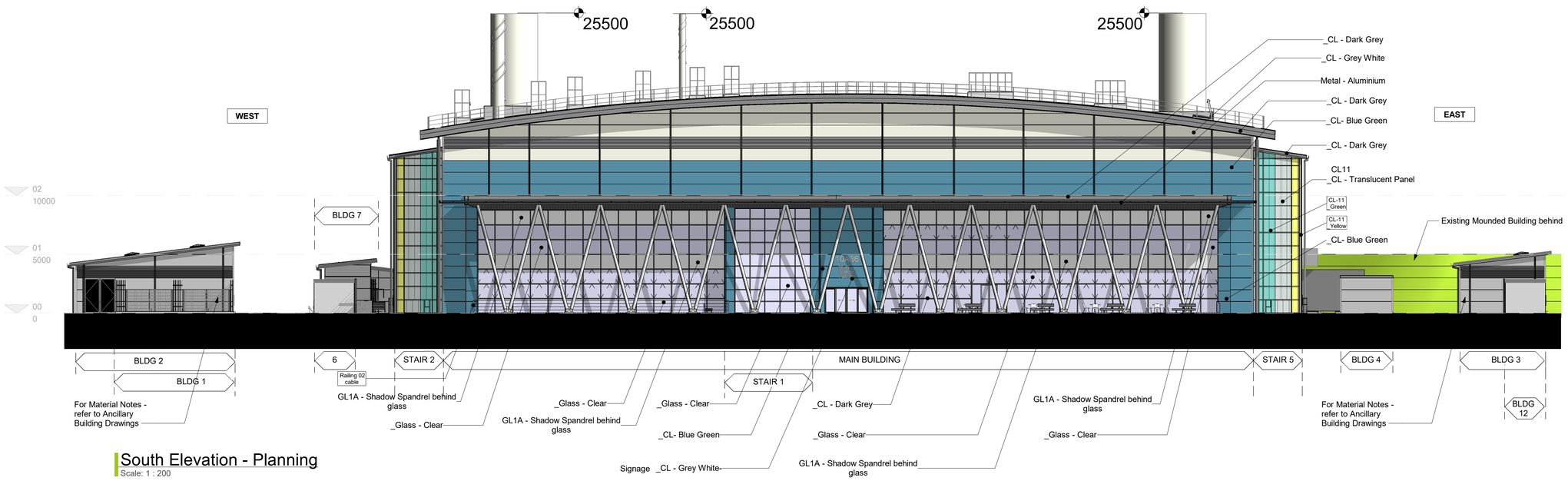
PROTECTIVE MARKING
OFFICIAL

AWE ENDURING DRAWING NUMBER	SHT	DOC Rev	DWG Rev
	001 OF 001		P5

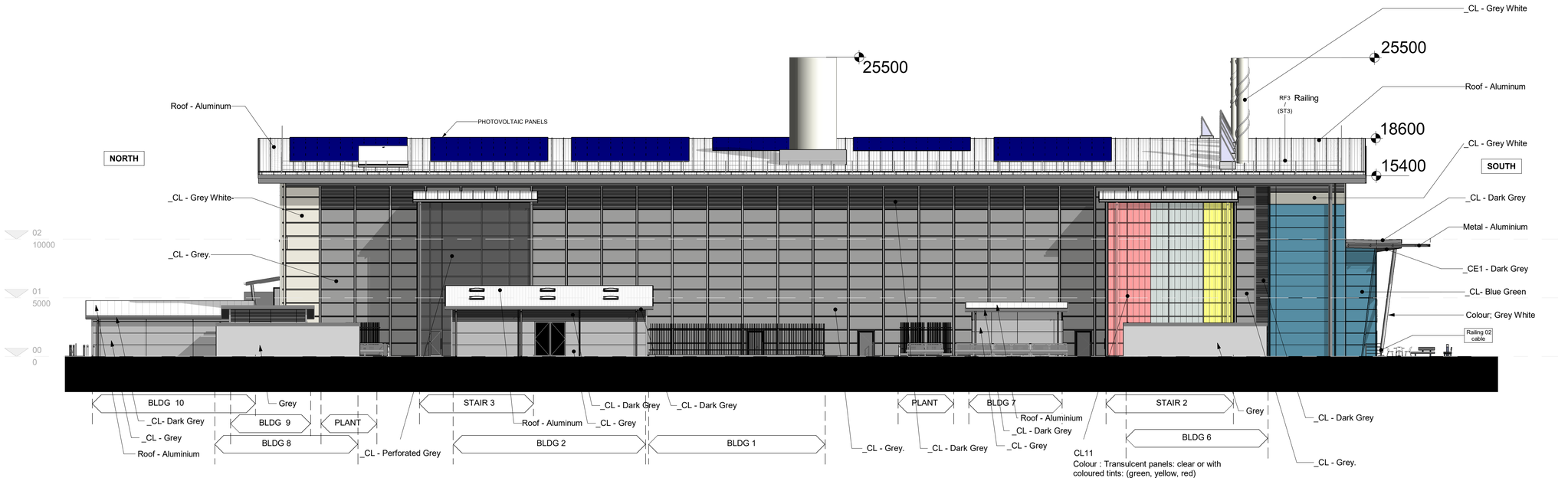
PROJECT DRAWING NO. (DO NOT REFERENCE IN THROUGH LIFE DOCUMENTATION)
B-MMFRIBA3-BAK-13-XX-DRW-AR-200-89B-000221

A1

AWE-Title_Blocks_A1-V7_nc.rfa



South Elevation - Planning
Scale: 1 : 200



West Elevation - Planning
Scale: 1 : 200

0 2 4 10 20
Scale 1: 200 @ A1 (1: 400 @ A3)

Significant Health, Safety and Environmental Information Relating to CDM

Health:

Safety:

Environmental:

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an agreed method statement.

HealthSafetyEnviro_v1.0

REV.	COMMENTS	DATE	DRWN	CHCKD	APRVD
P5	GRIDLINES REMOVED. ISSUED FOR PLANNING.	24/11/20	01	02	03
P4	LEVEL COMMENTS INCORPORATED. ISSUED FOR PLANNING	17/11/20	01	02	03
P3	FURTHER COMMENTS INCORPORATED. ISSUED FOR PLANNING	02/10/20	01	02	03
P2	ISSUED FOR PLANNING	16/04/20	01	02	03
P1	ISSUED FOR COMMENT	24/01/20	01	02	03

CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	
CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	
CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	
CHANGE DOC						ISSUE	
DRN		CHK		CERT		DATE	

FS1	B
FS2	MMFRIBA3
FS3	B - BUILDING FABRIC
FS4	BA - STRUCTURAL HIERARCHY
FS5	BA03 - BUILDING

DIMS IN mm	VAULT	DOCUMENT SUB CATEGORY
mm	89B	ELEVATION

Scale	ISSUING OFFICE	PROJECT NUMBER
1 : 200	WARWICK	30002171

ORIGINATOR
BAKERHICKS
ONE WARWICK TECHNOLOGY PARK
GALLOWS HILL, WARWICK CV34 6YL

CLIENT
AWE
ALDERMASTON, READING
BERKSHIRE, RG7 4PR

PROJECT
MMF - WORK PACKAGE 1 - RIBA STAGE 3 DESIGN

TITLE
ELEVATION
SOUTH & WEST ELEVATIONS
PLANNING

PROTECTIVE MARKING
OFFICIAL

AWE ENDURING DRAWING NUMBER	SHT 001 OF 001	DOC Rev	DWG Rev
			P5

PROJECT DRAWING NO. (DO NOT REFERENCE IN THROUGH LIFE DOCUMENTATION)
B-MMFRIBA3-BAK-13-XX-DRW-AR-200-89B-000220

A1

AWE-Title_Blocks_A1-V7_nc.rfa