

# 5. Construction Strategy & Programme

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**Appendix 5.1**

**OUTLINE CONSTRUCTION  
ENVIRONMENTAL MANAGEMENT PLAN**

# **FORT HALSTEAD**

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Proposed Mixed Use Development

## **Outline Construction Environmental Management Plan**

SEPTEMBER 2019

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# Introduction

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## OVERVIEW & PURPOSE OF THIS DOCUMENT

Merseyside Pension Fund (from herein referred to as 'the Applicant') has submitted a hybrid planning application for a mixed-use development on a site at Fort Halstead, Crow Drive, Hallstead (the 'application site') to Sevenoaks District Council (SDC).

The full description of development as it appears on the hybrid planning application is as follows:

'Mixed-use development comprising a business area (Use Classes B1 and ancillary B8) of up to 3.7ha, retention of QinetiQ (Use Classes B1 and ancillary B8), up to 750 residential units, a village centre (Use Classes A1-A3, B1a, C3, D1 and D2), use of the Fort area and bunkers as an historic interpretation centre (Use Class D1) with ancillary workshop space, and works associated with the development.'

This Construction Environmental Management Plan (CEMP) has been developed to provide the management framework required for the planning and implementation of construction activities on site. It reflects the mitigation measures to be implemented during demolition and construction works (herein collectively referred to as the 'construction phase') that will mean that environmental effects are avoided, minimised or mitigated such that the effects are as assessed and presented within the ES.

It is an outline report from which the Construction Environmental Management Plan (CEMP) will be developed. The final CEMP will be secured by condition on any planning permission and is likely to be completed by the principal contractor (once selected). The CEMP will also address any requirements of other planning conditions imposed by SDC.

## SITE DESCRIPTION

The application site, which extends to circa 75.20 hectares (ha), is centred on NGR 549741, 159317 and located approximately 4km north-east of Sevenoaks and 8km south-east of Orpington on the edge of the North Downs, within the administrative boundary of Sevenoaks District Council (SDC). The application site red line boundary plans are provided in Appendix 1 of this report.

The application site is located within an area dominated by farmland and scattered villages, most notably the villages of Halstead, Knockholt and Knockholt Pound. Residential properties are also located along Crow Drive and Star Hill Road immediately to the northeast and southwest of the site, respectively. Land within the Applicant's ownership adjoins the application site, covering circa 56.69ha of mainly woodland and grassland, as shown in Appendix 1 of this report. The land within the Applicant's ownership that lies beyond the application site is referred to as the 'wider Survey Area'.

The main access into the application site is via Crow Drive off the A224 Polhill Road/London Road in the north-eastern part of the site. There is an additional hours restricted access to the application site off Star Hill. The A224 connects to the M25 motorway at Junction 5, which is located approximately 700m south of the site, although as the M25 motorway continues to the east of the application site in parallel with the A224, the M25 extends within 90m from the site, at the closest point. Crow Drive leads to Crow Road, which extends through the application site (unclassified road) to Star Hill Road (C road classification) to the south-west of the site.

# Introduction

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## NATURE OF THE PROPOSALS

The following sections describe the various elements of the scheme that are relevant to the assessment of its environmental effects. Further detail is provided in the Planning Statement and Design & Access Statement, which both accompany the planning application.

The proposals are for a mixed-use development. The full description of development as it appears on the hybrid planning application is as follows:

In detail:

- Demolition of existing buildings;
- Change of use and works to buildings Q13 and Q14 (including landscaping and public realm);
- Primary and secondary accesses.

In outline:

- Development of business space (use classes B1a/b/c) of up to 27,659 sq m GEA;
- Works within the 'X' enclave relating to energetic testing operations, including fencing, access, car parking;
- Development of up to 750 residential dwellings;
- Development of a mixed-use village centre (use classes A1/A3/A4/A5/B1a/D1/D2);
- Development of a one form entry primary school;
- Change of use of Fort Area and bunkers to Historic Interpretation Centre (use class D1) with workshop space;
- Roads, pedestrian and cycle routes, public transport infrastructure, car parking, utilities infrastructure, drainage;
- Landscaping, landforming and ecological mitigation works.

The Defence Science and Technology Laboratory (DSTL) is currently vacating the application site and therefore, has already undertaken demolition of some of the decommissioned buildings which are surplus to requirements as well as associated remediation works on the plots of the demolished buildings. The detailed programme and sequence of future demolition and remediation works by DSTL are currently unknown, although it is expected that some further selective demolition would take place before DSTL fully vacates the application site. Remaining buildings and magazines that would require demolition to facilitate the proposed development together with the removal of floor slabs, foundations and redundant infrastructure, would likely be demolished and removed in a single programme of demolition by the appointed Contractor. The detailed demolition programme would be confirmed between the appointed Contractor and Sevenoaks District Council (SDC) on a plot by plot basis.

Across the proposed development, minimum heights are anticipated to be circa two storeys (10m) with maximum heights up to four storeys (19.5m). Residential units will typically vary from 2 to 3 storeys with a maximum height of 14.5m, mixed use provision (including independent living provision) will vary from 3 to 4 storeys (maximum height of 16m) and employment uses will vary from 2.5 storeys to 4 storeys (maximum height of 16m).

# Introduction

The building footprint is relatively consistent between Lower Ground Floor Level and the levels above. However, at the levels below (Upper Box Level and Lower Box Level), the development footprint extends eastwards under the 4 Kingdom Street, Hotel Novotel.

The proposed uses within the building are described in Table 1 below.

**Table 1**

**Non-Residential Floorspace Schedule (Gross External Area (GEA))**

USE	TOTAL FLOORSPACE (SQ.M. GEA)
Mixed Uses in the Village Centre (sqm)	1,312
Employment Uses (sqm)	26,870
1 FE Primary School (Ha)	1.06 Ha
QinetiQ (sqm)	6,007
Fort Area (sqm)	1,794
Retained Bunkers (sqm)	500

# Roles, Responsibilities and Key Contacts

## ROLES & RESPONSIBILITIES

### Applicant

The Applicant is committed to ensuring that mitigation measures are put in place to prevent any impacts on the environment and that good management is used to maintain it.

The site and its constituent construction works will be registered with the Considerate Constructors Scheme (CCS), which is an independent inspecting authority aimed at improving the image of the construction industry and subsequently improving relationships between sites and the local community. Headline items for consideration include appearance, community, environment, safety and workforce.

For further information on the scheme and its positive approach, visit: [www.ccscheme.org.uk](http://www.ccscheme.org.uk).

Site Registration Number: [TBC in final CEMP]

The Applicant will ensure that responsibilities are appropriately allocated, and relevant personnel are suitably empowered to discharge their responsibilities.

The chain of command will be agreed in due course and confirmed in the final CEMP. An indicative chain of command is provided below:

- Project Director
- Project Manager
- Site Manager
- Assistant Site Manager
- Divisional Safety, Health and Environment (SHE) Manager
- Site Foreman

## KEY CONTACTS

This section within the final CEMP will provide details of the key project contacts.

It will be the responsibility of the Site Manager to maintain up-to-date details for the key contacts throughout the lifetime of the project. An indicative format is provided below.

PROJECT DIRECTOR	
NAME:	[TBC]
TELEPHONE:	[TBC]
EMAIL:	[TBC]

PROJECT MANAGER	
NAME:	[TBC]
TELEPHONE:	[TBC]
EMAIL:	[TBC]



# Roles, Responsibilities and Key Contacts

## SITE MANAGER

NAME:	[TBC]
TELEPHONE:	[TBC]
EMAIL:	[TBC]

## DIVISIONAL SHE MANAGER

NAME:	[TBC]
TELEPHONE:	[TBC]
EMAIL:	[TBC]

## LEAD PLANNING OFFICER – SDC

NAME:	[TBC]
TELEPHONE:	[TBC]
EMAIL:	[TBC]

## ENVIRONMENTAL HEALTH OFFICER – SDC

NAME:	[TBC]
TELEPHONE:	[TBC]
EMAIL:	[TBC]

## TECHNICAL OFFICER – ENVIRONMENT AGENCY

NAME:	[TBC]
TELEPHONE:	[TBC]
EMAIL:	[TBC]

## 24HR HELPLINE – ENVIRONMENT AGENCY

NAME:	[TBC]
TELEPHONE:	[TBC]
EMAIL:	[TBC]

# General Site Management

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## HOURS OF OPERATION

Working hours will be in accordance with the CoCP. Works will be limited to between 08:00 and 18:00 Mondays to Fridays and between 08:00 and 13:00 on Saturdays, unless written consent is obtained from SDC. No work is to be undertaken on Sundays or Public Holidays, unless written consent is obtained from SDC.

All 'noisy activities' must be carried out within the following 'restricted hours':

- 08:00 to 18:30 Mondays to Fridays;
- 08:00-13:00 Saturdays; and
- At no time during Sundays or Public Holidays.

Discussions will be undertaken with SDC but it is expected that certain key activities will need to be carried out during engineering hours and require night time possessions. Details will be agreed in due course and SDC will be included in negotiations.

The contractor will apply for a Section 61 prior working agreement, or dispensation, in accordance with the CoCP.

## COMPETENCY

An evaluation procedure will be carried out prior to the commencement of works to ensure that competent contractors are appointed. A review will be undertaken of the following:

- Safety policies and strategies;
- Safety history;
- Technical capability;
- Previous project experience;
- Relevant insurances;
- Training records for operatives on site; and
- Machinery/equipment certification.

The Principal Contractor will review the documentation and only compliant sub-contractors will be engaged. During the works, the principal contractor will undertake the following:

- Provide induction training;
- Have regular site meetings to review progress and compliance; and
- Ensure regular communication between all parties occurs daily.

Employees must have a current CSCS card (Construction Skills Certification Scheme) and any other relevant CSCS Approved cards to operate construction site machines etc.

## SITE INDUCTIONS

All operatives working on site will be inducted. Refresher inductions will be given every 12 months, though updated inductions will be carried out more frequently if/when there are major changes to the site environment.

All operatives will be made aware of the site requirements on the use of Personal Protective Equipment (PPE).

# General Site Management

All operatives on site will have the following PPE:

- Hard hat – BS EN 397
- Hi-Vis Vest / coat - BS EN 471
- Safety boots - BS EN 345 (Steel Toe Caps)
- Gloves - BS EN 388
- Safety glasses – BS EN 166

The following will also be available for task specific working:

- Ear Defenders
- Dust Masks

Operatives will be briefed at their induction on the control measures and Spill Kit Emergency Procedure will be available on site.

All workers will be made aware of the requirements of the CEMP and other relevant documents (e.g. Demolition Method Statement (DMS) and Construction Method Statements (CMS)).

## ENVIRONMENTAL TRAINING

To ensure that environmental issues are communicated and properly addressed and controlled during the construction works, the CEMP and its contents will be communicated to all site personnel, including management staff and operatives, using the following methods:

- Site induction to highlight:
  - environmental and ecological sensitivities of the application site and its surroundings;
  - restrictions on hours and methods of works; and
  - actions to be taken to reduce potential effects.
- Posters displaying relevant literature; and
- Toolbox talks to highlight particularly sensitive environmental issues and steps to take.

## SITE SCREENING, HOARDING AND SAFETY

All hoarding will be erected as per the methodology described in Section 3 of this document.

The Site Manager will carry out weekly inspections to ensure the hoarding meets required standards for safety and will repair any damages where required. Site hoarding will be checked every six months by a qualified engineer.

Edge protection, site screening and hoarding will be used to prevent tools, materials or debris from disturbing the operation of the adjacent railway. Specific measures will be discussed and agreed with SDC.

Screening and hoarding will be appropriately secured to prevent vandalism and fly tipping. CCTV will also be used to improve site security.

# General Site Management

## WASTE MANAGEMENT

In accordance with the principles of the UK Government's 'Waste Strategy 2010', a principal aim during demolition and construction will be to reduce the amount of waste generated and exported from the site. The proposed approach will comply with the waste hierarchy whereby the intention is first to minimise, then to treat at source or compact and, finally, to dispose of off-site as necessary.

The Contractors will carry out the works in such a way that, as far as is reasonably practicable, the amount of spoil and waste to be disposed of is minimised.

Any waste arising from the site will be properly categorised and dealt with in accordance with appropriate legislation. Opportunities for minimising and reducing waste generation will be explored and implemented wherever possible. Measures that will be investigated will include:

- Agreements with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme;
- Implementation of a 'just-in-time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste;
- Attention to material quantity requirements to avoid over-ordering and generation of waste materials;
- Re-use of materials wherever feasible (e.g. re-use of crushed concrete from demolition for the piling platform or hardstanding's off site; re-use of excavated sub-soil for fill or landscaping);
- The Government has set broad targets for the use of reclaimed aggregate, and in keeping with best practice, Contractors will be required to maximise the proportion of materials recycled;
- Segregation of waste at source;
- Re-use and recycling of materials off-site where re-use on-site is not practical (e.g. through use of an off-site waste segregation facility and re-sale for direct re-use or re-processing);
- Identification and use of online reuse platforms that support reuse of materials in their highest value; and
- Identification of overall recycling rates, reuse targets and overall landfill diversion rates.

The disposal of all waste or other materials removed from the site will be in accordance with the requirements of the Environment Agency, Control of Pollution Act (COPA) 1974, Environment Act 1995, Special Waste Regulations 1996, Duty of Care Regulations 1991 and the Waste Management Regulations 2011.

A Site Waste Management Plan (SWMP) will be provided within the final CEMP in due course.

## TRANSPORTATION OF MATERIALS

The number of Heavy Goods Vehicles (HGVs) deliveries per day has been forecast for each month during the construction phase. The peak year of construction is expected to be 2023 when 230 (AAWT) vehicles and 109 HGVs are expected daily as outlined in the Transport Assessment (Appendix 10.1). This represents approximately 11 HGVs per hour on an

# General Site Management

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average weekday if these trips are assumed evenly distributed over the ten working hours (08:00 to 18:00).

Deliveries will be carefully scheduled to avoid multiple vehicles arriving at the site simultaneously, resulting in vehicles having to wait at the site entrance.

The site is accessible directly from the strategic road network. Vehicles will access/ egress from Crow Drive from the A224 Polhill Road/ London Road and the M25 motorway. No construction traffic would access/ egress the Site from Star Hill Road, unless otherwise agreed with SDC.

## HEALTH & SAFETY

### Signage

Safety and information signage will be erected on the external and internal hoarding, along with other Health & Safety notices. Notice Boards will be erected by the pedestrian site entrances showing the latest News Letters and Site Manager’s contact details.

### Site Safety

Operatives and visitors to the site will be required to wear high visibility vests, boots, helmets and carry valid CSCS cards when entering the work area.

### Method Statements and Risk Assessments

All subcontractors and specialist personnel carrying out works on site, throughout all phases, will be expected to create a risk assessment and method statement.

# General Site Management

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## Fall Prevention

Managing work at height follows a hierarchy of controls – avoid, prevent, arrest – as such fall restraints and safety netting should only be considered as a last resort if other safety equipment cannot be used.

## COMMUNITY

### Considerate Constructors Scheme

The site will be registered with the Considerate Constructors Scheme, which is an independent inspecting authority aimed at improving the image of the construction industry and subsequently improve relationships between sites and the local community.

For further information on the scheme and its positive approach please visit [www.ccscheme.org.uk](http://www.ccscheme.org.uk).

Site Registration Number: [TBC]

### Liaison, Consultation & Publicity Arrangements

The Applicant will, via local residents' meetings, notices and local updates, liaise with residents, local counsellors and SDC to ensure that all interested parties are well informed about works being undertaken to areas impacting residents.

The Principal Contractor's details will be displayed on site hoarding via a notice board to encourage people to call should they have any concerns. The notice board will also contain monthly updates on information regarding works to be undertaken and updates on progress.

### Employment Opportunities

The Applicant will develop a construction phase Employment, Training, Skills and Local Procurement strategy, in consultation with SDC and the main contractor, which will set out:

- How the Applicant will target 20% of jobs for people living in the Sevenoaks District, including an employment and skills manager during the construction period;
- Targets for apprentices on site and within the supply chain; and
- How the Applicant will target 20% of the supply chain by value going to local businesses, including preparing a local supplier database and hosting 'meet the buyer' events.

The Applicant will work with local schools and further education colleges to deliver a programme of activities, as part of our wider community investment programme, to secure opportunities for young people in the construction industry.

The construction phase Employment, Training, Skills and Local Procurement strategy will be submitted to SDC for approval 3 months prior to commencement of construction.

### Complaints Procedures

All complaints will be responded to within 3 working days.

# Environmental Protection Measures

The measures listed below are proposed to minimise environmental effects during the construction phase.

## LANDSCAPE & VISUAL

- This CEMP will play an important in ensuring considerate construction activity and that the identified woodland, trees and other landscape / habitat features are protected during the construction phase.

## BIODIVERSITY

- The Framework Ecological Mitigation Strategy (FEMS) (Appendix 9.12) and implemented via a Construction Ecological Management Plan (CEcMP), prepared for each phase of the development, outlines the proposed measures that will be put in place during the construction phase to mitigate potential effects on ecological receptors at the site and in the surrounding area.

## TRANSPORTATION & ACCESS

- Implementation of a Construction Logistics Plan to reduce the effects of HGVs and worker vehicles throughout construction.

## AIR QUALITY (INCLUDING DUST)

- Develop and implement a Stakeholder Communications Plan that includes community engagement before work commences on site;
- Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager;
- Display the head or regional office contact information;
- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken;
- Make the complaints log available to the local authority when asked;
- Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book;
- Carry out regular site inspections to monitor compliance with the Dust Management Plan, record inspection results, and make the inspection log available to the local authority when asked;
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions;
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible;
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site;
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period;

## Environmental Protection Measures

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- Avoid sit runoff of water and mud;
- Keep site fencing, barriers and scaffolding clean using wet methods;
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover, cover, seed or fence stockpiles to prevent wind whipping;
- Ensure all vehicles switch off engines when stationary – no idling vehicles;
- Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable;
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems;
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate;
- Use enclosed chutes and conveyors and covered skips;
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate;
- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods;
- Avoid bonfires and burning of waste materials;
- Ensure effective water suppression is used during demolition operations;
- Avoid explosive blasting, use appropriate manual or mechanical alternatives;
- Bag and remove any biological debris or damp down such material before demolition;
- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable;
- Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable;
- Only remove the cover in small areas during work and not all at once;
- Avoid scabbling (roughening of concrete surfaces) if possible;
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a process, in which case ensure that appropriate additional control measures are in place;
- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary;
- Avoid dry sweeping of large areas;
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials;



## Environmental Protection Measures

- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable;
- Record all inspections of haul routes and any subsequent action in a site log book;
- Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned;
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable);
- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits; and
- Access gates to be located at least 10m from receptors where possible.

### NOISE & VIBRATION

- All vehicles and mechanical plant will be fitted with effective exhaust silencers and will be maintained in good efficient order;
- Inherently quiet plant should be used where appropriate – all major compressors and generators will be ‘sound reduced’ models fitted with properly lined and sealed acoustic covers, which will be kept closed whenever the machines are in use, and all ancillary pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturers;
- Machines in intermittent use will be shut down in the intervening periods between use or throttled down to a minimum;
- All ancillary plant such as generators and pumps will be positioned so as to cause minimum noise disturbance, and where necessary, acoustic enclosures will be provided;
- The use of all noisy plant will be limited to core construction time periods (08:00 – 18:00 hrs Monday to Friday, 08:00 – 13:00hrs Saturdays);
- Channels of communication will be established between the contractor / developer, local authority and residents;
- A site representative will be appointed to be responsible for matters relating to noise;
- Localised noise barriers will be erected as necessary around plant items such as generators or high duty compressors;
- Construction compounds will be laid out so as to minimise noise impacts to neighbouring noise sensitive receptors, by locating noisy operations well away from receptors and using on-site structures and materials to screen noise where practicable and necessary;

### GROUND CONDITIONS & CONTAMINATION

- Prior to demolition, the existing buildings will be subject to an asbestos survey to identify if asbestos is present. If so, demolition would be preceded by removal of asbestos by licensed contractors;

## Environmental Protection Measures

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- Environmental controls should be placed on the construction activities to ensure any construction related impacts are minimised;
- The Contractors for each stage of works must manage the construction activities to ensure no adverse impact to controlled waters or underlying soils occurs;
- Imported and/or site won soil to be used on site in soft landscaping areas will be subject to chemical validation testing to ensure it is suitable for use. Documentary evidence will be provided in the form of a validation/site completion report; and
- Risks from ground contamination (if any) to construction workers and users of neighbouring premises will be mitigated through the use of appropriate health and safety measures and personal protection equipment (PPE).

### WATER RESOURCES & FLOOD RISK

- Standard measures will be incorporated into the construction phase to limit potable water demand, use and wastage wherever practicable (i.e. ensure water supply connections are not leaking etc.).

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# APPENDICES

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# Appendix 1: Red line Boundary



- Key
- Outline Planning Application boundary
  - Applicant's land ownership boundary
  - - - Detailed Planning Application boundary