

OHH Strategy Document: Construction Environmental Management Plan (CEMP)

One Horton Health

SECONDARY INFRASTRUCTURE DELIVERY – INTERNAL DISTRIBUTOR ROAD



On behalf of

ONE HORTON HEATH TEAM
EASTLEIGH BOROUGH COUNCIL
EASTLEIGH HOUSE
UPPER MARKET ST
EASTLEIGH
HAMPSHIRE
SO50 9YN

Contents

INTRODUCTION.....	4
1. SCOPE OF WORKS AND PROJECT DESCRIPTION	5
2. SITE MANAGEMENT ARRANGEMENTS AND CONSTRUCTION METHODS:.....	6
2.1 Key Personnel and responsibilities.....	7
Contracts Manager;.....	7
Site Manager;	7
The site HSEQ Advisor;.....	8
Site Ecologist / Ecological Clerk of Works (ECoW);.....	8
Contractors and Visitors;.....	9
2.2 Permits and Licenses:.....	9
Hampshire County Council Permits:.....	9
Public rights of way (PROWS)	9
2.3 Ecological and Environmental Toolbox Talks:.....	10
2.4 Noise and Vibration:.....	10
2.5 Control of Lighting on the Proposed Development:.....	12
2.6 Bird Hazard Management Plan:.....	12
2.7 Arrangements for the use of cranes and other tall construction:.....	13
2.8 Measures to Control the Emission of Dust and Dirt during Construction (including transfer of mud to external areas):.....	13
2.9 Protection of the aquatic environment in terms of water quantity and quality:.....	15
2.10 Work in inclement weather:.....	15
2.11 Deliveries:.....	16
2.12 Excavations:.....	16
2.13 Spoil Heaps:.....	16
2.14 Plant and Wheel Washing:	16
2.15 Sediment control:.....	17
2.16 Dealing with silty or contaminated water:	17
2.17 Installation of drainage and SuDS features:.....	18
2.18 Fuel and other chemicals on site:.....	19
2.19 Cement:	19
2.20 Air Quality:	20
2.21 Construction Traffic Management (including parking):.....	20
2.22 Location of site compounds and boundary hoarding:.....	20
2.23 Arboriculture work and tree protection:.....	21
2.24 Measures to ensure no on-site fires during construction:.....	21

2.25 Minimisation, Recycling and Disposing of Waste:.....	21
2.26 Site Storage Arrangements:.....	22
3.ECOLOGICAL AND HABITAT PROTECTION REQUIREMENTS:.....	23
Biosecurity (Invasive species):.....	25
4. PROGRAMME MANAGEMENT ARRANGEMENTS:.....	27
5. MONITORING ARRANGEMENTS AND EMERGENCY PLANS:.....	28
Control of Non-conformance.....	28
6. MANAGEMENT PLANS AND FURTHER ASSESSMENTS:	29
7. SUMMARY AND CONCLUSIONS:.....	29
APPENDIX – RIVER AND WATER COURSE PLANS	31
APPENDIX – ECOLOGICAL CONSTRAINTS PLAN.....	32
APPENDIX - TREE CONSTRAINTS PLAN.....	33
APPENDIX -BIRD HAZARD MANAGEMENT PLAN	34
APPENDIX – SITE SPECIFIC CEMP CONTROLS. TEMPLATE	35
APPENDIX F – CEMP WEEKLY INSPECTION/MONITORING FORM.....	39
APPENDIX G – FURTHER RELEVANT DOCUMENTS	41
APPENDIX – CONSTRUCTION TRAFFIC MANAGEMENT PLAN.....	42
APPENDIX – PERMITS AND LICENCES.	43
APPENDIX – CODE OF CONDUCT FOR CONSTRUCTION - CIRIA GUIDANCE DOCUMENT C741: ENVIRONMENTAL GOOD PRACTICE ON SITE.....	44
APPENDIX M – BIOSECURITY AND MANAGEMENT OF INVASIVE NON-NATIVE SPECIES FOR CONSTRUCTION SITES AND CONTROLLED ACTIVITIES.	45
APPENDIX N – SEPA/NIEA GUIDANCE NOTE – GPP5 GUIDANCE FOR POLLUTION PREVENTION – WORKS AND MAINTENANCE IN OR NEAR WATER	46

Revision	Prepared By	Checked By	Date
01	Bryony Mitchell	Emily Whitley	26.03.24

Introduction

- The One Horton Heath Team on behalf of Eastleigh Borough Council has developed this strategy document which will inform and form the basis of the environmental management requirements for the secondary infrastructure delivery scheme (SID) and specifically for the internal distributor road.
- The specific Construction Environmental Management Plan and controls will be developed with the Principal Contactor (once in contract) and the specific controls and monitoring arrangements will be submitted to the Planning Authority prior to work commencing on site.
- The purpose of this document is to outline measures to be taken to minimise the impact of construction on the surrounding area and ensure that any potential impacts arising from the construction activity are actively identified, managed, and minimised in accordance with the planning conditions, the OHH Environmental, Health & Safety Policy and procedures.
- The CEMP is intended to cover the construction phase only and will cease to apply on completion of works.
- The One Horton Heath project is a strategic part of the Council's Local Plan for the provision of new homes within the Borough. The secondary infrastructure delivery scheme components are shown in the diagram below (within the red boundary) – figure 1.1 and 1.2.
- This document should be read with related documents set out in the appendices.

Figure 1.1

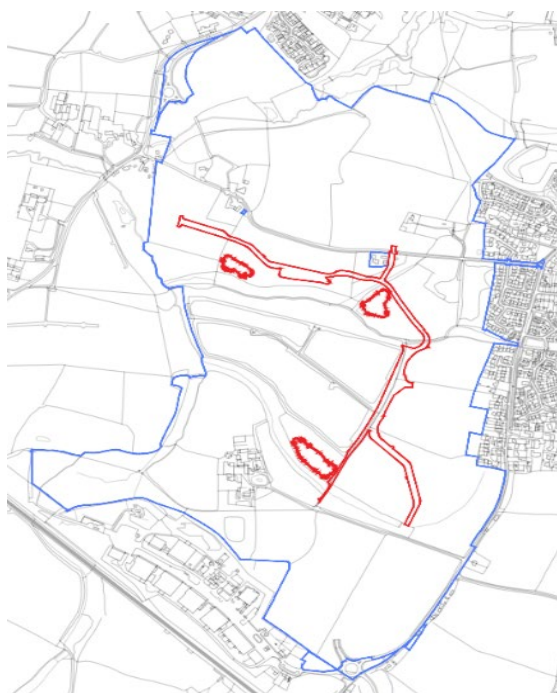


Figure 1.2



1. Scope of works and project description

2.1 Secondary Infrastructure Delivery (SID) involves two phases of works. The first phase includes the design, construction and implementation of a 1.6km Internal Distributor Road, including associated share path facilities, landscaping and sustainable drainage features.

The second phase includes the design construction and implementation of 30+ acres of green open space, a significant upgrade programme to Public Rights of Way (PRoW) across the OHH development, areas of ecological and biodiversity improvements, enhancements and creation, and sustainable drainage features.

This CEMP covers the Secondary Infrastructure Delivery for the internal distributor road:

These phases of works include:

- Internal Distributor Road (IDR) approximately 1.6km in length.
- Shared use paths associated with the IDR.
- Soft landscaping and tree planting associated with the IDR.
- Sustainable drainage features associated with the IDR.
- River corridor improvement by means of culverted crossings.
- Installation of strategic utility service networks within the IDR corridor.
- Ecological and biodiversity enhancements within the IDR corridor.

A specific CEMP will be developed with the Principal Contractor once in contract. Issues considered will include, but are not limited to:

- The appointment of appropriate responsible persons/organisations.
- Noise, vibration, lighting, air and water quality management.
- Control of lighting on the proposed development during construction.
- Bird hazard management plan.
- Arrangements for the use of cranes and other tall construction.
- Measures to Control the Emission of Dust and Dirt during Construction.
- Protection of the aquatic environment in terms of water quantity and quality:
- Deliveries:
- Excavations:
- Spoil Heaps:
- Plant and Wheel Washing
- Dealing with silty or contaminated water:
- Stream/watercourse diversions:
- Fuel and other chemicals on site:
- Cement:
- Construction Traffic Management.
- The arrangements for temporary site buildings, contractors parking and storage of plant and materials.
- The erection and maintenance of security hoarding – Tree root protection.
- Minimisation, re-use and re-cycle waste; minimise the pollution potential of unavoidable waste; and dispose of unavoidable waste in an environmentally acceptable manner.

- Ecological protection requirements, including protection of bats, birds, dormice and great crested newts or any other European protected species as advised by the ecology consultant.
- Monitoring requirements and emergency plans.

2. Site management arrangements and construction methods:

All works shall be carried out using Best Practicable Means according to the Control of Pollution Act 1974 and with reference to BS5228 “Code of practice for noise and vibration control on construction and open sites” and the Institute of Air Quality Management’s “Guidance on the assessment of dust from demolition and construction”.

Noise, vibration and dust shall be monitored, and good records kept of this, control measures deployed onsite and of any complaints or actions regarding amenity impacts and harm including nuisance due to pollution.

In the case of there being a complaint, this shall be promptly investigated, and remedial actions put in place where pollution is adverse within 24 hours or works shall cease until they can be. Records shall be made available to the Council upon reason request such as when visiting the site offices in relation to a complaint about impact to amenity, harm including nuisance due to pollution.

The Contractors will be required to ensure that they implement the requirements of this plan and all other statutory conditions and this will be monitored on a regular basis by a competent and authorised person.

The Design Team will provide specific guidance on the design and proposed construction methodology to prevent environmental or ecological harm and to minimise any disturbance. The design guidance will be reviewed by The OHH retained ecology consultants to ensure that is it robust and effective.

The Contractors will be required to ensure that they plan and design their works and produce a specific CEMP to be submitted to the Local Planning Authority for review and comment, obey all statutory requirements and obligations and ensure the works do not cause more environmental impact than not worse than expected or predicted by the project’s Environmental Impact Assessment.

The contractors shall monitor and audit the environmental performance of the works and effectiveness of the CEMP on weekly basis by a competent and authorised person who shall submit reports to OHH and OHH will regularly appraise Eastleigh Borough Council of the environmental performance of the works and the ‘health’ of the environmental management onsite and within the contractor and OHH project organisations.

While the works are underway, details of the contractor’s short term and medium-term specific works or phase or sub phase plans for the environmental and ecological management of the site and surrounding areas must be provided to the project team at least 10 working days BEFORE commencement on site to enable review and comments.

The CEMP shall be submitted to the Local Planning Authority for comment and approval prior to the works contract commencing onsite.

2.1 Key Personnel and responsibilities

All key personnel with responsibility for the works will be listed and named below in later versions of this document. The responsibilities listed below may well change as the work develops.

Contracts Manager;

- Ensuring that the CEMP is developed & held on site and that it is implemented throughout all phases of the project. Ensuring the CEMP details are updated as and when relevant information is provided by the stakeholders associated with each section of the CEMP; e.g., further consent conditions, pre-construction surveys, etc.
- Maintaining the CEMP and ensuring that all contractors and visitors comply with it.
- Ensuring that environmental issues identified within the Pre-Construction Information and the pre-construction site surveys and relevant information gathered from agencies, local councils etc are addressed.
- Producing environmental project specific controls for all significant risks identified and implementing control measures to minimise the risk of damage to the environment.
- Communicating the CEMP and other related document to employees, contractors and client representatives.

Site Manager;

- Ensure the site and all stored materials and chemicals are safe and secure.
- Ensure F10 notice, Principal Contractor Sign, and signage indicating where and whom visitors should report to are clearly displayed.
- The site is kept in a tidy and orderly fashion. Waste will be managed in conjunction with the Principal contractors procedure as applicable.
- Controlled access arrangements as so those entering site may avoid hazards.
- Emergency egress arrangement so those leaving site in the event of a pollution or spillage incident may do so safely.
- There are First Aid Facilities and appropriately trained First Aid staff.
- Spill kits are available and appropriately trained staff.
- Undertaking the daily inspections of the working areas and reporting any non-compliance to the Client's Project Manager and HSE team.

To ensure all those that work on site:

- Have Principal contractor induction including briefing and regular toolbox talks on environmental issues relevant to the site.
- Understand and obey the Site Rules.

- Are made aware of the Emergency egress arrangements, Muster points, First Aid facilities and First Aiders, spill and clean up procedures.
- Read and understand the site hazard board.
- Have current certification for activities as required.
- Are aware of all environmental matters which arise on site.

Ensure all activities on site:

- When necessary are carried out under Client Operational Safety Rules.
- Have, task specific risk assessments and method statements (RAMS) in place identifying any environmental issue which may be applicable.
- Are carried out in accordance with the requirements of any associated RAMS.

The site HSEQ Advisor;

Ensuring work carried out is:

- In a safe manner in accordance with any manufacturers' instructions etc., good standards of workmanship.
- Ensure site staff are working in accordance with agreed Risk Assessments and Method Statements (RAMS) particularly where activities have the potential to cause environmental harm.
- Health and safety advisor to complete the site waste management plan and ensure it is followed.
- Ensuring that the CEMP is implemented throughout all phases of the project.

Monitoring HSEQ issues by;

- Carrying out regular checks on site to ensure the site is secure and tidy.
- Weekly checks and "toolbox talks" carried and recorded. Weekly site audits.
- Consulting workers on the effectiveness of measures to reduce risk to the environmental, reviewing and improving conditions or methods/procedures where appropriate.
- Keeping records of and reporting any incidents and close calls (near misses).

Site Ecologist / Ecological Clerk of Works (ECoW);

- Provision of Ecological Toolbox Talk
- Pre-works precautionary walk over survey to confirm no change in condition or need for further mitigation
- Carrying out regular checks on site (as required) to ensure works are following this CEMP and all relevant ecological measures are being implemented – including completion of the Environmental Inspection and audit and reporting this to the Client (OHH team) – See appendices.
- Directly supervising certain works to ensure the ecological measures are being fully and correctly implemented

- Keeping records of and reporting any incidents and corrective actions associated with ecology.
- Provision of ongoing/ad-hoc advice and liaison with EBC and Environment Agency ecologists/Fisheries, Biodiversity Geomorphology.

Contractors and Visitors;

- Ensuring that the control measures identified from environmental surveys are implemented as they are relevant to their work / visit.
- Ensuring that the project management team are notified of any non-conformance of control measures or environmental incident where the environment has been put at risk.

All contractors and visitors to the site will be made aware of the Environmental policy and the controls applicable to their presence and activities on site including but not limited to:

- Method Statements,
- Risk Assessments,
- Site induction which includes Environment Briefings,
- Toolbox talks.

The Project Manager will be responsible for monitoring communications between all relevant parties to the project ensuring that all environmental matters to the project are discussed and managed and observation of the communications will be documented in the weekly site meetings and sent by e-mail. In addition, a copy of all correspondence will be held in this file.

Relevant site layout and location plans/CDM drawing detailing the location and construction of the site compound, storage locations and car parking are to be displayed on an information board at the site entrance.

All works required because of a Protected Species Mitigation Licence (PSML) issued by Natural England, will be supervised by the ecologist who is licensed by Natural England to undertake those works.

2.2 Permits and Licenses:

Hampshire County Council Permits:

Ordinary Water Course Consent applications will need to be made to Hampshire County Council for the water courses.

The main river watercourses on the OHH development site and the ordinary watercourses are shown on the plan below (see appendices).

Public rights of way (PROWS)

Where possible of public rights of way will be maintained and appropriately protected. Where closure or diversion of a public rights of way is required during the construction phase, appropriate consultation and permissions must be sort from the relevant local authority.

2.3 Ecological and Environmental Toolbox Talks:

An ecological toolbox talk will be delivered by a suitably experienced Ecological Clerk of Works (ECoW) who will also supervise key elements of the work. This will occur prior to the works on site commencing and also throughout the works at key relevant stages.

The toolbox talk will be delivered to Contractors and general site visits as required and include the following:

- Introduction to works
- Overview of Working Area
- Summary of protected species evidence
- Protected species legislation
- Areas out of bounds & exclusion features
- Non-licensable Method Statement
- Potential for EPS Licences
- CEMP and Precautionary Method of Works
- Ecological Management and Supervision
- Permit to Work
- Task Risk Assessment
- Communications

ECOLOGICAL TOOLBOX TALK (TBT) REGISTER OF ATTENDANCE

Name	Company / Role	Date	Confirmation TBT Understood	Confirmation of Attendance

2.4 Noise and Vibration:

The location of the site in relation to receptors, suggests that noise and vibration would pose some disturbance to neighbouring properties and sensitive ecological receptors. British Standard BS5228 (code of practise for noise and vibration control on construction and open

sites) provides guidance to minimise the impact of noise and vibration by implementing control and monitoring measures.

Activities as categorised below will be monitored with mitigation carried out as appropriate.

- Site Activity
 - Works only to be carried out within permitted working hours
- General Demolition and Construction Noise - machinery operations and movements, falling debris and site operatives
 - Should not cause an issue outside of the site boundary
 - Plant and equipment to be serviced and kept in good working order
 - Minimise drop heights of falling debris
 - Operatives made aware of the need to keep noise levels to an appropriate level
 - Idle vehicles and machinery not in use will have their engines switched off
 - Levels greater than 80dBA at site boundary require contractor to supply acoustic screening that are of sufficient height to more than break line of sight from the noise sensitive dwelling to the construction plant operating on the site
- Hydraulic Breaker Noise – potential need to break out floor and foundations
 - Short term peak levels of 120dBA at point of works
 - Without screening 90dBA at 10m from source
 - With screening or natural obstruction drop to 80dBA at 10m from source
 - Levels greater than 80dBA at site boundary require contractor to supply acoustic screening.
- Vibration – breaker operation, machinery movements and falling debris
 - Breaker operation most intense, however low frequency and low intensity.
 - Falling debris and rubble, machine and lorry movements should prove minimal in effect.
 - Not normally felt beyond 5m from source

The following list provides examples of key activities which have the potential to generate noise and vibration during the construction period:

- Ground Excavation and Earthworks including piling
- Loading Lorries
- Distribution of material – haulage and dumping load
- Rolling and compaction
- Ground investigation drilling
- Mixing and pumping concrete
- Trenching
- Moving equipment
- Diesel generators providing on-site power
- Sweeping and dust separation
- Spreading chippings / fill
- Landscaping works

The Principal Contractor will be required to comply with recognised industry standards, including BS5228 (A1 2014) – The Code of Practice for Noise and Vibration Control on Construction and Open Sites) in order to reduce noise pollution.

The Principal Contractor must consider introducing noise control measures as part of their standard site set up, for example, hoarding installation, noise screens surrounding cutting equipment and considering the positioning of noisier plant to ensure that, where possible, noisy works are further away from sensitive receptors.

The Contractors noise management controls will be set out in the Construction Phase Plan.

In addition, the following controls will be implemented:

- Regular checks will be undertaken to ensure that the plant is in good working order and not running at a noisier than expected level.
- All workers on site will be made aware of the need to keep noise and disruption to a minimum from plant, radios, and vehicles.
- Site managers will ensure this is conveyed as part of the initial site induction and is maintained with good site management. Regular toolbox talks will also be required to reinforce the message.
- All vehicles waiting to deliver or delivering to the site will wait in a suitable location and have their engines switched off.
- A record of the checks on noise and vibration control measures will be included in the weekly environmental reporting to the OHH team.
- A complaints procedure is in place for ANY health, safety or environmental concerns. These can be reported directly to the OHH health and safety team, along with EBC. All complaints will be recorded, investigated, and reported to both the OHH board and relevant authorities where required.

2.5 Control of Lighting on the Proposed Development:

Where possible lighting should not create unnecessary spill onto adjacent habitats and all lighting should be downward and inward facing (towards the working area). Lighting should be switched off at night. No lighting will be permitted at the boundary of the northern riparian corridor and southern woodland boundary. The southern woodland is ancient woodland designated SINCE, as such it is highly sensitive to light/dust/litter.

All temporary lighting schemes will be reviewed by the ecologist to ensure that these requirements are implemented. Details of the lighting scheme will be included in the Construction management Strategy and Construction Phase Plan prepared by the Principal Contractor.

2.6 Bird Hazard Management Plan:

A bird hazard management plan has been developed and submitted to minimise attractiveness to birds which could endanger the safe movement of aircraft and the operation of Southampton Airport. This plan complements this CEMP and is integral to the overall management requirements.

Section 5.2.1 of the Bird Hazard Management Plan is below (John's Associates J00532 v1.0 April 2021):

"Construction Phase

Control of construction drainage and earth works during the construction phase should ensure that wide areas of permanent open water do not develop which can attract geese, gulls and wading species. If necessary, bare loose soil should be compacted to reduce its suitability for bird species.

The timing of all significant earthworks, particularly topsoil spreading and grading, shall be notified to the airport (Airfield Operations) in advance and scheduled, where possible, at times of lower flying activity.

Grass seeding should be done in phased sections if the area to be seeded is larger than 150m² rather than all at once.

Intervals between discrete blocks should ideally be in the order of 3 days. This will produce staggered germination, reducing the amount of seed available to pigeons, reducing the area affected at any one time and allowing better deployment of passive deterrent measures.

Blocks of ground where construction work has been completed shall be reinstated or covered and re-seeded (where applicable) at the earliest opportunity.

Waste control and disposal for the Site, including food waste, should be controlled to avoid the build-up of scavenging bird species such as gulls and corvids. Waste should be placed in covered skips and bins to reduce risk."

2.7 Arrangements for the use of cranes and other tall construction:

Details of cranes and other tall construction equipment will be included in the Construction Management Strategy and Construction Phase Plan prepared by the Principal Contractor which must be submitted and approved in writing to the Local Planning Authority.

All tall equipment will be managed in line with CAP1096 "Guidance to crane users on aviation lighting" and notification Advice Note 4 'Cranes and Other Construction Issues':

<https://www.aqa.org.uk/wp-content/uploads/2016/09/Advice-Note-4-Cranes-2016.pdf>

2.8 Measures to Control the Emission of Dust and Dirt during Construction (including transfer of mud to external areas):

The contractor will take measures to prevent dust pollution during the construction works. This includes being aware of high winds which may cause dust to be carried into the neighbouring areas.

Appropriate mitigation and monitoring will be implemented as outlined within.

- Guidance on the assessment of dust from demolition and construction - Institute of Air Quality Management
- Best Practice Guidance - The control of dust and emissions from construction and demolition (see appendices)

The suggested hierarchy to control the emissions of dust and other emissions and reduce human exposure is:

1. Prevention
2. Suppression
3. Containment

The following controls should be implemented:

- Disturb the minimum amount of land necessary at any one time (phasing).
- Avoid unprotected loose spoil heaps where possible – for long term storage consideration should be given to planting/covering.
- In dry weather, water suppression will be used to dampen down dust and prevent dust from migrating to neighbouring properties or into local watercourses.
- Mud transfer to local roads will be prevented. Vehicles exiting the site with any waste or dust attached, that could subsequently transfer to the local roads, will be obligated to pass through the washing facility to minimise transfer of dust and waste onto the local network.
- The location of the washing facility must be agreed with the Client to prevent run-off or resulting slurry from adversely affecting the local environment. Loss of sediment into the watercourses must be avoided at all times.
- Washing facilities must be situated or designed so as to prevent washing water and associated mud and sediment from reaching watercourses.

The following guidelines will reduce the risk of dust emissions affecting environmental and human receptors:

- General – Monitoring and Observations
 - Monitor site activities and carry out regular inspections, ensuring appropriate action is taken
 - Record dust and air quality complaints, identify cause and take appropriate action in a timely manner
 - Record incidents and action taken to resolve the issue
 - Mindful of weather and the effect on dust (winds, rainfall and unusually dry)
 - Ensure adequate water supply is available for suppression of dust and particulate matter
- Control of dust will be carried out at the source where possible
 - Use methods of demolition that reduce dust creation
 - Soft strip of buildings prior to hard demolition
 - Minimise drop heights of falling debris

- Use misting sprays or local damping down techniques with water to suppress dust emissions.
- Amount of water used for dust suppression is to be kept to the minimum to avoid creating runoff.

2.9 Protection of the aquatic environment in terms of water quantity and quality:

This CEMP sets out our risk-based approach to avoidance and mitigation.

The control measures will be installed in accordance with CIRIA Guidance document C471 – Environmental good practice on site (4th Edition) and SEPA Pollution prevention guideline PPG5 – Works and maintenance in or near water -

<https://www.netregs.org.uk/media/1418/gpp-5-works-and-maintenance-in-or-near-water.pdf>

(See appendix) and include:

- A buffer zone will be identified to prevent (or strictly control) construction activity within 10 m of a watercourse. The zone will be defined on site by a suitable physical barrier, to be agreed with the site ecologist.
- Where construction activities are required within a watercourse, details of the additional avoidance and mitigation measures will be identified in a task specific risk assessment and clearly set out in Method Statements.
- EA Permits and Ordinary Water Course Consents have been applied for any activities within 8 metres of the main river watercourse (see permit section above). The applications, including the control measures will be appended to this CEMP.
- The control measures taken to ensure that no pollution of the waterways during construction will follow the hierarchy:
 - Contain at source
 - Contain close to source
 - Containment on the surface
 - Containment in a drainage system
 - Contain on or in the watercourse

Full details will be set out in the Contractors Construction Phase Plan and based on SEPA Pollution prevention guideline PPG5 – Works and maintenance in or near water (see appendices)

2.10 Work in inclement weather:

No works which could cause pollution via run-off should occur during periods of heavy rainfall (in particular activities that could result in sediment pollution of downstream water courses). Ground works are due to commence in April 2023 and the timing of ground works close to watercourses will avoid sensitive spawning periods for Atlantic salmon (November/.December – <https://www.cefas.co.uk/iys/salmon-life-cycle/>)

2.11 Deliveries:

- The Site Manager will ensure that site access is strictly controlled to prevent excessive ground disturbance.
- Delivery, set down and fuelling areas will be located to avoid fuels and hazardous materials spillages potentially entering water courses. These areas will be designed to have suitable surfaces with bunding where necessary to manage potential spillages.
- All deliveries are to be supervised by the Site Manager or a suitably trained person with delegated responsibility to ensure that storage tank levels are checked before delivery to prevent overfilling and that the product is delivered to the correct tank.
- Contingency plans are to be agreed and suitable materials available should any incident occur.
- All employees are to be briefed on the actions that are required in the event of a spillage. Emergency plans to be displayed on site and all operatives made aware of the plans on site induction.

2.12 Excavations:

- Measures must be taken to ensure that animals do not enter excavations and that those inadvertently enter excavations are able to escape, i.e. excavations are covered at night and wooden bords laid as escape routes'.
- The means of dewatering excavations in the event there is ingress is to be agreed with the client and ecologist where necessary.

2.13 Spoil Heaps:

- 'Spoil heaps are to be located and configured in a way that will avoid the risk of sediment run-off (covered or stabilised to prevent gullyng or erosion) into, or contamination of watercourses and drainage ditches AND compacted to prevent encouraging bird activity as set out in the Bird Hazard management Plan.
- Arisings from the phase 3 road works will be stored for reutilisation in other areas of the One Horton Heath site, including the FRP / Lower Acre to prevent the need for importing fill material. Location of storage to be agreed in line with the above statement.

2.14 Plant and Wheel Washing:

- To minimise waste and dust which might collect on vehicles and subsequently transfer to the local roads and environs a wheel washing facility will be provided at the site exit. The runoff from wheel washing will be effectively managed to prevent entry into all watercourses by use of proprietary equipment or via catchment and silt traps where necessary.

2.15 Sediment control:

- Control of sediment and runoff will be managed in accordance with the principles set out in the CIRIA SuDs Manual and Works and maintenance in or near water: GPP 5 (See appendices).
- Installation temporary sediment basins/traps/settlement ponds and/or early construction of the permeant SuDs features will be undertaken before any earthworks begin.
- Haul roads will be designed to minimise and control run-off including temporary surfacing and temporary drainage to intercept sediment laden run-off and wetting of surfaces during periods of dry weather.
- Run-off control measures to divert run-off around areas being excavated will be installed in conjunction with sediment basins/silt traps.
- The contractor will minimise the amount of land disturbed at any time to reduce the potential for run-off to enter water courses (phasing).
- The use of methods including, retaining grass and vegetation for as long as possible, in disturbed areas, controlling erosion via the use of straw bale barriers, geotextile silt fences and sediment basins (with regular clearing out of excess sediment off-site) and ensuring that the runoff from the disturbed area passes through sediment control systems before discharge will be required.
- De-watering operations – water pumped out of excavations generally carries a heavy sediment load and should never be discharged direct into watercourses. It should be routed first through features that will allow sediment to be filtered out and settle out.
- Working in or on the banks of watercourses presents a high risk of significant sediment mobilisation and challenges in intercepting it and capturing it once mobilised. The Contractor must consider the temporarily diversion of watercourses around work sites.
- Worked areas should be finished and vegetation established as soon as works are complete, and the area/time ground is left bare and disturbed should be minimised. Where active construction will not take place for more than 60 working days areas should be stabilised by temporary seeding and/or mulching or by other suitable means.
- All discharge of water into local watercourses will be in line with relevant Environment agency licenses and permits.
- All sediment controls will be set out in the Contractors Construction phase plan and will be subject to weekly checks.

2.16 Dealing with silty or contaminated water:

- Silt, including fine silt or other contaminated water must not be allowed to enter watercourses and ditches. The water courses in this area feed into the River Itchen, a

European Special Area of Conservation for wildlife. Pollution of the watercourses could have significant environmental and ecological impact.

- There is a potential for significant silt and run-off from the construction works and storage areas, (which slope down towards the drainage ditches) to enter watercourses and ditches.
- If water is heavily laden with silt, it will be pumped via a settlement tank or lagoon or other silt management techniques (e.g. Silt Busters / Silt Bags) prior to discharge to the SuDS system. This is to ensure silt mobilised as a result of construction activities is captured at source to minimise discharge to on-site watercourses.
- The Principal Contractors will plan their work to contain any contamination, for example, bunding, the use silt barriers/geotextile fencing or alternative effective measures to prevent this occurring. Silt fences will be erected along the boundary of watercourses to minimise silt laden runoff entering the on-site watercourses and these will be monitored, as necessary.
- Catch-pits or silt traps on drains will be used to remove suspended solids such as mud and silt to prevent contaminated water entering surface water drains, surface waters or ground waters, or draining onto the land.
- Contaminated water can arise from excavations, exposed ground, stockpiles, plant and wheel washing, concrete mixing, or other construction activities.
- Wheel washing locations will be located away from watercourses and ditches. Before wheel washing takes place, checks will be carried out to ensure that sediment traps and measures to prevent run-off and the transmission of hydrocarbons/salt/invasive plant seeds are in place during cleaning. These controls will be checked and emptied and at regular intervals.
- Adequate provision for dealing with silty water is to be agreed in advance. Any planned discharges off the site will require prior approval with the appropriate authorities.
- All washings from cement and other cleaning processes must be contained within the site and removed via tanker or other appropriate means to prevent discharge into the local environment.
- All contaminated water must be removed from site and adequately treated prior to discharge under the appropriate permits and licenses.
- Full final details of the silt prevention measures will be included in the Contractors Construction Phase Plan and will be reviewed and agreed with the Clients appointed Ecologist prior to works commencing.

2.17 Installation of drainage and SuDS features:

- Temporary SuDs and/or early installation of the permanent SuDs features will be implemented to prevent silt contamination of high-risk watercourses.

- During construction of the sewers and infrastructure the likelihood of any contamination being caused is slim, however all machines are well serviced and will be fuelled via diesel station located within the compound facilities that will have the appropriate raised blockwork surround with plastic lining to help prevent spillages.
- If there are spillages whilst a machine is onsite, then this can be addressed using the locally located spill kits to prevent any further contamination within the soil. There will also be the appropriate skips for waste materials etc. that will be delivered on a call-off basis to prevent over filling.

2.18 Fuel and other chemicals on site:

- All chemicals used on site have the potential to cause serious pollution and environmental damage. Therefore, all fuel, oil and chemicals used on site must be stored in a secured container on an impervious base. Leaking or empty oil drums must be removed from the site immediately and disposed of via a licensed waste disposal contractor. In addition, the following controls must be adopted.
- Contents of any tank will be clearly marked on the tank itself, with a notice displayed requiring that valves and trigger guns be locked when not in use
- Care will be taken during the transfer of fuel or chemicals on site. A spill kit will be available in any locations that the transfer of fuel or chemicals will be taking place. Drip trays will be provided near any transfer device, such as a hose or nozzle, to prevent chemical ingress into the ground.
- All chemical stores must be appropriately bunded.
- Mobile plant is to be refuelled in a designated area, preferably on an impermeable surface away from any drains or watercourses.
- Hoses and valves are to be checked regularly for signs of wear and turned off and securely locked when not in use.
- Diesel pumps and similar equipment are to be placed on drip trays to collect minor spillages.
- These should be checked regularly, and any accumulated oil removed for disposal.

2.19 Cement:

- Cement is highly alkaline and corrosive and can have a serious impact on watercourses. It is essential to take particular care with all works involving concrete and cement. The following controls should be implemented:
 - Suitable provision is to be made for the washing out of concrete mixing plant or other vehicles so that washings do not flow into any drain or watercourse or seep underground.
 - In the event of a spillage on site, the material must be contained (using an absorbent material such as sand or soil or commercially available booms).
 - All spillages are to be reported to the Project Manager.

2.20 Air Quality:

- An Air Quality Assessment has been prepared by Hydrock which forms part of the planning application.
- The assessment will be used to determine the monitoring requirements and controls required to ensure that proposed work does not significantly affect air quality during the construction phase.
- All monitoring and control measures identified from the assessment will be considered and implemented as far as reasonably practicable.

2.21 Construction Traffic Management (including parking):

- The potential environmental impacts associated with construction vehicle movements are to be addressed through the strategy by way of:
 - Minimising traffic movements where practicable,
 - Minimising fuel consumption using local materials and sub-contractors
- An overall construction traffic management plan (TMP) has been prepared (see appendices). This details the proposed site set up and compound locations, construction traffic routing arrangements, working practices and working hours requirements wheel washing facilities, use of banksmen and consultation with local residence requirements.
- The Principal Contractor must adopt and implement the Traffic Management Plan in order to ensure that the impacts on the local community from construction traffic is minimised and that public access is maintained where reasonably practicable.

2.22 Location of site compounds and boundary hoarding:

- The Site compound, site storage and temporary buildings will agreed prior to start and will incorporate silt traps as part of the design.
- A plan showing the area's to be protected will be produced and appended to this CEMP. This is to follow – note, this will include boundary types e.g., Newt fencing, heras fencing, root protection etc.
- Enabling works for the site will comprise perimeter fencing/security provisions. The construction and maintenance of fencing and hoardings will be carried out to industry acceptable standards to prevent unauthorised access to the construction site, to provide noise attenuation, screening, and site security where required.

There will be different types of fencing will be used:

- Including hoardings used for noise control.
- Site information boards with out of hours contact details, 24-hour telephone number(s) (and email addresses for comments/complaints), community information and information on the works programme, positioned at key locations and,

- Display notices and signs on the site boundaries to warn of the hazards on site, such as deep excavations, construction access, etc. Clear sight lines will be maintained around hoardings and fencing with no hidden corners to avoid, where reasonably practicable, opportunities for anti-social behaviour, crime and to ensure the safety of pedestrians and vehicles.
- Footways of adequate width, to facilitate pedestrian flows, will be provided with appropriate signage to facilitate safe access to the site.
- Adequate lighting will be installed, as necessary, near or on hoardings, as is appropriate.
- Fencing and hoarding will, as far as is reasonably practicable, be located such that it does not damage trees or hedgerows.

2.23 Arboriculture work and tree protection:

- The tree and root protection requirements are set out in the Tree survey report and root protection plan which will be provided to the contractor at tender stage.
- All works must be undertaken in accordance with the Tree Constraints plan included in the appendices.

2.24 Measures to ensure no on-site fires during construction:

- There will be no fire or burning of materials on the site. The project manager and construction liaison officer will ensure that all staff and contractors will be made aware and adhere to this.
- The site and associated accommodation and welfare facilities will have in place appropriate plans and management controls to prevent fires

2.25 Minimisation, Recycling and Disposing of Waste:

- All contractors will follow the waste hierarchy and prevent waste as far as possible in the first instance. Where waste cannot be prevented it should be reused where possible, recycled or subjected to energy recovery processing. Disposal into landfill will be the last and least favoured solution.
- All contractors working on the OHH project will be expected to set out their environmental waste management arrangements at Tender stage and provide full details of how they will manage this on site via their Construction Phase HS&E plans.
- The contractor will be expected to be aware of which materials can be recycled and should try to do so, likewise any non-recyclable material should be disposed of with the appropriate level of care and concern.
- Where possible soil removed will be relocated on site for use in accordance with the ecologist plans for habitat improvements. Materials removed during the Phase 3 link road works will be relocated on the area of the First residential parcel (Lower acre) to prevent the need to import soil.

- A secure compound area will be established on site to provide an area for storage, collection, and disposal of rubbish from the development during the construction phase.
- This compound will contain multiple skips for different materials and will be covered over by netting.
- Waste vehicle movements will only take place between 08:00 and 18:00 (Monday to Friday) and 08:00 to 13:00 on Saturdays in accordance with the Planning Conditions.
- All waste transfer notes must be retained for review and inspection as requested by EBC/OHH teams.

2.26 Site Storage Arrangements:

- Materials used in construction operations, such as oil, chemicals, cement, lime, cleaning materials and paint have the potential to cause serious pollution. All fuel, oil and chemical storage must be sited on an impervious base and secured.
- Leaking or empty oil drums must be removed from the site immediately and disposed of via a licensed waste disposal contractor.
- The contents of any tank are to be clearly marked on the tank, and a notice displayed requiring that valves and trigger guns be locked when not in use.
- The site of all storage must be identified in the Construction Phase Plan.

3. Ecological and habitat protection requirements:

An Ecological Mitigation and Management Plan (EMMP) will be submitted as part of the planning application and will be implemented as one of the planning conditions.

Many species of animal and plant receive some degree of legal protection. For the purposes of this document, legal protection refers to: species included on Schedules 2 and 5 of the Conservation of Natural Habitats and Species (Amendment) (EU Exit) Regulations 2019 and Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (UK Government, 1981) (as amended).

Legal offences associated with species listed on Schedule 2 of the Habitats Regulations and Schedule 5 of the Wildlife and Countryside Act in England and Wales include inter alia:

- Deliberate capture, injury or killing of animals or taking or destroying their eggs.
- Deliberately disturb animals in a way that would significantly affect their local distribution or abundance, or
 - affect their ability to survive, breed or rear young.
- Intentional or reckless disturbance of an animal in its place of shelter or protection.
- Damaging or destroying a resting place or breeding site.
- Intentionally or recklessly obstructing access to a place of shelter or protection; and
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead animal or any part of an animal.

Relevant species listed on these Schedules that are potentially associated with this site comprise bats, great crested newt, hazel dormouse and common reptile species (e.g., slow worm and common lizard).

Bats, great crested newt and dormouse receive full protection from all legal offences listed above which includes disturbance and loss of habitat. Common reptile species receive partial protection under the Wildlife and Countryside Act in that they are protected from killing and injury only.

All species of wild bird are protected under the Wildlife and Countryside Act (1981) (as amended) from killing or injury. In addition, it is an offence to take or damage/destroy their eggs and to damage or destroy a nest whilst it is in use. Species listed on Schedule 1 (such as barn owl) receive additional protection in that it is illegal to disturb birds or their young whilst occupying, or near to, an active nest.

Badgers are protected under the Protection of Badgers Act 1992 (UK Government, 1992) which makes it an offence to wilfully kill, injure or take (or attempt to kill, injure or take) a badger; or to disturb badgers whilst occupying their setts.

A number of wild plants and animals (including grass snake and some species of bat) are also included within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (UK Government, 2006) which lists flora, fauna and habitats considered by the Secretary of State to be of principal importance for conserving biodiversity.

The publication of the "England Biodiversity List" satisfies the requirements of Section 41 of the NERC Act 2006 for the conservation of biodiversity. Section 40 of the NERC Act

2006 requires public bodies, including local planning authorities, to have regard for the conservation of biodiversity in England, when carrying out their normal functions.

The Ecologist has prepared a plan identifying the ecological constraints (see appendices).

The Ecologist will review the measures required to comply with wildlife legislation and minimise disruption to the environment and ecology of the area. The Principal Contractor must refer to these when preparing their construction phase plan.

There are a number of key environmental and ecological considerations and ecologically sensitive species on, or linked to this site including:

- Designated **wildlife sites** a number of local wildlife sites (SINCs) lie immediately adjacent to the site or connected via the watercourses (SAC/SPA/SSSIs) and these must be protected.
- **Watercourses:** streams on site feed into the River Itchen SAC European Wildlife Site and must be protected from pollution incidents and sediment run-off (see measures above).
- **Boundary/retained habitats** such as hedgerows, trees, grassland habitats and the watercourses themselves.
- **Great Crested Newt (GCN).** A 250m buffer zone around the Chalcroft pond has been identified as potential GCN habitat and GCN licences are in place for the northern area and Chalcroft (to be submitted/approved). All works must comply with the licence requirements and the precautionary method statement provided and/or assessed by the Appointed Ecologist.
- **Bats.** Whilst no bat licences are required for the road, various bat licences are in place across the wider One Horton Heath development and copies of these will be retained by the Principal Contractor. A number of tree roosts are also present across the site. The location of which will be made available to the Principal Contractor and these will be updated/reassessed as required. Lighting impacts on bat foraging and commuting routes during the construction period will be minimised through the careful placing of lighting, avoiding key foraging and woodland habitat. The use of lighting at night will be temporary and for short duration.
- **Dormice.** Foxwood supports hazel dormice which are afforded special protection under the Wildlife and Countryside Act (1981, as amended). An appropriate Natural England Licence is currently in place and precautionary working methods statements will be prepared for works in this area and relevant toolbox talks provided to ensure all operatives are aware of the control measures required. All pre-start checks will be recorded.
- **Barn Owl** are afforded special protection under the Wildlife and Countryside Act (1981, as amended) and are protected from disturbance whilst nesting. Nesting barn owls are present in Chalcroft farm and there are two active nest boxes present on site to the south of Chalcroft and in the centre of Foxwood.

- **Otters** are included in Schedule 5 of the Conservation of Natural Habitats and Species (Amendment) (EU Exit) Regulations 2019. Whilst no evidence of otter has been recorded on site, it is likely that otter will use the watercourses and ditches on site to travel through the landscape. Measures to prevent disturbance or harm to otter are therefore required when works are conducted within or in the vicinity of suitable habitat.
- **Nesting Birds** – Suitable nesting habitat will not be removed during the nesting bird season March-August inclusive, unless checked by the Ecologist and confirmed no nests are present. Any active nests will be protected from disturbance. Works will be timed to prevent disturbance of nesting birds, in addition, precautionary working methods statements will be prepared, and relevant toolbox talks provided to ensure all operatives are aware of the control measures required. All pre-start checks will be recorded.
- **Badgers** - If necessary, a Natural England licence will be sought should any setts be found and are to be impacted either by disturbance / exclusions / closure with the provision of artificial setts created if necessary.
- **Other species** - A list of other potential ecological receptors have been identified or are highly likely to be present within the habitats on site in any area of the OPA include common reptiles.

Biosecurity (Invasive species):

The One Horton Heath Team adopts a robust approach to biosecurity, focusing on avoiding factors and situations that increase the risks of spreading diseases, parasites and invasive non-native plants and animals (INNS).

We therefore fully recognise the potential for our operations to act as a vector for biosecurity risks and the threat our work could pose, in the absence of mitigation, to the spread of diseases, parasites and INNS. The team ensures it mitigates this risk from the outset on each individual project. Our approach starts at home, and covers all aspects of our daily work and all locations that we visit during the day and on the way home.

Within the wider site we have known areas of Japanese knotweed which are currently in year 2 of treatment. There are also areas of Himalayan balsam (adjacent to Quobleigh stream) which must not be spread across the site or downstream.

Management of these invasive species must be undertaken in accordance with industry guidance such as the Ciria guidance document “Invasive species management for infrastructure managers and the construction industry (C679D)” and the SEPA document ‘Biosecurity and management of invasive non-native species for construction sites and Controlled Activities’ - <https://www.sepa.org.uk/media/163480/biosecurity-and-management-of-invasive-non-native-species-construction-sites.pdf> (See appendices).

Our approach to biosecurity is summarized here.

We store and maintain field equipment and materials in a separate location, split into lockable clean/dry and dirty/wet containers, with an outside yard and washdown area available for disinfection. We adopt the three key steps associated with Check - Clean – Dry and the guidance

for Biosecurity in the Field (both on site and at our field depot) and this forms the cornerstone of our Biosecurity policy.

- *Check - Check your plant, equipment and clothing for living organisms. Pay particular attention to areas that are damp or hard to inspect.*
- *Clean - Clean and wash all plant, equipment, footwear and clothes thoroughly, preferably with hot water. If you do come across any organisms, leave them at the location where you found them.*
- *Dry - dry all plant, equipment and clothing - some species can live for many days in moist conditions. Make sure you don't transfer them elsewhere.*

Prior to any site work, a biodiversity risk assessment is completed, which includes consideration of background information (including client knowledge, GIS data, site records) to identify potential hazards, risk ratings and mitigation measures. Where specialist advice is required, this is sought from our professional external advisors and/or from other sources such as best practice guidance documents, the Defra and Non-Native Species Secretariat website, other EU/UK advisory websites and from our clients where appropriate (e.g. Environment Agency).

The outcome of the biodiversity risk assessment feeds into a project task method statement that will be used to deliver a project/site induction with the use of toolbox talks and registers of attendance. Any new members of the team (including sub-consultants and contractors) joining a project will have to complete the induction. Guidance and identification materials (e.g. of INNS) are made available as part of this induction. A biosecurity response plan is developed, and procedures and any required equipment is always available on site as well as being prepared for the office/field depot.

Site work adopts a risk avoidance strategy where possible (e.g. use of advanced knowledge or walkover surveys to ground truth biodiversity risks identified as being potentially present, avoiding driving vehicles off road wherever possible to minimise transfer of soils/spores/seeds, avoiding sensitive times of the year, provision of the right equipment that is easy to manage, following defined paths, use of signage and barrier tapes, checklists, personal cleaning and disinfection, equipment isolation/ washing and disinfection facilities where possible, or isolation and handling at our field depot, confirmation of safe and appropriate disposal pathways for potentially contaminated materials, cleaning and drying (48hrs) of personal protective equipment and sampling equipment.

4. Programme management arrangements:

The programme of works will broadly consist of the following:

- Enabling works including, ecological protection works, perimeter fencing/security provisions, site compound, site clearance, ground investigation, initial service diversion works and access works, arboriculture works.
- Sub infrastructure works, SuDS and other drainage features including temporary SuDS features for use during construction phases,
- Construction of drainage systems and other ground works,
- Road construction
- Landscaping works.

A full and detailed programme will be prepared for each phase.

The following works must only be undertaken following liaison and agreement of the ecologist, and be conducted in line with relevant licences and permits:

- Ecological protection works,
- Works which may cause disturbed of land within 250m of the great crested newt breeding ponds (where applicable).
- Works to remove hedgerows.
- Bat protection works.
- Dormouse or other EPS protection works.
- Tree removal and arboriculture works (stream edge).
- Dewatering (where required) and discharge into water courses.
- Installation of outlets requiring ordinary water course licences.

There are a number of additional seasonal and time related requirements which will be included under the advice of the ecologist and included in the programme. The Principal Contractor must ensure that these are considered when developing the construction programme.

5. Monitoring arrangements and emergency plans:

A robust monitoring regime will be implemented by The Client and The Principal Contractor.

The specific CEMP arrangements implemented by the Contractor will be detailed in the schedule (template located in the appendices).

The Contractor must ensure that appropriate and effective environmental emergency plans are in place and that all relevant personnel are trained in their use. Such plans include, spillages, high winds and/or excess rain/weather incidents.

The Principal Contractor's Site Manager is responsible for the daily monitoring of their implementation of environmental protection measures and the CEMP requirements throughout the construction phase and these must be reported to the Client weekly in accordance with the OHH EHS procedures (see appendices)

The Site Ecologist or Ecological Clerk of Works is responsible for undertaking regular site inspections and audits and reporting these to the OHH HSE team.

A regular, independent environmental inspection will be undertaken on behalf of EBC to review the controls in place. The frequency of formal inspection will be relative to the level of risk and may only be reduced on agreement by all relevant parties.

Representatives of the Client may request documentary evidence of monitoring at any time and will undertake site monitoring visits and supervisory visits both before and during the construction phase.

Control of Non-conformance

Non-conforming products or processes would initiate a Non-Conformance Report, which would identify the nature of the problem, the proposed corrective action, action taken to prevent recurrence of the problem and verification that the agreed actions have been carried out.

All incidents and non-compliance issues found must be reported to the OHH project team and the EBC Pollution Control and Ecology team at the earliest possible opportunity.

A template monitoring form is included in the appendices.

6. Management plans and further assessments:

The following assessments, strategies and management plans will be reviewed and implemented:

- Construction Management Strategies including.
 - Construction Traffic Management Plan

7. Summary and conclusions:

- This “Strategy” document sets out the overall framework and key requirements for the Contractor to develop and submit to the Local Planning Authority for approval specific Construction and Environment Management Plans (CEMP), including the prevention of pollutants entering water courses and managing the movement of construction, delivery traffic to/from the site, monitoring and audit of emissions and impacts etc.
- The contractor must develop specific Construction and CEMP and provide their implementation plans for review by the project team before the commencement of work.
- A completed specific ‘CEMP’ must be included in the Contractors Construction Phase Plan and the Local Planning Authority consulted before works commence on site
- Subsequent to the specific ‘CEMP’ small variations to the CEMP may be necessary as development progresses and the phasing programme may change as a result. If these have the potential to result in adverse environmental or pollution impact, change or enhancement of mitigation or control measures will be necessary, the Local Planning Authority must be consulted on these prior to temporal or physical change to the works.

8. Appendices:

Appendix – Rivers and Water Course plan

Appendix - Ecological Constraints Plans

Appendix - Tree Constraints Plan

Appendix – Bird Hazard Management Plan

Appendix – Site specific CEMP Controls – TEMPLATE

Appendix – CEMP weekly inspection/monitoring form DRAFT (see EHS Management system currently under review)

Appendix – Further relevant documents

Appendix – Construction Traffic Management Plan.

Appendix – Permits and licences.

Appendix – Code of Conduct for Construction (INCLUDING Ciria guidance document C741: Environmental Good Practice on Site)

Appendix – Biosecurity and management of invasive non-native species for construction sites and Controlled Activities.

Appendix – SEPA/NIEA Guidance note – GPP5 Guidance for Pollution Prevention – Works and Maintenance in or near water

Appendix – River and water course plans

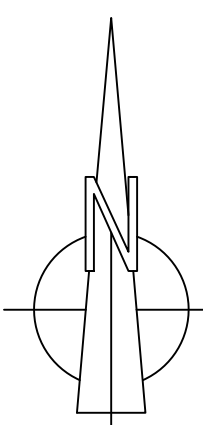
This drawing is the copyright of Thrive Ltd ©. All rights reserved.
 Ordnance Survey Data © Crown Copyright. All rights reserved.
 Licence No. 100007359. DO NOT scale from this drawing.
 Contractors, Sub Contractors and Suppliers are to check all
 relevant dimensions and levels of the site and building before
 commencing any shop drawings or building work. Any
 discrepancies should be recorded to the Architect.
 Where applicable this drawing is to be read in conjunction with
 the Consultants' drawings.

 Site boundary

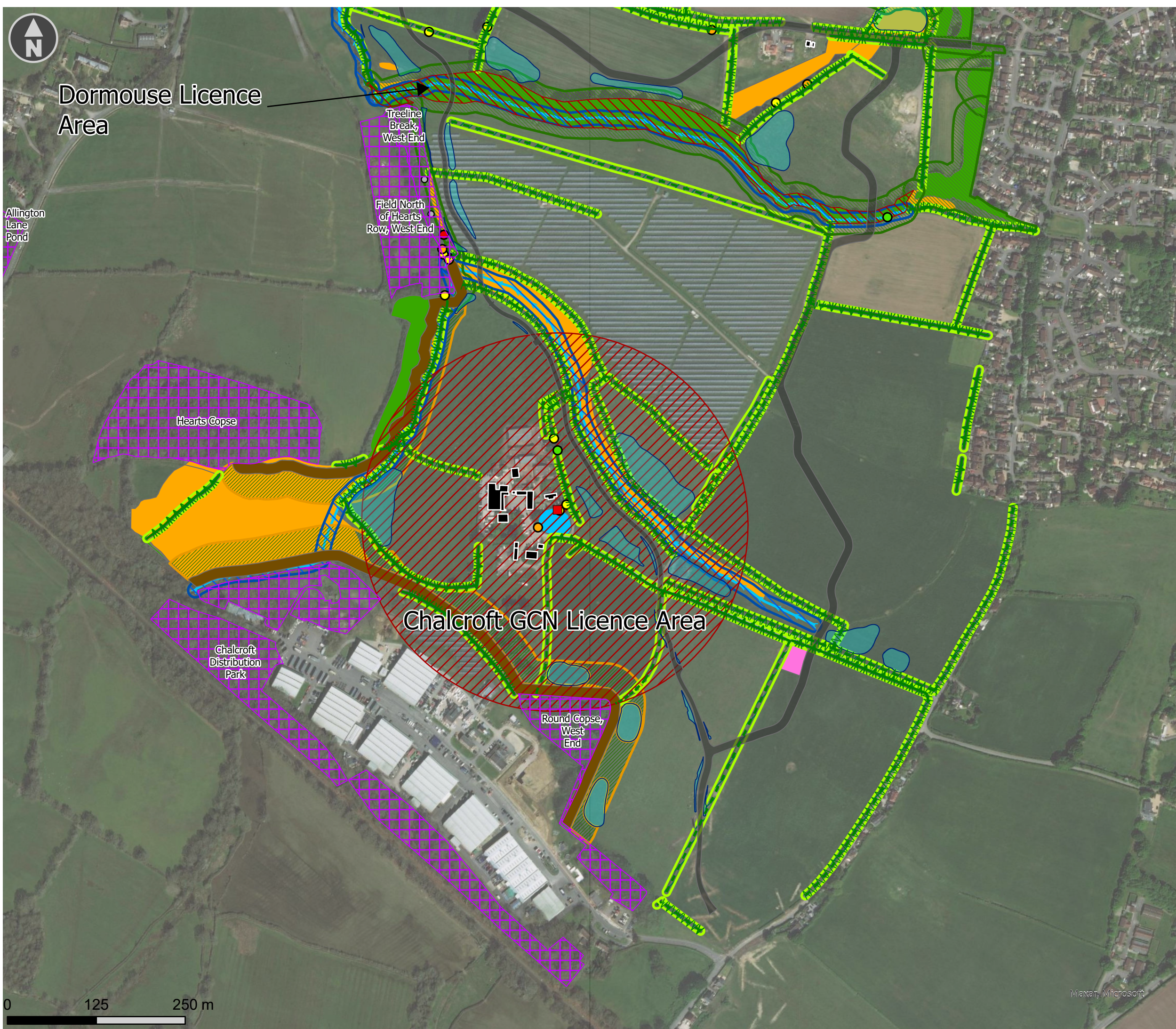
 Additional land in applicants control

thrive.
architects

SCALE	DATE	AUTHOR	CHK'D
1:2500@ A0	OCT' 2020	MWPGSR	
JOB NO.	DRAWING NO.	REV	
EAST200403	RLP.01	P8	

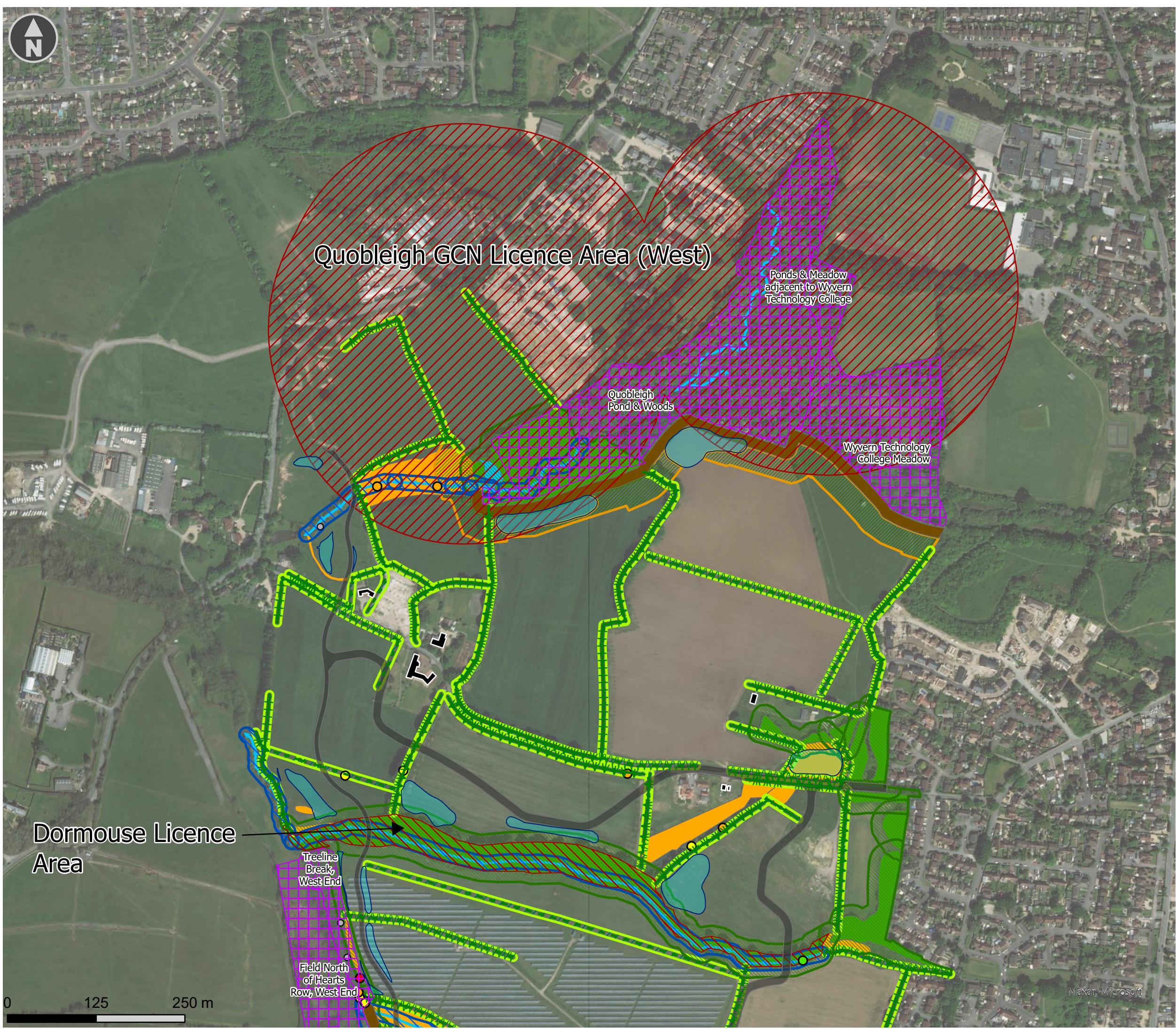


Appendix – Ecological constraints plan.



- SINCs
- Development Areas**
 - SUDS
 - Infrastructure
- EPS Licence Species**
 - Bat Roosts (Trees)
 - Confirmed Brown Long Eared Roost
 - Confirmed Noctule Roost
 - High Suitability
 - Moderate Suitability
 - Low Suitability
 - Negligible Suitability
 - Bat Roosts Buildings
- Habitat Buffers**
 - Buffer - Ancient Woodland - GI - 0-15m
 - Buffer - Water Course - 10m
 - Buffer - Woodland - 15m
 - Buffer - Hedgerow - 5m (excl. tree RPAs)
 - Buffer - Woodland - GI - 15-35m
- Non-EPS Species**
 - Mousetail Area
- High Value Habitats**
 - G2 - Running water
 - A1.1.1 - Broadleaved woodland - semi-natural
 - B5 - Marsh/marshy grassland
 - G1 - Standing water

CLIENT	Eastleigh Borough Council	
PROJECT	OHH OPA - Post Submission Ecology Support	
TITLE	Ecological Constraints Plan South	
SCALE @ A3	CREATED BY	CHECKED BY
1:5,000	JS	NM
REFERENCE	REVISION	DATE ISSUED
J00689-012		11/3/2022



-  SINC
- Development Areas**
-  SUDS
-  Infrastructure
- EPS Licence Species**
- Bat Roosts (Trees)**
-  Confirmed Brown Long Eared Roost
-  High Suitability
-  Moderate Suitability
-  Low Suitability
-  Negligible Suitability
-  Bat Roosts Buildings
-  Dormouse Licence Area
-  GCN - 250m Licence Areas
- Habitat Buffers**
-  Buffer - Ancient Woodland - GI - 0-15m
-  Buffer - Water Course - 10m
-  Buffer - Woodland - 15m
-  Buffer - Hedgerow - 5m (excl. tree RPAs)
-  Buffer - Woodland - GI - 15-35m
- High Value Habitats**
-  G2 - Running water
-  A1.1.1 - Broadleaved woodland - semi-natural
-  B5 - Marsh/marshy grassland
-  G1 - Standing water

CLIENT Eastleigh Borough Council		
PROJECT OHH OPA - Post Submission Ecology Support		
TITLE Ecological Constraints Plan North		
SCALE @ A3 1:5,000	CREATED BY JS	CHECKED BY NM
REFERENCE J00689-011	REVISION	DATE ISSUED 11/3/2022

Appendix - Tree Constraints Plan



Key:

- Site Boundary
- Category A - Trees of High Quality and Value
- Category B - Trees of Moderate Quality and Value
- Category C - Trees of Low Quality and Value
- Category U - Trees Recommended for Removal
- Approximate Extent of BS5837 Calculated Root Protection Areas (RPAs)
- Veteran Tree and Ancient Woodland Buffer Zones
- BS 5837 Calculated Tree Shadow Constraints
- Approximate Locations of the Trees Covered by a TPO

Overlaid trees and groups not identified in respect of TPO. Locations approximately using measurements from site plan.

Rev C1 - updated tree survey data 19.02.21 RA
Rev C2 - update to survey data and RPAs values added
Rev D - update data following October 2020 walkover 06.11.20 JP
Rev A - additional tree added 15.11.19 LB

Project Name
Land at Horton Heath

Drawing Title
Tree Constraints Plan



Tyler Grange
Mansfield Estate, Renscombe, Cheshire, GL7 7EX
T: 01283 831 304 E: info@tylergrange.co.uk
W: www.tylergrange.co.uk

Scale 1:750 @ A0	Date December 2020
Drawn by LBV/JP	Checked by JP
Drawing No. 11705/P01	Revision D- 19.02.21

This document should not be relied on or used in circumstances other than those for which it was prepared and for which Tyler Grange was approved. Tyler Grange accepts no responsibility for this document to any other party other than the person to whom it was approved.
Tyler Grange Group Limited © 2020



Key

- Site Boundary
- Category A - Trees of High Quality and Value
- Category B - Trees of Moderate Quality and Value
- Category C - Trees of Low Quality and Value
- Category U - Trees Recommended for Removal
- Approximate Extent of BS5837 Calculated Root Protection Areas (RPAs)
- Veteran Tree and Ancient Woodland Buffer Zones
- BS 5837 Calculated Tree Shadow Constraints
- Approximate Locations of the Trees Covered by a TPO

*Overlaid trees and groups not identified on topographical. Locations approximated using measurements taken on site.

Rev D - updated tree survey data 19.02.21 BA
Rev C - update to current data and RPAs added
Rev B - update data following October 2020 walkover 08.11.20 JP
Rev A - additional trees added 16.10.19 LB

Project Name
Land at Horton Heath

Drawing Title
Tree Constraints Plan

Tyler Grange
Masterplanners, Remediation, Construction, GLT, PER
T: 01585 831 804 E: info@tylergrange.co.uk
W: www.tylergrange.co.uk

Scale 1:750 @ A0	Date December 2020
Drawn by LB/JP	Checked by JP
Drawing No. 11705P01	Revision D - 19.02.21

This document should not be relied on or used in circumstances other than those for which it was prepared and for which Tyler Grange was appointed.
Tyler Grange accepts no responsibility for this document to any other party other than the person to whom it was prepared.
Tyler Grange Group Limited © 2020

Approximate location of trees covered by a Tree Preservation Order (TPO). Exact location to be confirmed.



Rev D - updated tree survey data 10.02.20 21 RA
Rev C - Update to survey data and A&J buffers added
Rev B - update site boundary, October 2020 and/or on 08.11.20 JP
Rev A - additional trees added 16.10.19 LB

Project Name

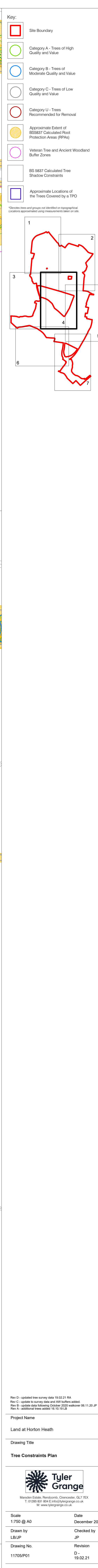
Land at Horton Heath

Drawing Title

Tree Constraints Plan

 **Tyler Grange**
Mansford Estate, Rye, Cambs., Cambs. CB1 7EX
T: 01508 651160 E: info@tylergrange.co.uk
W: www.tylergrange.co.uk

Scale	Date
1:750 @ A0	December 20
Drawn by	Checked by
LB/JP	JP
Drawing No.	Revision
11705/P01	19.02.21



Rev D - updated tree survey data 19.02.21 RA
Rev C - update to survey data and A&J buffers added
Rev B - update site history, October 2020 and owner 08.11.20 JP
Rev A - additional trees added 16.10.19 LB

Project Name

Land at Horton Heath

Drawing Title

Tree Constraints Plan


Mansford Estate, Rye, Cambs., Cambshire, GL7 7EX
T: 01508 631161 E: info@tylergrange.co.uk
W: www.tylergrange.co.uk

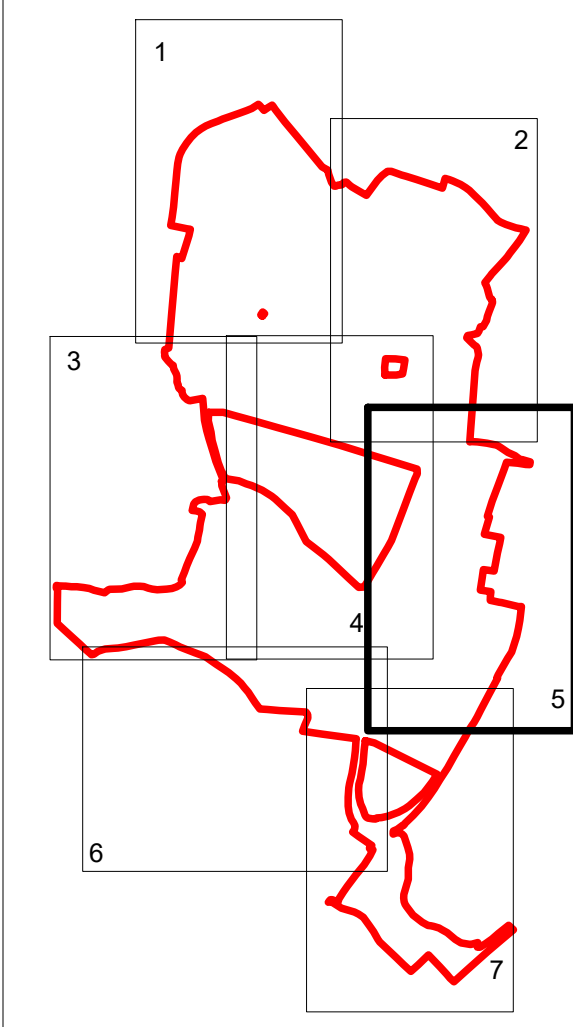
Scale	Date
1:750 @ A0	December 20
Drawn by LB/JP	Checked by JP
Drawing No.	Revision
11705/P01	D. - 19.02.21



Key

- Site Boundary
- Category A - Trees of High Quality and Value
- Category B - Trees of Moderate Quality and Value
- Category C - Trees of Low Quality and Value
- Category U - Trees Recommended for Removal
- Approximate Extent of BES837 Calculated Root Protection Areas (RPAs)
- Veteran Tree and Ancient Woodland Buffer Zones
- BES 5637 Calculated Tree Shadow Constraints
- Approximate Locations of the Trees Covered by a TPO

*Overlaid trees and groups not identified on topographical. Locations approximated using measurements taken on site.



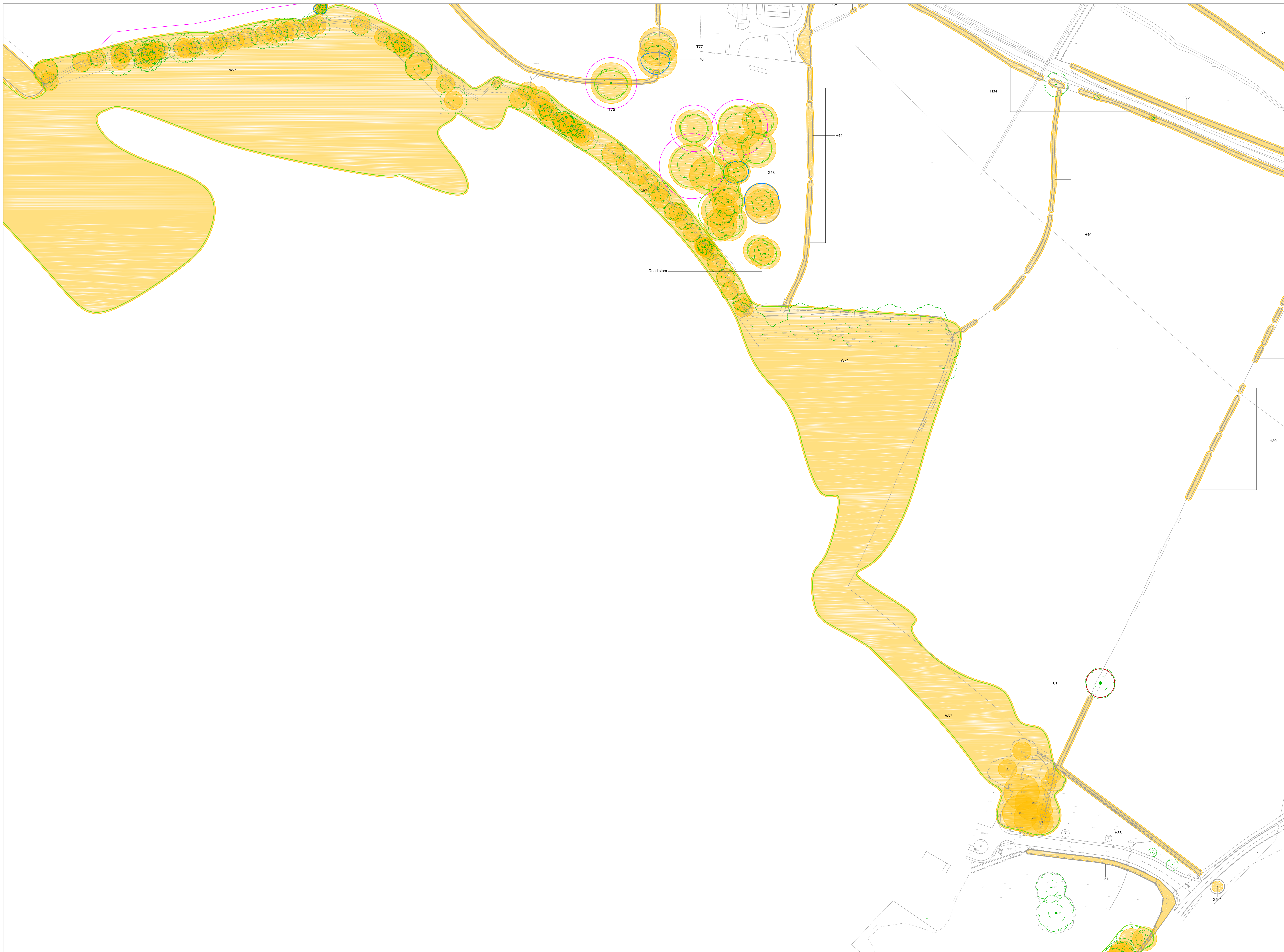
Rev D - updated tree survey data 19.02.21 BA
Rev C - update to survey data and RPAs added
Rev B - update data following October 2020 walkover 08.11.20 JP
Rev A - additional trees added 16.10.19 LB

Project Name
Land at Horton Heath

Drawing Title
Tree Constraints Plan


Mansfield Estate, Mansfield, Nottinghamshire, NG21 7EX
T: 01505 831 804 E: info@tylgrange.co.uk
W: www.tylgrange.co.uk

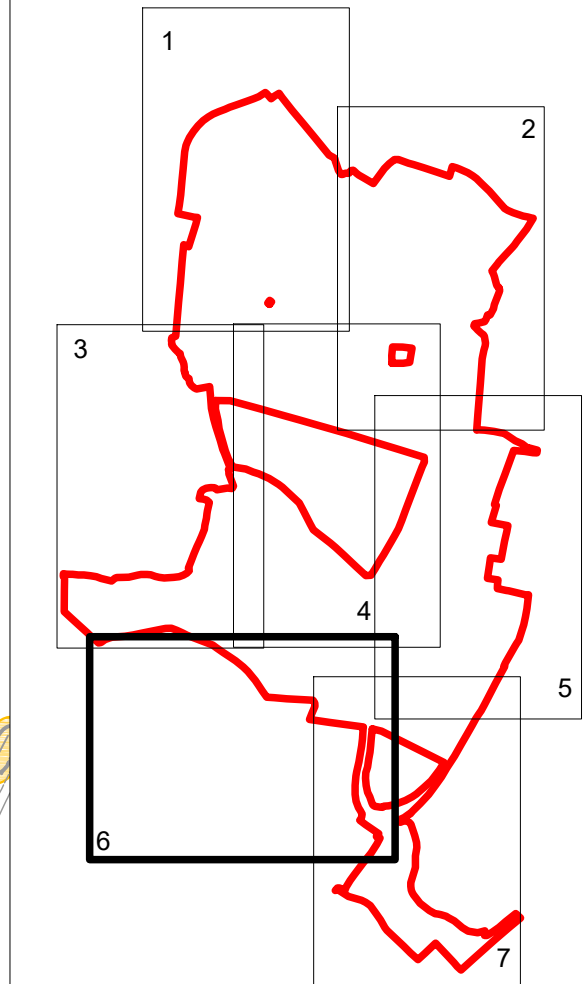
Scale	Date
1:750 @ A0	December 2020
Drawn by	Checked by
LB/JP	JP
Drawing No.	Revision
11705P01	D - 19.02.21



Key:

- Site Boundary
- Category A - Trees of High Quality and Value
- Category B - Trees of Moderate Quality and Value
- Category C - Trees of Low Quality and Value
- Category U - Trees Recommended for Removal
- Approximate Extent of BS5837 Calculated Root Protection Areas (RPA)
- Veteran Tree and Ancient Woodland Buffer Zones
- BS 5837 Calculated Tree Shadow Constraints
- Approximate Locations of the Trees Covered by a TPO

Overlaid trees and groups not detailed on this plan. Locations approximately using measured tree size on site.



This document should not be relied on or used in circumstances other than those for which it was prepared and for which Tyler Grange was approved. Tyler Grange accepts no responsibility for this document to any other party other than the person to whom it was approved.

Tyler Grange Group Limited © 2020

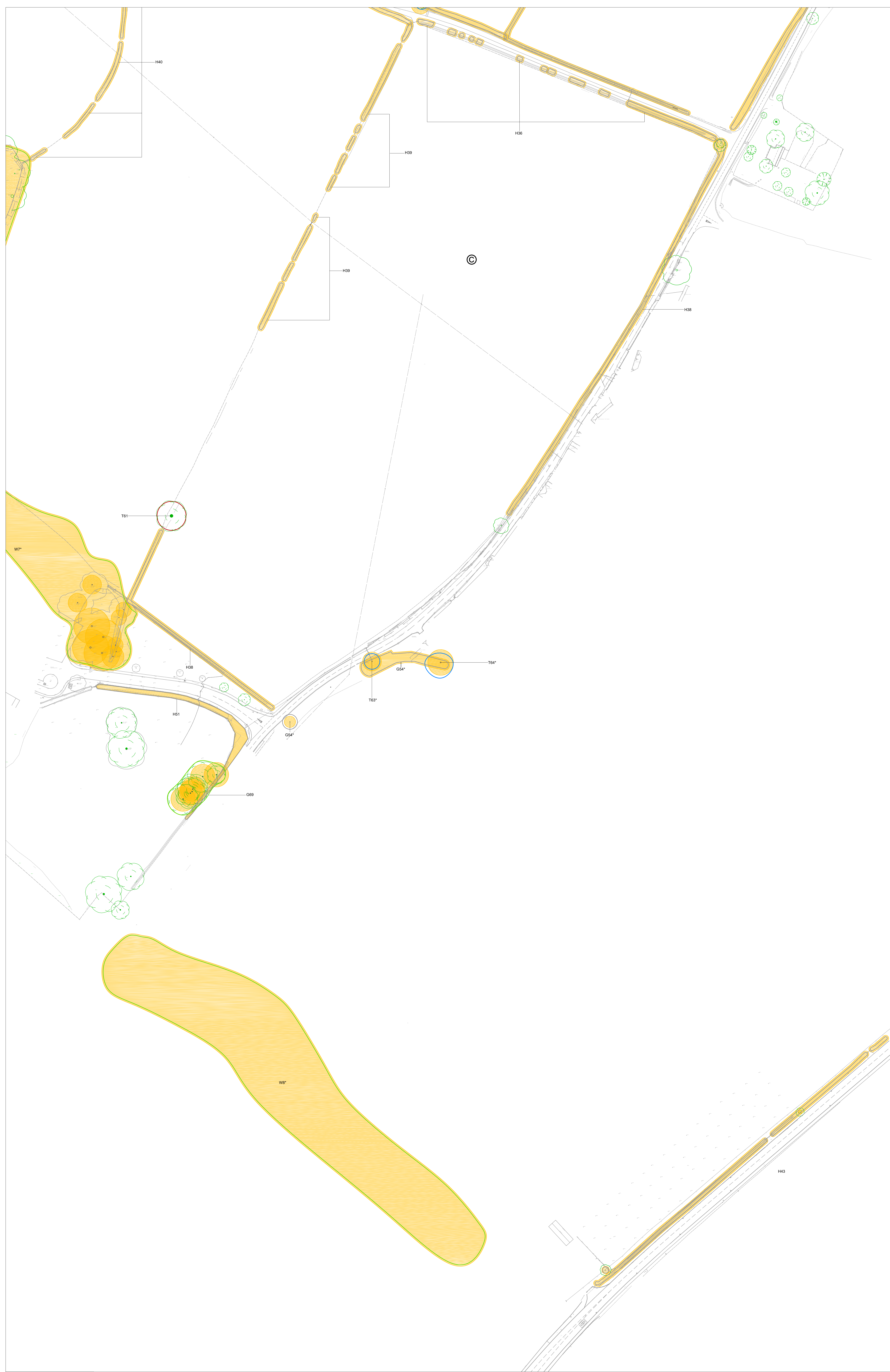
Rev D - updated tree survey data 19.02.21 RA
Rev C - update to survey data and ARI buffer added.
Rev B - update data following October 2020 walkover 06.11.20 JP
Rev A - additional trees added 16.10.19 LB

Project Name
Land at Horton Heath

Drawing Title
Tree Constraints Plan

Tyler Grange
Mansel Grove, Boreham, Chichester, GL7 7EX
T: 01243 891 804 E: info@tylergrange.co.uk
W: www.tylergrange.co.uk

Scale	Date
1:750 @ A0	December 2020
Drawn by	Checked by
LB/JP	JP
Drawing No.	Revision
11705P01	D - 19.02.21



Key

- Site Boundary
- Category A - Trees of High Quality and Value
- Category B - Trees of Moderate Quality and Value
- Category C - Trees of Low Quality and Value
- Category U - Trees Recommended for Removal
- Approximate Extent of BES837 Calculated Root Protection Areas (RPAs)
- Veteran Tree and Ancient Woodland Buffer Zones
- BS 5837 Calculated Tree Shadow Constraints
- Approximate Locations of the Trees Covered by a TPO

*Overlaid trees and groups not identified on topographical. Locations approximated using measurements taken on site.

Rev D - updated tree survey data 19.02.21 RA
Rev C - update to survey data and ARI buffer added
Rev B - update after February October 2020 software BS 11.20 JP
Rev A - additional trees added 16.10.19 LB

Project Name
Land at Horton Heath

Drawing Title
Tree Constraints Plan

Tyler Grange
Marsden Estate, Pencoed, Cardiff, Ceredigion, GL7 7EX
T: 01283 851 184 E: info@tylergrange.co.uk
W: www.tylergrange.co.uk

Scale 1:750 @ A0	Date December 2020
Drawn by LB/JP	Checked by JP
Drawing No. 11705/P01	Revision D - 19.02.21

Appendix -Bird Hazard Management Plan

One Horton Heath

Bird Hazard Management Plan Final

J00532 V1.0

Client: Eastleigh Borough Council

Date: April 2021

DOCUMENT CONTROL

Report prepared for:

Eastleigh Borough Council

Main contributors:

Katherine Newbert BSc (Hons), MSc - Consultant Ecologist

Ben Mitchell BSc (Hons) BSc – Principal Ecologist

Reviewed by:

A handwritten signature in black ink, appearing to be 'Ben Mitchell', with a stylized, cursive script.

Ben Mitchell BSc (Hons) BSc – Principal Ecologist

Issued by:

A handwritten signature in black ink, appearing to be 'Ben Mitchell', with a stylized, cursive script.

Signature

Green Tree House, 11 St. Margaret's Street, Bradford on Avon, Wiltshire, BA15 1DA
T: 01225 723652 | E: info@johnsassociates.co.uk | W: www.johnsassociates.co.uk

DOCUMENT REVISIONS

Version	Details	Date
1.0	Bird Hazard Management Plan - Draft	05/03/2021

Third party disclaimer

Any disclosure of this report to a third party is subject to this disclaimer. The report was prepared by Johns Associates at the instruction of, and for use by, our client named on the front of the report. It does not in any way constitute advice to any third party who is able to access it by any means. Johns Associates excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage howsoever arising from reliance on the contents of this report. We do not however exclude our liability (if any) for personal injury or death resulting from our negligence, for fraud or any other matter in relation to which we cannot legally exclude liability.

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Background	1
2	BIRD HAZARD GUIDANCE	3
2.1	Airport Operators Authority (AOA) Safeguarding Advice Notes (previously BAA) - 2007	3
2.2	Civil Aviation Authority (CAA)	3
2.3	CAA CAP 772 Wildlife Hazard Management at Aerodromes	3
3	BASELINE DATA	4
3.1	Site Location	4
3.2	Site Habitats	4
3.3	Bird Baseline Data	4
3.3.1	Data Search	4
3.3.2	Previous surveys	4
3.3.3	Breeding Bird Surveys 2020	6
4	BIRD HAZARD ASSESSMENT	10
4.1	Birds that pose risk	10
4.2	Risk Assessment	10
4.2.1	Waterbodies	13
5	BIRD HAZARD MANAGEMENT PLAN	14
5.1	Design	14
5.1.1	Landscape planting	14
5.1.2	Sustainable Urban Drain Schemes (SuDS)	15
5.1.3	Building design	15
5.2	Management	16
5.2.1	Construction Phase	16
5.2.2	Post-construction	16
5.3	Monitoring and Dispersal	17
5.3.1	Monitoring	17
5.3.2	Remedial Management Options	18
6	CONCLUSIONS	20

1 INTRODUCTION

1.1 BACKGROUND

Eastleigh Borough Council has commissioned Johns Associates to undertake work to support the preparation of a Bird Hazard Management Plan (BHMP) for the first residential development parcel as part of the One Horton Heath Project.

The development falls within the 13km radius of an aerodrome in which bird strike risk is considered a hazard. This 13km radius forms the safeguarding zone when aircraft are on approach to land or at take-off. Within this zone aircraft are at lower altitudes and at an increased risk of bird strikes. Within the safeguarding zone, consultation is required for potential bird attractant developments.

The First Residential Development parcel of the One Horton Heath Project (from here on referred to as the "Site") is at its closest point located 3.25km south-east from Southampton Airport, and falls within the inner Horizontal Surface (IHS) which is designed to protect approaching and departing aircraft at lower levels which are positioning to land or depart.

Pre-planning application advice has been sought from Southampton Airport due to the proximity of the development to the airport. The pre-planning advice from Southampton airport highlighted that a bird hazard management plan will be requested as part of the planning process and outlines measures to be included within the Bird Hazard Management Plan.

This BHMP aims to set out specific measures to be implemented during and after the construction phase of the project. As such, this Draft BHMP:

- Sets out the requirements for and principals of the BHMP;
- Considers potential bird hazard risks from the development that could impact Southampton Airport.
- Sets out general suitable principals for habitat management requirements to reduce the perceived potential risks to tolerable levels.

This report necessarily draws on and at times reproduces specific text/guidance from CAP772, regarding safeguarding aerodromes from wildlife hazards.

This BHMP forms part of the management documentation and site procedures for the proposed development.

This BHMP complies with advice note 3 <https://www.aoa.org.uk/wp-content/uploads/2016/09/Advice-Note-3-Wildlife-Hazards-2016.pdf>

The Bird Hazard Management Plan shall be implemented as approved, during construction and after completion of the first development parcel and shall remain in force for the life of the development. No subsequent alterations to the plan will take place unless first submitted to and approved in writing with Eastleigh Borough Council.

Figure 1: Site Location with Respect to the 13km Bird Safeguarding Area



2 BIRD HAZARD GUIDANCE

The design and management of the new features is informed by the following guidance, noting the existing baseline environment and populations of hazardous birds within the semi-natural and agricultural character of the site prior to development (i.e. agricultural pasture and arable habitats, woodland, hedgerows and trees).

2.1 AIRPORT OPERATORS AUTHORITY (AOA) SAFEGUARDING ADVICE NOTES (PREVIOUSLY BAA) - 2007

- Advice Note 3: Potential Bird Hazards from Amenity Landscaping and Building Design;
- Advice Note 6: Potential Bird Hazards from Sustainable Urban Drainage Schemes (SUDS);
- Advice Note 8: Potential Bird Hazards from Building Design

2.2 CIVIL AVIATION AUTHORITY (CAA)

- Advice note 3 – Wildlife hazards around aerodromes - 2016

2.3 CAA CAP 772 WILDLIFE HAZARD MANAGEMENT AT AERODROMES

CAA CAP 772 sets out guidelines for the management of wildlife hazards in and around aerodromes. This document focuses on risks posed to aircraft by birds as they are the greatest wildlife risk. It refers to land or water within 13km of an aerodrome to which hazards are considered to represent a bird strike risk. The first residential development area of One Horton Heath is at its closest point located 3.25km from Southampton Airport.

The main threat in relation to bird strike relates to certain large, higher flying species such as Canada Geese *Branta canadensis*, and to a lesser extent Greylag Geese *Anser anser*, which is evident from the publication of the CAA Safety Regulation Group document "Large Flocking Birds – An International Conflict Between Conservation and Air Safety" that specifically addresses this threat. The objective of CAP 772 is to reduce the potential for roosting and to make sure that landscape areas are not attractive to such large flocking bird species, which also include gulls or corvids. Smaller birds that do not form dense flocks have a lower hazard potential.

3 BASELINE DATA

3.1 SITE LOCATION

The Site is approximately 13.5ha in size located in the borough of Eastleigh in Hampshire which lies approx. 3.25km east of Southampton International Airport. Between the Site and the airport lies Itchen Country Park, The River Itchen and tributaries which form part of the River Itchen SSSI and SAC, flow through the country park and then out into the Solent. The Country Park also has a series of large open waterbodies present and water meadows. Following the river Itchen upstream to the north there are several other large water bodies including Hampshire Carp Fisheries which has a series of ponds for breeding fish stock, grid reference - SU 47451 20315 and Fishers Pond grid reference - SU 49051 21131. This network of large waterbodies located along the river Itchen catchment is likely to form flight line running from north to south located between the Site and Southampton Airport to the west.

The network of wetland habitats along the River Itchen, open waterbodies and water meadows running north to south located to the east of the Site, and the relative absence of similar habitats within the Site means the Site is very unlikely to attract birds. Notably large wetland bird species which are likely to pose a bird strike risk to aircraft. This is supported by the limited bird species observed within the Site boundary see section 3.3.

3.2 SITE HABITATS

Pre-construction the habitat types present within the Site boundary are comprised of farmland, mainly improved grassland fields for cattle grazing and smaller areas of poor semi-improved grassland divided by hedgerows. The northern section of the site has a steep sided slow-moving stream heavily covered with scrub that runs from east to west and has areas of marshy grassland adjacent to it, see Figure 2 for a Phase 1 Habitat Map of the existing Site habitats.

The fields within the Site are not low lying and rarely collect standing water which could be an attractant to wintering wading bird species.

Prior to development the site there were no areas of permanent standing water present within the Site boundary. One water body was present off-site to the north-west, a pond located within the Chalcroft Farm complex. This waterbody is known to have small numbers of breeding mallards *Anas platyrhynchos* and moorhen *Gallinula chloropus* present.

Other water attractants to bird species include a wet ditch offsite between Chalcroft Business park to the west and the site boundary, however this is heavily shaded and only mallards have been observed within this area.

3.3 BIRD BASELINE DATA

3.3.1 Data Search

Results from a data search from HBIC in 2020 returned 1224 bird records within a 2km radius of the Site. Most of the records relate to specific sites such as Itchen valley country park, Allington Gravel Pit which now holds water and is located next to Itchen valley country park, Eastleigh sewage works which is 900m north-west of Southampton airport and Moorgreen farm which is south-west of the Site located south of the trainline. Many of the bird records in these locations relate to birds that are considered common hazardous bird species (see section 0)

3.3.2 Previous surveys

Ecologica Ltd conducted a wintering bird survey for the entire one Horton Heath site with incorporated the first residential development boundary. The survey was conducted over seven months from September 2013 to March 2014. Common species, not subject to special protection or under threat, were not recorded during the surveys. The species recorded comprised of species listed on Annex 1 of the Birds Directive, Schedule 1 of the Wildlife and Countryside Act, NERC species, UKBAP species and BoCC Red and Amber species.

A total of 28 species were recorded across the Site, no wintering species for which the Solent and Southampton water special protection area (SPA) is designated for were observed (Teal, Dark-bellied Brent geese, black tailed godwit and ringed plover. Of the species observed during the surveys the following hazardous bird species were observed;

- Herring gull, Black head gull, Common gull and Lesser black-backed gull were all observed flying high over the Site in low numbers, a single black headed gull was the only gull species observed onsite near Chalcroft Farm. Common gull was observed in the greatest number flying over the Site with a peak count of 41 in November.
- One group of six little egrets were observed in December resting in a field near Chalcroft farm.
- Mallards were observed across the site during most surveys, mainly around Chalcroft Farm pond with a peak count of 19 in March.
- On a single occasion in October a group of 38 Greylag geese were observed in a field south of Chalcroft Farm.
- A single lapwing was observed circling over a field east of the solar farm to the North of the Site in March. Two single snipes were observed rising from a watercourse in March.
- A single kestrel observed flying over the Site in April was the only bird of prey observed during the surveys.
- Starlings were observed on site during every survey with numbers ranging between 48 and 274 they were scattered around the site but there was a concentration observed around Chalcroft Farm.
- No other hazardous bird species were observed during the wintering bird surveys.

Ecologica also carried out a Breeding bird survey over three months in April, May and June 2014. Common species, not subject to special protection or under threat, were not recorded during the surveys. The species recorded comprised of species listed on Annex 1 of the Birds Directive, Schedule 1 of the Wildlife and Countryside Act, NERC species, UKBAP species and BoCC Red and Amber species.

A total of 20 species were recorded across the Site, no wintering species for which the Solent and Southampton water special protection area (SPA) is designated for were observed and no Annex 1 or Schedule 1 species were recorded. Of the species observed during the surveys the following hazardous bird species were observed;

- Herring gull, Common gull and Lesser black-backed gull were all observed flying high over the Site in small numbers <5, no evidence of any of these species breeding on Site.
- A single snipe was observed outside of the Site boundary within a rushy field west of Chalcroft Farm in April.
- Mallards were observed across the Site during every survey visit, clusters around Chalcroft Farm pond. Two broods were observed, one on Chalcroft farm and one on the southern watercourse.
- A single kestrel observed flying over the Site in June was the only bird of prey observed during the surveys. No evidence of breeding onsite.

- Starlings were observed on site during every survey with numbers ranging between 24 and 137 they were scattered around the site but there was a concentration observed around Chalcroft Farm.
- No other hazardous bird species were observed during the breeding bird surveys.

The historical bird surveys were carried out by Ecologica in 2013 and 2014 of the wider development Site, prior to submission of the previous planning applications, the surveys did not identify large conglomerations of larger bird species. The largest species observed was Greylag goose, which were only observed on one occasion in a group of 38. Gull species were observed in greater numbers during the wintering bird surveys, with common gull being the most frequently observed flying high over the site. The most frequently found hazardous birds onsite were mallards in small numbers and starlings in great numbers in larger concentrations around the Chalcroft Farm complex, which is located to the north-east of the Site boundary.

As these surveys omitted common species there is a lack of data on hazardous species such as corvids and pigeons. Existing woodlands adjacent to Site, waterbodies and grasslands do provide opportunities for these species to gather.

3.3.3 Breeding Bird Surveys 2020

Johns Associates undertook breeding bird surveys in 2020 across the wider Horton Heath Site, spaced evenly between the months of April and June. The surveys were carried out following the standard BBS methodology. Surveys were started within 2 hours of sunrise, in suitable weather conditions where possible. A transect covering all areas of suitable habitat within the Site was walked at a slow pace in an alternating direction between survey visits. Birds were identified visually using binoculars and identified through song. All singing and non-sing birds, and birds carrying food or nesting material, were recorded using standard BTO registrations. Records during each visit were marked upon separate maps, and then records for each species were combined upon a single map to allow identification of habitat areas used by individual bird species and to allow estimation of the number of bird territories.

25 bird species were observed within the wider Horton Heath Site across the survey period. The majority of the species recorded were not considered to be a hazardous bird species so are not included in this assessment. Detailed below are species that are listed as aviation hazards found within or adjacent to the first residential site boundary;

- Nine starling registrations were recorded on and adjacent to the Site in small numbers. Whilst this species has the potential to be hazardous in large aggregations, they are not considered to represent a bird strike risk as only low numbers were recorded on site with a maximum count of 20 in one post breeding flock. They would only pose an aviation hazard when murmuring in larger flocks, and no large murmurations or aggregations of this species have been recorded on site throughout the suite of 2018 - 2020 surveys. Numbers of this species are not considered likely to increase post-development.
- A rookery is present immediately north east of the Chalcroft Farm complex.
- A single pair of moorhens bred successfully on Chalcroft pond.
- A total of nine Wood Pidgeon registrations were recorded across the wider Site. The nearest observation to the Site was within the Chalcroft Farm complex to the west
- Mallards were observed on a single survey outside of the site boundary to the west, in a wet ditch.

No other birds considered to present a bird strike risk were identified within or adjacent to the Site boundary during any of the breeding bird surveys undertaken in 2020.

Figure 2: Phase 1 Habitats Pre-Development

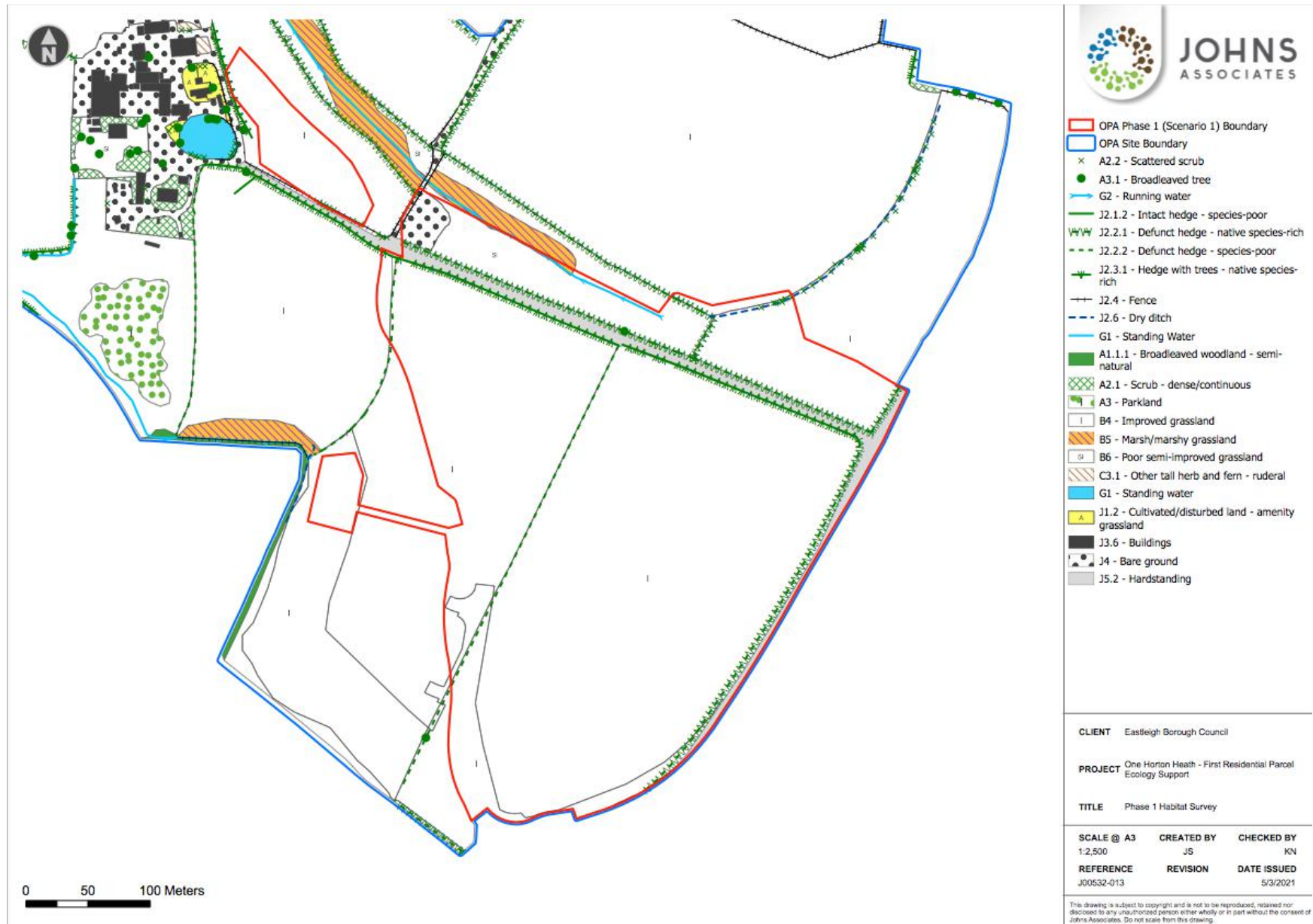
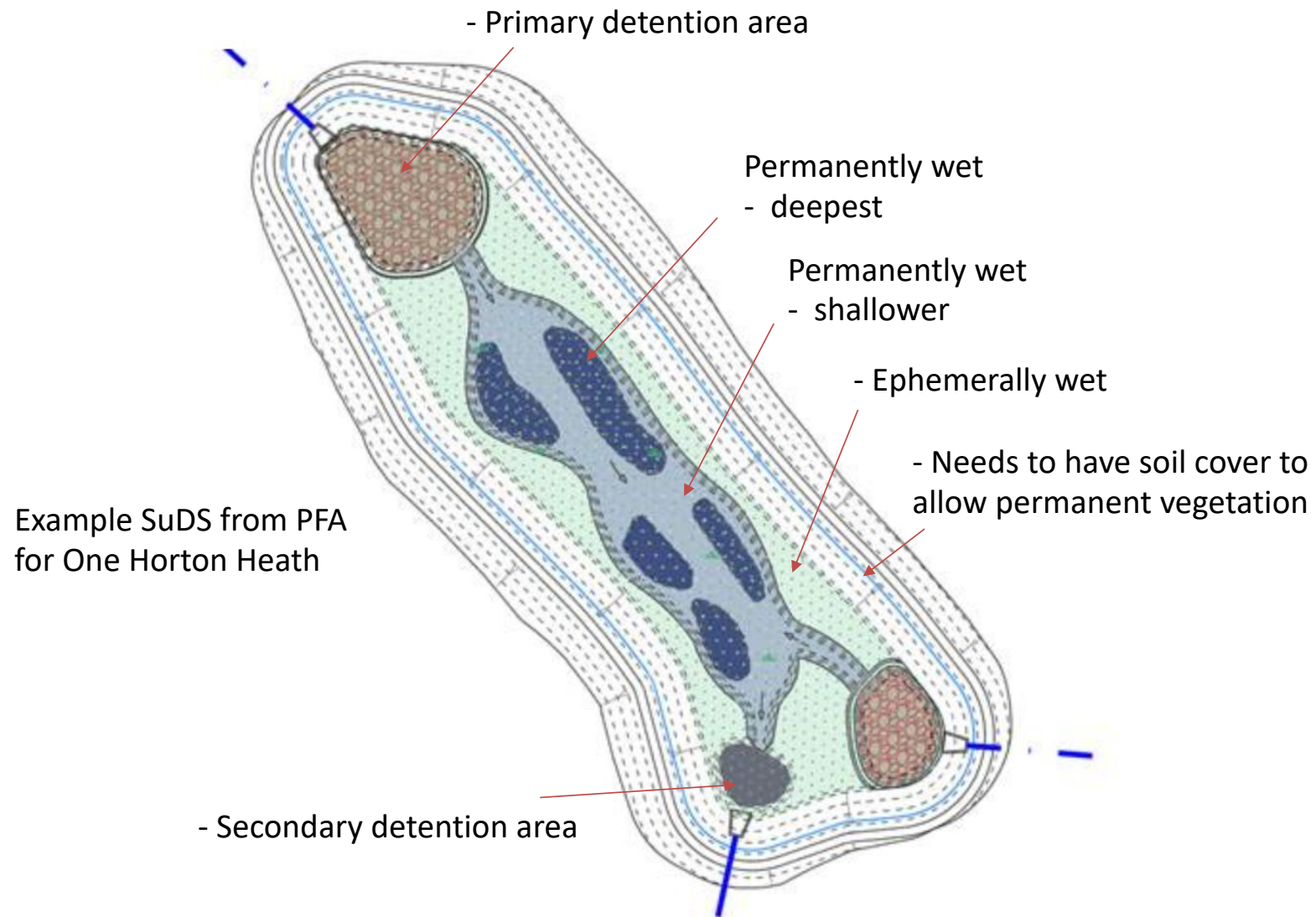


Figure 3 Post Construction Habitat Plan



Figure 4 SuDs Basin Concept Plan



4 BIRD HAZARD ASSESSMENT

In the UK, airfield safeguarding areas (ASAs) are designated for areas that fall within 13km of an airfield. ASAs ensure that the operation and development of both civil and military airfields is not inhibited by developments, including those which have the potential to increase the number of birds and the 'bird strike' risk. ASAs are based on a statistic that 95% of bird strikes occur below 2,000ft, and that an aircraft approaching an aerodrome on a normal approach would descend below 2,000ft approximately 13km from the runway, reflecting historic angles of take-off and approach.

The Site lies wholly within the 13km ASA and will need to consider bird strike risk and how it can be mitigated.

4.1 BIRDS THAT POSE RISK

Listed below are some common hazardous birds' species as highlighted in Advice note 3 - Wildlife Hazards around Aerodromes. In general, large birds and flocking species present the greatest hazard, although other species may also have the potential to increase the hazard equally.

Common Hazardous Birds include:

- All wildfowl (Ducks, Geese and Swans)
- All large waterfowl (Herons, Egrets, Cormorants)
- Gamebirds (Pheasants & Partridges)
- Birds of prey
- Large waders (Lapwing, Curlew and Golden Plover)
- All Gull species
- All Pigeon species
- All Corvid species (crow family)
- Starlings

4.2 RISK ASSESSMENT

Table 1 Bird Hazard Assessment

Summary of Likely Bird Populations Pre and Post Development				
Hazardous Species/genus/group	Pre-Development	Post-development	Forecast change	Comments
Game Birds	Low population of game birds present on site.	Very low population of game birds present on site.	Negligible	

Waterfowl	Absent	SuDs features created. Whilst these will be designed to provide ecological and biodiversity benefits, the suitability of these features for waterfowl is expected to be limited by the small extent of semi-permanent standing water.	Negligible	Due to the absence of breeding or wintering waterfowl on site, there is likely to be a small increase but this is expected to be a maximum of 2 pairs of mallard, moorhen or coot given the urban nature of these features.
Large Waders	Absent	Absent	Negligible	The site is currently unsuitable for wading birds and will become less suitable as a result of the development despite the inclusion of ecologically beneficial SuDS.
Birds of Prey	One pair of breeding barn owl. No records of breeding buzzard or red kite.	Breeding barn owl retained.	Negligible	The site has some suitability for large, high flying raptors (buzzard, red Kite) but no nest recorded. The site will become less suitable as a result of the development despite the small extension of the parkland present on site due to the increased levels

				of recreational disturbance.
Gulls	No records associated with the site despite meat processing facility present adjacent to the site in Chalcroft Farm	Designs follow AOA guidance to avoid opportunities for gulls in the build environment. No commercial units included within this phase. Meat processing facility to be relocated off site as part of wider scheme.	Negligible	No additional nesting opportunities provided by scheme. Waste tightly controlled and contained within specific bin storage.
Pigeons	There are no records any pigeon species within the site boundary	Designs follow AOA guidance to avoid opportunities for nesting pigeons in the build environment. No ledges or similar architectural features will be included within the scheme.	Negligible	Over the lifespan of the project, a very small increase in suitable nesting habitat will be delivered by extending the parkland and ancient woodland habitats. Given the very limited extent of this area of new habitat, this is only expected to provide suitable nesting habitat for 1-2 breeding pairs.
Corvids	There are no records of breeding corvid species within the site boundary	Designs follow AOA guidance to avoid opportunities for nesting pigeons in the build environment. No ledges or similar architectural	Negligible	No additional nesting opportunities provided by scheme. Waste tightly controlled and contained within specific bin

		features that would provide potential nest locations will be included within the scheme.		storage.
Starlings	There are no records of breeding or wintering/flocking starling within the site boundary although the site is likely to provide foraging resource for starling breeding within the wider area.	Given the established severe declines in this species and its status as a NERC s41 priority species, it is the intention of the development to include provision for this species in order to compensate for the loss of foraging habitat.	Negligible	The scheme will include provision of nest boxes for starling, swift and house sparrow (10 no. each species) on units around the periphery of the development. The inclusion of these features in the scheme is considered appropriate given the conservation status of these species and the very limited hazard presented by low numbers of these species.

4.2.1 Waterbodies

Whilst the proposed drainage attenuation ponds will be planted to provide some ecological interest, they have been designed solely for drainage attenuation purposes and will hold low levels of water all year round, although their levels are expected to fluctuate considerably as a result of weather conditions. Planting schemes around these SuDS features should encourage tall marginal vegetation which will deter large flocks of species such as gull, geese and wading species. Rather than one large feature, 5 ponds have been designed in order to limit the extent of open water and thus reduce the attractiveness to flocking birds, thereby avoiding potential congregation activity. As such, it is not considered that they would act as a significant attractant for additional water birds such as Ducks, Geese, Swans, Herons, Coots and Cormorants and will not be of a size considered suitable for roosting Gull populations.

Creation of new SuDS scheme is not considered likely to attract large number of bird species. Site lies between Southampton airport and the Site is which has a large series of waterbodies as well as the river Itchen running through the area, so creation of a new flight path is not expected as a results of the creation of the SUDs features, the design and planting of the attenuation basins will be created as to deter waterfowl and wading bird species.

5 BIRD HAZARD MANAGEMENT PLAN

Based on the baseline data and the site risk assessment bird numbers are not expected to significantly change as a result of the development, and therefore it is not considered that the development will cause a significant bird hazard risk. However, the measures described in the Bird Hazard Management Plan (BHMP) below will be implemented into the site design and management to ensure that bird hazard risk is kept to a minimum at the site, and that any bird hazards would be detected and dealt with swiftly if it was to occur.

Eastleigh Borough Council are developing the Site and are currently responsible for the ongoing implementation of the BHMP. Responsibility will be passed to site management companies and/or any other relevant parties.

The duration of this BHMP is linked to the Site and not the site owner or operator.

5.1 DESIGN

Whilst the proposed development is not considered to result in an overall increase in bird populations, both during the construction phase and post construction, which would present a likely bird strike risk. As a precaution, a number of measures should be incorporated into the BHMP to ensure that hazardous birds and congregations of birds are not attracted to the Site as a result of the proposed development. Details of these measures are discussed below.

5.1.1 Landscape planting

The Pre-Application Planning Advice Received from Southampton Airport in relation to the full outline planning application states:

"The Inner Horizontal Surface has a maximum height AMSL of 54.34m and therefore, taking a worst-case scenario, in the SE of the site with a ground height of 38 metres to avoid penetration of this surface buildings should not exceed 16.4m AGL."

"As the site sits within the boundary of the Inner Horizontal Surface, tree planting at centers of 4 meters or greater is acceptable, but the following species must be excluded; Scots Pine Pinus Sylvestris, Oak Quercus sp. and Beech Fagus Sylvatica."

It is the aspiration of the scheme to include oak in the landscape planting in specific areas where it provides and extension to the existing oak woodland and parkland on site on the following basis:

- The parkland habitat is a UK BAP habitat and there is a rare opportunity associated with this development to provide an extension to the existing veteran oak parkland. The proposed extension is 0.72 ha of oak parkland with oaks planted at 4m centers with the intention to thin to existing density (~15m centers) as the trees mature. The existing area of this habitat is estimated as 3ha across Eastleigh Borough¹ so this opportunity presents a significant (~25%) increase in this priority habitat at a strategic level in an area of existing habitat with excellent connectivity to a designated woodland.
- The site is located within the Chalcroft Priority Biodiversity Link as identified in the Eastleigh Biodiversity Action Plan and woodland/parkland planting seeks to enhance this corridor and effectively extend the Chalcroft Business park woodland SINC.
- Significant areas of designated Lowland mixed Deciduous Woodland (UKBAP priority habitat, SINC and

¹ Eastleigh Borough Council – Biodiversity Action Plan 2012-2022 (EBC, 2012)

ancient woodland) comprising significant oak trees exist both on site and immediately adjacent to this phase and the proposed planting follows the species mix present in the existing valuable habitats. The proposed planting is not considered to present a visual feature or trees that will penetrate the Inner Horizontal Surface

- The increase in hazardous birds is expected to be very low on the basis that these areas will be adjacent to a high-density residential development and, as such, the suitability of the new habitats for nesting large raptors is very low due to disturbance effects.
- LIDAR (2019 1m DTM) shows that the ground level in the area proposed for parkland oak planting is 19-20m AMSL ground level. This leaves a clearance of 34.34m between the ground level and the Inner Horizontal Surface. *Q. robur* has a maximal height of 30m implying that oak planting in this area would not compromise the Inner Horizontal Surface. Mitigation is proposed to manage the potential height of these oak trees to a maximum height of 20m (e.g. leader removal and vertical stem management) to ensure that the inner horizontal surface is not compromised by these trees and there is a negligible change in terms of the appearance of this area over time given the presence of large, mature oak trees in the immediate vicinity of the new planting.

Berry/fruit bearing planting (trees and shrubs) dispersed throughout the scheme, will be subject to a maximum of 15% of the total planting.

5.1.2 Sustainable Urban Drain Schemes (SuDS)

Basins

A Drainage Strategy has been developed for the Site, which includes a sustainable urban drainage system (see a concept plan of the SUDs basins in Figure 4), in the first residential parcel there will be five drainage basins, swales and permeable paving will be used throughout.

The SuDs design has not been finalized however, some of the SuDs ponds will be planted for biodiversity and wildlife interest and will retain water throughout the year. The concept designs for the SuDs features (see fig XX) show small areas will be deep permanent water, larger areas permanent shallow water, edges of ephemeral wet land and planted with permanent vegetation cover around the feature, planting will include tall marginal species and ensure the water levels are maintained at a low level to deter larger bird species.

One SuDs basin will be positioned on the western boundary of the Site adjacent to Round copse wood. Due to the location of this SUDs basins on the edge of woodland, the basin will be overshadowed by trees making it less attractive to waterfowl.

The other four SuDs ponds will be located to the North of the development boundary along and next to the existing stream that flows east to west, additional scrub planting in these areas is recommended to further deter larger flocking bird species.

Swales

Swales are being designed within the main developed area, where these features will be highly disturbed, grassed over and maintained at a short amenity length to deter use by birds.

5.1.3 Building design

Flat and shallow-pitched roofs have the potential to present a hazard for multiple species.

The building designs for the Site have avoided incorporating any buildings that have flats or shallow pitched roofs to avoid creating potential bird attractants. Protruding ledges have been specifically excluded from this scheme.

The following practical options will be integrated into the building designs to avoid attracting nesting, loafing and roosting birds.

- Roofs should be of a steep pitch to deter loafing and nesting birds, choice of roof material, tiles that have smooth surfaces and limited vents will reduce breeding opportunities.
- Roof overhangs will be kept to a minimum, with ledges beneath overhangs and external protrusions being avoided where possible.
- Any exposed ledges will be fitted with bird spikes at a density suitable to exclude feral pigeons and larger birds.
- If necessary netting will be used to proof roofs and exclude hazardous species.
- Any flat or shallow pitched roofs that cannot be bird proofed must be accessible to monitor and manage birds if considered necessary.
- Lighting structures designed or proofed to deter roosting birds

5.2 MANAGEMENT

5.2.1 Construction Phase

Control of construction drainage and earth works during the construction phase should ensure that wide areas of permanent open water do not develop which can attract geese, gulls and wading species.

If necessary, bare loose soil should be compacted to reduce its suitability for bird species.

The timing of all significant earthworks, particularly topsoil spreading and grading, shall be notified to the airport (Airfield Operations) in advance and scheduled, where possible, at times of lower flying activity.

Grass seeding should be done in phased sections if the area to be seeded is larger than 150m² rather than all at once. Intervals between discrete blocks should ideally be in the order of 3 days. This will produce staggered germination, reducing the amount of seed available to pigeons, reducing the area affected at any one time and allowing better deployment of passive deterrent measures.

Blocks of ground where construction work has been completed shall be reinstated or covered and re-seeded (where applicable) at the earliest opportunity.

Waste control and disposal for the Site, including food waste, should be controlled to avoid the build-up of scavenging bird species such as gulls and corvids. Waste should be placed in covered skips and bins to reduce risk.

5.2.2 Post-construction

Trees/Shrubs

Existing and newly created hedgerows within and surrounding the development that contain fruiting species such as Hawthorn *Crataegus monogyna* and Blackthorn *prunus spinosa* will be trimmed yearly to limit berry production.

Grassland Management

Grassland in amenity areas throughout the Site will be maintained as a short sward.

Areas of existing diverse grassland habitats within the Site will have a reduced cutting regime. Arisings from these areas should be removed for the benefit of biodiversity and to remove seeds which may attract flocking birds.

SUDS

Swales used within the Site as part of the SUDS scheme will be monitored to ensure that they are quick draining. Grass within the swales will be regularly cut to ensure it is maintained as a short sward, to ensure they are kept as unattractive features for hazardous bird species.

SuDS basins that hold water on a non-permanent basis are to be managed to control any bird hazard as appropriate.

SuDs basins that are designed to hold water at a low level on a permanent basis will be planted with tall marginal species such as common reed *Phragmites australis* and reedmace *Typha latifolia* or *Typha angustifolia* which will limit the amount of open water which will naturally reduce the appeal of the water body to species such as gulls, geese and cormorants. Additional scrub and hedgerow planting around SuDs will be allowed to grow with minimal management.

Putrescible Waste

This development phase will include residential properties only. The following precautions will be implemented during construction and operation to minimise bird attraction;

- All waste will be stored in private bins and bin storage facilities on site.
- Signs will be erected in public places informing the public that they should not feed the birds, in places birds are likely to cause an issue, e.g. SuDs pond. This situation will be monitored quarterly as part of the BHMP (or outside these checks if concerns are raised by a residents) and if it is considered to be an issue, then further steps will be taken to inform the public, for example by distributing informative leaflets. Residential bird feeders are not covered under this as they are not expected to pose a risk. Public feeding of flocking birds such as feral pigeons and gulls is to be discouraged through information pack issued to residents.

5.3 MONITORING AND DISPERSAL

Regular monitoring and reporting will be undertaken by an agent appointed by Eastleigh Borough Council. Annual reviews of the records of bird and potential bird hazards will be undertaken by the project ecologist and reported back to Eastleigh Borough Council. Any emerging hazards will be reported to National Air Traffic System (NATS) based at Southampton Airport. Should unacceptable potential risks be encountered, management intervention will occur to reduce the potential risk to an agreed acceptable level in consultation with NATS.

5.3.1 Monitoring

Construction phase monitoring will specifically include:

- A log book will be kept providing an auditable record of all BHMP information to be maintained detailing: dates, times and description of monitoring carried out, species and number of birds recorded, control effort provided and the results of any control.
- Numbers and species of bird present across the Site to be recorded in a log book. The frequency of the monitoring will be undertaken under the direction of the bird management consultant and will be

dictated by the level of bird activity and time of year. If required advice would be sought from a bird control specialist if levels are seen to increase.

- The general attractiveness of the site for birds will also be monitored on an ongoing basis with any measures (such as landscape/habitat management, surveillance/dispersal strategies) adopted where required to render the site unattractive for birds.
- SUDS features will be checked quarterly to monitor bird populations and identify if management will be required to reduce the numbers of birds if this is observed to increase.
- Southampton International Airport will also be able to independently verify that the objectives of the BHMP are being met, and an inspection of the records and Site can be made without notice to Eastleigh Borough Council, access to all areas of the Site will be made available to ensure that inspections can be carried out.
- Contact would be made with the Southampton Airport Air Traffic Control team should any bird issues arise.
-

5.3.2 Remedial Management Options

- If bird activity of larger flocking species (such as gulls, wildfowl or corvids) is recorded during on-going monitoring of the proposed SUDs attenuation ponds, a bird control specialist will be contacted, and appropriate control measures would be undertaken if deemed appropriate.
- Consideration will be given to the use of wider bird deterrent measures to encourage dispersal, e.g. distress calls, gas cannons.
- Following monitoring and any recommendations from consultation with the retained ecological consultants, habitat management (targeted landscape management) and surveillance/dispersal strategies would be adopted if deemed necessary.
- Any control measures considered necessary, after site monitoring and consultation with the project ecologists, must be to be carried out under an appropriate licence as necessary.
- Existing and newly planted hedgerows, trees and shrubs throughout the Site in community open spaces will be managed yearly.

Should the Site manager have concerns about bird numbers and activity due to unexpected or seasonal bird activity following adoption of aforementioned measures, the activity shall be recorded in the logbook and contact shall be made with the project ecologists and Southampton Airport for advice.

The project ecologist will undertake audits across the development site and the wider One Horton Heath Site, once per month during the construction phase and yearly thereafter subject to satisfactory performance.

Figure 5: Site Design



6 CONCLUSIONS

This BHMP concludes that there is no significant increase in bird strike risk associated with the first residential parcel of one Horton Heath on Southampton International Airport, should the measures included herein be delivered as required.

Southampton Airport lies in close proximity to an identified bird fly way to the east of the airport which runs north to south along the River Itchen corridor. The Site lies to the east of the river Itchen, the development is not expected to attract common hazardous bird species to the Site or alter the pre-existing bird fly ways identified if measures laid out within the BHMP are followed.

Recommendations have been made to design out potential attractant habitat for birds within the development design. Also, management measures during and post-construction have been made to further lower risk of bird strike hazards.

The high level of human occupancy across the site post construction has been considered to be a deterrent to larger wading birds such as geese, herons, egrets, cormorants, lapwing, curlew and golden plover. Despite the increase of wetland SuDs features, human disturbance is likely to deter these species in larger numbers that are considered to be an aviation hazard.

The proposed measures will be continually reviewed in line with the BHMP, through site monitoring and reporting to Southampton International Airport, thereby ensuring that a robust and pro-active approach to any risks of increased bird strike. The Site management and monitoring will be ongoing throughout the life of the development or as long as there is an operational aerodrome within 13km of the Site.

Overall it is considered that in accordance with best practice the mitigation measures detailed in this document are sufficient to ensure that any risks of bird strike associated with the development of the first residential parcel of the One Horton Heath development have been reduced as low as reasonably practicable.

Appendix – Site specific CEMP Controls. TEMPLATE

Project/Task title: SID – Road construction and Landscaping

Principal Contractor: TBC

Start date: TBC

Duration: TBC

Site Manager: NAME AND CONTACT DETAILS TBC

Site Environmental Representative: NAME AND CONTACT DETAILS TBC

Environmental / Ecological issues	Best Practicable Means control measures to be implemented – EXAMPLES NOT LIMITED TO:	Location of control measures	Comments
Noise and vibration	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR Noise assessment & identification of noisy plant/works to be undertaken. Use of low noise/vibration equipment (procurement strategy). Separation of noisy & vibrating equipment (prevention at source)- acoustic barriers. Location of equipment away from sensitive receptors. Maintenance of equipment. Avoid machinery idling. Traffic management plan – hours of work. Noise awareness campaign and toolbox talks.	TBC	
Lighting	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR Lighting faces downwards and into site to avoid spilling onto adjacent habitats. No lighting on boundary of sensitive areas (TBC). Lights turned off at night.	TBC	
Dust / air quality	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR Avoid unprotected spoil heaps – seeding/cover if long term storage required. Dust suppression to be used where necessary (run off to be captured and treated/settled)	TBC	

	prior to discharge) – any discharge to be in accordance with EA permit.		
Bird hazard management	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR See bird hazard management plan (BHMP). Construction of SuDS basins to prevent attracting wading and water birds. Notification of grass seeding to the airport authorities – See section 5.2 of the BHMP Full details of arrangements to be added.	TBC	
Use of chemicals / fuel on site.	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR All fuel and chemicals to be stored in a secured container on an impervious base with sufficient bunding capacity to prevent ground contamination in the event of failure. All chemicals must be properly labelled. All fueling in designated area away from water courses. Drip trays must be used for all fueling operations. All hoses and valves to be checked regularly for damage/wear and tear. Spill kits must be available AND all operatives trained in their use. Emergency procedures must be in place and all operatives trained in them. All spillages must be reported to the site manager AND the site Environmental Representative as soon as possible. A record of all incidents must be kept and reported to the Client as soon as possible.	TBC	
Water quality – dewatering / discharge (sediment control)	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR Control of sediment and runoff will be managed in accordance with the principles set out in the CIRIA SuDS Manual. The use of methods including, retaining grass and vegetation for as long as possible, in disturbed areas, controlling erosion via the use of straw bale barriers, geotextile silt fences and sediment basins (with regular clearing out of excess sediment off-site) and ensuring that the runoff from the disturbed area passes	TBC	

	through sediment control systems before discharge. Any discharge to be in accordance with EA permit.		
Water quality/mud transfer – wheel wash and cement washout.	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR Wheel wash and cement slurry to be in purpose-built system to ensure water is reused, silt, sediment and invasive species are prevented from transfer or contamination or water courses. Cement wash-out to be retained and returned to supplier – or contained for treatment - TBC.	TBC	
Tree removal and tree root protection	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR Tree route protection requirements set out in the relevant arboricultural reports will be implemented.	Detail specific root protection zones on plan.	
Waste management	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR Waste management strategy to be prepared and implemented following the waste hierarchy – prevention, reuse, recycling, energy recovery, disposal. Soil from the Phase 3 Road is to be used on the First residential parcel to avoid the requirement for importing soil.	To be prepared	
Prevention of run-off (spoil storage)	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR Location of spoil heaps to be furthest from watercourses and bunded/water capture used to prevent silt run off.	TBC	
Great Crested newts	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR GCN licenses are in place for the northern area and Chalcroft (to be submitted/approved). All works must comply with the license requirements.	TBC	
Owls	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR Nesting barn owls are present in Chalcroft farm and there are two active nest boxes present on site to the south of Chalcroft and in the center of Foxwood.	TBC	
Nesting birds	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR	TBC	

	Nesting birds must not be disturbed. Where possible, removal of trees and hedgerows should not be undertaken during the nesting season. If works must be undertaken during this time, then a pre-works check by a competent ecologist must be made to ensure that no nesting birds are present.		
Bats	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR A number of tree roosts are present across the site. The location of which will be made available to the Principal Contractor, and these will be updated/reassessed as required.	TBC	
Dormice	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR Foxwood supports hazel dormice. All works around Foxwood Stream will be undertaken in accordance with the dormouse license is being prepared (and will be attached to this CEMP	TBC	
Invasive species - Japanese knotweed (<i>Fallopia japonica</i>) and Himalayan balsam (<i>Impatiens glandulifera</i>).	TO BE COMPLETED BY THE PRINCIPAL CONTRACTOR There are areas of Himalayan balsam (adjacent to Quobleigh stream) which must not be spread across the site or downstream. A method statement for removal or treatment to be agreed in writing by the local planning authority PRIOR to any works in this or adjacent areas. Biosecurity measures including: Timing of removal. Vehicle and personal decontamination (wheel wash and footwear washing). Cleaning and disinfecting tools. Signage and training for all operative.	TBC	

Appendix F – CEMP weekly inspection/monitoring form

Project/Task title: SID – Internal Distributor Road construction

Date of inspection: TBC

Time of inspection: TBC

Details of person undertaking inspection: TBC

Principal Contractor: TBC

Site Manager: NAME AND CONTACT DETAILS TBC

Site Environmental Representative: NAME AND CONTACT DETAILS TBC

Licenses and permits;

License/Permit	Number	Issue date	Issued by
Great Crested Newt License	TBC	TBC	Natural England
Bat License	TBC	TBC	Natural England
Dormouse License	TBC	TBC	Natural England
Ordinary water course consents	TBC	TBC	Hampshire County Council
Tree removal (Quobleigh Stream)	TBC	TBC	Environment Agency
OTHERS			

Environmental / Ecological issues	Control measures checked AND adequate YES/NO	Signed / dated	Actions required / Comments
Noise and vibration			
Lighting			
Dust / air quality			
Bird hazard management			
Soil stabilization – use of cement / lime			
Use of chemicals /			

fuel on site.			
Water quality – dewatering / discharge (sediment control)			
Water quality/mud transfer – wheel wash and cement washout.			
Stream / watercourse diversions.			
Tree removal and tree root protection			
Waste management			
Prevention of run-off (spoil storage)			
Great Crested newts			
Owls			
Nesting birds			
Bats			
Dormice			
Biosecurity - Invasive species - Japanese knotweed (<i>Fallopia japonica</i>) and Himalayan balsam (<i>Impatiens glandulifera</i>).			
OTHERS			

Incidents/accidents/near misses reported this week:	
Toolbox talks undertaken this week:	
Actions required from this inspection:	
Inspection findings reported to:	<i>Name, role and date.</i>
Additional Comments:	
Signature:	

NOTE: This form must be completed WEEKLY and submitted via iAuditor OR via ohh_hsereports@eastleigh.gov.uk

Appendix G – Further relevant documents

Document	Author	Reference/Date/Version
Bird Hazard Management plan	John's Associates	
Tree Constraints Plan	Tyler Grange	Assessment reference 11705_R05a_JP_HM dated 15 December 2020
Construction Traffic Management Plan	PBA	TBC

Appendix – Construction Traffic Management Plan.



LAND AT HORTON HEATH, EASTLEIGH

Framework Construction Traffic Management Plan

April 2022

One Horton Heath
(on behalf of Eastleigh Borough Council)

**MIXED USE DEVELOPMENT
LAND AT HORTON HEATH
EASTLEIGH**

FRAMEWORK CONSTRUCTION TRAFFIC MANAGEMENT PLAN

CONTROLLED DOCUMENT

<i>Document No:</i>	039.0014/FCTMP/1	
<i>Status:</i>	Original	
	<i>Name</i>	<i>Date</i>
<i>Prepared by:</i>	Shannon Betteridge	April 2022
<i>Checked by:</i>	Jessica Lloyd	April 2022
<i>Approved by:</i>	Mark Smith	April 2022

Revision Record

<i>Rev.</i>	<i>Date</i>	<i>By</i>	<i>Summary of Changes</i>	<i>Aprvd</i>

Disclaimer

This document has been prepared in accordance with the scope of Paul Basham Associates Ltd's appointment with its client and is subject to the terms of that appointment. It is addressed to and for the sole use and reliance of Paul Basham Associates clients. Paul Basham Associates accepts no liability for any use of this document other than by its client and only for the purposes, stated in the document, for which it was prepared and provided. No person other than the client may copy (in whole or in part), use or rely on the contents of this document, without the prior written permission of a Director of Paul Basham Associates. Any advice, opinions, or recommendations within this document should be read and relied upon only in the context of the document as a whole. The contents of this document are not to be construed as providing legal, business or tax advice or opinion.

© Paul Basham Associates Limited 2022



Eastleigh Borough Council
Eastleigh House
Upper Market Street
Eastleigh
SO50 9YN



Paul Basham Associates Ltd
The Bothy
Cams Hall Estate
Fareham
PO16 8UT

MIXED USE DEVELOPMENT
LAND AT HORTON HEATH
EASTLEIGH

FRAMEWORK CONSTRUCTION TRAFFIC MANAGEMENT PLAN

Contents

1.	INTRODUCTION	2
2.	SITE CONDITIONS AND ACCESSIBILITY	4
3.	SITE ACCESS, COMPOUNDS AND LAYOUT	7
4.	CONSTRUCTION TRAFFIC ROUTING.....	8
5.	CONSTRUCTION TRAFFIC MANAGEMENT AND MITIGATION	10
6.	SUMMARY AND CONCLUSIONS.....	12

Figures

Figure 1 – Site Location

Figure 2 – Proposed Construction Traffic Routes

Figure 3 – Proposed Phasing Plan

Appendices

Appendix A – Masterplan

1. INTRODUCTION

- 1.1 This Framework Construction Traffic Management Plan (FCTMP) has been prepared by Paul Basham Associates on behalf of One Horton Heath (on behalf of Eastleigh Borough Council (EBC)) to support an outline planning application (OPA) that has been submitted for *'a phased mixed-use development comprising: up to 2,500 residential units in total; a primary Local Centre (and supporting secondary local centres) comprising mixed-use residential/retail/leisure/community/employment/day nursery/food establishment uses, office, commercial and industrial uses; a Primary School; public open space including formal sports facilities and informal provisions; relocation of solar panels; key infrastructure and utilities provision including new roads, footpaths and cyclepaths and improvements to the existing road junction at Fir Tree Lane/Burnetts Lane; and ecological, landscape, site preparation and demolition works'* (application reference: O/20/89498).
- 1.2 The indicative site location is demonstrated in **Figure 1**, with the site wide masterplan attached as **Appendix A**.

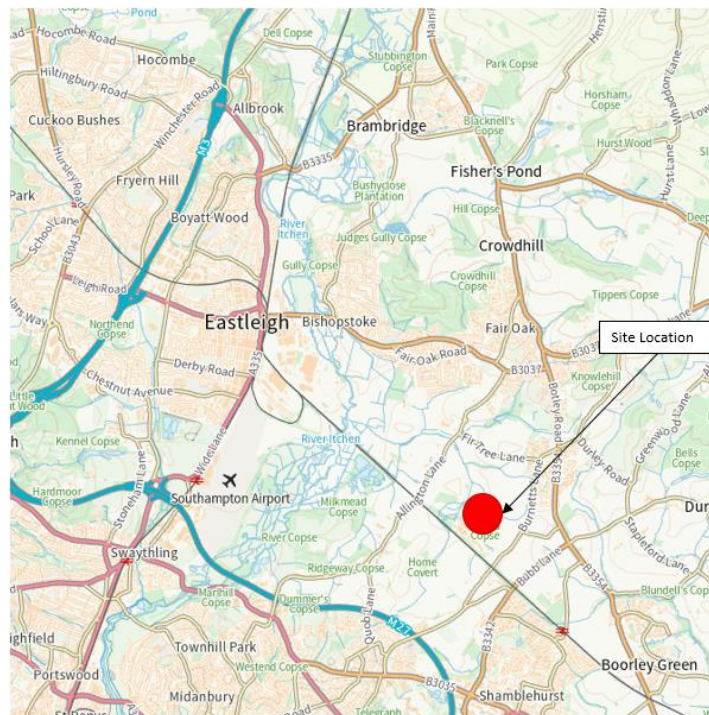


Figure 1: Site Location

Site History

- 1.3 The site is associated with extensive planning history and is identified in EBC's Local Plan (2016-2036) collectively securing the delivery of 1,500 dwellings, a 3 Form Entry Primary School, Local Centre, B1/B2/B8 commercial uses and link road infrastructure.

- 1.4 The site has been subject to several recent planning applications with extant consents under application reference O/14/75735 and O/16/79354 which collectively secured consent for up to 1400 dwellings, *associated road and parking infrastructure, including public open space, indicative landscaping, drainage, the construction of a new access points, works to PRoW routes, a Primary School (3FE), a Secondary School (8FE), a village centre (at Chalcroft Farm) including change of use of existing farm buildings (A3, A4 (with ancillary accommodation), A5, employment uses) and a local centre including a community building (A1, A3, A5 and D1), approximately 6ha of employment uses (B1(b/c), B2 and B8)*'.
- 1.5 This report has been produced for submission as part of the most recent planning application (O/20/89498) which is known as 'One Horton Heath'.
- 1.6 In addition, a full planning application for the *'erection of 381 residential units with public open space, hard and soft landscape works, internal roads, footways/cycleways, associated parking spaces, substation, SuDS and associated infrastructure'* was validated in January 2021 and is also still under consideration (application reference: F/20/89500). For clarity, the 381 dwellings have been subject to an individual CTMP, given a separate application has been submitted however, as they are also included under the outline planning application for which this CTMP has been prepared, reference to such dwellings may be made.
- 1.7 The purpose of this document is to clarify how potential impacts from construction traffic would be minimised for local residents and businesses and explain how highways safety is to be maintained within the vicinity of the construction site. This is a Framework Construction Traffic Management Plan which sets the overarching principles each construction phase would follow. Individual CTMPs would still be produced for each construction phase to confirm details such as construction vehicle swept path analysis and parking numbers. However, the CTMPs should follow the principles established within this Framework CTMP.
- 1.8 This CTMP therefore considers the site access, compound and layout, routing of construction vehicles and management of construction traffic. This CTMP is to act as a framework to establish these key principles which will be developed in more detail when further details associated with the contractor are available.

2. SITE CONDITIONS AND ACCESSIBILITY

- 2.1 The proposed development is located to the southwest of the existing Horton Heath settlement and north of the existing Chalcroft Business Park. Burnetts Lane adjoins the site's eastern boundary whilst the northern, southern and western boundary are currently bordered by fields, with Chalcroft Business Park located to the south.

Access Arrangement

- 2.2 A link road is proposed to route through the site northwest to southeast which acts as an A to B distributor road with minimal delays en-route. The extant permissions proposed the link road had a minimum width of 6m with a continuous 2m footway flanking the western side of the link road and a 3m wide footway/cycleway flanking the eastern side of the link road. This link road is currently also subject to a full planning application (reference: F/21/91185) which is yet to be determined.
- 2.3 The link road section between Burnetts Lane and Bubb Lane is now fully built and open to the public along with the three new roundabouts; at Bubb Lane/Link Road, Burnetts Lane/Link Road/Chalcroft Business Park and Allington Lane/Link Road. During the initial phases of construction, the development would only be accessible from the southern end of the link road due to the proposed construction phasing of the link road.
- 2.4 However, given that it is likely that the link road will be completed prior to any dwellings being built (and with a planning obligation to be constructed prior to occupation of the 100th dwelling) consideration to vehicle movements utilising the link road from either the northern or southern access points has been given.
- 2.5 The Burnetts Lane/Link Road Roundabout constitutes a four-arm roundabout with an ICD of 50m with a two lane approach on each arm of the roundabout. This roundabout provides access onto the link road to the east and west of Burnetts Lane and an access into Chalcroft Business Park, with the arm to the west of Burnetts Lane providing access into the proposed development. The Bubb Lane/Link Road roundabout is a three-arm roundabout with an ICD of 40m with two lanes on all approaches.

Local Road Network

South of the Site

- 2.6 Bubb Lane runs northeast to southwest and connects with infrastructure which leads into West End in the southwest, Hedge End in the south and Horton Heath to the north. The majority of Bubb Lane is subject to a 50mph speed limit with a circa 3m wide footway/cycleway along the eastern side of the carriageway with a main carriageway width around 7m.

- 2.7 At the Bubb Lane/Bubb Lane/Tollbar Way Priority Junction, Bubb Lane continues west past Wessex Vale Crematorium and ends at the Burnetts Lane/Bubb Lane/Moorgreen Road Priority Junction. This section of Bubb Lane is more rural in nature with no footways present and instead the carriageway is flanked by vegetation. National speed limit restrictions are also in place for this section of Bubb Lane and the carriageway reduces in width to some 5.8m.
- 2.8 Between the Burnetts Lane/Bubb Lane/Moorgreen Road Priority Junction and the site, Burnett's Lane is a single lane carriageway subject to a 40mph speed limit. The carriageway measures approximately 5.2m in width and provides access to Chalcroft Business Park, situated to the south of the proposed development.
- 2.9 Tollbar Way has an approximate north-south alignment and extends between the Charles Watts Way/Tollbar Way/Turnpike Way Roundabout and the Bubb Lane /Bubb Lane/Tollbar Way Priority Junction via Hedge End Retail Park.
- 2.10 Between the Bubb Lane/Bubb Lane/Tollbar Way Priority Junction and Botley Road/Tollbar Way/Bradbeers Roundabout, Tollbar Way is single lane with large carriageway widths and a footway/cycleway on the eastern side of the carriageway. To the south of the Bradbeers roundabout Tollbar Way has two lanes in both directions to accommodate the flow of traffic and therefore becomes more strategic in nature. Tollbar Way is subject to a 40mph speed limit for its entirety.

North of the Site

- 2.11 As aforementioned, the OPA also extends to an access onto Allington Lane in the north-western corner of the site. Allington Lane runs north to south from the Allington Lane/Fair Oak Road Priority Junction in the north to the Allington Lane/Swaythling Road (A27)/Townhill Way Roundabout in the south.
- 2.12 Allington Lane is subject to a 40mph speed limit for the majority (except the northern 450m section which is subject to a 30mph speed limit upon approach to the urban/residential area) as well as a 6' - 6'' width restriction (except for access).
- 2.13 At the Allington Lane/ Fair Oak Road priority junction, Fair Oak Road continues eastbound (as Eastleigh Road) to the B3354 Botley Road. This road connects Botley in the south to Colden Common and Twyford to the north.

- 2.14 For westbound vehicle movements at the Allington Lane/Fair Oak Road junction, the road continues for approximately 3.5km where it ultimately terminates at the Bishopstoke Road/Station Hill/Romsey Road/Twyford Road/Coles Road roundabout. From this roundabout, access to the M3 is achievable via the A335.

Strategic Road Network

- 2.15 The proposed development is well located to access the Strategic Road Network with the M27 motorway located to the south of the development and the M3 motorway located to the northwest. The M27 runs between Cadnam in the west and Portsmouth in the east with primary destinations along the route including Southampton, Fareham, Whiteley and Portsmouth. From the proposed development site, the M27 can be accessed via Junction 7.
- 2.16 The M3 motorway runs northeast to southwest from Sunbury-on-Thames in Surrey to Eastleigh in Hampshire with key destinations along the route including Basingstoke, Winchester and Aldershot. From the site, the M3 can be accessed via Junction 13 at Eastleigh or via Junction 11 in Twyford at the Hockley Link.

3. SITE ACCESS, COMPOUNDS AND LAYOUT

- 3.1 A number of compounds are likely to be provided across the site for each construction stage, all of which would be primarily accessed from the link road. The link road is proposed to have a minimum width of 6.5m, and the construction access would be of sufficient width to allow for two-way vehicle movements in and out of the site.
- 3.2 The compound areas would provide ample space for large articulated vehicles to turn on-site, material storage and a material drop off zone. Wheel washing facilities would be provided at the exit of the site to avoid mud being deposited onto the highway and toilet facilities would also be provided within the compounds.
- 3.3 The exact locations of the compounds are to be determined once the contractor has been appointed, however, the position will be sensitively placed to minimise impact and disturbance to local residents and businesses, and thus will be placed away from existing residents.

Parking

- 3.4 The compound areas would also be large enough to accommodate vehicle parking associated with contractors. If any of the workforce are unable to park on-site (although this is unlikely), they will be encouraged to travel to the site using sustainable modes such as car sharing or making use of the bus services that are available along Bubb Lane.
- 3.5 Should any unlawful parking occur, the site manager will retain a log of inconsiderate parking and take appropriate action.

4. CONSTRUCTION TRAFFIC ROUTING

- 4.1 The local highway network has been assessed in terms of its suitability for the movement of HGV vehicles to and from the site, associated with the recycling/disposing of waste and for the delivery of materials associated with construction work.

Route from Strategic Road Network

- 4.2 Having reviewed the available routes it is proposed that the majority of construction traffic would access the site from the south via the M27. The only occasion in which vehicles may route via Eastleigh and subsequently the B3037 and Allington Lane is if goods are arriving by train.
- 4.3 **Figure 2** displays the proposed HGV routes from the Strategic Road Network (SRN) to the proposed development site. The red route demonstrates the main construction route to the site and follows the M27 at Junction 7, Charles Watts Way, Tollbar Way, Bubbs Lane and the new link road. This route is considered to be the most suitable, avoiding constrained roads where possible.
- 4.4 To access the site from the north (if required, and primarily associated with materials arriving by rail) vehicles would use Tower Lane, Chickenhall Lane, Bishopstoke Road, B3037 and Allington Lane before continuing into the site via the new link road. All routes avoid the use of the Burnetts Lane and Fir Tree Lane and should instead utilise the new section of link road between Bubbs Lane and Burnetts Lane (demonstrated in yellow within **Figure 2**).

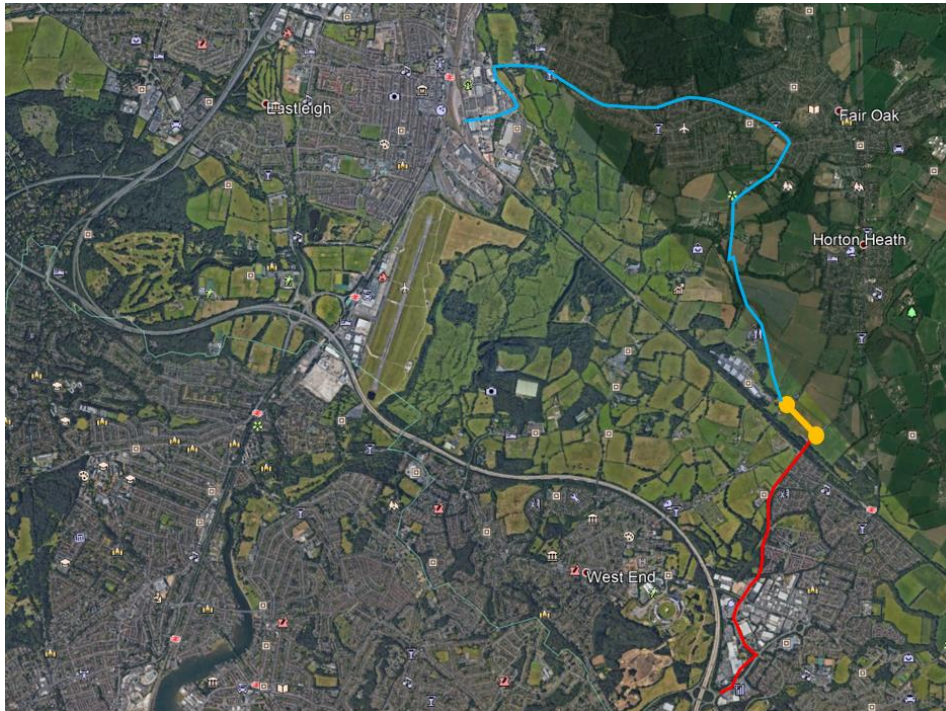


Figure 1: Proposed Construction Traffic Routes

- 4.5 Construction traffic will be asked to follow the route outlined within this FCTMP and the later more detailed CTMPs, with details sent with any orders and directional signage installed to assist drivers. Construction vehicles are not anticipated to have an adverse effect on the operation of the local highway network and it is not anticipated that any road closures or diversions would be required for the construction process, however this would be discussed at a later stage.
- 4.6 It is confirmed through this FCTMP that the proposed construction route does not include Blind Lane. All delivery/construction vehicles associated with the development would be routed away from Blind Lane.

Internal Route through the Site

- 4.7 With all construction movements utilising the new link road through the site, with access either via the two new southern roundabouts or via the new Allington Lane roundabout, internal distribution of construction traffic will be contained and coordinated effectively.
- 4.8 The phasing of the site will ensure that construction compounds and vehicle movements will either be directly from the link road itself or through another phase of the development. For example, the first residential phase (FRP) of development which has been submitted as part of planning application F/20/89500 is to be accessed from the eastern side of the new link road, with it then likely that phases OPA5 and the Local Centre likely to be accessed through Phase 1. The proposed phasing plan for the site is demonstrated in **Figure 3**.

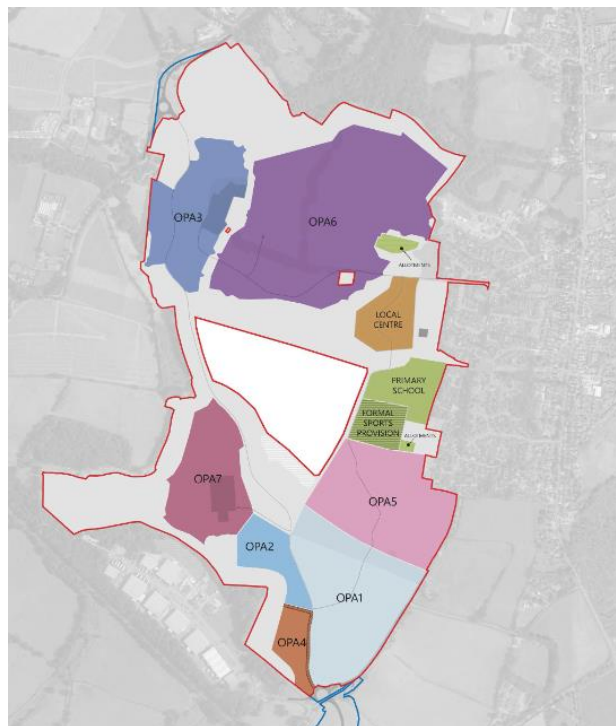


Figure 3: Proposed Phasing Plan

5. CONSTRUCTION TRAFFIC MANAGEMENT AND MITIGATION

Working Practice On-Site

- 5.1 All materials (earth) for removal would be contained in designated areas within the site and during the construction phase, all materials would be stored within the construction compound. All materials would be loaded and unloaded safely by trained personnel. Hard hats would be compulsory on-site, with signage provided within the compound to this regard. In addition, all site visitors would be required to sign in at the site office to ensure adequate safety measures are met.

Working / Delivery Hours

- 5.2 Whilst the exact construction timescales are not yet known, working hours will be considerate of local residents and businesses. In addition, and wherever possible, deliveries would be carried out during the week, outside of peak periods (8am-9am and 5pm-6pm), in the construction phase, but in some cases, it may be necessary to work outside these prescribed working hours.

Vehicle Movements

- 5.3 Any vehicles arriving to transport waste materials away from the site would be provided with an allocated timeslot to ensure no vehicles wait on the local road network. Vehicles wanting to deliver materials to the site during the construction phase would also be provided with an allocated timeslot to the same effect. Further detail on the exact number of daily trips and the types of vehicles anticipated to be used for the groundwork and construction works will be confirmed upon appointment of a contractor.
- 5.4 Any defects caused to the highway or associated grass verges as a result of the construction traffic and associated works shall be made good once the construction phase is completed.

Wheel Wash Facilities

- 5.5 To ensure that mud and debris are not carried onto the surrounding highway network, wheel washing facilities would be provided on site, associated with each compound. The wheel washing stations would be located at the site egress points to reduce the spread of dust and dirt. A vehicle marshal would be used to inspect the wheels of all vehicles prior to leaving the site, and hose off mud, dust or silt contaminated prior to the vehicle leaving the site. A standard hose will be used as it is more controllable than other methods and uses less water.
- 5.6 Water arising from wheel cleaning would be filtered within the site prior to being positively drained. No water arising from wheel cleaning should discharge onto the public highway.

- 5.7 In the event that either the nature of the works or weather conditions mean that there is a likelihood of wheel washing not being sufficient, or if formal complaints are received, then a road sweeper will be employed.

Mitigation of Dust

- 5.8 A water truck would be driven on-site as required, spraying water over affected areas in order to prevent dust becoming airborne (if works are to be completed during dry/dusty months). The developer would ensure that there is no discharge of surface run-off arising from the water spray onto the public highway. Again, should formal complaints be received, a road sweeper will be employed.

Use of Banksman

- 5.9 Banksman are operatives trained to direct vehicle movements on or around the site. Large construction vehicles would require some assistance whilst manoeuvring within the site compound. Banksman would be used to ensure these, and other manoeuvres are conducted in a safe manner if required.

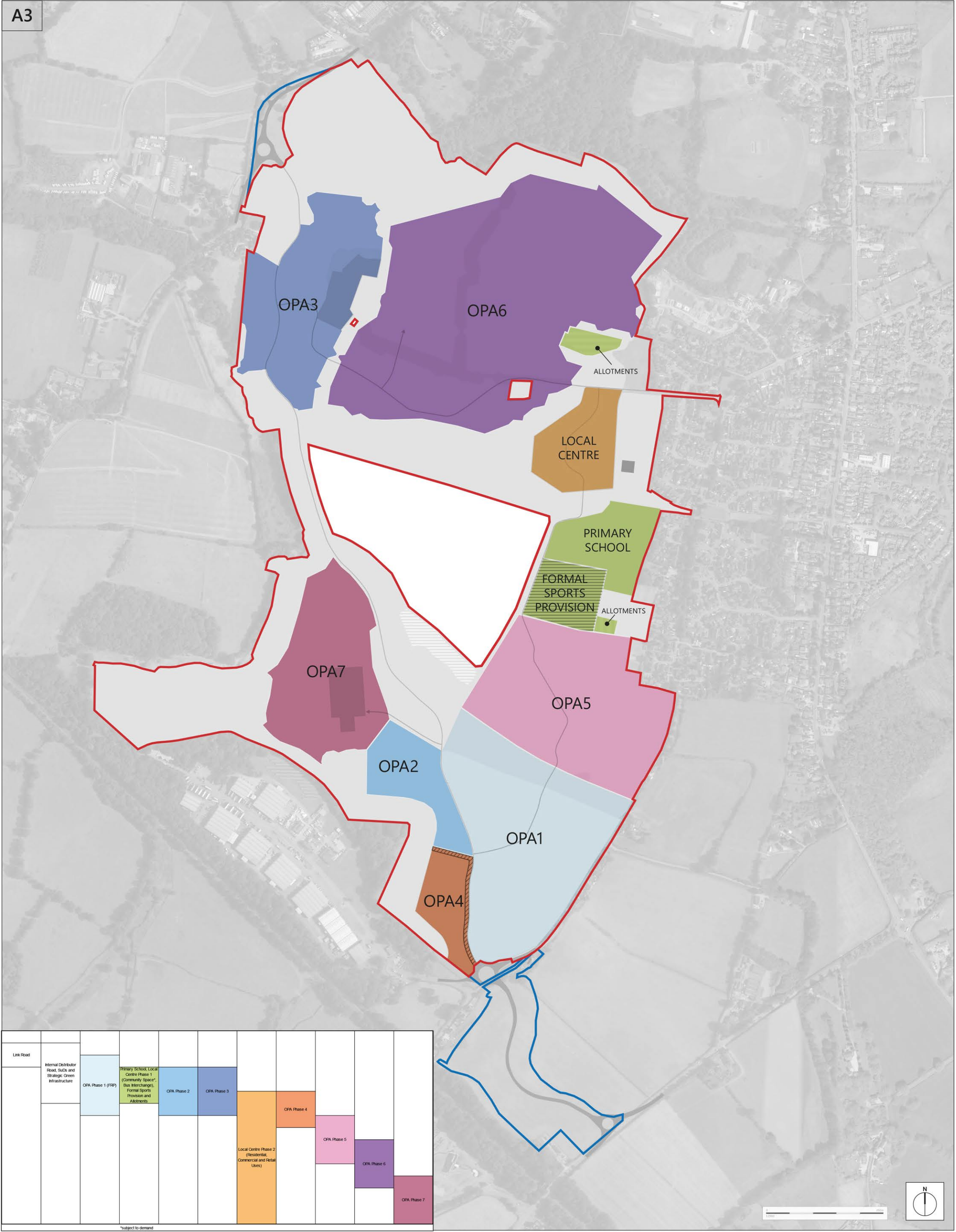
Consultation with Local Residents

- 5.10 The client recognises it is important to ensure residents are aware of the construction traffic and residents' comments regarding construction are addressed. Local residents and stakeholders will therefore be informed of the works programme via a letter which will include further information on:
- A summary of the works being carried out;
 - When construction work will commence, as well as the expected duration; and
 - A contact number for queries and complaints.

6. SUMMARY AND CONCLUSIONS

- 6.1 This Framework Construction Traffic Management Plan (FCTMP) has been prepared by Paul Basham Associates on behalf of One Horton Heath (on behalf of Eastleigh Borough Council (EBC)) to support an outline planning application (OPA) that has been submitted for *'a phased mixed-use development comprising: up to 2,500 residential units in total; a primary Local Centre (and supporting secondary local centres) comprising mixed-use residential/retail/leisure/community/employment/day nursery/food establishment uses, office, commercial and industrial uses; a Primary School; public open space including formal sports facilities and informal provisions; relocation of solar panels; key infrastructure and utilities provision including new roads, footpaths and cyclepaths and improvements to the existing road junction at Fir Tree Lane/Burnetts Lane; and ecological, landscape, site preparation and demolition works'* (application reference: O/20/89498).
- 6.2 The site compounds would be accessed via the new link road. The compounds would be large enough to accommodate large vehicles turning on site, material storage and drop off, toilets and an area for contractor vehicle parking which is anticipated to accommodate all vehicles associated with development.
- 6.3 The proposed HGV route to the site primarily follows the M27 at Junction 7, Charles Watts Way, Tollbar Way, Bubb Lane, Burnetts Lane and the new link road. This route is considered to be the most suitable, avoiding constrained roads where possible. Where materials arrive by rail, vehicles may access the site from Bishopstoke Road, B3037, Allington Lane and the new link road. To confirm the route does not include Blind Lane and delivery/construction vehicles associated with the development will be routed away from Blind Lane along with Fir Tree Lane.
- 6.4 A number of other measures would be implemented to ensure safety and reduce disturbance from demolition and construction traffic. These include:
- Restricting working hours to 08:00-18:00 Monday-Friday and 08:00-13:00 on Saturday;
 - Wheel wash facilities and use of banksmen for movements internally;
 - Management of deliveries using allocated timeslots;
 - Regular inspections of safety hoarding and signs; and
 - Consultation with local residents.
- 6.5 Whilst some disruption is inevitable, it is considered that the above measures would provide significant steps to ensure the effects of construction traffic on the local road network are minimised.

Appendix A



Romsey Portishead Camberley

T: 01794 367703 T: 01275 407000 T: 01276 749050

F: 01794 367276 F: 01794 367276 F: 01794 367276

www.thrivearchitects.co.uk

This drawing is the copyright of Thrive Architects Ltd ©. All rights reserved. Ordnance Survey Data © Crown Copyright. All rights reserved. Licence No. 100007359. DO NOT scale from this drawing. Contractors, Sub-contractors and suppliers are to check all relevant dimensions and levels of the site and building before commencing any shop drawings or building work. Any discrepancies should be recorded to the Architect. Where applicable this drawing is to be read in conjunction with the Consultants' drawings.

Rev	Description	Date	Au	Ch
P1	Preliminary Issue	20.10.20	GR/SWD	GR
P2	Updated further to client feedback	21.10.20	GR/SWD	GR
P3	Redline amends	30.10.20	GR/kn	GR

Project

Drawing

ONE HORTON HEATH

Phasing Plan-01

Client	Eastleigh Borough Council	Date	20.10.20
Job no.	EAST200403	Rev.	P3
Dwg no.	PHP-01	Scale	NTS@A3
Author	GR/SWD	Checked	GR
Status	PRELIMINARY	Office	Romsey
Client ref.	-		



Appendix – Permits and licences.

Hampshire County Council Permits

- Ordinary water course consents – to be applied for.

Eastleigh Borough Council

The Control of Pollution Act 1974 (CoPA) gives the Council powers to control noise and vibration from construction sites and other works. Section 61 allows contractors to apply for Prior Consent and agree working hours, site noise levels and other measures prior to work starting.