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Client: Lovell

Project: Novartis Site, Horsham Phase 1&2

Report: Peregrine Falcon Mitigation Strategy

QUALITY ASSURANCE

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N.B. This report contains sensitive information regarding protected bird species. Before being released into the public domain, the author should be contacted to advise if and where redaction of particular species location information should be actioned.

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1.0 EXECUTIVE SUMMARY

Greengage Environmental Ltd (Greengage) was commissioned by to produce a Peregrine Falcon *Falco peregrinus* Mitigation Strategy for the proposed development of an area of land on the former Novartis research centre in Horsham, West Sussex.

The proposed development is being brought forward in 2 stages; Lovell are bringing forward Novartis Phase 1&2, in hereafter referred to as the 'Phase 1&2 site' and Muse Places are bringing forward the 'Phase 3 site'. The Phase 1&2 site and the Phase 3 site are hereafter collectively referred to as the 'wider site'.

These phases will be brought forward at different times. This strategy sets out those measures required for the Phase 1&2 site, as below, to ensure the disturbance to peregrine falcon as a result of the development is considered to be minimised at the utmost possibility.

- Phase 1&2 site:
  - Construction phase:
    - Construction programming - strategic ecological zoning and noise level programming;
    - Peregrine falcon boxes - provision of two peregrine falcon boxes, for compensation and enhancement;
    - Monitoring visits by a suitably experienced ornithologist throughout the breeding bird season (March to August inclusive); and
    - Access restrictions to roof and peregrine falcon boxes .
  - Operational phase:
    - Development design provisions including overhanging ledges/screens over the roof of the former Novartis building;
    - Access restrictions to roofs and the compensation box without an exceptional reason; and
    - Post-development monitoring.

This Peregrine Falcon Mitigation Strategy has been produced to present mitigation, compensation and enhancement requirements for the construction and operational phases of the developments at the wider site, following best practice guidance[1].

1.1 BACKGROUND

The baseline value of the wider site for peregrine falcon was assessed during the Greengage breeding bird surveys (BBS) undertaken in 2025 for the Phase 1&2 site[2] and the Phase 3 site[3].

The Greengage breeding bird surveys[2],[3] concluded that peregrine falcon were confirmed breeders at the Phase 1&2 site on the roof of the former Novartis building. Previous presence had been recorded since 2022 at the Phase 1&2 site and breeding has been recorded since 2023 at the Phase 1&2 site,

according to the local ornithology group. It is typical of this species to return to the same breeding site each year.

The Greengage breeding bird surveys[2],[3] also concluded that peregrine falcon utilises the Phase 3 site for foraging and commuting. Breeding was not recorded on this site given the lack of suitable nesting features at. However, due to the immediate proximity to the Phase 1&2 site, the Phase 3 site is in the Zone of Influence (ZoI) for breeding peregrine falcons.

The Wildlife and Countryside Act (WCA) 1981 (as amended)[4] is the principal mechanism for the legislative protection of wildlife in Great Britain. Under the WCA 1981 (as amended)[4], all wild birds, their nests and eggs are protected while a nest is in use or occupied. Part 1 of Schedule 1 of the WCA 1981 (as amended)[4] offers greater protection against damage and disturbance whilst a nest is occupied, for the particular species that are listed. Peregrine falcon is a WCA 1981 (as amended)[4] Schedule 1 bird species. In light of this, a peregrine falcon mitigation strategy is required to minimise disturbance during the construction and operational phases of the developments.

There has been consultation with local stakeholders during a Microsoft Teams call, undertaken on 14th July 2025 with representatives from the local ornithology group, as well as Greengage, Horsham District Council members, and the clients for the wider site (Lovell and Muse Places) to discuss the history of peregrine falcons at the wider site and appropriate measures for their protection/conservation. During this consultation it was agreed that the key objective of this Peregrine Falcon Mitigation Strategy is to outline measures to retain peregrine falcons on site both during construction and operational phases of the developments.

This Peregrine Falcon Mitigation Strategy prescribes mitigation, compensation and enhancement requirements, which are listed below. Further detail can be found in Section 3.0.:

- Phase 1&2 site:
  - Construction phase:
    - Construction programming - strategic ecological zoning and noise level programming;
    - Peregrine falcon boxes - provision of two peregrine falcon boxes, for compensation and enhancement;
    - Monitoring visits by a suitably experienced ornithologist throughout the breeding bird season (March to August inclusive); and
    - Access restrictions to roof and peregrine falcon boxes .
  - Operational phase:
    - Development design provisions including overhanging ledges/screens over the roof of the former Novartis building;
    - Access restrictions to roofs without an exceptional reason; and
    - Post-development monitoring.
- Phase 3 site:

- Construction phase:
  - Construction programming - strategic ecological zoning and noise level programming ;
  - Monitoring visits by a suitably experienced ornithologist throughout the breeding bird season (March to August inclusive); and
  - Access restrictions to roofs without an exceptional reason.
- Operational phase:
  - Access restrictions to roofs without an exceptional reason; and
  - Post-development monitoring.

The above measures outlined within this Peregrine Falcon Mitigation Strategy aim to minimise disturbance to peregrine falcons during the developments (construction and operational phases) and must also be covered under the Natural England A08 licence.

Should the above measures be followed, the disturbance to peregrine falcon as a result of the development is considered to be minimised at the utmost possibility.

2.0 INTRODUCTION

Greengage was commissioned by Lovell to produce a Peregrine Falcon *Falco peregrinus* Mitigation Strategy for the proposed development of an area of land on the former Novartis research centre, known as Novartis Phase 1&2, in Horsham, West Sussex, hereafter referred to as the 'Phase 1&2 site'. Greengage was also commissioned by Muse Places to produce a Peregrine Falcon Mitigation Strategy for the proposed development at an area of land on the former Novartis research centre, known as Novartis Phase 3, in Horsham, West Sussex, hereafter referred to as the 'Phase 3 site'. The Phase 1&2 site and the Phase 3 site are hereafter collectively referred to as the 'wider site'. The Phase 1&2 site and Phase 3 site will be brought forward at different times.

This strategy sets out those measures required for the Phase 1 &2 site as below to ensure the disturbance to peregrine falcon as a result of the development is considered to be minimised at the utmost possibility. The requirements for Phase 3 are provided here for context only.

The Wildlife and Countryside Act (WCA) 1981 (as amended)[4] is the principal mechanism for the legislative protection of wildlife in Great Britain. This legislation is the means by which the Birds Directive is implemented in Great Britain. Under the WCA 1981 (as amended)[4], all wild birds, their nests and eggs are protected while a nest is in use or occupied. Part 1 of Schedule 1 of the WCA 1981 (as amended)[4] offers greater protection against damage and disturbance whilst a nest is occupied, for the particular species that are listed. Peregrine falcon is a WCA 1981 (as amended)[4] Schedule 1 bird species and is therefore subject to additional protection against damage and disturbance during the breeding bird season, which is typically recognised to fall between March and August (inclusive).

This Peregrine Falcon Mitigation Strategy has been produced to present mitigation, compensation and enhancement requirements for the constructional and operational phases of the developments at the wider site, following best practice guidance[1].

The measures outlined within this Peregrine Falcon Mitigation Strategy aim to minimise disturbance to peregrine falcons during the construction and operational phases of the developments at the wider site, and be covered under a Natural England A08 licence. The key aim of this strategy is to retain the peregrines on the wider site thought the lifetime of the respective developments.

2.1 SITE DESCRIPTION

Phase 1&2

The Phase 1&2 site extends to approximately 2.63 hectares (ha) and is centred on Ordnance Survey National Grid Reference (OS NGR): TQ 17809 31816, OS Co-ordinates: 517809, 131816. The Phase 1&2 site boundary can be seen in Figure A.1.

In accordance with the UK Habitat Classification System (UKHab)[5], the Phase 1&2 site comprised primarily of developed land; sealed surface, as well as a pond, bramble scrub, dense scrub, modified grassland , individual trees, sparsely vegetated urban land, other neutral grassland , willow scrub , modified grassland , other woodland - mixed, , and native hedgerow.

Phase 3

The Phase 3 site extends to approximately 4.8 hectares (ha) and is centred on Ordnance Survey National Grid Reference: TQ 17965 31684, OS Co-ordinates 517965, 131684. The Phase 3 site boundary can be seen in Figure A.1.

In accordance with the UKHab Classification System[5], the Phase 3 site comprised primarily of sparsely vegetated urban land with small extents of other neutral grassland, developed land; sealed surface, bramble scrub and a line of trees.

Wider Site

The wider site is located in the centre of Horsham and therefore situated in an urban setting, primarily surrounded by residential buildings and gardens. Parsonage Road and Wimblehurst Road run along the northern and western boundaries of the wider site respectively, with a railway line running adjacent to the southern and eastern boundaries.

Fragmented priority woodland is found throughout Horsham with the closest found in Horsham Park approximately 480 metres (m) south of the wider site. Warnham Local Nature Reserve (LNR) is located approximately 665 m northwest of the wider site, with a golf course located directly south of the LNR. Large areas of ancient woodland are present within the wider area, with the closest located approximately 850 m north of the wider site. Multiple parcels of different priority habitats are located between 1 kilometre (km) to 2 km from the wider site. These include woodland pasture and parks, good quality semi-improved grassland (non priority), ancient replacement woodland, and lowland meadows which are all classified as priority habitats.

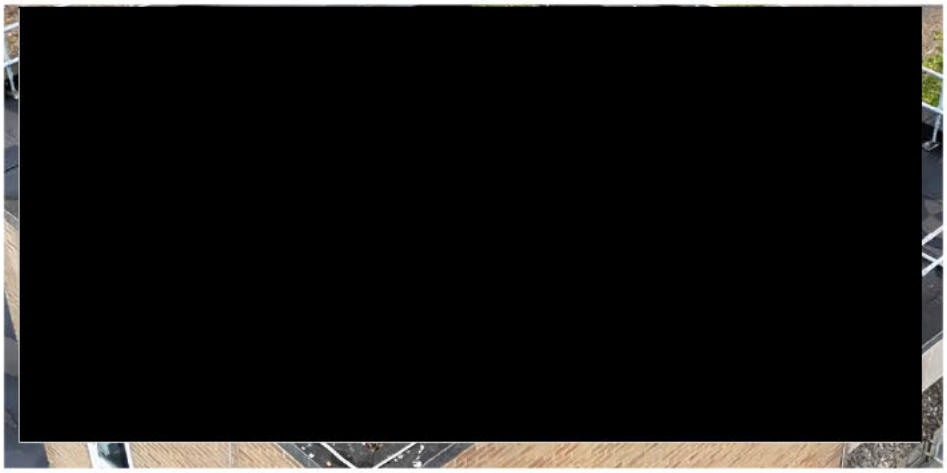
2.2 ECOLOGICAL BACKGROUND

Greengage have undertaken a BBS at the Phase 1&2[2] site and the Phase 3[3] site in 2025.

The Greengage Phase 1&2 BBS, 2025[2] identified peregrine falcons as confirmed breeders at the Phase 1&2 site on the roof of the former Novartis building with a pair of adults and two juveniles being recorded. Peregrine falcons adults seek areas of suitable nesting substrate such as gravel and often nest on the highest point of a building; this would be the tower block on the north facing aspect of the former Novartis building. However, it has been noted during the BBS and from anecdotal evidence from the local ornithological group that the nest site (also known as an 'eyrie' when specific to peregrine falcon) was located on the southeast facing aspect of the former Novartis building, utilising the southern lift shaft block (see Plate 2.1 below).

Plate 2.1 [redacted]

Plate 2.2 [redacted]



Previous presence has been recorded since 2022 and breeding has been recorded since 2023 at the Phase 1&2 site, according to the local ornithology group.

It is typical of this species to return to the same breeding site each year. Therefore, it is considered the birds recorded during the BBS could be the same birds that have been breeding at the Phase 1&2 site since at least 2023. Therefore, following guidance from the Chartered Institute for Ecology and Environmental Management (CIEEM)[6], the Phase 1&2 site could be considered to have regional importance to breeding peregrine falcon as detailed within the Greengage Phase 1&2 bird survey report[2].

The Greengage Phase 3 BBS 2025[3] did not identify the presence of nesting peregrine falcons on site, Peregrine falcons are avivores and therefore will forage where other birds are present. There is no suitable breeding habitat at the Phase 3 site as there are no structures available. The Phase 3 site is

however within the Zone of Influence (ZoI) for breeding peregrine falcons, due to its immediate proximity to the Phase 1&2 site where breeding peregrine falcons have been confirmed.

Desk Study

The Greengage bird survey reports for the Phase 1&2 site[2] and Phase 3[3] site undertook a desktop review using data from Sussex Biological Records Centre (SBRC). Records of peregrine falcon was returned within 2km of the site, and further data from the local ornithology group identified that peregrine falcons have been present within the area of Horsham since approximately 2010.

It was also highlighted that breeding had been recorded at the site during this breeding season, with a pair and juveniles recorded (2025), as discussed above.

2.3 DEVELOPMENT PROPOSALS

The development proposals at the Phase 1&2 site involve the creation of residential housing and blocks of flats, including one of which is in the footprint of the former Novartis building. It should be noted that the majority of the former Novartis building is due to be demolished, with the clock tower on the northern aspect being retained.

The development proposals at the Phase 3 site seek the creation of residential buildings and blocks of flats.

In light of these proposals, without appropriate mitigation, compensation and enhancement measures, it was highlighted in the Greengage Phase 1&2 BBS, 2025[2] and Greengage Phase 3 BBS, 2025[3] that development proposals could cause direct and indirect disturbance to peregrine falcon, with the impact at a regional level, in accordance with CIEEM guidance[6].

A Peregrine Falcon Mitigation Strategy was, therefore, identified to detail measures to minimise disturbance throughout the construction and operational phases of the development at the wider site.

2.4 COMPETENCIES

Chloe Peace, Consultant, has a BSc (Hons) in Zoology and is a Qualifying member of CIEEM. Chloe has three years of experience in ecological survey and assessment in consultancy with a particular focus on design and delivery of bird surveys. Chloe has been a trainee bird ringer with the British Trust for Ornithology (BTO) since 2021 and has completed professional training for peregrine falcon *Falco peregrinus* and barn owl *Tyto alba*. Chloe holds a Natural England Level 1 Survey Class Licence for barn owl.

Joseph Shepherdson is a charted ecologist with over a decade of hands-on experience in conducting a wide range of ecological surveys and assessments across diverse habitats and species. Over the course of his career, Joseph has held several roles, including serving as the lead ornithologist for the North of England and Scotland at multidisciplinary consultancies. He has led ornithological components for both small- and large-scale projects throughout the UK and internationally. Joseph is also highly experienced in delivering detailed ecological assessments, including Preliminary Ecological Appraisals (PEA),

Ecological Impact Assessments (EcIA), and Habitats Regulations Assessments (HRA) across a variety of developments. In addition, Joseph has significant experience as an Ecological Clerk of Works (ECoW). Notably, in 2025, he dedicated a substantial period working on television and film productions.

Jess Cole, Senior Consultant, has a BSc degree in Ecology (Hons) and is an Associate member of CIEEM. Jess holds a Natural England Great Crested Newt Licence and has over seven years' experience in ecological survey and assessment.

Mitch Cooke, Director, has a degree in Ecology (Hons), an MSc in Environmental Assessment and Management, and is a Full member of CIEEM with over 35 years' experience in ecological survey and assessment. Mitch has set up and developed ecological and environmental teams for nearly 20 years and has undertaken and managed numerous ecological surveys and assessments. He is the Director at Greengage and manages the team.

This report was prepared by Chloe Peace, reviewed by Jess Cole and authorised by Mitch Cooke, who confirms that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased and exaggerated statements.

3.0 PEREGRINE FALCON MITIGATION STRATEGY

The below measures have been split into the Phase 1&2 site and Phase 3 site as these will be brought forward at different stages. However, where measures applicable to both the Phase 1&2 site and Phase 3 sites, these have been repeated for completeness and clarity. These repeated measures can be undertaken simultaneously. This includes; construction programming and monitoring visits during the construction phase, and aspects of roof avoidance and post-development monitoring as part of the operational phase. Sections for the Phase 1&2 site and Phase 3 site should be read in conjunction with each other.

Consultation with local stakeholders was undertaken on 14th July 2025 with representatives from the local ornithology group, as well as Greengage, Horsham District Council members, and the clients for the wider site (Lovell and Muse Places) to discuss the history of peregrine falcons at the wider site and appropriate measures for their protection/conservation. During this consultation it was agreed that the key objective of this Peregrine Falcon Mitigation Strategy is to outline measures to retain peregrine falcons on site both during construction and operational phases of the developments. This key concept is reflected in the strategy presented below.

3.1 NATURAL ENGLAND A08 LICENCE

As peregrine falcon is a WCA 1981 (as amended)[4] Schedule 1 bird species, it is subject to additional protection against disturbance, as well as destruction or damage, during the breeding bird season (March -August inclusive). Peregrine falcon have been recorded as confirmed breeders at the Phase 1&2 site since 2023. Measures are outlined below to minimise disturbance to breeding peregrine falcon at the wider site, which will be completed under a Natural England A08 licence. Disturbance from the following actions will therefore be mitigated for; operating machinery near the nest, close human or animal presence to wild or nesting birds, visual or auditory disturbance, and vibrations.

This single Natural England A08 licence would apply to the wider site, including the Phase 1&2 site for direct disturbance and Phase 3 site for the zone of influence of disturbance.

Greengage intend to apply for this licence prior to the start of the 2026 breeding season e.g. December 2025.

3.2 PHASE 1&2 SITE

Construction Phase

Construction Programming

These measures are set out in the Peregrine Falcon Mitigation Strategy specifically for the Phase 1 and 2 site but are included here for completeness. These do not form part of the specific requirements for Phase 3 (which are given in detail in subsequent sections) .

For the Phase 1 and 2 site site enabling works/site clearance/early construction phase works (including, but not limited to, ground clearance/disturbance) are programmed to begin and start to be progressed

outside of the breeding bird season i.e. begin in September/October 2025 and gradually increase in disturbance levels. This includes an incremental increase in the presence, frequency and/or quantity of constructions works activities including people, machinery and vehicles, and waste products including dust, vibrations and noise. This increase in disturbance levels of constructions works activities would be progress ahead of March 2026 (when the breeding bird season begins). While peregrine falcons are sensitive to disturbance, they are also adaptable birds with the ability to habituate to changes at baseline, as long as sufficient habituation time has been allowed for prior to breeding. Therefore, this increase in disturbance levels from construction works activities will allow for acclimatisation by the peregrine falcons where possible, ahead of the breeding season and to avoid potential destruction/disturbance of/to an active nest (if present) during the typical breeding bird period, which is March to August inclusive.

Along with the above temporal programming, strategic ecological zoning (including distance and noise level) will be taken into consideration to allow for peregrine falcons to habituate. This will include commencing construction works with as maximum disturbance as possible (i.e. as far from the eyrie as possible) and reducing distances over time.

Noise levels will also increase incrementally to allow for habituation to construction works. This will include the consideration of tool/machinery use throughout the construction phase, increasing in the noise production from tools incrementally. Tools/machinery will progress through the use of manual hand tools, automated hand tools, large machinery and then large vehicles, moving through each tool/machinery subject once a suitably experienced ornithologist has confirmed that the peregrine falcons have habituated to the former noise level produced.

Disturbance risk levels to peregrine falcons will be determined by the construction works programme based on activities that will be involved. Disturbance risk levels have been defined as either very high, high, medium or low:

- Very High - presence of people/construction works within the eyrie (peregrine falcon nest site) or the immediate surrounding area of the eyrie (i.e. three stories shorter than the former Novartis Building, at, or above the eyrie);
- High - presence of people in breeding bird season (at ground level only) and/or construction works (noise, vibration, destruction etc) within breeding bird season and breeding bird season buffer period (i.e. February and September);
- Medium - presence of people (at ground level only) in the breeding bird season and/or construction works in breeding bird season buffer period; and,
- Low - presence of people/construction works outside of breeding bird season and the buffer period.

Details of the construction methodology are not currently available at the time of writing. A description of construction works stage and the distance and noise levels of each works stage would be required to full assess the disturbance level of works. Table 3.1 below is our understanding of likely disturbance of the constructions works stages and is based on a likely-case scenario of potential disturbance. This will

need updating based on confirmed construction works plans prior to submission for the Natural England A08 licence.

Table 3.1 Construction Works Stage Programming Timetable and Disturbance Level

Construction Works Stage	Start	End	Disturbance Risk Level
Mobilisation	01/10/2026	01/12/2026	Low
Construction Phase	01/10/2026	31/08/2030	High (Medium when outside breeding bird season but within buffer period; and, Low outside buffer period)
Enabling Works & Site Establishment	15/10/2026	01/02/2027	High (Medium when outside breeding bird season but within buffer period; and, Low outside buffer period)
Civils and Services	02/02/2027	23/04/2029	High (Medium when outside breeding bird season but within buffer period; and, Low outside buffer period)
Construction Phases	Phase 1 (as per Figure B1): 02/02/2027	17/01/2029	High (Medium when outside breeding bird season but within buffer period; and, Low outside buffer period)
	Phase 2 (as per Figure B1): 24/08/2027	23/04/2031	Very High/High (Medium when outside breeding bird season but within buffer period; and, Low outside buffer period)
Site Completion	23/04/2029	31/05/2031	Very High/High (Medium when outside breeding bird season but within buffer period; and, Low outside buffer period)

Whilst site enabling works and development works can take place within the breeding bird season where appropriate efforts have been undertaken to promote habituation of construction activity, the demolition of the former Novartis building must take place outside of breeding bird season to avoid killing, injury, or disturbance to nesting peregrine falcons.

Provision of Peregrine Falcon Boxes

Due to the demolition of the majority of the former Novartis building (except for the clock tower area on the northwest aspect) the peregrine falcon eyrie (that has been and would likely continue to be used

by returning the pair of peregrine falcons loyal to this breeding site) will be lost as part of the development.

In order to compensate for this loss, a peregrine falcon box, as shown in Plate 3.5, will be implemented at the Phase 1&2 site upon the clock tower of the former Novartis Building (B1, Figure B.1).

Compensation

The clock tower on the former Novartis building was assessed to determine its suitability to the provision of a peregrine falcon box, during a site visit by suitably experienced ornithologists, Chloe Peace, Stuart Card, and Joseph Shepherdson on 2nd September 2025. Stuart Card holds an appropriate licence for disturbance to peregrine falcons. Joseph Shepherdson is also a licensed drone pilot. This site visit took place after Peregrine falcons were confirmed as absent from the wider site during the site visit, with the peregrine falcon juveniles having fledged from their nest and also being independent from their parents.

Using drone footage, the site visit concluded that the location of the peregrine falcon nest site on the roof of the lift shaft on the west of the former Novartis building was chosen by the peregrine falcons as preference over the clock tower due to the presence of shingle/substrate on the lift shafts whilst being absent from the roof of the clock tower. Furthermore, the western lift shaft was likely chosen from some element such as weather including wind and sun exposure.

Plate 3.1 Shingle/substrate on the lift shaft roof on the west of the former Novartis building

Plate 3.2 Shingle/substrate on the lift shaft roof on the east of the former Novartis building

Plate 3.3 Clock tower roof surface on the former Novartis building

During the assessment it was concluded that the clock tower itself is suitable to have a peregrine falcon box installed, with the roof floor being solid and parapet walls approximately 1.5m tall around the top of the roof providing a form of shelter. Nevertheless, the roofs of the lift shafts along the south aspect of the former Novartis building, where nesting is currently present, will have all shingle/substrate removed to discourage the use of these locations for future nesting and thus to allow the peregrine falcons to habituate to the new nest box to be installed on the clock tower.

There will be no services installed on the roof of the clock tower as part of the development. There will be an access door allowing access to the clock tower roof for maintenance purposes on the roof only. Furthermore, the site visit identified suitable drainage on the roof of the clock tower which will be maintained to allow run off of rain water to protect the peregrine falcon nest box, shown in Plate 3.4.

Plate 3.4 Drainage on the roof of the clock tower of the former Novartis building circled in red

Information gathered during this assessment has helped to inform the specification for the compensatory nest box, as described below.

The peregrine falcon box on the clock tower at B1 (Figure C.1) will be provided in the southeast corner of the clock tower roof, however will be protected from the weather and shelters from the parapet walls on top of the clock tower roof, and positioned to face northwest (Plate 3.5).

Plate 3.5 Peregrine falcon box on clock tower location and direction

The shingle/substrate removed from the lift shafts will be replaced onto the roof of the clock tower to further improve the suitability of the clock tower and encourage its use by the peregrine falcons as a nest site. A Mobile Elevating Work Platform (MEWP) will be utilised to access the roof of the former Novartis building to collect substrate/shingle from the roof of the lift shafts on the south aspect and move to the roof of the clock tower at the former Novartis building. This MEWP will also then be used to install the peregrine falcon box on the roof of the clock tower in the location as outlined above.

The peregrine falcon nest boxes will be installed prior to the breeding bird season in 2026, being preferable installed between September and before the end of February 2026.

Greengage does not officially endorse any products, however, Plate 3.6 below provides an example of a suitable product.

Plate 3.6 Example peregrine falcon box

Nest Box Cameras and Citizen Science/Community Engagement

To allow for future monitoring of these peregrine falcon boxes, nest box cameras will be implemented during the erection of the two boxes.

Peregrine falcons are a charismatic species, often raising public awareness and attention when discovered and during their continued return to their home nest sites. This public interest is due to the conservation efforts of the species over the late 20th century and recent two decades, as a result of facing the risk of extinction in the 1950s and 1960s. Therefore, there is plentiful opportunity to include the local community with the conservation efforts of peregrine falcon at the wider site, through the use of these nest box cameras.

Previous developments have included efforts to conserve peregrine falcons at sites post-development, including Battersea Power Station in London[7] and Fort Dunlop in Birmingham[8], which have received positive attention across media platforms. Furthermore, livestream web cameras are often installed in peregrine falcon nest boxes to engage the public and to monitor the utilisation of nest boxes. An example of this is at St George's Church in Sheffield City Centre, monitored by the University of Sheffield and the Sheffield Bird Study Group[9].

Further detail on Nest box cameras is provided in 'Nest Box Monitoring' in Section 4.0 below.

Monitoring Visits

Following best practice guidance[1], monitoring visits will be undertaken by a suitably experienced ornithologist at the Phase 1&2 site throughout the breeding bird season (February to August inclusive) to assess the breeding status of peregrine falcons and to monitor for any signs of disturbance during the construction phase (i.e. up until handover, which is programmed to be in 2031 at the time of writing).These monitoring visits are to occur regularly, dependent on; the type of construction work being undertaken, the breeding stage of the peregrine falcons, and signs/evidence of disturbance being displayed, as detailed in Table 3.2 below, during the breeding bird season. Regularity/frequency of monitoring visits is to be decided by the suitably experienced ornithologist, and through discussion with the named ecologist on the Natural England A08 licence. The suitably experienced ornithologist has the right to increase or decrease regularity/frequency of monitoring visits at any time, based on evidence collected and professional judgement.

Additionally, a pre-commencement check is to be undertaken by a suitably experienced ornithologist prior to any construction works at the Phase 1&2 site and where the allowance of habituation to construction works has not commenced/progressed, including site enabling works/site clearance/early construction phase works to assess the breeding status of peregrine falcon at the Phase 1&2 site. This is to confirm that the peregrine falcons have completed breeding and that the juveniles are fully fledged and independent from their parents. Where breeding completion is not confirmed, construction works must wait until monitoring visits can confirm that breeding is completed where habituation of construction works has not begun Therefore, should the habituation programme of construction phase works not commence between September to February 2025, a pre-commencement check is required to be undertaken by a suitably experienced ornithologist. Once confirmed, construction works at the site may commence, following the above measures in Construction Programming to minimise disturbance.

Where disturbance is observed, measures should be reverted back to the previous level (i.e. lower noise level increment) (see Construction Programming above).

Table 3.2 Monitoring Visits Programme

Frequency / Regularity of Monitoring Visits	Construction Works and Disturbance Risk Level	Reasoning	Further Action
Pre-commencement check	Any	To assess the breeding status/stage of peregrine falcons prior to commencement of any construction works.	Continued monitoring until breeding completion is confirmed by a suitably experienced ornithologist.
Daily	Construction works involving very high, high, or medium level	To assess the breeding status/stage of peregrine falcons and any signs of disturbance displayed by peregrine falcons. Disturbance is	Suitably experienced ornithologist may pause works if strong disturbance evidence is

Frequency / Regularity of Monitoring Visits	Construction Works and Disturbance Risk Level	Reasoning	Further Action
	disturbance (as outlined in Construction Programming)	of the greatest risk where highest sensitivity is at two periods; two weeks after start of egg laying, and first two weeks of incubation, as this has the greatest risk of nest abandonment. Where very high or high level disturbance risk construction activities occur, daily monitoring is required.	observed, particularly within the most sensitive periods of the breeding stages of peregrine falcons (including two weeks post egg-laying and first two weeks of egg incubation i.e. four weeks since first egg laid)*. Suitably experienced ornithologist to inform named ecologist of disturbance works to provide appropriate measures forward.
Daily	Construction works involving medium level disturbance (as outlined in Construction Programming)	Where constructions works are considered to be of medium level disturbance risk, daily monitoring visits will be required until the suitably experienced ornithologist can confirm that the peregrine falcons have habituated/show no signs of disturbance to the construction works. From that point, monitoring visits can be reduced to weekly until that construction activity is finished and a different construction activity (including change in noise and distance) is required.	Suitably experienced ornithologist may pause works if strong disturbance evidence is observed, particularly within the most sensitive periods of the breeding stages of peregrine falcons (including two weeks post egg-laying and first two weeks of egg incubation i.e. four weeks since first egg laid)*. Suitably experienced ornithologist to inform named ecologist on the A08 licence of disturbance works to provide appropriate measures forward.
Weekly	Construction works involving medium level disturbance (as	Where a set construction activity is fixed for a set period of time, with medium level disturbance is the highest level, and previous	Increase or decrease of monitoring visit frequency / regularity depending on peregrine falcon activity

Frequency / Regularity of Monitoring Visits	Construction Works and Disturbance Risk Level	Reasoning	Further Action
	outlined in Construction Programming)	monitoring has indicated habituation or minimal levels of disturbance, the suitably experienced ornithologist can decrease the frequency of monitoring visits to weekly. Monitoring will assess the breeding status/stage of peregrine falcons and any signs of disturbance displayed by peregrine falcons.	recorded at the Phase 1&2 and wider site. Suitably experienced ornithologist may pause works if strong disturbance evidence is observed, particularly within the most sensitive periods of the breeding stages of peregrine falcons (including two weeks post egg-laying and first two weeks of egg incubation i.e. four weeks since first egg laid)*. Suitably experienced ornithologist to inform named ecologist on the A08 licence of disturbance works to provide appropriate measures forward.
Occasional	Construction works involving low level disturbance (as outlined above in Construction Programming)	Where low level disturbance occurs, including presence of people/construction works outside of breeding bird season and the buffer period, the suitably experienced ornithologist may undertake an occasional monitoring visit. This may be due to changes in construction works stage or a reporting of signs of disturbance outside of the breeding bird season and the buffer period. Monitoring will assess the breeding status/stage of peregrine falcons	Increase or decrease of monitoring visit frequency / regularity depending on peregrine falcon activity recorded. Suitably experienced ornithologist may pause works if strong disturbance evidence is observed and make the named ecologist on the A08 licence aware, particularly within the most sensitive periods of the breeding stages of

Frequency / Regularity of Monitoring Visits	Construction Works and Disturbance Risk Level	Reasoning	Further Action
		and any signs of disturbance displayed by peregrine falcons.	peregrine falcons (including two weeks post egg-laying and first two weeks of egg incubation i.e. four weeks since first egg laid)*.

*The period of most sensitivity to disturbance includes two weeks post egg-laying and first two weeks of egg incubation i.e. four weeks since the first egg is laid. This is typically between early March to early June, however this period can change depending on the timing of egg laying which may change based on weather conditions, a previous unsuccessful brood attempt, or delay from disturbance.

N.B. These monitoring visits do not warrant the suitably experienced ornithologist permission to access the peregrine falcon boxes themselves or the roof of the former Novartis building/other buildings of a similar height, unless considered appropriate for the assessment of the breeding stage of the peregrine falcons and only where the suitably experienced ornithologist holds, or is in supervision of someone who holds, an appropriate licence for disturbance to peregrine falcons from the BTO.

Signs of Disturbance

In accordance with best practice guidance[1], the response of a pair of peregrine falcons to intrusion at an active eyrie/nest and the immediate surrounds varies. Peregrine falcons can, at time, show considerable tolerance to human activity; including noise, light and vibration, but even these habituated birds, will not tolerate human disturbance near the nest or from above.

Typically, disturbance can be measured by peregrine falcons flying above the eyrie/nest site, displaying a loud 'cackling' alarm call. Some, however, will remain silent even when closely approached. The suitability experienced ornithologist should use professional judgement and species-specific knowledge to determine/monitor signs of disturbance/distress.

Roof Access Restrictions

Restrictions will be in place to avoid access to the roof of the former Novartis building and its clock tower within the breeding bird season (March to August inclusive) without an exceptional reason.

Should access to the roof be considered necessary during the breeding bird season (March to August inclusive), a suitably experienced ornithologist will be contacted prior to discuss the intended location/works/duration/noise levels etc. A pre-commencement check by a suitably experienced ornithologist that holds a Natural England licence for the disturbance of peregrine falcon would be required to assess the breeding status of the peregrine falcons and to determine the disturbance risk of the activity required on the roof.

The suitably experienced ornithologist has the ability to pause works where required i.e. where disturbance risk level is very high.

Peregrine Box Access Restrictions

The newly installed peregrine falcon box may not be accessed within the breeding bird season (March to August inclusive) without an exceptional reason i.e. ringing of chicks.

Should access to the box be considered necessary during the breeding bird season (March to August inclusive), a suitably experienced ornithologist will be contacted prior to discuss the intended location/works/duration/noise levels etc. A pre-commencement check by a suitably experienced ornithologist that holds a Natural England licence for the disturbance of peregrine falcon would be required to assess the breeding status of the peregrine falcons and to determine the disturbance risk of the activity required to the box.

The suitably experienced ornithologist has the ability to pause works where required i.e. where disturbance risk level is very high.

Operational Phase

Development Design Provisions

Overhanging Ledges/Screens

As part of the development design, provisions will be put in place to be developed in the footprint of the former Novartis building to minimise/avoid disturbance during the operational phase of the development. This would include the provision of overhanging ledges/screens over the roof. An example is shown in Plate 3.7. This will allow the screening of the top three floors/storeys to screen/hide human activity otherwise visible through the windows and partially at ground level during the operational phase which can cause disturbance due to being visible from the peregrine falcon eyrie/nest site. This is due to this area being within the highest risk of disturbance to peregrine falcons, which includes the eyrie (nest site) itself, just below and just above the eyrie.

Plate 3.7 Overhanging ledge on a roof

Black-out Windows

The windows proposed on the top three storeys/floors of the building to be developed in the footprint of the former Novartis building facing into the courtyard will be provisioned with black out film to screen activity from inside the building on these storeys/floors. This will minimise disturbance to the peregrine falcons nesting in the peregrine falcon box that will be provisioned on the clock tower.

Roof Access Restrictions

Access restrictions will be in place to avoid access to the roof of the building to be developed in the footprint of the former Novartis building, including the clock tower, and/or any roofs of similar height and roofs up to three storeys lower than the building to be developed in the footprint of the former Novartis building (including the clock tower that is to be retained), particularly within the breeding bird season (March to August inclusive), without exceptional reason. This rule also applies to any other roofs within the rest of the Phase 1&2 development site.

Should access to the roof be considered necessary during March to August, a suitably experienced ornithologist should be contacted first to discuss the intended location/works/duration/noise levels etc. A pre-commencement check by a suitably experienced ornithologist that holds a Natural England licence for the disturbance of peregrine falcon would be required to assess the breeding status of the peregrine falcons and to determine the disturbance risk of the activity required on the roof.

Peregrine Box Access Restrictions

The newly installed peregrine falcon box may not be accessed within the breeding bird season (March to August inclusive) without an exceptional reason.

Should access to the boxes be considered necessary during March to August, a suitably experienced ornithologist should be contacted first to discuss the intended location/works/duration/noise levels etc. A pre-commencement check by a suitably experienced ornithologist that holds a Natural England licence for the disturbance of peregrine falcon would be required to assess the breeding status of the peregrine falcons and to determine the disturbance risk of the activity required to the boxes.

3.3 PHASE 3 SITE

The Phase 3 site does not possess any suitable nesting habitat for peregrine falcon, although is present within immediate proximity to the Phase 1&2 and is therefore within the ZoI for breeding peregrine falcons. Therefore, whilst the development can come forward without the potential for disturbing birds on the nest the measures detailed below are required to minimise disturbance to breeding peregrine falcon during the construction and operational phase of the development.

Construction Phase

Construction Programming

In the first instance, site enabling works/site clearance/early construction phase works (including, but not limited to, ground clearance/disturbance) are programmed to begin and start to be progressed

outside of the breeding bird season i.e. begin in September/October 2025 and gradually increase in disturbance levels. This includes an incremental increase in the presence, frequency and/or quantity of constructions works activities including people, machinery and vehicles, and waste products including dust, vibrations and noise. This increase in disturbance levels of constructions works activities would be progress ahead of February 2026 (when the breeding bird season begins). While peregrine falcons are sensitive to disturbance, they are also adaptable birds with the ability to habituate to changes at baseline, as long as sufficient habituation time has been allowed for prior to breeding. Therefore, this increase in disturbance levels from construction works activities will allow for acclimatisation by the peregrine falcons where possible, ahead of the breeding season and to avoid potential destruction/disturbance of/to an active nest (if present) during the typical breeding bird period, which is March to August inclusive.

Noise levels will also increase incrementally to allow for habituation to construction works. This will include the consideration of tool/machinery use throughout the construction phase, increasing in noise production of tools incrementally. Tools/machinery will progress through the use of manual hand tools, automated hand tools, large machinery and then large vehicles, moving through each tool/machinery subject once a suitably experienced ornithologist has confirmed that the peregrine falcons have habituated to the former noise level produced.

Construction works programming is shown in Table 3.3 below, as per the TPS 'Master Programme'[10]. Start and end timings and a description of different construction works stages have been included to determine the disturbance risk levels to peregrine falcons. Disturbance risk levels have been defined as either very high, high, medium or low:

- Very High - presence of people/construction works within the eyrie (peregrine falcon nest site) or the immediate surrounding area of the eyrie (i.e. three stories shorter than the former Novartis Building, at, or above the eyrie);
- High - presence of people in breeding bird season (at ground level only) and/or construction works (noise, vibration, destruction etc) within breeding bird season and breeding bird season buffer period (i.e. February and September);
- Medium - presence of people (at ground level only) in the breeding bird season and/or construction works in breeding bird season buffer period; and,
- Low - presence of people/construction works outside of breeding bird season and the buffer period.

Details of the construction methodology are not currently available at the time of writing. A description of construction works stage and the distance and noise levels of each works stage would be required to full assess the disturbance level of works. Table 3.3 below is our understanding of likely disturbance of the constructions works stages and is based on a likely-case scenario of potential disturbance. This will need updating based on confirmed construction works plans prior to submission for the Natural England A08 licence.

Table 3.3 Construction Works Stage Programming Timetable and Disturbance Level

Construction Works Stage	Start	End	Disturbance Risk Level
Mobilisation	13/07/2026	07/08/2026	Medium
Contractor Design	13/07/2026	02/10/2026	Medium
Construction Phasing	02/10/2026	31/05/2029	High (Medium when outside breeding bird season but within buffer period and low outside buffer period)
Civils & Site Establishment	02/10/2026	23/11/2028	High (Medium when outside breeding bird season but within buffer period and low outside buffer period)
Civils	02/10/2026	23/11/2028	High (Medium when outside breeding bird season but within buffer period and low outside buffer period)
Mains Services	17/11/2026	12/11/2027	High (Medium when outside breeding bird season but within buffer period and low outside buffer period)
Construction Phases	1&2 (as per Figure B1): 02/10/2026	17/03/2028	Very High/High (Medium when outside breeding bird season but within buffer period and low outside buffer period)
	3&4 (as per Figure B1): 24/05/2026	23/10/2028	High (Medium when outside breeding bird season but within buffer period and low outside buffer period)
	5&6 (as per Figure B1): 27/09/2026	13/04/2029	High (Medium when outside breeding bird season but within buffer period and low outside buffer period)
Site Completion	26/02/2029	31/05/2029	High (Medium when outside breeding bird season but within buffer period and low outside buffer period)

Monitoring Visits

Following best practice guidance[1], monitoring visits will be undertaken by a suitably experienced ornithologist at the Phase 3 site throughout the breeding bird season (March to August inclusive) to assess the breeding status of peregrine falcons and to monitor for any signs of disturbance during the construction phase (i.e. up until completion of the construction phase, which is programmed to be in 2029 at the time of writing). These monitoring visits are to occur regularly, dependent on; the type of construction work being undertaken, the breeding stage of the peregrine falcons, and signs/evidence of disturbance being displayed, as detailed in Table 3.4 below, during the breeding bird season.

Regularity/frequency of monitoring visits is to be decided by the suitably experienced ornithologist, and through discussion with the named ecologist on the Natural England A08 licence. The suitably experienced ornithologist has the right to increase or decrease regularity/frequency of monitoring visits at any time, based on evidence collected and professional judgement.

Additionally, a pre-commencement check is to be undertaken by a suitably experienced ornithologist prior to any construction works at the Phase 1&2 site and where the allowance of habituation to construction works has not commenced/progressed, including site enabling works/site clearance/early construction phase works to assess the breeding status of peregrine falcon at the Phase 1&2 site. This is to confirm that the peregrine falcons have completed breeding and that the juveniles are fully fledged and independent from their parents. Where breeding completion is not confirmed, construction works must wait until monitoring visits can confirm that breeding is completed where habituation of construction works has not begun Therefore, should the habituation programme of construction phase works not commence between September to February 2025, a pre-commencement check is required to be undertaken by a suitably experienced ornithologist. Once confirmed, construction works at the site may commence, following the above measures in Construction Programming to minimise disturbance.

Where disturbance is observed, measures should be reverted back to the previous level (i.e. lower noise level) (see Construction Programming above).

Table 3.4 Monitoring Visits Programme

Frequency / Regularity of Monitoring Visits	Construction Works and Disturbance Risk Level	Reasoning	Further Action
Pre-commencement check	Any	To assess the breeding status/stage of peregrine falcons prior to commencement of any construction works.	Continued monitoring until breeding completion is confirmed by a suitably experienced ornithologist.
Daily	Construction works involving very high, high, or medium level disturbance (as outlined in Construction Programming)	To assess the breeding status/stage of peregrine falcons and any signs of disturbance displayed by peregrine falcons. Disturbance is of the greatest risk where highest sensitivity is at two periods; two weeks after start of egg laying, and first two weeks of incubation, as this has the greatest risk of nest abandonment. Where very high or high level disturbance risk	Suitably experienced ornithologist may pause works if strong disturbance evidence is observed, particularly within the most sensitive periods of the breeding stages of peregrine falcons (including two weeks post egg-laying and first two weeks of egg incubation i.e. four weeks since first

Frequency / Regularity of Monitoring Visits	Construction Works and Disturbance Risk Level	Reasoning	Further Action
		construction activities occur, daily monitoring is required.	egg laid)*. Suitably experienced ornithologist to liaise named ecologist of disturbance works to provide appropriate measures forward.
Daily	Construction works involving medium level disturbance (as outlined in Construction Programming)	Where constructions works are considered to be of medium level disturbance risk, daily monitoring visits will be required until the suitably experienced ornithologist can confirm that the peregrine falcons have habituated/show no signs of disturbance to the construction works. From that point, monitoring visits can be reduced to weekly until that construction activity is finished and a different construction activity (including change in noise and distance) is required.	Suitably experienced ornithologist may pause works if strong disturbance evidence is observed, particularly within the most sensitive periods of the breeding stages of peregrine falcons (including two weeks post egg-laying and first two weeks of egg incubation i.e. four weeks since first egg laid)*. Suitably experienced ornithologist to liaise named ecologist on the A08 licence of disturbance works to provide appropriate measures forward.
Weekly	Construction works involving medium level disturbance (as outlined in Construction Programming)	Where a set construction activity is fixed for a set period of time, with medium level disturbance is the highest level, and previous monitoring has indicated habituation or minimal levels of disturbance, the suitably experienced ornithologist can decrease the frequency of monitoring visits to weekly. Monitoring will assess the breeding status/stage of peregrine falcons	Increase or decrease of monitoring visit frequency / regularity depending on peregrine falcon activity recorded at the Phase 1&2 and wider site. Suitably experienced ornithologist may pause works if strong disturbance evidence is observed, particularly within the most sensitive

Frequency / Regularity of Monitoring Visits	Construction Works and Disturbance Risk Level	Reasoning	Further Action
		and any signs of disturbance displayed by peregrine falcons.	periods of the breeding stages of peregrine falcons (including two weeks post egg-laying and first two weeks of egg incubation i.e. four weeks since first egg laid)*. Suitably experienced ornithologist to liaise named ecologist on the A08 licence of disturbance works to provide appropriate measures forward.
Occasional	Construction works involving low level disturbance (as outlined above in Construction Programming)	Where low level disturbance occurs, including presence of people/construction works outside of breeding bird season and the buffer period, the suitably experienced ornithologist may undertake an occasional monitoring visit. This may be due to changes in construction works stage or a reporting of signs of disturbance outside of the breeding bird season and the buffer period. Monitoring will assess the breeding status/stage of peregrine falcons and any signs of disturbance displayed by peregrine falcons.	Increase or decrease of monitoring visit frequency / regularity depending on peregrine falcon activity recorded. Suitably experienced ornithologist may pause works if strong disturbance evidence is observed and make the named ecologist on the A08 licence aware, particularly within the most sensitive periods of the breeding stages of peregrine falcons (including two weeks post egg-laying and first two weeks of egg incubation i.e. four weeks since first egg laid)*.

*The period of most sensitivity to disturbance includes two weeks post egg-laying and first two weeks of egg incubation i.e. four weeks since the first egg is laid. This is typically between early March to early June, however this period can change depending on the timing of egg laying which may change based on weather conditions, a previous unsuccessful brood attempt, or delay from disturbance.

Signs of Disturbance

In accordance with best practice guidance[1], the response of a pair of peregrine falcons to intrusion at an active eyrie/nest and the immediate surrounds varies. Peregrine falcons can, at time, show considerable tolerance to human activity; including noise, light and vibration, but even these habituated birds, will not tolerate human disturbance near the nest or from above.

Typically, disturbance can be measured by peregrine falcons flying above the eyrie/nest site, displaying a loud 'cackling' alarm call. Some, however, will remain silent even when closely approached. The suitability experienced ornithologist should use professional judgement and species-specific knowledge to determine/monitor signs of disturbance/distress.

Operational Phase

Roof Access Restrictions

Access restrictions will be in place to avoid access to any roofs of buildings of similar, taller or up to three storeys shorter than that of the former Novartis building/building to be developed at the phase 3 site, particularly within the breeding bird season (March to August), without exceptional reason.

Should access to the roof be considered necessary during March to August, a suitably experienced ornithologist should be contacted first to discuss the intended location/works/duration/noise levels etc. A pre-commencement check by a suitably experienced ornithologist that holds a Natural England licence for the disturbance of peregrine falcon would be required to assess the breeding status of the peregrine falcons and to determine the disturbance risk of the activity required on the roof.

4.0 POST-DEVELOPMENT MONITORING

Post-development monitoring (i.e. during the operational phase of the development) is to be undertaken across the wider site. This post-development monitoring therefore applies to both the Phase 1&2 site and Phase 3 site.

Peregrine Falcon Surveys

Post-development monitoring will include peregrine falcon surveys of the wider site for three years post-development i.e. from completion of the construction phase. The construction phase is anticipated to be completed in 2031, at the time of writing. Therefore, peregrine falcon surveys will be undertaken annually at the wider site until 2034.

The peregrine falcon survey would potentially involve up to three site visits between March-June inclusive, with frequency of site visits dictated by survey findings, by a suitably experienced ornithologist and following peregrine falcon survey best practice guidance[1].

During these annual peregrine falcon surveys, a ground level assessment of the peregrine falcon boxes is to be undertaken to assess the establishment and utilisation of the peregrine falcon boxes as well as monitoring the health and status of the nest boxes themselves. This is to ensure that the peregrine falcon boxes are intact and in good condition to ensure they are fit for purpose. Adjustments may be required should there be problems recorded in relation to the establishment, utilisation, and/or condition of the peregrine falcon boxes.

Nest Box Monitoring

Best practice guidance[1] recommends monitoring of nest sites post-development. The peregrine falcon nest boxes will be monitored annually in the future by Stuart Card from the local ornithology group, who holds a Natural England disturbance licence for peregrine falcon. This nest box monitoring will require permitted access for Stuart Card and any accompanying surveyors, by the site management team to the peregrine falcon boxes. The nest box monitoring will allow restricted and brief visits to the nests to determine productivity, where considered necessary. The peregrine falcons and or the juveniles will also be ringed following the BTO Ringing Scheme, by an appropriately licenced ornithologist i.e. Stuart Card from the local ornithology group and by any accompanying surveyor supervised by Stuart Card. Data collected will then be submitted by Stuart Card to the BTO. This process gathers important conservation data for these individual birds and for the conservation of the species in general.

Peregrine falcon boxes will be designed with the inclusion of a nest box camera as detailed in Section 3.0 above. These nest box cameras will be managed by Stuart Card from the local ornithology group, to allow for the off-site monitoring of the peregrine falcon boxes/nest sites. This will allow the minimisation of physical access to the peregrine falcon boxes for monitoring purposes and increase the ease of monitoring the success and utilisation of the nest boxes by peregrine falcons. This would also allow the publication of live recordings and of images to provide a community engagement opportunity, where appropriate and upon decision by Stuart Card.

An example of a nest box camera includes the Reolink Go PT Ultra[11], which is a solar-powered wireless web camera with internet wireless mobile connectivity via a SIM card data plan.

Maintenance and Management of the Peregrine Falcon Boxes

As per best practice guidance[1], the peregrine falcon boxes should also be constructed in a way that require minimal inspection and maintenance for a considerable number of years (ideally 20 or more years). If needed, maintenance is to be undertaken in winter months (December to February inclusive) to avoid disturbance to an active nest, and by Stuart Card only or through an appointed person agreed by Stuart Card. Maintenance would include ensuring boxes are securely fixed, clearing debris, and replacing any substrate lost. A substrate (mix of gravel or pea single and compost or woodchips) would be added, behind the box's ledge to help retain the substrate. Maintenance will also include checks of the nest box camera/s to ensure its function and productivity remains intact.

5.0 SUMMARY

Greengage Environmental Ltd (Greengage) was commissioned by to produce a Peregrine Falcon Falco peregrinus Mitigation Strategy for the proposed development of an area of land on the former Novartis research centre in Horsham, West Sussex.

The proposed development is being brought forward in 2 stages; Lovell are bringing forward Novartis Phase 1&2, in hereafter referred to as the 'Phase 1&2 site' and Muse Places are bringing forward the 'Phase 3 site'. The Phase 1&2 site and the Phase 3 site are hereafter collectively referred to as the 'wider site'.

These phases will be brought forward at different times. This strategy sets out those measures required for the Phase 1&2 site as below to ensure the disturbance to peregrine falcon as a result of the development is considered to be minimised at the utmost possibility. Details for Phase 3 are provided for context only.

- Phase 1&2 site:
  - Construction phase:
    - Construction programming - strategic ecological zoning and noise level programming`;
    - Peregrine falcon boxes - provision of two peregrine falcon boxes, for compensation and enhancement;
    - Monitoring visits by a suitably experienced ornithologist throughout the breeding bird season (March to August inclusive); and
    - Access restrictions to roof and peregrine falcon boxes .
  - Operational phase:
    - Development design provisions including overhanging ledges/screens over the roof of the former Novartis building;
    - Access restrictions to roofs without an exceptional reason; and
    - Post-development monitoring.

This Peregrine Falcon Mitigation Strategy has been produced to present mitigation, compensation and enhancement requirements for the construction and operational phases of the developments at the wider site, following best practice guidance[12].

5.1 BACKGROUND

The baseline value of the wider site for peregrine falcon was assessed during the Greengage breeding bird surveys (BBS) undertaken in 2025 for the Phase 1&2 site[2] and the Phase 3 site[3].

The Greengage breeding bird surveys[2],[3] concluded that peregrine falcon were confirmed breeders at the Phase 1&2 site on the roof of the former Novartis building. Previous presence had been recorded since 2022 at the Phase 1&2 site and breeding has been recorded since 2023 at the Phase 1&2 site,

according to the local ornithology group. It is typical of this species to return to the same breeding site each year.

The Greengage breeding bird surveys[2],[3] also concluded that peregrine falcon utilises the Phase 3 site for foraging and commuting. Breeding was not recorded on this site given the lack of suitable nesting features at. However, due to the immediate proximity to the Phase 1&2 site, the Phase 3 site is in the Zone of Influence (ZoI) for breeding peregrine falcons.

The Wildlife and Countryside Act (WCA) 1981 (as amended)[13] is the principal mechanism for the legislative protection of wildlife in Great Britain. Under the WCA 1981 (as amended)[4], all wild birds, their nests and eggs are protected while a nest is in use or occupied. Part 1 of Schedule 1 of the WCA 1981 (as amended)[4] offers greater protection against damage and disturbance whilst a nest is occupied, for the particular species that are listed. Peregrine falcon is a WCA 1981 (as amended)[4] Schedule 1 bird species. In light of this, a peregrine falcon mitigation strategy is required to minimise disturbance during the construction and operational phases of the developments.

There has been consultation with local stakeholders during a Microsoft Teams call, undertaken on 14th July 2025 with representatives from the local ornithology group, as well as Greengage, Horsham District Council members, and the clients for the wider site (Lovell and Muse Places) to discuss the history of peregrine falcons at the wider site and appropriate measures for their protection/conservation. During this consultation it was agreed that the key objective of this Peregrine Falcon Mitigation Strategy is to outline measures to retain peregrine falcons on site both during construction and operational phases of the developments.

This Peregrine Falcon Mitigation Strategy prescribes mitigation, compensation and enhancement requirements, which are listed below. Further detail can be found in Section 3.0.:

- Phase 1&2 site:
  - Construction phase:
    - Construction programming - strategic ecological zoning and noise level programming`;
    - Peregrine falcon boxes - provision of two peregrine falcon boxes, for compensation and enhancement;
    - Monitoring visits by a suitably experienced ornithologist throughout the breeding bird season (March to August inclusive); and
    - Access restrictions to roof and peregrine falcon boxes .
  - Operational phase:
    - Development design provisions including overhanging ledges/screens over the roof of the former Novartis building;
    - Access restrictions to roofs without an exceptional reason; and
    - Post-development monitoring.
- Phase 3 site:

- Construction phase:
  - Construction programming - strategic ecological zoning and noise level programming ;
  - Monitoring visits by a suitably experienced ornithologist throughout the breeding bird season (March to August inclusive); and
  - Access restrictions to roofs without an exceptional reason.
- Operational phase:
  - Access restrictions to roofs without an exceptional reason; and
  - Post-development monitoring.

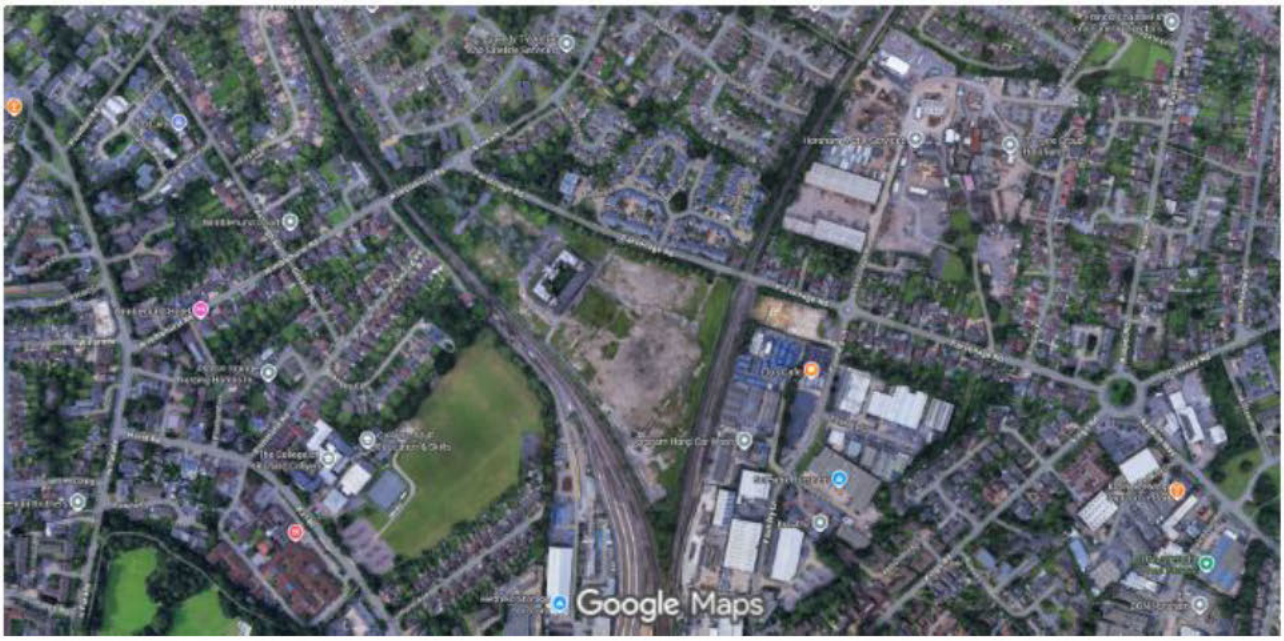
The above measures outlined within this Peregrine Falcon Mitigation Strategy aim to minimise disturbance to peregrine falcons during the developments (construction and operational phases) and must also be covered under the Natural England A08 licence.

Should the above measures be followed, the disturbance to peregrine falcon as a result of the development is considered to be minimised at the utmost possibility.

The measures outlined within this Peregrine Falcon Mitigation Strategy aim to minimise disturbance to peregrine falcons during the development (construction and operational phases of development) and minimise the risk of committing a legal offence, and must be covered under the Natural England A08 licence.

APPENDIX A WIDER SITE EXTENTS

Figure A.1 Wider Site Extents



Source - Google Maps

APPENDIX B PEREGRINE FALCON BOX LOCATIONS

Figure B.1 Peregrine Falcon Box Locations

REFERENCES

[1] *Bodnar. S (2022) Peregrine Falcon Falco peregrinus Ecology and Survey Methodology for Ecological Assessment.*

[2] *Greengage Environmental Ltd (2025) Bird Survey Report. Report ref. 552979cp16Jul25FV01_BirdSurvey*

[3] *Greengage Environmental Ltd (2025) Bird Survey Report. Report ref. 552977cp21Jul25FV01_BirdSurvey*

[4] *HM Government, (1981). Part I and Part II of Wildlife and Countryside Act (as amended). HMSO.*

[5] *UKHab Ltd (2023); UK Habitat Classification Version 2.0 (at https://www.ukhab.org)*

[6] *CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. CIEEM, Winchester.*

[7] *Battersea Power Station (2017) Battersea Power Station: The Best Peregrine Address. https://batterseapowerstation.co.uk/news/peregrines-at-battersea-power-station/*

[8] *BBC (2009) A bird's eye view. Nature Features. https://www.bbc.co.uk/birmingham/content/articles/2009/03/24/peregrines_feature.shtml*

[9] *University of Sheffield (2024) Sheffield Peregrines soaring high. https://sheffield.ac.uk/news/sheffield-peregrines-soaring-high*

[10] *Total Property Solutions (2025) Master Programme, Novartis Site - Horsham. Revision Q, dated 28th July 2025.*

[11] *Reolink Go PT Ultra: Smart 4K 8MP Wireless 4G LTE PT Battery Camera with Color Night Vision web camera. Available at: https://reolink.com/gb/product/reolink-go-pt-ultra/?attribute_pa_version=1-pack-gray-solar-panel2-white&gad_source=1&gad_campaignid=22812046798&gbraid=0AAAACITwibqgGP35gd8olKu1DbcMJM1N&gclid=Cj0KCQjwzt_FBhCEARIsAJGFWVI9JiggbKZ-wCPsId3Xx1zPAMqXtm5Rg49A7wrFbKEcuhVJhTan-xUaAozxEALw_wcB*

[12] *Bodnar. S (2022) Peregrine Falcon Falco peregrinus Ecology and Survey Methodology for Ecological Assessment.*

[13] *HM Government, (1981). Part I and Part II of Wildlife and Countryside Act (as amended). HMSO.*