

# CONSTRUCTION & ENVIRONMENTAL MANAGEMENT PLAN

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PROPOSED RESIDENTIAL DEVELOPMENT AT  
BLACKGLEN ROAD, SANDYFORD

Zolbury Limited  
**Project No. Z040**  
19 July 2022



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# OCSC

O'CONNOR | SUTTON | CRONIN

Multidisciplinary  
Consulting Engineers

# **PROPOSED STRATEGIC HOUSING DEVELOPMENT AT BLACKGLEN ROAD, SANDYFORD, DUBLIN 18**

## **Construction & Environmental Management Plan**



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## DOCUMENT CONTROL & HISTORY

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ROAD, SANDYFORD, DUBLIN 18**

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**ZOLBURY LIMITED**

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## 1. INTRODUCTION

OCSC was commissioned by Zolbury Limited. to prepare an Outline Construction Management Plan (OCMP) in respect of the development of a site in Sandyford, County Dublin. This document serves to inform the planning process in respect of the proposed development. It is intended that this Construction Management Plan will be an interim assessment and it is not intended to be a final version to cover the eventual construction of any permitted development. A detailed Construction Management Plan will be prepared in future. This document will be updated continuously to take account of any necessary changes on foot of the planning process and throughout any phased construction period.

The Construction Management Plan to be, and agreed upon with the Local Authority before the commencement of any construction works, will ultimately include details on the following:

- Daily and weekly working hours;
- Agreed haul routes for incoming materials;
- Licensed hauliers to be used;
- Disposal sites;
- Travel arrangements for construction personnel;
- Appropriate on-site parking arrangements for construction personnel to prevent overspill parking on the local road network;
- Temporary construction entrances to be provided;
- Wheel wash facilities if required;
- Road cleaning and sweeping measures to be put in place if required;
- Temporary construction signage to be put in place and maintained;
- Any proposed traffic management measures such as temporary traffic lights and signage on any public roads.

## **BLACKGLEN ROAD UPGRADE**

DLR County Council is currently busy with road upgrades along Blackglen Road. The improvement entails the upgrade of 2.02 km of road, and includes the following transport infrastructure-related items:

- Construction of pavement, footpaths and cycle lanes which are currently not present along Blackglen Road;
- Upgrading of existing signalized junctions at Lambs Cross and Grange Road/Harold's Grange Road/Kellystown Road/College Road and new toucan crossing on Blackglen Road;
- Upgrading of bus stops on Blackglen Road, Sandyford Road and Enniskerry Road;

The extent of road improvements planned along this road is shown in the figure overleaf.

Specific to this site, walkways and cycle lanes will be added to both sides of the road adjacent to the site frontage. These upgrades will tie into the larger network and provide access to a variety of public transport services, including bus routes and the Luas Green Line.



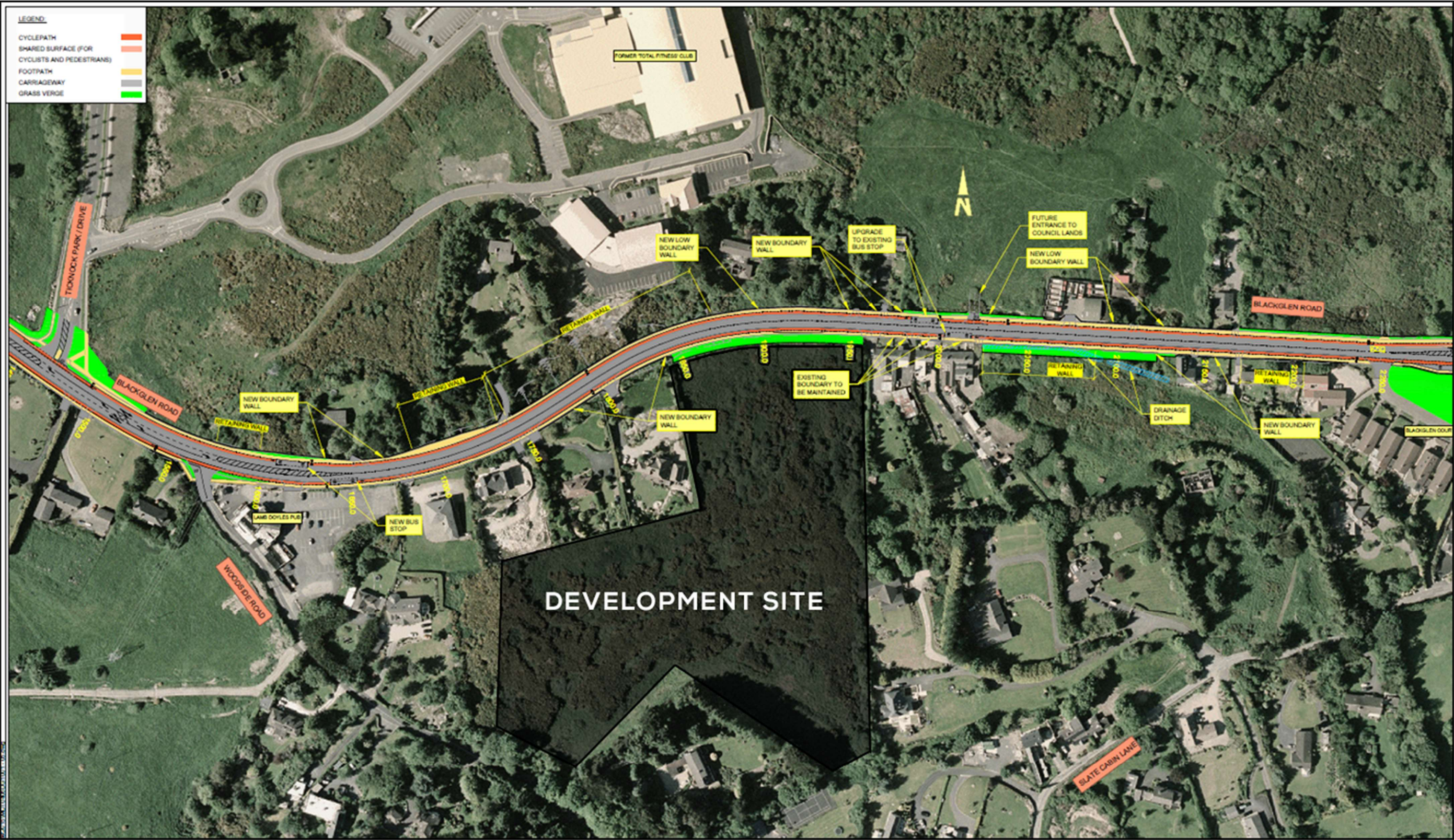


Figure 1: Blackglen Road Upgrade Scheme



## 2. PROJECT DESCRIPTION & SITE LOCATION

Zolbury Limited intend to apply to An Bord Pleanála for planning permission for a Strategic Housing Development on a site of c. 3.7 ha at Blackglen Road and Woodside Road, Sandyford, Dublin 18. The development shall consist of a new residential scheme comprising 360 no. residential units, associated resident amenity facilities and a childcare facility in the form of 9 no. new apartment buildings (A1 – C3) as follows:

- Block A1 (4 storeys) comprising 18 no. apartments (3 no. 1 bed units and 15 no. 2 bed units); a crèche facility of approx. 401 sq. m with associated outdoor play space of approx. 20 sq. m; and resident amenity facilities of approx. 30 sq. m.
- Block A2 (3-4 storeys) comprising 24 no. apartments (2 no. 1 bed units and 22 no. 2 bed units) and resident amenity facilities of approx. 390m<sup>2</sup>.
- Blocks B1 and B2 (2-6 storeys) comprising 69 no. apartments (30 no. 1 bed units, 34 no. 2 bed units, 5 no. 3 bed units).
- Blocks B3 and B4 (2-6 storeys) comprising 62 no. apartments (30 no. 1 bed units, 27 no. 2 bed units and 5 no. 3 bed units).
- Blocks C1, C2 and C3 (3-6 storeys) comprising 187 no. apartments (58 no. 1 bed units, 126 no. 2 bed units and 3 no. 3 bed units); and resident amenity facilities of approx. 187.5 sq. m.

Each residential unit is afforded with associated private open space in the form of a terrace / balcony.

Total Open space (approx. 22,033 sq. m) is proposed in the form of public open space (approx. 17,025 sq. m), and residential communal open space (approx. 5,008 sq. m).

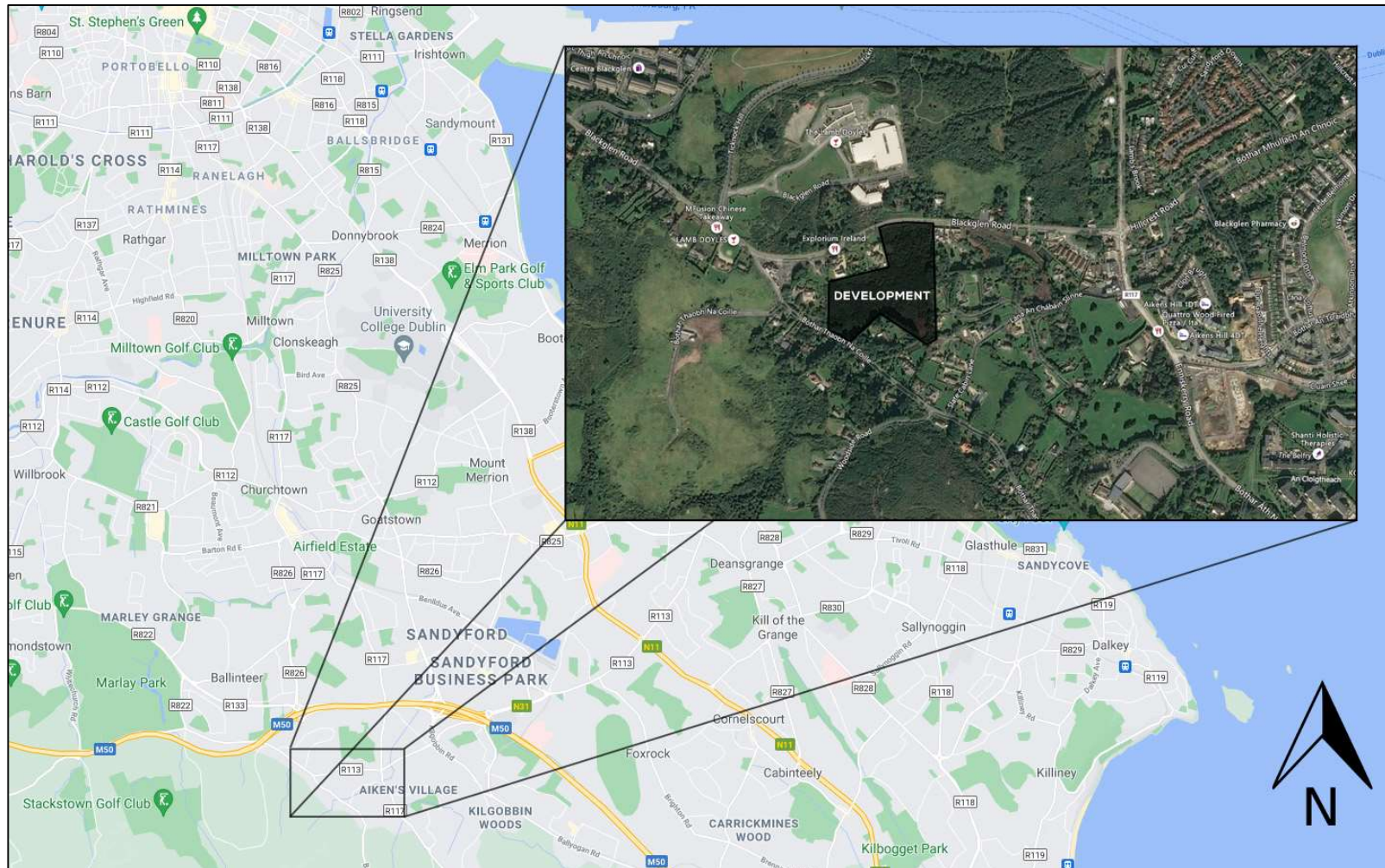
Podium level / basement level areas are proposed adjacent to / below Blocks A2, B1, B2, B3, B4, C1, C2 and C3 (approx. 12,733 sq. m GFA). A total of 419 no. car parking spaces (319 no. at podium/basement level and 100 no. at surface level); to include 80 no. electric power points and 26 no. accessible parking spaces); and 970 no. bicycle spaces (740 no. long term and 230 no. short term), and 19 no. Motorcycle spaces are proposed. 10 no. car spaces for creche use are proposed at surface level.

Vehicular/pedestrian and cyclist access to the development will be provided via Blackglen Road to tie in with the Blackglen Road Improvement Scheme. A second access is also proposed via Woodside Road for emergency vehicles, pedestrian and cyclist access only.

The proposal also provides for Bin Storage areas and 4 No. ESBN substations to supply the development. 3 no. sub-stations shall be integrated within the building structures of Blocks B and Blocks C. In addition, one Sub-station shall be classed as a unit sub-station mounted externally on a dedicated plinth.

The associated site and infrastructural works include provision for water services; foul and surface water drainage and connections; attenuation proposals; permeable paving; all landscaping works; green roofs; boundary treatment; internal roads and footpaths; electrical services; and all associated site development works.

The indicative site location can be seen in Figure 2.



**Figure 2: Site Location Map**



The proposed development will consist of 360 no. residential units and associated infrastructure as noted in the introduction.

The proposed layout is shown in Figure 3 below.



*Figure 3: Site Layout*

Access to the Main Development Site will be via a junction on Blackglen Road, between Junctions 3 and 4.

### **3. CONSTRUCTION PROGRAMME & PHASING**

#### Phasing

Given the limited size and scale of the proposed development, it is expected that it will be developed in a single phase.

#### Programme

It is expected that the construction phase of the development will have a duration of approximately 18 months.

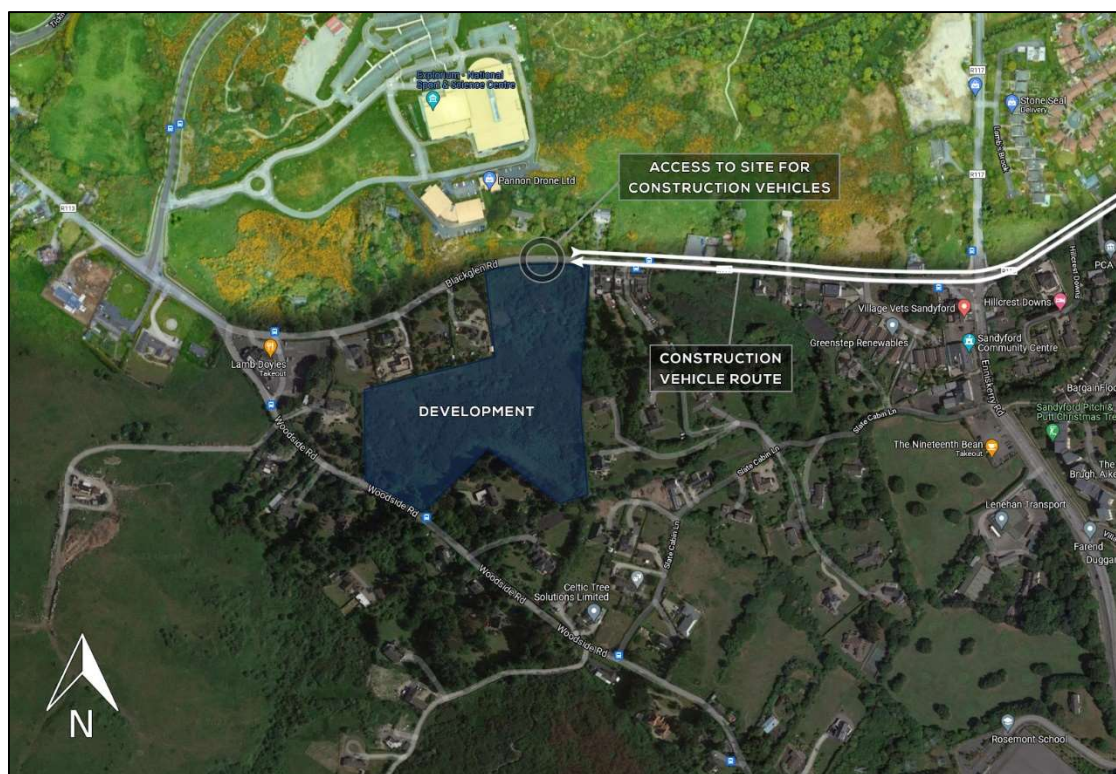
The adjacent Blackglen Road Improvement Scheme is currently under construction. Construction commenced in September 2021, and with an 18-month duration, it is anticipated that this will be complete by Spring 2023. As it is unlikely that this development will start construction prior to the completion of the Blackglen Road Improvement Scheme, it is not foreseen that there will be any conflict between the two construction sites.

Nevertheless, at the detailed design stage the project engineer for the Blackglen Road Improvement Scheme, as well as the DRDCC traffic department will be consulted to finalise the construction programme and to prevent any conflicts between construction sites, if applicable.

## 4. SITE ESTABLISHMENT

### Site Access

The site is currently accessed off an informal access located on Woodside Road. It is proposed to provide a new site entrance on Blackglen Road for construction traffic to use during the construction stage as construction will not be able to use the Woodside Road access.



*Figure 4: Initial Access and Site Set Up Area*

### Hoarding

Perimeter hoarding will be provided to prevent unauthorised access to the site. Controlled access points will also be provided. Hoarding will be maintained to a high standard and painted or covered as appropriate.



Temporary hoarding will be provided as necessary within the site as safety restrictions to prevent public access. The locations of this temporary hoarding will vary as work progresses across the site.

### Tree Protection

Appropriate measures will be put in place to protect any trees on the site which are designated for protection or retention under any granted planning permission for the development. Refer to the Environguide Arboricultural report submitted under separate cover for more detail about these measures.

### Archaeology

Appropriate arrangements will be made with a licensed archaeologist to monitor soil stripping and other development works as may be conditioned in any planning permission for the proposed development. Refer to the archaeological report submitted under a separate cover.

### Works on the Public Road

Access to the site will be from the proposed site entrance via Blackglen Road.

All works on the public road, where relevant, will be subject to agreed Road Opening Licences with Dún Laoghaire-Rathdown County Council and all works will be carried out per DLRCC and HSA guidelines for working on public roads.

## 5. CONSTRUCTION TRAFFIC

### Site Access

As noted earlier, the site will be accessed via the proposed site entrance on Blackglen Road. All construction traffic will enter and leave the site through this access.

### Construction Traffic Routing

It is proposed that all construction traffic will use Blackglen Road via Hillcrest Road and Leopardstown Road to the M50 interchange motorway and continue along the M50 to a suitable disposal site. Similarly, all deliveries will approach the site via the M50 and Blackglen Road. This will remove construction traffic from the residential areas to the north and northwest of the site.

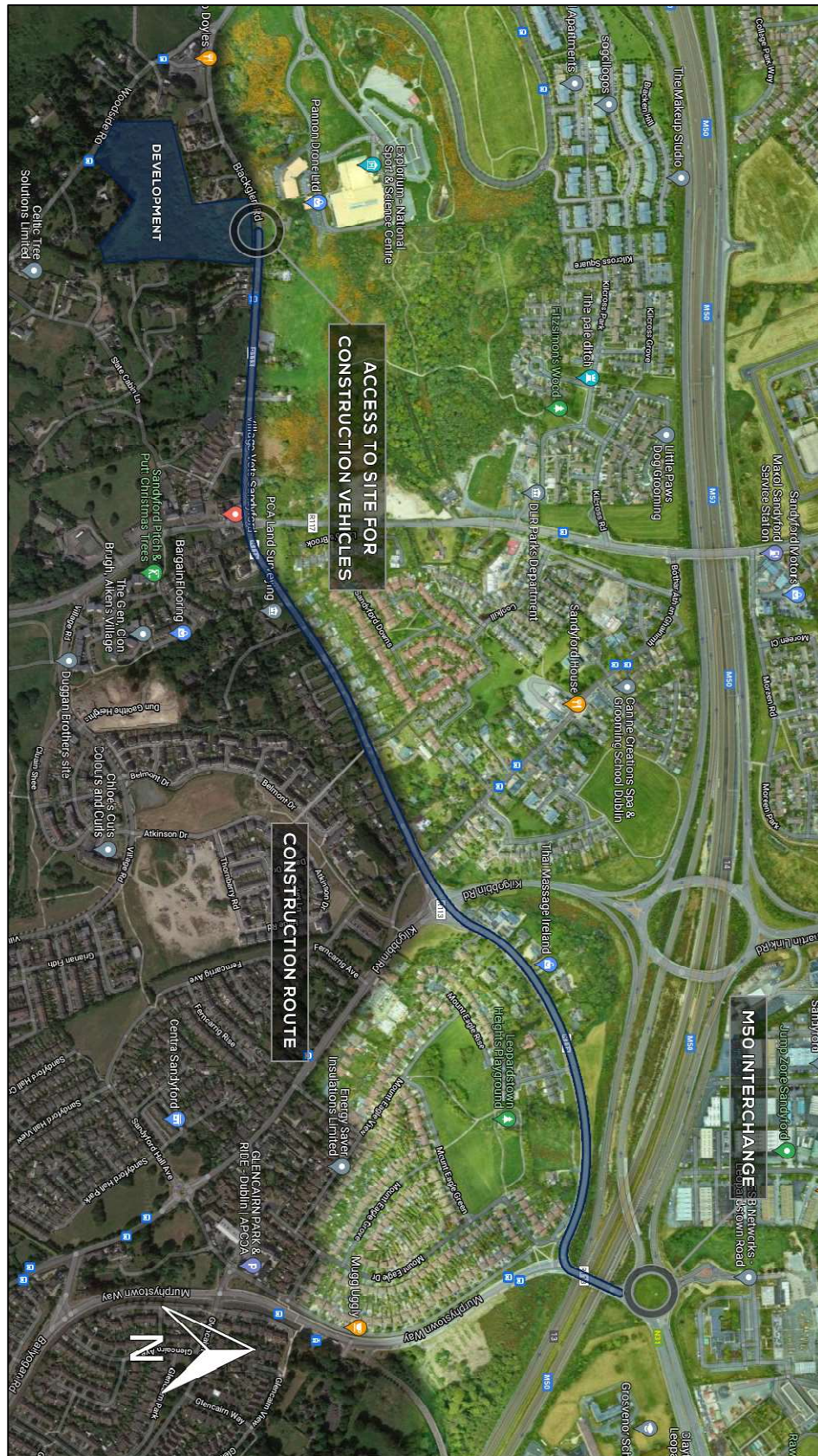


Figure 5: Construction Haul Route



The exact location of batching plants and disposal sites will be established once a contractor has been appointed. However, the route outlined in Figure 5 will be the preferred access and egress route for the site. Details of all routes will be agreed upon with the Transportation Department of DLRCC before the commencement of work. The impact on locals will be negligible.

### Site Parking

A limited amount of on-site parking will be provided for construction workers and visitors. A separate parking and staging area will be constructed alongside the Site Compound and will be maintained for the duration of the construction period.

### Staff Welfare

Appropriate welfare facilities will be provided on-site for construction staff and will include, inter alia:

- Canteen facilities;
- Toilet Facilities;
- Office accommodation;
- Tool storage areas.

### Construction Traffic Mitigation Measures

Measures will be put in place to keep public roads free of muck and debris. This will include providing a wheel wash on-site and undertaking regular road sweeping by a mechanical sweeper.

## **6. SEGREGATION OF WASTE STREAMS**

### **Waste Storage & Segregation**

Waste materials generated will be segregated on-site. This will allow for the maximum possible degree of recycling. Where on-site segregation of certain waste types is not practical, off-site segregation will be carried out. Skips and receptacles will be provided to facilitate segregation at the source.

All waste receptacles leaving the site will be covered or enclosed. The on-site waste storage area will be secured within the overall site which will be hoarded off from the public and unauthorised access.

The appointed waste contractor will collect and transfer the waste as receptacles are filled. Any soil removed off-site will be carried by contractors licensed under the Waste Management Acts 1996 - 2008, the Waste Management (Collection Permit) Regulations 2007 and Amendments and the Waste Management (Facility Permit & Registration) Regulations 2007 and Amendments.

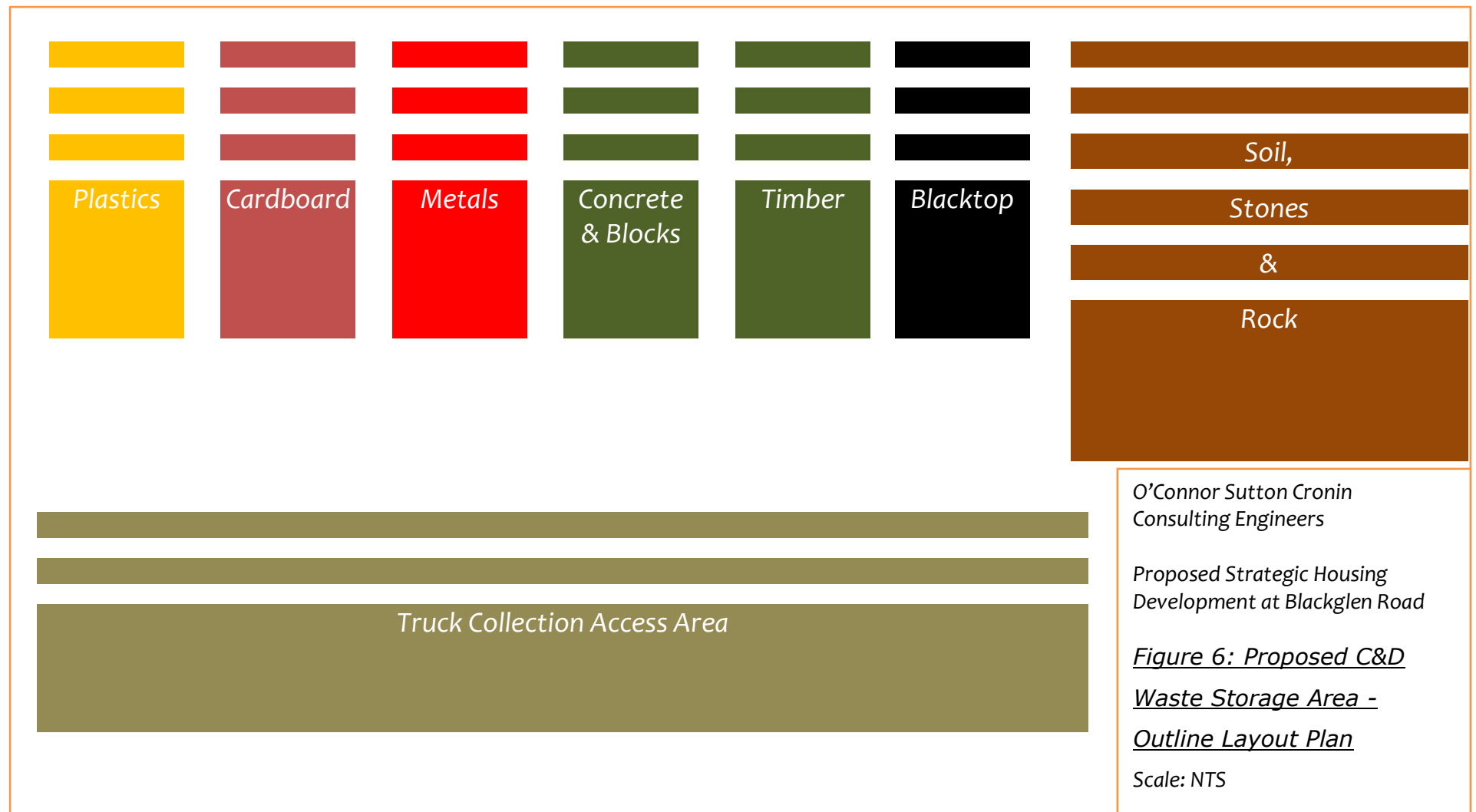
### **Non-Recyclable Waste:**

C&D waste which is not suitable for reuse or recovery will be placed in separate skips or other receptacles. This will include polystyrene, some cardboard and plastic which are deemed unsuitable for recycling.

Before removal from the site, the non-recyclable waste skip/receptacle will be examined by a member of the waste team to determine if recyclable materials have been misplaced. If this is the case, efforts will be made to determine the cause of the waste not being segregated correctly and recyclable waste will be removed and placed into the appropriate receptacle.

An outline Layout Plan for a site-based waste segregation compound is shown in Figure 6 over.





## **7. ENVIRONMENTAL MANAGEMENT**

### **Pollution Prevention**

Only sediment-free run-off is to leave the site. A suitably sized detention basin or settlement area will be installed at the lowest point before discharge where excess run-off must leave the site. Silt curtains or earth berms will be used to channel run-off to locations where it can be controlled. These may take the form of an open detention area or, where the need arises, a portable skip/s, or similar, where inflow passes through straw bales, gravel etc.

The Site Manager will be responsible for the pollution prevention programme and will ensure that at least daily checks are carried out to ensure compliance. A record of these checks will be maintained.

As shown in Figure 6 earlier, the site compound will include a dedicated bund for the storage of dangerous substances including fuels, oils etc. Refuelling of vehicles/machinery will only be carried out within the bunded area. The site compound will display emergency contact details for Inland Fisheries Ireland, the National Parks and Wildlife Service, Dún Laoghaire-Rathdown Council and the Environmental Protection Agency in the event of a pollution incident or environmental emergency. Adequate spill kits will be available in the event of a spill of oil or other hazardous substance.

### **Training**

All site personnel will be trained in the importance of good environmental practices including reporting to the site manager when pollution, or the potential for pollution, is suspected.

### **Protection of Trees**

As noted previously, appropriate measures will be put in place to protect any trees on the site which are designated for protection or retention under any granted planning permission for the development. The appointed contractor shall have regard to the *Tree Survey Report* prepared by Site Arborist for the project.

## Noise Control

Measures will be implemented to minimise the impact of noise emissions at sensitive locations during the construction phase. A Noise Impact Assessment was conducted by Enfonc and submitted under separate cover. The assessment states that the predicted construction noise levels are within the adopted criterion for almost all noise-sensitive locations (NSLs). A number of mitigation measures are also proposed which include:

- It is recommended that the Contractor should compile a Noise and Vibration Management Plan (NVMP) which will deal specifically with management processes and strategic mitigation measures to remove or reduce significant noise and vibration impacts, and cumulative noise and vibration impacts from the construction works. The Plan will also define noise and vibration monitoring and reporting. The NVMP will also include method statements for each phase of the works, the associated specific measures to minimise noise and vibration in so far as is reasonably practicable for the specific works covered by each plan and a detailed appraisal of the resultant construction noise and vibration generated.
- The contractor will provide proactive community relations and will notify the public and vibration-sensitive premises before the commencement of any works forecast to generate appreciable levels of noise or vibration, explaining the nature and duration of the works.
- The contractor will distribute information circulars informing people of the progress of works and any likely periods of significant noise and vibration.
- With regard to potential mitigation measures during construction activities, the



- standard planning condition typically issued by BS5228 includes guidance on several aspects of construction site mitigation measures, including, but not limited to:
  - selection of quiet plant;
  - control of noise sources;
  - screening;
  - hours of work;
  - liaison with the public, and;
  - monitoring
- Noise control measures that will be considered include the selection of quiet plants, enclosures, and screens around noise sources, limiting the hours of work and carrying out noise/vibration monitoring as required.
- A suitable site hoarding would protect the residents immediately adjacent to the construction site.

### Vibration Control

The Noise Impact Assessment states that without a detailed construction plan, it is prudent to assess the likely vibration levels at the nearby dwellings from this most severe test as all other sources of vibration will be below this level. The report sets out vibration limits for Disturbance and Cosmetic Damage respectively.

### Dust Control

The main activities that may give rise to dust emissions during construction include the following:

- Materials handling and storage; and
- Movement of vehicles (particularly HGVs) and mobile plants.

The following mitigation measures will be implemented on-site during the construction phase, as required:

- Site roads shall be regularly cleaned and maintained as appropriate;

- Hard surface roads shall be swept to remove mud and aggregate materials from their surface as a result of the development works;
- Any un-surfaced roads shall be restricted to essential site traffic only;
- Any road that has the potential to give rise to fugitive dust may be regularly watered, as appropriate, during extended dry and/or windy conditions;
- On-site speed limits will be stipulated to prevent the unnecessary generation of fugitive dust emissions;
- Material handling systems and site stockpiling of materials shall be designed and laid out to minimise exposure to the wind;
- A complaints register will be maintained on-site and any complaints relating to dust emissions will be immediately dealt with;
- In periods of dry weather when dust emissions would be greatest, a road sweeper, which would also dampen the road, will be employed in order to prevent the generation of dust;
- Water misting or sprays shall be used as required if particularly dusty activities are necessary during dry or windy periods; and
- If appropriate, dust monitoring will be carried out during the construction phase of the scheme. If the level of dust is found to exceed 350mg/m<sup>2</sup>day in the vicinity of the site, further mitigation measures will be incorporated into the construction of the proposed scheme.

## **8. HOURS OF WORKING**

### **General**

Construction operations will be carried out in accordance with any granted planning conditions. It is expected that normal working hours will be from 07:00 – 19:00 Monday to Friday and from 08:00 – 14:00 on Saturdays.

It may be necessary for some specific construction activities to take place outside of these times and in those cases, a specific derogation will be sought from the Planning Authority, Dún Laoghaire-Rathdown County Council.

Deliveries to the site will be arranged to arrive within normal working hours as set out above.

There may, again, be specific deliveries which need to arrive outside of these hours e.g. in respect of wide loads. In all such cases, the applicant will again liaise and agree to any necessary derogations with the Planning Authority.



## **9. CONSTRUCTION PHASE MITIGATION MEASURES**

The planned mitigation measures for the environmental impacts are shown as part of Appendix A, attached to this report.

*Wian Marais BE (US), BE (Hons) (UP), Professional Engineer (ECSA)  
Civil Engineer  
O'Connor Sutton Cronin & Associates*

# APPENDIX A: ENVIRONMENTAL MITIGATION MEASURES

Ecological Receptor	Relevant stage of the Proposed Development	Mitigation Measure	Rationale
Birds	Construction Phase	Timing of vegetation clearance	To ensure compliance with the Wildlife Act 2000 as amended, the removal of areas of vegetation <u>should not take place within the nesting bird season</u> (March 1 <sup>st</sup> to August 31 <sup>st</sup> inclusive) to ensure that no significant impacts (i.e., nest/egg destruction, harm to juvenile birds) occur as a result of the Proposed Development. Where any removal of vegetation within this period is deemed unavoidable, a qualified Ecologist will be instructed to survey the vegetation prior to any removal taking place. Should nesting birds be found, then the area of habitat in question will be noted and suitably protected until the Ecologist confirms the young have fledged, or a derogation licence is obtained from the NPWS.
Habitats	Construction Phase	Invasive plant species removal	<p>A single Cherry Laurel bush is present along the Site's southern treeline boundary (see EclA Report for detailed location). Due to the limited presence of Cherry Laurel at the Site of the Proposed Development removal by physical means is the preferred method of managing this species. Removal should take place as follows:</p> <ol style="list-style-type: none"> <li>1) All above-ground plant material should be removed by cutting the stems as low to the ground as possible. All cut material should be maintained <u>off the ground</u> during works, and during storage, to prevent regeneration through suckers produced by the cut stems.</li> <li>2) Cut material should be removed off-site and disposed of by a qualified professional at a suitably licensed waste facility.</li> <li>3) Root stumps can then be dug up with all viable root matter removed as much as possible to limit the potential for Cherry Laurel</li> </ol>



			<p>regeneration. Stumps should be stored off the ground as mentioned above while on site, placed upside down and with soil removed from roots. Soil from roots should also be disposed of along with the plant material as viable root matter may remain.</p> <p>4) Any regrowth of younger plants can be pulled by hand (attempt to remove as much of root network as possible) and/or treated with chemical herbicides as described below.</p> <p><b>Chemical Control (if required):</b></p> <p>Further control of any regrowth of young plants can be achieved using glyphosate or similar, chemicals which should only be used in accordance with the approved application method by appropriately authorised Professional Users in line with Department of Agriculture, Food and Marine requirements.</p> <ul style="list-style-type: none"> <li>• When using these herbicides, a handheld 'spray and lance' application technique should be used, allowing targeted application to the offending plant matter. This will reduce collateral poisoning of the soil/plants surrounding the Laurel and is good environmental practise. Appendix 3 of TII (2010) provides a guide on herbicide application (see EclA report for detail).</li> <li>• Herbicide should be applied in target doses, only wetting each leaf of the young plant. Note that this method of chemical leaf wetting will not work for mature, uncut plants, and is only effective as a control measure when used on young regrowth post cutting.</li> <li>• All herbicides should be used in accordance with the product label and with Good Plant Protection Practice as prescribed in the European Communities (Authorization, Placing on the Market, Use and Control of 'Plant Protection Products') Regulations, 2003 (S.I.</li> </ul>
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			No. 83 of 2003). It is an offence to use herbicides in a manner other than that specified on the label.
Birds & other animals	Construction Phase	Noise Control	A number of measures will be included in the CEMP as set out in <i>BS 5228-1: A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise</i> , that will be put in place during the Construction Phase of the Proposed Development. These will ensure that the level of noise caused by the proposed works will be controlled/reduced where possible so as to minimise the potential disturbance impact on local fauna species.
Mammals	Construction Phase	Construction waste management	As best-practise all construction-related rubbish on site e.g., plastic sheeting, netting etc. should be kept in a designated area and kept off ground level so as to prevent small mammals such as hedgehogs from entrapment and death.
		Mammal escape measures	Trenches/pits must be either covered at the end of each working day, or include a means of escape for any animal falling in e.g., a plank or objects placed in the corner of an excavation. (Badgers will continue to use established paths across a site even when construction work has started).  Any temporarily exposed open pipe system should be capped in such a way as to prevent badgers gaining access as may happen when contractors are off site.
Bats	Construction Phase	Bat friendly construction lighting	Construction Phase lighting will avoid any lighting of the Sites boundary tree-lines and hedges, and will be assessed by a bat ecologist; with recommendations to be made to ensure no impact on local populations due to night-time lighting during the works, where required.
		Tree felling	Tree felling should be undertaken in September/October where possible.

		Rocket Bat Box scheme	<p>As recommended in the Bat Survey Report (See EclA Report for detail), 3no. 'Rocket Box' Bat boxes will be erected around the Site.</p> <p>The rocket bat boxes are to be installed under the supervision and guidance of the bat ecologist, and will be erected on a 5m pole fixed in 1m<sup>3</sup> of 40 newton strength concrete (Please see appendices of Bat Report for details). Four possible locations are suggested in the report, with 3 of these to be chosen.</p>
Amphibians	Construction Phase	Wildlife pond provision	Wildlife ponds to be constructed under the supervision and consultation of an experienced ecologist, as per Baker <i>et al.</i> (2011) guidelines (see EclA report for detail).
Mammals	Operational Phase	Mammal access to the margins of the Site	In order to maintain access to the Site for local mammals, and to prevent the loss or fragmentation of habitat, a number of access points will be provide along the boundary fencing at the Site for the duration of the Proposed Development's operational lifetime. These access points will range in size to provide access to hedgehog and badger to the wooded margins of the Site. The design and location of these access points will be discussed and decided in conjunction with an ecologist.
Bats	Operational Phase	Bat friendly lighting	<p>A suite of Operational Phase bat friendly lighting measures have been agreed between the lighting consultant and bat ecologist.</p> <p>A bat ecologist will assess the lighting of the Site once the Proposed Development is operational, with recommendations to be made to ensure no impact on local populations due to night-time lighting, where required.</p>
Trees	Construction Phase	Appointment of Site Arborist	To ensure competent person on site to monitor works in and around trees to ensure their long term survival.



	Construction Phase	Tree protection fencing as recommended in BS5837: Trees in relation to design, demolition and construction (2012)	To ensure root protection zones of trees to be retained are protected from damage by construction activities
	Construction Phase	Guidance for working in RPAs based on the guidelines and recommendations set out in British Standard 5837 2012 Trees in relation to design, demolition and construction - Recommendations and the National Joint Utilities Group: Guidelines for the planning, installation and maintenance of utility services in proximity to trees. Volume 4, issue 2. London: NJUG, 2007 (hereinafter NJUG 4	To ensure successful tree retention
	Construction Phase	Implementation of The Arboricultural Association Guidance Note 12 "The use of cellular confinement systems near trees – A guide to good practice" in works on top of Root Protection Areas.	To ensure successful tree retention