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Construction & Environmental Management Plan

## Project

Kishoge/Clonburris, Lot 2, Site 4

## Client

South Dublin County Council



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## CONSTRUCTION & ENVIRONMENTAL MANAGEMENT PLAN

### KISHOGE/CLONBURRIS, LOT 2, SITE 4

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## 1.0 INTRODUCTION

Cronin & Sutton Consulting Engineers (CS Consulting) have been commissioned by South Dublin County Council (SDCC) to prepare a Construction & Environmental Management Plan in support of a Part 8 Planning Application for a residential development at Kishoge/Clonburris, County Dublin.

The Construction Environment Management Plan includes a description of the proposed works and how these works will be managed for the duration of the works on site. This plan will be updated by the Contractor and agreed with South Dublin County Council (SDCC) in advance of the construction phase.

The project will be under the control of a main Contractor who will be appointed after the approval is granted for the Project Application. Upon appointment, and once familiar with the site and having developed a final detailed methodology for the construction of the Development Project, the Contractor will prepare a Detailed Construction Management Plan. It is anticipated that the detailed plan will be based upon this plan. This Construction Environmental Management Plan (CEMP) is a preliminary plan which has been prepared to give an outline of the processes to be employed during construction of this project. Prior to the on-site activities commencing, this plan will be revised by the Contractor and expanded to provide a project specific site management plan, incorporating:

- Operational Health & Safety (OH&S) Management Plan;
- Environmental Management Plan, including Waste Management Plan;
- Pedestrian and Traffic Management Plan.

The Construction Environment Management Plan will be integrated into and implemented throughout the construction phase of the project to ensure the following:

- compliance with South Dublin County Council's planning conditions and requirements relating to waste management;
- that all site activities are effectively managed to minimise the generation of waste and to maximise the opportunities for on-site reuse and recycling of waste materials;
- that all waste materials generated by site activities, that cannot be reused on site, are removed from site by appropriately permitted waste haulage contractors and that all wastes are disposed of at approved waste licensed/permitted facilities in compliance with the Waste Management Acts 1996 to 2005;
- that any environmental impacts (noise, vibration, dust, water) of project construction work activities on receptors and properties located adjacent to the project work areas, and on the local receiving environment, are managed and controlled.

## 2.0 SITE LOCATION

The proposed development site is situated within Lot 2 Site 4 within the Clonburris Strategic Development Zone in Co. Dublin. The area enclosed by the application boundary extends to approx. 11.6ha. The subject site is located within the operational area of South Dublin County Council.



Figure 1 – Location of subject lands  
(sources: EPA, OSi, OSM Contributors, Google)

The location of the subject lands is shown in **Figure 1**; their extents and environs are shown in more detail in **Figure 2**.





Figure 2 – Subject lands extents and environs  
(sources: NTA, GoCar, Toyota, OSi, OSM Contributors, Microsoft)

The development site extends to approximately 11.6ha and is bounded to the north by the Irish Rail Railway line and to the south, east and west by lands zoned for development. The site is bisected by the permitted Southern Link Street (reg ref. SDZ20A/0021) from which vehicular, cycle and pedestrian access shall be provided.

## 2.1 Existing Land Use

The subject development site is currently greenfield and does not generate significant volumes of vehicular traffic.

## 2.2 Permitted Clonburris Southern Link Road

The permitted Clonburris Southern Link Road extends across the SDZ Lands, connecting Adamstown and Cappagh. This road has been outlined in the Clonburris Planning Scheme (2019) and is approved under the permission of SDCC Reg. Ref. SDZ20A/0021. The road and drainage infrastructure shall form part of the public roads and drainage networks providing access and services for the future development of the southern half of the overall Strategic Development Zone (SDZ) lands.

The subject development site is located within Sub-Catchment 5 of the SWMP. Refer to Figure 3 for an extract showing the site's location in relation to Sub-Catchment 5, with the site indicatively outlined. The Clonburris regional attenuation pond ('ATN-02'), proposed by the CIL, is situated immediately downstream of the site and is designed to attenuate the sub-catchment, as shown in red on Figure 3.

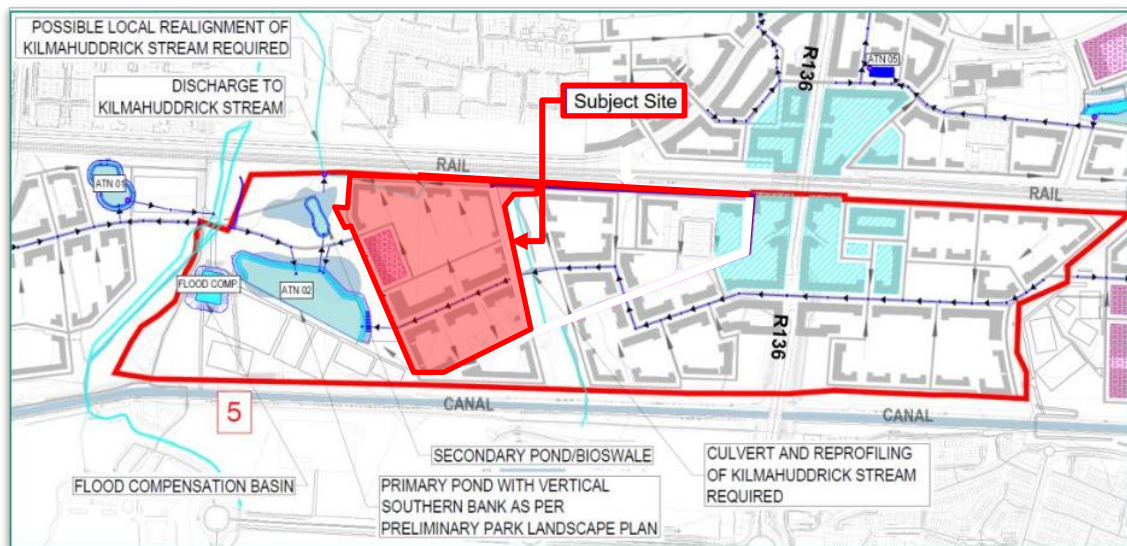


Figure 3 – Extract from DBFL Surface Water Management Plan  
(sources: DBFL)

### 2.3 Proposed Development

The proposed development comprises 436no. residential units in a mix of house, apartment, duplex and triplex units comprising 141no. houses (133no. 3-bedroom and 8no. 4-bedroom), 124no. apartments units (62no. 1-bedroom and 62no. 2-bedroom), 106no. duplex units (53no. 2-bedroom and 53no. 3-bedroom), 57no. triplex units (57no. 2-bedroom), 3no. age-friendly apartment units (3no. 1-bedroom), and 5no. garden apartment units (5no. 2-bedroom). Non-residential accommodation proposed (c. 1,550 m2 total) includes: A childcare facility (c. 544sqm), retail unit (c. 150sqm), employment use within the existing Grange House (c. 173 sq.m.) and a community building/ pavilion (c. 683 sq.m.) fronting Griffeen Valley Park. All associated and ancillary site development and infrastructural works including 408no. surface level car parking, 793no. bicycle parking (591no. long term and 202no. short term spaces), hard and soft landscaping and boundary treatment works, including public, communal and private open space, public lighting, substations, bin stores and foul and water services.



### **3.0 LOGISTICS**

#### **3.1 Construction Program & Phasing**

Subject to a successful grant of planning, it is intended for the works to commence in Q3 2025. The proposed development is anticipated to be constructed over an 18-24-month period.

The development is proposed to be constructed on the following basis:

- 1) Erection of site perimeter hoarding, maintaining existing pedestrian and traffic routes around the site;
- 2) Site clearance;
- 3) Reduced level excavations and piling mat (assuming piled foundations);
- 4) Piled foundations and ground beams;
- 5) Site services installations (drainage, power, water, etc.);
- 6) Construction of building frames and envelopes;
- 7) Interior finishing and exterior landscaping.

#### **3.2 Vehicular Access to Site**

It is anticipated that for the duration of the construction works all construction access and egress for deliveries shall operate via Sheehan's Road along the eastern boundary of the development site. In addition, one or more separate pedestrian only entrance(s) to the site shall be installed, to segregate vehicular and pedestrian movements to and from site.

#### **3.3 Protection of Public Areas from Construction Activity**

Perimeter fencing and hoarding will be erected around the construction site, to provide a barrier against unauthorised access from the public realm. Controlled access points to the site, in the form of gates or doors, will be kept locked in any time that these areas are not monitored (e.g. outside working hours).

The fencing and hoarding will be well-maintained and will be painted; it may also feature graphics portraying project information.

#### **3.4 Site Security**

The site will be secured along its perimeter with fencing and hoarding. The site hoarding will be branded using the appointed Contractor's logos, etc. Some marketing images or information boards may also be placed on the hoarding.

Access to site will be controlled by means of an electronic access control system and camera remote monitoring system for out of hours use. During working hours, a gateman will control traffic movements and deliveries.

All personnel working on site will be required to have a valid Safe Pass card.

The Contractor will ensure the presence of site security staff at all times on the site.

### **3.5 Material Hoisting & Movement Throughout the Site**

It is envisaged that a number of tower cranes will be erected on site to assist with superstructure and exterior works. In addition to the tower cranes, separate mobile crane visits may be required from time to time. These visits will be coordinated with the other site activities and crane operations to ensure all risks are correctly assessed and guarded against.

Hoists and teleporters may also be used within the site and around its perimeter as required during the project, to facilitate material movement into the structures and waste movements out of the buildings. With the commencement of the fit-out activities, hoists strategically positioned will play a key role for successful project delivery. They are also less susceptible to being affected by inclement weather conditions.

A permanent odometer will be installed on the tower crane, which will pass wind speed data to the site office and to the Contractor's management team in their head office, to monitor compliance with safe lifting practices.

### **3.6 Deliveries and Storage Areas**

It is proposed that unloading bays within the hoarding perimeter be provided for deliveries to the site. They should be accessible by tower crane and forklifts. Appropriately demarcated storage zones will be used to separate and segregate materials.

All deliveries to site will be scheduled to ensure their timely arrival and avoid need for storing large quantities of materials on site. Deliveries will be scheduled outside of rush traffic hours to avoid disturbance to pedestrian and vehicular traffic in vicinity of the site.

### **3.7 Site Accommodation**

On-site facilities shall consist of:

- materials storage area(s);
- a site office and meeting room;
- staff welfare facilities (e.g. toilets, drying room, canteen, etc.).

Electricity will be provided to the site via the national grid. Water supply to the site during demolition and construction works will be provided by means of a temporary connection to a public watermain. Similarly, a temporary connection for foul water drainage will be made to the public network. It may be possible to utilize branch connections already in place on the existing site to minimize/prevent disruption to the public space outside of the site boundary when making these connections.

### **3.8 Site Parking**

On-site parking shall be provided for construction staff and visitor. Construction staff shall be encouraged to use public transport, and information on local transportation shall be published on site.

### **3.9 Construction Staff Numbers**

It is provisionally estimated that up to 100no. operatives will be employed full time on the site during the development's construction phase. Small numbers of additional sub-contractors and specialist construction operatives are expected also to be present on site at certain stages of construction (e.g., internal plumbing and electrical fit-out).

### **3.10 Site Working Hours**

Construction operations on site will generally be subject to planning permission and conditions. However, it may be necessary for some construction operations to be undertaken outside these times, for example: service diversions and connections; concrete finishing and fit-out works; etc.

Deliveries of materials to site will generally be between the hours of 07:00 and 19:00, Monday to Friday, and 08:00 to 14:00 on Saturdays. There may be occasions where it is necessary to make certain deliveries outside these times, for example where large loads are limited to road usage outside peak times. Any such deliveries shall be made with the advance agreement of South Dublin County Council.

## **4.0 ENVIRONMENTAL ISSUES**

### **4.1 Stormwater Management**

The purpose of stormwater management is to ensure that storm water runoff is managed and that there is no off-site environment impact caused by overland storm water flows.

The project environmental management plan will be developed in detail to include:

- silt control on the roads;
- maintenance of existing gullies on existing roads used for site access;
- discharge water from dewatering systems;
- diversion of clean water;
- treatment and disposal of wastewater from general clean-up of tools and equipment;
- spills control;
- concrete washout requirements - washing out of concrete trucks on site will not be permitted;
- a buffer zone of at least 20m separating working machinery from watercourses;
- a prohibition on machinery entering watercourses;
- refuelling of machinery off-site or at a designated bunded refuelling area;
- silt trapping and oil interception (to be considered where surface water runoff may enter watercourses).

## 4.2 Noise

Noise monitoring will be established on site throughout the project. Noise monitoring shall be carried out for a period of at least 2 weeks prior to any works commencing, in order to establish a baseline, and the results communicated to SDCC in the form of baseline reports.

All construction activities will be carried out in compliance with the recommendations of BS 5228 (*Code of practice for noise and vibration control on construction and open sites*) and BS 6187 (*Code of practice for full and partial demolition*). The measures employed to ensure compliance will include:

- Noise monitoring stations, monitored daily, located on site and at recommended locations in the vicinity of the site, to record background and construction noise activity.
- The best means practical used to minimise the noise produced by all on site operations.
- Proper maintenance of all operating plant to ensure noise emission compliance.
- Selection of all operating plant on the basis of incorporating noise reducing systems, with a minimum requirement that effective exhaust silencers be fitted.
- Fitting of compressors with acoustically lined covers, which will remain closed while the machines are in operation.
- Location of plant such as pumps and generators, which are required to work outside of normal working hours, within acoustic enclosures.
- Strict adherence to the site working hours stipulated in the Planning Conditions.

#### **4.3 Air Quality & Dust Monitoring**

Dust suppression measures shall be employed to control airborne particulate pollution. The Contractor shall monitor dust levels in the vicinity of the site using a Bergerhoff gauge instrument or in accordance with SDCC planning conditions. Records shall be kept of such monitoring for review by the Planning Authority. The minimum criteria to be maintained shall be the limit for Environmental Protection Agency (EPA) specification for licensed facilities in Ireland, which is 350mg/m<sup>2</sup>/day. The Contractor shall continuously monitor dust over the variation of weather and material disposal to ensure the limits are not breached throughout the project.

#### **4.4 Migrating Dust & Dirt Pollution**

The Contractor will ensure that all construction vehicles that exit the site onto the public roads will not transport dust and dirt to pollute the external roadways. This will be achieved through a combination of the following measures:

- ensuring that construction vehicles have a clean surface to travel on within the site (i.e. haul road);
- ensuring that all construction vehicles are inspected by the gateman for cleanliness prior to exiting the site;
- providing a full-body self-contained wheel wash facility within the site, assisted if required by a manned power washer;
- retaining a dedicated road sweeper for the duration of the haulage works.

Water supplies shall be recycled for use in the wheel wash. All waters shall be drained through appropriate filter material prior to discharge from the site.

The use of appropriate water-based dust suppression systems will greatly reduce the amount of dust and windborne particulates as a result of the construction process. This system will be closely monitored by site management personnel, particularly during extended dry periods and in accordance with site management methods.

#### **4.5 Harmful Materials**

Harmful material will be stored on site for use in connection with the construction works only. These materials will be stored in controlled manner. Where on site facilities are used, there will be a bunded filling area using double bunded steel tanks at a minimum.



#### 4.5.1 Contaminated Soil

If any contaminated material is encountered, it will need to be segregated from clean/inert material, tested and classified as either non-hazardous or hazardous in accordance with the EPA publication entitled 'Waste Classification: List of Waste & Determining if Waste is Hazardous or Non-Hazardous' using the HazWasteOnline application (or similar approved classification method). The material will then need to be classified as clean, inert, nonhazardous or hazardous in accordance with the EC Council Decision 2003/33/EC, which establishes the criteria for the acceptance of waste at landfills.

#### 4.5.2 Fuel/Oils

As fuels and oils are classed as hazardous materials, any on-site storage of fuel/oil, all storage tanks and all draw-off points will be bunded and located in a dedicated, secure area of the site, away from watercourses. Provided that these requirements are adhered to, and site crew are trained in the appropriate refuelling techniques, it is not expected that there will be any fuel/oil wastage at the site.

#### 4.5.3 Other known Hazardous Substances

Paints, glues, adhesives and other known hazardous substances will be stored in designated areas away from watercourses. They will generally be present in small volumes only and associated waste volumes generated will be kept to a minimum. Wastes will be stored in appropriate receptacles pending collection by an authorised waste contractor. In addition, WEEE (containing Construction and Demolition Waste Management Plan 11 hazardous components), printer toner/cartridges, batteries (Lead, Ni-Cd or Mercury) and/or fluorescent tubes and other mercury containing waste may be generated during construction activities. These wastes (if encountered) will be stored in appropriate receptacles in designated areas of the site pending collection by an authorised waste contractor.

### **4.6 Vibration**

The Contractor will be required to carry out their works such that the effect of vibration on the adjacent buildings and surroundings is minimised, and that no damage to these results from construction activity on site.

The Contractor will be required to comply with the requirements of the planning permission for any vibration limits for the works.

A vibration monitoring system is to be put in place prior to any works taking place. This system is to raise an alarm if an agreed limit is exceeded, at which time the working methods are to be adjusted so as to reduce the vibration generated.

## **5.0 BIODIVERSITY PROTECTION MEASURES**

The following site-specific measures are to be included in the detailed Construction and Environmental Management Plan (CEMP) to be prepared by the lead contractor.

### **5.1 Pre-Construction Checks**

#### **5.1.1 Non-native invasive species**

A confirmatory pre-construction non-native invasive species survey will be undertaken by a suitably qualified specialist to confirm the absence of and/or the establishment and extent of all Third Schedule invasive species, and other non-native invasive species, within the footprint of the proposed development. Following the confirmatory pre-construction survey, the following mitigation measures will be implemented, as required:

- Where a pre-construction non-native invasive species survey identifies established non-native invasive species within the footprint of the proposed development, the non-native invasive species management plan produced will provide a detailed description of the infestations (e.g. approximate area of the respective colonies (m<sup>2</sup>), where feasible; approximate total number of stems, pattern of growth and information on other vegetation present), and where necessary, include calculations of volumes of infested soils to be excavated;
- The ISMP will be prepared following the pre-construction survey by a suitably qualified specialist, with regard to the National Roads Authority (2020) The Management of Invasive Alien Species on National Roads – Technical Guidance, and other species-specific guidance documents;
- All control measures specified in the ISMP shall be implemented in full by a suitably qualified specialist prior to the construction of the proposed development to control the spread of non-native invasive species within the footprint of the proposed development. Furthermore, the control measures specified within the ISMP will be adhered to throughout the construction stage of the proposed development; and,
- The site will be monitored by a suitably qualified specialist after control measures have been implemented (which could take a number of years depending on the final solution to eradicate them. Any re-growth will be subsequently treated by the suitably qualified specialist as detailed in the ISMP.

#### 5.1.2 Badgers

A confirmatory pre-construction check of all suitable badger habitat will be completed within 12 months prior to any construction works commencing by a suitably experienced and qualified ecologist. The presence of any new setts or significant badger activity will be treated and/or protected in accordance with the Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes (NRA, 2005).

#### 5.1.3 Otters

A confirmatory pre-construction check of all suitable otter habitat within the proposed development site will be completed within 12 months prior to any construction works commencing by a suitably experienced and qualified ecologist. The presence of any new holt/couch sites will be treated and/or protected in accordance with the Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes (NRA 2006).

#### 5.1.4 Common frog

If works to clear any of the habitat features suitable to support common frog are to begin during the season where frogspawn or tadpoles may be present (i.e. February to mid-summer), a pre-construction survey will be undertaken to determine whether breeding common frogs are present. If required, a licence permitting their removal should be applied for from the NPWS.

Any frog spawn, tadpoles, juvenile or adult frogs present will be captured and removed from affected habitat by hand net and translocated to suitable alternative donor habitat within the vicinity of the proposed development. Any capture and translocation works shall be undertaken immediately in advance of site clearance and construction works commencing.

### 5.2 **Vegetation Clearance**

The following mitigation measures are proposed to comply with the legal protection afforded to breeding birds and their nests under the Wildlife Acts:

- In order to avoid disturbance or harm to breeding birds, their nests, eggs and/or their unflown young, all works involving the removal of trees, woodland or grasslands, or any other potential nesting habitat, will be undertaken outside of the nesting season (i.e. 1 March to 31 August inclusive)

Or where this seasonal restriction cannot be observed then:

- A breeding bird survey will be undertaken by a suitably experienced ecologist in order to assess whether birds are nesting within suitable habitat affected by or immediately adjacent to the proposed works. Should nesting birds be encountered during surveys, it may be necessary to delay the removal of nesting habitat (e.g. trees and shrubs) until after the nesting season (i.e. 1 March to 31 August inclusive).

### 5.3 Lighting

During construction, any external lighting to be installed, including facilitating night-time working or security lighting, on the site shall be sensitive to the presence of bats in the area. Light levels in these areas will be maintained at baseline levels.

It will be ensured in liaison with the suitably experienced and qualified ecologist that lighting at the construction compound, and active work areas within and adjacent to the proposed development, will be designed to minimise light spill outside the footprint of the proposed development, and be cognisant of light-spill into previously unlit areas. Any light spill to commuting/foraging habitats of bats may exclude them from using these areas and therefore have a negative impact on them through reduced food resources and/or longer flight routes as they try to avoid flying through the lit-up area by flying around it.

Mitigation measures to reduce light spill during construction will include the following:

- the use of sensor/timer triggered lighting;
- LED luminaires to be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability;
- column heights to be considered to minimise light spill;
- accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only where needed; and,
- Where night-time works are required the suitably experienced and qualified ecologist will be liaised with to implement measures to mitigate the impact of such works.

### 6.0 WASTE MANAGEMENT

A Resource and Waste Management Plan (RWMP) for construction (**D116-CSC-ZZ-XX-RP-C-0007**) has been prepared by CS Consulting as part of this application. Refer to this report for details of waste management during the construction phase of the project.

## **7.0 TRAFFIC MANAGEMENT**

### **7.1 Site Traffic, Traffic and Pedestrian Management**

The anticipated truck movements from and to the site in relation to the preliminary programme for the works will be specified in the construction methodology by the main contractor.

The construction site will be delineated by means of hoardings and lockable gates with screened fencing at the entry and exit points. The Contractor will pay particular attention to pedestrian traffic and safety at the entrances. All vehicles will enter and exit the site in a forward direction.

Pedestrians will have right of way. If required, alternate pedestrian routes around the site will be created and clearly signed. Depending on the progress of the works and temporary constraints imposed by the construction methodology, the location of access and exit points to the site may vary.

### **7.2 Vehicular Access to Site**

It is anticipated that for the duration of the construction works all construction access and egress for deliveries will operate via Sheehan's Road along the site's eastern boundary.

Security personnel will be present at the entrance/exit of the site to ensure all exiting traffic will do so safely. A self-contained wheel wash system will be installed at the exit from the site, to minimise dirt being carried out into the public road, and a road sweeper will be employed as required to keep public roads around the site clean.

The vehicular access to the construction site shall include the following design elements:

- Sufficient entrance width to permit two rigid body vehicles to pass one another (i.e. one can enter while another waits to leave).
- An entrance gate set back a minimum of 18m from the public road edge, to ensure that vehicles may leave the road completely before having to stop.
- Appropriate sight lines for vehicles exiting onto the public road, to be ensured by removing existing visual obstructions and by appropriate design of perimeter hoarding.
- Directional signage for site traffic and advance warning signage for all other road users.



### **7.3 Minimisation of Construction Vehicle Movements**

Construction vehicle movements will be minimised through:

- Consolidation of delivery loads to/from the site and manage large deliveries on site to occur outside of peak periods.
- Use of precast/prefabricated materials where possible.
- 'Cut' material generated by the construction works will be re-used on site where possible, through various accommodation works.
- Adequate storage space on site will be provided.
- A strategy will be developed to minimise construction material quantities as much as possible.
- Construction staff vehicle movements will also be minimised by promoting the use of public transport.

#### **7.3.1 Cycling**

Cycle parking spaces will be provided on the site for construction personnel. In addition, lockers will be provided to allow cyclists to store their cycling clothes.

#### **7.3.2 Car Sharing**

Car sharing among construction personnel will be encouraged, especially from areas where construction personnel may be clustered. The contractor shall aim to organize shifts in accordance with personnel origins, hence enabling higher levels of car sharing. Such a measure offers a significant opportunity to reduce the proportion of construction personnel driving to the site and will minimise the potential traffic impact on the surrounding road network.

#### **7.3.3 Public Transport**

Construction personnel will be encouraged to use public transport as a means to travel to and from the site. An information leaflet shall be provided to all personnel as part of their induction on site, highlighting the location of the various public transport services in the vicinity of the construction site.

#### **7.3.4 Protection of Public Roads**

A Visual Condition Survey (VCS) will be carried out of all surrounding streets prior to any site works commencing. The Contractor will liaise with South Dublin County Council Roads and Traffic Department to agree any changes to load restrictions and construction access routes for the site. Measures will be put in place as required to facilitate construction traffic whilst simultaneously protecting the built environment.

All entrances and temporary roads will be continuously maintained for emergency vehicle access.

The following measures will be taken to ensure that the site, public roads and surroundings are kept clean and tidy:

- A regular programme of site tidying will be established to ensure a safe and orderly site.
- Scaffolding will have debris netting attached to prevent materials and equipment being scattered by the wind.
- Food waste will be strictly controlled on all parts of the site.
- Mud spillages on roads and footpaths outside the site will be cleaned regularly and will not be allowed to accumulate.
- Wheel washing facilities will be provided for vehicles existing at the site.

#### **7.4 Project Specific Traffic Management Plan**

A detailed project specific traffic management plan will be developed by the Contractor and agreed with SDCC prior to works commencing on site. This plan will be updated as required throughout the project.

Issues addressed in the Traffic Management Plan will include:

- Public safety
- Construction traffic routes
- Deliveries schedule
- Special deliveries (wide and long loads)
- Traffic flows
- Signage and lighting
- Road opening requirements
- Road closures
- Lighting

#### **7.5 Vehicle Movements During Construction**

The major construction items include earthworks, construction, and fit out. It is anticipated that the peak of HGV movements to and from the site will be during earthworks and construction of the building foundations and basement. The peak LGV movements to and from the site will be during the building construction and fit out. It is anticipated that the construction traffic impact on the surrounding local road network will be minimal.

The final programming and scheduling of excavation, and construction works shall be determined by the appointed contractor. Under a 'worst-case' scenario, however, it is possible that up to 8no. delivery trips may be made to the site each hour during this phase (one HGV arrival and one HGV departure every 15 minutes). In addition to HGV traffic, periodic deliveries of materials to site shall be made by Light Goods Vehicles (LGVs). Under a worst-case construction traffic generation scenario, 4no. such LGV arrivals and 4no. LGV departures are assumed in each of the background peak hours.

Limited car parking for construction personnel is likely to be provided on site during construction works; some vehicular trips shall therefore be made to and from the site each day by construction personnel commuting to and from work. However, as the site working hours are expected to be from 08:00 to 20:00 (subject to planning conditions), the majority of these trips are expected to fall outside the background traffic peak hours. In the worst-case scenario, it is assumed that the equivalent of 10no. light vehicle trips may be made to the site during the AM peak hour, and the equivalent of 10no. such trips may be made from the site during the PM peak hour.

It is therefore expected that – under a worst-case scenario – vehicular traffic to and from the development site during the construction phase shall comprise the following:

- 4no. HGV arrivals and 4no. HGV departures at each of the peak hours;
- 4no. LGV arrivals and 4no. LGV departures in each of the peak hours;
- 10no. car arrivals (construction personnel) in the AM peak hour; and
- 10no. car departures (construction personnel) in the PM peak hour.

The Contractor must submit a Construction Traffic Management plan to the Local Authority for approval. Haulage vehicle movements should be fully coordinated to comply with the requirements of the layout and requirements herein.

- At no time should construction associated vehicles be stopped or parked along the routes;
- Haulage vehicles should not travel in convoys of greater than two vehicles at any time;
- Haulage vehicles should be spaced at a minimum of 250m at all times;
- At no time should haulage vehicles be parked or stopped at the entrance(s) to the site;
- All loading of excess material will occur within the site boundary;
- All off-loading of deliveries will take place within the site, away from the public road and will access via the construction site access.

The routes to and from the site shall depend on where the excavated material will be taken to and from where construction material will be brought into the site. The above locations will be identified by the appointed Contractor at a later stage and appropriate routes will be agreed with South Dublin County Council as part of the Contractor's detailed Construction Management Plan.

The increase in traffic as a result of construction will be minor and is expected to be readily accommodated by the existing road network.



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