

CS CONSULTING

GROUP

Outline Construction Management Plan

The Arboury

Belgard Road, Tallaght, Dublin 24

Client: Landmarque Belgard Development Company Limited

Job No. L088

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OUTLINE CONSTRUCTION MANAGEMENT PLAN

THE ARBOURY, BELGARD ROAD, TALLAGHT, DUBLIN 24

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1.0 INTRODUCTION

Cronin & Sutton Consulting Engineers (CS Consulting) have been commissioned by Landmarque Belgard Development Company Limited to prepare an Outline Construction Management Plan (OCMP) for a proposed SHD planning application for a residential development at the site of the Former ABB Site on Belgard Road, Tallaght, Dublin 24.

The aim of this OCMP is to address issues that can arise during construction including noise and vibration, traffic management, working hours, pollution control, dust control, road cleaning, compound / public health facilities and staff parking, all associated with the construction works. This plan will be updated by the contractor and agreed with South Dublin County Council (SDCC) in advance of the construction phase.

This Outline Construction Management Plan (OCMP) has been prepared to give an overview 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 appointed lead contractor and expanded to produce a Detailed Construction Management Plan, which shall incorporate:

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

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

 that all site activities are effectively managed to minimise the generation of waste and to maximise the opportunities for on-site



and offsite reuse and recycling of waste materials including 'circular economy requirements' through the use of Article 27 and Article 28 notifications to the EPA.

- 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. The contractor is encouraged to and shall consider the embodied carbon of the existing structure during demolition and aim to reuse as much material as possible such as steel work and concrete recycling for hardcore operations (such as reuse of concrete for piling mats and road build ups; similarly the existing structure on site is a structural steel frame and it is intended for this steelwork to be recycled for reuse elsewhere by the Developer)
- that any environmental impacts (noise, vibration, dust) 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 to comply with all relevant requirements.

All works will be in compliance with the <u>EU Construction and</u> <u>Demolition Waste Management Protocol - BIBM</u>.



2.0 SITE LOCATION AND PROPOSED DEVELOPMENT

2.1 Site Location

The site of c.0.898 ha is located at the former ABB Site, Belgard Road, Tallaght, Dublin 24, D24 KD78. The site is bound by Belgard Road (R113) to the east, Belgard Square North to the North and Belgard Square East to the west and Clarity House to the south.

The development is bound by the primary route of Belgard Road and the secondary routes of Belgard Square North & East with active frontage opening onto this route. The physical boundary to the south has a wall separating the site from an adjacent property along which the LAP seeks to introduce a Tertiary route.

The site is situated at the North East corner of the LAP town centre zoned land; therefore, it is a gateway site leading from Belgard Road and Belgard Road North into Tallaght centre.

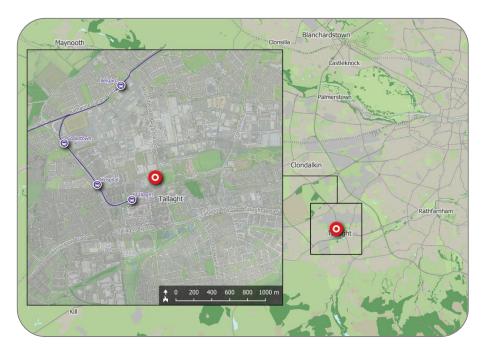


Figure 1 – Location of proposed development site (map data: EPA, NTA, OSM Contributors)



The location of the proposed development site is shown in Figure 1 above; which also shows the indicative extents of the development site. The site is withing walking distance to the Square shopping centre (250m), the Tallaght University Hospital (400m), TUD Tallaght Campus (50m) and the Luas stop in the town centre (500m)

The site is within 2.5 km of the M50 to the East. The surrounding road network is shown in more detail in figure 2 below.



Figure 2 – Site extents and environs (map data: EPA, NTA, OSM Contributors)

2.2 Existing Land use

The site currently contains an industrial/office building which is occupied by ABB Limited. It also contains a storage yard with the remaining portion of the site used for carparking. The topography of the site is flat with only



localized falls for drainage purposes and the site is hard standing throughout.



3.0 PROJECT DESCRIPTION

The site of c.0.898 ha is located at the former ABB Site, Belgard Road, Tallaght, Dublin 24, D24 KD78. The site is bound by Belgard Road (R113) to the east, Belgard Square North to the North and Belgard Square East to the west and Clarity House to the south.

The proposed development will consist of:

- 1. Demolition of all existing structures on site (with a combined gross floor area of c. 3625 sqm)
- 2. The construction of a mixed-use residential development set out in 3 No. blocks including a podium over a basement, ranging in height from 2 to 13 storeys (with core access above to roof terrace), comprising:
- 334 no. residential units of which 118 No. will be Build to Rent (BTR) residential units, with associated amenities and facilities across the development,
- 4 No. retail/café/restaurant units and 3 no. commercial spaces associated with the 3 no. live-work units (723 sqm combined),
- Childcare facility (144 sq.m.),
- 670 No. bicycle parking spaces including 186 visitor spaces; 117 car parking spaces (including 6 disabled spaces) are provided at ground floor and basement level.
- The overall development has a Gross Floor Area of 29,784 sq.m.
- Two (2) podium residential courtyards and three (3) public accessible pocket parks, two (2) to the North & one (1) to the South.



- Linear Park (as a provision of the Tallaght Town Centre LAP) providing safe public pedestrian and cycling access between Belgard Rd and Belgard Square East
- 3. Of the total 334 residential units proposed, unit types comprise:

Block A (Build-to-Rent)

- 91 no. 1 bed units
- 1 no. 2 bed 3 person units
- 26 no. 2 bed 4 person units

Blocks B & C

- 2 no. live-work studio units
- 102 no. 1-bed units
- 12 no. 2-bed 3 person units
- 88 no. 2-bed 4 person units including 5 no. duplex units
- 1 no. 2-bed 4 person live-work unit
- 11 no. 3-bed units
- 4. All associated works, plant, services, utilities, PV panels and site hoarding during construction



4.0 SITE MANAGEMENT

4.1 Construction Program & Phasing

Subject to a successful grant of planning, it is intended for the works to commence in Q4 2022. The proposed development is anticipated to be constructed over a 24-month period.

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

- Set up site perimeter hoarding, maintaining existing pedestrian and traffic routes around the site;
- Install health and safety and environmental protection measures;
- Demolition of existing structure with consideration for embodied carbon of the existing building elements and potential reuse of materials;
- Site Clearance:
- Installation of temporary works and Reduced Level excavations;
- Site services installations (including drainage, power, water and the like);
- Construct Building Frame and Envelope;
- Finish Interior and Exterior Landscaping

4.2 Site Establishment

The contractor will provide all necessary accommodation, material handling and secure storage for its operations.

The facilities to be provided and maintained by the contractor will include:



- construction plant;
- hoisting equipment and cranes;
- scaffolding, platforms, access ladders, barriers, handrails;
- barricades and hoardings;
- temporary driveways, road crossovers and construction zone;
- 24/7 emergency vehicle access to site during working hours;
- on-site hardstand areas for vehicle loading and unloading;
- storage sheds and compounds;
- rubbish sorting areas;
- site amenities with all required equipment and facilities;
- construction worker accommodation:
- first aid facilities;
- waste and by-product storage areas pending reuse or movement offsite;
- site administration accommodation.

Construction plant and site amenities will comply with the requirements of all relevant authorities and be wholly contained within the hoarded site. All construction plant and equipment will be progressively removed when no longer required.

First Aid facilities for the use of all construction staff in the form of a fully provisioned first aid area within the site office with life-saving and safety



equipment as required by relevant statues, authorities and awards will be maintained at all times by the contractor.

The contractor will obtain all required permits, pay the applicable fees and comply with all conditions.

4.3 Hoarding and Fences

Prevention of unauthorised access to the site is a very high priority and will be vigorously managed throughout the construction period. When the contractor is appointed, the site will be secured with site barriers and hoardings in accordance with the final construction management plan.

Any hoardings and signboards to the perimeter of the site will comply with the requirements of the relevant authorities and the relevant Health and Safety Acts.

The contractor will be required to erect a single project signboard to the hoarding at the main entrance points to identify the site.

Both the Hoardings and the Project signboard shall be illuminated.

4.4 Services Relocations and Temporary Protection of Public Domain

Prior to any works commencing on site, detailed dilapidation reports will be carried out for footpaths, kerbs, road pavements and utility infrastructure features of the main access routes in the immediate vicinity to the site.

The contractor will provide protection to existing surrounding building elements potentially impacted by the works. Protection may be in the form of screened hoardings, scaffolding and fencing, taped drop sheets and the like, all installed prior to commencement of the demolition works.



The type of required hoardings, scaffolding and fencing will vary over the duration of the works, depending on how the site activities potentially impact on the adjoining public domain and neighbourhood.

Dial-before-you-dig enquiries and detailed services location investigations shall be carried out to identify any need for temporary protection of elements of existing utility infrastructure that are not to be diverted as part of the works.

All temporary protection is to be installed and maintained during the duration of the works until they are no longer required.

4.5 Major Plant and Equipment

Plant and equipment used during the entire works are:

- articulated and rigid trucks;
- rigs, bulldozers, excavators, backhoes, with ancillary equipment (rock hammers or saws);
- cranes;
- Piling rigs;
- concrete delivery trucks and concrete pumps;
- man, and material hoists;
- scissor, boom and forklifts.

All plant and equipment will be operated by experienced and qualified personnel with the appropriate registrations.



4.6 Vehicular Accesses to Site

The site is currently accessed from Belgard Square East and it is proposed that the existing vehicular accesses will be adapted to suit the development layout as part of the development works. It may also be beneficial to install a pedestrian only entrance to the site to segregate vehicular and pedestrian movements to and from site.

Advanced warning is to be provided to all users on the road and directional signage for site traffic.

Revised measures will be developed further as part of the Construction Traffic Management Plan (CTMP) developed by the contractor in consultation with the Design Team and South Dublin County Council.

The principal objective of the CTMP is to ensure that the impacts of all building activities generated during the construction of the proposed development upon both the public (off-site) and internal (on-site) workers environments, are fully considered and proactively managed / programmed respecting key stakeholders requirements thereby ensuring that both the public's and construction workers safety is maintained at all times, disruptions minimised and undertaken within a controlled hazard free / minimised environment. The impact of the construction works will be temporary in nature.

The CTMP will be prepared in accordance with the principles outlined below and shall always comply with the requirements of:

 Chapter 8 of the Department of the Environment Traffic Signs Manual, current edition, published by The Stationery Office, and available from the Government Publications Office, Sun Alliance House, Molesworth Street, Dublin 2;



- Guidance for the Control and Management of Traffic at Road Works (June 2010) prepared by the Local Government Management Services Board; and
- Any additional requirements detailed in the Design Manual for Roads and Bridges & Design Manual for Urban Roads & Streets (DMURS).

In order to ensure satisfactory operation of the construction stage the following is proposed:

- Provision of sufficient employee and visitor parking and compounding to ensure no potential overflow onto the local network.
- Site offices and compound will be located within the site boundary.
 There will be sufficient on-site parking for staff and visitors.
 Construction staff will be encouraged to use public transport and information on local transportation will be published on site.
- Finally, truck wheel washes will be installed at construction entrances and any specific recommendations regarding construction traffic management made by the Local Authority will be adhered to.

The following mitigation measures will be incorporated into the CTMP:

- During the pre-construction phase, the site will be securely fenced off from adjacent properties, public footpaths and roads.
- The surrounding road network will be signed to define the access and egress routes for the development.
- The traffic generated by the construction phase of the development will be strictly controlled in order to minimise the impact of this traffic on the surrounding road network.



- All road works will be adequately signposted and enclosed to ensure the safety of all road users and construction personnel.
- Construction staff will be encouraged to use public transport and information on local transportation will be published on site.
- A programme of street cleaning if/when required.
- Any associated directional signage
- Any proposals to facilitate the delivery of abnormal loads to the site
- Measures to obviate queuing of construction traffic on the adjoining road network.
- Neighbouring road and building users will be informed in advance of construction works to further ameliorate disruption due to construction activities.

4.7 Site Security

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

Site lighting during non-operation hours will also be installed and maintained throughout the construction period to promote active passive surveillance and aid site security measures. Lighting is to be agreed in advance with local authority.

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



4.8 Material Hoisting & Movement Throughout the Site

It is envisaged that various cranes will be utilised on site. Crane use will be coordinated with the other site activities to ensure that all risks are correctly assessed and guarded against. A detailed crane analysis will be prepared for verification of the safe load parameters. No loads will be lifted over the public domain or adjacent properties.

Hoists and teleporters may also be used within the site and around its perimeter as required during the project, to facilitate material and waste movements into and out of the site.

4.9 Deliveries & Storage Facilities

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

4.10 Site Accommodation

Site offices and compound will be located within the site boundary.

On-site facilities shall include:

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

Electricity will be provided to the site via national grid.

Water supply to the site during 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.

4.11 Site Parking

Given the constraints of the proposed development site parking will be very limited. Site staff are encouraged to travel to site via other means such as public transport.

4.12 Site Working Hours

Subject to the agreement of the Planning Authority and as usually stipulated in the planning permission, the following site operation hours are proposed:

- Monday to Friday: Times to be confirmed with Planning authority
- Saturdays: Times to be confirmed with Planning authority
- Sundays & Bank Holidays: Works not permitted
- It may be necessary for some construction operations to be undertaken outside these times, for example: emergencies, service diversions and connections; concrete finishing and fit-out works; etc. There may also 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.

If there are instances where work must be carried out outside of the permitted times the Environmental Health Officer, local residents and business in areas which are likely to be affected by noise from the proposed works shall be in advance in letter form or leaflet or advertisement. They



must also be notified of the contractor carrying out the works, their name and number, the reason for the works and the likely duration.



5.0 ENVIRONMENTAL MANAGEMENT

The contractor will establish guidelines and controls for all activities that may significantly negatively impact on the surrounding environment for the duration of the works, including; air, water, land, natural resources, flora, fauna, humans, and their interrelation.

The project is to be developed to enable to all personnel with the means to understand their responsibilities and to meet the contractor's statutory, contractual and procedural obligations relating to environmental management.

For each activity, the environmental aspects and associated actual and potential impacts are to be identified as they relate to the following environmental elements:

- emissions to air;
- releases to water:
- releases to land;
- use of raw materials & natural resources:
- use of energy;
- waste and by-products;
- community & neighbours;
- flora & fauna;
- heritage & cultural.



5.1 Materials and Decontamination

Excavation works will each address the requirements of this investigation report and verify the treatment and removal to appropriately authorised facilities of all materials and contamination encountered during the works.

5.2 Noise

The Contractor shall implement measures to eliminate and reduce noise levels where possible.

All construction activities will be carried out in compliance with the recommendations of BS 5228, Noise Control on Construction and open sites part 1 and comply with the European Communities (Noise Emission by Equipment for Use Outdoors) Regulations, 2001 Code of Practice for Noise and Vibration Control on Construction and Open Site;

and comply with BS 6187 Code of Practice for Demolition.

The following is an outline of the possible noise mitigation measure which the Contractor will consider implementing when appropriate on site to address potential noise levels;

5.2.1 <u>General Considerations:</u>

- All site staff shall be briefed on noise mitigation measure and of best practicable means to be employed to control noise.
- Site hoarding will be erected to maximise the reduction in noise levels.
- The Contractor will but in place a liaison officer to engage with neighbours on a weekly basis and keep them a braised of the pending works on site and address any concerns raised.



- Internal haul routes shall be maintained, and steep gradients shall be avoided where possible.
- Material and plant loading and unloading shall only take place during normal working hours unless the requirement for extended hours for traffic management (i.e. road closure) or health and safety reasons has been granted (application must be made to the Council a minimum of 4 days prior to proposed works).
- Minimise opening and shutting of gates through good coordination of deliveries and vehicle movements.

5.2.2 Plant

- Contractor will ensure that each item of plant and equipment complies with the noise limits quoted in the relevant EC Directive 2000/14/EC.
- Undertake to require all contractors to comply with the Machinery Directive.
- Fit all plant and equipment with appropriate mufflers or silencers of the type recommended by the manufacturer.
- Use all plant and equipment only for the tasks for which it has been designed.
- Shut down all plant and equipment in intermittent use in the intervening periods between work or throttle down to a minimum.
- Power plant by mains electricity where possible rather than generators.
- Employ partial or full enclosures for fixed plant where possible.



- Locate movable plant away from noise sensitive receptors where possible.
- All plant operators to be qualified in their specific piece of plant.
- Compressors and generators will be sited in areas least likely to give rise to nuisance where practicable.

5.2.3 <u>Vehicle activity:</u>

- Ensure all vehicle movement on site occur within permitted working hours unless permission to the contrary has been granted.
- Plan deliveries and vehicle movements so that vehicles are not waiting or queuing on the public road, if unavoidable engines will be turned off.
- Contractor will plan the site layout to ensure that reversing is kept to a minimum.
- Wheel washing of vehicles prior to exiting the site shall take place to
 ensure that adjoining roads are kept clean of dirt and debris. Regular
 road sweeping of adjoining roads will take place as necessary.

5.3 Air Quality & Dust Monitoring

Dust prevention measures shall be included for control of any site airborne particulate pollution. The Contractor shall monitor dust levels in the vicinity of the site in accordance with 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/m2/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.

5.4 Migrating Dust & Dirt Pollution

The following measures will form part of the contractor's dust management strategy:

- A regime of "wet" road sweeping will be set up to ensure the roads around the immediate site are as clean and free from dirt/dust arising from the site, as is reasonably practicable.
- Footpaths immediately around the site will be cleaned by hand regularly, with damping as necessary.
- Scaffolding to be cleaned regularly. Netting will be provided to enclose scaffolding at sensitive areas of the site.
- Vehicle waiting areas or hard standings will be regularly inspected and kept clean.
- Vehicle and wheel washing facilities will be provided at the site exit
 where practicable. If necessary, vehicles can be washed down
 before exiting the site.
- Internal combustion plant will not be left running unnecessarily.
- Where possible fixed plant such as generators will be located as far as practicable away from residential areas.
- The number of handling operations for material will be kept to a minimum in order to ensure that dusty material is not moved or handled unnecessarily.



- The transport of dusty materials and aggregates will be carried out using covered/sheeted lorries.
- Vehicles loading will be dampened down and drop heights for material to be kept to a minimum.
- Dust dispersal over the site boundary will be minimised using static sprinklers or other watering methods necessary.
- Stockpiles of material will be kept to a minimum and will be sheeted or watered down when appropriate. These will be located away from sensitive boundaries.
- Equipment and techniques for cutting/grinding/sawing/sanding etc., which minimise dust emissions and which have the best available dust suppression measures, will be employed.
- Where possible pre-mixed plasters and masonry compounds will be used to minimise dust arising from on-site mixing.

Prior to commencement, the main contractor will identify the construction operations which are likely to generate dust and to draw up action plans to minimise emissions. Furthermore, the main contractor will prepare environmental risk assessments for all dust generating processes, which are envisaged.

The main contractor will allocate suitably qualified personnel to be responsible for ensuring the generation of dust is minimised and effectively controlled.

Tallaght Hospital is located ca. 600metres from the development site and the Main Contractor shall consider any and all implications of their works methods in respect to this.



5.5 Harmful Materials

Hazardous materials (gas and fuels, etc) will be stored on site for use in connection with the construction works only. These materials will be stored in a controlled manner. Where on-site facilities are used there will be a bunded filling area using double bunded steel tank at a minimum.

5.6 Vibration

The Contractor will be required to carry out the works such that the effect of vibration on the adjoining buildings and surroundings is minimised and does not cause any damage.

The Contractor shall be required to comply with the requirements of the planning permission for any vibration limits for the works. In the absence of any Local Authority requirements, the following table shall set the limitations:

Table 1 – Trigger values for vibration

	Trigger Level	Peak Particle Velocity (PPV)				
	Level	50Hz and below	Above 50Hz			
	1	10 mm/s	10 mm/s			
	2	10 mm/s	12 mm/s			
	3	10 mm/s	15mm/s			

Background vibrations shall be established prior to commencement.

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 to reduce vibrations generated.

VIBRATION IMPACT ASSESSMENT



The most significant potential sources of ground borne vibrations that may be generated during the construction phase of the development will be generated by the following practices:

- Ground preparation excavation activities that require the use of pneumatic rock breakers
- Demolition and concrete foundation excavation activities
- Piling Activities With respect to the proximity of the closest receptors to the site boundaries.

It will be necessary that where construction activities occur that may cause elevated ground vibrations that extend beyond the site boundaries, that a programme of vibration monitoring is conducted to ensure that the potential for cosmetic or structural damage occurring at any receptor is minimized. In order to determine the potential for either cosmetic or structural damage to occur as a result of construction generated ground vibrations, vibration levels shall be monitored and assessed throughout the demolition and construction phases according to British Standard BS 7385;, Evaluation and measurement for vibration in buildings, Part1 1990 Guide for measurement of vibrations and evaluation of their effects on buildings and Part 2 1993 Guide to damage levels arising from ground borne vibration. There shall be compliance with BS 6187 Code of Practice for Demolition.



6.0 WASTE MANAGEMENT

Refer to Waste Management Plan submitted under separate cover within this planning application for details of waste management during the demolition and construction phase of the subject development. All waste or materials on site shall be reused where practicable, priority will be given to sending unrequired uncontaminated soil and stone for reuse for land reclamation or construction purposes. All waste will be given to appropriately authorised carriers and sent to appropriately authorised facilities.



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 nominated 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. Where possible, 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.

7.2 Access to the Site

Construction traffic will likely access the site Via Belgard Road R113, travel along Belgard Square North and turn left onto Belgard Square East and subsequently enter site turning left. A one way system around the site will be maintained to limit traffic and crossing of opposing lanes. An indicative figure of this proposal is below in Figure 3. This may be further reviewed at construction stage when a detailed traffic management plan will be submitted by the main contractor for agreement with South Dublin County Council and subject to any condition(s) that may be imposed by the Board.



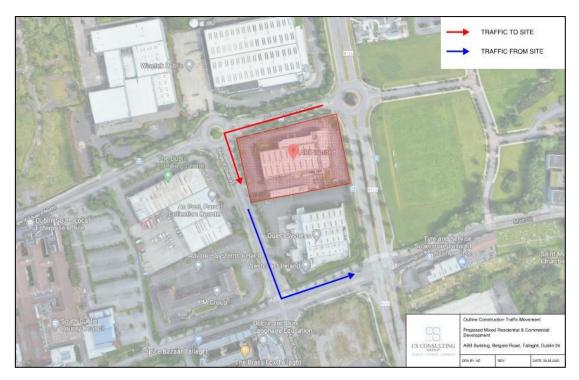


Figure 3 – Location of proposed development site (map data: Google Maps)

Note there are a number of raised tables in the adjacent roadway with regular pedestrian traffic. Site traffic will be cognisant of this in all traffic management plans.

7.3 Vehicle Movements During Construction

The major construction items include excavation, construction and fit out. It is anticipated that the peak of HGV movements to and from the site will be during excavation works and construction of the building foundations. 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 Contractor must submit a Construction Traffic Management plan to the Local Authority for approval. Haulage vehicle movements will be fully



coordinated to comply with the requirements of the layout and requirements herein.

- At no time will construction associated vehicles be stopped or parked along the routes.
- Haulage vehicles will not travel in convoys of greater than two vehicles at any time.
- Haulage vehicles will be spaced by a minimum of 250m at all times.
- Strictly at no time will haulage vehicles be parked or stopped at the entrance 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 Contractor at a later stage and appropriate routes will be agreed with South Dublin County Council as part of the Contractors more detailed construction management plan.

The increase in traffic as a result of construction will be minor and can be readily accommodated within the existing road network. However, the site is located in a residential area where restricted road and junction space is shared with vulnerable road users and the flow of construction traffic will need to be marshalled and regulated to ensure that potential conflicts are avoided as much as possible.



7.4 Minimization of Construction Vehicle Movements

Construction-related vehicle movements will be minimized through:

- consolidation of delivery loads to/from the site and scheduling of large deliveries to occur outside of peak periods;
- use of precast/prefabricated materials where possible;
- reuse of 'cut' material generated by the construction works on site where possible, through various accommodation works;
- provision of adequate storage space on site;
- development of a strategy to minimise construction material quantities as much as possible;
- promotion of public transport use by construction personnel, in order to minimise staff vehicle movements.

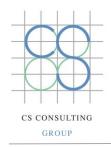
The following headings identify some of the measures to be encouraged:

7.4.1 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.

7.4.2 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.

7.4.3 Public Transport

Construction personnel will be encouraged to use public transport as 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.

7.5 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 the Transportation and Infrastructure department of SDCC 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 program 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 wash facilities will be provided for vehicles exiting the site;
- in the event of any fugitive solid waste escaping the site, it will be collected immediately and removed.



8.0 COMPOUND FACILITIES / PARKING

The construction compound for the infrastructure works shall be entirely within the site boundary. The compound shall be constructed using a clean permeable stone finish and will be enclosed with security fencing. Site accommodation to be provided will include suitable washing / dry room facilities for construction staff, canteen, sanitary facilities, first aid room, office accommodation etc. Access to the compound will be security controlled and all site visitors will be required to sign in on arrival and sign out on departure.

It is noted that site parking will be limited due to site constraints and parking will generally not be available on site.

A material storage zone will also be provided in the compound area. This storage zone will include material recycling areas and facilities.

A series of 'way finding' signage will be provided to route staff / deliveries into the site and to designated compound / construction areas.

On completion of the works all construction materials, debris, temporary hardstands etc. from the site compound will be removed off site and the site compound area reinstated in full on completion of the works.



9.0 PROVISIONS FOR CONSTRUCTION

9.1 Hoarding, Set-up of Site & Access/Egress Points

The site area will be enclosed with hoarding, details of which are to be agreed with South Dublin County Council. Hoarding panels will be maintained and kept clean for the duration of the project.

This will involve erecting the hoarding around the proposed site perimeter in line with the finished development description.

A "Just in Time" approach will be required for the delivery of particular building materials such as concrete formwork etc.

9.2 Removal of Services

Prior to any works a utility survey will be carried out to identify existing services. All services on site will be disconnected, diverted or removed as agreed with service providers.

9.3 Demolition and Site Clearance

The site is currently occupied by a commercial building and requires demolition and clearance. A detailed demolition method statement will be required and agreed with local authority before commencing including asbestos surveys and the like. The following is a high-level method statement for the clearance of the site:

- Establish a site set-up and welfare facilities;
- Establish health and safety, environmental controls and temporary works



- Carry out an invasive species survey using a qualified and approved surveyor;
- Carry out a detailed services survey of the site to identify all buried services, determine what services are live, redundant and potentially serve neighbouring properties.
- Carry out any necessary services diversions and decommissioning works.

Breaking ground will only take place following a full survey. Any materials identified as being hazardous will be removed and disposed of in strict accordance with the applicable legislation. All services will be disconnected and removed. Existing structure and hardstanding and concrete foundations will be broken by excavators or similar. All reinforced concrete will be partially processed on site to separate the steel from the concrete. All materials will either be fully separated on site and disposed of to the applicable landfills / processing facility or failing that material will be sent to a processing facility for separation.

Crushed concrete will be reused on site if End of Waste Criteria are declared by the EPA for these for piling mat, road build-ups, etc.

Relevant certification and documentation confirming the final separation and most environmentally friendly disposal will be available.

9.4 Temporary Works

Installation of temporary works to allow for basement and general excavation will be required and it is likely that a piled perimeter wall will be used to facilitate further works.



9.5 Excavation

This development will involve a bulk excavation and removal of material during the construction of the building foundations.

The Contractor will prepare a Construction Waste Management Plan in accordance with the "Best Practice Guidelines on the Preparation of Resource and Waste Management Plans for Construction and Demolition Projects" (EPA 2021) and ensure that all material is disposed of at an appropriately authorised facility. The Contractor must also outline detailed proposals within the Construction Management Plan to accommodate construction traffic.

9.6 Site Service Installations

Drainage, power, water and the like will be installed to serve the proposed development.

9.7 Construction Stage

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

- Temporary works installation likely to include piled perimeter
- Reduced level excavations;
- Foundation construction, rising elements and podium slab
- Construct cores and buildings structural frame including supporting rising elements and transfer structures.
- Façade and framing;
- Finish interior and exterior landscaping



Please note the above shall be carried out in accordance with the particular construction phasing and contractor programme.

9.7.1 <u>Laser use</u>

Due to the site being in an aviation route, appropriate screening, when using lasers or similar equipment, shall be implemented to prevent lasers reaching outside the site confines both vertically and horizontally.



10.0 INTERACTION WITH AVIATION ROUTE

Refer to report submitted with planning application from Aviation Consultants for commentary generally.

It is important to note that heights and types (etc) of cranes during construction will have to be notified (30 days in advance, minimum) to IAA, to Casement Aerodrome, and to HSE Aeromedical Unit by the Main Contractor.



