

Project

Mixed Use Development,
1-4 East Road, East Road, Dublin

Report Title

Preliminary Construction Management Plan

Client

Glenveagh

INFRASTRUCTURE



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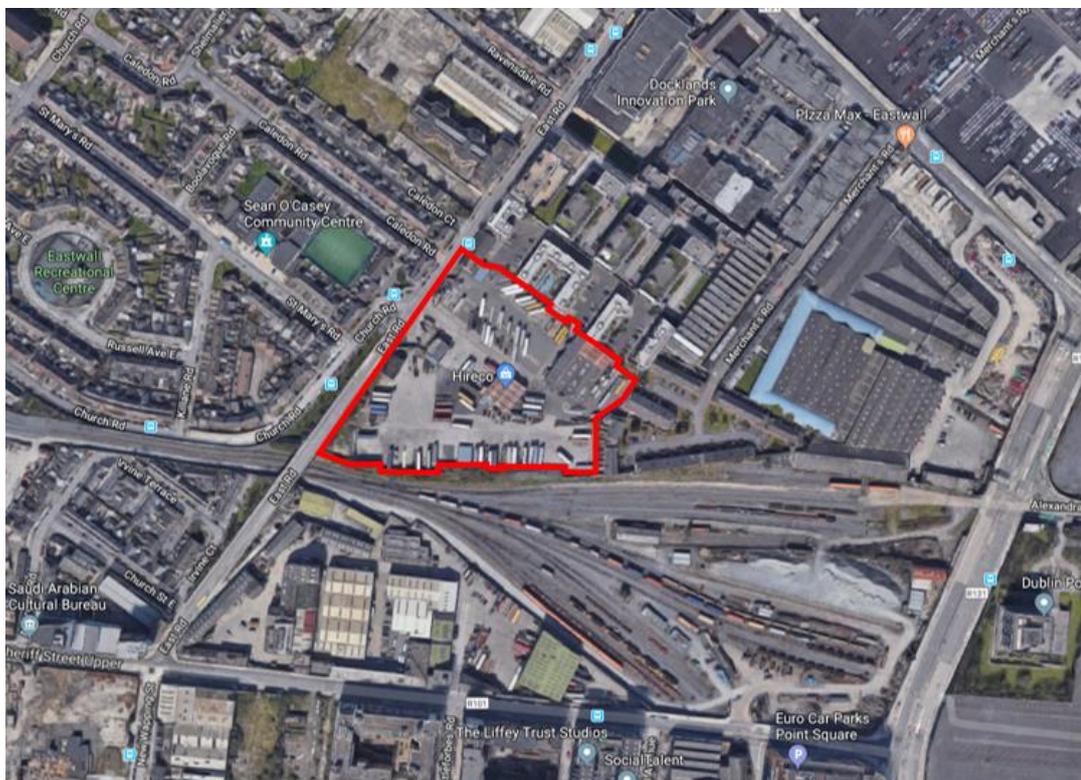
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1.0 INTRODUCTION

- 1.1 This document is an initial Preliminary Construction Management Plan for the proposed works to redevelop the existing developed site at East Road, Dublin 3. It includes an outline description of the proposed works and how these works will be managed for their duration. It includes details of the Preliminary Construction Management Traffic Plan, refer to section 8.
- 1.2 This project is currently at pre-planning stage and as such input from the contractor has not been incorporated into the plan. On appointment of a contractor this preliminary document will be issued to them to be further developed into their final construction management plan for the project.
- 1.3 The outline plan seeks to demonstrate how works can be delivered in a logical sensible and safe sequence with the incorporation of specific measures to mitigate the potential impact on people and the surrounding environment.
- 1.4 Nothing stated in this document shall supersede or be taken to replace the terms of the Contract or the detailed design description issued with the Contract tender or the conditions of planning. Similarly, the issues covered within this document may be amended or added to by the Main contractors or in accordance with their specific works proposals, sequencing and procedures.
- 1.5 When read by the contractor, this document should be read carefully in conjunction with all drawings, specifications and survey information provided.
- 1.6 Any consequences that result through failure to implement measures in this construction plan, or inadequate development of this plan by the contractor are the responsibility of the contractor and not DBFL.

2.0 SITE DESCRIPTION & EXISTING CONDITIONS

- 2.1 The proposed site is located in East Wall, in the North Dock area of Dublin City, approximately 1.8km north-east of the City Centre (O'Connell Street). The site is approximately 2.11Ha and is currently occupied by Hireco as a container/trailer park which comprises mostly hardstanding area together with five main buildings. There are also two existing red brick buildings at no. 4 East Road at the norther corner of the site.
- 2.2 The site is bound by East Road to the west, the Iarnrod Eireann railway to/from Dublin Port to the south, Merchant's Square residential development to the east and the Teelings Way residential development to the north. The general location of the subject site in relation to the surrounding road network is illustrated in Figure 2.1.



— Site Boundary

Figure 2.1 - Site Location (Site Boundary Indicative Only).

- 2.3 The development will consist of the demolition of all existing structures on site and the construction of a mixed-use development with access from East Road.
- 2.4 The ground floor will accommodate a total of 241 no. car parking spaces.
- 2.5 The subject development proposals include the upgrading of the existing East Road/Church Road priority junctions to a traffic signal-controlled junction. The site

access will be incorporated into the aforementioned junction, creating a four-arm signalised crossroads junction.

2.6 Full details of the proposed development are included in the drawings and documentation submitted with the associated planning application. In summary they consist of the following;

- Construction of mixed use 9 no. blocks up to 15 stories in in height comprising;
 - 554 no. residential units:
 - 72 no. studios
 - 202 no one-bed apartments
 - 232 no. two-bed apartments
 - 48 no. three-bed apartments
 - 2445sqm of enterprise
 - 345sqm of retail
 - 362sqm of tenant amenity
 - 681sqm Foodhub/Café/Exhibition
 - 1 no. crèche (540sqm)
- External Hard / Soft Landscaping incorporating central courtyards/podiums between blocks;
- Construction of new four-arm signalised crossroad junction at East Road/Church Road.
- Construction of pedestrian/cycle link to the East Road.
- Associated new site services and drainage including foul and surface water sewer connections.

3.0 CONSTRUCTION PROGRAMME & PHASING

3.1 GENERAL

3.1.1 The project is currently at pre-planning stage and subject to approval and detailed design. It is estimated that the works would be tendered in mid 2019 with commencement in late 2019, an estimated site programme of 30 months depending on construction phasing.

3.1.2 The proposed order of construction of key elements is as follows, however this is subject to detailed review by the Contractors at construction stage and specifics may require adjustment once the contractor has been appointed;

- Site Setup;
- Demolitions;
- Earthworks, including cut and fill and disposal of excess material off site;
- Construction of substructure;
- Super Structure Frame to buildings in sequence;
- Roof and Façade finishes;
- Internal fit out;
- External site works and tie in to East Road (including junction at East Road/Church Road).

3.2 SITE SETUP

3.2.1 Immediately after access to the site is made and it is secure, the site compound will be established. Existing site services will be isolated including the decommissioning of existing substations in conjunction with the ESB and the provision of a temporary builder's power supply.

3.2.2 The site will be secured with hoarding on all open sides and accessible approaches. The site boundary will be established as indicated by the red-line on the planning drawings and figure 7.1.

3.3 DEMOLITIONS

- 3.3.1 The main demolitions will be carried out by a competent Demolition Subcontractor in accordance with the current code for demolition and the consultant engineer's specification
- 3.3.2 It is anticipated that the vast majority of the waste generated from demolitions will be segregated wherever possible for reuse or recycling in accordance with the relevant legislation and guidelines and the project's Construction Waste Management Plan.

3.4 EARTHWORKS

- 3.4.1 Limited earthworks will be associated with the development. The FFL has been set to minimize excavations, although some local earth movement may be required to create consistent levels over the site.
- 3.4.2 No basement structures are proposed for the development and all buildings are proposed to be piled. Local arisings from piling will need to be disposed of by a suitably licensed facility.

4.0 WORKING HOURS

- 4.1 Working hours will be strictly in accordance with the granted planning conditions with no works on Sundays or Bank Holidays. If work is required outside of these hours, written approval will be sought by the contractor from the Local Authority.
- 4.2 It is anticipated that normal working hours may be 7am to 7pm Monday to Friday and 8am to 5pm on a Saturday. Working outside these hours will be subject to agreement with the Local Authority.
- 4.3 Deliveries of material to site will be planned to avoid high volume periods. There may be occasions where it is necessary to have deliveries within these times. The Contractor will develop, agree and submit a detailed Traffic Management Plan for the project prior to commencement.

5.0 DUST & DIRT GENERATION

- 5.1 The Contractor shall put in place a regime for monitoring dust levels in the vicinity of the site during the works. The level of monitoring and adoptions of mitigation measures will vary throughout the construction works depending on the type of activities being undertaken and the prevailing weather conditions at the time.
- 5.2 The Construction team will monitor the contractor's regime on an ongoing basis throughout the project to endeavour to minimise impact on a surrounding community.
- 5.3 If dust levels become an issue, then all dust generating activities on site will cease until such time as weather conditions improve (e.g. wind levels drop or rain falls) or mitigation measures such as damping down of the ground are completed.
- 5.4 If the site conditions require it, wheel wash facilities will be provided at the egress point from the site. During peak vehicle movements, where there is a likelihood of dirt on construction vehicles exiting the site, a dedicated road sweeper will be put in place until these works are completed.
- 5.5 If dirt generation extends onto public roads, road sweeping will be carried out as well, including if necessary, cleaning of silt from road gullies.
- 5.6 Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods. Material stockpiles containing fine or dusty elements shall be covered with tarpaulins. Aggregates will be transported to and from the site in covered trucks.
- 5.7 Where drilling or pavement cutting, grinding or similar types of stone finishing operations are taking place, measures to control dust emissions will be used to prevent unnecessary dust emissions by the erection of wind breaks or barriers. All concrete cutting equipment shall be fitted with a water dampening system.
- 5.8 A complaints log shall be maintained by the construction site manager and in the event of a complaint relating to dust nuisance, an investigation shall be initiated.

6.0 NOISE & VIBRATION

- 6.1 It is not envisaged that any significant prolonged noise and vibration producing activities will be carried out on site. The most likely generator will be the internal demolition of the existing buildings and the pavement cutting at junction of East Road and Church Road.
- 6.2 The Contractor shall ensure that the level of noise and vibration resulting from the construction of the works does not constitute a nuisance, and that noise and vibration emissions conform to the requirements of BS 5228: 2009 Code of Practice for Noise and Vibration Control on Construction Sites, Part 1 and Part 2. All plant shall be adequately silenced to conform to the requirements of BS 5228.
- 6.3 Short-term vibration levels and continuous vibration guideline levels as measured in buildings shall be less than the guideline values in BS 5228.
- 6.4 Vibration limits to be applied for infrastructure works are those specified in the NRA document Guidelines for the Treatment of Noise and Vibration in National Road Schemes (NRA, Revision 1, 2004). Allowable vibration (in terms of peak particle velocity) at the closest part of sensitive property to the source of vibration, at a frequency of;

Allowable vibration velocity (Peak Particle Velocity) at the closest part of any sensitive property to the source of vibration, at a frequency of		
Less than 10Hz	10 to 50Hz	50 to 100Hz (and above)
8 mm/s	12.5 mm/s	20 mm/s

Table 2: Allowable vibration during road construction in order to minimise the risk of building damage

- 6.5 If significant noise and vibration activities are to be carried out on site, the contractor will ensure that there is prior liaison with other resident / local business etc. with a view to ensuring that excess noise is not generated by the works beyond the site curtilage and that contract details are available along with agreed protocols.
- 6.6 Contractor to use the Best Management Practice and mitigation measures to prevent or minimise noise levels from the works through the provision and proper maintenance, use and operation of all machinery. Items of plant which create high noise levels should not be used on the periphery of the site. Contractor shall operate in accordance with

the Safety, Health and Welfare at Work (General Application) Regulations 2007, part 5 Noise and Vibration.

- 6.7 The contractor shall appoint a designated person to manage all environmental complaints including noise. A noise complaint procedure shall be implemented in which the details of any noise related complaint are logged, investigated and where required, measures are taken to ameliorate the source of the noise complaint. A strictly enforced noise management programme shall be implemented at the site from the outset of construction activities.
- 6.8 Appropriate signage shall be erected on all access roads in the vicinity of the site to inform HGV drivers that engines shall not be left idling for prolonged periods and that the use of horns shall be banned at all times. HGV's queuing on any local or public road shall not be permitted and it shall be the responsibility of site management to ensure this policy is enforced.
- 6.9 All onsite generator units (if required) used to supply electricity to the site shall be super silenced or enclosed and located away from any receptor.
- 6.10 The principal of controlling noise at source shall be implemented at the site. Best practice mitigation techniques as specified in BS 5228:2009+A1 2014 – Noise and Vibration Control on Construction and Open Sites shall be implemented during the construction phase and are detailed in this Section.

7.0 SITE SETUP

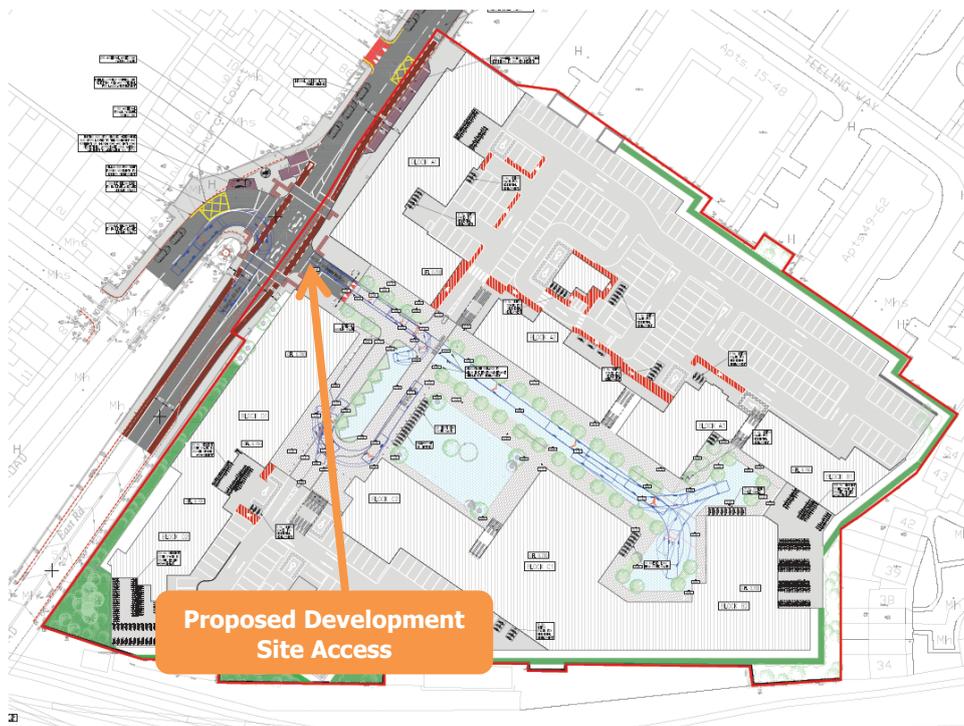
- 7.1 The existing site entrance off East Road will also be used as the site's construction entrance. Specific control measures will be implemented to fully segregate construction traffic from external pedestrian traffic.



Proposed Development
Site Access

Figure 7.1: Existing East Road Vehicle Entrance

- 7.2 The proposed site access is detailed in figure 7.2. The Contractor shall provide arrangements to provide for vehicular traffic to the site with control measures where crossing the public footpath. The proposed location of the Contractor compound will be internally within the site.



Proposed Development
Site Access

Figure 7.2 Proposed Development Site Access via the East Road

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- 7.3 Hoardings will be painted timber hoarding circa 2.4m including supports and appropriate anchoring (Designed by Temporary Works Engineer), external lighting and Safety signage. Site hoarding will include Health and Safety warnings at appropriate intervals.
- 7.4 Site security will be provided by way of a monitored infrastructure systems such as site lighting and CCTV cameras, when deemed necessary.

8.0 CONSTRUCTION TRAFFIC

8.1 GENERAL SITE ACCESS / EGRESS

- 8.1.1 The site will be accessed from the existing Site entrance from East Road for the Demolition and Excavation works. Traffic volumes are not anticipated to be significant. Warning signage will be provided for pedestrians and other road users on all approaches in accordance with Chapter 8 of the Traffic Signs Manual and the Contractor's Traffic Management Plan.
- 8.1.2 As part of the Construction Stage Safety Plan for the works a Traffic Management Plan (TMP) will be prepared in accordance with the principles outlined below and held on site. It shall comply at all times 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;
 - Any additional requirements detailed in the Design Manual for Roads and Bridges & Design Manual for Urban Roads & Streets (DMURS)
- 8.1.3 The construction of the majority of the external works on East Road/Church Road will be undertaken from the site.
- 8.1.4 During the construction of the proposed infrastructure works, suitable excavated material that can be reused for construction and fill activities will be retained on site where possible. Any unsuitable material or unusable material will be disposed offsite to a suitably licensed landfill facility in accordance with the regulations for same and the project Construction Waste Management Plan.
- 8.1.5 Construction traffic will consist of the following categories:
- Private vehicles owned and driven by site construction and supervisory staff.
 - Excavation plant, dumper trucks and materials delivery vehicles involved in site development works.

8.2 STAFF AND PARKING

- 8.2.1 The site is readily accessible by public transport with Dublin Bus, DART and Luas stops all within nearby walking distance. On-site employees will generally arrive before 07:00, thus avoiding the morning peak hour traffic. Construction employees will generally depart after 17:00. It should be noted that a large proportion of construction workers may arrive in shared transport.
- 8.2.2 Construction traffic will not be permitted to park on the public roads or within the general area outside the main site.

8.3 ON SITE ACCOMODATION

- 8.3.1 Facilities will be provided by the contractor within the confines of the site hoarding as follows;
- Adequate materials drop-off and storage area;
 - Set down areas for trucks;
 - Dedicated staff parking and visitor parking;
 - Staff welfare facilities i.e. toilets etc.

8.4 CONSTRUCTION ACTIVITIES

- 8.4.1 The most onerous construction period with regards to traffic generation is expected to be HGVs during the following work elements;
- Demolition, excavation and filling stage where waste and soil is removed from/to site;
 - Bringing construction materials to site;
 - Bringing concrete to site for Sub and Superstructure.

8.5 MINIMISATION OF MOVEMENT AND IMPACT

- 8.5.1 Construction vehicle movements and their impact will be minimised through;
- Consolidation of delivery loads to / from the site and management of large deliveries on site to occur outside of peak periods;
 - Use of precast / prefabricated materials where possible;
 - “Cut” materials generated by the construction works to be re-used onsite where possible, through various works;
 - Adequate storage space on site to be provided;

- The design of the works has involved an element of minimising the quantity of material to be removed from site by way of cut and fill balance;
- Scheduling of movements to outside peak traffic times and school pick-up / drop-off times.

8.6 PUBLIC ROADS

8.6.1 The following measures will be taken to ensure that the site and surroundings are kept clean and tidy;

- A regular programme of site tidying to be established to ensure a safe and orderly site;
- Mud spillages on roads and footpaths outside the site to be cleaned regularly and will not be allowed to accumulate;
- Wheel-wash facilities or similar will be provided for vehicles exiting the site if deemed appropriate or when significant vehicle movements are planned (e.g. disposal of topsoil from site);
- Dedicated road sweeper will be put in place if site conditions require.