

OUTLINE CONSTRUCTION MANAGEMENT PLAN

for

A PROPOSED STRATEGIC HOUSING DEVELOPMENT

at

BALLYMANY ROAD, NEWBRIDGE, CO. KILDARE

for

BRIARGATE DEVELOPMENTS NEWBRIDGE LIMITED

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CONTENTS

1.0 INTRODUCTION.....	3
2.0 LOCATION OF THE PROPOSED DEVELOPMENT	4
3.0 WORKS EXTENTS	5
4.0 OUTLINE CONSTRUCTION MANAGEMENT PLAN	5
5.0 METHODOLOGY AND SEQUENCE OF WORKS	8
6.0 ENVIRONMENTAL ISSUES	9
7.0 TRAFFIC MANAGEMENT.....	12
8.0 CONCLUSIONS.....	14

1.0 INTRODUCTION

This Plan has been prepared by Muir Associates Limited (MAL) to accompany a planning application for a Strategic Housing Development at Ballymany Road, Newbridge, Co. Kildare.

This Outline Construction Management Plan sets out a framework of measures to address the implications of the construction works. The Contractor appointed to undertake the works will be required to develop this framework document as part of their overall Construction Management Plan in line with their obligations under the Safety, Health and Welfare at Work (Construction) Regulations 2013.

2.0 LOCATION OF THE PROPOSED DEVELOPMENT

The proposed development is located on a site to the northwest of the R445 Ballymany Road in Newbridge, Co Kildare.

The existing ground levels on the subject site vary from approximately 107.0mAOD in the south east of the site to 95.0mAOD in the north west of the site. Some significant earthworks were previously undertaken on the site which has reduced a substantial portion of the site to formation level. Some stockpiles from this initial earthmoving exercise remain on the site.

Figure 2.1 presented below indicates the location of the proposed development site.



Figure 2.1: Site Location Map;

3.0 WORKS EXTENTS

The anticipated works extents will be contained within the "red line" site area indicated on the architect's drawings.

4.0 OUTLINE CONSTRUCTION MANAGEMENT PLAN

The Strategic Housing development with creche, served by a Link Road will consist of the following:

- Construction of 336 No residential units consisting of 245 No houses, 27 No apartments and 64 No duplex units;
- The 245 No houses will comprise 2-storey, detached, semi-detached and terraced units to include:
 - 17 no. 2-bed houses;
 - 184 no. 3-bed houses;
 - 44 no. 4-bed houses;
- The 27 No apartments are located in a part 3-storey and part 4-storey building and include:
 - 13 No 1-bed units;
 - 13 No 2-bed units;
 - 1 No 3-bed unit;
- The 64 no. duplexes are located across 6 no. 2 to 3-storey buildings and include:
 - 32 No 1-bed units;
 - 16 No 2-bed units;
 - 16 No 3-bed units;
- A 2-storey creche;
- Car parking, bicycle parking, internal roads, services infrastructure, bin stores and bicycle stores;
- Footpath improvements along Standhouse Road;
- Landscaping, play areas, boundary treatment and public lighting;
- All associated site works and services.

A full development description is provided in the planning report which accompanies the planning application.

4.1 Construction Programme and Phasing

Subject to a successful grant of planning permission, it is intended that the works will commence in early 2022. The proposed development is anticipated to be constructed over a period of 36 months.

The proposed development is likely to be constructed in a number of phases with each phase constructed in the following sequence:

- Set up site perimeter hoarding, maintaining existing pedestrian and traffic routes around the site;
- Site clearance and services diversions;
- Construction of internal road network, related underground services, and connections to existing services;
- Construction of substructures;
- Construction of the building superstructures;
- Completion of road network;
- Public lighting installation;
- External hard and soft landscaping;
- Demobilisation;

4.2 Vehicular Access to Site

It is anticipated that for the duration of the works all access and egress to the site for construction related activities will be via either Ballymany Road or Standhouse Road.

Security personnel will be present at the entrance/exit of the site to ensure all exiting traffic will do so safely.

A wheel wash will be installed at the exit from the site to prevent any dirt being carried onto the public road and a road sweeper will be used to clean public roads in the immediate vicinity of the site when necessary.

4.3 Protection of Public Areas from Construction Activity

Fencing will be erected around the perimeter of the site to prevent unauthorised access to the construction site. Controlled access points to the site, in the form of gates or doors/turnstiles, will be kept locked outside working hours. The Fencing will be maintained and will contain graphic images of the completed project.

All materials being lifted by crane will be controlled by guide ropes and such lifts will only be carried out under the strict supervision of appropriately qualified and experienced banksmen. Cranes will be fitted with restrictors to prevent lifting of materials over existing buildings in the vicinity of the site. Method statements will be prepared by the contractor where any plant is operating adjacent to existing buildings.

4.4 Site Security

The site fencing may incorporate branding using the appointed Contractors logos and marketing images. Information boards may also be placed on the hoarding.

Access to the site will be controlled during working hours, a gateman will control traffic movements and deliveries to ensure safe access and egress to the site.

All personnel working on site will be required to have a valid Safe Pass card and will be inducted by the Main Contractor with regard to site specific safety information.

4.5 Material Hoisting and Movement Throughout the Site

The majority of material handling on site during construction will be via the use of material hoists and teleporters. In addition, separate mobile crane visits may be required from time to time to accommodate the erection of heavy prefabricated elements (such as prefabricated timber roof trusses). These visits will be coordinated with the other site activities to ensure all risks are appropriately assessed and any necessary mitigation measures implemented.

4.6 Consents and Licences

All necessary statutory consents and licences required to commence on-site construction activities will be obtained in advance of the works commencing on site, subject to the appropriate notice period(s). These will include, but are not limited to the following:

- Site notices;
- Construction commencement notices required by Building Control;
- Connections to existing utilities and sewers;
- Road opening licences;

4.7 Deliveries and Storage Facilities

It is proposed that material deliveries to the site will be accommodated within the perimeter fencing. Such locations will be accessible by forklifts. Designated storage zones will be used to separate and segregate materials.

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 to avoid peak hours so as, insofar as possible, avoid disturbance to pedestrian and vehicular traffic in the vicinity of the site.

4.8 Site Accommodation

On site accommodation will consist of the following:

- Adequate materials drop-off and storage area;
- Staff welfare facilities (canteen, toilets, site offices etc);

A temporary electricity supply will be provided to the site from the existing local electricity supply network.

Water supply to the site will be provided by means of a temporary connection to the public water main. A temporary connection for foul water drainage will be made to the public network in agreement with the Local Authority and Irish Water. If feasible an existing branch connection will be utilised.

4.9 Site Working Hours

There are no set times in law limiting the working hours on construction sites. It is proposed that construction activities on the site will generally be confined to between the hours of 0700 and 1900, Monday to Friday, and 0800 to 1400 on Saturdays.

However, it may be necessary for some construction activities to be undertaken outside these times (e.g., service diversions and connections). Where such activities arise, they will be agreed with the necessary parties prior to commencement of the related works.

Deliveries of materials to site will generally take place during working hours. However, there may be occasions where it is necessary to make certain deliveries outside these times (e.g., where large loads are limited to road usage outside peak times).

5.0 METHODOLOGY AND SEQUENCE OF WORKS

The construction of the development will involve conventional construction methodologies and thus will require the use of typical construction plant and vehicles. The anticipated phasing of construction will be generally as follows:

Site Setup

- Establishing site hoarding, offices, and compounds;
- Welfare connections;

Building Works

- Construction of building foundations;
- Construction of superstructure;
- Building fit out;

Site Works

- Bulk Earthworks;
- Utilities installation;

- Road pavements;
- Boundary treatments;
- Soft landscaping;
- Public lighting installation;
- Hard landscaping including surface finishes;

Sequence

The anticipated sequence of construction will be as follows:

- Site set up;
- Road construction;
- Building works;
- External site finishing works;

The above phasing and sequence are indicative. In practice, the actual approach taken by the Contractor will be subject to the following:

- Contractors' standard works methodology;
- Weather;
- Time of Year;
- Resources;
- Subcontractors;
- Lead in time for materials;

It is worth noting that the type of plant and machinery to be used and the methodologies to be adopted for the works will take cognisance of the various site constraints and this, in turn, is likely to impact on the phasing of the works and on the construction programme.

6.0 ENVIRONMENTAL ISSUES

6.1 Noise and Vibration

There are no published Irish regulations or guidance relating to the maximum permissible noise level that may be generated during the construction phase of a project. Local authorities normally control construction activities by imposing limits on the hours of operation and may also impose limits on noise at their discretion.

It is proposed that noise and vibration monitoring will be established on site throughout the project. Monitoring will be carried out prior to any works commencing on site in order to establish baseline data and the results of the monitoring will be issued to the Planning Authority on a regular basis.

All construction activities will be carried out in accordance with the relevant recommendations of ***BS 5228 Code of practice for noise and vibration control on construction and open sites***. The measures adopted to ensure compliance will include the following:

- Monitoring stations, which will be monitored daily, located on site and at recommended locations in the vicinity of the site to record background and construction noise activity;
- Proper maintenance of all operating plant to ensure noise emission compliance;
- All operating plant will be selected on the basis of incorporating noise reducing systems, and at a minimum be fitted with effective exhaust silencers;
- Plant such as pumps and generators which are required to work outside of normal working hours will be enclosed with acoustic enclosures;
- There will be strict adherence to the site working hours stipulated within this document or as amended by the planning permission conditions;

The construction works will also follow the guidelines and recommendations given in ***Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects*** published in July 2006 by the Department of the Environment, Heritage and Local Government.

6.2 Air Quality Monitoring

Appropriate air quality and dust monitoring will be carried out on a regular basis in accordance with any related planning conditions and records will be kept of all such monitoring for review by the Planning Authority.

6.3 Dust Control

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

- Provision will be made for cleaning by a road sweeper of all access routes to and from the site during the course of the works. Road cleaning will be undertaken as required during the works. Exposed stockpiled demolition debris, crushed material, excavated materials, disturbed ground surfaces, and unpaved traffic areas will be maintained in a moist condition;
- During non-working hours, the site will be left in a condition that will prevent dust from being generated. At the end of each workday, disturbed areas will be wetted down, and security fencing will be installed and/or inspected to prevent access and additional disturbance.
- Ensuring all construction vehicles are inspected by the gateman for cleanliness prior to exiting the site;

- Ensuring an appropriate wheel or road washing facility is provided as and when required throughout the various stages of construction on site;

The use of appropriate water-based dust suppression systems will be adopted. This system will be closely monitored by site management personnel particularly during extended dry periods.

All external road gullies potentially impacted by the works will be surveyed in advance of the works and the condition recorded. Any deterioration of the gully's and their related performance during the works will be rectified immediately. Existing road markings potentially impacted by construction vehicles will be regularly monitored throughout the works and any deterioration promptly rectified in agreement with the Planning Authority.

6.4 Surface Water

The following is an outline of the procedures which will be implemented in relation to the protection of the existing surface water networks during the construction phase of the project. The details of the operational surface water disposal arrangements are given in the Engineering Report.

- Identify the location of all streams, watercourses, stormwater drains and drainage paths for surface water and how the proposed works will affect them by undertaking an appropriate pre-works survey (desk-based and on-site verification);
- A construction site drainage plan will be drawn up. Silt traps and settlement ponds will be established in appropriate locations of the site to treat run-off during construction prior to discharge. These will be inspected and maintained during construction;
- Run off from the construction site will be monitored;
- Designated impermeable concrete wash out areas will be established, maintained and the contents disposed of in an appropriate manner;
- All fuels and chemicals will be stored in bunded areas;
- Refuelling will take place in designated bunded areas;
- Identify potential sources of pollution;
- A method of disposing of contaminated water will be established in accordance with the requirements of the Environment Section of the Local Authority;
- In addition to the foregoing, the guidance provided in CIRIA C532 Control of Water Pollution from Construction Sites will be generally followed.

6.5 Excavations and Groundworks

All excavations and related groundworks will be undertaken using best practice methods and the following principles will be followed:

- Excavations will be kept to the minimum required taking cognisance of the construction methods and health and safety requirements;
- Construction equipment and support vehicles will travel only on designated roads and other approved access routes;
- Ground disturbance will be kept to a minimum;
- Material stockpiles will be stored in designated locations and soil stockpiles lightly compacted at the end of the working day;
- Surface water runoff from stockpiles will be intercepted via the construction site drainage plan to avoid direct discharge into the surface water system;

7.0 TRAFFIC MANAGEMENT

7.1 Access to the Site

It is anticipated that, following a successful grant of planning permission, construction works will commence in early 2022. Prior to the commencement of the works on site the contractor will prepare a detailed Construction Traffic Management Plan and agree its proposals with the Planning Authority and An Garda Síochána. It is proposed that construction traffic will access the site via either Ballymany Road or Standhouse Road.

7.2 Construction Parking

Given the location and nature of access to the site, site parking or construction parking will be located on the site. However, construction staff will be encouraged where available to use public transport and information on local transportation will be published on site. In addition, construction staff will be encouraged to car share.

7.3 Vehicle Movements During Construction

It is likely that the construction of the roadworks will result in the greatest number of construction vehicle movements during the whole of the construction period. The number of construction vehicle movements generated during this period has been estimated to peak at of order 8 two-way trips per hour. The construction traffic is not expected to significantly impact on the capacity of the surrounding road network. Construction vehicle movements will be minimised by the adoption of measures including:

- Consolidation of delivery loads to/from the site and managing large deliveries on site to occur outside of peak periods;
- Use of precast/prefabricated materials where possible;
- Provision of adequate storage space on the site;
- Development of a strategy to minimise construction material quantities insofar as possible;

- Construction staff vehicle movements will also be minimised by promoting, where feasible, the use of public transport and car sharing;

7.4 Public Roads

A visual condition survey will be undertaken of all surrounding public roads prior to the commencement of the works on site. The contractor will liaise with the Planning Authority to agree any changes to load restrictions and construction access routes for the site.

All entrances and temporary roads will be continuously maintained for emergency vehicle access. The following measures will be adopted to ensure that the site, public roads, and surrounding areas are kept safe and clean:

- A regular program of site cleaning will be established;
- Scaffolding will have debris netting attached to prevent materials and equipment being blown into public areas;
- Mud spillages on roads and footpaths outside the site will be cleaned regularly and will not be permitted to accumulate;
- Wheel wash facilities will be provided for vehicles exiting the site;

In the event of any waste escaping from the site, it will immediately be retrieved by the contractor.

7.5 Project Specific Traffic Management Plan

A detailed Project Specific Traffic Management Plan will be developed by the appointed contractor and agreed with the Planning Authority and An Garda Síochána prior to the commencement of the works on site. The traffic plan will be updated as required throughout the course of the project.

The issues to be addressed within the Project Specific Traffic Management Plan will include the following:

- Public safety
- Construction traffic routes
- Deliveries
- Traffic flows
- Signage and lighting
- Road opening licence requirements
- Road closures

The contractor will nominate an individual who will act as liaison with local stakeholders, the Planning Authority and An Garda Síochána.

8.0 CONCLUSIONS

It is worth noting that while this document sets out the requirements which are appropriate for the proposed development, any particular requirements will be added to the document as part of the normal evaluation of the works during the detailed design phase and in particular when considering appropriate management and controls to ensure that works is executed with minimal impact to others.

The Outline Construction Management Plan sets out the framework of measures to be developed by the Main Contractor as part of their obligation to properly manage the site and control all related activities that occur outside the site so that any related impact on people, property and the environment is reduced, insofar as possible, to an acceptable level.