3 Description of Development

3.1 Introduction

This chapter of the EIAR has been prepared by Brock McClure and the applicant.

It provides a detailed description of the project along with details of the existing environment.

In accordance with Article 5(1)(a) of the 2011 Directive as amended by Directive 2014/52/EU the description of the proposal should comprise "...information on the site, design, size and other relevant features of the project".

In summary, the project provides for the demolition (total c.1,398 sq m GFA) of:

- The Grange Select Marketing Suite' (1 storey)
- 'Oaktree Business Centre' (2 storeys)
- 'The Lodge' (2 storeys)

and the construction of a new 'Build to Rent' residential scheme of 287 residential apartment units; residential tenant amenity space of 961.5 sq m; a crèche facility of 658 sq m; and a substation of 96.5 sq m in the form of 6 new blocks (Blocks H, J, M, N, P and Q) ranging in height from 1 - 11 storeys. The residential element of the scheme provides for the following development mix:

- 19 x Studio Units (6.6%)
- 125 x 1 Bedroom Units (43.6%)
- 143 x 2 Bedroom Units (49.8%)

A total of 100 no. car parking spaces, 596 no. cycle spaces and 5 no. motorcycle spaces are also proposed together with all associated site development works.

Figure 3.1 - Site Layout

A more detailed description is set out below.

3.2 Characteristics of Development

Schedule 6 para. 2(a) requires information on the site, design size and "other relevant features" of the proposed development.

Site Location

Figure 1.2 - Site Location (Update with final red line)

The lands subject of this planning application and EIAR are associated with an existing development known as 'The Grange', located along the N11 and Brewery Road (N31) in Stillorgan, Co. Dublin. The Grange is a residential development comprising 506 units and the current development site is located to the north west of the existing development.

The subject site is a prime underutilised suburban site with excellent connectivity to public transport and major areas of employment. The site is located within 2km of Sandyford Business Park, Central Park and South County Business Park and within 1km of Stillorgan Village Centre.

The site is located adjacent to the N11 Quality Bus Corridor. Bus services to the City Centre run every 6 minutes and the journey time to St Stephen's Green is 31 minutes. The Sandyford LUAS stop on the Green Luas Line is located within a 10 - 15 minute walk of the site, with a journey time to the City Centre of 22 minutes.

Existing Land Use

The proposed development will be located on a mostly greenfield site on lands adjacent to The Grange, Brewery Road, Stillorgan, Blackrock, Co. Dublin.

Buildings on site comprise the following:

- The Gate Lodge at Brewery Road Access Point (Residential Use)
- The Grange Select Marketing Suite and associated buildings along the N11 (Office Use)
- Office Building known as Oak Tree Business Centre (Office Use)

All properties are proposed for demolition (c. 1,398 sq m) as part of this proposal with the exception of The Grange Cottages.

These buildings are not considered to be of any particular architectural merit.

There are no conservation or archaeological considerations relevant to the site in this case.

The site is bounded to the north by Brewery Road and The Grange Cottages, to the south by the exiting Grange Development, to the east by the N11 and to the west by a public park. The site is proximate to the N11 bus corridor and the Sandford Luas line to the south west of the site.

The surrounding area can be characterised as a mostly suburban environment.

The site is identified by the relevant statutory context as being capable of accommodating residential development of the form and quantum currently proposed, by way of the residential zoning governing the site. We are of the opinion that the proposal will not have any significant effect on the surrounding uses and that the proposed development has been well designed internally to ensure that residential amenities within the development are protected.

Size, Design and Appearance of the Project

The extent of the development is set out below.

The proposed development shall provide for the demolition (total c. 1, 398 GFA) of 'The Grange Select Marketing Suite' (1 storey), 'Oaktree Business Centre' (2 storeys) and 'The Lodge' (2 storeys); and the construction of a new residential scheme of 287 residential units; residential tenant amenity space of 961.5 sq m; a crèche facility of 658 sq m; and a substation of 111.5 sq m in the form of 6 new blocks (Blocks H, J, M, N, P and Q) ranging in height from 1 - 11 storeys as follows:

The residential development provides for 287 no. units (19 no. studio units, 125 no. 1 bed units and 143 no. 2 bed units) in Blocks H, J, M and N as follows:

- Block H (7 - 11 storeys from Brewery Road) comprising 99 no. apartments (6 no. studios, 50 no. 1 bed units and 43 no. 2 beds);
- Block J (5 - 10 storeys from Brewery Road) comprising 75 no. apartments (36 no. 1 bed units and 39 no. 2 bed units);
- Block M (4 - 9 storeys from podium) comprising 73 no. apartments (38 no. 1 bed units and 35 no. 2 bed units); and
- Block N (6 - 7 storeys from Brewery Road) comprising 40 no. apartments (13 no. studios, 1 no. 1 bed units and 26 no. 2 bed units).

Each residential unit has associated private open space in the form of a balcony/terrace/roof terrace.

The following residential tenant amenity space, crèche facility and substation proposals are also delivered:

- Blocks H (7 - 11 storeys) also contains a Tenant Amenity Space of 961.5 sq m. This area includes a gym space, male and female changing areas, accessible changing areas, a cinema room, entrance lobby, lounge areas, kitchen/dining areas, games area, management suite, 4 no. meeting rooms, co-working space, security/parcels area, storage areas, tea station, toilets, letter box area and all associated extraneous areas, all of which are areas dedicated to use by future tenants.
- Block P (3 storeys) provides for a crèche facility of c.658 sq m and associated outdoor play area in the form of a roof terrace of c.222.9 sq m.
- Block Q (1 storey at basement level/level 00) provides for an ESB substation of 111.5 sq m.

A basement area (total c. 3,317.9 sq m) is also proposed below Blocks H, J & M at Level 00. A total of 100 car parking spaces (16 at surface level and 84 at basement level), 596 bicycle spaces (518 at basement level and 78 at surface level) and 5 motorcycle spaces (all at basement level) are proposed. Waste Management areas and plant areas are also located at basement level.

Public open space is also proposed in the form of external residential amenity spaces, play areas, courtyards, gardens and trim trails (c.10,465 sq m). Provision is also made for pedestrian connections to the adjoining park to the south west and the existing 'The Grange' development to the south east.

Nos. 2 and 3 The Grange Cottages (single storey) are retained within the current proposal and works to these residential dwellings relate solely to landscape proposals. No works are proposed to the structure or layout of these units.

The development shall be accessed via the existing vehicular access point from Brewery Road. It is proposed to reconfigure the alignment of this vehicular access point to facilitate the proposed development and provide for improved access and egress for the overall 'The Grange' development.

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

Demolition Works

The properties proposed for demolition include:

- The Gate Lodge at Brewery Road Access Point
- The Grange Select Marketing Suite and associated buildings along N11
- Office Building known as Oak Tree Business Centre and associated buildings

Demolition extends to c. 1,398 sq m and buildings are not protected nor are they considered to be of any architectural merit. Demolition of the said buildings is a significant prerequisite in release of the site for residential development.

We note at this time that the Construction Management Plan prepared by Waterman Moylan Consulting Engineers provides a robust strategy for the storing, handling, collection and transport of the wastes generated on site during construction and applies appropriate mitigation measures.

The Grange Cottages

We note at this time that Nos. 2 and 3 The Grange cottages will be retained as part of this permission and the only works proposed to these units relate to landscape proposals.

Density

Residential Density proposed at this site is set out as 287 units on a 1.8 ha site. This equates to 159.4 units per ha and is considered appropriate given the proximity of the site to public transport at the N11 bus corridor and the presence of the Sandyford Green Luas line stop c. 700m to the south west of the site. A density of this nature is supported by national policy which is aiming to deliver increased height and densities at appropriate locations

Height

Heights of 1-11 storeys are proposed and these heights are considered appropriate to the site and surrounding context framed by existing developments at The Grange and Beechwood. The heights proposed are supported by national policy and are reflective of existing heights in the immediate context (The existing Grange Development and Beechwood development on the opposite side of the N11).

Land Use Requirements

The proposed development provides for a "Build to Rent" development with a mix of studios, one bed and two bed units. The proposed development provides for a mix of studio units, 1 bed units and 2 bed units.

The site is identified by the relevant statutory context as being capable of accommodating residential development of the form and quantum currently proposed, by way of the residential zoning governing the site. We are of the opinion that the proposal will not have any significant effect on the surrounding

uses and that the proposed development has been well designed internally to ensure that residential amenities within the development are protected.

Access

We refer An Bord Pleanala to the Traffic and Transport Assessment Report prepared by Waterman Moylan, which includes the following comments;

> *''The subject site will be accessed via the existing access road to The Grange off Brewery Road. It is proposed to re-configure the alignment of this access road as part of the development proposals. The site access from Brewery Road is a 50 kmph zone. A 2.4mx 49m sightline, which follows the requirements of the Department of Transport 'Design Manual for Urban Roads and Streets' (DMURS) recommendation fora road of design speed of 50 km/h, is currently provided at the access road junction onto Brewery Road. No development works will infringe upon this existing sightline provision as shown on Waterman Moylan Drawing 18-049- P110.*
>
> *The access will be utilised by all modes of transport travelling to/from the proposed development.*
>
> *Footpaths will be provided in accordance with Section 4.3.1 of DMURS which suggests that a minimum1.8m footpath should be provided on all footways. The proposed development has been designed as a DMURS compliant scheme. A separate Statement of Consistency with DMURS is included under a separate cover. Cycle paths have been designed in accordance with the National Cycle Manual.*
>
> *The design and layout of the proposed development have been prepared to fully comply with the rigorous design standards and specifications applicable to this form of development. The applicant has drawn upon considerable experience in the design and implementation of such proposals'' (p.10).*

Open space and Landscaping

The landscape design approach for The Grange is to treat it as a playful and soft / green landscape completing the existing Grange Development. Lush planting and formal hedge structures give definition to a bold textural planting palette creating a soft but distinct separation between the public internal street and the residential buildings and their private and semi-private spaces. The hard landscape and planting palette will be appropriately coordinated with paving bands to create a designed continuity throughout the development. This paving strategy is also provided to enhance way-finding within the scheme.

Car and Cycle Parking

The development will provide 92 car parking spaces for the proposed 287 apartments. This equates to 0.32 car parking spaces for each apartment. The parking for the Crèche has been reduced on the basis that the Crèche will primarily serve the existing Grange development, and this proposed development. It is anticipated that those employed in the Crèche will be living in the locality and will be encouraged to travel to and from work by sustainable modes of transport. There are 8 No. dedicated spaces provided for the Crèche which will be used for drop-off and collection.

Future Phase 2

The Design Team has considered the indicative layout of any future development that may be feasible should lands become available. As identified on the masterplan detail submitted herewith, there is potential for a Phase 2 development. The current proposal delivers 287 residential units, a creche facility and tenant amenity space together with 100 car parking spaces. It is anticipated that a future Phase 2 development has the potential to deliver on an additional c. 250 residential units, depending on the form and design approach.

Appropriate EIAR Screening will be completed as part of any future and separate application that may be progressed for Phase 2 stage.

The Surrounding Area

For the purposes of clarity, the applicant has identified the following summary table of relevant planning register references, which identify the permitted element of the Grange Development.

Block	Constructed under Planning Reference	Units Permitted	Total Units Permitted
A - Quartz	Reg. Ref. D03A/0750 & PL06D.206308	38	38
B1 - Coral	Reg. Ref. D03A/0750 & PL06D.206308 Reg. Ref. D05A/0831 & PL06D.214057	43 +6 (49)	49
B2 - Abalone	Reg. Ref. D03A/0750 & PL06D.206308 Reg. Ref. D05A/0831 & PL06D.214057	43 +6 (49)	49
B3 - Amber	Reg. Ref. D03A/0750 & PL06D.206308 Reg. Ref. D05A/0831 & PL06D.214057	43 +6 (49)	49
C - Jasper	Reg. Ref. D03A/0750 & PL06D.206308 D05A/1689	29 +4 (33)	33
D - Emerald	Reg. Ref. D03A/0750 & PL06D.206308 D14A/0015 D15A/0521	51 +1 (52) +2 (54)	54
E - Onyx	Reg. Ref. D03A/0750 & PL06D.206308 Reg. Ref. D05A/1016 & PL06D.214863	54 -11 (43)	43
F2 - Sapphire	Reg. Ref. D03A/0750 & PL06D.206308	70	70
G - Jade	Reg. Ref. D03A/0750 & PL06D.206308 Reg. Ref. D06A/0073 & PL06D.217060 D06A/0073/E	107 (+13) 120 (+13) 120	120
Gate Lodge	D06A/1570	1	1
506 Units Permitted Development Known as 'The Grange'			

Use of Natural Resources

Soil

As set out by Waterman Moylan Consulting Engineers in the Construction Management Plan, where required there will be a secure materials staging compound on the site. It is submitted that excavated soil will be carefully stored in segregated piles on the site and subsequently removed from site for direct beneficial use elsewhere.

Foul Water and Water Supply

We can also confirm that there is confirmation of feasibility for the proposed development to connect to public water mains and sewers. We refer specifically to the Irish Water Confirmation of Feasibility attached to the input from Waterman Moylan Consulting Engineers, which sets out that subject to a valid connection agreement being put in place, the proposed connection to Irish Water can be facilitated.

Gas

During operational stage, the only potential natural resources utilised will potentially be natural gas and water in quantities applicable to the daily operation of the new dwellings, crèche facility and tenant amenity space.

Land, soil and biodiversity are not considered to feature as natural resources used at operational stage.

Energy & Sustainability

As set out by O'Connor Sutton Cronin, the report entitled 'Energy and Sustainability Report' outlines how the proposal complies with European Performance of Buildings Directive (EPBD) and Irish Regulations (specifically TGD Part L) at operational stage. The conclusions drawn in this report set out the following:

> *"The Grange residential development will meet or exceed the requirements of the Part L (2019) NZEB standard, which stipulates requirements on minimum renewable contributions, minimum fabric and air permeability requirements, and the maximum energy use and carbon dioxide emissions allowable.*
>
> *This report confirms that if the strategy is adopted as suggested and properly implemented, then all apartments and dwellings in the Grange development will comply with Part L (Conservation of Fuel and Energy) of the Technical Guidance Documents and will also achieve a targeted BER rating of A2 throughout.*
>
> *A number of sustainable design features have also been considered within the design to achieve the sustainability targets of the proposed development. These include:*
>
> - *The proximity of the development to public transportation networks;*
> - *Water efficiency measures such as low consumption sanitary fittings;*
> - *Bicycle Facilities;*
> - *Car charging facilities;*
> - *Amenity spaces "*

Services

The following is proposed in terms of services:

Water

As per Section 7 (page 17) of the Engineering Assessment Report prepared by Waterman Moylan, the following is proposed in terms of Water Supply:

> *"There is an existing 4 inches watermain on Brewery Road to the north of the subject site. A Pre-Connection Enquiry form was submitted to Irish Water on 09th of September 2018 which outlined our proposals for the provision of water supply and the response received from Irish Water states that a new connection from the 200mm MOPVC main on Stillorgan Road, approximately 140m*

from the site, will be needed to serve the development. This connection to the existing 200mm dia watermain will be provided by Irish Water as part of the formal connection agreement.

The total water requirement from the public supply, for the development, is estimated at 123 m3/day. Waterman Moylan Drawing No's 18-093-P100 shows the proposed indicative water supply layout for the subject site.

It is noted from the Irish Water record drawings that there appears to be a large diameter (1200mm)watermain passing under the existing building in the south west corner of the site. We are currently engaging with Irish water to establish the exact location of this watermain. Irish Water advise that there location of the watermain can be addressed by way of a diversion agreement between the Applicant and Irish Water.'

Surface Water Drainage and SUDS

As per Section 4.5 (page 10) of the Engineering Assessment Report prepared by Waterman Moylan, the following is proposed in terms of Surface Water Drainage and SUDS:

"There is an existing surface water sewer located on Brewery Road. It is proposed that the surface water run-off from the development will drain via gravity to this sewer. As described in section 4.3, run-off will be restricted to 5.65 l/s greatly reducing the run-off rate from site. It will be necessary to treat and then store excess storm water within the site. This will be achieved by using a Sustainable drainage network of Green Roofs, Swales and Permeable Paving all discharging the treated water to underground storage tanks. Surface water run-off will be restricted by two separate hydro brakes, which equate to a total outfall rate for the proposed development of 5.65 l/s. The storm water system will be designed to cater for the 1 in 100-year storm plus a 20% allowance for climate change.

The proposed sustainable urban drainage system will:

- *Treat runoff and remove pollutants to improve quality,*
- *Restrict outflow and to control quantity and*
- *Increase amenity value.*

Strict separation of surface water and wastewater will be implemented within the development. Drains will be laid out to minimise the risk of inadvertent connection of waste pipes to the surface water system.

The calculations for the storage design are included in Appendix C. These indicate that for a return period of 100 years plus a 20% allowance for climate change, a storage volume of 520m3is required in the concert tank within the basement carpark with a discharge rate of 2l/s. A storage volume of 147m3with a discharge rate of 3.7l/s is required to the western section of the site.

The surface water drainage design including the attenuation will cater for this development only. It is considered that any potential future development can be self-contained with its own attenuation and out fall to the existing public sewer on Brewery Road"

Foul Water Drainage

As per Section 3 (page 4) of the Engineering Assessment Report prepared by Waterman Moylan, the following is proposed in terms of Foul Water Drainage:

"There is an existing 225mm diameter foul sewer Brewery Road to the northwest of the subject site which drains the residential properties on this road. There is also an existing private foul sewer within the site which serves The Grange development to the south of the proposed development.

The proposed development can drain all foul drainage on site to the existing on-site private drainage system, which eventually drains to the public foul sewer, or directly to the public foul sewer in Brewery Road by gravity.

A Pre-Connection Enquiry form was submitted to Irish Water on 9th of September 2018 which outlined the foul water discharge proposal. A response was received on 31st January 2019 stating that a connection to the foul water sewer is feasible without an upgrade meaning the existing network has sufficient capacity to drain the proposed development.

The proposed development will consist of 287 residential units and a new Creche to accommodate 23 staff and 115 children." …

"Waterman Moylan Drawing No's 18-093-P200, P201 and P202 illustrate the proposed layout for the foul water sewer outfall for the subject site. The proposed foul water outfall from the development is a 225mm diameter pipe laid at a minimum gradient of 1:200, giving a minimum capacity of 32 l/s. Therefore, the proposed outfall has adequate capacity to cater for the flows from the development."

3.3 Description of Construction Stage

Duration and Timing

The proposed development will consist of the following phases of development:

Phase 1

A 5 year permission is being sought from An Bord Pleanala. This will lead to a construction period of not greater than 24 months including demolition works. A determination of the application is expected in Q4 of 2019.

Future Phase 2

The Design Team has considered the indicative layout of any future development that may be feasible should lands become available. As identified on the masterplan detail submitted herewith, there is potential for a Phase 2 development. The current proposal delivers 287 residential units, a creche facility and tenant amenity space together with 90 car parking spaces. It is anticipated that a future Phase 2 development has the potential to deliver on 193 residential units, depending on the form and design approach.

Appropriate EIAR Screening will be completed as part of any future and separate application that may progress for Phase 2 stage.

Production Of Waste

The principal objective of sustainable resource and waste management is to use material resources more efficiently and to reduce the amount of waste requiring final disposal. However, where residual waste is generated, it should be dealt with in a way that follows the national waste hierarchy and actively contributes to the economic, social and environmental goals of sustainable development.

During the construction stage, quantities of construction and demolition related waste will arise. This quantum of waste is expected to be minimal. Any waste arising will be re-used, recycled or sent to a licensed waste facility.

The proposed development has been designed to comply with local, regional, and national waste legislation along with best practice. All waste generated from the operational phase of this development will be sent for reuse, recycling and/or disposal at appropriately licensed waste facilities.

We confirm for An Bord Pleanala that this application is accompanied by the following documents relating to waste management:

- Construction Management Plan prepared by Waterman Moylan Consulting Engineers.
- Operational Waste Management Plan prepared by AWN Consulting.

These documents clearly set out how waste will be managed and relevant mitigation measures during the construction and operational stages of the project.

Demolition Waste

Demolition works at the site will involve the demolition of all existing structures on site and hard standing area. Demolition figures published by the EPA in the 'National Waste Reports' and data from previous projects have been used to estimate the approximate break-down for indicative reuse (offsite), recycling and disposal targets of demolition waste. The approximate area of the existing structures to be demolished is c.1,398m^2. This breakdown is shown in Table 1.

Table 1 Estimated off-site reuse, recycle and disposal rates for demolition waste

Waste Type	Tonnes	Reuse/Recovery		Recycle		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Glass	75	0	0	85	64	15	11
Concrete, Bricks, Tiles, Ceramics	428	30	128	65	278	5	21
Plasterboard	34	30	10	60	20	10	3
Asphalts	8	0	0	25	2	75	6
Metal	126	5	6	80	101	15	19
Timber	101	10	10	60	60	30	30
Total	**772**		**155**		**526**		**91**

Construction Waste

Table 2 shows the predicted construction waste generation for the proposed development based on the information available to date along with the targets for management of the waste streams. The predicted waste amounts are based on an average large-scale development waste generation rate per sq.m, using the EPA waste breakdown rates.

Table 2 Estimated off-site reuse, recycle and disposal rates for construction waste

Waste Type	Tonnes	Reuse		Recycle/Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Mixed C&D	585.1	10	58.5	80	468.1	10	58.5
Timber	496.5	40	198.6	55	273.1	5	24.8
Plasterboard	177.3	30	53.2	60	106.4	10	17.7
Metals	141.8	5	7.1	90	127.7	5	7.1
Concrete	106.4	30	31.9	65	69.2	5	5.3
Other	266.0	20	53.2	60	159.6	20	53.2
Total	**1773.1**		**402.5**		**1204.0**		**166.7**

In addition to the information in Table 2, the quantity of excavated material that will be generated has been estimated to be c. 19,700 m3. Of the estimated excavated material, it is anticipated 5,300m3 is contaminated with Japanese Knotweed and 900m3 is existing tarmac roadway and associated sub-base. It is not anticipated to reuse any excavated material on the site.

Proposed works and Construction Methods

There are a number of construction activities involved in a project such as this. The activities (independent of phasing) can be divided into five general categories:

- Excavation
  This includes site clearing and earthworks – soil / rock removal – required to prepare the site for the foundations, the basement and residential and commercial floorspace above.
- Structure
  Structure includes the foundations and the physical frame of the residential units and commercial units.
- Enclosures

  The enclosures for the building will be formed from brick, block work, timber, and glass, with concrete roofs, all with the required levels of insulation and water proof membranes.
- Facades

  The facades will comprise of selected Brick finish with brick return detailing, brick/ rendered inset panels, selected Metal cladding to selected elevation elements and bay windows, selected Feature stone cladding to residents' main entrance, selected Aluclad/aluminium windows/doors
- Services
  The requisite services will be provided including drainage and lightning.
- Landscaping
  The landscaping works include some hard landscaping, roads, footpaths, cycle-paths, bed and tree planting, and significant open spaces.

Construction Methods – Phasing of Development

The construction methodology that will be utilised on the site will have three main attributes to minimise the impact of the construction phase.

- Phasing of construction
- Efficiency
- Minimisation of waste generated

Construction methods will use techniques that afford safe, efficient, and cost-effective methods of working. In order to minimise the traffic impact associated with the removal of material from the site and the construction phase in general, the Contractor will prepare and implement a Construction Traffic Management Plan.

Construction Traffic, Parking and Site Working Hours

The Construction Management Plan and TTA, prepared by Waterman Moylan address these issues in greater detail. It advises that the works associated with the new development will develop additional traffic on the public road network associated with the removal of excavated material etc. and the delivery of new materials, concrete trucks etc.

The vehicles associated with the construction activities are as follows:

- Excavators;
- Dump trucks;
- Concrete delivery trucks;
- Concrete pumps;
- Mobile cranes; and
- Mobile hoists.

It is proposed that the following construction working hours will apply.:

- Site development and building works shall be restricted to 8.00am to 7.00pm Monday to Friday and 8.00am to 2.00pm Saturday. Deviations from these times will only be allowed in exceptional circumstances and should be sought at the time of making a planning application.
- No works shall take place on site on Sundays or Bank Holidays.
- No activity, which would reasonably be expected to cause annoyance to residents in the vicinity,
- taking place on site between the hours of 7.00pm to 8.00am.
- No deliveries of materials, plant or machinery taking place before 8.00am in the morning or after 7.00pm in the evening.
- It will be noted that these times are guidelines only and in certain circumstances, it may be necessary for construction works to take place outside these hours.

It will be necessary for the appointed contractor to prepare a detailed construction traffic management plan to ensure the smooth operation of the local road network during the course of the construction project. It will be necessary to agree this construction traffic plan with Dun Laoghaire-Rathdown County Council in advance of the project and that the construction traffic plan management is reviewed throughout the project.

Health & Safety Issues

The development will comply with all Health & Safety Regulations during the construction of the project. Where possible potential risks will be omitted from the design so that the impact on the construction phase will be reduced.

Noise & Vibration due to Construction Work

The potential impacts associated with noise and vibration due to construction work, are addressed in Chapter 11 Noise & Vibration.

Air Quality

The potential impacts associated with air quality due to construction work are addressed in Chapter 10 Air Quality and Climate.

Construction Waste Management

A standalone Construction and Demolition Waste Management Plan & an Operational Waste Management Plan for the proposed development have been prepared by AWN Consulting Ltd and are included with this application. The purpose of this report is to ensure the best practice is followed in terms of waste and environmental management during the construction phase of the proposed development, and to ensure adverse impacts on the receiving environment – including local residents - are minimised.

Construction Management Plan

A Construction Management Plan (CMP) has been prepared by Waterman Moylan. The plan sets out typical arrangements and measures which may be undertaken during the construction phase of the project in order to mitigate and minimise disruption / disturbance to the area around the site. The purpose of this report is to summarise the possible impacts and measures to be implemented and to guide the Contractor who will be required to develop and implement the Construction Management Plan on site.

3.4 Mitigation Measures

The Construction Management Plan prepared by Waterman Moylan as part of this application has summarised the possible impacts and measures to be implemented and to guide the Contractor who will be required to develop and implement the Construction Management Plan on site. The appointed contractor will be required to prepare a Construction Management Plan in advance of works commencing on site. This will incorporate all mitigation measures proposed within this EIAR for the protection of the environment and human health. Relevant conditions of planning will also be included within the plan.

Monitoring will be undertaken during the demolition and construction phase in line with the recommendations contained chapter 20 of the EIAR.