### 2.0 Description of the Development

### 2.1 Introduction

This Chapter of the Environmental Impact Statement (EIS) provides a description of the development of the new National Maternity Hospital at St. Vincent's University Hospital Campus and outlines the sequencing of the proposed development. The Chapter has been informed by and should be read in conjunction with the Architects Design Report and the Draft Construction Management Plan, both of which accompany this Application. In addition, the precise details of this proposal are covered in the public notices, plans, drawings, reports and all related particulars contained in the overall planning application package and this Chapter should be read in conjunction with same.

The Chapter outlines the following in order:

- A description of the site and surroundings.
- A detailed project description.
- Details relating to the sequencing and construction of the proposed development.

### 2.2 Description of the Site and Surroundings

### 2.2.1 St. Vincent's University Hospital Campus

St. Vincent's Hospital was founded by Mother Mary Aikenhead, foundress of the Religious Sisters of Charity, and established at St Stephen's Green in 1834. The Hospital was transferred to its present site in Elm Park in 1970 and subsequently changed its title to St. Vincent's University Hospital in 1999. The Hospital Campus is located on a large site of 11.9 hectares that slopes from south to north with the ground levels falling from approximately +10.0m Ordnance Datum along the south and falling to approximately +4.0m Ordnance Datum at the north close to the Merrion Road. The Hospital Campus is set within the wider mixed land-use context of Elm Park in Dublin 4 and is bound by Merrion Road and Nutley Lane to the north, Elm Park Golf and Sports Club to the south and residential / commercial properties on Herbert Avenue to the east. The proposed development site occupies an area of 10.55 hectares on the overall healthcare campus and is set out in Figure 2.1 below.



#### Figure 2.1: Site Location Map

Note: Drawing not to scale

The St. Vincent's University Hospital campus is a strategic healthcare facility located in the busy neighbourhood of Merrion on a key economic corridor to the south east of the city. The immediate surrounding land uses include the retail centre at Merrion Shopping Centre, institutional and office uses such as RTE, Elm Park Business Campus, St. Michael's College, and the Caritas Convalescent Centre. Smaller neighbourhood centres are located on Merrion Road and large areas of residential development at Nutley Lane to the west, Merrion Village and Ailesbury Park to the north and Herbert Avenue and Estate Avenue to the east. The lands are bound to the south by a significant area of green space which is in use as Elm Park Golf Club.

The Campus has undergone significant development over the last 10 years which includes a new Clinical Services building and main entrance at the centre of the Campus, a new multi-storey car park to the north of the campus, a Breast Check Clinic to the east of the Campus off Merrion Road, a new ward block, the '*Nutley Wing*', to the southwestern end of the Campus and the St. Vincent's Private Hospital at the easternmost part of the Campus.

The current building heights on the Campus range from single storey ancillary buildings, through the two to five storey original Hospital buildings, the five storey plus plant Clinical Services building (2005; +35.94 ODM), the seven storey plus plant Nutley Wing (2012; +40.165 ODM) and the eight storey plus plant Private Hospital building (2010; 45.15 ODM). There is a hub of low lying primarily non-clinical support buildings at the eastern end of the Campus adjacent to the Clinical Services building which provide for Energy, Catering, Delivery, Facilities Management and Waste Management support services to the Campus.

Figure 2.2: Aerial View of Existing St. Vincent's University Hospital Campus



There are two main entrances to the Campus: one at Merrion Road to the east and the other at Nutley Lane to the west. These are connected to each other by an internal Campus road which provides access to the main entrance of the Hospital at the front of the Clinical Services building. A second internal road close to the Merrion Road entrance provides vehicular access to the Herbert Wing at the south of the Campus and the St. Vincent's Private Hospital to the east. A fire road connects the Nutley Lane entrance to the roundabout between the Herbert Wing and the St. Vincent's Private Hospital completing a full ring road around the clinical areas (for fire tender / emergency services access).

A dedicated pedestrian access route links Merrion Road to the centre of the Hospital Campus providing good connections to nearby bus stops and the Sydney Parade Dart Station. A good network of footpaths is provided for within the Hospital Campus providing pedestrian access from both the Nutley Lane and Merrion Road entrances.



### Figure 2.3: Existing Car Parking on Campus

As shown in Figure 2.3 above car parking facilities are distributed throughout the Hospital Campus. There are currently 1318 no. car parking spaces distributed throughout the entire campus, including the St. Vincent's Private Hospital. Of these the spaces associated with the St. Vincent's University Hospital is 1,012 no. spaces (excluding 22 no. reserved spaces at the Mortuary and 6 no. reserved ambulance spaces at the Emergency department). Underground car parks are provided under the private hospital (260 no. spaces) and the clinical services block (122 no. spaces). A multi storey car park located north of the spine road accommodates 496 no. spaces. The remaining 394 no. spaces are scattered across the campus in a number of surface parking areas; to the north of the spine road, adjacent to the Herbert Wing entrance and adjacent to A&E entrance and Dermatology entrance and all are generally accessed off the east-west the spine road.

### 2.2.2 The Site for the Development of the new National Maternity Hospital

The proposed site for the development of the new National Maternity Hospital on the St. Vincent's University Hospital Campus is to the east of the existing Clinical Services building and the Main Ward block (outlined in green in Figure 2.4 below). The site is bound to the north by the main internal access road, to the east by the road to the St. Vincent's Private Hospital and to the south by the Herbert Wing car park. The site is currently occupied by a series of single and two-storey structures which are connected to the Main Ward Block by the existing two-storey hospital street. The ground levels change over the site sloping from north to south and this has had a significant influence on setting out the optimum level strategy for the proposed development.



Figure 2.4: Proposed National Maternity Hospital Site (outlined in green)

# 2.3 Detailed Project Description

Planning permission is being sought for a period of 10 no. years for the development of the new National Maternity Hospital, comprising: a 244 no. bed maternity hospital; developments for St Vincent's University Hospital (including 38 no. in-patient beds) to replace existing facilities on site; new campus wide shared non-clinical support services; a shared service yard, an extension to the existing multi-storey car park and all ancillary site development, site services, utilities and landscaping works ("the proposed development"),

all at the St. Vincent's University Hospital Campus, Elm Park, Dublin 4, D04 T6F4.

The proposed development will consist of a series of developments on a 10.55 ha. site on the St. Vincent's University Hospital campus comprising the following:

- The construction of a new 50,776 sq.m. gross floor area building to be developed on a site at the eastern end of the St. Vincent's University Hospital Campus adjacent to and connected with the St. Vincent's Clinical Services building. The proposed building will rise to five and six storeys plus additional plant areas at roof level over the prevailing ground level and a proposed basement to an overall height to parapet level of 41.285 m ODM (to top of liftshaft plantroom; 47.335m ODM to top of boiler flues). The new structure provides for the new National Maternity Hospital (to be relocated from Holles Street, Dublin 2) including the following medical and surgical specialities - maternity, gynaecology, paediatrics, neonatology, pathology, genetics, anaesthesia, emergency medicine, endocrinology/diabetes, pain management, oncology, colposcopy, urodynamics, fetal medicine, haematology and 244 no. beds; replacement facilities for St. Vincent's University hospital including a new dermatology unit, 2 no. SVUH wards (38 no. beds), SVUH medical records department, finance department offices, and; shared facilities including a new waste marshalling yard, deliveries yard, purchasing & stores department, catering department & canteen, clinical engineering and hospital sterile services department. Bridge/corridor links are proposed to the existing Clinical Services building and existing ward block at levels 0, 2, 3 & 4 and will include modifications to the existing laboratories within the existing St. Vincent's Hospital.
- The construction of temporary buildings (903 sq.m. in total) including; a single storey catering staff changing facilities, a single storey household services store, a single storey carpenters' workshop and a single storey temporary canteen and access corridor.
- The expansion of the existing multi-storey car park facility (11,884 sq.m. gross floor area; two levels vertically and a five level extension at its western end adjacent to Nutley Lane to an overall height of 18.84m ODM to top of lift shaft) to accommodate the additional parking demand associated with the National Maternity Hospital and the re-provision of existing campus spaces that are displaced due to the works. The enhanced facility will provide a net increase of 277 no. space on the campus in addition to 149 no. displaced spaces to accommodate a total of 922 no. spaces over five levels.
- Two new entrances to the multi-storey car park including a new access to the

lowest level (Level 0) through the existing St. Rita's surface car park and a new high level access (Level 5) adjacent to the current access. The new low level access will be under the existing pedestrian link through the campus from the Merrion Road. The provision of the new access arrangements will necessitate the displacement of a number of spaces in both the existing multi-storey car park and the adjacent St. Rita's surface carpark. The existing vehicular access point will be closed and a new taxi holding area will be provided adjacent to the western end of the extended car park close to Nutley Lane.

- The demolition of existing buildings comprising 8,765 sq.m. of space including; the existing canteen, catering staff changing facilities, transitional care unit, neurology unit pharmacy, energy centre including existing chimney stack, carpenters' workshop, electrical switch room, kitchens, purchasing stores, dermatology unit, waste marshalling yard and the nissen hut adjacent to the existing car park.
- The construction of: a new single storey ESB substation, switch room (119 sq.m.) and oil tank enclosure (236 sq.m.) adjacent to the existing Breast Check building; two new single storey bicycle store enclosures (170 sq.m. and 158 sq.m.) located to the south of the existing Nurse Education Centre for 192 no. bicycle spaces which in conjunction with new covered and convenience cycle spaces dispersed across the Campus will provide a net increase of 235 no. bicycle spaces, providing a total of 485 no. bicycle spaces on the Campus; a new single storey VIE enclosure to the south of the campus adjacent to the existing campus service road (91 sq.m.).; and, a new single storey storage building adjacent to the multi-storey car park (110 sq.m.).Modifications to existing Herbert Wing Car Park including access ramp and steps to the new building and an ambulance set down area to the southern elevation.
- Proposed modifications to the existing road network within the campus to accommodate the new hospital building and car parking facilities, hard & soft landscaping elements to the perimeter of the proposed building including modification of ground levels, modifications to existing road junctions at Nutley Lane and Merrion Road (subject to the approval of the roads authority), a temporary construction access from Nutley Lane and general landscaping modifications to campus access routes.
- The proposed development also includes all ancillary site clearance, construction, site development and landscaping works, which include but are not limited to: the relocation of medical and surgical gasses, the diversion of existing hospital campus site services, new and replacement cycle spaces, new services, water mains and communications networks and all required phasing, sequencing and site development works.

The accompanying application documentation details the above.

#### 2.3.1 Architectural Design Brief and Concept

The proposed design of the new National Maternity Hospital at St. Vincent's University Hospital Campus sets out to create a fully integrated, state-of-the-art, women and newborn baby focused Hospital that will facilitate excellence in the delivery of obstetrics and gynaecology clinical services and associated research and education, in an environment that is fully supportive for all users. This means that the new Hospital must represent state-of-the-art clinical functionality, providing the highest quality spaces for women, babies, their families and staff, whilst optimising the adjacencies and flows between departments to create an efficient, safe and therapeutic environment. At the same time, it must also relate to its context with the existing adult Hospital and surrounding neighbourhoods to create a cohesive, well-functioning Campus whilst establishing an appropriate sense of place.

The architectural design concept is a comprehensive response to the following objectives:

- Compatibility with site and urban planning objectives.
- Fulfilment of the clinical design brief.
- Creation of a supportive environment for women, babies, families and staff.
- Design of a high quality building that befits a national public project.

The design process has not prioritised one objective over the other but treated all four as intertwined facets of the same design challenge.

#### 2.3.2 Proposed Facilities

The new National Maternity Hospital will provide specialist services nationally and secondary services to the Greater Dublin Area. These services will be provided on an outpatient, inpatient, short stay and community outreach basis. The design as proposed comprises three different elements within an overall co-ordinated building design for an integrated development at the St. Vincent's University Hospital Campus. The three elements are:

- 1. The National Maternity Hospital facilities.
- 2. Shared National Maternity Hospital / St. Vincent's University Hospital facilities.
- 3. Replacement of existing and displaced St. Vincent's University Hospital facilities.

The space required by the maternity element at the Hospital, some 72% of the overall floorspace, is determined by the requirements to support over 10,000 births per annum and the clinical space planning requirements associated with same. The proposed development has been carefully considered and planned to the level of detail expected of a capital project of this nature and there is no superfluous space set out for each of the rooms and departments in the building, rather there is expansion embedded in the proposal to future-proof the core functions of the new National Maternity Hospital. The primary medical and surgical specialties to be accommodated within the new National Maternity Hospital include the following:

- Maternity
- Gynaecology
- Paediatrics
- Neonatology
- Pathology
- Genetics
- Anaesthesia
- Emergency Medicine
- Endocrinology/Diabetes

- Pain Management
- Oncology
- Colposcopy
- Urodynamics
- Fetal Medicine
- Haematology
- Psychiatry
- Reproductive Medicine
- Laparascopic Surgery

Direct clinical services will be supported by a range of essential clinical and non-clinical support services that include the following:

- Corporate Services
- Paramedical Services
- General Education and Meeting Facilities
- General Support Services
- Outreach and Home Based Service

In relation to shared National Maternity Hospital / St. Vincent's University Hospital facilities the design has been developed to capitalise fully on the anticipated synergies and benefits to be derived from co-location including integration of shared non-clinical support services. The Design Team reviewed this issue in detail with clinicians and representatives from both Hospitals during the design process to ensure that such nonclinical support services could be integrated into the design and deliver services to both

### Hospitals.

The following shared facilities are provided within the overall development:

- Catering department
- Staff Canteen
- Hospital Sterile Services Department
- Central Stores and Purchasing
- Waste Marshalling Compound
- Energy Centre Facilities
- Medical Gas Compound
- Corporate Services
- Facilities Management
- General Education and Meeting Facilities
- Service links between the Adult and Maternity hospitals for FM distribution

A new Campus Facilities Management / Logistics service area which includes Environmental Waste Management, Central Production Kitchen and Utility services has been planned at Level 0, to link directly into the existing St. Vincent's University Hospital Level B dedicated services street, thus ensuring direct service access to all areas within the St. Vincent's University Hospital Campus. All of these services replace existing facilities at the Campus, many of which are outdated and currently housed in single storey and temporary buildings, which will be displaced by the new development.

In addition to the shared services, there are a number of existing stand-alone clinical facilities housed within single storey buildings on the proposed development site. Some of these facilities have been incorporated into the new development to maintain current clinical proximities and adjacencies and to benefit from the economies of scale that accrue from integrating them within the new building. The inclusion of these facilities follows the principles set out in the Draft Site Capacity Study in that in-patient wards will be distributed to the perimeter of the main clinical areas. Providing these in a manner that allows access from the internal hospital street network means that not only can efficiencies in operation be achieved, but also that there is no duplication of non-clinical elements on the Campus. The following facilities replace existing St. Vincent's University Hospital facilities currently located on the proposed development site:

- Dermatology Unit
- 2 no. Inpatient Wards
- Neurology services
- SVUH Medical Records
- SVUH Finance department

### 2.3.3 Functional Principles and Clinical Organisation

The new National Maternity Hospital building has been located directly adjacent to the existing Clinical Services building and generally north of the existing Hospital Street. This is dictated by the requirement to physically link the new National Maternity Hospital building to the Theatres and Intensive Care Unit in the existing Clinical Services building. At a clinical level the most important link is the connection of the Operating Theatres as this is one of the primary reasons for co-locating a maternity hospital with an adult acute hospital. This is a cornerstone of the design and the Theatre Suite in the new National Maternity Hospital is planned directly adjacent to the St. Vincent's University Hospital Theatre and Critical Care Department and at exactly the same level on Level 4. Other clinical links incorporated into the design proposals include the development of a new shared campus Sterile Services Department, shared laboratory space, links between the Radiology Department of the new National Maternity Hospital and the CT and IR areas of the Clinical Services building and shared clinical support services. A comprehensive description of the extent of the co-location adjacencies achieved is set out in detail in the Architectural Design Report that accompanies this Application.

These are incorporated into the current design proposals as follows:

### 2.3.3.1 Theatre and Critical Care

The overriding clinical adjacency required is that new operating theatres in the Maternity Hospital are located on the same floor (Level 4) as the existing operating theatres in St. Vincent's University Hospital to facilitate ease of access to adult critical care. This is set out as a cornerstone of the design and the Theatre suite in the new National Maternity Hospital is planned directly adjacent to the St. Vincent's University Hospital Theatre and Critical Care Department at exactly the same level (+23.69M OD) on Level 4. All other levels across the proposed development are set out relative to the level access provided at this location.



### Figure 2.5: Proposed National Maternity Hospital – Critical Clinical Linkages

#### 2.3.3.2 Central Sterile Services Department

The synergies available through co-location are further enhanced at Level 4 through the development of a new shared campus Central Sterile Service department (CSSD) which will replace the current St. Vincent's University Hospital CSSD located within the St. Vincent's University Hospital Theatre departments at St. Vincent's University Hospital. The new CSSD will have direct access to and from both hospitals theatres and a new Level 4 street / link provides direct access form CSSD to the clinical core serving all levels of the St. Vincent's University Hospital clinical block; thereby facilitating access to CSSD from all levels of the St. Vincent's University Hospital clinical services building.

#### 2.3.3.3 Laboratory

The Laboratory is also developed as a shared service between St. Vincent's University Hospital and the National Maternity Hospital. The existing Laboratory is located at Level 3 of the St. Vincent's University Hospital Clinical Services block. The existing departments within the Laboratory have been reviewed with both hospitals and proposals have been agreed on the scope of the adjustments required to each area to facilitate sharing of services within each area.

This is supplemented with the development of a new Laboratory area on Level 2 of the new National Maternity Hospital block comprising the Anatomical Laboratory the Molecular Laboratory and shared administrative Laboratory space. A new bridge link, with stairs and lift transfer, is provided both between Level 2 and Level 3 of the St. Vincent's University Hospital Clinical Service building and the National Maternity Hospital block, to facilitate movement between the two areas for Laboratory staff.

#### 2.3.3.4 Radiology CT and IR

The Radiology Department within the new National Maternity Hospital building is located at Level 2 of the National Maternity Hospital block and this will provided MRI services, General Radiology services and Ultrasound services for patients attending the National Maternity Hospital. However National Maternity Hospital patients will require access to the CT and IR (Interventional Radiology) areas at Level 2 within the St. Vincent's University Hospital Clinical Services block, and this access is facilitated through the proposed bridge link and transfer lift between Level 2 of the National Maternity Hospital and St. Vincent's University Hospital buildings.

#### 2.3.3.5 Shared Clinical Support Services

In addition to the above, the design proposals include back-to-back adjacencies for nonclinical support services in the following areas that will facilitate greater synergies to be developed between the respective support services in each hospital. These include the following departments:

- The St. Vincent's University Hospital and National Maternity Hospital Medical Records departments (Level 2)
- The St. Vincent's University Hospital and National Maternity Hospital Finance departments (Level 1)

This element of shared services avoids duplication of facilities across the campus thus making the site more efficient and releasing land for future developments if required.

### 2.3.4 Design Layout

The design concept and layout addresses the key clinical adjacencies required between the new National Maternity Hospital and St. Vincent's University Hospital and is fully integrated within the established Campus. It is the attainment of these clinical adjacencies, fundamental to the operation of the new National Maternity Hospital, that have influenced the overall form and layout of the proposed building. Achieving clinical links has been central to the design and functional operation of the proposed development and this has been reviewed in detail with clinicians from both hospitals during the design process. The design of the new National Maternity Hospital building ultimately represents state-of-the-art clinical functionality, providing the highest quality spaces for women, babies, families and staff and optimises the adjacencies and flows between Departments to create an efficient, safe and therapeutic environment.

Secondary adjacencies, such as the existing Hospital circulation infrastructure and the ability to introduce Campus-wide efficiencies, by way of shared services located close to this infrastructure, are also an influence on the site location and building design.

The overall form and shape of the proposed National Maternity Hospital building is clearly identified, with a major public entrance and forecourt off the spine road, and is a considered design response to the requirement to maintain the identity of the National Maternity Hospital at the St. Vincent's University Hospital Campus. The identity of the Maternity Hospital is further strengthened through the design of the projecting block to the north east, which clearly anchors the building on the Campus and completes the front face of the new clinical core of the Hospital Campus. The L-shaped form of the overall building provides a bookend to the long linear block, frames the main entrance to the National Maternity Hospital and creates a sheltered micro-climate at the entrance to the new National Maternity Hospital building.

#### 2.3.5 Building Height, Scale and Massing

The Design Team was cognisant of issues that arise from the height, scale and massing of the proposed development particularly having regard to the surrounding properties, the provisions of the current Dublin City Development Plan, 2016-2022 and the existing patterns of height across the St. Vincent's University Hospital Campus. The overall approach has been to develop an efficient plan form which is split into two blocks: a five storey block runs east to west and follows the massing and building lines of the adjacent Clinical Services building; and a six storey block runs perpendicular to this on a north to south axis. The new National Maternity Hospital building will rise to five and six storeys plus additional plant areas at roof level over the prevailing ground level and a proposed basement to an overall height to parapet level of 41.285 m ODM to the top of the liftshaft plantroom (47.335m ODM to top of boiler flues). The form and massing of the Maternity Hospital building integrates with the form and massing of the adjacent Clinical Services building integrates of links and connections are provided between the proposed

development and the existing St. Vincent's University Hospital buildings.

Central to the architectural concept is the breaking down of the mass of the building where it is proximate to the surrounding external environment. As Herbert Avenue is at an angle to the proposed new National Maternity Hospital building, it became clear during the design process that the stepping back of the southern part of the east elevation would reduce the visual impact at the closest point to Herbert Avenue. The massing of the building in this corner has been broken down through the introduction of additional roof terraces at Levels 04 and 05 and through further setbacks from Level 02 to Level 06 (as shown in Figure 2.6 below).





The new National Maternity Hospital Building is, at its closest point, set back 58 metres from the Merrion Road boundary / footpath. The entire front façade from Merrion Road ranges from 58 metres to 85 metres at the main entrance and over 140 metres at the western end of the front façade.



Figure 2.7: Aerial View of Proposed Development showing set back from Merrion Road

Figure 2.8: Proposed National Maternity Hospital - Aerial View



# 2.3.6 External Character and Materials

The new National Maternity Hospital building is split into 2 volumes to lessen its impact on its surroundings and to create a scale reflective of its environment with 2 types of façade treatment adding variety and texture to the building's external envelope. The more solid areas are finished in granite in dialogue with the granite walls of the neighbouring Clinical Services building and the St. Vincent's Private Hospital. The project adopts an innovative

approach in its use of stone to show how this traditional, natural material can be used in a contemporary way. The stone cladding is profiled and layered in response to orientation, sun and activity behind.



#### Figure 2.9: North Elevation

# Figure 2.10: East Elevation



The overall external design concept achieves a high quality and integrated façade design which incorporates natural stone finishes with green / landscaped features, reflecting the design intent of the overall building, but which is also broken down in scale along its length and respectful of its impact on neighbouring properties.

### 2.3.7 Internal Design Approach

The architectural philosophy of the Hospital continues through to the building's interior. A welcoming, re-assuring and uplifting environment is provided through the careful selection of materials and colour, providing the new National Maternity Hospital with a strong sense of identity and character. Careful consideration has been given to the creation of an attractive and comfortable environment in the principal focal areas such as the central atrium, the staff bases and bedroom areas. Architectural form, lighting effects, colour

schemes and the selection of finishes, fittings and furnishing will provide these spaces with a unique feel and atmosphere. The internal facades of the courtyards mirror the exterior stone fins with composite timber fins on the walls. The composite fins are essentially the stone fins turned inside-out to soften the internal environment and give a human scale and feel to the spaces within.

# 2.3.8 Floor Areas of the New National Maternity Hospital Building

The floor areas for the development of the new National Maternity Hospital at St. Vincent's University Hospital can be expressed as follows:

Total Area	50,776sq.m
Level -1	5,685sq.m
Level 0	8,020sq.m
Level 1	7,870sq.m
Level 2	7,376sq.m
Level 3	7,316sq.m
Level 4	7,409sq.m
Level 5	6,332sq.m
Level 6	768sq.m
Total above ground area	45,091sq.m
Plot Ratio (Hospital Campus) excluding SVPH	1.59
Open accessible space at varying levels (courtyards / terraces)	2576sq.m

Table 2.1: New Maternity Hospital Building Floor Space Schedule

# 2.3.9 Open Space and Landscape Design

The open space provisions of the new National Maternity Hospital comprise a north facing main entrance plaza, an east facing emergency entrance plaza, a central entrance courtyard aligned along the main approach, a series of secondary courtyards at ground floor level, a south-facing entrance plaza at Level 1 and a series of roof gardens, external spaces, and play areas arranged throughout the upper floors as detailed in the Design Report.

External works to the site are made up of a number of differing soft and hard landscaping finishes. The hard landscape works for the site set out to enhance the overall design, compliment the soft finishes and allow vehicular and pedestrian traffic to and around the site. Hard landscaping elements include:

- Street furniture seating, litterbins, landscape lighting, and raised planters;
- Natural stone paving, exposed aggregate concrete paving and hard compacting gravel;
- Roadways to civil engineer specification;
- Kerbs and edging trims to paving and soft landscape;
- Drainage gullies, and;
- Retaining walls, universal access ramps, steps and handrails.

As part of the proposed development soft landscape finishes consist of:

- Tree shrub and perennial planting to entrance plazas, courtyards, roof gardens, terraces, footpaths, car parking and roadways;
- Earthworks grading and topsoil works;
- Mitigation screen planting to site boundaries and services areas;
- Extensive and semi-intensive green roof plantings of sedum etc., and;
- Landscape fabric and bark mulch application to all planters.

The spatial arrangement of the landscape plan relates directly to and is informed by the architectural proposals to create a unified whole and settle the proposed development into the site context. Movement patterns, orientation, context, prospect and microclimate have all been considered in the design and detail of the scheme. Each area has a specific landscape treatment appropriate to its function and location. A comprehensive strategy for landscape design of all proposed open spaces is set out in the Architectural Design Report that accompanies this application.

### 2.3.9.1 Design of the Arrival Area / Entrance Plaza

The most prominent of the open spaces proposed is the main entrance plaza, a new civic space that accommodates drop-off but is principally pedestrian in nature. This open space has been developed to provide the first element of the Campus "heart" and comprises just over 2,700sq.m of landscaped forecourt area. The entrance plaza incorporates tree planting, public art, signage and appropriate night time lighting. This space will offer patients and visitors a place in which they can enjoy the open air for breaks, lunch or simply to walk through as an alternative route through the Campus.



Figure 2.11: Proposed Entrance Plaza – Aerial View

This design of the space includes proposals for the reduction in through traffic on the east – west Campus spine road through the provision of a new entrance into the multi-storey car park close to the Merrion road entrance. This represents a step-change in the pedestrian environment and amenity space in the Campus that transforms it into a place that is welcoming to all. The internal roadway in the area between the existing St. Vincent's University Hospital main entrance and the proposed National Maternity Hospital main entrance will now become a shared surface with a significantly enhanced public realm; pedestrian routes; cycle ways and landscaped spaces. In addition, the north-south aligned entrance boulevard and cycle route provides separate pedestrian and cycle access from the junction of Nutley Lane and Merrion Road through to the main entrance plaza (please refer to the following sections).

### 2.3.10 Parking

As part of the development of the new National Maternity Hospital at St. Vincent's University Hospital Campus an expansion to the existing multi-storey car park at the north of the Campus is proposed. This extension to the multi-storey car park comprises two levels vertically and a five level extension at its western end adjacent to Nutley Lane to an overall height of 18.84m ODM. There are two access points to this car park, one which is close to the Merrion Road junction and one which is close to the Nutley Lane junction. This allows vehicles to access and egress the car park without the need to travel through the core of the Campus, thus reducing the number of vehicle movements where pedestrian activity is greatest.

Following the completion of the new National Maternity Hospital, it is proposed that there will be a total of 1,289 no. spaces provided on Campus associated with St. Vincent's University Hospital and the new National Maternity Hospital. The multi-storey car park will increase to 922 no. spaces (from the current quantum of 494), which will accommodate replacement of 149 no. displaced car parking spaces as well as the proposed no. 277 additional spaces. There are currently 42 no. disabled parking spaces associated with St. Vincent's University Hospital. In accordance with the Dublin City Council Development Plan 2016-2022, it is proposed to maintain the existing quantum and allocate 5% of the proposed additional 277 no. spaces as disabled spaces. This will bring the total number of disabled bays on Campus to 56 no. spaces, 14 no. of which are new spaces. With regard to motorcycle parking, it is proposed to provide 16 no. of motorcycle parking spaces within the multi-storey car park.

### 2.3.11 Access and Circulation

This Section presents the access strategy to serve the St. Vincent's University Hospital Campus once the new National Maternity Hospital is operational. The internal vehicle circulation routes have been designed to facilitate the safe flow of traffic and create an environment which is friendly to pedestrians and cyclists.

#### 2.3.11.1 Pedestrian Access

As shown in Figure 2.12 below, access for pedestrians is along three primary pedestrian access routes serving the Campus. The pedestrian routes are as follows:

 To/from Merrion Road North – this is along the dedicated internal pedestrian route which goes from the junction of Merrion Road / Nutley Lane (where it ties in with pedestrian crossing facilities) up to a crossing point on the main internal road. This will be the main route to and from Sydney Parade DART station as well as for people travelling from the bus stops located opposite the Merrion Shopping Centre and from the City Centre.

- To/from Merrion Road South access to/egress from the new National Maternity Hospital from here will be via the footpaths along the main internal road. Improvements for pedestrians are proposed at the vehicular access junction with Merrion Road where the left-turn slip lane and traffic islands are removed. This will be the main route for pedestrians to and from bus services along Merrion Road as well as people travelling from the south.
- To/from Nutley Lane this access/egress route is along the footpaths on the main internal road. This will be the main route to and from bus services along Nutley Lane and the R138.

Specific measures to encourage pedestrian movement are incorporated in the proposed development and include *inter alia*: the provision of high quality pedestrian facilities, a new pedestrian crossing; redesign of the Merrion Road access junction with improvement of pedestrian facilities across Merrion Road; and, the provision of high quality changing rooms, lockers and shower facilities.



### Figure 2.12: Pedestrian Access Strategy

### 2.3.11.2 Cycle Access

The Cycle Access Strategy ensures good quality access to primary and secondary cycle routes in the vicinity of the Hospital. To ensure good quality access to the above routes, the following are included as part of the proposed development:

- A widening of the existing pedestrian path which runs between the junction of Merrion Road / Nutley Lane to a crossing point on the main internal road to accommodate two-way cycle movements. This path provides a direct connection to the existing and proposed staff cycle parking areas.
- The main internal road within the Campus will continue to be traffic calmed and therefore adequate for cycling. The proposed modifications to the access to the multi-storey car park are expected to reduce the number of vehicles within the core of the Campus, by offering two alternative points of access/egress from either side of the Campus.



# Figure 2.13: Cycle Access Strategy

Ancillary facilities such as shower and changing rooms will be provided for within the new National Maternity Hospital building at basement level. A total of 355 no. cycle parking spaces will be provided as part of the proposed development which will result in a net increase of 235 no. of spaces on Campus, taking account of 120 no. cycle spaces that will be displaced due to the proposed development. This increases the total number of cycle parking spaces on the Campus from 250 no. to 485 no.

Approximately half of the new cycle parking will be provided within two secure sheltered cycle facilities, across from the main Hospital building. External cycle parking will also be provided in three main locations for ease of access. These are adjacent to the secure cycle facilities, close to the multi-storey car park and within the Herbert Wing car park.

# 2.3.11.3 Vehicular, Emergency and Service Access

In terms of the Vehicular Access Strategy for the new National Maternity Hospital, i is proposed to enhance the traffic calmed nature of the main Campus road with interventions such as raised crossings, junction tables and pavement treatment such that the present 15kph speed limit is self-enforced. Internally, the vehicle access strategy includes the following primary elements as illustrated in Figure 2.14 below:

- Provision of a new, underground access to the multi-storey car park via the existing St. Rita's car park. This involves closing the existing access to St. Rita's car park and providing a new entrance slightly west of it. As a result, the St. Rita's car park will also be redesigned.
- Provision of a new entrance to the multi-storey car park at Level 6. This will replace the existing entrance to the multi-storey car park which enters at Level 2 presently, and will closely match its present alignment.
- Two managed set-down areas located outside of the main entrance to the new National Maternity Hospital (one on either side of the road to cater for vehicles from both directions). This will cater for up to six vehicles simultaneously. Adequate pedestrian crossing facilities are proposed to connect this drop-off with the main entrance. In addition the shared surface will also enhance the pedestrian flow and permeability in this area for both hospitals' needs.
- A dedicated emergency access area with capacity for two ambulances (off the north-south internal road). This will be accessible from both the Nutley Lane and

### Merrion Road entrances.

- A new waste management, delivery and facilities management area (off the north-south internal road) shared by both the existing Adult Hospital and the new National Maternity Hospital. Larger vehicles associated with servicing and goods deliveries will primarily access the Campus via the Merrion Road junction and therefore avoid unnecessary movements through the core of the Campus.
- A taxi holding area adjacent to the Nutley Lane access. It is envisaged that taxis will be called from this area to the set-down areas outside of both the existing Adult Hospital and the new National Maternity Hospital.
- A redesign of the Herbert Wing car park (reduced in size), including a new egress point.



### Figure 2.14: Vehicular Access Strategy

# 2.3.12 Demolitions

The proposed development includes the demolition of 8,765sq.m of existing buildings at St. Vincent's University Hospital Campus to facilitate clearing the site for the proposed new building. The following demolitions as shown in Figure 2.15 below are proposed:

- 1. Dermatology Department
- 2. Neurology Ward & Medical Records Below
- 3. Central Kitchen
- 4. Canteen & Plant Room Below
- 5. Transitional Care Unit
- 6. Waste Marshalling Yard (including medical gases compound and cryostore)
- 7. Stores and Purchasing
- 8. Pharmacy
- 9. Carpenters' Workshop
- 10. Energy Centre (including linen providers office and laundry)
- 11. Kitchen & Canteen Staff Changing Facilities
- 12. Bicycle Parking
- 13. VIE and Bulk Oil Store
- 14. Nissen Hut (storage)

Note: Further facilities to be decanted are located at the Lower SVUH Level B (SVUH basement area) and include the following.

- 15. Plant Room (under Canteen)
- 16. Medical Records
- 17. Secondary Medical Gases



# Figure 2.15: Existing Buildings and Structures Proposed to be Demolished

Note: Drawing not to scale

In addition to the above, there are a number of temporary structures included as part of enabling works that will be scheduled for subsequent demolition or removal:

- Canteen
- Catering Changing Facilities
- Carpenters Workshop
- Hazardous Waste
- Household Services Store

# 2.3.13 The Design Process - Sustainability

The Architectural Design Report that accompanies this Application details the evolution of the design of this proposal. In addition, this EIS also considers the alternative sites, designs and concepts that have been considered for the development of the new National Maternity Hospital at St. Vincent's University Hospital Campus. A core principle of the design process has been the incorporation of a sustainable design approach. The project's approach to sustainability has been progressed with a view to minimising the environmental impact of the buildings from the outset.

All aspects of the energy requirements of the new National Maternity Hospital have been considered, looking at the site from a holistic viewpoint in order to propose an energy solution that will consider the following key elements:

- BREEAM Bespoke application to achieve an 'excellent' target for the new build
- Energy and carbon targets
- Building Energy Rating A3 target

The end result of reviewing the various sustainable and energy efficient technologies is to identify the technologies and techniques, which will be incorporated into the final scheme design. The successful implementation and integration of these into the building, will arrive at a hospital, which is not only fit for purpose and operate to optimum energy efficiency but will have increased productivity, increase patient comfort by being a positive and pleasant space and improve staff retention. The integration of these technologies will largely be seamless to the end-users but are energy efficient and more cost efficient in comparison with a conventionally serviced building.

Through the scheme design, the key technologies identified for further detailed investigation fall under three main categories:

- <u>Passive design</u>: Consideration of orientation, form, geometry, fabric performance, solar gain reduction, daylight optimisation, air tightness, maximise natural ventilation, green roofs for water attenuation.
- <u>Supply energy efficiently</u>: Use of LED lighting controls, location and sizing of plant and equipment, ventilation velocities, heat recovery, high efficiency plant, appropriate zoning of systems, metering and user guidance and training
- <u>Use of renewable technologies:</u> Combined heat and power forms an integral part of the scheme, optimised to match a base thermal load. Photovoltaics are also likely to be required to achieve the BER target.

An amalgamation of the approaches and technologies listed above has been developed in line with the client requirements and operational procedures taking into account future maintainability and flexibility in the operation of the building.

# 2.3.14 Sequencing of the Proposed Development and Construction Management of the Site

This Section sets out the overall sequencing of the proposed development. Subject to the outcome and duration of the planning process, it is envisaged that the new National Maternity Hospital will have a total construction period of approximately 56 months. The Application documentation is accompanied by a Draft Construction Management Plan, attached as Appendix 2.1 of this EIS. The Draft Construction Management Plan shows how works on the site can be delivered in a logical, sensible and safe sequence with the incorporation of specific measures to mitigate the potential impact on people, property and the environment. The methodologies have been written in consultation with, and with reference to the various specialists and Chapters of this EIS. The mitigation measures set out in this document in relation to construction impacts are required to be adhered to / implemented and all contractors on site will be expected to accommodate same.

For the purposes of the description of the works the sequencing of the development as set out in the Draft Construction Management Plan (Appendix 2.1) is divided into the following stages:

- Enabling Works
  - o Aspergillus protection
  - o Multi-storey car park extension
  - o Site infrastructure works
  - o Temporary accommodations
- Main Construction Works
  - o Decanting and demolition works
  - o Basement excavations
  - o Civil and structural works
  - o Façade installation
  - o Mechanical, electrical and plumbing fit-out and commissioning
  - o Internal fit-out
  - o Landscaping
  - o Site clearance

The Enabling Works stage will be followed by the Main Construction Works. It is intended that these works will be carried out under a single contract and will be completed in two sequential stages as shown in Figure 2.16 below.



# Figure 2.16: Site Sequencing of the Main Construction Works

It is envisaged that the hours of work for the project will be as follows, unless conditioned otherwise:

- Monday to Friday 7.00am to 6.00pm
- Saturday 8.00am to 2.00pm
- Sundays and Bank Holidays Any construction activity, with the exception of emergency works, will be limited to 8.00am to 2.00pm and will require the approval of the Planning Authority.

It is noted that due to the specific nature of some construction activities, or in order to mitigate disruption to the local environment, there may be a requirement for working

outside these hours. Should this be required, such working outside of the normal hours will be by agreement with the Planning Authority. Special operations will require extensive preplanning, programming and management of site operations.

### 2.3.15 Removal of Facilities and Reinstatement of the Construction Site

Following completion of the building construction works, the Main Contractor will progress a phased removal of compound, welfare facilities and site offices to facilitate the completion of external landscaping, parking and building handover.

### 2.4 Conclusion

The new National Maternity Hospital will be a world class healthcare facility replacing existing facilities at Holles street and providing much-improved maternity services for women and new born children regionally and nationally. The proposed development will also provide the highest possible standard of care to women, babies and their families requiring access to maternity and gynaecological services alongside an acute adult hospital.

Co-location of maternity hospitals with adult acute services is the optimal solution for the provision of hospital-based maternity services, as it can provide access to the full range of medical and surgical specialties and clinical support services in sufficient volume and complexity to support best clinical outcomes. The new National Maternity Hospital will also play a central role in an integrated network for neonatal transfer services in Ireland. This move will strengthen resources to support innovative and inter-professional working that will result in enhanced care provision for both mothers and babies.

All aspects of the proposed development's design seek to achieve these aims and fulfil the objectives of co-location and the new model of care for maternity services. The key critical linkages at theatre level provide for the immediate transfers that are critical for the co-located model and the proposed building that extends vertically and horizontally from this link is designed so as to provide the best possible environment for mothers and babies.