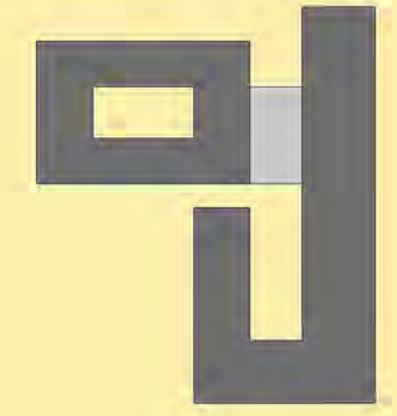
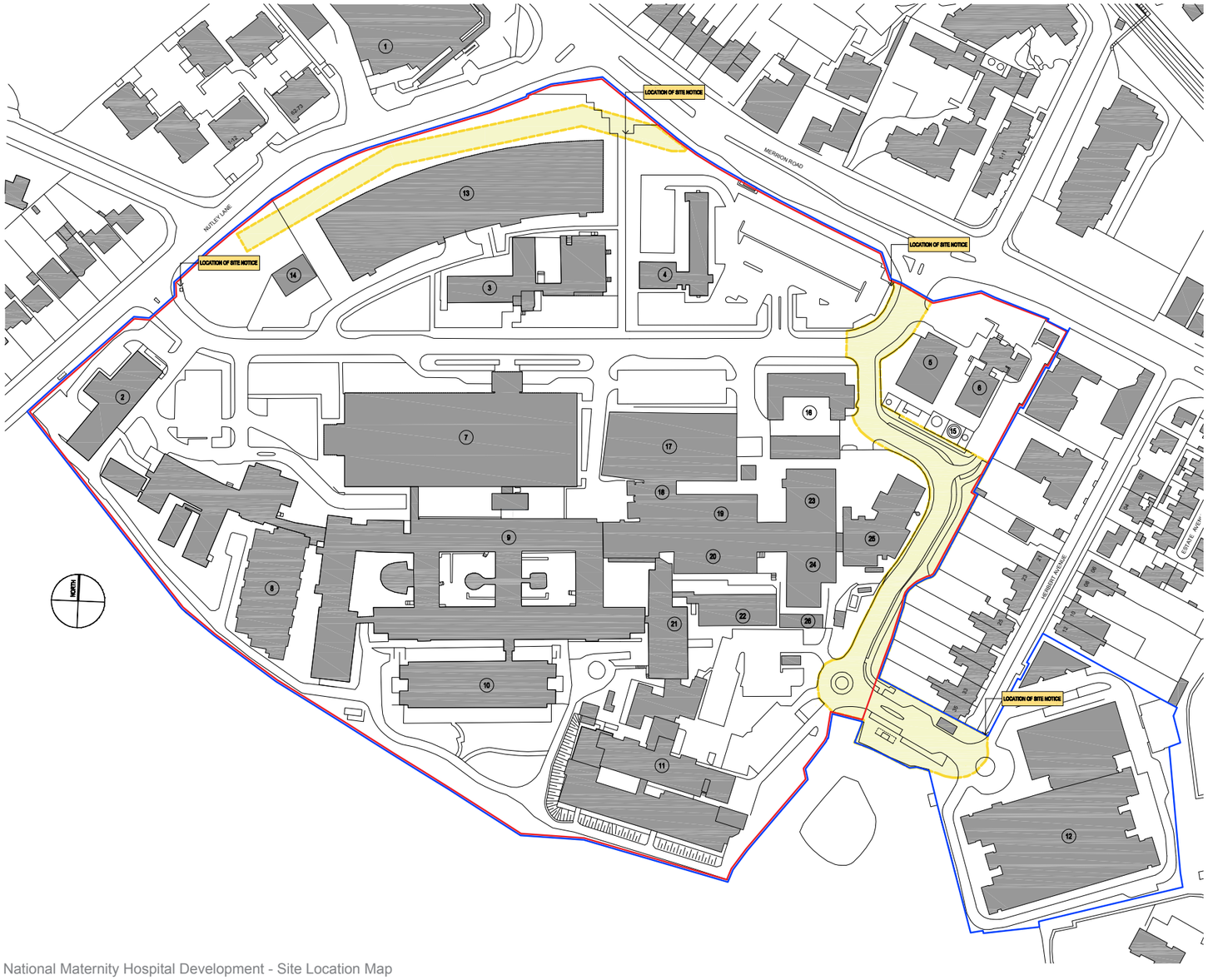
The National Maternity Hospital
at St. Vincent's University Hospital



Site Capacity Study

Contents:



National Maternity Hospital Development - Site Location Map

Map Key:

1- Nutley Shopping Centre
2- SVUH Mortuary
3- Nurse Education Centre
4- St. Rita's
5- Breastcheck
6- Carew House
7- Clinical Services Block
8- Nutley Wing
9- Main Ward Block
10- Elm Mount Unit
11- Herbert Wing
12- St. Vincent's Private Hospital
13- Multi-Storey Car Park
14- Nissen Hut (store)
15- VIE and Bulk Oil
16- Waste Marshalling Yard
17- Dermatology
18- Neurology
19- Central Kitchen
20- Canteen
21- Our Lady's Ward
22- Transitional Care Unit
23- Purchasing and Stores
24- Pharmacy
25- Energy Centre
26- Carpenters' Workshop

1.0 INTRODUCTION

The National Maternity Hospital project includes the development of a new National Maternity Hospital (NMH) together with the development of new facilities for St Vincent's University Hospital (SVUH) to replace existing SVUH decanted services and also ancillary shared campus wide non-clinical support services to serve both SVUH and NMH. This Site Capacity Study was carried out to test how this current proposed development could be successfully completed without compromising the future development needs of the remainder of the campus, notably the re-development of the Adult Hospital over time and the expansion of both adult and maternity services in the future. This Study does not purport to be a development plan for the campus, but rather an indication of its potential capacity.

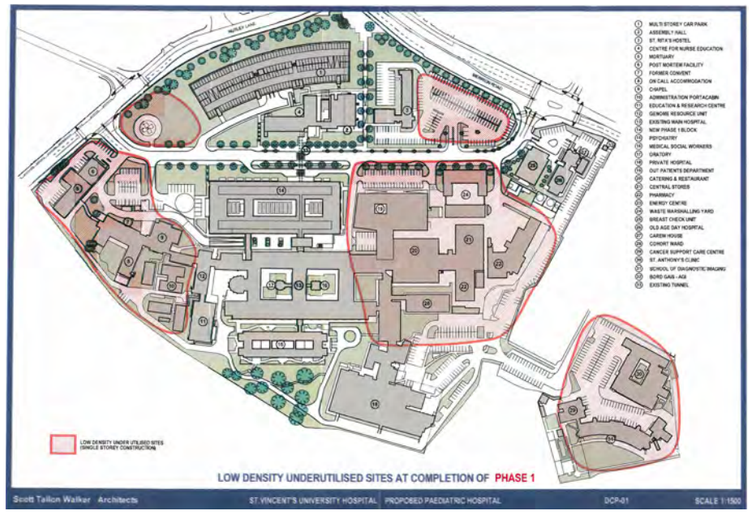
This report summarises the work carried out by a multi-disciplinary design team, led by O'Connell Mahon Architects and Isherwood and Ellis Architects, between September 2015 and January 2017. A central part of the study was an assessment of the campus' capacity in the context of anticipated clinical developments, following the co-location of the maternity facility on the St Vincent's University Hospital site. This co-location model will bring together maternity and adult services alongside medical research with consequent benefits in terms of clinical outcomes, patient experience and the quality of innovation.

The Site Capacity Study builds on the previous feasibility work carried out by St Vincent's University Hospital, most notably the Outline Development Control Plan (ODCP) of 1997, and the ODCP update of 2006. The ODCP established certain development principles which have underpinned developments over recent years, such as the Clinical Services block (2006) the St Vincent's Private Hospital (2010) and the Nutley Wing (2012). The design team reviewed these principles with a cross-section of stakeholders with the aim of validating and updating them and, most importantly, ensuring that the development principles are consistent with the co-location model and the aspiration to realise significant regeneration and community benefits from future campus growth.

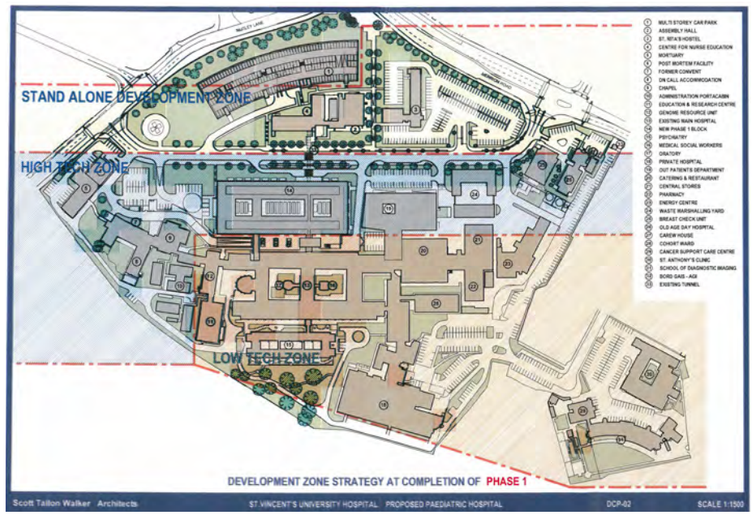
The Site Capacity Study begins by setting out the overarching aims for the combined campus both from a clinical perspective (the functional needs) and a spatial one. The latter includes a strategy for the enhancement of the campus' public realm (its sequence of routes, external spaces and landscape) together with an integrated mobility plan. The next section describes the clinical drivers behind future growth and how this translates into a potential schedule of areas. It demonstrates that the level of anticipated expansion can be accommodated within the current planning parameters for the site established by Dublin City Council.

The report goes on to identify the opportunities and constraints of the campus and how these have shaped the proposals. The report concludes that the campus has the capacity to accommodate the anticipated growth and that this can be achieved in ways that produce a higher quality and more sustainable environment with better integration of services, an improved public realm with sustainable links to the local community. Core to this conclusion is that the campus can leverage the existing excellent public transport network that currently serves the campus and which will also benefit from planned significant future investment.

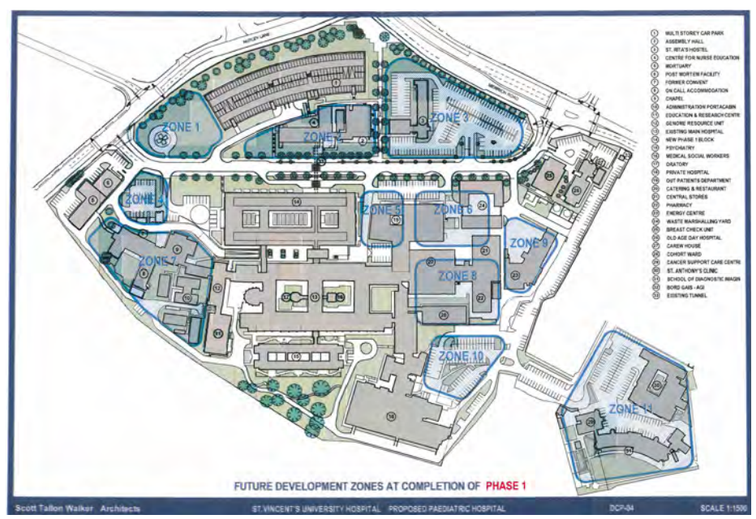
This study demonstrates one manner in which future development could be accommodated through a phased development on the campus. It does not prohibit an alternative approach to its development; rather the draft study indicates a clear and logical way in which one might plan the sequential development of the campus to its full potential.



ODCP 2006 - Underutilised Sites



ODCP 2006 - Development Zone Strategy



ODCP 2006 - Future Development Zones

2.0 OVERARCHING AIMS OF THE SVUH CAMPUS

2.1 St Vincent's University Hospital Clinical Drivers

St Vincent's University Hospital is recognised as one of Ireland's foremost research and teaching hospitals, combining the role of a general hospital for south Dublin with that of a leading tertiary and quaternary facility.

The overarching aim for the campus is to capitalise on St Vincent's inherent strengths as a hospital and facilitate the modernisation and expansion of its clinical and research activities within the co-location model. This clinical model aims to bring together adult, and maternity services, building on the momentum and investment associated with the proposed new maternity hospital.

The co-location model represents international best practice for maternity services with proven benefits in terms of health outcomes, clinical synergies and the fostering of innovative translational research. There is thus an expectation that the proposed clinical developments will act as a catalyst for further growth in research and education activities, having regard to the affiliation of both SVUH and NMH to the nearby University College Dublin.

In tandem with these clinical drivers there is also a strong intent to continue to improve the quality of the campus' physical environment, building on the recent development at SVUH and the proposed development of the NMH project. It is recognised that some of the buildings on the campus are out-of-date and need replacing with modern facilities that meet today's expectations in terms of, for example, clinical space standards or the separation of public, clinical and facilities management flows. St Vincent's goal of upgrading from a large proportion of multi-bed areas within wards to a largely single-room provision (as per the recent Nutley Wing and the model proposed for the new Maternity hospital) is estimated to require as much as 30,400m² of new space alone.

The 2006 ODCP also acknowledged that the re-provision of clinical facilities should be carried out within a strong holistic vision that sets a high benchmark in terms of the quality of new buildings and the external spaces between them and the consistency of a planned and orderly approach to development.

To set a sustainable vision for the future, therefore, means understanding the clinical needs of the campus (the potential area brief) on the one hand whilst assessing the physical capacity of the site on the other. The following sections offer an overview of the campus' development history, the current health policy context and the space needs as articulated by SVUH and NMH and other stakeholders consulted in the course of the study. The report goes on to assess the campus' capacity to meet these needs, identifying the site's inherent opportunities and constraints, so that the campus' growth can be implemented organically over time with a number of potential permutations in terms of adjacencies, phasing and detailed design.

St. Vincents Hospital Campus including St. Vincent's Private Hospital is shown above within the blue line boundary. Ordnance Survey Ireland licence number AR 0042117.

2.2 The Planned Development of the SVUH Campus at Elm Park

The existing hospital campus at St Vincent's University Hospital (SVUH), including the St Vincent's Private Hospital (SVPH), all as set out within the blue line opposite, comprises a total area of 11.89 hectares. The campus is bounded by Merrion Road to the north, Nutley Lane to the west, Elm Park Golf Club to the south and residential properties on Herbert Avenue to the east.

The site was purchased by the Irish Sisters of Charity in 1934 as a site for the relocation of St Vincent's Hospital, which was located at 86 St. Stephen's Green from its foundation by the Sisters led by Mother Mary Aikenhead in 1834.

Due to various delays, and the outbreak of the Second World War, no developments took place at Elm Park until 1947. The architect firm of Downes Meehan Robson was appointed to design the new building and the design for the new building was based on the design of the Bergspital Hospital in Bern, Switzerland.

Works commenced on site between 1956 and 1958; however, further delays on site ensued and the hospital was not completed until 1969. St. Vincent's finally moved from St Stephen's Green to the Elm Park campus in 1970.

Following completion of the hospital in 1970 and the relocation of St Vincent's Hospital to the Elm Park site intermittent further minor development occurred between 1970 and 1997 at which point St Vincent's commissioned a new Outline Development Control Plan (ODCP) which set out a vision for the comprehensive long-term development of the site to meet changing and developing long term healthcare needs of the hospital.

The major outcome of the 1997 ODCP was to enable the development of the new Clinical Services block together with the multi-storey car park; Psychiatric Unit; the Mortuary expansion; and the new Waste Compound which were all competed by 2005 in a planned and orderly manner and generally in accordance with the 1997 Plan.

The ODCP was updated in 2006 to reflect further planned development at that time and guided the development of a significant number of further projects including the new St Vincent's Private Hospital (2010) at the easternmost part of the campus and a new ward block, the 'Nutley Wing' (2012), to the southwestern end of the campus, both now complete. The 2006 Plan also made provisions for further development and expansion including a possible Maternity Hospital or Children's Hospital on the site.

The 2006 ODCP included a number of drawings which outlined particular attributes of the campus and the suitability of certain sites for development. A number of sites were identified as being 'low density underutilised sites', some of which have now been developed. This included the site to be developed for the new private hospital, which was completed in 2010, and a portion of a large site area to the west of the campus which was partly developed for the Nutley Wing.

A 'Development Zone Strategy' in the 2006 ODCP broadly split the campus into three zones: Standalone; High Tech; and Low Tech. The high tech zone is an 'L' shaped area which includes the Clinical Services building and lands immediately to the east and west of it. Clearly this zone has the benefit of being able to achieve direct connections to the existing Clinical Services building.

The low tech zone is the remaining area to the south of the Clinical Services building, which generally comprises ward accommodation and requires connections to and from the high tech area. The standalone zone was located to the north of the clinical service / high tech zone across the internal spine roadway and facing directly onto the Merrion road.

A series of future development areas were also identified as areas to be developed in a phased manner across the three zones, accepting that development was likely to happen on a phased basis over time.

The location of the National Maternity Hospital complies in general terms with the ODCP principles; however, on completion of the current proposed NMH development much of the 2006 ODCP vision will have been realised, some 15 years after the plan was put in place.

The current Site Capacity Study tests the capacity of the site to accommodate the anticipated growth and expansion into the future, following the completion of the maternity hospital development.

3.0 FUTURE GROWTH POTENTIAL / REQUIREMENTS

3.1 The Site at St. Vincent's University Hospital

The existing campus is notable for the fact that, although there are many buildings and structures (including the original 1970s buildings) which are approaching the end of their useful life, there has been significant well planned and co-ordinated development on the campus in the past 10 years.

The existing building heights on the campus range from single storey ancillary buildings, through two to five storey older hospital buildings, the six storey Clinical Services building (2006), the eight storey Nutley Wing (2012) and the nine storey Private Hospital building (2010). We have calculated the total floor area of the buildings currently on the campus to be 135,413m2, at a plot ratio of 1.14; this is at the lower end of the plot ratio allowable under the current Z15 Development Plan zoning of the site.

The total site coverage of the existing buildings on the campus amounts to approx. 36%, also below the indicative 50% threshold set out in the current Z15 zoning standards.

Topography / Levels:

The SVUH site slopes from south to north with the ground levels falling from approx. +10.0m OD along the south and falling to approx. +4.0m OD at the north close to the Merrion Road. The sloping nature of the site from south to north has impacted on the setting of building floor levels and ground floor levels within existing buildings across the campus range from +6.00OD to +9.10OD.

Transportation and Accessibility:

In 2016 the National Transportation Authority published: Transport Strategy Greater Dublin Area 2016-2035, setting out the vision of a sustainable transport future up to 2035. This policy document proposes an alternative to the existing trends which have resulted in increased traffic congestion and a loss in economic competitiveness. It sets out measures aimed at increasing the share of the population that are walking, cycling, using public transport and leaving their cars at home. The fundamental objective underpinning this strategy document is the provision of a high quality, integrated and sustainable travel and transport infrastructure that supports the movement of people and goods within the greater Dublin region.

Presently the St. Vincent's University Hospital campus is very well served by public transport, this has been acknowledged by the Dublin City Council and National Transportation Authority. The public transport features which directly serve the campus consist of Dublin Bus services which stop along Merrion Road and Nutley Lane. In addition there are extensive bus services on the R138 Stillorgan Road which are within a 10 minute walk from the campus. Furthermore Sydney Parade DART station is approximately a 4-mintue walk from the campus.

An assessment of the existing public transport network has been undertaken and the public transport network that directly serves, or is in walking distance, of the campus can cater for approximately 38,500 passengers during the morning peak between 0700 and 0900 hours.

This excellent public transport network is critical to the current and future operations of the SVUH campus, furthermore the National Transportation Authority are proposing significant investment in public transport on both the Merrion / Blackrock and the R138 Stillorgan Road corridors. This investment also includes enhanced orbital public transport and cycle routes.

Consistent with the NTA strategy and building on excellent sustainable measures currently being implemented by SVUH the following target modal splits are envisaged for the campus into the future:

- By walking - 11–15%
- By cycling - 20-25%
- By public transport - 28 – 35%
- By car - 25-34%

It is clear that the public transport network, even without the proposed upgrades on the R138 Stillorgan Road (formerly the N11) and on the Merrion / Blackrock corridor has ample capacity to support the ongoing development of the campus into the future. The key benefit of these measures will be to reduce commuter traffic that, at times, can dominate traffic flows on the adjoining road network causing congestion at peak periods. It is important to note that peak traffic times for the SVUH campus are earlier than the general commuter peak traffic period.

The existing SVUH campus has 1,318 car parking spaces distributed throughout the entire campus with 1,012 spaces associated with St Vincent's University Hospital with the majority of the remainder provided for St. Vincent's Private Hospital. The majority of the existing University Hospital spaces are located in the multi-storey car park located north of the spine road and the underground carpark at the Clinical Services block. All car parking within the campus is actively managed with a focus on ensuring that spaces are available for patients.

In evaluating future demand it is important to consider the nature of redevelopment proposed within this Site Capacity Study. Section 6.1 of this report notes a potential future development area of circa 127,500 m² of which circa 40,000 m² is for the provision of new services, the balance being the replacement of existing outdated building stock. If we conservatively assess the impact of the additional staff and patient population resulting from increased capacity and organic growth, it would result in approximately 250–350 additional car park spaces being potentially required over the life of the campus development up to 2035. Should this quantum be realised it would have a negligible impact on the local road infrastructure. This potential additional demand represents a worst case scenario as it is most likely that it will be further reduced or, indeed, eliminated by the growth in sustainable transport modes.

The campus is very accessible for all transport modes. There are dedicated cycle routes along the Merrion Road and on the R138 with proposals for further enhancement to these routes as part of the aforementioned investment. There are excellent onsite cycle facilities and these will continue to enhance as part of ongoing campus developments, for example there are an additional 270 secure cycle spaces provided as part of the National Maternity Hospital development.

St. Vincent's University Hospital has an established commuting management framework and strategy, with some significant achievements noted to date in particular in respect to cycling where it enjoys above average use of this mode. This established framework including ongoing engagement with the relevant stakeholders such as DCC, the NTA and the local community will provide the necessary regime for the management of all aspects of commuting to and from the campus.

The site is also relatively open along its southern boundary to the Merrion Road which creates an open and accessible public sense to the campus. A friendly dedicated pedestrian access from the Merrion road will continue to provide good connections from the pedestrian spine to Merrion Road, the Merrion Road bus stops and on to Sydney Parade DART Station via a number of controlled pedestrian crossing points that are on the surrounding road network.

Access:

There are two primary entrances to the campus one off the Merrion Road and the other from Nutley Lane. These are connected to each other by a campus spine road which provides access to the main entrance to the Hospital at the front of the Clinical Services building and the various car parks located around the campus.

As part the development of the National Maternity Hospital on the Campus, a number of upgrades are proposed for the main access points to the campus at both Nutley Lane and Merrion Road. These upgrades will enable the junctions to operate in a more efficient manner, with the result of improved traffic flows on Nutley Lane along with an improved level of service for pedestrians and enhanced vehicle queuing within the campus. The proposed junction improvements are described in the Environmental Impact Statement.

A key priority in the delivery of appropriate patient-centered services is the establishment of a dedicated 'Blue route' access for emergency vehicles. The development of a dedicated blue route provides unhindered access to the Emergency Departments and facilitates faster patient treatment with improved treatment outcomes.

A fire road connects the Nutley Lane entrance to the roundabout between the Herbert Wing and the Private Hospital completing a full ring road to the south around the clinical areas.

Boundary Conditions:

Site boundary conditions vary considerably in nature around the site's edges. The site is bounded to the south by the green spaces of Elm Park Golf Club. The boundary to the west, Nutley Lane, is a predominantly residential area with a large scale retail development to the north-west. The boundary to the north, Merrion road, is a busy and established road link to the city centre and the boundary to the east comprises a mature two storey redbricked residential street, Herbert Avenue, and a private Nursing Home site to the west of the St Vincent's Private Hospital.

The campus is a strategic healthcare facility located in a busy district centre at Merrion on a

Proposed Buildings to be Demolished in SVUH Future Development

Map Key:

C-	Breastcheck	S-	Elm Mount Unit
H-	Main Ward Block	T-	Education and Research Centre
L-	Nurse Education Centre	U-	Carew House
M-	Car Park	V-	Clinical Research Centre
N-	Clinical Services Block	X-	Nutley Wing
P-	Herbert Wing	Y-	Administration and HR
R-	St. Rita's	Z-	Mortuary

key economic corridor to the south east of the city. The surrounding land uses include the designated district centre at Merrion Shopping Centre, large tracts of institutional and office uses such as RTE, Elm Park Business Campus, St. Michael's College, and the Caritas Convalescent Centre, smaller neighbourhood centres 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.

This open space to the south of the campus provides a unique setting for the hospital campus and its open nature and mature boundary planting means that it offers advantages in terms of daylight, sunlight and views that make it suitable for patient ward spaces such as the recently completed Nutley Wing.

Building Stock Analysis:

The site comprises over 36 buildings in various states of repair and functionality. As noted above the existing buildings comprise a total are of 135,413m2. We have identified those buildings which we consider have a long-term value to the hospital and which should be integrated and incorporated into the longer term plan for the site. These are indicated on the drawing opposite.
The buildings to be retained comprise a total area of 75,640m2, which represents a significant portion of the current building stock on the campus (56%) and reflects the recent developments at SVUH noted above. The remaining buildings, highlighted in red on the drawing to the left, are likely to be demolished in the medium to longer term future.

Built Heritage:

There are no protected structures within the St Vincent's University Hospital site but the site is bounded to the east by Herbert Avenue which is zoned Z1 and Z2 (Residential Conservation Area) in the current Dublin City Development Plan 2016-2022. There are a number of protected structures on Estate Avenue further to the east, although these are screened from the campus by Herbert Avenue.

Landscape:

The original St Vincent's hospital was designed as a series of buildings set within the green or landscaped areas of Elm Park. As the campus has developed it has become more dominated by buildings roads and hard surfaces. Nevertheless the campus has retained a strong sense of landscaped elements which have been integrated into new developments and this has informed our approach to the design of the landscape and public realm across the current NMH development. The adjoining Elm Park Golf Club to the south comprises a large green open space with a significant bands of tree planting. The planning opportunities to integrate patient and landscape areas with this open space are included in the 2006 ODCP.

Service and Deliveries:

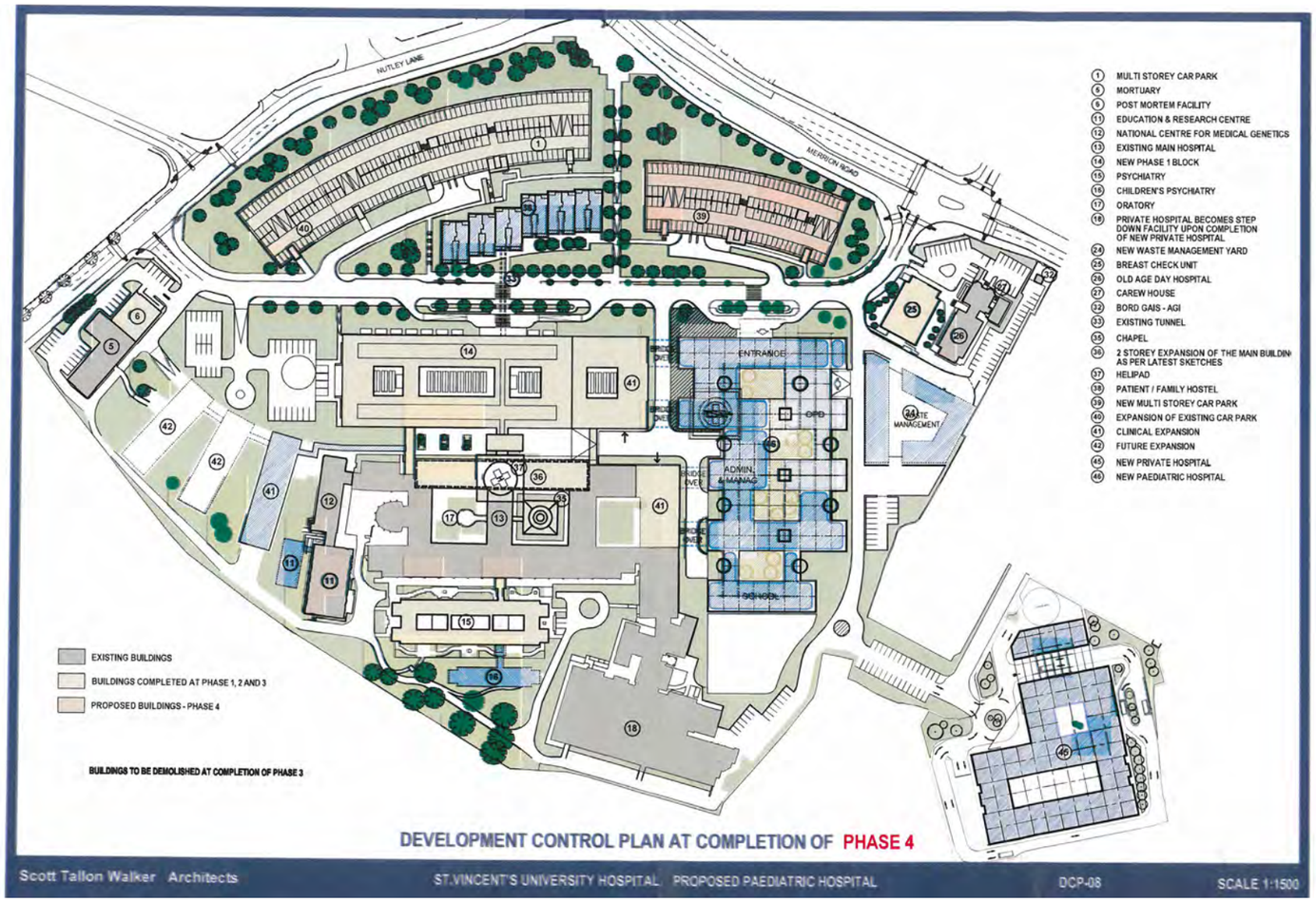
The existing service and delivery yard currently located on the NMH site is at approximately +6.0m OD. This is almost one floor below the main public entrance into the Clinical Block and is referred to as Level B by SVUH. The existing delivery yard, stores building, kitchen, waste yard, linen deliveries, pharmacy and medical record departments are all accessed at this level. It is used as the principal FM distribution level in the campus linking all of the FM services to the rest of the hospital via a series of corridors which lead to lift cores connected to the upper levels of the hospital buildings.

Infrastructure:

As is to be expected with any major national hospital facility, the existing site contains an extensive below ground infrastructure network, including energy and services distribution, local foul and storm water. All the services have been surveyed and strategies developed in consultation with St Vincent's and relevant statutory or other bodies to divert, re-provide or safeguard as appropriate.

The campus drainage infrastructure is substantially separated between dedicate foul and surface water drainage networks. Further improvements and separation of these systems will be implemented in line with future campus developments. All future developments are likely to continue to develop the strong principles of separating the foul and surface water drainage infrastructure networks and to provide appropriate stormwater attenuation facilities.

On completion of the proposed National Maternity Hospital development, approximately 62% of the campus will be captured by stormwater attenuation facilities, with flow restriction devices, to reduce the peak flows entering the receiving system and mitigate the risk of surcharging the drainage network.
As the campus develops ESBN and GNI will be consulted on an individual project basis but from recent discussions there would appear to be no shortage of supply in the area.



ODCP 2006 - Development Control Plan

3.2 The Clinical Design Approach

The development of the Clinical Services Block in 2005 reset the centre of gravity for the clinical services on the campus and formed the fulcrum around which future clinical plans and design issues would be addressed.

With the completion of more recent buildings and the proposed National Maternity Hospital development a pattern for future development will be well set with core clinical services being provided in the centre of the campus, directly south of the spine road, ward accommodation to the south and east closer to the Elm Park golf club, and support services such as carparking; on-call services and some ambulatory services north of the spine road close to Merrion road

Within this emerging and planned pattern the key clinical design issues to be addressed are:

The development of appropriate single room in-patient ward accommodation across the entire campus;

Separation of emergency and elective patient pathways to improve operational efficiency and patient care;

Segregation of public and patient (particularly in-patient) circulation routes throughout the hospital to improve privacy and dignity;

Segregation of service traffic, both internally and externally, to improve the hospital environment, health and safety, infection control and to enable a more efficient delivery of facilities management services;

The further development and integration of clinical research and education facilities to support the co-location model and to develop partnership links with University College Dublin;

The provision for general expansion of clinical services across the site in order to support the expansion of current services and emerging new services into the future.

Key Planning and Design Issues:

We have also identified a number of key planning and design issues to be addressed in any study for future development at SVUH campus. These are as follows:

1. St Vincent's University Hospital is one of the largest hospitals in the country and at 11.89 hectares is a large landholding in the city. With the additional of the Maternity Hospital it will be become a public campus of national scale and importance: consequently it has a civic significance which extends beyond its strict clinical function.

2. An element of the building stock at SVUH is low rise in character and this has resulted in suboptimal use of valuable ground area within a highly serviced urban site. There is an opportunity to achieve a greater density of development on the site, and a more coherent functional plan within the current footprint of buildings on the campus.

3. There are opportunities to further develop landscape and quality public realm at SVUH and there is a need to address how these areas might be improved and enhanced in any future plan for the campus.

4. An improved public access, wayfinding / circulation infrastructure will be required to underpin the upscale of development required on the site, including the Maternity Hospital.

3.3 Area Schedule for development at St Vincent's University Hospital

Following the above policy developments and having regard to the 2006 ODCP, the Design Team, in consultation with SVUH and the HSE, has carried out detailed and rigorous examination of the total current site area requirements and projected service needs of St Vincent's University Hospital campus in the medium to long term.

The total floor area of existing buildings on the SVUH campus today is 135,413m^2, at a plot ratio of 1.14. The proposed new developments required at SVUH can be broken into three distinct developments:

1- National Maternity hospital project

2- The planned development of the e existing SVUH adult hospital

3- Further expansion for both adult and maternity hospitals.

The Maternity Hospital development:

The full Brief Area Schedule for the Maternity Hospital was prepared by the HSE in 2014, in consultation with the National Maternity Hospital and St Vincent's University Hospital.

The area required for the project amounted to a total of 62,660m^2 of new floor area including 11,884m^2 of multi-storey carpark development. Allowing for 8,765m^2 of demolitions required the total floor area of buildings on the SVUH campus following the maternity hospital development will be 189,308m^2, at a plot ratio of 1.59.

Note* The Maternity Hospital project includes a significant element of SVUH adult hospital developments and also includes shared non-clinical supports campus services for both hospitals.

The Adult Hospital development:

Following discussions with the St Vincent's University Hospital Executive and the HSE Estates, it was agreed to review the brief areas for development at SVUH in order to comprehensively address all current policy clinical priorities and standards since the 2006 ODCP.

Several meetings with stakeholders were held in order to carry out this review and the outcome was the identification of a series of projects and services required to be developed for adult services on the site into the future. Much of these project comprised upgrading of existing facilities necessary to comply with current needs and standards.

The anticipated area of new build accommodation required to deliver these services was prepared by the Design Team, and amounted to a total of 88,400m^2 of new floor area. Allowing for 51,009m^2 of demolitions required the total floor area of buildings on the SVUH campus following the adult hospital development will be 226,699m^2, at a plot ratio of 1.91

Further Expansion of the Adult and Maternity Hospitals:

In order to cater for expansion and for the purposes of the Site Capacity assessment expansion allowance has been added to the area figures as follows:

A further 20% expansion has been added to total area required for both Adult and Maternity Hospital developments, resulting in an additional expansion area requirement of 39,180m^2 for both hospitals.

Total Area Schedule for SVUH Campus:

As a consequence of all of the above allowances the total area envisaged for long-term development of the Adult Hospital; Maternity Hospital and the future expansion of both services is 265,879m^2 and this is the long term floor area which has been assumed to be required for the purposes of the Site Capacity Study of the campus at SVUH.

Please refer to Appendix A of this document for further detail on the area schedule.

3.4 City Development Plan Policy and Standards

Dublin City Development Plan 2016-2022:

Dublin City Development Plan 2016-2022 is the relevant Statutory planning document that sets out the policy and framework for planning and development at the site. The Development Plan is clear in its support of the future development of strategic healthcare facilities and one of the key pillars of the of the strategic approach to the City is *"developing academic medical centres providing excellence in research, care and teaching in the medical and health sectors."*

The continued development of the SVUH campus is, therefore, in line with the strategic growth of the city. This is further supported by policies CEE20, CEE21 and SN22, all of which seek to facilitate the future development of healthcare infrastructure in the city.

The site itself is zoned Z15 - *"To protect and provide for institutional and community uses"* and, as such, the following development management standards apply:

Plot Ratio:

The indicative Plot Ratio standard is set between 0.5 - 2.5 although higher plot ratios may be permissible on hospital sites.

Site Coverage:

The indicative site coverage is set at 50%

Open Space requirements:

The open space requirement is 25% public open space on Z15 lands (and/or the provision of community facilities) as provided for in Section 16.3.3 of the Development Plan. Notwithstanding the above, we have assumed that the site capacity study should place a priority on the provision of quality public open space.

Height Restrictions:

The site is located in what is referred to as a "rail hub" in the City Development Plan and the indicated maximum height allowable for development on these sites is 24m. However, the decision of An Bord Pleanála to grant permission for the St Vincent's Private Hospital at nine storeys (+45.15 OD) in 2007 and for the Nutley Wing at eight storeys in 2010 provides a useful insight into the carrying capacity of the site in terms of height.

It indicates that higher buildings may be acceptable from a physical planning perspective and that the visual impacts of buildings in excess of 24m have recently been assessed in a positive manner by the Planning Authorities (ABP an DCC).

The construction of these buildings also invokes the derogation on the above height limit where the Development Plan indicates that, where a site has a pre-existing height above the limits, a building of the same number of storeys may be permitted subject to meeting specific urban design and amenity protection criteria.

Notwithstanding the precedent set by these developments we have assumed for the purposes of the Site Capacity Study that future developments at the campus will be limited to six floors only above ground.

Car Parking

The St. Vincent's University Hospital campus, currently has a total provision of 1318 car parking spaces, with 1,012 of these spaces associated with St. Vincent's University Hospital. The proposed development of the National Maternity Hospital will result in an additional demand of approximately 277 car parking spaces, which is made up of 141 additional spaces for patients and visitors along with 136 spaces for staff. The impact of this development on the existing peak time road network is minimal, as illustrated in the Traffic and Transportation section of the Environmental Impact Statement.

The existing campus operates a strong ethos promoting sustainable modes of travel. This ethos will be strengthened by the implementation of a formalised mobility management strategy. The principles of the strategy are also outlined in the Environmental Impact Statement.

The future development on the campus will, in part, focus on upgrading existing facilities in line with current healthcare standards and demands. While there may be additional development area associated with these upgrades, for example in changing from multi-bed wards to single bed accommodate, this may not generate a requirement for additional parking on the campus.

As such, the requirement for additional car parking facilities on the campus, along with the associated impact on the local road network infrastructure will be primarily influenced by the expansion of existing services or the provision of new healthcare services on the campus. The provision for expansion of services is envisaged to be in the order of 39,943m^2 as noted above.

While the implementation of a robust mobility management strategy across the campus will continue to promote some element of additional car parking may be required as noted previously in this document. Should some or all of this requirement be realised there are a number opportunities within the campus to provide this future car parking demand which may also consolidate existing parking facilities. These may include the provision of additional structures in the vicinity of the St. Rita's building for example, benefiting from immediate access from Merrion Road and supporting the concept of enhancing the pedestrian core. Such car parking could be incorporated into a basement car park as part of the redevelopment of this site

As noted above the future development on the campus will be undertaken against the background of the 'Transport Strategy for the Greater Dublin Area, 2016- 2035' which proposes improvements to the wider public transport network proximate to the campus. These measure include significant investment for the Sandymount / Merrion to Blackrock corridor including dedicated cycle routes, greatly enhanced bus services and the segregation of the DART at Merrion Gates. This latter element will facilitate a significant improvement in the level of DART service. In addition, the provision of a two-way cycle route along Nutley Lane has been identified as a secondary Cycle Route in the Greater Dublin Area Cycle Network Plan. The R138 Stillorgan Road corridor will also benefit from investment in the proposed Blanchardstown to UCD Swiftway with the closest stop being located at the R138 Stillorgan Road / Nutley Lane junction.

Images above of SVUH Campus between the 1970's and today show that while considerable expansion and intensification of the site has already taken place, there are still a number of low density, underutilised zones which present opportunities for future expansion.

4.0 SITE OPPORTUNITIES AND CONSTRAINTS

4.1 Opportunities and Constraints

The Capacity Study has been shaped by the characteristics of the campus, which have been considered in terms both of opportunities and constraints.

Opportunities include the potential to:

• Re-develop the campus at greater density – as mentioned above, the development standards set by Dublin City Council set out an indicative maximum Plot Ratio of 2.5, whilst the equivalent figure for today's campus is just over 1.

It is an objective of National, Regional and Local planning policy to consolidate and intensify development in metropolitan areas, particularly proximate to high quality public transport infrastructure where higher densities can be adequately catered for;

• Improve clinical adjacencies – ensuring that departments are clustered in the most effective way to improve connectivity and reduce transfer times for patients;

• Increase permeability and connectivity– the campus is currently well served by a key public transport node: Sydney Parade DART stop. There is also the potential to create new pedestrian routes into the campus from Nutley and at the campus' eastern end, connecting through to the existing SVPH;

• To open out the campus to the wider city and interact more positively with the streetscape;

• To maximise the opportunities for economic synergies through the creation of a critical mass of heath care infrastructure that is directly linked with third level education (University College Dublin);

• Take better advantage of the views and areas to the south at Elm Park golf club – as an amenity for the benefit of the hospital;

• Develop an integrated campus energy strategy – the National Maternity Hospital project offers the chance to start this process through the creation of a shared energy centre below the new building. Once this has been realised, the existing energy centre can be further developed to the south in future projects;

• Expand and develop the shared service yard and facilities management hub – develop a network of below ground links to move goods between buildings.

This has the benefit of removing service traffic from the centre of the campus (less noise and greater safety) and keeping FM flows segregated from public and clinical flows (improved control of infection and less congested corridors);

• Locate additional future car parking (if required) underground – taking its cue from the underground parking below SVUH clinical services building / main entrance, the future campus could regain valuable space for a better quality, pedestrian and cyclist orientated public realm;

• Improve wayfinding – SVUH covers a large site area and includes many different buildings with different entrances, making wayfinding difficult for first-time visitors. Some key desire lines, like the east-west route along the hospital's spine road, offer opportunities for continuity of footpaths, making it easier to progress through the campus.

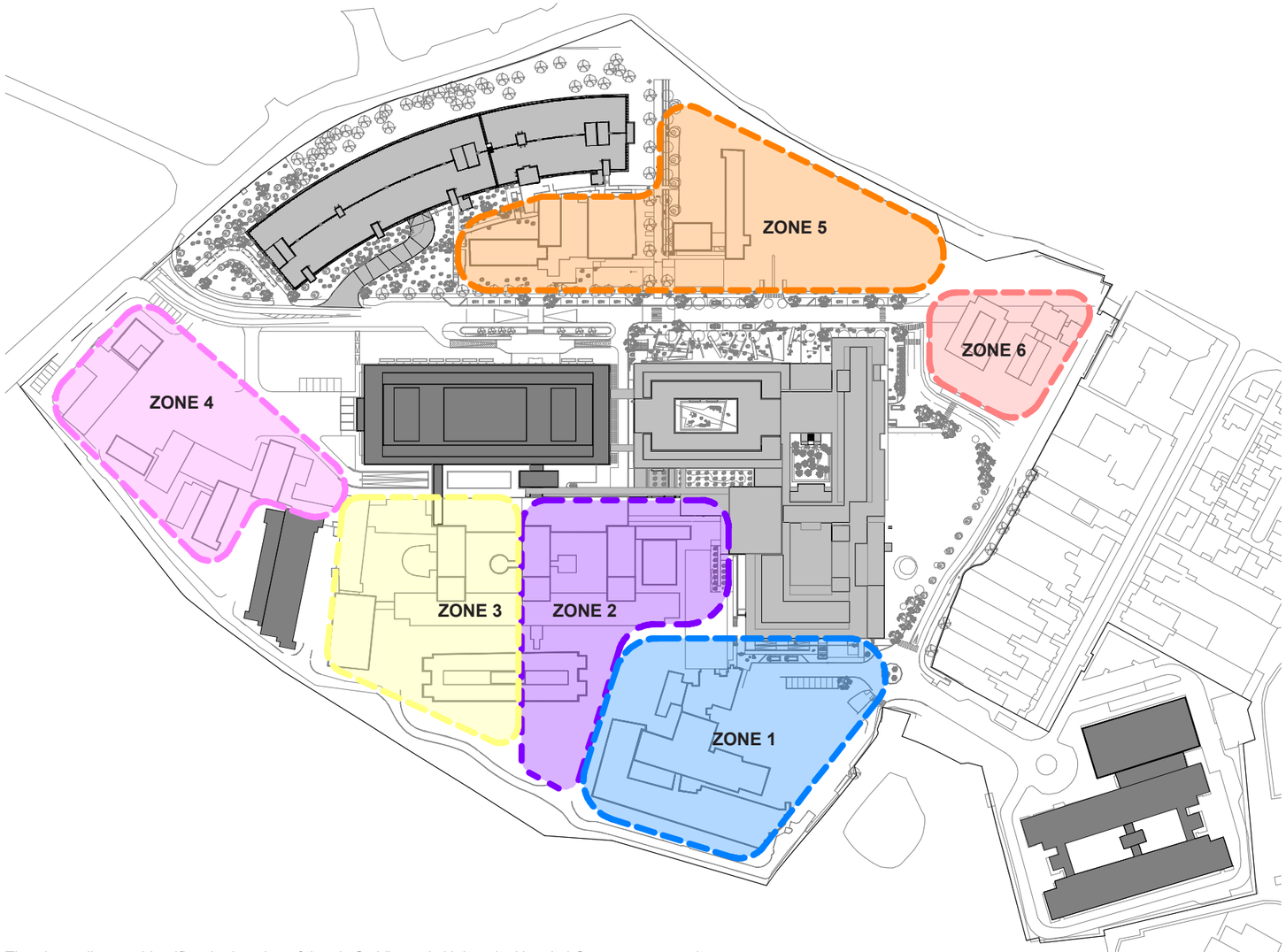
Constraints include:

• Dublin City Council maximum height standards – which set a guideline height for new developments of 6 storeys (or circa 24m) from ground level (although higher buildings may be permissible on the SVUH campus due to pre-existing heights). The capacity study adheres to this standard but anticipates that future buildings will have one or more basements to cater for compatible clinical uses, engineering services or car parking;

• Residential character of some neighbouring properties – particularly to the east and west, reinforcing the need to be sensitive to their scale and character as well as issues of privacy, daylight and overshadowing;

• The need to safeguard the hospital's operations at all times; this is an overriding imperative, which requires a very considered approach to phasing, maintaining existing buildings in safe operation whilst new buildings are constructed;

• As noted the local road network can become congested at times with both orbital and radial commuter traffic. This is not dissimilar to other parts of the network and should not be considered an impediment to the long term growth of the campus, particularly given the present and proposed excellent level of public transport that both now and into the future will provide an alternative transport mode for patients, staff and visitors. This ability to provide an alternative to private car use is a key component of the National Transportation Authority's strategy for Dublin.



The above diagram identifies the location of the six St. Vincent's University Hospital Campus opportunity zones.

4.2 Opportunity Zones

Apart from the proposed maternity hospital site, a number of key opportunity zones have been identified as future development zones:

Zone 1

The site of the existing four storey Herbert Wing and ancillary buildings, the former Private Hospital Clinic. This includes a significant area of surface parking between the Herbert Wing building and the rear of the proposed Maternity Hospital development in an overall area of 9,150m^2. Following the construction of the new St Vincent's Private Hospital (2010) the building is now occupied by the SVPH at lower ground level only and by SVUH at upper levels with a mix of clinics and inpatient accommodation. The site has been identified as an appropriate location for expansion of FM and support services at lower levels and clinical support services at upper levels including possible SVPH support services.

Zone 2 / Zone 3

The site of the existing original 1970 five storey St Vincent's Hospital building. This also includes the more recent two storey Psychiatric Unit (2005) to the south of the original hospital building, and comprises a total area of 14,000m^2 The original building comprises the majority of ward accommodation in large multi-bedded rooms that fulfill important clinical functions but are generally in need of modernisation. A more dense redevelopment closer to the existing Clinical Services block would improve core clinical services and create a more condensed core of clinical services for the adult hospital. New buildings on the southern edge could be designed to take advantage of their south-facing aspect and proximity to Elm Park golf club and create a better balance between inside and outside space with more area for gardens. This would be a particularly suitable location for new single bed inpatient wards whose bedrooms would benefit from sunlight, landscape and views.

Zone 4

The site directly to the west of the new eight storey Nutley Wing.

A second phase of this development has been anticipated for some time and is noted on the 2006 ODCP for the campus. The site is currently occupied by low rise, low density single-to-three storey structures providing non-clinical support services such as administrative services and comprises a total area of 7,400m^2. As with the site Zone 2 above, this is a promising location for new single bed inpatient wards whose bedrooms would benefit from sunlight, landscape and views to the Elm Park Golf club.

Zone 5

The St Rita's site directly to the north of the campus along the Merrion road (Zone 5). The current site comprises the four story St Rita's On-call accommodation and the adjacent two storey Clinical Sciences building, and comprises a total area of 11,100m^2. A large portion of the site to the east is currently is use as a surface car park. New buildings along the Merrion road could be designed to provide out-patient and support services or education and research facilities with direct street access close to public transport services. The development of the site would also create a more urban street frontage to the hospital and development could be limited to three or four storeys in height, having regard to the scale of existing buildings in the area.

Zone 6

The site in and around the existing two storey Breastcheck and Carew House buildings on the northeast corner of the campus along the Merrion road. The site is a relatively small site and comprises a total area of 2,900m^2; however, there is an opportunity in this zone to develop a more efficient and effective traffic flow and street frontage through a realignment of the site entrances and the creation of zone for development adjacent to, and east of, the proposed Maternity Hospital. In addition there is also a public realm and landscape opportunity zone along the spine road where the enhancement and completion of the east-west public / pedestrian zone alongside the spine roadway could be completed across the entire campus from Nutley Lane to Merrion road thereby completing the vision set out in the 2006 ODCP for the campus.

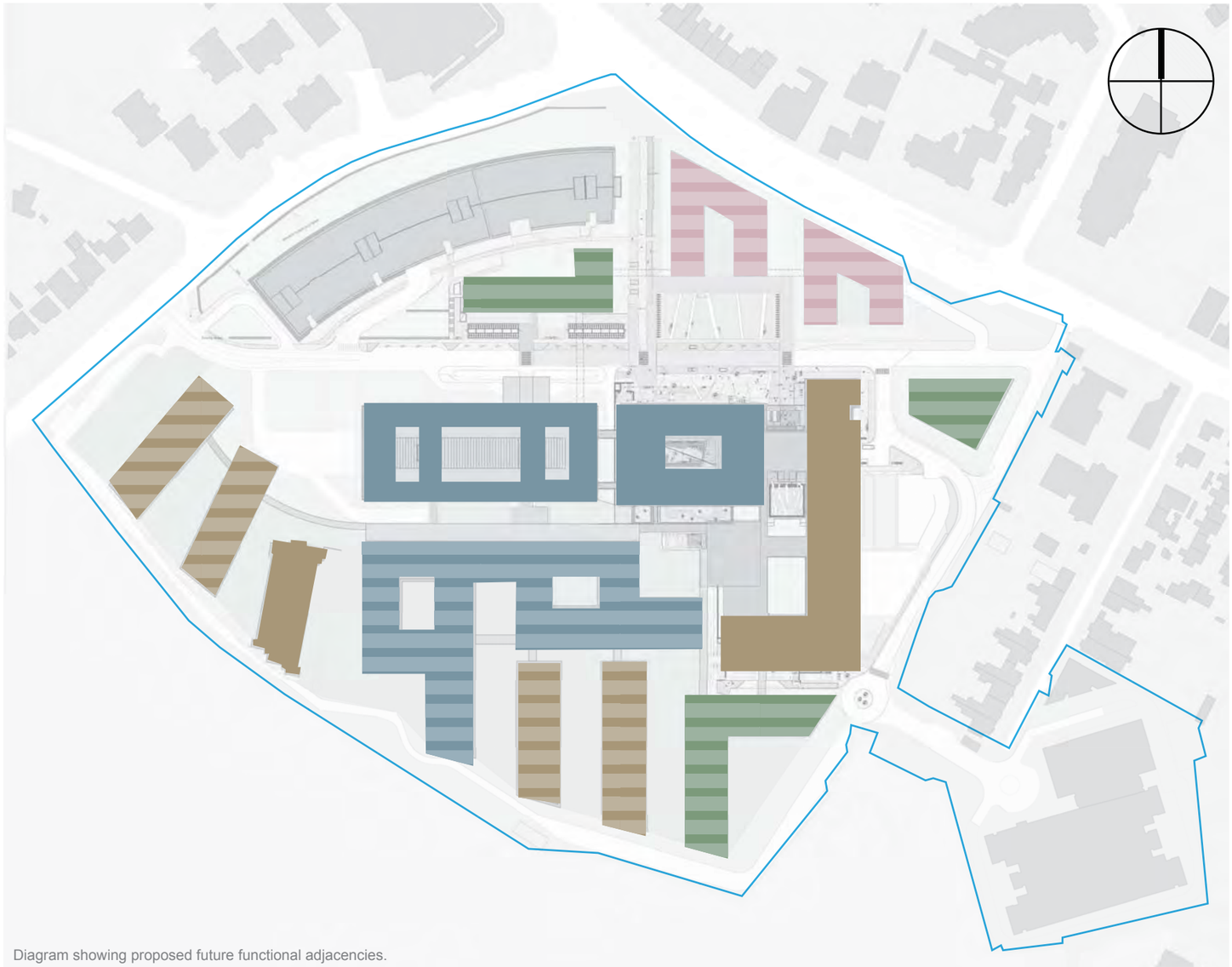


Diagram showing proposed future functional adjacencies.

Existing & Proposed Ward Accommodation

Future Proposed Clinical Services

Existing & Proposed Clinical Services

Future Proposed Clinical & Non-Clinical Support

Future Proposed Ward Accommodation

Future Proposed Ambulatory & Support Services

5.0 CORE STRATEGY / STRUCTURING PRINCIPLES

Six core principles underpin the vision for the future campus:

Principle 1 - Functional Adjacencies

Recognising the primacy of the imperative to organise functions in ways that are consistent with the campus' medical mission, enhancing staff performance, clinical and research synergies and the patient experience. Achieving this in a phased way without excessive disruption to ongoing operations is a crucial consideration that is central to the thinking behind the development scenarios described later in this report.

As noted in Section 2.2 above, the 2006 ODCP set out a plan which broadly split the campus into three zones: Standalone; High Tech; and Low Tech. The high tech zone was an 'L' shaped area which includes the Clinical Services building and lands now proposed for the NMH development. The plan has been broadly respected in the development of projects in the intervening period between 2006 and today the location of the Maternity Hospital implemented follows the logic set out in the plan.

The current Site Capacity Plan builds on the functional adjacencies now established and allows for appropriate expansion of a high tech clinical core directly to the south of the clinical service block together with provision new single bed ward accommodation and other support services in the zone to the south of this facing the Elm Park golf club.

Principle 2 - Internal Links

One of the key requirements in planning a hospital campus based on a co-located model is the provision of clinical and services links to support clinical services and co-location model requirements.

The current hospital buildings and services are supported and linked internally through an east-west spine circulation at ground and basement level.

The current proposed NMH development seeks to strengthen and develop this east-west circulation system and lay the foundations for the further development of this circulation spine at all levels to serve the long-term development for further buildings and services on the campus.

The studies carried out for the Site Capacity Study indicate how such strong circulation system could provide excellent efficient access for all patient staff visitor and service requirements to future developments as set out in the drawing on the following page.

Principle 3 - Shared Services

There is significant potential to capitalise on synergies and economies of scale by sharing common infrastructure in terms of facilities management (FM) and energy.

The current proposed development provides for shared services in all of the major non-clinical support services required:

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

The site capacity plan allows for the strengthen-

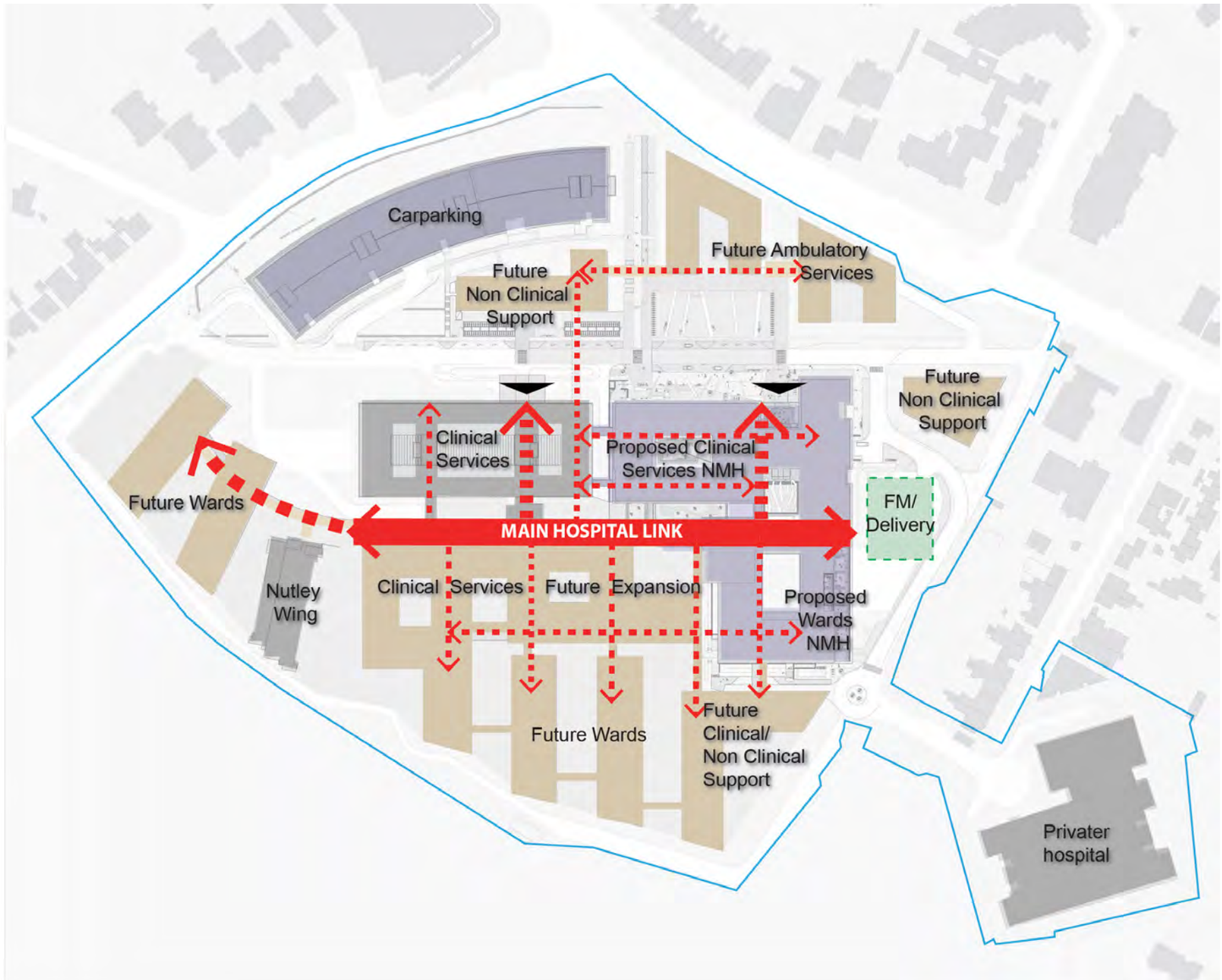


Diagram showing proposed future locations of internal links.

ing and development of such shared services and has designated space in Zone 1 directly adjacent to the south of the shared services facilities in the NMH development. This will allow for the consolidation and expansion of such services with direct routes for deliveries from the east and distribution within the hospital building via the east west internal circulation spine noted on the drawing above.

Principle 4 - Flexibility and Expansion

The nature of hospital facilities is that they must be in a position to respond to changes in practice treatment and technology over time. Any long term plans for hospital campuses have to be flexible to accommodate such change and also allow for general expansion of core services.

This study shows how this requirement for flexibility can be achieved through options for development in an incremental way within an overall vision, and thereby respond to changing needs and priorities over time.

The broad requirements for expansion of clinical and other facilities right across the campus has been reviewed with the HSE and the hospital stakeholders an allowance for 20% expansion of all services has been provided for in addition to the current know development requirements of both SVUH and the NMH.

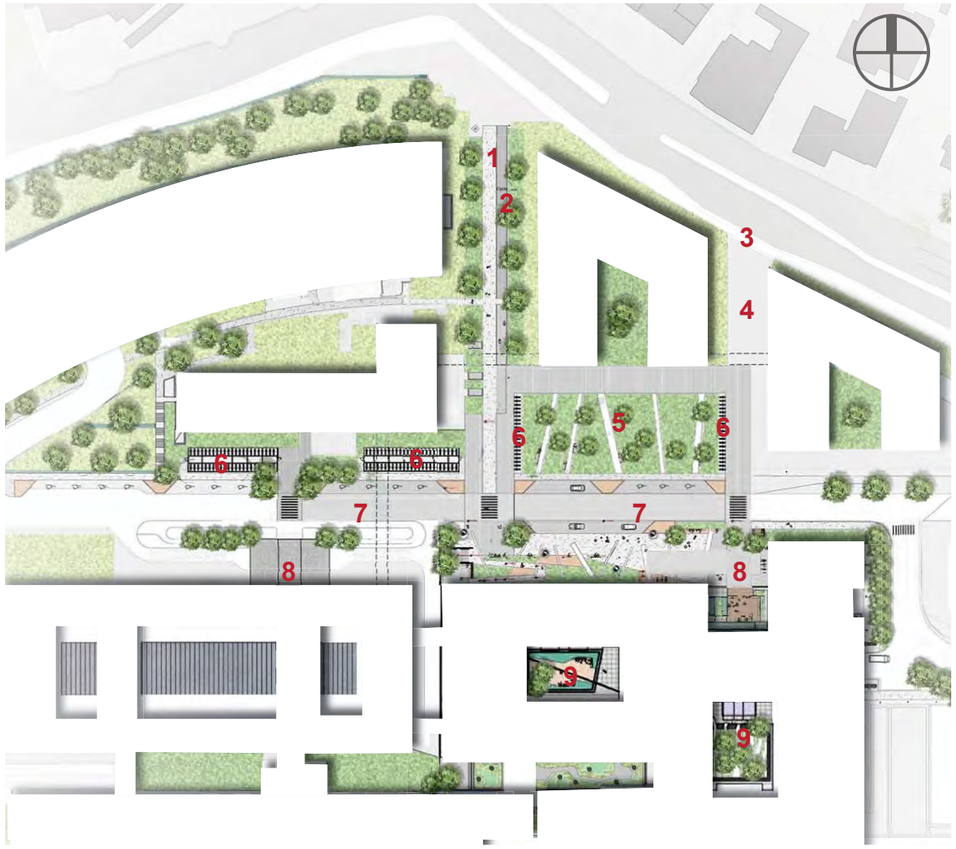
The requirement for any future development and expansion must also be planned so that it can be achieved without major disruption to provision of existing services. The study has carefully considered the existing services that are likely to be retained and those that are likely to be developed and has planned the development of the site accordingly.

Principle 5 - Public Realm

The campus represents a significant piece of urban infrastructure and a major public destination in the south city. Its public spaces should reflect this importance and set a framework for future development of buildings, routes and external spaces.

The redevelopment of the campus provides an opportunity to enhance the public realm by redefining the open space areas on the campus. In this regard the space can be categorised as public amenity space and amenity landscaping. Public amenity space is accessible space that can be used by patients and visitors and can enhance enjoyment of the outdoor areas. The changes to the campus access strategy will result in a central spine road that is less heavily trafficked than at present and this will allow for more pedestrian friendly treatments to be incorporated into the layout of the campus. The first stage of this will be delivered with the proposed National Maternity Hospital development, which incorporates a high quality landscaped area to the front of the new building. This can be enhanced further in the future when Zone 5 is developed and this central space could become the "heart" of the campus, linked to the public road via the landscaped walkway and with a number of campus buildings opening out onto this core space.

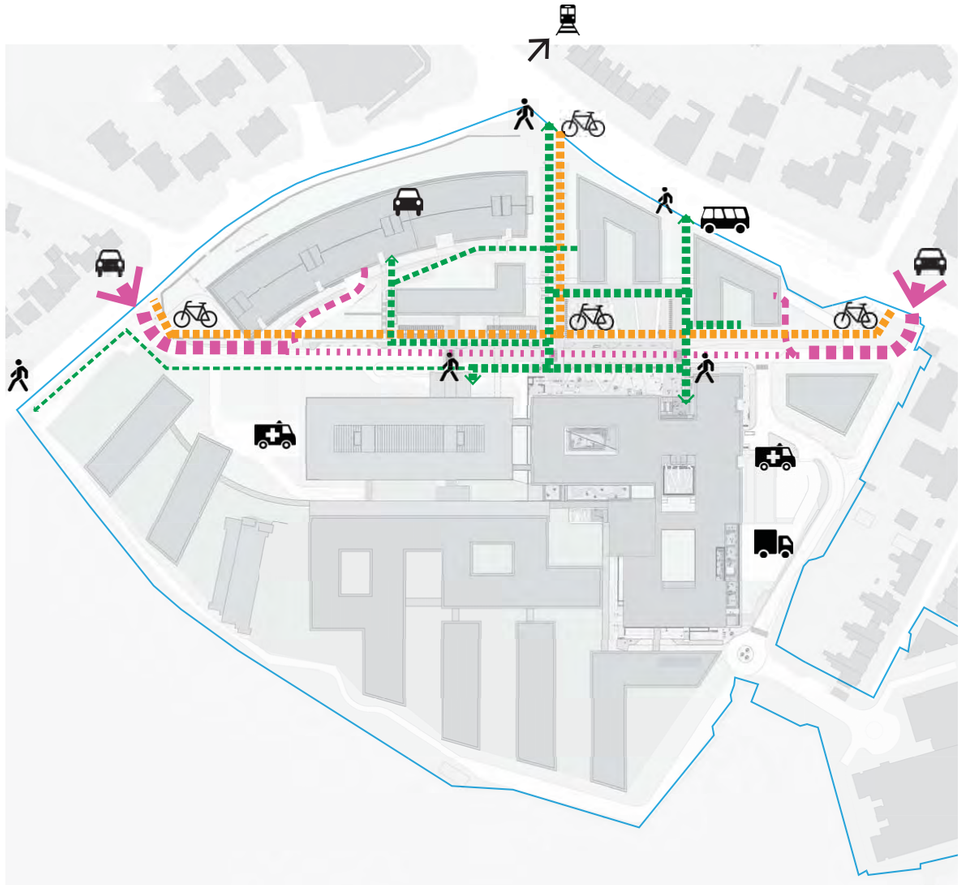
Amenity landscaping is important in a hospital environment and, in particular, where the hospi-



Proposed future Public Realm

Map Key:

1- Primary Pedestrian Route
2- Bicycle Path
3- Bus Stop
4- Secondary Pedestrian Route
5- Public Plaza
6- Bicycle Stands
7- Set Down Areas
8- Entrances to Main Hospital Buildings
9- Green Courtyards



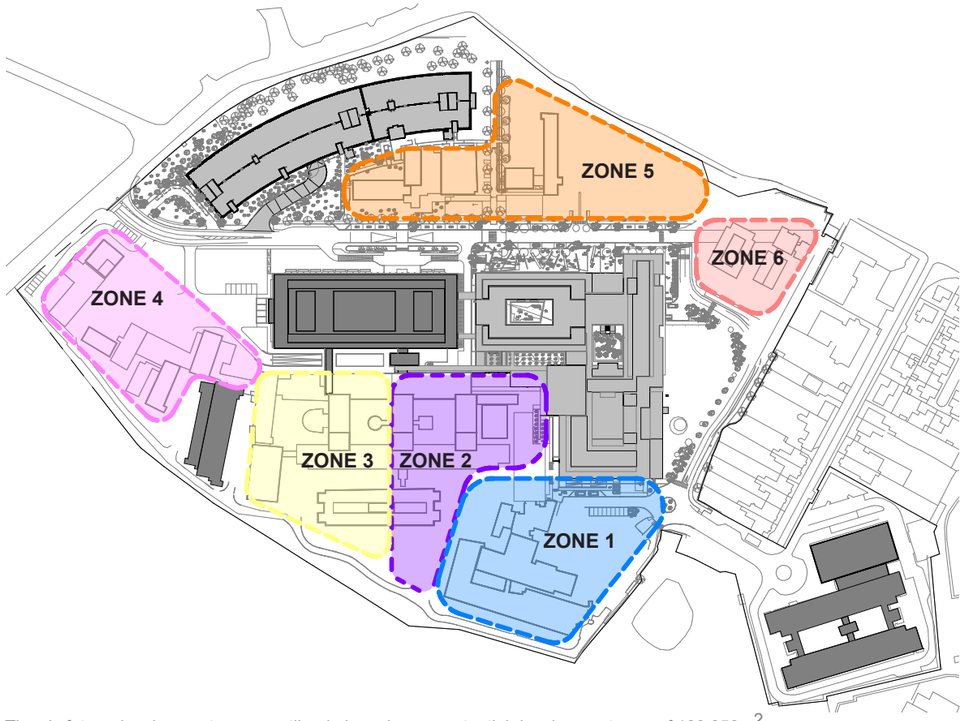
Proposed future Pedestrian and Vehicular Circulation

tal interacts with a significant open space. The opportunity to draw in the green spaces to the south in between the future ward "fingers" has been fully exploited in the suggested Site Capacity layout. This allows for a softer space between the buildings and offers improvements to the amenities of the patients. Opportunities for more incidental amenity spaces throughout the campus have been identified and it can be said that the development of the campus to the capacity indicated can be achieved without negatively impacting on the ability to deliver a high quality and therapeutic environment.

Principle 6 - Integrated Mobility Plan

With a large workforce and equally large numbers of patients and public visiting the campus everyday a sustainable development plan requires careful consideration of mobility. An integrated mobility plan will encourage a more balanced approach to travel to and from the site with less reliance on cars and a more effective uptake of other modes, including public transport, walking and cycling.

The development of more protected and friendly access routes for pedestrian and bicycle users is set out in the current proposed development and may be extended along the east west spine in future. This will allow for continued improvements in access to public transport facilities (bus and dart) and continued expansion of cycle paths, bicycle stores and other support / changing facilities along the spine road adjacent to both hospitals.



The six future development zones outlined above have a potential development area of 130,350m^2

6.0 SVUH CAMPUS CAPACITY ASSESSMENT

The capacity assessment is structured around the public realm strategy, core principles and opportunity zones described above. It is also informed by the schedule of clinical requirements and the functional demands of the campus and co-location model.

The public realm strategy described above sets out a visual and spatial planning strategy for the site that places an emphasis on the development of a high quality public landscape, and the enhancement of safe and pleasant and public spaces to the front of the hospitals and the development of green fingers / gardens to the south around inpatient spaces for those attending the hospital. This planning strategy underpins the strategic layout upon which the plan for the expansion and development of clinical services is set out.

The core principles for the layout of future hospital services is considered having regard to the 2006 ODCP and existing and planned developments at SVUH. It takes into account the need for careful planning and provision for appropriate functional adjacencies; hospital links and the efficient flow of services throughout the campus.

In the context of the above a series of areas for development have been identified as future development zones. Within each opportunity zone we have identified potential activities and architectural massing.

This is indicative only but has been done to show what is possible within the physical constraints of the particular plots and the town-planning parameters set by Dublin City Council. We have, for the purposes of the Study assumed that building heights be limited to 6 storeys above ground.

Other factors influencing the grain of development include:

• Phasing – this is summarised in the next section, where we set out a number of different scenarios for the phasing of the development.

• Core Clinical Functions – this considers proposals for the expansion and development of the core clinical functions within the adult hospital in line with the direction of change of acute healthcare facilities and the position of SVUH within the Dublin East Healthcare Group

• Ward Functions – wards have different functional characteristics from diagnostic and treatment areas. Wards require shallower plan depths and lots of perimeter curtilage for bedrooms; operating theatres and imaging departments function more efficiently in deeper plan areas

• Micro-Climate – the orientation of new buildings to maximize penetration of daylight and sunlight and shelter external spaces from prevailing winds

• Landscape and Green Spaces – ensuring that the massing and plan layout of new buildings supports the integration of landscaped courtyards elements particular around potential ward areas along the campus perimeter

• Emergency Access – protect the existing adult emergency drop-off zone and allow for expansion and development of ED.

• Carparking – support the progressive release of surface carparking for development and replace it with below ground parking in future developments.

• Access and Circulation - provision of pedestrian permeability and cycle ways through the campus

• Adjoining Developments – the campus sits within an existing neighbourhood and regard will be had to adjoining residential areas where there is a transition.

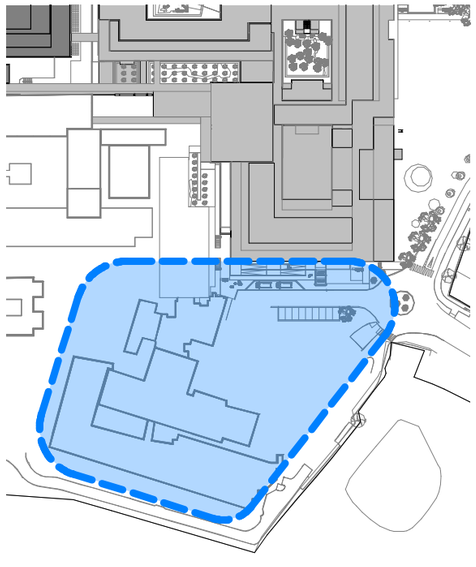
• The Wider City – while the current campus is reasonably open, there are opportunities to interact more positively with the wider local urban centre, particularly through improved pedestrian permeability and more active / open frontages.

6.1 Capacity of Opportunity Sites

As noted in Section 3.3 above and set out in detail at Appendix 1 the total area envisaged for long-term development of the Adult Hospital; Maternity Hospital and the future expansion of both services is 265,879m^2.

The table below demonstrates that this capacity can be delivered on site through the potential for future development on the identified Opportunity Zones. The characteristics, constraints and capacity of each of these opportunity sites (Zone 1-Zone 5) are set out on the following pages.

EXISTING BUILDINGS RETAINED	CURRENT PROPOSED NMH DEVELOPMENT	AREA OF POTENTIAL FUTURE DEVELOPMENT ZONES 1-6	TOTAL
75,640 m^2	62,660 m^2	130,350 m^2	268,650 m^2

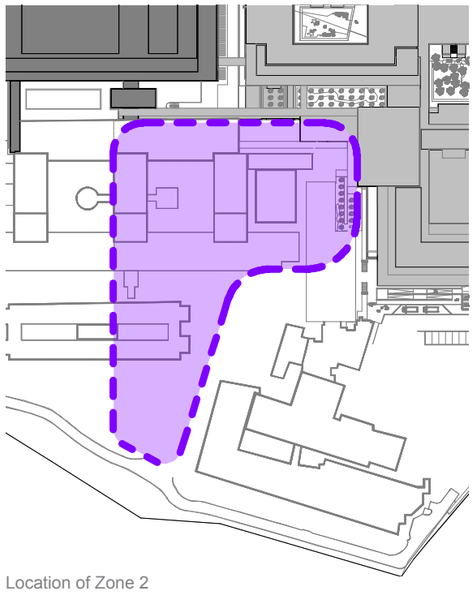


Location of Zone 1

Development Zone 1

This site has been identified as an appropriate location for expansion of FM and support services at lower levels and clinical support services at upper levels including possible SVPH support services lined back to the existing tunnel link across to SVPH.

The total gross internal floor area (GIA) that is achieved through the proposed development of the zone 1 site over six floors plus basement as set out below is 27,750m^2.

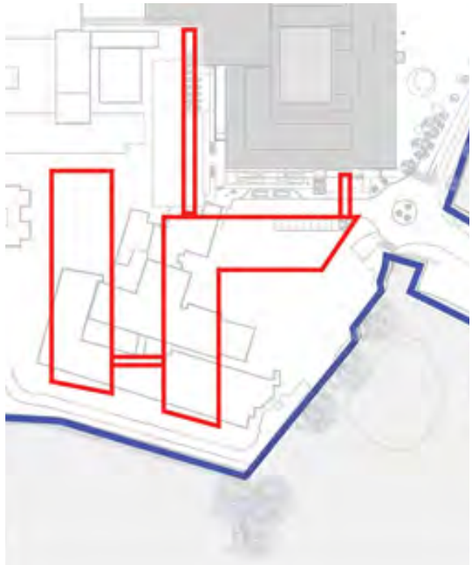


Location of Zone 2

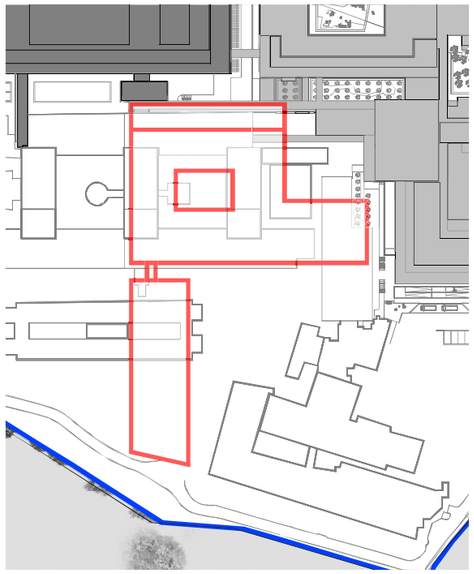
Development Zone 2

This site has been identified as an appropriate location for expansion of core clinical services, a logical expansion of the current Clinical Services block, together with two new blocks of single bed inpatient ward accommodation.

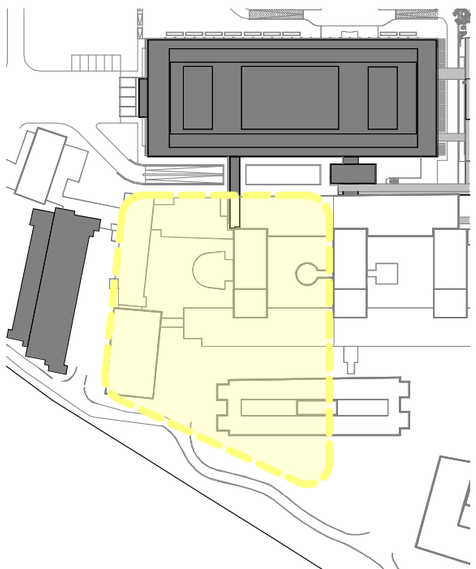
The total gross internal floor area (GIA) that is achieved through the proposed development of the zone 2 site over six floors (plus part basement under clinical services areas) as set out below is 31,830m^2.



Development Potential at Zone 1



Development Potential at Zone 2

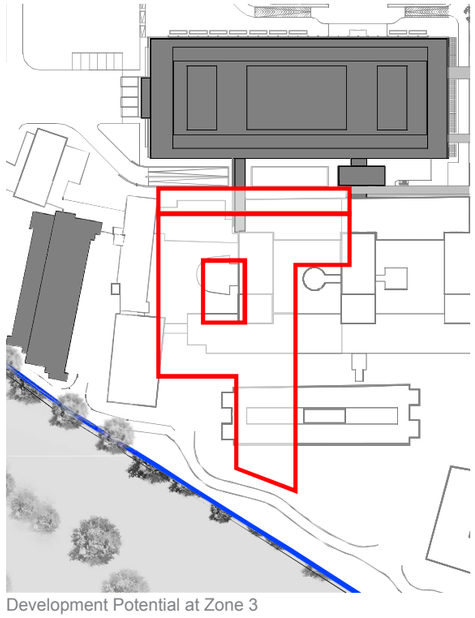


Location of Zone 3

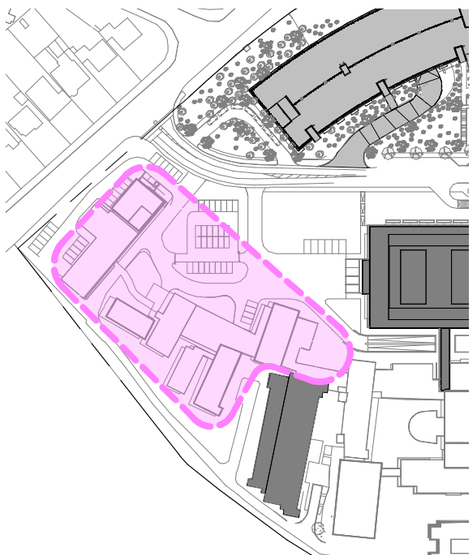
Development Zone 3

This site has also been identified as an appropriate location for expansion of core clinical services, as with Zone 2, a logical expansion of the current Clinical Services block, together space clinical support services towards the southern part of this zone.

The total gross internal floor area (GIA) that is achieved through the proposed development of the Zone 3 site over six floors (plus part basement under clinical services areas) as set out below is 28,770m^2.



Development Potential at Zone 3



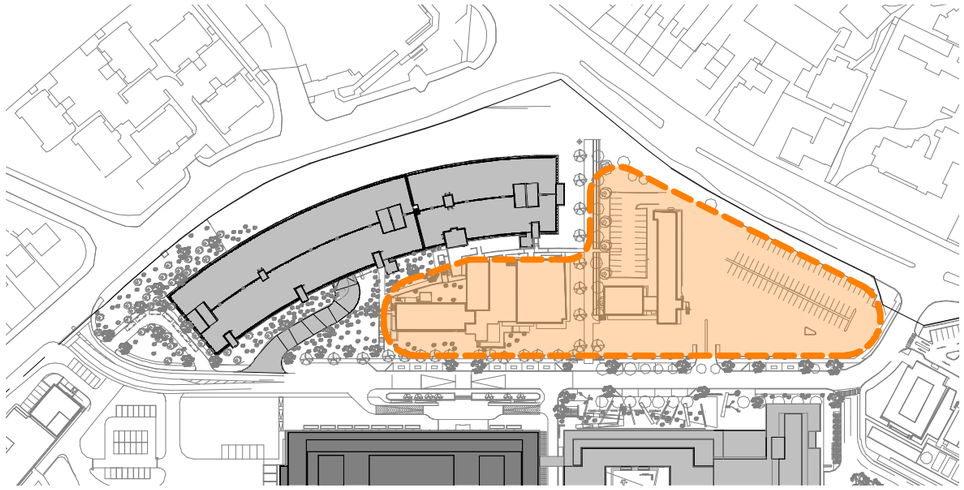
Location of Zone 4

Development Zone 4

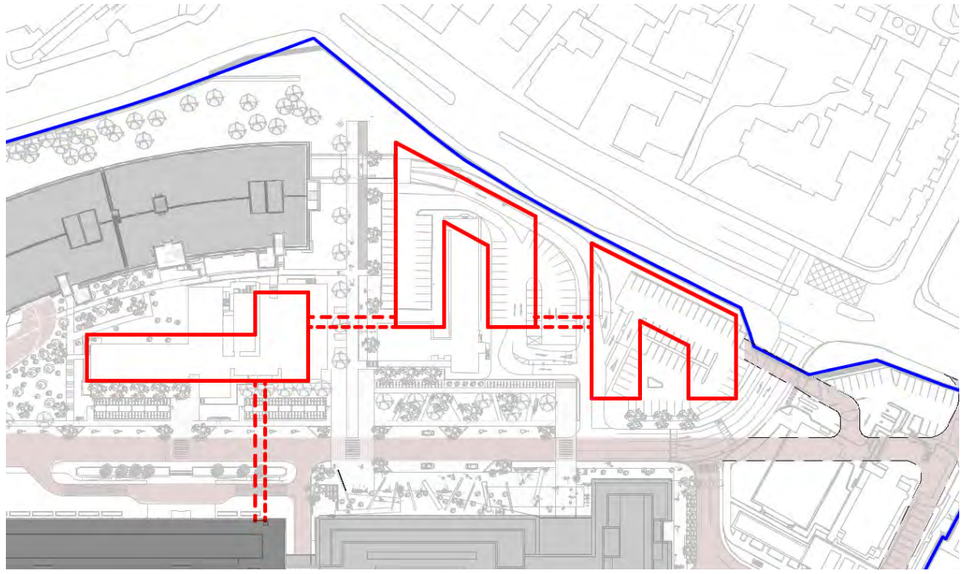
The site has been identified as an appropriate location for the development of single bed inpatient ward accommodation to replace the current multi-bedded wards. The proposal as set out is similar in nature to the adjoining new eight storey Nutley wing (2012) and comprises 2 no. additional ward blocks of similar footprint and area to the Nutley Wing.

The total gross internal floor area (GIA) that is achieved through the proposed development of the Zone 4 site over six floors as set out below is 17,550m^2.

Development Potential at Zone 4



Location of Zone 5



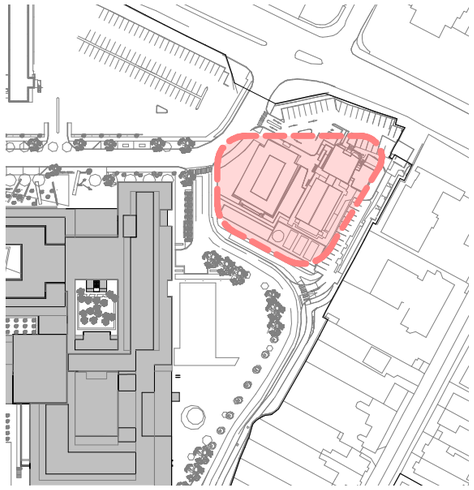
Development Potential at Zone 5

Development Zone 5

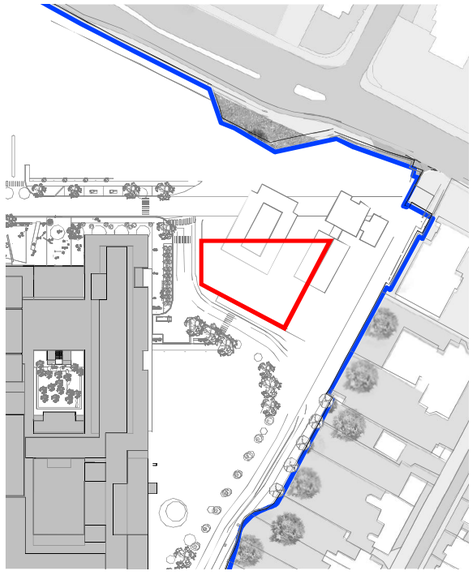
Zone 5 has been identified as an appropriate location to provide out-patient and support services or education and research facilities with direct street access close to public transport services. The site could, if required, be linked back above and below ground to the SVUH Clinical Services building and the NMH building to the south. This zone also offers the opportunity to provide a more defined edge to the campus at the Merrion Road entrance. Currently, the campus is somewhat inward looking and does not present a positive frontage to Merrion Road. Developments in this location could result in a more outward looking campus.

The development of this site incorporates an underground car park which links to the basement level of the existing multi-storey car park and is accessible off the spine roadway close to the Merrion road entrance.

The total gross internal floor area (GIA) that is achieved through the proposed development of the Zone 5 site over four floors (plus partial basement) as set out below is 20,350m^2.



Location of Zone 6

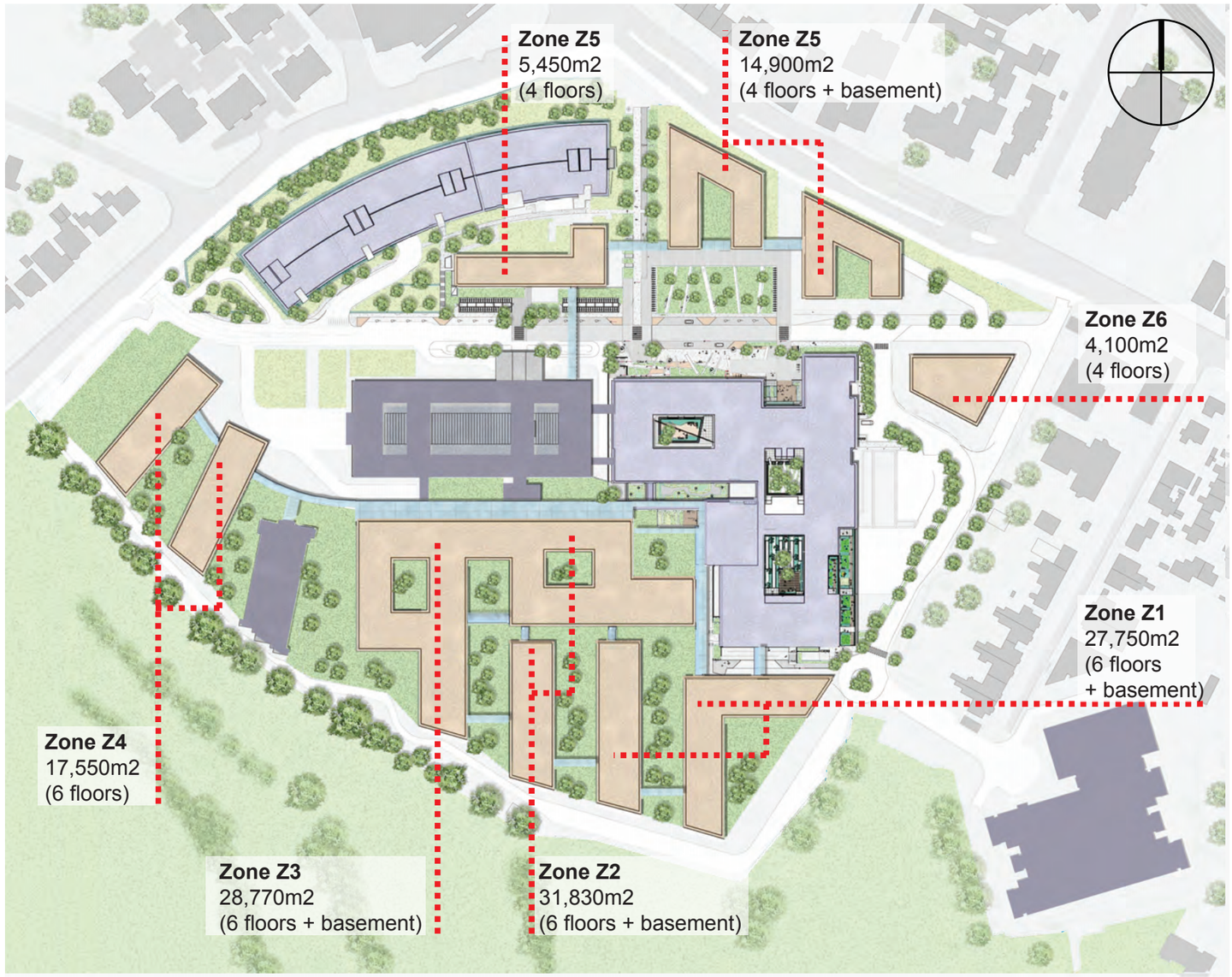


Development Potential at Zone 3

Development Zone 6

Zone 6 has been identified as a possible site that might become available directly to the east of the NMH development following realignment of traffic flows and of the site entrances. The site would be an appropriate location to provide expansion of the Maternity Hospital and /or associated campus wide clinical or non-clinical support services. The site could, if required, be linked back above ground to the NMH building to the west. It is proposed that development capacity on this site be limited to 4 floors having regard to its proximity to adjoining residential areas.

The total gross internal floor area (GIA) that is achieved through the proposed development of the Zone 5 site over four floors as set out below is 4,100m^2.



6.2 Site Capacity Summary

The public realm strategy described above sets out a visual and spatial planning strategy for the campus into the future. The strategy is consistent with core clinical organizational principles which will allow for the efficient and flexible development of hospital services at SVUH into the future.

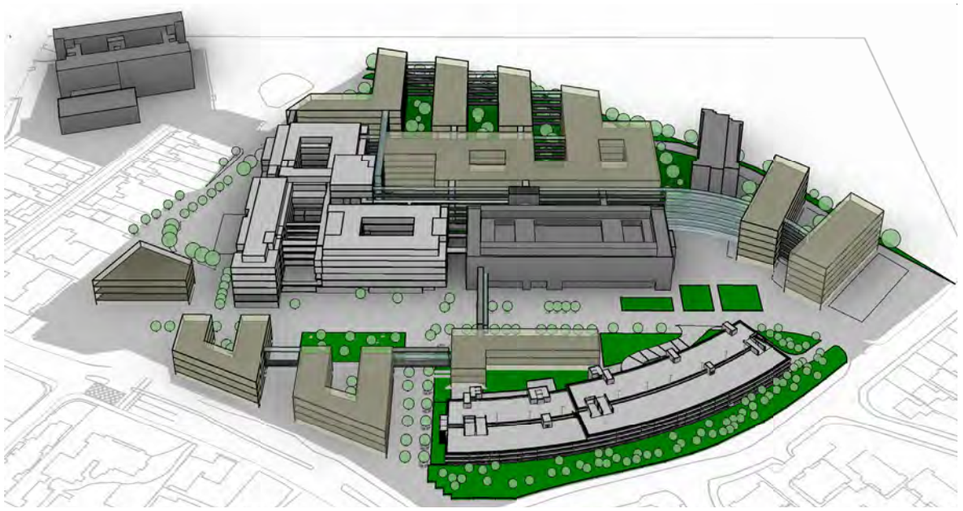
The drawings and table in this section (above) illustrate the potential area capacity of each of the opportunity zones (Zone 1- Zone 6), and the ability of the campus to continue to expand and develop after the completion of the current proposed Maternity Hospital development. The total potential area indicated on these opportunity zones amount to 130,350m^2. When one discounts the demolition of 51,009m^2 of older and underdeveloped buildings on these zones the nett additional capacity realised is 79,341m^2.

These potential areas are seen as reasonable targets based on the available site footprints, the likely use of the proposed buildings and an approach to massing and external spaces that follow the standards for development set out in the current Dublin City Development Plan.

In summary the completion of the proposed Maternity Hospital development will increase the total building area on the campus to 189,308m^2, at a plot ratio of 1.59. Following the completion of the Maternity Hospital development further expansion and developments on the SVUH campus would result in a potential total campus floor area of 265,879m^2, (or an additional 76,751m^2) which increases the plot ratio on the campus to 2.23, well within the DCC designated indicative plot ratio of 2.50.

The development areas have had regard to the adjoining residential areas and requirement to form a coherent series of buildings on the campus. The setting of the campus in the wider city forms the context for this capacity assessment and it has sought to maximise capacity without impacting negatively on the area.

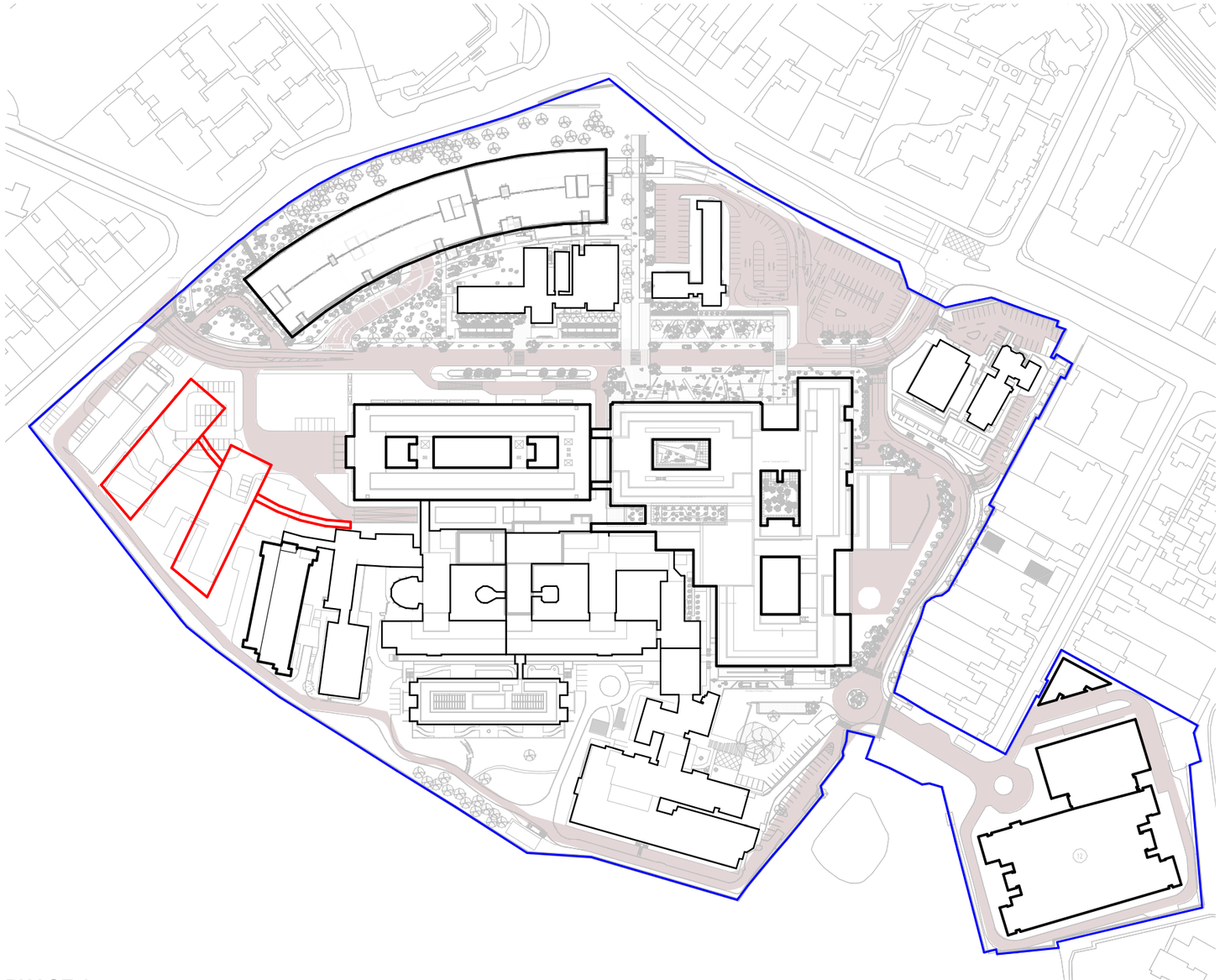
This study has demonstrated that the current proposed NMH development can be completed without compromising the future development needs of the remainder of the SVUH campus, notably the re-development of the adult Hospital over time and the future expansion of both adult and maternity services in a planned and orderly manner on the site.



View of Potential Future Development from the North

View of Potential Future Development from the South

7.0 PHASING SCENARIOS



PHASE 1

A clear phasing strategy is a paramount consideration. No existing clinical areas can be moved until they have been allocated new space elsewhere. Many functions, like ED, theatres and critical care cannot have their activities disrupted in any way and must remain connected to each other and to other parts of the hospital, for example imaging suites or inpatient wards.

These imperatives impose certain constraints on the order and manner in which future developments can be implemented. Phasing will also be influenced by clinical priorities and the availability of funding, which cannot necessarily be predicted.

A number of alternative phasing scenarios have been tested by the design team. These offer contrasting start and end points to demonstrate some of the potential permutations and test the flexibility of the design vision. We believe that this shows that the vision is inherently robust and can be implemented progressively in a number of ways without compromising its integrity both clinically and spatially.

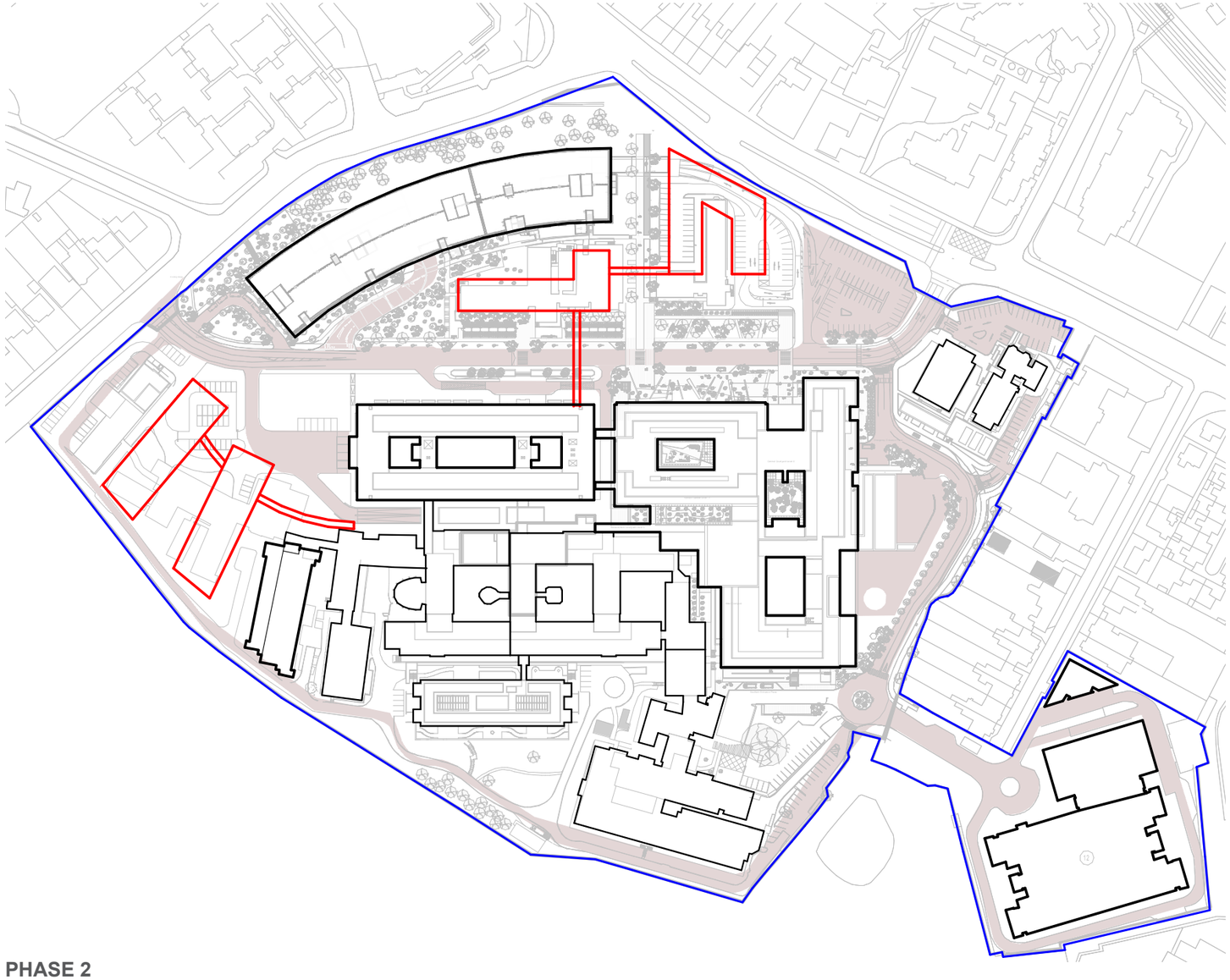
Three options were tested each of which offered differing starting points in terms of meeting early campus needs and requirements:

1. Development of SVUH Ward accommodation.

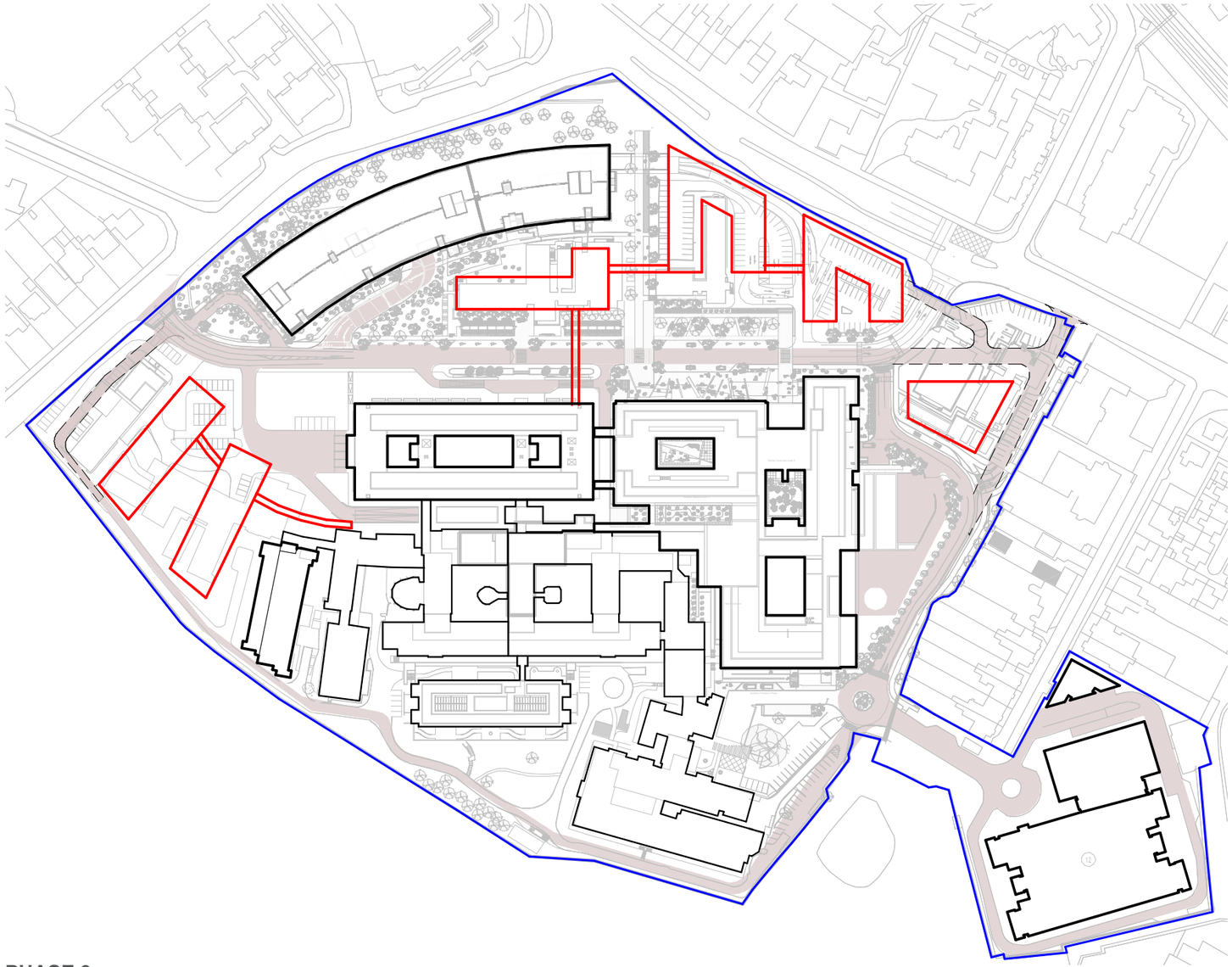
2. Development of SVUH Ambulatory services.

3. Development / expansion of SVUH Clinical services.

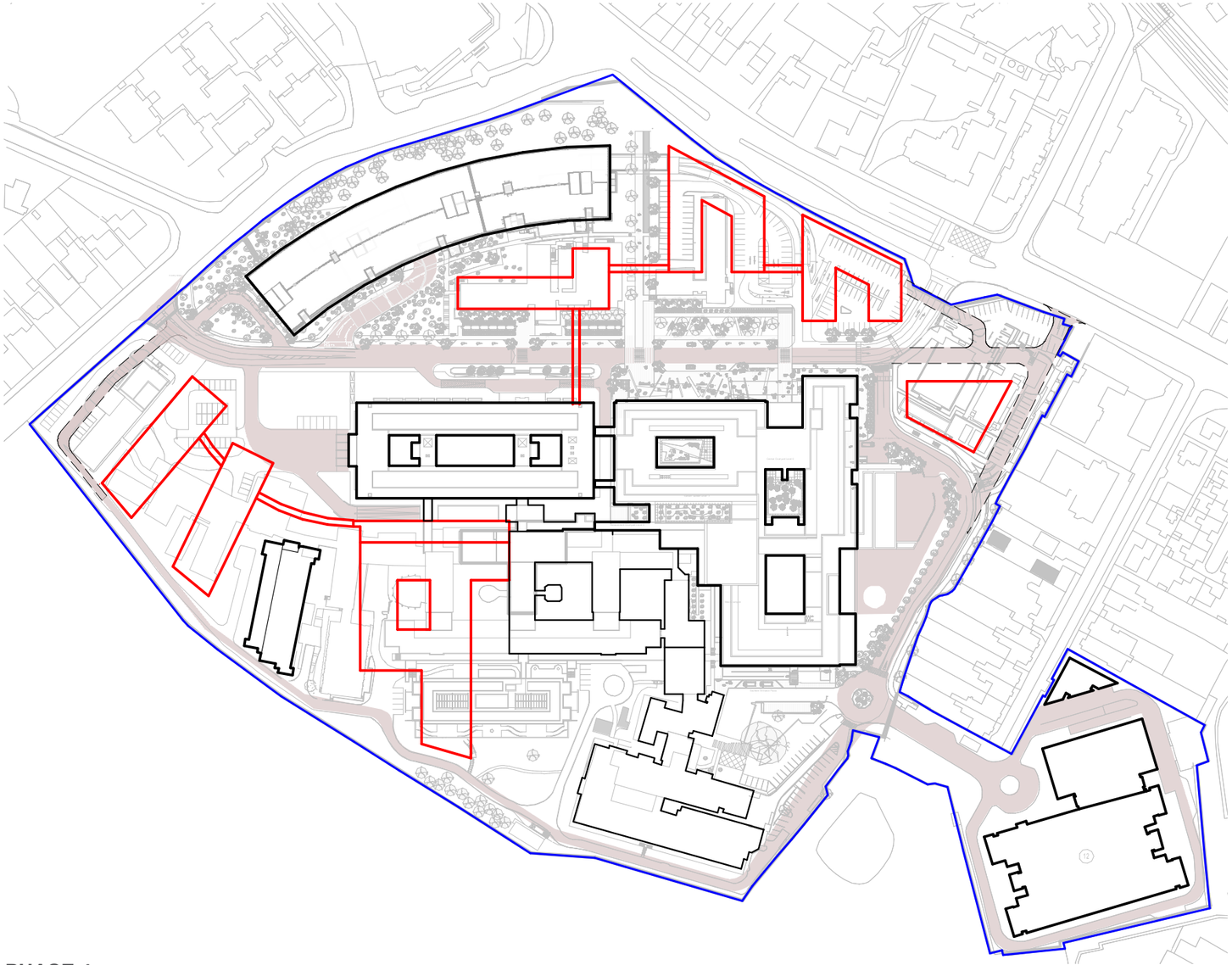
As a worked example of the phasing strategy, Option 1, (Development of SVUH Ward accommodation), is set out on the following pages.



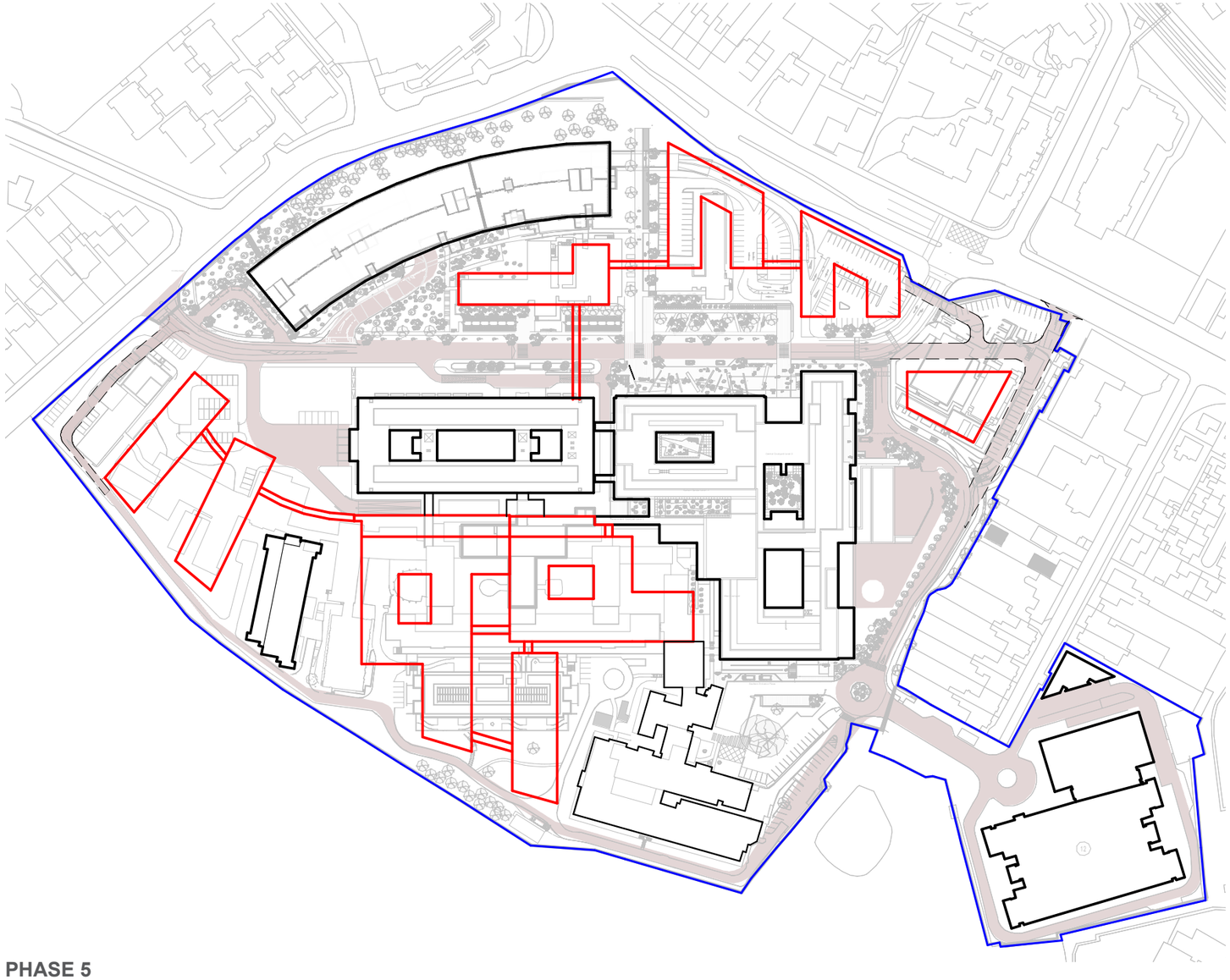
PHASE 2



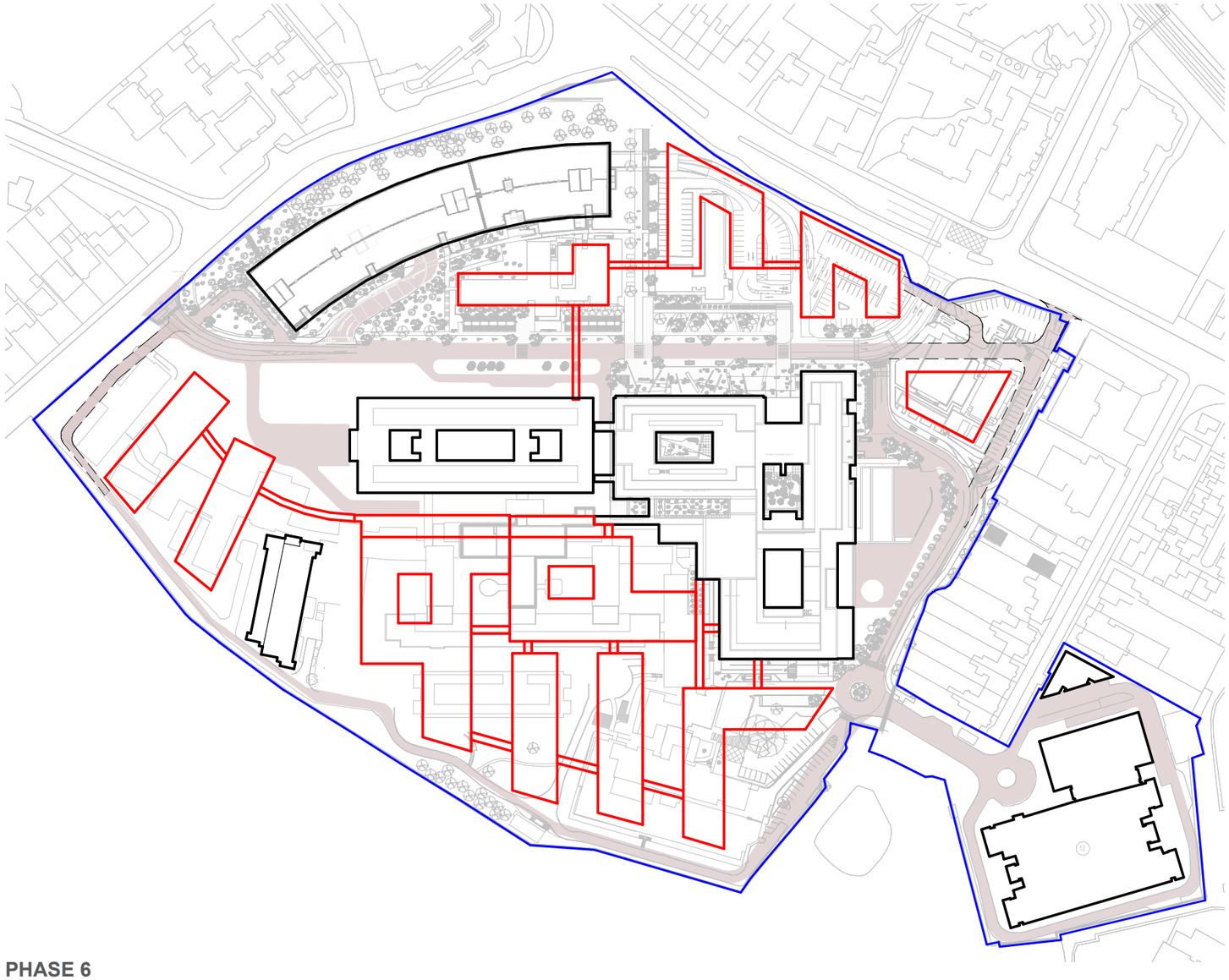
PHASE 3



PHASE 4



PHASE 5



PHASE 6

Appendix A - BRIEF AREA SCHEDULE

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ST. VINCENT'S UNIVERSITY HOSPITAL - PROPOSED LONG TERM DEVELOPMENTS

St Vincent's University Hospital - Existing Buildings Retained

Ref. No.	Building	Existing Floor Areas on Campus	Floor Area to be Retained	Site Area	Plot Ratio
N	Clinical Services Building	20,593	20,593		
N	CSB Car Park	5,917	5,917		
M	MSCP	13,000	13,000		
X	Nutley Wing	9,630	9,630		
0	SVPH - Private Hospital	26,500	26,500		
TOTAL SVUH BUILDINGS TO BE RETAINED ON SITE			**75,640**		
A	NMH Development at SVUH		**62,660**		
Z1	2 no. Clincal Support Block at Herbert Wing		27,750		
Z2	New Clinical Services Block and 1 no. Inpatient Ward Block		31,830		
Z3	New Clinical Services Block and 1 no. Inpatient Ward Block		28,770		
Z4	2 no. New In Patient Ward Blocks		17,550		
Z5	New Ambulatory Care Building + Education Centre		20,350		
Z6	4 storey builidng to replace Breastcheck / Carew House		4,100		
TOTAL SVUH - LONG TERM DEVELOPMENTS			**130,350**		
TOTAL SVUH DEVELOPMENT POTENTIAL PER SITE CAPACITY STUDY			**268,650**	**118,900**	**2.26**

Appendix B - SITE CAPACITY PLAN

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