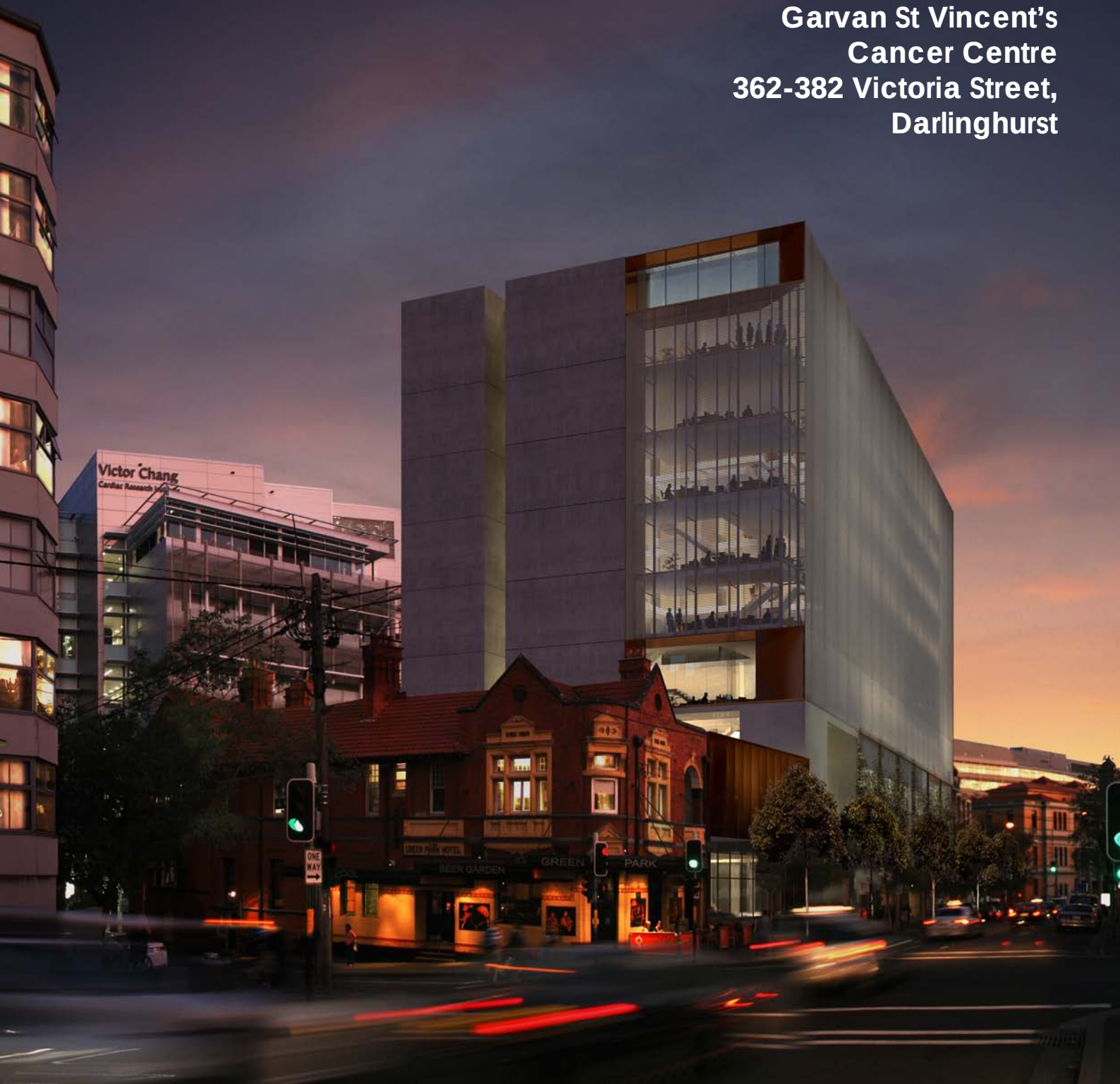


**Garvan St Vincent's
Cancer Centre
362-382 Victoria Street,
Darlinghurst**



Preferred Project Report

October 2009



**St Vincents
& Mater Health
Sydney**



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Executive Summary	i
1 Introduction.....	1
2 Strategic Justification for the Site.....	3
2.1 Sydney Metropolitan Strategy	3
2.2 Sustainable Sydney 2030 Strategic Plan	4
2.3 Draft Inner Sydney Subregional Strategy.....	4
2.4 South Sydney Development Control Plan 1997	5
3 Response to Submissions	7
4 Response to comments from agencies	9
5 Background.....	11
5.1 Concept Plan for the St Vincent's Research Precinct	11
5.2 The Proponent.....	12
5.3 The Consultant Team	13
5.4 Community Consultation	13
5.4.1 Matters Raised During Consultation.....	13
6 The Site and Context.....	15
6.1 The Site	15
6.2 Legal Description.....	16
6.3 Local Context.....	17
6.3.1 Development to the North.....	17
6.3.2 Development to the West	18
6.3.3 Development to the East	18
6.3.4 Development to the South	19
6.4 Site Analysis	20
6.5 Current Transport and Access Conditions	20
6.5.1 Road Network.....	20
6.5.2 Intersection Performance	21
6.5.3 Public Transport	21
6.5.4 Pedestrian and bicycle linkages to and within the site	21
6.6 Geotechnical Conditions.....	21
6.7 Contamination	21
7 The Preferred Project.....	23
7.1 The Vision.....	23
7.2 Overview of Project	23
7.3 Design and Construction of the Proposed Building.....	24
7.4 Land Use, Floor Space and Development Data.....	26
7.5 Landscaping and Public Domain Works.....	28
7.6 Vehicular Access, Loading and Car Parking	30
7.7 Stormwater and Drainage.....	30
7.8 External Finishes (Facade Design)	31
7.9 Subdivision	32
7.10 Signage	32
7.10.1 Building Naming	32
7.10.2 Tenant Identification	32

7.11	Integration with Precinct	32
7.12	Artwork to Southern Facade.....	34
7.13	Statement of Commitments	34
8	Director General's Environmental Assessment Requirements.....	35
9	Environmental Assessment of Key Issues.....	39
9.1	Consistency with Strategic Planning Policy.....	39
9.1.1	Sydney Metropolitan Strategy	39
9.1.2	Sustainable Sydney 2030 Strategic Plan	39
9.1.3	Draft Inner Sydney Subregional Strategy.....	40
9.2	Consistency with Statutory Planning Policy	40
9.2.1	SEPP (Major Development) 2005	40
9.2.2	SEPP (Infrastructure) 2007	40
9.2.3	SEPP 55 – Remediation of Land.....	40
9.2.4	South Sydney Local Environmental Plan 1998	41
9.3	Strategic Justification for the Project.....	41
9.4	Building Design.....	41
9.5	Heritage	44
9.6	Amenity Impacts	44
9.6.1	Visual Impact (View Loss)	44
9.6.2	Overshadowing.....	45
9.6.3	Privacy.....	47
9.6.4	Noise.....	47
9.6.5	Wind.....	47
9.6.6	Reflectivity	48
9.7	Car Parking, Vehicular Access and Traffic.....	48
9.7.1	Car Parking.....	48
9.7.2	Vehicular Access	49
9.7.3	Loading	50
9.7.4	Traffic Impacts	50
9.8	Construction Impacts.....	51
9.8.1	Noise and Vibration	52
9.8.2	Soil and Erosion Control.....	52
9.8.3	Air Quality and Air Pollution.....	52
9.8.4	Stormwater Management	52
9.8.5	Waste Management	53
9.8.6	Cut/Fill and Retaining Structures.....	53
9.8.7	Traffic Impacts and Management.....	53
9.8.8	Car Parking for Construction Workers.....	53
9.9	Operational Impacts	53
9.9.1	Noise Generation from Plant and Equipment.....	53
9.9.2	Waste Management (including storage of potentially hazardous materials).....	55
9.9.3	Safety and Security	55
9.9.4	Emergency and Evacuation Procedures.....	55
9.9.5	Fire Safety	55
9.9.6	Lighting	56
9.9.7	Signage	56
9.9.8	Building Code of Australia	56
9.9.9	ESD (Sustainability).....	56

10 Conclusion	59
Appendix A Traffic Report prepared by TEF Consulting	60
Appendix B Architectural Drawings prepared by BVN Architects.....	62
Appendix C Photomontages prepared by C3Di	64
Appendix D Landscape Plan and reported prepared by 360 Degrees.....	66
Appendix E Draft Plan of Subdivision prepared by Rygate Surveyors.....	68
Appendix F Final Statement of Commitments prepared by Urbis.....	70
Appendix G Shadow Diagrams prepared by BVN Architects.....	72
Appendix H Wind Report prepared by Heggies	74
Appendix I Reflectivity Report prepared by Heggies.....	76
Appendix J Sustainability Report prepared by ARUP	78
Definitions	81

FIGURES:

Figure 1 – Clusters of Health and Higher Education (Source: Sydney Metropolitan Strategy)	3
Figure 2 – Sydney's Knowledge Infrastructure (Source: Sydney Metropolitan Strategy).....	4
Figure 3 – Existing Employment Zones (Source: Draft Inner City Subregional Strategy)	5
Figure 4 – Kings Cross Ridgeline	6
Figure 5 – View along Kings Cross ridge, looking north from the Lowy Packer building.	6
Figure 6 – Location of GSVCC and UNSW Virology Development Sites.....	12
Figure 7 – Context of Site	15
Figure 8 – Site Analysis Plan prepared by BVN	20
Figure 9 – Chaplin Street Landscape Plan, prepared by 360 Degrees.....	29
Figure 10 – Figure 7 – Chaplin Street Landscape Section, prepared by 360 Degrees.....	29
Figure 11 – External Finishes, prepared by BVN.....	31
Figure 12 – Shadow Diagrams – Winter Solstice – 21 June.....	46
Figure 13 – 'SCATES' analysis of traffic intersections prepared by TEF	51

PICTURES:

Picture 1 – 362 Victoria Street (vacant land uses as beer garden to Green Park Hotel).	16
Picture 2 – 366-368, 370 and 372 Victoria Street	16
Picture 3 – 372 & 374 Victoria Street.....	16
Picture 4 – 376-382 Victoria Street.....	16
Picture 5 – Green Park Hotel – 360 Liverpool Street.....	17
Picture 6 – The eastern end of the Liverpool Street Block to the north.....	17
Picture 7 – Development to the immediate north, across Liverpool Street (new building under construction on central site).	17
Picture 8 – Development to the immediate west, across Victoria Street, viewed from Liverpool Street.....	18
Picture 9 – Development to the immediate west, across Victoria Street, viewed from Burton Street.	18

Picture 10 – The Lowy Packer Building (VCCRI).....	18
Picture 11 – Chaplin Street (Lowy Packer Building to the left, the GSVCC site to the right).....	18
Picture 12 – The GIMR Building	19
Picture 13 – Burton Street and St Vincent’s hospital O’Brien Building (to the right).	19
Picture 14 – The original (deLacy) St Vincent’s Hospital building.....	19
Picture 15 – Photomontage, looking north east (artwork is indicative only) <i>Source: C3Di</i>	24
Picture 16 – Photomontages, looking south-east <i>Source: C3Di</i>	25
Picture 17 – Photomontage, looking east along Liverpool Street <i>Source: C3Di</i>	25
Picture 18 – Looking south along Victoria Street (note Telstra building to left) <i>Source: C3Di</i>	25
Picture 19 – Photomontage, looking west along Liverpool Street <i>Source: C3Di</i>	26
Picture 20 – Photomontage, looking north-east along Darlinghurst Road <i>Source: C3Di</i>	26
Picture 21 – Photomontage, looking east along Burton Street <i>Source: C3Di</i>	26

TABLES:

Table 1 – Summary of Proposed Development Data.....	27
Table 2 – Connections into GIMR and Lowy Packer buildings	33
Table 3 – Director General’s Environmental Assessment Requirements Checklist.....	35
Table 4 – Preliminary Plant Selections, Indicative Noise Levels and Noise Reduction Requirements	54

Executive Summary

St Vincent's & Mater Health Sydney (SVMHS) has been working with both the Garvan Institute of Medical Research (GIMR) and the University of New South Wales (UNSW) to include new cancer and virology facilities within its existing world class medical research precinct in Darlinghurst. This gave rise to the concurrent preparation, lodgement and public exhibition of a Concept Plan for the Research Precinct (MP 09_0010) together with a Project Application for the Garvan St Vincent's Cancer Centre (GSVCC) (MP 09_0011).

Following the public exhibition of both applications, two critical issues emerged that have informed the preparation of this Preferred Project Report (PPR), namely

- the priority for the GSVCC to proceed based on its fully funded project status;
- unresolved matters concerning the proposed envelope for the Virology Centre,

Following discussions with the Department of Planning, it has been agreed to place the Concept Plan for the precinct on hold by "decoupling" it from the GSVCC Project Application. This will allow the GSVCC Project Application to proceed to determination prior to resolution of the final building envelope of the Virology Centre site. Noting that the Project Application does not rely upon the Concept Plan for permissibility, this PPR amends the Project Application to incorporate those elements of the GSVCC project that were previously contained within the Concept Plan, including:

- Demolition
- Vehicular access arrangements
- Car Parking numbers
- Land subdivision
- Building use and built form based on revised building designs.

The Precinct is already a creative research hub, supporting world's best practice research and technological innovations. The work of the Precinct is driven by its close proximity to St Vincent's Hospital, one of Australia's leading teaching hospitals. This ensures clinical challenges directly drive laboratory research and enable research findings to be rapidly translated into improvements in patient treatment and care.

The project involves the detailed design and construction of a new centre for cancer research and care on land known as 362-382 Victoria Street, Darlinghurst, within the St Vincent's Research Precinct, which occupies most of the street block to the north of the existing St Vincent's Hospital, across Burton Street. The GSVCC facility will comprise the western part of the larger research precinct, principally occupying properties fronting Victoria Street, between the existing GIMR building and the Green Park Hotel

The project will provide significant public benefits, principally due to the construction of a new centre for cancer research and care which will stimulate research activity and employment in the medical field within a world class medical research precinct. Further public benefits include the creation of an integrated research campus with high levels of staff, patient and visitor amenity.

This PPR has been prepared in response to, and fully addresses the Environmental Assessment Requirements provided by the Director General and responds to the public and agency submissions received by the Department of Planning following exhibition of the Concept Plan and Project Application. Most notably, the project has been reduced in height by two storeys (11.5 metres), and the number of car parking spaces has been reduced from 217 to 148. Based on these and various other detailed design changes embodied in this PPR and subject to the implementation of the Commitments made in this PPR, it is now considered that the project can proceed in a manner that strikes an appropriate balance between the objectives of the project sponsors; environmental impacts and the views of interested stakeholders and the public.



1 Introduction

This PPR seeks approval for the construction of a building specifically designed to accommodate the GSVCC. The proposed new GSVCC is a joint initiative of GIMR and SVMHS. It will combine the GIMR's internationally acclaimed cancer research with the best practice cancer services at SVMHS. The Cancer Centre will house approximately 365 scientists, clinicians and support staff, the Centre will aim:

"to realise the promise of personalised medicine for cancer patients by creating a world-renowned facility where research findings move quickly into clinical care and clinical challenges drive laboratory research".

The proposed building will comprise 9 storeys above the Victoria Street frontage and 5 levels below, including a laboratory / plant level and 4 split levels of car parking, accessed via the West Street driveway into the basement car park of the existing Lowy Packer building to the east.

On 20 January 2009, the Minister declared the Project to be a 'Major Project', to which Part 3A of the Act applies. On 13 February 2009, a Preliminary Environmental Assessment (PEA) was submitted to the Director General in association with a request for the Director General's (DG's) Environmental Assessment Requirements (EARs) for the preparation of this, and an accompanying Concept Plan application for the entire research precinct (MP09_0010).

On 11 March 2009, the Director General issued EARs which dictate the scope of this Environmental Assessment.

Following the public exhibition of both applications during July-August 2009, the timing of the Cancer Centre project had progressed considerably further than the Virology Centre project. Given the Commonwealth funding received by the Cancer Centre project and the still unresolved matters concerning the proposed envelope for the Virology Centre, it has been agreed with the Department to "decouple" the Concept Plan from this Project Application, allowing the GSVCCC Project Application to proceed to determination prior to resolution of the final building envelope of the Virology Centre site. Noting that the Project Application does not rely upon the Concept Plan for permissibility, this PPR amends the Project Application to incorporate those elements of the GSVCC project that were previously contained within the Concept Plan, including:

- Demolition
- Vehicular access arrangements
- Car Parking numbers
- Land subdivision
- Building use and built form based on revised building designs.

The following Sections of this PPR provide:

- The strategic justification for the project.
- A detailed analysis of key issues raised in submissions to the Project during the public exhibition stage. It should be noted that since the PA was publicly exhibited concurrently with the Concept Plan, many submissions received by the Department made combined responses to both proposals. Accordingly, the tables contained in Section 3 below have sought to differentiate between those issues that are applicable specifically to the GSVCC and provide responses to these issues only within the PPR.
- A description of the project as currently proposed, including the amendments made to take account of feedback to the public exhibition process.

- An updated environment assessment of relevant issues necessitated by the amended design. Particular attention is paid to:
 - visual impact, noting that the height of the building has been reduced by two storeys, equating to a reduction of approximately 11.5 metres, and the façade to Victoria Street has been the subject of further resolution, including integrated landscape treatment;
 - traffic impacts, noting that the number of car spaces proposed within the Cancer Centre has been reduced from 217 to 148;
 - overshadowing impacts;
- A final statement of commitments.

2 Strategic Justification for the Site

The social and economic wellbeing of Sydney is underpinned by its universally recognised role as a global city. This role is in turn underpinned by Sydney being a home to centres of international excellence in business, culture, services, research and education. To maintain its global status it is critical that Sydney continues to be a 'creative city' that encourages and facilitates the growth and diversity of such centres of excellence.

The Trustees of St Vincent's (the land owner) are developing the Research Precinct as a centre of excellence in medical research and clinical practice and the GSVCC represents the next immediate step in the evolution of the Precinct.

2.1 Sydney Metropolitan Strategy

The Sydney Metropolitan Strategy was adopted in 2005 and is the State Government's current policy for the development of the Sydney metropolitan area to 2030.

The Strategy specifically recognises the cluster of health related infrastructure in Darlinghurst.

The Strategy identifies St Vincent's as one of 10 'Major Hospitals' in the Sydney Metro Area.

The Strategy indicates the research precinct as a location for a CRC, or "Co-operative Research Centre", notwithstanding that the project has not been formally declared a CRC. A CRC is a multi-party research centre funded jointly by the Commonwealth Government and participants, for research into a specific applied area. Essential participants in a CRC are an Australian:

- end-user (either from the private, public or community sector); and
- higher education institution (or a research institute affiliated with a university).

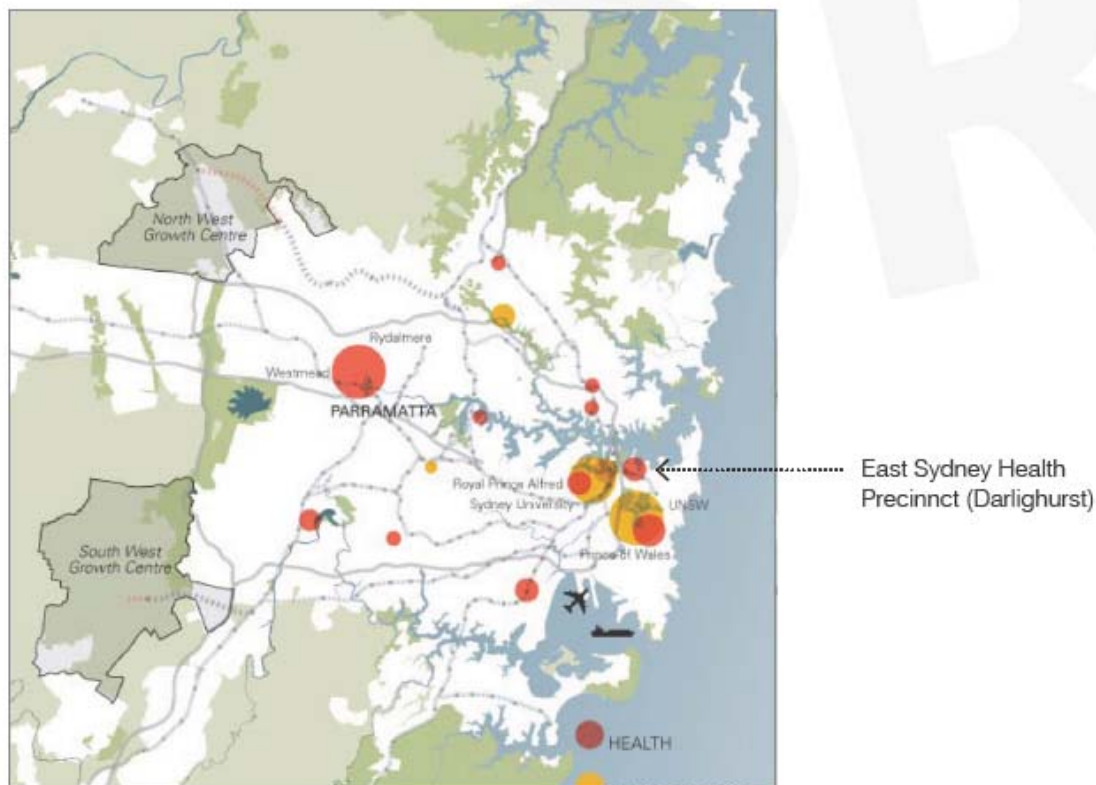


Figure 1 – Clusters of Health and Higher Education (Source: Sydney Metropolitan Strategy)

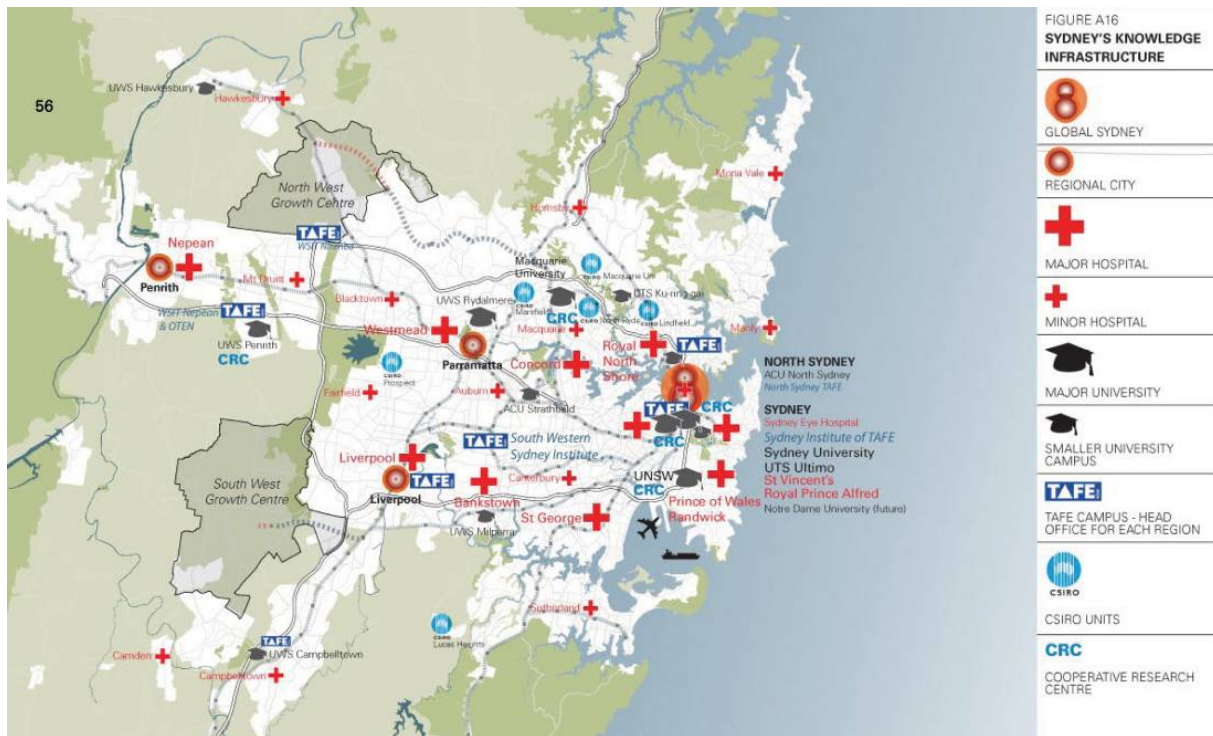


Figure 2 – Sydney's Knowledge Infrastructure (Source: Sydney Metropolitan Strategy)

2.2 Sustainable Sydney 2030 Strategic Plan

Part of the vision for the City of Sydney in the 2030 Strategic Plan is for it to remain Australia's most significant global city containing premium spaces for business activities and high quality jobs to nurture, attract and retain global talent. One of the key strategic directions identified in the Plan is for Sydney to remain a globally competitive and innovative city through investment in strategic economic infrastructure and amenities.

2.3 Draft Inner Sydney Subregional Strategy

Various subregional strategies have been prepared to provide greater detail to complement the Metro Strategy. In July 2008, the Draft Inner Sydney Subregional Strategy was exhibited.

The Draft Subregional Strategy recognises the St Vincent's Hospital, GIMR, Victor Chang Cardiac Research Institute (VCCRI) and the National Centre in HIV Epidemiology and Clinical Research (NCHECR) as **"a world class health services cluster"**. The strategy contains the following actions that are relevant to this Precinct (emphasis added):

A2.1.3 – "Within the subregion, world class health, medical and biotechnology research activities are located in a cluster around the St Vincents Hospital in Darlinghurst..."

A2.2 – "For the Department of Health, Department of State and Regional Development and Department of Planning to promote the City East and Sydney Education and Health precincts as centres of excellence in biomedical research and development"

A2.3 – "Magnet infrastructure is generally an asset in the built environment that attracts activities to co-locate with it to form an industry cluster"

The subregional strategy recognises the cluster of hospital related uses along Victoria Street as key features of "Economy and Employment" within the subregion.

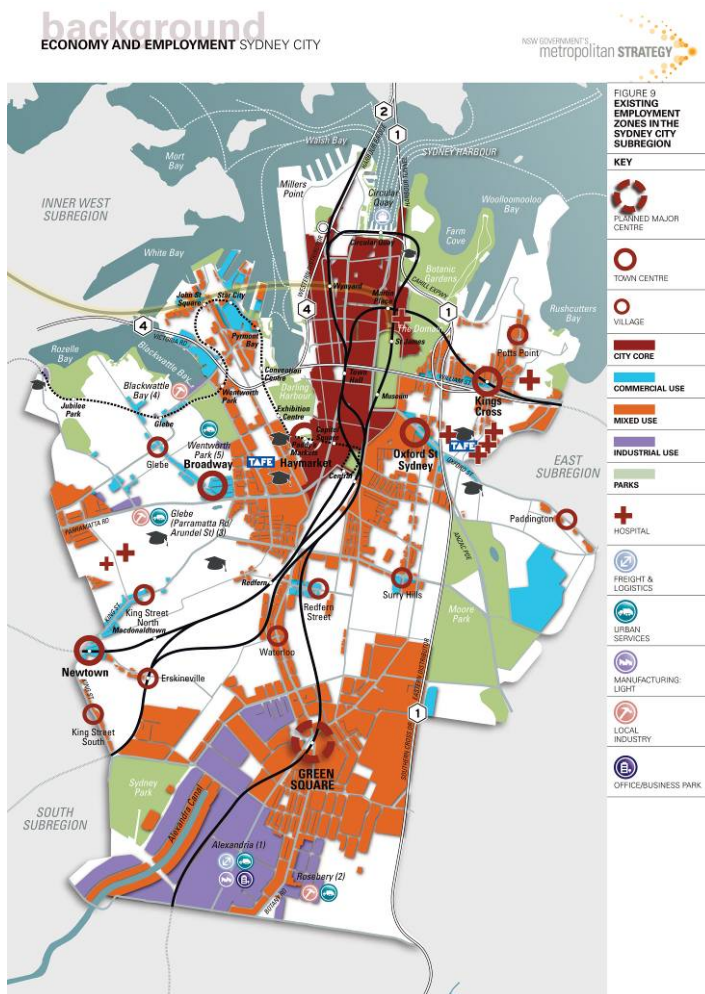


Figure 3 – Existing Employment Zones (Source: Draft Inner City Subregional Strategy)

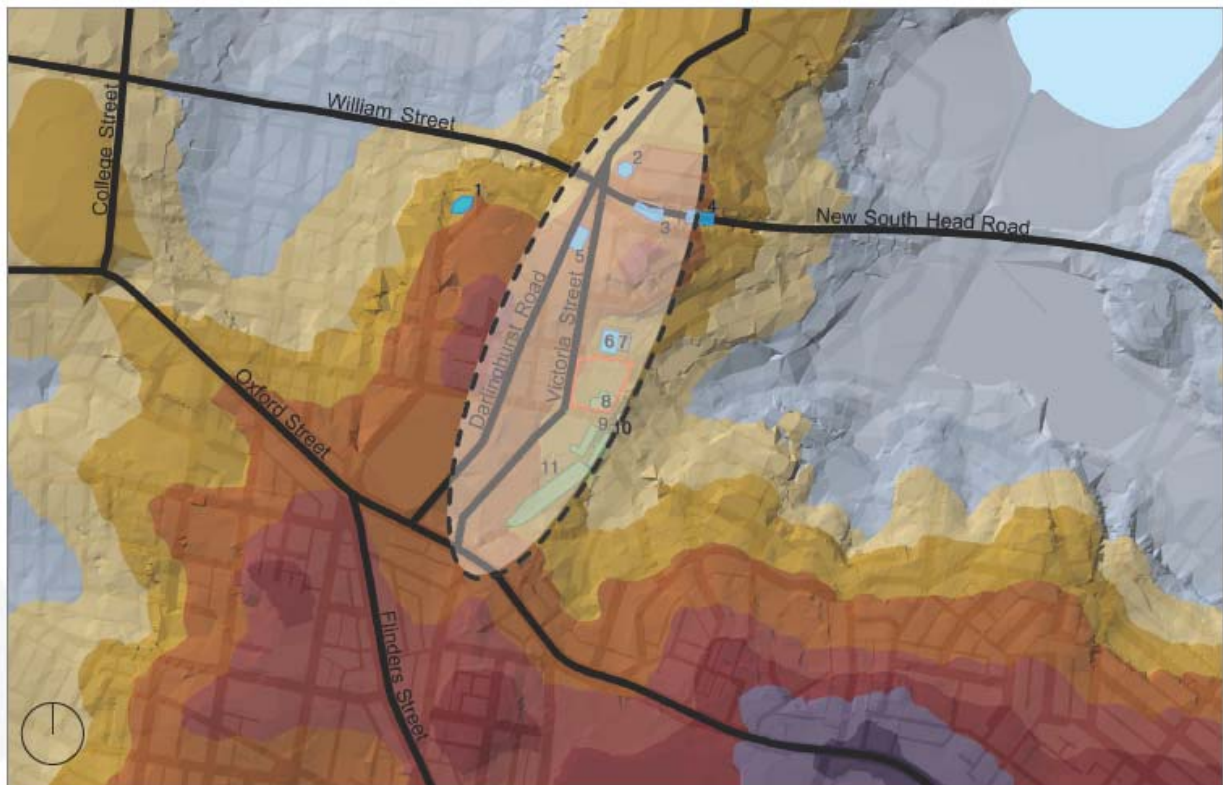
2.4 South Sydney Development Control Plan 1997

South Sydney Development Control Plan 1997 (DCP 1997) contains the key built form controls applicable in the area.

*“highly visible sites, such as those located along the Kings Cross ridge, King Street and Riley Street are to be carefully designed to be **in scale with the City’s setting, reinforcing skyline characteristics** as shaped by buildings of uniform height, variable height, cluster groups, and tower forms”. (p.8)*

Victoria Street / Darlinghurst Road follow the natural ridgeline from Darlinghurst to Potts Point – known as the ‘Kings Cross ridge’. As can be seen in Figures 4 and 5, existing tower forms are concentrated along the Kings Cross ridge (as well as along the William Street corridor).

A key objective of the project is to create iconic buildings that befit the prestige and international reputation of such a centre of cooperative research excellence, whilst being responsive to its context within a heritage precinct. Building envelopes are proposed to reinforce the skyline characteristics of the Kings Cross ridge, as envisaged in DCP 1997, by providing buildings of variable heights consistent with those buildings existing on the Kings Cross ridge (see Figure 4).



KEY: 1- Horizon Apartments 2- Millenium Apartments 3- Elan Apartments 4- Altair Apartments 5- Top of the Town Apartments 6- 320 Liverpool St (Approval) 7- Telstra Exchange 8- O'Brien Building 9- Cahill Building 10- St Vincent's Building 11- [unlabeled]

Figure 4 – Kings Cross Ridgeline



Figure 5 – View along Kings Cross ridge, looking north from the Lowy Packer building.

3 Response to Submissions

Issue	Applicant's Response
Height, bulk and scale of the proposal, particularly the relationship of the proposed buildings with the scale of surrounding development; the relationship with the existing buildings on the site in terms of natural light, privacy and ventilation; and the effect on solar access to residential areas to the east and green park to the south west.	Two storeys have been deleted from the building, resulting in an 11.5 metre reduction in the topmost point of the building (from RL 91.936 to RL 80.4). This will result in the building being lower than several immediately surrounding buildings. It will also significantly reduce impacts upon natural light, privacy, ventilation and overshadowing of residential areas to the east and Green Park.
Building Design, including interface with the public domain, particularly street level activation along Victoria Street and articulation of the upper level facades of the GSVCCC	The street edge to the public domain has been significantly refined, as detailed in the revised design statement at Section 9.4.
Further justification for the proposed number of car parking spaces.	DCP 11 and the GIMR consent provide for 182 car parking spaces. The proposed number of spaces has been reduced from 217 to 148 accordingly.
Further justification for the proposed vehicle access arrangements and potential impacts on West Avenue.	See Section 9.7.
Consideration of Options for the retention of the terrace at 429 Liverpool Street given its contribution to the streetscape character of the Liverpool Street / West Street intersection and its relationship to the adjacent Barcom Avenue Conservation Area	Concept Plan issue not related to the GSVCC
Rationale for the proposed 4.2 metre floor to floor height of the proposed buildings.	The 4.2 metre ceiling height is required to facilitate the specialised servicing requirements of research laboratories (i.e. independent air extraction from each research bench and supply of specialised services such as liquid nitrogen and oxygen). While the three lower floors are not used for research purposes, a 4.2 metre ceiling is not excessive for a building entry level or the HOAC and clinical levels. Furthermore, such ceiling heights provide 'future proofing' to accommodate flexibility in the research capability of all levels.
The Concept Plan commits to providing an ESD Performance Report with each Project Application. However, the Project Application for the GSVCCC does not provide a Performance Report nor does it set targets or provide specific strategies.	An ESD performance report providing sustainability targets and strategies is included at Appendix J.

4 Response to comments from agencies

Issue	Applicant's Response
Roads and Traffic Authority (RTA) The concept plans provided do not have sufficient information, e.g. dimensions, to allow a comprehensive assessment. Further details of car parking and service vehicle access are to be provided with future Project Applications. The RTA cannot verify the traffic implications of the development proposals until such time as the impact on the traffic signal operations surrounding the research precinct has been audited. The RTA requires the EA report to assess the implications of the proposed development for non-car travel modes and the provision of facilities to increase the non-car mode share for travel to and from the site. A demolition and Construction Traffic Management Plan is required A plan shall be submitted to Council for approval which shows that the swept paths of the longest vehicle (including garbage trucks) entering and exiting the site, as well as manoeuvrability through the site, is in accordance with AUSTROADS. All vehicles to enter and leave the site in a forward direction. Car parking provision to Council's satisfaction. The provision of suitable bicycle storage facilities including showers and change rooms. The layout of the proposed car parking areas associated with the development should be in accordance with AS 2890.1-2004 and AS 2890.2 - 2002 for heavy vehicle usage. The developer shall be responsible for all public utility adjustment/relocation works necessitated by the above work and as required by the various public utility authorities and/or their agents. During demolition and construction activities, vehicle access to and from adjoining properties are to be kept clear and unobstructed at all times.	Fully dimensioned drawings are include at Appendix B. SCATES testing results are detailed at Section 9.7 and Appedix A. Electronic SCATES model files will be provided to the RTA if required. See Traffic Report at Appendix A. Noted see Statement of Commitments at Appendix F No change is proposed to the existing Lowy Packer building loading dock, which is currently understood to be operating satisfactorily. All vehicles will enter and leave the site in a forward direction. Project now complies – see Section 9.7. 45 bicycle spaces and separate male and female shower and change rooms are provided on Basement Level 01. As detailed in the TEF report at Appendix A, all car parking areas are designed in accordance with AS 2890.1-2004 and AS 2890.2 Noted Noted
Ministry of Transport (MOT) A greater incorporation of measures to both maximise and endorse existing modes of alternative transport to car usages should be included within the Environmental Assessment. The Traffic and Parking Assessment prepared by TEF	A greater range of measures to influence travel behaviour and optimise the use of transport other than private cars is provided in the Traffic and Parking Report at Appendix A. A greater range of measures to influence travel

Issue	Applicant's Response
for the GSVCC does not adequately address the DGRs for the preparation of a Traffic and Transport Study. A broader analysis of all transportation modes (including public transport, walking and cycling), as well as a greater incorporation of measures to influence travel behaviour and optimise the site's proximity to public transport as outlined in the DGRs is required to be provided. A TMAP is required to be completed for the Concept Plan and should be included in the Environmental Assessment report, in order to inform subsequent project applications. If approval is granted, MOT requests conditions to be placed on consent to require preparation of a TMAP, a Workplace Travel Plan and a Travel Access Guide.	behaviour and optimise the use of transport other than private cars is provided in the Traffic and Parking Report at Appendix A. The Statement of Commitments at Appendix F includes a commitment to adopt a TMAP prior to commencement of the use of the proposed building. See above
Sydney Water Sydney Water will further assess the impact of the development when the developer applies for a Section 73 Certificate. Developers must fund any adjustments needed to Sydney Water infrastructure as a result of any development. All new commercial trade wastewater processes should be included as a variation on the current trade waste permit for the St Vincent's site.	Noted Noted Noted

5 Background

5.1 Concept Plan for the St Vincent's Research Precinct

A separate Concept Plan application has been submitted to the Minister for Planning (Major Project Application No. 09_0010), which proposes a planning framework for the larger 'St Vincent's Research Precinct', within which the GSVCC will be located.

Following the public exhibition of both applications, two critical issues emerged that have informed the preparation of this Preferred Project Report (PPR), namely

- the priority for the GSVCC to proceed based on its fully funded project status when compared to the Virology Centre.
- unresolved matters concerning the proposed envelope for the Virology Centre.

Following discussions with the Department of Planning, it has been agreed with the Department to place the Concept Plan "on hold" by "decoupling" the Concept Plan from the Project Application. This will allow for the GSVCC to proceed to determination. Statutorily this is possible, as there is no permissibility issue that precludes the ability to approve the PA for the GSVCC (see Section 9.2.4). By doing so this PPR for the GSVCC will now incorporate those elements that are contained within the Concept Plan proposal and upon which the GSVCC relies. These elements are:

- Demolition
- Vehicular access arrangements
- Car Parking numbers
- Land subdivision
- Building use and built form based on revised building designs.

The original basis for the Concept Plan was in response to a request in late 2008 by the Department to prepare such. This request was in recognition of the intent to stage the development of the 2 remaining sites within the Precinct in relatively close sequence to one another. Importantly, a Concept Plan provided an overarching guide to inform the detailed design of each site in a way that recognised a shared vision and common planning context and framework for the Precinct Partners. In this way, the Precinct can evolve in an integrated manner. This has been achieved through the evolution of the GSVCC project design. The design for the GSVCC incorporates common access points, shared services and building linkages and common areas accessible from both existing and proposed buildings. Importantly, the design that is currently proposed does not preclude the ability for future development of the Virology Centre site to take advantage of these same features at some future point in time.

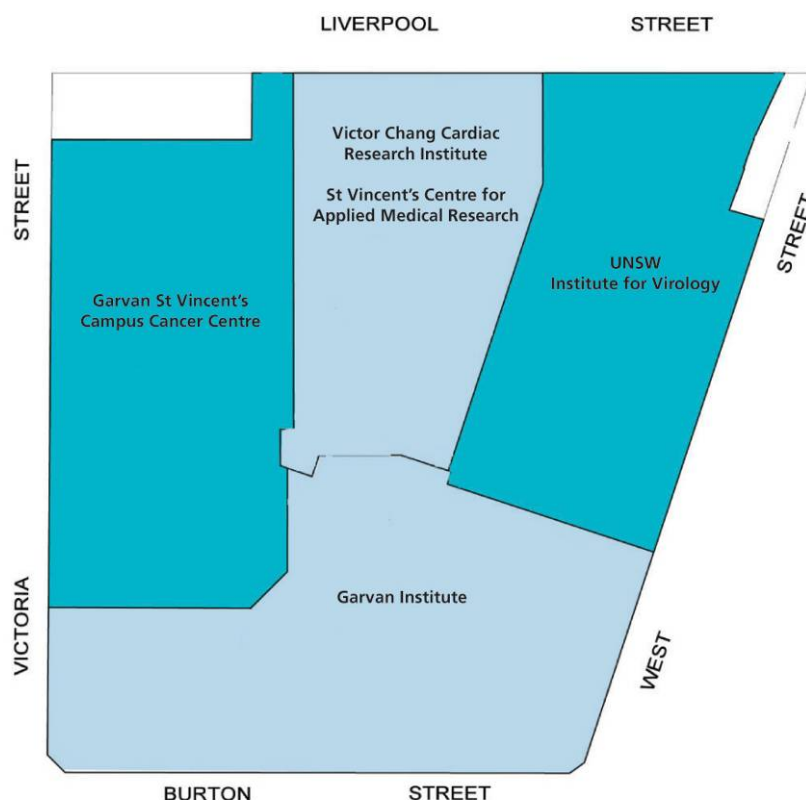


Figure 6 – Location of GSVCC and UNSW Virology Development Sites

5.2 The Proponent

This project is a joint initiative of GIMR and SVMHS who are the joint proponents of this application.

GIMR is one of Australia's largest independent medical research institutions with over four hundred scientists, students and support staff. Internationally recognised as a leader in gene-based medical research, GIMR is committed to delivering new insights into major diseases and novel ways to prevent and treat these disorders. The critical mass of leading senior scientists at the GIMR ensures that the quality of the research is amongst the best in the world.

SVMHS is part of the national Sisters of Charity Health Service, which is Australia's largest non-government, not-for-profit health care provider. The key facilities comprising SVMHS include St Vincent's Hospital and Community Health Services, Sacred Heart Hospice and St Vincent's Private Hospital. SVMHS also comprises the Mater Hospital in North Sydney and St Joseph's Hospital and Village in Auburn. Collectively, the SVMHS Group provides a comprehensive range of acute and sub acute health and aged care services from primary prevention through to tertiary level care across community, outpatient and inpatient settings.

SVMHS's work in health and aged care is supported by a significant investment in teaching and research in partnership with Universities and affiliated research institutes including UNSW, GIMR and VCCRI. SVMHS also has significant relationships with the University of Sydney, the Australian Catholic University, the University of Notre Dame Australia, the University of Tasmania and the University of Technology Sydney.

5.3 The Consultant Team

The consultant team assisting the Proponent with the Project Application comprises:

- Urbis – Environmental Assessment, Statutory Planning and Heritage.
- Bligh Voller Nield (BVN) – Architecture.
- KJA – Community Consultation.
- 360 Degrees – Landscape.
- TEF Consulting – Traffic and Transport.
- ARUP – Services, Infrastructure and Sustainability.
- Wilkinson Murray – Acoustics.
- AW Edwards – Construction Impacts.
- Heggies – Reflectivity and Wind.
- Hyder – Waste Management.
- Blackett Maguire and Goldsmith – PCA (BCA Assessment)

5.4 Community Consultation

KJA Pty Ltd were engaged by SVMHS to manage a process of community consultation in relation to the development of the precinct. The following activities were undertaken to engage the local community and other stakeholders during the concept design phase. The Community Consultation Program included at Appendix B of the original Environmental Assessment outlines the ongoing program for consultation following lodgement of this application. Each of the following community events were advertised via letterbox drop to between 2,000 and 2,800 households.

- Community Cocktail Evening
- Twilight Fair
- Community Information Session
- Community Group Briefings

5.4.1 Matters Raised During Consultation

Key issues raised during the pre-lodgement consultation process included:

- Scale of Proposed New Buildings
- Shadowing and Wind
- Car Parking
- Traffic
- Landscaping of West Street
- Lighting
- Location of the Precinct
- Planning Process and Consultation
- Work of the Precinct

6 The Site and Context

6.1 The Site

The site comprises the western portion of the St Vincent's Research Precinct (see Figure 7)

The site (excluding the GIMR and Lowy Packer buildings – see below) has an area of 2,153m² and comprises the properties along the eastern side of Victoria Street, Darlinghurst, between the Green Park Hotel (on the corner of Liverpool Street) and the existing GIMR. The site also includes Chaplin Street, a rear service lane serving these properties.

The site principally comprises:

- 362-364 Victoria St (vacant land used as 'beer garden' to the Green Park Hotel).
- 366-368 Victoria St (terrace house group adapted to offices for St Vincent's Hospital).
- 370 Victoria St (altered late Victorian terrace house).
- 372 Victoria St (late Victorian terrace used as offices by St Vincent's – local heritage item).
- 374 Victoria St (altered late Victorian terrace house).
- 376-382 Victoria St (Medical Centre).

The Project Application also includes works to connect the proposed building into and through the existing GIMR and Lowy Packer buildings. Accordingly, the works extend into the following properties:

- 384-390 Victoria Street (GIMR).
- 405-427 Liverpool Street (Lowy Packer Building).



Figure 7 – Context of Site

Existing development on the site is shown in the photographs below.



Picture 1 – 362 Victoria Street (vacant land uses as beer garden to Green Park Hotel).



Picture 2 – 366-368, 370 and 372 Victoria Street



Picture 3 – 372 & 374 Victoria Street



Picture 4 – 376-382 Victoria Street

6.2 Legal Description

The site comprises the following parcels of land:

- Lot 22 DP 867249 – 362-364 Victoria Street
- Lot 24 DP 881417 – 366-368 Victoria Street
- Lot 25 DP 881417 – 370 Victoria Street
- Lot 26 DP 881417 – 372 Victoria Street
- Lot 27 DP 881417 – 374 Victoria Street
- Lot 28 DP 881417 – 376-382 Victoria Street
- Part Lot 29 DP 881417 – 405-427 Liverpool Street
- Part Lot 10 DP 846558 - 384-390 Victoria Street

The entire St Vincent's Research Precinct, within which the site is located, is owned by the Trustees of St Vincent's. Landowner's consent to the lodgement of the Project Application is submitted under separate cover.

6.3 Local Context

The site is located on Victoria Street, which links Taylor Square and Kings Cross, to the south-west and north respectively. Both are significant evening entertainment and retail precincts, surrounded by high density housing and mixed uses.

6.3.1 Development to the North

Development immediately to the north of the site comprises the Green Park Hotel (360 Liverpool Street, on the corner of Liverpool and Victoria Streets).

Development on the northern side of Liverpool Street comprises two high rise commercial buildings (including the Telstra Exchange), an approved multi-storey, mixed use development which is currently under construction (320 Liverpool Street) and a number of two storey mixed use terraces.



Picture 5 – Green Park Hotel – 360 Liverpool Street



Picture 6 – The eastern end of the Liverpool Street Block to the north



Picture 7 – Development to the immediate north, across Liverpool Street (new building under construction on central site).

6.3.2 Development to the West

Development on the western (opposite) side of Victoria Street comprises predominantly two storey terraces with restaurant/café uses on the ground floor and residential uses above.



Picture 8 – Development to the immediate west, across Victoria Street, viewed from Liverpool Street



Picture 9 – Development to the immediate west, across Victoria Street, viewed from Burton Street.

6.3.3 Development to the East

To the rear of the site is the 'Lowy Packer' building, which comprises part of the larger St Vincent's Research Precinct, and houses the VCCRI and St Vincent's Centre for Applied Medical Research. This building is intended to be physically connected at various levels into the proposed GSVCC building.



Picture 10 – The Lowy Packer Building (VCCRI)



Picture 11 – Chaplin Street (Lowy Packer Building to the left, the GSVCC site to the right).

6.3.4 Development to the South

Immediately to the south of the site is the existing GIMR, to which it is proposed to physically connect the proposed GSVCC at various levels. Development on the southern side of Burton Street comprises the St Vincent's Hospital, with the high-rise Cahill Building (hospital use) being the most prominent building adjacent to the site. The multi-storey O'Brien Building (hospital use) located between the Cahill Building and Burton Street is currently under construction.



Picture 12 – The GIMR Building



Picture 13 – Burton Street and St Vincent's hospital O'Brien Building (to the right).



Picture 14 – The original (deLacy) St Vincent's Hospital building.

6.4 Site Analysis

Key features of the site and its immediate surrounds are illustrated in Figure 8.



Figure 8 – Site Analysis Plan prepared by BVN

6.5 Current Transport and Access Conditions

A revised Traffic and Parking Report has been prepared by TEF Consulting for the project (see Appendix A).

6.5.1 Road Network

Oxford Street (State Road 172) and William St / Kings Cross Tunnel / Edgecliff Road (State Road 173). These streets provide the main east-west connections between the Sydney CBD and the Eastern Suburbs.

Burton Street and Liverpool Street provide secondary east-west routes. Victoria Street and Darlinghurst Road, together with South Dowling Street and Boundary Street cross the above four routes from north to south, thus forming a comprehensive street grid which allows easy access to the area in all directions of travel.

Traffic signals with pedestrian crossing facilities are provided at all intersections of the above streets, except the Burton St / West St intersection.

6.5.2 Intersection Performance

TEF conducted traffic counts at all key intersections in the vicinity of the site. The commuter peak hours at the intersections occurred between 7:45 am and 8:45 am and from 5:30 pm to 6:30 pm. Operation of the key intersections with the existing traffic volumes has been checked using SIDRA Intersection software, SCATES and Aimsun microsimulation models.

Analysis indicates that all intersections are performing at Level of Service (LOS) A or B (a good level of service) during both peak periods, with the exception of the intersections of Oxford Street with Darlinghurst Road and Victoria Street. The Darlinghurst Road intersection operates at LOS C (Satisfactory) in the PM peak and the Victoria Street intersection operates at LOS D (near capacity) during both peaks. Both the Aimsun and SCATES analysis provided similar results.

6.5.3 Public Transport

The site is very well serviced by public transport. Kings Cross railway station is located some 500 m from the Site (about 5 to 8 minutes walk). Train services run at approximately 5 minute intervals during the peak commuter periods.

There are a number of bus routes within convenient walking distance from the site. Of these, routes 311 and 389 have bus stops near the site. These services run at 8 to 15 minute intervals during the peak commuter periods and at 15 to 20 minute intervals at other times during the day. More bus routes run along Oxford Street. These provide high frequency services.

6.5.4 Pedestrian and bicycle linkages to and within the site

Pedestrians are well provided for, with all streets in the vicinity of the site featuring footpaths. The walking path from Kings Cross railway station to the Precinct is under shop awnings for most of its length. Direct pedestrian access is currently provided to the site from Victoria Street. Numerous surrounding streets incorporate bicycle lanes.

6.6 Geotechnical Conditions

A preliminary Geotechnical Assessment of the site has been prepared by Golder Associates and has been submitted under separate cover.

The report advises that the precinct is located along the eastern side of a broad ridge comprised of Hawkesbury Sandstone formations, overlain to an indicative depth of 1.5 metres with sand (Aeolian sand) and clayey sands (residual sandstone soil).

The report concludes that no significant geotechnical constraints affect the proposed development on the site.

6.7 Contamination

Previous retail, commercial and residential uses of the site raise limited potential for localised contamination. Given that the entire area of the development site is proposed to be excavated into rock to a depth of 6 storeys, any potential contamination will be removed by these works. Contamination issues therefore relate to questions of the manner in which any potentially contaminated material is identified, removed, and disposed of.

The Statement of Commitments to the Concept Plan includes a commitment to undertake Phase 1 Site Investigations, and implement a Remedial Action Plan (RAP) if found to be required, prior to the commencement of any works on the site.

7 The Preferred Project

7.1 The Vision

The vision for the Project is:

"to realise the promise of personalised medicine for cancer patients by creating a world-renowned facility where research findings move quickly into clinical care and clinical challenges drive laboratory research".

7.2 Overview of Project

This Project Application seeks full project approval for:

- Detailed design and construction of a building to house the GSVCC.
- Use and ongoing operation of the GSVCC and ancillary uses.
- Floor space area.
- Car parking numbers
- Vehicle access arrangement
- Subdivision/consolidation of titles
- Associated site improvements, landscaping and public domain works.

This application does not rely upon any Concept Plan or other prior approval.

In addition to various detailed refinements, the PPR proposal has been reduced from the original proposal detailed in the Environmental Assessment report from 11 to 9 storeys above Victoria Street (11.5 metre reduction) and from 217 to 148 car parking spaces.

Architectural Plans detailing the project for which approval is now sought have been prepared by BVN and are included at Appendix B.

7.3 Design and Construction of the Proposed Building

The proposal seeks approval for the detailed design and construction of a building with 9 levels above Victoria Street level, one level of basement laboratory and plant and 4 split levels of basement car parking as detailed on the Architectural Plans prepared by BVN (see Appendix B).

Photomontages of the proposed development are included below and reproduced at a larger scale at Appendix C.



Picture 15 – Photomontage, looking north east (artwork is indicative only) *Source: C3Di*



Picture 16 – Photomontages, looking south-east *Source: C3Di*



Picture 17 – Photomontage, looking east along Liverpool Street *Source: C3Di*



Picture 18 – Looking south along Victoria Street (note Telstra building to left) *Source: C3Di*



Picture 19 – Photomontage, looking west along Liverpool Street Source: C3Di



Picture 20 – Photomontage, looking north-east along Darlinghurst Road Source: C3Di



Picture 21 – Photomontage, looking east along Burton Street Source: C3Di

7.4 Land Use, Floor Space and Development Data

As detailed in Table 1, the proposed building will have 8 storeys plus a plant level above the Victoria Street frontage and 5 levels below, including one laboratory/plant level and four split levels of car parking, accessed via the basement car park of the existing Lowy Packer building.

One level of basement laboratories and plant will be provided at Level 3. Ground level (Level 4) will comprise a foyer entry, a commercial tenancy, and automatic teller machine, a 'Wellness Centre' and a Haematology and Oncology Ambulatory Care (HOAC) facility. The HOAC facility will provide day treatment for cancer patients receiving ongoing chemotherapy and other cancer treatments. The first floor (Level 5) will accommodate clinical consulting rooms for outpatients. The level above (Level 6) will accommodate clinical data management and administration, in addition to meeting rooms and a landscaped rooftop garden over the lower part of the building adjoining the Green Park Hotel. With the exception of Level 12, which is the plant level, all other levels of the building will be used as research laboratories.

Car parking that exceeds the 1 space per 125m² requirements of DCP 11, technically constitutes 'gross floor area' pursuant to South Sydney LEP 1998. However, to avoid confusion, the GFA of habitable research and other space has been expressed separately to that associated with car parking proposed in excess of DCP 11 standards.

Table 1 – Summary of Proposed Development Data

Level	Use/s	Gross Floor Area ¹ (m ²) Research and Mixed Uses	Car Parking Spaces
Level B2 (Basement)	Car parking	-	42 + 1 small car +3 motorcycle
Level B1 (Basement)	Car parking	-	37
Level 1 (Basement)	Car parking	-	38 + 1 small car +2 motorcycle
Level 2 (Basement)	Car parking	-	31 +5 motorcycle
Level 3 (Basement)	Research laboratories and plant	1,487 m ²	Nil
Level 4 (Victoria Street Ground level)	Commercial tenancy, Automatic Teller Machine, HOAC & wellness centre	1,445 m ²	Nil
Level 5	Outpatient clinical consulting rooms	1,515 m ²	Nil
Level 6	Clinical data management, administration, rooftop garden and meeting rooms	1,300 m ²	Nil
Level 7	Research laboratories	1,082 m ²	Nil
Level 8	Research laboratories	1,127 m ²	Nil
Level 9	Research laboratories	1,148 m ²	Nil
Level 10	Research laboratories	1,127 m ²	Nil
Level 11	Research laboratories	1,127 m ²	Nil
Level 12	Plant	128 m ²	Nil
Total	-	11,486m ²	148

¹ GFA is "Gross Floor Area", which is defined as follows pursuant to South Sydney Development Control Plan 1997: Urban Design:

"Gross floor area the sum of the areas of each floor of a building where the area of each floor is taken to be the area within the outer face of the external enclosing walls as measured at a height of 1.4 metres above each floor excluding:

- columns, fin walls, sun control devices and any elements, projections or works outside the general lines of the outer face of the external walls
- lift towers, cooling towers, machinery and plant rooms and ancillary storage space and vertical air conditioning ducts.
- car-parking and associated access needed to meet the requirements of the Council.
- space for the loading and unloading of goods"

7.5 Landscaping and Public Domain Works

Landscape Plans for the project have been prepared by 360 Degrees and are included at Appendix D. In summary, the proposed landscape works will:

- provide inspiration, respite, amenity, functionality and privacy, as appropriate to each landscape space, (i.e. Streetscape & Entry, Chaplin Street and the Rooftop Landscapes)
- provide landscape continuity for the site, its adjacent buildings and the wider context
- maximise accessibility and ease of movement
- contribute positively to the Victoria Street and Liverpool streetscapes, including Chaplin Street
- provide varied amenity for patients, staff and visitors
- complement the architecture
- demonstrate design excellence by the use and fine detailing of a restrained material palette, including quality concrete paving for walls and seating, timber and steel

The following Landscape Design Statement has been prepared by 360 Degrees:

Streetscape and Entry

To the Victoria Street facade, a filigree of mixed ornamental climbers is proposed (comprising Parthenocissus, Jasmine and Bougainvillea) to create a dynamic and vibrant frontage with seasonal interest, colour and scent. The planting will climb a mesh screen that extends throughout the recessed void between the southern boundary and the lobby entry. The planting design intends to add a layer to the character of the streetscape, in complement to the existing street trees (Platanus). The climbers will also provide privacy to the offices and consultation rooms from levels 3-7. The species selection is intended to maximise winter solar access and to mitigate the summer western sun. The architectural glazing at the boundary provides a maintenance edge to the public domain. At ground level, additional screening and amenity are provided by character understorey planting, including Cordyline, Colocasia, and Asplenium.

The planting extends into atrium gardens in the Arrival Foyer. The species selection here include Cordyline, Colocasia, and hardy shade tolerant under-plantings of Pellaea, Davallia and Peperomia, providing legible and highly visible landscape continuity that extends through to Chaplin Street. The Rooftop Landscape is also visible from the Entry foyer.

Chaplin Street

Chaplin Street is a split-level shared zone providing access and egress, for pedestrians and service vehicles (at the lower level), as well as a private breakout space for HOAC patients at the upper level. A steel portal frame over the egress stairs provides clarity for access and interest in the space, particularly when lit at night.

The design for the lane incorporates elements to ensure security, including passive surveillance via clear sight lines to and from buildings and Liverpool Street, lighting, and rationalised elements (for example bench seats) and spaces that might encourage undesirable activity.

The existing planting to the western edge of the Lowy Packer Building will be retained and protected. The species utilised there have been incorporated into the proposed planting palette for the Garvan and St Vincent's Cancer Centre, for example, Cissus, Asplenium and Bamboo, to enhance a sense of landscape continuity and cohesion. The design seeks to maximise planted areas with a selection of robust, shade tolerant planting that will enliven the space and mitigate the scale of the surrounding built forms.

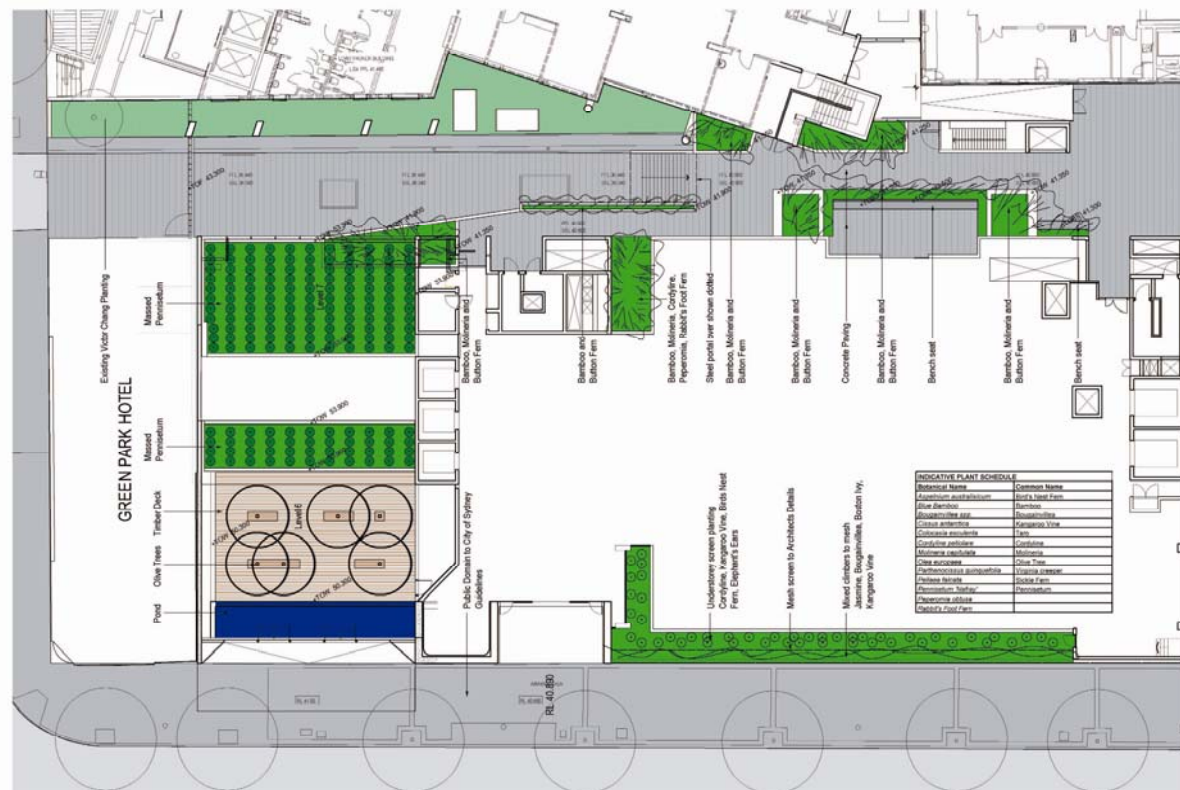


Figure 9 – Chaplin Street Landscape Plan, prepared by 360 Degrees

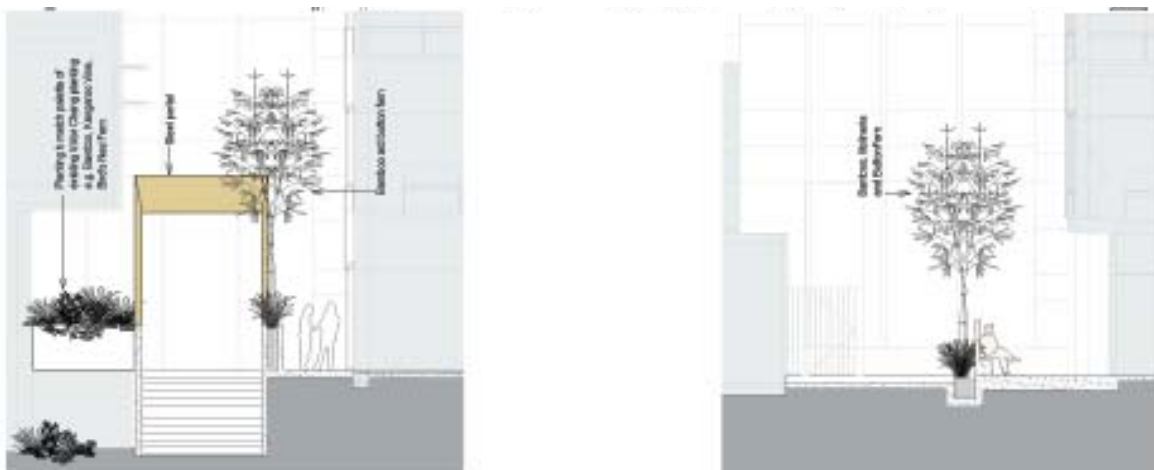


Figure 10 – Figure 7 – Chaplin Street Landscape Section, prepared by 360 Degrees

Level 6 and 7 Rooftop Gardens

To Level 6, is a functional, low-maintenance, low-water-use landscape comprising a grove of olive trees in recycled hardwood timber decking. The olive grove is viewable from the entry foyer, and its distinctive variation in character from the ground-level landscapes, provides diversity and interest that befits the proposed use of the space for staff breakout and functions. A masonry wall screens the Green Park Hotel roof to the north, creating an intimate courtyard space. A raised water feature to the western edge acts as the balustrade. The water body is passive and reflective, with a gentle spill over its front face to add movement and noise abatement for the courtyard.

Olives are selected for their character, appropriate scale, manageability, evenness of solar access through the seasons, (i.e providing a good balance of light in winter and shade in summer) and resilience to exposed rooftop conditions. On the Level 7 rooftop is a massed planting of hardy, low-maintenance, drought-tolerant native grasses, i.e Pennisetum 'Nafray'.

7.6 Vehicular Access, Loading and Car Parking

Vehicular access is provided by two separate vehicle lanes connecting proposed Basement Level B1 into the existing basement car park of the Lowy Packer building, which has existing two lane access onto West Street. The new basement car park will provide parking for 148 cars, 10 motorcycles and 45 bicycles. Separate male and female shower and change rooms are also proposed.

New pedestrian access from Level 3 of the proposed building into the Lowy Packer building will allow access to the existing Lowy Packer building loading dock. This dock will be relied upon for all servicing and loading access, with the exception of the commercial/retail tenancy proposed to Victoria Street, which will load directly from Victoria Street. Similarly, the proposed substation under Chaplin Street will be serviced from the retained northern end of Chaplin Street.

7.7 Stormwater and Drainage

It is proposed to connect the storm water system associated with the GSVCC to the existing storm water drain in Chaplin Street. Storm water drainage will predominantly comprise roof water and pavement water from the front and rear of the building. Roof water will be directed to rainwater tanks located in the roof top plant room with overflows directed to the Level 2 aerial storm water system.

Trench drains will be provided at building entries to eliminate water ingress to the building. A pit and pipe storm water system will be installed to the lowest basement car park level and will drain to a storm water pump station which will pump out to the gravity storm water drainage system.

The proposed drainage system will enable rainwater to be harvested from all areas of the roof. A rainwater tank of approximately 50,000 litres is proposed to catch and store the rainwater within the roof plant room. The system will be designed for yearly rainfall intensities to ensure the system is regularly flushed. A non-potable water pump set will be installed adjacent to the rainwater tank with a potable water automatic change over device to ensure continuous flow during periods of low rainfall. The non-potable rainwater supply will provide water supply for toilet flushing and landscape irrigation, if required.

On Site Detention (OSD) is not proposed given the proposed works will incorporate rainwater harvesting and the works will not result in any increase in the impervious area on site.

7.8 External Finishes (Facade Design)

The external finishes of the project are illustrated at Figure 13 and on the physical sample board submitted under separate cover.

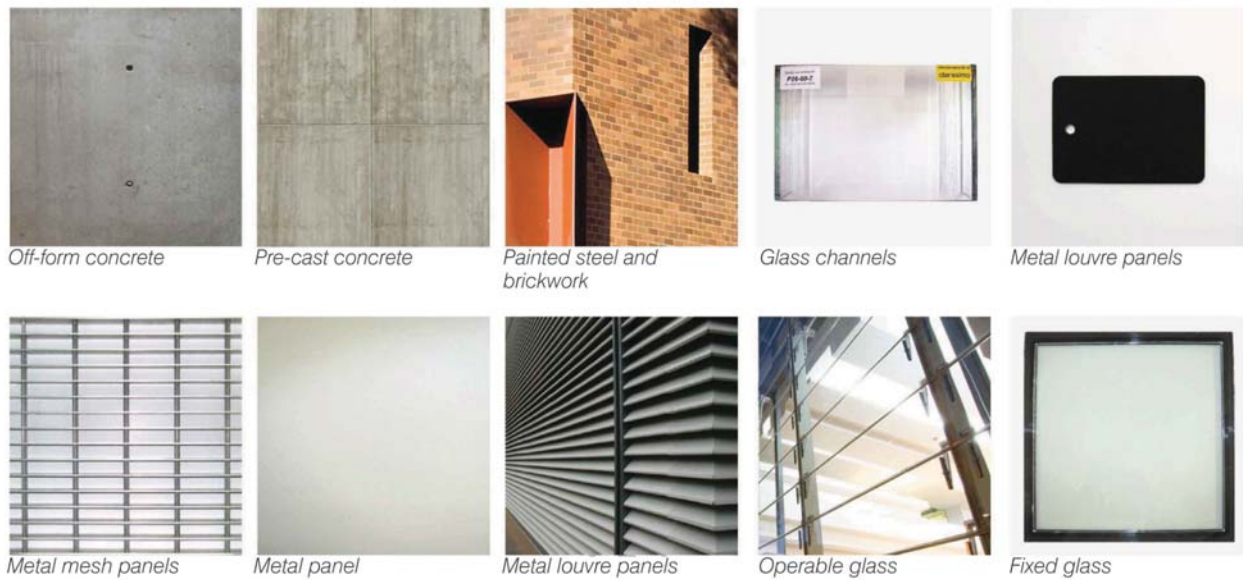


Figure 11 – External Finishes, prepared by BVN

7.9 Subdivision

The project includes the rationalisation of the various allotments comprising the site into four allotments; one each for:

- The GSVCC
- The Lowy Packer building
- The GIMR
- The Virology Centre site.

A draft plan of subdivision is included at Appendix E. This plan includes the various easements required to facilitate connections between and across the four sites.

7.10 Signage

The project includes a number of zones for the erection and display of external signage, as indicated on the Architectural Plans included at Appendix B. While the design and content of individual signs has yet to be determined, approval is sought for various signage zones, subject to separate applications for the specific design and wording of individual signs.

7.10.1 Building Naming

A 5x5 metre signage zone is proposed on the top left corner of the north, south and east facades of the tower building. On the western (Victoria Street) façade a similar signage zone is proposed above the main building entrance. Each zone will identify the name of the tenant and principal sponsor, in the same way the adjoining Lowy Packer building signage identifies both the VCCRI and the 'Lowy Packer Building'. The signs will take the form of backlit, individually mounted lettering and symbols, of a type similar to the Lowy Packer building signage.

Similar 1.5x1.5 metre and 2x1 metre signs will be erected at street level on the front façade adjacent to the main building entry to identify the building to passing pedestrians.

7.10.2 Tenant Identification

The proposed ground floor tenancies will require external identification. A 500mm high zone for the naming of these tenancies is proposed along the top of the glass line to Victoria Street. One under awning sign per tenancy is also envisaged.

7.11 Integration with Precinct

The fostering of collaboration is a fundamental tenet underpinning the development of the precinct.

To this end, the proposed building has been designed as an integrated part of the St Vincent's Research Precinct, with links at various car parking, plant and habitable levels of the existing GIMR and Lowy Packer buildings as detailed in Table 2. It also involves the creation of a new landscaped courtyard over the former Chaplin Street (see Section 7.5) with pedestrian entries to both the GIMR and Lowy Packer buildings, to act as a focus of pedestrian connection within the precinct.

Table 2 – Connections into GIMR and Lowy Packer buildings

Level of Proposed Building	Links to Lowy Packer Building	Links to GIMR	See Drawing Nos.
Level B1	Two way divided vehicular access ramps into existing basement car park	Nil	D-B1, F-02
Level B2 – B3	Nil	Nil	D-B2, D-B3
Level 01	Nil	Access connection into basement substation	D-01
Level 02	Nil	Nil	D-02
Level 03	Two basement pedestrian links	Two basement pedestrian links	D-03
Level 04 (Ground Level at Victoria Street frontage)	Courtyard over Chaplin Street with connection into Lowy Packer building	Relocation of glass wall to Chaplin Street approx 7 meters north, with access into new courtyard over Chaplin Street	D-04
Level 05 - 06	Nil	Relocation of glass wall to Chaplin Street approx 7 meters north	D-05, D-06
Level 07	Nil	Relocation of glass wall to Chaplin Street approx 7 meters north	D-07
		Bridge connection into GIMR within new Chaplin Street glass line	D-07, E-04
		Connection into 'de Novo' café and roof terrace	D-07, E-02, E-03
Level 08	Nil	Nil	D-08
Level 09	Nil	Nil	D-09, E-02
Level 10-12	Nil	Nil	D-10 – D-14

7.12 Artwork to Southern Facade

The photomontage at Picture 15 indicates a notional art treatment to the southern façade. However, this is not a proposed design, but an indicative representation of the extent of artwork that is intended to be installed on this façade.

In its abstraction, this artwork will publicly reflect the interaction between art and cancer research, and the activities that are undertaken within the GSVCC building. The proponent commits to undertake a independent art selection process to determine the final form of this artwork. A project commitment is included which outlines the method by which this Art wall will be commissioned.

The artwork will face towards St Vincent's Hospital and Green Park, but will also be exposed to the broader cityscape and public view.

7.13 Statement of Commitments

A final Statement of Commitments is included at Appendix F. It forms part of the Project Application and is proposed to ensure that the proposed development will adequately mitigate any potential adverse environmental impacts both during the construction and operational stages of the development.

The draft Statement of Commitments includes commitments in the follow regards:

- Transport Management
- Dilapidation Surveys of Adjoining Properties
- Heritage & Archaeology – Archival Recording
- Energy Performance (ESD)
- Artwork to Southern Facade
- External Signage
- Security Management Plan
- Construction Hours
- BCA Compliance
- Lighting Standards
- Car Parking and Loading Area Design Standards
- Augmentation of Utilities
- Remediation/Disposal of Contamination
- Noise Mitigation
- Drainage
- Access and Mobility
- Crime Prevention through Environmental Design (CPTED)
- Waste Management Plan
- Construction Management
 - General Construction Management
 - Parking for Construction Workers
 - Traffic Management
 - Environmental Management

8 Director General's Environmental Assessment Requirements

Table 3 provides a summary of the DG's EARs issued by the Department of Planning on 11 March 2009 and identifies where each requirement has been addressed in this report.

A copy of the DG's EARs is included at Appendix A of the original Environmental Assessment report..

Table 3 – Director General's Environmental Assessment Requirements Checklist

Director General's Environmental Assessment Requirements	Relevant Section of Report
General Requirements	
Description of the site including cadastral and title details	Sections 6.1 and 6.2
Draft Statement of Commitments, outlining commitments to public benefits including State and local infrastructure provision or contributions, environmental management, mitigation and monitoring measures and clear indication of responsibilities	Section 7.13 & Appendix F
Report from a quantity surveyor identifying the capital investment value	Separate Cover
Key Assessment Requirements	
Built Form, Design and Amenity	
Detailed architectural plans, elevations and sections to 1:100 or 1:200 scale	Appendix B
Urban design, height, density, bulk and scale of the development and relation to the surrounding development, landscape and topography	Section 2.4
Site analysis and assessment of the potential of overshadowing, privacy and view loss impacts on surrounding properties	Sections 9.6.2 & 9.6.3
3D modelling and a physical model of the proposed building	Separate Cover
External materials and finishes, including a sample board	Section 7.8 and Separate Cover
Photomontages and view analysis	Appendix 7.3 & Section 9.6.1
Details of proposed areas of landscaping and open space.	Section 7.5
Construction Impacts	
Noise and vibration	Section 9.8.1

Director General's Environmental Assessment Requirements	Relevant Section of Report
Soil and erosion control	Section 9.8.2
Air quality and air pollution	Section 9.8.3
Stormwater management	Section 9.8.4
Waste management	Section 9.8.5
Cut/fill and retaining structures	Section 9.8.6
Traffic impacts and management, include pedestrian/cyclist circulation	Section 9.8.7
Car parking for construction workers	Section 9.8.8
Operational Impacts	
Noise generation from plant and equipment	Section 9.6.4
Waste management including biomedical, infectious or toxic wastes, storage of any chemicals / hazardous materials	Section 9.9.2
Site security, including 'safer by design' principles in relation to new car parks and public area such as lighting and active / passive surveillance	Section 9.9.3
Emergency and evacuation procedures	Section 9.9.4
Fire safety	Section 9.9.5
Lighting	Section 9.9.6
Signage	Section 9.9.7
ESD Measures Address proposed ESD measures including water reuse and demand management, energy efficiency, recycling and waste disposal.	Section 9.9.9 & Appendix J.
Consultation Requirements	
Written evidence shall be submitted to demonstrate that an appropriate level of	Appendix B

Director General's Environmental Assessment Requirements	Relevant Section of Report
consultation with the relevant Local or State government authorities, service providers, community groups and other stakeholders has been undertaken. In particular, you should consult with: City of Sydney Council; NSW Ministry of Transport; NSW Roads and Traffic Authority; and All relevant utility providers. Document all community consultation undertaken to date or discuss the proposed strategy for undertaking community consultation. This should include any contingencies for addressing any issues arising from the community consultation and an effective communications strategy. This consultation process and the issues raised should be described in the Environmental Assessment.	Environmental Assessment Report
Landowner's Consent	Separate Cover



9 Environmental Assessment of Key Issues

Part 3A of the Environmental Planning and Assessment Act 1979 (the Act) requires that major projects obtain approval from the Minister for Planning.

The Project is defined as a 'Major Project' to which Part 3A applies either by being identified within a State Environmental Planning Policy or by order of the Minister published in the Gazette. As stated earlier in this report, the Minister has formally declared the project a 'Major Project'.

The Major Project approval process provides for the Minister for Planning to undertake a coordinated, whole of government assessment of the merits of a proposal that has significance to the State or region.

This section provides an environmental assessment of the key issues identified in the DG's EARs.

Furthermore, the project now includes a reduced building height and reduced car parking numbers, and now includes all aspects of the project, where some aspects were originally included in the separate Concept Plan (MP 09_0010). This Preferred Project Report (PPR) therefore updates the original Environmental Assessment Report to reflect these changes, and responds to public and authority submissions received by the Department of Planning in response to public exhibition of the original application.

9.1 Consistency with Strategic Planning Policy

As detailed Section 2 of this PPR, the project is not only consistent with the Metropolitan Strategy, Sydney 2030 and the Draft Sydney City Subregional Strategy, the establishment of the Research Precinct, of which the GSVCC is the next tangible step, is a specific action identified for implementation under those strategies.

9.1.1 Sydney Metropolitan Strategy

The Sydney Metropolitan Strategy was adopted in 2005 and is the State Government's current policy for the development of the Sydney metropolitan area to 2030.

- The Strategy specifically recognises the cluster of health related infrastructure in Darlinghurst.
- The Strategy identifies St Vincent's as one of 10 'Major Hospitals' in the Sydney Metro Area.
- The Strategy indicates the research precinct as a location for a CRC, or "Co-operative Research Centre", notwithstanding that the project has not been formally declared a CRC. A CRC is a multi-party research centre funded jointly by the Commonwealth Government and participants, for research into a specific applied area. Essential participants in a CRC are an Australian:
 - end-user (either from the private, public or community sector); and
 - higher education institution (or a research institute affiliated with a university).

9.1.2 Sustainable Sydney 2030 Strategic Plan

Part of the vision for the City of Sydney in the 2030 Strategic Plan is for it to remain Australia's most significant global city containing premium spaces for business activities and high quality jobs to nurture, attract and retain global talent. One of the key strategic directions identified in the Plan is for Sydney to remain a globally competitive and innovative city through investment in strategic economic infrastructure and amenities. The project is clearly consistent with these strategic directions.

9.1.3 Draft Inner Sydney Subregional Strategy

Various subregional strategies have been prepared to provide greater detail to complement the Metro Strategy. In July 2008, the Draft Inner Sydney Subregional Strategy was exhibited.

The Draft Subregional Strategy recognises the St Vincent's Hospital, GIMR, VCCRI and the Centre for Applied Medical Research and Clinical Research as **"a world class health services cluster"**. The strategy contains the following actions that are relevant to this Precinct (emphasis added):

A2.1.3 – "Within the subregion, world class health, medical and biotechnology research activities are located in a cluster around the St Vincent's Hospital in Darlinghurst..."

A2.2 – "For the Department of Health, Department of State and Regional Development and Department of Planning to promote the City East and Sydney Education and Health precincts as centres of excellence in biomedical research and development"

A2.3 – "Magnet infrastructure is generally an asset in the built environment that attracts activities to co-locate with it to form an industry cluster"

The subregional strategy recognises the cluster of hospital related uses along Victoria Street as key features of "Economy and Employment" within the subregion.

9.2 Consistency with Statutory Planning Policy

9.2.1 SEPP (Major Development) 2005

All components of the project conform to the Group 19 (Medical Research and Development Facility) class of development identified in Schedule 1 of SEPP Major Projects. Furthermore, with a capital investment value in the order of \$60 million, the project exceeds the \$15 million threshold.

The Minister for Planning was therefore requested to confirm the GSVCC component of the St Vincent's Research Precinct as a 'Major Project' pursuant to the SEPP. On 11 March 2009, the Minister so declared the project, and is therefore the consent authority.

9.2.2 SEPP (Infrastructure) 2007

SEPP (Infrastructure) 2007 includes two parts of relevance to this application:

- Division 10 - Health Services Facilities; and,
- Division 17 - Traffic Generating Development.

Division 10 allows for specific hospital related development to be carried out under certain parameters. However, s.10 of SEPP (Major Projects) 2005 provides the following:

10 Exclusion of certain exempt or complying development

(c) ... the particular development is not carried out as part of or in conjunction with other development that is a project to which Part 3A applies

The exempt development provisions under SEPP (Infrastructure) 2007 are therefore not available to the proponents of this project. However, the project does require referral to the RTA under this Policy.

9.2.3 SEPP 55 – Remediation of Land

Under this SEPP, prior to the issue of consent, the consent authority needs to be satisfied that the site is suited to its intended purpose in terms of any potential soil or ground water contamination.

In summary, only limited localised potential for contamination exists and a Draft Statement of Commitment is proposed to ensure that a Remediation Action Plan is implemented if found to be required.

9.2.4 South Sydney Local Environmental Plan 1998

The site is within "Zone No. 5 - Special Uses Zone" under South Sydney Local Environmental Plan 1998 (SSLEP 1998). Development is permitted with consent in this zone for the particular land use indicated by red lettering on the map, or land uses which are ancillary or incidental to that land use. The land use indicated by red lettering on the map is "Hospital". Pursuant to Schedule 1 of SSLEP 1998,

"hospital means a building or place (other than an institution) used for providing professional health care services (such as preventative or convalescent care, diagnosis, medical or surgical treatment, care for people with developmental disabilities, psychiatric care or counselling and services provided by health care professionals) to people admitted as in-patients (whether or not out-patients are also cared for or treated there), and includes:

(a) ancillary facilities for the accommodation of nurses or other health care workers, ancillary shops or restaurants, and ancillary accommodation for persons receiving health care or for their visitors, and

(b) facilities situated in the building or at the place and used for educational or research purposes, whether or not they are used only by hospital staff or health care workers".

The proposed medical research and treatment facilities are therefore clearly permissible. With regard to the proposed commercial tenancy and Automatic Teller Machine, fall within the definition of permissible ancillary facilities at subpoint a) of the definition of hospital.

In addition, development that may be carried out (with or without consent) on adjoining or adjacent land in a different zone is also permitted with consent. In this regard, the site adjoins land within the Mixed Use 10 Zone, within which any use is potentially permissible, and shops and commercial premises are specifically permissible.

All aspects of the project are therefore permissible with consent in the zone pursuant to SSLEP 1998.

SSLEP 1998 does not contain any development standards which restrict building height, FSR or the like for development within the 5 Special Use Zone.

9.3 Strategic Justification for the Project

As discussed at Section 2, the social and economic wellbeing of Sydney is underpinned by its universally recognised role as a global city. This role is in turn underpinned by Sydney being a home to centres of international excellence in business, culture, services, research and education. To maintain its global status it is critical that Sydney continues to be a 'creative city' that encourages and facilitates the growth and diversity of such centres of excellence.

9.4 Building Design

The following design statement has been prepared by James Grose of BVN Architects, the Director responsible for the design of the proposed building:

"Located on the south-eastern edge of the CBD, the Garvan St. Vincent's Cancer Centre (GSVCC) building has been designed to present a distinctive and measured response to its context of Darlinghurst.

The proposed building combines both cancer research and clinical services. The design aspiration of the GSVCC is to encourage physical and intellectual interaction between research and clinical staff to provide the opportunity for new ideas and thoughts to be exchanged and formulated.

The building form is articulated by its four discrete sides relating to the urban and environmental contexts – to the North, the building is set back, giving distance (about 13 metres) between its main mass and the Green Park Hotel and aligning with the parapet. In elevation, adjacent to the Green Park Hotel, the building breaks down its scale into elements that are appropriate to its smaller neighbour. This human scale addressing the Green Park Hotel is further emphasised by the planted roof garden and meeting room. The colour of the new building complements the colour of the Green Park Hotel.

As the mass of the building moves away from the Green Park Hotel its sculptural composition escalates in scale above street level presenting a façade that is ambiguous, ranging from diaphanous to solid, depending on whether one is viewing the structure by day or night, and the angle at which the sun is hitting the building. Although appearing fixed and static, the series of facades facing Victoria Street reflect the activity within, both physically and metaphorically. This element of the building is formed of 8 storeys, including plant at high level.

The strong horizontal articulation of the physical connection with the Garvan Institute modifies the scale of the building as it approaches street level, where the functional programme changes to retail and medical space. At this level, the façade and its occupants are sheltered by means of an awning, continuing the language of awnings found along Victoria Street and throughout Darlinghurst. At this level, the façade module of the building is far more intimate, as shopfront. Functionally and physically, the façade breaks down from the north to the south demonstrating new retail and commercial function, the new entrance to the GSVCC and adjacent to this, another new medical frontage.

The concept of the elemental building

In section, elevation and plan, the building has been conceived as a set of functional and spatial elements that articulate quite clearly their function. From South to North, the functional programme of service core to laboratory space to write-up space to meeting rooms and atria are clear.

This elemental relationship is reflected in the services strategy in the building which presents a highly serviced zone at laboratory area, graduating to less heavily serviced areas for write up and finally to naturally ventilated zones where the atrium is encountered and also reflected in the elevations, as described below.

Façade

Each of the facades of the GSVCC addresses different functional and cityscape requirements of the building.

On the northern façade, vertical elements express the lift and service cores. Behind a sunscreen, a secondary glazed wall expresses other functions and complexities within the atrium beyond. The northern sunscreen serves to protect the internal spaces from thermal overloading at the same time as exposing the building's interior form and complexity through its diaphanous nature when daylight falls away. At high level on the northern façade, a clerestory window directs sunlight into the depths of the atrium below in the winter and allows an influx of shaded, diffused light into this space in the summer. At low level, a similar window brings sunlight into the atrium space, filling the clinical waiting areas with light and optimism.

The western façade of the GSVCC is composed of several elements:

- 1 *The sunscreen*
- 2 *The breezeway*
- 3 *The wintergarden*
- 4 *The street-scale façade*

The sunscreen is the same as the northern façade sunscreen: composed of a hung aluminium louvre sunscreen over a glass façade that forms a cladding over the atrium and meeting room

“functions”. The screen is placed again to protect the inner functions of the building from thermal overloading and act as a diaphanous filter of the complexities of the building behind.

The breezeway at low level is made of horizontal louvres forming a corridor with a panelised curtain wall behind. This interstitial zone acts as the connecting passage way between the new GSVCC building and the existing Garvan Institute. The wintergarden run across two storeys of the building, as a verdant sunscreen to the office space and clinical programme allocated to the building.

The street-scale façade is composed of the western façade adjacent to The Green Park Hotel, the entrance to the building and the medical area. The northern zone of the west facade is three storeys in height, united to both the main building and the Garvan Institute building at the far extremities of the site by virtue of a vertical rhythm reflecting that of the Garvan and reflecting common elements of material connection: red oxide painted steel blades, the awning, and the shopfront. Adjacent to the main entrance foyer of the GSVCC and the southern end adjacent to the Garvan Institute, the shopfront and awning is punctuated by concrete elements. The concrete element adjacent to the main GSVCC entrance will allow building naming.



The eastern façade is punctuated by the expression of concrete cores at its extremities. Between these punctuations lies a simple panellised curtain. The façade is articulated by the functional requirements of the laboratories within, resulting in a clear reading of this function. The plant room at Level 12 is expressed as a recessed panel of louvres. At low level on the eastern façade, glazing in the under-croft contributes to the active edge of the landscaped space between the GSVCC and Lowy Packer Building. At the northern extremity, the building again compositionally links to the Green Park Hotel by uniting its materials of red oxide painted steel and concrete.

Forming the rear wall of the service core and abutting to the Garvan Institute, the southern façade has no fenestration. It does however form an important aspect for the building. Primarily, it faces towards St. Vincent's Hospital and Green Park and as such opens the building to the broader cityscape and public scrutiny. It is the prominent façade for building naming, having such exposure and therefore has been treated to express the internal workings of the GSVCC. The southern façade shall carry an art commission which, in its abstraction shall reflect the interaction between art and science and carry to the public realm, as a symbol, the activities that are undertaken in the building”.

9.5 Heritage

A Heritage Impact Statement was been prepared by Urbis in relation to the original proposal and is included at Appendix G of the original Environmental Assessment report.

The site adjoins the locally heritage listed Green Park Hotel and forms part of the Victoria Street heritage streetscape. It is also located in the vicinity of the Barcom Avenue Conservation Area and the deLacy building, the original St Vincent's hospital building on the south-east corner of Burton and Victoria Streets.

While clearly of a different scale to surrounding heritage buildings, the proposed design meaningfully responds to these building in various ways.

Rather than mock or compete with the ornate features of surrounding heritage buildings, the proposed architecture adopts an elegant and unpretentious simplicity that provides a neutral background to the ornate detailing of the heritage items.

The design does however reflect the predominant street edge scale of Victoria Street through a strongly expressed horizontal base element that steps down from a height of four storeys towards the deLacy building, to two storeys adjoining the lower Green Park Hotel. Within this base element, the building expresses a strong rhythm of vertical elements that echo the proportions and scale of Victorian terrace streetscapes, adopts a modern interpretation of the traditional metal footpath awning and provides a high degree of activity at ground level. The two storey element connecting the main building mass to the Green Park Hotel continues the parapet line of the hotel building, and adopts a darker, more solid vertical expression, which connects, but is visually recessive to the adjoining hotel and other building forms.

Above the base element, the façade expression has a contrasting restrained simplicity that allows it to read as a distinct element to the more dominant building base. Overall, the design reflects the prevailing character of the locality, with a solid, detailed form of two to three storeys providing the foreground to multi-level modern towers above/behind.

With regard to the Barcom Avenue Conservation Area, the site is physically separated from this environment by the existing Lowy Packer building.

9.6 Amenity Impacts

9.6.1 Visual Impact (View Loss)

There are no significant view lines across the site, and any potential views would have been largely obscured by the Lowy Packer building. As can be seen in the photomontages included at Section 7.3 and Appendix C, the proposed building will be prominent in its immediate context, but will sit amongst a suite of similar hospital related buildings along the Kings Cross Ridge.

The simple and light weight contemporary expression of the facades will sit comfortably with the contemporary style of the Lowy Packer building, and will enhance the design quality and visual appeal of some of the less attractive taller buildings in the immediate vicinity of the site (e.g. the Telstra and Cahill buildings).

The strongly defined base element of the building has been designed to mediate between the height of the adjoining Green Park Hotel and the GIMR building facade to Victoria Street. The strong definition of this base element, and the rhythm of vertical elements within it, allows the building to express a character that is not inconsistent with the Victoria Street streetscape, notwithstanding that it is a very contemporary expression.

While the tower element above will be clearly visible, it is very common for lower scale street edge buildings in this part of Darlinghurst to be read in the context of considerably taller modern buildings behind. Indeed the existing lower scale buildings on the site are already read in the context of the multi-level Lowy Packer, GIMR and Telstra buildings beyond.

The artwork proposed on the southern façade is intended to create a positive landmark statement, and contribute to the vibrant arts culture of Darlinghurst.

9.6.2 Overshadowing

The Residential Flat Design Code (RFDC) adopts the standard sunlight access requirement that living rooms and private open spaces should generally receive a minimum of three hours direct sunlight between 9 am and 3 pm in mid winter, but that in dense urban areas a minimum of two hours may be acceptable.

Commercial, retail and medical properties are less sensitive to overshadowing. Public open spaces in urban areas (i.e. Green Park) are sensitive to overshadowing during the 10.00am to 2.00pm period, when they are used for lunch time activities.

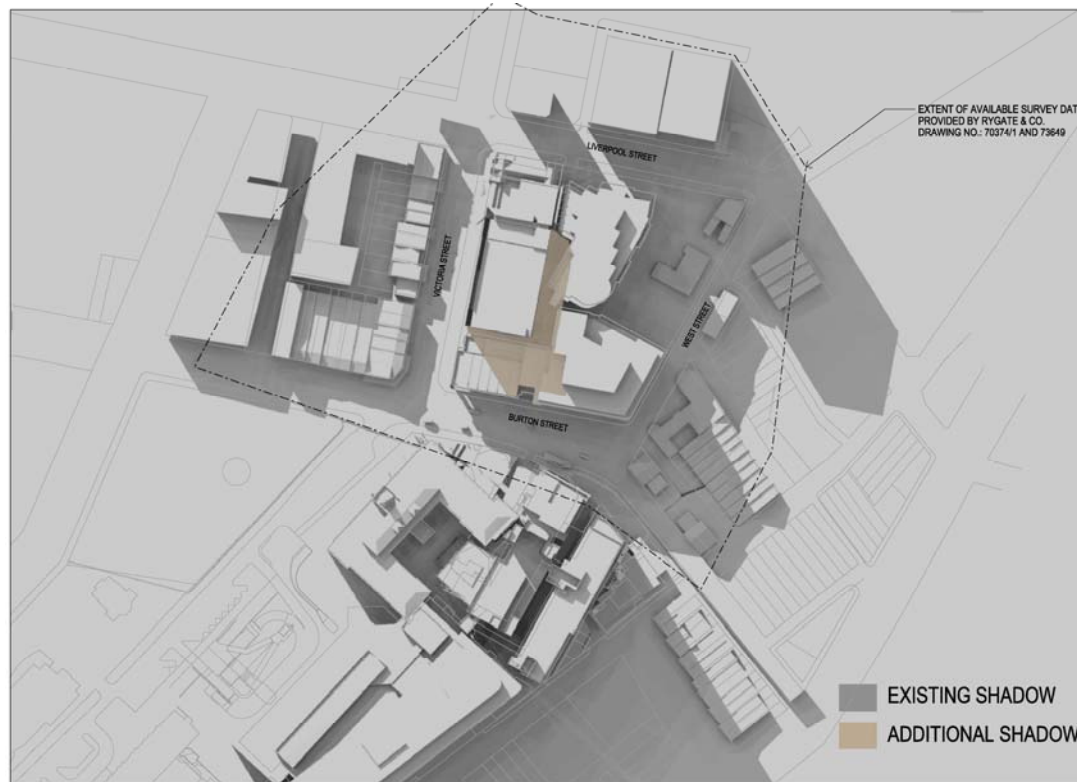
Hourly shadow diagrams from 9.00am to 3.00pm on the winter solstice (21 June) are included at Figure 12, and reproduced at a larger scale at Appendix G, along with similar drawings for both equinoxes and the summer solstice.



JUNE 21 - 9:00 AM



JUNE 21 - 12:00 PM



JUNE 21 - 03:00 PM

Figure 12 – Shadow Diagrams – Winter Solstice – 21 June

As can be seen in the shadow diagrams, whilst the shadow cast by the proposed GSVCC building will affect Green Park in the early morning, this shadow will move off Green Park before 10.00am, allowing unobstructed sunlight access for the rest of the day. After this time, all shadows cast by the proposed building will fall upon the adjoining GIMR and Lowy Packer buildings. The proposed building will not overshadow any residential property at any time.

9.6.3 Privacy

While tall, the proposed building is set well back from any surrounding residences, and other land uses that may be sensitive to privacy intrusion from a commercial building.

While quite close to the Lowy Packer building, sightlines between the buildings will foster a sense of an integrated precinct, rather than an intrusion of privacy.

9.6.4 Noise

The Acoustic Assessment prepared by Wilkinson Murray (see Appendix I of the original Environmental Assessment report) includes consideration of traffic and loading dock noise in West Street.

Traffic Noise in West Street

An original traffic assessment undertaken by TEF Consulting (see Appendix J of the original Environmental Assessment report), predicted an increase in maximum hourly traffic volumes from 35 vehicles per hour (vph) to 105vph. Given the physical conditions of West Street, a maximum vehicle speed of 30km/h has been assumed by Wilkinson Murray, who predicts an LAeq 1 hour of 52dBA, which is comfortably within the 55dBA NSW Environmentally Criteria for Road Traffic Noise (ECRTN) criteria.

While the Wilkinson Murray report has not been updated to reflect the proposed reduction in car parking, the reduction from 217 to 148 spaces will significantly reduce the originally predicted satisfactory noise levels.

Loading Dock Noise

The proposed GSVCC will use the existing shared loading dock with the Lowy Packer building. While this will significantly increase the amount of floor space served by the loading dock, the number of product deliveries or waste collections is not anticipated to increase significantly.

Given the very similar nature of the VCCRI, GIMR and GSVCC uses, the majority of products delivered to the GSVCC will be from current suppliers of the precinct. The number of packages per delivery will increase but not necessarily the number of vehicles accessing the site. Waste generated by the GSVCC will fit into existing streams with the main waste stream (contaminated) already being collected daily. The next two significant waste streams are collected in compactors on site which may result in an additional vehicle movement up to once a week.

Wilkinson Murray therefore conclude that the noise levels emitted from the dock during any 15 minute assessment period will remain the same as present, and note that physical constraints limit the dock capacity. No adverse noise impacts on West Street/Avenue residences are therefore envisaged.

9.6.5 Wind

A revised Wind Impact Assessment has been prepared by Heggies (see Appendix H).

Existing Winds

Heggies predict that existing street level wind conditions in the vicinity of the site are likely to be either close to or under the 16 m/sec "walking comfort" criterion for many prevailing wind directions given the varying degree of shielding afforded to the site by surrounding buildings.

Future Wind Environment

In terms of the future wind environment with the proposed development, the following features of the development are noted by Heggies as being of most significance:

- The site is shielded by numerous mid-rise buildings from the north clockwise through to the south.
- Awnings are already planned above all the entrances on Victoria Street and above the retail area footpath which will minimise the potential for “downwash” winds to occur, ie winds which impact on the west-facing façade of the development and are then deflected back towards the ground.
- Pedestrian areas located on the west and east side of the development are protected from adverse winds by existing and planned landscaping.
- The outdoor meeting area on the east side of the development is shielded by adjacent buildings and the proposed development.

Accordingly, Heggies predict that ground level wind speeds along all surrounding public footpaths and public access areas within the development itself will either remain at their present levels or decrease slightly with the addition of the proposed development and wind mitigation treatments.

9.6.6 Reflectivity

A Reflectivity Analysis has been prepared by Heggies (see Appendix I).

Heggies analysis of the development shows that there will be no elements within the proposed facades that are capable of causing adverse glare events at surrounding locations for motorists (disability glare) or pedestrians (discomfort glare) under any reflection condition.

This is due to the following:

- The development’s facades will have a reflectivity coefficient of less than 15%.
- The proposed buildings dimensions and limited number of streets affected.
- The facade design of the development involves a mix of materials which limit the potential to generate significant glare, including:
 - Other facade materials which cannot create glare, eg precast concrete, metal mesh panels and metal artwork panels.
 - Metal louvers covering several sections of the facades.

In summary, through a combination of choice of glazing, facade design, facade orientation and surrounding thoroughfare orientation, no facades of the development will produce reflections causing either disability glare for passing motorists or unacceptable discomfort glare for passing pedestrians.

9.7 Car Parking, Vehicular Access and Traffic

The Traffic and Parking Report prepared for the project by TEF Consulting was included at Appendix A.

9.7.1 Car Parking

The TEF report notes that South Sydney Development Control Plan 11 - Transport Guidelines for Development (DCP 11) provides no specific requirements for research facilities, but specifies

- Office/commercial use: 1 space per 125 sq.m. GFA
- Medical centres: 2 spaces per effective full time doctors
- Retail (small shops): 1 space per 50 sq.m. GFA

The proposed building includes

- 8,525m² of office/commercial use (laboratories, offices, etc.)
- Medical centre with 16 consulting / interview rooms, 14 to 15 effective full time (EFT) doctors
- 230m² retail shop (small)

On the above basis the project generates demand for 102 spaces in accordance with DCP 11. However, the consent for the GIMR requires the provision of 80 spaces, which are not currently provided within the precinct. The combined GSVCC and GIMR developments therefore generate a demand for 182 spaces.

While the originally proposed 217 spaces exceeded this requirement to provide a surplus to accommodate existing overspill from St Vincent's hospital, this number has been reduced to 148 spaces, which is now comfortably within the DCP 11 and GIMR consent requirements.

South Sydney DCP 11 requires that bicycle parking be provided at a rate of one space per 20 staff minimum. The proposed jobs at GSVCC amount to 365 Full-Time Equivalent (FTE) staff. However, only 328 staff are expected to be on site on a typical busy day. This would require provision of 16 bicycle parking spaces. A large bicycle parking facility is proposed within the Level 2 basement car park that can provide well in excess of these requirements.

With specific regard to the design of the proposed parking and vehicular manoeuvring facilities, the TEF report provides an assessment against the requirements of AS/NZS2890.1-2004 (car parking). The design drawings were checked against the requirements of the above Standard in terms of dimensions and gradients of parking spaces, parking aisles and ramps. Checks of vehicle manoeuvring were carried out using AutoTrack 8 swept path prediction software, and the proposed design is considered to be adequate.

9.7.2 Vehicular Access

Numerous resident submissions advocate the relocation of vehicular access from West Street to Chaplin Street, largely to minimise traffic flows in West Street, and 'rat-running' vehicles illegally accessing the car park via West Lane.

While residents concerns are understood, vehicular access via West Street is proposed because:

- RTA guidelines (2002) recommend that vehicle access be provided by the lowest order street frontage of any site, which in this case is clearly West Street.
- RTA guidelines (2002) specify a 'desired environmental capacity' of 200-300 veh/h for local streets, such as West Street. Existing peak traffic flows in West Street are approximately 40-50 veh/h. While the project will more than double these volumes to approximately 100-110 veh/h this volume is still well within the environmental capacity of this local urban street.

Chaplin Street is considered unacceptable as a vehicular access point because:

- Right hand turns into Chaplin Lane would create significant conflicts with the operation of the proximate signalised intersection of Liverpool and Victoria Streets. However, the width, geometry and proximity of Chaplin Lane and Victoria Street effectively prevent the provision of a physical barrier to prevent such movements.
- Assuming that right hand turns into Chaplin Street could be prevented, the majority of vehicles that will be arriving from the north, south or west will have to circle the block to arrive via West Street in any event.
- Any queuing out of the driveway would cause significant traffic congestion, whereas West Street has capacity to accommodate occasional queuing without significant incident.

- Chaplin lane is private land (i.e. it is not currently a public road) and It proposed to be pedestrianised to form an important linkage between research activity within the Lowy Packer building and the proposed GSVCC. Noting the need to traverse a subterranean substation required at the northern end of Chaplin Street, vehicle access via Chaplin Street would require a significant ramp structure that would effectively preclude any meaningful pedestrian interface across Chaplin Street.

While egress only via Chaplin Street has been considered, this could only be provided by a left only movement for safety reasons. Given the proximity of Chaplin Street to the signalised intersection of Victoria and Liverpoolstreets, queuing back from this intersection should easily obstruct egress from the sitein peak periods.

No serious options exist for vehicular access via Burton or Victoria Streets.

9.7.3 Loading

The proposed GSVCC will utilise the existing approved Lowy Packer building loading dock. The majority of delivery/servicing vehicles currently using this dock are Medium Rigid Vehicle(MRV) or smaller. Deliveries/servicing by Heavy Rigid Vehicle(HRVs - 12 m long) is generally limited to:

- Gases (cylinders),
- Contaminated waste,
- Ad hoc equipment deilevires

The typical frequency is up to two HRVs per week, with a maximum of two per day. Simultaneous arrivals of two HRVs is rare and can be managed.

While the proposed GSVCC will obviously increase the volume of materials delivered to and from the loading dock, given the very similar nature of activities, the GSVCC will generally not require additional vehicle movements. The majority of the deliveries/servicing will be carried out by the same number of vehicles, carrying increased loads.

9.7.4 Traffic Impacts

TEF have attributed predicted additional traffic volumes to the surrounding street systems and found that they will constitute a very minor proportion of the existing traffic flows on most affected intersection approaches:

- Oxford Street 1% to 2%
- Darlinghurst Street 1% to 2%
- Victoria Street (other than Oxford St) 2% to 7% (Liverpool St 19% in the pm peak)

While exsisting peak traffic flows in West Street will more than double from approximately 40-50 veh/h. to 100-110 veh/h, as discussed above this volume is still well within the environmental capacity of this local urban street

The 'SCATES' software package was used by TEF to analyse the operation of critical intersections after the project. The following SCATES models were developed for each street in the network.

Darlinghurst St Existing						
Intersection	AM			PM		
	AVD	LOS	DS	AVD	LOS	DS
Liverpool St	5.3	A	0.35	5.4	A	0.40
Burton St	8.9	A	0.35	8.0	A	0.40
Oxford St	7.5	A	0.62	8.5	A	0.70

Darlinghurst St with GSVCCC (+70%)						
Intersection	AM			PM		
	AVD	LOS	DS	AVD	LOS	DS
Liverpool St	5.3	A	0.35	5.4	A	0.42
Burton St	9.0	A	0.36	8.1	A	0.40
Oxford St	7.6	A	0.63	8.5	A	0.70

Victoria St Existing						
Intersection	AM			PM		
	AVD	LOS	DS	AVD	LOS	DS
Liverpool St	5.9	A	0.41	11.2	A	0.40
Burton St	6.6	A	0.43	20.9	B	0.33
Oxford St	18.0	B	0.89	47.4	D	0.92

Victoria St with GSVCCC (+70%)						
Intersection	AM			PM		
	AVD	LOS	DS	AVD	LOS	DS
Liverpool St	6.0	A	0.43	11.0	A	0.43
Burton St	6.4	A	0.43	20.1	B	0.33
Oxford St	18.0	B	0.89	49.2	D	0.94

Liverpool St Existing						
Intersection	AM			PM		
	AVD	LOS	DS	AVD	LOS	DS
Darlinghurst Rd	9.5	A	0.35	10.3	A	0.40
Victoria St	6.4	A	0.58	5.6	A	0.59
West St	2.2	A	0.20	2.6	A	0.23

Liverpool St with GSVCCC (+70%)						
Intersection	AM			PM		
	AVD	LOS	DS	AVD	LOS	DS
Darlinghurst Rd	7.6	A	0.35	8.3	A	0.38
Victoria St	6.6	A	0.60	6.5	A	0.62
West St	2.4	A	0.21	4.4	A	0.28

Oxford St Existing						
Intersection	AM			PM		
	AVD	LOS	DS	AVD	LOS	DS
Darlinghurst Rd	4.2	A	0.60	3.8	A	0.69
Victoria St	17.7	B	0.81	18.1	B	0.86

Oxford St with GSVCCC (+70%)						
Intersection	AM			PM		
	AVD	LOS	DS	AVD	LOS	DS
Darlinghurst Rd	4.2	A	0.60	3.8	A	0.69
Victoria St	17.7	B	0.81	18.1	B	0.86

Level of service criteria for intersections

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout
A	< 14	Good operation
B	15 to 28	Good with acceptable delays & spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Operating near capacity
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode

Figure 13 – 'SCATES' analysis of traffic intersections prepared by TEF

As can be seen in Figure 13, the additional traffic generated by the Project will not alter the classification of Level of Service on any surrounding intersection.

9.8 Construction Impacts

Prior to any works commencing, a Construction Environmental Management Plan (CEMP) will be prepared and implemented to manage all environmental aspects associated with the construction of the development. The CEMP will identify construction measures and practices to be established for the purposes of minimising potential construction impacts such as dust emission, erosion and sediment transfer, stormwater drainage, waste disposal, construction traffic and parking, noise, vibration and worker safety.

As such, a draft Statement of Commitment is proposed to ensure a CEMP is implemented if found to be required (see Appendix F).

Potential construction impacts identified in the DG's EARs are addressed below.

9.8.1 Noise and Vibration

As outlined in the Acoustic Assessment prepared by Wilkinson Murray (refer Appendix I of the original Environmental Assessment report), the following construction noise mitigation is recommended and forms part of the Draft Statement of Commitments at Appendix F:

A detailed construction noise management plan will be developed prior to commencement of construction.

A 2.4 metre hoarding will be constructed around the site, where appropriate.

The contractor will liaise with potentially affected neighbours, including residents and occupiers of the adjacent hotel. Advice will be provided including:

- a construction program noting likely periods of noise and vibration generation.
- a complaint hotline.
- Complaint handling procedures will be developed to ensure that all valid complaints are investigated and reported upon.

Separate ongoing liaison will be instituted with GIMR, VCCRI and CAMR to allow scheduling of construction activities to minimise the effect of noise and vibration within the buildings.

Noise and vibration will be carried out at nominated residences (sensitive receiver locations) on one day a month from the commencement of construction activities. Construction noise monitoring carried out at noise-sensitive locations will generally be carried out at the facade of affected buildings subject to local access constraints. Supplementary noise monitoring may be carried out in response to complaints, exceedances or for the purpose of refining construction methods or techniques to minimise noise. Monitoring allows immediate feedback to operators so that corrective action (if required) can be implemented promptly.

Accordingly, a Noise and Vibration Management Sub-Plan has been prepared by AW Edwards and is included at Appendix M of the original Environmental Assessment report. This plan has been prepared to ensure that construction works do not significantly impact background noise levels or result in damage to surrounding buildings due to vibration impacts.

9.8.2 Soil and Erosion Control

A Soil and Water Management Sub-Plan has been prepared by AW Edwards and is included at Appendix N of the original Environmental Assessment report. This plan has been prepared to ensure that construction works do not result in soil erosion on the site and to ensure water quality is maintained. Specific controls to manage soil erosion will be included in any CEMP prepared for the site. A draft Statement of Commitment is proposed to ensure that this plan is implemented prior to commencement of construction (see Appendix F).

9.8.3 Air Quality and Air Pollution

An Air Quality and Dust Management Sub-Plan has been prepared by AW Edwards (Appendix O of the original Environmental Assessment report) for the project to ensure that the air quality surrounding the site during the course of works is appropriately managed to minimise the environmental and health risks associated with dust and exhaust emissions. A draft Statement of Commitment is proposed to ensure that this plan is implemented prior to commencement of construction (see Appendix F).

9.8.4 Stormwater Management

Appropriate stormwater management measures will be identified to ensure that adequate drainage will be provided on the site during construction. Details will be included in the CEMP. A Draft Statement of Commitment is proposed to ensure that this plan is implemented (see Appendix F).

9.8.5 Waste Management

A Waste Management Sub-Plan has been prepared by AW Edwards (see Appendix P of the original Environmental Assessment report) which outlines the proposed strategy for management of excavation and construction materials associated with the redevelopment of the site. Details of construction waste will be included in the CEMP. A draft Statement of Commitment is proposed to ensure that this plan is implemented (see Appendix F).

9.8.6 Cut/Fill and Retaining Structures

After removal of approximately 1.5m of overlaying soil, the site will be cut to a depth of 6 storeys into sandstone bedrock in order to allow for construction of the basement car park. Sydney Sandstone is a stable material for excavation and any excavated material may well be suitable for reuse in sandstone building works off site. It is noted that there will be no fill proposed on the site.

A Cut/Fill and Retaining Structures Sub-Plan has been prepared by AW Edwards (see Appendix Q of the original Environmental Assessment report) to ensure that construction works do not impact on the integrity of adjacent structures. A draft Statement of Commitment is proposed to ensure that this plan is implemented (see Appendix F).

9.8.7 Traffic Impacts and Management

As stated in the Traffic Report (see Appendix A), it is not possible to develop a detailed Traffic Management Plan for construction at the project development stage. However, general principles have been set out by TEF Consulting and will be used by the Building Contractor following their appointment.

The general principles for the Traffic Management Plan are outlined in the Traffic Report. Accordingly, a draft Statement of Commitment is proposed to ensure a Traffic Management Plan is implemented if found to be required (see Appendix F).

9.8.8 Car Parking for Construction Workers

On site parking for construction personnel will be resolved as part of the Traffic Management Plan/CEMP.

9.9 Operational Impacts

Potential operational impacts identified in the DG's EARs are addressed below.

9.9.1 Noise Generation from Plant and Equipment

Most mechanical plant will be located in the Level 11 plant room or on the roof of the GIMR building. The closest potentially effected residences are those above the cafes and restaurants in Victoria Street approximately 50m from the roof top plant.

Based upon preliminary plant selections, the Acoustic Assessment prepared by Wilkinson Murray (see Appendix I of the original Environmental Assessment report) indicates the noise control measures that will be provided to mitigate noise from each item, as summarised in Table 4.

Table 4 – Preliminary Plant Selections, Indicative Noise Levels and Noise Reduction Requirements

	Noise Level (dBA)	Noise Reduction (dBA)	Type of Noise Control
Level 11 Plant Room			
Car park exhaust	82dBA at 3m	15	Attenuators
Air Handling Units	75dBA at 1m	15	Attenuators
Roof			
Boilers	87dBA at 1m	8	Acoustic louvres
Up to 8 x Cooling Towers	53dBA at 16m		Shielding
30 x Exhaust fans	76dBA at 1m	15	Shielding/louvres*
Standby Generator 1000KVA	100dBA at 1m	20	Attenuators
Level 3			
Air Handling Units	75dBA at 1m	15	Attenuators
Level 2			
2 x Water cooled chillers	83dBA at 1m	15	Acoustic louvres

* Attenuators are not an option for laboratory exhaust fans due to corrosion as such alternative mitigation such as shielding and louvres will be utilised.

9.9.2 Waste Management (including storage of potentially hazardous materials)

A Waste Management Plan (WMP) has been prepared by Hyder Consulting for the operational phase of the development (see Appendix R of the original Environmental Assessment report).

It is noted that several different waste streams will be generated through the various activities within the GSVCC. Generally these will be disposed of at or near the point of generation and collected by cleaners to be transferred to Level 3. Depending on the waste type, waste may also be transferred directly to Level 3 by the relevant members of staff.

The majority of waste management activities within the GSVCC (i.e. waste storage and removal, delivery of new waste receptacles and bin washing) will take place on Level 3 in an area referred to as the Waste Storage and Transit Area (WSTA). GSVCC waste management will be fully integrated with the waste management systems of the GIMR and Lowy Packer buildings. Therefore parts of the existing WSTA (i.e. namely waste compactors, the autoclave, bulk/pallet storage, the loading dock and access routes) will be utilised for management of GSVCC waste.

9.9.3 Safety and Security

The proposed building is generally built to the street edge to optimise passive street surveillance and street edge activity to Victoria Street, and the elimination of hiding spaces and ambiguous publicly accessible areas.

While the courtyard area between the existing Lowy Packer building and the proposed building is proposed to be landscaped as an accessible outdoor area, this area will be secured. The existing GIMR and Lowy Packer facilities implement active security management plans, which will be expanded to ensure personal safety and security within the proposed new facility. A commitment in this regard is included in the draft Statement of Commitments.

In addition to the crime prevention measures outlined above, the proposal has been designed to ensure pedestrian safety within the site. The proposed building design incorporates physical separation of pedestrian and vehicle access points. Vehicular access is limited to West Street which allows safe pedestrian access via the main activity street of Victoria Street.

9.9.4 Emergency and Evacuation Procedures

The BCA Compliance Statement (see Appendix S of the original Environmental Assessment report) and Building Services Report (see Appendix T of the original Environmental Assessment report) address the relevant provisions of the BCA and Australian Standards in relation to procedures for Emergency and Evacuation. Further, a draft Statement of Commitment is proposed to ensure an Emergency and Evacuation Procedure Plan is implemented if found to be required.

9.9.5 Fire Safety

Details of proposed fire services is provided at Section 5 of the Building Services Report prepared by ARUP (see Appendix T of the original Environmental Assessment report).

In summary, the following services are proposed:

- Separate stand alone systems to serve the new building.
- Sprinklers will be provided where dictated by the fire engineered solution.
- New fire water supply from Victoria Street water main.
- Fire control panels, smoke detection and dry fire services.

9.9.6 Lighting

Details of proposed internal and external lighting are provided at Section 7.6 of the Building Services Report prepared by ARUP (see Appendix T of the original Environmental Assessment report). It is noted that a draft Statement of Commitment is proposed to ensure that a detailed lighting plan is prepared to minimise any potential impacts on surrounding properties.

9.9.7 Signage

While the actual wording and design of individual signs is yet to be determined, zones for building and tenant identification are indicated on the Architectural Plans included at Appendix B.

The proposed signage scheme provides for one building / tenant identification sign on each façade of the tower, two pedestrian level entry identification signs and signage zones for tenants of the two proposed ground level tenancies to Victoria Street. This level of signage will appropriately identify the building, without unreasonable visual impact or clutter.

9.9.8 Building Code of Australia

Blackett Maguire & Goldsmith have undertaken an assessment of the proposed development against the relevant provisions of the Building Code of Australia. A BCA Compliance Statement is included at Appendix S of the original Environmental Assessment report.

The key findings of the Compliance Statement are as follows:

- The proposed development will generally satisfy the Deemed-to-Satisfy (DTS) provisions of Sections B, C, D, E, F and J of the BCA subject to a number of recommendations.
- The proposed building and interconnections to the adjoining Lowy Packer building and GIMR will be the subject of various fire engineered alternative solutions to the DTS provisions of the BCA.
- It is considered that the proposed fire engineered alternative solutions can be appropriately addressed in the preparation of the Construction Certificate design documentation without giving rise to any inconsistencies with the development consent.

9.9.9 ESD (Sustainability)

ARUP have prepared a report which outlines the ESD measures proposed in relation to the project (refer to Appendix J). The report considers the following benchmarking and rating tools:

- Sustainable Sydney 2030 City of Sydney Strategic Plan (SS2030)
- Green Star Health Care
- LEED Health Care
- Green Guide to Health Care
- Labs 21
- NABERS Energy
- TS-II
- Building Code of Australia – Section J

On the basis of these documents, the report identifies specific sustainability strategies in relation to:

- Energy Efficient Design.
- Indoor Environmental Quality.
- Water-Sensitive Urban Design Measures.

- Commissioning.
- Materials, Recycling and Waste Disposal.
- Landscape and Site Ecology.
- Transport.

10 Conclusion

The GSVCC represents the next tangible project that will contribute to the evolution of a world class medical research precinct in Darlinghurst. This project has been designed in a way that responds to the broad Concept Plan that has been developed to set the strategic intent for the development of this precinct into the future.

This Preferred Project Report has demonstrated that this proposal can be implemented in a way that is cognisant of its immediate context but most importantly, underscores the attention to design quality that is befitting of a world class facility.

Our analysis of potential visual, traffic, car parking, overshadowing, wind, heritage and noise impacts has identified no unreasonable adverse environmental effects likely to arise as a result of the proposed development.

We therefore conclude that the project can be approved in the form proposed and subject to the commitments made to ensure that there is a lasting benefit to the health and welfare of the population that this project directly seeks to positively influence.

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