



Planning &  
Environment

**STATE SIGNIFICANT DEVELOPMENT  
ASSESSMENT REPORT:**

***Loreto Kirribilli School, Kirribilli  
SSD 7919***



Environmental Assessment Report  
Section 4.40 of the  
*Environmental Planning and Assessment Act 1979*

August 2018

## ABBREVIATIONS

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AHD	Australian Height Datum
AIA	Arboricultural Impact Assessment Report
AAR	Acoustic Assessment Report
AHR	Aboriginal Heritage Due Diligence Report
The Applicant	Loreto Kirribilli
ARD	Archaeological Research Design
LKS	Loreto Kirribilli School
CIV	Capital Investment Value
CNVMP	Construction Noise and Vibration Management Plan
Consent	Development Consent
CONVR	Construction and Operational Noise and Vibration Assessment Report
Council	North Sydney Council
CTMP	Construction Traffic Management Plan
CTPMP	Construction Traffic and Pedestrian Management Plan
CMP	Construction Management Plan
DCP	North Sydney Development Control Plan 2013
Department	Department of Planning and Environment
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
FFL	Finished Floor Level
GA	Government Architect of New South Wales
GSC	Greater Sydney Commission
Hazmat	Hazardous Materials Assessment
HIS	Heritage Impact Statement
ICNG	Interim Construction Noise Guideline
INP	Industrial Noise Policy
ISEPP	<i>State Environmental Planning Policy (Infrastructure) 2007</i>
LGA	Local Government Area
LOS	Level of Service
Minister	Minister for Planning
NML	Noise Management Levels
NSLEP	<i>North Sydney Local Environmental Plan 2013</i>
OEH	Office of Environment and Heritage
GA	Government Architect New South Wales
PA	Public Address
RAP	Remedial Action Plan
RMS	Roads and Maritime Services
RtS	Response to Submissions
SEARs	Secretary's Environmental Assessment Requirements
Secretary	Planning Secretary of the Department of Planning and Environment
SEPP	<i>State Environmental Planning Policy</i>
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
SEPP 55	<i>State Environmental Planning Policy No. 55 – Remediation of Land</i>
Education SEPP	<i>State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017</i>
SSD	State significant development
TfNSW	Transport for New South Wales
the Plan	The Greater Sydney Regional Plan - A Metropolis of Three Cities
TIA	Traffic and Parking Impact Assessment Report
OTAMP	Operational Traffic and Access Management Plan
WTP	Workplace Travel Plan

Cover Photograph: Elamang Avenue Perspective, Loreto Kirribilli School (Source: Applicant's RtS)

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## EXECUTIVE SUMMARY

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This report is an assessment of a State significant development (SSD) application lodged by Loreto Kirribilli (the Applicant) seeking approval for redevelopment of Loreto Kirribilli School (LKS), located at 85 Carabella Street, Kirribilli. The application comprises a Concept Proposal for alterations and additions and detailed Stage 1 works.

The application seeks Concept approval to develop the LKS site in three stages involving: partial demolition of existing buildings; maximum building envelopes for new buildings; upgrading of existing facilities; removal of 11 trees and increasing the capacity of students. The application also includes Stage 1 works comprising demolition of an existing building; construction of a new seven-storey learning hub; extension to the gymnasium; refurbishment of the chapel; construction of three vertical connector pods; landscaping works and stormwater works.

The application initially sought approval for increasing the capacity of the school by a maximum of 100 additional students (1,200 students in total) and two additional staff members. During the assessment of the proposal, the Applicant amended the proposal by reducing the number of proposed additional students to be 30 (1,130 students in total).

The Concept Proposal has a Capital Investment Value (CIV) of \$97 million and would generate two additional operational jobs. The Stage 1 works has a CIV of \$33 million and would generate 100 construction jobs. The proposal is SSD under clause 15 of Schedule 1 of *State and Environmental Planning Policy (State and Regional Development) 2011*, as it is development for alterations to an existing school with a CIV of more than \$20 million. Consequently, the Minister for Planning is the consent authority for the proposed development. North Sydney Council (Council) has objected to the SSD application outside the public exhibition period. Accordingly, the application needs to be referred to the Independent Planning Commission for determination as the delegate of the Minister.

The Environmental Impact Statement (EIS) for the Concept Proposal and Stage 1 works were publicly exhibited between 19 October 2017 and 17 November 2017 (30 days). The Department of Planning and Environment (the Department) received a total of 23 submissions during the exhibition period, as follows:

- seven submissions from public authorities including Council providing comments
- 12 individual public submissions including 11 objections
- two objections from three organisations
- one objection from an organisation via the local Member of Parliament (MP).

Additionally, one individual submission objecting to the development was received via Council after the exhibition period.

The matters raised in the submissions included the impact of the proposal on the amenity and views of the adjoining neighbours, adverse impact of the built form on the surrounding developments, the impact of the development on local traffic, inadequate drop-off and pick-up zone, construction and operational noise, demolition of a heritage significant building and lack of a Workplace Travel Plan (WTP).

The Applicant provided a Response to Submissions (RtS), which included an additional view impact analysis, a further supplementary Heritage Impact Statement (HIS), a WTP and updated preliminary Construction Traffic Management Plan (CTMP). The Applicant's RtS also proposed design amendments by reducing the height of one concept building envelope within the eastern precinct of the site and included additional replacement planting to compensate for the proposed loss of trees. The RtS was published on the Department's website on 26 February 2018.

A further four submissions from public authorities, one public submission and one submission from a local MP on behalf of a member of public, were received after publication of the RtS. Council objected to the development based on adverse impact on local traffic due to their view that there were existing inadequate provisions for student drop-off and pick-up.

The Department engaged an external traffic consultant to assess the predicted traffic impacts, intersection modelling, car parking and drop-off and pick-up arrangements. The traffic consultant's initial report identified the need for further analysis of the drop-off and pick-up zone along Carabella Street and requested further assessment of the nearby intersections, traffic volumes, adequacy of the existing school zones and loading zones.

The Applicant responded to the issues raised in a number of supplementary RtS submitted in March, May and June 2018, and also reduced the number of proposed additional students from 100 to 30. Additionally, the Applicant provided details of operational traffic management and drop-off and pick-up zone management, delivery areas / bus drop-off and pick-up zone management measures and further design amendments to the roof and mechanical plant.

The Department conducted site inspections and had meetings with the adjoining affected property owners. The Department identified the following key issues for assessment:

- traffic, transport and parking impacts
- built form and urban design
- environmental and residential amenity
- heritage.

The Department has considered the traffic impacts associated with the development and concludes that the implementation of the proposed operational mitigation and management measures by the Application would result in a positive impact on the ongoing issues of the drop-off and pick-up zone. However, it is acknowledged that some of the proposed mitigation and management measures require further refinement and the Department has recommended conditions requiring these measures. The proposed building envelopes and the design of the new learning hub and connectors are acceptable and appropriate within the context of the site, the heritage significance and the relevant streetscapes. The amenity impacts on the adjoining neighbours due to view loss and privacy are reasonable and can be further improved via the implementation of the recommended conditions.

The Department considers the application is consistent with the objects of the *Environmental Planning and Assessment Act 1979* (EP&A Act), including ecologically sustainable development, NSW State Priorities, The Greater Sydney Regional Plan - A Metropolis of Three Cities and the North District Plan. The Department is satisfied that the impacts of the proposal have been addressed in the EIS, RtS and supplementary RtS. The residual impacts can be adequately managed through the recommended conditions.

Overall, the Department considers the proposed development satisfies the relevant environmental, economic and social requirements and is in the public interest. The Department therefore recommends that the application be approved subject to conditions.

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# 1. BACKGROUND

## 1.1 Introduction

This report provides an assessment of a State significant development (SSD) application lodged under Part 4, Division 4.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), for the proposed redevelopment of Loreto Kirribilli School (LKS) located at 85 Carabella Street, Kirribilli as a Concept Proposal and Stage 1 works.

Loreto Kirribilli (the Applicant) initially sought approval to redevelop the school and increase the capacity for up to 1,200 students (100 additional students). The proposal has been amended to reduce the additional students from 100 to 30 (1,130 in total).

## 1.2 The site and surroundings

### 1.2.1 Site Description

The site is located at 85 Carabella Street, Kirribilli and is legally described as Lot 200 DP 1166282, within the North Sydney local government area (LGA). The site is located approximately 500 metres (m) east of Milsons Point shops and train station and 2.2 kilometres (km) north of Sydney Central Business District (CBD). The site has a total area of 1.82 hectares (ha).

The site is irregular in shape, with dual frontages of 217.5 m to Elamang Avenue (northern boundary) and 164.6 m to Carabella Street (southern boundary). The site has a steep fall of 16 m from the southern to the northern boundary and has views of Sydney Harbour (the Harbour). The site currently accommodates a number of buildings of varying height. Loreto Kirribilli School (LKS) is an independent Roman Catholic day school for girls, with 1,080 enrolled students (having approval for 1,100 students) from Kindergarten - Year 12 and 180 staff members.

The location of the site is shown in **Figure 1**.

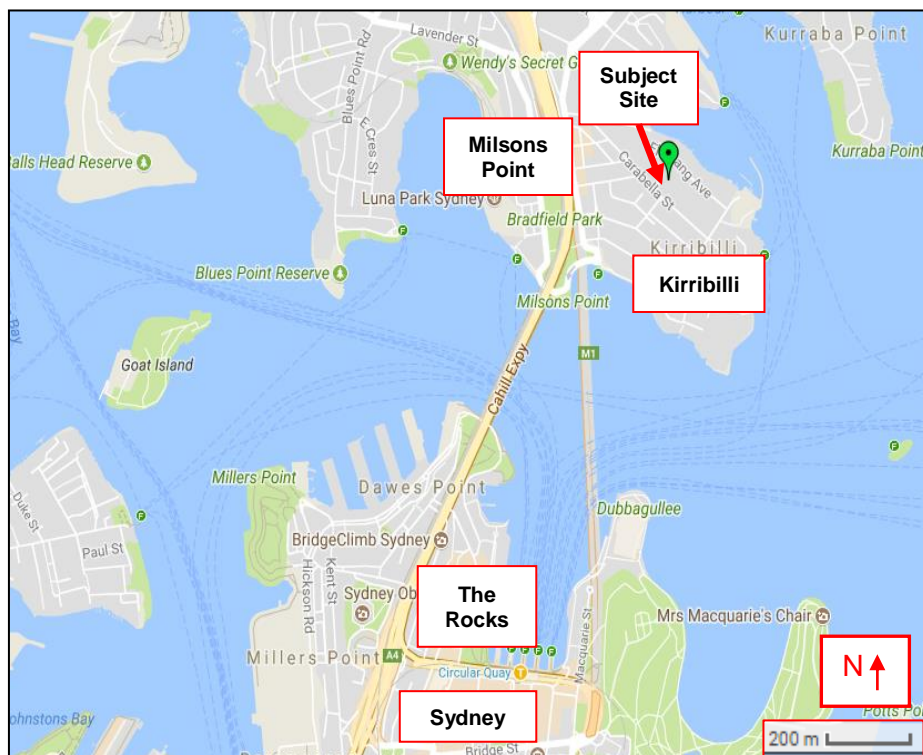


Figure 1: Site location in the context of Sydney CBD (Source: Nearmaps 2018)

The site is a locally listed heritage item in the *North Sydney local Environmental Plan 2013 (NSLEP)* except the south-western corner. The site includes the following buildings separated by landscaped gardens, pathways and existing trees:

- The Marian Centre: A three to five-storey Inter-war style building fronting onto Carabella Street at the south-eastern corner, built circa 1938
- The B-Block: A three-storey building to the north of the Marian Centre used as an educational facility
- The gymnasium: A single storey building fronting Elamang Avenue at the north-west corner
- The junior school: A two-storey school building at the centre of the site
- Centenary Hall: A single storey hall with roof-top sports court
- Science Building: A single storey building with roof-top sports court
- The Elamang: A two storey residence built in 1851 - 1852 that was modified in 1921 for use as a school with a large extension to the east and a colonnaded verandah (St Aloysius) added in 1924
- The Chapel and Presbytery: A prominent building built circa 1929 - 1930 with the bell tower fronting onto Carabella Street and has historic and social significance
- St Joseph's Block (J Block): A three to four-storey Modernist style educational facility adjoining the chapel
- Mary Ward and performing arts building: A two to three storey Modernist style building built in 1979, located at the north-eastern corner of the site with the senior school and auditorium
- Car park: Single level basement carpark under the Science and the Music and performing arts buildings accommodating 80 spaces, accessed off Elamang Avenue
- Sandstone block retaining walls: Sandstone walls, located between the Marian Centre and B-Block comprising remnants of the Tremayne House circa 1890s
- Boundary Wall / Gates: Walls and gates along Carabella Street frontage built circa 1929-30.

The existing buildings on the site and the surrounding developments are shown in **Figure 2**.



**Figure 2: Aerial view of the LKS site identifying existing buildings (Source: Nearthmaps 2018)**



Given the steep slope of the site, the buildings are of varying heights and are connected by stairs. Roof-top sports courts and recreational areas are provided due to lack of open space at ground level. Photos of the existing buildings are included in **Figures 3 to 5**.



**Figure 3: Existing connector pod**  
(Source: DPE)



**Figure 4: View of the Chapel from the school**  
(Source: DPE)



**Figure 5: Location of the proposed learning hub building (Stage 1)** (Source: DPE)

Vehicular access to the existing basement car parking area is provided via a driveway from Elamang Avenue. A secondary vehicular access to the site is also available from Carabella Street. Pedestrian access is provided from both streets with a student drop-off and pick-up zone along Carabella Street.

The established gardens provide a landscape setting to the group of heritage-significant buildings within the site. A large fig tree at the northern corner fronting Elamang Ave, is a prominent element in the Elamang streetscape.

### 1.2.2 Surrounding Development

The site adjoins residential developments on all boundaries. Detached low density residences and one nine-storey residential flat building are located along Elamang Avenue to the north, opposite the site. Three locally listed dwelling houses adjoin the eastern boundary of the site including Nos. 69 and 71 Carabella Street. The site adjoins the Careening Cove Heritage Conservation Area to the west.

Two, three-storey residential flat buildings at No. 111 Carabella Street and No. 22 Elamang Avenue, adjoin the western boundary of the site. Residential properties on the southern side of Carabella Street range in density and style. The dwellings are generally elevated with view corridors to the Harbour. Careening Cove is located to the east of the properties along Elamang Avenue.

The Royal Sydney Yacht Club is located in close proximity to the site and includes 20 dedicated car parking spaces for use by school staff during the week and 80 car parking spaces for use by the school during weekends and evenings.

## 2. DESCRIPTION OF PROPOSAL

### 2.1. Project Description

The key components and features of the proposal, as refined in the Response to Submissions (RTS) and supplementary RtS, are provided in **Table 1** and are shown in **Figures 6 to 14**.

**Table 1: Key Development Components**

Aspect	Description
Summary	<p><b>Concept development application for the redevelopment of Loreto Kirribilli School comprising a Concept Proposal for building envelopes for new for building envelopes for new buildings, demolition works, increase in student numbers by 30, alterations and additions to improve access arrangements, landscaping and stormwater work in three stages.</b></p> <p><b>Stage 1 of the development comprising demolition of B-Block, construction of a seven-storey learning hub, gymnasium extension and landscaping in the western precinct, alteration and additions in the northern, southern and eastern precincts including refurbishment of the chapel and construction of vertical connection pods.</b></p>
Concept Proposal (50-year timeframe)	<ul style="list-style-type: none"> <li>• Concept masterplan for the redevelopment of the site in three stages including partial demolition of structures, maximum building envelopes for new buildings, alterations and additions to improve access arrangements, landscaping and stormwater work</li> <li>• Increase in student numbers by 30 (in the senior school)</li> <li>• Redevelopment to occur in five precincts (campus core, western, eastern, northern and southern)</li> <li>• Eastern precinct Concept Proposal to include partial demolition of external stairs, landings, walkways, existing Performing Arts and Mary Ward buildings and construction of a new five - storey learning hub including basement with a connector pod</li> <li>• Southern precinct Concept Proposal to include demolition of junior school and construction of a five - storey building including basement and auditorium</li> <li>• Western precinct, northern precinct and connectors as detailed below</li> </ul>

<b>Staging</b>	<ul style="list-style-type: none"> <li>The works are to be carried out in three stages comprising: <ul style="list-style-type: none"> <li>Stage 1 – Western precinct redevelopment and connectors (2020)</li> <li>Stage 2 – Eastern precinct redevelopment</li> <li>Stage 3 – Southern precinct redevelopment</li> </ul> </li> </ul>
<b>Stage 1 works including demolition works</b>	<ul style="list-style-type: none"> <li><b>Western precinct redevelopment</b> <ul style="list-style-type: none"> <li>demolition of B-Block and the northern façade of the gymnasium</li> <li>site excavation till gymnasium level and remediation works</li> <li>construction of a seven-storey learning hub with four levels of basement and three-storeys above ground including a roof terrace and a vertical connector pod comprising learning studios, workshops, amenity areas</li> <li>construction of a two-storey extension to the gymnasium</li> <li>construction of a covered walkway between existing junior school and the proposed learning hub</li> </ul> </li> <li><b>Northern precinct</b> <ul style="list-style-type: none"> <li>partial demolition of external stairs, walkways and remediation works</li> <li>construction of a new five-storey vertical connector pod between the Science Building, the Centenary Hall and the basement carpark.</li> </ul> </li> <li><b>Eastern precinct</b> <ul style="list-style-type: none"> <li>partial demolition of external stairs, walkways and remediation works</li> <li>construction of an interim connector pod comprising ramps between the Science Building and Performing Arts building</li> </ul> </li> <li><b>Southern precinct</b> <ul style="list-style-type: none"> <li>partial demolition of the connector and restoration works of the eastern wing of the chapel</li> <li>alterations to the southern wing of the chapel</li> <li>construction of a vertical connector pod including lifts, learning studios and an external terrace with accessible paths</li> <li>landscaping including an informal amphitheatre</li> </ul> </li> </ul>
<b>Construction staging (Stage 1 works – 19 months)</b>	<ul style="list-style-type: none"> <li>Stage 1.1 comprising demolition, remediation, site clearance and bulk excavation, construction of new learning hub, western precinct connector and gymnasium extension</li> <li>Stage 1.2 comprising campus connectors in the northern, southern and eastern precincts and the chapel restoration works</li> </ul>
<b>Site Area</b>	<ul style="list-style-type: none"> <li>1.82 ha</li> </ul>
<b>Excavation</b>	<ul style="list-style-type: none"> <li>Bulk excavation works up to 13 m in Stage 1</li> </ul>
<b>Gross floor area (GFA)</b>	<ul style="list-style-type: none"> <li>Western precinct (Stage 1 works) – 2,778.25 square metres (m<sup>2</sup>)</li> <li>Southern precinct – 5,457 m<sup>2</sup> (including 170 m<sup>2</sup> Stage 1 works)</li> <li>Eastern precinct – 4,615 m<sup>2</sup></li> <li>Total GFA - 12,850.25 m<sup>2</sup></li> </ul>
<b>Tree removal</b>	<ul style="list-style-type: none"> <li>Removal of 11 trees</li> </ul>
<b>Public domain and landscaping</b>	<ul style="list-style-type: none"> <li>Landscaping works including the construction of outdoor learning areas, walkways, gardens and roof terraces and replacement planting</li> </ul>
<b>Access</b>	<ul style="list-style-type: none"> <li>Existing driveway from Elamang Avenue to the basement car park</li> <li>Existing driveway off Carabella Street for service vehicles</li> </ul>
<b>Car parking spaces</b>	<ul style="list-style-type: none"> <li>80 existing on-site car parking spaces</li> <li>20 existing car parking spaces within the Royal Sydney Yacht Club site</li> </ul>
<b>Bicycle parking</b>	<ul style="list-style-type: none"> <li>20 spaces within the lower ground floor of the Centenary Hall</li> </ul>
<b>Students and staff</b>	<ul style="list-style-type: none"> <li>Up to 1,130 students (30 additional) and 182 staff (two additional) (Stage 1)</li> </ul>
<b>Operational hours</b>	<ul style="list-style-type: none"> <li>No change to existing operating hours and loading zones</li> <li>Operation of new loading dock (up to five deliveries per day) <ul style="list-style-type: none"> <li>Monday to Saturday: 10 am to 2 pm</li> </ul> </li> </ul>
<b>Jobs</b>	<ul style="list-style-type: none"> <li>100 jobs during construction of Stage 1 works</li> <li>Two additional operational jobs</li> </ul>
<b>CIV</b>	<ul style="list-style-type: none"> <li>\$ 97,967,500 (Concept Proposal) and \$33,273,500 (Stage 1)</li> </ul>

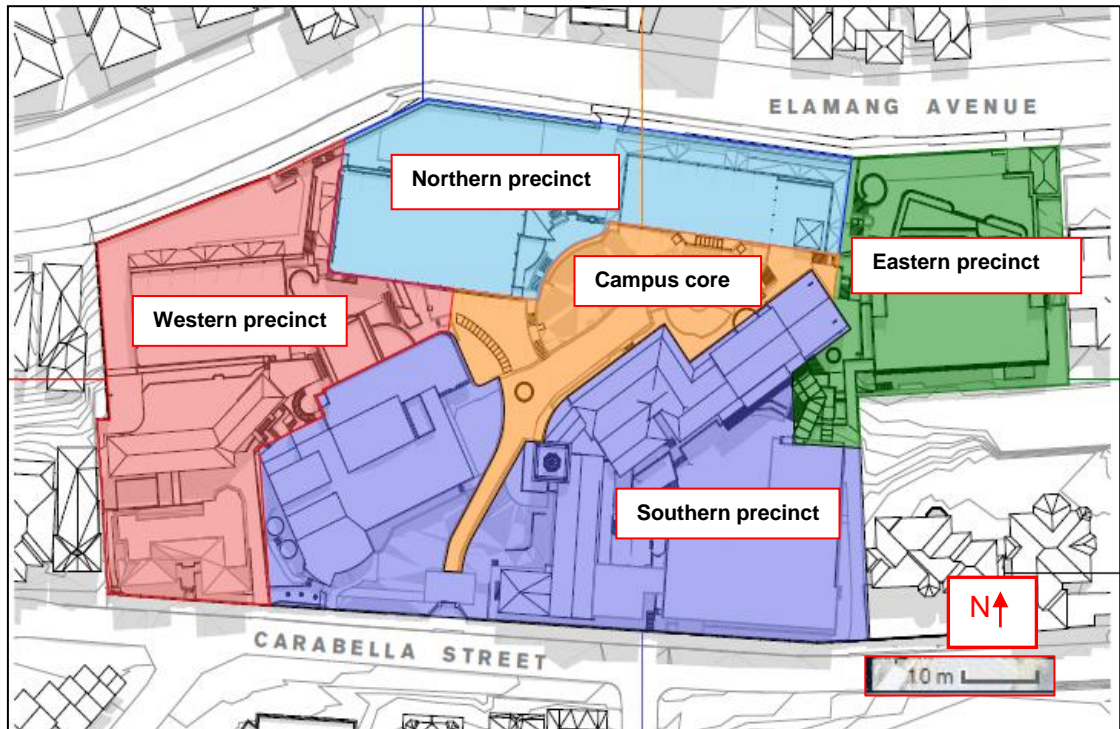


Figure 6: Proposed Precinct Plan (Source: Applicant's EIS)

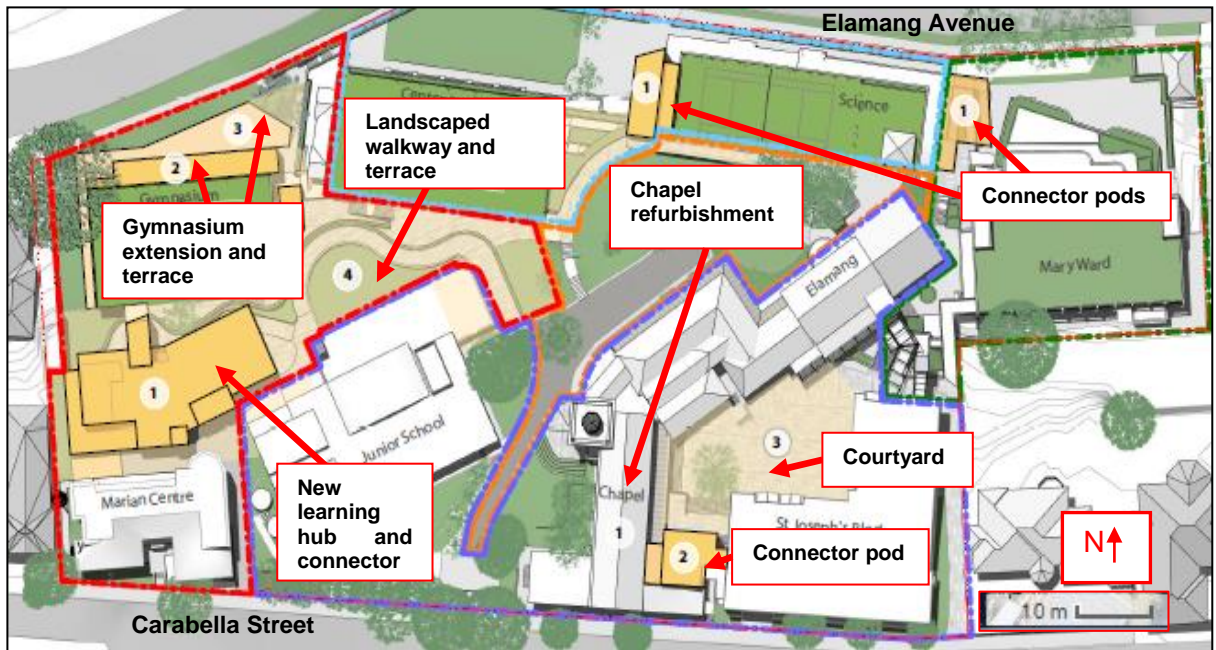


Figure 7: Proposed works Stages 1.1 (red dotted outline) and 1.2 (remaining area of the site) work zones (Source: Applicant's EIS)

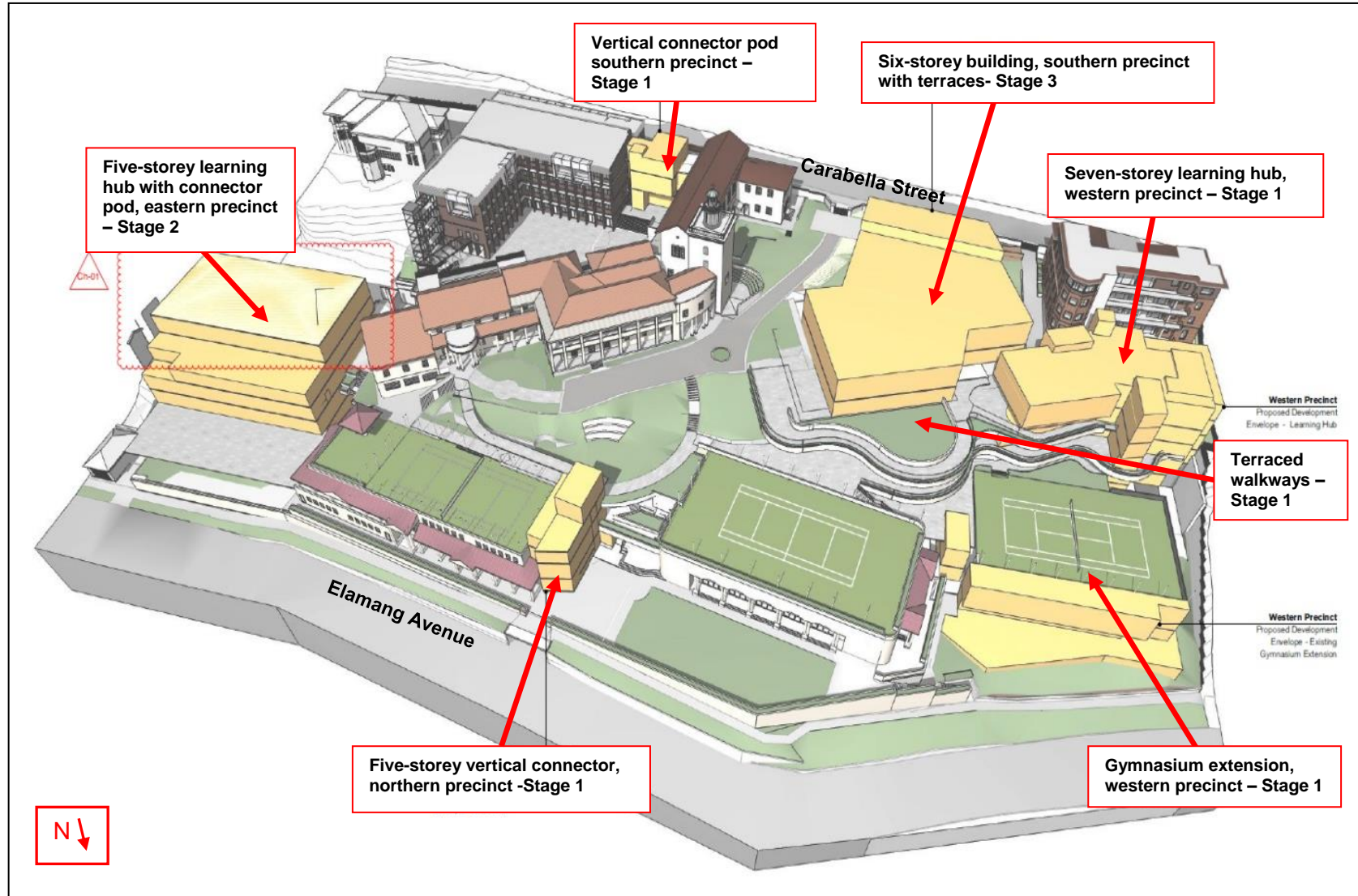
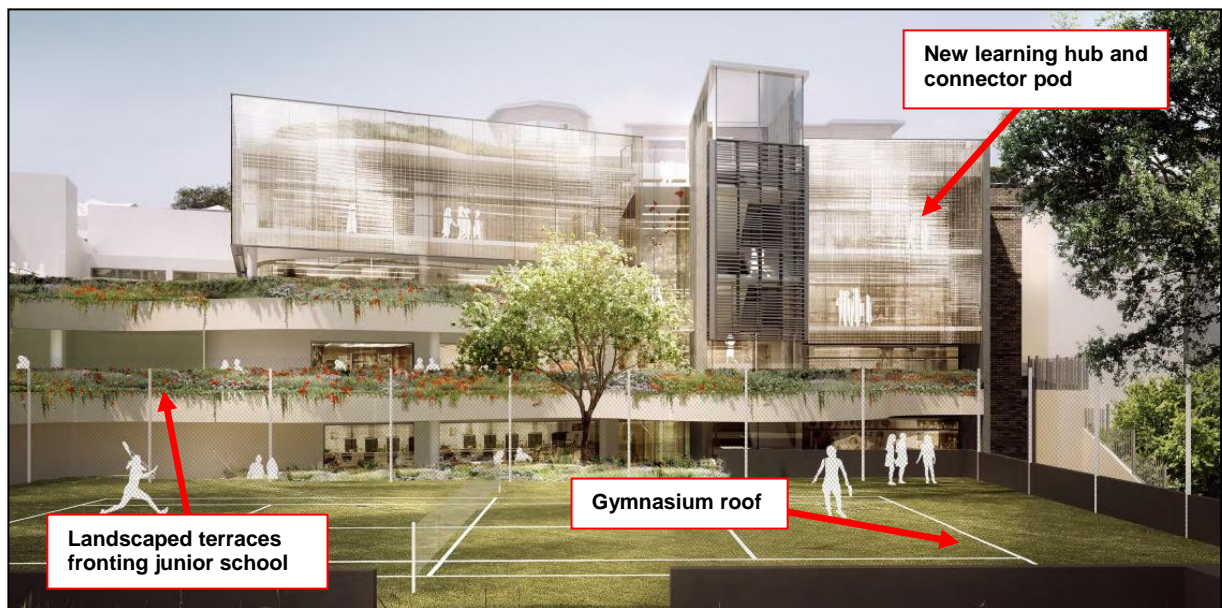


Figure 8: 3D representation of the building envelopes of the Concept Proposal (Source: Applicant's RtS)

### Proposed New Building – Stage 1

The proposed new building in Stage 1 comprises a seven-storey learning hub including the roof terrace. The building would be connected to, and integrated with, the extended gymnasium and existing Marian Centre. The integrated structure would comprise the following components:

- Lower Ground floor 4 – Personal development studios, amenities and outdoor learning area
- Lower Ground 3 – Storage and circulation
- Lower Ground Floor 2 – Food technology kitchen, studio, amenity and store
- Lower Ground Floor 1 – Learning studios with two workshops, store and circulation spaces
- Ground Floor - Learning studios, presentation space and staff areas
- Level 1 – Two learning studios with workshop, circulation and amenity areas
- Roof – Roof terrace with lift and stair access and plant rooms.



**Figure 9: Artist's Impression of the proposed learning hub in Stage 1 (Source: Applicant's EIS)**

Multi-level terraces with outdoor learning areas are proposed connecting the new learning hub with the existing junior school building. Four floors of the learning hub building would be located underground with two (on the east) to three (on the west) floors and the roof visible above ground. The learning hub is lower in height than the existing Marian Centre and would not be visible from Carabella Street.

The ground floor plan with connections to the proposed new building and the elevation as viewed from Elamang Avenue are provided in **Figures 10** and **11**.

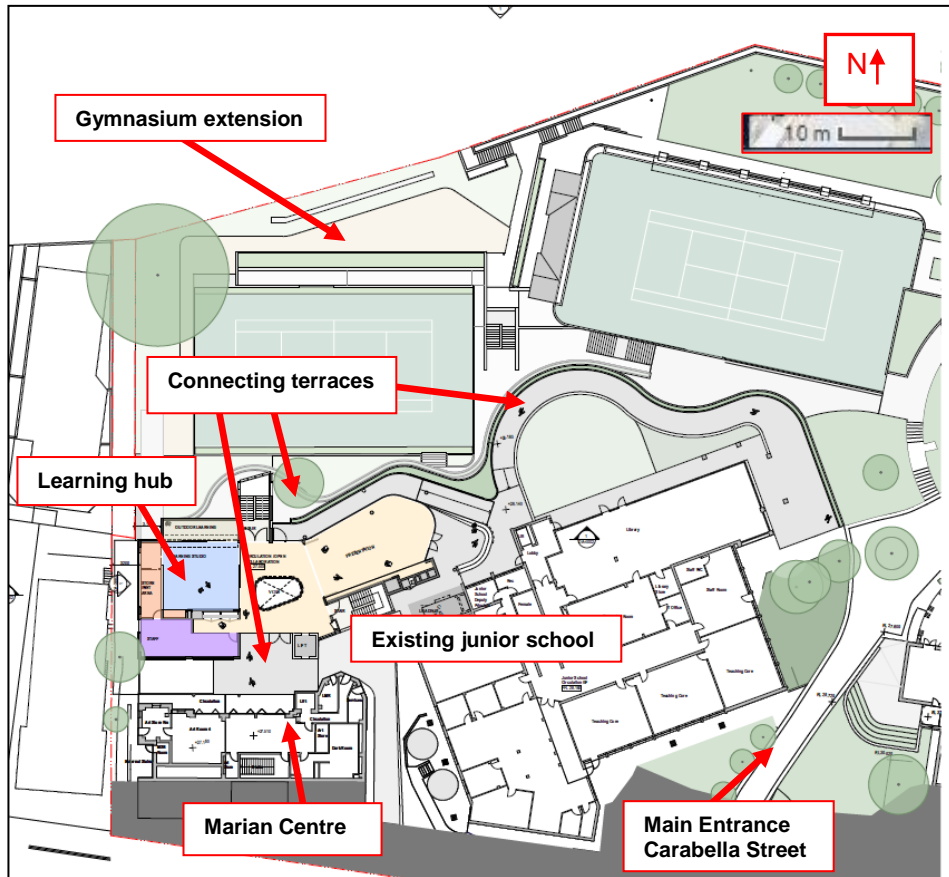


Figure 10: Proposed Ground Floor plan (Source: Applicant's EIS)

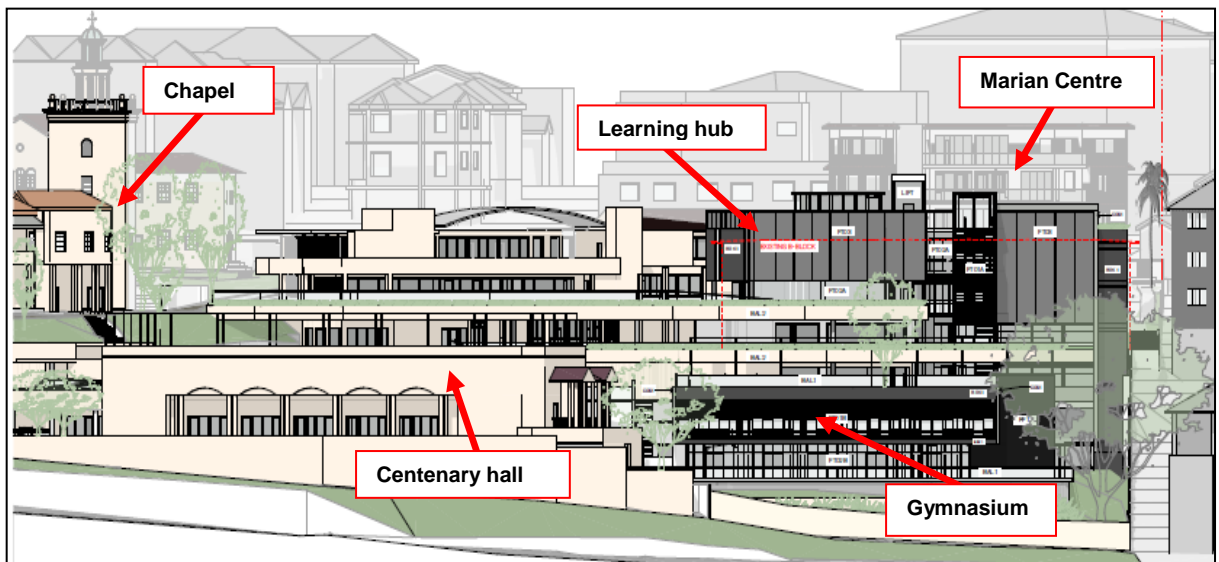


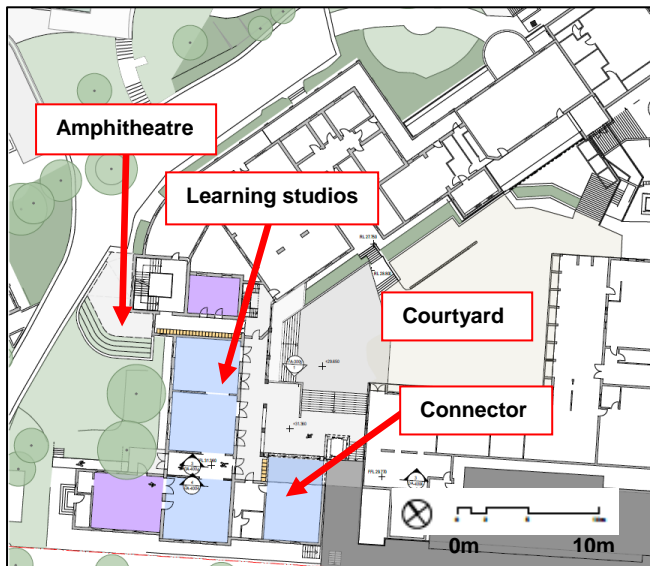
Figure 11: Proposed Elamang Avenue elevation showing the western precinct learning hub (Source: Applicant's EIS)

Refurbishment of the Chapel and southern precinct connector – Stage 1

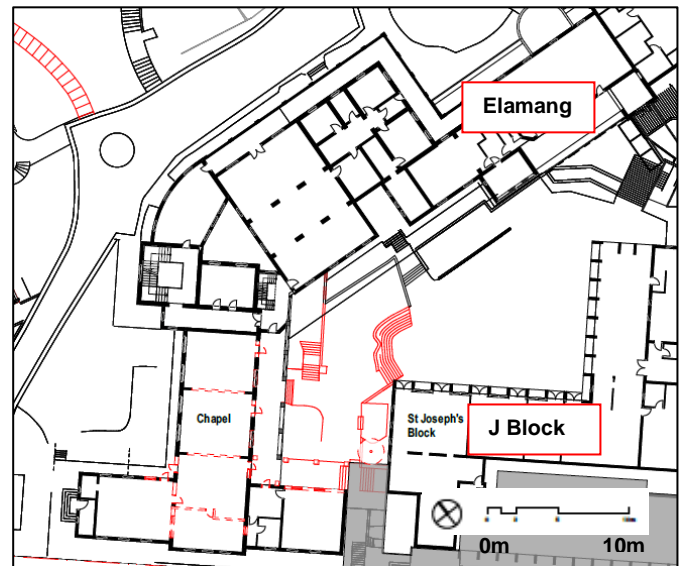
The redevelopment works in the southern precinct involve the following:

- demolition of external stairs and landings in the courtyard between the Chapel and J Block
- reinstating the original street elevation of the south-wing with part restoration of the roof
- removal of the internal stair, north-eastern wall of the south-wing and windows
- removal of windows on the ground floor, internal walls and windows on the upper floor
- internal alterations to the ground floor to convert the existing windows to doors opening onto the St Aloysius veranda, and alterations to external openings on the northeast and northwest elevations
- retention of the statue of St Michael which is of heritage significance
- new learning studios within the south-wing of the Chapel
- construction of a four-storey connector between J Block and the Chapel with learning studios, circulation area and a roof terrace
- redevelopment of the courtyard with removal of three trees around the Chapel
- construction of an open amphitheatre.

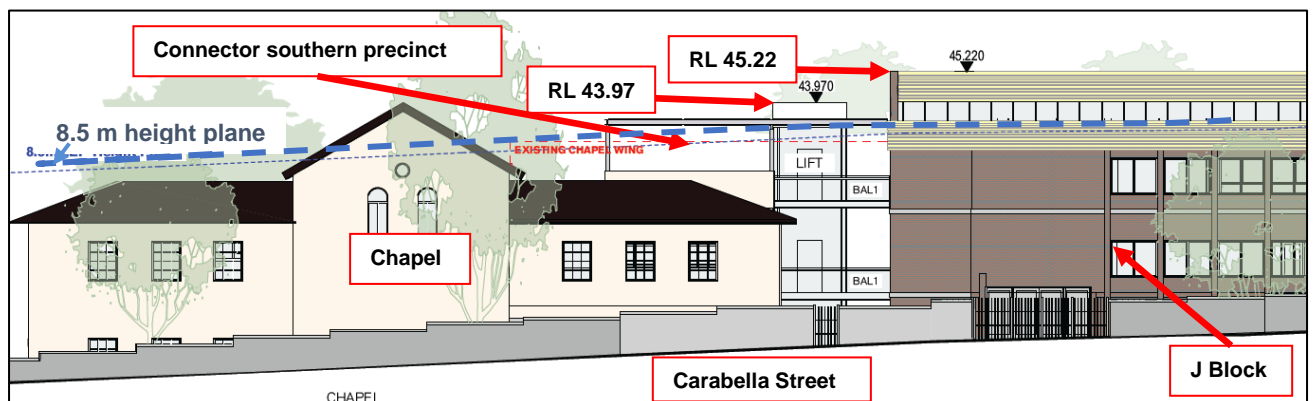
The height of the connector is proposed to be lower than J Block. **Figures 12, 13 and 14** provide details of the demolition works, Chapel alterations, connector and the Carabella Street elevation.



**Figure 12: Proposed plan of connector and alterations to the Chapel in Stage 1 (Source: Applicant's EIS)**



**Figure 13: Proposed demolition works for Stage 1 (walls shown in red) (Source: Applicant's EIS)**



**Figure 14: Carabella Street elevation showing location of Stage 1 connector in the southern precinct (Source: Applicant's EIS)**



## 2.2. Project Need and Justification

The Applicant seeks approval to upgrade an existing education establishment in close proximity to Sydney CBD. The Applicant states that the proposed redevelopment would introduce state-of-the-art facilities and educational infrastructure that would meet the future needs of the students. The proposal would also result in accessible connections between the various spaces within the site and include a distinct wayfinding strategy that is currently absent.

The Applicant notes that the development would meet the future needs of the growing population in the locality through the creation of 30 additional enrolments, 100 construction jobs in Stage 1 and two additional operational jobs.

## 2.3. Strategic Context

The Department considers that the proposal is appropriate for the site given:

- it is consistent with The Greater Sydney Regional Plan - A Metropolis of three cities, as it proposes contemporary and equitable school facilities to meet the growing needs of Sydney
- it is consistent with NSW State Priorities as it would contain state of the art facilities, spaces and equipment for use by students and staff to improve their numeracy and literacy skills and “improve the education results”
- it is consistent with the relevant priorities of the North District Plan (District Plan) prepared by Greater Sydney Commission (GSC) as it would upgrade an existing educational facility within the North District in proximity to existing residential properties
- it is consistent with the NSW Future Transport Strategy 2056 as it would improve an existing educational facility in a highly accessible location and provide access to additional new employment opportunities close to public transport
- it is consistent with the State Infrastructure Strategy 2018 – 2038 Building the Momentum, as it integrates school and community facilities
- it would provide direct investment in the region of approximately \$97 million, which would support 100 construction jobs and two additional operational jobs.

## 3. STATUTORY CONTEXT

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### 3.1 State Significant Development

The proposal is SSD under section 4.36 (development declared SSD) of the EP&A Act as the development is for an educational facility, with a CIV in excess of \$20 million, as defined under clause 15 of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP).

### 3.2 Consent Authority

In accordance with Clause 8A of the *State Environmental Planning Policy (State & Regional Development) 2011* (SRD SEPP) and section 4.5 of the EP&A Act, the Independent Planning Commission (Commission) is the declared consent authority if Council objects to the development within the mandatory community participation period specified in Schedule 1 of the EP&A Act. Council objected to the proposed development in response to the RtS, on 23 March 2018, and not in response to the EIS during the mandatory community participation period.

On 14 September 2011, the Minister for Planning delegated the functions to determine SSD applications to the Independent Planning Commission (the Commission), where:

- the relevant local Council has made an objection
- there are more than 25 public submissions in the nature of objections, or
- a political disclosure statement has been made.

Under the Ministerial Delegation, the Commission must determine the SSD application as Council has objected to the development.

### 3.3 Permissibility

The western section of the subject site is zoned R4 - High Density Residential and the remainder of the site is zoned SP2 - Educational Establishment under the NSLEP. An educational establishment is permissible with consent within the R4 and SP2 zones. Further consideration of the NSLEP is provided in **Appendix B**.

### 3.4 Environmental Planning Instruments

Under section 4.15 of the EP&A Act, the consent authority is required to take into consideration any environmental planning instrument (EPI) that is of relevance to the development, the subject of the development application. Therefore, the assessment report must include a copy of, or reference to, the provisions of any EPIs that substantially govern the project and that have been taken into account in the assessment of the project. The following EPIs apply to the site:

- *State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)*
- *State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)*
- *State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)*
- *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 (Education SEPP)*
- *Draft State Environmental Planning Policy (Remediation of Land)*
- *Draft State Environmental Planning Policy (Environment)*
- *Sydney Regional Plan (Sydney Harbour Catchment) 2005*
- *North Sydney Local Environmental Plan 2013 (NSLEP).*

The Department has undertaken a detailed assessment of these EPIs in **Appendix B** and is satisfied the application is consistent with the requirements of the EPIs.

### 3.5 Objects of the EP&A Act

The objects of the EP&A Act are the underpinning principles upon which the assessment is conducted. The statutory powers in the EP&A Act (such as the power to grant consent/approval) are to be understood as powers to advance the objects of the legislation, and limits on those powers are set by reference to those objects. Therefore, in making an assessment the objects should be considered to the extent they are relevant. A response to the objects of the EP&A Act is provided at **Table 2**.

**Table 2: Consideration of the proposal against the objects of the Act**

Objects of the EP&A Act	Consideration
<i>(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources</i>	The proposal would not impact on the State's natural or other resources and would promote a better environment for the users.
<i>(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment</i>	The proposal includes measures to deliver ecologically sustainable development ( <b>Section 3.6</b> ).

(c) to promote the orderly and economic use and development of land	The proposed development would facilitate redevelopment of the site for the continued use as an educational establishment and associated ancillary uses, the merits of which are considered in <b>Section 5</b> .
(d) to promote the delivery and maintenance of affordable housing,	Not applicable
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	While the proposal would result in the removal of 11 trees from the site, the site does not include any threatened species, populations or ecological communities. The proposal includes replacement landscaping, which would provide for new habitat opportunities.
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	The proposal responds appropriately to the heritage significance of the site and surroundings. The proposal would not impact on Aboriginal Cultural Heritage associated with the area. This matter is considered in <b>Section 5</b> .
(g) to promote good design and amenity of the built environment,	The proposal promotes good design that is consistent with the design principles associated with an educational establishment.
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The proposal would promote proper construction and maintenance of buildings subject to recommended conditions of consent.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	The Department publicly exhibited the proposal ( <b>Section 4.1</b> ), which included consultation with Council and other public authorities and consideration of their responses ( <b>Sections 4.1 and 5</b> ).
(j) to provide increased opportunity for community participation in environmental planning and assessment.	The Department publicly exhibited the proposal as outlined in <b>Section 4.1</b> , which included notifying adjoining landowners, placing a notice in newspapers and displaying the proposal on the Department's website and at Council during the exhibition period.

### 3.6 Ecologically Sustainable Development

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- the precautionary principle
- inter-generational equity
- conservation of biological diversity and ecological integrity
- improved valuation, pricing and incentive mechanisms.

The Applicant has identified ESD initiatives which are generally in line with initiatives associated with a Five Star (Australian Best Practice) Green Star Design rating and can be incorporated into the detailed design of the proposal. These initiatives include the following:

- energy efficient lighting
- rainwater harvesting
- water sensitive urban design measures in the stormwater system
- water recycling and storage facilities
- refurbishing existing buildings wherever possible and teaching spaces which are naturally ventilated and receive daylight reducing energy consumption.

The Applicant undertook an informal review against the Green Star rating scheme and identified that the proposed development would achieve a minimum 5 Star Best Practice outcome. The Department supports the proposed initiatives and recommends that the details of the final ESD initiatives be submitted to the satisfaction of the Principal Certifying Authority prior to the issue of a Construction Certificate.

The Department has considered the proposed development in relation to the ESD principles. The Precautionary and Inter-Generational Equity Principles have been applied in the decision-making process by a thorough and rigorous assessment of the environmental impacts of the proposed development. The proposed development is located on a previously developed and disturbed site and would not result in the loss of any threatened or vulnerable species, populations, communities or significant habitats.

Overall, the proposal is consistent with ESD principles and the Department considers the proposed sustainability initiatives would encourage ESD in accordance with the objects of the EP&A Act.

### **3.7 Environmental Planning and Assessment Regulation 2000**

Subject to any other references to compliance with the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) cited in this report, the requirements for Notification (Part 6, Division 6) and Fees (Part 15, Division 1AA) have been complied with.

### **3.8 Planning Secretary's Environmental Assessment Requirements**

On 22 September 2016 (reissued on 29 September 2017), the Department notified the Applicant of the Planning Secretary's Environmental Assessment Requirements (SEARs) for the SSD application. The Department is satisfied that Section 2.5 of the EIS adequately addresses compliance with the SEARs to enable the assessment and determination of the application.

## **4. CONSULTATION AND SUBMISSIONS**

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### **4.1. Exhibition**

In accordance with Schedule 1 of the EP&A Act, the Department publicly exhibited the application from 19 October 2017 until 17 November 2017 (30 days). The application was exhibited on the Department's website, at the at the NSW Service Centre and Council's office.

The Department placed a public exhibition notice in the Sydney Morning Herald and North Shore Times on 18 and 19 October 2017 respectively, and notified adjoining landholders and relevant State and local government authorities in writing. Additionally, the Department staff conducted a site visit and met with the residents of the adjoining property at No. 111 Carabella Street after the completion of the exhibition period, to assess view impacts. The photos taken at the site visit may be viewed at **Appendix A**.

The Department received a total of 23 submissions including seven from public authorities, 16 from members of public, organisations and a local MP (14 objections, one support and one comment). One additional submission, objecting to the development, was received through Council after the exhibition period. A summary of the issues raised in the submissions is provided at **Table 3** and **4** below and copies of the submissions may be viewed at **Appendix A**.

The Department has considered all matters raised in submissions received as part of its assessment of the application (**Section 5**) and / or by way of recommended conditions at **Appendix E**.

#### 4.1.1. Public Authority submissions

**Table 3: Summary of public authority submissions to the EIS exhibition**

<b>North Sydney Council</b>
<p>Council did not object to the proposal and provided the following comments:</p> <ul style="list-style-type: none"> <li>• the 50-year timeframe to implement the masterplan is unrealistic and would be inconsistent with future amendments to planning controls</li> <li>• demolition of the Mary Ward building should be preceded by an additional heritage impact assessment of the interiors of the building and the structural components</li> <li>• existing sandstone walls should be salvaged, re-used and incorporated into the landscape plan, appropriate archival photographic recording and additional tree planting should be undertaken, avoiding tree loss wherever possible</li> <li>• the proposed new location of the statue of St Michael should be provided</li> <li>• details of any amendments to the drop-off and pick-up zone to accommodate the additional students have not been provided</li> <li>• a Green Travel Plan (GTP) should be provided to reduce demand for car parking spaces</li> <li>• the height and depth of the learning hub would significantly impact upon the current outlook enjoyed by the residents at No. 111 Carabella Street and the solar access to the Marian Centre</li> <li>• the new rooftop terrace would result in negative amenity impacts due to overlooking</li> <li>• the Applicant should consider a Planning Proposal to exceed stipulated height controls</li> <li>• the significant earthworks may impact upon structural stability of the ground</li> <li>• the side setbacks to the western boundary should be increased</li> <li>• the development would result in a significant non-compliance with the deep soil zone requirements of North Sydney Development Control Plan 2013</li> <li>• a Demolition and Construction Management Plan should be submitted to Council.</li> </ul>
<b>Heritage Division of Office of Environment and Heritage (Heritage Council)</b>
<p>The Heritage Council provided the following comments:</p> <ul style="list-style-type: none"> <li>• the LKS site is not listed on the State Heritage Register (SHR) nor is it in the immediate vicinity of any SHR items. Consequently, no specific comments are required for built or landscape heritage</li> <li>• the following conditions should be included in the consent: <ul style="list-style-type: none"> <li>○ preparation of a Research Design/Excavation Methodology to guide any proposed excavation and approval of the above documents by the Department and Heritage Division</li> <li>○ appointment of a suitably qualified Excavation Director to conduct the excavation</li> <li>○ immediate ceasing of work and further archaeological assessment in relevant areas in case of any unexpected archaeological relics found during excavation</li> <li>○ submission of an excavation report within 12 months of completion of archaeological work.</li> </ul> </li> </ul>
<b>Roads and Maritime Services (RMS)</b>
<p>RMS required the submission of a Construction Traffic Management Plan (CTMP).</p>
<b>Transport for New South Wales (TfNSW)</b>
<p>TfNSW provided the following comments:</p> <ul style="list-style-type: none"> <li>• the proposed additional growth over the proposed masterplan period would not have a major impact on traffic and transport in the vicinity of the site</li> <li>• the school is located close to Milsons Point Railway Station, which is serviced by both rail and bus services. There is scope to influence commuting patterns of staff and reduce staff reliance on on-street parking through the provision of a GTP</li> <li>• the Stage 1 works should include provisions for bicycle parking and end-of-trip facilities for staff.</li> </ul>
<b>Environment Protection Authority (EPA)</b>
<p>EPA provided the following comments:</p> <ul style="list-style-type: none"> <li>• noise levels from the plant and equipment during construction works are predicted to exceed the established noise criteria. In this regard, proactive and preventative noise mitigation measures should be undertaken for management of noise levels at the site.</li> </ul>
<b>Office of Environment and Heritage (OEH)</b>
<p>OEH raised no concerns regarding flooding, biodiversity and Aboriginal cultural heritage.</p>
<b>Sydney Water</b>
<p>Sydney Water provided recommended conditions of consent.</p>

#### 4.1.2. Public submissions

**Table 4: Summary of the public submissions**

Issue	Proportion of submissions (%)
Lack of on-site car parking for staff, student and visitors and adverse impacts of increased student numbers on the drop-off and pick-up zone and the overall local traffic network	64.2
The proposed built form is excessive in bulk and scale and exceeds the permissible height limit applicable to the site	57.1
Loss of water views due to the development	35.7
Dark coloured bricks are unsuitable for the proposed development	14.2
Insufficient consultation with neighbours and unrealistic timeframe for masterplan	21.4
Adverse noise impacts on neighbouring properties due to roof terrace usage	21.4
Loss of trees and lack of landscaping	21.4
Impact of construction traffic on the neighbourhood	14.2
Loss of visual privacy and overshadowing due to the proposed built form	14.2
Impact of excavation on landslip and groundwater seepage	14.2
Adverse impact of stormwater runoff on properties along Elamang Avenue	7.1

#### 4.2. Response to Submissions

Following exhibition, the Department placed copies of all submissions received on its website and requested that the Applicant provide a response to submissions (RtS) which was received on 26 February 2018 (**Appendix A**).

The Applicant's RtS included the following amendments to the design:

- amendments to the eastern precinct concept envelope by deleting the topmost floor
- supplementary landscape plans.

The RtS also included the following additional information:

- an assessment of the proposed design against the Schedule 4 of the Education SEPP
- information clarifying that the school facilities are currently being used and would continue to be used for community purposes on the weekends and evenings
- clarification regarding the use of the roof area above the learning hub
- additional view impact analysis for No. 46 Carabella Street and No. 9/111 Carabella Street
- information regarding community consultation prior to lodgement of the EIS
- additional solar access analyses assessing the impacts on the Marian Centre
- additional solar access diagrams for classrooms within the learning hub
- 20 bicycle parking spaces proposed within the storage space at the lower ground level below the Centenary Hall with proposed end-of-trip facilities proposed adjacent to the gymnasium
- updated WTP, preliminary CTMP and swept path analysis of construction vehicles.

The RtS included responses to the matters raised by Council and public authorities, and key issues raised by the public including built form, overshadowing, view loss, traffic impacts, loss of amenity to the adjoining residential units and noise generated by the use.

The RtS was made publicly available on the Department's website and was referred to the relevant public authorities. Four further submissions were received from public authorities including an objection from Council. TfNSW, RMS and Heritage Council provided comments regarding the RtS. Two further submissions were received including one from an individual member of public and one public submission via a local MP.

A summary of the issues raised in the RtS submissions from the public authorities is provided at **Table 5** and copies of the submissions may be viewed at **Appendix A**.

**Table 5: Summary of public authority submissions to the RtS**

<b>North Sydney Council</b>
Council objected to the development on the following basis: <ul style="list-style-type: none"> <li>the proposal does not address the concerns raised by Council regarding the adverse impact on local traffic</li> <li>the submitted traffic report does not address the existing traffic conditions or the projected 50-year traffic situation in the locality</li> <li>the existing drop-off and pick-up zone is unsatisfactory and the proposed increase in student numbers and 50-year timeframe would require further amendments or improvements to the drop-off and pick-up zone</li> <li>the proposal should include a provision for an internal drop-off and pick-up zone, in the absence of which, the redevelopment of the site is unacceptable.</li> </ul>
<b>TfNSW</b>
<ul style="list-style-type: none"> <li>re-stated that the previously recommended conditions of consent be adhered to.</li> </ul>
<b>Heritage Council</b>
<ul style="list-style-type: none"> <li>re-stated that the previously recommended conditions of consent be adhered to.</li> </ul>
<b>Roads and Maritime Services</b>
<ul style="list-style-type: none"> <li>re-stated that the previously recommended conditions of consent be adhered to.</li> </ul>

The public and local MP submissions raised concerns that the proposed development would unreasonably impact on the amenity of the surrounding residents due to: insufficient setbacks; loss of solar access and views; structural damage during excavation works; unsatisfactory WTP; and noise and vibration impacts associated with construction truck movements.

The Department engaged an independent traffic consultant to conduct an assessment of the traffic related environmental impacts and review of the intersection modelling conducted by the Applicant who raised concerns regarding various aspects of the proposal related to traffic.

The Applicant provided a supplementary RtS in March, subsequently updated in May and June 2018, responding to the outstanding concerns raised by Council, the Department and the independent traffic consultant as follows:

- a reduction in the proposed increase of student numbers from 100 to 30 for the senior school
- details of traffic management at the drop-off and pick-up zone and loading zones
- amended roof level plans with justification regarding the roof usage and mechanical plants.

The Applicant has provided a written response to Council's concerns and advised that a further meeting was conducted with Council to discuss their concerns. The Department sought further comments from Council on the supplementary RtS but no response was received. Council provided input on the recommended conditions of consent on 16 August 2018 and additionally reconfirmed its objection to the development.

## 5. ASSESSMENT

### 5.1. Section 4.15(1) Evaluation

**Table 6** identifies the matters for consideration under section 4.15 of the EP&A Act that apply to SSD in accordance with section 4.40 of the EP&A Act. The table represents a summary for which additional information and consideration is provided for in **Section 5** (key and other issues) and relevant appendices or other sections of this report and EIS, referenced in the table.

**Table 6: Section 4.15(1) Matters for Consideration**

<b>Section 4.15(1) Evaluation</b>	<b>Consideration</b>
(a)(i) any environmental planning instrument	Satisfactorily complies. The Department's consideration of the relevant EPIs is provided in <b>Appendix B</b> of this report.
(a)(ii) any proposed instrument	Not applicable.
(a)(iii) any development control plan	Under clause 11 of the SRD SEPP, development control plans (DCPs) do not apply to SSD. Notwithstanding, consideration has been given to relevant DCPs at <b>Appendix B</b> .
(a)(iiia) any planning agreement	Not applicable.
(a)(iv) the regulations <i>Refer Division 8 of the EP&amp;A Regulation</i>	The application satisfactorily meets the relevant requirements of the EP&A Regulation, including the procedures relating to applications (Part 6 of the EP&A Regulation), public participation procedures for SSD and Schedule 2 of the EP&A Regulation relating to EIS.
(b) the likely impacts of that development including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	Appropriately mitigated or conditioned - refer to <b>Section 5</b> of this report.
(c) the suitability of the site for the development	The site is suitable for the development as discussed in <b>Sections 3 and 5</b> of this report.
(d) any submissions	Consideration has been given to the submissions received during the exhibition period. See <b>Sections 4 and 5</b> of this report.
(e) the public interest	Refer to <b>Section 5</b> of this report.

### 5.2. Key assessment issues

The Department has considered the Applicant's EIS, the issues raised in submissions, the Applicant's RtS and supplementary RtS in its assessment of the proposal. The Department considers the key issues associated with the proposal are:

- traffic, transport and parking impacts
- building height and urban design
- environmental and residential amenity
- heritage.

Each of these issues is discussed in the following sections of this report. Other issues were taken into consideration during the assessment of the proposal and are discussed at **Section 5.3** of this report.



### 5.2.1. Traffic, transport and parking impacts

#### Existing traffic scenario

The LKS site is situated in a highly accessible location, within the walking catchment of the Milsons Point Station and bus-stop. The site has a dual frontage to two local roads, Carabella Street and Elamang Avenue, in the vicinity of a number of intersections. Two adjacent sections along the Carabella Street frontage of the site are signposted as parent drop-off and pick-up zone between 8:00 am and 9:30 am and 2:30 pm and 4:00 pm school days only. The zone currently accommodates a maximum of six cars at any one time. The bus zone and loading zones are also located on the same frontage of the school. Restricted kerbside (two - hour limit) is located along both sides of Carabella Street between 8:30 am and 6:00 pm (7 days - permit holders exempt).

The existing school has 1,080 enrolled students and 180 staff members with an approved capacity of 1,100 students. Currently, 252 students are enrolled in the junior school and the remaining are enrolled in the senior school. The site includes 100 car parking spaces (80 car parking spaces in the basement and the remaining 20 car parking spaces available within the nearby Royal Yacht Club site). Additionally, the school provides special school bus services, including six in the morning and 21 in the afternoon to transport students to over 20 suburbs.

The Applicant's EIS indicates that the existing traffic volume for Carabella Street and Elamang Avenue in the near vicinity of the site is less than the maximum peak hourly two-way traffic volumes for residential streets (200 - 300 vehicles) identified by the RMS Guide to Traffic Generating Developments (GTGD). The Traffic and Parking Impact Assessment Report (TIA) submitted by the Applicant includes traffic and modal surveys of the existing LKS site and observes the following regarding the existing traffic scenario:

- a 26.6% - 58.9% private vehicle mode for students
- a 90% vehicle mode for staff
- 41% (K - 6) and 71% (7 - 12) of students use alternative transport to private vehicles mode
- the number of private vehicle trips generated per student are 0.26 for senior school and 0.54 junior school
- total trips generated by vehicles used for student transport comprises 134 during the AM (8:00 - 9:00 am) and 217 during the PM (3:00 - 4:00 pm) peak hour
- the SIDRA analysis of four intersections near the site indicates that they currently operate at level of service (LoS) A with low delays during the AM and PM peak periods (**Figure 15**).

Based on the modal surveys, the TIA provided a forecast of transport modes based on an increase of 100 senior school students and 2 staff members is provided in **Table 7**.

**Table 7: Projected transport mode – students (Year 7 – 12) and staff**

Direction		Bus	Train	Family car	Friends' car	Own car as a driver	With staff member	Walking	Bicycle	Ferry	Other	Staff
Arrival	Percentage (%)	31.1	20.5	34.4	3.4	0.9	0.6	1.6	0.0	5.4	2.1	90
	Total	31	21	34	3	1	1	2	0	5	2	2
Departure	Percentage (%)	44.4	25.3	18.6	1.3	0.4	0.6	1.9	0.0	6.4	1.0	90
	Total	25	25	19	1	0	1	2	0	6	1	2

Intersection	Peak Hour	Degree of Saturation <sup>(1)</sup>	Average Delay <sup>(2)</sup> (sec/veh)	Level of Service <sup>(2)</sup>	Control Type	Worst Movement	95th Percentile Queue
<b>EXISTING PERFORMANCE</b>							
Elamang Avenue / Willoughby Street	AM	0.10	6.8 (Worst: 7.9)	A (Worst: A)	Give Way	RT from McDougall Street (N)	0.4 veh (2.7m) Elamang Avenue (S)
	PM	0.19	7 (Worst: 8.9)	A (Worst: A)		RT from McDougall Street (N)	0.8 veh (5.6m) Elamang Avenue (S)
Carabella Street / Fitzroy Street	AM	0.22	4.7 (Worst: 7.8)	A (Worst: A)	Give Way	LT from Carabella Street (S)	1 veh (7.3m) Carabella Street (N)
	PM	0.22	6.2 (Worst: 9.4)	A (Worst: A)		LT from Carabella Street (S)	1 veh (6.9m) Carabella Street (N)
Carabella Street / Parkes Street	AM	0.17	1.8 (Worst: 6.1)	A (Worst: A)	Give Way	RT from Parkes Street (W)	0.4 veh (3.1m) Carabella Street (N)
	PM	0.11	1.5 (Worst: 5.3)	A (Worst: A)		RT from Parkes Street (W)	0.3 veh (1.8m) Carabella Street (N)
Peel Street / Carabella Street	AM	0.20	6.8 (Worst: 7.9)	A (Worst: A)	Give Way	LT from Carabella Street (N)	0.9 veh (6.3m) Carabella Street (N)
	PM	0.14	6.6 (Worst: 7.7)	A (Worst: A)		LT from Carabella Street (N)	0.5 veh (3.8m) Carabella Street (N)

NOTES:



Figure 15: Intersection locations and existing intersection performance analysis (Source: Applicant's EIS)

### **Concept Proposal**

The EIS for the Concept Proposal initially sought approval to increase the student numbers by 100 (1,200 in total) and two staff members. The Applicant submitted a TIA, preliminary Construction Traffic Management Plan (CTMP) and a preliminary CMP with the EIS addressing the traffic and parking implications of the development. The EIS notes that the existing car parking spaces within the site and the external arrangements are to be retained.

Public submissions raised concerns regarding the on-going adverse impacts of the existing traffic generated by the school on the local road network. Council objected to the Concept Proposal and Stage 1 works on the basis of adverse impacts of the proposed increase in student numbers and the on-going operations of the drop-off and pick-up zone on the local traffic network. In response, the Applicant amended the proposal by reducing the additional student numbers from 100 to 30 and indicated that the proposed increase is likely to be accommodated in Stage 1 of the development.

Given that the traffic impacts associated with the proposed increase in student numbers and management of construction vehicles are anticipated to occur during Stage 1 works, the details of this stage of the development are discussed in the following sections of this report. It is considered that the future development applications for Stages 2 and 3 of the development would include detailed traffic impact assessment for further consideration.

### **Stage 1 works**

The increase in the student numbers, staff numbers and the associated additional traffic impacts on the local road network are predicted to occur during the construction and operation of the Stage 1 works. Given Council's objection to the proposal on traffic grounds and the public submissions, the Department engaged an independent traffic consultant, Bitzios Consulting, to review the traffic impacts of the Concept Proposal and Stage 1. The report by Bitzios Consulting can be viewed at **Appendix D**. The matters considered in the assessment of traffic impacts are detailed below.

#### Construction Traffic

The preliminary CMP and CTMP for the Stage 1 works identify the following:

- demolition and excavation works, for the duration of the Stage 1 works (about 19 months), would generate 15 – 20 vehicle movements per day, including 'truck and dog' combinations
- construction vehicles would access the site via the Cahill Expressway, Clark Road, Broughton Street and Peel Street for loop, between 7:00 am – 2:00 pm in three cycles
- the security gates on the driveway would be removed and the trucks would reverse up the Carabella Street driveway during demolition
- following demolition, an area would be created within the site to allow truck turning
- two work zones would be established along Carabella Street and Elamang Avenue, managed by traffic controllers
- a tower crane would be installed on the site adjoining the western boundary to allow deliveries from the work zones
- about 100 construction staff would access the site at any one time, who are likely to utilise available public transport or carpool.

The Applicant's RtS provided an addendum to the CTMP with swept path assessments for medium rigid vehicles (MRV), 12.5 m heavy rigid vehicles (HRV), and 19 m articulated vehicles (AV) which identify that temporary parking restrictions and removal of a median may be required to allow AV access to the site.

Public submissions raised concerns about the adverse impacts of construction truck movements on the local traffic network.

The Department's independent traffic consultant has reviewed the RtS, CTMP and the swept paths of vehicles and recommended that the CTMP be updated to include: additional swept-path analysis for 19.5 m long 'truck and dog' combination vehicles and restrict vehicle movements to AV only, if 19.5 m long vehicles cannot be accommodated; Traffic Control Plans (TCP) for areas of conflict between construction vehicles and traffic; details of emergency vehicle access to all adjoining properties during construction works; provision for an off-site satellite parking area for construction workers, and an area for storing tools; management measures for people with mobility impairments; and management of pedestrians during construction works.

Additionally, the independent traffic consultant also recommended that relocating on-street car-share parking spaces to accommodate work zones should be avoided and that on-site parking for construction vehicles should be provided, wherever possible. A Road Safety Audit of the final CTMP and CMP should be submitted to the satisfaction of Council and RMS, prior to implementing.

The Department supports the above recommendations and notes that further consultation with Council would be required to enable suitable access of AVs and 'truck and dog' vehicles or implement TCPs.

The Department is satisfied that subject to the implementation of the recommended conditions requiring preparation of: an updated Construction Environmental Management Plan (CEMP) including the details of management of all impacts due to construction works; a Construction Traffic and Pedestrian Management Plan (CTPMP) including details of the construction traffic management and the pedestrian access arrangements during construction works; the TCP; and an RSE, the construction traffic for Stage 1 can be appropriately managed with negligible impacts on the local traffic network.

#### Operational Traffic

Based on an increase of 100 students and two staff members, the TIA provided the following predicted future traffic generation rates:

- 73 vehicle trips (38 in, 35 out) during the 8:00 - 9:00 AM peak hour
- 43 vehicle trips (20 in, 23 out) during the 3:00 - 4:00 PM peak hour.

Results of the SIDRA modelling of the nearby intersections with the additional traffic indicated that the intersections would continue to operate at a LoS A during the AM and PM peak periods with spare capacity. Consequently, the future two-way traffic volumes could be accommodated within the maximum capacity of the local road network. However, additional surveys of the drop-off and pick-up zone conducted by the Applicant as part of the RtS, identified that queuing of cars would occur along Carabella Street, to the north of the drop-off and pick-up zone, during the PM peak pick-up times only. The queuing was observed to be reasonable in the AM peak due to staggered drop-off times.

Council and public submissions raised concerns regarding the proposed impact of the additional 100 students on the local traffic network in conjunction with other schools in the locality, the ongoing operational issues of the drop-off and pick-up zone, the appropriateness of using the SIDRA model to analyse intersections and compromised road safety surrounding the site.

In addressing the identified impacts of the development, the Applicant proposed to reduce the additional student numbers from 100 to 30. The Applicant's supplementary RtS noted that the proposed increase would generate 12 additional private vehicle trips which is substantially less than that predicted by the initial TIA. Additionally, the supplementary RtS proposed behavioural travel strategies to reduce the use of private vehicles by introducing operational traffic management measures in the drop-off and pick-up zone and implementing the WTP.

In the assessment of the proposal, the Department's independent traffic consultant noted that currently there is queueing during AM and PM peak times, traffic blockages along the Carabella Street frontage and high numbers of staff utilising private vehicles which adversely affect the surrounding road network. However, the Department's traffic consultant supported the use of the SIDRA model in analysing the intersections as well as the proposed strategies in the WTP to reduce private car usage. The traffic consultant recommended that the approval to increase the student numbers be only permitted, subject to the implementation and ongoing monitoring of the effectiveness of the strategies.

The Department has considered the information in the TIA, the supplementary RtS, issues raised by Council, the public submissions and the independent consultant's review. The Department concludes that the adverse operational traffic impacts are caused by the peak AM and PM drop-off and pick-up operations and high private vehicle usage of students and staff. Notwithstanding the student increase, the predicted volume of traffic on Carabella Street and Elamang Avenue would remain within the maximum capacity of the roads.

The Department is satisfied that the impact of the school's operation on the existing local traffic network can be managed. The primary measure would include implementing appropriate mitigation measures at the drop-off and pick-up zone outlined in an Operational Traffic and Access Management Plan (OTAMP) which is discussed later in this report. The increase in student numbers can be supported subject to the implementation of the OTAMP.

#### Student Drop-off and Pick-Up Arrangements

The existing drop-off and pick-up zone is located along the Carabella Street frontage. Buses currently drop-off and pick-up students from a bus-stop on Broughton Street adjacent to Bradfield Park and the students walk to the school from that point.

A nearby pedestrian crossing at the intersection of Carabella Street and Fitzroy Street provides access to the site for those commuting from the bus-stop or Milsons Point train station. The Applicant's supplementary RtS included details of safe walking routes for users from Milsons Point station / Broughton Street bus-stop to the school utilising Fitzroy Street and Carabella Street, identified bicycle routes to and from the site and coach pick-up and drop-off areas at the Broughton street frontage of Bradfield Park. **Figure 16** identifies the location of the drop-off and pick-up zone, associated site constraints and the walking routes from the bus-stop.

Council raised objection to the development after submission of the RtS, based on the inefficiency of the existing drop-off and pick-up zone and requested that an on-site drop-off and pick-up zone be provided to mitigate congestion impacts. Public submissions also raised concerns regarding the operation of the existing drop-off and pick-up zone in conjunction with other schools in the locality and the impact of the proposed increase in student numbers on the drop-off and pick-up zone operations.

The Applicant's supplementary RtS recognises that the drop-off and pick-up zone is not currently operating efficiently and that some cars are queuing on Carabella Street during the PM pick-up period effectively blocking the two-way traffic flow along Carabella Street, mainly on the northern side of its intersection with Fitzroy Street. Notwithstanding, the supplementary RtS identified that during the PM pick-up period, all though traffic on Carabella Street turned left on to Fitzroy Street while travelling north along Carabella Street. The Applicant has explored alternate and additional locations for drop-off and pick-up operations including the Elamang Avenue frontage, within the site as well as the basement car park. **Figure 16** illustrates the site constraints which effect alternative drop-off and pick-up zones in any alternate location or within the site.

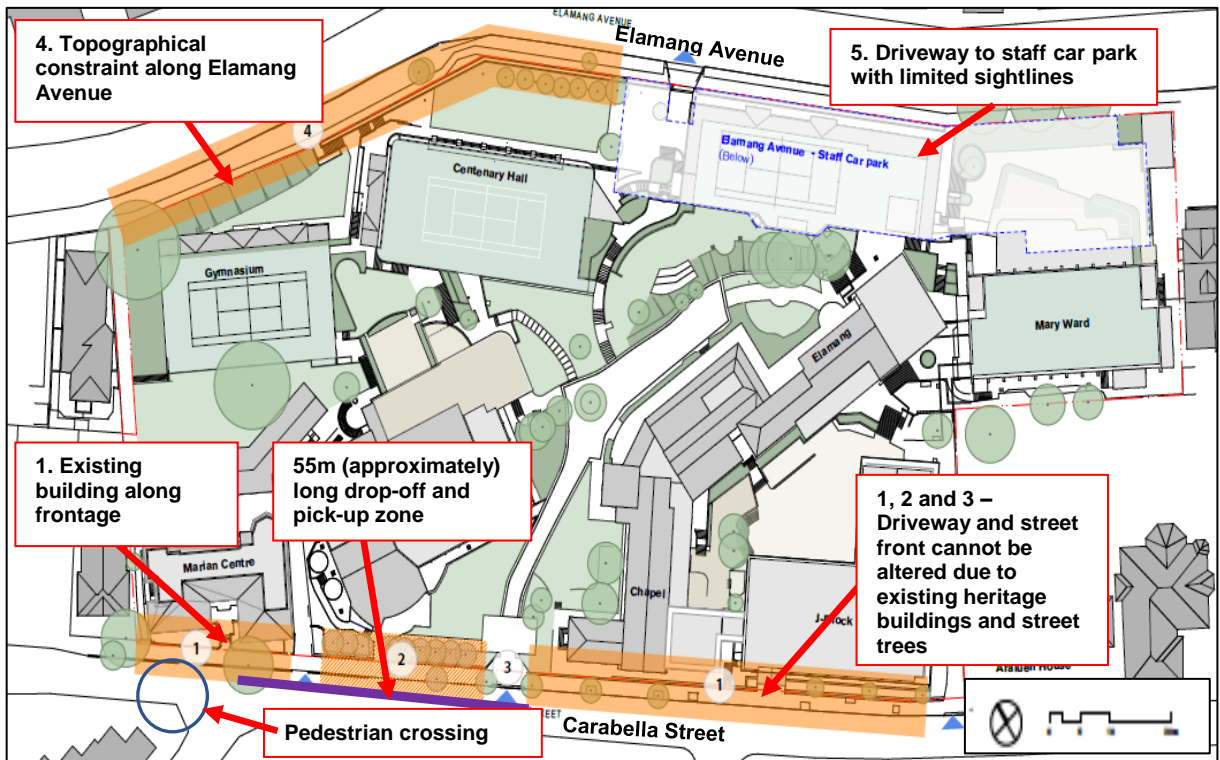


Figure 16: Drop-off and pick-up zone locations, site constraints limiting on-site drop-off and pick-up and the walking route from the bus stop to the site (Source: Applicant's RtS)

In order to improve the efficiency of the existing drop-off and pick-up zone, the Applicant proposes the following operational measures to improve operational efficiency at the drop-off and pick-up zone:

- restrict the drop-off and pick-up zone to junior school students only via a new permit system whereby junior school parents would be provided with a card to display on their car windshield to inform staff on duty of which student is being picked-up by that vehicle. A vehicle without a card would not be permitted to pick-up or drop-off a child.
- employ traffic wardens to control illegal parking on adjoining roads
- prepare a final management plan including all strategies and measures to operate the drop-off and pick-up zone
- restrict loading and unloading times to avoid conflict with drop-off and pick-up zone
- implement the WTP to encourage alternate travel strategies and reduce private car usage.

The Department's independent traffic consultant considers that the proposed behavioural and travel strategies appear to be attainable and potentially sustainable, subject to the implementation of those strategies and development of an ongoing monitoring programme. Accordingly, the Department's traffic consultant recommended that the Applicant must prepare and implement (within 3 months of the approval) an OTAMP for the site in consultation with Council and the local community. No increase in student enrolments or staff numbers would be permitted until the OTAMP is proven to be effective in reducing traffic congestion around drop-off and pick-up zone-off, especially during PM pick-up times.

Additionally, the Department's independent traffic consultant recommended that the Applicant undertake a Road Safety Programme to inform and educate staff, students and their parents and a RSE particularly for the pedestrian crossing, local road network and for students accessing the bus stop at Bradfield Park or the Milsons Point station, especially during the construction period.

The Department concurs with the Applicant's submission that the site is highly constrained due to the existing buildings of heritage significance and the steep slope which would restrict a drop-off and pick-up area within the site. The proposed implementation of the permit system would ideally result in a maximum of 252 out of 1,080 students utilising the drop-off and pick-up zone (junior school only), thereby reducing the overall usage of the drop-off and pick-up zone and the resultant queuing on Carabella Street. The Department notes that currently 29% (average) of the senior school students are dependent on private vehicle usage for access to school which is high considering the location of the school. It is anticipated that progressive implementation of the proposed behavioural and travel strategies, provision of bicycle parking spaces within the school, traffic-control on the Elamang Street and Carabella Street frontages by the traffic wardens and restricted kerbside parking on Carabella Street, would reduce this percentage and encourage senior school students to use alternate modes of transport.

The Department acknowledges that it would be challenging to achieve behavioural changes in school drop-off and pick-up practices in the short term, which would include adoption of alternative modes of transport. However, progressive implementation of the proposed behavioural and travel strategies would achieve the desired behavioural change over a three to five-year timeframe and effectively reduce traffic congestion on the surrounding streets.

The Department considers that, to improve the existing traffic congestion at peak times, the increase in student numbers should only be supported subject to the successful implementation of the OTAMP which is considered to be attainable within 6 months of the approval of this document. It is also recommended that traffic and on-street parking reviews should be undertaken six months after the implementation of the OTAMP and then annually for a period of three years unless otherwise agreed by the Planning Secretary. This would assist in determining the effectiveness of the OTAMP within a reasonable time after the operation of Stage 1, which is anticipated to be in 2020 (19 months construction time in the EIS). Conditions to this effect have been recommended.

### Car and Bicycle Parking

The existing 100 car parking spaces achieve compliance with the North Sydney Development Control Plan 2013 (DCP) requirement of 31 car spaces for 182 staff members. Thus, the Concept Proposal or Stage 1 works do not include any modifications to the existing car parking arrangements. The DCP includes no requirements for car parking spaces for students or bicycle parking spaces on the site. Modal surveys in the initial TIA indicated that 90% of staff at the school drive to and from the School resulting in the requirement of 162 car parking spaces. The additional 62 spaces are currently accommodated on the surrounding local streets. The modal surveys also identified that only 0.9% of the senior school students drive to and from the school. The TIA's forecast of modal split for students and staff (**Table 7**) based on their own surveys, demonstrates that a low percentage of senior school students (0.9% maximum) drive their own car to and from the school.

Public submissions raised concerns that further on-site parking should be provided to avoid adverse impact on the on-street parking facilities. However, Council recommended that the on-site car parking spaces should be reduced and alternative transport modes encouraged. TfNSW advised that bicycle parking and end-of-trip facilities should be provided on site. The Department's independent traffic consultant recommended that the design of car spaces within the basement should be altered to comply with Australian Standard AS2890.1 and that at least one disabled space should be added.

In response, the Applicant's RtS included amended plans with 20 bicycles spaces on the site and associated end-of-trip facilities and further modal surveys in the WTP indicating that 70% of the staff travel by car which demonstrated that the existing arrangements can accommodate the car parking demand.

The Department has reviewed Council's comments, public submissions, the Applicant's RtS, supplementary RtS and the independent traffic consultant's report. The Department is satisfied that the site includes sufficient car spaces to cater for the development and that it would be unreasonable to further reduce car parking on the site or modify the existing arrangement as no alterations to this section of the site is proposed. Further the bicycle parking location with end-of-trip facilities is considered satisfactory and a disabled space, complying with AS2890.6, should be provided within the existing basement car park.

Given that on-street parking spaces on the Carabella Street and Elamang Street are time restricted (two-hour limit), there are limited opportunities for senior school student drivers to park on these streets, near the school, during the day.

The Department also notes that the demand for car parking would be further reduced subject to implementation of the WTP. Recommended conditions require a ramp is to be installed on the access stairs from Elamang Avenue to facilitate bicycle access.

### Events

The Applicant has provided details of the on-going community activities that occur within the site. No other events or activities are proposed as a part of the Concept Proposal or Stage 1 works. Consequently, no additional adverse impact is anticipated due to the proposed development. As such, the uses would mostly occur outside of the school drop-off and pick-up times and the users may utilise the existing parking facilities. Therefore, the occurrence of events would not have a significant adverse impact on the surrounding road network during the AM and PM peak periods. The TIA includes additional information regarding nearby parking areas and capacity of on-street parking within walking distance of the site that may potentially be used by the visitors in case of occasional overflow during special events.



One public submission has raised concerns regarding the on-going adverse impacts of school events on the local traffic network and road safety.

The Department's independent traffic consultant indicates recommends that a long-term strategy for off-site parking for construction and special events at the school be developed. The Department has recommended a condition regarding operational management to this effect in Stage 1 of the development, requiring on-site parking be made available for all events with over 100 attendees. The recommended conditions of consent also require that the evening events be scheduled outside the PM peak times and that the event schedule be made available to the nearby residents.

#### Vehicle Access and Loading Zones

The existing vehicle access points and garbage collection provisions within the site would remain unchanged. Alterations to the driveway crossings have been proposed to accommodate a HRV. The new learning hub includes a loading area to be accessed from Carabella Street. Due to insufficient turning area, the maximum length of vehicles accessing this loading dock would be 5.2 m. Up to five deliveries are proposed in this loading zone outside the school peak times. The Department has recommended conditions to this effect.

#### Workplace Travel Plan

The LKS site is situated in a highly accessible location, near the Milsons Point Station. The TIA and subsequent RtS reveals that the users of the site are heavily dependent on private vehicles which contributes to traffic congestion in the locality.

The Applicant's RtS included a WTP responding to the requirements of the Department and TfNSW with targeted transport modal split for the next 10 years for staff members. The WTP also includes specific strategies and initiatives to reduce car travel and increase alternative modes of transport. The WTP indicates that the implementation of the strategies would result in a 2% growth of alternative transport mode usage annually for the first five years and a 1% increase in the following five years.

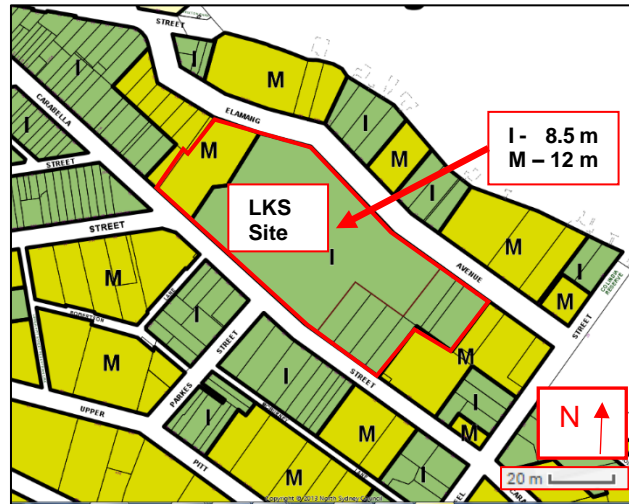
The Department's traffic consultant has reviewed the WTP and recommends that it be updated to include:

- clear targets for reduction in private car use by senior school students, staff, and parent drop-off and pick-up zone at the school and travel information for modes other than private vehicle
- measures to reduce private car use, such as:
  - charging for staff and senior students to park on site or at an alternative location
  - a car pooling scheme, for a reduced price or free parking.
- ensure that the WTP available on the school website and intranet.

The Department has reviewed the submitted WTP, TfNSW and the independent traffic consultant's comments and acknowledges that charging the staff and the senior students for parking on-site may result the users to park on the surrounding streets. However, there is limited opportunity of parking on the both the street frontages due to availability of time restricted on-street parking. On balance, the Department is satisfied that that the WTP, in conjunction with the OTAMP for the site, would provide satisfactory initiatives to encourage alternate transport modes and reduce the overall private vehicle usage over a period of five years, subject to implementation of the above recommended conditions and ongoing monitoring of the WTP. Consequently, a further Green Travel Plan would not be required for this site.

### 5.2.2. Built form and urban design

The site is subject to height controls under the NSLEP. The maximum building height permitted on the site is 12 m (R4 zone – western section) and 8.5 m (SP2 Infrastructure zone – central and eastern section) (**Figure 17**).



**Figure 17: Map showing permissible height limits (Source: Height Map – NSLEP)**

#### Concept Proposal Built Form

The Concept Proposal would result in three new building envelopes and additional vertical connector pods with the following building heights (measured from existing ground level):

**Table 8: NSLEP Building Height Controls and proposed heights (Concept Proposal and Stage 1)**

Location	Building type	Stage	Building Height			
			Control	Proposed	Exceedance	Maximum RL
Western precinct	Learning hub (7-storey)	Stage 1	12 m	14.5 m	2.5 m	39.0
Northern precinct	Connector pod (5-storey)	Stage 1	12 m	14.7 m	6.2 m	31.0
Southern precinct	Connector pod (5-storey)	Stage 1	8.5 m	9.8 m	1.3 m	43.97
Eastern precinct	Concept building envelope (6-storey)	Stage 2	8.5 m	14.7 m	6.2 m	32
Southern precinct	Concept building envelope (6-storey)	Stage 3	8.5 m	9.5 m	1 m	38.75

In response to concerns raised by the Department, Council and public submissions, regarding the impact of the height exceedance on the built environment, the Applicant's RtS amended the proposal by reducing the building height for the envelope in the eastern precinct (Stage 2) to be 12.6 m (maximum RL 30.8 – five storeys). **Figures 18 - 22** identify the height non-compliances both the building envelopes for the Concept Proposal and the Stage 1 buildings, as refined by the RtS.

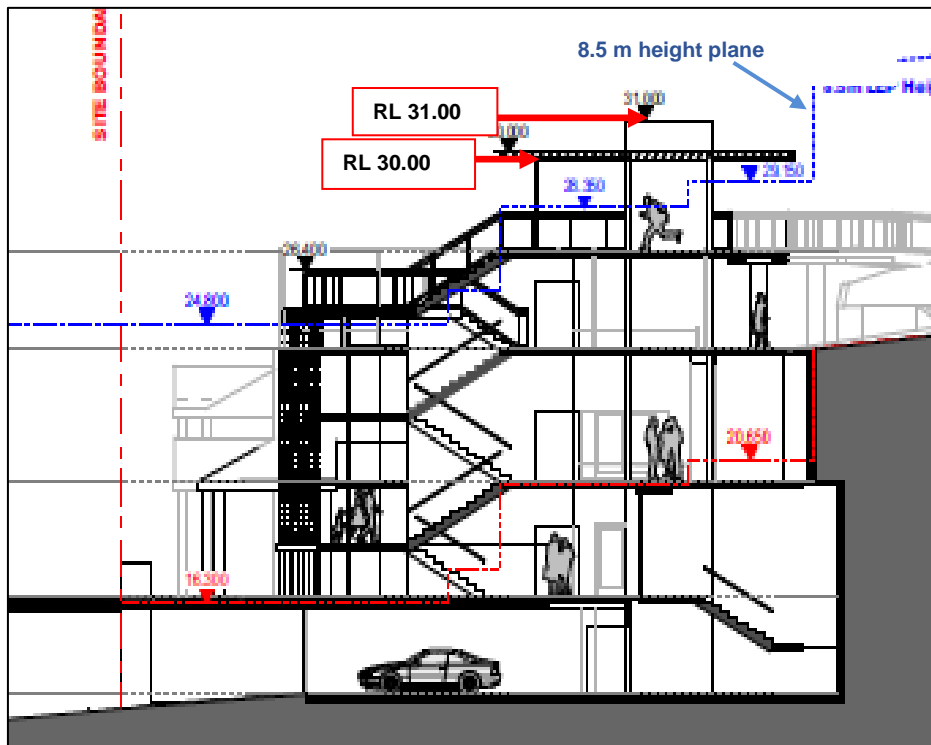


Figure 18: Section through the northern precinct connector pod (Stage 1)  
(Source: Applicant's EIS)

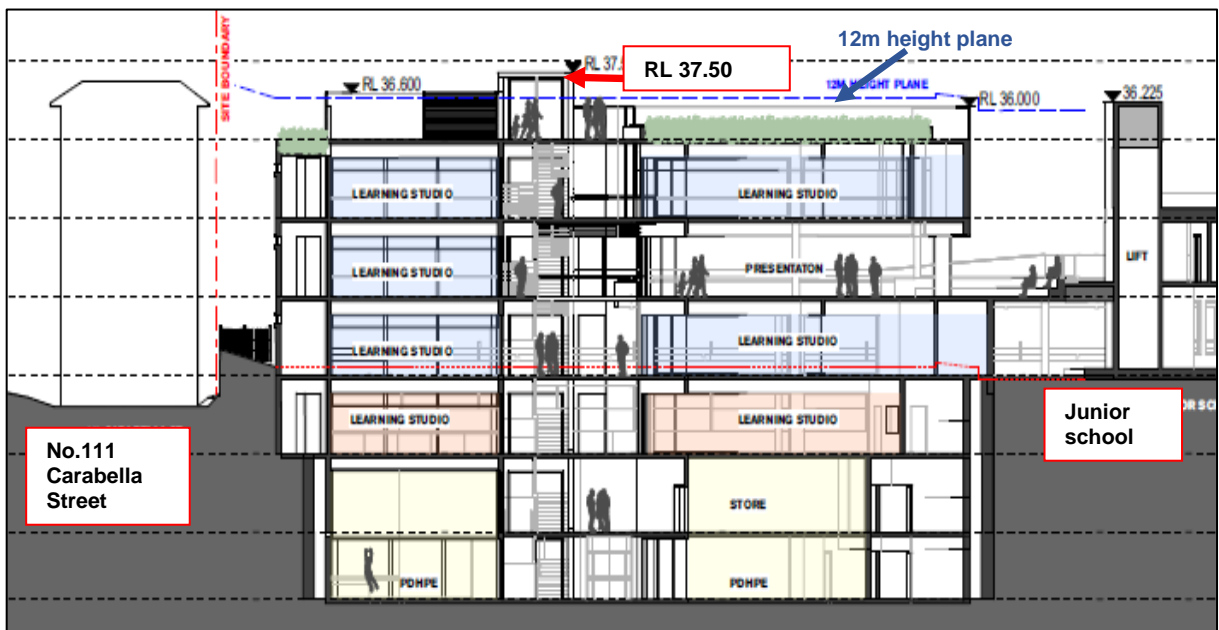


Figure 19: Section through the learning hub and adjoining buildings (Stage 1)  
Source: Applicant's EIS)

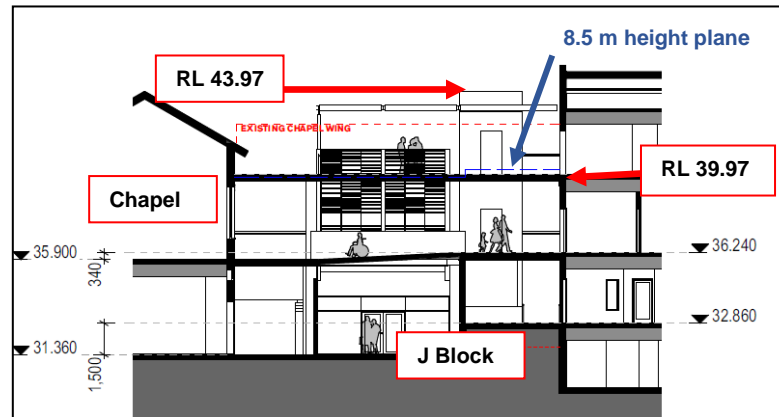


Figure 20: Section through southern precinct connector pod (Stage 1) (Source: Applicant's EIS)

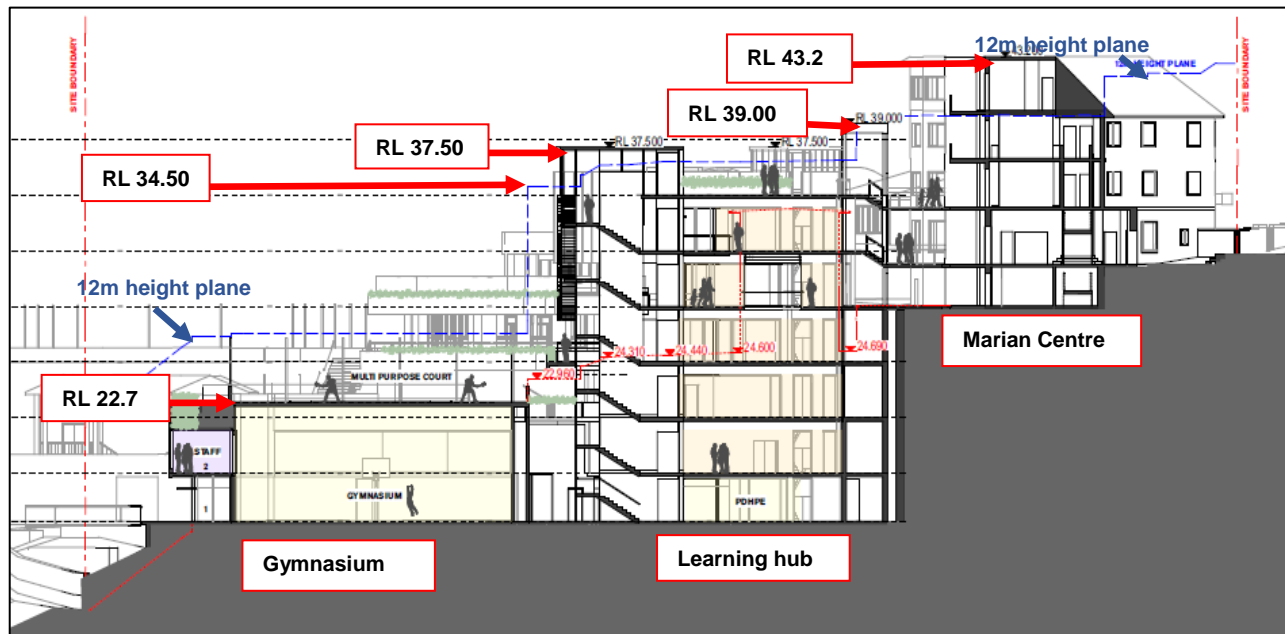


Figure 21: Section through Learning hub and gymnasium extension (Stage 1) (Source: Applicant's EIS)

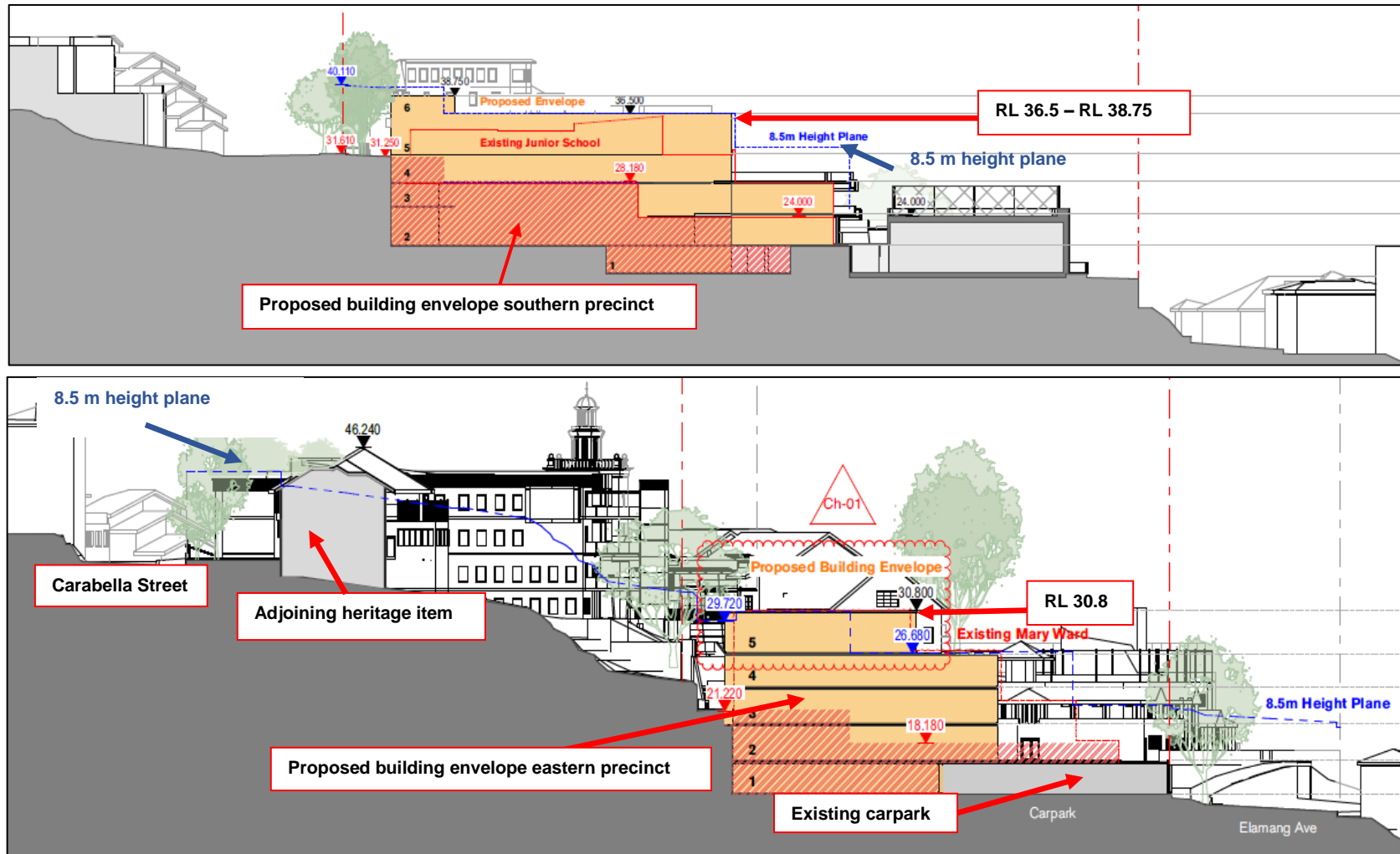


Figure 22: Sections through southern precinct envelope (Stage 3) and eastern precinct envelope (Stage 2) (Source: Applicant's RtS)

Clause 4.6 of the NSLEP provides flexibility in the application of the development standards if it can be demonstrated that compliance is unreasonable and unnecessary and there is sufficient planning justification for contravention of the development standard.

Clause 42 of the Education SEPP stipulates that “*Development consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted*”. The provisions of the Education SEPP apply to this proposal. Consequently, the building height development standard does not apply in this circumstance and that the merit or otherwise of the proposal should be considered in assessing whether the built form is appropriate for the site.

Notwithstanding, the Applicant has provided justification for exceeding the height development standard in accordance with Clause 4.6 of the NSLEP and argues why strict compliance is unreasonable or unnecessary for both the Concept Proposal and Stage 1 works with the following:

- the proposed development complies with the provisions of the Education SEPP, which permits school buildings, up to a height of 22 m, for approval as a complying development
- the proposed building envelopes and the connector pods are designed to provide equitable access to all parts of the site which is considered to be a significant public benefit associated with the proposal. The additional height would accommodate learning areas and access between buildings, not compromising the available open space on the site
- the site is unique in terms of the topography, existing buildings on the of heritage significance and the views of the Harbour enjoyed by the site and the adjoining properties. The design of the development responds to the site constraints appropriately
- the existing buildings fronting Carabella Street have maximum building heights of 10.9 m (J Block), 12.8 m (Marian Centre), and the Chapel (24.7 m – RL 52.37), exceeding the permissible height limits under the NSLEP
- to minimise adverse amenity impacts on adjoining neighbours due to the height exceedances, the connector pods are located away from the site boundaries
- the intent behind the proposed locations of the building envelopes are to maintain an appropriate interface with the adjoining neighbours, the streetscape and the Harbour. Additionally, the proposed building envelopes in the Concept Proposal and the buildings in Stage 1 envisage significant excavation to limit the building height above ground
- the concept building envelope height in the eastern precinct is consistent with the height of the existing Mary Ward and the performing arts building whereas the proposed building envelope on the southern precinct is generally consistent with the height of the existing junior school (**Figure 22**).

Additionally, the Applicant has provided an assessment of the proposed development against the objectives of the relevant zones and ‘*Clause 4.3 - Height of Buildings*’ of the NSLEP. The Applicant has argued that for the height objectives, the amenity of the surrounding occupiers would not be adversely affected; the heritage buildings are the most prominent due to the new buildings being appropriately integrated and set back; and view loss impacts would be reasonable.

The Department notes the justification provided by the Applicant and its consideration of the objectives of the height controls. While it is acknowledged that the proposed development represents critical social infrastructure which would contribute to meeting the increased facilities and equitable access for school students, this should not be at the detriment of the surrounding locality. The Department has assessed the proposed height variation and has considered the Clause 4.6 variation submitted by the Applicant, in conjunction with the established principle in the case of *Four2Five Pty Ltd v Ashfield Council [2015] NSWLEC 1009*, by the Land and Environment Court. In accordance with the views expressed in this decision,

sufficient environmental planning grounds, unique to a site, must be demonstrated by the Applicant for a Clause 4.6 variation request to be upheld.

The Department notes that the site is unique as it is a steep sloping site, located near a major transport hub and has accommodated a school for over a century. The buildings on the site are heritage listed under the NSLEP. The site is also located in a residential area with significant views of the Harbour, the residences being built after the establishment of the school.

In this context, the Department considers the Applicant's arguments to be well founded for the following reasons: the need for greater height to accommodate equitable access for the students and provide state-of-the-art learning facilities for future students; the retention of the Harbour views for majority of the adjoining properties including heritage listed items; the retention and refurbishment of the locally listed heritage items rather than their demolition; the successful interface transitions with the adjoining properties to the east and west; and traffic impacts that can be managed (see **Section 5.2.1**). Alternative options of reducing the height would result in bulkier buildings and further loss of deep soil zones which are not considered to be better design outcomes for the site.

The Department notes that Council and residents raised concern over the built form and height exceedances, stating that the proposed concept envelopes and the Stage 1 learning hub are an overdevelopment of the site that would result in adverse impacts on the surrounding built environment. The Department acknowledges these views and considers that the site's unique location warrants the need to assess the bulk and scale of the proposal not only against the objectives of the height, but also on its merits and project need.

The retention of the heritage buildings and the street trees ensures the streetscapes of Carabella Street and Elamang Avenue would remain largely unaffected. The proposed refurbishment of the Chapel as a part of Stage 1 works would result in improvement of the streetscape of Carabella Street. While the new learning hub building, the connector pods (Stage 1) and the future buildings in Stages 2 and 3 would be visible from both streets, they would not impact upon the prominence of the heritage buildings, both on the site and the adjoining properties. The Concept proposal elevations are identified in **Figures 23 and 24**.

The Department concludes that the bulk and scale of the proposal is appropriate in the context of the site location and the constraints. The Department acknowledges the substantial benefits are associated with the proposed upgrade to the school facilities and considers the proposed height exceedances have been well justified in terms of the objectives of the development standard and can be supported.

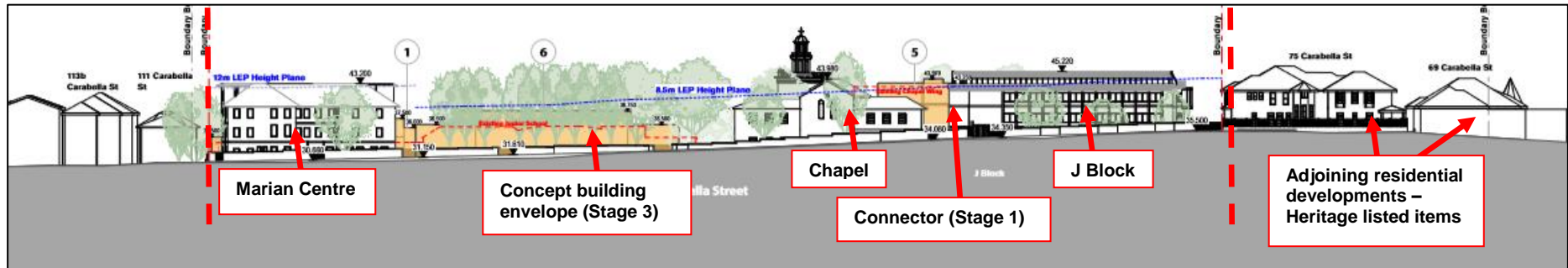


Figure 23: Concept Proposal Envelope elevation (including proposed envelopes of buildings in all stages) - Carabella Street (Source: Applicant's EIS)

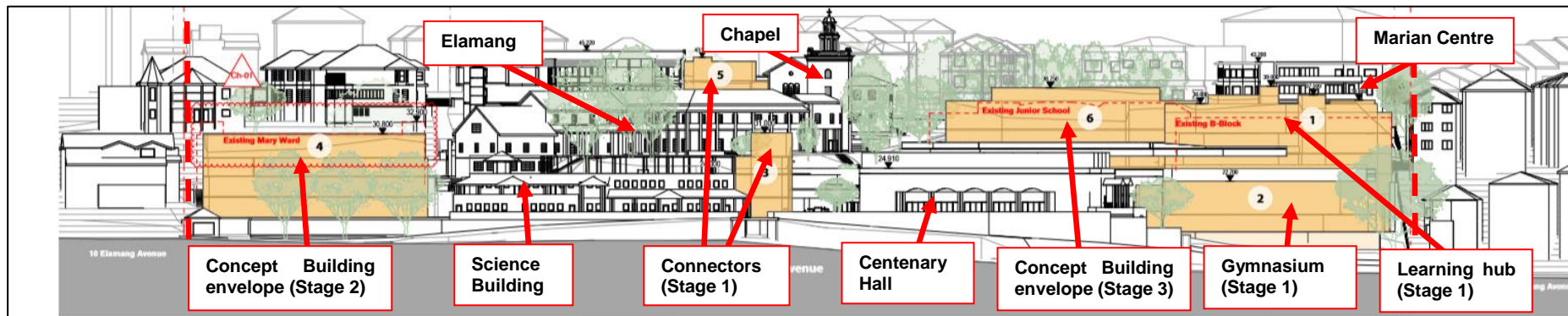


Figure 24: Concept Proposal Envelope elevation (including envelopes of buildings in all stages) – Elamang Avenue (Source: Applicant's RtS)



### **Stage 1 Built form**

The Stage 1 works include detailed design of the learning hub building, the northern / southern connector pods and a temporary connector pod in the eastern precinct. The proposed buildings in Stage 1 are consistent with the maximum building envelopes proposed for the Concept Proposal. The EIS notes that the following elements have been incorporated in the detailed building design for Stage 1 to reduce the impact on the adjoining residents:

- the learning hub building incorporates significant excavation to limit the building height above ground, while not compromising the amenity of the users of this building
- the building bulk of the Stage 1 learning hub building is located within the 12 m building height limit. The non - compliant building height is associated with the services, plant and equipment at the roof-top. This is unavoidable due to the functional requirements of the building including services (**Figure 21**)
- notwithstanding, the size of the mechanical plant room has been reduced by relocating a major component elsewhere on the site
- the learning hub building has been set back from the western boundary in accordance with the requirements of the DCP and stepped to protect outlook, visual privacy and maintain solar access to the adjoining building at No. 111 Carabella Street, to the west.

The Government Architect (GA) reviewed the design of the Stage 1 learning hub and considered that the design of the development responds well to the topography of the site. However, the GA raised concerns regarding the potential impact of the roof elements on the amenity of the neighbouring properties, in terms of visual privacy, overshadowing and view loss, especially to No. 111 Carabella Street. The potential impact of the proposed Stage 1 works on the amenity of the neighbouring buildings are assessed in detail in **Section 5.2.3** of this report.

On balance, the Department is satisfied that the proposed Stage 1 built form is a reasonable development outcome for the site subject to the implementation of the recommended mitigation measures to limit any impact on the adjoining residents due to privacy or view loss.

### **Materials and finishes**

#### **Concept Proposal**

The EIS does not include details of materials for the concept building envelopes in Stages 2 and 3 as detailed designs of these buildings have not been provided. The Department considers that this aspect of the proposal may be assessed under development applications or future stages, subject to submission of the relevant details.

#### **Stage 1 works**

The Applicant proposes the external materials for the Stage 1 buildings to be a mixture of dark toned face bricks, off-form concrete, sandstone, rendered finishes and veil-like metallic screens. Public submissions and the GA raised concerns regarding the use of dark toned material not been in keeping with the heritage conservation area to the west and the possible heat gain.

In response, the Applicant submitted that the dark toned materials would be sympathetic to the surrounding heritage context and provide a recessive background. Light coloured rendered finishes are proposed to the curved walkway elements on the lower floors and the sandstone from the site is proposed to be re-used for landscaping at the lower levels. This would ensure that the lower floors of the proposed buildings complement the lighter finishes of existing buildings.

The Department's assessment concludes that the proposed external colours and materials are appropriate in their context. The proposed Stage 1 materiality is considered satisfactory (**Figure 25**), promoting the new modern education establishment to the surrounding public domain, while providing a physical link to the heritage significant buildings through the proposed contrast of light and dark colours. The external materials selected are of a non-

combustible material in accordance with the National Construction Code (NCC). The Department has recommended a standard condition requiring the Principal Certifying Authority (PCA) to be satisfied that the proposed external materials comply with NCC.

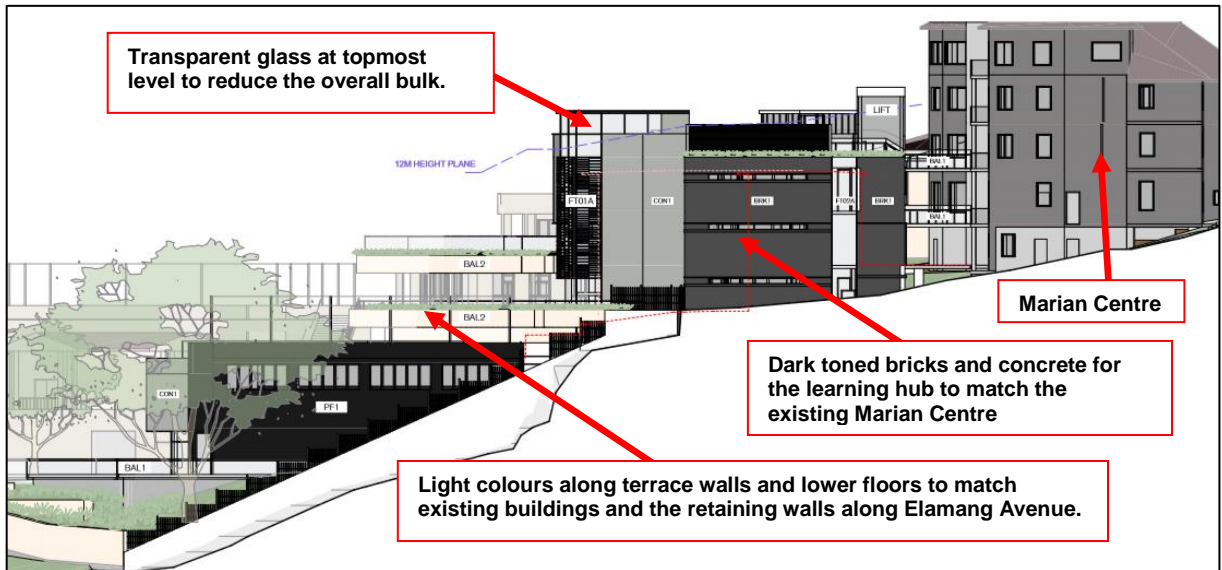


Figure 25: Stage 1 materials and finishes (west elevation) (Source: Applicant's EIS)

**Landscaping and site layout**

The site includes limited landscaped areas due to existing site constraints. The proposed landscaping works comprise a range of soft and hard landscaping works and removal of 11 trees.

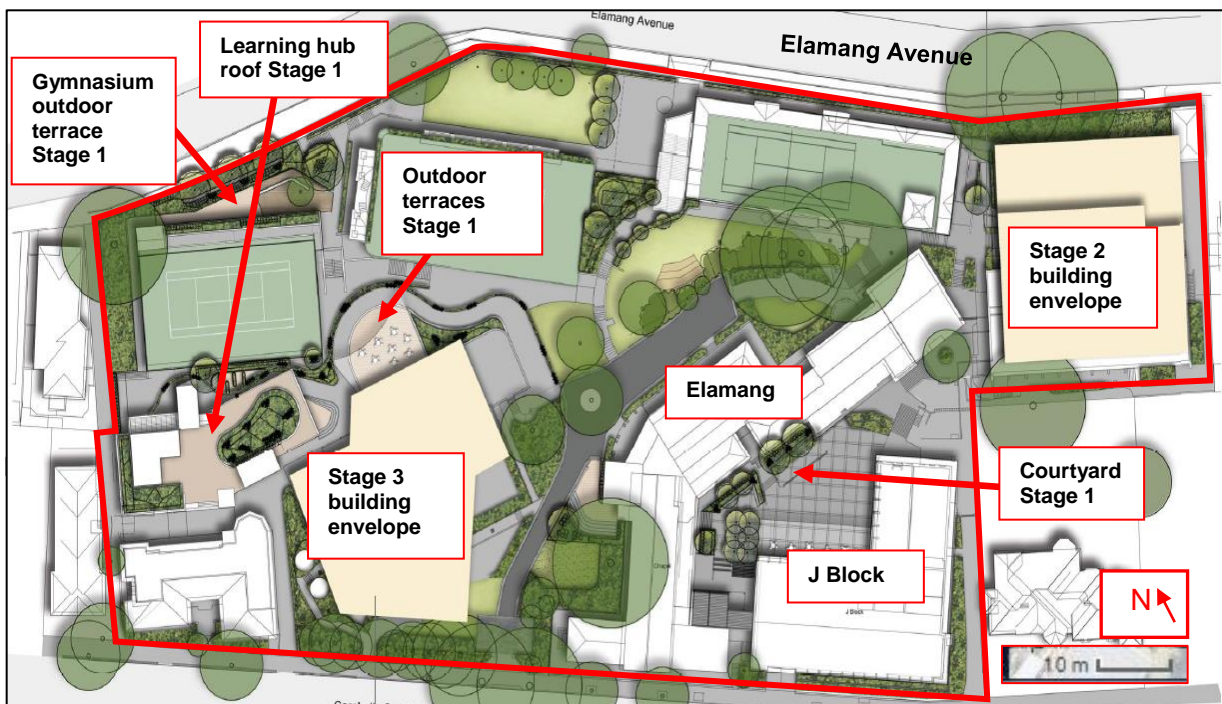


Figure 26: Landscape Masterplan for the Concept Proposal (Source: Applicant's RtS)

### Concept Proposal

The EIS identifies 57 trees within the site, on the street frontages and on the adjoining properties that may be impacted by the Concept Proposal. The proposal would remove 10 trees in Stage 1 and one tree in Stage 2 including seven trees with high retention value. The Landscape Masterplan with details of Stage 1 works are identified in **Figure 26**.

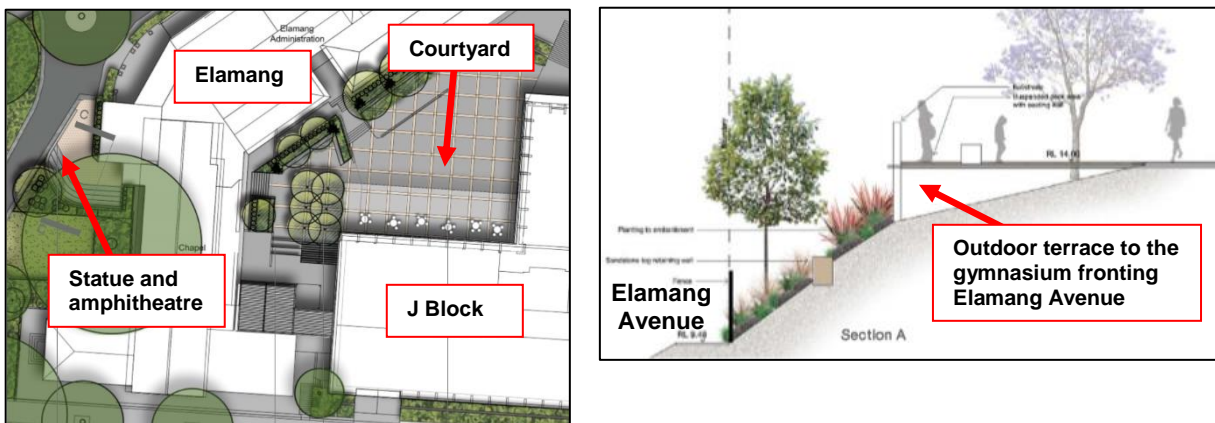
The Department is satisfied that the proposed landscaping scheme for the site has been appropriately designed to complement the building design while maintaining play areas on natural grass. The proposed development would increase outdoor elevated learning areas, as well as enhance the hard and soft landscaped congregation spaces at ground level. The proposed removal of the 11 trees is unavoidable to facilitate any site improvement in Stages 1, 2 and 3 of the proposal. The vegetation proposed for removal does not constitute any threatened or vulnerable species, populations, communities or habitat (**Section 5.3**).

### Stage 1 works

The Stage 1 landscape works include: a roof-top garden above the learning hub building; a food-technology garden adjacent to the northern façade of the learning hub building; outdoor learning terraces connecting the learning hub with the junior school; re-landscaping of the courtyard fronting the Elamang; an amphitheatre adjoining the Chapel and soft landscaped areas to the south of the Centenary Hall.

Public submissions and Council raised concerns regarding the lack of deep soil zones, lack of maintenance of the existing landscaped areas and removal of trees. In response, the Applicant submitted updated landscape plans which proposed additional landscaping along the Elamang Avenue frontage, revised paving for the courtyard between J Block and the Chapel and retention of St Michael's statue with an outdoor amphitheatre for Stage 1. The proposed landscaping would add 27 trees to the site with 10 being capable of attaining a height of 8 m.

The overall landscaping scheme for the Stage 1 of the development is shown in **Figure 26**. Details of landscaped areas in Stage 1 are provided in **Figure 27**.



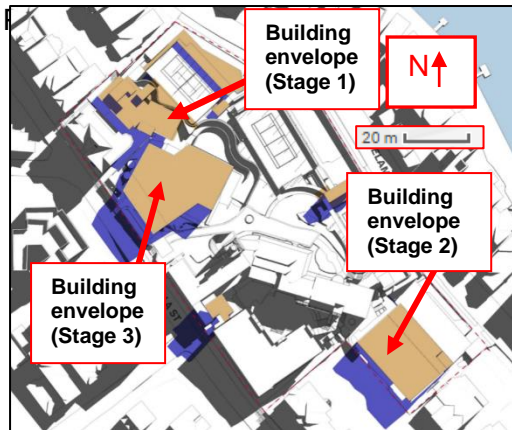
**Figure 27: Paving details for courtyard (left) and terrace to gymnasium (right) (Stage 1 works) (Source: Applicant's RtS)**

The Department is satisfied that the site layout and landscaping scheme for Stage 1 would retain the peripheral landscape elements including the retention of a significant fig tree located at the north-western corner of the site, the street trees along Carabella Street and the existing vegetation along the western boundary. Additionally, compensatory planting is proposed at various locations to enhance the vegetation canopy. The proposed paving pattern with added soft landscaped areas and the retention of the statue would reinforce the heritage significance of the central part of the site. The suitability of the proposed roof-top garden above the learning hub and the impact of the outdoor learning terraces on the buildings of heritage significance are discussed in **Sections 5.2.3** and **5.2.4** of this report respectively.

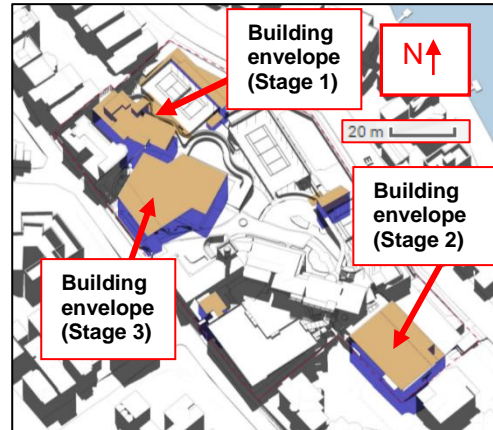
### 5.2.3. Environmental and Residential Amenity

#### Concept Proposal Solar Access

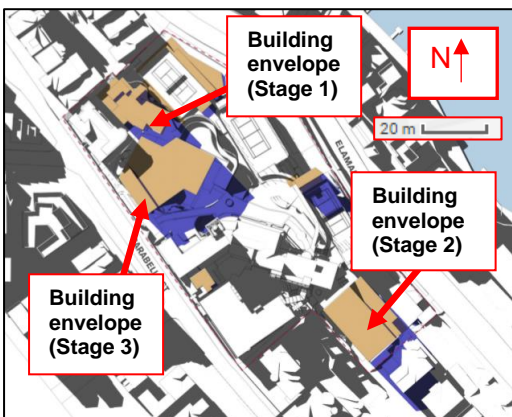
The overshadowing impacts during the winter solstice due to the building envelopes in the proposed Concept Proposal (coloured in blue), are shown in **Figures 28**.



Winter solstice 9:00 am shadow diagram



Winter solstice 12:00 pm shadow diagram



Winter solstice 3:00 pm shadow diagram

**Figure 28: Concept Proposal winter solstice shadow diagrams (Source: Applicant's EIS)**

The Department has reviewed the shadow diagrams for the existing buildings on the site and the concept building envelopes in the eastern precinct (Stage 2) and southern precinct (Stage 3). The proposed Stage 2 and Stage 3 building envelopes, as refined by the RtS, would generally be consistent with the height and bulk of the existing buildings at these locations. Consequently, any additional overshadowing due to these building envelopes is likely to be marginal. The Stage 3 building envelope in the southern precinct would not directly adjoin any residential property, thus any additional overshadowing would be internal to the site. The Stage 2 building envelope in the eastern precinct would adjoin two residential developments to the south and east. Due to the topography of the land, the residence to the south, is located at a higher level and thus overshadowing impacts are considered to be minimal (**Figure 22**).

The Department is satisfied that the proposed building envelopes in Stages 2 and 3 would have negligible detrimental impact on the adjoining developments due to overshadowing. The impacts associated with Stages 2 and 3 of the development would be assessed in detail under future development applications. The Department has recommended a condition of consent requiring that all future development be consistent with the proposed building envelope heights and setbacks. The overshadowing impacts due to the buildings in Stage 1 are discussed below.

### Stage 1 Solar Access

Public submissions raised concerns regarding the loss of solar access to the east facing windows of No. 111 Carabella Street due to the proposed learning hub. Council raised concerns that the proposed learning hub building would reduce solar access to the classrooms within the adjacent Marian Centre.

In response, the Applicant has provided additional solar access analyses for No. 111 Carabella Street and the Marian Centre and details of roof-top design and use for the learning hub. The shadow diagrams for Stage 1 (coloured in blue), are shown in **Figures 29 - 31**.

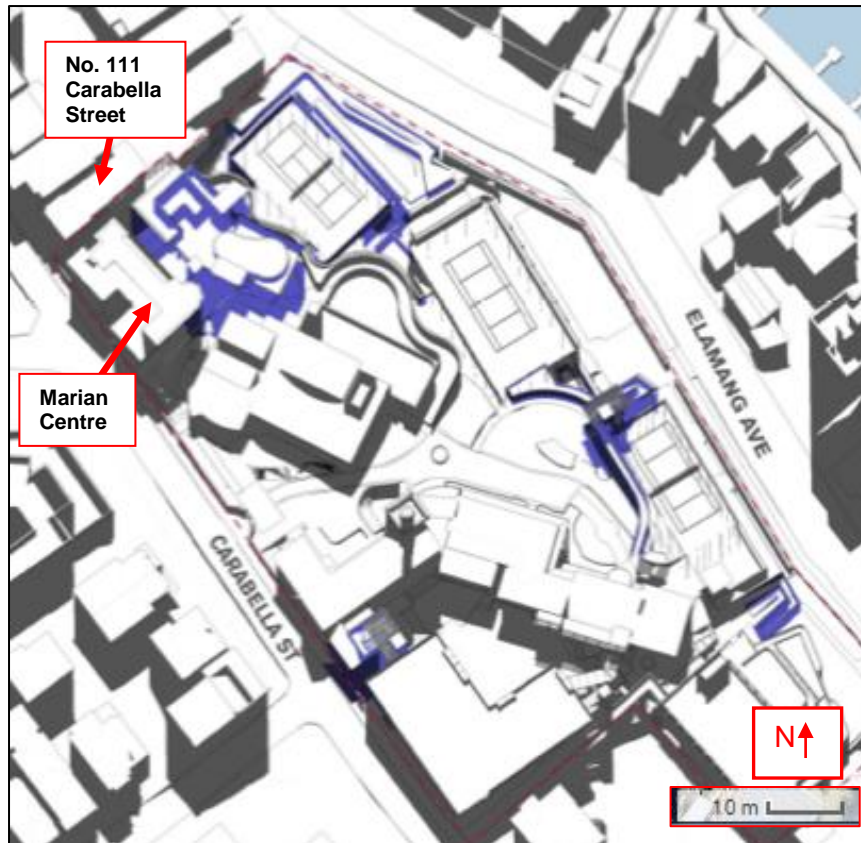


Figure 29: Winter solstice 9:00 am shadow diagram  
(Source: Applicant's EIS)

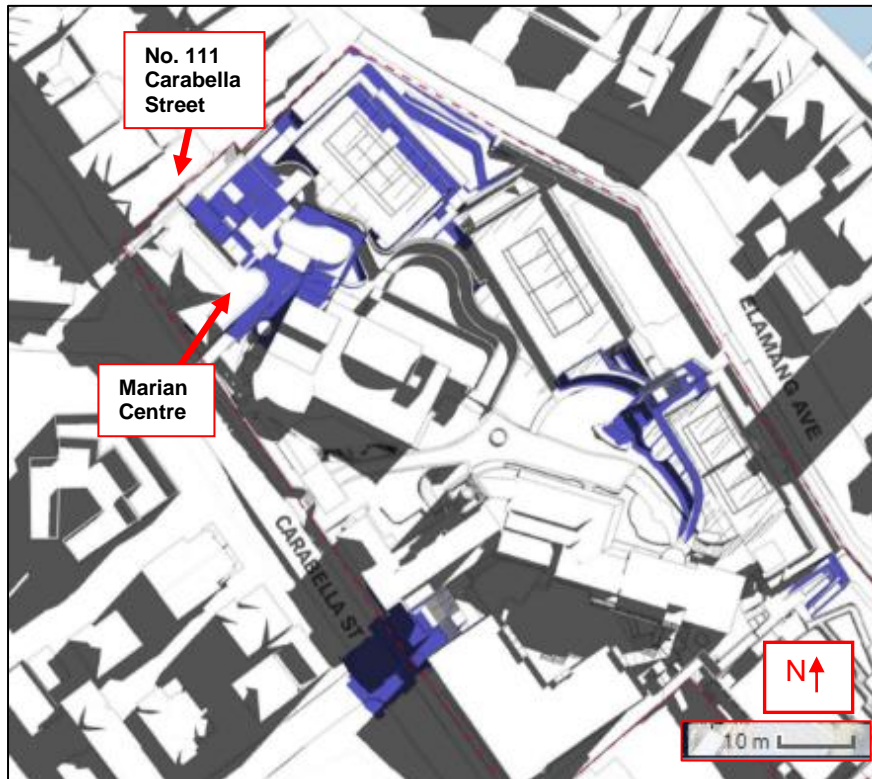


Figure 30: Winter solstice 12:00 pm shadow diagram  
(Source: Applicant's EIS)

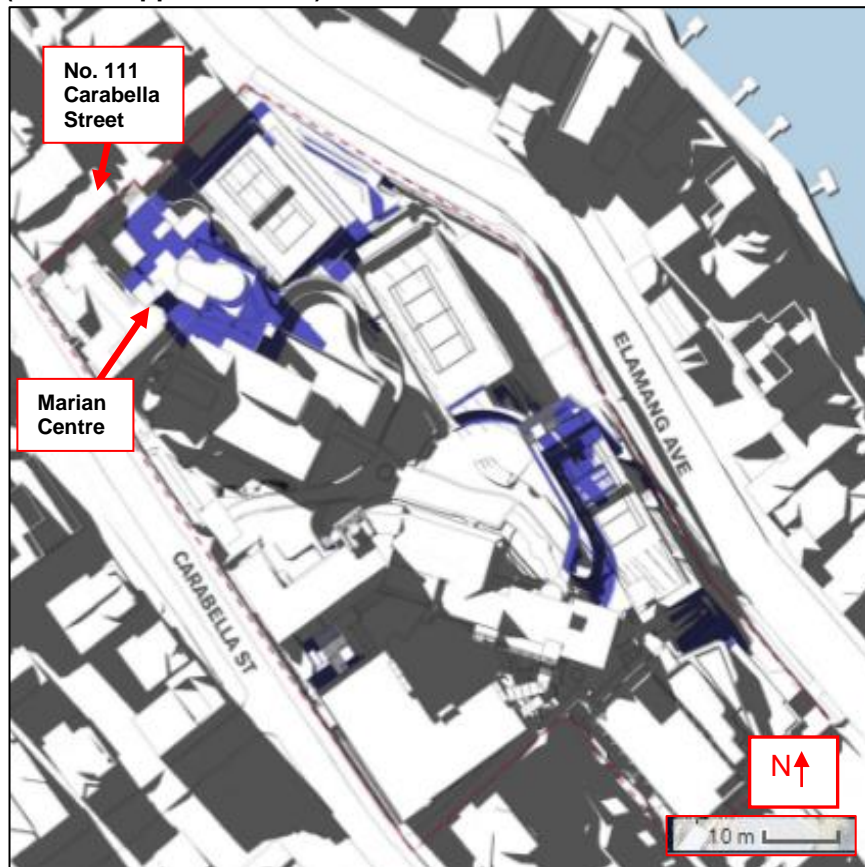
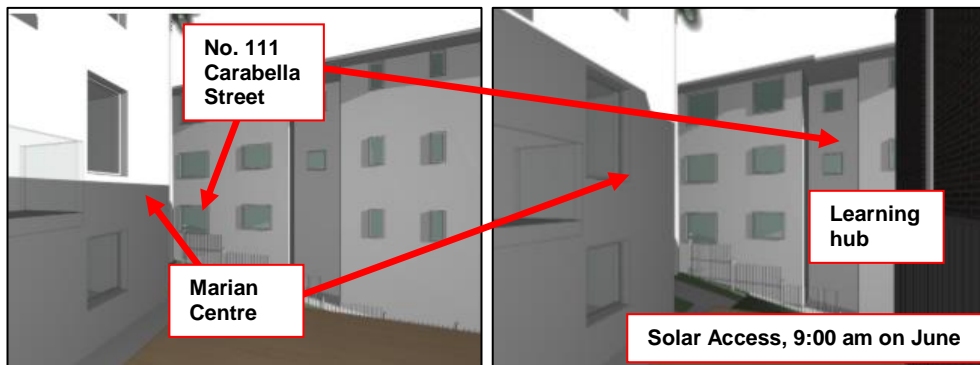
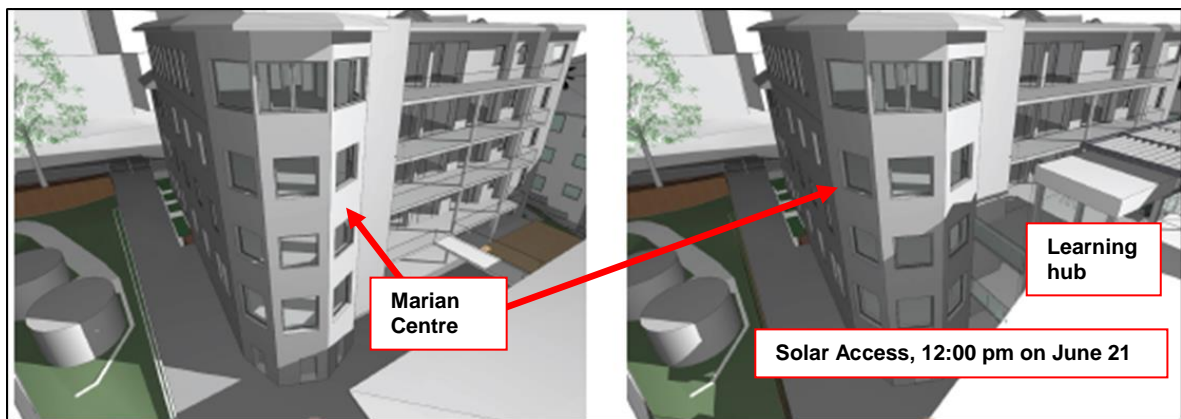


Figure 31: Winter solstice 3:00 pm shadow diagram (Source: Applicant's EIS)



**Figure 32: Solar access to No. 111 Carabella Street, existing (left) and proposed (right) (Source: Applicant's RtS)**



**Figure 33: Solar access to Marian Centre (left) and proposed (right) (Source: Applicant's RtS)**

The Department has reviewed the shadow diagrams for Stage 1 and notes that part of the eastern elevation of No. 111 Carabella Street would receive less than 3 hours of solar access on June 21 (**Figure 32**). The affected windows are kitchen and bathroom windows of three units with north-eastern aspects and north (Harbour) facing living areas. As such, the overshadowing impact would have no detrimental impact on the living areas of the existing units which would remain unaffected.

**Figure 33** identifies that the two lower floors of the north elevation of the adjacent Marian Centre would be overshadowed after 12:00 pm on June 21. However, majority of these learning areas have alternate aspects and would receive sunlight throughout the day during all other times of the year.

The Department is satisfied that given the constraints of the site due to the topography, the overshadowing impacts on No. 111 Carabella Street and Marian Centre are considered acceptable. As such, all the proposed learning areas within the lower ground floor of the learning hub, outdoor learning and play areas throughout the site, the proposed terraces and the connectors, would receive unobstructed solar access at all times during winter solstice.

### **Concept Proposal Visual Privacy**

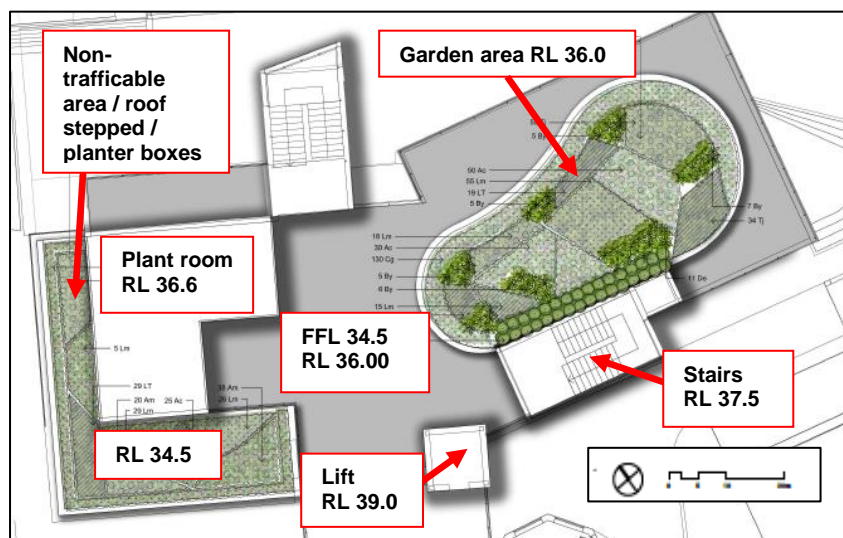
The proposed building envelopes in the eastern and southern precincts (Stages 2 and 3) would replace existing buildings with similar heights at the same location. Thus, additional impacts on visual privacy of adjoining properties due to these envelopes are not anticipated. Notwithstanding, a detailed assessment of visual privacy impacts would be conducted during the assessment of detailed designs for future stages of the development. Conditions of consent recommend that all future building envelopes incorporate privacy measures as required.

### Stage 1 Visual Privacy

Public submissions raise concerns regarding the adverse privacy impacts of the Stage 1 proposal due to windows along the western elevation of the learning hub, activities on the roof terrace for the western and southern precinct connectors.

The Department notes that the design of the development incorporates the following measures to retain visual privacy of the adjoining residents (**Figure 34** and **35**):

- existing vegetation along the western boundary is to be retained and additional landscaping is proposed
- service areas are located along the western façade with narrow openings acting as architectural features rather than windows
- the plant room is located in between the roof circulation area and the boundary
- non-trafficable areas with planter boxes are proposed along the western part of the roof
- stepping the roof level down along the western elevation and install planter boxes.



**Figure 34: Roof of the learning hub with privacy measures (Plan)**  
(Source: Applicant's RtS)

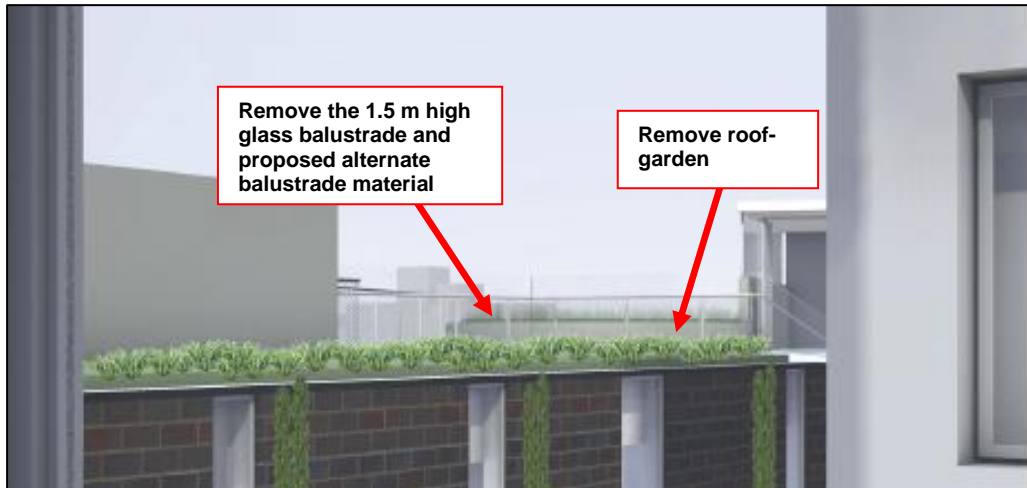


**Figure 35: Details of privacy measures (elevation)** (Source: Applicant's RtS)

The Department has reviewed the location / usage of the roof and considers that given the proposed roof features and the provisions for access, the roof is likely to be used regularly and may adversely impact on the privacy of the resident on the uppermost level of No. 111 Carabella Street, facing the roof (Unit No. 9). Consequently, to protect the amenity of the occupiers of No. 9/111 Carabella Street, the Department has recommended the following conditions of consent:



- deletion of the roof garden and restrict the roof to be at a maximum of FFL 34.5
- restrict any access to the roof above the learning hub except for maintenance purposes
- remove the 1.5 m high glass balustrade and propose alternative balustrades
- access for circulation or fire egress purpose is restricted to the area between Marian Centre and the lift / stairs at the southern end only
- deletion of the opening on the northern side of the lift to prevent access on to the roof.



**Figure 36: View of the roof from Unit 9/111 Carabella Street (Source: Applicant's RtS)**

The details of the proposed amendments are identified in **Figure 36**.

The Department concludes that the impact of the development on the amenity of the adjoining residents due to visual privacy and overshadowing is acceptable, subject to the above recommended conditions.

### ***Concept Proposal Private View Impacts***

The proposed building envelopes in the Concept Proposal and the buildings in Stage 1 of the development have the potential to impact on the views of the Harbour currently enjoyed by the occupiers of the surrounding developments along Carabella Street (Nos. 111, 60, 69 and 71 Carabella Street) and Elamang Avenue (Nos 10 and 22 Elamang Avenue) (**Figure 37**).

The Applicant's EIS included a View Impact Analysis report with a series of 3D models to determine the impact of the Concept Proposal and Stage 1 works on the existing views from adjoining developments.

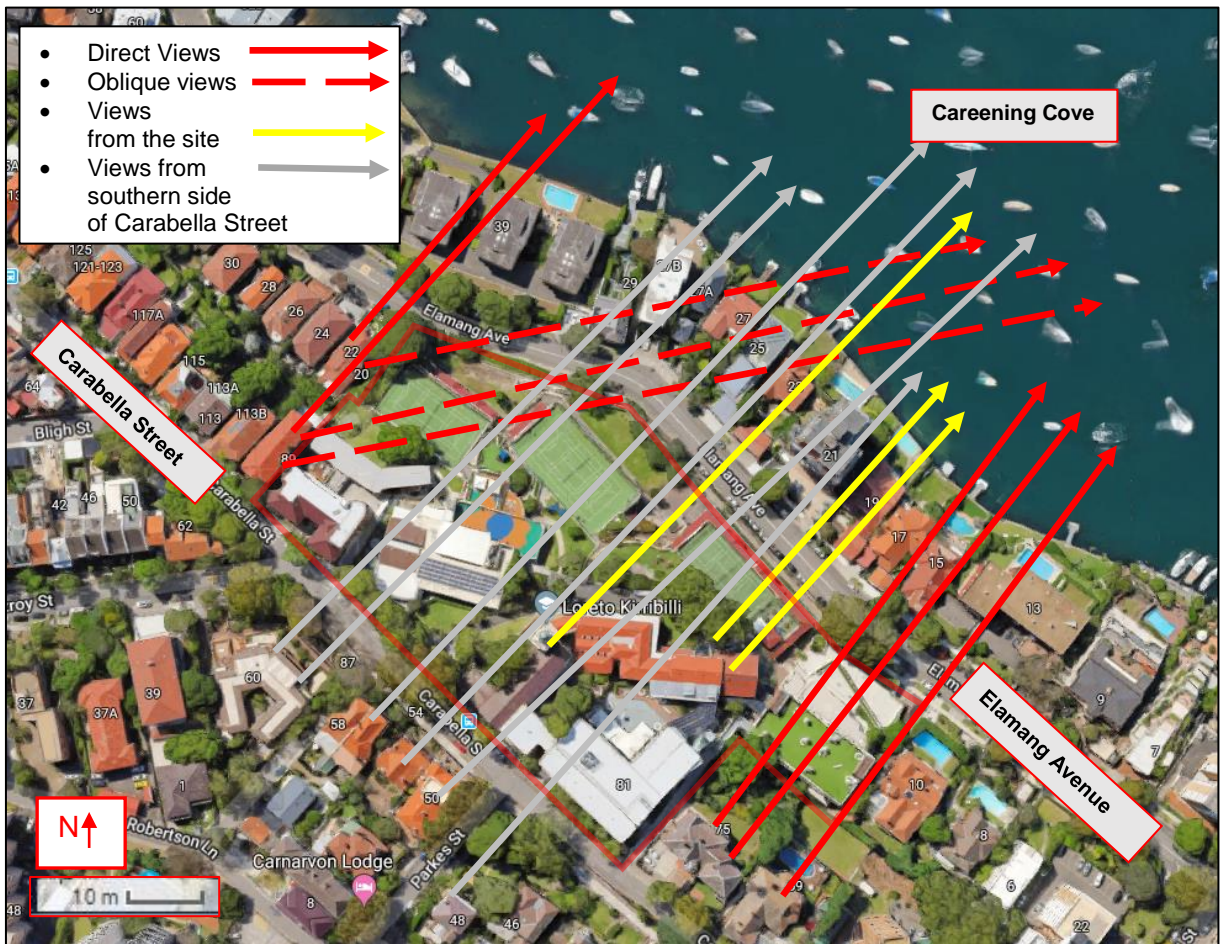


Figure 37: Views enjoyed by the surrounding residents and the site (Source: Google maps)

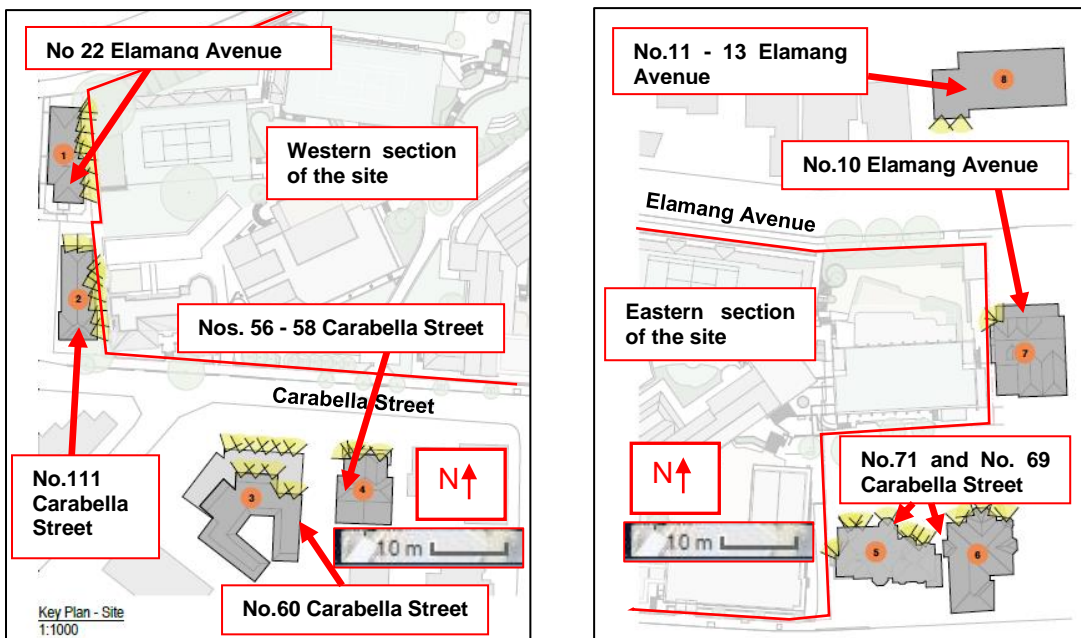


Figure 38: Locations adopted for view impact assessment (Source: Applicant's EIS)

The EIS also included a detailed assessment of the impact of the view loss from private domains, against the Planning Principles established by the Land and Environment Court in the judgement for *Tenacity Consulting v Warringah [2004] NSWLEC 140 (Principles of view sharing: the impact on neighbours)*. The principles adopt a four-step approach to analysing the impact of view loss including the following:

- Step 1: Assessment of the views to be affected (Water views/Iconic Views/Whole views)
- Step 2: From which part of the property are the views obtained (The expectation to retain side views and sitting views is often unrealistic)
- Step 3: Extent of the impact (impact on living areas is more significant than bedrooms and view loss should be expressed quantitatively as negligible, minor, moderate, severe or devastating)
- Step 4: Reasonableness of the proposal that is causing the impact (compliance with development controls is considered more reasonable and alternate proposal should be considered).

Five categories were used to define the impacts including negligible (barely perceivable), minor (minor loss of tree, sky and water view), moderate (some loss of tree, sky and distant water view), severe (high impact on tree, sky and water view) and devastating (total loss of view). Based on the above principles, the Applicant's view impact analysis concluded that the majority of the views currently enjoyed by all assessed properties (identified in **Figure 38**) would be preserved. The analysis also stated that the views from No. 111 Carabella Street would be impacted upon by the learning hub proposed in Stage 1 of the development.

Council and the public submissions raised concerns regarding the loss of views currently enjoyed by the occupiers of the adjoining property at No. 111 Carabella Street and the heritage listed buildings adjoining the eastern boundary of the site (Nos. 69 and 71 Carabella Street). In response, the Applicant amended the plans by lowering the height of the eastern precinct concept envelope to five-storeys and submitted additional view impact analysis for No. 111 and No. 46 Carabella Street identifying the affected windows and the extent of view loss.

The Department has included in **Table 9** its consideration of the Tenacity steps for the Carabella Street properties to the east, and south of the subject site due to the concept building envelopes in Stages 2 and 3 of the Concept Proposal.

**Table 9: Private property view impacts (Stages 2 and 3)**

Property	View	View Type	Department's View Impact Assessment
Nos. 69 and 71 Carabella Street	• Unencumbered views of water, Harbour and Kurraba point	All directions including Front	<p><u>Affected views</u></p> <ul style="list-style-type: none"> <li>• No view affected due to the <b>Stage 2 concept building envelope</b> in the eastern precinct.</li> </ul> <p><u>Conclusion</u></p> <ul style="list-style-type: none"> <li>• The height of the Stage 2 concept envelope in the eastern precinct has been lowered to be consistent with the existing Mary Ward building to preserve the views of the adjoining buildings.</li> </ul> <p>There are '<b>negligible</b>' impacts on the views of these buildings.</p>
Nos. 46, 56, 58 and 60 Carabella Street	• Land and water interface, partial views of Harbour	Front and oblique – standing	<p><u>Affected views</u></p> <ul style="list-style-type: none"> <li>• Filtered views from the balconies and windows, through existing vegetation.</li> </ul> <p><u>Conclusion</u></p> <p>Any additional impact on views due to the <b>Stage 3 concept building envelope</b> in the southern precinct would be '<b>minor</b>'.</p>

The Department concludes that the design changes presented in the RtS reduce bulk and scale in a critical area of the eastern precinct (Stage 2) to ensure view loss impacts are mitigated during the redevelopment of this precinct. The view impacts due to the Stage 3 concept building envelope are assessed as negligible. Notwithstanding, detailed assessments of the impacts of Stages 2 and 3 of the development, on the views currently enjoyed by the surrounding residents would be conducted under future development applications.

The impact of the Stage 1 works on the views enjoyed by the neighbouring properties is discussed in detail in the following section of this report.

### **Stage 1 Private View Impacts**

As discussed above, the proposed Stage 1 learning hub has the potential to have adverse impacts on the views currently enjoyed by the residents on the western side of the school, especially No. 111 Carabella Street. The EIS notes that the design of the Stage 1 learning hub was amended during community consultation prior to the lodgement of the application and design changes were incorporated to preserve views for the majority of the surrounding properties. Notwithstanding, public submissions have raised concerns regarding the loss of views of the residents at No. 111 Carabella Street due to the proposed Stage 1 works.

The Applicant's view impact analysis identified that the most affected view due to the Stage 1 works would be across the kitchen and living room windows for one unit, being No.9, located at the upper most level of the eastern façade of No. 111 Carabella Street, immediately west of the proposed learning hub building. The Applicant justified that the existing views are oblique, primarily comprising district and sky views with distant water views across the side elevation of the unit. Further, the water views would be lost due to a compliant 12 m building envelope at this location. The proposed 2.5 m additional height (due to the 14.5 m high learning hub) would not result in loss of water views for the occupiers of this unit (**Figure 39**).

The view impact analysis concludes that given the scale of the development and the existing site constraints, the proposal was considered reasonable having regard to view impacts on the adjoining properties.



**Fig 39: View Impact on living room window, unit 9/111 Carabella Street (Source: Applicant's RtS)**

**Figure 40** identifies the impact of the proposed learning hub on the views enjoyed by the occupiers of units on the northern façade of No. 111 Carabella Street.



**Figure 40: Typical view impact on northern façade of No.111 Carabella Street due to the learning hub building mass (Source: Applicant’s RtS)**

The Department has carefully considered the Applicant’s justification in relation to view loss impacts, assessed the views currently enjoyed by surrounding residents having regard to the established Planning Principles, and undertaken a site visit to better understand the potential impacts and considered public submissions raising view loss as a key issue. Photos of the existing views enjoyed by residents of No. 111 Carabella Street are provided in **Appendix A** of this report.

The Department has included in **Table 10** its consideration of the Tenacity steps for the Carabella Street and Elamang Avenue properties to the east, west and south of the subject site due to the Stage 1 works.

**Table 10: Private property view impacts (Stage 1)**

Property	View	View Type	Department’s View Impact Assessment
<p>No. 111 Carabella Street</p> <ul style="list-style-type: none"> <li>• Three - storey apartment block with nine units.</li> <li>• Three units have north-eastern aspect (one on each level)</li> <li>• Further six units are orientated to the east and south of the building.</li> </ul>	<ul style="list-style-type: none"> <li>• Views of water, sky and vegetation from the north elevation.</li> <li>• Distant views of water from the topmost unit on the east elevation.</li> <li>• No iconic views.</li> </ul>	<p>North elevation - unobstructed</p> <p>East Elevation - oblique and obtained mainly from standing position at the uppermost level only (Unit No. 9).</p> <p>No views available to units on the two lower floors.</p>	<p><u>Affected view</u> Views from the northern (front) facade of the building at No. 111 Carabella Street would be largely retained. Partial view loss would occur (identified in <b>Figure 40</b>) due to the learning hub in Stage 1.</p> <p><u>Conclusion</u></p> <ul style="list-style-type: none"> <li>• The learning hub building includes a stepped roof at the north-western corner to reduce the overall bulk.</li> <li>• Department considers the impact on the views enjoyed by the living rooms of the units on the northern façade to be ‘minor’.</li> </ul> <p><u>Affected view</u> The views from the eastern side elevation of the building comprise a small area of land-water interface for the uppermost level only (unit 9) with no whole views or iconic views being obtained in a standing position at an oblique angle.</p> <p>The learning hub building would affect the views enjoyed from the kitchen and living room windows of unit 9.</p> <p><u>Conclusion</u></p> <ul style="list-style-type: none"> <li>• The views from windows along the eastern elevation of No. 111 Carabella Street may be defined as an outlook.</li> <li>• The uppermost level unit (No.9) currently enjoys views of land and</li> </ul>

			<p>water interface across the side boundary as the existing B Block within the site is located 3 m below the permissible height.</p> <ul style="list-style-type: none"> <li>• Views from the living areas and kitchen of unit No.9 would be impacted upon due to the proposal and the extent of loss can be classified as <b>'moderate to severe'</b>.</li> <li>• <b>Figure 39</b> shows that the roof of the learning hub is located at FFL 34.5, being lower than the 12 m height plane and would possibly not obstruct the water view currently enjoyed by the occupant.</li> <li>• The location of the water view is on the eastern side and is partially obstructed by the raised roof garden (RL 36) and the glass balustrade.</li> <li>• The plant room, at RL 36.6, would also be generally consistent with the 12 m height limit.</li> <li>• The Applicant has demonstrated that the plant room has been reduced in size and the location has been optimised and cannot be altered.</li> <li>• <b>Figure 39</b> demonstrates that the view lost due to the plant room comprise district views and sky views only.</li> <li>• To improve the water views across the roof, the following conditions are recommended (<b>Figure 36</b>): <ul style="list-style-type: none"> <li>○ restrict any access to the roof apart for maintenance purposes</li> <li>○ delete the roof garden</li> <li>○ replace the glass balustrade with alternate material which would not obstruct the existing views.</li> </ul> </li> <li>• Partial loss of views across the side elevation of unit No.9/111 Carabella Street is unavoidable due to the topography of the site.</li> <li>• In order to restore the views of this unit an entire level of learning areas is required to be deleted which is considered unreasonable.</li> <li>• The design of the development retains the views enjoyed by all the north-facing units wherever possible.</li> <li>• The proposed development would result in significant benefits by providing well designed learning areas and accessible connections to all levels within the site.</li> </ul> <p>On balance, the impact is considered acceptable.</p>
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<p>22 Elamang Avenue</p> <p>Three - storey apartment block with northerly and easterly aspect.</p>	<p>Water and land interface, sky views</p>	<p>Front and oblique – standing, screened by vegetation (for side elevation)</p>	<p><u>Affected view</u></p> <ul style="list-style-type: none"> <li>• Side views from the units at No. 22 Elamang venue would be affected.</li> <li>• The existing views are screened by existing vegetation and the gymnasium.</li> </ul> <p><u>Conclusion</u></p> <ul style="list-style-type: none"> <li>• Additional loss of view would be ‘<b>minor</b>’ as alternate outlooks are available for each unit.</li> </ul>
<p>Nos. 46, 56, 58 and 60 Carabella Street</p>	<p>Land and water interface, partial views of Harbour</p>	<p>Front and oblique – standing</p>	<p><u>Affected views</u></p> <ul style="list-style-type: none"> <li>• Filtered views from the balconies and windows, through existing vegetation.</li> </ul> <p><u>Conclusion</u></p> <p>Any additional impact on views due to the learning hub would be ‘<b>minor</b>’.</p>

The Applicant has demonstrated that view loss impacts have been adequately considered in the original and revised design of the development. The recommended conditions regarding design alterations at the roof level of the Stage 1 learning hub would marginally improve the water views of the neighbouring unit (9/111 Carabella Street).

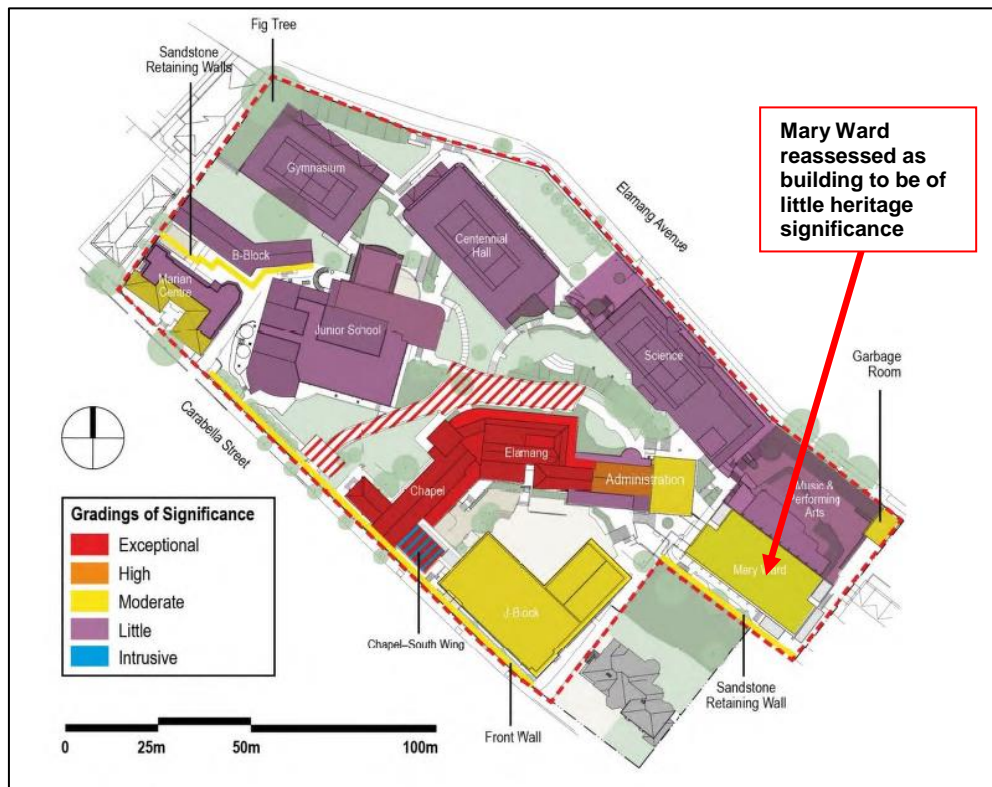
On balance, the proposed built form is reasonable in its context of generally being within the height limit, except the service areas, providing equitable access to school buildings and improving school facilities and allowing view sharing, subject to recommended conditions.

#### 5.2.4. Heritage

##### ***European Heritage***

The school site is a heritage item of local significance as listed in NSLEP and is located adjacent to the Careening Cove Heritage Conservation Area. The site adjoins two heritage listed buildings to the east, at Nos. 69 and 71 Carabella Street (“The Araluen House” and “Fairhaven”). The application is supported by a Heritage Impact Assessment Statement (HIS) which has graded the buildings within the site in terms of their heritage significance and classified the fig tree at the north-western corner and 15 additional trees on the site to be significant (Refer to **Figure 41**).

Council and public submissions raised concerns regarding the proposal demolition of the Mary Ward building and the alterations to the Chapel. In response, the Applicant’s re assessed the significance of the Mary Ward building and concluded that the building has little heritage significance (rather than moderate as concluded earlier). The Applicant also confirmed that the St Michael’s statue, at the centre of the site, would be retained. The Heritage Division of Office of Environment and Heritage (Heritage Division) did not raise any concerns regarding the demolition of the Mary Ward building or the impacts of the proposed design on the heritage significance of the site.



**Figure 41: Grading of Heritage Significance for buildings within the site (Source: Applicant’s EIS)**

**Concept Proposal**

The HIS has conducted a detailed assessment of the Concept Proposal and the detailed building design in Stage 1, against the existing heritage fabric of the site. The HIS concludes that the proposed site layout and detailed building designs would be compatible with the heritage significant buildings. The proposed development would maintain a suitable curtilage around the Chapel tower, the Elamang and the school’s entry drive which would remain physically unaffected by the proposed location of the new building envelopes.

The Department has considered the impacts of the Concept Proposal against the heritage significance of the site and is satisfied the proposal is unlikely to have any adverse impacts on existing built heritage on the site or surrounding locality including the adjoining heritage conservation area. The impact of the eastern precinct concept envelope on the heritage items at Nos. 69 and 71 Carabella Street would be assessed in detail under a future development application for Stage 2 of the Concept Proposal. The proposal would result in an improved visual setting and appreciation of existing heritage items, both on-site and off-site, and retain their significance through their revitalisation and continued use for educational and community purposes.

**Stage 1 Works**

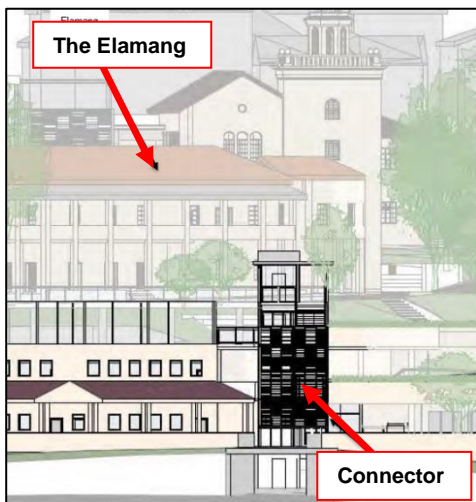
The Department has carefully considered the impacts of the Stage 1 works on the heritage significance of the site and concludes that the removal of the intrusive 1970s addition on the southern-wing of the chapel, and partial reconstruction of the original form of the wing would have a positive impact on the Carabella Street elevation and the overall heritage significance of the site.



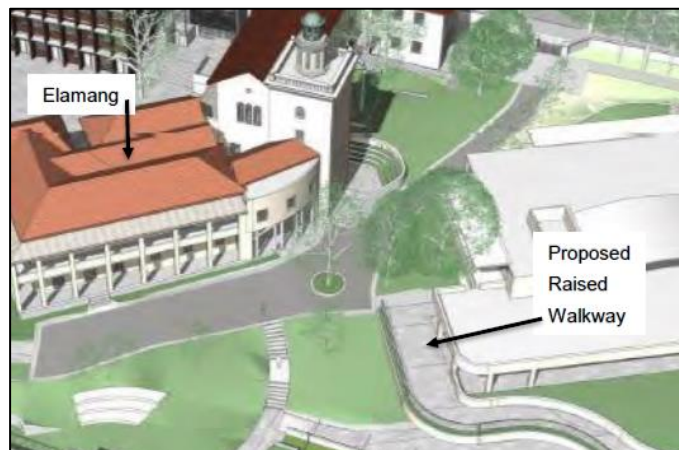
Council indicated that the internal alterations to the chapel including removal of original stairs and the north-eastern external wall would have a moderate level of adverse impact on the heritage significance of the Chapel. However, Council agreed that the modifications would provide equitable access to the building which is a positive outcome for the future users of the site. The Department also concurs with Council's views in this regard and the recommendations to interpret the original walls within the Chapel by retaining the nib walls.

The Department notes in its assessment that the northern connector pod has the potential to intrude into the view corridor and setting of the Elamang due to its height. To limit the impact on the setting of the significant building, a small building footprint with transparent materials and louvered roof is proposed to provide permeability and reduce the overall bulk and intrusion into the curtilage of the Elamang (**Figure 42**).

The raised walkway in between the junior school and the Elamang, proposed in Stage 1, has the potential to interfere with the heritage values of the Elamang and the central driveway due to levelling of land adjacent to the driveway. However, given that the walkway is located at the centre of the site and surrounded by the sloping gardens, this impact would not be discernible from the public domain (**Figure 43**). The proposed works are assessed as satisfactory in this regard.



**Figure 42: Impact of proposed connector on the Elamang (Source: Applicant's EIS)**



**Figure 43: Impact of the proposed raised walkway on the Elamang and the existing driveway (Source: Applicant's EIS)**

The HIS states that the proposed finishes of the Stage 1 buildings complement the surrounding buildings in the Careening Cove Heritage Conservation Area as well as the existing Marian Centre within the site. The HIS acknowledges that the demolition of the nineteenth-century sandstone retaining walls located in the excavation zone of the proposed learning hub building would potentially have an adverse heritage impact which may be reduced via salvage and re-use of the sandstone on the site during the Stage 1 works. The Department has recommended conditions of consent to this effect.

### 5.3. Other Matters

Issues	Consideration	Conclusion and Recommendation
<p><b>Archaeological Heritage</b></p>	<p><b>Concept Proposal</b> The Applicant's HIS advises that:</p> <ul style="list-style-type: none"> <li>the site's history provides a moderate to high potential for the presence of the structural remains of four houses in localised areas, especially in the southern precinct.</li> <li>periodic redevelopment of the site since the nineteenth century would have resulted in disturbances and / or the removal or archaeological remains.</li> </ul> <p>The HIS recommends the following measures to mitigate any potential impacts from the exposure of archaeological remains:</p> <ul style="list-style-type: none"> <li>a program of archaeological investigation and recording be undertaken to ensure that any identified archaeological remains, be appropriately investigated, recorded and interpreted</li> <li>a program of archaeological test or salvage excavation for those impacted areas of the site with a moderate to high potential.</li> </ul> <p><b>Stage 1 works</b> The Applicant's HIS advises that:</p> <ul style="list-style-type: none"> <li>the proposed Stage 1 works within the western and the southern precinct would potentially remove any remaining archaeological relics in these areas.</li> </ul> <p>The HIS recommends the following measures to mitigate any potential impacts from the exposure of archaeological remains:</p> <ul style="list-style-type: none"> <li>for Stage 1 works within the western and southern precincts, an Archaeological Research Design (ARD), be prepared</li> <li>areas of the site where there is a low potential for archaeological remains but the impact of the development is high (basement excavation), a program of archaeological monitoring be prepared</li> <li>a procedure to be developed for any unexpected find.</li> </ul> <p>The Heritage Division supported the mitigation measures recommended by the Applicant for all Stages of the development subject to the implementation of recommended conditions regarding investigation and preparation of an ARD.</p>	<p><b>Concept Proposal</b> The Department is satisfied that the proposed mitigation measures in the HIS and the conditions recommended by the Heritage Division would ensure that potential impacts from the proposal are minimised and that any relics discovered during works are appropriately salvaged and managed.</p> <p>The Department recommends that the Applicant:</p> <ul style="list-style-type: none"> <li>prepare a ARD and Excavation Methodology for the entire site.</li> </ul> <p><b>Stage 1 works</b> The Department recommends that the Applicant:</p> <ul style="list-style-type: none"> <li>prepare a detailed ARD for Stage 1 works to be submitted to the Principal Certifying Authority in consultation with the Heritage Division prior to the issue of a Construction Certificate, to ensure non-evasive testing, excavation and management of relics.</li> </ul>
<p><b>Aboriginal Heritage</b></p>	<p><b>Concept Proposal</b> The Applicant submitted an Aboriginal Heritage Due Diligence Report (AHR) which notes that:</p> <ul style="list-style-type: none"> <li>the surrounding region does not contain any registered Aboriginal sites and the site has a land use history of substantial urban development</li> <li>The area is unlikely to retain soils with any condition or integrity capable of yielding an Aboriginal archaeological deposit or have association with local Aboriginal groups / people</li> <li>the study area holds low to no Aboriginal archaeological potential</li> <li>the proposal can proceed subject to caution without the need of further assessment.</li> </ul> <p>OEH concurs with the Applicant's assessment and considers that no further assessment is required.</p>	<p><b>Concept Proposal</b> The Department has reviewed the AHR in details and considers that the proposed development is unlikely to impact upon known Aboriginal heritage objects, and / or areas of archaeological potential within the study area.</p> <p><b>Stage 1 works</b> The Department considers that the Stage 1 works may be undertaken subject to recommended conditions of consent regarding management unexpected finds during construction works.</p>

Issues	Consideration	Conclusion and Recommendation
<p><b>Noise</b></p>	<p><b>Concept Proposal</b> The EIS includes an Acoustic Assessment Report (AAR) for the Concept Proposal. The AAR notes that:</p> <ul style="list-style-type: none"> <li>The closest sensitive receivers are located immediately adjoining the western boundary (111 Carabella Street and 22 Elamang Avenue), eastern boundary of the site (69 and 71 Carabella Street) and residential dwellings on the opposite side of Elamang Avenue.</li> <li>Attended background noise monitoring was undertaken at three locations on the site, near to the closest sensitive receivers.</li> </ul> <p><b>Stage 1 works</b> The EIS includes a Construction and Operational Noise and Vibration Assessment Report (CONVR) for Stage 1 works (duration 19 months). <u>Construction (Stage 1)</u></p> <ul style="list-style-type: none"> <li>The Interim Construction Noise Guideline (DECCW, 2009) (ICNG) outlines the process of establishing noise management levels (NMLs) to minimise construction noise impacts on sensitive receivers.</li> <li>Noise limits during standard construction hours would be the Rating Background Level (RBL) + 10dB (54-56dB(A) (Leq(15min))).</li> <li>The Applicant proposed the following construction hours in accordance with the ICNG: <ul style="list-style-type: none"> <li>7 am to 6 pm Monday to Friday</li> <li>8 am to 1 pm Saturday</li> <li>No construction works on Sunday and public holidays.</li> </ul> </li> </ul> <p>The CONVR considered the impact of typical construction equipment and anticipated construction noise levels at the closest sensitive receivers and concluded that:</p> <ul style="list-style-type: none"> <li>the noise generated during standard construction hours would exceed the NML at the adjoining properties</li> <li>selected positioning of noise producing equipment, localised noise barriers, acoustic insulation of equipment, use of electric motors, restricting construction vehicle access times, respite periods, staging of construction works, training of the operators and community consultation would mitigate the adverse impacts due to construction noise</li> <li>The CONVR includes details of noise barriers and hoardings to be constructed within the site to prevent adverse impacts on the students and users of the school grounds during construction works.</li> </ul>	<p><b>Concept Proposal</b></p> <ul style="list-style-type: none"> <li>The Department notes that the operational hours of all stages of the proposed development would remain unchanged (standard school hours).</li> <li>The potential location of the multipurpose hall (southern precinct envelope – Stage 3) would be at a reasonable distance from the surrounding residences.</li> <li>The multipurpose hall may operate infrequently up to midnight and during evenings. Detailed assessment of the noise impacts in relation to this hall would be conducted under future development applications for the site.</li> <li>Notwithstanding the above, the Department recommends that any rehearsal rooms associated with a future hall on the site be below ground to minimise noise impacts on the residents.</li> </ul> <p><b>Stage 1 works</b> The Department is satisfied that:</p> <ul style="list-style-type: none"> <li>mitigation measures outlined in the CONVR can be incorporated into the construction of LKS and generally comply with the ICNG.</li> <li>the required plant and machinery can be installed to comply with the INP criteria</li> <li>the implementation of the measures proposed within the site would minimise operational noise impacts.</li> </ul> <p>The Department recommends that the Applicant:</p> <ul style="list-style-type: none"> <li>prepare a final Construction Noise and Vibration Management Plan (CNVMP) including management strategies to noise impacts to sensitive receivers in accordance with the ICNG and submit a copy to the Principal Certifying Authority prior to the commencement of Stage 1 works.</li> </ul>

Issues	Consideration	Conclusion and Recommendation
	<p>The EPA raised no objections subject to implementation of the recommended mitigation measures</p> <p><u>Operations</u></p> <ul style="list-style-type: none"> <li>• Maintenance, cleaning and other back of house operations would occur outside the standard school hours. The noise impacts of these activities upon sensitive receivers are anticipated to be negligible.</li> <li>• The noise calculations provided in the AAR concludes that the noise generated by the classrooms, lunch break activities including the roof-top accommodating about 30 students, the loading dock activities, plant and equipment and the car park usage at night would comply with the amenity criteria set in the Industrial Noise Policy (INP) and the Sleep Disturbance criteria (for the car park) subject to recommended measures.</li> <li>• The service areas such as stores etc have been proposed along the western boundary with the plant equipment provide a screening to the noise generated by the proposed roof-top.</li> </ul>	<p>The Department is satisfied that he operational noise would not generate adverse impact on the nearby residents and recommends that the Applicant:</p> <ul style="list-style-type: none"> <li>• insulate mechanical plants</li> <li>• restrict use of amplified music in outdoor learning areas</li> <li>• direct the public address (PA) system away from the residences</li> <li>• restrict any usage of the roof-top</li> <li>• undertake a noise monitoring program after the operation of the learning hub to verify that noise generated from the operation of the learning hub, the outdoor learning areas and the mechanical plants do not exceed relevant provisions of the EPA Noise Control Manual and Noise Policy for Industry.</li> </ul>
<p><b>Geotechnical, Vibration and Dust control</b></p>	<p><b>Concept Proposal</b> Excavation works are proposed in all stages of the development to accommodate the concept envelopes and connector pods. The application is supported by a Geotechnical Report.</p> <p><b>Stage 1 works</b> The proposed Stage 1 works would involve significant excavation, up to 13 m to accommodate four floors of the learning hub in Stage 1 and up to two levels of basement for the connector pods. The proposal is supported by a Geotechnical Report which recommends the following:</p> <ul style="list-style-type: none"> <li>• “hard rock” excavation techniques as sandstone bedrock would be encountered at shallow depths</li> <li>• detailed procedures of excavation to reduce vibration impacts and impact on rock stability</li> <li>• management measures for groundwater seepage</li> <li>• dilapidation surveys</li> <li>• parameters for retaining wall structural design.</li> </ul> <p>The CONVR identifies the significant sources of vibration during construction works and recommends the following:</p> <ul style="list-style-type: none"> <li>• typical safe working distances for equipment that may generate vibration impacts</li> <li>• vibration monitoring for catchment to the west</li> <li>• implementation of management procedure to deal with vibration complaints</li> <li>• implantation of management measures to ensure that vibration compliance is achieved</li> <li>• trial monitoring machineries and selection of less vibration intensive equipment</li> <li>• respite periods during operation of machinery</li> </ul>	<p><b>Concept Proposal</b> The details of impact of excavation for concept building envelopes in Stages 2 and 3 of the proposal would be assessed in detail under future development applications for the site. The Department recommends that:</p> <ul style="list-style-type: none"> <li>• all future development applications for the site includes a detailed geotechnical report for each stage of the development with proposed vibration and dust control measures.</li> </ul> <p><b>Stage 1 works</b> The Department is satisfied that the proposed Stage 1 works would not result in unreasonable impact on the users of the site and the surrounding residential developments subject to the following conditions:</p> <ul style="list-style-type: none"> <li>• updating the CMP incorporating all details of environmental management measures (CEMP)</li> <li>• incorporation of the recommended excavation requirements in the CEMP</li> <li>• dilapidation surveys being undertaken prior to the Construction Certificate and after completion of building works</li> <li>• recommendations of the final CNVMP and CEMP regarding the mitigation measures for vibration be implemented during construction work</li> <li>• implementation of erosion and sediment control measures to control dust during construction works as per the submitted CEMP.</li> </ul>

Issues	Consideration	Conclusion and Recommendation
	<ul style="list-style-type: none"> <li>dilapidation surveys.</li> </ul> <p>The EPA raised no objections to the mitigation measures. Public submissions raised concerns regarding construction relation vibration and dust control.</p> <p>The Applicant's RtS included an amended CMP which includes details of dust, noise and vibration control measures during construction.</p>	
<b>Biodiversity</b>	<p><b>Concept Proposal</b></p> <p>The site and adjoining land accommodate 57 trees. The development proposes to remove 11 trees for the Concept Proposal (10 trees in Stage 1 and one tree in Stage 2).</p> <p>The Applicant submitted an Arboricultural Impact Assessment Report (AIA) which indicates that no threatened flora and fauna species were encountered during the surveys undertaken. The report states:</p> <ul style="list-style-type: none"> <li>seven trees proposed to be removed would be of high importance including three trees that contribute to the heritage significance of the buildings</li> <li>the loss of the trees is integral to the redevelopment and can be compensated by replanting</li> <li>details of tree protection measures for all retained trees have been provided.</li> </ul> <p><b>Stage 1 works</b></p> <p>The Stage 1 works would remove 10 trees on the site. Details of tree protection measures for all retained trees and details of compensatory planting have been provided.</p> <p>Public submissions raised concerns regarding the removal of significant trees including a large Jacaranda in the western precinct.</p> <p>OEH raised no objections regarding impact of the development on the biodiversity of the locality.</p>	<p><b>Concept Proposal</b></p> <p>The Department notes that the savings and transitional provisions of the the Biodiversity Conservation Act 2016 would apply to this proposal and therefore a Biodiversity Development Assessment Report (BDAR) is not required to be prepared in this instance. The Department considers that removal of the trees is necessary for the redevelopment of the site providing improved access to the future users. The Department recommends the following condition:</p> <ul style="list-style-type: none"> <li>all future development applications to include detailed landscape plans identifying vegetation to be removed, relocated including location of replacement planting.</li> </ul> <p><b>Stage 1 works</b></p> <p>The Department supports the proposal of the Applicant to compensate by replanting subject to the following conditions:</p> <ul style="list-style-type: none"> <li>implementation of the recommendations of the AIA regarding tree protection measures on the site</li> <li>undertake replacement planting as per landscape plans.</li> </ul>
<b>Stormwater</b>	<p><b>Concept Proposal</b></p> <p>The Applicant submitted stormwater management plans which demonstrate that stormwater from the site can be drained to an existing pit at Elamang Avenue.</p> <p><b>Stage 1 works</b></p> <p>The Applicant submitted the following:</p> <ul style="list-style-type: none"> <li>Water quality treatment devices such as Enviropod pit baskets are proposed to be added to the system.</li> <li>The post and pre-development flows would not result in an unreasonable impact on the surrounding properties</li> </ul> <p>OEH and Council did not raise any concerns regarding flooding or stormwater connection. Public submissions raised concerns regarding the capacity of the existing pipes</p> <p>The Department notes that a number of stormwater drainage lines and pits are proposed to be constructed within the tree protection zones of retained trees within the site.</p>	<p><b>Concept Proposal</b></p> <p>The Department is satisfied that the site can be drained to the existing Council drainage system</p> <p><b>Stage 1 works</b></p> <p>The Department is satisfied that the proposed stormwater management plans are acceptable subject to the Applicant:</p> <ul style="list-style-type: none"> <li>ensuring that the stormwater lines and pits within the tree protection zones do not compromise the long-term health and longevity of the retained trees</li> <li>submitting detailed tree protection measures to the PCA prior to the commencement of works.</li> </ul>

Issues	Consideration	Conclusion and Recommendation
<p><b>Contamination</b></p>	<p><b>Concept Proposal</b> The Preliminary Site Investigation undertaken by the Applicant identified potential sources of contamination within the site due to imported fill, use of hazardous materials and pesticides. Stage 2 investigation for the site detected elevated concentration of lead, copper, iron (F2 and F3), zinc and PAHs with no identified asbestos contamination. The Stage 2 investigation recommended that the Applicant prepare and implement:</p> <ul style="list-style-type: none"> <li>• A Hazardous Materials Assessment (Hazmat) prior to commencement of demolition works</li> <li>• Remedial Action Plan (RAP)</li> <li>• A Validation Report after completion of remedial works.</li> </ul> <p><b>Stage 1 works</b> The Applicant provided an RAP as part of the EIS including the following remedial actions:</p> <ul style="list-style-type: none"> <li>• removal of contaminated material from the site to an appropriate EPA approved facility and reinstatement with clean material</li> <li>• preparation of an Environmental Management Plan (EMP) for the site and the need to provide ongoing management of the contamination</li> <li>• preparation of a Validation report following completion of remediation works with details of the matters to be included.</li> </ul> <p>The EPA raises no objections to the proposed method of site remediation.</p>	<p><b>Concept Proposal</b> The Department is satisfied that the site can be suitable for the development subject to all future development applications for the site being accompanied by a detailed site investigation report with a RAP a Validation Report (if required), and a Hazmat. The Department has recommended conditions of consent to this effect.</p> <p><b>Stage 1 works</b> The Department considers that the RAP provides sufficient depiction of the areas of contamination and provides appropriate methods of remediating the site. The Department has recommended that:</p> <ul style="list-style-type: none"> <li>• a Hazmat be prepared prior to the issue of the commencement of works for Stage 1 to ensure that all hazardous materials and adequately surveyed and assessed</li> <li>• an EMP be prepared prior to commencement of any works</li> <li>• a Validation Report / Site audit report be prepared demonstrating that appropriate remediation of the site has been undertaken.</li> </ul>
<p><b>Staging</b></p>	<ul style="list-style-type: none"> <li>• Council and public submissions raised concerns regarding the appropriateness of the 50-year timeframe for completion of all works.</li> <li>• The Applicant's RtS indicates that the purpose of the concept approval is to ascertain the overall building envelopes. The future built forms would be flexible and in accordance with the applicable planning control at the time of construction.</li> </ul>	<ul style="list-style-type: none"> <li>• The Department concludes that there are no provisions in the EP&amp;A Act restricting the timeline of a concept approval</li> <li>• Consequently, the proposed timeframe is supported.</li> </ul>

#### 5.4. Public Interest

The proposed development would provide benefit for the future users of the site and the community by delivering state of the art contemporary teaching and learning facilities with more adaptable and collaborative learning spaces to improve educational outcomes.

The Department concludes that the proposed development is in the public interest and no further action is required on this matter.

#### 5.5. Summary of Department's consideration of submissions

A summary of the Department's consideration of the issues raised in submissions is provided at **Table 11**.

**Table 11: Department's consideration of key issues raised in submissions**

Issue Raised	Department's Consideration
Adverse impacts of increased student numbers on the local traffic network	<ul style="list-style-type: none"> <li>The Applicant amended the proposal by reducing student increase to 30.</li> <li>Additional operational measures have been proposed to manage the drop-off and pick-up zone including use of the area only by junior school students (252 in total).</li> <li>The Department recommends conditions regarding an OTAMP to be prepared within six months of the approval and implemented within the following six months.</li> <li>Additional conditions are recommended by the Department regarding event management strategies and implementation of the WTP to reduce private vehicle usage.</li> </ul>
Lack of on-site car parking	<ul style="list-style-type: none"> <li>The proposal complies with the DCP requirements regarding car parking.</li> <li>The Department recommends conditions of consent to implement the OTAMP and the WTP to reduce private vehicle usage and pressure on the surrounding streets.</li> </ul>
Provision of internal drop-off and pick-up zone	<ul style="list-style-type: none"> <li>The Applicant submits that internal drop-off and pick-up zone cannot be provided due to site constraints.</li> <li>The Department recommends conditions regarding preparation and implementation of an OTAMP to manage the drop-off and pick-up zone.</li> <li>Condition recommend that student numbers would be increased subject to OTAMP targets being achieved.</li> <li>Conditions recommend a RSE for the drop-off and pick-up zone and the nearby streets be prepared prior to implementing the proposed mitigation measures.</li> </ul>
Built form excessive in bulk and scale exceeding permissible height limit	<ul style="list-style-type: none"> <li>The Applicant amended the proposal by reducing the building height of the eastern precinct concept building envelope.</li> <li>The Department has assessed the bulk and scale of the development on its merits and is satisfied that notwithstanding the height non-compliance, the structures would not impact on the heritage significance of the site or the adjoining conservation area.</li> <li>The Department recommends conditions to reduce impacts on the amenity of the residents, immediately adjoining the proposed Stage 1 learning hub.</li> </ul>
Loss of water views	<ul style="list-style-type: none"> <li>The Applicant submitted a view impact analysis report identifying that the development would result in some loss of water views for the adjoining residents to the west.</li> <li>The views enjoyed from No.9/111 Carabella Street would be impacted.</li> <li>The Department conducted a detailed assessment of the views and considers the view enjoyed by No. 9/111 to be an outlook.</li> <li>The Department concludes that the view would be lost due to the compliant building envelope. The additional views lost due to the rooftop plant room and stairwell comprises sky views only.</li> <li>Conditions of consent are recommended to limit the view loss by restricting roof usage, removing a roof top garden and using alternate balustrades.</li> <li>The resultant view loss would be partial for one unit only and is accepted on balance.</li> </ul>
Loss of visual privacy and overshadowing	<ul style="list-style-type: none"> <li>The Applicant has submitted shadow diagrams that demonstrate that there would not be additional overshadowing on adjoining buildings due to the additional height.</li> <li>The Department has assessed this as satisfactory.</li> <li>The proposed use of the roof top for the learning hub would impact on the visual privacy of the residents to the west of the building.</li> <li>The Department recommends conditions of consent to restrict access to the section of the roof adjoining No. 111 Carabella Street.</li> </ul>
Inappropriate materials and finishes	<ul style="list-style-type: none"> <li>The Department considers that the proposed materials would blend with the existing materials in the heritage conservation area.</li> </ul>
Impact on heritage significance	<ul style="list-style-type: none"> <li>The Department has reviewed the proposal in this regard and considers that the proposed design respects the heritage conservation area and the heritage values of the site.</li> </ul>
Adverse noise impact due to rooftop usage	<ul style="list-style-type: none"> <li>The Department recommends conditions of consent to restrict the roof top usage and remove the roof top garden.</li> </ul>
Loss of trees and lack of landscaping	<ul style="list-style-type: none"> <li>The Department considers that removal of 11 trees is integral to the redevelopment.</li> <li>Conditions of consent require implementation of the Landscape Plan to facilitate additional planting.</li> </ul>
Impact of construction traffic on the neighbourhood	<ul style="list-style-type: none"> <li>The Department recommends conditions to update the CTMP to include details of construction traffic management and pedestrian access arrangements during construction works (CTPMP), and implement measures to reduce adverse impacts on the community and the neighbourhood due to construction traffic.</li> </ul>

## 6. CONCLUSION

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The Department has reviewed the EIS, RtS and Supplementary RtS and considered advice from the public authorities including Council. Concerns raised in submissions have been considered and all environmental issues associated with the proposal have been addressed.

The Applicant has amended the proposal to address the key issues raised in the submissions. The Department's assessment concludes that the proposed concept envelopes and the height of the learning hub in Stage 1 of the development would not unreasonably impact on the amenity of the surrounding residential properties due to loss of views, bulk and scale or overshadowing, subject to recommended conditions of consent regarding the usage and design feature at the roof level.

The Department engaged an independent traffic consultant to conduct a review of the traffic impacts of the proposal. It is considered that the site includes satisfactory car parking and subject to the implementation of the WTP, there would be negligible additional car parking demand generated due to the proposed increase in capacity of the school. The Department also recommends that the Applicant prepare and implement an OTAMP and RSE to identify and manage the drop-off and pick-up zone traffic during school peak hours and address any road safety and congestion issues. The increase in student numbers would be supported, subject to travel and behavioural strategies in the OTAMP being achieved.

The Department's assessment also concludes that operational acoustic impacts of the school during normal school days would be acceptable subject to recommended conditions regarding insulation of machinery and plants. Additionally, the Department proposes a condition that post commencement of operation of Stage 1, noise compliance monitoring be undertaken after commencement of operations of the outdoor learning areas to measure and monitor the effectiveness of the proposed mitigation measures.

The proposal is consistent with the objects of the EP&A Act (including ESD principles) and is consistent with the State's strategic planning objectives for the site as set out in the District Plan as it would upgrade an education establishment to meet the current and predicted future needs of the users. The proposal would provide additional enrolment capacity for the school. The Department is also satisfied that the proposal would provide significant public benefits through the provision of contemporary education facilities in the locality and equitable access throughout the site. The proposal would also provide approximately 100 construction jobs.

The Department concludes that the impacts of the development can be appropriately mitigated through the implementation of the recommended conditions of consent. Consequently, the Department considers the development is in the public interest and should be approved subject to conditions.



## 7. RECOMMENDATION

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For the purpose of section 4.38 of the *Environmental Planning and Assessment Act 1979*, it is recommended that the Independent Planning Commission, as delegate of the Minister for Planning:

- **Considers** the findings and recommendations of this report;
- **Grant consent** to the State significant development application for SSD 7919 subject to conditions; and
- **Sign** the attached development consent (**Attachment E**).



Aditi Coomar  
**Acting Principal Planner**  
**Social Infrastructure Assessments**



David Gainsford  
**Executive Director**  
**Priority Project Assessments**

17/8/18.

## **APPENDIX A    RELEVANT SUPPORTING INFORMATION**

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The following supporting documents and supporting information to this assessment report can be found on the Department of Planning's website as follows.

1. Environmental Impact Statement

[http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7919](http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7919)

2. Government Agency and Public Submissions

[http://www.majorprojects.planning.nsw.gov.au/?action=list\\_submissions&job\\_id=7919](http://www.majorprojects.planning.nsw.gov.au/?action=list_submissions&job_id=7919)

3. Applicant's Response to Submissions

[http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7919](http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7919)

4. Applicant's supplementary Response to Submissions

[http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7919](http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7919)

5. Site Photos

Photos of the site from the adjoining dwellings and the surrounding developments with existing views are provided below.

**Photos of existing views enjoyed by residents of No. 111 Carabella Street (Source DPE 2017)**



Views from the stairwell window at the uppermost level



View of water over the gymnasium roof from northern elevation.



View of part of B-Block and the gymnasium roof from upper level living room.



Water views from the windows on the northern façade.



Water views over the roof of B-Block from the stairwell window of the uppermost level. This view is likely to be similar to that of the living room of Unit 9/111 Carabella Street.



View from living room of east facing lower level unit



Location of the new learning hub as viewed from ground level communal open space

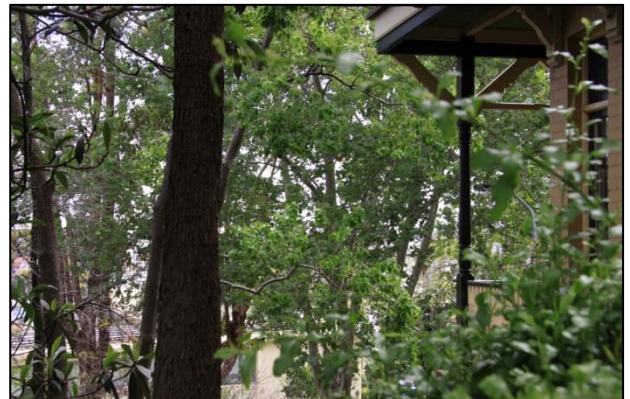


View of Marian Centre and the Chapel from the kitchen window on the eastern façade of the lower level units.



View from bedroom of east facing lower level unit

**Photos of existing views enjoyed by residents to the south of Carabella Street**



## **APPENDIX B CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENT(S) AND DCP(S)**

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### **ENVIRONMENTAL PLANNING INSTRUMENTS (EPIs)**

To satisfy the requirements of section 4.15(a)(i) of the *Environmental Planning and Assessment Act 1979* (EP&A Act), this report includes references to the provisions of the EPIs that govern the carrying out of the project and have been taken into consideration in the Department's environmental assessment.

Controls considered as part of the assessment of the proposal are:

- *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP)
- *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55)
- *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP)
- *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* (Education SEPP)
- Draft State Environmental Planning Policy (Remediation of Land)
- Draft State Environmental Planning Policy (Environment)
- *Sydney Regional Plan (Sydney Harbour Catchment) 2005* (SHC SREP)
- *North Sydney Local Environmental Plan 2013* (NSLEP).

### **COMPLIANCE WITH CONTROLS**

#### **State Environmental Planning Policy (State and Regional Development) 2011**

The aims of this SEPP are to identify SSD and State significant infrastructure and confer the necessary functions to joint regional planning panels to determine development applications.

The proposal is for SSD in accordance with section 4.36 of the EP&A Act because it is development for the purpose of an educational establishment with a CIV in excess of \$20 million, under clause 15 of Schedule 1 of SRD SEPP.

#### **State Environmental Planning Policy (Infrastructure) 2007**

The aim of the Infrastructure SEPP is to facilitate the effective state-wide delivery of infrastructure by providing greater flexibility in the location of infrastructure and service facilities, allowing the development of surplus government land, identifying relevant environmental assessment categories for development and relevant matters to be considered and providing for consultation with relevant public authorities. Sections 27 – 32 of the ISEPP have been repealed on 1 September 2017.

Schedule 3 of the ISEPP requires traffic generating development to be referred to the RMS. The proposal was referred to the RMS who did not object to the proposal.

#### **State Environmental Planning Policy No. 55 – Remediation of Land**

SEPP 55 aims to provide a state-wide approach to the remediation of contaminated land. SEPP 55 aims to promote the remediation of contaminated land to reduce the risk of harm to human health and the environment by specifying under what circumstances consent is required, specifying certain considerations for consent to carry out remediation work and requiring that remediation works undertaken meet certain standards.

The Stage 2 Site Investigation Report identifies excessive levels of soil contaminants and recommends the preparation of a Remedial Action Plan (RAP) and a Hazardous Materials

Assessment (Hazmat) of buildings prior to commencement of demolition work so the site could be made suitable for the proposal.

Given that no asbestos is found on the site, no detailed Hazmat has been prepared. In accordance with the recommendations of the Stage 2 report, the application includes a RAP which recommends that remediation works to be carried out by removing contaminated soil and preparation of an Environmental Management Plan prior to remediation of the site. The RAP recommends that a Validation report be prepared following completion of remediation works. Details of the Validation Report have been provided.

The Department considers in accordance with clause 7 of SEPP 55, the investigations undertaken of the subject site demonstrate that the site can be made suitable for the continued use for the intended purpose upon remediation of the site. The Department has recommended a condition requiring compliance with the recommendations of the submitted Phase 2 Report, and the RAP.

### **State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017**

The Education SEPP commenced on 1 September 2017 and aims to simplify and standardise the approval process for child care centres, schools, TAFEs and universities while minimising impacts on surrounding areas and improving the quality of the facilities. The Education SEPP includes planning rules for where these developments can be built, which development standards can apply and constructions requirements. The application has been assessed against the relevant provisions of the Education SEPP.

Clause 42 of the Education SEPP states that development consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted. The proposed school buildings would exceed the permissible height limit of 12 m and 8.5 m in the zone allowable under NSLEP. The Department notes that the height exceedance is permitted under Clause 42 of the Education SEPP. Notwithstanding, the proposed non-compliance with NSLEP having regard to the applicable height limits have been assessed in detail in **Section 5** of this report and the proposed heights are considered to be satisfactory in the context of the site.

Clause 57 of the Education SEPP requires traffic generating development that involve addition of 50 or more students to be referred to the RMS. The Application was referred to RMS in accordance with this Clause.

Clause 35(6)(a) requires that the design quality of the development should be evaluated in accordance with the design quality principles set out in Schedule 4. An assessment of the development against the design principles is provided in **Table 1**.

**Table 1: Consideration of the Design Quality Principles**

<b>Design Principles</b>	<b>Response</b>
<b>Context, built form and landscape</b>	<p>The site planning provides good aspect for the classrooms and for maximising light to the play area. The proposed buildings are over the height limit of the developments surrounding the site. However, due to nature of the community land use which requires level access across all the floors and the site constraints, the additional height is unavoidable.</p> <p>The school has been designed to fit into the surrounding built-form, notwithstanding the height non-compliance and includes appropriate landscaping to soften the impact.</p>

<b>Sustainable, efficient and durable</b>	The proposal includes ESD elements sufficient to achieve 5-star Green Star rating. The materials chosen are durable and require low maintenance. Bicycle parking is provided within the school site and a WTP submitted which encourages sustainable travel modes.
Accessible and inclusive	Accessible travel path provided in all sections of the site and lifts included in every connector. The school infrastructure is currently utilised for community activities listed by the Applicant, after school and during the weekends. The activities would continue after redevelopment.
Amenity	The proposal creates a variety of interesting and useable playground spaces and enhance the amenity of the internal spaces by guaranteeing light and winter sun access.
Health and Safety	The proposal promotes safety of the students and users by providing accessibility and way finding. The redevelopment would centralise the core of the campus and provide increased opportunities of surveillance.
Whole of life, flexible, adaptable	The proposed learning areas are flexible and provide adaptable presentation areas throughout the learning hub building.
Aesthetics	The proposal evokes design enhancement by proposing appropriate articulation of buildings and integration with existing heritage buildings.

### **Draft State Environmental Planning Policy (Remediation of Land)**

The *draft State Environmental Planning Policy (Remediation of Land)* (Draft Remediation SEPP) would retain the overarching objective of SEPP 55 promoting the remediation of contaminated land to reduce the risk of potential harm to human health or the environment. Additionally, the provisions of the Draft Remediation SEPP would require all remediation work that is carried out without development consent to be reviewed and certified by an accredited contaminated land consultant, categorise remediation work based on the scale, risk and complexity of the work and require environmental management plans relating to post-remediation management of sites or ongoing operation, maintenance and management of on-site remediation measures (such as a containment cell) to be provided to council.

The Department is satisfied that the proposal would be consistent with the objectives of the draft Remediation SEPP, subject to recommended conditions regarding remediation of land.

### **Draft State Environmental Planning Policy (Environment)**

The *draft State Environmental Planning Policy (Environment)* (Draft Environment SEPP) is a consolidated SEPP which proposes to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property. Once adopted, the draft SEPP would replace seven existing SEPPs. The proposed SEPP would provide a consistent level of environmental protection to that which is currently delivered under the existing SEPPs. Where existing provisions are outdated, no longer relevant or duplicated by other parts of the planning system, they will be repealed.

The proposal is consistent with the provisions of the existing SEPPs that are applicable, and the proposed development would generally be consistent with the provisions of the draft Environment SEPP.

### **Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005**

The SHC SREP provides planning principles for development within the Sydney Harbour catchment. The site is located within the Sydney Harbour Catchment area.

The proposal is consistent with the relevant planning principles of the SHC SREP and would not have any significant adverse impact on the Sydney Harbour Catchment.

### North Sydney Local Environmental Plan 2013

The proposal is consistent with the aims of the R4 High Density Residential zone and SP2 – Infrastructure zones in the NSLEP to enable land uses which provide facilities or services to meet the day to day needs of residents. Consideration of the relevant clauses in the NSLEP is provided in Table 2.

**Table 2: Consideration of the NSLEP**

NSLEP	Criteria	Department Comment/Assessment
Clause 2.3	Zone objectives	The site is zoned R4 High Density Residential and SP2 Infrastructure. The proposed development being an educational establishment is permissible in both the zones and consistent with the zone objectives. The Department considers this clause has been met.
Clause 4.3	Height of buildings	The maximum height of buildings permitted on the land are 12 m and 8.5 m. The objectives of this control include to ensure that buildings are compatible with the height and scale of the surrounding buildings, avoid view loss, minimise adverse impacts on the scenic quality of the harbour. The proposal includes a maximum height of building of 14.5 m in Stage 1 which exceeds the permissible height limit of 12 m. The connectors in the northern and southern precinct also exceed the building height limit by a lesser amount.
Clause 4.6	Exception to development standards	The proposal includes a variation to Clause 4.3 Height of buildings. The maximum height of buildings allowed on the subject site are 12m and 8.5 m. The proposal includes a building with a height of 14.5 m. Pursuant to Clause 42 of the Education SEPP, the Applicant is not restricted by development standards contained in the NSLEP. Notwithstanding, the Applicant has submitted a Clause 4.6 Variation Statement (Statement) justifying the proposed departure. The Department notes that the contravention of the development standard does not raise any matters of significance for State or regional environmental planning. Additionally, the Department considers that there is minimal public benefit in maintaining the development standard noting that strict compliance would result in a larger building footprint, loss of equitable access and lack of landscaping. Therefore, the Department considers the variation is acceptable.
Clause 5.10	Heritage	The school site is a heritage item of local significance as listed in NSLEP and is located adjacent to the Careening Cove Conservation Area. The Department is satisfied that the proposal respects the heritage significance of the existing structures and the surrounding built environment and the design would not have any detrimental impact on the existing structures
Clause 6.10	Earthworks	Approval is being sought for excavation to create four lower ground floor levels extending up to 13 m below ground. Appropriate conditions of approval have been recommended requiring quality of any fill material and disposal or reuse of excavated soil including contaminated soils. Conditions of consent also require preparation of dilapidation reports to ascertain any impacts on adjoining structures due to excavation works.

### Development Control Plan

It is noted that clause 11 of SRD SEPP provides that development control plans do not apply to SSD. Notwithstanding this, consideration of relevant controls under the North Sydney Development Control Plan 2013 (DCP) is provided in **Table 3**.



**Table 3: Consideration of the relevant DCP provisions**

DCP Provisions	Department's Assessment
<p><b>Section 3.1.1 – General Objectives</b></p>	<ul style="list-style-type: none"> <li>The proposal complies with the objectives of the proposed non-residential developments in residential zones</li> </ul>
<p><b>Section 3.2 – Environmental Criteria</b></p> <p><b>3.2.1 Topography</b> To ensure that the natural topography and landform are maintained.</p> <p><b>3.2.4 Properties with foreshore frontage</b></p> <p><b>3.2.5 Noise</b> To ensure reasonable levels of acoustic amenity to nearby residents.</p> <p><b>3.2.6 Reflectivity</b> To minimise the impacts by reflected light and solar reflectivity from buildings on pedestrians and motorists.</p> <p><b>3.2.8 View loss</b> New development has the potential to adversely affect existing views. Accordingly, there is a need to strike a balance between facilitating new development while preserving, as far as practicable, access to views from surrounding properties. When considering impacts on views, Council would generally not refuse a development application on the grounds that the proposed development results in the loss of views, where that development strictly complies with the building envelope controls applying to the subject site.</p> <p><b>3.2.9 Solar Access</b> To ensure that dwellings on adjoining and neighbouring sites have reasonable access to sunlight and daylight.</p> <p><b>3.2.10 Acoustic Privacy</b> To ensure all residents are provided with a reasonable level of acoustic privacy.</p>	<ul style="list-style-type: none"> <li>The proposal complies with the provisions as follows: <ul style="list-style-type: none"> <li>excavation does not occur within 1m of the property boundary</li> <li>ground level is not 500 mm above the natural ground level</li> </ul> </li> <li>The site is not located in a foreshore area.</li> <li>The proposal is designed to achieve the ambient noise levels to all sensitive noise receivers.</li> <li>The buildings include an appropriate proportion of solid to void to allow sufficient light and ventilation in the learning areas.</li> <li>The proposal would restore the views of the adjoining residential properties and would not result in unreasonable view loss</li> <li>The building heights have been reduced in the eastern precinct to restore the views of the adjoining heritage items. The learning hub in the western precinct has been stepped to avoid view loss wherever possible.</li> <li>Only one residential unit on the adjoining development at No. 111 Carabella Street would be adversely impacted upon. However, the impact is related to a compliant building envelope at that location. The view impacted by the additional height corresponds to sky views and distant water views only.</li> <li>Conditions of consent recommend deletion of roof elements to restore privacy and partial view of the affected unit.</li> <li>The proposal would retain solar access to neighbouring properties between 9:00 am and 3:00 pm during the winter solstice and provide natural light to the classrooms above ground level.</li> <li>The proposal provides the adjoining residents with a reasonable level of privacy.</li> </ul>

DCP Provisions	Department's Assessment
<p><b>3.2.12 Visual Privacy</b> To ensure that adjoining residents are provided with a reasonable level of visual privacy.</p>	<ul style="list-style-type: none"> <li>The proposed Stage 1 works include service areas adjoining the western boundary and non-trafficable areas of the roof screening the roof terrace activities. The proposal is assessed as satisfactory having regard to visual privacy.</li> </ul>
<p><b>5.3 Built Form</b></p> <p><b>3.3.1 Context</b> To ensure that the site layout and building design responds to the existing characteristics, opportunities and constraints of the site.</p> <p><b>3.3.2 Streetscape</b> To ensure that footpaths, kerb and guttering and street trees contribute to a consistent streetscape.</p> <p><b>3.3.5 Siting</b> To maintain the characteristic building orientation and siting.</p> <p><b>3.3.6 Setbacks</b> To reinforce the characteristic pattern of setbacks and building orientation within the street. On R4 zoned land with height limit of 12 m, the building must not exceed a building height plane commencing at 3.5 m above ground level (existing) from side boundaries and projected internally to the site at 45 degrees</p> <p><b>3.3.7 Form, massing &amp; scale</b> The size of new buildings is consistent with surrounding, characteristic buildings and is not significantly larger than characteristic buildings. The design of new buildings reflects and reinforces, or is complementary to, the existing character of the locality.</p> <p><b>3.3.8 Entrances and exits</b> To enable equitable access to all persons regardless of ability.</p> <p><b>3.3.9 Colours and materials</b> To ensure new buildings reflect and reinforce the existing and desired character of a locality.</p>	<ul style="list-style-type: none"> <li>The proposal satisfactorily addresses the site context and built form requirements. The site is previously developed and the redeveloped sections would fit into the locality whilst providing improved educational facilities.</li> <li>The proposal is located within an existing site and would not impact on the subdivision pattern of the locality.</li> <li>The proposed development retains the existing solid fence along Elamang Avenue and Carabella Street and does not propose removal of any street trees.</li> <li>The orientation of the buildings is similar to the orientation of the existing buildings.</li> <li>The proposal would not amend the existing front setback along any of the frontage.</li> <li>The existing B Block maintains a setback of 3 m from the boundary. The western side setback for the learning hub exceeds 3 m, except at one location where the setback reduces to be less than 3 m. The site boundary realigns at this point and it is not practically feasible to articulate the building to align with the boundary as it would impact adversely on the functionality of the store areas. Notwithstanding, this section is located in between the two-adjointing residential flat buildings, therefore the reduction in the setback would not directly impact upon the amenity of the residents.</li> <li>The Department is satisfied that the proposed setback is consistent with the existing setback, does not impact on the visual and acoustic privacy or solar access of the adjoining developments. The non-compliance would not be discernible from the public domain.</li> <li>The scale of the proposed buildings is consistent with the scale of the existing heritage items on the site and are acceptable in this regard.</li> <li>The design of the new buildings respects the heritage buildings and provide an appropriate contrast in terms of form, mass, materials and scale.</li> <li>The development provides equitable access throughout the site.</li> <li>The proposed dark tone of the Stage 1 buildings appropriately reflects the character of the locality.</li> </ul>

DCP Provisions	Department's Assessment
<p><b>3.3.10 Front fences</b></p>	<ul style="list-style-type: none"> <li>No amendments proposed.</li> </ul>
<p><b>5.4 Quality Urban Environment</b></p> <p>5.4.3 Vehicular Access &amp; Car Parking</p> <p><b>5.4.4 Site Coverage</b> 45% maximum site coverage permitted for R4 zone</p> <p><b>5.4.5 Landscaped Area</b> 40% minimum Landscaped area requirement for R4 zone</p> <p><b>5.4.6 Excavation</b> To minimise excavation effects on the amenity of neighbouring properties</p>	<ul style="list-style-type: none"> <li>The proposal complies with the car parking requirements of the DCP, being 1 space / 6 staff members).</li> <li>No modifications to car parking is proposed and therefore no further assessment regarding design of the car parking is considered necessary.</li> <li>The existing development on the site does not comply with these requirements. Majority of the site comprises built up area with roof top play areas.</li> <li>The proposal would marginally reduce the site coverage, only for the western precinct. The buildings are proposed to be located within the footprint of the existing structures to maintain the open areas. The open space, lost due to the construction of the learning hub was not utilised for any particular purpose. In order to compensate for the loss of open space, additional roof terraces and outdoor learning areas are proposed.</li> <li>The proposal would require substantial excavation. Impacts of the excavation have been appropriately assessed and conditions recommended to minimise impact on neighbouring properties.</li> </ul>
<p><b>3.5.7 Stormwater</b> To mimic pre-development or natural drainage systems through the incorporation of WSUD on-site. To protect watersheds To minimise off-site localised flooding or stormwater inundation.</p> <p><b>3.5.8 Building Materials</b> To encourage the use of materials with low environmental impact.</p>	<ul style="list-style-type: none"> <li>The stormwater management report submitted with the EIS details that stormwater would be piped to the Council controlled drainage system on Elamang Avenue and stormwater quality treatment systems installed.</li> <li>No flooding is anticipated due to the proposed development.</li> <li>Erosion and Sediment control measures have been detailed.</li> <li>The stormwater management report submitted with the EIS details the stormwater quality treatment measures to be employed during construction and operational phases of the development.</li> <li>The development proposes to salvage and re use the sandstone wall components that would be demolished.</li> </ul>

## APPENDIX C GLOSSARY

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**Ecologically Sustainable Development** can be achieved through the implementation of:

- (a) *the precautionary principle - namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*
  - (i) *careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
  - (ii) *an assessment of the risk-weighted consequences of various options,*
- (b) *inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,*
- (c) *conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*
- (d) *improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:*
  - (i) *polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
  - (ii) *the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
  - (iii) *environmental goals, having been established, should be pursued in the most cost-effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems(CI.7(4) Schedule 2 of the Regulation)*

### **Section 4.15(1) Evaluation**

#### **(1) Matters for consideration—general**

*In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:*

- (a) *the provisions of:*
  - (i) *any environmental planning instrument, and*
  - (ii) *any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and*
  - (iii) *any development control plan, and*
  - (iiia) *any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and*
  - (iv) *the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and*
  - (v) *any coastal zone management plan (within the meaning of the [Coastal Protection Act 1979](#)),*  
*that apply to the land to which the development application relates,*
- (b) *the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
- (c) *the suitability of the site for the development,*
- (d) *any submissions made in accordance with this Act or the regulations,*
- (e) *the public interest*

## **APPENDIX D      INDEPENDENT TRAFFIC CONSULTANT'S REPORT**

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## **APPENDIX E      RECOMMENDED CONDITIONS OF CONSENT**

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