

- Major disturbance—the area or feature has been subject to activities that would have had a major effect on the integrity and survival of archaeological remains. Archaeological evidence may be greatly disturbed or destroyed.

The site lies on a steeply sloping block of land that through successive developments now contains multiple ground levels. A review of available plans and section drawings for the existing buildings within the site indicates that construction of these buildings has required extensive excavations and terracing of the site to accommodate the buildings. These activities are likely to have had a major impact on the archaeological potential. Localised areas within the site—such as gardens and driveways—have undergone minimal impacts and the potential for archaeological survival in these areas is considered to be moderate or high.

Western Precinct

Construction of the gymnasium, B-Block and Marian Centre buildings will likely have had a major impact resulting in the removal of any archaeological potential within each building footprint. The open landscape areas between each building appear to have undergone minor disturbance and there is potential for archaeological remains to survive within these areas.

Northern Precinct

A belowground carpark is situated beneath the Science Building footprint and the existing walkway area between the Science Building and Centenary Hall which has a floor level of RL 13.4m. Excavation for the carpark will have resulted in a major disturbance removing any earlier remains within its footprint.

The Centenary Hall has a ground floor level of RL 17.0m. The western end of the building contains the gymnasium store room which lies at RL 14.0m and connects to the gymnasium building in the Western Precinct. Construction of the store room will have resulted in a major level of impact likely removing any earlier remains within this area. Across the remainder of the building footprint the impact of construction is likely to have resulted in a moderate or possibly major level of disturbance and will have truncated or possibly completely removed any earlier archaeological remains within the building footprint. The landscaped area to the north of the Centenary Hall has remained undeveloped since the 1930s and the nature of the activities in this area is likely to have resulted in only minor impacts to any earlier remains.

Southern Precinct

The Junior School and J-Block buildings do not contain basements but each building has required extensive terracing of the site which will have had a major impact and severely truncated or completely removed any earlier archaeological remains within each building footprint.

The Elamang–Administration buildings contain Elamang House, a heritage asset which has been assessed separately in Section 4.0. Construction of the chapel to the south and the 1920s–1950s administration wing to the northeast will have removed any earlier remains within their respective footprints.

The courtyard between J-Block and the Elamang–Administration buildings appears to have remained undeveloped and there is potential for truncated features and deposits to survive in this area. Similarly, the landscaped garden to the south of the Junior School is considered to have potential for archaeological remains to survive beneath the modern ground surface.

5.2.4 Eastern Precinct

The Music and Performing Arts and Mary Ward building contains a belowground carpark situated beneath the northern half of this building complex that will have had a major impact and severely truncated or completely removed any earlier remains. Similarly, the southern half of the building has been cut into the slope of the site that will have likewise removed any archaeological remains within this area.

5.2.5 Campus Core

The existing driveway follows the alignment of earlier access ways associated with the historic Elamang property and this area appears to have undergone minor disturbance by later development. The landscaped areas to the north of the driveway are likely to have undergone some disturbance associated with the extensive redevelopment works for construction of the Centenary Hall, Junior School and Science buildings.

5.3 Summary of Potential Historical Archaeological Remains

Archaeological potential refers to the level of possibility that physical evidence of past historical phases will survive on a site. It is an assessment made by interpreting the results of historical analysis and the extent of previous physical disturbance at a site to determine the likelihood of historical archaeological remains to survive.

Archaeological potential is assessed as low, medium or high, and is defined as follows:

- **Low**—it is unlikely that historical archaeological evidence associated with this historical phase or feature survives.
- **Moderate**—it is possible that some historical archaeological evidence associated with this historical phase or feature survives. If archaeological remains survive they may have been subject to some disturbance.
- **High**—it is likely that archaeological evidence associated with this historical phase or feature survives intact.

These areas have potential for archaeological remains associated with the Milson family occupation of the site from the 1850s through to c1903. Table 5.1 details the potential archaeological remains within the site.

Table 5.1 Potential Historical Archaeological Remains within the Site.

Phase	Possible Archaeology	Known Property	Precinct	Disturbance	Survival Potential
Phase 1: 1788– 1825	Evidence associated with early land use of the site: <ul style="list-style-type: none"> • isolated artefacts; and • remains of temporary structures such as postholes. 	–	All	Major	Nil
Phase 2: 1825– 1903	Evidence associated with subdivision of the Milson land grant and construction of the four houses:	Elamang estate house	Campus Core Southern Precinct	Minor to moderate	Moderate to high

Phase	Possible Archaeology	Known Property	Precinct	Disturbance	Survival Potential
	<ul style="list-style-type: none"> structural remains of houses such as brick/stone footings; sealed artefact deposits associated with construction and use of residences; remains of documented and undocumented outbuildings (cesspits, cisterns, sheds, stables etc); landscaping features including fences, paths, drains, retaining walls and gardens; and rubbish pits and isolated artefacts. 	Coreena estate house	Southern Precinct	Moderate to major	Low to moderate
		Tremayne estate house	Western Precinct	Moderate to major	Low to moderate
		The Hermitage estate house	Northern Precinct	Moderate	Low
			Western Precinct	Moderate	Low, possibly medium
Phase 3–4: 1890s–Present	Remains of late nineteenth or early twentieth century building visible on 1943 aerial: <ul style="list-style-type: none"> structural remains of building such as brick/stone footings; and sealed artefact deposits associated with its construction and/or use. 	–	Southern Precinct	Major	Low
Phase 3: 1903–Present	Evidence associated with the construction of the early twentieth-century houses: <ul style="list-style-type: none"> structural remains of houses; sealed artefact deposits associated with construction and use of residences; and landscaping features including fences, paths, drains, retaining walls and gardens. 	Eversfield	Eastern Precinct	Major	Low
		Carabella Street Federation Houses	Southern Precinct	Moderate	Low

5.4 Assessment of Significance

While subsurface archaeological remains often form an integral component of the overall significance of a heritage place, it is necessary to assess them independently from above ground, along with other historic elements. Assessing the heritage significance of these subsurface archaeological remains is made more difficult by the fact that their extent and nature is often unknown. It becomes necessary for judgements to be made on the basis of expected or potential attributes.

5.4.1 Assessment Framework

The most widely used framework for assessing archaeological research potential is three key questions developed by Bickford and Sullivan in 1984:⁴

1. Can the site contribute knowledge that no other resource can?
2. Can the site contribute knowledge that no other site can?
3. Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?

Use of the Bickford and Sullivan questions provide basic but essential information to evaluate the research potential. The potential archaeological site must also be considered against the NSW Heritage Criteria.

Guidelines on how to apply the criteria to historical archaeological sites are set out in the publication *Assessing Significance for Historical Archaeological Sites and Relics*, prepared by the Heritage Branch, formerly Department of Planning (NSW) (now the Heritage Division, OEH, Department of Premier and Cabinet) in December 2009, which also includes Bickford and Sullivan's questions.

5.4.2 Bickford and Sullivan's Questions

Can the site contribute knowledge that no other resource can?

The research undertaken as part of this project has included an evaluation of available documentary sources. While much is already known about the historical development of the site and the specific land use over time, additional information obtained through archaeological investigation has the potential to supplement or contradict documentary sources and provide a more complete picture of the site. Evidence associated with any surviving occupation or other artefact-bearing deposits may also provide insight into details of the activities that were carried out there.

Can the site contribute knowledge that no other site can?

Mid-nineteenth century domestic sites are not rare in the Sydney region. However, given the extent of development in North Sydney, archaeological remains of historical residences form part of an increasingly rare archaeological resource for this area. While the site would not necessarily contribute knowledge no other site can, it could provide unique insight into the neighborhood or LGA, depending on its nature and extent. Similarly, early twentieth century Federation houses are common to the area surrounding the subject site and there is limited potential for remains of the early twentieth century properties within the site itself to contribute additional information to our understanding of the development of the Kirribilli area.

Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?

The historical archaeological resource at the site is not likely to contribute to major research questions about human history or substantive questions relating to Australian history. However, they do have the potential to provide information about daily life for the Milson family and later occupants of the site in the mid-nineteenth through to early twentieth centuries.

Similarly, archaeological information resulting from landscaping and gardening at more substantial houses could prove useful in the comparative analysis of the purposeful construction of landscapes in late nineteenth-century homes across NSW or Australia.

5.4.3 NSW Heritage Criteria for Assessing Significance Relating to Archaeological Sites and Relics

Archaeological Research Potential (Current NSW Heritage Criterion E)

The structural remains of the four mid-nineteenth century houses and associated outbuildings are likely to be highly fragmentary or to have been completely removed by later development limiting the information that can be gained from these remains. There is some potential for artefacts to be recovered from wells/cisterns attached to these properties that could provide information regarding the

activities undertaken at the residences, diet and consumer choice from the various phases of occupation. Evidence of earlier landscaping elements such as earlier carriageways, drains, and garden features have some potential to inform researchers about the layout and development of these properties.

The potential archaeological remains associated with the nineteenth century properties would meet this criterion at a local level.

Associations with Individuals, Events or Groups of Historical Importance (NSW Heritage Criteria A, B and D)

The nineteenth-century properties are associated with the Milson family, including James Milson who owned extensive property and business interests across NSW in the early years of the developing colony. However, the archaeological remains are likely to have been disturbed and any information that can be gained from these remains that informs us on the life of the Milson family is likely to be limited.

The potential archaeological remains would not meet this criterion at a local level.

Aesthetic or Technical Significance (NSW Heritage Criterion C)

The potential archaeological remains are likely to have been disturbed by later developments and will be highly fragmentary and unlikely to exhibit technical significance. Depending on the nature and extent of any structural remains and artefacts recovered from the site, there is some potential that archaeological remains within the study area would hold some aesthetic significance. This could not be determined until they were excavated.

Ability to Demonstrate the Past through Archaeological Remains (NSW Heritage Criteria A, C, F and G)

As the site has undergone multiple phases of redevelopment, any archaeological remains that survive within the site are likely to have been heavily truncated and would limit the information that can be gained from these remains due to the difficulty in interpreting use/function.

The potential archaeological remains would not meet this criterion at a local level.

5.4.4 Statement of Significance

There are localised areas of potential for archaeological remains associated with the mid-nineteenth to early twentieth century domestic occupation of the site. These remains are associated with the Milson family, wealthy landowners and of significance to the local area. Archaeological remains, in particular artefacts from features such as wells, cesspits and rubbish pits, may provide evidence regarding the historical development of the local area and the daily lives of those who lived in North Sydney. There have been few archaeological excavations of this site type in the local area, and investigation of any remains would provide a valuable dataset for research and comparative analysis.

5.5 Endnotes

- ¹ Godden Mackay, 64–66 Cremorne Road Archaeological Excavation, report for Spurding Pty Ltd and the Heritage Council of NSW, May 1994.
- ² Godden Mackay Logan, Luna Park Archaeological Monitoring, report prepared for Multiplex Constructions (NSW) and the Heritage Council of NSW, July 2004, p 3.
- ³ Godden Mackay Logan, Luna Park Archaeological Monitoring, report prepared for Multiplex Constructions (NSW) and the Heritage Council of NSW, July 2004, p 4.
- ⁴ Bickford, A and Sullivan, S 1984, 'Assessing the Research Significance of Historic Sites', in Sullivan S and Bowdler S (eds), *Site Surveys and Significance Assessment in Australian Archaeology*, Proceedings of the 1981 Springwood Conference on Australian Prehistory, Department of Prehistory, Research School of Pacific Studies, Australian National University, Canberra, pp 51–139.

6.0 Project Description

6.1 Description

A new masterplan is proposed for Loreto Kirribilli to update the current campus towards a more future focussed learning environment, and to resolve a number of major accessibility and amenity issues across the campus. The masterplan extends across the whole school campus. For the purposes of the masterplan the site has been divided into the following five precincts.

- Western Precinct;
- Northern Precinct;
- Eastern Precinct;
- Southern Precinct; and
- Campus Core

Stage 1 of the Master plan comprises of the demolition of B-Block and the construction of a new Learning Hub to support a STEaM curriculum. The Learning Hub interfaces with the existing Gymnasium, providing access to the Gymnasium via a new lift and stairs as well as additional teaching space comprising of a new Learning Studio, Weights Area, relocated Change Rooms, new Storage and Outdoor Learning Area.

This stage also includes two of the vertical connectors, one location in the Northern Precinct adjacent to the existing Centennial Hall and the Science Block and one in the Eastern Precinct, connecting Joseph and the Chapel. This connector enables the Chapel building to be fully accessible.

Following is a summary of the proposed scope of works—masterplan and Stage 1 works— that is proposed for each precinct of the site.

Western Precinct

Stage 1

- Demolition of B-Block.
- Site excavation to the existing Gymnasium level.
- Proposed development of a seven storey building (two storeys above ground—Carabella Street) including an external roof terrace. It includes a vertical connector providing accessible access to the Marian Centre, Junior School, Gymnasium and Centenary Hall.
- Partial demolition of external stairs, landings, walkways and planters between the gymnasium, Centenary Hall and the Junior School.
- New external covered landscaped walkways providing an accessible path of travel to the new development site.
- Extension to the Junior School play terrace.
- Demolition of the northern facade of the Gymnasium.

- New facade to the Gymnasium. Extended wing to the sports courts and outdoor terrace. Extended Upper level gallery to accommodate staff.

Northern Precinct

Stage 1

- Partial demolition of external stairs, landings, walkways and planters between Science and Centenary Hall.
- A new five-storey (including basement) vertical connector pod consisting of a lift, stair and locker areas.
- New external walkways providing an accessible path of travel between the driveway, Science, Centenary Hall, carpark and Elamang Avenue.

Eastern Precinct

Stage 1

- Partial demolition of external stairs, landings, walkways and planters between the Science and Performing Arts buildings.
- Proposed interim connector pod consisting of accessible ramps, providing an accessible path of travel between Science and Performing Arts buildings.
- Mary Ward building—internal refurbishment to accommodate a new flexible learning model.

Concept Master Plan

- Proposed development envelope for a six-storey building. (Height consistent with the existing building)

Southern Precinct

Stage 1

- Partial demolition of the eastern Chapel wing.
- Demolition of external stairs and landings in the courtyard.
- Proposed development of a four-storey vertical connector pod involving the reconstruction of the east Chapel wing to its original profile on its Carabella Street elevation. The connector pod will consist of a lift, learning studios and an external learning terrace and provide an accessible path of travel between the driveway, Chapel, St Joseph's Block and the courtyard.

Concept Master Plan

- Demolition of the existing Junior School building. Proposed development envelope for a six-storey building (two storeys above ground on Carabella Street—height consistent with the existing building)

6.2 Documentation

The assessment of heritage impact undertaken for this HAIS is based on masterplan and development application drawings prepared by fjmt, as set out below:

Master Plan Drawing List		
Layout ID	Layout Name	Rev.
MP-1000	Cover Sheet	01
MP-1001	Location Plan - Existing	01
MP-1002	Site Plan - Existing	01
MP-1003	Site Analysis	01
MP-1004	Site Plan - Precincts	01
MP-1101	Site Plan - Proposed Envelopes First Phase	01
MP-1102	Site Plan - Proposed Envelopes Mid Phase	01
MP-1103	Site Plan - Proposed Envelopes Final Phase	01
MP-1104	Western Precinct Development Site	01
MP-1105	Western Precinct Envelope	01
MP-1106	Northern Precinct Development Site	01
MP-1107	Northern Precinct Envelope	01
MP-1108	Eastern Precinct Development Site	01
MP-1109	Eastern Precinct Envelope	01
MP-1110	Southern Precinct Development Site 1	01
MP-1111	Southern Precinct Envelope 1	01
MP-1112	Southern Precinct Envelope 2	01
MP-2001	Masterplan Proposed Plan - LG4 LG3	01
MP-2002	Masterplan Proposed Plan - LG2 LG1	01
MP-2003	Masterplan Proposed Plan - G L1	01
MP-2004	Masterplan Proposed Plan - L2 L3	01
MP-2005	Masterplan Proposed Plan - L4 L5	01
MP-3001	Elamang Ave - Elevation	01
MP-3002	Carabella St - Elevation	01
MP-4001	Eastern & Southern Precinct	01
MP-4002	Northern & Southern Precinct	01
MP-4003	Western Precinct	01
MP-5001	Existing Shadow Diagrams - 21 June	01
MP-5002	Existing Shadow Diagrams - 21 Dec	01
MP-5003	Mid Stage Shadow Diagrams - 21 June	01
MP-5004	Mid Stage Shadow Diagrams - 21 Dec	01
MP-5005	Final Stage Envelopes Shadow Diagrams - 21 June	01

Master Plan Drawing List		
MP-5006	Final Stage Envelopes Shadow Diagrams - 21 Dec	01

Stage 1 Drawing List		
Layout ID	Layout Name	Rev.
DA-1001	Cover Sheet	01
DA-1002	Site Plan - Precincts	01
DA-2001	Masterplan Demolition Plan - LG4 LG3	01
DA-2002	Masterplan Demolition Plan - LG2 LG1	01
DA-2003	Masterplan Demolition Plan - G L1	01
DA-2004	Masterplan Demolition Plan - L2 L3	01
DA-2005	Masterplan Demolition Plan - L4 L5	01
DA-2101	Masterplan Proposed Plan - LG4 LG3	01
DA-2102	Masterplan Proposed Plan - LG2 LG1	01
DA-2103	Masterplan Proposed Plan - G L1	01
DA-2104	Masterplan Proposed Plan - L2 L3	01
DA-2105	Masterplan Proposed Plan - L4 L5	01
DA-2201	Western Precinct Learning Hub - Lower Ground 4	01
DA-2202	Western Precinct Learning Hub - Lower Ground 3	01
DA-2203	Western Precinct Learning Hub - Lower Ground 2	01
DA-2204	Western Precinct Learning Hub - Lower Ground 1	01
DA-2205	Western Precinct Learning Hub - Ground Level	01
DA-2206	Western Precinct Learning Hub - Level 1	01
DA-2207	Western Precinct Learning Hub - Roof - Outdoor Terrace	01
DA-2301	Northern Precinct - Lower Ground 4	01
DA-2302	Northern Precinct - Lower Ground 3	01
DA-2303	Northern Precinct - Lower Ground 2	01
DA-2304	Northern Precinct - Lower Ground 1	01
DA-2305	Northern Precinct - Ground Level	01
DA-2306	Northern Precinct - Level 1 (Roof)	01
DA-2401	Eastern Precinct - Lower Ground 2 - Stage 1	01
DA-2501	Southern Precinct - Lower Ground 1	01
DA-2502	Southern Precinct - Ground Level	01
DA-2503	Southern Precinct Level 1	01
DA-2504	Southern Precinct Level 2	01
DA-2505	Southern Precinct Level 3	01
DA-2506	Southern Precinct Level 4	01

Stage 1 Drawing List		
DA-2507	Southern Precinct Level 5	01
DA-2508	Southern Precinct Roof	01
DA-3001	Elevations - Site	01
DA-3002	Elevations 1- Western Precinct Learning Hub	01
DA-3003	Elevations 2 - Western Precinct Learning Hub	01
DA-3004	Elevations - Northern Precinct Connector	01
DA-3005	Elevations - Southern Precinct Connector	01
DA-4001	Sections 1 - Western Precinct Learning Hub	01
DA-4002	Sections 2 - Western Precinct Learning Hub	01
DA-4003	Sections - Northern Precinct Connector	01
DA-4004	Sections - Southern Precinct Connector	01

6.3 Endnotes

¹ Robinson Urban Planning, Request for Secretary's Environmental Assessment Requirements, prepared on behalf of Sydney Church of England Grammar School (Shore), 15 February 2016.

7.0 Heritage Impact Assessment

7.1 Introduction

This heritage impact assessment is structured in accordance with the architectural submission: a heritage impact assessment has been made firstly of the masterplan, and then of the Stage 1 works. The assessment of the masterplan considers heritage impact in terms of demolition, scale, form, siting and views (unless noted otherwise), according to the campus precincts. For the portions of the project that are included in the Stage 1 works, there is additional assessment of detailed design and materiality.

Under each subheading, there is a description of the works in indented italic type, which is the description of the works as included on the architectural drawings for that precinct.

The heritage significance of individual buildings and elements on the school campus has been assessed in Section 4.0 of this report.

7.2 Assessment of Heritage Impact: Masterplan

7.2.1 Masterplan: Western Precinct

Demolition—B-Block, Parts of Gymnasium, Landscape Elements

Demolition of B-Block, three storey existing brick building. Site excavation to the existing gymnasium floor level. Partial demolition of external stairs, landings, walkways and planters in between the gymnasium, Centenary Hall and the Junior School.

B-Block is not heritage listed, and is not located within a heritage conservation area. The building is not included in the school's heritage listing, and although it has been a part of the school's campus since 2010 it is of little heritage significance. Set well back from both Carabella Street and Elamang Avenue behind other buildings, B-Block does not contribute to the streetscape of either street, or to the character of the neighbouring Careening Cove Conservation Area. As such, it is assessed that no heritage impact will result from the proposed demolition of B-Block.

The proposed demolition of the verandah and ancillary spaces of the gymnasium, and any alterations to the building, will have a negligible heritage impact, as the building has been assessed as having little heritage significance.

There will be little heritage impact as a result of the demolition of landscape elements between the gymnasium, Centenary Hall and the Junior School. Hard landscaping elements are of recent construction and have little heritage significance: trees and paths are concrete, and the planter walls are generally rendered masonry.

There is one tree—a large jacaranda located between B-Block and the gymnasium—that will need to be removed as a result of the proposed works. This tree is classified as being of high significance by the project arborist.¹ The tree is prominent, as it stands alone in an open area of lawn. The impact of the removal of the tree could be mitigated if another mature tree of the same species was to be planted in the vicinity after the completion of any construction works.

Demolition of Sandstone Retaining Walls Adjacent to B-Block

The existing sandstone retaining walls adjacent to B-Block date from the nineteenth century. The walls were part of the landscape around the now-demolished Tremayne, and they have historical significance as evidence of the past use of the site. The walls are intact in some areas, but have been adjusted and modified in others. The demolition of the walls will result in a moderate heritage impact. It should be noted that the project's architects explored the possibility of retaining the walls, but it proved to be difficult without substantial modifications to the design of the proposed Learning Hub, which involves deep excavation in the area where the walls are located. However, to mitigate the heritage impact the architects propose to include interpretation of Tremayne within the new building, and propose to salvage the sandstone blocks from the retaining walls and reuse them in landscape works adjacent to the new building.

Proposed Extensions to the Gymnasium

Proposed Development Envelope—two level extension to the existing gymnasium.

Proposed landscaped terrace.

The proposed two-storey extension on the northeastern side of the gymnasium will replace the building's existing single storey verandah and storeroom. The footprint of the new extension approximates that of the existing verandah and store but with a slight increase in width, pushing the new extension slightly closer to the Elamang Avenue boundary. The extension envelope, with proposed roof at RL 22.7, is some 3.6m taller than the existing single storey verandah structure (its ridgelines RL 19.08). However, the height of the proposed envelope roughly corresponds to the height of the existing roof parapets of the taller main part of the gymnasium building (roof RL 21.53 and roof parapets nominally RL 22.53), and so does not represent a substantial increase to the overall height of the existing building (Figure 7.1).

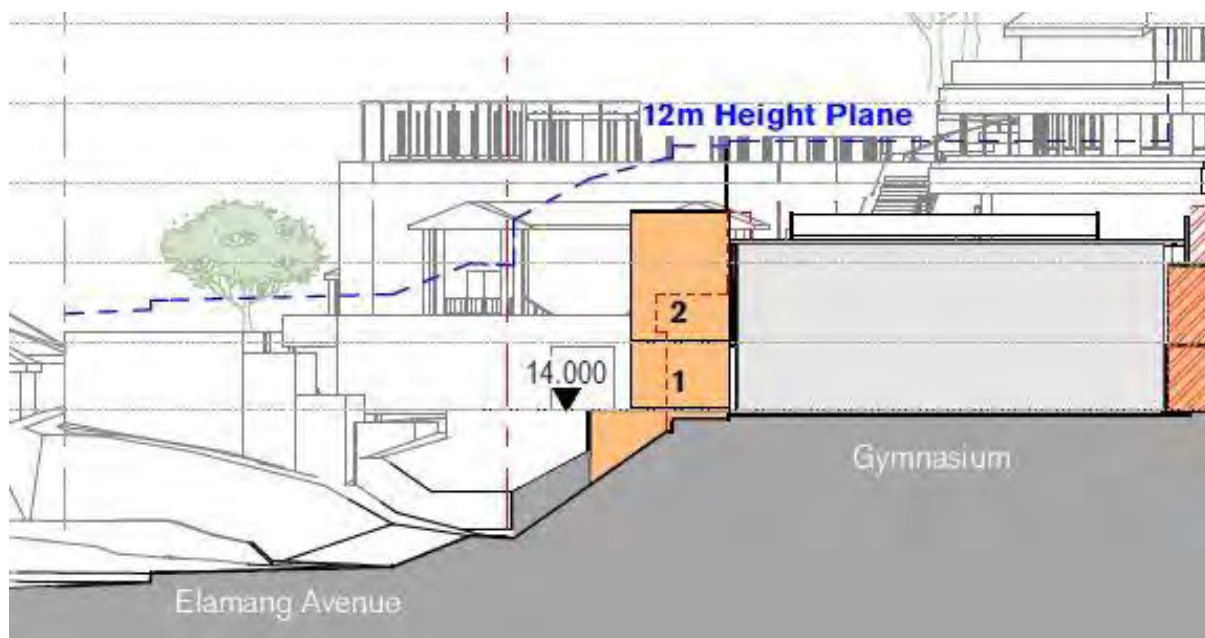


Figure 7.1 Section through the proposed gymnasium extension envelope—new works are shaded orange, and the existing verandah and roof parapet are outlined in red dotted lines. (Source: Excerpt from fjmt drawing MP-4003)

The proposed extension will not impact on Elamang, the Administration building (Administration) or the chapel as it is located a substantial distance from these buildings, and it will not alter views to and from

them. Similarly, the heritage listed houses at 17, 10 and 8 Elamang Avenue are sufficiently distant from the proposed gymnasium extension to remain unaffected by the proposed works.

It is considered that the proposed extension will have a minimal effect on the Careening Cove Conservation Area or Elamang Avenue streetscape. The increased height of the northeastern part of the gymnasium building that the proposed extension represents is not out of keeping with the scale of buildings in the vicinity. Furthermore, the proposed extension will be visually separated from the conservation area by the large fig tree located on the northern corner of the school campus.

Because of the proximity of the proposed extension to the Elamang Avenue boundary there is the potential for the proposed development to impact on the setting of the house at 29 Elamang Avenue. Although the overall height and footprint of the gymnasium building will remain close to the existing condition, the northeastern elevation of the gymnasium building will be altered as part of the works. Landscaping to the northeast of the gymnasium is also proposed to be altered, and will potentially include new retaining walls. The design of the proposed elevation and proposed landscaping should be developed to ensure that the house at 29 Elamang Avenue is not visually overwhelmed by the proposed development. This aspect will be considered as part of the assessment of the Stage 1 works.

Proposed Learning Hub

Proposed Development Envelope—New Learning Hub. Seven storey building (3 storeys above ground—Carabella Street) including external roof terrace. Includes a vertical connector providing accessible access to the Marian Centre, Junior School, Gymnasium and Centenary Hall.

The proposed Learning Hub building is located in between the gymnasium and the Marian Centre, in the current location of B-Block. Although the proposed building has seven storeys (including a roof terrace), much of the building is located below grade, partially excavated into the steep site, which serves to reduce the effective height of the building (Figure 7.2). The highest point of the proposed building envelope (RL 39.00) is substantially lower than the roof of the Marian Centre (ridge 43.20), and roughly corresponds with the roof ridge level of the Malvern flats building (RL 38.85) adjacent at 111 Carabella Street. As such, although the proposed building will be taller than the existing B-Block, it is not out of keeping with the height of the buildings in the immediate vicinity.

The proposed Learning Hub is located some distance from Elamang, Administration and the chapel, with the Junior School located in between them. For this reason, it is considered that the proposed new building will not impact on the setting of Elamang, Administration or the chapel, and any existing views of these buildings from the harbour, Elamang Avenue, and Carabella Street will remain largely unaffected by the proposed building. The height of the proposed building is substantially lower than that of the chapel tower, which will remain the highest structure on the campus.

The proposed Learning Hub will have minimal impact on the neighbouring Careening Cove Conservation Area. The building will not have a visual impact on the Carabella Street streetscape as the taller Marian Centre will substantially block views of the building from the street. The building will be visible from Elamang Avenue, but as it is set back a substantial distance from the street boundary, it is considered that it will not have a visual impact on the streetscape, or the heritage listed houses at 8, 10, 17 and 29 Elamang Avenue.

View analyses prepared by fjmt indicate that there will be partial interruption to views of the harbour from 58 Carabella Street as a result of the proposed development.² This represents a minor heritage impact: it is considered that views will remain sufficiently intact to retain the sense that the house is set on a hillside with filtered district views over the harbour.

For the most part the proposed raised walkway and landscape adjacent to the Junior School—both hard and soft elements—will not result in an adverse heritage impact on the site. This is because the proposed development is directly adjacent to the Junior School and the GBC, both of which are assessed as being of little heritage significance, and the level of the raised walkway and play area corresponds to the level of the existing play area on the roof of the GBC. However, the raised walkway will have a potential impact on the setting of Elamang where it finishes adjacent to the entry drive (Figure 7.4). There is a sense that the site is falling away to the north from Elamang, which is an

important aspect of the building's existing setting. The proposed walkway will have a level surface, and as such an appreciation of the topography around Elamang will be reduced. It is considered however that any impact will be minor as the central areas of sloping lawns and gardens directly in front of Elamang will remain intact. In addition, harbour and district views to the north from the entry drive and Elamang will remain largely unaltered. The three existing trees of significance near the northeastern end of the raised walkway are to be retained, which will mitigate the impact of the new structure.

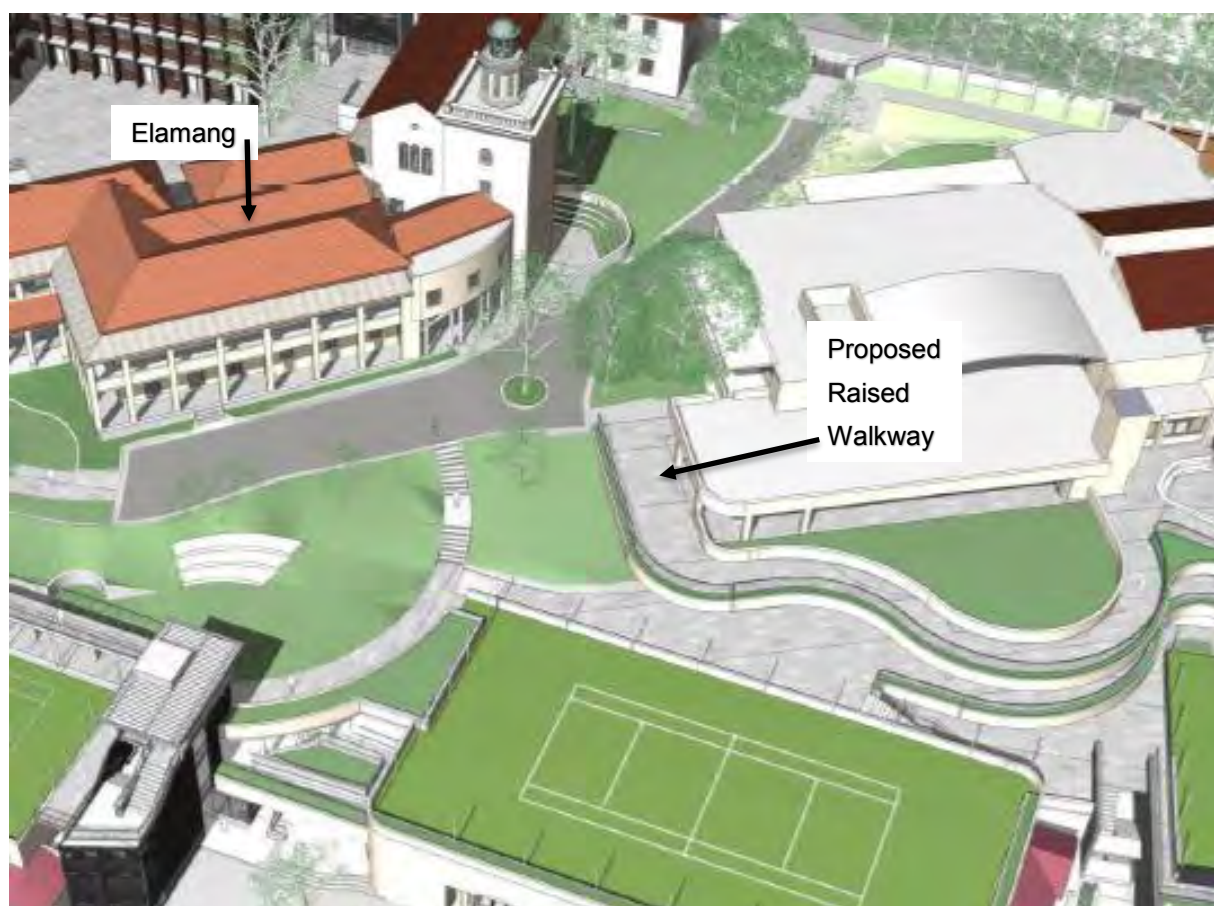


Figure 7.4 Aerial perspective of the site, showing the proposed raised walkway location in relation to Elamang. (Source: Excerpt from fjmt drawing DA-1001)

7.2.2 Masterplan: Northern Precinct

Proposed works in the Northern Precinct include the construction of a vertical connector pod (lift and stairs), construction of a new raised walkway linking the top floor of the pod to the Administration forecourt area, and alterations to landscape in the vicinity of the above-described works. The proposed connector pod will be located adjacent to the Science Building, and will extend into the building's basement carpark. It will involve the demolition of the existing lift and ground floor enclosure structure (the new lift replaces the existing lift), and alterations to the northwestern elevation of the Science Building. The proposed works will also entail alterations to the southeastern entrance and foyer of Centennial Hall. Alterations to the landscaping between the two buildings, including the demolition of existing stairs and terraced garden beds, and the construction of a new forecourt area to Centennial Hall, is proposed. The proposed raised walkway extends between the uppermost floor of the connector pod to the forecourt area outside the entrance to the Administration building.

Demolition

Partial demolition of external stairs, landings, walkways and planters in between Science and Centenary Hall. Lower ground excavation to accommodate new vertical connector.

It is considered that there will be little heritage impact resulting from the demolition works associated with the development. Both the Science Building and Centennial Hall are assessed as being of little heritage significance. The existing lift enclosure and landscaping are also of little heritage significance, being contemporary with the adjacent buildings (dating from the 1990s). One Category A tree will require removal as a result of the proposed development, but this tree is classified as being of low significance by the arborist.³ As such, it is considered that alterations or demolition of existing elements to allow for the construction of the connector pod is acceptable from a heritage viewpoint.

Proposed Northern Connector Pod and Raised Walkway

Proposed development envelope for a six storey vertical connector pod consisting of a lift, stairs and lockers. New external walkways providing an accessible path of travel between the driveway, Science, Centenary Hall, the carpark and Elamang Avenue.

The proposed pod and walkway will potentially impact on the setting of Elamang, as they are taller structures than those that currently exist to the north of Elamang which are low in height and set into the fall of the land. An important aspect of the setting of Elamang is that it is located on a rise, with land falling away to the north and the harbour. The higher form of the proposed pod and walkway will interrupt this concept, and so impact on the setting of the building. The degree to which the impact is mitigated through the design development is discussed in the heritage impact assessment of Stage 1 works.

The potential for the proposed pod to interrupt views to and from Elamang and the school must be considered (Figures 7.7–7.11). North and northeastern views from Elamang are important to its setting: it was built as a harbourside mansion in a visually prominent location with extensive views. The top of the proposed pod (RL 31.00) is some three metres above the ground floor level within Elamang (RL 27.89), and some four metres above the ground floor level in the Administration building (RL 26.89), and as such has the potential to interrupt views. However, the proposed pod has been sited roughly opposite the mid-rise residential tower located at 21 Elamang Avenue. This building already interrupts northeastern views from Elamang, and views of the school from the harbour. With the proposed pod sited within the ‘view shadow’ of 21 Elamang Avenue, it is considered that there will be little additional interruption of views between Elamang, the school and the harbour as a result of the proposed connector pod. This is supported by view analyses prepared by fjmt, which show that the pod and walkway have little impact on views from various vantage points to the northeast of the school (Figures 7.6–7.11). The greatest impact on views is from viewpoint D—North Sydney Wharf—where views of Elamang are partially interrupted by the pod (Figure 7.11). For the most part, however, views between Elamang and the harbour will remain intact, and the sense that Elamang is a building with extensive water and district views will be maintained.

The proposed pod and walkway will have little impact on the chapel and the chapel tower. Although the proposed pod will be taller than existing adjacent school buildings, the chapel tower will remain predominantly the tallest structure on the school campus, and as such will retain its landmark qualities. Although it is anticipated that there will be some loss of views of the tower from Elamang Avenue near the school, it is a narrow viewpoint that will be affected, and wider district views of the tower will remain unchanged. As such, it is considered that the impact of the proposed pod on the chapel tower will be minor.

The proposed connector pod will be located close to the school's Elamang Avenue boundary, and will be visible from the public realm. The proposed pod will be taller than the adjacent Science Building and Centenary Hall, and as such will be visually prominent from Elamang Avenue. However, any impact as a result of the pod's height will be mitigated by its relatively small footprint. It will not result in a perceived increase in scale of the school campus, but rather as an isolated taller element within the campus. It will be far smaller in scale than the many mid-rise apartment buildings located in Kirribilli (including 21 Elamang Avenue) which are visible from Elamang Avenue. As such it is considered that the proposed pod will have a minor impact only on the setting of the heritage listed houses at 17 and 29 Elamang Avenue and on the Elamang Avenue streetscape.

It is considered that the proposed pod will not impact on the Careening Cove Conservation Area, as it is located well distant from the boundaries of the conservation area. The proposed pod will have little impact on the setting of 8 and 10 Elamang Avenue, as these properties are separated from the site of the proposed pod by the width of the school's Music and Performing Arts Building and Science Building.



Figure 7.5 Section showing the envelope of the proposed pod (shaded orange) in relation to Elamang, the chapel tower, and the residential tower opposite the school at 21 Elamang Avenue. (Source: Excerpt from fjmt drawing MP-4002, with GML overlay)



Figure 7.6 Elamang Avenue elevation of the school, with the proposed pod added—coloured orange and labelled '3'. **Note that the proposed southern precinct pod, labelled '5', is discussed within the Southern Precinct subsection.** (Source: Excerpt from fjmt drawing MP-3001)



Figure 7.7 Locations of viewpoints A, B, C and D for view analyses. (Source: Excerpt from fjmt drawing SK-7.9.1)

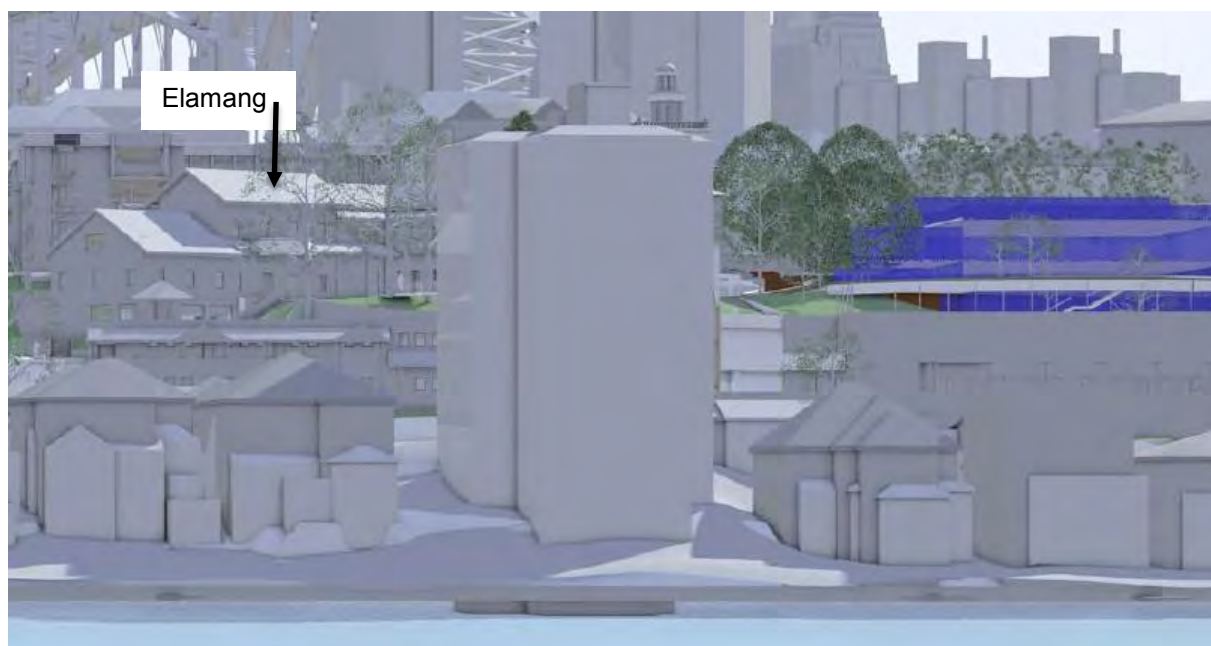


Figure 7.8 Viewpoint A—21 Elamang Avenue (the tower in the foreground) blocks views of the proposed pod. (Source: Excerpt from fjmt drawing SK-7.9.1)

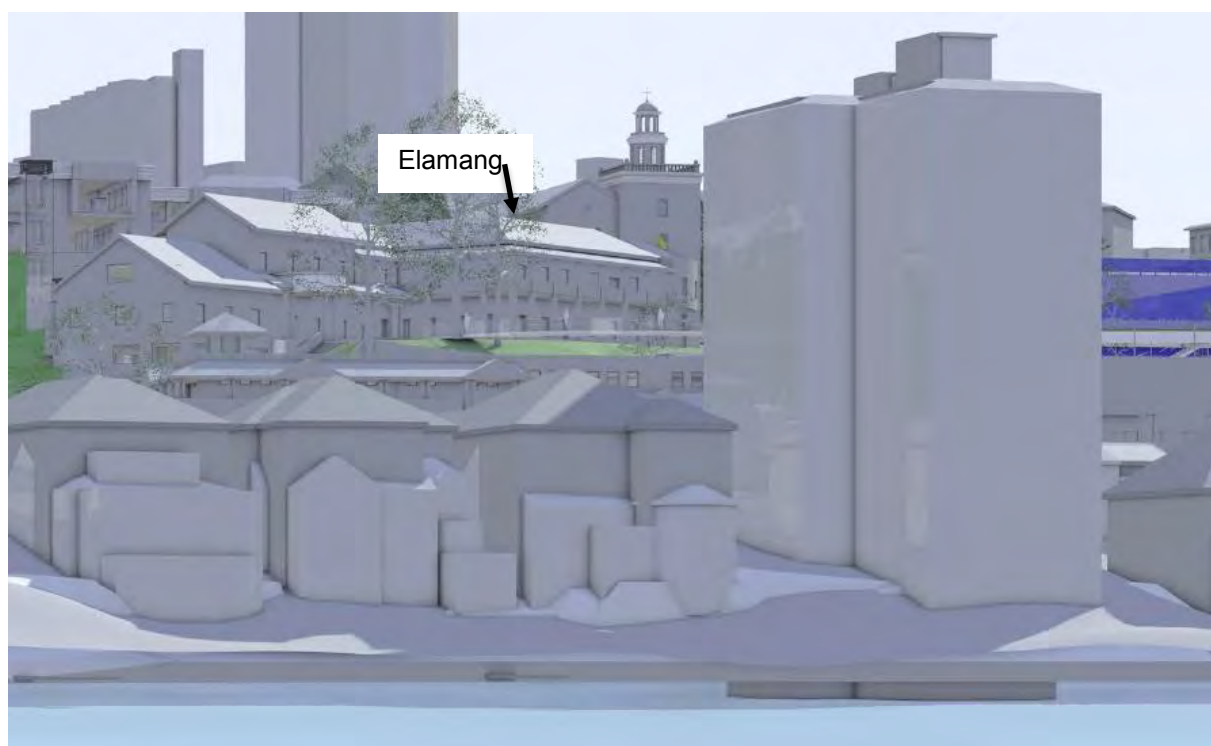


Figure 7.9 Viewpoint B—21 Elamang Avenue blocks views of the proposed pod, although the raised walkway will be visible. (Source: Excerpt from fjmt drawing SK-7.9.2)

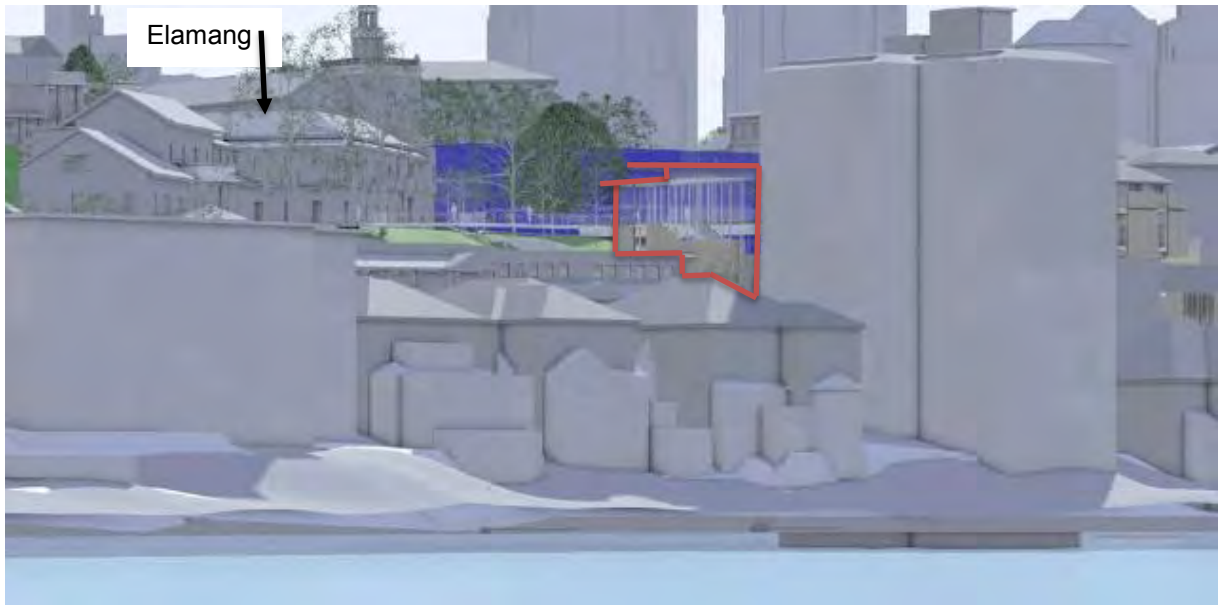


Figure 7.10 Viewpoint C—the proposed pod is partly visible and the walkway is visible. Views of Elamang and Administration are, however, not affected. (Source: Excerpt from fjmt drawing SK-7.9.3)

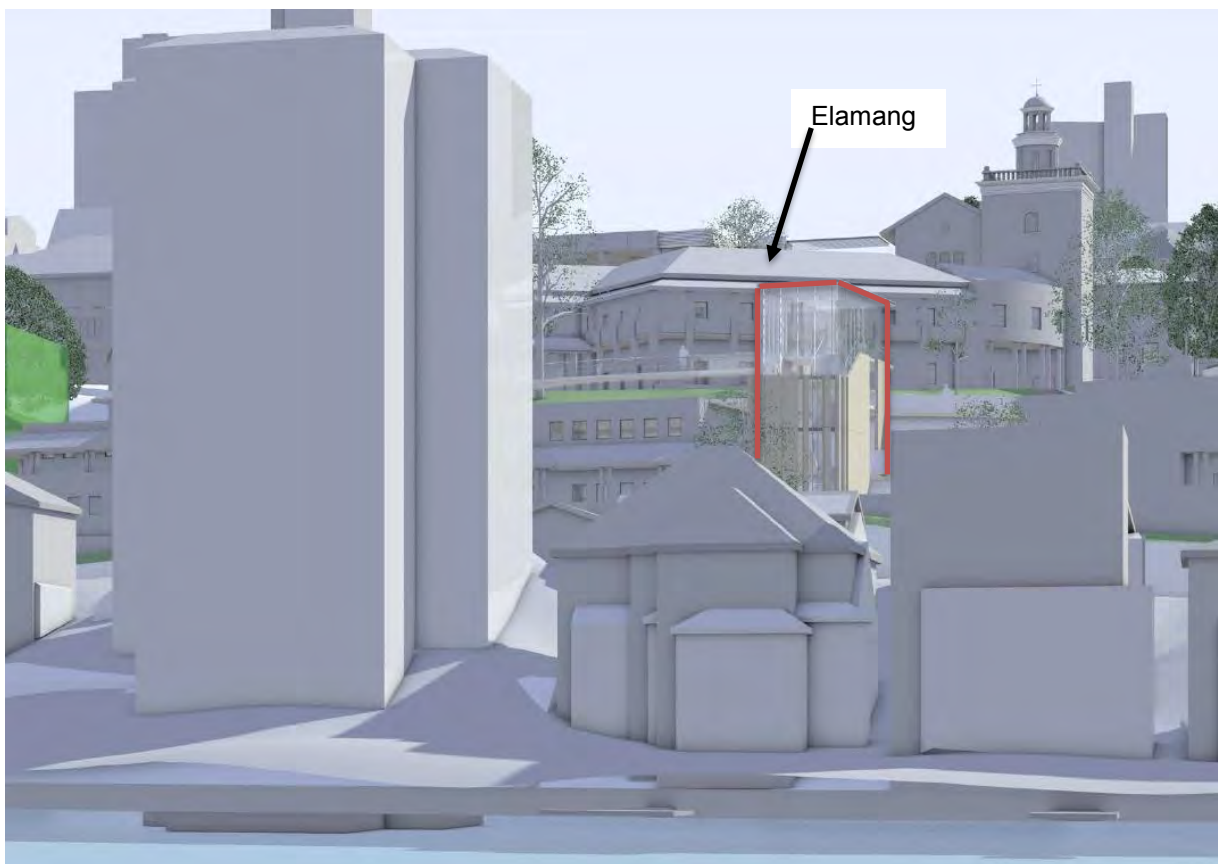


Figure 7.11 Viewpoint D—the proposed pod, outlined in red, is visible. Views of Elamang will be partially interrupted. (Source: Excerpt from fjmt drawing SK-7.9.4, with GML overlays)

7.2.3 Masterplan: Eastern Precinct

Demolition of the Mary Ward Building and Music and Performing Arts

The Music and Performing Arts building has been assessed as being of little heritage significance. As such, its demolition will have little impact on the heritage significance of the site.

The Mary Ward building has been assessed as being of moderate significance and there will be a moderate heritage impact in the demolition of the building. However, the building has inherent structural faults which would potentially limit the building's lifespan (it is noted that 'tell-tales' are in place within the building to monitor movement and cracking). An archival recording of the building should be undertaken prior to demolition to mitigate the impact of the loss of the building.

The small garbage room located in the northeastern corner of the site (moderate significance) remains unaffected by the proposed development.

There are no landscape features of significance that will be demolished or altered as part of the proposed works in the Eastern Precinct. It is noted that the existing sandstone retaining wall to the southwest of the Mary Ward building, assessed as being of moderate heritage significance, is to remain intact. One tree categorised as being of moderate significance is to be removed as a result of the works. This tree is located to the rear (southwest) of the Administration building, and its loss will not affect the setting or main elevations of Elamang or the Administration building main elevations, and as such its removal is acceptable,

Proposed New Building

Proposed development envelope for a six storey building

It is proposed to construct a new building in the current location of the Mary Ward and Music and Performing Arts buildings. In addition to four storeys to be used for teaching purposes, the new building will include a two-storey basement carpark, the lower floor of which will be at the level of the school's existing carpark.

The footprint of the proposed new building approximates that of the Mary Ward and Music and Performing Arts buildings. The proposed new building maintains the existing building setback from the southeastern property boundary with neighbouring property Vanduara and the southwestern boundary with Araluen and Fairhaven (71 and 69 Carabella Street). The bulk of the building steps back from Elamang Avenue, with the northeastern elevation of Level 2 approximately aligned with the front elevation of neighbouring Vanduara (10 Elamang Avenue). This will allow for improved views of Vanduara from the public realm to the north, and similarly improved views from Vanduara to the north. As such the new building will result in a positive heritage impact on Vanduara (Figure 7.12).

It is considered that the proposed development will not have an impact on Doondi (8 Elamang Avenue) as this property is sufficiently distant from the site to remain unaffected.

The top of the proposed building envelope (RL 32.900) is approximately three metres higher than the existing roof terrace level of the Mary Ward building (RL 29.94), and matches the ridge height of the two discrete structures located on the roof terrace that contain stairs (Figure 7.12). The proposed increase in height will not impact on the chapel, Elamang or Administration; the height of the proposed envelope is lower than the ridgelines of these buildings, and despite the proposed increase in height, the proposed building envelope still corresponds with the general scale of buildings on the site (Figure

7.13). The chapel tower remains substantially taller, and as such any effect on area views of the chapel tower will be minimal.

However, the increased building height will potentially impact on views from Araluen and Fairhaven northeast to the harbour, and views from the harbour of these two heritage listed houses. Harbour views are an important aspect of the setting of these two houses, which have been sited and planned to take advantage of views over the harbour and to the districts beyond to the north. The architect's view analyses show that the increased height of the proposed building envelope will result in a reduction in the extent of water views from some windows of both Araluen and Fairhaven.⁴ However, it is assessed that Araluen and Fairhaven will retain sufficient harbour views to maintain the sense that both buildings are properties to which harbour and district views are afforded. However, the developed building design should aim to minimise any interruption to the harbour views from these properties, through judicious planning of form and of the use of transparent materials at the uppermost floor level.

The proposed new building has the potential to result in increased overshadowing of the rear gardens of Araluen, which are included in its heritage listing. Minimisation of any additional overshadowing should be considered at the design development stage.

It is not anticipated that the proposed building envelope will impact on views from heritage listed items at 40, 42, 44, and 48 Carabella Street, as these properties are sited on substantially higher ground than both the proposed developments and both Araluen and Fairhaven.

The stepped form of the northeastern elevation of the proposed building will serve to reduce the perceived bulk of the new building from Elamang Avenue. The stepped form is consistent with the built form of the school campus, with its buildings stepping up the side of the hill from Elamang Avenue. The height of the building structure on the Elamang Avenue boundary will remain unaltered from the existing. As such the proposed development will likely have little impact on the Elamang Avenue streetscape or the heritage listed house opposite at 17 Elamang Avenue.

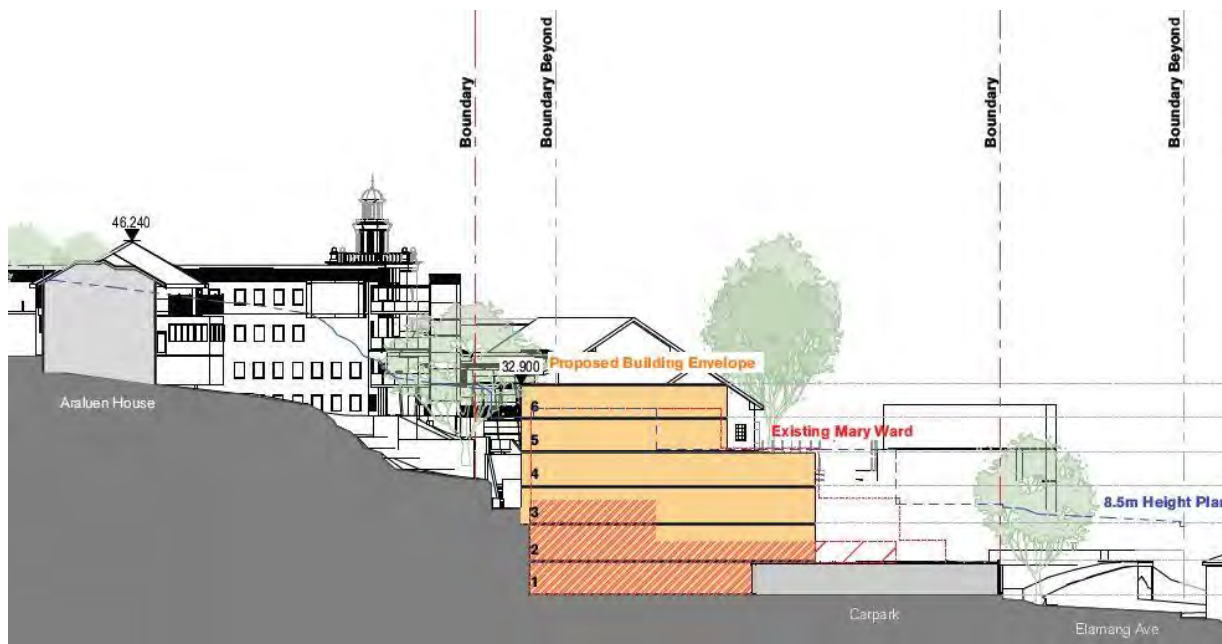


Figure 7.12 Section showing the massing of the proposed new building (Shaded orange) with the outline of the existing form of the existing Mary Ward, Music and Performing Arts buildings outlined in red dotted lines. The proposed new building will step back from Elamang Avenue to a greater extent than the existing building, which will have a positive impact on Vandua. (Source: fjmt drawing Mp-4001)



Figure 7.13 Proposed Elamang Avenue elevation, with the existing building envelope outlined in red dotted lines. The proposed building envelope (coloured orange and labelled '4') largely corresponds with the existing building envelope, although the new building is, on average, taller than the existing building. The condition at the street boundary remains unchanged. The height of the proposed building is lower than Administration and Elamang. (Source: fjmt drawing MP-3001)

7.2.4 Masterplan: Southern Precinct

Proposed Works Between the Chapel and J-Block including the New Southern Connector Pod

Partial demolition of external stairs, landings, walkways and planters in between the Chapel and J-Block. Demolition of top level of the eastern chapel wing extension. Lower ground excavation to accommodate new vertical connector.

There is no adverse heritage impact anticipated in the demolition of landscape elements in the courtyard between the chapel and J-Block. Landscape elements within the courtyard—stairs, planters, paving, seats—are contemporary, and are not of heritage significance.

The arborist's report for the project indicates that three trees of high significance will be required to be removed as a result of the proposed works.⁵ The trees contribute to the amenity and aesthetic qualities of the school landscape, but are not considered to have particular heritage significance. Located to the rear of the chapel and Elamang/Administration, the loss of the trees will not impact on the setting of these buildings. None of the trees are visually prominent from Carabella Street.

Proposed development of a five-storey vertical connector pod involving the restoration of the east Chapel wing to its original profile on Carabella Street. The connector pod will consist of a lift, learning studios and an external learning terrace, providing an accessible path of travel between the driveway, Chapel, St Joseph's Block and the courtyard.

As part of the works for the construction of the new vertical connector, it is proposed to demolish the 1972 extension to the southern wing of the chapel. This extension, which is highly visible from Carabella Street, is assessed as being intrusive. As part of the proposed works, the original street-front elevation of the southern wing will be reinstated, together with the original eaves gutter configuration of the main chapel roof at its southwestern end. This represents a positive heritage impact as the original symmetrical form of the chapel building—a main central structure with two smaller wings on either side—will be restored as legible from the public realm of Carabella Street. The original roof form of the southern wing will be partially restored, so as to be legible from Carabella Street. In addition, the proposed works will result in an improved visual separation of the chapel from J-Block when seen from Carabella Street.

The proposed lift located adjacent to J-Block is intended to allow for disabled access to all levels of the chapel building. The lift is located externally, ensuring it is visible and therefore legible as a means of accessing the upper floors of the chapel and J-Block.

The location of the lift, external to the chapel building and located on its least prominent side, has been selected to minimise the heritage impact of the lift on the chapel. Important views of the chapel from the main entry gates and entry driveway will remain unaffected. The proposed five-storey vertical connector will not impact on the most significant spaces within the chapel building, these being the chapel and the tower stair.

The proposed height of the new building is generally consistent with that of the adjacent J-Block (a discrete portion will be slightly higher than J-Block), and will not be out of place in the school campus or streetscape (Figures 7.14, 7.15). Although the new building will be visible from Carabella Street, it will be set back behind the chapel's southern wing, which will reduce its visual impact when seen from Carabella Street. The proposed building will not affect the Careening Cove Conservation Area, as it will not be visible from the conservation area. The chapel tower will remain the highest element on the campus, and existing area views of the tower will be maintained.

The proposed southern connector will not have an adverse heritage impact on Elamang and the Administration, as it is located to the rear of the main elevations of those buildings. The new connector building is located a sufficient distance from Elamang and Administration so as to have a negligible impact on their setting.

The proposed connector pod building will conceal the elevation of the chapel's southern wing when viewed from within the school. However, as this elevation is currently partially concealed by the 1972 walkways structure, it is assessed that the proposed building will not greatly alter the current situation in terms of legibility of the southern wing's elevation. The detail of the connection of the new building to the chapel building, to both its central section and southern wing, will be important to ensure that proposed works will result in an improvement of the legibility of the north-eastern elevation of the chapel building.

Because the envelope of the proposed connector pod building is similar to that of the existing building, it is considered that there will be little change to views to and from heritage listed properties located in the vicinity on Carabella Street.

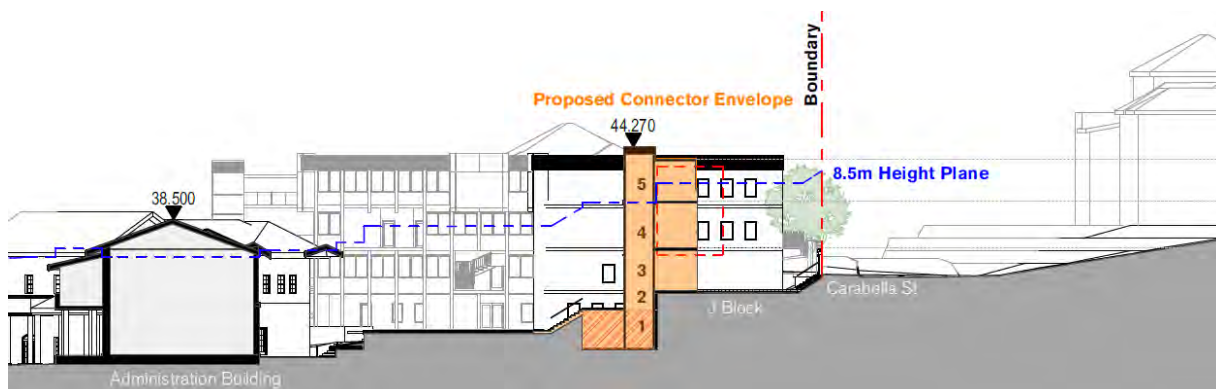


Figure 7.14 Section through the lift of the southern connector pod, showing the relationship of the new building to existing buildings in and around the school. (Source: fjmt, 'Southern Precinct Section', excerpt from MP-4002)



Figure 7.15 Proposed Carabella Street elevation, showing the scale of the proposed new building, and the restoration of the original roof form and street elevation of the chapel's southern wing. (Source: fjmt, 'Final Stage Envelope elevation', excerpt from MP-3002)

Proposed Redevelopment of the Existing Junior School

Demolition of the Junior School. Excavation to Centenary Hall level.

The Junior School has been assessed as having little heritage significance: the building has little architectural integrity, having been altered and added to continuously since the 1960s. As such there will be little heritage impact resulting from the proposed demolition of the building.

Proposed development envelope for a six-storey building

To assess the potential heritage impact of the proposed building, the proposed building envelope has been compared to the existing Junior School building and adjacent buildings. A key difference between the footprints of the existing and proposed buildings is that the new building will be built closer to the Carabella Street boundary, and will be aligned with the boundary: the current building is skewed in alignment from the front boundary (Figure 7.16). Despite this, it is assessed that the height of the proposed building and its setback from the front boundary is sufficient to avoid having an adverse heritage impact on the Carabella Street streetscape, the Careening Cove Conservation Area and the setting of heritage listed houses on the opposite side of Carabella Street (54, 56 and 58 Carabella Street). The proposed Carabella Street setback is greater than the setbacks of both the adjacent chapel building and Marian Centre, and is sufficient for the retention of the existing mature trees within the school near the Carabella Street boundary, as well the sculptures of 'notables' that are located on plinths between the trees (it should be noted that no trees that will be lost as a result of the proposed development in the Junior School area ⁶). Although the proposed height of the new building is greater than that of the existing Junior School at the Carabella Street frontage, it remains lower in height than the adjacent Marian Centre and chapel building's northern wing, and is consistent with the height of nearby buildings in Carabella Street (Figures 7.17, 7.18).

The proposed new building will not result in physical alterations to other structures on the site; there will be no physical change to the entry drive, entry gates and existing rendered boundary fence. There will likely be a minimal impact on the setting of the chapel building, entry drive or Elamang as a result of the proposed building. Although the proportions of the area of the open lawn area on the northwestern side of the entry drive will be altered, the new building maintains a sufficient setback from the entry drive to allow for the retention of the existing trees alongside the drive, and for the setting of the drive—landscaped open space on both sides—to be maintained. The height of the proposed building, which approximates that of the existing Junior School building as it steps down the site, will not dominate or overwhelm the entry drive or the chapel building: the significantly higher chapel building will remain the dominant built form. It is assessed that area views to the chapel tower and

chapel will be largely unaffected by the proposed building. As such, it is assessed that the impact of the new building on the entry drive and chapel will be acceptable. Views to and from Elamang from the north and northwest should also remain largely unaffected by the proposed building, as the northern half of its envelope largely matches that of the existing Junior School. The existing width of separation between Elamang and the Junior School remains unchanged with the proposed development.

The increased height of the new building, compared to existing, has the potential to affect views to the northeast of heritage-listed items at 54, 56, and 58 Carabella Street. View analyses have been undertaken for 56 and 58 Carabella Street, for both ground floor and upper floor windows.⁷ The view analysis for 56 Carabella Street shows a negligible change in views as a result of the proposed building in the Southern Precinct. There will be a reduction in water views from the ground floor of 58 Carabella Street, but the extent of views from the upper floor will be little changed. Distant views to the north of adjacent harbour peninsulas remain unchanged. As such, it is considered that the minor effect on views from these properties will result in no adverse heritage impact.

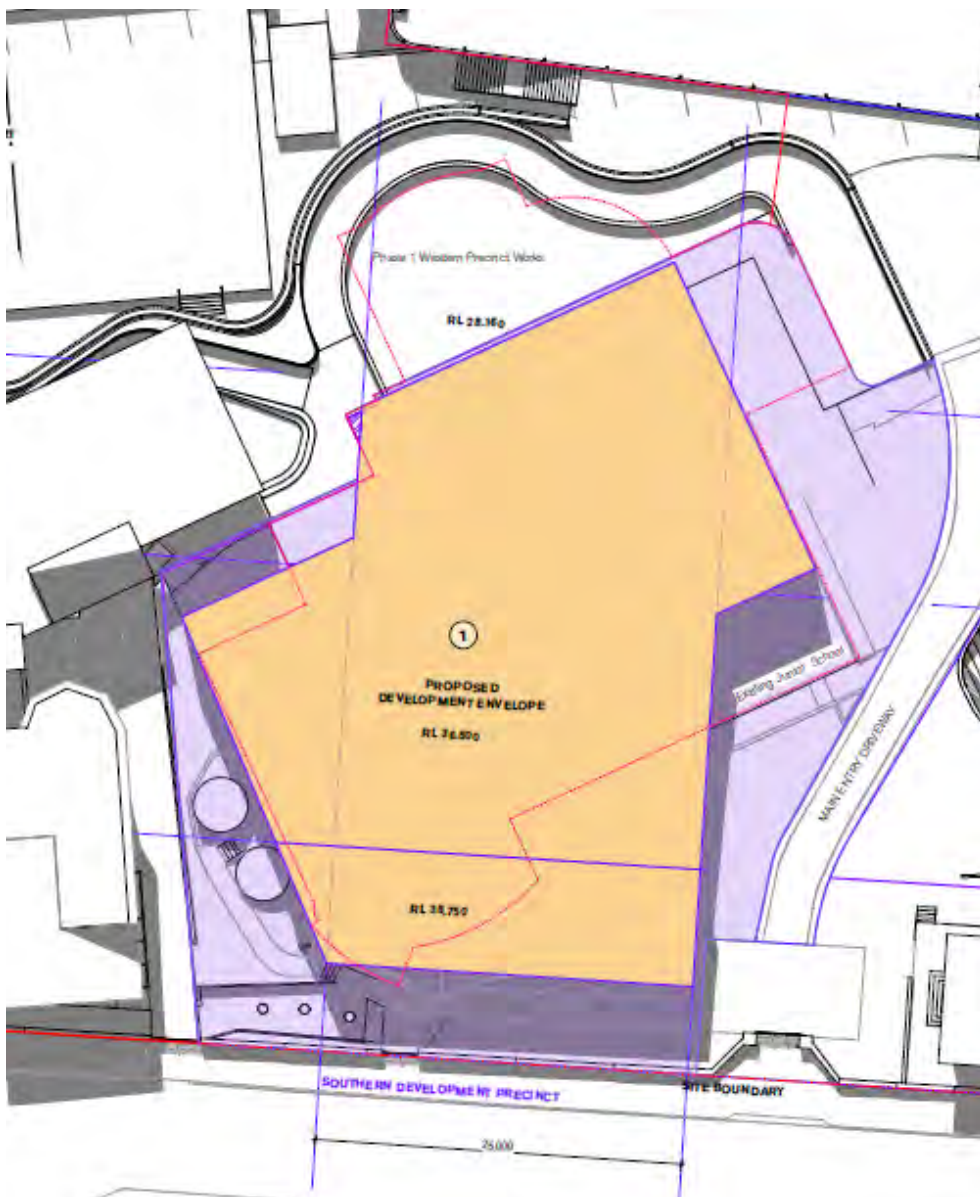


Figure 7.16 Floor plan of the proposed development envelope, with the outline of the existing Junior School building overlaid in red. (Source: fjmt, excerpt from MP-1112)

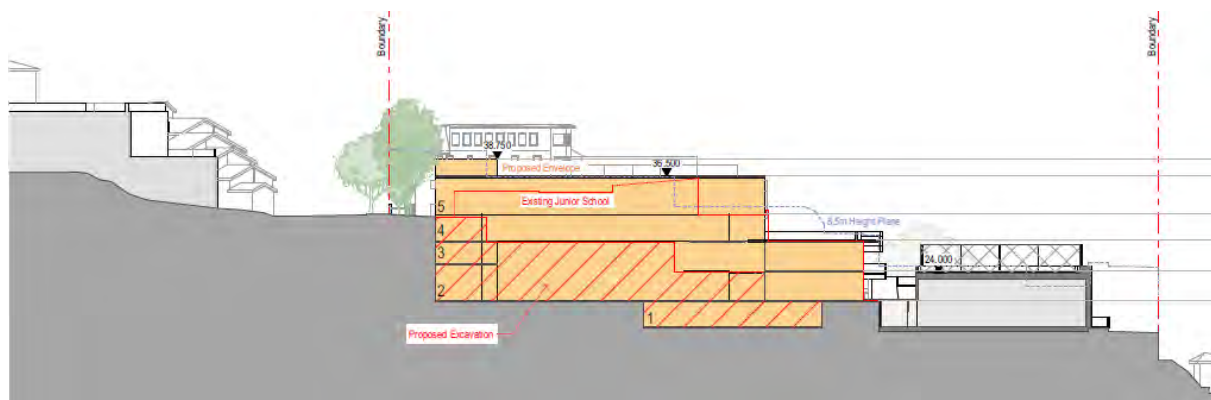


Figure 7.17 Section through the proposed new auditorium building, which will replace the Junior School. The red line outlines the existing Junior School Building. Although the new building is taller than the existing building at its Carabella Street frontage, its overall height as it steps down the site approximates that of the existing building. (Source: fjmt, 'Southern Precinct Section', excerpt from MP-4004)

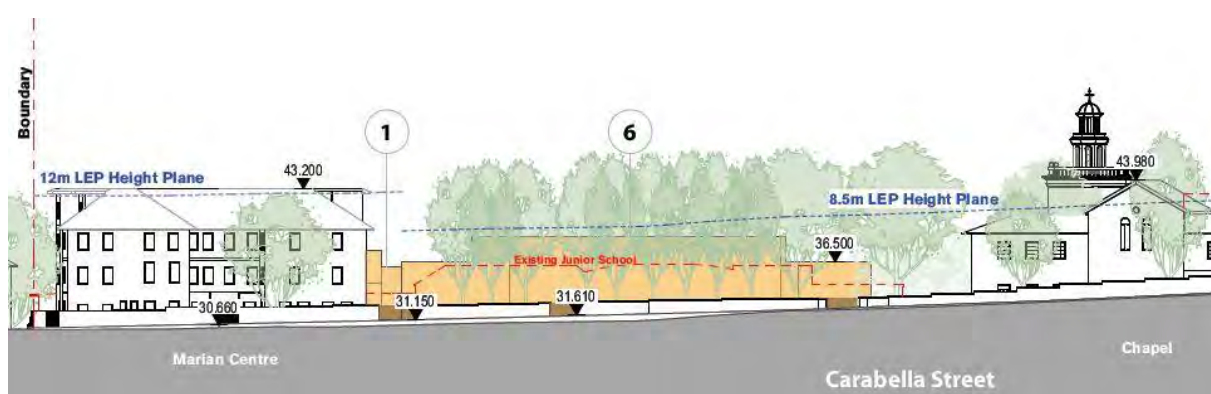


Figure 7.18 Proposed Carabella Street elevation, showing the scale of the proposed new building, which is low in height compared to the neighbouring Marian Centre and chapel building. The outline of the existing Junior School is shown with a red dotted line. (Source: fjmt, 'Final Stage Envelope elevation', excerpt from MP-3002)

7.3 Heritage Impact Assessment: Stage 1 Works

7.3.1 Materiality and Architectural Expression

A consistent materiality and architectural language is proposed to be used across all Stage 1 building works. It is considered that the proposed materiality and architectural language will serve to enhance the heritage significance of the campus and its most significant buildings. The materials proposed to be used externally on all new buildings—dark toned face brickwork, aluminium framed glass, and aluminium louvres—are contemporary materials which will complement the contemporary architectural language of the new building elements. The proposed building works will be an honest expression of their time, which is in line with best practice for designing new buildings in the vicinity of buildings of heritage significance. It also corresponds with the established pattern of building on the site, in which new buildings have been designed with an architectural language contemporary to their time. The use of dark toned face brickwork is in keeping with the existing built environment of the school campus and Kirribilli area: dark toned face brickwork has been used on the many Arts and Crafts style buildings in the area, and on campus on J-Block and the Mary Ward building. The use of dark toned face brickwork on the new buildings will serve to contrast with the school's most significant buildings—the chapel, Elamang and Administration—which are mostly rendered and painted light colours. The dark toned brick buildings will be visually recessive against the significant buildings, which are mostly lighter coloured.

7.3.2 Western Precinct—Extension to Gymnasium, Learning Hub and Walkways

The elevations of both the Learning Hub and northeastern extension to the gymnasium have been developed to correspond to the established visual scale of existing buildings on the Loreto Kirribilli campus. The perceived scale of the buildings and walkways has been broken down through the massing of form and through the considered articulation of the glazing. The buildings do not read as large featureless blocks, but rather as intricate human-scaled buildings. As such, they will not visually dominate the campus, or heritage buildings in the vicinity.

The landscaped area between the gymnasium and Elamang Avenue boundary includes the provision of a terrace and landscaped embankments. Sandstone log retaining walls have been nominated for use in this area, which will be in keeping with the extensive use of sandstone walling in the Kirribilli area. It is understood that balustrades above the retaining walls are to be glazed, which will serve to reduce the perceived height of the retaining walls from Elamang Avenue. However, as this area is very close to Elamang Avenue the details of all proposed retaining walls—height, materials, character, and distance from the property boundary—are important in terms of any effect on the streetscape and the setting of heritage listed houses nearby. It should be noted that the use of high masonry and sandstone retaining walls on the property boundary is common along Elamang Avenue, and so the use of similar retaining walls would be acceptable from a heritage viewpoint.

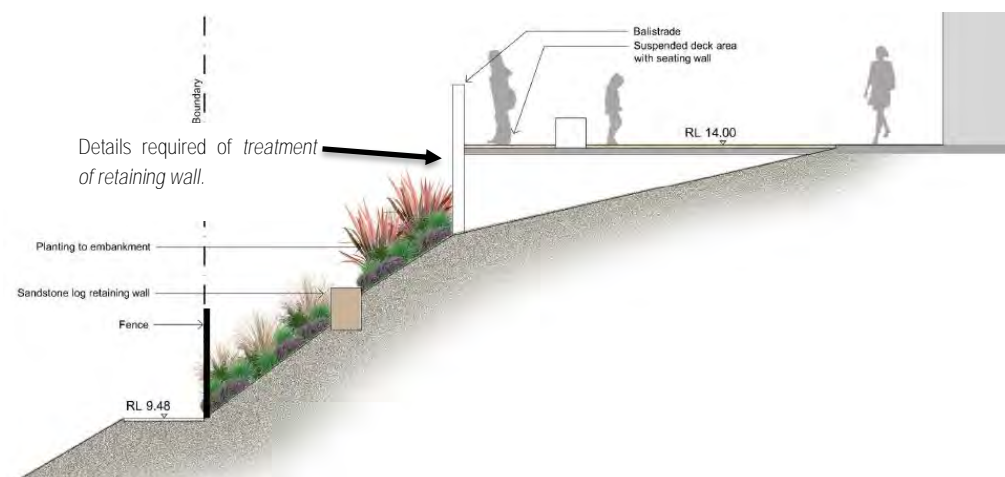


Figure 7.19 Proposed section through the landscaped area between the gymnasium and the Elamang street boundary. (Source: Site Image, Landscape Sections, excerpt from LH-601, issue C, with GML notations)

7.3.3 Northern Precinct—Northern Connector Pod and Raised Walkway

The architectural design of the northern connector pod has been developed to minimise the perceived bulk and form of the pod, and to maximise the transparency of the upper portion of the structure to reduce its impact on views to and from Elamang. Lift plant has been located near the base of the lift rather than at the top of the shaft, to minimise the height of the lift shaft. The louvred roof of the building has been designed as a slim horizontal element, the louvres providing a visual permeability that would not be possible to achieve with a solid roof. The extent of the roof has been curtailed, to leave the stair's upper flights unroofed, and the cladding on the northern elevation stops at a height which corresponds to the parapet level of the top of brickwork of Centennial Hall: this serves to reduce the perceived height of the structure from Elamang Avenue, and helps to marry the structure to its campus surrounds. The cladding to the upper portion of the lift shaft is glass, which will mitigate the

intrusion of the building into the view corridor and setting of Elamang. The perceived scale of the building is reduced through the architectural treatment of the elevations: each elevation is visually broken down through changes in cladding type and articulation of each type of cladding. In these ways the design of the northern connector pod has been developed to reduce its visual impact on its surroundings, including Elamang, the Elamang Avenue streetscape, and the house 29 Elamang Avenue.

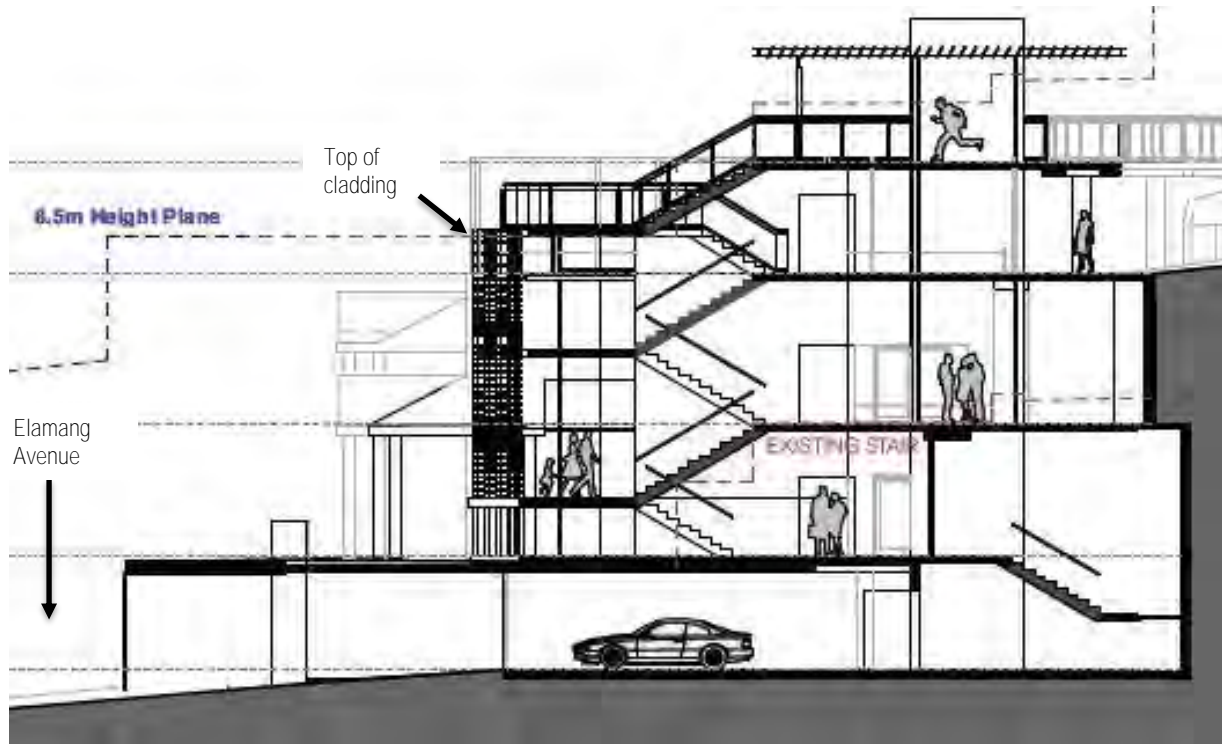


Figure 7.20 Section through the northern connector pod. The extent of the roof has been curtailed to minimise the bulk of the building. The cladding to the northern elevation of the stair extends to a height that corresponds with the top of **Centennial Hall's** northeastern wall, reducing the apparent height of the building and visually connecting it to its campus context. (Source: fjmt, 'Section A', excerpt from DA-4003, with GML notations)

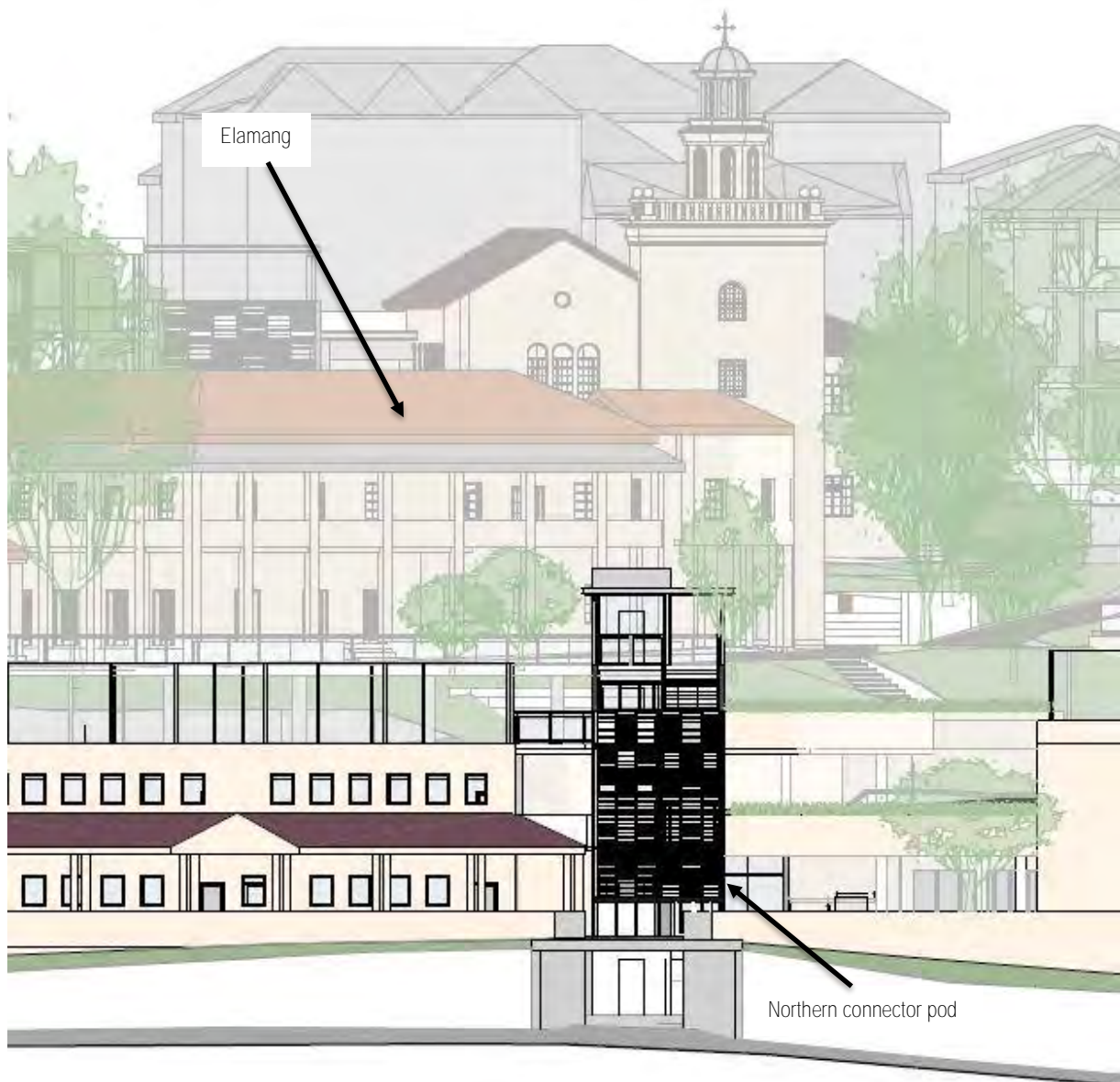


Figure 7.21 Elamang Avenue elevation of the northern connector pod in its context. The visual impact and perceived height of the pod is reduced through the architectural treatment of its façade. (Source: fjmt, excerpt from drawing DA-3004)

In the heritage assessment of the masterplan the raised walkway was identified as having a potential impact on the setting of Elamang. The potential visual impact of the raised walkway has been reduced through its design and materiality (Figures 7.22, 7.23). The raised walkway consists of a suspended concrete slab footpath with glazed balustrades and stainless steel handrails—nominally 1200mm in height. The support structure consists of single circular concrete columns. The use of glass for the balustrades and the simplification of the walkway’s structure serve to increase the transparency of the walkway, and mitigate the impact of the walkway on the setting of Elamang and Administration. Whereas the form of the raised walkway will potentially impact on the setting of Elamang, its impact will be mitigated through the design and materiality of the structure.



Figure 7.22 Perspective of the proposed raised walkway, seen from the entry drive (Elamang is on the right hand side). The design of the walkway has been developed to ensure the walkway has maximum transparency and minimal visual impact. (Source: fjmt)



Figure 7.23 Perspective of the proposed raised walkway, as seen from Administration. (Source: fjmt)

7.3.4 Eastern Precinct—New Disabled Ramps

The proposed Stage 1 works in the Eastern Precinct comprise the construction of new disabled access ramps located between the Science Building and Music and Performing Arts. There will be little heritage impact related to the construction of the ramps: adjacent buildings (Science, Music and

Performing Arts) are of little heritage significance. The ramps are unroofed and will have a minimal visual impact on the school, Elamang Avenue, or the neighbouring house Vanduara (10 Elamang Avenue).

7.3.5 Southern Precinct

Proposed Alterations to the Chapel Building Basement (Level E) and Classrooms (Level F)

The proposed internal alterations to levels E and F within the chapel building will have a minimal heritage impact as the spaces affected are not of high heritage significance: within the chapel building it is the chapel and tower stair that are the spaces of the most significance. The level F classrooms have been altered previously, with some original internal walls removed and new walls constructed. The two internal walls proposed to be demolished on Level F are not original, and their demolition is considered to be acceptable. One of the proposed new walls is to be built close the location of an original wall that was previously demolished. If possible, the new wall should be constructed in the location of the original wall as this would enhance the legibility of the original floor plan, and would represent a positive heritage impact. The new opening proposed in the other internal wall, which is original, is designed as a discrete opening, leaving nibs and sections of the walls intact. This is in keeping with best practice, and will serve to maintain the legibility of the original floor plan.

On Level F it is proposed to widen existing doorways that open onto the St Aloysius verandah, and to alter the existing windows to become doorways. The width of the new doorway openings will correspond to the width of the existing windows. The alterations proposed are acceptable as the new doorways will correspond in width and location to the arched windows of the chapel above; rhythms of fenestration on the southeastern elevation of the chapel building will be maintained. The new doorways will allow the classrooms to have improved access to the verandah, and this together with the removal of lockers from the historic verandah, will mean the verandah will become more actively integrated into the school campus. This is a positive heritage result.

On Level F, proposed changes to external openings on both the northwestern elevation (replacement of a single door and sidelight with a double door) and the northeastern elevation of the northern wing (alteration to an existing window to form a new doorway) are also considered to be acceptable. These represent minor alterations, and if sympathetically detailed will result in a minimal heritage impact on the chapel building (Figures 7.24, 7.25).



Figure 7.24 The proposed new doorways onto the St Aloysius verandah will align with the pairs of windows of the chapel above. (Source: GML, 2016)



Figure 7.25 It is proposed that the windows under the small awning (marked with a red arrow) be altered to become double doors. The small doorway (marked with a blue arrow) will be infilled and the first window on the right of the door will be altered to become a doorway. (Source: GML, 2016)

Proposed Alterations to the Chapel Building's Southern Wing

The proposed alterations to the chapel building's southern wing will potentially result in a significant heritage impact on the chapel building. The alterations include the removal of:

- the internal stair;
- the whole of the external classroom wall and two windows on Level F (the ground floor);
- internal walls on Level H (the upper floor); and
- two windows and all internal walls on Level H.

There is a moderate heritage impact in the proposed demolition of the internal stair in the southern wing, but in this case the impact is considered to be acceptable (Figures 7.26, 7.27). The stair is most likely original to the building, and is in good condition and highly intact. However, there is a positive aspect to its removal: it will facilitate disabled access to the chapel. Removal of the stair will allow for the existing doorway at the top of the stair to be used for disabled access into the chapel—currently the stair landing in front of the door is too small to meet disabled access requirements. The alternative would be to convert one of the chapel's existing windows to a doorway, which would result in a greater heritage impact. The chapel is one of the most significant rooms on the campus, and at the core of the school's culture, and as such the provision of equitable access to the chapel is important. It is considered that the loss of the stair to allow for the provision of disabled access is not ideal, but is the best option in terms of heritage impact.

There is a significant heritage impact in the removal of the external wall and windows on the northeastern elevation of the southern wing, Level F. The removal of the entire wall to expand the existing room will potentially result in a loss of legibility of the architectural qualities and floor plan of the original building. In order for the original floor plans to remain legible it would be preferable for new openings to be detailed as discrete openings in a wall rather than the total removal of the wall, so that the original building remains legible.

On Level H it is proposed that the existing windows in the northeastern wall are to be removed, which will result in a moderate heritage impact. These windows should be retained if possible. If it is not feasible to have fenestration in the wall, the windows should be infilled with recessed masonry so the location and size of the original window openings remains legible. All internal walls are proposed to be demolished. The internal spaces are not of high significance and so the demolition of the internal walls will have a minor heritage impact on the building. However, where possible, internal walls should be retained as a preference to building new walls in approximately the same location.



Figure 7.26 The top landing of the existing stair, which is not sufficient in size to provide disabled access to the chapel. (The existing door to the chapel is on the left.) (Source: GML, 2016)



Figure 7.27 Detail of the existing stair, which is proposed to be demolished as part of the Stage 1 works. (Source: GML, 2016)

Proposed Southern Connector Pod, Walkways and Lockers—Elevations

The north-eastern elevation of the chapel's southern wing is not its most prominent, yet this wing is nevertheless a part of the chapel building. Currently views of this elevation are partially blocked by an unsympathetic 1970s addition. The proposed connector pod, walkways and locker areas will continue to block views of the north-eastern elevation of the southern wing, and will preclude legibility of the wing as part of the chapel building.

However, as a way of mitigating the impact of the proposed works, the northeastern elevation of the new connector pod, walkways and locker areas has been designed to correspond with the scale of surrounding buildings, resulting in an infill building that works well in its surroundings (Figure 7.28). Visual cues have been referenced from the existing buildings: the top of the aluminium louvres corresponds to the gutter level of the chapel building's main roof, and the top of the glazing at ground floor level corresponds with the gutter level of the St Aloysius verandah. The overall scale of the northeast elevation is articulated in such a way that the perceived scale of the building is reduced, and is consistent with the scale of the adjacent J-Block and chapel buildings. Where the new building connects to the chapel building, a visual break has been created using glazed balustrades, and this serves to define the new from the old. The overall height of the new building is slightly lower than the ridge of the chapel building's main roof and approximates that of J-Block, which lends a consistency in height across the three buildings and further serves to visually unify them. The proposed building represents an improvement in the school's built environment compared to the intrusive concrete structure that currently stands in the same location.

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Figure 7.28 The proposed northeast elevation of the southern connector pod, walkways and lockers. The proportions and scale of the building respond well to the context, but completely block any views of the southern wing. (Source: fjmt drawing number DA-3005)

The southwest elevation includes the restoration of the original elevation of the southern wing, with the walkways and lockers areas, contemporary in style, partly visible beyond. There is a positive heritage impact in the restoration of the original elevation of the southern wing. The contemporary architectural language of the walkways/lockers communicates that these elements are not part of the original building, and are set sufficiently back to leave the restored southwestern elevation as the dominant part of the new building when seen from Carabella Street. This is a positive heritage result for the chapel building, the school and the Carabella Street streetscape, and will enhance the setting of nearby heritage listed items.

Proposed External Amphitheatre and Landscape

A small external amphitheatre is proposed to be constructed on the western side of the chapel tower, utilising the natural fall of the ground across the site. The amphitheatre will not include any elements that will protrude above ground level and interrupt the setting of the chapel building, and it will not result in any alterations to the entry drive. As such, it is considered that the construction of the amphitheatre will not result in any adverse heritage impact on the chapel building or on the entry drive. The landscape plan does not include the historically significant statue of St Michael on the adjacent lawn. The statue should be retained in place if possible, or a new prominent location found for the statue.

Proposed Internal Refurbishment and Fenestration Changes to J Block

The proposed alterations to J-Block will result in little heritage impact. The proposed internal refurbishment of J-Block involves the removal of most internal walls on Level H, as has recently been done on an upper level of the building. The interior of the building is not important to its heritage significance and as such the proposed internal changes will have little heritage impact. The proposed works also include discreet changes to some of the fenestration on the northeastern and northwestern

elevations. The building is assessed as being of moderate heritage significance, primarily for its Carabella Street elevation. Changes to fenestration will not be visible from Carabella Street. The proposed changes, which will match those recently undertaken on the northeastern elevation, will be legible as new elements inserted in an existing building, and the existing architectural character of J-Block will remain legible. As such, it is considered that the proposed internal refurbishment and fenestration changes to J-Block will have a minimal heritage impact.

7.4 Endnotes

- ¹ Naturally Trees, Arboricultural Impact Appraisal and Method Statement, 85 Carabella Street, Kirribilli, NSW, 24 November 2016.
- ² fjmt, View Analysis drawings MP60501, 60502, 60503, dated 14 October 2016.
- ³ Naturally Trees, Arboricultural Impact Appraisal and Method Statement, 85 Carabella Street, Kirribilli, NSW, 24 November 2016.
- ⁴ fjmt, View Analysis drawings SK-7.6.1, SK-7.6.2, SK-7.6.3, SK-7.7.1, SK-7.7.2, SK-7.7.3, SK-7.7.4, SK-7.7.5, 19 December 2016.
- ⁵ Naturally Trees, Arboricultural Impact Appraisal and Method Statement, 85 Carabella Street, Kirribilli, NSW, 24 November 2016.
- ⁶ Naturally Trees, Arboricultural Impact Appraisal and Method Statement, 85 Carabella Street, Kirribilli, NSW, 24 November 2016.
- ⁷ fjmt, View Analysis drawings MP60501, 60502, 60503, dated 14 October 2016.

8.0 Archaeological Impact Assessment

8.1 Archaeological Impact Assessment

This section provides an overview of the proposed development to identify activities that would potentially have an impact on the site's historical archaeological resource. Mitigation measures are recommended based on the severity of the impacts and the significance of the archaeological remains that would be affected. For consistency with the proposal documentation this assessment has been separated into the individual precincts.

8.1.1 Proposed Development

The activities associated with the proposed development that may have an impact on potential historical archaeological remains within each precinct are discussed below.

Western Precinct

- Demolition of the existing B-Block building and construction of a new five-storey building, which would require excavation across the entire building footprint to the depth of the existing gymnasium building (Western Precinct Comparative Sections [MP-4003], Western Precinct Envelope [MP-1104]).
- Partial demolition of the external stairs, landings, walkways and planters in between the gymnasium, Centenary Hall and the Junior School (Western Precinct Envelope [MP-1104]). These would be replaced by external covered landscaped walkways requiring areas of localised ground reduction to provide accessible pathways. Construction of a new terrace on the north side of the Junior School will have a floor level above that of the existing ground level.
- Construction of an extension to the existing gymnasium building along its northern edge at ground floor level.

Northern Precinct

- Partial demolition of existing stairs, walkways and other landscaping features within the area between the Science and Centenary Hall buildings (Northern Precinct Envelope [MP-1106]). A six-storey vertical connector pod would be constructed at the western end of the Centenary Hall which will involve the demolition of the existing lift and its enclosure and excavation to a depth of 13.4m RL outside the footprint of the existing below-ground carpark (Northern and Southern Precinct Connector Elamang Ave—Comparative Section [MP-4002]). Two walkways are proposed to link the connector pod at different levels within the site. The lower walkway at Level 3 would link the connector pod to the eastern end of Centenary Hall. The upper walkway at Level 5 would link the connector pod to the Elamang-Administration buildings to the south.

Eastern Precinct

- Construction of a vertical connector pod would entail demolition of the existing external stairway between the Science, Elamang, Performing Arts and Mary Ward buildings. The lowest level of the connector pod will have a floor level of 20.9m RL requiring localised excavation of 1–2m below the existing ground levels.

- Demolition of the existing Music and Performing Arts and Mary Ward buildings and construction of a new four-storey building with two basements levels (carparks). The existing carpark within the northern part of this precinct would be retained. Construction of the new building would require excavation to a depth of 13.3m RL (the same level as the existing carpark) across the building footprint (Eastern and Southern Precinct—Comparative Section [MP-4001]); this figure shows the extent of excavation required in relation to the footprint of the existing buildings).

Southern Precinct

- Partial demolition of external stairs, landings, walkways and planters in between the chapel and J-Block and construction of a vertical connector pod. This would require localised excavation within the footprint of the connector pod below the depth of the existing ground level (Southern Precinct Envelope 1 [MP-1110], Northern and Southern Precinct Connector Elamang Ave—Comparative Section [MP-4002]). It is also proposed to construct a new walkway along the eastern side of the chapel building and additional stairways providing access to the courtyard between the chapel and J-Block.
- Demolition of the Junior School building and construction of a new five-storey building. This would require excavation to the depth of the existing ground floor level of Centenary Hall (up to 14m below the existing ground level) (Southern Precinct Envelope 2 [MP-1112], Southern Precinct Section [MP-4001]).
- Landscaping along the western side of the chapel building, within the courtyard between the chapel, J-Block and Elamang—Administration buildings, and along the western and eastern perimeters of the new Junior School building, may require localised excavation for services, paths and other facilities.

Campus Core

- There are no development works currently proposed within the campus core.

8.1.2 Summary of Archaeological Impacts

The following section summarises the activities outlined above that may result in impacts to the potential historical archaeological remains.

Western Precinct

There is potential for archaeological remains of local significance beneath existing landscaped areas and courtyards situated between the later twentieth-century buildings, as well as beneath the B-Block building.

- Demolition of the existing B-Block and excavation for construction of the new five-storey building would completely remove any archaeological remains within the proposed building footprint. Locally significant archaeological remains that could be impacted might include building footings, occupation deposits and other remains of the 1860s Tremayne property, and remnant landscaping features which are not considered to meet the threshold for local significance.
- Demolition of the existing stairs and walkways between the gymnasium, Centenary Hall and the Junior School, and localised excavation for the vertical connector pod, would partially or completely remove any archaeological remains within the footprint of these works. Locally significant archaeological remains and relics that could be impacted may comprise remains

associated with the 1850s Hermitage property, such as outbuildings, wells, rubbish dumps, and other artefact bearing deposits.

Northern Precinct

The potential for archaeological remains within the northern precinct is considered to be low, as construction of the existing late twentieth-century buildings will have resulted in the complete removal of any earlier remains. Demolition of the existing stairs and walkways, and localised excavation for the vertical connector pod, are considered unlikely to result in any impacts to significant archaeological remains or relics.

Eastern Precinct

This precinct is considered to have low potential for archaeological remains as construction of the existing late twentieth-century buildings will have resulted in the complete removal of any earlier remains. As such, demolition of the existing buildings and structures to facilitate construction of the vertical connector pod and the new four-storey Junior School building is unlikely to result in any impacts to significant archaeological remains or relics.

Southern Precinct

This precinct is assessed as having a moderate to high potential for archaeological remains across the central area; beneath the J-Block and Junior School buildings the potential for archaeological remains is considered to be low or nil.

- Demolition of existing structures between the chapel and J-Block would potentially impact on archaeological remains of local significance associated with the 1850s Elamang property (truncated footings of the stables, wells, rubbish dumps etc) which may be present directly below the modern ground surface.
- Excavation within the footprint of the proposed vertical connector pod would completely remove any archaeological remains within its footprint. This could include truncated remains of the 1890s stables, along with other features (wells, rubbish dumps etc), of local significance.
- Demolition of the Junior School and excavation for the proposed five-storey building would completely remove any archaeological remains associated with the 1850s Coreena property (such as building footings, artefact deposits, wells, and cesspits) which may survive within the southern portion of the proposed building footprint. This may also have an impact on remains of an unidentified late nineteenth- or early twentieth-century building (visible on Figure 2.10).
- Localised excavation and ground reduction for landscaping, services and other minor works would potentially have an impact on archaeological remains if undertaken within the open grounds to the south of the existing Junior School, to the west of the chapel building and within the courtyard area between Elamang and J-Block, where there is potential for archaeological remains associated with the 1850s Coreena and Elamang (extant) properties. These could potentially be of local significance depending on the nature and extent of any remains present.

8.1.3 Mitigation Measures

The results of this assessment have identified areas of the site that have a moderate to high potential to contain archaeological remains and relics, assessed as being of local significance, which would be impacted by the proposed development. To mitigate against the impact of the proposed development

on the site's historical archaeological resource it is recommend that a program of archaeological investigation and recording is undertaken as part of the proposed demolition and construction works to ensure that any historical archaeological remains identified during the course of ground disturbance works be appropriately investigated, recorded and interpreted.

For those areas of the site with a moderate or high potential to contain archaeological remains that would be impacted by the development, a program of archaeological test or salvage excavation is recommended. In areas of the site where there is a low potential for archaeological remains but the impact of the development is high (ie basement excavation), a program of archaeological monitoring is recommended so that if any archaeological remains are identified these can be recorded prior to their removal. An unexpected finds procedure should also be developed and implemented for the site.

Table 8.1 provides a summary of the recommended mitigation strategies for the various activities within each of the four precincts.

Table 8.1 Recommended Mitigation Strategies.

Precinct	Activity	Archaeological Resource	Mitigation
Western Precinct	Demolition of B-Block	Phase 2: Structural remains and artefact bearing deposits associated with Tremayne.	Test or salvage excavation
	Vertical connector pod	Phase 2: Outbuildings, wells, and artefact deposits associated with the Hermitage.	Monitoring
Northern Precinct	Vertical connector pod	No potential.	Unexpected finds procedure
Eastern Precinct	Vertical connector pod, excavation for new Junior School	No potential.	Unexpected finds procedure
Southern Precinct	Demolition of courtyard between chapel and J-Block	Phase 2: Outbuildings, landscape features and other artefact bearing deposits associated with Elamang.	Monitoring
	Vertical connector pod	Phase 2: Outbuildings, landscape features and other artefact bearing deposits associated with Elamang.	Monitoring
	Demolition of Junior School	Phase 2: Outbuildings, landscape features and other artefact bearing deposits associated with Coreena.	Monitoring
	Landscaping	Phase 1: Evidence for ephemeral use. Phase 2: Landscaping features and other artefact bearing deposits associated with Coreena and Elamang.	Monitoring

9.0 Conclusion and Recommendations

9.1 Built Heritage Conclusion: Masterplan

The proposed Loreto Kirribilli Masterplan is generally compatible with the heritage significant buildings on the subject site and those in the vicinity. Elamang, Administration and the school's entry drive will remain physically unaffected by the proposed masterplan. The chapel tower will remain the highest built element on the site, with little change anticipated to district and harbour views of the tower. Views between the harbour and Elamang will be partially affected, but will for the most part remain unchanged. There will be little impact on the setting of the chapel building, but there will be a moderate impact on the setting of Elamang. There will be a positive heritage impact in the removal of the intrusive 1970s addition on the southern wing of the chapel, and partial reconstruction of the original form of the wing. The impact on heritage items within the vicinity and the Careening Cove Conservation Area will be minimal. A conclusion for each precinct follows.

9.1.1 Western Precinct

It is considered that the proposed building works in the Western Precinct will have a minimal impact on Elamang, Administration or the chapel; it is only the proposed raised walkway that has the potential to have a minor impact on the setting of Elamang. There will be little impact on the Careening Cove Conservation area, or the Carabella Street and Elamang Avenue streetscapes. There will be a negligible heritage impact on the setting of the heritage listed houses in the vicinity on Elamang Avenue and Carabella Street. There will be a minor impact on harbour and district views from some heritage listed houses in Carabella Avenue.

The demolition of the nineteenth-century sandstone retaining walls to allow for the construction of the Learning Hub will potentially have an adverse heritage impact. The walls represent rare historic fabric on the site, and are evidence of the existence of the former house Tremayne, and the historic use of the site. It is considered that the impact from the demolition of the walls can be reduced, and mitigation strategies have been proposed in Section 9.3 Built Heritage Recommendations.

9.1.2 Northern Precinct

The proposed connector pod and raised walkway will potentially impact on the setting of Elamang, and views between the building and the harbour. Strategies to mitigate these impacts have been implemented through the developed design, and are discussed in Section 9.2 Built Heritage Conclusion: Stage 1 Works.

9.1.3 Eastern Precinct

There is a potential heritage impact in the proposed demolition of the Mary Ward building, assessed as being of moderate heritage significance. Strategies to mitigate the impact are discussed under 'Recommendations'.

The proposed new building will have a minimal impact on the setting of Elamang, Administration or the chapel building. It is anticipated that the new building will result in improved views to and from Vanduara (10 Elamang Avenue) and this represents a positive heritage impact. The proposed new building has the potential to impact on views to and from Araluen and Fairhaven (71 and 69 Carabella Street) and the harbour, and to result in an increase in overshadowing of the rear gardens of Araluen. The future design of the new building should be developed to minimise impact on views to these

buildings and the potential increase in overshadowing. It is not considered that the proposed building will result in a heritage impact on other heritage items in the vicinity.

9.1.4 Southern Precinct

There is a positive heritage impact in the proposed demolition of the 1970s top floor addition to the chapel building's southern wing and the open walkways on its northeastern side, as these elements are assessed as being intrusive. The reinstatement of the original street-front façade of the wing also represents a positive heritage impact. The potential heritage impact of the proposed southern connector pod and associated works is discussed under the conclusion for 'Stage 1 Works'.

There is little adverse heritage impact anticipated in the demolition of the Junior School and construction of a new five-storey building. It will potentially have little impact on the setting of the chapel building, Elamang or the entry drive. It will have a minimal impact on the Careening Cove conservation area, the Carabella Street streetscape or the setting of heritage listed houses in the vicinity. There will however be a minor impact on harbour and district views from heritage listed houses opposite on Carabella Street.

9.2 Built Heritage Conclusion: Stage 1 Works

9.2.1 Materiality and Architectural Expression

A consistent materiality and architectural expression is proposed for all new building works. The use of a contemporary architectural language and the proposed materials palette will be compatible with the existing buildings on the subject site and the built environment of the Kirribilli area, and is in accordance with good practice in relation to new building in the vicinity of heritage buildings.

9.2.2 Western Precinct

There is little heritage impact anticipated in the construction of the Learning Hub or the northeastern elevation to the gymnasium. Further information is required in regards to the proposed landscape works and retaining walls close to the Elamang Avenue boundary.

9.2.3 Northern Precinct

The design of the northern connector pod and raised walkway has been developed to maximise the transparency of the new building elements. The connector pod has been minimised in size, and its elevations articulated to reduce the perceived scale of the building and its visual impact when seen from Elamang Avenue. In these ways, the potential impact of the connector pod and raised walkway on the setting of Elamang has been reduced.

It should be noted that the connector and walkway will benefit the school community in other ways, providing a continuous equitable path of travel from the basement level carparks to Centennial Hall, Elamang and Administration.

9.2.4 Eastern Precinct

There is no heritage impact anticipated in association with the Stage 1 works (construction of disabled ramp and associated works) for the Eastern Precinct.

9.2.5 Southern Precinct

The proposed southern connector pod (including walkways and locker areas) has the potential to result in both positive and adverse heritage impacts. There is a major positive heritage impact in the

removal of the intrusive 1970s addition and reconstruction of the original form of the southern wing. However, there is an adverse impact associated with the removal of the original north-eastern external wall of the building, and the merging of the existing internal space with the new space. The removal of the internal stair represents a moderate heritage impact, but is considered to be acceptable as it is the least intrusive means of achieving disabled access to the chapel.

Within the main part of the chapel building (levels E and F), it is considered that the changes proposed will have a minor heritage impact, and are acceptable.

9.3 Built Heritage Recommendations

The following recommendations are made in relation to the proposed Masterplan and Stage 1 works.

9.3.1 General

- The heritage structures on the site are to be protected from damage during construction works. All excavations, piling, footings and the like are to be designed and constructed so as to minimise any risk of damage to the heritage buildings. A system of vibration monitoring for the heritage buildings is to be designed and implemented in consultation with an experienced heritage engineer to ensure that potential damage is minimised.
- Ongoing advice from a heritage architect should be sought during the design development, documentation and construction stages, for works to heritage buildings or works in the vicinity of heritage buildings on the site. Inspections by a heritage architect of the heritage buildings, where impacted by the building works, should be included during the construction period.

9.3.2 Western Precinct

- Prior to demolition, an archival recording should be made of the sandstone retaining walls near B-Block in accordance with the relevant NSW Heritage Division guidelines.
- The sandstone retaining walls are to be carefully dismantled using equipment and methods to avoid damage to the sandstone. All sandstone blocks from the retaining wall, and any other historic sandstone blocks within the area, are to be salvaged for re-use on site, and are to be protected during construction of the Learning Hub.
- Interpretation of the sandstone retaining walls and the Tremayne house should be included in a suitable location within the proposed Learning Hub building.
- A new jacaranda tree should be planted in a suitable location to replace the jacaranda tree near B-Block that is proposed to be removed.
- The large fig tree (tree No. 8 in the arborist's report) in the northern corner of the site is to be protected from damage during construction works. It is noted that the proposed works will breach the tree protection zone for the tree as nominated by the arborist. The protection of the fig should be included in the Construction Management Plans for the site, and all necessary measures should be taken to ensure that the tree is not damaged as a result of the construction works.
- Further information should be submitted regarding the proposed retaining walls and landscape features between the gymnasium and the school's Elamang Avenue boundary.

9.3.3 Northern Precinct

- The part of the northern connector lift shaft above ground level (Level E) is to be detailed to maximise transparency. A glass lift shaft would be appropriate in this sense.
- The balustrades of the raised walkway are to be clear glazed and are to be detailed to maximise the transparency of the walkway.
- The structure of the raised walkway should be designed to be as slender and unobtrusive as possible.

9.3.4 Eastern Precinct

- An archival recording (internal and external) of the intact spaces of the Mary Ward building should be carried out prior to demolition of the building.
- The sandstone retaining wall on the school's property boundary with Araluen and Fairhaven should be protected from damage during construction.
- The jacaranda tree within the grounds of Araluen should be protected from damage during construction.
- The design of the proposed new building, in particular its uppermost level, should be developed to minimise any obstruction to views to and from Araluen and Fairhaven.
- The garbage room building is to be retained and protected from damage during construction.

9.3.5 Southern Precinct

- The proposed reinstatement of the southwestern elevation of the chapel building's southern wing is to be undertaken to match the form, materials and detailing used on the southwestern elevation of the building's northern wing. This includes profiles and materials of gutters and downpipes, coining at corners, masonry sills, eaves, fascias and roof cladding.
- Existing windows on the southwestern elevation are to be retained in place and repaired in preference to installing new windows.
- The works undertaken in the chapel building should aim to maximise retention of existing building fabric. Original internal walls should be retained in preference to constructing new walls in a similar location.
- Original windows should be retained where possible on the north-eastern elevation of the southern wing. Where windows are to be infilled, the infill should allow for a recess to remain, indicating the location of original window openings.
- New openings in original masonry walls are to be designed in such a way that sufficient brick nibs remain to reference the existence of the original wall. This is in keeping with accepted best practice in heritage conservation.
- Original windows and joinery doors that are proposed to be removed are to be salvaged and reused in the chapel building in suitable locations.

- New windows and doors in the chapel building are to be timber framed joinery units. Glazing in external windows is to be articulated with transoms and mullions to match the pattern of articulation of the existing external windows.
- The St Aloysius verandah is an original part of the chapel building and is to be retained. The verandah is to be protected from damage during construction works. Non-original elements of the verandah, such as its metal roof sheeting, can be replaced.
- The statue of St Michael near the entry drive is to be protected from damage during construction. The statue is to remain in its current location after the completion of the building works, or an alternative location found that is acceptable to the school.
- The Carabella Street boundary fence and main entry gates are to be protected from damage during the construction works.
- The proposed alterations to J-Block should not result in any alterations to the Carabella Street elevation of the building.

9.4 Historical Archaeology Conclusion and Recommendation: Masterplan

The Loreto Kirribilli site contains localised areas with potential for archaeological remains of local significance that would be impacted by the proposed development. Demolition of the B-Block, Junior School and the courtyard area between the Chapel and J-Block, and activities associated with construction of the Vertical connector pods within each precinct may have an impact on archaeological remains that may be present within the footprint of these works. To mitigate against these impacts a program of archaeological investigation and recording is recommended that would ensure that any historical archaeological remains identified during the proposed works would be appropriately investigated, recorded and interpreted.

9.4.1 Recommendations

- Based on the project being assessed as State Significant Development approved under Part 4, Division 4.1 of the EPA Act, the relic provision of the Heritage Act would not apply. Therefore, it is recommended that archaeological works be undertaken in accordance with archaeological best practice. This would involve detailed investigation of any exposed archaeological relics, by applying established archaeological methodologies (cleaning, recording note taking, photographing, planning, level taking). These methodologies would be outlined in an appropriate Archaeological Research Design specifically prepared for the subject site.
- For works within the Western Precinct and Southern Precinct an Archaeological Research Design (ARD), detailing the proposed methodology for investigation and salvage should be prepared. The ARD should propose a strategic approach to the investigation of the historical archaeological resource in order to manage risks and delays over the course of the development program. The ARD should include a flexible archaeological methodology to respond to the needs of the construction program and provide contingency should more significant archaeological remains than expected be found.
- The Northern Precinct and Eastern Precinct have a low potential to contain archaeological remains and no further work is recommended for these precincts. An unexpected finds procedure should be developed and implemented prior to the commencement of works.

- In the event that the project is not approved as State Significant Development or that any works requiring ground disturbance (such as archaeological or any other testing) precede the determination period, the proposed works would be undertaken in accordance with an excavation permit under Section 141, or an exception from the need for an excavation permit under Section 139(4) of the Heritage Act.
- Any retrieved historical artefactual material would be the responsibility of the owner of the site. This includes appropriate treatment of the artefacts, and their long-term storage in a safe and accessible place.
- A copy of this report and any other relevant reports subsequently prepared as part of this project should be sent to the NSW Heritage Division, OEH for their records.
- All contractors responsible for ground disturbance within the study area should be provided with a heritage induction conducted by a suitably qualified archaeologist prior to any works commencing. This induction would provide information regarding the nature and appearance of potential heritage items within the study area and the requirements for reporting under the Heritage Act. It would also advise contractors of the role of the archaeologist on site during archaeological investigations.