Douglas PARTNERS | GROUNDED EXPERTISE

The University of New South Wales
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Attention: Hanna Knight
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Project 227492.02
30 March 2026
R.003.Rev0
PAV/KP

Report on Proposed State Significant Development Modification 1 Geotechnical and Contamination Considerations UNSW E25 Biolink Redevelopment 356 Anzac Parade, Kensington NSW

1. Introduction

This letter prepared by Douglas Partners Pty Ltd (Douglas) presents the review of the geotechnical and contamination considerations relating to proposed Modification 1 of the State Significant Development Application (SSDA), which was approved on 16 December 2025 for the University of New South Wales (UNSW) for the UNSW E25 Biolink Redevelopment located at 356 Anzac Parade, Kensington (i.e. Lot 5 in DP 1264171) within the UNSW Kensington Campus.

The SSDA grants approval for: *Upgrade and extension to Building E25 for the purpose of teaching and research facilities including partial demolition of Building E25 (the UNSW Biolink Building), earthworks, extension of the existing building, internal and external alterations, facade works and landscaping.*

It is understood that Urbis is preparing a Modification Application (Mod 1) to seek approval for minor external and internal modifications to Building E25.

This letter has been prepared for The University of New South Wales at the instruction of Turner and Townsend, dated 26 March 2026.

2. Proposed Modification

Modification Application (Mod 1) will seek approval for minor internal and external modifications to deliver the approved upgrade and extension of Building E25 Biolink. The proposed modifications are to improve building functionality, operability and long-term performance of the building.

It is understood from Urbis that the proposed modifications to the redevelopment are summarised as below:

	Approved	Proposed Modification
Total Gross Floor Area	7,620 m^2 which includes: Lower Ground – 775 m^2 Ground – 1,137 m^2 Level 01 – 1,118 m^2 Level 02 – 1,168 m^2 Level 03 – 1,128 m^2 Level 04 – 1,167 m^2 Level 05 – 1,127 m^2	7,627 m^2 which includes: Lower Ground – 787 m^2 Ground – 1,105 m^2 Level 01 – 1,106 m^2 Level 02 – 1,149 m^2 Level 03 – 1,148 m^2 Level 04 – 1,182 m^2 Level 05 – 1,150 m^2
Proposed Works	Upgrade and extension to Building E25 for the purpose of teaching and research facilities including partial demolition of Building E25 (the UNSW Biolink Building), earthworks, extension of the existing building, internal and external alterations, facade works and landscaping.	No change
Proposed Uses	Tertiary education – teaching / research / laboratory.	No change
Maximum Height	32.89 m above existing ground level RL 86.35 m 7 storeys (Lower Ground – Level 5) plus rooftop plant.	33.09 m above existing ground level RL 86.55m 7 storeys (Lower Ground – Level 5) plus rooftop plant.
Landscaped Area	10% of the site area is provided as soft landscaping.	No change
Hours of Operation	Construction: 7am - 6pm Monday to Saturday No work Sundays or public holidays. Operation: 24/7	No change

The proposed modifications are further detailed in the attached Architectural Design Statement prepared by HDR Pty Limited, dated 10 March 2026.

3. Previous Douglas Reports

Douglas has previously prepared the following geotechnical reports relating to the site:

- Report on Geotechnical Investigation, Proposed E25 Biolink Redevelopment, 356 Anzac Parade, Kensington, NSW, Prepared for The University of New South Wales, Project 227492.02.R.001,Rev06 dated 5 March 2025 (Douglas, 2025a); and
- Report on Groundwater Impact Assessment, Proposed E25 Biolink Redevelopment, 356 Anzac Parade, Kensington, NSW, Prepared for The University of New South Wales, Project 227492.02.R.002.Rev05 dated 5 March 2025 (Douglas, 2025b).

Douglas has previously prepared the following contamination report relating to the site

- Report on Preliminary Site (Contamination) Investigation, Proposed E25 Biolink Redevelopment, 356 Anzac Parade, Kensington, NSW, Prepared for The University of New South Wales, Project 227492.03.R.001.Rev07 dated 5 March 2025 (Douglas, 2025c).

4. Comments

4.1 Geotechnical Considerations

The proposed modifications do not materially alter the findings and conclusions of the report on geotechnical investigation (Douglas, 2025a) and the report on Groundwater Impact Assessment (Douglas, 2025b). The recommendations and mitigations measures therein remain applicable.

4.2 Contamination Considerations

The proposed modifications do not materially alter the findings and conclusions of the contamination investigation (Douglas, 2025c). The recommendations and mitigations measures therein remain applicable.

5. Closing

We trust that this letter satisfies the requirements for geotechnical and contamination considerations in regard to proposed Modification 1 of the SSDA.

6. References

Douglas. (2025a). Report on Geotechnical Investigation, Proposed E25 Biolink Redevelopment, 356 Anzac Parade, Kensington, NSW, Prepared for The University of New South Wales, Project 227492.02.R.001,Rev06 dated 5 March 2025.

Douglas. (2025b). Report on Groundwater Impact Assessment, Proposed E25 Biolink Redevelopment, 356 Anzac Parade, Kensington, NSW, Prepared for The University of New South Wales, Project 227492.02.R.002.Rev05 dated 5 March 2025 .

Douglas. (2025c). Report on Preliminary Site (Contamination) Investigation, Proposed E25 Biolink Redevelopment, 356 Anzac Parade, Kensington, NSW, Prepared for The University of New South Wales, Project 227492.03.R.001.Rev07 dated 5 March 2025.

7. Limitations

Douglas Partners Pty Ltd (Douglas) has prepared this report for this project at 356 Anzac Parade, Kensington, NSW in accordance with Douglas' proposal 227492.02.P.001.Rev1 dated 13 June 2024 and acceptance received from Hanna Knight dated 13 June 2024. The work was carried out under a Supply Agreement dated 16 July 2024. This report is provided for the exclusive use of The University of New South Wales for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of Douglas, does so entirely at its own risk and without recourse to Douglas for any loss or damage. In preparing this report Douglas has necessarily relied upon information provided by the client and / or their agents.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. Douglas cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by Douglas. This is because this report has been written as advice and opinion rather than instructions for construction.

Yours faithfully
Douglas Partners Pty Ltd

Peter Valenti / Kurt Plambeck
Senior Associate

Attachments: About this Report
Architectural Design Statement by HDR

About this Report

October 2024

Introduction

These notes have been provided to amplify Douglas' report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

Douglas' reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, Douglas will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, Douglas cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, Douglas will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, Douglas requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. Douglas would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

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10th March 2026

Holly McNamara
Urbis
Angel Place
Level 8/123 Pitt Street,
Sydney NSW 2000

ARCHITECTURAL DESIGN STATEMENT
PROJECT: UNSW E25 BIOLINK REDEVELOPMENT

This statement is issued to outline the proposed modification to the approved SSDA submission. The modification has been developed to accommodate a series of refinements that improve building functionality, operational efficiency, compliance, and user requirements, while remaining consistent with the overall intent of the approved development.

The proposed amendments are limited in scope and have been carefully considered to support improved circulation, servicing, accessibility, and operability of the building. All changes are clearly identified on the amended drawings submitted with the modification application and are referenced by alphabetical tags. A summary of the changes and their justifications is provided below to assist with review.

A. **New goods lift lobby and lift relocation**
   Revised to improve circulation efficiency within the research floors and minimise cross contamination flows & movements.
B. **Minor façade modification for new doors**
   Required to facilitate compliant plant and general access, with no material impact to the previously approved plans.
C. **New valve room for ambient water loop**
   Introduced to consolidate and enclose all valves within a secure, controlled environment, improving safety, durability, and maintenance access.
D. **Enclosure of existing window openings to new plant areas**
   Necessary to accommodate new plant functions and ensure appropriate environmental separation.
E. **Extension of structural supporting core wall**
   Implemented to support revised structural requirements arising from internal layout and loading changes.
F. **New amenities layout**
   Updated to incorporate gender-neutral amenity provisions

G. **Modified stair arrangement**
   Adjusted to align with revised internal planning and security requirements
H. **Ground level transition adjustment from Chancellery Walk**
   Modified to provide a more comfortable and accessible pedestrian approach to the main entrance, minimise ramping requirements.
I. **New stair above valve room and relocation of existing stairs**
   Allows improved access to plant areas within E25 and the new valve room.
J. **Screen relocated west**
   Revised to provide effective screening of existing services.
K. **Structural void for movement allowance**
   Included to accommodate differential settlement and shrinkage between the new and existing structures.
L. **Removal of planter box on Level 2**
   Removed due to structural engagement constraints, insufficient depth for meaningful planting, waterproofing limitations, and complex façade interfaces.
M. **New amenities layout for research levels**
   Rationalised to support an anticipated occupancy of approximately 24 staff members per research floor.
N. **Removal of void to allow additional floor space**
   Enables increased provision of informal collaboration spaces on research levels.
O. **Plant room façade setback**
   Introduced to facilitate safe and practical ongoing maintenance access.
P. **New structural slab addition**
   Required to accommodate additional plant loading and allow for building movement between the existing and new structures.
Q. **New plenum addition**
   Included to support revised services coordination and building performance requirements.
R. **Ridge height increase of 200mm**
   Necessary to accommodate plant equipment while remaining consistent with the overall building scale and form.
S. **Specification update to include “or similar”**
   Provides reasonable flexibility during construction procurement without altering the approved design intent.
T. **Updated flue location**
   Revised to align with the current design resolution and applicable compliance requirements.

Below are the identified changes as detailed on each of the drawings submitted

SHEET:	LIST OF CHANGES:
EXISTING:	
11001 - Existing Site plan	-
SHADOW DIAGRAMS:	
11005 - Summer Solstice- Existing	-
11005.1 - Summer Solstice- Proposed	Extent of shadow impact changed
11005.2 - Autumn Equinox- Existing	-
11005.3 - Autumn Equinox - Proposed	Extent of shadow impact changed
11005.4 - Winter Solstice- Existing	-
11005.5 - Winter Solstice- Proposed	Extent of shadow impact changed
11005.6 - Spring Equinox- Existing	-
11005.7 - Spring Equinox - Proposed	Extent of shadow impact changed
DEMOLITION:	
12001 - Demolition Site	Extended work to make good existing pavement Demolition of area for new valve room
12002 - Demolition Lower Ground	Existing Façade to be retained Glazing and louvres to be replaced and/ or make good
12003 - Demolition Ground	Existing Façade to be retained Glazing and louvres to be replaced and/ or make good Demolition of Existing fume stack and service doors to Existing core Existing Floors to be demolished
12004 - Demolition L1	Existing Façade to be retained Glazing and louvres to be replaced and/ or make good Demolition of Existing fume stack and service doors to Existing core Existing Floors to be demolished Existing portion of wall to be demolished for new goods lift Existing bridge to F25 to be demolished and facade to make good
12005 - Demolition L2	Existing Façade to be retained Glazing and louvres to be replaced and/ or make good Demolition of Existing fume stack and service doors to Existing core Existing Floors to be demolished Existing portion of wall to be demolished for new goods lift Existing bridge to F25 to be demolished and facade to make good

12006 - Demolition L3	Existing Façade to be retained Glazing and louvres to be replaced and/ or make good Demolition of Existing fume stack and service doors to Existing core Existing Floors to be demolished Existing portion of wall to be demolished for new goods lift
12007 - Demolition L4	Existing Façade to be retained Glazing and louvres to be replaced and/ or make good Demolition of Existing fume stack and service doors to Existing core Existing Floors to be demolished Existing portion of wall to be demolished for new goods lift Existing bridge to F25 to be demolished and facade to make good
12007 - Demolition L5	Existing Façade to be retained Glazing and louvres to be replaced and/ or make good Demolition of Existing fume stack and service doors to Existing core Existing Floors to be demolished Existing portion of wall to be demolished for new goods lift Existing bridge to F25 to be demolished and facade to make good
12008 - Demolition L6	Existing slab to be demolished Existing bridge to F25 to be demolished and facade to make good
12009 - Demolition Roof	Existing elements to be demolished on roof - refer to mechanical report
GENERAL ARRANGEMENT:	
21001 - GA Lower Ground	a. New goods lift lobby & lift relocation b. minor facade modification for new doors for plant and general access c. new valve room for ambient water loop d. enclosure of existing window openings to new plant areas e. extension of new structure supporting core wall
21002 - GA Ground	a. New goods lift lobby & lift relocation b. minor facade modification for new doors for plant and general access c. new valve room for ambient water loop e. extension of new structure supporting core wall f. new amenities layout g. Stair arrangement modified h. ground level change for transition from chancellery walk i. new stair above new valve room J. screen moved west to allow for screening of services
21003- GA L1	a. New goods lift lobby & lift relocation b. minor facade modification for new doors for plant and general access e. extension of new structurE supporting core wall f. new amenities layout g. Stair arrangement modified h. ground level change for transition from chancellery walk J. screen moved west to allow for screening of services

21003- GA L1	a. New goods lift lobby & lift relocation b. minor facade modification for new doors for plant and general access e. extension of new structure supporting core wall f. new amenities layout g. Stair arrangement modified J. screen moved west to allow for screening of services
21004- GA L2	a. New goods lift lobby & lift relocation b. minor facade modification for new doors for plant and general access e. extension of new structure supporting core wall f. new amenities layout g. Stair arrangement modified J. screen moved west to allow for screening of services k. structural void for movement allowance l. planter box removed
21005- GA L3	a. New goods lift lobby & lift relocation b. minor facade modification for new doors for plant and general access e. extension of new structure supporting core wall g. Stair arrangement modified j. screen moved west to allow for screening of services k. structural void for movement allowance m. New amenities for research levels n. Void removed to allow for additional floor space
21006- GA L4	a. New goods lift lobby & lift relocation b. minor facade modification for new doors for plant and general access e. extension of new structure supporting core wall g. Stair arrangement modified j. screen moved west to allow for screening of services k. structural void for movement allowance m. New amenities for research levels n. Void removed to allow for additional floor space
21007- GA L5	a. New goods lift lobby & lift relocation b. minor facade modification for new doors for plant and general access e. extension of new structure supporting core wall g. Stair arrangement modified j. screen moved west to allow for screening of services k. structural void for movement allowance m. New amenities for research levels n. Void removed to allow for additional floor space
21008- GA L6	a. New goods lift lobby & lift relocation o. Plant room setback on facade to allow for maintenance p. New structural slab addition r. New plenum addition
21009- GA Roof	a. New goods lift lobby & lift relocation s. Ridge height raised by 200mm to allow for plant equipment

ELEVATIONS	
30001 - Elevation 01	l. planter box removed s. Ridge height raised by 200mm to allow for plant equipment t. Description updated to show "or similar" u. Flue location updated to current design
30002 - Elevation 02	a. New goods lift lobby & lift relocations. Ridge height raised by 200mm to allow for plant equipment t. Description updated to show "or similar" u. Flue location updated to current design
30003 - Elevation 03	a. New goods lift lobby & lift relocations. Ridge height raised by 200mm to allow for plant equipment s. Ridge height raised by 200mm to allow for plant equipment t. Description updated to show "or similar" u. Flue location updated to current design
30004 - Elevation 04	l. planter box removed s. Ridge height raised by 200mm to allow for plant equipment t. Description updated to show "or similar" u. Flue location updated to current design
SECTIONS	
31001 - Section 01	a. New goods lift lobby & lift relocation d. enclosure of existing window openings to new plant areas p. New structural slab addition s. Ridge height raised by 200mm to allow for plant equipment u. Flue location updated to current design
31002 - Section 02	g. Stair arrangement modified s. Ridge height raised by 200mm to allow for plant equipment u. Flue location updated to current design
31003 - Section 03	e. Extension of new structure supporting core wall s. Ridge height raised by 200mm to allow for plant equipment u. Flue location updated to current design

The proposed modifications will result in minimal impact to the currently approved façade and built form. The changes are intended to enhance the functionality, operability, and long-term performance of the building, while remaining consistent with the overall design intent and planning outcomes of the approved development.