





# DESIGN INTEGRITY REPORT

# POWERHOUSE PARRAMATTA

18 SEPTEMBER 2020

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## 1. INTRODUCTION

This report outlines the design integrity process and review that has occurred since lodgement of the Powerhouse Parramatta State Significant Development Application (SSDA) and in support of the design lodged with the Response to Submissions.

Since lodgement and as a result of comments received during the public exhibition, the architectural and public realm design for Powerhouse Parramatta has been developed. The design development and amendments are outlined in detail in the Architectural Design Report and Public Domain Design Report appended to the Response to Submissions.

This report includes the Design Integrity Panel's review of the design development in relation to both changes made in response to submissions received from the public exhibition of the SSDA as well as the ongoing design development process for the project. The report does not represent a finalisation of the design development process nor completion of the Panel's role in ensuring design integrity. The Powerhouse Parramatta Design Integrity Panel will remain an integral component of the project, ensuring the Powerhouse Parramatta design develops in line with the intent of the competition winning design.



2. DESIGN INTEGRITY PROCESS

As outlined in Appendix D - Design Excellence Report to the SSDA, the Powerhouse Parramatta Design Integrity Panel is comprised of the following membership:

- Naomi Milgrom AC, Independent Chair
- Peter Poulet, Central City District Commissioner, Greater Sydney Commission, Trustee Museum of Applied Arts and Sciences
- Kim Crestani, Parramatta City Architect
- Wendy Lewin FRAIA, Independent Architect

All members of the Design Integrity Panel were involved as members of the jury apart from Peter Poulet.

The role of the Powerhouse Parramatta Design Integrity Panel is to:

- Provide independent, expert and impartial advice in relation to the achievement of design excellence;
- Ensure the design integrates with the City of Parramatta, providing a unique precinct design that seamlessly blends with its surrounds;
- Interrogate and provide comment on the processes employed to deliver design excellence;
- Provide advice and inform the project team on aspects of project delivery that will assist in the achievement of design excellence; and
- Assess the design at regular intervals to interrogate decision-making to ensure all reasonable alternative design solutions have been explored.

Note: The Panel’s role does not include budget or cost management for the project or assessment of heritage and community consultation issues. The Panel’s role is focused on ensuring design integrity is retained throughout all aspects including value management exercises.

3. DESIGN INTEGRITY UPDATES

Since lodgement of the SSDA, the Design Integrity Panel has met regularly to receive presentations from the project and design teams regarding design development, project updates on broader project progress and held workshops on specific design related issues.

The majority of the Panel has been involved since selection of the competition winning design. This has enabled issues in relation to design resolution to be raised early within the overall design development process. The issues were raised in a collaborative environment through questioning, critiquing and reviewing concepts. This process has allowed the design team to undertake testing and investigations on particular elements, with the outcome being one of continual refinement whilst retaining overall design integrity. The input of the Panel has enabled the design team to provide focus on design development issues and aspects and continually resolve design questions, strengthening the overall design.

The Panel continue to provide input on critical design decisions assisting with resolution of design directions that maintain the integrity of the design. A register of design issues is maintained that tracks recommendations and considerations put forward by the Panel in relation to design development (a copy of the register is contained at Appendix A). Key items from this register and the outcomes achieved to date is contained in section 4 of this report.

4. DESIGN AMENDMENTS

The Design Integrity Panel has continued its role of critical assessment of design development for Powerhouse Parramatta since lodgement of the SSDA. An overview of the issues reviewed and resolutions achieved through the input of the Panel is as follows:



4.1 Public Realm Concept

The Panel expressed a desire for continued refinement of the public realm design to:

- Better represent the concept outlined in the competition winning entry;
- Interrogate the flooding constraints and the impact that they posed to the public realm design;
- Resolve issues surrounding the separation of levels between the main Civic Link and River Foreshore levels; and
- Ensure the relationship between the building architecture and public realm design was strengthened in order to demonstrate a unified approach to design.

The evolution of the public realm design for Powerhouse Parramatta is demonstrated in the figures below. The amended design is considered to better represent the intent of the competition entry. The Panel acknowledge the constraint posed by flood affectation of the site and consider that the design has evolved to better balance the competing requirements of flooding, architectural design and creation of usable open space areas, particularly at the Civic Link level. Whilst the undercroft concept

was not apparent in the competition design, its value is acknowledged in order to create usable internal museum spaces as well as maximise public realm above the 1 in 100 year flood planning level. Alternatives that were considered were deemed to ‘fracture’ or interrupt the levels adjacent to the river and cohesiveness of the public domain.

The Panel consider that through further detailed design and operational planning, the public realm will continue to develop. The Panel will continue to be involved in this process for design development including investigations and detailing concerning:

- Public realm materials and finishes;
- Landscape planting development in terms of species selection and detailed planting plans; and
- Detail development for public realm furniture.



Public Realm - Competition Design



Public Realm - SSDA Design



Public Realm - Current Design



4.2 Built Form

The overall building height and footprint has been reduced in the amended design that forms the basis for the Response to Submissions. The Panel acknowledge the design development process has resulted in further development of the concept, creating efficiencies and aligning the design to feedback received in submissions and the project budget.

As outlined in the figures below, tthe built form has reduced in footprint and height. This reduction has led to a number of layout changes internally within the building as detailed in the Architectural Design Report Addendum within the Response to Submissions.

The Panel consider the reduction in footprint and height of the building acceptable as it maintains the overall proportions of the design. Key elements such as the exo-skeleton and façade composition have been retained not inhibited by the reductions and enhanced as detailed in section 4.4. The Panel caution that any further reduction to the scale and proportion of the building has the potential to diminish the presence of the concept design/ proposal.

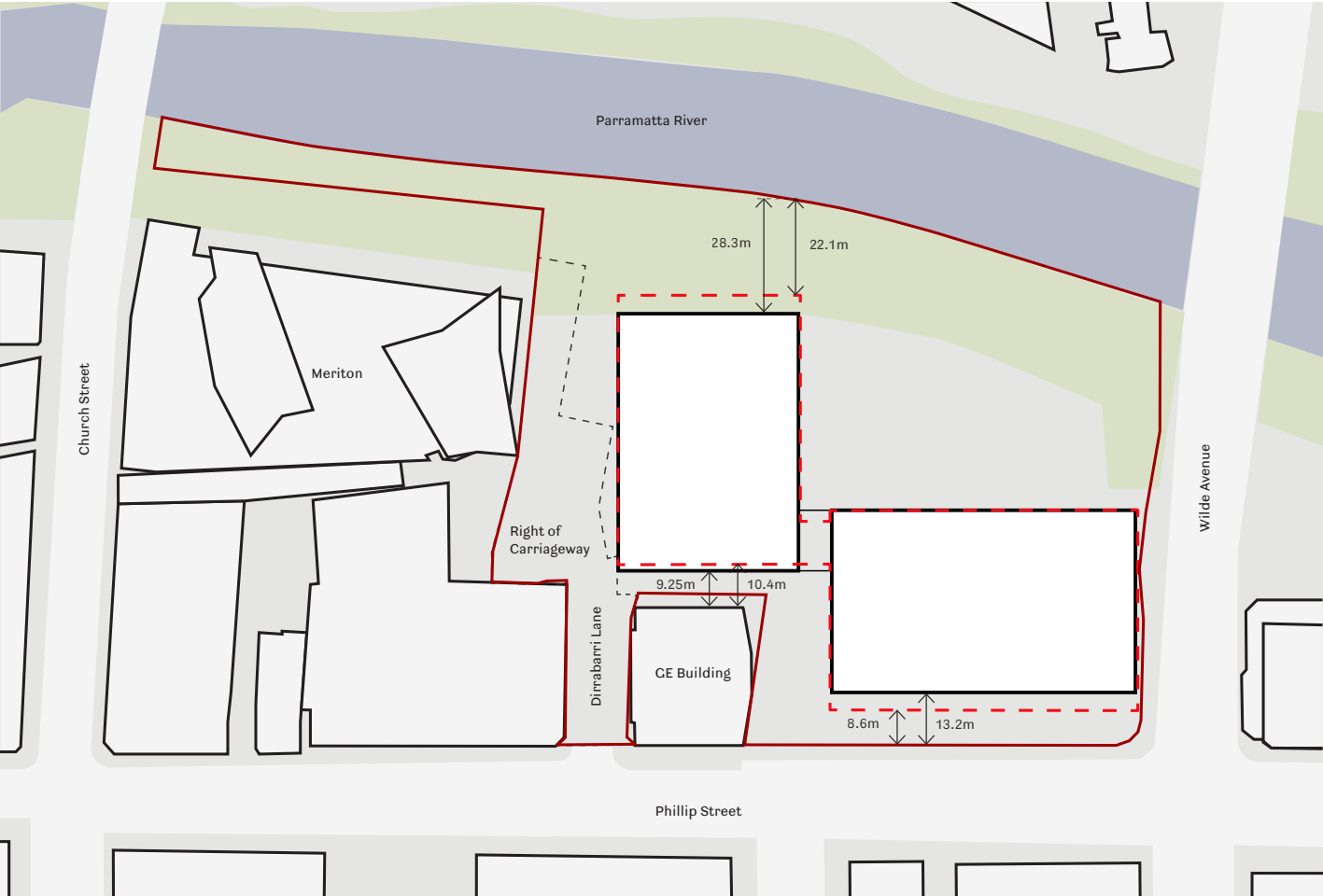
Legend

Updated building footprint

SSDA building footprint

Site boundary

Right of carriageway

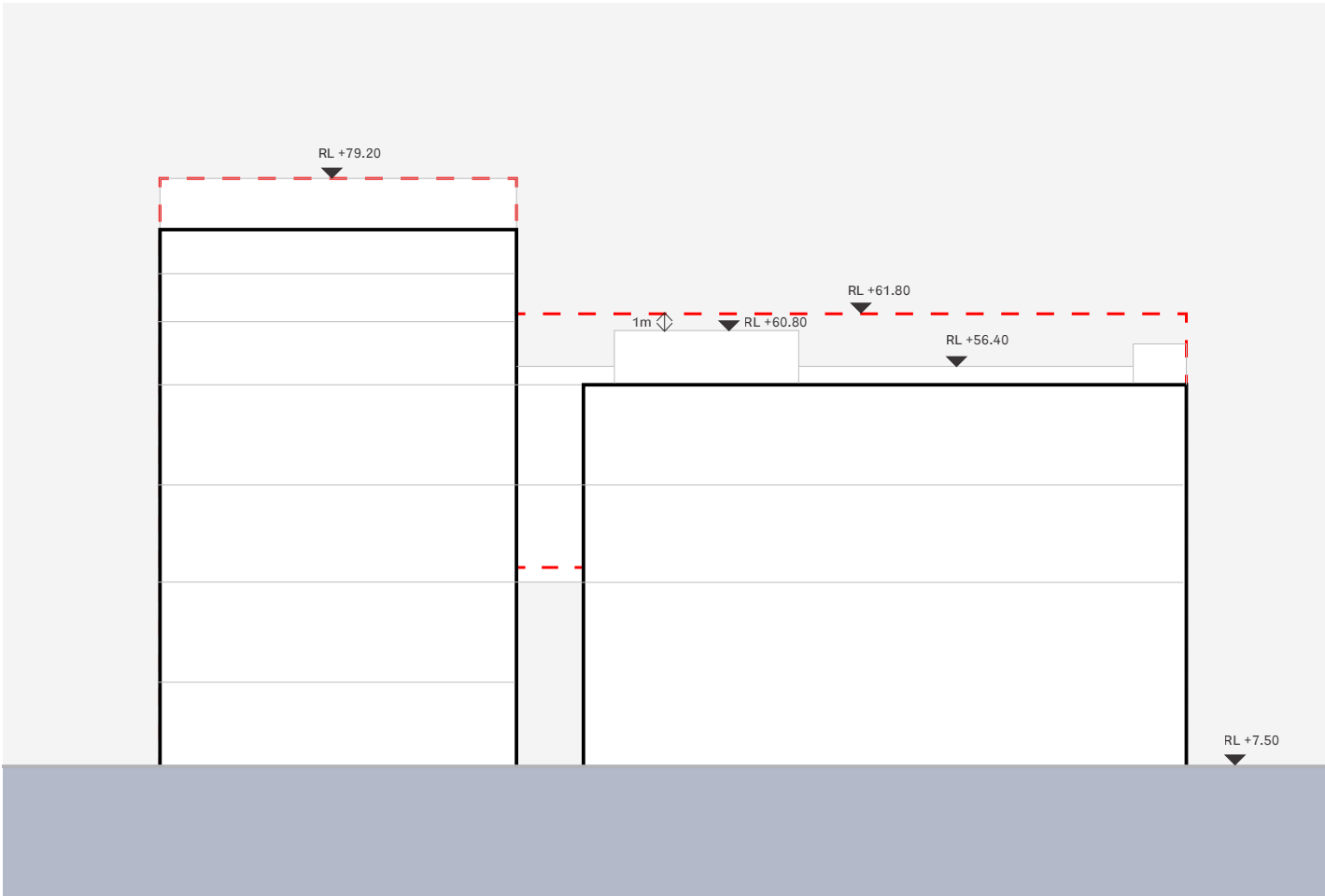


Setbacks Diagram

Legend

Updated building height

SSDA building height



Height Diagram



4.3 Public Realm - Civic Link and Phillip Street

The Panel reiterated the importance of the Civic Link and Phillip Street frontage of Powerhouse Parramatta as the most predominant point of arrival. As such the arrival experience through the design, required interrogation to further validate the concept.

The previous loading access for very large objects to Presentation Space 2 from Phillip Street has been removed. Access is now provided from Presentation Space 1 through the floor of Presentation Space 2. This enables consistent planting along Phillip Street whilst providing space for gathering, meeting and temporary activation.

Further operational requirements limit the ability to provide activation along the building’s southern façade. Whilst this presents as a departure from the competition design, the Panel consider that the resolution of façade detail, activation of the plaza space and public realm concept for gathering and meeting space at the western extent of the plaza to mitigate this change.

It is recognised that the Civic Link levels require the inclusion of ramped access from Phillip Street as well as stair connections in order to create an outdoor retail dining space on the south western corner of the eastern building. The Panel consider that this is an acceptable design solution, in that the stair and planting proposal in this space holds the corner, whilst creative an active entry to the Precinct along Civic Link.

Further input from the Panel in relation to the Civic Link and Phillip Street Plaza will include:

- Development of opportunities for temporary programmatic activation within the plaza;
- Consideration of detailing for connections of Civic Link ramp and stairs;
- Landscape species selection and detailed planting plans;
- Review of the façade materiality and composition, including public art, interpretation and potential for super graphics and signage.



Civic Link - SSDA Design



Civic Link - Competition Design



Civic Link - Current Design



4.4 Exo-Skeleton

The exo-skeleton presents as the most dominant and visually interesting feature of the architectural concept. The Panel continues to champion the importance of the exo-skeleton within the overall design. Critical changes that have been made to align to feedback from the Panel in relation to the exo-skeleton include:

- Continuation of the exo-skeleton form to ground level at all extents around both buildings; and
- Consideration of anti-climbing measures at this stage of the design process to ensure ad hoc or retrofitted solutions to this issue were not required in later design stages.

This input has assisted the design process to ensure the exo-skeleton terminates at ground surrounding all sides of the building and including through the undercroft. Further the concept for anticlimbing measures has been incorporated through a series of offsets and detail changes to the exo-skeleton where it is accessible from the ground plane.



Exoskeleton - Current Design

4.5 Materials

Continual development of the architectural material and finishes proposals have been undertaken. The Panel has provided input to this process as the design developments and as required based on the stage of design the project is at.

The Panel has reviewed concepts in relation to the extent of solid and transparent elements of the façade, which are critical at this design stage. The concept of ensuring connection between the internal activities and surrounding areas was considered a key component of the competition entry. This has been retained through a collaborative design process that has considered the operational requirements of the museum together with the overall architectural intent.

Continued involvement of the Panel in material selection will be undertaken in relation to:

- Material and finish selection;
- Manufacturing processes for façade and exo-skeleton components;
- Performance of materials in relation to durability, maintenance and sustainability; and
- Colour, transparency and detailing.

Legend

- 1 Lattice Structure - Intumescent paint White
- 2 Exterior Walkway - Fine concrete, light grey tones
- 3 Glazing
- 4 Opaque Facade - quartz concrete with depth and grit to aggregate (non-smooth surface)
- 5 Aluminum expanded metal mesh,



Material Board



4.6 Glazing and Circulation

The Panel’s selection of the design was in large part predicated on the qualities of glazing and circulation within the concept. Continuous, legible paths of travel, legible wayfinding/ pedestrian movement and transparency between internal activities and external areas were considered key elements of the design.

During design development further investigations have been undertaken in relation to people movement to and through the museum as well as performance requirements of glazed elements. Through a rigorous testing process, the Panel provided input and review to ensure the rhythm and scale of the elements in relation to glazing and circulation were maintained.

Further input from the Panel will be required in relation to glass specifications in terms of shading, performance and transparency.

5. DESIGN DEVELOPMENT

The Design Integrity Panel will continue to form an integral component of the Powerhouse Parramatta project. Through the collective skill and experience of the panel members, the process of questioning, reviewing and suggesting will assist in ensuring not only design integrity but also enhancement throughout design development.


This Design Integrity Report provides the Panel’s concurrence that the amended Powerhouse Parramatta design for the purposes of the SSDA Response to Submissions maintains the integrity of the competition winning scheme. It represents a point in time within the design development phase of the project and is not intended to provide finality in terms of confirming design integrity.

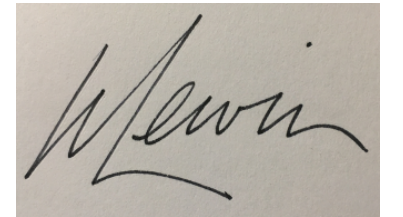
The Panel will continue to meet at minimum monthly intervals throughout the design development of Powerhouse Parramatta. The process will continue to be one of collaboration, where the Panel review enhances and promotes the best possible design outcome for the project.


6. CONCLUSION

The Design Integrity Panel confirm that the design as presented in the Powerhouse Parramatta State Significant Development Applications- Response to Submissions, maintains the design integrity of the competition winning design.

  
Naomi Milgrom AC (Chair)

  
Kim Crestani (Panel Member)

  
Wendy Lewin (Panel Member)

  
Peter Poulet (Panel Member)



Front of House Circulation



APPENDIX A - Design Integrity Panel Design Issues Register

For Resolution Prior to Response to Submissions	Resolution
<ul style="list-style-type: none"><li>– Further design development of the Phillip Street frontage- streetscape/ plaza.</li></ul>	The design provides a public realm solution that meets the operational requirements of the museum, whilst providing a gathering and meeting place. Continued design development will focus on material selection, planting details and activation programs for this space.
<ul style="list-style-type: none"><li>– Extend exoskeleton through undercroft to the ground on all sides</li></ul>	This recommendation has been adopted and is contained within the design.
<ul style="list-style-type: none"><li>– Investigate ways to make the public realm terrace slab appear thinner, particularly in front of the western building.</li></ul>	A chamfered edge has been detailed that allows the Terrace slab of the public domain to read as a more constrained element within the overall composition.
<ul style="list-style-type: none"><li>– Resolution of connection to Meriton colonnade and create ‘laneway’ typology for future connections.</li></ul>	The public realm design provides an access way that allows emergency vehicle access along with pedestrian permeability. The revised landscape concept includes enhanced planting either side of this connection to create a laneway between the two buildings.
<ul style="list-style-type: none"><li>– Interpretation of Indigenous and European heritage to be outlined in response to submissions.</li></ul>	The Response to Submissions includes a Heritage Interpretation Strategy that has been provided to the Panel.
<ul style="list-style-type: none"><li>– Context drawing to be included in architectural SSDA set</li></ul>	The Response to Submissions includes the context drawing within the architectural plan package.
<ul style="list-style-type: none"><li>– Investigate moving PS2 door and hoist to the east.</li></ul>	The hoist has been removed. Access for very large objects will be provided via PS1 through a movable floor from PS2.
<ul style="list-style-type: none"><li>– Door typology to Phillip Street to be further investigated- solid or glazed at same datum as the northern door.</li></ul>	Following operational review, doors to the PS1 space along Phillip Street have been removed. The Panel will be further involved in the activation of the Phillip Street plaza and detailing of the building façade in this location.
<ul style="list-style-type: none"><li>– Sections to be provided with Landscape drawings</li></ul>	Sections for landscape have been provided with the updated Landscape Plans as part of the Response to Submissions package.
<ul style="list-style-type: none"><li>– Extend PS1 Terrace to the east to align with eastern building</li></ul>	The terrace has been extended to the east in front of PS1. This allows a larger lawn area as well as alignment with the overall building design.
<ul style="list-style-type: none"><li>– Investigate the use of figs along Phillip Street.</li></ul>	The Panel will be further involved in planting selection and detailed planting plans throughout the development of design documentation.
<ul style="list-style-type: none"><li>– Develop external lighting proposal for Phillip Street façade.</li></ul>	The Panel will be involved in developments around all external lighting elements that will be undertaken prior to construction.
<ul style="list-style-type: none"><li>– Further develop Powerlab residence layouts- end corridors in windows/ outdoor space rather than apartment doors. Consider moving the eastern outdoor space to the north.</li></ul>	The concept for Powerlab Residence layouts will continue to be refined during design development.
<ul style="list-style-type: none"><li>– Concepts for escalators to be reviewed as they are developed.</li></ul>	All concepts for circulation spaces, including vertical transport will be investigated with the input of the Panel.



