



Walsh Bay Arts Precinct

Heritage Impact Assessment Report Amended per SSDA Comments



Amended February 2017

REF: 1613:HIA

Issue 07

Executive Summary

Objectives

This Heritage Impact Statement has been prepared for the proposed works to the buildings and site known as Walsh Bay Art Precinct, Sydney, for submission to INSW. The aim of this report is: to review the works proposed and to produce a statement of heritage impact relating to heritage issues for the existing buildings and proposed works.

This report should be read in conjunction with the drawings prepared by Tonkin Zulaika Greer.

This report addresses Key Issue 8 of the SEARS requirements for the WBAP as well as Stage 1 SSDA conditions of consent A11, B2, B4, B5, B6, B7, Heritage and Archaeology, for preparation of a Heritage Impact Assessment on the site.

¹The Report has been amended to take account of the comments made by the NSW Heritage Office and minor amendments as a result of design development due to other agencies' comments.

Methods and Results

The method for the Heritage Impact Statement follows that set out in the "NSW Heritage Manual" Update August 2000 produced by the NSW Heritage Office. The method is outlined below:

The statement of heritage impact should identify what impact the proposed works will have on the significance of the item/site, what measures are proposed to mitigate negative impacts and why more sympathetic solutions are not viable. Recommendations are developed in order to maintain the heritage significance of the site.

Further, the Aboriginal, Marine and land-based archaeology of the site are considered in this report.

Conclusions

The Concept and developed design for WBAP is generally in accordance with the Tropman and Tropman and Graham Brookes CMPs as well acknowledges the directives in the Design 5 HIS.

The adaptive reuse of any structure by its nature will have significant impact upon the place. The impact on the relics here is, on occasions, significant in the large performance spaces especially, however the language for adaptive reuse of the structure has considered the least interventionist methodology and there has been a striving throughout the precinct to develop the appropriate language in the detailing to allow interpretation of the original fabric and large scale volumes. We believe this has been achieved.

The Wharf 4/5 and shore shed have been altered significantly in the past and while this adaptive reuse has been historically acclaimed, the new proposals have been designed to rectify some of the changes to the original design and reduce the impact of that occupation. Detailing has been devised which better expresses the original structure and surfaces.

The Vivian Fraser “light touch” however has proved to be an excellent basis to take on methodologies for alternative solutions which have the least impact on the buildings.

The current Arts and Cultural uses are profoundly significant as a continuum of the intangible cultural heritage of the place which was in fact the well spring of the saving of the relic and its repurposing into the current cultural icon.

The continued sustainability is reliant on the adaptive reuse while the uses themselves very adequately fulfill two visions for the precinct: the 1998 Masterplan approval for the eastern half of the site to become a heritage **preservation** area and cultural facility, and the 2014 Walsh Bay Arts Precinct vision now approved in principal which seeks to further develop a world class cultural centre in the heart of Sydney.

This project is considered to suitably address the Heritage Impacts as the requirements of both the SSDA conditions and the SEARS requirements for Stage 2 Heritage response.

The design for the WBAP has been well considered and designed to provide for the current and foreseeable future demands of the place whilst at the same time preserving its heritage and cultural significance.

The WBAP represents the completion of the vision for a unique cultural precinct, described in the 1999 Master Plan for the Walsh Bay Redevelopment, and it is recommended there should be an Arts Precinct Conservation Management Plan prepared which recognises the new era and future uses.

Recommendations

The works planned for WBAP must be informed by the relevant controls and legislation and where issues arise, these matters should be clearly supported by arguments based on the Australia ICOMOS Burra Charter as well as the recent ICOMOMS Charter for THE NIZHNY TAGIL CHARTER FOR THE INDUSTRIAL HERITAGE July 2003 providing best practice for items of industrial heritage.

This report has examined and reported on the information available as a resource for ongoing restoration of the Wharves 4/5 and 2/3. Throughout the documentation a number of policies and constraints have been incorporated and compiled demonstrating the importance of the Place and to ensure that any use and ongoing maintenance complies with the Burra Charter, the standards required

under the Heritage Act 1977 and Aboriginal heritage legislation in NSW as amended pertaining to items of State Significance.

The Pier structures include a large scale theatre which requires alterations to the roof line as well as services interventions and matters of acoustics and fire egress. There should be a consistency in treatments for all areas within the precinct derived from a well-considered design philosophy which acknowledges the constraints of building within a state significant site.

The various approvals have instructed the way in which the historical, Aboriginal and archaeological research and impacts have been assessed in the accompanying reports.

Revisions

This Report has been revised to acknowledge the submissions made by the Office of Environment and Heritage SSDA 7869.

All editing in this report has been identified in the endnotes attached².

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Appendix A - Archaeological & Aboriginal Assessment WBAP

Appendix B - Maritime Archaeological Assessment and Management Plan

Appendix C - Maritime Archaeological Inspection of Copper Sheathed Piles

Appendix D - The Burra Charter 2013

Appendix E - Nizhny Tagil Charter

Appendix F - Assessing Significance for Historical Archaeological Sites and 'Relics'

Appendix G - Extract from Heritage Technology CMP

Appendix H - Heritage Council letter with amendments

Appendix I: Conservation Management Action Plan

1. Objectives of assessment

Note: this document may be reformatted and amended to include any additional assessment required as a result of statutory regulations, client reviews and/or technical design development.

1.1 Objectives

This Heritage Impact Statement has been prepared for the proposed works to the buildings and site known as Walsh Bay Art Precinct, Sydney, for submission to INSW. The aim of this report is: to review the works proposed and to produce a statement of heritage impact relating to heritage issues for the existing buildings and proposed works.

This report should be read in conjunction with the drawings prepared by Tonkin Zulaika Greer.

This report addresses Key Issue 8 of the SEARS requirements for the WBAP, as well as Stage 1 SSDA conditions of consent A11, B2, B4, B5, B6, B7, Heritage and Archaeology, for preparation of a Heritage Impact Assessment on the site.

1.2 Approvals

On 21 May 2015, development consent (SSD 6069) was granted by a delegate of the Minister for Planning to a Stage 1 SSDA for the WBAP. The Stage 1 SSDA sought “in principle” approval for the WBAP but did not include the STC’s facilities at Wharf 4/5. (Refer to SEARs for WBAP that were issued on 1 July, SSD 7689).

The development consent for the Stage 1 SSDA approved the following:

- The adaptive re-use of Pier 2/3 providing new arts facilities including performance venues for the Australian Chamber Orchestra, Bell Shakespeare and Australian Theatre for Young People;
- Retaining a large heritage commercial events/art space for Sydney Writers Festival, Biennale of Sydney and a wide range of commercial and artistic events;
- Refurbishment of the ground floor arts facilities of Wharf 4/5 and its associated shore sheds for Bangarra Dance Theatre, Sydney Dance Company, Sydney Philharmonia, Gondwana and Song Company;
- New commercial retail opportunities; and
- Creation of a major waterfront public square to become an innovative external platform for collaborative performances, festivals, public art, cafés, restaurants, commercial and community activities.

Condition A3 (a) of the Stage 1 Consent states that future stages of the concept proposal are to be the subject of future development applications. Condition A3 (b) requires that the determination of future applications for development of the WBAP are to be generally consistent with the terms of the development consent.

Along with the NSW Government's intention to create an enhanced arts and cultural precinct at Walsh Bay, the Sydney Theatre Company (STC) is intending to improve its facilities at Wharf 4/5. The project, known as STC50, is intended to create better theatre and rehearsal facilities as well as improved workspaces. The improvements are also focused on creating enhanced visitor experiences and improving STC's revenue earning capacity.

In March 2016, the STC sought SEARs for the preparation of a SSDA for the proposed upgrade of its facilities at Wharf 4/5. The SEARs were issued by the Department of Planning and Environment on 15 April 2016.

The STC is an integral part of the WBAP and it is recognized that the upgrade of its facilities at Wharf 4/5 needs to be coordinated within the broader WBAP project. In particular, there is a need for a coordinated construction program to minimize impacts on neighbours and tenants and to maximise efficiencies in the delivery of both projects.

To assist in the coordination of both projects, it is now proposed that the Stage 2 SSDA for the WBAP be submitted seeking approval not only for the WBAP but also for the STC's proposed external alterations and additions to its facilities at Wharf 4/5. The internal changes proposed to the STC's facilities at Wharf 4/5, the subject of a separate SSDA.

1.3 Background

1.3.1 Past and Present Use

Following the collapse of the traditional shipping method and the rapid take up of containerisation, the Walsh Bay precinct ceased its maritime use in 1970. For a decade the precinct was abandoned and left to become derelict. Pier 4/5 was the spring point of the adaptive reuse of the derelict buildings of the Walsh Bay Precinct for performing arts in the late 1970s and 1980s. The Precinct since this time has been dedicated to cultural uses with Arts and Performing Arts in particular repurposing the precinct.

This adaptive reuse and reimagining of the precinct over the past 36 years has imbued intangible cultural heritage significance to the place. As defined by UNESCO, this intangible cultural heritage use is as integral with these buildings and as important to the place as is the past industrial maritime heritage. To reflect only on the past maritime use and to disregard the equally

important intangible cultural heritage use is to misunderstand the way buildings adapt, grow and change and to completely ignore a huge portion of the place's history. Insisting only upon the capacity to return the buildings to their original maritime state and operation discounts the significance of the uses that have followed and which are set to continue into the future.

With the current leases established until the year 2059, this cultural use will surpass the maritime use of the site by 20 years, cementing this as the dominant use of the precinct and reinforcing both the built cultural heritage of the place and the intangible cultural heritage of arts and performance across theatrical performance of drama, dance and music.

The time line shows the period of each use.

- 1912-1970 Maritime uses
- 1970 -1980 casual use, vacancy and dereliction
- 1983 Vivian Fraser and the STC, SDC, ATYP and the Philharmonia choirs
- Current STC Arts users adds 43 year leases now established cultural occupation until 2059

1.3.2 Approved and Proposed Works

The SSDA for the approved Stage 1 works has endorsed the cultural uses and this DA is the design development. In working through the Design Development and detailing, a better realisation of the scope has been achieved and now this iteration represents the resolution of the major aspects of the impact and interventions necessary to accommodate the functions.

In each case the impacts of design treatments have considered the policies of the endorsed CMPs and the recommendations by Design 5.

The challenge is "How to value the dichotomy of the performance spaces required for cultural purposes as dictated by the Master Plan, with the impact on heritage fabric volumes and interpretation of original uses" Tasman Storey October 2016

The Sydney Theatre Company is independent groups who is tenants in Pier 4/5 and are coincidentally upgrading their large tenancy across the upper floors of Shore Shed 4/5 and Pier 4/5.

The internal fitout proposal by the Sydney Theatre Company is not included in the SSDA for the WBAP and is a separate application.

The exteriors of both buildings are the subject of this SSDA application and any changes to the exteriors are as a result of the requirements of the new (and redesigned in the case of STC) functions within the body of the built form.

The works which are required for the auditoria and rehearsal rooms are extensive and have been accepted as being appropriate in principle by the approval granted in the SSDA dated 21 May 2015 for Pier 2/3 and the apron between the wharves on the one hand, and by the continued use and highly acclaimed earlier installation of the arts organisations, Bangarra, SDT, ATYP and STC in the case of Pier 4/5 and its Shore Shed on the other.

By their nature performance spaces and the necessary adjunct support areas require large open spanned volumes. This requirement is in line with the original Master Plan Development approval for the Walsh Bay Redevelopment over 18 Hectares as a PPP described in the Getty Institute publication wherein the Pier 2/3 phase was marked for cultural uses. The Master Plan design indicated a convention centre and museum function as being appropriate. (*Ref The Role of Public-Private Partnerships and the Third Sector in Conserving Heritage Buildings, Sites, and Historic Urban Areas Susan Macdonald and Caroline Cheong; 2014*)

The Walsh Bay Arts Precinct initiative delivers on this by providing facilities for the performing arts and consolidates the intent of the Master Plan approved for the establishment of a cultural precinct at the eastern end of the Walsh Bay redevelopment. A number of arts companies are to be housed in the new facilities while on Pier 4/5 the existing uses in the main will be located in renovated tenancies within the same area.

The Pier 2/3 wharf shed is one of the few large scale and open industrial wharf facilities still in existence and while the period between approval and the initial restoration of the pier has been more than a decade, the WBAP vision represents the best way forward to ensure the continued life of the buildings and environs, by way of new uses.

In the case of the Pier 4/5 works, that building has had extensive earlier intervention in 1983 and the works are largely upgrading to allow the companies to move forward into the future with contemporary facilities

The **Vivian Fraser design of the Cultural use spaces** within Pier 4/5 was in many instances robust and interventionist. What has set it apart is that the outcome revealed sensitivity to the bones of the structure and the “skin” of the Wharf has been retained as a ready reference to the original constructions and timber detailing. Many strong backs and steel trusses were removed to gain head room while the language adopted was to butt into columns rather than as in the case of

both the WBAPP by TZG and the new work in the STC-50 by Hassell which is to sit beside and away from the structure. The contemporary approach has reduced the impact of new walls and is in line with the requirements of the Graham Brookes CMP the design 5 advice for stage SSDA and Sears Report, and the TTA CMP.

1.3.3 Industrial Heritage and Adaptive Reuse

There is a requirement in the restoration and adaptive reuse process to ensure that the original fabric is restored and retained, and that the original industrial character of the building is maintained.

In the case of the Pier 4/5 works that building has had extensive earlier intervention and the works are largely upgrading to allow the company to move forward into the future with contemporary faculties.

This includes the works undertaken at ground floor level by Arts NSW as well as the work at the upper levels proposed by the Sydney Theatre company.

The repurposing of industrial heritage buildings is promoted by ICOMOS and the TICCIH (The International Committee for the Conservation of the Industrial Heritage) internationally by way of The Nizhny Tagil Charter for the Industrial Heritage, July 2003, and their International publications (*REF Industrial Heritage Re-tooled: The TICCIH guide to Industrial Heritage Conservation*, J. Douet (ed.), 2012.)

Australian ICOMOS is part of the international ICOMOS and is bound by the various charters.

There is a requirement in the restoration and adaptive reuse process to ensure that the original fabric is restored and retained, and that the original industrial character of the building is maintained.

The ICOMOS Industrial Heritage Charter acknowledged two significant ideas, first that the works should be in the main reversible but secondly that some works are not reversible and this is the case in the large volumes required for performance spaces within the Piers. The Vivian Fraser design for the whole of Pier 4/5 followed a language of light-weight intervention but in many instances fabric was taken away for either aesthetic or functional reasons. The impact of his intervention is barely noticeable.

There is a dichotomy in assessing the impact on the intervention for theatrical performances spaces. In the one instance, Pier 4/5, this has already occurred; in the other, the whole of the work is new. In each of the CMPs, both Tropman and Brookes have foreseen that there will be, by

necessity, an impact from the proposed uses for cultural repurposing. Croker in his report also acknowledges the result of these large scale interventions. Brookes chooses to ignore the fact that the impact has already occurred and some of his policies are redundant as a result.

The ICOMOS Industrial Heritage charter notes that there will be inevitable permanent changes to industrial buildings with the advent of any adaptive reuse. The Charter is not supportive of conjectural reconstruction which imitates the original parts of the building as these will confuse the history and evolution of the building form.

1. 4 Author Identification

This report has been prepared by the following Tropman & Tropman Architects team members:

Tasman Storey	Design Principal, Architect, Heritage Conservation Consultant ARBNSW 3144
Michele Grande	"Storia e Conservazione dei Beni Architettonici ed Ambientali" Architecture + Conservation
Joanne Rogers	Project Manager (Heritage and Interpretation) BA (Text and Writing)

Unless otherwise stated, all images are by the authors and were taken during the course of this study.

1.5 Methodology

The method for the Heritage Impact Statement follows that set out in the "NSW Heritage Manual" Update August 2000 produced by the NSW Heritage Office. The method is outlined below:

Heritage Impact Statement

The statement of heritage impact should identify what impact the proposed works will have on the significance of the item/site, what measures are proposed to mitigate negative impacts and why more sympathetic solutions are not viable. Recommendations are developed in order to maintain the heritage significance of the site.

Further, the Aboriginal, Marine and land-based archaeology of the site are considered in this report.

2. Site and Project Descriptions

2.1 The Site and surrounds

The Walsh Bay Arts Precinct (WBAP) (the “site”) generally comprises Pier 2/3, Pier 4/5 and its shore sheds which make up Wharf 4/5, as well as the adjoining waterway. The site has a street frontage to Hickson Road. The site is shown in Figures 1 and 2. The site is part of the Walsh Bay area which is located adjacent to Sydney Harbour within the suburb of Dawes Point. The site is located within the City of Sydney Local Government Area.

Walsh Bay is strategically located to the north of Sydney’s CBD in the vicinity of major tourist destinations including the Sydney Harbour Bridge, the historic areas of Millers Point and The Rocks, Circular Quay and the Sydney Opera House. The Barangaroo redevelopment precinct is located immediately to the south-west.

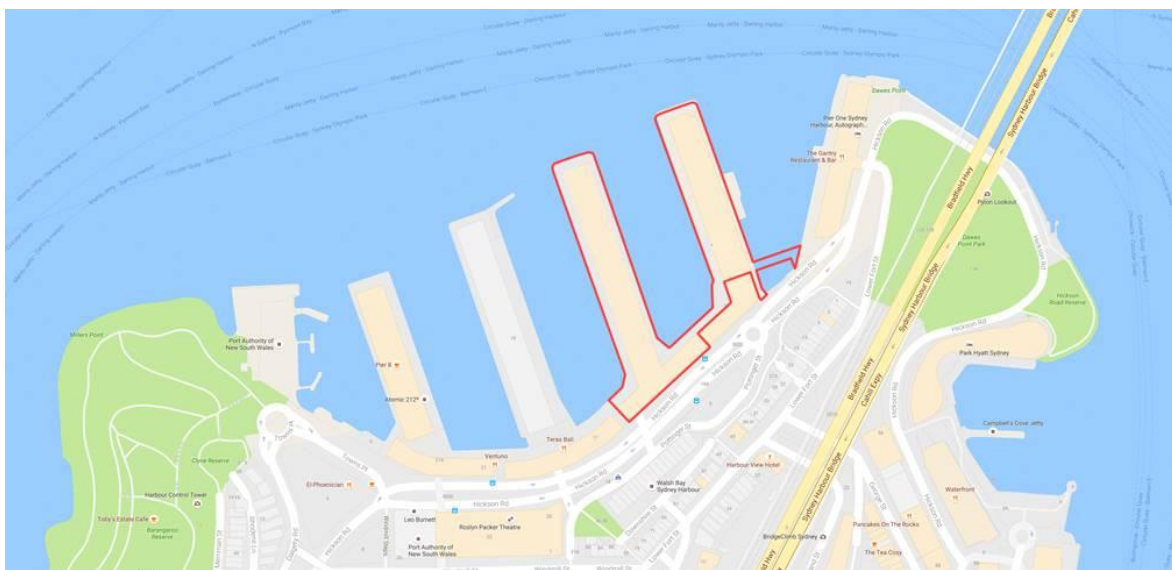


Figure 1: Site Location (Source: Google Maps)

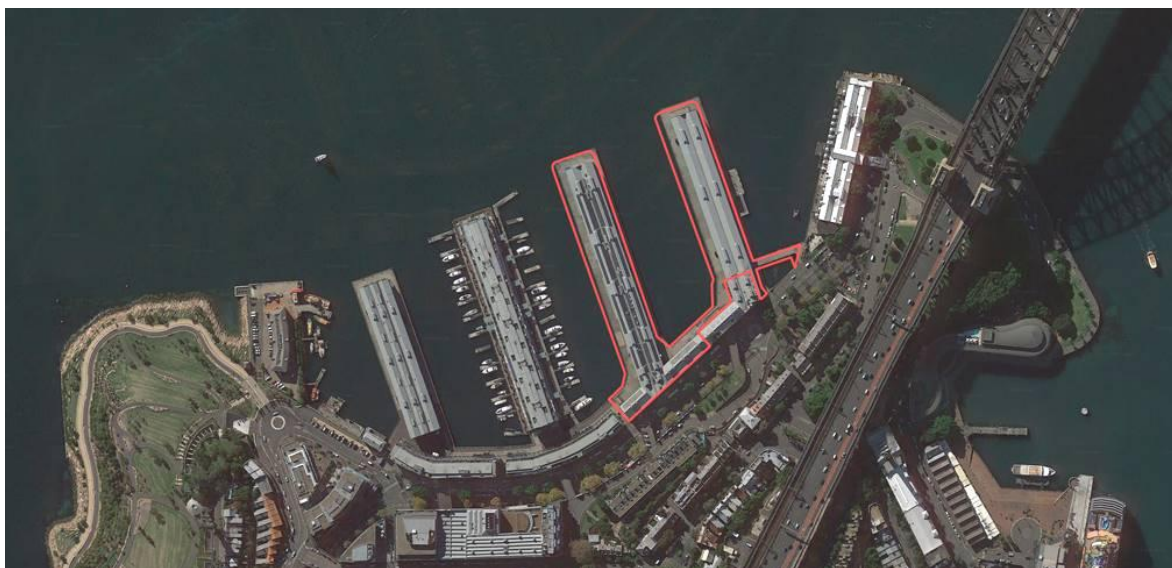


Figure 2: Aerial view (Source: www.nearmap.com)

Pier 2/3 is legally described as Lot 11 in DP 1138931 and Wharf 4/5 is legally described as Lot 65 in DP 1048377. The total area for these lots is 18,090sqm.

The land owner of the site is the Roads and Maritime Services (RMS). Both Pier 2/3 and Wharf 4/5 are occupied under various lease arrangements with Arts NSW, Department of Justice, primarily for arts and cultural uses.

The area of water that the project proposes to build over is also owned by RMS. Its land title description is Lot 12 in DP 1138931.

Walsh Bay comprises ten berths constructed between 1908 and 1922 for international and interstate shipping. These are collectively known as the Walsh Bay Wharves. The Walsh Bay Wharves Precinct is listed as an item on the State Heritage Register.

The Walsh Bay Wharves comprise the following:

- Pier One which contains the Sebel Pier One Sydney Hotel;
- Pier 2/3 the last remaining undeveloped pier (has previously received approval for cultural uses, temporary arts events and some commercial events);
- Wharf 4/5 which is occupied by the Sydney Theatre Company (STC), the Australian Theatre for Youth Program (ATYP), Sydney Dance Company (SDC), Bangarra Dance Theatre and the choirs comprising Gondwana, the Song Company and Sydney Philharmonia;
- Pier 6/7 which has been redeveloped for residential apartments and associated boat marina;
- Pier 8/9 which has been redeveloped for office uses; and,
- Shore sheds aligning Hickson Road which contains a range of commercial activities, including restaurants, bars, shops and offices.

2.2 The Project

The approved Stage 1 development application comprised:

- A new waterfront public square between Pier 2/3 and Wharf 4/5;
- A series of new stairs and balconies on Pier 2/3 and Wharf 4/5 and modification to the roof of Pier 2/3;
- The inclusion of new tenancy spaces in Pier 2/3 and Wharf 4/5 for arts and cultural activities; and,
- The use of the precinct for arts festivals, events and pop-ups and associated uses, including restaurants, cafes and bars.

The WBAP Stage 2 State Significant Development Application seeks consent for construction works for the above to realise the WBAP project, as well as the proposed external alterations and additions to all of Wharf 4/5. It also seeks consent for new commercial and event uses in the precinct. Key aspects of the proposed development are outlined below:

Early works

- Early construction works comprising infrastructure upgrades, demolition, hazmat removal and sub structure works.

Pier 2/3

- Internal alterations and reconfiguration to provide for the following:
 - Performance venues;
 - Rehearsal rooms, production workshops, back of house facilities and offices;
 - Function spaces, bars, cafes and foyer spaces extending onto external gantry platforms (balconies) providing breakout space for internal foyers and allowing views of outdoor performances;
 - Mezzanine spaces for offices and back of house facilities;
 - Upgrades to meet compliance with current BCA, DDA and fire codes;
 - New lifts and stairs;
 - Creation of new commercial tenancies and public toilets;
 - Removal of some storey posts and beams to facilitate internal reconfiguration and new uses; and
 - Retention of a large proportion of the ground floor in its existing 'raw' heritage state for events and festivals including Sydney Writers' Festival and Biennale including venue and commercial hire.
- External alterations and additions comprising:
 - New balconies and external stairs for fire egress;
 - New external lift for access;
 - Installation of glazing in existing cargo sliding door openings and other solid panels on the eastern, western and northern elevations to allow for views into and out of the building;
 - Roof penetrations within the central valley at the southern and northern end to accommodate new performance spaces and associated structural modifications including truss strengthening;
 - Installation of ESD elements, such as photovoltaic panels and seawater heat exchange systems; and
 - Raising of the external floor level on the eastern side by introducing a new raised deck and continuous set of stairs beyond the existing column line.

Wharf 4/5

- Internal alterations and reconfiguration to the Bangarra Dance Theatre (BDT) tenancy to provide for the following:
 - Upgrade of the main rehearsal and performance spaces;

- Upgraded foyer and exhibition space along the eastern frontage;
- Improved office space at mezzanine level including a new lift and stairs;
- Provision of a function space at ground level of the northern end of wharf with associated kitchen facilities; and
- New entrance and new glazing in bays of sliding cargo doors, opening up the foyer and main studio to the Pier 4 apron.
- Minor internal alterations and additions to the SDC tenancy comprising:
 - Reducing the existing workshop space to create a fifth dance studio; and
 - Upgrading office and reception areas.
- External alterations and additions to SDC tenancy comprising:
 - Raising of the timber wharf deck adjoining the SDC café and opening of the facade with new glazing to activate the waterfront square.
- Creation of new commercial tenancies and public toilets;
- External fabric alterations around the Sydney Theatre Company (STC) tenancy comprising:
 - Improved street entry at Hickson Road involving relocation of the stairs to allow for an improved landing and point of arrival to the STC;
 - New 'gantry' balconies, stairs and lifts mid-wharf and at the end of the wharf to provide for improved accessibility and compliance with fire engineering solutions;
 - Minor amendments to the existing façade to accommodate new entries and exits along the wharf;
 - Roof penetrations within the central valley at two locations to accommodate theatre and workshop spaces and associated structural modifications including truss strengthening; and
 - Reinstallation of existing photovoltaic panels where applicable.

Wharf 4/5 Shore Sheds

- Internal alterations to reconfigure the choir spaces, including provision of a mezzanine for choir administration;
- Creation of new commercial tenancies at ground and mezzanine levels; and
- Provision of office space at ground level.

Public Domain

- Construction of a new waterfront square comprising a deck on piled structure;
- Shaded informal performance space on piled structure; and
- Changes to existing levels and steps down to facilitate access between the existing apron and new waterfront square.

New Uses

- Use of the precinct for arts festivals, events and pop ups as well as a range of activating uses such as retail, restaurants, cafes and bars.

2.3 Consent

On 21 May 2015, development consent (SSD 6069) was granted by a delegate of the Minister for Planning to a Stage 1 SSDA for the WBAP. The Stage 1 SSDA sought “in principle” approval for the WBAP but did not include the STC’s facilities at Wharf 4/5. (Refer to SEARs for WBAP that were issued on 1 July 2016).

The development consent for the Stage 1 SSDA approved the following:

- The adaptive re-use of Pier 2/3 providing new arts facilities including performance venues for the Australian Chamber Orchestra, Bell Shakespeare and Australian Theatre for Young People;
- Retaining a large heritage commercial events/art space for Sydney Writers Festival, Biennale of Sydney and a wide range of commercial and artistic events;
- Refurbishment of the ground floor arts facilities of Wharf 4/5 and its associated shore sheds for Bangarra Dance Theatre, Sydney Dance Company, Sydney Philharmonia, Gondwana and Song Company;
- New commercial retail opportunities; and
- Creation of a major waterfront public square to become an innovative external platform for collaborative performances, festivals, public art, cafés, restaurants, commercial and community activities.

Condition A3 (a) of the Stage 1 Consent states, that future stages of the concept proposal are to be the subject of future development applications. Condition A3 (b) requires that the determination of future applications for development of the WBAP are to be generally consistent with the terms of the development consent.

Along with the NSW Government's intention to create an enhanced arts and cultural precinct at Walsh Bay, the Sydney Theatre Company (STC) is intending to improve its facilities at Wharf 4/5. The project, known as STC50, is intended to create better theatre and rehearsal facilities as well as improved workspaces. The improvements are also focused on creating enhanced visitor experiences and improving STC's revenue earning capacity.

In March 2016, the STC sought SEARs for the preparation of a SSDA for the proposed upgrade of its facilities at Wharf 4/5. The SEARs were issued by the Department of Planning and Environment on 15 April 2016 (SSD 7561).

The STC is an integral part of the WBAP and it is recognised that the upgrade of its facilities at Wharf 4/5 needs to be coordinated within the broader WBAP project. In particular, there is a need for a coordinated construction program to minimise impacts on neighbours and tenants and to maximise efficiencies in the delivery of both projects.

To assist in the coordination of both projects, it is now proposed that the Stage 2 SSDA for the WBAP be submitted seeking approval not only for the WBAP but also for the STC's proposed external alterations and additions to its facilities at Wharf 4/5.

The internal changes proposed to the STC's facilities at Wharf 4/5 will, however, remain the subject of a separate SSDA. The STC will be amending its Request for SEARs to coincide with this change of focus.

3. Site analysis

3.1 History of the site

The following history is consistent in all documents. The historical notes below were prepared by the historian, the late Dr Kenneth Cable, and demonstrate his unique insight into Australian Colonial and early 20th century history.

3.1.1 Walsh Bay Precinct

Source: This section has been sourced from the 'Walsh Bay Precinct Conservation Management Plan', 1998, prepared for Walsh Bay Finance, as revised by the late Dr Kenneth Cable.

'Walsh Bay' is the term applied to the complex of wharves, storage depots and road works constructed in the early twentieth century. Up to this stage, it was simply a part of the northern end of Millers Point, facing the main stream of Sydney Harbour.

Sydney was founded as both a convict settlement and a Pacific port. The use of its harbour facilities was crucial to its subsequent development. Since the large rocky peninsula between Sydney Cove and Darling Harbour was, from the outset, an integral element in the early settlement of Sydney, Millers Point became the site of maritime activity.

While the Circular Quay (Sydney Cove) area was soon in full use and large structures were built on the hill, the western and northern shores, which had long been utilised by the Aboriginal people for fishing purposes, were little used by the new settlers. Only in the 1820s did Cockle Bay (Darling Harbour) come into action for local shipping.

The shoreline from Dawes Point battery to the western extremity of Millers Point remained difficult of access and, compared with the peninsula generally, had a small population. Quarrying, extensive in the area, did help but the first wharf was only erected in the late 1820s. Gradually, wharfage was constructed, often by local landholders who built storehouses as well. As whaling and Pacific Ocean trade developed, and the volume of wool exports grew, enterprising merchants such as Captain Towns expanded the Point's wharfage.

The Gold Rushes and the development of the wool trade promoted the Walsh Bay area. By the late 1860s there were six large wharves along the harbour shore. The area generally increased in population while maintaining a balance between middle-class householders and working class families.

Such a balance could not long remain. From the 1870s, the growth of the wool trade and the general increase in the size of ships led to wharf reconstruction and the erection of further wool stores. The new Central Wharf contained state of the art features and other finger wharves were improved. More varied stores were constructed and the road pattern was made more regular.

Commercial activity generated employment for the population of Millers Point. In the 1870s and 1880s there were still fine houses and terraces on the high ground, the churches and schools flourished (especially Fort Street, the centre of the State system) and the district was busy and active. But, already, population pressure and the demands of industry were limiting available space. People who could afford to were beginning to move to the new suburbs and there were ominous signs of overcrowding and health hazards in the district. The Depression of the 1890s and a series of bitter, unsuccessful waterfront strikes made matters worse.

The expansion of the Sydney Harbour frontage of Millers Point was both steady and, in engineering terms, scientific. Norman Selfe's experiments with projecting jetties were innovative for their time. But they were only a portion of the general expansion of Darling Harbour and its facilities. (Due to the technological innovation of Norman Selfe, large jetties on modern piles could accommodate the biggest available ships).

By the final decade of the nineteenth century Sydney, as Australia's major overseas maritime outlet, was becoming increasingly subject to structural pressures. It needed to undertake major changes.

In 1900, the bubonic plague appeared at Millers Point. The arrival of this ancient scourge from India had been anticipated. Carried by the fleas of rats, it was transported by shipping and so seaports were especially vulnerable.

The plague, amid great public excitement, prompted measures by the Government and the City Council to destroy the adjacent wharfage. There were large-scale resumptions of land and (despite Council protest) the creation of a Harbour Trust to carry out the work.

The plague did no more than give political urgency to a situation already ripe for change. The late nineteenth century revolution in ship construction was everywhere being met by massive port rebuilding projects. In this context, the whole of Sydney Harbours wharfage required reconstruction.

In Sydney, as elsewhere, there was a growing belief that the port city demanded a general overhaul. Not only wharves, but warehouses and stores, roads, railways and commercial facilities needed to be integrated and enlarged. The advent of electricity, concrete construction and the petrol engine widened the engineering horizon; the new emphasis on government action and finance gave the opportunity. Discussion in the 1890s gave way to activity in the period after Federation, when the State Government could attend to and spend money on domestic problems.

Three other matters became significant at the beginning of the century. It was generally accepted that an overhead rail and road bridge would span the Harbour from Dawes Point. There was, quite apart from the plague, an emphasis on 'slum clearance' and city health. And the State Government, in the interests of efficiency, had become accustomed to using statutory corporations to control such public facilities as water supply and railways.

The result was the wholesale resumption of Darling Harbour and Millers Point land, the eradication (gradually) of plague spots, the erection of new housing (amid conflicts with the Improvement Advisory Board) and the reconstruction of Sydney's wharves by the new Harbour Trust. Both the chairman of the Trust, R.R.P. Hickson, and the Engineer in Chief, H.D. Walsh, were men of vision and initiative.

For the Trust, housing and plague prevention, though important, were incidental to the great purpose of making Sydney a modern port. From 1901, the Trust, after a difficult beginning, undertook work from Woolloomooloo to Glebe. Eventually, it rebuilt most of Sydney's harbour facilities. It did so in conjunction with housing, transport and other authorities.

The Walsh Bay wharves (the name came into use in 1919) were among the last to be addressed. Several had been modernised late in the previous century and the remoteness of the site presented difficulties. Dalgety's wharf was refurbished first, new stores were built and, in 1909, major cliff excavation began. From 1910 work commenced on the new finger wharves and their shore sheds. Hickson Road, made very wide to allow for a possible rail link, connected Walsh Bay to Darling Harbour and Pyrmont Bridge. Completed in 1921, with Pottinger Street realignment in the next year, the Walsh Bay complex, despite shortages in materials, marked the end of major reconstruction.

Walsh Bay was thus only one part of a complicated and very ambitious harbour side project. But it was the 'jewel in the crown', a highly integrated, minutely planned, comprehensive series of

structures, 'state of the art' for their time. Its only drawback was its relative remoteness. On the other hand, it was one of the few wharfage areas with direct access to the Harbour mainstream.

The Walsh Bay wharves, though owned and controlled by the Sydney Harbour Trust (from 1935 the Maritime Services Board), were let out to commercial shippers. As such, they accommodated overseas liners; while catering also for the coasted on islands trade. In the 1920s, a boom in exports and imports gave a degree of prosperity. This was reversed in the 1930s but wartime conditions stretched Walsh Bay to the utmost. Yet the use of some of the storage space for Commonwealth Government purposes was a sign that the position of Walsh Bay was not wholly secure.

Resumptions and, in the 1920s, Harbour Bridge construction, kept the Millers Point residential population at a lower level than before. By the inter-war years, waterside workers and their families formed the bulk of the inhabitants. While subject to great vagaries of employment, they were highly unionized and formed a coherent community. The Maritime Services Board remained the principal landlord, paying rates to the City Council.

The post-1945 years saw change in the shipping trade and decline for Walsh Bay. Technological innovations required new styles of wharf architecture with which Walsh Bay was ill equipped to cope. The coastal shipping, already in decline, was further reduced. By the 1960s, longshore wharfage was appearing at Darling Harbour and major changes were taking place at the north-west corner of Millers Point. The housing stock of the district, still under M.S.B. control, suffered deterioration while the population declined.

The decade of the 1970s proved to be the watershed between past and present. The crucial point was the decision of the M.S.B. that Walsh Bay could not be redeveloped as longshore wharves for container vessels. At the same time, 'the Rocks', earmarked for modern development, under the Sydney Cove Redevelopment Authority (1968) had its future changed, after much controversy and agitation, into a predominantly heritage area under SCRA direction. Gentrification began to take place elsewhere in Millers Point. The creation of the Darling Harbour Authority (1984) was an indication that a totally new role was being developed for the southern portion of that inlet. The M.S.B., in 1985, began to make over its housing stake at Millers Point to the Housing Commission. And, already, portions of the Walsh Bay wharves, no longer serving their purpose, were being used for other things and were the subject of earnest discussion about their future.

The long history and controversies about the future of Walsh Bay and the massive documentation produced since the early 1980s form an essential part of the history of Walsh Bay and must figure in its interpretation.



Figure 3: Construction of Wharf: Walsh Bay' c1911 (Source: State Library of NSW Photo Archive)



Figure 4: Bird's Eye view showing new wharfage scheme, Walsh Bay, Sydney. (Source: National Library of Australia)

3.1.2 Persons associated with Walsh Bay

Source: This section has been based on the 'Walsh Bay Precinct Conservation Management Plan', 1998, prepared for Walsh Bay Finance, as revised by the late Dr Kenneth Cable.

This information may be expanded to describe other important characters associated with Walsh Bay.

HENRY DEANE WALSH (1853 - 1921)

Henry Deane Walsh was born and educated in Ireland. Walsh's early engineering experience was with the railways working for Ireland's Southern and Great Western Railway. Walsh arrived in NSW in 1877 and joined the Public Works Department in the following year. On the formation of the Sydney Harbour Trust in 1901 Walsh transferred to the new organisation as its Engineer-In-Chief. Walsh Island (Newcastle) and Walsh Bay (Port Jackson) are named after him. While it is generally given that the area between Millers Point and Dawes Point was named after Walsh after his death in 1922, the Sydney Harbour Trust's first reference to Walsh Bay is in the Annual Report for the year ending June 1919. Walsh had been ill at that time.

ROBERT TOWNS (1794-1873)

The longest serving and most prominent inhabitant of the Point – he lived in several of its finest houses – was Captain Robert Towns. His career characterised the fortunes of Millers Point, while his principal holdings were to be in the vicinity of the present Towns Place.

Robert Towns, born in Scotland, began his career as a trader- captain. It was only after some profitable voyages from Britain and in the South Pacific that he ceased to regard Australia as a port of call and came to see it as his headquarters. In this regard he was unusual; most merchant traders began in Sydney and then extended their horizon.

Towns settled in Sydney in 1843. It was not an easy time. The wool boom of the late 1830s had subsided, giving way to severe economic depression. Towns, with overseas resources, had the advantage of being able to buy property and hire labour cheaply. In 1844 he purchased Jones' wharf at the angle of Millers Point east and the present Walsh Bay. His South Sea interests gave him a diversified trade base; Towns was never dependent on the fluctuations of the wool market.

From his Millers Point house, Towns exercised strict control, based on unremitting attention, over a growing empire. He greatly extended his South Sea activities and traded with China and India.

He owned whaling ships and was involved in schemes for immigration (including from Asia). He was involved in the Sydney banking system and the Chamber of Commerce and, from 1856 to 1861 and again from 1863 until his death, was a member of the Legislative Council. In 1855 he took Alexander Stuart (later Premier of the colony) as his partner in Robert Towns and Co.

Towns' ventures were not only concerned with shipping, trading and commerce. From 1860 he became a major landholder in Queensland, holding over a hundred runs. Land interests led to a project to grow cotton and, in turn, to import South Seas natives as labourers. Towns was never a slave-trader and supported government regulation of native immigration. His cotton venture a failure, Towns, from the later 1860s, turned to wool in North Queensland; Townsville, the local port, was named after him. Towns and his partners also developed stations on the Gulf of Carpentaria, founding Burke town.

Towns moved from Millers Point to Cranbrook, Point Piper, in 1865. By this time his prosperity was waning but he continued to supervise his many interests until his death in 1873.

Towns were energetic, reliable, immensely hard-working and always prepared to branch out into new ventures. While his Queensland activities were remote from Sydney, he remained the individualist ship-owner and merchant at heart and by habit. With his death, his Millers Point property passed under corporate control.

Other persons associated with Walsh Bay requiring more research include Norman Selfe, William John Hickson, John Brown Watt, Thomas Allwright Dibbs, Alexander Berry, Edward Wollstonecraft, and George Wigram Allen.

3.1.3 Chronology

Source: this base of this section has been arranged by historian, the late Dr Kenneth Cable. It is based on the '*Walsh Bay Precinct Conservation Plan*', December 1998, prepared for Walsh Bay Finance. It also uses other sources and includes events which had some general bearing on the Towns Place Area. This is an updated chronology to the present day.

1788	European arrival
1791	Smallpox epidemic which decimated the Aboriginal population.
1797	First Government windmill established.
1810	St Philip's Anglican Church at Church Hill was consecrated.

1825	James Munn established a ship building yard at Millers Point.
1830s	First Crown Grants began to be issued. First educational facilities appeared with the construction of a parochial school attached to St Brigid's in Kent Street.
1831	Hydraulic equipment installed in some facilities.
1835	The first finger jetty, Parbury's wharf, was constructed. St Brigid's Roman Catholic Church in Kent Street was completed.
1839	Kent Street was progressively cut through.
1841	Opening of the Australian Gas Light Company.
1847	The cutting through Argyle Street was completed.
1848	Ferry Lane was mentioned in the sale notice of Hutchinson's Estate.
1850	Fort Street Model School for Girls and Boys was opened. Wells plan records four structures on the allotment.
1856	St Philip's Anglican Church at Church Hill was rebuilt.
1860	By this time finger jetties had appeared along the shoreline.
1890	The Great Maritime Strike.
1895	Survey of the time showed that the whole of the allotment had been redeveloped.
1900	The flea-borne outbreak of bubonic plague arrived in Sydney. Government resumption of the wharves area from the head of Darling Harbour to Circular Quay. The <i>Sydney Harbour Trust Act</i> was passed in October.
1910	Extension of the city tramway system into Millers Point.
1901-1910	Demolition of much of the older housing stock in the area.
1903	Longshore Wharves 1A and 1B at Darling Harbour opened.
1906-1908	Wharves 10/11 developed.
1909	Government's scheme for the redevelopment of the wharves at Walsh Bay begins with the construction of the low-level Hickson Road.
1910-1914	Wharf 1 and Wharves 8/9 developed.
1912	Wharf 2 at Darling Harbour opened.
1912-1922	Wharves 2/3 developed.

1913-1918	Wharves 6/7 developed.
1913-1922	Wharves 4/5 developed.
1913-1923	Construction of the deviation of Pottinger Street to connect Hickson Road with Windmill Street by an easy gradient.
1914-1923	Pottinger Street realigned.
1922	Sydney Harbour Trusts work at Walsh Bay ceased. The area of land at the corner of Windmill Street and Pottinger Street enclosed by the existing brick wall.
1932	Completion of the Sydney Harbour Bridge.
1936	The Sydney Harbour Trust replaced by the Maritime Services Board.
1945	Construction of former canteen building.
1955	Reconstruction of former Canteen Building. Hickson Road facade.
1958	Tram service ceased with the introduction of buses into the area.
1970	Dalgety's and Tyser's facilities were demolished by the Maritime Services Board. At this time Walsh Bay, was neither extensively redeveloped in the post second world war economic boom nor for port redevelopment. The Industrial Archaeology Committee of the National Trust commenced assessing and classifying individual wharves in Sydney Harbour. Walsh Bay Wharf 8/9 was the first to be classified and included in the National Trust Register
1977	Wharf 1 ceased to service shipping.
1983	Vivian Fraser design and reinvigoration of the precinct with the adaptive reuse of Wharf 4/5 – STC, SDC, ATYP and the Philharmonia choirs. Sulman Prize for Public Architecture
1985	The National Trust Council listed the Walsh Bay Wharves and Hickson Road Buildings. Mixed uses developed in the area with Pier 1 comprising mixed retail, restaurants and amusements and Piers 4/5 housing the Sydney Theatre Company and other cultural groups. Parbury's Bond No.1, was being adapted by the Maritime Services Board, to

	house repair facilities. The area was included in The Rocks Urban Conservation Area.
1989	The NSW Government prepared SREP 16 which was made in June 1989. Tenders were called for the redevelopment of Walsh Bay. This attempt failed and new tendering was called. Ongoing use of Pier 4/5 for cultural uses.
1995	The NSW Government, on behalf of the Australian public, the owner of the Walsh Bay redevelopment area offered the area to the public sector for redevelopment. An expression of interest was lodged in November, by Walsh Bay Properties Pty Ltd (now Walsh Bay Partnership)(WBP). Ongoing use of Pier 4/5 for cultural uses.
1996	WBP was awarded a preferred proponent status in March and submitted a Master Plan Development Application (MPDA) in May.
1997	After review of the May 1996 MPDA scheme a revised proposal was submitted in draft form in December.
1995	In January the N.S.W government invited Phillipe Robert to review the options for development at Walsh Bay. Mr. Robert's proposals were adopted by WBP and major shareholders and formed the basis of the October 1997 Master Plan development proposals.
1996	On 30th April the Heritage Council of NSW, and on 20th August the Director General of DUAP, gave approval to WBP's Master Plan application for a mix of conservation, restoration and new building for residential, commercial, cultural and retail uses. Pier 2/3 and the water court assigned as cultural uses by DUAP approval Ongoing use of Pier 4/5 for cultural uses.
1999	Approval of Mirvac and Transfield's Walsh Bay Partnership master plan. Demolition of Pier 6/7 for construction of residential apartments. Ongoing use of Pier 4/5 for cultural uses.
2002-03	Work begins at site in preparation for occupation by commercial tenants. Repairs to Pier 2/3 involving the removal of asbestos roof and re-roofing - repainting - fire upgrade (sprinkler and external stairs installed). Awaiting assignment to cultural uses and left dormant.

	Ongoing use of Pier 4/5 for cultural uses.
2003	Adaptive reuse of Pier 8/9 for commercial uses.
2004	Commercial Shore Studios (Shoreshed building) and base building works to Pier completed. Ongoing use of Pier 4/5 for cultural uses.
2013	Walsh Bay Art Precinct Master Plan Ongoing use of Pier 4/5 for cultural uses.
2015	SSDA - Final Business Case
2016	SEARS

3.2 Physical Evidence

3.2.1 Streetscape

The subject site is currently owned by the New South Wales Government and is part of the Walsh Bay Precinct, located on Sydney Harbour between Dawes Point and Millers Point, and was constructed between 1906-1922, by the Sydney Harbour Trust. The complex includes a group of The entire Walsh Bay Precinct consists of a group of sympathetically designed port structures, wharves with linking sheds, bond stores and warehouses. It also incorporates a design of lower (Hickson Road) and upper (Windmill and Lower Fort Streets) access roads with overpass bridges and stairs connecting the Millers Point and Walsh Bay areas and taking full advantage of the local steep topography. The entire Walsh Bay Precinct constitutes a key visual element in the Sydney Harbour foreshore, generally characterized by a strong sense of unity, a strong industrial maritime scale, character and detail.



Figure 5 Photo showing Hickson Road looking North/East. Image by Google



Figure 6 Photo showing Hickson Road looking South/West. Image by Google.

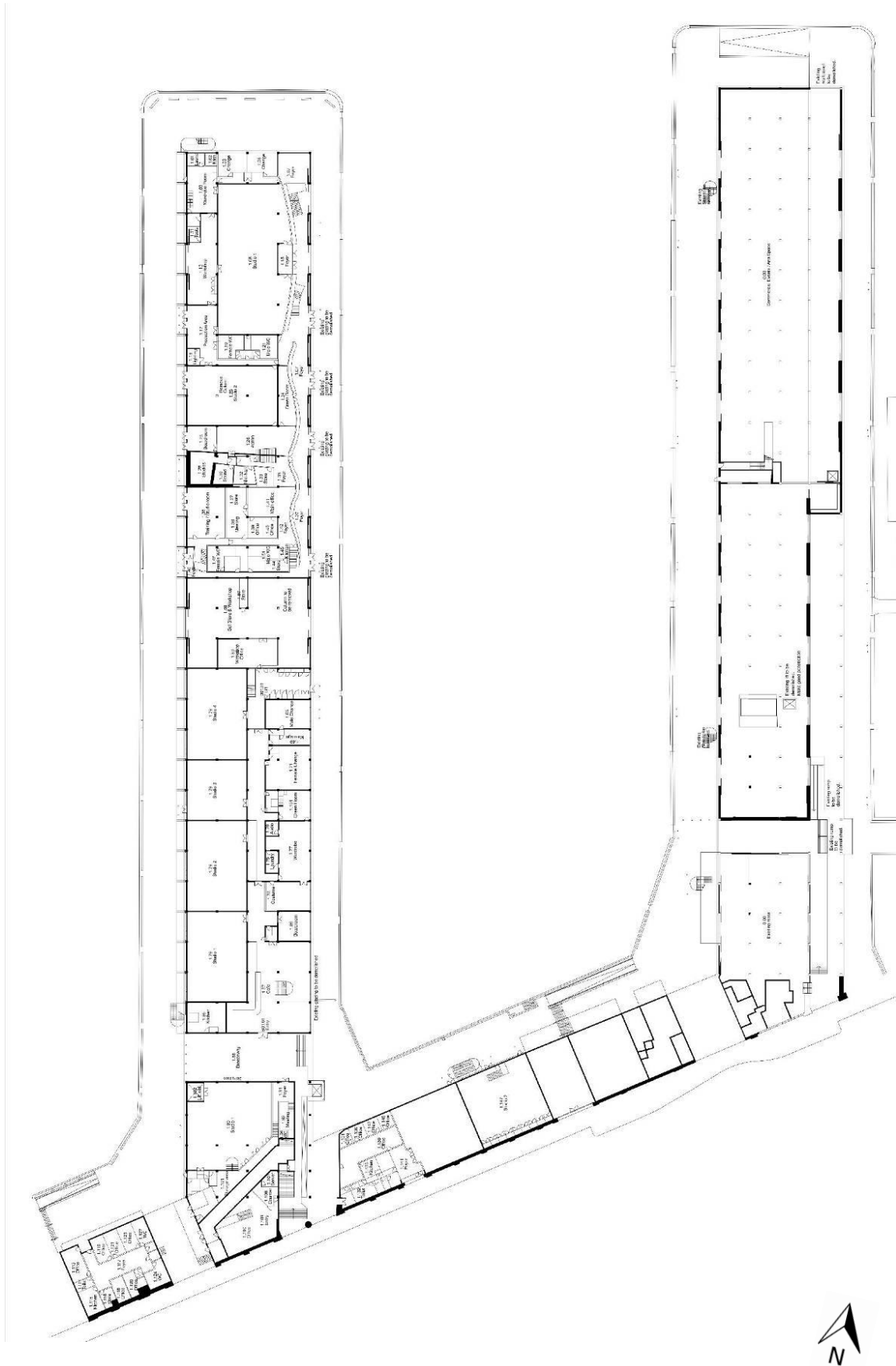


Figure 7 Existing Ground Floor Plan. Resource from TZG Architects.

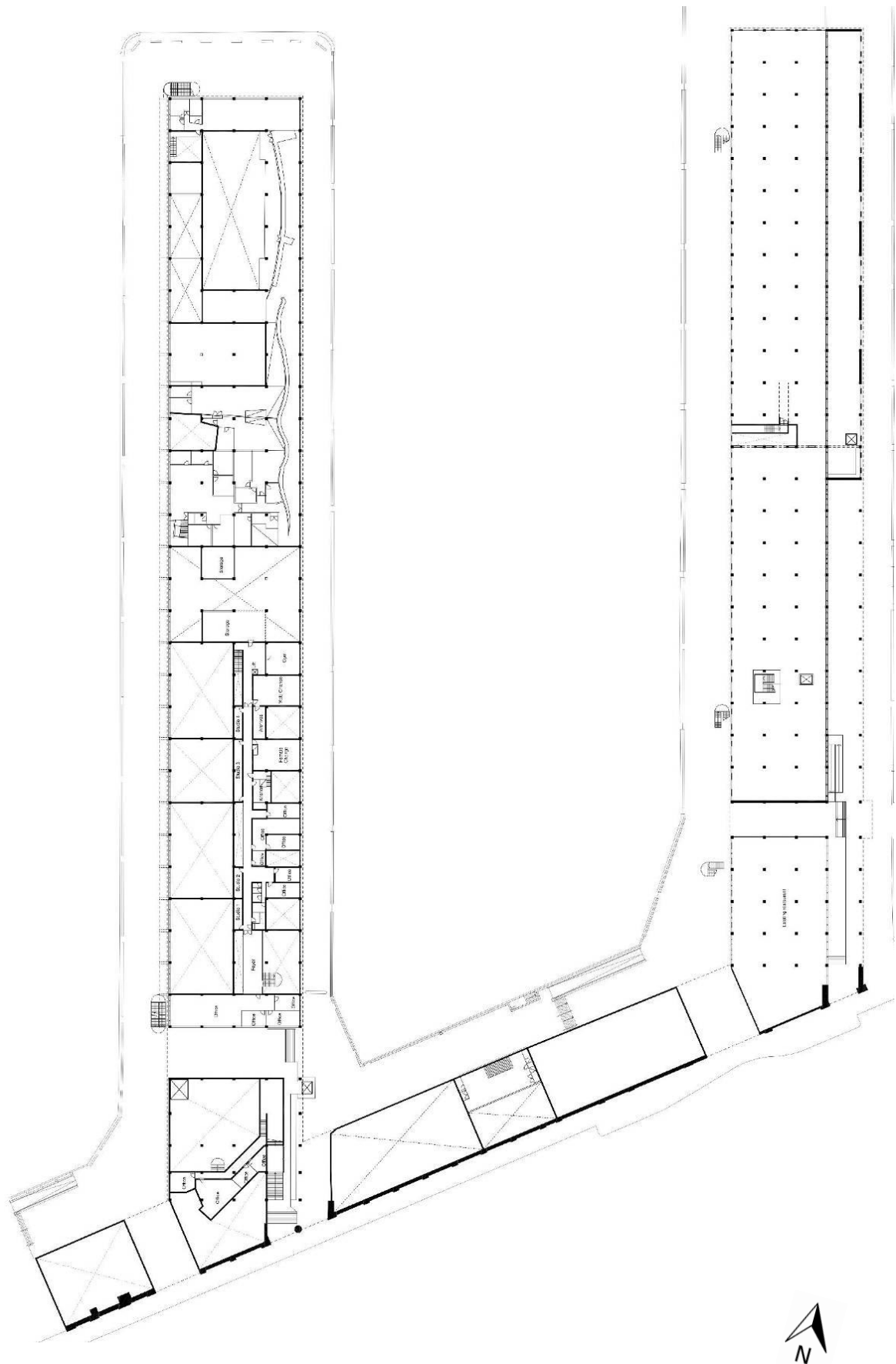


Figure 8 Existing Mezzanine Level Plan. Resource from TZG Architects.

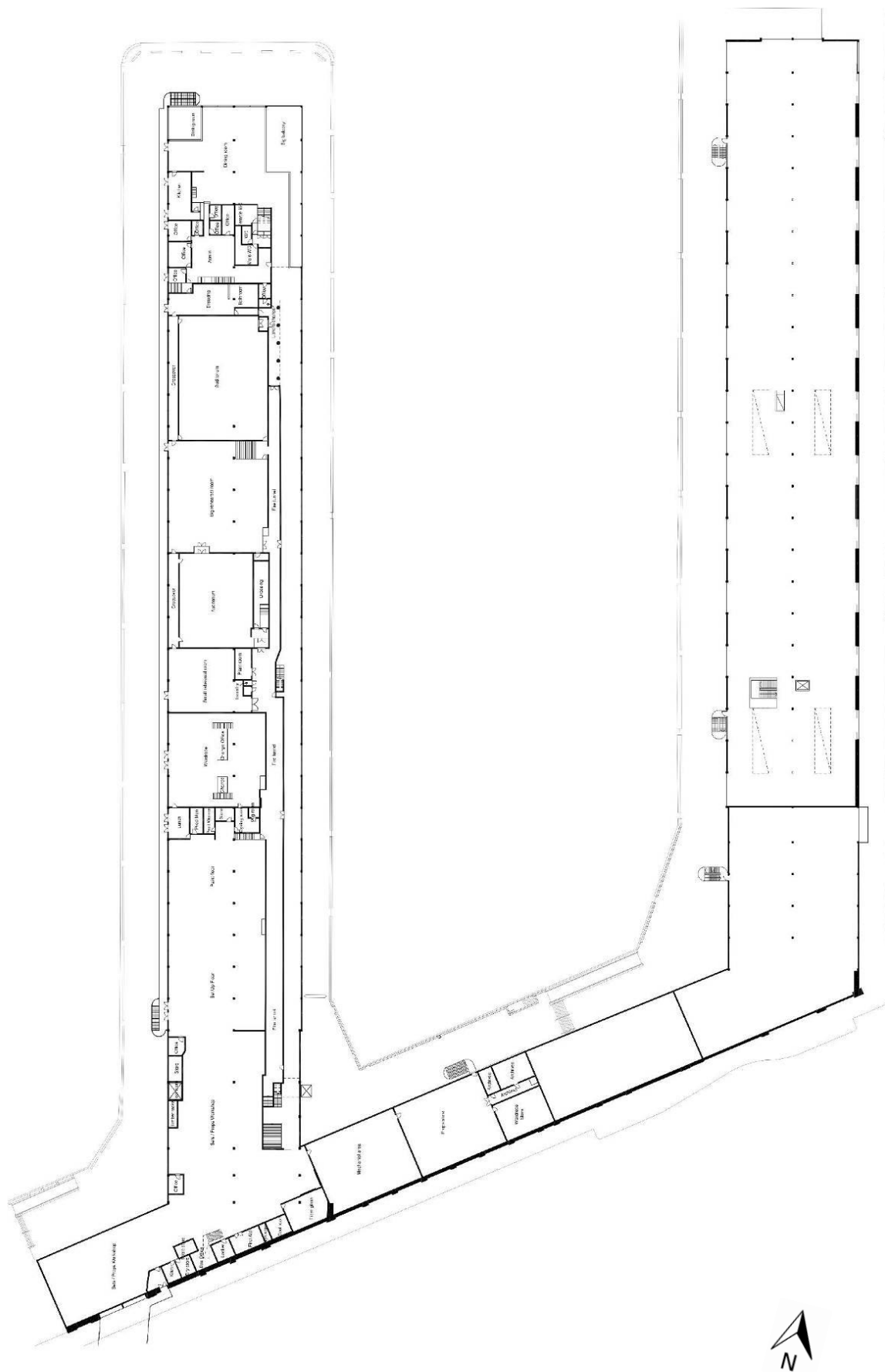


Figure 9 Existing First Floor Plan. Resource from TZG Architects.

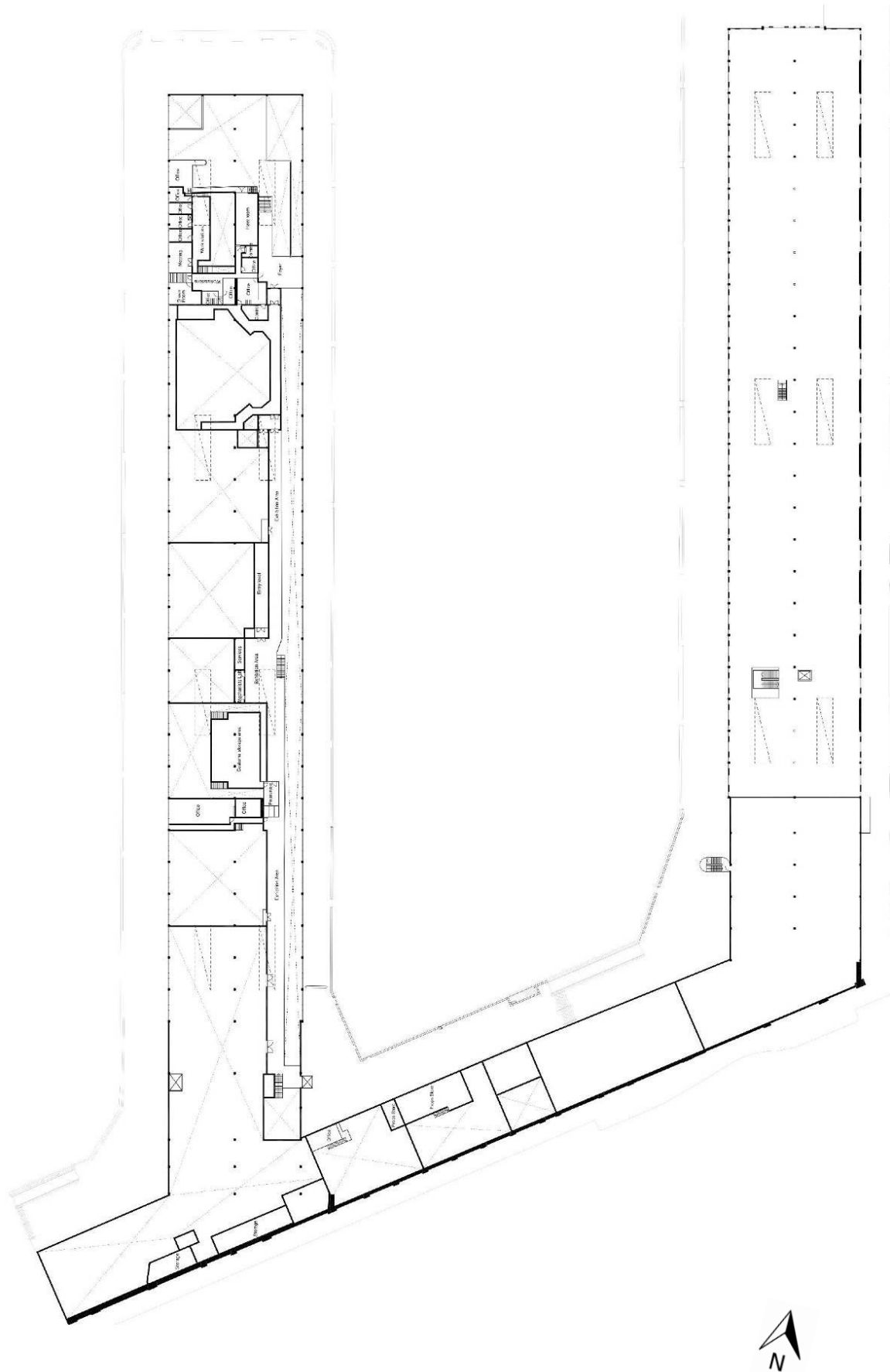


Figure 10 Existing Second Floor Plan. Resource from TZG Architects.

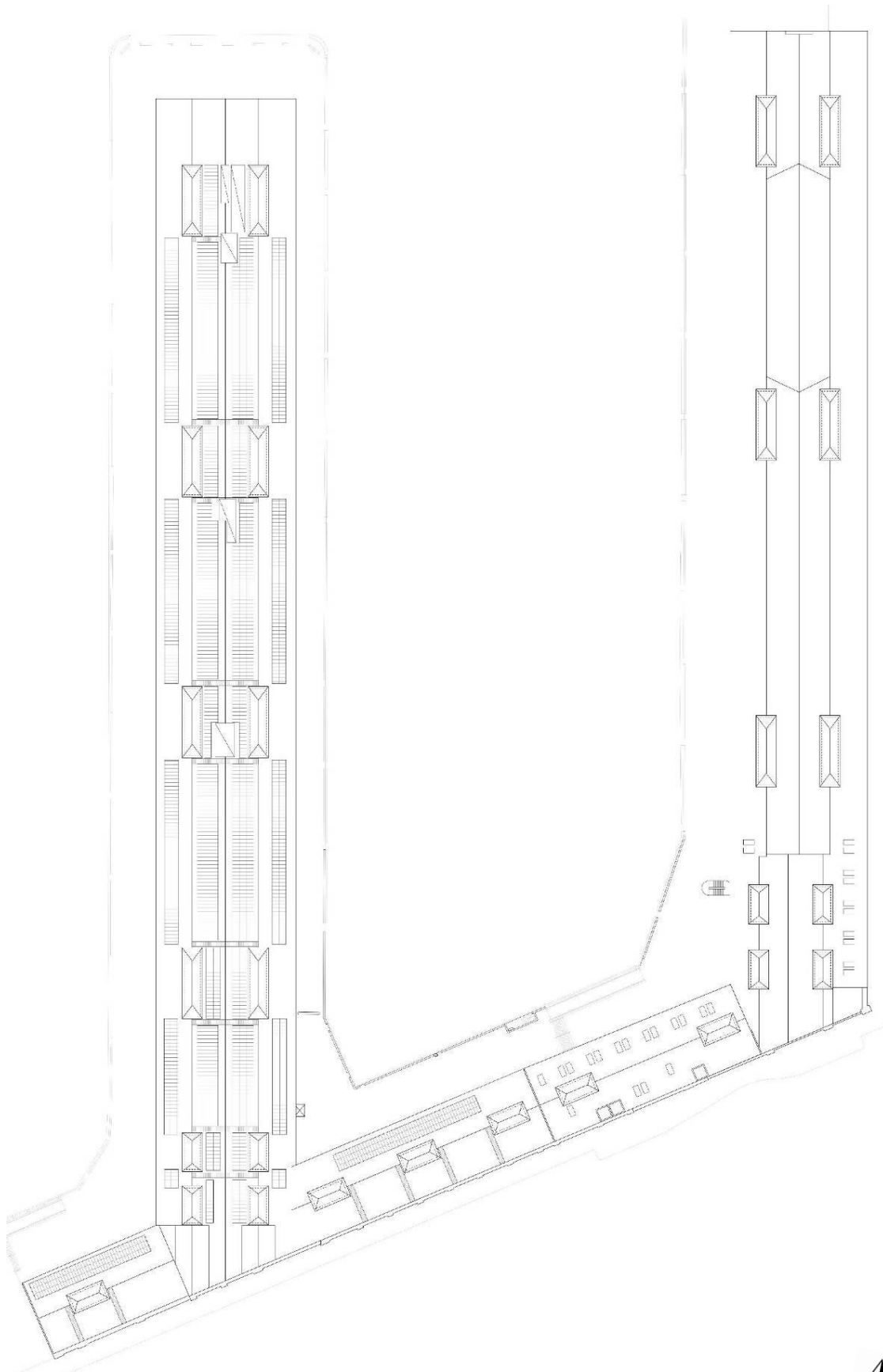


Figure 11 Existing Roof Plan. Resource from TZG Architects.

3.2.2 Wharf 2/3

The jetty shed consists of a simple post and beam construction with a regular grid layout. The facades incorporate a modular design and textural pattern which is typical of Walsh Bay wharves. It has large sliding cargo doors along their length, timber weatherboards, sills and kerbing, metal louvres and timber framed multi-paned windows. The ground floor cargo doors along the east facade open to a truck loading height. Some sections of the jetty shed sandstone kerbing have been replaced in concrete. The eastern windows have wire mesh on the ground floor and metal cladding infill on the first floor. The timber slatted wall design used through the side was originally to provide for a number of safety and environmental conditions that still exist in this environment.

The gabled roof is timber framed with fibro cement sheeting and wire mesh under. It incorporates multiple lanterns with windows and metal louvres for ventilation and lighting. The interiors possess a robust spatial quality derived from its uses, which is typical of this type of architecture.

The jetty shed was originally split-level on the upper floor, providing a long loading bay the entire length of the east side of the shed. This is typical of railway goods shed design and may be evidence of an early design intention. Evidence of the early split-level layout can be seen from the underside floor framing. A ramp was built at the southern end of the pier when the floor was raised to create a level floor. The ground floor accommodates a long loading bay the entire length of the east side of the pier shed by having a split-level deck.

Wharf 2/3 consists of a Federation/Inter-War Period 1912-22 Edwardian Maritime Engineering style timber framed structure with two-level access, originally for loading and unloading cargo. The face brick and stone Shoreshed facades to Hickson Road frontage, unusual in the Sydney Harbour Trust wharves, constitute the largest extant group of Shoresheds today, after the demolition of berths 2 to 6 at Darling Harbour.

Wharf 2/3 was initially used by Adelaide Steamship Co. It was used as a general cargo ('open' berth) for overseas vessels from 1925 until the 1970's. In 1984 uses were restricted to small commercial vessels. It would appear that generally it had no long-term association with particular shipping or mercantile firms.

Pier 2/3, because of its location, constitutes the most prominent of the group of wharves. It is also more significant than wharves 4/5 & 6/7 because of its general use as an open berth and because of its unique design, containing exceptionally long timber piles. Despite its similarity with Pier 2/3, Pier 4/5 is of less significance than Wharf 2/3 because of its altered configuration after its redevelopment in 1984.



Figure 12: Pier 2/3 West elevation

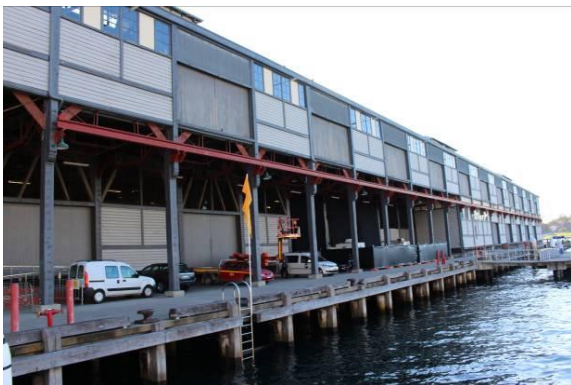


Figure 13: Pier 2/3 East elevation



Figure 14: Pier 2/3 North elevation



Figure 15: Pier 2/3 Ground floor

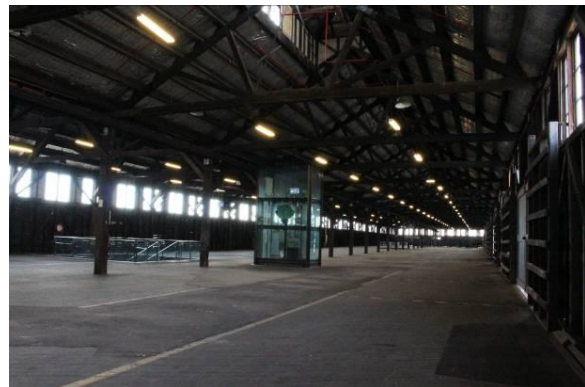


Figure 16: Pier 2/3 First floor

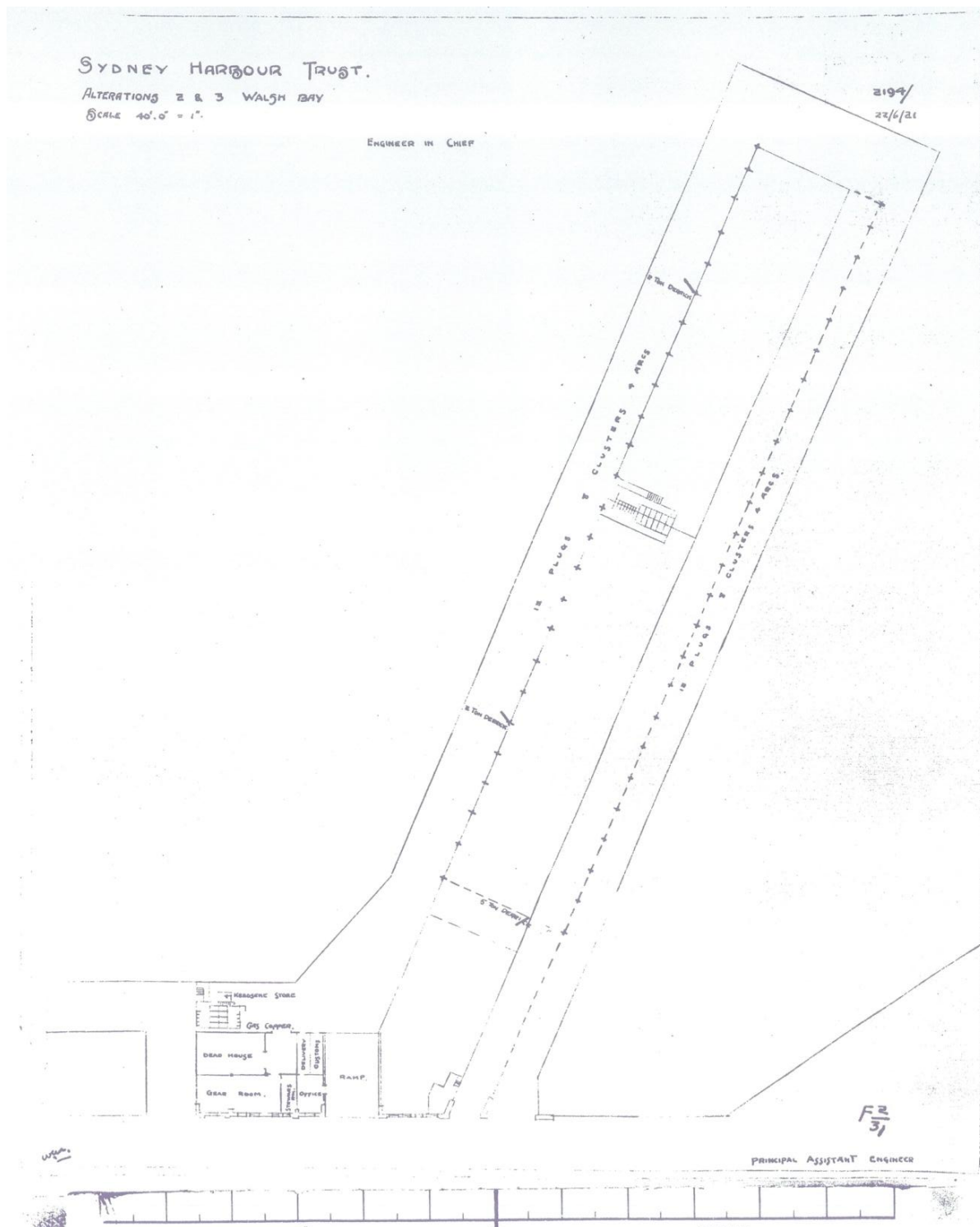


Figure 17 Historical drawing by Sydney Harbour Trust - Alterations 2/3 Walsh Bay

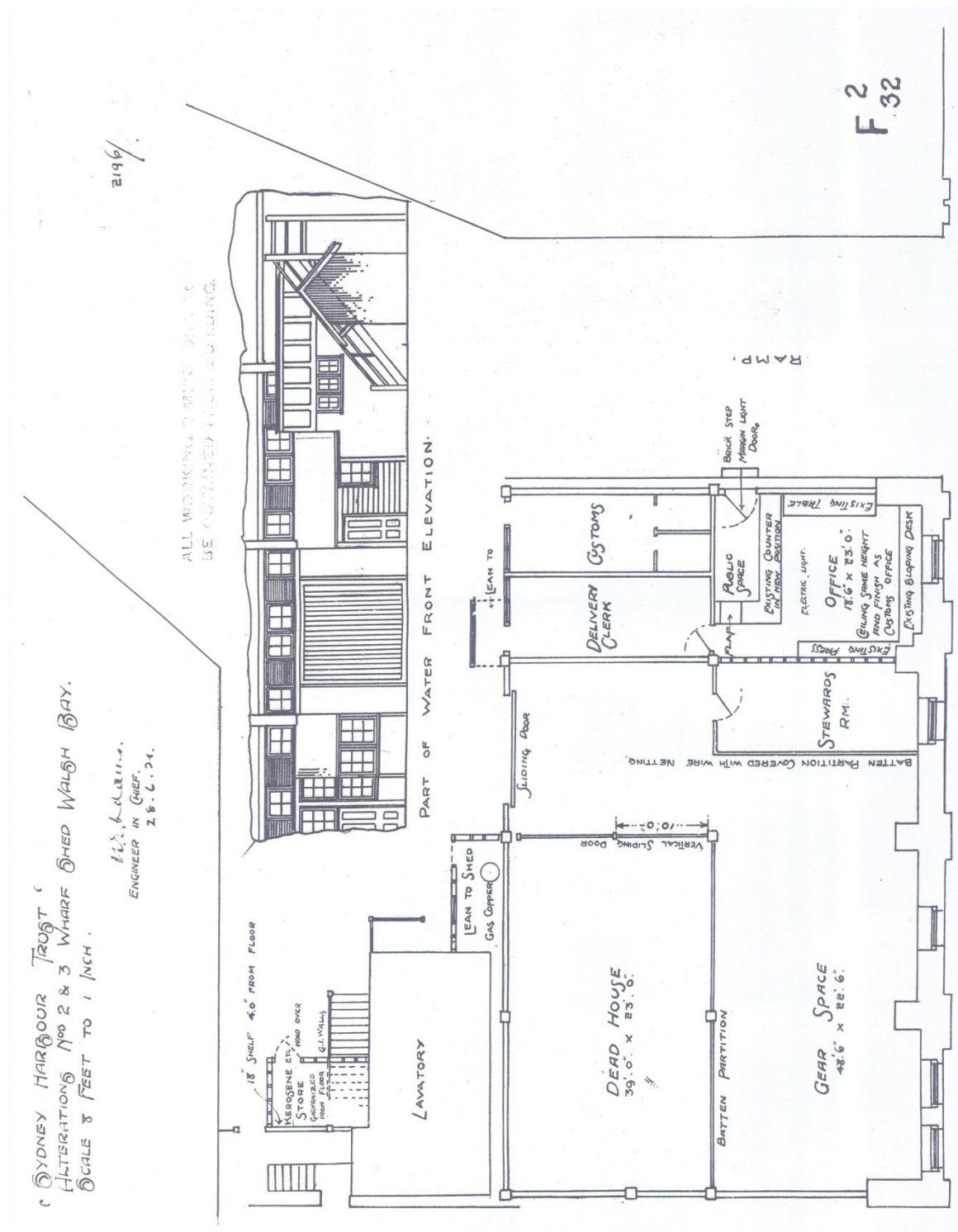


Figure 18 Historical drawing by Sydney Harbour Trust - Alterations 2/3 Wharf Shed Walsh Bay

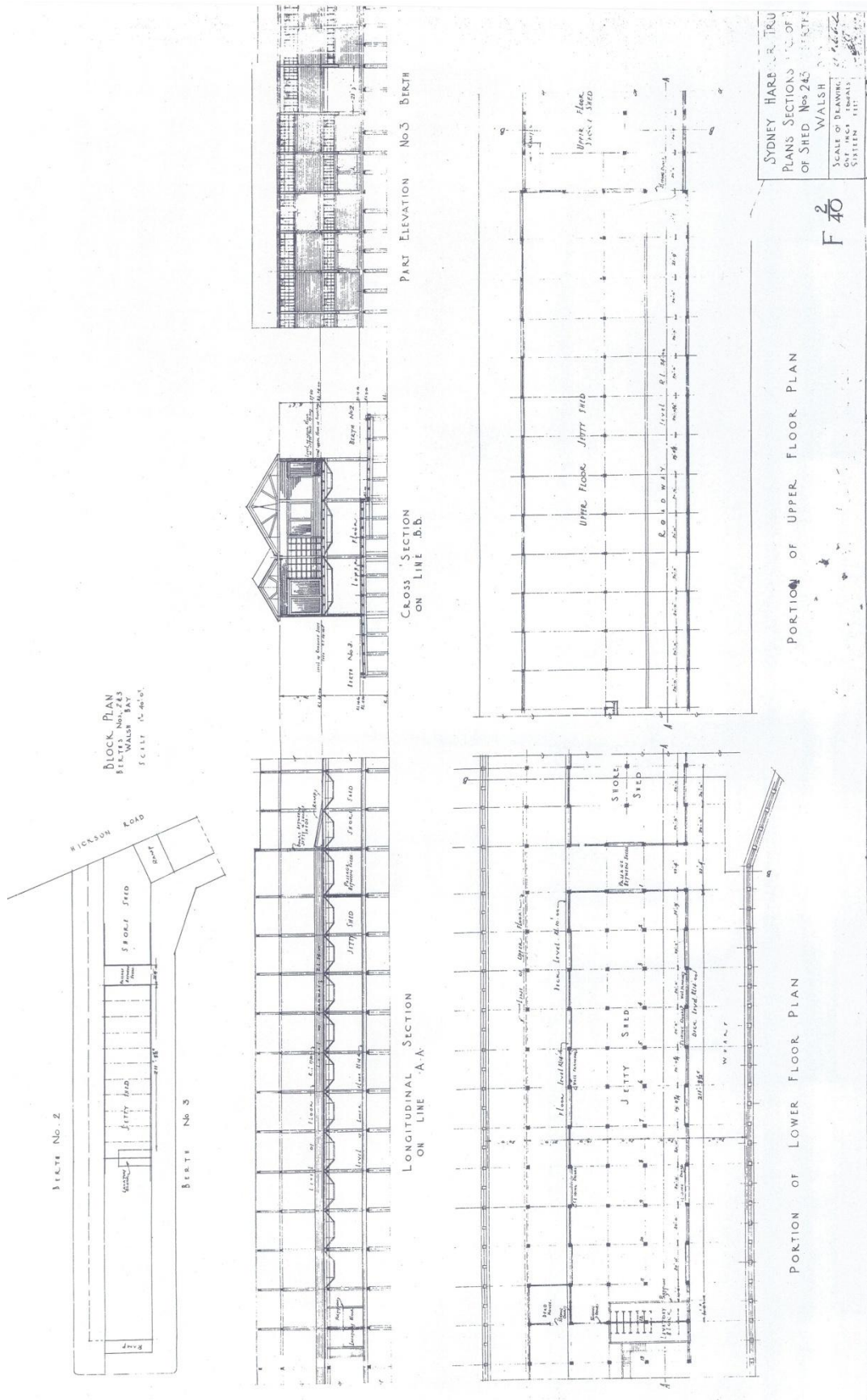


Figure 19 Historical drawing by Sydney Harbour Trust Block Plan Berths 2/3 Walsh Bay

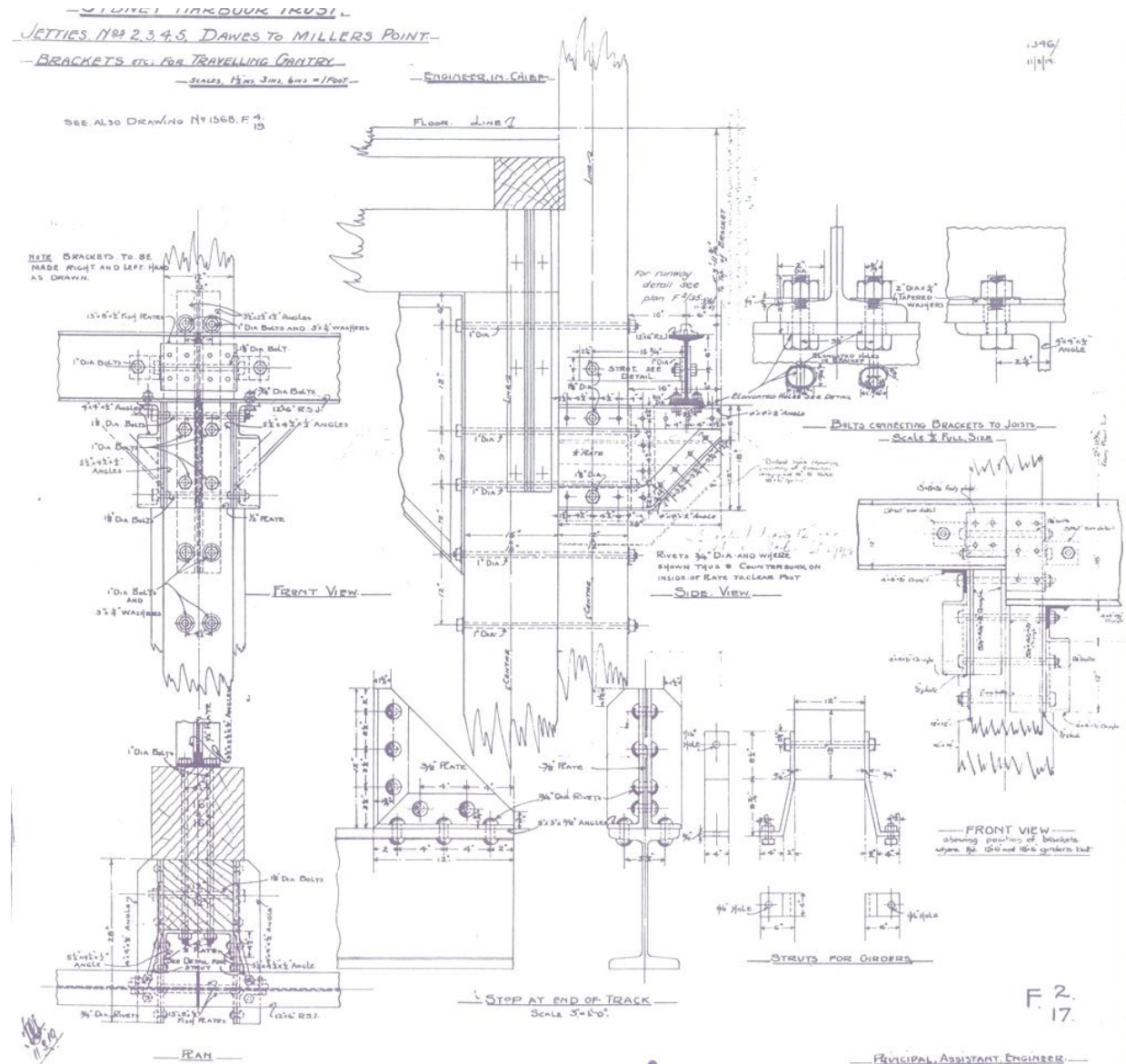


Figure 20 Historical drawing by Sydney Harbour Trust - Brackets ETC for Travelling Gantry Jetties
2/3/4/5 Walsh Bay

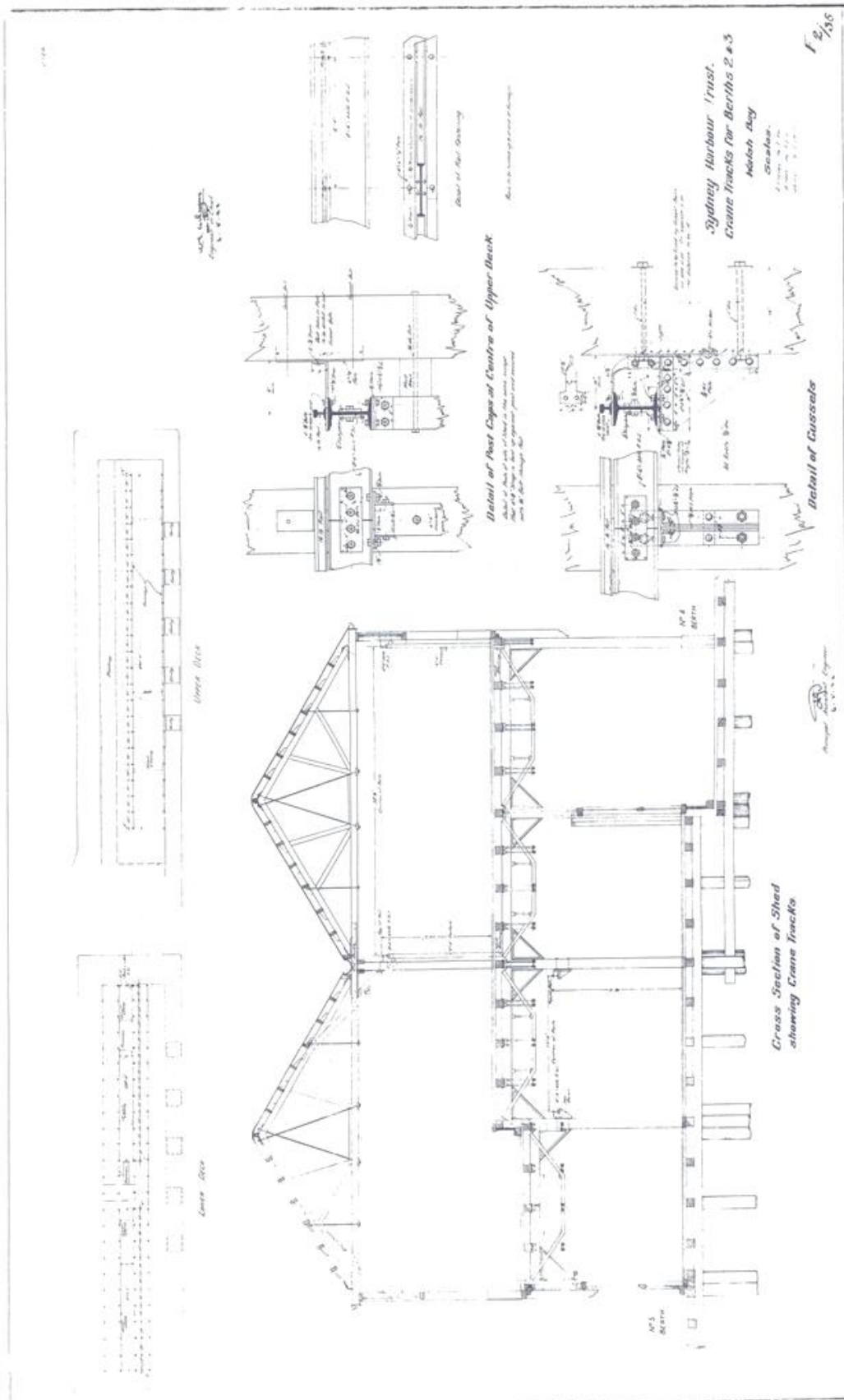


Figure 22 Historical drawing by Sydney Harbour Trust - Crane Traks for Berths 2/3 Walsh Bay

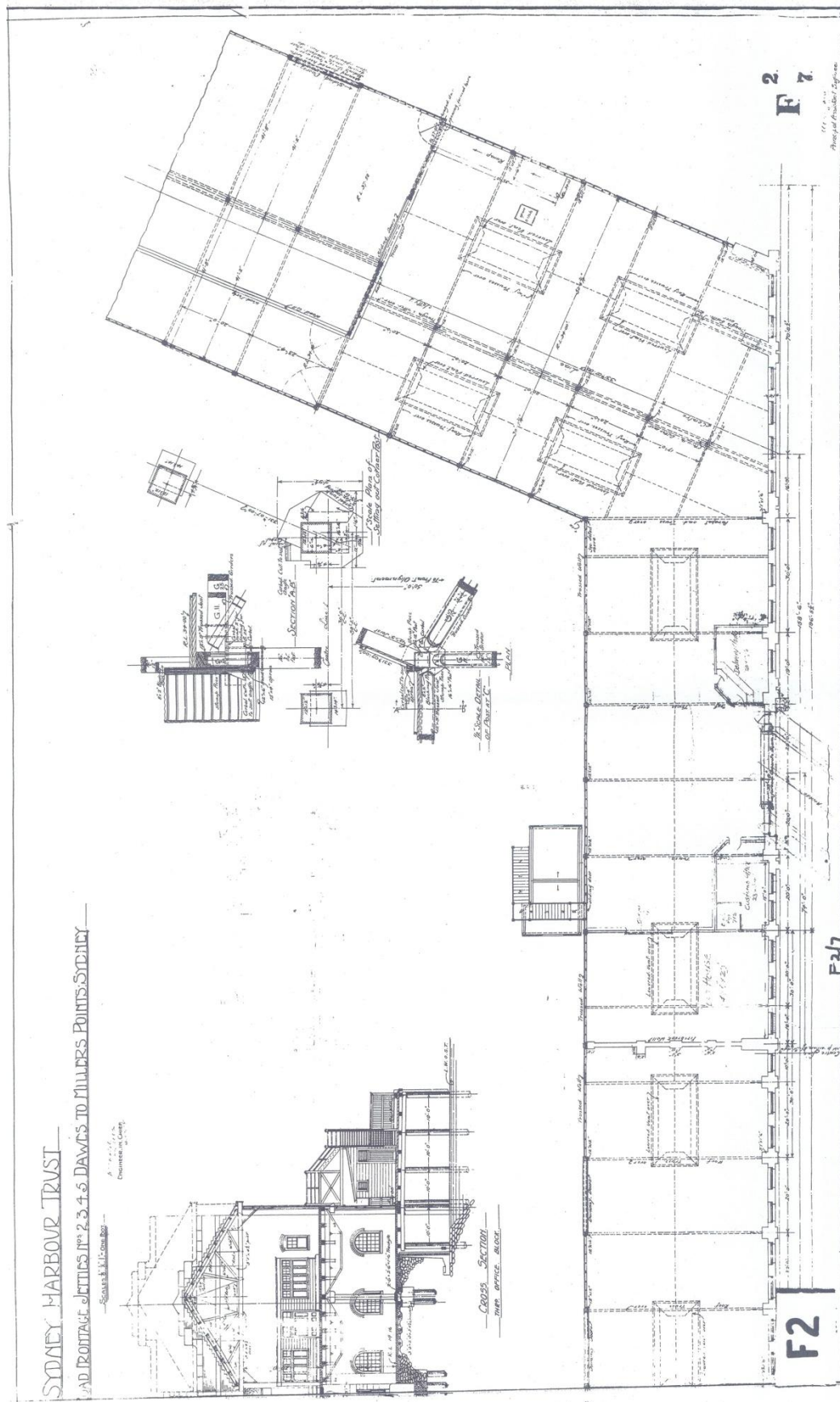


Figure 23 Historical drawing by Sydney Harbour Trust - Plan and Road Frontage Jetties 2/3/4/5 Walsh Bay

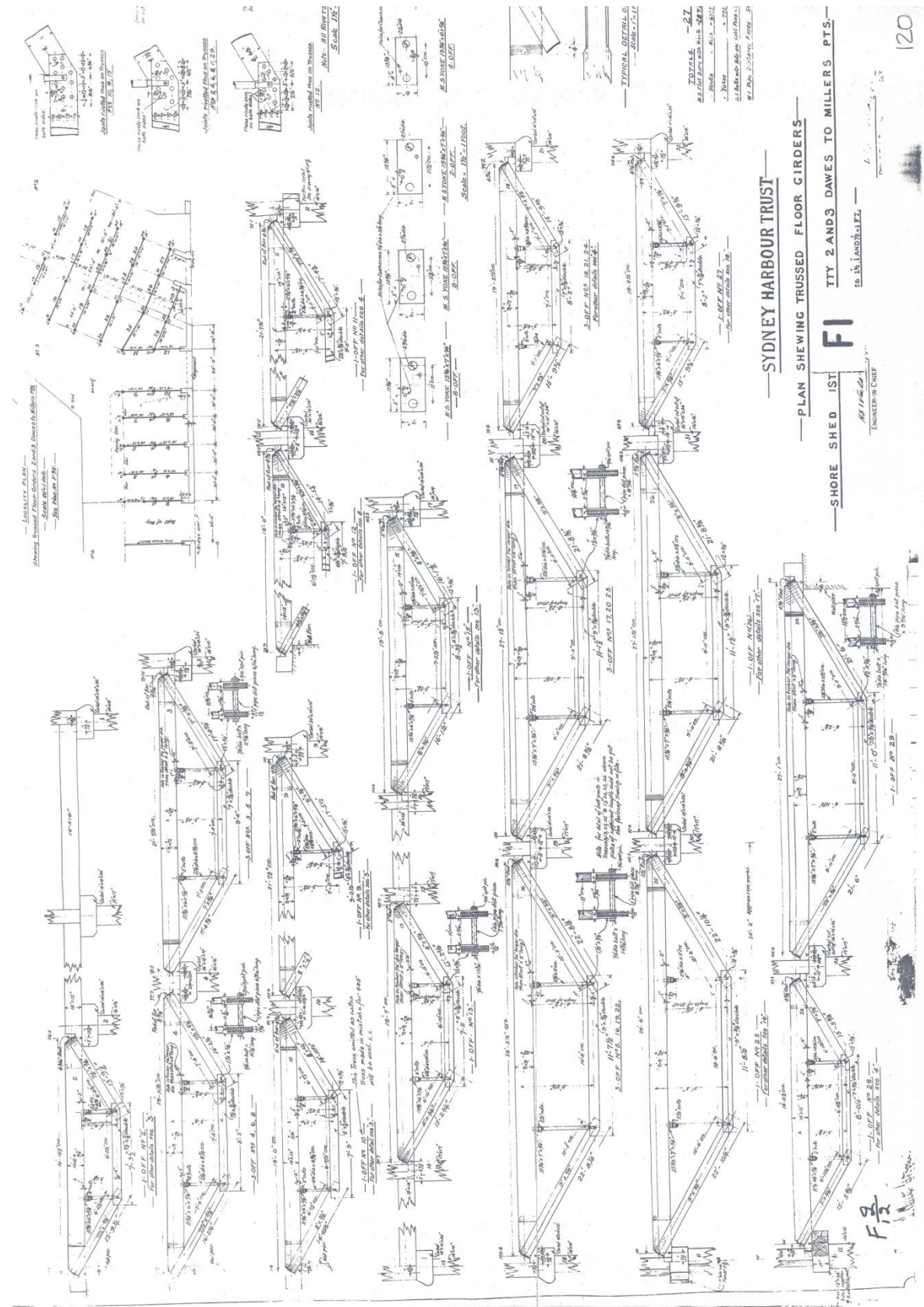


Figure 24 Historical drawing by Sydney Harbour Trust - Plan Trussed Floor Girders Jetty 2/3 Walsh Bay

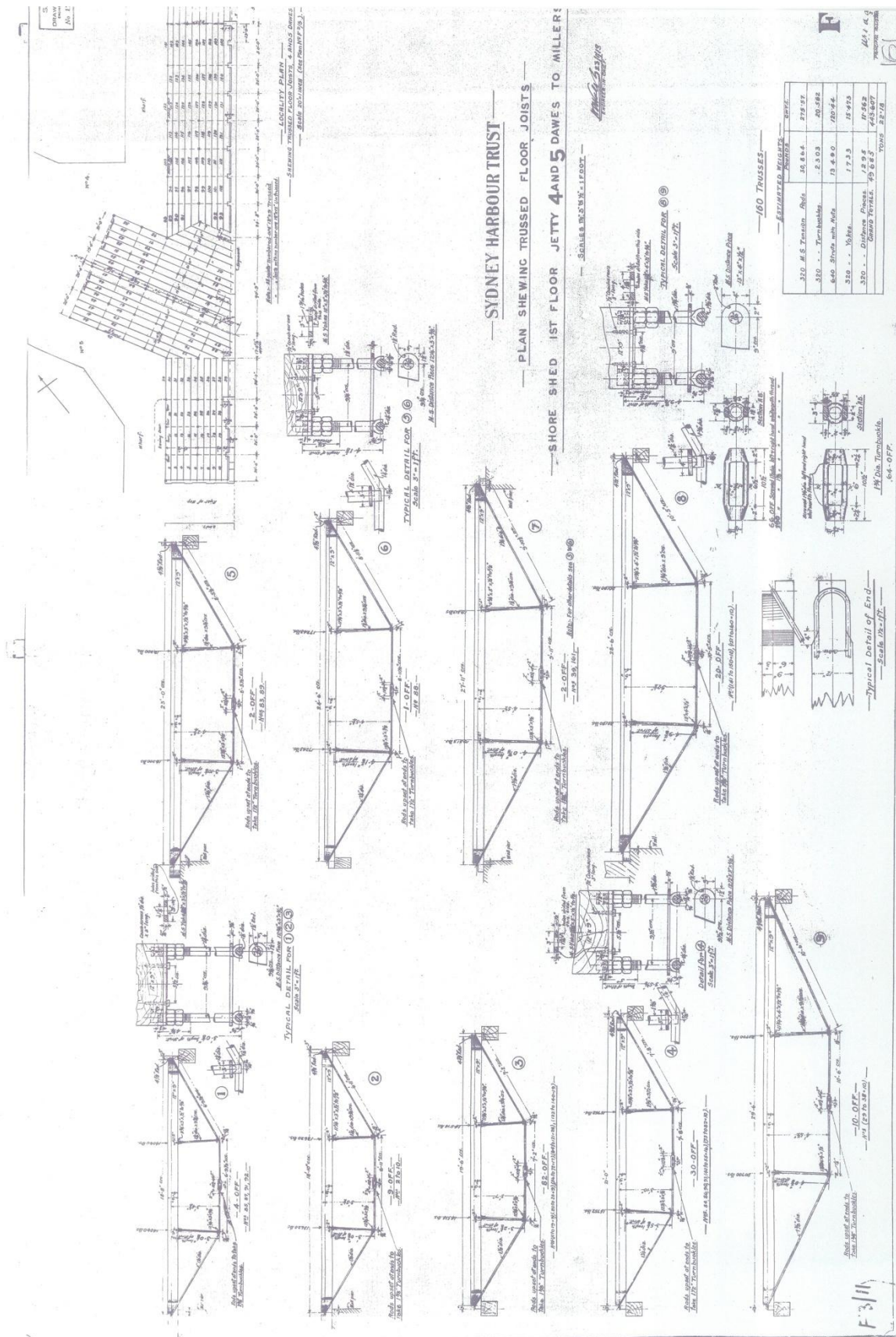


Figure 25 Historical drawing by Sydney Harbour Trust - Plan Trussed Floor Joists Jetty 2/3 Walsh Bay

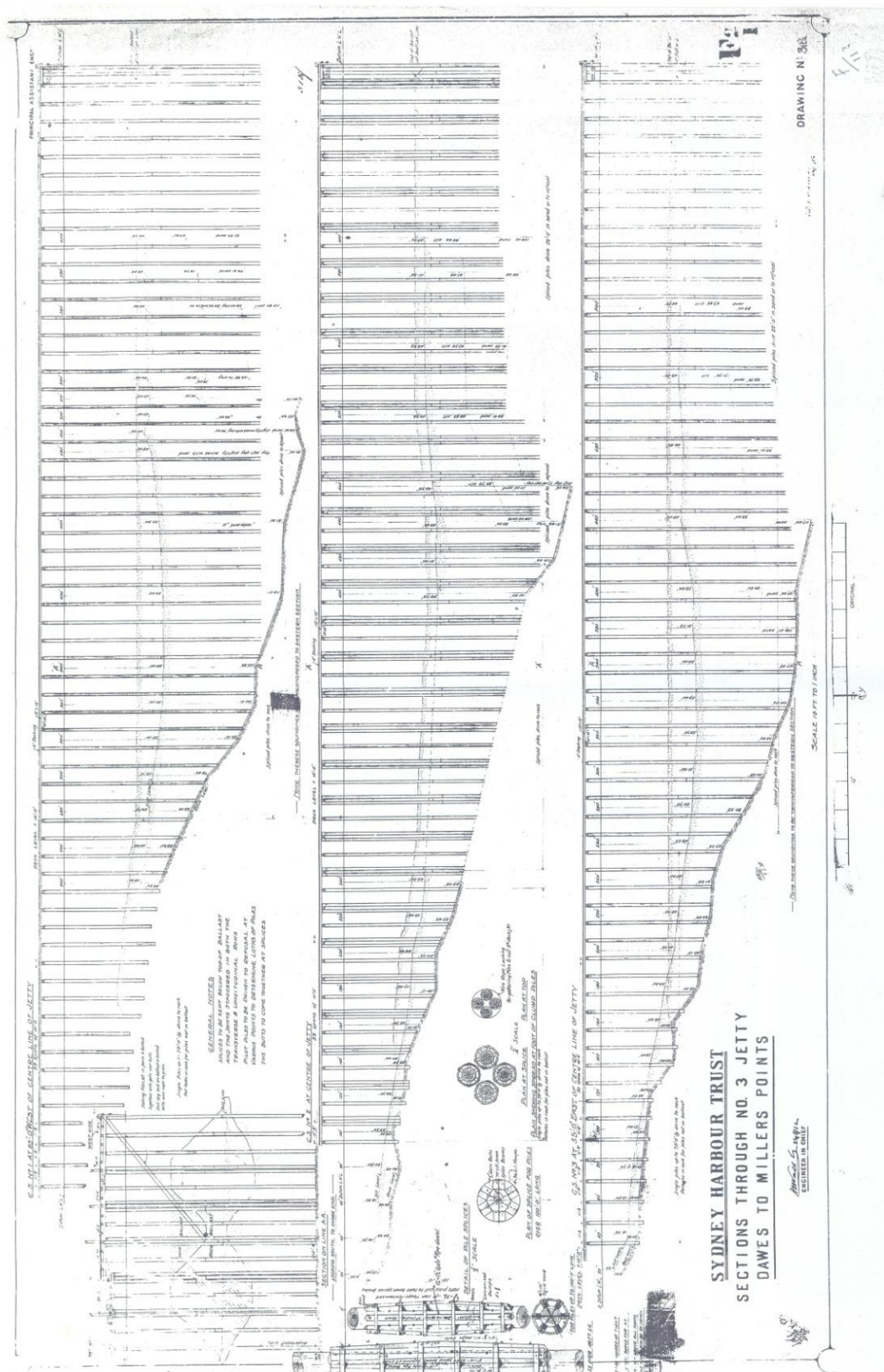


Figure 26 Historical drawing by Sydney Harbour Trust - Section Trough Jetty 3 Walsh Bay

3.2.3 Wharf 4/5

The roof form of Wharf 4/5 is similar to that of Wharf 2/3. The roof structure is supported by timber trusses, purlins, posts and adjustable steel trusses. Louvered ventilation openings are distinct on the roof. Originally the roof sheeting was corrugated iron.

The horizontal form of the wharves is exaggerated by their low scale. Each is punctuated by oversized rolling doors along its entire length. There is no decorative embellishment to these structures. Doors were provided at both Upper and Lower Deck levels to permit working at both levels simultaneously, with gantries providing links with vessels.

On the eastern façade, the second-storey timber roller doors have been enclosed with glass panels and external access to these areas is no longer possible. Typically, more doors are provided at lower levels. In the 1985 conversion of the wharf for premises for the Sydney Theatre Company, other doors were incorporated into the design. A combination of styles can be found including:

- Panelled windows with fixed glass panes, painted timber bars and rails
- Panelled windows with painted timber louvered sections above
- Glass louvres on an aluminum frame with fixed panels below
- Large fixed glazed panels at deck level



Figure 27: Wharf 4/5 East elevation



Figure 28: Wharf 4/5 East elevation



Figure 29: Wharf 4/5 West elevation



Figure 30: Wharf 4/5 North elevation



Figure 31: Wharf 4/5 Level 3



Figure 32: Wharf 4/5 Level 4

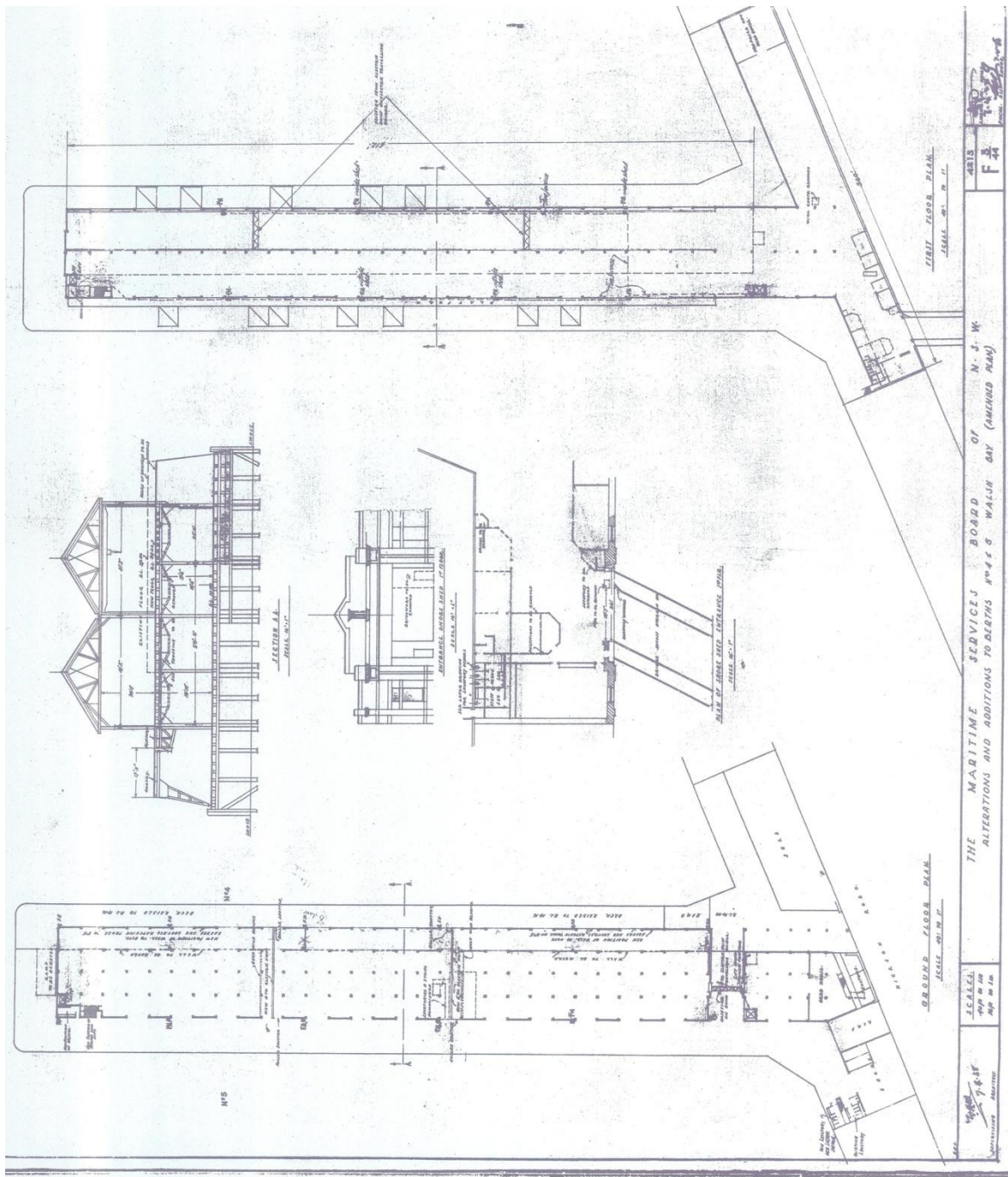


Figure 33 Historical drawing by Sydney Harbour Trust - Alterations & Additions Berths 4/5 Walsh Bay

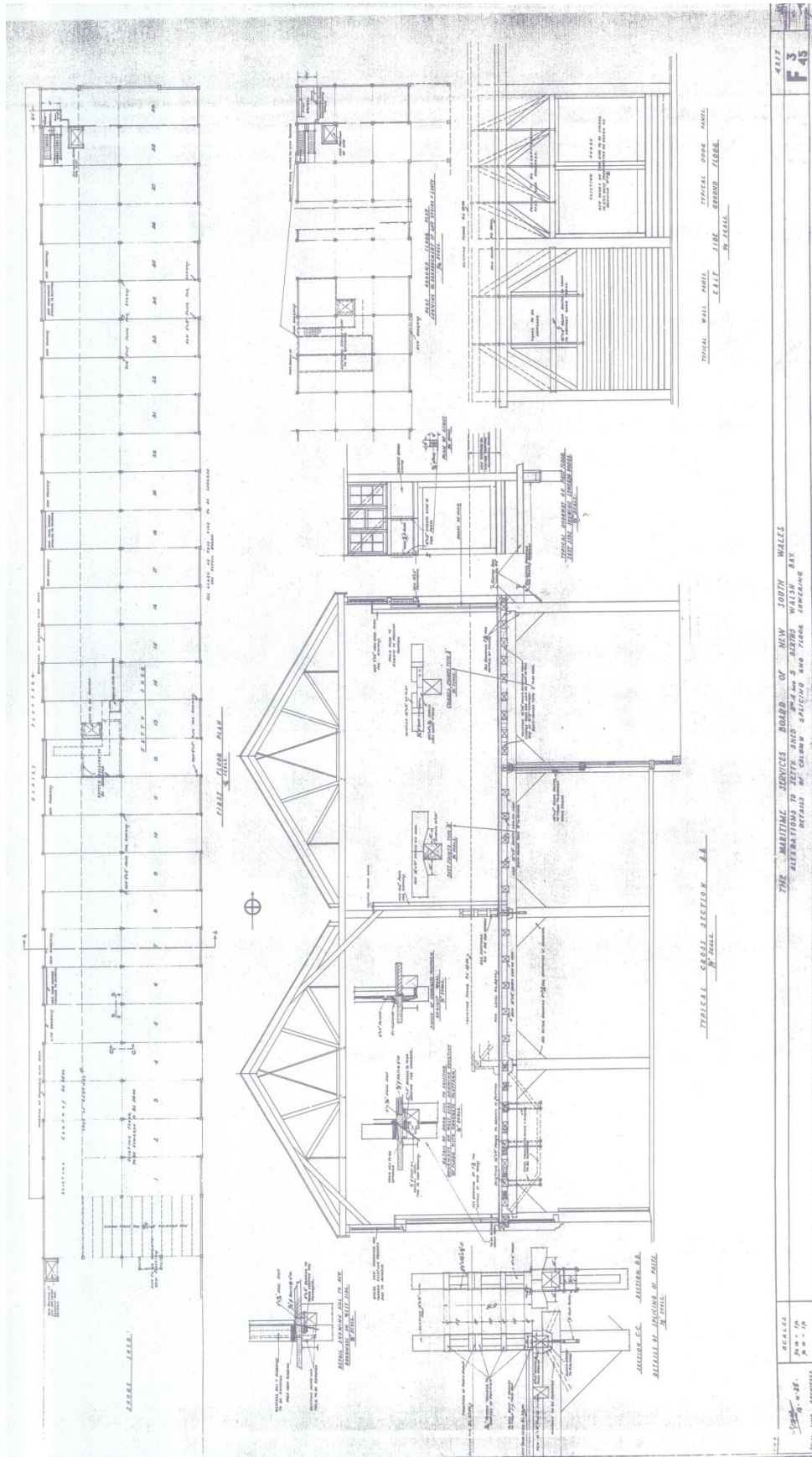


Figure 34 Historical drawing by Sydney Harbour Trust - Alterations & Additions Berths 4/5 Walsh Bay

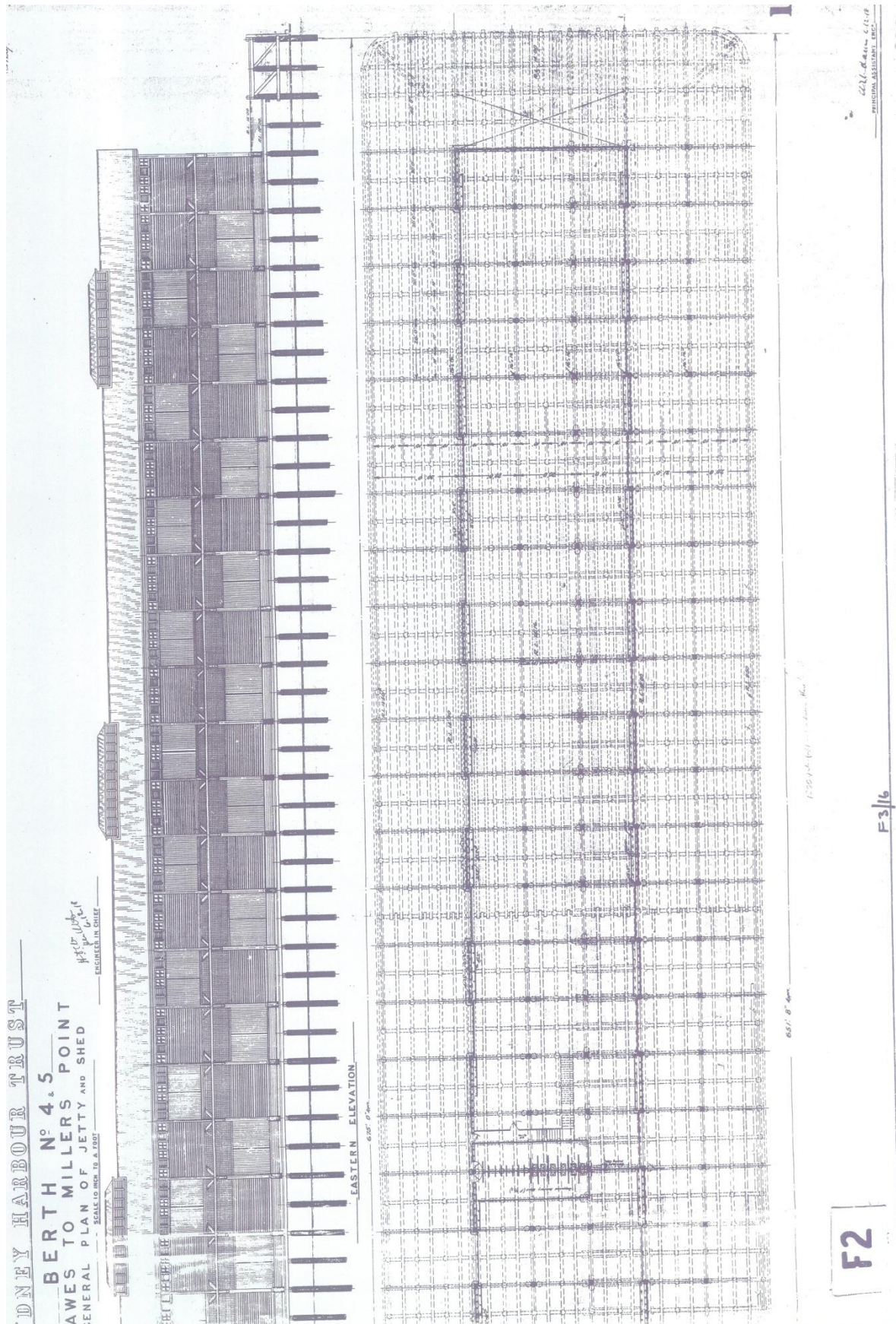


Figure 35 Historical drawing by Sydney Harbour Trust - Plan and Elevation Berth 4/5 Walsh Bay

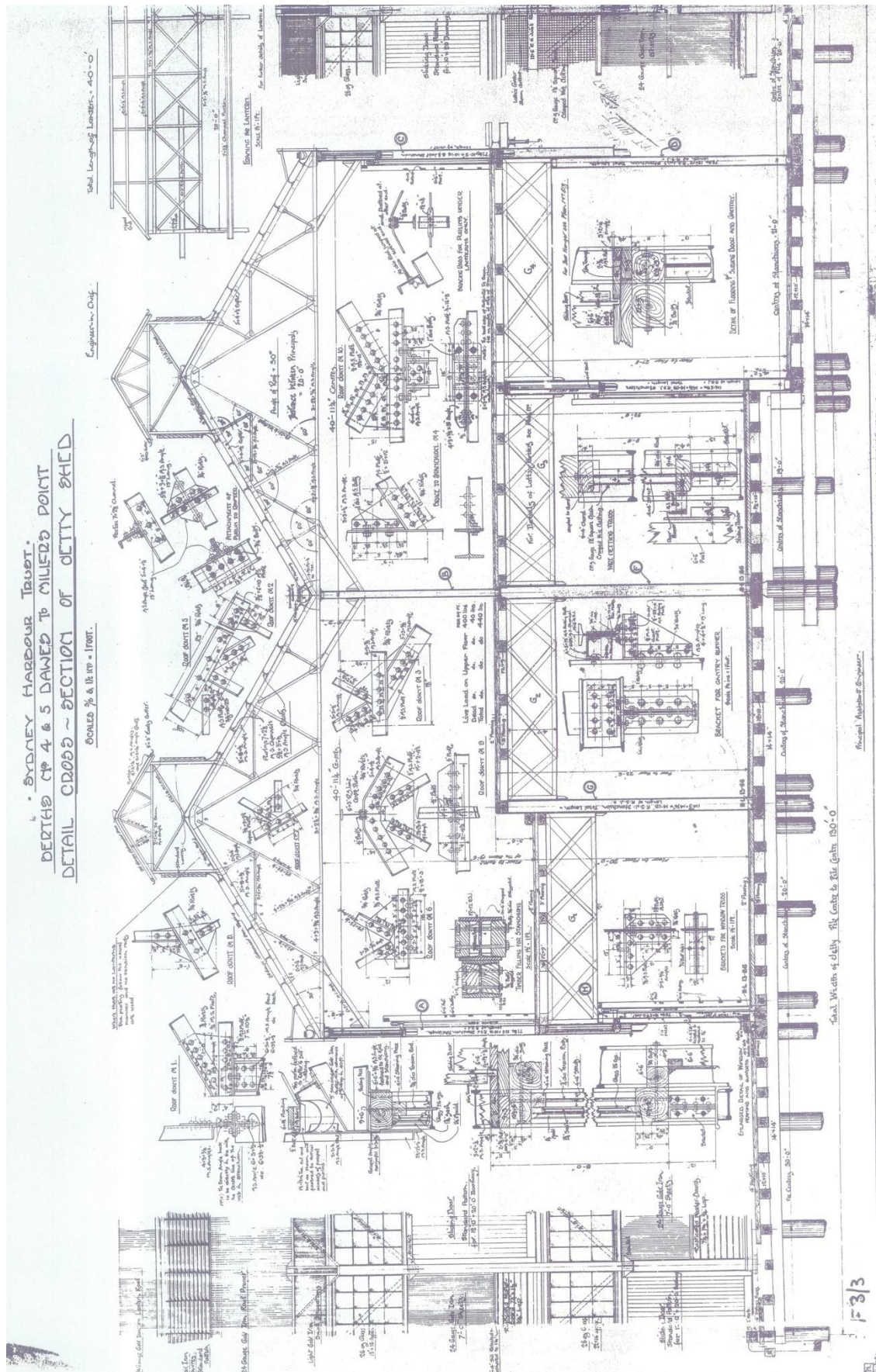


Figure 36 Historical drawing by Sydney Harbour Trust - Cross Section Berths 4/5 Walsh Bay

3.2.4 Shore Sheds

Shore sheds are of similar construction to the wharf shed but typically irregularly shaped. They sit on solid fill retained by the precast concrete seawall. The structures of the shore sheds are T-shaped with the head of each of the four T buildings joined to form a continuous façade along the wide Walsh Bay service artery, Hickson Road. The facades are constructed of masonry and give little indication of extensive timber structures behind.

The Federation style masonry facade onto Hickson Road is a dark colored brick with engaged brick piers and horizontal bands of sandstone which relieve the brickwork along the upper and lower edges of the window and door penetrations. Sandstone embellishments to the brick columns can be found at the upper levels of the building along the parapet wall. The main entrance at street level is typically emphasized with a strong base and a concrete structural Doric entrance column and lintel.

The western facade of the shore shed has a face brickwork facade with recessed brick arches on the Ground and First Floors and vertical sandstone bands along the lower and upper sections of the parapet wall. Three sets of sash windows are located on the first storey.

Windows on the shore sheds are of varying styles and materials including:

- Double hung sash windows in brick facade of shore shed
- Fixed glazed panels in brick facade facing Hickson Road
- Panelled windows with fixed glass panels, fronting water
- Louvres with fixed panels below
- Sliding sash windows
- Casement windows



Figure 37: Shore Sheds South elevation



Figure 38: Shore Sheds West elevation



Figure 39: Shore Sheds North elevation



Figure 40: Fire escapes in steel

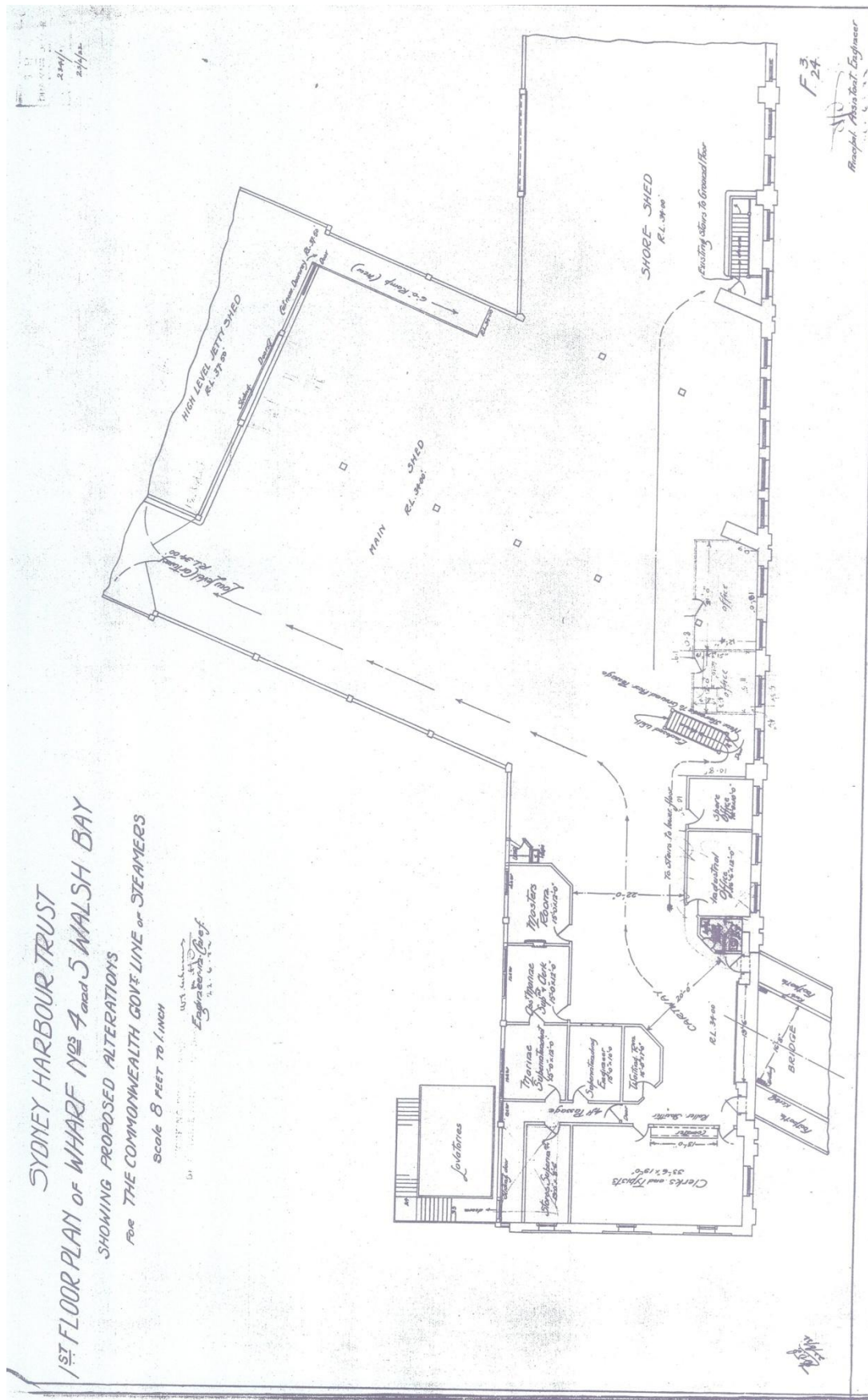


Figure 41 Historical drawing by Sydney Harbour Trust - Floor Plan Shore Sheds Wharf 4/5 Walsh Bay

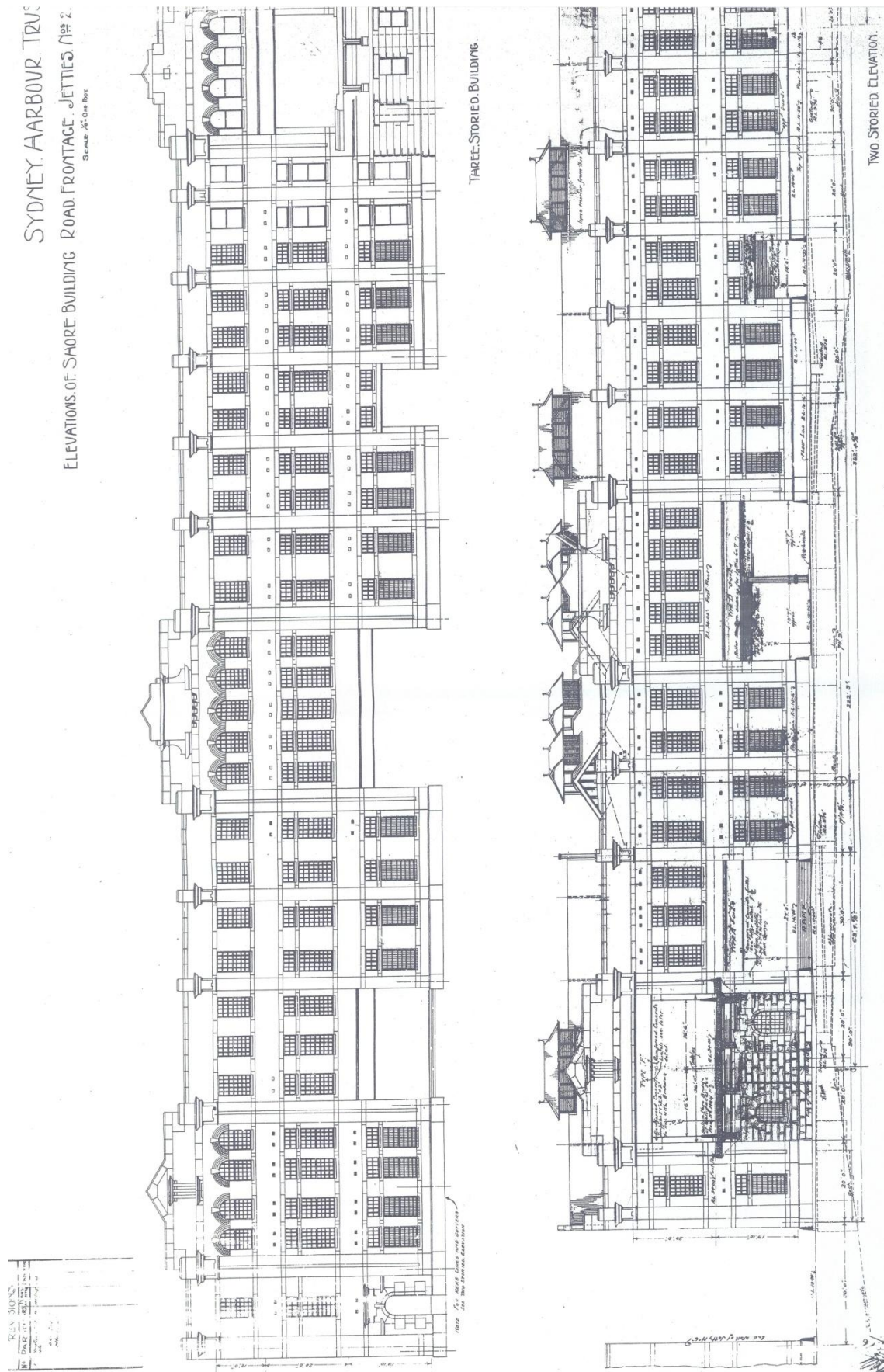


Figure 42 Historical drawing by Sydney Harbour Trust - Elevation Shore Sheds Walsh Bay

3.3 Aboriginal Archaeology and Values

Various studies have previously been done on Aboriginal archaeology and new reports have been commissioned for the Stage 2 SSDA which are included in the appendices.

A report was commissioned by Clive Lucas and Partners to form a part of an Outline Conservation Plan for the Walsh Bay area. The subject area encompasses Piers 1-9 between Dawes Point and Millers Point, including Towns Place, Hickson Road and the buildings abutting to the south, Pottinger Street and associated laneways.

That report provided a brief description of the area as it was likely to have been prior to the European arrival, of the Aboriginal people who were living there at that time, and of physical evidence of their occupation and lifestyle which has been found within and adjacent to the place. The report provided a preliminary assessment of the Aboriginal heritage significance of the place, and suggested strategies for its identification and management.

This is not to say that no Aboriginal relics will be found.

"For almost its entire length within the Walsh Bay area, Hickson Road is cut into bedrock. Only at the north eastern end does it appear to have been constructed on natural surface. Most of the area is significantly disturbed, being either cut away or land fill (Chapman and Murphy 1989).

The area in front to the old wharves, having been used for so many years by ships from all quarters of the world, would have had all sorts of materials disgorged into the adjacent waters. This area would have been further disturbed by submarine construction required for the long piers.

It would seem that this radical alteration to the Walsh Bay landscape must have obliterated any evidence of Aboriginal occupation before or at the time of the European arrival. But the survival into recent times of two Aboriginal sites, one at Moores Wharf and the other at Cumberland Street, is testimony to the fact that evidence of Aboriginal occupation has not been entirely erased, even from the longest occupied and one of the most intensively developed areas of European settlement in the country."

From *Walsh Bay Outline Conservation Plan Aboriginal Heritage*, by Helen Brayshaw, December 1996.

3.3.1 Archaeological Context

"The distribution of most types of Aboriginal sites is closely related to bedrock formation and local topographical features. The most common site type in the coastal region are shell middens mostly occurring as low density scatters of shell but occasionally with some depth, and often associated with low density stone artefact scatters. Middens contain evidence of estuarine and/or ocean resource exploitation. They usually represent interim or base camp occupation activity, and are typically located close to the aquatic environment and fresh water resources. They may also contain non-aquatic food remains or features such as animal or bird bone, hearths, stone tool workshops or burials. Such a shell midden once existed on Bennelong Point (Park 1973:14); it has been destroyed, as have others reported in Cockle Bay, or Darling Harbour as it came to be known (Fitzgerald and Keating 1991:12), to provide lime for mortar in the buildings of the early settlement (Proudfoot et al 1991:112)."

"Two sites which are known to have survived have been excavated, the one at the Moores Wharf at the western end of Walsh Bay by Lampert (1984), and the Cumberland Street near the corner of Essex Street in the Rocks, by Attenbrow (1992)."

From *Walsh Bay Outline Conservation Plan Aboriginal Heritage*, by Helen Brayshaw, December 1996.

"Most works for the redevelopment of Pier 2/3, Wharf 4/5 and the new public space will be concerned with the above ground structures and will have no impact on any in-ground archaeological resource.

The only identified potential impacts are trenching associated with the renewal of existing services or possible provision of new connections. These works would disturb deposits to shallow depths and in discrete areas. Excavations are unlikely to remove or displace structural evidence but they may expose some components and will also displace artefacts and demolition debris contained in the fill.

This work will not substantially affect the cultural value of this resource. The principal impacts to subsurface areas will be associated with the construction of the new public square.

The proposed works will have no impact on potential Aboriginal archaeological evidence."

Extract from the Archaeological Assessment by Wendy Thorpe, August 2016

3.3.2 Aboriginal Occupants

This analysis refers to the archaeological studies and assessments conducted in the Walsh Bay Art Precinct. A Complete report is attached in Appendix A.

"The occupation of Port Jackson by Aboriginal people prior to the European invasion, and their experience of co-existence with the new arrivals at their Sydney Cove settlement has been well documented (eg McBryde 1989, Smith 1992 and Haglund 1996).

At the time of the arrival of the first fleet at Port Jackson, Aborigines occupying the coastal area north beyond Broken Bay were a large tribal grouping identified as 'Guringai' (or Kuringgai) speakers. To the south of Port Jackson, including Walsh Bay, the language was referred to as the Sydney language or 'Eora' (a Darug language slightly different from that spoken on the Cumberland Plain to the west.).

Territorial boundaries appear to have in the main coincided with language or dialect distributions. Around Port Jackson there were several groups (or clans), each named after and associated with a particular area. Each group consisted of sub-groups (bands) of some twenty to fifty persons who tended to forage within a certain area and were based on one or more family units (Haglund 1996). Different groups could join in large numbers for ceremonies and social gatherings, and individuals moved well beyond their own territories, but according to certain obligations and codes of behaviour. The southern shore of Port Jackson encompassing Walsh Bay belonged to the 'Cadigal'.

Smallpox killed about half the Aboriginal population around Port Jackson by 1791. Some clans almost disappeared; the 'Cadigal' were reduced by the epidemic to three individuals (Curson 1985). Traditionally Aboriginal burials in the Port Jackson area involved cremation. William Bradley, first lieutenant on HMS Sirius, wrote:

'We have every reason to suppose that they burn the dead, from the number of graves we have open'd and seen in those which were opened we found the ashes with many pieces of bone not quite consumed (Bradley 1786-92:142, also 178, 187)."

From *Walsh Bay Outline Conservation Plan Aboriginal Heritage*, by Helen Brayshaw, December 1996.

"The study site is considered to have no potential to contain Aboriginal sites or objects.

It is concluded that no further archaeological investigation in regard to Aboriginal archaeological sites is necessary. It is recommended that the proponent proceed with the proposed works with caution.

In the unlikely event that suspected Aboriginal objects are discovered during the course of the proposed works then work should be stopped in this area, the object safeguarded and a suitably qualified archaeologist contacted to record the find prior to work continuing."

Extract from the Archaeological Assessment by Wendy Thorpe, August 2016

3.3.3 Objectives

"While the Aboriginal site at Moores Wharf has now been destroyed, and no others are presently known within Walsh Bay or its vicinity, its survival into recent times indicates that the possibility remains of further evidence of Aboriginal heritage being present in the area. Future conservation works should therefore aim to identify and where possible preserve any such evidence.

The objectives of future conservation works should be:

1. To identify any items or areas of Aboriginal heritage value within the place. Any identified relics or sites would be protected under the terms of the National Parks & Wildlife Act, 1974, as amended, and cannot be damaged, defaced or destroyed without the prior written consent of the Director of the NSW National Parks & Wildlife Service.
2. To preserve items or areas of high or potentially high heritage value in accordance with legislative requirements and provisions of the Burra Charter.
3. To assess the significance of, perhaps by means of archaeological excavation, record and retrieve heritage items identified within the place.
4. To involve the Aboriginal community in all stages of Aboriginal heritage assessment and management."

From *Walsh Bay Outline Conservation Plan Aboriginal Heritage*, by Helen Brayshaw, December 1996.

3.3.4 Strategies

"The following strategies are suggested as a means of achieving the stated objectives:

1. Incorporate into individual area or building conservation plans an assessment of the likelihood of natural land surfaces or foreshore to be present.
2. Development of a protocol for periodic audit and, if appropriate, a conservation plan to ensure the long term preservation of items or areas of high heritage value. Subject to

archaeological review, retrieval of what value is possible by salvage excavation of sites should preservation not be achievable.

3. Monitoring of ground surface disturbance in areas where natural land surfaces or foreshore are present for items or sites of Aboriginal heritage value.

4. Develop management strategies for any such items identified including significance assessment, retrieval and/or recording."

From *Walsh Bay Outline Conservation Plan Aboriginal Heritage*, by Helen Brayshaw, December 1996.



Figure 43: A view of Port Jackson from Dawes's Point Sydney Cove. Watercolour, artist unknown, date possibly 1805 from McCormick 1987, original in Mitchell Library.

3.4 Marine and Land Archaeology

3.4.1 Scope

This analysis refers to the archaeological studies and assessments conducted in the Walsh Bay Art Precinct and analyses and highlights the areas of relevance. A Complete report is attached in Appendix B.

3.4.2 Evolution of the Walsh Bay Shoreline

The following historical overview has been summarised by Clive Lucas in the *Walsh Bay Precinct Conservation Plan - Archaeological Assessment*, August 1997.

Phase 1 - Establishment (1788-1830s)

Phase 2 - Expansion (1830-1870s)

Phase 3 - Consolidation (1870-1900)

Phase 4 - Government Administration (1900-1980s)

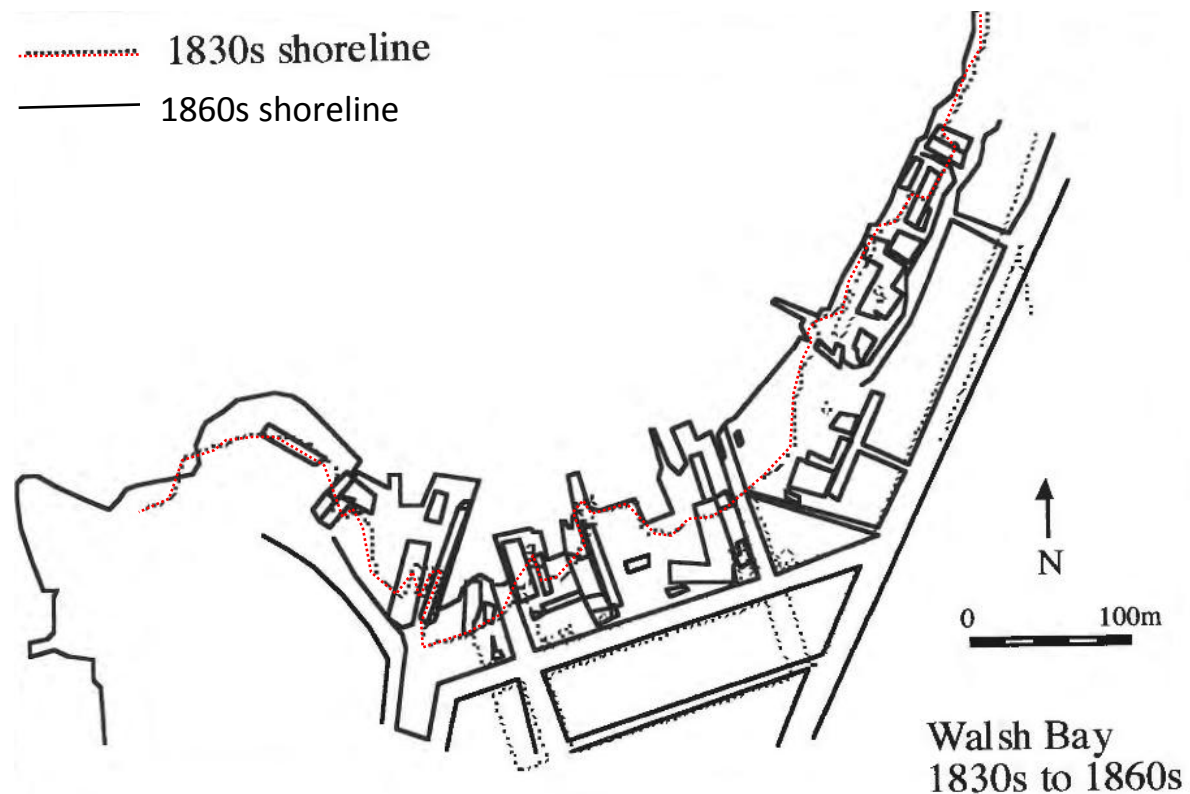


Figure 44: Walsh Bay 1830s to 1860s. From *Walsh Bay Redevelopment: Maritime Archaeological Assessment of Wharves 6/7 & 8/9*, by Coroneos, September 1997.

Phase 1 - Establishment (1788-1830s) - Based on Harper's plan of 1823

By this comparatively early date the foreshore of the area between Dawes Point and Millers Point has been modified to make a small number of longshore wharfs and jetties. A number of buildings, probably associated with the maritime trade, have also been built. Streets formed by this stage included Pottinger, Windmill, Kent and Lower Fort Street. Some building (probably residential) were located facing Windmill Street.

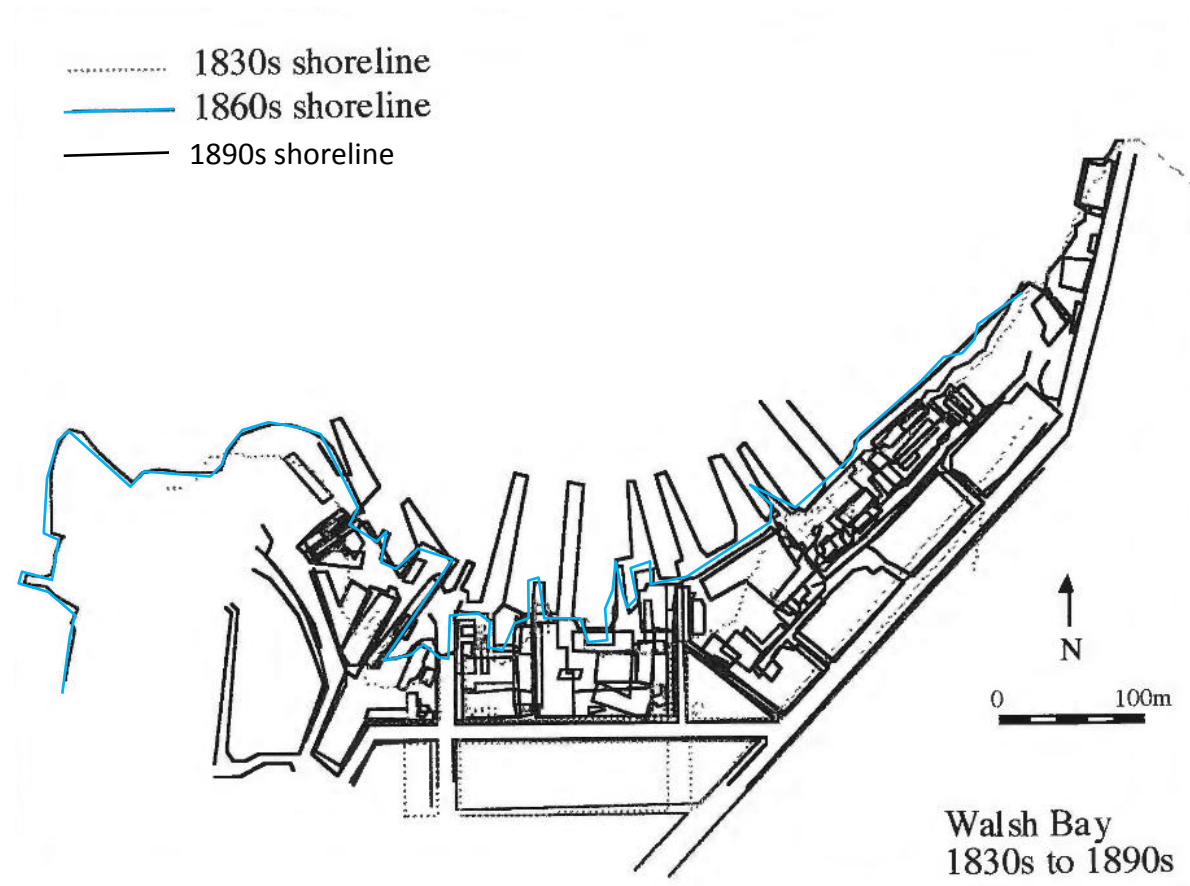


Figure 45: Walsh Bay 1830s to 1890s. From *Walsh Bay Redevelopment: Maritime Archaeological Assessment of Wharves 6/7 & 8/9*, by Coroneos, September 1997.

Phase 2 - Expansion (1830-1870s) - Based on the City of Sydney Trigonometrical Survey of 1865

Full development of the area was by this phase practically completed, and the natural shoreline had been largely modified to maximise maritime potential of the place through significant capital

investment in the form of wharves and warehouses. Probably associated with this development were the large number of street reserves leading from the main thoroughfares such as Windmill and Pottinger Streets to the wharf front areas. While the number of residential buildings had increased, they were localised to a handful of areas such as Windmill Street, Lower Fort Street and Dalgetty Road.

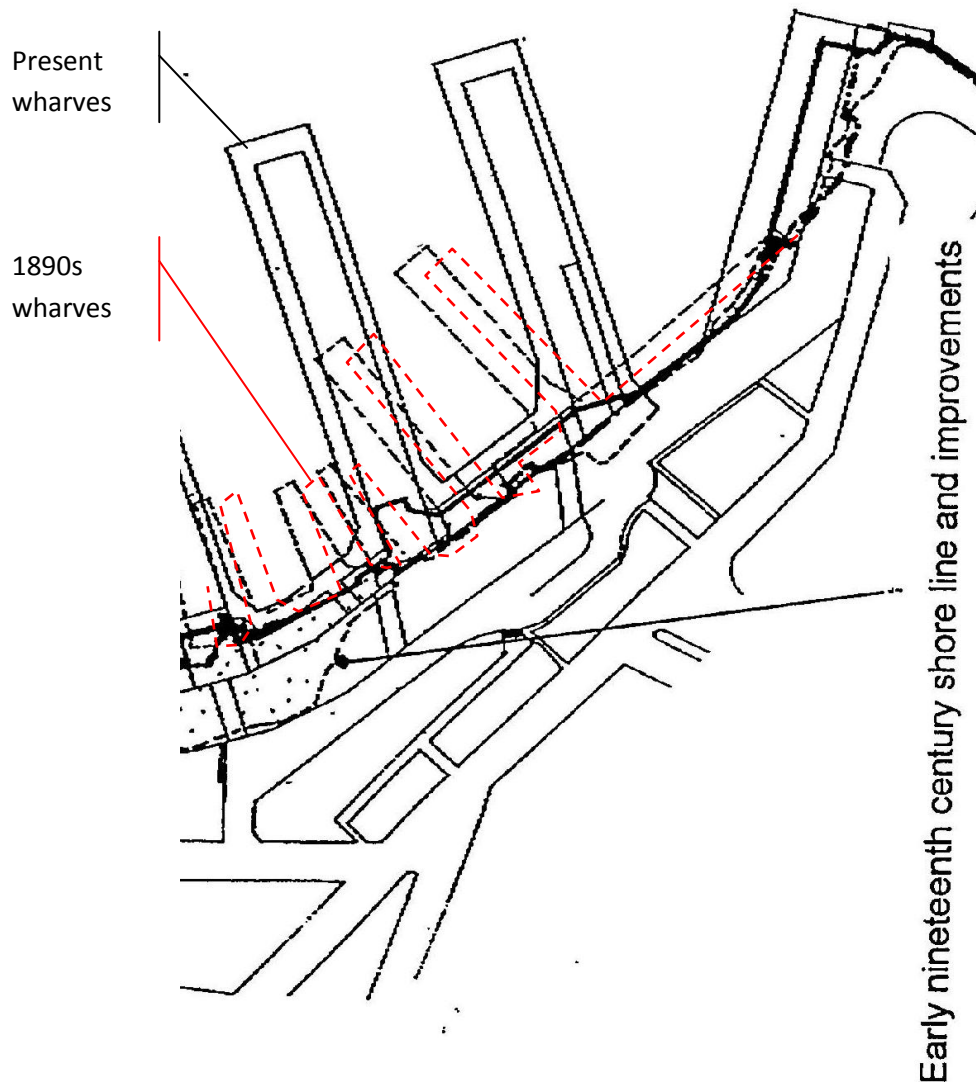


Figure 46: Overlay showing the relationship of the current wharves to the later nineteenth century wharves and shore, the early nineteenth century developments and the Sydney Harbour Trust wall. From *Archaeological Assessment Wharves 6/7 & 8/9 Walsh Bay*, by Wendy Thorp, 1997.

Phase 3 - Consolidation (1870-1900) - Based on the series of trigonometrical surveys made by the Public Works Department of the City of Sydney made in the late 1880s and early 1890s.

The plan indicates that within a comparatively short period of time further substantial capital investment had resulted in the large scale reclamation of the foreshore and construction of deep water jetties. The number and scale of warehouse type building had also increased. The demand for land to locate these new buildings had resulted in the rebuilding and enlargement of a number of the older structures. It is also evident that the natural topography (cliff faces) had been cut away to provide for additional suitable building sites. This was particularly so for the area between Pottinger Street and Dalgetty Road. Contrasting with this commercial development was the comparatively small number of new residential buildings which were generally located along Lower Fort Street.

Phase 4 - Government Administration (1900-1980s) - Based on the Sydney Harbour Trust drawing of 1922

The completion of the grand Sydney Harbour Trust works as implemented over a period of 16 years resulted in the Walsh Bay area very much as it remains today. Most of this development was associated with the improvement of maritime facilities. Substantial new features were the creation of Hickson Road, (Lower) Pottinger Street, Towns Place and the jetties and shoredredes. Not all pre-1900 fabric however was removed with the retention of some warehouse buildings fronting Windmill Street and the residential buildings of Lower Fort and Windmill Streets and Dalgetty Road.

"Plans first appeared in 1877 to extend some of the wharves into deeper water a trend which culminated in the next century in the massive works of the Sydney Harbour Trust. The principal catalyst for this change came from the vast wealth penetrated particularly by wool. The reconstruction of the area allowed for new methods and styles of wharf building to be introduced to Walsh Bay. The catalysts for the change were the owners of Town's Wharf but major extensions were planned for the entire shoreline. The former was extended towards the west giving it a characteristic L-shape. Several buildings occupied the land side including a mast-maker's shed."

Wendy Thorp *Archaeological Assessment Walsh Bay Wharves 6/7 & 8/9, 1997.*

3.4.3 The Potential Archaeological Resource

The following is an extract of Wendy Thorp *Archaeological Assessment Walsh Bay Wharves 6/7 & 8/9*, 1997. The subject of this investigation was that part of Walsh Bay encompassing Wharves 6/7 and 8/9 being both piers and shoredheds. The report addressed the European archaeological potential of the subject area. Archaeological relics generally are defined by the Heritage Act of NSW as structures, features, soils and deposits and portable artefacts relevant to the non-Aboriginal occupation of NSW and which are fifty or more years in age. Analysing the study area the report states:

"It is likely that the study area will contain:

- Some remnant piling from jetties and wharves of the nineteenth century. More of the later nineteenth century wharves are likely to be found under the existing wharves as a maritime resource than as land-based artefacts.
- Some remnant building elements although these are likely to be minimal and far more disturbed than the more deeply placed piles.
- Extensive layers of fill used for reclamation purposes. This is likely to encompass both soils and waste rock as well as domestic and industrial wastes brought from throughout Sydney for the purpose. This is likely to be the most substantial archaeological evidence within the study area.
- Some fragmentary evidence of the pre-European landscape might be found at depth.

It could be concluded that this resource will provide some evidence of the nineteenth century water-front but it is likely to have been substantially reduced and fragmented and, as such, its ability to more accurately document this area and its several activities has been compromised by the degree of destruction brought about, particularly, during the early years of the twentieth century."

Cultural Significance

"The potential archaeological resource associated with Wharves 6/7 and 8/9 at Walsh Bay contains evidence of those works and processes which were the principal catalysts for the development and prosperity of this part of Sydney and, by association, those factors which were important to the well-being or otherwise of Sydney especially during the boom years of the later nineteenth century and the plague years of the early twentieth century. The current appearance of the district owes much to the works undertaken by the Sydney Harbour Trust in association with the remodelling of these wharves. The wharves were

associated with some of Sydney's most influential traders and companies and were one of the principal sources of employment for the local community. The many wharves built in this area are likely to demonstrate a diverse range of changing technologies and, in this as well as their possible demonstration and documentation of the immediate environment, the archaeological evidence is a valuable scientific resource for the nineteenth century landscape. This resource is representative of a class of items located in Sydney and most ports in nineteenth century Australia. It should be noted, however, that the value of this potential evidence and its ability to realise its significance is likely to be severely compromised by the degree of disturbance and demolition which has occurred within the area making it, at best, a fragmentary resource."

Management

"Application for an Excavation Permit will need to be made to the Heritage Council of NSW prior to the commencement of any work in this area. Archaeological work will require monitoring and recording of all significant deposits, features and artefacts."

Status of the Site

"The wharves and the land surrounding them have been the subject of several investigations beginning in the later 1980s. In 1996 they were included in an archaeological assessment that encompassed the entire Walsh Bay area (Clive Lucas, Stapleton and Partners Pty Ltd 1996). The area also has been addressed by The Rocks and Millers Point Archaeological Management Plan prepared in 1991. This work determined that the entire wharf precinct from Wharf 1-9 and all of Hickson Road, Pottinger Street and Towns Place as well as several bond stores and other sites had archaeological potential. It recommended the preparation of a more detailed assessment prior to any work being undertaken in the area. The 1936 study and this assessment fulfil that requirement. At this time no physical investigation has been undertaken of possible archaeological sites within the study area. The closest site of archaeological investigation was the former Moore's Wharf which was partly investigated during 1978."

Wendy Thorp *Archaeological Assessment Walsh Bay Wharves 6/7 & 8/9, 1997.*

3.4.4 Factors Affecting Survival of Archaeological Evidence

All those sites and elements which are known to have occupied the waterfront area at Walsh Bay from its earliest years of development to the present day, does not take into account the fact that this was a cumulative development in a relatively small area of land.

"Jetties, walls, buildings and other features were built, demolished, built over or extended to make way for newer versions. It is a destructive as well as a constructive process; it contributes to the creation of a layered archaeological resource but also it reduces the evidence of each period having, usually, a patchwork of deposits, structures and artefacts from most phases. The following issues or processes need to be taken into account in determining what is most likely to remain within the ground in the study area."

Extract from Wendy Thorp Archaeological Assessment Walsh Bay Wharves 6/7 & 8/9, 1997.

"The activity that was perhaps the most destructive in terms of the integrity of the nineteenth century wharves and associated deposits is the large scale dredging that took place during and after the construction of the present day wharves. One of the major considerations that had to be taken into account when the Walsh Bay complex was being constructed was the water depth adjacent to the berths. The beginning of this century saw larger vessels coming into Sydney Harbour than ever before. The loaded draft of these vessels was in some cases 32 ft (10 m) (Adams, 1915). This required a water depth in Walsh Bay of at least 35 ft. An 1836 plan of Sydney shows a water depth in Walsh Bay of 3 fathoms (18 ft or 6 m) (Plan of Sydney, 1836). Significant dredging must have taken place to bring the required water depth to over 32 ft. The Sydney Harbour Trust Annual Reports of 1911 and 1912 state that rock, clay and silt was removed from around the sites of Wharves 6/7 and 8/9. Most, if not all, of this dredging activity would have taken place in the waterways between, and towards the seaward end, of the wharves. It is unlikely that dredging took place on the site of the new wharves for the simple reason to allow for greater stability for the new piles. This statement is supported by two Sydney Harbour Trust plans drafted at the time of the construction of the wharves. Plan F5/14 showing a cross section at the landward end of Wharf 8/9 depicts a water depth of only 25 ft (7.6m) under the wharf. Plan F2/1 shows a cross section of Wharf 2/3 with a water depth of 11 ft (3.4 m). Therefore, it can be expected that the remains of the nineteenth century wharves and associated cultural deposits under the existing wharves would be more intact than those remains in the waterways between the wharves."

Extract from *Walsh Bay Redevelopment: Maritime Archaeological Assessment of Wharves 6/7 & 8/9*, by Coroneos, September 1997.

Reclamation

"From almost the beginning of European use of this area portions of the shoreline, the mud flats and rock ledges, have been covered over, fill has been added and jetties extended further into the bay. It has been a constant process culminating in the massive reclamation works undertaken by the Sydney Harbour Trust at the beginning of this century which included the excavation of part of the cliff face to provide a greater area for development. The latter emphasises the relatively narrow portion of land that was available for use even after nearly a century of development. The depth of cumulative reclamation essentially is the entire area between the cliff and the wharves; the earliest high water mark being slightly forward of the cliff. The superstructure of most of the later nineteenth century Wharves is now a maritime resource; only the very shore ends would be contained in the land at the edge of the bay.

The principal result of this process may have been the preservation in the reclaimed deposits of those elements. Remnants of jetties, buildings, the shoreline and associated deposits could be found under Hickson Road depending on how much survived the original process of demolition and excavation."

"It is inevitable that this period of development, and particularly the construction of the sea wall, greatly contributed to the removal or, at best, the great fragmentation of what traces remained of the nineteenth century landscape. The most likely survivors of this process were the jetty piles and those elements at greatest depth in the accumulated fill."

The Predictive Resource

"A predictive resource is an authoritative statement based on all available evidence of what is likely to be contained within the ground within a nominated area. In this case it maybe said that the archaeological resource will be that of the nineteenth century landscape and it is likely that the study area will contain:

- some remnant piling from jetties and wharves of the nineteenth century. More of the later nineteenth century wharves are likely to be found under the existing wharves as a maritime resource than as land-based artefacts.
- some remnant building elements although these are likely to be minimal and far more disturbed than the more deeply placed piles.
- extensive layers of fill used for reclamation purposes. This is likely to encompass both soils and waste rock as well as domestic and industrial wastes brought from throughout Sydney for the purpose. This is likely to be the most substantial archaeological evidence within the study area.
- some fragmentary evidence of the pre-European landscape might be found at depth.

It could be concluded that this resource will provide some evidence of the nineteenth century water-front but it is likely to have been substantially reduced and fragmented and, as such, its ability to more accurately document this area and its several activities has been compromised by the degree of destruction brought about, particularly, during the early years of the twentieth century."

Wendy Thorp *Archaeological Assessment Walsh Bay Wharves 6/7 & 8/9, 1997.*

Mitigation

The following paragraph is extracted from the Heritage Council Comments on Walsh Bay Art Precinct - Stage 2 (SSD 7689). It states:³

The excavation works for utilities as part of this project should be archaeologically monitored, recorded and appropriately documented including any relics or intact archaeological features identified during this work in accordance with Section 7.4.2 of the 'Archaeological Assessment Walsh Bay Arts Precinct' prepared by Cultural Resources Management dated October 2016. The results of this investigation must be documented in a report provided within 12 months of the completion of the archaeological work to the Department of Planning and Environment and the Heritage Library of the Place Management Division, Property NSW. Archaeological works need to be undertaken by a nominated Excavation Director who satisfies the Heritage Council's Excavation Director Criteria for undertaking works at State Significant historical archaeological sites in NSW.

3.4.5 Maritime Structures

"...remains of subaqueous piles may remain in the water area between Piers 2/3 and 4/5, Piers 4/5 and 4/5 and 6/7 and 8/9. Historic documentation is available for the finger jetty located between Pier 2/3 and 4/5 (the former Parbury's wharf), built c.1880s. It was 350' long with 60' beam. Some of the piles for this wharf were 120' in length".

"Advice received from the Heritage Office indicates that there is an known instance of a potential twentieth century wreck (the tug 'Undine') at Wharf 4".

"These sites provide a regionally rare insight into the pre-1900 European development of a maritime centre. It is likely that this site possesses archaeological potential in the form of revealing new information for the following:

1. early land improvement (reclamation c.1823-1890s)
2. nineteenth century wharf structure construction technology".

From Clives Lucas, *Walsh Bay Precinct Conservation Plan - Archaeological Assessment*, August 1997.

3.4.6 The Loss of the Tug *Undine*

"Early on the morning of 28 December 1936 whilst the steam tug Undine was slipping its moorings at Walsh Bay No.4 an explosion from the engine room literally blew the vessel to pieces (The Sydney Morning Herald, 29/12/1936). The Undine sank almost immediately."

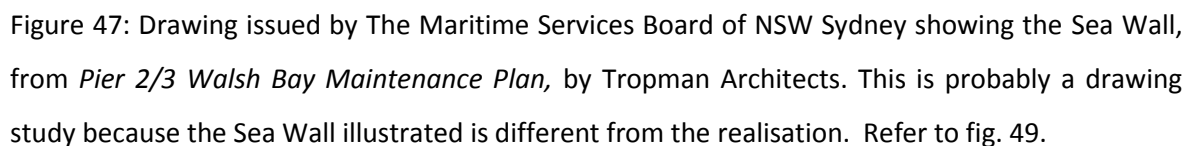
"It is unclear at present whether the wreck was raised or salvaged in situ. Given its position, next to a working wharf, its presence would have hindered any vessel moored alongside Beth 4. It is most likely that the vessel would have been removed, intact or in pieces. As the vessel was lost outside the study area no more research has been undertaken so as to determine its ultimate resting spot."

"The vessel has a registered tonnage of 37 tons net (54 tons gross). It measured 64.7 ft (19.7 m) in length, 15.5 ft (4.7 m) in width and 9 ft (2.7 m) in depth. Built of wood, it was single decked with a rounded stern."

Extract from *Walsh Bay Redevelopment: Maritime Archaeological Assessment of Wharves 6/7 & 8/9*, by Coroneos, September 1997.

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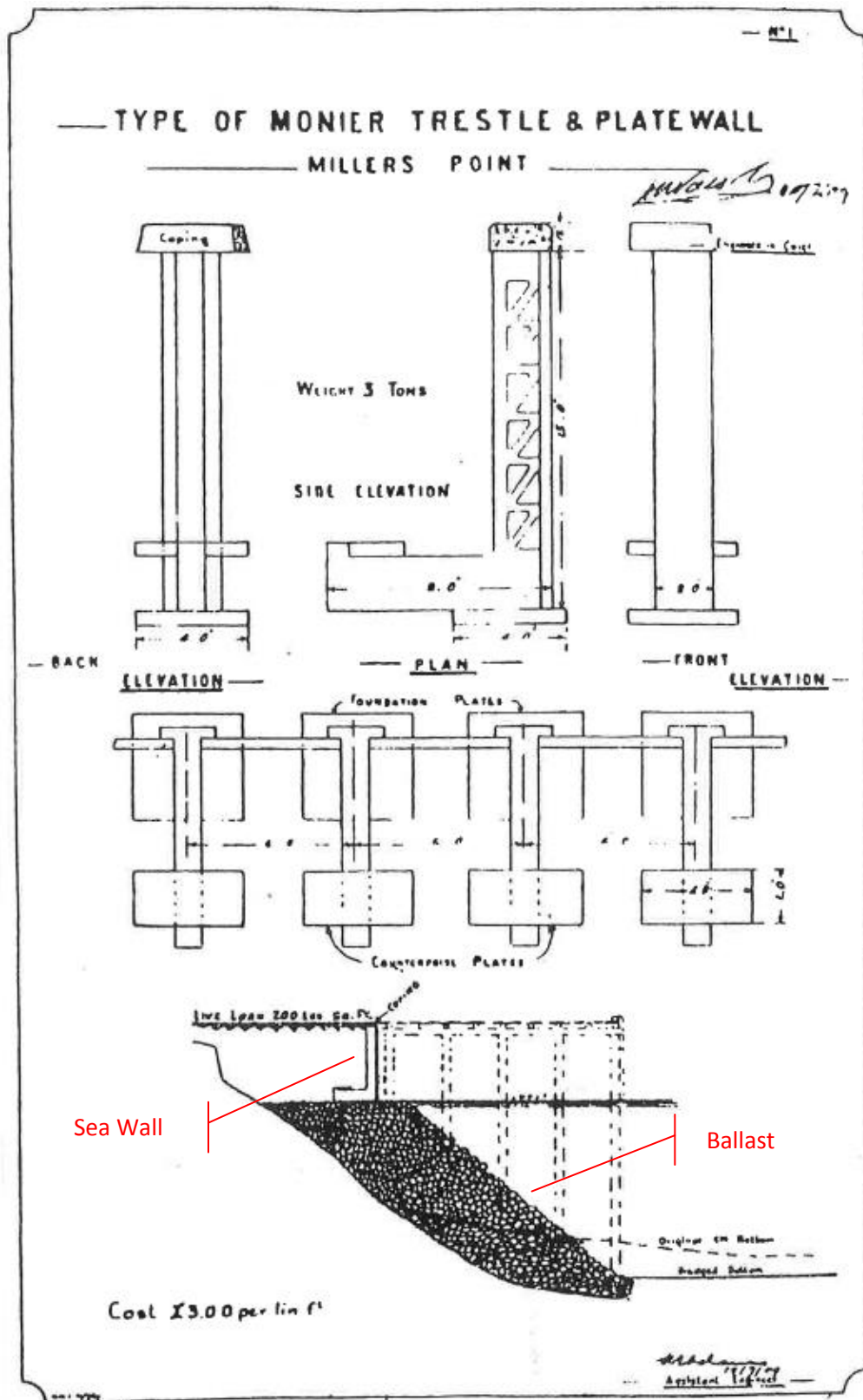


Figure 48: Section showing 'Rat proof' Monier pre-cast Concrete Sea Wall and the ballast, from *Walsh Bay Wharf Structure*, by ARUP.

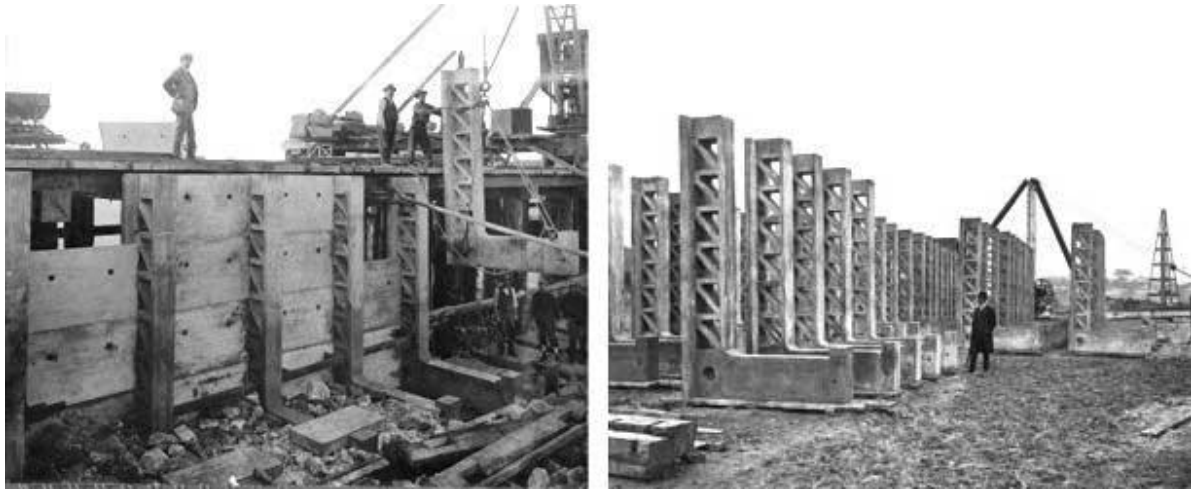


Figure 49: 'Rat proof' Monier pre-cast Concrete Seawall. Photos from www.visitsydneyaustralia.com.au

3.4.8 The Ballast

During the construction of the Wharves, tonnes of ballast were dumped under the Piers covering completely the sea bottom and losing any chance to find traces of archaeological remains.

Angle of repose of stone gravel is 45 degrees. This angle is reduced by the wave motion and it has enlarged the area covered by the gravel.

"The possible presence of basalt ballast toward the landward end of Wharf 6/7 may require dredging to take place (Ove Arup & Partners, 1996:4). This will have a detrimental impact on the cultural deposits associated with the nineteenth century wharves. Ballast was dumped around the piles of Wharf 6/7 to prevent movement of the piles (Sydney Harbour Trust, 1917:15). A recent dive inspection under the Wharf observed no ballast on the sea bed and hand probing to a depth of 1 metre did not reveal the presence of any obstruction (Peddle Thorp & Walker Architects, pers. comm.). On the other hand ballast was observed toward the landward end of the wharf during an earlier sea bed inspection (Ove Arup & Partners, 1996: 2). Based on this information the consultant assumes that ballast is likely to be present at some depth below the present sea bed."

Extract from *Walsh Bay Redevelopment: Maritime Archaeological Assessment of Wharves 6/7 & 8/9*, by Coroneos, September 1997.

Note: the same applies to Pier 2/3 and 4/5.

3.4.9 Archaeological Summary and Significance

An historical analysis provides the context for assessing significance and is made by applying standard evaluation criteria to the facts of the item's development and associations.

The four basic criteria used in the **nature of significance** category are those of Evolution and Associations (Historic), Creative and technical accomplishment (Aesthetic), Community Esteem (Social) and Research Potential (Scientific). **Comparative significance** is assessed according to rarity or representative values.

The predictive archaeological resource has **historic significance**. It contains evidence of those works and processes which were the principal catalysts for the development and prosperity of this part of Sydney and, by association, those factors which were important to the well-being or otherwise of the city. The wharves of Walsh Bay were associated with both the prosperity of the nineteenth century boom years and the plague years of early twentieth century Sydney. The wharves also were associated, throughout the years, with some of Sydney's most influential traders and companies including Captain Towns, Dalgettys, Berry and Wollstonecraft and Burns Philp and Co. Their close association and contribution to the development of Millers Point also contributes to social significance. Many of the residents were directly employed on the wharves or in the companies which owned the wharves. The current appearance of the area owes much to the work of the Sydney Harbour Trust in remodelling it during the early years of the twentieth century as part of the great redevelopment project at Walsh Bay.

The wharves also have significance for their demonstration of technical accomplishment particularly in the several changing technologies employed in their construction.

The principal value of the predictive archaeological evidence, however, is as a scientific resource which, through its identification and recording, is capable of providing information and examples of those several historical, social and technical values of the nineteenth century cultural landscape.

These wharves and the community which surrounded them are representative of a class of items which were located not only in Sydney but in most ports of the various colonies during the nineteenth century.

It should be noted, however, that the value of this potential resource and its ability to realise its significance is likely to be severely compromised by the degree of disturbance and demolition which has occurred within the area making it, at best, a fragmentary resource.

3.4.10 Procedure and Mitigation ⁴

The following procedure is recommended by Clive Lucas in his *Walsh Bay Precinct Conservation Plan - Archaeological Assessment*.

<i>Level</i>	<i>Intervention Guideline</i>
Ranking 1 Intervention	If this area is the subject of a future development that would result in the disturbance or concealment of the archaeological resource by building or other works, then the following procedures should be followed: (a) Engage an archaeologist recognised by the relevant professional body (b) Excavate the area by initial mechanical excavation of the upper non-significant deposit under supervision of archaeologist. Follow by manual area excavation. (c) Record evidence uncovered and collect and catalogue finds.
Interpretation	Provision should be made in resources, planning, and management for the following conservation of the archaeological remains: <u>Option 1</u> (a) Retain and conserve in situ items such as the remains of original and early buildings by covering up, or retain in an interpretative framework created by landscaping and/or new building works and/or <u>Option 2</u> (b) Conserve excavated remains in statutory depository and allow for post-excavation analysis Implementation of Option 1 is very much dependent on the scale and quality of the archaeological remains revealed. The decision to conserve the remains in situ would therefore have to be made during the excavation process. As a minimum, Option 2 should be undertaken.
Ranking 2 Intervention	If this area is the subject of a future development that would result in the disturbance or concealment of the archaeological resource by building or other works then the following procedures should be followed: (a) Engage an archaeologist recognised by the relevant professional body (b) Archaeologist to make preliminary assessment prior to work, which may extend to test excavation of the area by initial mechanical excavation of the upper non-significant deposit under supervision of archaeologist of selected sample area/s. Followed by manual area excavation of selected sample area/s. (c) Record evidence uncovered and collect and catalogue finds.

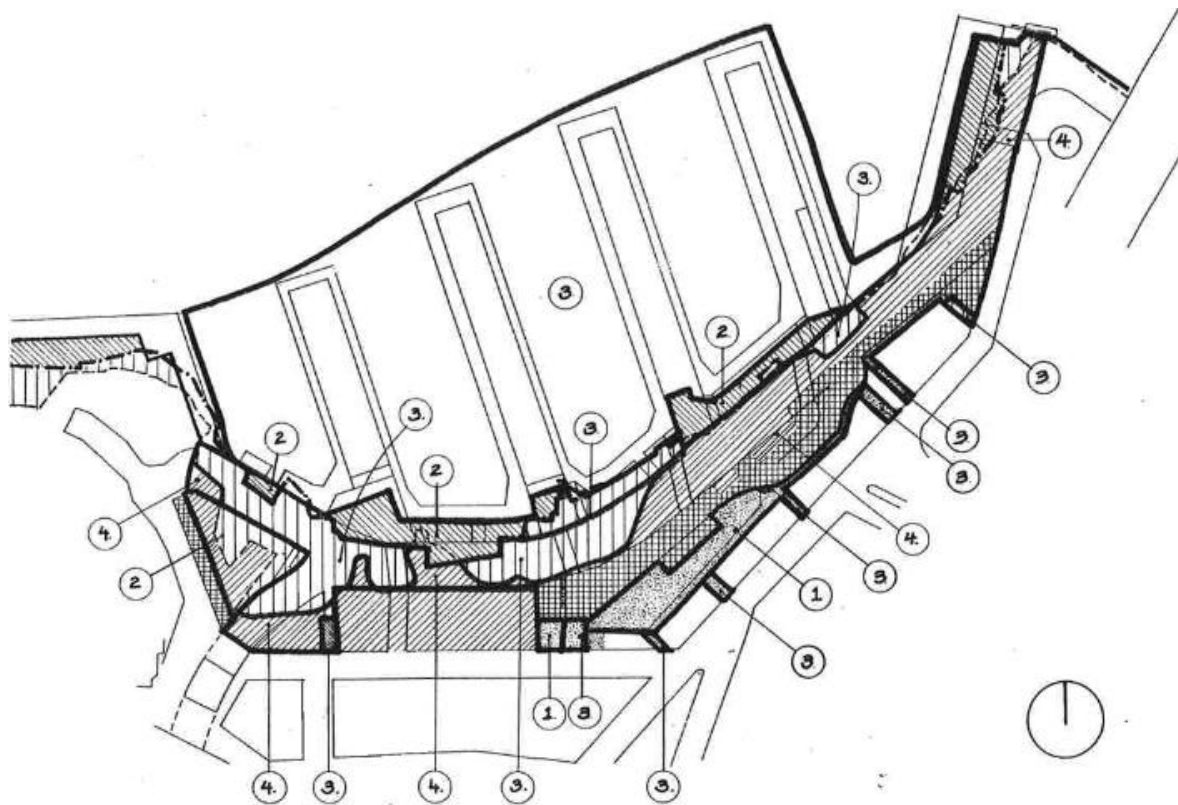
Interpretation	Provision should be made in resources, planning, and management to conserve excavated remains in statutory depository and allow for post-excavation analysis. Depending on the extent and type of remains revealed, in-situ preservation may be an option.
Ranking 3 Intervention	If this area is the subject of a future redevelopment that would result in the disturbance or concealment of the archaeological resource by building or other works, then the following procedures should be followed: (a) Engage an archaeologist recognised by the relevant professional body (b) Archaeologist to make preliminary assessment prior to work, which may extend to a watching brief for duration of ground disturbance - this may necessitate manual archaeological excavation, recording and collection of finds.
Interpretation	Provision should be made in resources planning, and management to conserve excavated remains in statutory depository and allow for post-excavation analysis. Depending on the extent and type of remains revealed, in-situ preservation may be an option.
Ranking 4 Intervention	This area is negligible archaeological potential. No archaeological works are required, but due diligence should be observed.

The engagement of an archaeologist is recommended, as well, by Coroneos for Pier 6/7 & 8/9.

The same principal applies for Pier 2/3 & 4/5 :

"In the event that any further disturbances of the seabed, within the four zones, are required to take place during the course of the development, apart from those detailed in this report, a maritime archaeologist is to be engaged to assess the impact of the proposed disturbances on the submerged cultural resource and to make appropriate recommendations."

Extract from *Walsh Bay Redevelopment: Maritime Archaeological Assessment of Wharves 6/7 & 8/9*, by Coroneos, September 1997.



Legend

- | | |
|---|---------------------------|
| ① | Archaeological Excavation |
| ② | Test Excavation |
| ③ | Archaeological Monitoring |
| ④ | No Further Action |

Figure 52: From *Walsh Bay Precinct Conservation Plan - Archaeological Assessment*, August 1997, Clive Lucas and Partners.

This indicates some moderate possibility of an Archaeological fund. But as no excavation except for trenching is proposed, monitoring is all that is required immediately in front of Pier 2/3 Hickson Road. Test excavation may be required in front of the Shore Sheds 2/3.

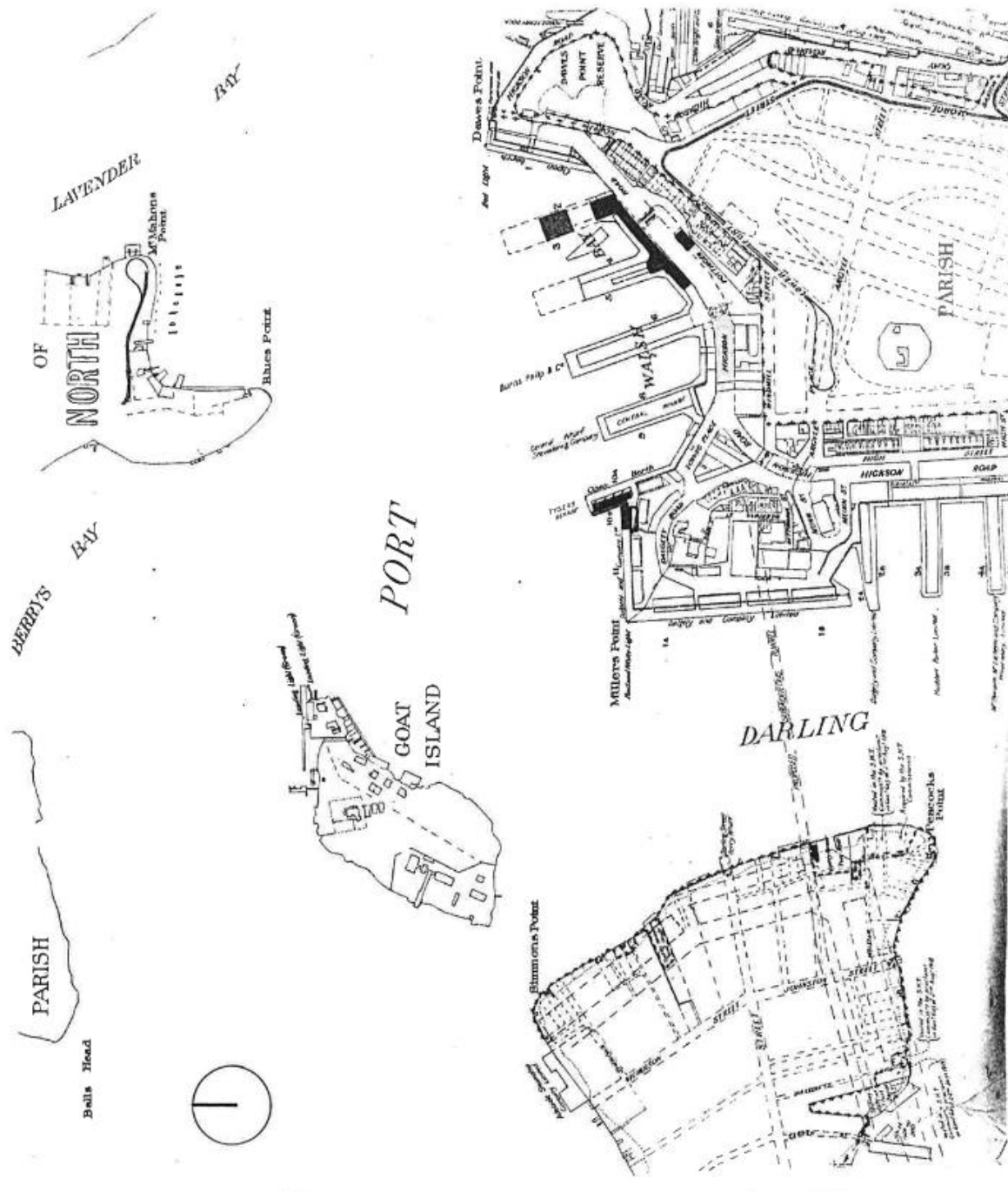


Figure 53: Detail from the plan reproduced in the Sydney Harbour Trust Annual Report of 1919.

Source: Office of Marine Safety and Port Strategy

3.4.11 Recommendations

The *Walsh Bay Redevelopment Maritime Archaeological Assessment of Wharves 6/7 & 8/9*, by Cosmos Coroneos, September 1997, applies equally to Pier 2/3 and Wharf 4/5. The zones do not refer to Pier 2/3 & 4/5. It states:

"Recommendation 1

A dive team under the supervision of a maritime archaeologist should undertake an underwater visual survey within Zone 4 to locate and record structural features associated with the nineteenth century wharves. Remote sensing equipment, such as a sub-bottom profiler or any other suitable technology, is to be employed to supplement the findings of the visual survey.

Recommendation 2

The visual and remote sensing survey outlined in Recommendation 1 should be extended to incorporate Zones 2 and 3.

Recommendation 3

During the construction of the coffer dam wall and the new wharf, care should be taken to avoid the structural features associated with the nineteenth century wharves. In the event that this is not possible an application must be made for an excavation permit under Section 139 of the Heritage Act 1977.

Recommendation 4

In the event that dredging to remove ballast has to take place within Zone 4 a maritime archaeologist is to be engaged to monitor the material being removed and to supervise a visual underwater inspection once dredging is completed.

Recommendation 5

In the event that any further disturbances of the seabed, within the four zones, are required to take place during the course of the development, apart from those detailed in this report, a maritime archaeologist is to be engaged to assess the impact of the proposed disturbances on the submerged cultural resource and to make appropriate recommendations."

3.4.12 Overlay of information based on the various sources

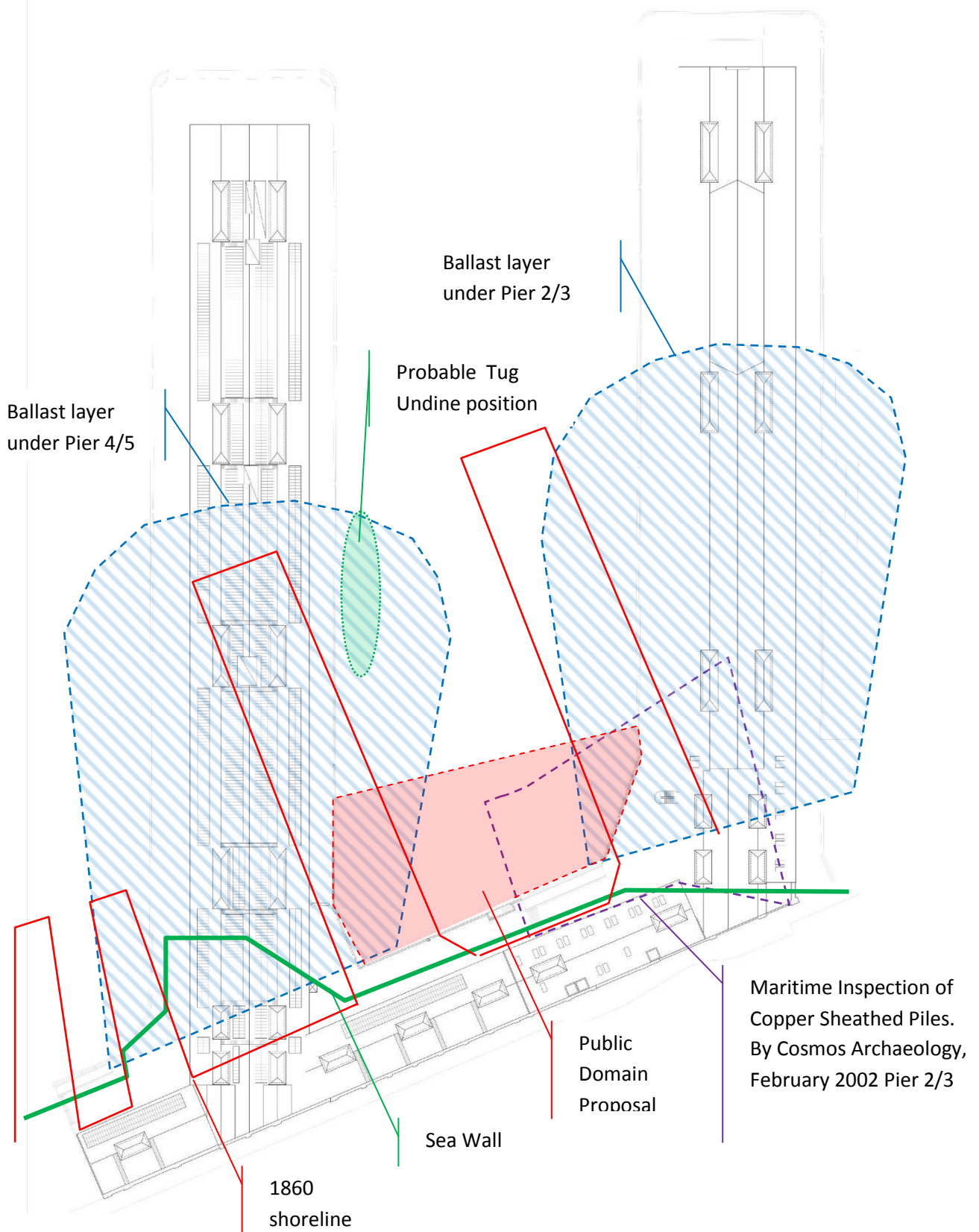


Figure 54: Overlay of maps and information. Reconstruction by Tropman Architects.

Potential Underwater Archaeological Remains	Density	Significance
Cultural deposits prior to wharf development	Negligible – higher densities towards the southern part of the study area	Not assessed
- Wharf elements from Pitman's Wharf (later Alger's Wharf) - Cultural deposits from Pitman's Wharf (later Alger's Wharf) and/or moored vessels	Low – higher densities within the footprint of Pitman's Wharf decreasing with distance from the wharf. Also lower densities in the berths of Pier 3 and Wharf 4.	State significance
- Wharf elements from Hoffnung's Wharf (later Parbury's Wharf 3) - Cultural deposits from Hoffnung's Wharf (later Parbury's Wharf 3) and/or moored vessels	Low to medium – higher densities within the footprint of Hoffnung's Wharf decreasing with distance from the wharf. Also lower densities in the berths of Pier 3 and Wharf 4.	State significance
- Wharf elements from Pier 2/3 and Wharf 4/5 during the operational years of the wharves until the 1970s - Cultural deposits from Pier 2/3 and Wharf 4/5 during the operational years of the wharves until the 1970s	Medium – higher densities from the final operational years closer to Pier 3, Wharf 4 and the timber apron linking the two. Lower densities from early and middle years of operation due to dredging.	Local Significance
Shipwreck material from the tug <i>Undine</i>	Low – higher towards Wharf 4 although the exact location of the wrecking event is not known.	Local significance

Summary of identified potential underwater archaeological remains, density and significance. Extract from Maritime Archaeological Assessment and Management Plan by Cosmos Archaeology, October 2016.

A number of potential relics have been identified in this Marine Archaeological Assessment. The detailed engineering subsurface works that is piling and any other services which may affect the sea floor in the area of the proposed extended or existing wharf apron design should be assessed in accordance with the Heritage Branch Guidelines to determine the potential impact on the relics identified in this report.

Prior to any construction works proceeding an Archaeological Research Design and Method report should be prepared in accordance with the Heritage Branch Guidelines

Mitigation

The following paragraph is extracted from the Heritage Council Comments on Walsh Bay Art Precinct - Stage 2 (SSD 7689). It states:⁵

- a) The reclamation or deposition of sediment on the seabed is acceptable. Dredging works should not take place.
- b) The detailed engineering subsurface works, including piling and any other services which may affect the sea floor in the waterfront square area, should be examined by a qualified maritime archaeologist in accordance with the Heritage Branch guidelines to review the potential impact on the underwater archaeological remains identified in this report. The underwater subsurface works should be informed by this review and positioned to avoid impacts on underwater archaeological remains as much as possible.
- c) Prior to commencement of maritime excavation works a Maritime Archaeological Research Design and Excavation Method Report should be prepared by a qualified maritime archaeologist in accordance with the Heritage Branch guidelines. The report should include the final location of underwater subsurface works and outline the following further work:
 - targeted remote sensing surveys;
 - dive inspection(s) of a particular areas; archaeological excavation, and/or;
 - archaeological monitoring during construction.

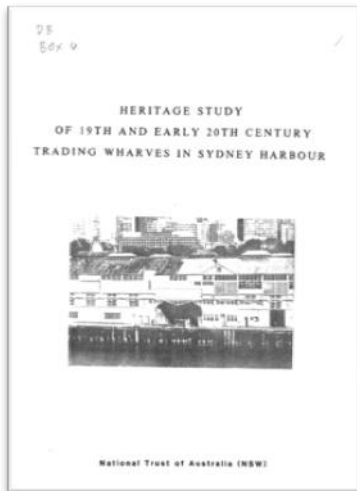
Mitigation measures should include:

- heritage inductions to make the contractors aware of any identified underwater archaeological remains within the works area identify possible relics;
 - engagement of a suitably qualified maritime archaeologist to monitor works if piling or other impacts to the seabed are to take place. Monitoring may be done on site or remotely if workers are fully briefed to identify possible relics;
 - engagement of a suitably qualified maritime archaeologist to be on site to monitor works if any dredging is to take place;
 - recording of any cultural remains that may be relics in detail by a suitably qualified maritime archaeologist, and;
 - works being stopped if a concentration of relics is discovered, and the archaeologist should have the opportunity to conduct a dive inspection of the area to record the site in detail prior to works commencing.
- d) A final excavation report which details the outcomes of the maritime archaeological mitigation program shall be prepared and provided to the Heritage Council of NSW and to the Department of Planning and Environment within 12 months of the completion of the archaeological works.

3.5 Review of Important Documents

This section aims to review, analyze and summarize documents that have been consulted.

3.5.1 Review of "Heritage Study of 19th and Early 20th Century Trading Wharves in Sydney Harbour"



This document examines the port facilities in a greater context of the Development of the Harbour Port Facilities and puts the Walsh Bay finger wharves into the broader context. It was written at a time when it appeared that all the finger wharves would be lost to new development. It is an exceptionally valuable resource in understanding the history of the Port of Sydney Harbour.

Below are reported significant passages of the study:

The report fulfills the stated objective of the project which was

"to provide a survey and assessment of the 19th and 20th Century wharf structures remaining in Sydney Harbour, and from the physical remains and historic context, identify the cultural significance of these structures."

Preamble

Sydney's heritage of culturally significant trading or "finger" wharves is the remnant of a great building period that commenced at the end of the 19th century and lasted through the first three decades of the 20th century. These wharves were created in response to greatly expanded wool production, the new wheat export trade, and to handle imports. They are now largely obsolete for most maritime purposes although they were once extremely modern. Their designers drew upon knowledge of prevailing world technology and the experiences of Sydney's earlier private wharf firms to resolve maritime needs and the particular physical characteristics of Sydney Harbour. Those that remain are a remnant of what has been built over the long period of 200 years since Sydney was founded as a European settlement and are only a sample of all the wharves that the Sydney Harbour Trust worked upon during its short life.

Nevertheless they were built when nationalism was being strongly pursued in its first flush after Federation and belong to one of the great periods in Australian political history and to a period of great economic expansion in New South Wales. They have many beautiful features which echo the innovative domestic architecture of the Federation period and they provide both homogeneity and some individuality to form an outstanding set of industrial buildings.

Historic

The Walsh Bay wharves group is the best surviving set of early 20th Century wharves in Sydney. The complex contains some of Sydney's earliest surviving maritime structures, particularly the bond stores behind the wharves. The wharves provide important physical evidence of the magnitude of the major building program undertaken during the first years of the Sydney Harbour Trust. Walsh Bay wharves, and the technology they represent and display, were instrumental in Australia's development of efficient cargo turn-around and the nation's emergence as a prominent international trader, particularly in the wool industry.

Scientific/Technological

Walsh Bay wharves display the earliest example of wharf design which incorporates the use of revolutionary modular technology. The provision of two levels of access to the wharf complex also takes full advantage of the natural amphitheatre between Dawes Point and Millers Point and is therefore noteworthy as an adaptation of technologies to suit local conditions and topography. This integration with the surrounding urban environment represents an important civil engineering achievement of the early 20th Century, and an early urban rejuvenation/waterfront redesign program. Innovative double-storey sheds, with access independently at two levels, were deliberately designed to facilitate rapid shipping turn-around. All the wharves contain significant elements of fabric and artefacts which demonstrate their working uses. Wharves 8 and 9 contain an hydraulic accumulator, together with rams, hoists and a complete hydraulic system, which remain in working order and which are unique in Sydney.

Social

The Walsh Bay wharves group is an integral element of the character of the Millers Point/Rocks area. The surviving wharves and bond stores represent a major government initiative which had far reaching ramifications for Australia's overseas trade. The industrial character of the area, and the workers employed, have directly influenced the character and development of the surrounding community.

The following recommendations were devised in the face of the threat of wholesale demolition of the finger wharves of Sydney Harbour. They are very well considered recommendations and demonstrate the authors' foresight and understanding of the value of these relics.

RECOMMENDATIONS

This report has clearly established the outstanding heritage significance of the few late 19th and early 20th Century finger wharves which remain in Sydney Harbour. Recent proposals for the redevelopment of these wharves at Walsh Bay and Woolloomooloo Bay have demonstrated that, despite commercial pressures, the wharves are able to fulfill economically available functions if appropriately adapted and re-used. In the context of the redevelopment of the Walsh Bay wharves which is now proceeding, and the continuing uncertainty of the future of Wharves 19 - 21 at Pyrmont and the Woolloomooloo Finger Wharf, the following recommendations are made:

The following items should be included in the Register of the National Estate:

- * The Walsh Bay Wharves Group, including wharves, sheds, shore sheds, bond stores, roads and bridges,
- * Woolloomooloo Finger Wharf, including its shore sheds,
- * Wharves 19 - 21, Pyrmont, including sheds and shore sheds.

Each of these wharves should be retained and should be conserved in accordance with the Burra Charter of Australia ICOMOS.

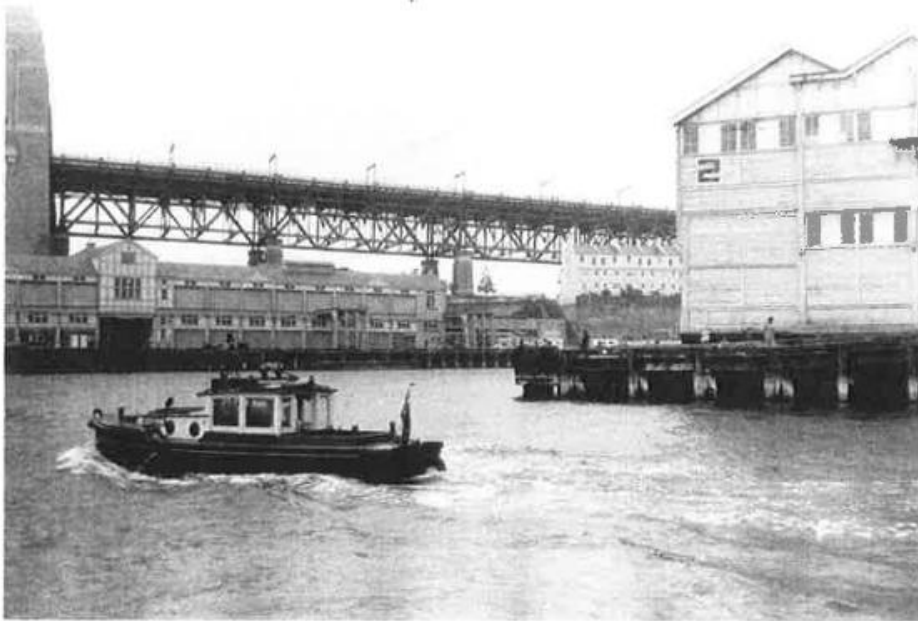
Development consent authorities considering proposals for the redevelopment of these wharves should be cognizant of their special heritage value and particularly the visual quality of the group, albeit spread amongst several separate sites. The external treatment of all remaining wharves should be considered, in relation to each of the others, so that the repetition and continuity of the modular design and the relationship between the wharf form and fabric, the waters of the harbour, and the development of the shore beyond, is maintained.

Any redevelopment program should take care to conserve the following significant attributes:

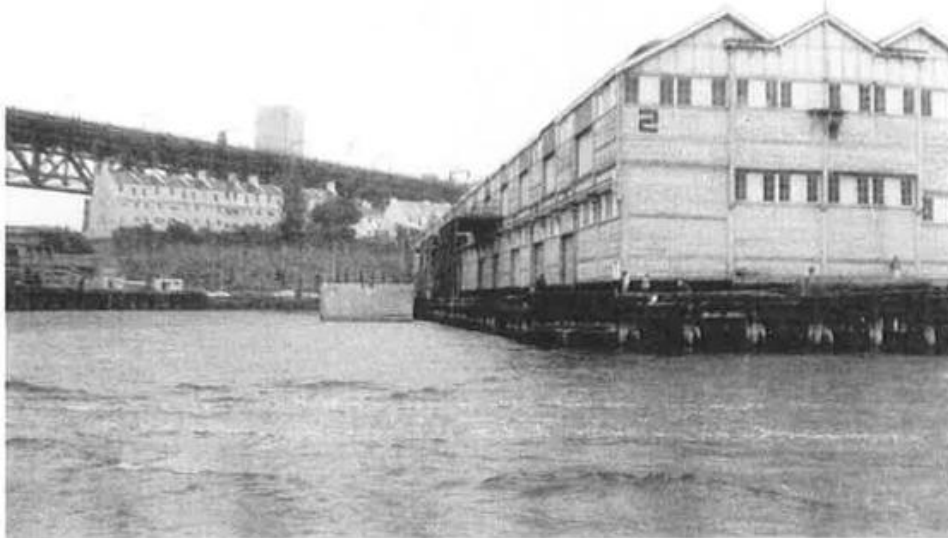
- * the linear form of the "fingers"; additions or accretions to the wharf form should be minimised.
- * the modular design; where it is necessary to introduce new fabric, this should be done by replacement of panels within the existing structure; new infill forms should be avoided.
- * the interior configuration of the wharves, and the working relationships between their interior spaces.
- * historic artefacts, both, those which are integral to the wharf fabric and those which are moveable; these should be retained in operating order and in situ.
- * the maritime/industrial nature of wharf usage; new uses should preferably be of an appropriate maritime/industrial nature.



WALSH BAY 1: Prior to the redevelopment of this building as a market building, it was painted a light grey with contrasts in white. All of these wharf buildings were similarly coloured. The verandahs on the north end of Pier One, prior to the construction of the Harbour Bridge, would have had an uninterrupted view up and down the Harbour.



WALSH BAY 1: Pier One was constructed from the outset as a grand wharf, the verandahs, the decorative triangular pediments and the central transverse gable combining with the symmetry of the regular roller shutters and groups of windows to create an appearance of balance and purpose befitting its intended role as the government wharf. All of the other wharves were leased to private shipping companies.



WALSH BAY 2: Interrupted by the First World War, this wharf was not completed until 1921. It shows a similar basic format to Pier One but is far more functional in its detailing. Travelling gantries, sliding doors and six-pane windows are the prominent features. A lower deck level on the wharf apron on this side enabled loading directly from waggons and trucks into the lower floor of the shed.



WALSH BAY 3: The lack of access to the upper floor on this wharf indicates the functional division of the wharf shed – the upper floor serviced Wharf No 2 whilst the lower floor serviced Wharf No 3.



Gantry cranes along
the Pier 2/3.

WALSH BAY 2/3: This view of Wharf No 2 shows the regular pattern of windows and doors that characterises the modular wharf design. The first lessee of this wharf was the Adelaide Steamship Company. (1983)



WALSH BAY 4/5: Also completed in 1921, this wharf is largely symmetrical around its central long axis, with upper level doors and travelling gantries on both frontages and a single level wharf apron. The shore-shed behind shares a common wall with the shore shed of No. 2/3 wharf adjacent. (1983)

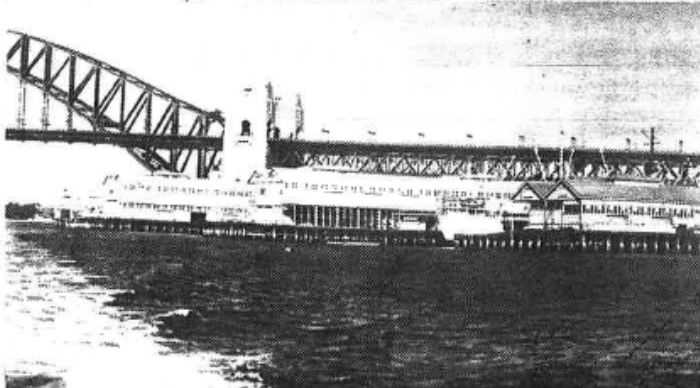
Note: Travelling gantries in both frontages.



Gantry to the end of the Pier 4/5.

WALSH BAY 2/3 and 4/5: Dwarfed by the Sydney Harbour Bridge, the similarities between wharves 2/3 and 4/5 are apparent. The travelling gantries on Wharf 5 have all been parked together on the harbour end of the wharf. (1983)

Note: Large travelling gantries taken up to the front of the apron.

MILLERS POINT (Town or District)		WALSH BAY WHARVES	Hickson Road,	10.1
Post Code 2000 City of Local Govt Area Sydney		Wharves 1 to 9 including wharf sheds, store sheds and overpass bridges, Windmill Street Bonds incl. Parbury's Bond, Hickson Road incl. escarpments.		
Author of Proposal B. LITTLE S. CLARKE W. WHITTAKER		PART OF WEST ROCKS CLASSIFIED CONSERVATION AREA (Name or Identification of Listing)		
Date of Proposal 15/9/76 amended FEBRUARY 1979			(Address or Location)	
Suggested Listing Category CLASSIFIED		Bibliography Liskowski, Spira & Turpin, Report on Walsh Bay Wharves	Owner and Address	
Committee (Trust Use) IAC		Sydney Harbour Trust Reports 1902-1927 Walsh H.D. "The Gateways of Prosperity" Building Dec 1911, p9-46	Maritime Services Board of New South Wales	
Council (Trust Use) APPROVED CL 25/6/79		Freeland Cox & Stacey Rude Timber Buildings in Australia	advised: 6/7/79	
Description Briefly cover the points on the following check list where they are relevant and within your knowledge.				
Style	The four finger wharves and one long shore wharf at Walsh Bay were built between			
Construction	1907 and 1922 on the site of earlier, mostly privately owned, wharves, which			
Use	dated from the 1830's onwards. By 1882, the early wharves had become obsolete,			
Architect/s	access had become increasingly congested, new stores were needed and improvements			
Builder/s	were planned. However, the final impetus for redevelopment was an outbreak of			
Date of	Bubonic Plague in 1900 which led to the closure of the old wharves and their			
Construction	resumption by the government. Pressure for state ownership of wharfage led to			
Present	the formation in 1901 of the Sydney Harbour Trust with responsibility for the			
Condition	management of the Port of Sydney. It planned a major scheme of channel dredging,			
History	new wharves and reconstructed roadways in Walsh Bay, Darling Harbour, Circular			
Owners	Quay and Wollomooloo Bay. H.D. Walsh, Engineer-in-Chief to the Sydney Harbour			
Boundaries	Trust, supervised the design and construction possibly basing his ideas on wharves			
of proposed	in Liverpool and New York. Walsh designed an improved sea wall, built of "L"			
listing	shaped precast reinforced concrete trestles, and erected it at Walsh Bay between			
	1907 and 1910. It proved to be rat-proof. He developed a standard modular			
	timber design for wharves, wharf sheds, and shore sheds which could easily be			
	adapted to the requirements of individual sites. Walsh Bay wharves are an			
	continued overleaf:			
Reasons for listing				
Of all the large wharves built in Sydney for the export-import trade just before and				
shortly after World War I, Walsh Bay Wharves are probably the best example. The adjacent				
topography has been adapted to full advantage, creating two levels of access to each				
wharf, and the whole probably represents one of the first examples of major road-				
separation planning in Sydney. Visually, the wharves have a strong distinctive character				
created by the logical use of heavy timber construction and the regular grid layout of				
piles, columns, beams and infill cladding. Possibly, their functional design is best				
appreciated from the water, where each wharf is seen to have an individual character				
created by variation in detail, but the whole group is unified by regular spacing of				
structural elements and repetition of similar forms. Today, ships have increased in size,				
there have been changes in the packaging of cargo and methods of cargo				
Sketch plan and photos handling have changed. Walsh Bay Wharves continue to be used, but for a				
Attach additional photos if any. smaller volume of cargo, and by ships such as the Island Traders, and other vessels				
requiring temporary berths or minor repairs. Other uses must be found so that				
this example of early 20th century port technology can be preserved.				
				

This is a 1976-1979 assessment of the Walsh Bay Finger wharves prepared by the National Trust.

Wharves 2/3. The National Trust agrees with Travis Partners Pty Ltd that it is highly desirable to include a mixture of commercial and residential accommodation facilities within the overall development. In view of the potential fire hazard presented by the wharf fabric, the Trust requests that further details on the proposed fire protection measures be provided, so that the effect on the wharf structure can be fully assessed. It is also recommended that when more detailed plans are prepared, serious consideration should be given to providing a range of different types of accommodation.

Wharves 4/5. The National Trust has already expressed its wholehearted support for the establishment of the wharf theatre on wharves 4 and 5. The National Trust considers that this redevelopment is a sensitive re-use of the original fabric. Compared with the treatment of Pier One, Pier 4/5 illustrates clearly how adaptive re-use can respect the integrity of the structure without prejudicing the viability of the overall proposal. The introduction of permanent awnings is considered to be an unfortunate component of this project.

This is part of the National Trust Assessment of wharves 2/3 & 4/5 redevelopment proposed by Travis Partners recommending albeit politely that other uses rather than residential would be appropriate.

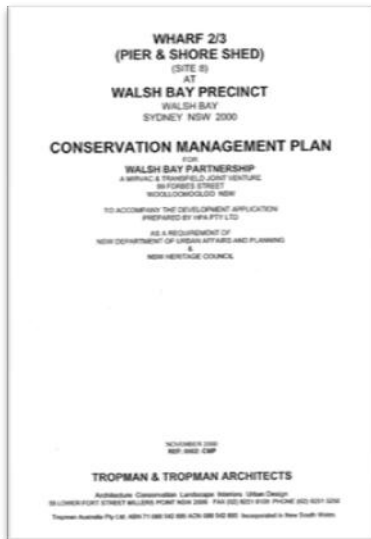
Pedestrian Access

The National Trust considers that maximized provision of public pedestrian access is a vital component of the proposal. To this extent it is considered highly desirable that the existing access through the shore sheds to each wharf be maintained. It is also considered desirable that a walkway be established along the shore line at the shore ends of the wharves, parallel to Hickson Road. From recent inspections of the wharves the Trust considers that the implementation of this shoreline walkway will not require major structural alterations as openings on the ground floor at the base of each wharf already exist (with some minor obstructions).

The proposal to maintain public access around the waterfront at each wharf is considered by the Trust to be a highlight of the proposal and is strongly supported by the Trust.

Note: The National Trust recommends that all the wharves maintain public access.

3.5.2 Wharf 2/3 Walsh Bay Conservation Management Plan, by Tropman Architects, November 2000



This is the endorsed official CMP for Pier and Shore Shed 2/3 prepared by Tropman & Tropman Architects for the Walsh Bay Partnership. The CMP was in response to the precinct CMP by CLSP which required CMPs for each phase of the redevelopment.

The Design 5 Heritage Impact Assessment is sometimes at odds with the recommendations in this report. All the policies are relevant and included in this report.

3.5.3 Wharf 4/5 Walsh Bay Conservation Management Plan, by Graham Brooks and Associates, March 2007



The Walsh Bay redevelopment approval did not include Pier 4/5, which had been redeveloped in 1984 and converted to a cultural performance complex.

The Graham Brooks and Associates CMP fills the gap in the heritage CMP library for Walsh Bay. The CMP acknowledges the occupation by the STC, SDC, ATYP and BDC, but does not draw the conclusion that the new use is for all intents and purposes a permanent change to the function of the building. There is a tacit acknowledgment under 5.3 criteria.

Criteria (b) An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area);

The site is associated with the works of H.D. Walsh, Engineer in Chief of the Sydney Harbour Trust who was responsible for the design of the Walsh Bay Wharves, Jones Bay Wharves and Woolloomooloo Bay Wharf. It is also associated with Robert Hickson, President of the Sydney Harbour Trust.

The site was redeveloped for the Sydney Theatre Company and other performing arts groups by Vivian Fraser, the joint winner of the 1985 Sulman Award.

The rehearsals and performance spaces within Wharf 4/5, are associated with leading performing arts organisations and artists who are renowned both nationally and internationally.

The Policies are observations and may have some effect on the proposed redevelopment of some aspect WBAP and STC50.

There will be a need to be a response directly to policies which forbid alterations and changes which may be permanent.

3.5.4 Walsh Bay Arts Precinct Heritage Impact Assessment, by Design 5, June 2014



This important assessment relates to the Final Business Case design proposed by Bates Smart.

- SSDA - The approvals require that its recommendations be adopted and informs the future design. These are included in this report.

The Tropman & Tropman and Graham Brooks CMPs are the official documents and may be considered to be of higher value than the Design 5 Heritage Impact Assessment.

The phase 1 design by TZG reflects design development of the design brief and a reconciliation of the recommendations

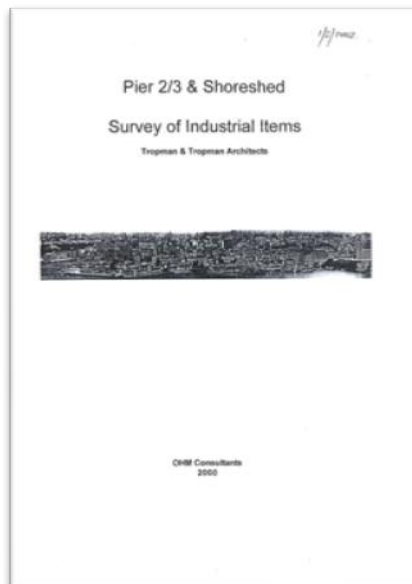
and policies with the current design will be required in the final phase 2 Heritage Impact Assessment.

3.5.5 Maintenance Plan: Heritage Building Fabric & Heritage Technology Items, by Tropman & Tropman, July 2004



This plan was prepared at the inception of the project to repair and develop Pier 2/3. The maintenance schedules are relevant and should be adopted. Generally after the design has been finalised a new maintenance plan should be developed which acknowledges the new uses and extent of the redevelopment proposed in the WBAP.

3.5.6 Pier 2/3 & Shore Shed Survey of Industrial Items, by Tropman & Tropman, 2000



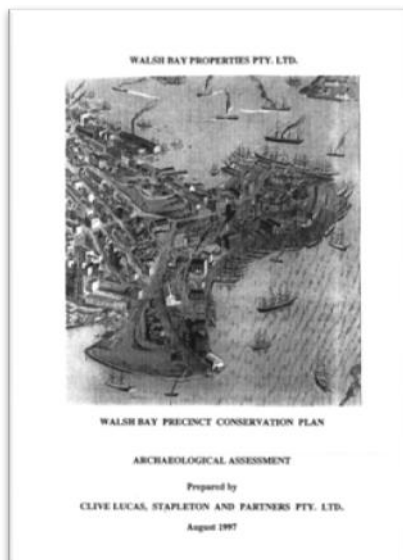
This document looks at both officially recognised industrial relics of State Significance and other numbered industrial heritage items as well as fabric that has value as part of the industrial heritage. It is of potential value in addressing any changes proposed. It should be noted that Design 5 document does not make any reference to this survey by Tropman & Tropman.

3.5.7 Walsh Bay Precinct Heritage Technology Conservation Management Plan, by Tropman & Tropman, May 1999



This is a global document which describes the Heritage Technology in two volumes and it is based on the Godden Mackay Logan earlier study which in turn was based on the work of James Kerr. It is important to note that only 3 items in Pier 2/3 are on the register.

3.5.8 Walsh Bay Precinct Conservation Plan Archaeological Assessment, by Clive Lucas and Partners, August 1997



This is the Archaeological assessment which has proposed a general document for the Walsh Bay Partnership by Clive Lucas and Partners and dated August 1997.

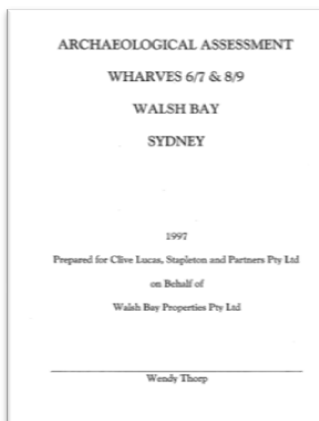
This report is a Archaeological Assessment of the Walsh Bay Precinct. The aim of the report is to guide intervention, and conserve the prehistory and historical archaeological values of the area.

Generally the archaeological potential of the precinct is limited as much of the land has been excavated and/or is occupied by historic structures. The report however identifies areas with research potential and recommends appropriate levels of intervention control. See Figure 6.1 and Section 6.2.2.

The recommendations of the report are incorporated into Sections 7.0 and 8.0 of the *Walsh Bay Precinct Conservation Plan* prepared by Clive Lucas, Stapleton and Partners Pty. Ltd., August 1997.

The report is of considerable value in understanding the history and cultural history of the site. There is no copy of this document in the Office of Environment and Heritage Archives or in the Mitchell Library. It may not be the final edition as the official documents are dated December 1997 and later 1998 editions of the Clive Lucas and Partners CMPs appear. It includes the Aboriginal Archaeological and Cultural Assessment. Of importance is the charting of the site potential around Wharf 2/3 and 4/5.

3.5.9 Archaeological Assessment Wharves 6/7 & 8/9 Walsh Bay, by Wendy Thorp



This is a study directed at the Pier 6/7 & 8/9 redevelopment. It also has general historical and archaeological information which is similar information found generally throughout the library of documents.

The dates on documents can be misleading as the pre-DA stage lasted from 1996-1998 and some material while in the public domain was not "officially submitted".

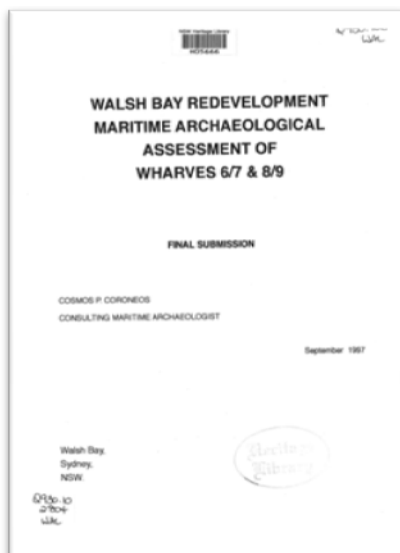
3.5.10 Underground Services Walsh Bay Heritage Impact Statement, by Tropman & Tropman, December 1998



- Appendix A - Phase M Infrastructure Heritage Impact Assessment
- Appendix E - Archaeological Assessment of Areas Associated with the Development of Pottinger Street and Adjacent Areas

This document is directed at the Pottinger Street dig and while having general historic relevance takes a secondary place in the available information library.

11.11 Walsh Bay Redevelopment Maritime Archaeological Assessment of Wharves 6/7 & 8/9, by Cosmos Coroneos, September 1997.



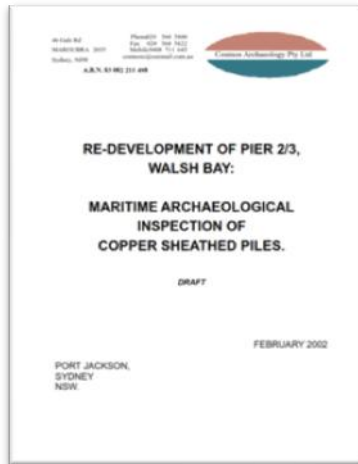
This report, while exclusively directed towards wharves 6/7 & 8/9, illustrates the extent of Harbour work undertaken during European occupation of the foreshore of Walsh Bay/Port Jackson.

Of importance is the statement regarding dredging and stone ballast.

The outlines of the sea wall are shown with clarity. The cross section defines the angle of repose of the ballast fill generally which would obliterate the wharf remains of past structures.

Coroneos suggests past dredging would limit any small findings. Only one wreck is recorded and it is presumed that was removed for safety and shipping reasons. A further marine study will be required.

3.5.12 Re-development of Pier 2/3 Walsh Bay: Maritime Archaeological Inspection of Copper Sheathed Piles



This is a small study regarding a physical intactness of piling and as such is of little consequence in understanding historic context, archaeology or cultural heritage beyond the technique of copper sheeting. This technique protected the piles at the tidal zone.

3.5.13 Walsh Bay Interpretation Node - Bannyan Wood

This is a design museology document which describes the Walsh Bay Precinct Interpretation Center/Node. This area is not part of the WBAP. Any alteration or addition will require an



Integrated Development approval.

Approval - The display contains a number of artefacts from the various archaeological digs at Pottinger Street and Town Place.

3.5.14 Walsh Bay Pier 2/3 Movable Heritage Use & Interpretation Plan, by City Plan Heritage, June 2011

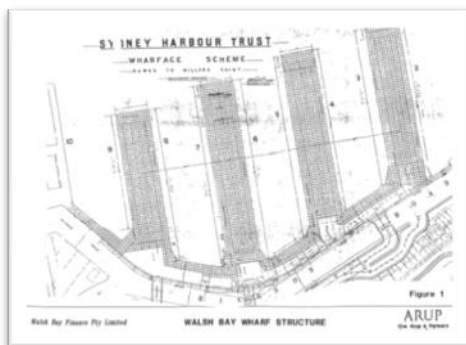


This report describes what was found by City Plan Heritage when they reviewed the content of Pier 2/3 for RMS in May-June 2011.

It makes observations as to how other displays in Walsh Bay have been designed. The items were already identified in the Tropman report Pier 2/3 & Shore Shed Survey of Industrial Items, Tropman & Tropman + OHM, 2000, but this has been ignored and new numbering has taken place which adds to confusion.

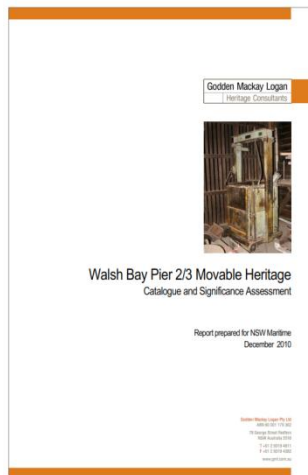
The items are simply placed in Pier 2/3 for safe keeping as required by the original DA for the Master Plan. The shipping container contains the Walsh Bay digs relics. While the report makes a number of recommendations these are not necessarily directed to the WBAP.

3.5.15 Walsh Bay Wharf Structure, by ARUP



This is a graphic/illustrated survey of Pier 6/7 & 8/9 and contains key information of deck construction and is of general value and importance.

3.5.16 Walsh Bay Pier 2/3 Movable Heritage, by GML, December 2010



This is a catalogue which assess the significance of the heritage movable items stored in the Pier 2/3. Since the publication of this catalogue, more items have been added and removed.

A new updated catalogue is part of the Movable Heritage Strategy report prepared by Tropman & Tropman Architects.

3.5.17 Other Documents Sighted

Tropman & Tropman have provided a full set of the available plans prepared by the Sydney Harbour Trust for the construction of the Walsh Bay wharves from 1906-1922. This collection was provided by the Office of Marine Holding to Walsh Bay Properties between 1995-1996. They are of value as design drawings and can guide any interventions in the design.

3.5.18 Proposal for extended foyer performance space by TZG

The Phase 1 Design proposes a stage to the foreshore public space which is not considered by Design 5 in the Heritage Impact Assessment. This extended arm takes the development into deep water and may have some effect on marine archaeology in so far as there is evidence that a wharf structure extended across the path of the new design.

There is less impact at the shoreline in this proposal.

The visual character of the new stage in its setting will need to be assessed in relation to the policies in the CMP by Brooks and Tropman & Tropman. The nature of construction in the initial design indicates that it is removable at some future date, which means it conforms with the CMPs and Design 5 document. The concept is an improvement on the initial proposal as less shore wharf is affected.

4. Past, Present and Future Adaptive Reuse

4.1 Introduction

This section addresses aspects of the Wharves 2/3 and 4/5 use proposal.

For over 30 years The Sydney Dance Company the Australian Theatre for Young people a and the Sydney Theatre Company have occupied the existing State Heritage site at Wharf and Shore Sheds 4/5.

Bangarra has occupied the front ground floor section for a lesser period.

It is important to note that the STC is the major one. However the discreet use of the upper floors by the STC with the direct link via the lift and front stairs adds to erroneous the impression of sole occupancy with all groups of equal importance.

The STC will submit a discreet SSDA for new works proposed.

The workshops, storage and service areas for the STC are accessed via an original overhead bridge, formerly a part of the loading facilities for the wharf, and in that sense the use has changed little.

The existing Pier 4/5 is seen as a complete entity from the kerbside at Pottinger Street and Hickson Road.

The performance theatre companies each inhabit a special place in the cultural heritage of the mid last century, and are robust and fiercely independent organizations which have been leading lights in the development of theatre and dance performance, taking Australia to internationally acknowledged standards and reputations of the highest levels.

This continued occupation of the iconic performance companies including the Sydney Dance Company and Bangarra has secured Pier 4/5 as the location for Sydney's and Australia's intangible performance and cultural heritage.

In the case of Pier 4/5 and its shore sheds, the synergy between the physical presence of the repurposed wharf and the cultural essence of performance in all its forms makes the interventions more permanent a feature of the building than suggested by the Adaptive reuse policies.

The changes to Pier 4/5 can be seen than as a permanent and positive impact which has been the "well spring" of the reinvigoration of the whole Walsh Bay precinct. This is a counter to the argument of re establishing the original uses and it can be reasonably argued that the 1983-6 changes are now as important as the original uses.

The **ICOMOS Industrial Heritage** charter notes that there will be inevitable permanent changes to industrial buildings with the advent of an adaptive reuse. The Charter is not supportive of conjectural reconstruction which imitates the original parts of the building as these will confuse the history and evolution of the building form.

The **proposed interventions do entail unavoidable changes** as describes below and these changes have been approved in principal in the SSDA for stage 1

Policy VI. Interventions should be reversible and have a minimal impact. Any unavoidable changes should be documented and significant elements that are removed should be recorded and stored safely. Many industrial processes confer a patina that is integral to the integrity and interest of the site.

Policy VII. Reconstruction, or returning to a previous known state, should be considered an exceptional intervention and one which is only appropriate if it benefits the integrity of the whole site, or in the case of the destruction of a major site by violence. Ref The ICOMOS Nizhny Tagil Charter For The Industrial Heritage July 2003

The completeness and linear occupation has allowed patrons and the curious a unique view or cross section of the whole of the theatrical endeavour, and this too defines and compounds the idea of ownership and belonging, binding the theatre and dance companies with a cultural/heritage symbiotic relationship to Wharf 4/5 and the Shore Sheds.

The ATYP now moves across to the new premise in Pier 2/3 leaving pier 4/5.

The old uses of the wharf and loading facilities were replaced by the new to the extent that the Theatre and Dance companies have become identified and bound to the buildings in a historic and cultural sense, increasingly so, as the whole precinct moves rapidly to its intended use as the international cultural hub of the city to be known as the Walsh Bay Arts Precinct.

The ideas which drove the existing design logically placed the STC's practical functions and workshops closest to the street frontage along with the box office. The theatre functions were lined up in an order based on the logic of the day and this order was driven by two factors: the linear foot print and the need for a practical fire egress solution which would gain approval from the Board of Fire Commissioners.

It was a "less is more" approach with an emphasis on function and respect for the original fabric of the building.

The Vivian Fraser design did however alter the spatial properties of the historic loading and unloading halls but in nearly every case the heritage fabric which is seen more than hints at the original purpose of the structure.

What is obvious is that as the STC and SDC with Bangarra now move forward, the facility must be altered to accommodate new audiences and productions.

A number of issues need to be addressed in the existing design and layouts.

The long walk which is a feature of the Wharf Theatre unacceptably intersects all access points for set and people movement and this failing is documented elsewhere. The locations of the functions, theatres lobbies and rehearsal rooms were a pragmatic solution and these arrangements have solutions as shown in the Master Planning by Hassell Architects and Charcoal Blue, the theatre designers.

The box office and entry approaches have meant a long traverse to the theatre.

Importantly the set construction and workshop areas struggle to deliver along and under the fire tunnel.

Access and egress generally are an inhibiting factor in the daily life in Wharf 4/5.

The State Heritage listing curbs interventions which might destroy or remove significant heritage fabric but also bring about a better short term solution.

The short comings of the Vivian Fraser design are also seen in some of the solutions to the intervention at each level, and these are corrected in a new approach.

4.2 The Basis of the Original Theatres and Dance Studios in Wharf 4/5

Vivian Fraser – the original architect of the restoration and adaptive reuse of Wharf 4/5 – found many challenges and his conclusion was that this building type was going to “be extraordinarily difficult for conversion to a theatre”.

In his interviews and reflections of the task before him, he has defined the two greatest challenges as site accessibility to the public for exits, and building construction problems in relation to fire regulations.

Without that matter solved the atmosphere and spatial possibilities were irrelevant, he says. He was not able to use the apron as an escape by the Fire Commissioners.

The Fire Tunnel the full length of the wharf was the solution to use of the wharf apron and after that, the fire separation and acoustic barrier walls were developed in lightweight materials, with the assistance and guidance of the Experimental Building Station, in an advanced development of lightweight fire rated construction.

The marriage of old and new was not easily achieved so when his work was described as a simple renovation, he says he was both insulted and honored as simplicity was one of his most strongly held architectural philosophies. The idea of a simple renovation, while well intended, did not convey the difficulty of his journey in achieving the result.

4.3 Arts NSW Involvement

Arts NSW will preplan the remaining internal adaptation of Pier 4/5. The external design must conform to Tonkin Zulika Greer the architects design for the WBAP Pier 2/3 the brief.

The design of the interior and the separation of design roles will be complicated by the internal functional design and egress points as the other tenants in Wharf 4/5 have to be considered by INSW.

In this option the whole of the workshop will be rearranged and connected directly to the theatres via a western corridor. This has an especially important heritage related outcome with the uses now set back generally from the outer skin. The bonus will be better thermal and sound insulation.

Stronger full cross links have been established in this master plan proposal, the purpose of which – besides linking vertical levels – allows a full three dimensional understanding of the original volumes and structures.

The Walsh Bay Arts Precinct design has improved the theatre volumes in Pier 2/3 and consequently the performance possibilities by lifting the roof to be almost flush over some discreet areas. The design and support systems will need to be resolved by INSW consultants in conjunction with the STC 50 consultants. It is not a one size fits all process.

This methodology will be incorporated as a key element in the Wharf 4/5 proposal in two areas. The structural solution may include using similar robust timbers in a new truss system.

The Shore Sheds will be redesigned with better efficiency and circulation without any significant changes with the exception of one area of raised roof.

Each of the proposed changes improves the planning and usability of the whole of the STC Sydney Dance Company and Bangarra Tenancies while in the main none have any more significant impact than the works at Wharf 2/3 or indeed the original design by Vivian Fraser.

The concepts demonstrate an improved understanding of the wharf structure and build on the concepts of simplicity and expression of the robust structure espoused by Vivian Fraser.

4.4 Wharf Apron

Previous schemes have not used the wharf apron on the east side of the Pier 4/5. Pier 2/3 has additional steel fire escapes which mimic the original design for Pier 4/5 on the west. This will be developed with TZG architects.

In its original configuration – that is, during their working life – the piers had a number of rolling gantry cranes used for loading. Pier 1, the first reconstructed and repurposed pier, kept one large platform along with the rail track, using it as an entertainment area.

It was considered that this would be possible for other piers in Walsh Bay during the Walsh Bay Redevelopment period 1994-2004. The gantries by then had been replaced while the rail tracks in the main had become rusted and dislodged.

In the proposed Pier 4/5 renovations to the original works and Pier 2/3, construction of new works gantry theme is adapted for access platforms and stairs. The reintroduced platforms will be an interpretation of the first iteration of the gantry platform cranes and two installations will be used for access and to also identify the new main entry point and access lift.

In the working life of the pier, the apron was the working link between the land and the Harbour and a lively active precinct. The return of the gantry idea reinvigorates the apron. It also breaks the long facade appropriately and reflects the former working port aesthetic in a contemporary form.

The centralising of the access is emphasised by the first reintroduced gantry structure and the design theme may be based on the steel braced designs reinterpreted in a manner which does not detract from the long wharf composition.

After many years and following the original Walsh Bay Partnership design by PTW architects, in 1992 a lift was added to the southern end of the east apron of Pier 4/5 in 2006. The design of the lift was approved by the Heritage Council and as such it is a suitable model to repeat along the apron on either side of the wharf.

The addition of industrial marine engineering systems, albeit as contemporary interpretation, is appropriate and complements the design themes developed by the Mirvac and Transfield consortium which were approved in the Walsh Bay Master Plan of 1996.

4.5 Separating Structures

The Burra Charter is the key document used in designing and assessing restoration and intervention in historic buildings.

In 1979, the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance was adopted at a meeting of Australia ICOMOS (International Council on Monuments and Sites) at the historic mining town of Burra, South Australia. It was given the short title of The Burra Charter.

When the initial Arts uses for Wharf 4/5 project were at their inception, the Burra Charter was a guide document and now has become the official method of assessing restoration repairs and new works.

The proposed schemes in the by TZG on the one hand and STC50 Master Plan by Hassell Architects (subject to a separate application) and in the Pier 2/3 and Pier 4/5 have generally acknowledged the precepts of the current 2013 Burra Charter, quoted below.

In this context, the redesigned theatres proposed follow the concepts of identifying new work and careful restoration of original fabric where appropriate. The ideas and new concepts provided are a positive heritage response.

The raising of the roof is a major structural intervention as is the removal of internal columns so it is important that improved heritage outcomes are the general result of the reinvigorated STC occupation and provide the necessary facilities in the ACO and ATYP in Pier 2/3.

Changes to buildings which allow continued and expanded use ensure the continued maintenance and life as well as the preservation of that building.

The structural separation and exposing of the inner fabric is a positive result in the new master plan.

"An important factor in the success of new work is the quality and sensitivity of the design response. New work should respect the context, strength, scale and character of the original, and should not overpower it.

The key to success is carefully considered design that respects and supports the significance of the place. Imitative solutions should generally be avoided: they can mislead the onlooker and may diminish the strength and visual integrity of the original.

Well-designed new work can have a positive role in the interpretation of a place.

The cultural significance of a place and its particular circumstances will determine any constraints on the design of new work.

If, for example, the issue is replacement of a removed building (producing a 'missing tooth') in a row of buildings that have a degree of uniformity, then the new work should closely follow the existing buildings in bulk, form, character, complexity of detail, set back, etc.

Detailing of joinery or masonry should be modified to indicate the new work.

There will be other places where there are less contextual constraints on the design of new work. These will be where there is a greater diversity in the setting, or where the siting, form and scale of the new work will not adversely impact on significance.

As Article 15.1 says: The amount of change to a place and its use should be guided by the cultural significance of the place and its appropriate interpretation."

From Burra Charter 2013.

The repurposing of industrial heritage buildings is promoted by ICOMOS and the TICCIH (The International Committee for the Conservation of the Industrial Heritage) internationally by way of The Nizhny Tagil Charter for the Industrial Heritage, July 2003, and their International publications *Industrial Heritage Re-tooled: The TICCIH guide to Industrial Heritage Conservation*, J. Douet (ed.), 2012.

Australian ICOMOMS is part of the international ICOMOS and is bound by the various charters.

There is a requirement in the restoration and adaptive reuse process to ensure that the original fabric is restored and retained, and that the original industrial character of the building is maintained.

The ICOMOS Industrial Heritage Charter acknowledged two significant ideas, first that the works should be in the main reversible but secondly that some works are not reversible and this is the case in the large volumes required for performance spaces within the Piers. The Vivian Fraser design for the whole of Pier 4/5 followed a language of light-weight intervention but in many instances fabric was taken away for either aesthetic or functional reasons. The impact of his intervention is barely noticeable.

There is a dichotomy in assessing the impact on the intervention for theatrical performances spaces. In the one instance, Pier 4/5, this has already occurred; in the other, the whole of the work is new. In each of the CMPs, both Tropman and Brookes have foreseen that there will be, by necessity, an impact from the proposed uses for cultural repurposing. Croker in his report also acknowledges the result of these large scale interventions. Brookes chooses to ignore the fact that the impact has already occurred and some of his policies are redundant as a result.

The ICOMOS Industrial Heritage charter notes that there will be inevitable permanent changes to industrial buildings with the advent of any adaptive reuse. The Charter is not supportive of conjectural reconstruction which imitates the original parts of the building as these will confuse the history and evolution of the building form.

4.6 Burra Charter in Context

The principles of the Burra Charter recognise that buildings do not remain static for their lifespan. Buildings that continue to be useful are buildings that adapt with the ebb and flow of their compatible uses. Significance is not retained just in bricks and mortar alone. There is so much to the significance of a place that is intangible – connections to people or groups of people, cultural uses and continuing uses of the place.

Article 15.4 of the ICOMOS Burra Charter 2013 states that:

“The contributions of all aspects of cultural significance of a place should be respected. If a place includes fabric, uses, associations or meanings of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance.”

In this regard, the use of the site for over the past 30 years by the Sydney Theatre Company is of high cultural significance and just as important to the history of the place as its past maritime use.

Following the collapse of the traditional shipping method and the rapid take up of containerisation, the Walsh Bay precinct ceased its maritime use in 1970. For a decade the precinct was abandoned and left to become derelict. Pier 4/5 was the spring point of the adaptive reuse of the derelict buildings of the Walsh Bay Precinct for performing arts in the late 1970s and 1980s. The Precinct since this time has been dedicated to cultural uses with Arts and Performing Arts in particular repurposing the precinct.

This adaptive reuse and reimagining of the precinct over the past 36 years has imbued an intangible cultural heritage significance to the place. As defined by UNESCO, this intangible cultural heritage use is as integral with these buildings and as important to the place as is the past industrial maritime heritage. To reflect only on the past maritime use and to disregard the equally important intangible cultural heritage use is to misunderstand the way buildings adapt, grow and change and to completely ignore a huge portion of the place’s history. Insisting only upon the capacity to return the buildings to their original maritime state and operation discounts the significance of the uses that have followed and which are set to continue into the future.

With the current leases established until the year 2059, this cultural use will surpass the maritime use of the site by 20 years, cementing this as the dominant use of the precinct and reinforcing both the built cultural heritage of the place and the intangible cultural heritage of arts and performance across theatrical performance of drama, dance and music.

The time line shows the period of each use.

- 1912-1970 Maritime uses
- 1970 -1980 casual use, vacancy and dereliction
- 1983 Vivian Fraser and the STC, SDC, ATYP and the Philharmonia choirs
- Current STC Arts users adds 43 year leases now established cultural occupation until 2059

4.7 Changing Uses and Context

When buildings no longer served their purpose, they were altered and added to, adapted to suit the requirements for the foreseeable future. If they did not adapt, they were left to rot – empty and lifeless – or demolished to make way for the new. They grow and change with the times or they get left behind.

The Walsh Bay area is a prime example of this. The area was used for maritime purposes from the 1830s with private wharves and bond stores built. Following the outbreak of the Bubonic plague at the end of the 19th Century and as the maritime industry grew at the turn of the 20th Century, old wharves, piers and Shore Sheds were demolished and rebuilt, bigger and better than before. Pier and Shore Sheds 4/5 were built in 1913-1922. Up on the surrounding hills the workers' houses continued to be built. The Walsh Bay Wharves, Millers Point and Dawes Point were a hub of activity, a symbiotic relationship. This use continued for over 60 years in the existing structure. From the mid-1960s and into the 1970s, Port Botany was built to accommodate the change to container shipping. The wharves at Darling Harbour were modified. Those at Walsh Bay were not. The Walsh Bay wharves were used for off-loading passengers rather than cargo for a short period of time. Slowly but surely, each of the wharves were closed and then abandoned by 1981. For a time they lay dormant.

From 1985, Pier 4/5 has been a cultural hub for Sydney dance and performing arts. This use has continued here for 30 years. The proposed alterations works will enable this cultural use to continue well into the future. The revitalisation of Walsh Bay which began in 1998 has seen the area turn into a buzzing cultural, residential and commercial centre. The ongoing use of Pier 4/5 for performing arts is a continuation of the site's evolution from its early maritime history to its ongoing use 3 decades strong as a performing arts space.

4.8 Principles of Adaptive Reuse

"Many heritage items can be altered or extended without unduly compromising their importance. Indeed, it is possible to enhance or reinforce their significance by an adaptive reuse that involves

sympathetic alterations and additions. This is often necessary to ensure their survival. In general, the success or failure of alterations and additions in heritage terms is directly related to the degree to which the design acknowledges and retains the significance of the place.”

From NSW Heritage Council Altering Heritage Assets.

“V. Continuing to adapt and use industrial buildings avoids wasting energy and contributes to sustainable development. Industrial heritage can have an important role in the economic regeneration of decayed or declining areas. The continuity that re-use implies may provide psychological stability for communities facing the sudden end a long-standing sources of employment.”

From TICCIH The Nizhny Tagil Charter for the Industrial Heritage July 2003.

The adaptive reuse of Pier 4/5, and in fact the adaptive reuse of the Walsh Bay precinct as a whole, has reinvigorated the entire site, creating a thriving cultural, commercial and residential centre.

4.9 Reimagining the use in a heritage context

The adaptive reuse of the Wharf and Shore Sheds 4/5 by the STC has now defined the uses of the spaces and transformed the original functions of the past and cemented the arts and cultural uses and the primary occupation.

The future lease of 45 years means that the occupation by the cultural institution of the STC will have exceeded the original functions by at least two decades.

This is an important philosophical shift in the understanding of the building.

The reassigning of the building’s functions may be considered to alter the context of future changes.

The official recognition of the Wharf 4/5 as an architectural and cultural icon, is now well established and an historic event. The original architect has been honoured by the highest awards.

Thus the context has altered when assessing the spaces and the functions and any alterations in the WBAP proposal must be assessed in that context not solely on the shipping trade and the loading and unloading of shipping in the early part of the 19th century.

Any heritage assessment should be made in the context of the current cultural uses, design and form. For Today that use represents a third of the building’s life.

The new WBAP Master Plan and the STC50 project (subject to a separate application) relate equally well to the original Pier 4/5 design, as with the original commercial shipping history.

Any heritage assessment must be made acknowledging the current “historic” use of the wharf as a theatre complex.

The concept of intangible cultural heritage bears some resemblance to the occupation by the STC SDC ATYP and Bangarra as each has now developed into an Australian Cultural Icon.

The UNESCO ICOMOS Charter on Intangible Cultural Heritage states the following:

"Article 2 – Definitions

For the purposes of this Convention,

1. The “intangible cultural heritage” means the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage.

This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity.

For the purposes of this Convention, consideration will be given solely to such intangible cultural heritage as is compatible with existing international human rights instruments, as well as with the requirements of mutual respect among communities, groups and individuals, and of sustainable development.

2. The “intangible cultural heritage”, as defined in paragraph 1 above, is manifested inter alia in the following domains:

(a) oral traditions and expressions, including language as a vehicle of the intangible cultural heritage;

(b) performing arts;

(c) social practices, rituals and festive events;

(d) knowledge and practices concerning nature and the universe;

(e) traditional craftsmanship."

(The General Conference of the United Nations Educational, Scientific and Cultural Organization hereinafter referred to as UNESCO, meeting in Paris, from 29 September to 17 October 2003, at its 32nd session).

ICOMOS has recognised the way both tangible and intangible cultural heritage contributes to the fabric of civilization and humanity.

The Wharf and Shore Sheds 4/5 buildings are a tangible expression of the Sydney Theatre Company and the other arts users in general.

The transience of the theatrical performance as a concept fits within the idea of an intangible cultural heritage.

The STC archives, records and documents of performance to preserve them, however in the real performance the experience is transient.

Consideration must be given to the existing theatre and dance companies as historically and culturally important organisations which have in the past and will continue to contribute to the cultural fabric of society.

The design programme has been undertaken with sensitivity to Vivian Fraser's pioneering work and his struggles with an "impossible" task of retrofitting a theatre complex into a narrow, long, timber jetty wharf.

Fraser achieved an extraordinary result and did it with his enthusiastic clients

This is a commendable model with which to move on to the next phase of the Wharf 23 Wharf 4/5 development and evolution. Fraser loved the robust structure and seemingly cursed its intransigence to be modeled to fit his purposes. His struggles in achieving simple solutions have been well documented. He went back to the drawing board and found a way to accommodate the new with the old within what was then, the burgeoning of the ICOMOS Burra Charter Philosophies being developed in Australia.

4.10 An approach to adaptive reuse of the industrial heritage Adaptive Reuse

The adaptive reuse of 19th and early 20th century industrial buildings for cultural uses, with their large spans and pragmatic functional elements, has become an increasingly accepted technique for housing performance arts spaces and galleries.

These buildings lend themselves readily to new uses, insertions and adaptation as old functions become redundant.

The Wharves and Shore Sheds at Walsh Bay fall into this genre and as such can be benchmarked against others both locally and internationally.

With the new uses comes the need for alteration and change to the fabric and original layouts.

While the Burra Charter requires the mantra for adaptation should be to “do no harm”, the nature of the activities almost always requires some areas of significant alteration to the buildings’ historic fabric.

All such changes should be informed by a well developed design philosophy for each situation rather than an accidental discovery process with individual resolution of the detail. Preplanning and a three-dimensional recognition of the interaction with new and original fabric is therefore essential.

Because of the workings of the performance spaces and theatres, their needs range from being intensely populated to the need for clear and uninterrupted spans with all functions requiring an overlay of acoustic isolation.

Under these circumstances and with the permanency of the new WBAP cultural uses confirmed, it must be recognised that not all changes will be readily reversible, just as the Vivian Fraser design was not. The design must therefore identify and have clarity as to what is, for the want of a better terminology, a *permanent change* and what is reversible.

The TICCIH Nizy Tagil Charter for the Industrial Heritage July 2003 states that:

“Continuing to adapt and use industrial buildings avoids wasting energy and contributes to sustainable development. Industrial heritage can have an important role in the economic regeneration of decayed or declining areas. The continuity that re-use implies may provide psychological stability for communities facing the sudden end a long-standing sources of employment.”

Walsh Bay in the 1970s with its maritime use declining became the haunt of the rebel artist squatter and this “heritage” was formally adopted and realised in the Pier 4/5 creation by Vivian Frazer and others.

By his own admission Frazer’s work was a struggle between complexity and simplicity. He has said that simple did not denote easy. His insertions of theatre spaces and workshops removed and changed many things but his hand always touched the fabric lightly. The building form in Pier 4/5 is always recognisable and able to be interpreted.

The ensuing 30 years saw what can best be described as Sydney's intangible cultural heritage⁶ grow within that extraordinary and ground breaking adaptive reuse.

Each of the initial tenant companies has endured and Wharf 4/5 now is considered as *home* for the companies and the idea of reinstating the former use as a wharf is inconceivable. Insisting only upon the capacity to return the buildings to their original maritime state and operation discounts the significance of the uses that have followed and which are set to continue well into the future, surpassing the lifespan of the original maritime use of the site.

There is now a cultural and historic synergy between the physical heritage and the cultural icons of STC, ATYP, Bangarra and SDC.

Pier 2/3 was identified as an extension of both these cultural streams.

When DUAP announced the approval of the Walsh Bay Precinct Master Plan it emphasised the correlation between the historic wharves around the water court and the creation of the cultural precinct reflected as a continuum of the Wharf 4/5 cultural uses.

The new Walsh Bay Arts Precinct can be considered as an extension and development of the concept of physical and intangible cultural heritage.

Very important is the need to approach the design process and its complexity holistically with special emphasis on the insertion of services and acoustic treatment the implementation of which must be recognition of the architectural heritage.

This holistic design philosophy should be singularly directed to allow the least interference with the built form, fabric and context and aid in the interpretation of the building in its historic context.

5. Heritage significance

5.1 Pier 2/3 – Statement of Significance

This Statement of Significance is contained in the endorsed CMP Wharf 2/3, *by Tropman and Tropman Architects (November 2000, pg 20)*.

"While it is significant in its own right, Wharf 2/3's primary significance is concerned with it being a part of the Walsh Bay complex. Wharf 2/3 is of State significance in the context of the Walsh Bay wharfage precinct, on the following counts.

7.2.1 On the site of wharf and maritime activity since the 1820's, Wharf 2/3 forms part of a decisive attempt to remodel Sydney's port facilities. It is thus a part of the historical development of Walsh Bay and of Sydney Harbour generally.

7.2.2 Wharf 2/3 forms part of a deliberate design plan for wharf construction. Its regularity, symmetry and clarity of design reveal aesthetic features of a high order. This is accentuated by the Wharf's place in the overall design of Walsh Bay.

7.2.3 The site, individually and as part of the Walsh Bay complex, has a strong architectural presence that contributes to the overall urban landscape of the southern shore of Port Jackson. It provides a prominent and historically rich landmark and contributes to create significant views and vistas. These include the existing vistas through the piling grid and building.

7.2.4 Wharf 2/3 constitutes a good example of a Federation Period 1912-1922, Edwardian Maritime Engineering style of architecture.

7.2.5 Pier 2/3 contains special design features such as exceptionally long timber piles (due to particularly deep water) and the two-level apron.

7.2.6 The southern (Hickson Road) brick and stone shore shed facade has a strong architectural presence and contributes to the streetscape and overall character of the area. It also contributes to create significant views and vistas from both street level and overhead bridges. In addition, the Walsh Bay shore shed facades to Hickson Road frontage, unusual in the Sydney Harbour Trust wharves, constitute today, after the demolition of berths 2 to 6 at Darling Harbour, the largest extant group.

7.2.7 The Wharf, and its predecessors, back to the 1830's, were a place for employment in an area and were connected with the development of upper and working class housing. This process continued with the Harbour Trust's association with Millers Point development. It is held in high local and heritage esteem.

7.2.8 Wharf 2/3 provides powerful evidence of wharf construction of its time, especially in its use of harbour piles. It exhibits the carefully contrived arrangement for the cooperation of transport and storage.

7.2.9 The site retains a number of associated industrial items and artefacts that contribute to illustrate former uses, operations and technologies at the site.

7.2.10 The whole site has archaeological potential to reveal new information about former structures, operations and life styles."

Extract from *CMP Wharf 2/3*, by Tropman and Tropman Architects, November 2000.

5.2 Wharf 4/5 – Statement of Significance

The following Statement of Significance is contained in the Graham Brooks CMP. This CMP has not been endorsed by the Heritage Branch but it is the only CMP prepared specifically for Wharf 4/5.

"Wharf 4/5 and its associated shore sheds have heritage significance for their architectural, historical, technological and visual values. The subject buildings are located within the Walsh Bay Wharves Precinct- that is equally significant in the history of maritime trade in New South Wales. The site has historic value for its ability to demonstrate advancements in commercial shipping facilities during the early twentieth century. The subject buildings were part of a greater wharf resumption and development program that took place throughout Port Jackson during the early 1900s by the Sydney Harbour Trust. Its conversion into a performing arts precinct during the mid-1980s was heralded as an important achievement in the adaptive reuse of industrial buildings. Site has links with H.D. Walsh, Robert Hickson, Vivian Fraser and various internationally and nationally renowned artists and arts organisations. Wharf 4/5 is an integral part of the Walsh Bay Wharves Precinct. It has a strong distinctive character, owing to the materials used, its building form and scale. It possesses landmark qualities and is easily visible from North Sydney, Millers Point, Observatory Hill and on the waters of Port Jackson. The building is a rare example of timber finger wharves constructed by the Sydney Harbour Trust during the early twentieth century. Although it has been converted into a performing arts precinct, this has not diminished the building's relationship with its industrial past. The conversion of the wharf demonstrates a sensitive reuse of original building fabric which respects the integrity of the structure."

Extract from *CMP Wharf 4/5* by Graham Brooks and Associates, March 2007, pg xx

5.3 Physical Constraints and Requirements arising from the Statement of Significance

These are the important constraints which must be addressed in WBAP Development and in the Phase 2 Heritage Impact Assessment.

5.3.1 Pier 2/3

Extract from *CMP Wharf 2/3*, by Tropman and Tropman Architects November 2000:

"8.1.1 No activity should be allowed that will confuse the fact that Wharf 2/3 site is an important component of the local cultural development of Walsh Bay, Millers Point, The Rocks, Port Jackson and Sydney.

8.1.2 No activity should be allowed that will confuse the fact that Walsh Bay Precinct was designed not as a series of individual buildings but as a whole large engineering work.

8.1.3 No activity should be allowed that will confuse the former general cargo berth uses of Wharf 2/3.

8.1.4 No activity should be allowed that will confuse the fact that Wharf 2/3 has been associated with the Sydney Harbour Trust and Maritime Services Board operations, with wharf owners and labourers and generally with the maritime history of Sydney and Australia.

8.1.5 The early planning and detailing features of Wharf 2/3 site should be appropriately conserved.

8.1.6 The maximum amount of significant fabric of Wharf 2/3 should be retained in-situ and conserved.

8.1.7 Significant industrial items and artefacts items should be retained in-situ and conserved.

8.1.8 No activity should take place that could destroy a potential archaeological resource.

8.1.9 Any new building, services, landscaping or activities aU or in the vicinity of Wharf 2/3 site should have regard to the setting, design, scale and character of the site, precinct and urban water surrounds.

8.1.10 The regard the public of Sydney are likely to have for this area should be addressed in future uses, activities and works at the site."

5.3.2 Wharf 4/5

These are the constraints by Graham Brooks and Associates which must be addressed in the alterations to Wharf 4/5.

- Wharf 4/5 and associated shoredocks should continue to operate as an integral component of the whole of the Walsh Bay Precinct.
- Wharf 4/5 is an integral part of the historic fabric of the area and should continue to relate both visually and functionally to the area.
- The primary significance of Wharf 4/5 as a former commercial industrial maritime wharf and warehouse facility should be respected in any future modifications to the building. As the reuse of the building is now part of its cultural significance, there is no requirement to return the building to its original spatial configuration.
- Building elements
 - External detailing of the buildings should be respected with the retention of original building material where possible. Where replacement of original material is required, matching materials should be sought.
 - Building elements of identified significance should continue to be conserved.
- Wharf 4/5 has been successfully adapted and reused as a performing arts space. Although it has been recognised as a centre for the performing arts, future uses of the site should not be limited to use as a venue for the performing arts. Other compatible uses could be considered in the future.
- Wharf 4/5 is a strong visual element on the foreshore of Sydney Harbour. The site is clearly visible from Observatory Hill, the Sydney Harbour Bridge, Hickson Road, McMahon's Point, North Sydney and Sydney Harbour.
- Aspect (east/west). The aspect of the building is east west which contributes to problems regarding extreme heat from the westerly sun.
- Location in close proximity to residential apartments in newly constructed Wharf 6/7 has contributed to issues of noise pollution from the Dance Rehearsal Studios on the western side of the Lower Deck Level. Recent complaints from residents in these apartments have been recently addressed by Art NSW which has insulated some sections of the rehearsal studios and modified the volume of sound speakers by computer controlling the volume through a central computer system.

Extract from 2007 *CMP Wharf 4/5* by Graham Brooks and Associates:

Arts and Performing Arts in particular have repurposed the precinct over the past 35 years. Adaptive reuse – as opposed to restoration to the original condition – is the preferred model in significant buildings which cannot be used as singular exhibition pieces, or be sustained from either a benefactor or the State purse. There is a well reasoned argument generally in accordance with ICOMOS and Burra

Charter principals that by adaptive reusing a building its life and usefulness is extended and its present maintained.

5.3.3 Combining the Constraints and Policies

It would be appropriate to provide a combined Precinct CMP which covers the whole of the WBAP area. The CMP for Pier 2/3 recommends a review at 5 and 10 years.

5.4 Grading of Significance

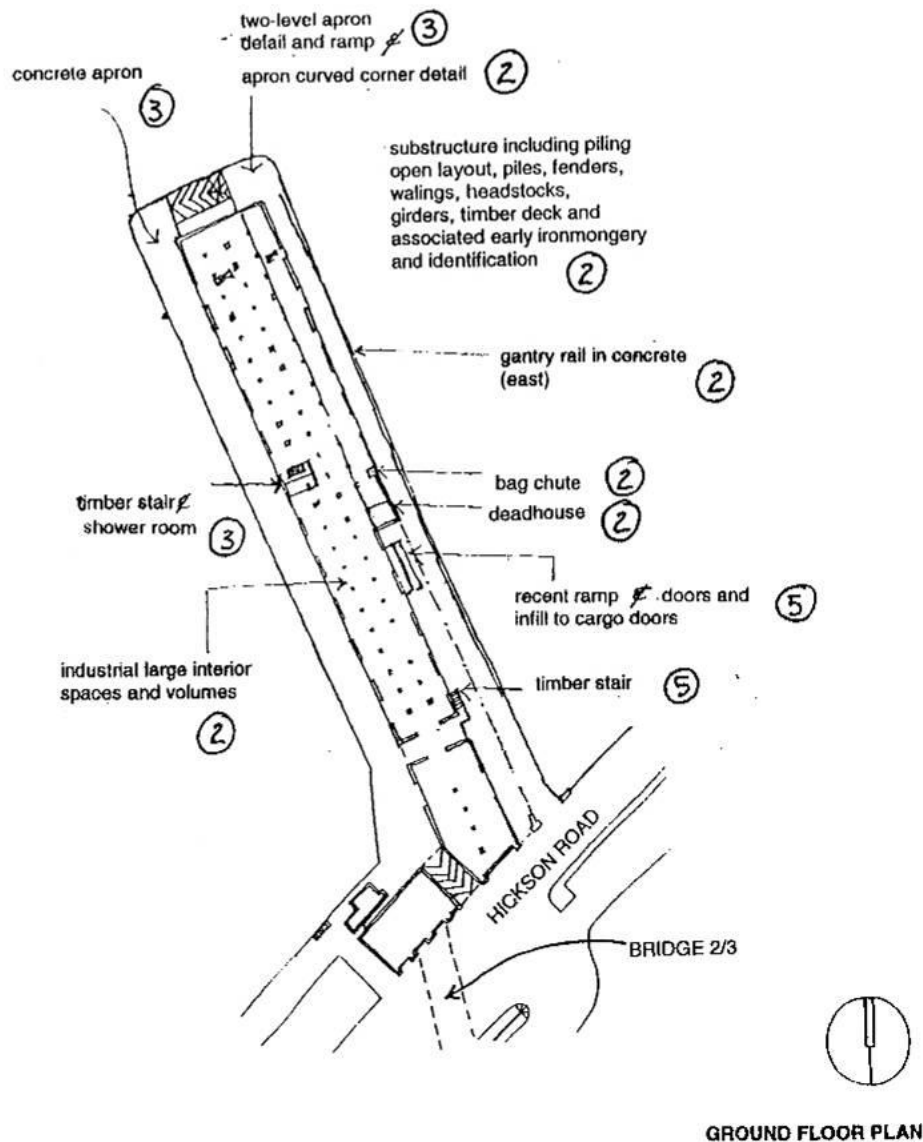
5.4.1 Pier 2/3

This Grading of Significance is contained within the 2003 Pier 2/3 CMP by Tropman & Tropman Architects which should be addressed in the Heritage Impact Assessment of Phase 2.

SITE ELEMENTS	GRADING OF SIGNIFICANCE
General: • Significant views & vistas to and from the site. • Open exterior spaces ie. apron, colonnade, open passage between sheds. • The site as part of Walsh Bay complex. • Open water areas around the pier (water precincts). • Two level access and vertical arrangement of spaces in association with heritage technology. • Historical associations with Bridge 2/3, Pottinger St, Hickson Rd & Port Jackson. First floor: • General building form and facades including modular design and pattern and external fabric. • Superstructure including storey posts layout, storey posts, strong-backs, angles, girders, beams, timber deck, etc. • General roof form and envelope, roof structure and lanterns.	EXCEPTIONAL

Continued over page

SITE ELEMENTS	GRADING OF SIGNIFICANCE
Ground floor: • Apron curved corner detail. • Substructure including piling, open layout, piles, fenders, wailings, headstocks, girders, timber deck and associated early ironmongery and identification (refer to fig. below). • gantry rail in concrete (east). • Bag chute • Deadhouse • Industrial large interior spaces and volumes. First floor: • Gantry rail & support brackets to storey posts (east) • Industrial large interior spaces and volumes. • Timber slatted partition wall	HIGH
Ground floor: • Concrete ramp (north). • Two-level apron detail and ramp. • Timber stair and shower room. First floor: • Toilet block (north). • Timber stair (middle). • Timber office and toilet block (shore shed). • Ramps, deadhouse and timber offices (south).	MODERATE
Ground floor: • Recent ramp and infill to cargo doors. • Timber stair (south).	INTRUSIVE

**LEGEND**

- 1 ~ Exceptional significance
- 2 ~ High Significance
- 3 ~ Moderate significance
- 4 ~ Little significance
- 5 ~ Intrusive

Figure 55 Significance of Pier 2/3 Ground Floor from CMP Wharf 2/3 by Tropman & Tropman Architects.

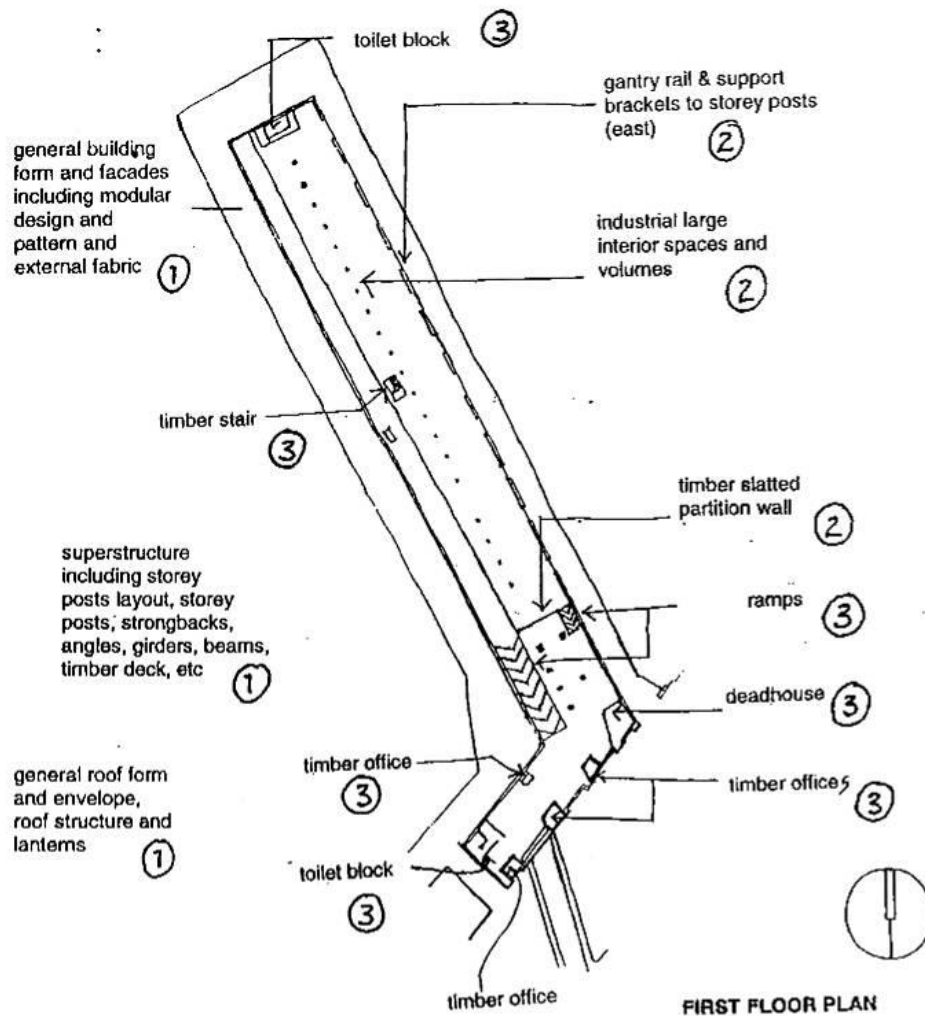


Figure 56 Significance of Pier 2/3 First Floor from CMP Wharf 2/3 by Tropman & Tropman Architects.

5.4.2 Wharf 4/5

This is the Grading of Significance from the 2007 Graham Brooks & Associates Wharf 4/5 CMP which should be addressed in the Heritage Impact Assessment of Phase 2.

SITE ELEMENTS	GRADING OF SIGNIFICANCE
• Strong visual element on Sydney Harbour foreshore • Integral part of wharf complex and precinct and wider historic fabric of the area • Views to and from Wharf 4/5	EXCEPTIONAL
• Strong distinctive character (building form, bulk, height and materials) of wharf, wharf shed and shore shed, created by the logical use of heavy timber construction and the regular grid layout of piles, columns, beams and infill cladding. • The layout of the posts at 6m intervals below deck level and at Deck Level and at 12m intervals at the Upper Level. • Original building fabric of which approximately 90% remains intact. Significant building fabric includes weatherboard paneling, roof trusses, face brickwork to Hickson Road facades of shore sheds, original windows and doors. • Internal spaces from the buildings former use as a commercial goods warehouse • Steel overhead bridge from Pottinger Street • Gantry crane on eastern facade • Timber staircase between Upper Deck and Lower Deck • Roof structure • Theatres and rehearsal rooms associated with the various dance and theatre companies. • Timber flooring	HIGH
• Internal partitions of office spaces. • Internal staircases between floor levels introduced during building conversion. • Introduced secondary ceilings • Profiled metal sheeting awnings along western elevation • Fire tunnel • Catwalk along western elevation • Lower Deck and Upper Deck mezzanines • New doors and windows along western and east elevations • New casement windows in shore shed • Neon signage	LITTLE

5.4.3 Industrial Heritage Items

The following major industrial items and artefacts have been identified in the 'Walsh Bay Precinct Heritage Technology Conservation Management Plan', November 1999, by Tropman & Tropman Architects.

5.4.3.1 Wharf 2/3

Item No	Description
52	Dead house (ground floor).
55	Dead house (upper floor). <i>The deadhouses consist of a timber batten walled room forming a secure space to store bounded goods. They have sliding doors and a large internal shelf.</i> <u>Former uses</u> The deadhouses are part of the original concept of the Walsh Bay Wharves where the design was to streamline stevedoring practices by having bounded import conveniences located near to the ship for easy handling. They were used as temporary secure storage rooms for imported items that required excise to be paid to Custom's.
54	Gantry rail remnants to first floor east facade and to concrete apron along the eastern side (existing). Travelling Gantries (removed). There were originally eight travelling gantries, four on each side. They were installed in association with the construction of the shore shed and completed by 1922. Constructed of riveted mild steel, timber and with a concrete deck at first floor level. In 1989, the underside lifting gear was missing and the original manual drive mechanism converted to electricity. They did not appear operable at this time. <u>Former uses</u> The gantries moved on two rails along the length of the apron, one rail near the outer eastern edge of the apron, the other mounted at first floor level on the facade of the jetty shed. Their main purpose was a loading platform for the first floor level but they were also originally fitted with lifting gear on their underside enabling them to be used to move cargo along the apron.
89 (53)	Bag Chute It consists of an open slatted timber chute with door opening to the east wall onto the apron. It was installed as part of the original constructed of Pier 2/3 which was completed in 1922. <u>Former uses</u>

The chute was for the removal of hessian bags from the upper floor to the apron where they could be re-used.

Other items include joinery and fitments associated with the occupation of the space, construction systems adapted and modified during the building's life cycle, personnel and cargo movement systems, fire detection, hydraulic and electrical fitments, and moveable items.

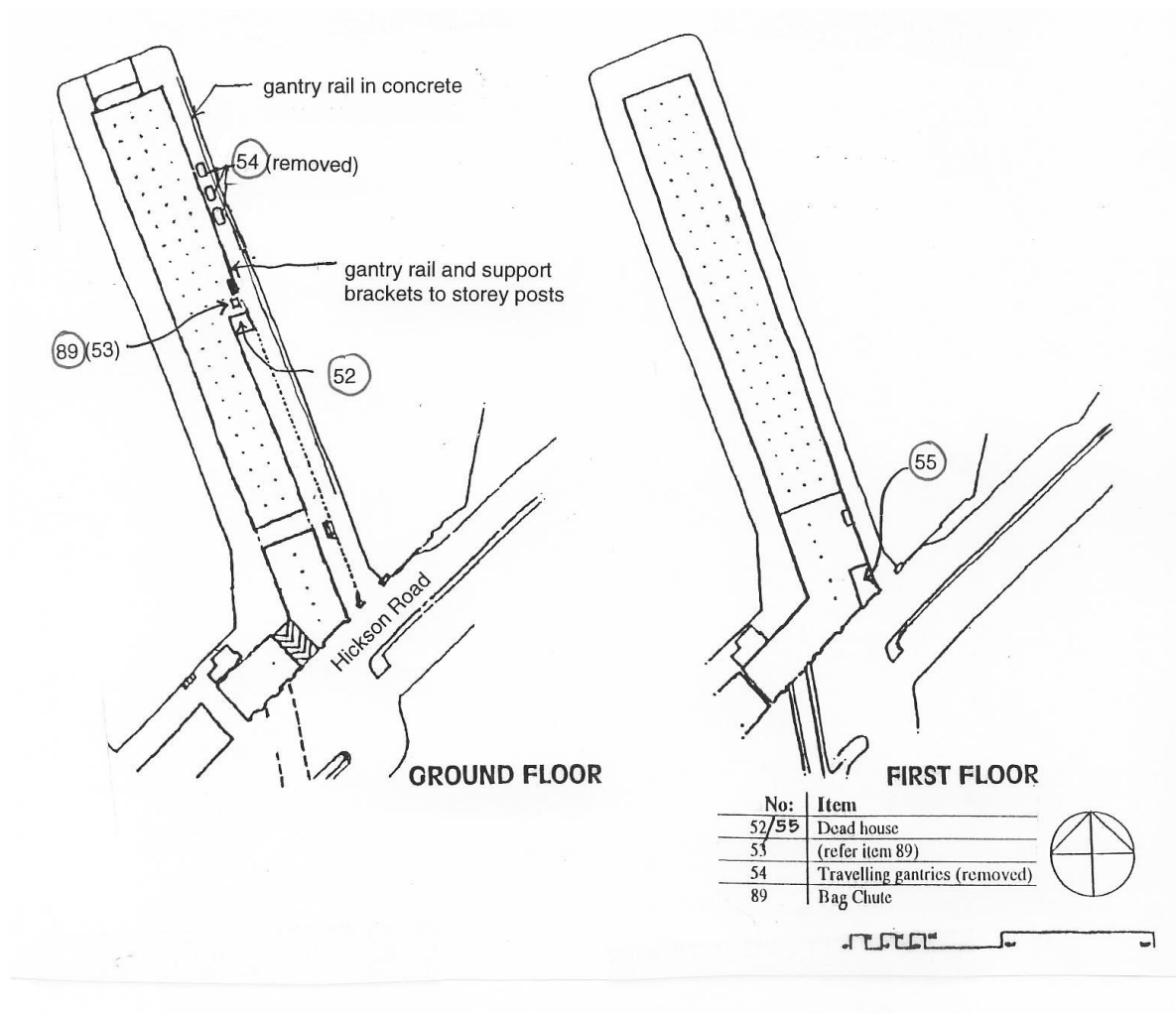


Figure 57 Location Plan Pier 2/3 Source: *Walsh Bay Precinct, Conservation Management Plan*, December 1998 for Walsh Bay Finance.

5.4.3.2 Wharf 4/5

Item No	Description
81	Overhead Travelling Gantries (3). This overhead travelling crane is one of the wharf fitting which demonstrate the size and level of activity of the shipping trade carried out at these wharves. They demonstrate how goods were moved within the pier sheds. The chassis of 3 cranes (OHTC) with the hoist removed. The cranes are located on a short section of track in the original location. They are the only remaining internal longitudinal travelling cranes on the Walsh Bay Piers. <u>Former uses</u> This overhead travelling crane performed normal crane operations for goods being loaded and moved onto and off trucks and carts.
82	Goods lift. This lift is significant because it is one of the few remaining industrial technological items on this pier. It demonstrates the interaction and flow of people between the levels on this pier. It is an early example of an electrically operated lift. Goods lift with a timber framed car. The lift has vertically opening timber doors. The electric motor is housed above the lift well on level 2. <u>Former uses</u> Electrically operated goods and passenger lift which operated between ground and the upper floor. It was used for moving goods and personnel between levels on this pier.
90	Gantry Rails (East). They are significant because they demonstrate the method of how goods were moved from ship to shore before containerisation came into place. Pair of steel rails for the gantry to move along the pier. One rail is wall mounted on brackets, the corresponding rail is mounted in the deck concrete apron. <u>Former uses</u> The gantries moved on two rails along the length of the apron, one rail near the outer edge of the apron, the other mounted at first floor level on the facade of the jetty shed. Their main purpose was as a loading platform for the first floor level but they were also originally fitted with lifting gear on their underside enabling them to be used to move cargo along the wharf apron.

91	Gantry Rails (West). They are significant because they demonstrate the method of how goods were moved from ship to shore before containerisation came into practice. Steel rails for the gantry to move along the pier. One rail is wall mounted on brackets, the corresponding rail is mounted in the deck concrete apron. <u>Former uses</u> The gantries moved on two rails along the length of the apron, one rail near the outer edge of the apron, the other mounted at first floor level on the facade of the jetty shed. Their main purpose was as a loading platform for the first floor level but they were also originally fitted with lifting gear on their underside enabling them to be used to move cargo along the wharf apron.
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5.4.4 Moveable Heritage Items

The *Walsh Bay Art Precinct Heritage Impact Statement* by Design 5 identifies the need to interpret the movable industrial heritage which has been stored within Pier 2/3.

A report which has been prepared by Godden Mackay Logan, *Walsh Bay Pier 2/3 Movable Heritage, Catalogue and Significance Assessment, December 2010*, catalogues the items and makes an assessment on each one. A considerable number of tags is unfortunately lost today and the identification of some items could be difficult. In addition, it seems that some items are lost or have been relocated without documentation and new items added which are not in the list.

A following report by City Plan, *Heritage Walsh Bay, Pier 2/3, Movable Heritage Use & Interpretation Plan*, June 2011, re-identifies the need to prepare a special interpretation plan and suggest a design strategy. The movable heritage items do not relate to Pier 2/3 specifically but are a collection of various relics and equipment from a variety of locations throughout the Walsh Bay complex.

Whether or not there is scope for use of all items in the current design for Pier 2/3 is still to be determined. It can be argued that, as none of the items appear to immediately derive from Pier 2/3 or 4/5, that their interpretation at the site is not relevant.

The 1999 Tropman and Tropman *Walsh Bay Redevelopment Area Interpretation Plan* sets out the goals and direction of all interpretation within the precinct. It is a model to be followed in the preparation of an interpretation plan and an interpretation strategy for the stored moveable heritage items residing within the wharf.

Excerpt from Design 5 – Architects Final Heritage Impact Assessment 23 June 2014 pg68:

"Pier 2/3 currently houses a large quantity of moveable heritage on both the upper and lower levels and also on the aprons immediately outside. These items are predominantly recovered from other areas of Walsh Bay and other NSW Maritime sites that had been refurbished or redeveloped. The Walsh Bay Precinct is listed on the NSW State Heritage Register (SHR) and while elements of the collection are not individually listed, they form part of the SHR listing.

A detailed report prepared by Godden Mackay Logan, titled, Walsh Bay Pier 2/3 Moveable Heritage – Catalogue and Significance Assessment, dated December 2010 (GML 2010) provides a brief catalogue and recommendations for these items. The collection includes a diverse range of items, primarily industrial artefacts, large assemblages of timber pieces, building components and other components. The GML 2010 report allocated each item a significance ranking and determined that five (5) were of Exceptional Significance, sixteen (16) of High significance, thirty-three (33) of Moderate significance and the remaining seventy (70) of Low significance. The collection also includes a shipping container that holds multiple boxes of accumulated artefacts taken mostly from the nearby Towns Place archaeological excavation. These items have been catalogued and information on the collection is detailed in a 2005 report prepared by Austral Archaeology, titled Archaeological Monitoring Programme at Towns Place. This collection consists of 5,884 fragments and weighed nearly 595kg (Austral Archaeology, 2005).

The Godden Mackay Logan report recommended that all items of Exceptional or High significance should be retained, reinstated and interpreted at Walsh Bay Pier 2/3. Items of Moderate significance should be retained and interpreted either at Walsh Bay or another location, unless there is justification for them being discarded, for example, in the case of there being multiple examples of one type. An example of an item of Low significance should be retained as part of the collection while the remainder can be put to further storage.

While it is possible that some fabric may have been removed and stored during the construction of the lift or derive from the Shore Shed adaptive reuse, no record exists to confirm that assumption.

Tropman and Tropman have addressed their report submitted in draft which includes all numbers and tags found on the items. Where two numbers are seen they relate in the first instance to the official Tropman Documents and then to the more recent report which does not identify items by photograph.

It should be noted that the quarter size container in Pier 2/3 contains the Pottinger Street and the Towns Place Dig collections. Both are well recorded, the Pottinger Street collection has been extensively documented by archaeologist, Robert Varmin. The documents are in the Mitchell Library.

The ownership of the movable items remains with RMS as Pier 2/3 was the undeveloped area chosen at the time by The Walsh Bay Partnership as a repository for all movable heritage across the Walsh Bay Redevelopment Precinct.

Tropman and Tropman suggest that it is not within the scope or intent of the original DA that the tenants of Pier 2/3 incorporate these items into any adaptive reuses.

This would be likely to create confusion unless a special Interpretation Plan was developed which allowed the curation⁷ an exhibition of the whole of Walsh Bay.

A full report with a complete list and pictures are attached to this report as Appendix.

5.4.5 Interpretation

The SEARS (SSD 7689) dated 1 July 2016 and OEH Letter dated 23 June 2016 requires that the Heritage Impact Assessment “proposes opportunities to interpret the site’s heritage significance and archaeology maritime and historical association”.

A number of assessments and Interpretation Plans have been prepared on the Walsh Bay Precinct as a whole, as well as site specific plans, since 1999. An updated interpretation strategy prepared by Tropman & Tropman Architects is detailed in a different document *Interpretation Strategy for Movable Heritage Items Pier 2/3 Walsh Bay*.

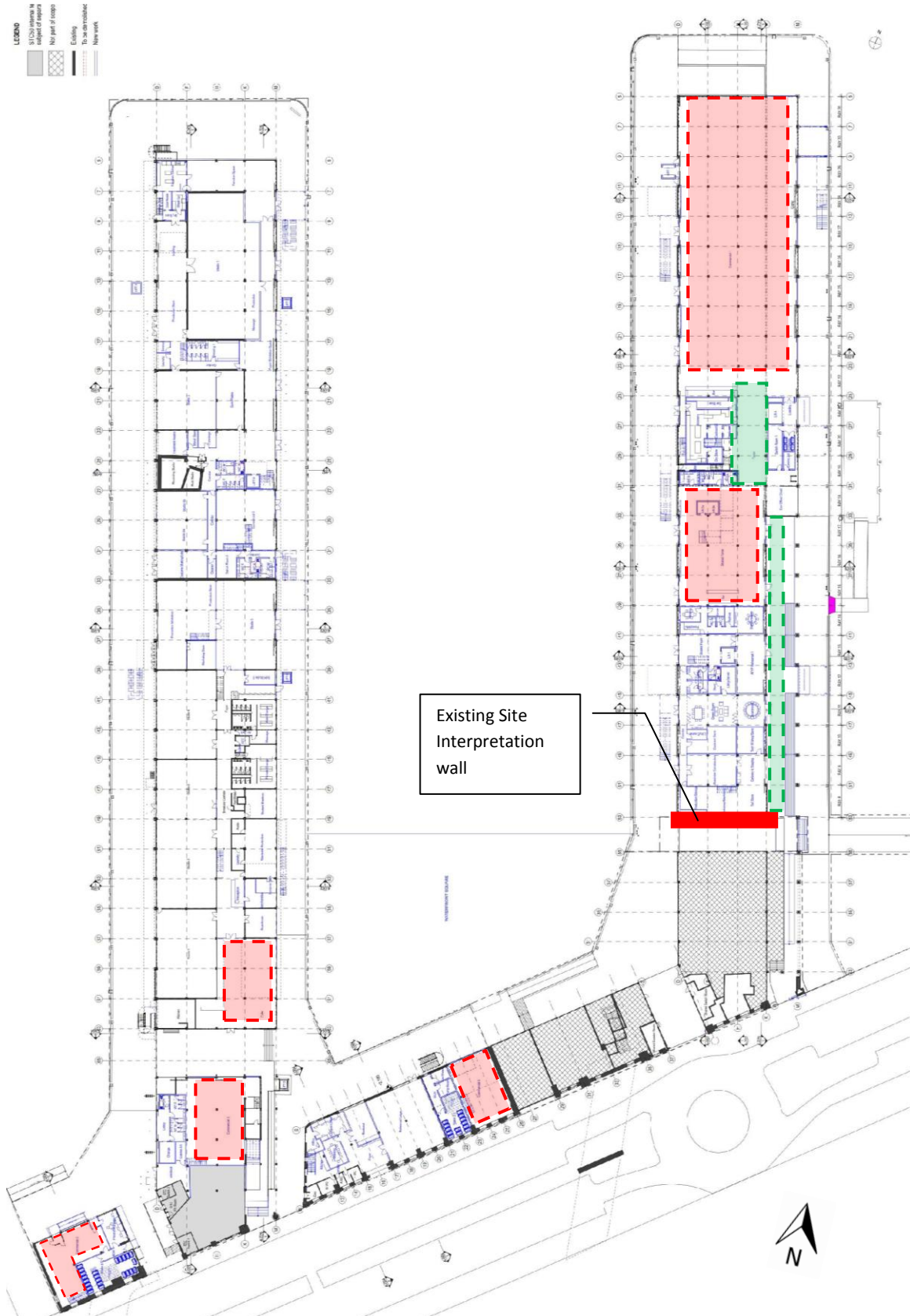


Figure 58 Pier 2/3 & 4/5 Ground Level. Highlighted in red suggested locations for interpretation static elements.

Highlighted in green suggested locations for interpretation panels, text and historic photographs.⁸

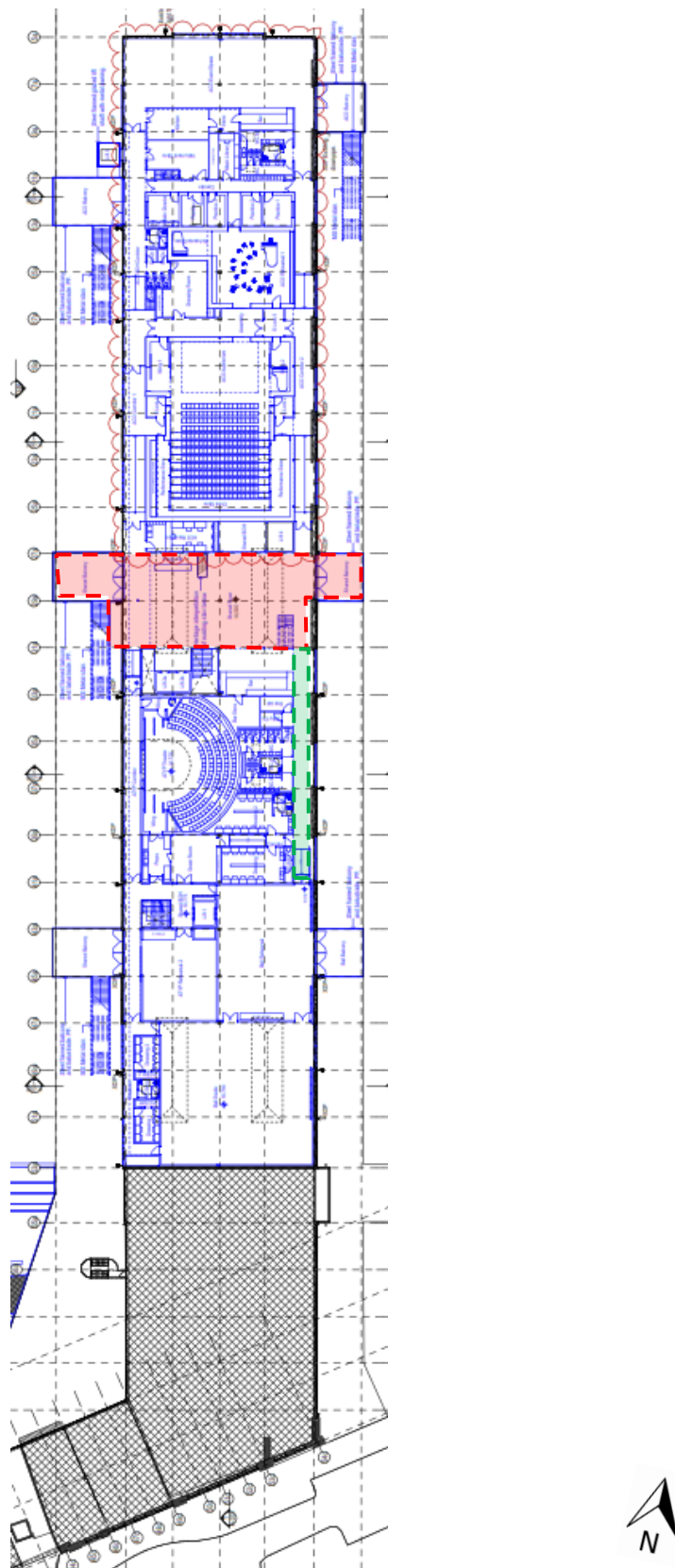


Figure 59 Pier 2/3 First Level. Highlighted in red suggested locations for interpretation static elements.

Highlighted in green suggested locations for interpretation panels, text and historic photographs.⁹

6. Design proposal

6.1 Stage 1

On 21 May 2015, development consent (SSD 6069) was granted by a delegate of the Minister for Planning to a Stage 1 SSDA for the WBAP. The Stage 1 SSDA sought “in principle” approval for the WBAP but did not include the STC’s facilities at Wharf 4/5.

The development consent for the Stage 1 SSDA approved the following:

- The adaptive re-use of Pier 2/3 providing new arts facilities including performance venues for the Australian Chamber Orchestra, Bell Shakespeare and Australian Theatre for Young People;
- Retaining a large heritage commercial events/art space for Sydney Writers Festival, Biennale of Sydney and a wide range of commercial and artistic events;
- Refurbishment of the ground floor arts facilities of Wharf 4/5 and its associated shore sheds for Bangarra Dance Theatre, Sydney Dance Company, Sydney Philharmonia, Gondwana and Song Company;
- New commercial retail opportunities; and
- Creation of a major waterfront public square to become an innovative external platform for collaborative performances, festivals, public art, cafés, restaurants, commercial and community activities.

The Stage 2 SSDA now seeks consent for the detailed design of the WBAP project as described below.

6.2 Early works

Early construction works comprising infrastructure upgrades, demolition, hazmat removal and sub structure works.

6.3 Wharf 2/3

Internal alterations and reconfiguration to provide for the following:

- Performance venues;
- Rehearsal rooms, production workshops, back of house facilities and offices;

- Function spaces, bars, cafes and foyer spaces extending onto external gantry platforms (balconies) providing breakout space for internal foyers and allowing views of outdoor performances;
- Mezzanine spaces for offices and back of house facilities;
- Upgrades to meet compliance with current BCA, DDA and fire codes;
- Creation of new commercial tenancies and public toilets;
- Removal of some storey posts and beams to facilitate internal reconfiguration and new uses;
- Retention of a large proportion of the ground floor in its existing 'raw' heritage state for events and festivals including Sydney Writers' Festival and Biennale including venue and commercial hire.

External alterations and additions comprising:

- New balconies and external stairs for fire egress;
- Installation of glazing in existing cargo sliding doors and other solid panels on the eastern, western and northern elevations to allow for views into and out of the building;
- Roof penetration within the central valley at the northern end to accommodate an auditorium;
- Installation of ESD elements, such as photovoltaic panels and seawater heat exchange systems;
- Raising of the external floor level on the eastern side by introducing a new raised deck and continuous set of stairs beyond the existing column line.



Figure 60 Wharves 2/3 & 4/5 Ground Level. Proposal highlighted in blue. Plans by TZG.¹⁰



Figure 61 Wharves 2/3 & 4/5 Mezzanine Level. Proposal highlighted in blue. Plans by TZG.

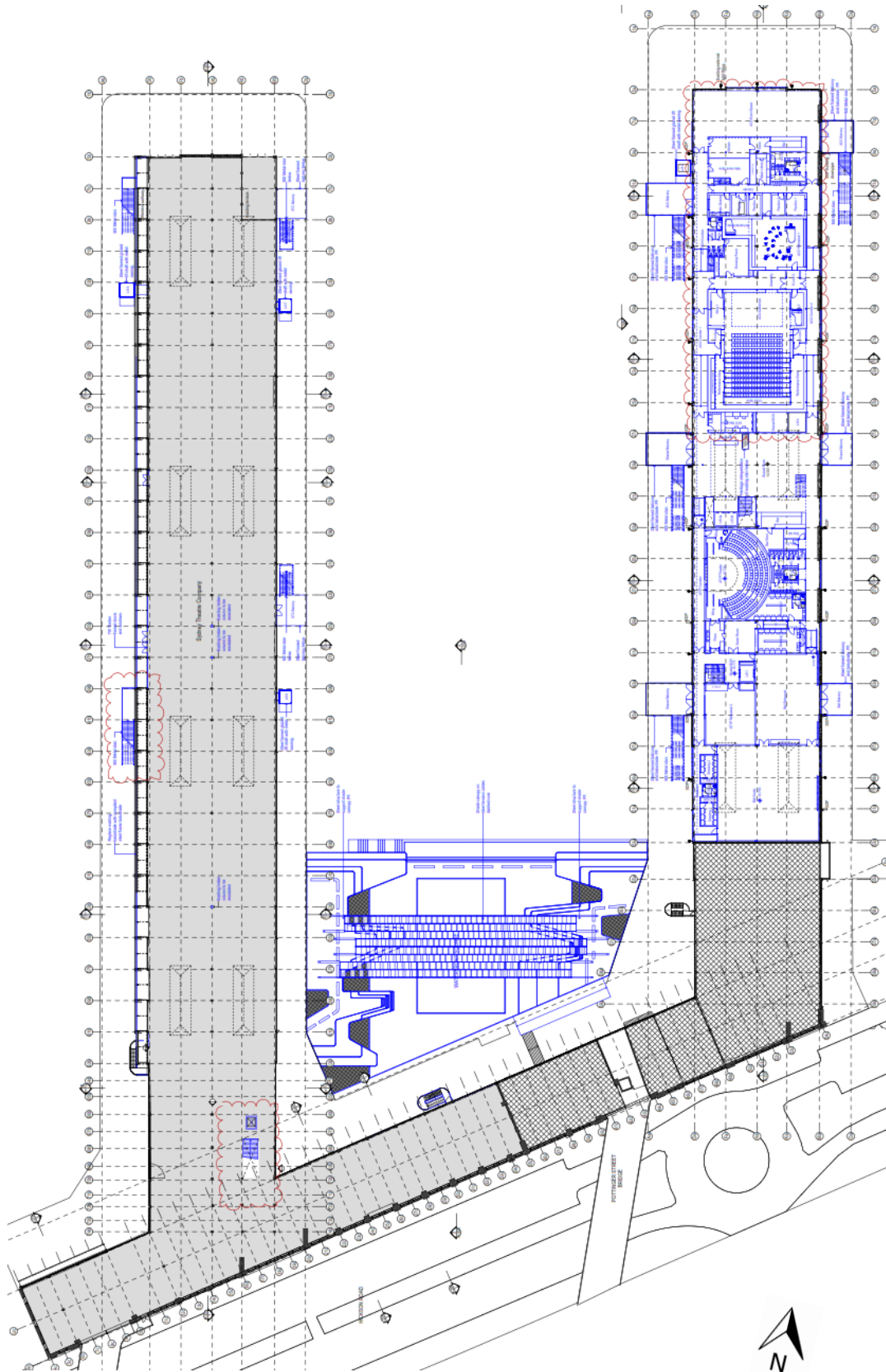


Figure 62 Wharf 2/3 Level 1. Proposal highlighted in blue. Plans by TZG.

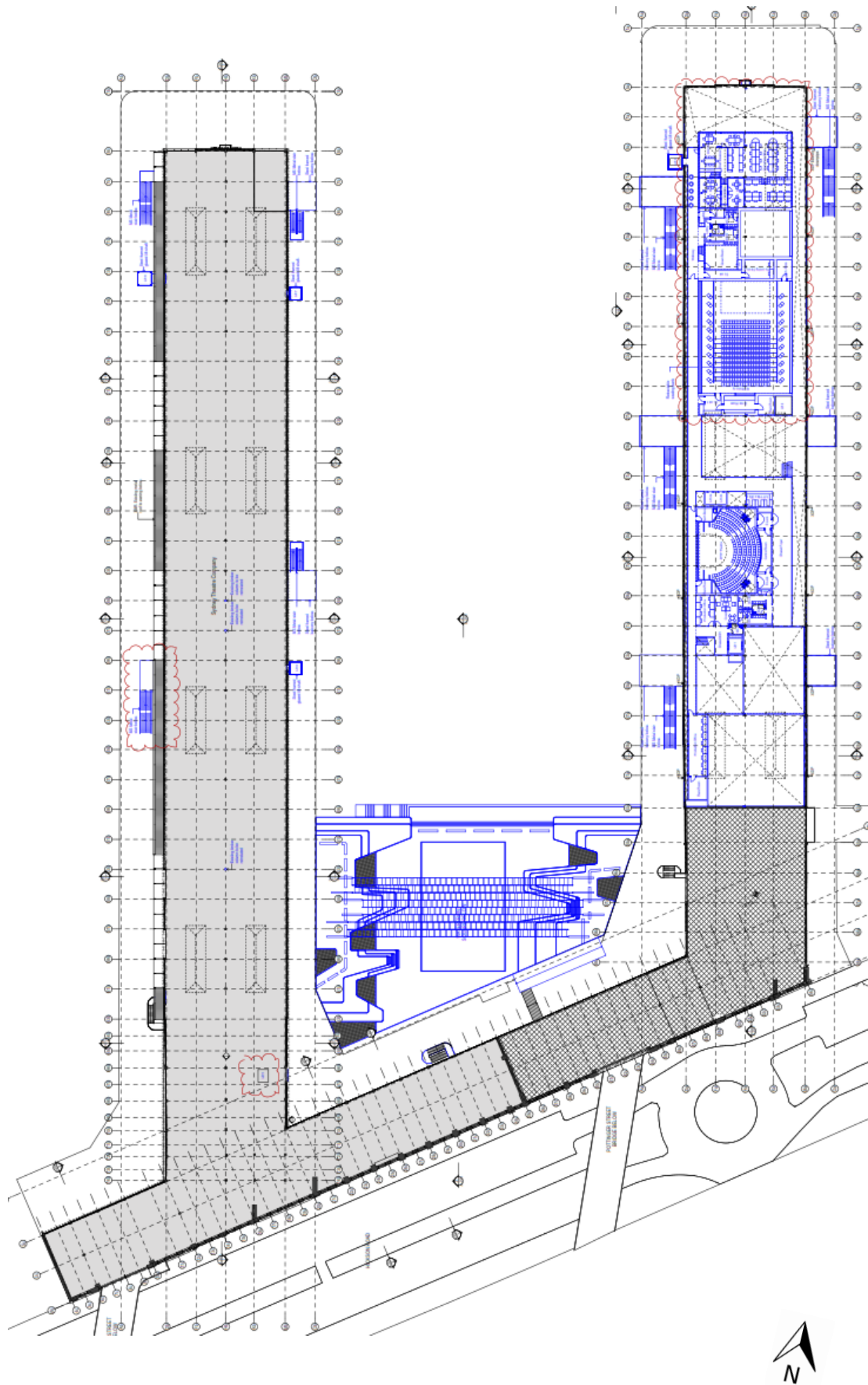


Figure 63 Wharf 2/3 Level 2. Proposal highlighted in blue. Plans by TZG.

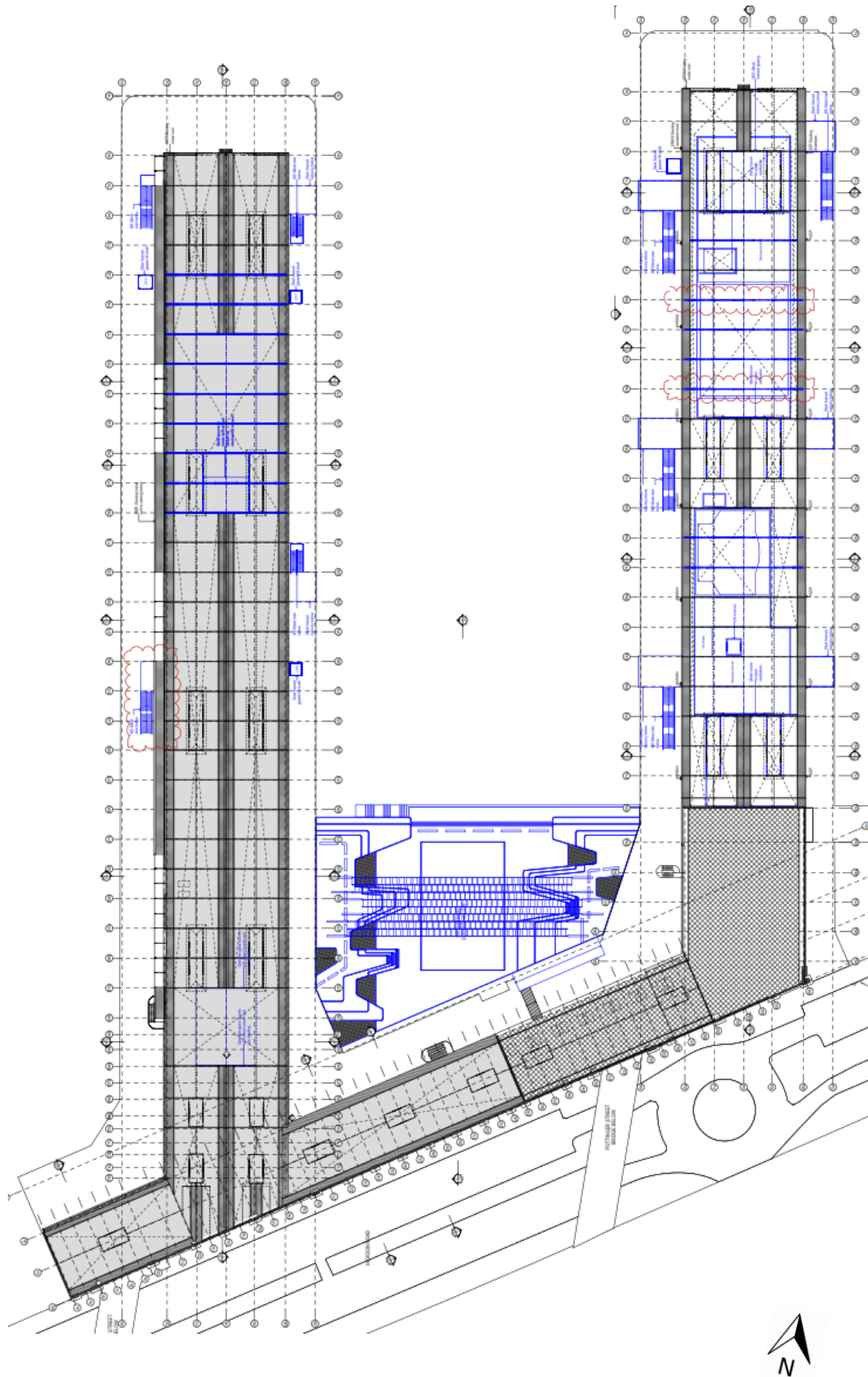


Figure 64 Wharf 2/3 Level 3. Proposal highlighted in blue. Plans by TZG.

6.4 Wharf 4/5

Wharf 4/5 accommodates Sydney Dance Company and Bangarra Dance Theatre in the lower shed, along with Sydney Theatre Company in the upper shed.

BANGARRA

The design proposes an internal reconfiguration of Bangarra's tenancy to incorporate:

- New function space at the north end of the pier;
- Upgrade of the main rehearsal and performance space to provide improved daylight and natural ventilation;
- Removal of a column in Studio 2 to improve usability;
- A new Foyer/exhibition space along the eastern frontage;
- Two multi-purpose studios for visiting artists with an operable wall to allow for use as a third rehearsal studio;
- Consolidated office space at mezzanine level;
- New air conditioning and mixed mode ventilation throughout;
- A new retail tenancy in the centre of the lower shed.

SYDNEY DANCE COMPANY

Upgrades to Sydney Dance Company's tenancy include:

- New studio 5 in place of workshop space, including removal of two existing columns;
- New reception and admin area in current wardrobe store;
- New glazing alongside cafe, allowing the eastern facade to open up to the waterfront square;
- New air conditioning and mixed mode ventilation throughout;
- Reconfigured open plan office space at the mezzanine level;
- New green room for SDC professional dancers;
- The public and patrons of the Sydney Dance Company cafe will be provided with additional toilet facilities such that their access to SDC can be restricted for security.

External fabric alterations around the STC tenancy comprising:

- Improved street entry at Hickson Road involving relocation of the stairs to allow for an improved landing and point of arrival to the STC;
- New 'gantry' balconies, stairs and lifts mid-wharf and at the end of the wharf to provide for improved accessibility and compliance with fire engineering solutions;
- Minor amendments to the existing façade to accommodate new entries and exits along the wharf; and
- Roof penetrations and reinstallation of existing photovoltaic panels where applicable.

6.5 Shore Sheds

The eastern tenancies within the Shore Sheds contain a restaurant and a function centre.

While they fall outside the scope of works, they will contribute to the activation of the precinct.

The remaining Shore Sheds will be refurbished to contain:

- The choir spaces which are internally reconfigured to provide 3 rehearsal spaces and supporting office space;
- A Precinct Manager's office in the western tenancy;
- Remaining tenancies proposed as commercial tenancies to reinforce the pattern of retail tenants within the shore shed

6.6 Public Domain

- Construction of a new waterfront square comprising a deck on piled structure;
- Shaded informal performance space on piled structure; and
- Changes to existing levels and steps down to facilitate access between existing apron and new waterfront square.

The current design of the public domain improves the distinction between the existent Wharfs and the addition, settling down as an independent element but well connected with the surroundings. The day to day use of the space is encouraged though "the common" – a sloping lawn which invites rest and respite as well as active use. The lawn, moving up and down with the tide connects to the adaptable use of the space which engages the user with the waters of Walsh Bay via terrace steps and suspended netting. This area can be transformed into a performance space and has the capability of supporting temporary shading structures, installations, outdoor cinema screens and lighting.

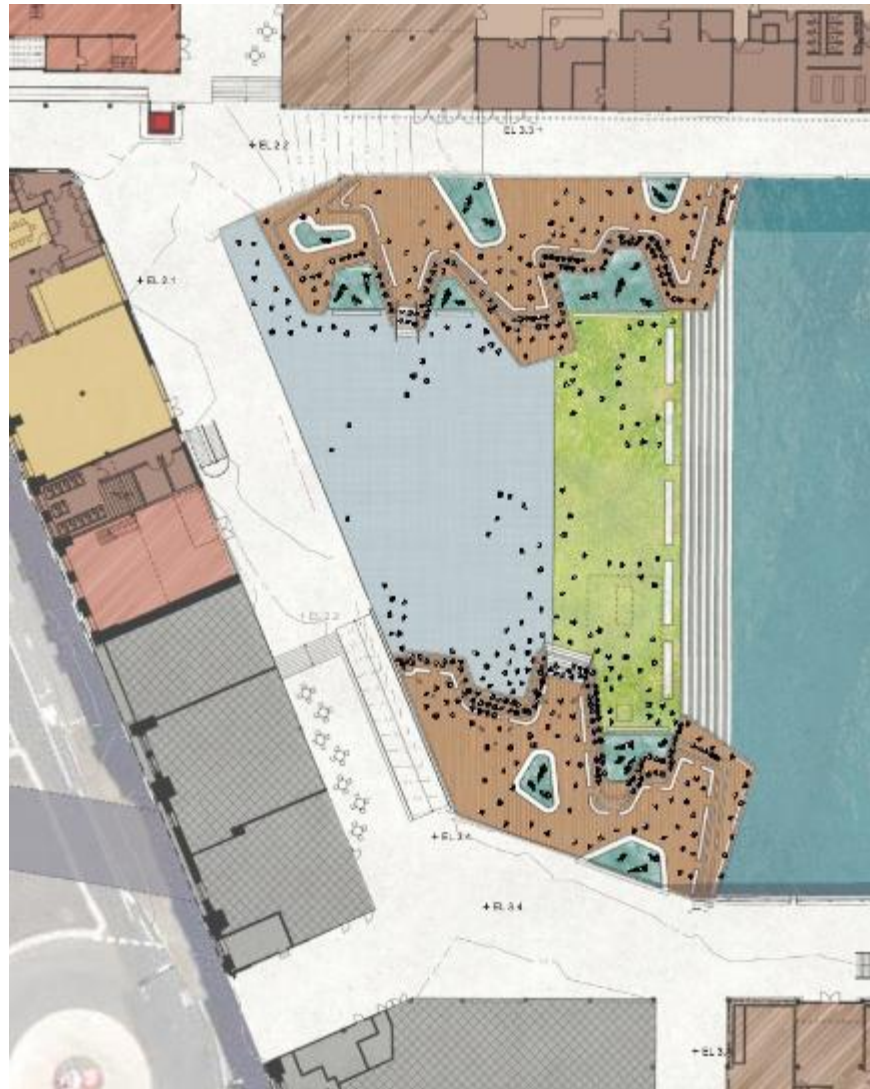


Figure 65: Public domain scheme, by McGregor Coxall.¹¹

The modern materials and colors mark the distinction to the heritage buildings.

It sits at the water level, so it doesn't impede or obstruct any vistas or views of the site, but it creates a new viewpoint to admire the existing Wharfs.

It is completely separated from the surrounding building, with a floating self supporting structure just lightly fastened to the apron between Pier 2/3 & 4/5 and anchored with 4 piles on the other extremity to the sea bottom.

Lawn / Grass on the Wharf Apron

"The application of lawn in contexts, such as Walsh Bay is a regularly utilised and highly successful design strategy deployed in many multi-award winning heritage and adaptive reuse projects, including those that sit within an industrial harbour context. Examples in Australia include the Paddington Reservoir Gardens, Ballast Point Park, Cockatoo Island, the MCA, and the new Tonsley Main Assembly Building. Well known international projects include The Highline, The Danish National Maritime Museum and Torpedo Hall Apartments.¹²"

Acceptable surfaces in Walsh Bay

In a heritage setting the lawn therefore acts in two clear ways.

Firstly, it distinctly focuses the composition of the contemporary intervention and its heritage industrial context in a sympathetic and appropriate way. Secondly it will combat adverse microclimate effects, balance hard and soft surfaces and increase the usability of the space. As such it is an appropriate and meaningful gesture within the Walsh Bay setting."

Shading devises

Climate control, that is solar control, is important and should be included in the precinct. Tropman and Tropman commend the shading design presented as an essential part of the usability and advise that shading was a common element in other historic settings.

Any surface within the precinct other than concrete or hardwood decking is could be considered intrusive, and the grassed area, as with any departure from these two industrial surfaces, represents a reduction to the the industrial quality of the precinct.

A suitable environment for the current use is also important if the heritage item is to be adaptively reused successfully.

As it stands the new uses and the conversion to an arts precinct have already set a precedent for a changed environment. The internal changes while concealed within the Pier buildings alter, for the foreseeable future, the status of the buildings from industrial waterfront to arts uses and office facilities.

Assessment

In assessing the impact of an external change two factors must be considered first what damage if any will occur to the significant fabric and secondly is the change appropriate to the function and context of the object.

In respect of the “Grassed” area there is no effect on the heritage fabric as it is obviously within a new extension of the pier apron. This extension has been generally accepted as being necessary and has been approved to proceed in the Stage 1 SSDA. No adverse comments have been made regarding other new structures at this level.

The issue is one of appropriateness, and this is an aesthetic argument, coloured by personal opinion.

BY accepting the major change of use to an arts precinct and acknowledging that there will not be a return to an industrial wharf function ever, the changes at ground level are acceptable.

Grass is in any event ephemeral.

It will be a successful or not depending on its climatic suitability and the use to which it is put. “Wearability”. It can be changed in a day like a modern cricket pitch and two or three prepared installations may be idling somewhere comfortable, awaiting a transfer to the seaside.

It may be that it can be removed, again within hours and another surface placed in the opening, such as timber or concrete like tile.

The landscape architects are of course aware that grass does not naturally grow on wharf aprons as does the public at large however it is supported by Tropman and Tropman as a delightful experimental exercise within an arts precinct, coincidentally soften the harshness of the industrial quality underfoot and providing a surprising art installation.

And finally, in that it is a temporary and easily removed and replaced surface, we see no reason to so aggressively prosecute the “Industrial Precinct” argument in this instance.¹³

Examples and References

Examples of similar installations in waterfront heritage sites are included below.

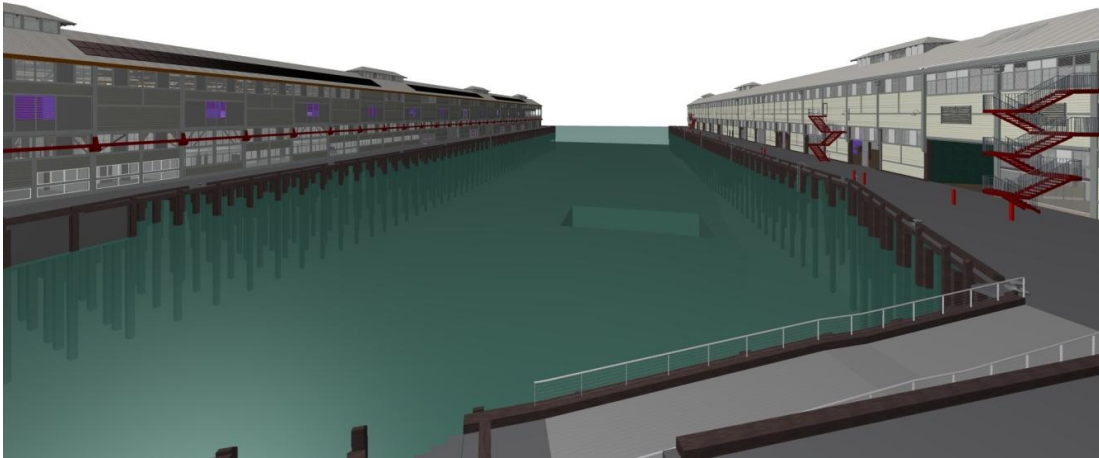


Figure 66: Render showing the existent status, by TGZ.¹⁴

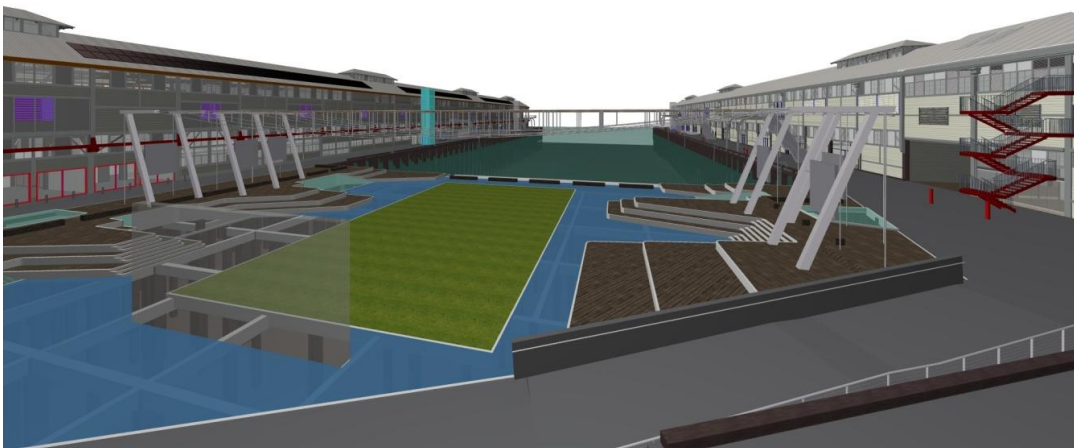


Figure 67: Render showing the proposal, by TGZ.¹⁵

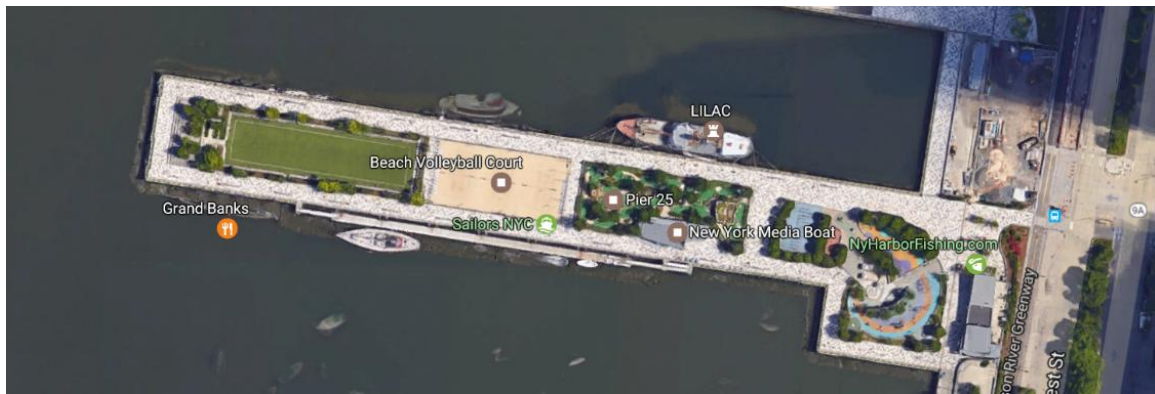


Figure 68: Grass over the water in New York City, Google Maps.¹⁶

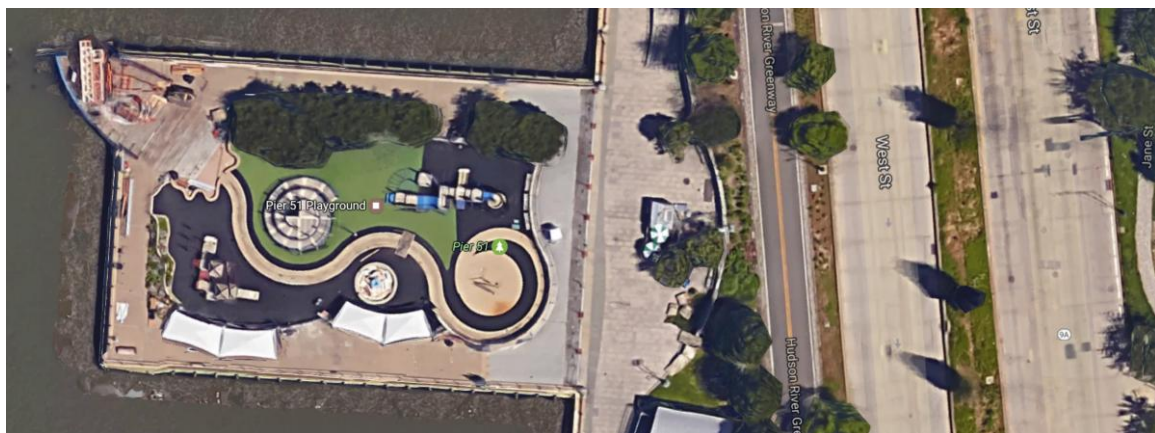


Figure 69: Playground New York, Jersey River, Google Maps.¹⁷

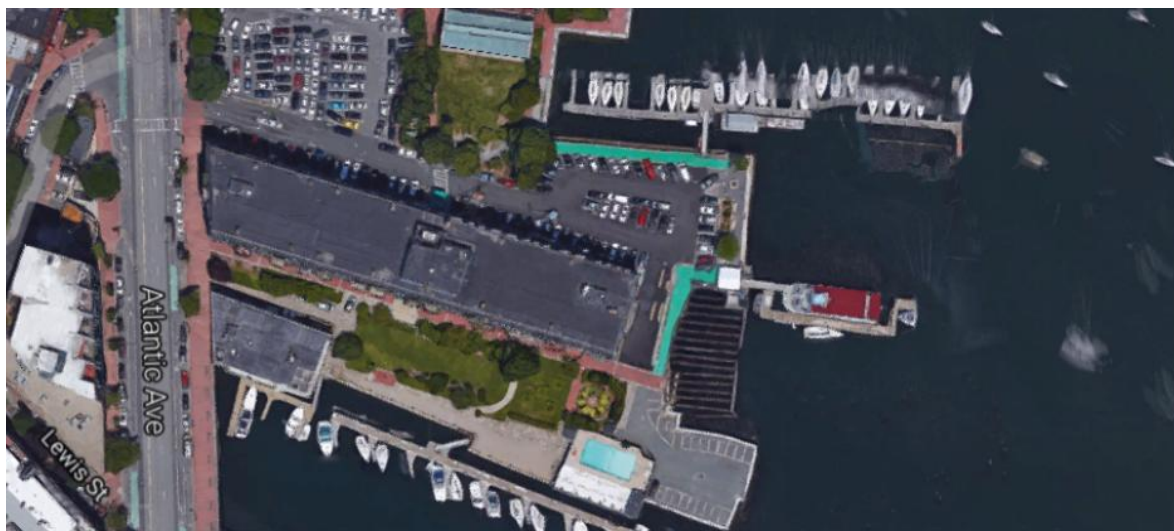


Figure 70: Boston Waterfront Park, Google Maps.¹⁸



Figure 71: Baltimore Bond.¹⁹

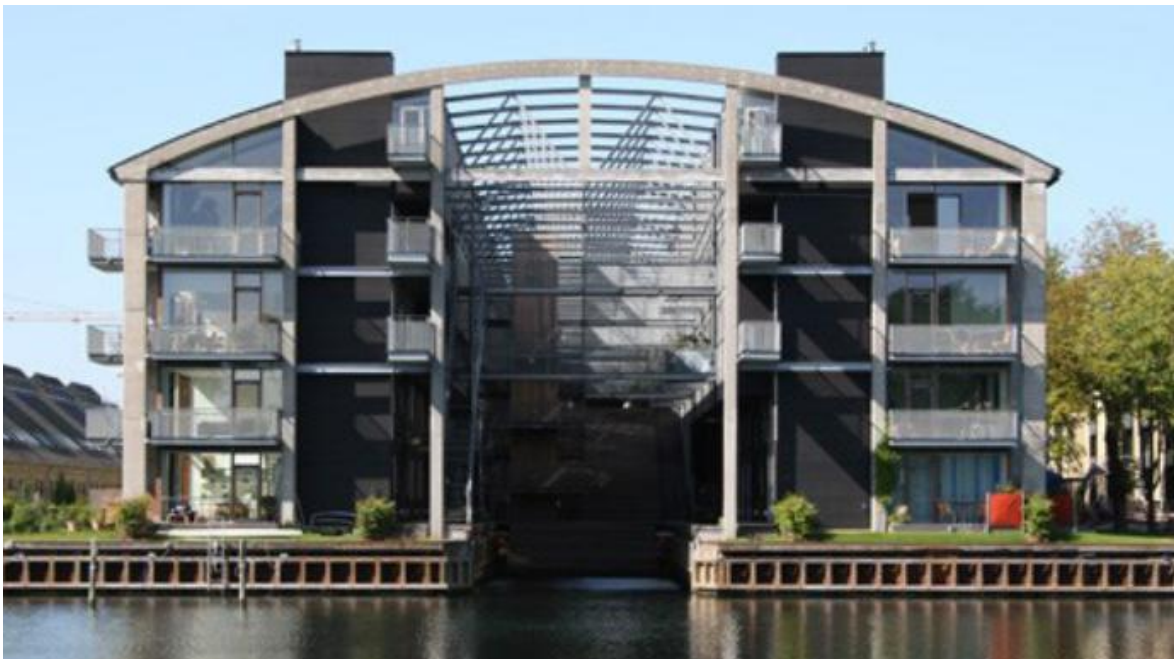


Figure 72: Torpedo Hall Apartments (Former Royal Naval Dockyards) Copenhagen, Photo by McGregor Coxall.²⁰

6.7 Facades

PIER 2/3 EAST ELEVATION

The eastern elevation of Pier 2/3 provides a ceremonial entrance to the precinct via the axial bridge and existing colonnade. The existing building facade has a chequer board pattern of sliding doors which open up to provide panoramic views of the Sydney Harbour Bridge.

The following facade interventions are proposed as a common language in both Piers 2/3 & 4/5:

- Cargo doors on the upper and lower floors are to remain operable. Glazing is to be installed to the full extent of the opening. This will enable flexibility to provide panoramic views of Sydney Harbour Bridge from the internal spaces and also shut them off for possible performance and event scenarios;
- At key locations, generous balconies of 8x6m provide breakout space from the internal public areas. The design of these balconies echoes the form and detailing of the original gantries;

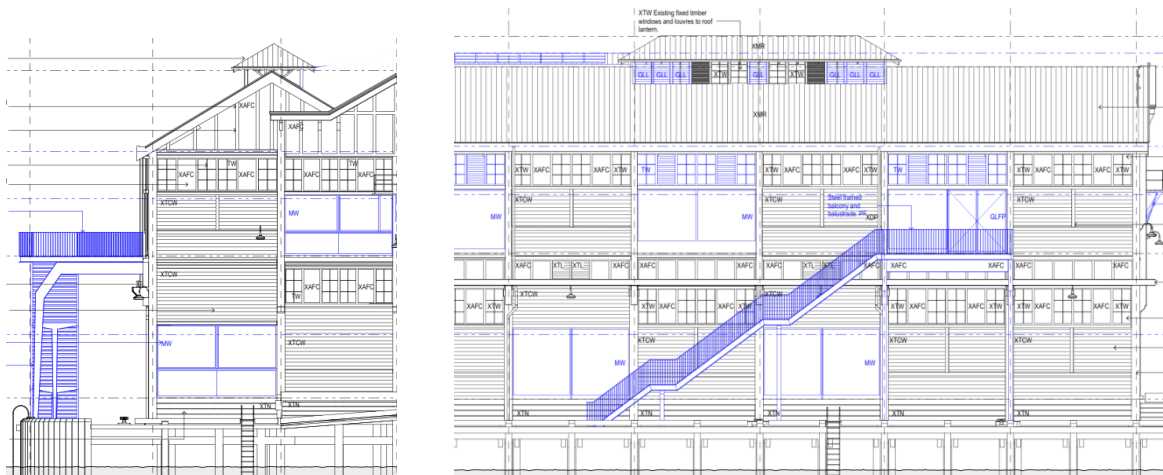


Figure 72 - 73: North and East Elevations Wharf 2/3 showing the proposed gantry balconies.

Drawing by TZG.²¹

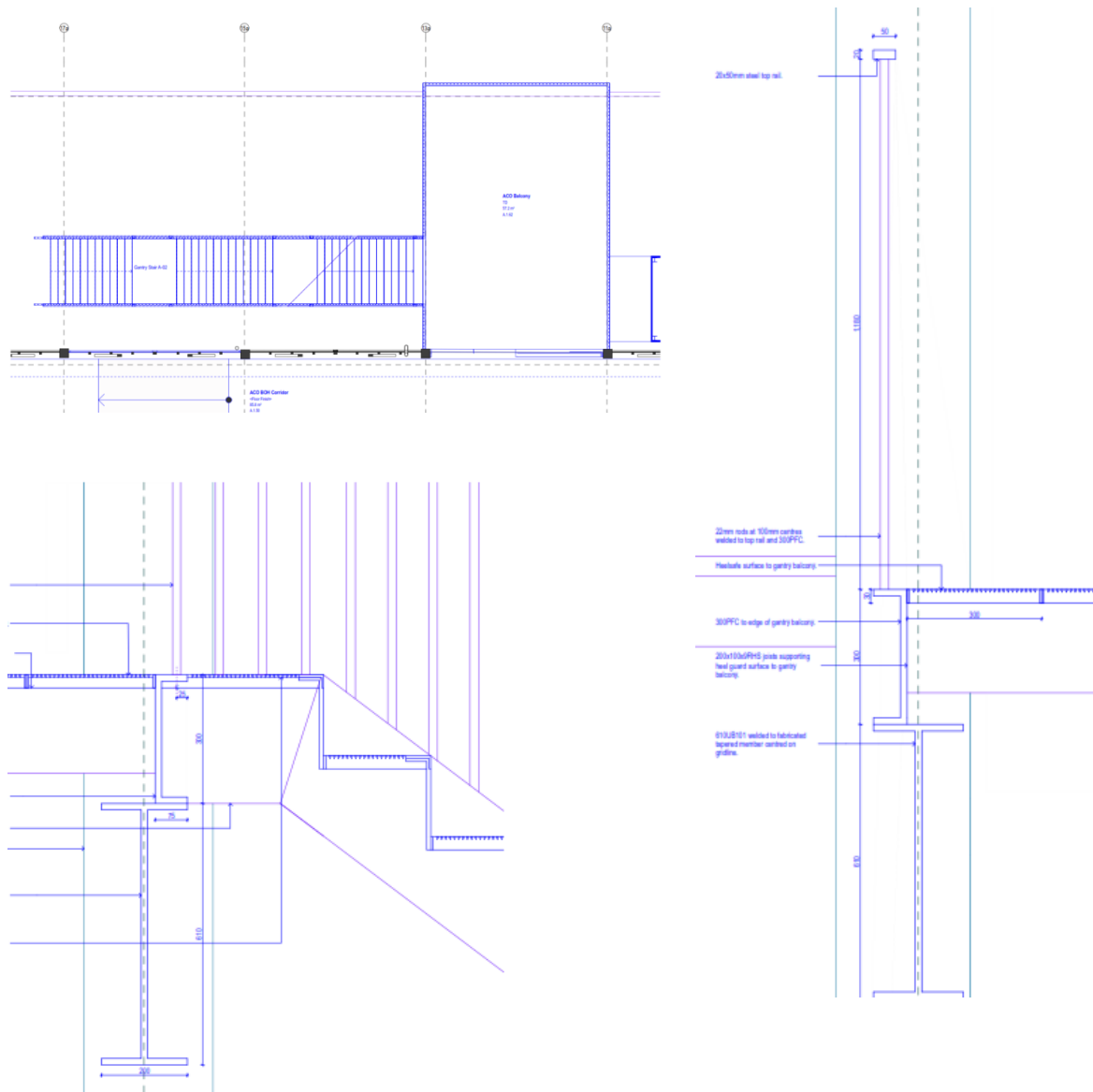


Figure 74 - 75 - 76: Details of the proposed stairs. Drawing by TZG.²²

- Some balconies include generous stairs which provide fire escape from the upper level;
- In pier 2/3 only an elevated walkway is proposed within the colonnade, providing safe pedestrian access separated from service vehicles at the lower apron level.
- New external glazed lifts are proposed to allow better circulation through the building. The design and aspect proposed is contemporary and minimal, to allow clear distinguishing to the heritage fabric and the new material introduced.²³
- Assessment of new steel platforms lifts and stairs²⁴

The Detailed design is in keeping with the strong industrial character.



Figure 77 - 78: 3D representation of the proposed new external lifts, rendering by TGZ.²⁵

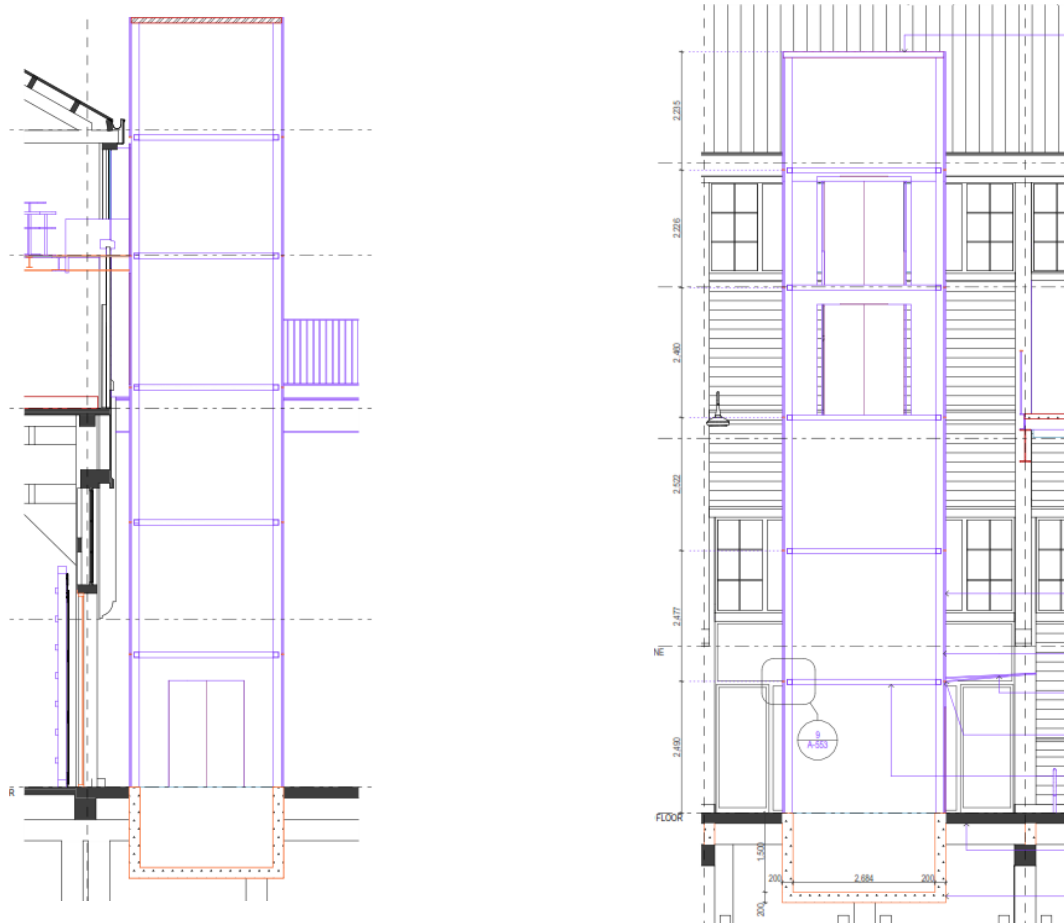


Figure 79-80: Design of proposed lifts, section and frontal, by TGZ.

PIER 2/3 WEST ELEVATION

The western elevation of Pier 2/3 provides the 'public' face of Pier 2/3 presenting to the new waterfront square. The existing building has an alternating pattern of solid panels and cargo doors at ground level, and a solid wall to the upper shed.

The following facade interventions are proposed:

- Cargo doors on the lower floor are to remain operable. Operable portions of glazing are to be installed to the full extent of the openings connecting the flexible open space, central lobby and Bell/ATYP foyer, workshops and rehearsal space to the public domain;
- The cargo doors to the lobby are to remain operable with new glass sliding doors installed within the opening;

- Three new balconies with associated stairs are proposed in front of the primary public spaces;
- On the upper level we have proposed to open up alternate facade bays to respect the chequerboard rhythm of the building. Other than those in front of the balconies, new openings are screened with louvres adapted from the existing sidings to mimic the solidity of the existing facade.

Historic drawings by Sydney Harbour Trust show cargo doors and gantry cranes in both eastern and western facades of Pier 2/3. This demonstrates either that those cargo doors have been infilled during the 1920-30's modifications of the Pier (Note that even the western internal deck at first level has been infilled and today it is at the same level of the other deck), or that there was the intention to create them.

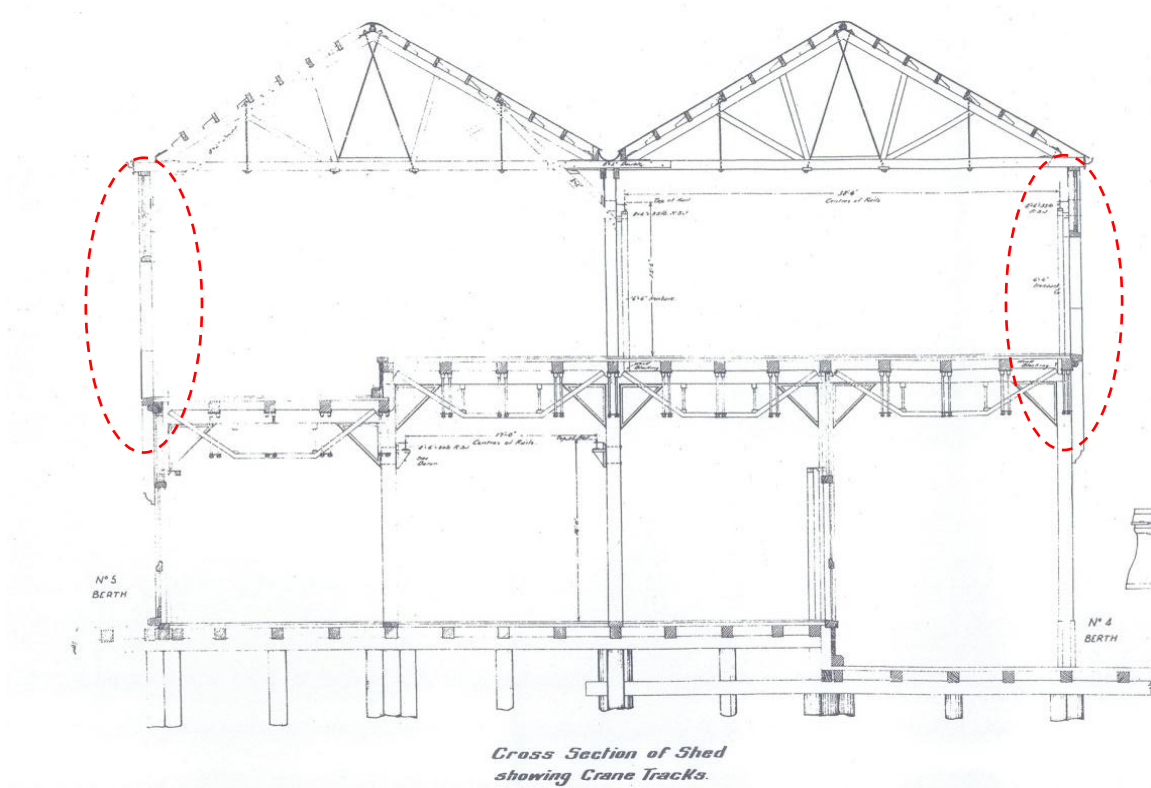


Figure 78: Historic drawing by Sydney Harbour Trust showing cargo doors in both facades of Pier 2/3.

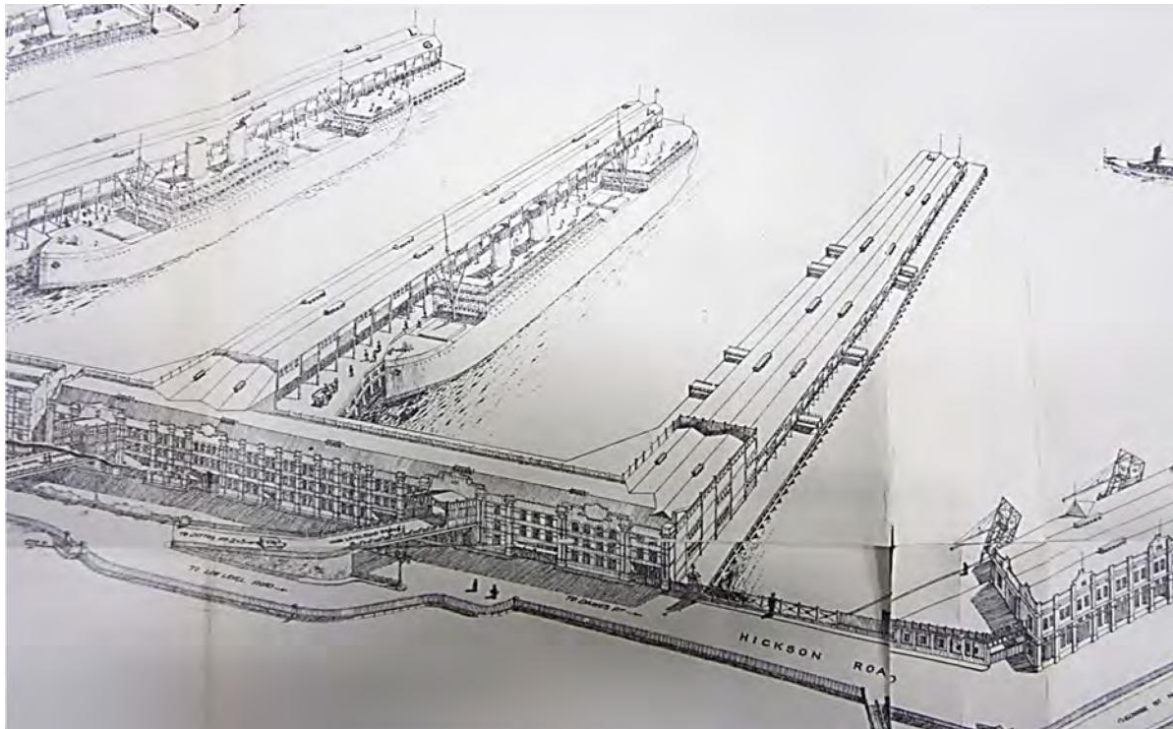


Figure 79: Historic drawing of the work in progress in 1918 showing the eastern and western gantry platforms in Pier 2/3.

- New retractable awnings are proposed on the west facade in order to provide shelter against hot weather. The awnings will be a contemporary and removable element...

It is also proposed to have a lightweight steel framed awnings to Hickson Road at each of the breezeways with integrated signage.²⁶

- Assessment

The proposed awnings are necessary protection and are a minor impact. The detail is suitable for the wharf apron and reflects the utilitarian design of the marine environment



Photo 77: Existing retractable awning at Simmer On The Bay cafe.

PIER 4/5 EAST ELEVATION

At the lower level the following works are proposed:

- Sydney Dance Company's facade is to be opened up to better activate the Waterfront Square. New glazing is proposed in every second bay in the original location of the sliding cargo doors;
- Bangarra Dance Theatre will have a new entrance and new glazing in bays of sliding cargo doors, opening up the foyer and main studio to the Wharf 4 apron;
- A new canopy is proposed over Bangarra's main entrance to provide shelter and also identify their position along the wharf. The canopy will be a contemporary element that interprets historical loading platforms that were present.
- The existing external lift No.5 in Pier 4/5 is proposed to be removed. This operation will give more space and clarity to WBAP main entrance.²⁷
- Assessment

The relocation of the lift has a beneficial impact on the wharf apron as the vista along the shore shed apron is now unobstructed

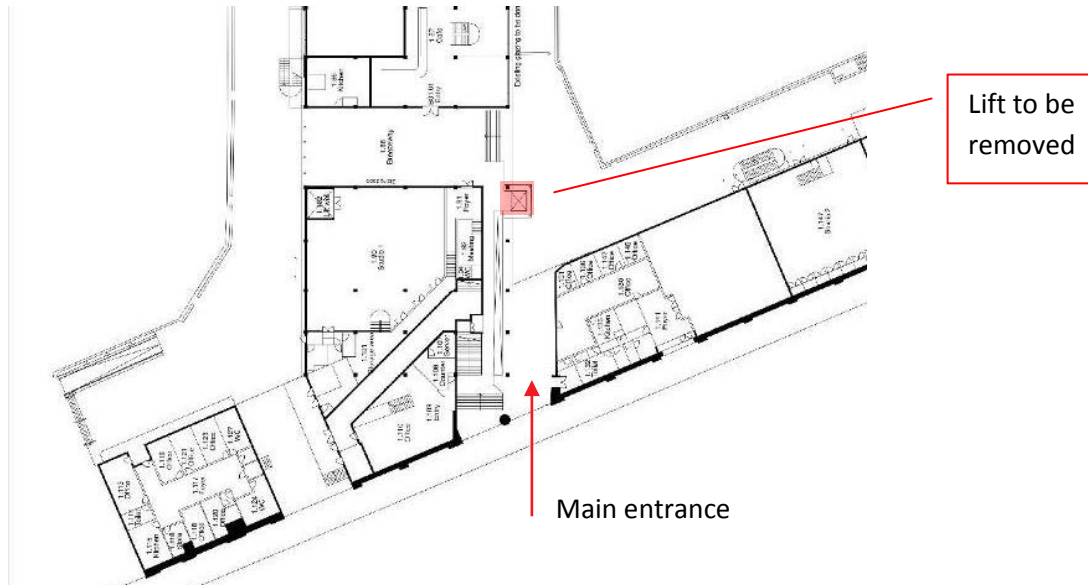


Figure 80: Lift that will be removed, Pier 4/5.

- The new lift proposed along the apron for STC requires localised removal of the gantry rail and penetration in the facade. The removed part will be kept in loco, hung close to the original location, as interpretative strategy.²⁸
- Assessment

There is an impact on the gantry rail but it will be kept and welded at a lower level for reinstatements i.e. it is a reversible impact.

PIER 4/5 WEST ELEVATION

External alterations comprising:

- New, stairs and lifts mid-wharf and at the end of the wharf to provide for improved accessibility and compliance with fire engineering solutions;
- Minor amendments to the existing façade to accommodate new entries and exits along the wharf;

WHARF 4/5 NORTH ELEVATION

The northern elevation of Wharf 4/5 has already been significantly altered at the upper level. The central bays at the lower level will be replaced with glazing to provide access to and outlook from Bangarra's function space.

PIER 2/3 NORTH ELEVATION

In the end elevation of Pier 2/3, three new openings are proposed. At the upper level, the central two bays will be replaced with glazing, providing Harbour views from the independent function space. At the lower level, the north eastern corner is opened up and replaced with glazing, reinterpreting the original building which was open in this corner.

6.8 Tenancy's Areas²⁹

Figure 75: Subdivision of areas with different tenants. Ground floor. Plans from TZG.



Figure 76: Subdivision of areas with different tenants. Mezzanine floor. Plans from TZG

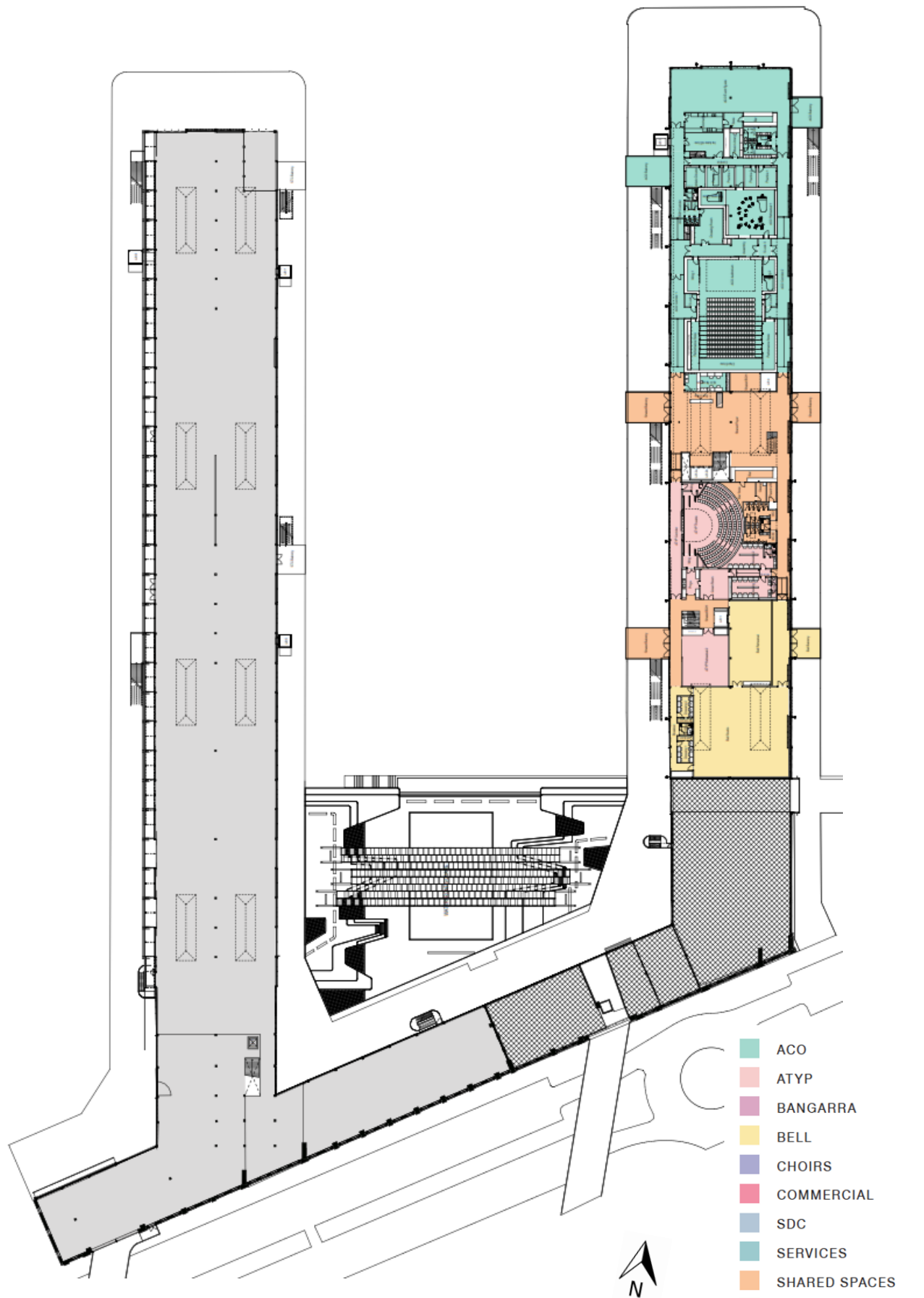


Figure 77: Subdivision of areas with different tenants. First floor. Plans from TZG.

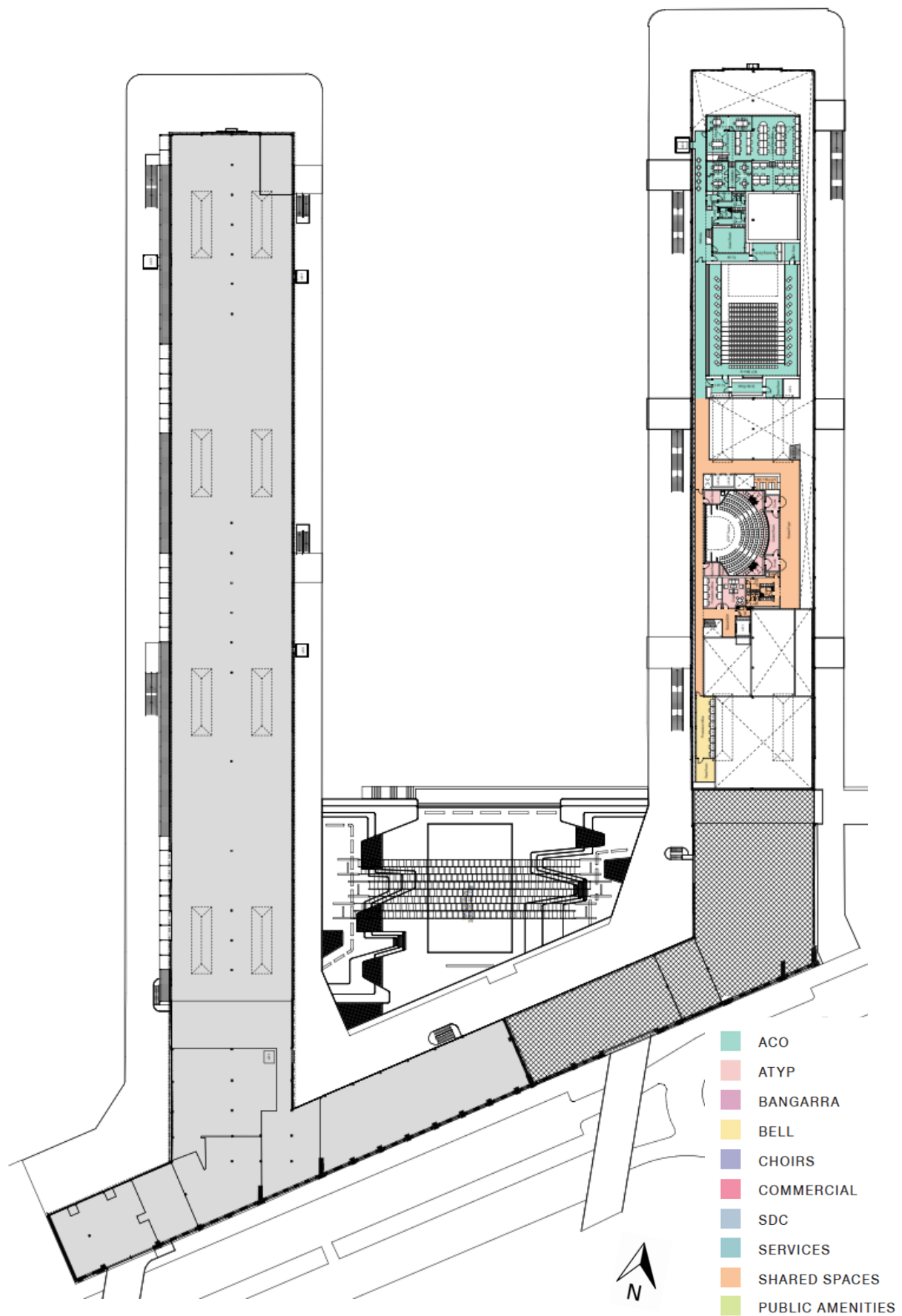


Figure 78: Subdivision of areas with different tenants. Second floor. Plans from TZG.

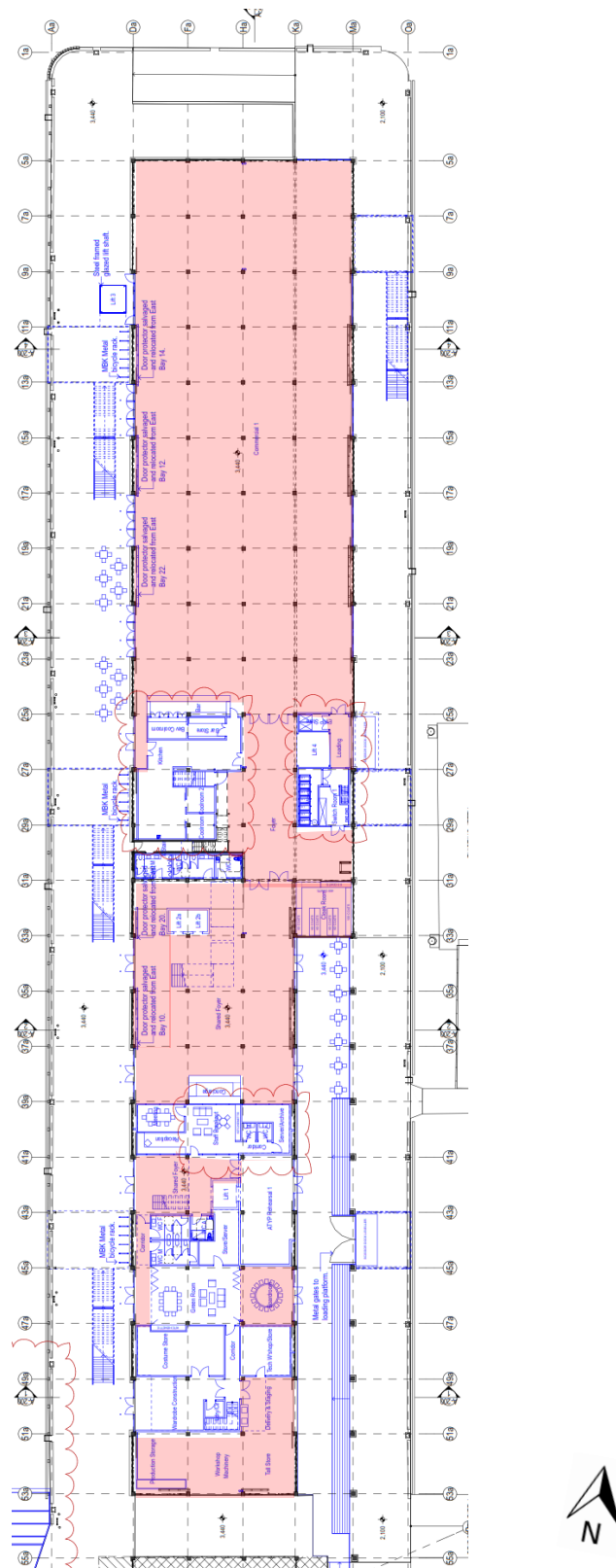
6.8 Exposition of the original floor and ceiling structure ³⁰

Figure 79: Proposed Ground Level Wharf 2/3 Floor finishes. Highlighted in red existing Ironbark to remain exposed.

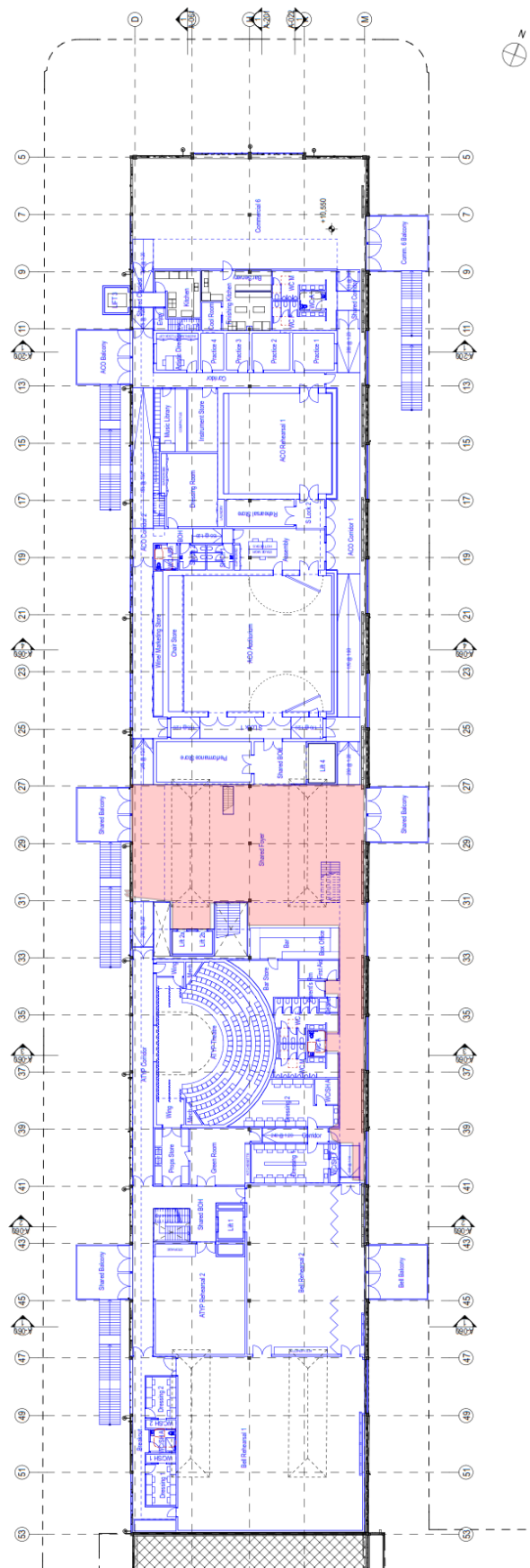


Figure 80: Proposed First Level Wharf 2/3 Floor finishes. Highlighted in red existing Ironbark to remain exposed.

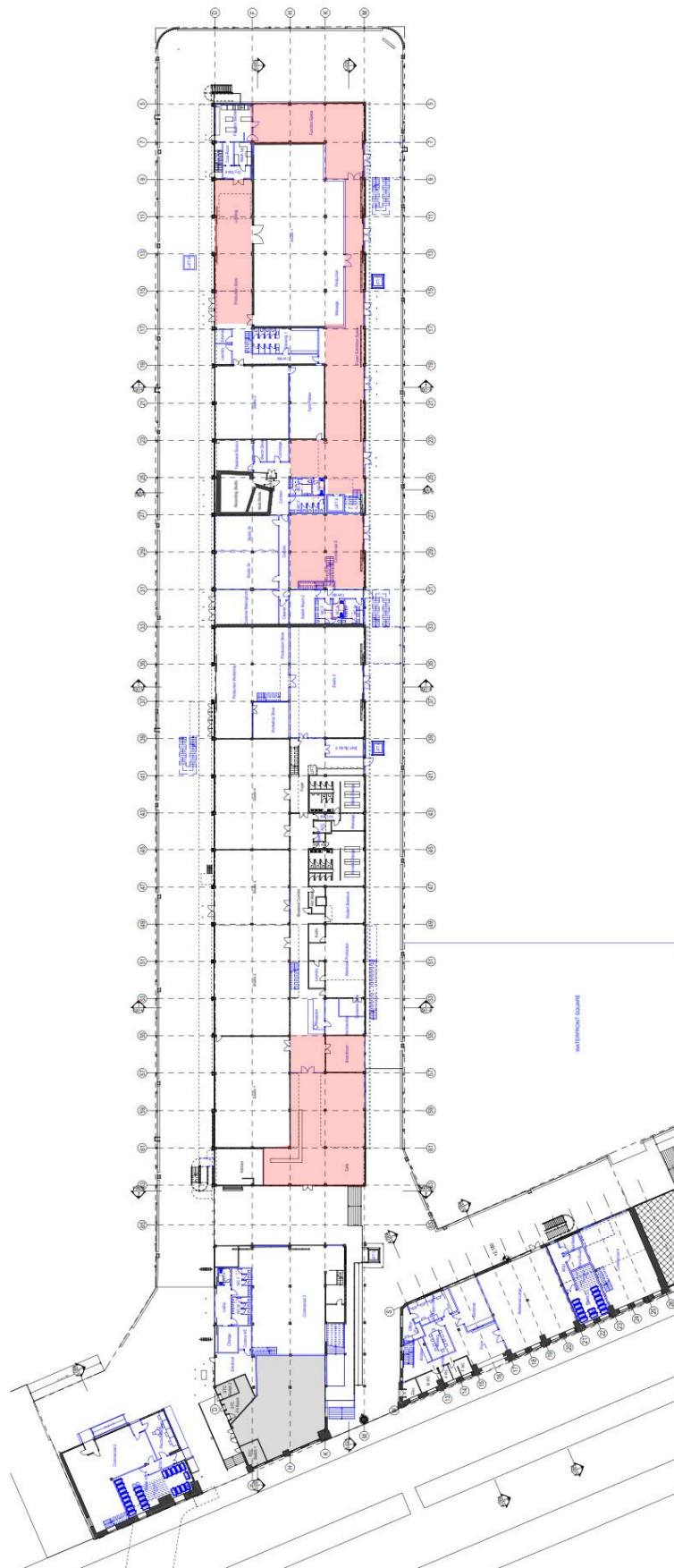


Figure 81: Proposed Ground Level Wharf 4/5 Floor finishes. Highlighted in red existing Ironbark to remain exposed.

6.9 External Elevations³¹

In Pier 2/3 former cargo doors appear to have been infilled when level 1 floor was raised. The proposal opens up with new glazing installed in the opening, reinforcing the checkerboard façade pattern of the original building. The existing upper floor western façade currently has no openings below the clerestory windows. New openings are proposed in a checkerboard rhythm respecting the rhythm of the wharves. A louvered screen over some of the new openings makes the new windows appear more solid than the clerestory or open cargo doors. On the eastern side of the building, balconies are designed as a contemporary interpretation of the original gantries.

In Pier 4/5 the architecture language proposed is similar to create a visual connection between the 2 Wharfs.

New lifts and several stairs are required to provide access and egress to the upper levels.

In Pier 2/3 three new balconies each side are proposed reminiscent of the travelling gantries that once moved along the apron. These elements will all be detailed in a simple contemporary manner, with a sympathetic industrial aesthetic.

In Pier 4/5 only 2 balconies are proposed in the eastern elevation.

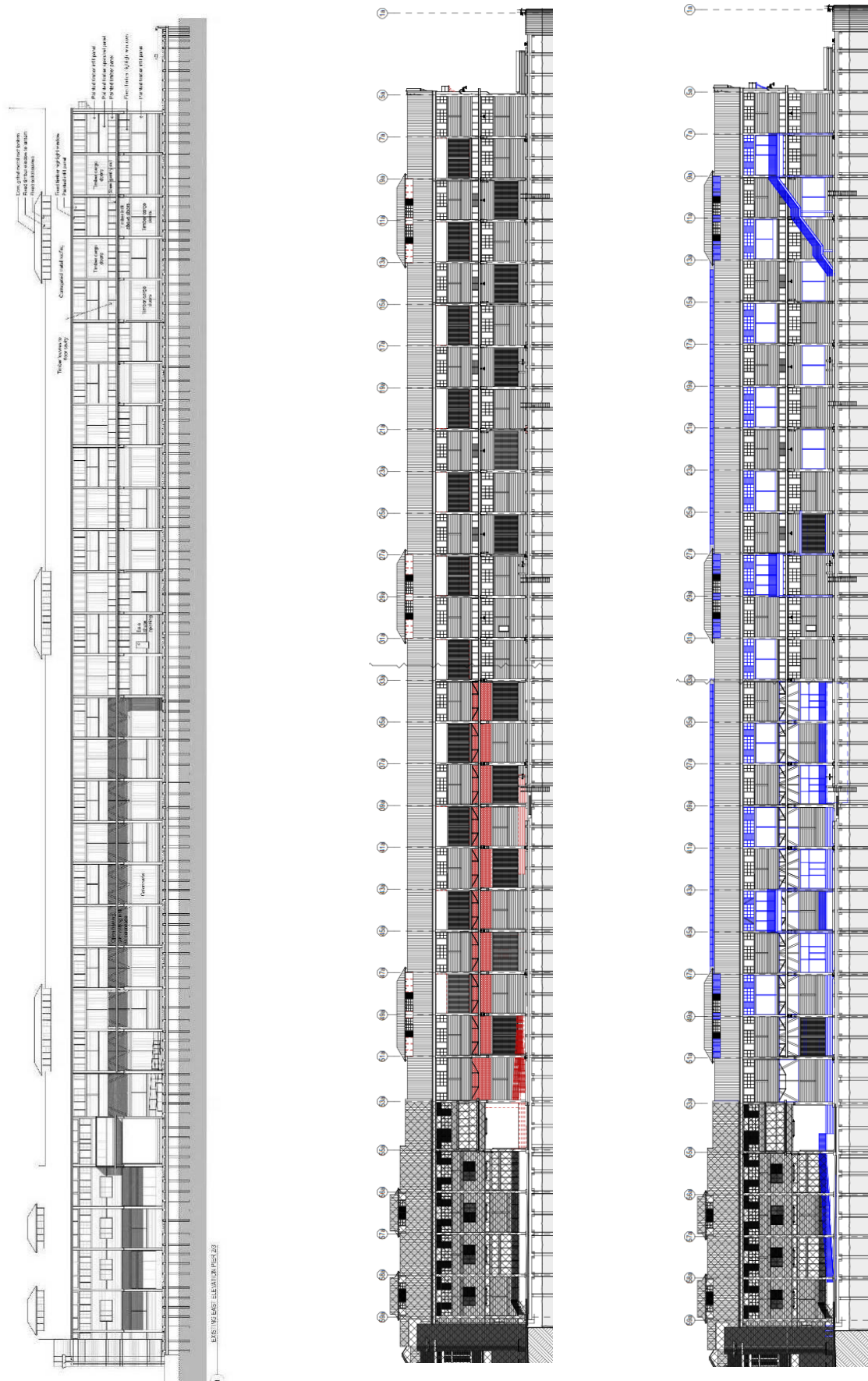


Figure 82: Piers 2/3 East elevation Existing - Demolitions - Proposal. Demolitions in red and proposal in blue. Plans by TZG. Plans by TZG.

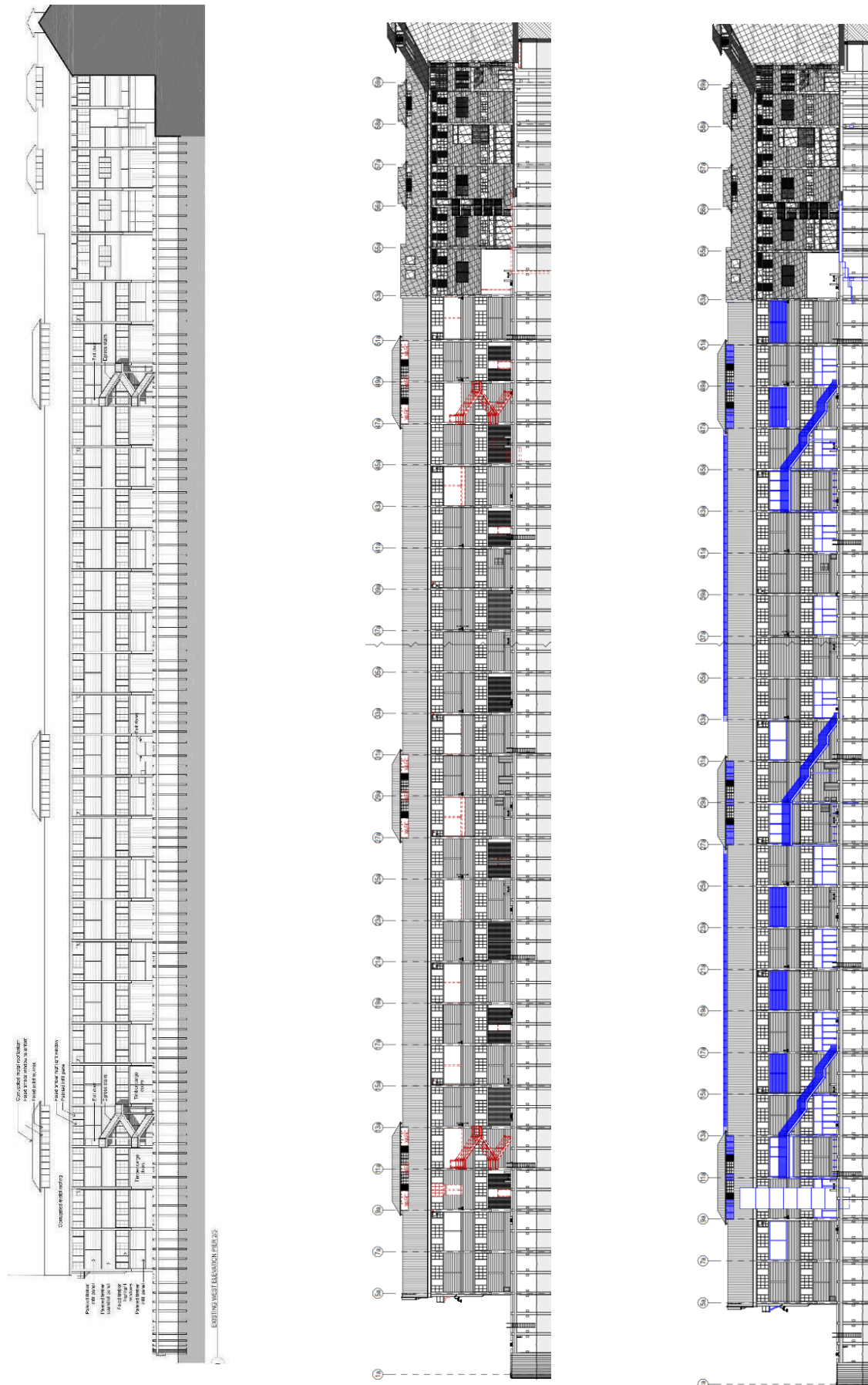


Figure 83: Piers 2/3 West elevation Existing - Demolitions - Proposal. Demolitions in red and proposal in blue. Plans by TZG.



Figure 84: Pier 2/3 North Elevation Existing - Demolition - Proposal. Demolitions in red and Proposal in blue. Drawing from TZG Architects.

6.10 Roof Penetrations Pier 2/3 and 4/5³²

The existing roof profile has been maintained wherever possible, however both buildings require additional volume for acoustics, plant rooms, set building, technical reasons and to enable theatre to be used in different configurations. Amendments to the existing roof have been minimised and changes to the profile are within the central valleys and separated from the existing lanterns.

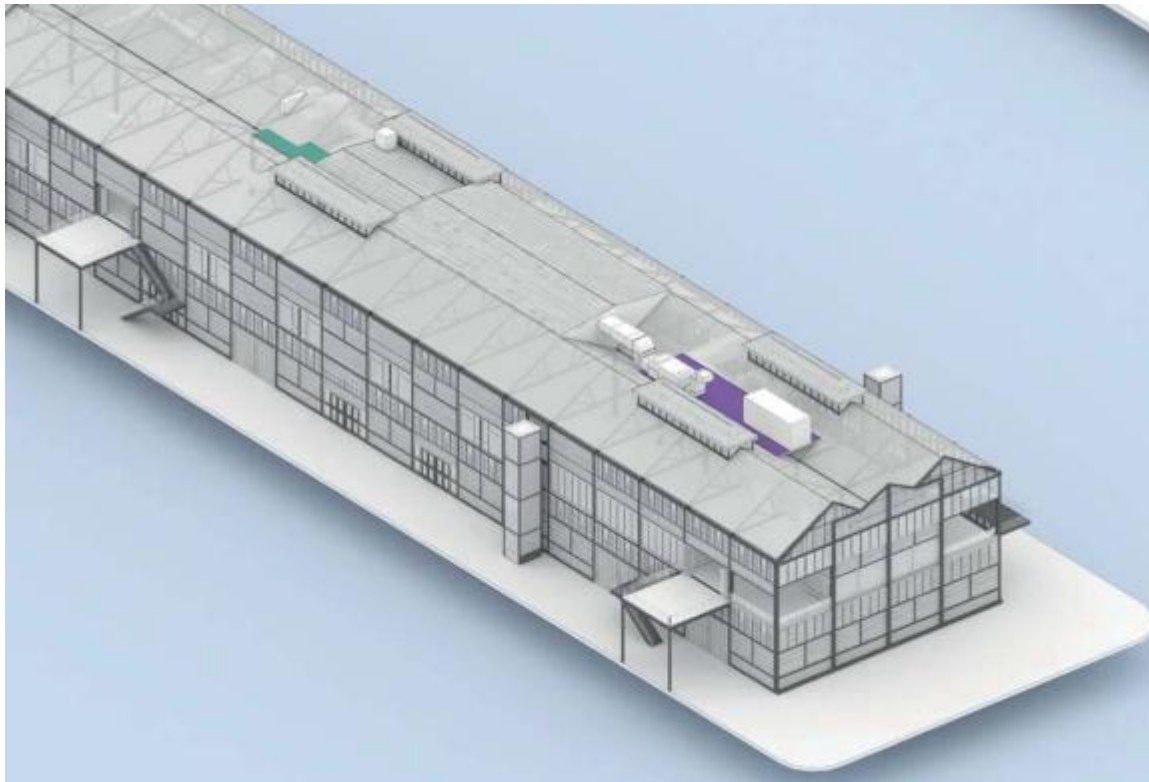


Figure 85: 3D showing rationalized roof plant and equipment.



Figure 85a: Existing roof plant and equipment to be rationalized as per illustration above.

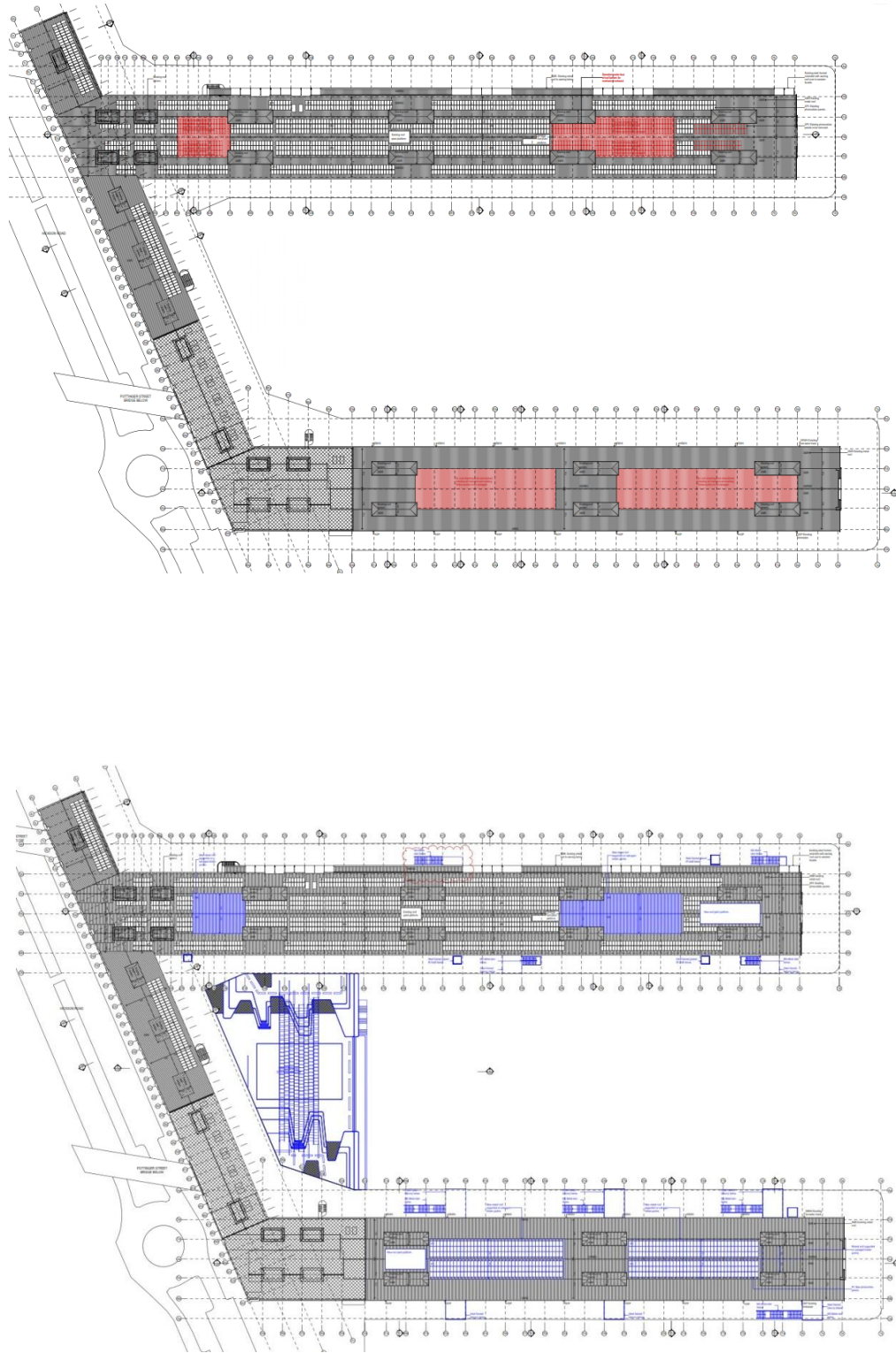


Figure 85b: Roof penetrations. Demolitions in red and Proposal in blue. Drawing by TZG.

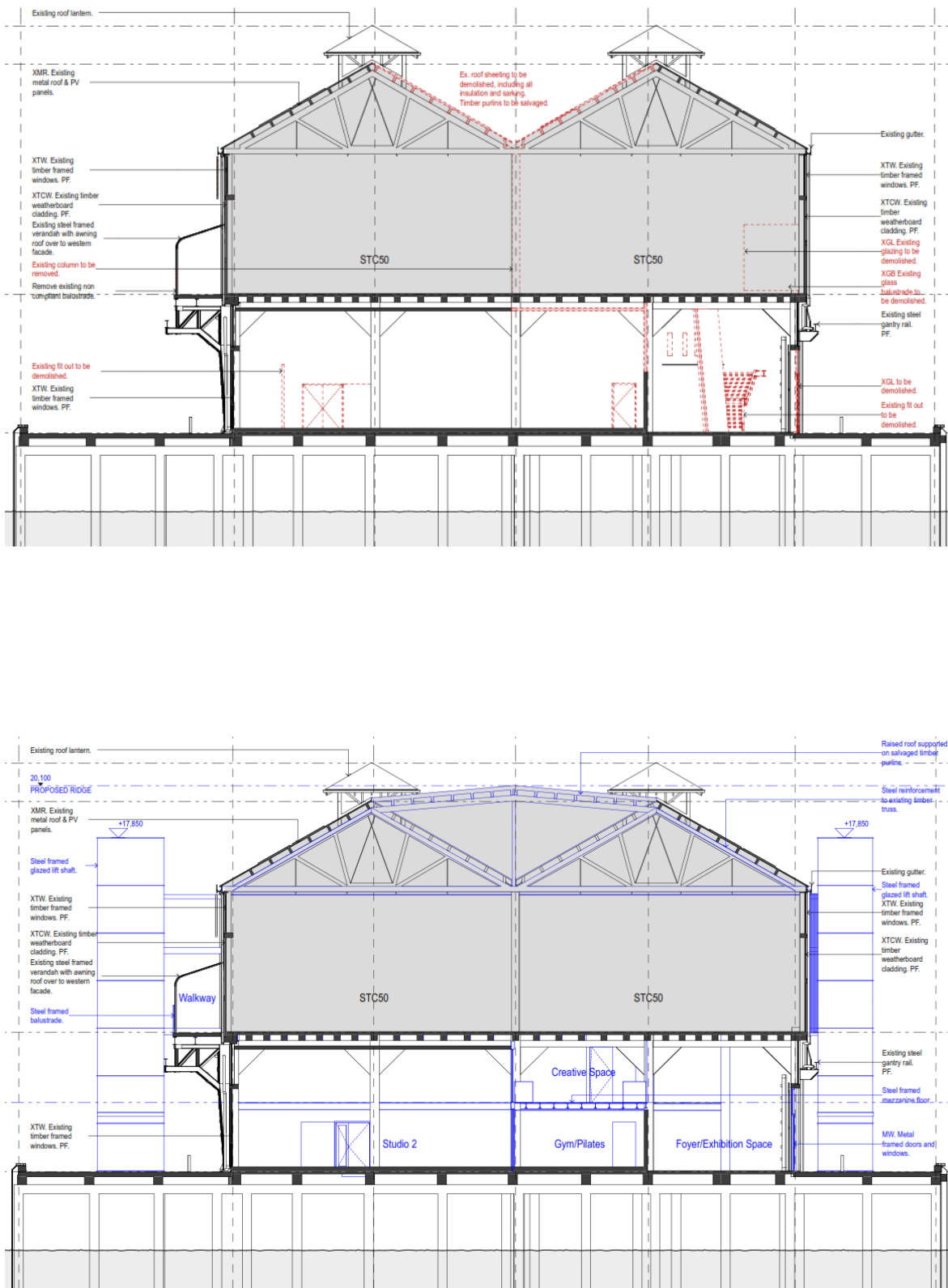


Figure 87: Piers 4/5 Sections showing roof modification. Demolitions in red and Proposal in blue.
Drawing from TZG Architects.



Figure 88 Existing view of Pier 2/3. Illustration by Richard Lamb & Associated.



Figure 89 Proposed view of Pier 2/3. Illustration by Richard Lamb & Associated.

6.11 External Elevations Wharf 4/5

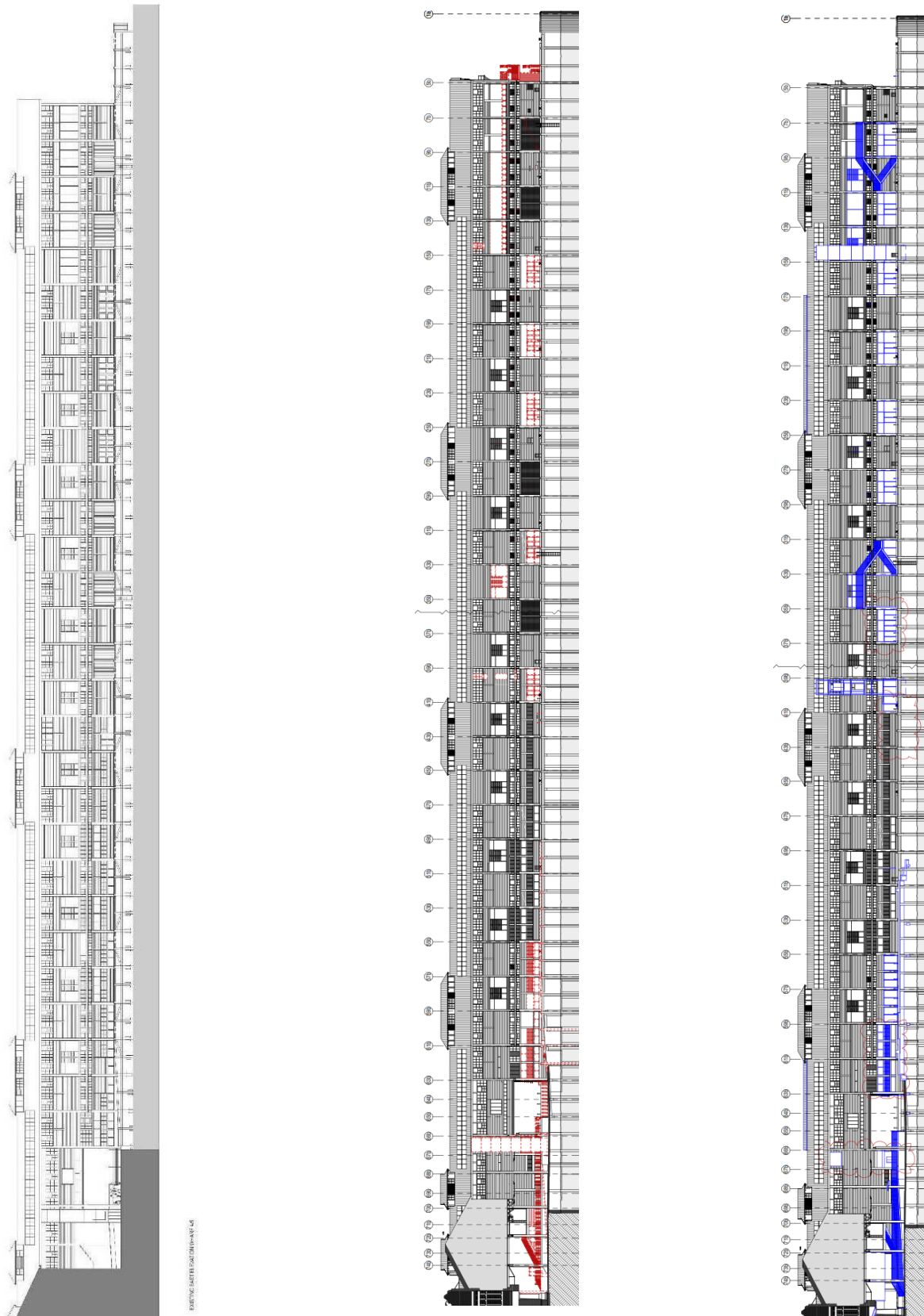


Figure 90: Pier 4/5 East Elevation Existing - Demolitions - Proposal. Demolitions in red and proposal in blue. Plans by TZG.

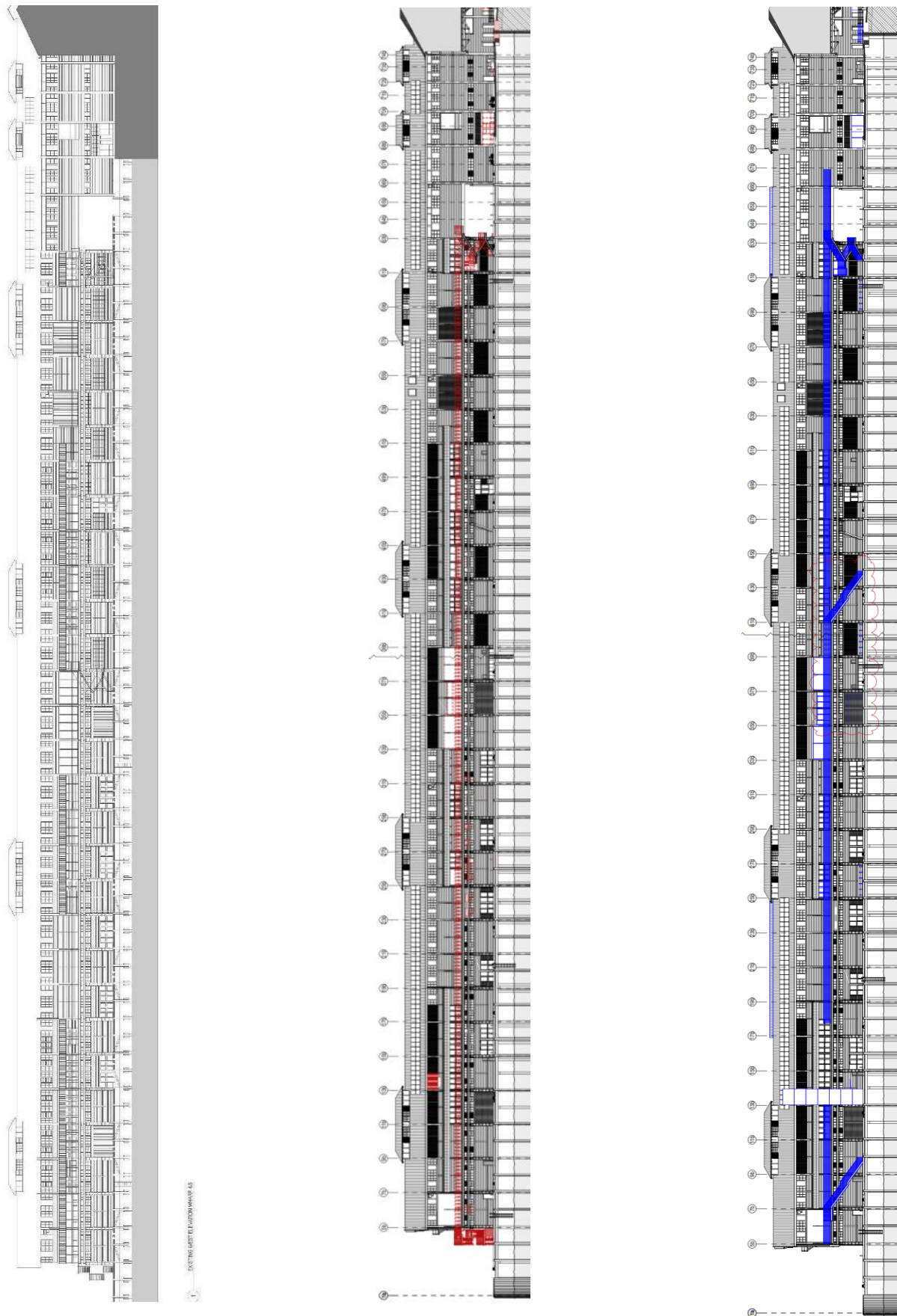


Figure 91: Pier 4/5 West elevation Existing - Demolitions - Proposal. Demolitions in red and proposal in blue. Plans by TZG.

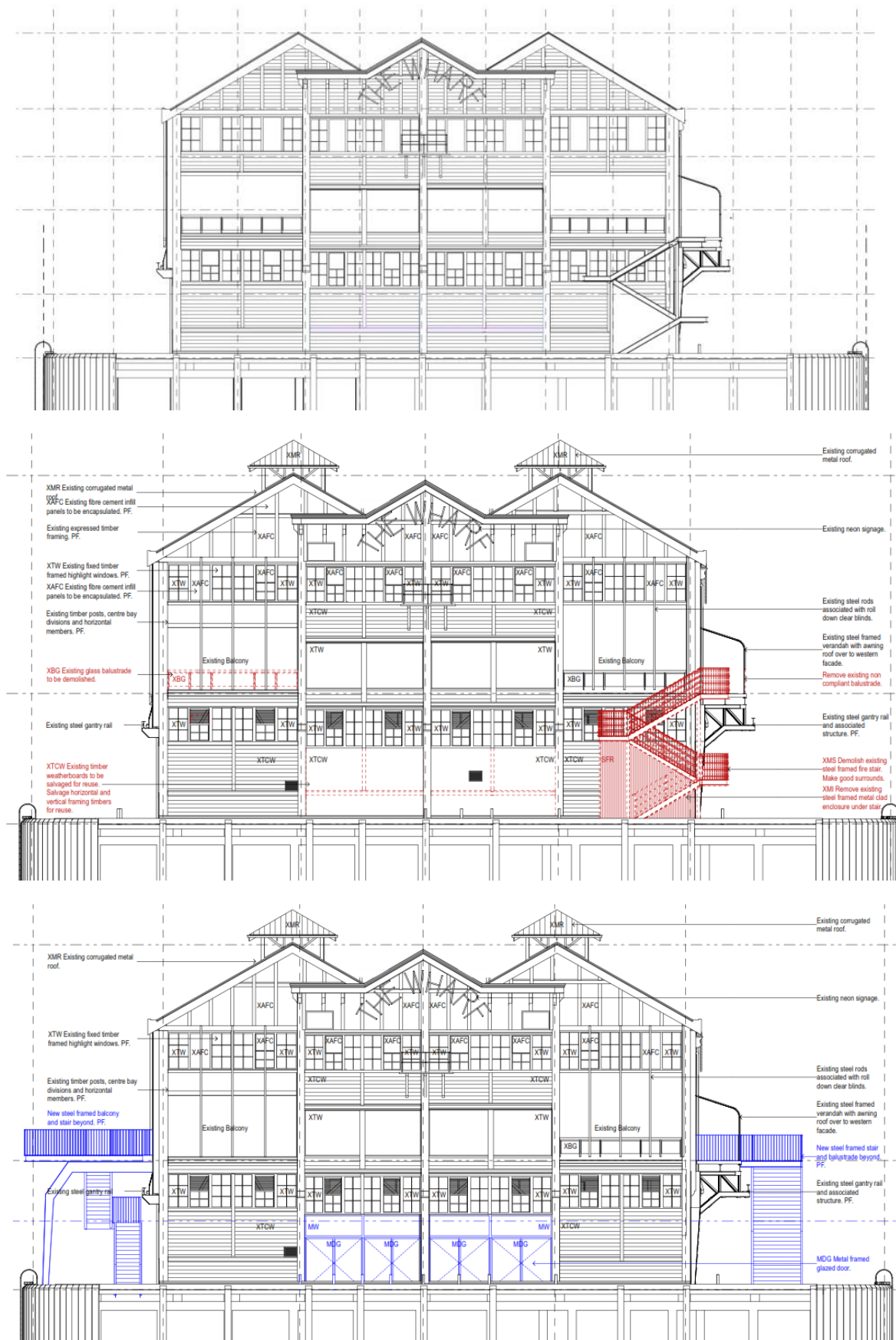


Figure 92: Wharf 4/5 North elevation Existing - Demolition - Proposal. Demolitions in red and Proposal in blue. Drawing from TZG Architects.

6.12 Mechanical Services

The Walsh Bay Arts Precinct suits a minimalist approach to mechanical services. Its prime location on the Sydney Harbour buffers the extremes of the ambient temperature for a significant portion of the year. In addition, the variety of spaces proposed will allow a range of temperatures that occupants will accept as comfortable to suit the use. The precinct is split into two distinct wharfs. Pier 2/3 is currently an empty shell and will be transformed into an arts and entertainment venue housing two auditoriums, rehearsal rooms, commercial events space and administration/support services. The lower floors of wharf 4/5 which currently house the Sydney Dance Company and Bangarra will be modified where necessary to improve the level of servicing currently afforded.

In both scenarios the proposed mechanical services strategy aims to add as much value and utility to the space as reasonably practical, without compromising the heritage or amenity of the space. It also seeks to minimise the environmental and economic impact of the building.

Mitigation ³³

Mechanical Services Design will require some intrusion into the internal spaces. Prior to construction Shop Drawing Standard documents are required which will accurately define the pathway and location of all equipment.

The Consultants drawing must make reference to the CMP and HIS and in the specifications prepared describe the mitigating measures which have been undertaken in the design process.

At Tendering Each Trade specialist must prepare a Heritage Works plan which acknowledges the CMP and HIS as working Documents.

Contractors and installers will be required to undertake an induction held by an experienced heritage architect prior to commencing installations. This will include all tradesmen and labourers as well as the management team.

The head contractor must employ supervisors and a foreman who have had experience in heritage works.

6.12.1 Air-conditioning

Air conditioning will generally be employed in the auditoriums, rehearsal spaces and the office areas. Areas such as the foyers and some BOH spaces will be naturally or mechanically ventilated with supplementary heating but no active cooling system is proposed. In areas where air conditioning is required, the perimeter building fabric must be upgraded to comply with the relevant codes and standards.

Within Pier 4/5 a number of spaces have existing mechanical services systems that will generally be retained and/or enhanced as described below.

Pier 2/3 currently has no mechanical services apart from ceiling fans.

There will be a range of approaches to ventilation and air conditioning within the project to suit the nature of the space served.

Where spaces are unconditioned, ventilation will be primarily natural through openings in the façade. There are a number of spaces that require ventilation where the reliance on natural ventilation is not suitable. These will be provided with extract only ventilation fans.

Theatre and auditoria will be served by dedicated air conditioning systems. These will be recessed and attenuated to the levels required by the acoustician. Air will be supplied via overhead ducting in the majority of theatre spaces, however, the ACO theatre will utilise a displacement system. Air will be supplied at low level through the raked seating and extracted at high level.

Due to similar acoustic constraints, the large rehearsal spaces will also be fully air conditioned. Air will be supplied at high level and extracted at high level.

This diversity strategy will allow the amount of plant space required on the roof to be minimised. Seawater chiller plant will be hung under the deck.

Where spaces such as the office and admin areas require air conditioning, fresh air will be introduced locally by a supply fan. When external conditions are favourable the spaces will be naturally ventilated and the air conditioning will be switched off. When it is too hot or cold outside to facilitate adequate human comfort, the façade openings will be closed and the air conditioning will be switched on to maintain comfortable internal conditions.

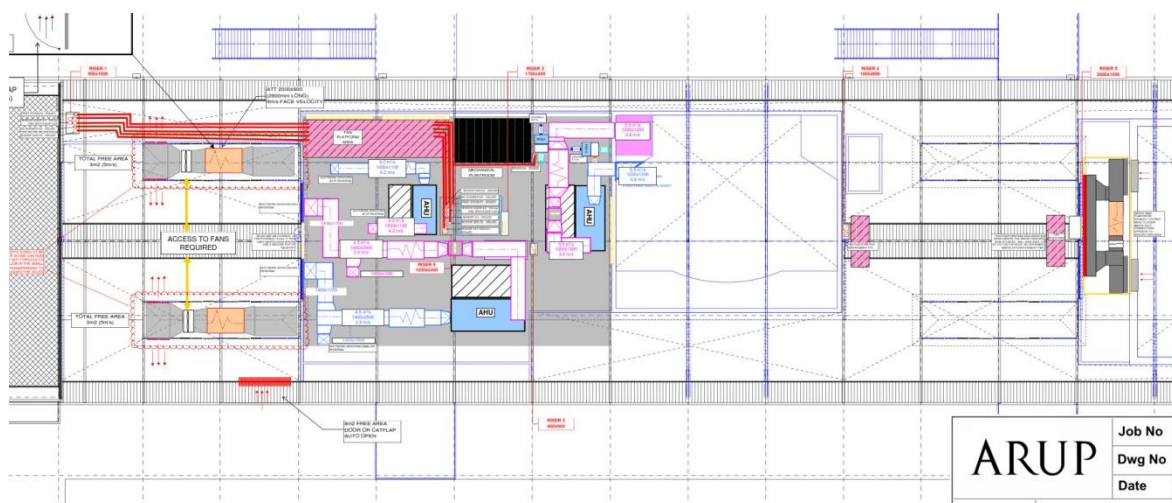
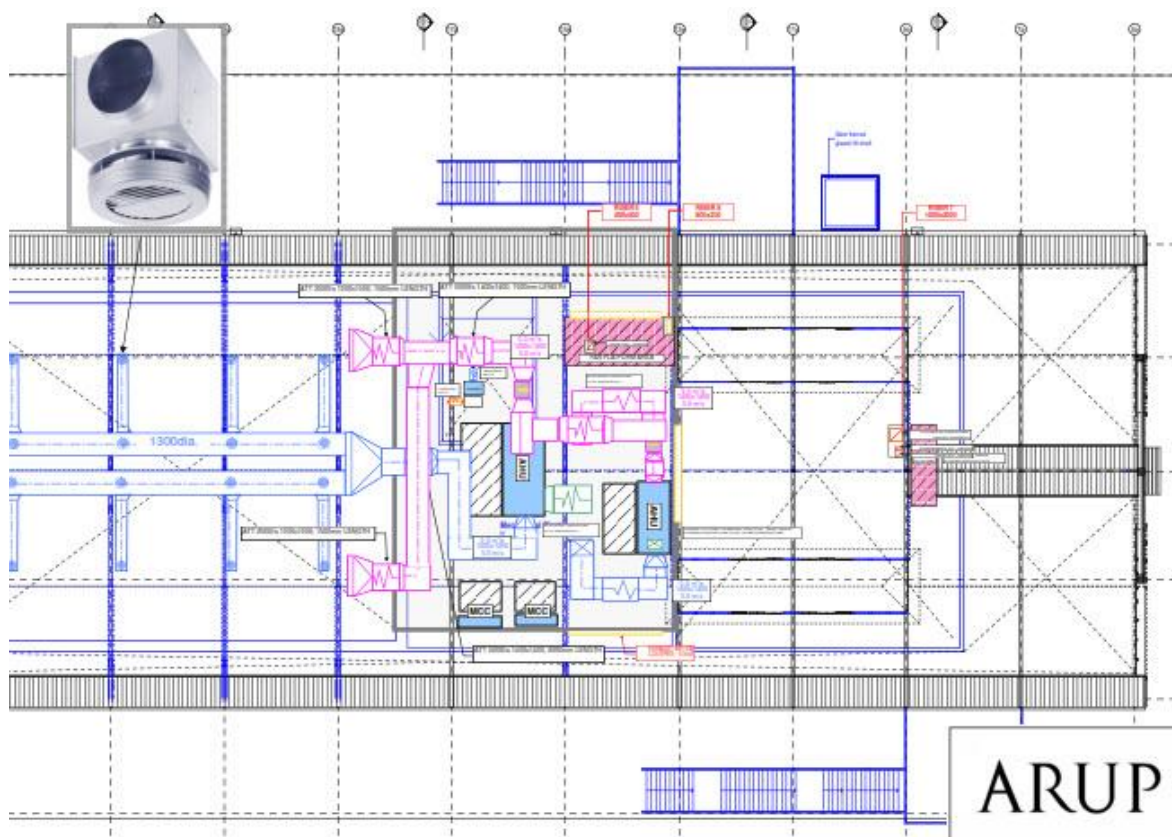
The Commercial Events/Arts space is almost in its original condition, and is intended to act as a multi-purpose function space. The space will be naturally ventilated and subject to internal fluctuations in temperature and humidity in line with the external weather conditions.

All mechanically ventilated areas including toilets, tearooms, cleaner's rooms, kitchens, plantrooms and storerooms will typically be ventilated in accordance with the current Australian Standards.

In Wharf 4/5 currently, Level 1 utilises air cooled refrigerant systems to provide heating and cooling. These systems are to be retained where possible, with minor ductwork alterations to suit the new partition layout. Fan coil units located in purpose built enclosures on the balconies or hung from the ceiling between the beams will provide air conditioning to the studio spaces. The current façade

openings will be retained to facilitate natural ventilation. Air conditioning and ventilation to the Bangarra theatre will be via a dedicated air handling unit located in the upper voids of the auditorium support spaces.

In Pier 2/3, chillers, located in a new plant room under the public area deck will provide chilled water, Air Handling Unit's and Fan Coil Units. Distribution pipework from the external plant room will run under the wharf before entering the building and connecting to cooling coils in the air handling equipment.



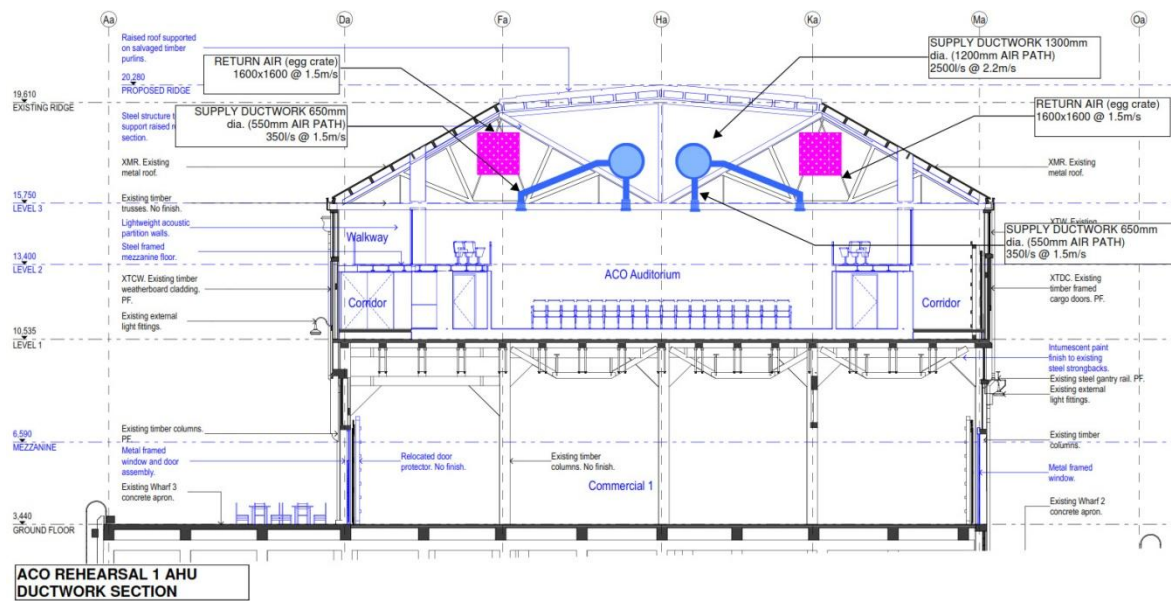


Figure 93-94-95: Example of ducting in Pier 2/3, by Arup.³⁴

Mitigation³⁵

Air Conditioning Specific design will require some intrusion into the internal spaces. Prior to construction Shop Drawing Standard documents are required which will accurately define the pathway and location of all equipment.

Sea water cooling and load sharing may be adopted to mitigate the size of plant and equipment.

The Consultants drawing must make reference to the CMP and HIS and in the specifications prepared describe the mitigating measures which have been undertaken in the design process.

At Tendering Each Trade specialist must prepare a Heritage Works plan which acknowledges the CMP and HIS as working Documents.

Contractors and installers will be required to undertake an induction held by an experienced heritage architect prior to commencing installations. This will include all tradesmen labourers as well as the management team.

The head contractor must employ supervisors and a foreman who have had experience in heritage works.

6.12.2 Electrical

Pier 2/3 and Wharf 4/5 each have an existing dedicated MDF room, which are shared with the Main Switchroom. New Lead-in cable routes will be provided for multiple service providers. Lead in conduits will go to the new Building Distributor Rooms situated in Piers 2/3 and Wharf 4/5. To keep the horizontal cabling to less than 80m, FCRs will be provided on each floor where required.

Space will be provided for vertical and horizontal cable routes in dedicated spaces throughout the buildings to facilitate the distribution of backbone and horizontal cables that will be supported on cable basket/tray for the main reticulation routes and supported on catenary wire or in conduit elsewhere.

A small number of traditional copper telephone lines will be provided as required for a number of discrete applications such as lift intercoms, fire alarm panel and back-up to critical systems as required. A new substation is required.

Mitigation ³⁶

Electrical Design Services generally will require some intrusion into the internal spaces. Prior to construction Shop Drawing Standard documents are required which will accurately define the pathway and location of all equipment.

Theses will require consultation with the Theatre Consultant and all other services.

The Consultants drawing must make reference to the CMP and HIS and in the specifications prepared describe the mitigating measures which have been undertaken in the design process.

At Tendering Each Trade specialist must prepare a Heritage Works plan which acknowledges the CMP and HIS as working Documents.

Contractors and installers will be required to undertake an induction held by an experienced heritage architect prior to commencing installations. This will include all tradesmen labourers as well as the management team.

The head contractor must employ supervisors and a foreman who have had experience in heritage works.

6.12.3 Hydraulic and Fire

The Walsh Bay Arts Precinct will be provided with hydraulic systems to service occupant facilities. Fire services will be provided such that patrons and staff can be safely evacuated and the Fire Brigades alerted in the event of an incident.

Wharf 4/5 has 30 year old existing services and will require fire upgrade and new fitouts.

Pier 2/3 works proposed involve alteration to servicing strategies including new services throughout.

The proposed hydraulic and fire services strategy aims to maximise the projects amenity via subtle integration, without compromising the heritage of the space. The strategies will also seek to minimise the environmental footprint of the building.

The existing pier 2/3 building is provided with water and drainage serving the existing tenancies. The building is provided with an existing roof drainage system. Internal gutters need to be removed. The building is also protected by Fire Sprinklers, Fire Alarm System, Fire Hydrants, Fire Hose reels and Fire Extinguishers. The redesign and partitioning proposed within this pier will require significant modification to the hydraulic and fire services. It is expected that only external services will remain unmodified.

The existing building on Pier 4/5 is fully serviced with hydraulic services.

The redesigned Pier 2/3 will be provided with a sanitary drainage system to the Sydney Water sewer in Hickson Road. This mirrors Pier 4/5 as gravity draining to Hickson Road from this end is not possible. The drainage system within Pier 4/5 will be augmented as required to meet the needs of the changed fit outs. The redesigned Pier 2/3 will be provided with a domestic water service and natural gas service supplied from Hickson Road.

The system within Pier 4/5 will be augmented as required to meet the needs of the changed fit outs.

Rainwater is currently collected from the roof of Wharf 4/5 and stored in a tank located under the pier.

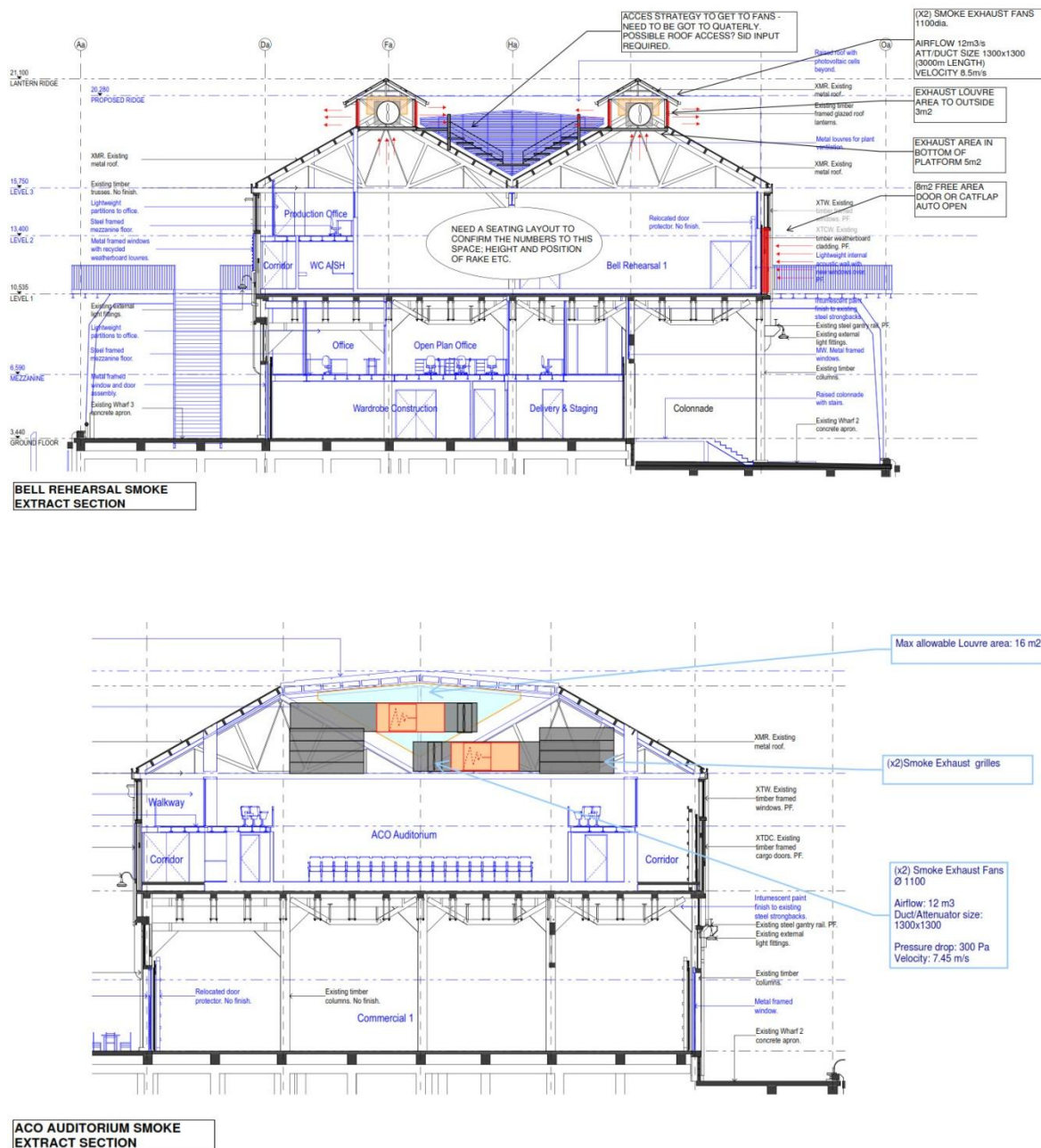


Figure 96-97: Drawings showings ductwork modification within the roof lanterns reducing visible plant on the roof.³⁷

Mitigation³⁸

Fire Services Design will require some intrusion into the internal spaces. Prior to construction Shop Drawing Standard documents are required which will accurately define the pathway and location of all equipment.

Fire Services as well as Fire rated materials and system coatings, must be designed with consideration to the existing fabric and must not unduly damage any fabric during installation.

The Consultants drawing must make reference to the CMP and HIS and in the specifications prepared describe the mitigating measures which have been undertaken in the design process.

At Tendering each Trade specialist must prepare a Heritage Works plan which acknowledges the CMP and HIS as working Documents.

Contractors and installers will be required to undertake an induction held by an experienced heritage architect prior to commencing installations. This will include all tradesmen labourers as well as the management team.

The head contractor must employ supervisors and a foreman who have had experience in heritage works.

The Heritage Office Fire and Heritage Information Sheet 8.1 has been used as a guide in the design of the Fire Systems and access and egress

6.12.4 NSW Heritage Office Information Sheet 8.1 ³⁹

Each of the matters raised in the NSW Heritage Office Information Sheet 8.1 has been addressed through a Fire Engineered solution which protects the fabric and ensures life safety. The Heritage Office advice regarding Fire Egress and Systems is quoted below:

The fire safety objectives of building regulations are firstly to ensure occupants are able to safely escape from the building.

Secondly, the building must be constructed in a manner which allows fire fighters to safely enter the building to attack the blaze.

The third objective of the regulations is to prevent the spread of fire from the burning building to adjacent properties.

Current regulations meet these objectives by requiring the following:

Access and Egress

The internal layout of a building must allow adequate means of escape from the building during an emergency. Staircases, ramps and passageways must be available and distributed in a manner to minimise travel distances to required exits. There are further specific requirements regarding the construction of exits. What is significant about my building?

Buildings and sites may be considered heritage items for a variety of reasons not immediately apparent to the general public. A building may have value due to its appearance and context in relation to others in the vicinity. It may be a rare example of a particular architectural style or may have been constructed in an unusual manner using special materials.

Historic significance could be attached to the building due to its builder, owner or past occupant being a noteworthy figure. A building may have scientific value if it is representative of a particularly rare style or of a quality which may contribute to further knowledge.

Social value can be established where a building or site has become a focus for community, spiritual or other cultural pursuits.

The fire safety objectives of building regulations are firstly to ensure occupants are able to safely escape from the building. Juniper Hall in Paddington has two stories plus an attic and basement connected by one stair.

The attic is used as a caretaker's residence.

A sprinkler system was carefully installed which allowed residential use while retaining the significant stair, doors, walls, floors and ceilings.

It is important that any fire safety upgrading takes the building's significance into consideration. In NSW buildings are listed on the State Heritage Register if they are assessed as being of state significance

Electrical Fire Safety Services

Installation of electrical services for fire safety often requires penetration of significant building fabric. These services include smoke detectors, alarms, emergency lighting and exit signs.

Detectors, alarms and emergency lighting Detectors, alarms and emergency lighting should be placed unobtrusively or camouflaged within elements of wall and ceiling patterns.

Smaller colour co-ordinated detectors and emergency lighting could be incorporated.

Where electrical cabling is required, its layout should ensure minimal impact on significant building fabric.

For example, concealment behind cornices and within floor and wall cavities should be pursued. This requires careful planning to ensure minimal cutting and drilling of the building fabric.

Exit Signs

Exit signs are by their very nature anything but unobtrusive. However, exit signs consistent with the décor of your building can be designed to minimise their visual impact by varying the casing, lettering style and colour. In extreme cases, use of approved photo luminescent exit signs and safety labels may be possible, avoiding the need for electrical cabling. All signs should be sensitively located and any cabling required should be installed so as to minimise disturbance.

Hydraulic Fire Safety Services

Provision of hydraulic fire services such as sprinkler systems, fire hose reels, hydrants and hand-held fire extinguishers can adversely affect heritage buildings. A philosophy of minimising visual impact and disturbance of significant building fabric should be pursued which may involve alternatives to hydraulic services. Rather than meeting prescriptive present-day fire regulations for each building element, an overall fire safety package is preferable.

Sprinkler Outlets

Sprinkler outlets (heads) should be installed to follow the geometric form of ornate ceilings. Flush mounted sprinkler heads are available in a range of colours which minimise the visual impact. Alternatively, wall mounted sprinkler heads could be installed. Careful planning of associated plumbing is required to minimise the disturbance of building fabric.

Pipework should be concealed within wall and floor cavities and installed in a manner which minimises the removal of existing ceiling and floor materials.

Fire Fighting Equipment

As with exit signs, hydraulic fire fighting equipment such as fire hose reels, hydrants and hand-held fire extinguishers must be sympathetically placed while remaining easily found in an emergency.

Provision for Escape Fire Emergency Exits

Occupants of a building must be provided with a safe path of travel to leave a building in case of fire. Current regulations require certain numbers of fire emergency exits and specify maximum distances to these exits dependent upon the building type, size and its use. Some older buildings exceed minimum travel distances to exits or may have fewer exits than required on each floor.

Further, doors and stairs of these exits may not comply with current standards.

Where an additional exit is required, its placement should be such that the significance of the building is not compromised. Any external fire escape should be designed in a manner which is sympathetic to the building.

The dimensions of exits and stairs can sometimes be inconsistent with the requirements of modern standards. A rational approach to acceptance or modification of the dimensions of doorways and stairs is required based on an assessment of the risk posed and the effect of such modification.

Hydraulic Fire Fighting Equipment

As with exit signs, hydraulic fire fighting equipment such as fire hose reels, hydrants and hand-held fire extinguishers must be sympathetically placed while remaining easily found in an emergency.

Doors

Doors leading to a fire exit should open out so that people can push their way through. If it is impractical to have an existing inward-opening door altered to swing in the direction of egress, then the use of a door holder could be considered.

This would permanently keep the door fully opened, removing the impediment to egress.

This should be considered for doors which do not perform a fire or smoke separation function.

Door Hardware

Door hardware including closers, latches, knobs and handles should be visually sympathetic to the existing interior. A range of heritage hardware is available which reproduces the style of many building periods. Where required, modern magnetic door holders, electrical door strike releases and security escape latches can be incorporated into the building's existing doors.

Other options

Provision of additional exits is invariably expensive and often detracts from the appearance of the building. Also, modification of existing doors and stairways which are required for escape from a building is often impractical.

Therefore, options such as the installation of a sprinkler system, detectors and alarms should be pursued as a trade-off for exit requirements.

Fire and Smoke Separation

Building materials must be fire resistant to reduce the chances of a fire igniting and to contain the spread of flames. Smoke generated by a fire must also be controlled to allow occupants of a building time to escape and fire fighting personnel access to extinguish the blaze.

Many traditional materials, structural elements and building features such as windows, doors, stairwells and lift shafts do not meet the requirements of contemporary fire safety standards. Careful consideration needs to be given to fire isolating a significant staircase.

Many traditional materials, structural elements and building features such as windows, doors, stairwells and lift shafts do not meet the requirements of contemporary fire safety standards.

Fire isolated compartments

Fire safety is often pursued by dividing a building into fire isolated compartments. This restricts a fire to an area of a building until it can be extinguished. To be effective, the walls, floors and ceiling need to contain flames and smoke within the compartment. They also must provide sufficient insulation to prevent excessive heat radiating outside of the compartment. High levels of radiant heat passing to the outside can make escape routes unusable and may ignite materials in the vicinity.

To be effective, protection of openings in a fire compartment is required. Sealing of gaps around doors, glass panels and pipework and cabling which penetrates walls and floors will prevent the escape of fire and smoke.

Intumescent materials can be used on existing building elements to seal these gaps. When subjected to the heat of the fire, these materials expand to fill any air void, effectively blocking the path of smoke and flames. Installation of partitions and doors of fire resisting glass may also be preferable where enclosure of a compartment is required.

This is particularly relevant where the alternative is to replace or enclose in solid construction a significant staircase or elevator.

To reduce the risk of fire, existing combustible materials such as curtains, carpets and upholstery can be impregnated with a fire retarding agent which provides resistance to ignition and spread of flame.

Various retarding agents are available in liquid form which protect fabrics without damage or discolouration. Hard surfaces can be similarly protected. Such protection of existing significant materials should be pursued wherever possible rather than replacing with incompatible fire resistant materials. In heritage buildings existing building materials and structure should be retained and incorporated into the fire compartment.

The Heritage Office has published on its website acceptable methods of upgrading the fire resistance of existing timber panelled doors and lath and plaster ceilings.

These methods should be pursued rather than installing incompatible fire doors and lining ornate ceilings and walls with fire resistant materials. Retention of lath and plaster ceilings is possible if upgraded to improve their fire resistance. Refer to the Heritage Office website for further details....

In heritage buildings existing building materials and structure should be retained and incorporated into the fire compartment.

For some building uses it will be impractical to achieve an acceptable level of safety without destroying the building fabric.

In such cases, it may be feasible to restrict the occupancy or type of use for the building.

This should be pursued rather than destroying the building fabric and losing the very reason the building was originally considered a heritage item.

Good Housekeeping

Owners are often tempted to use unoccupied rooms or floors as storage areas. If combustible materials are being stored, then a high risk fire source exists. Particular attention to flammable materials and those which produce toxic smoke and gases in fire is required. Cluttered hallways and stairs hamper occupant evacuation and these must be kept free of clutter. All required smoke and fire doors must be closed or closable in the event of fire. This makes illegal the common practice of disengaging door closers or fixing doors open with chocks or locking or blocking exits.

Evacuation Plans

The main objective of fire regulations is to ensure that the occupants are able to safely escape from the building. It is advisable to develop an evacuation plan and to train occupants of the building in fire emergency procedures. Formal plans exist in schools and larger buildings which may require regular fire drills and training in the use of fire hoses and hand held extinguishers. Further information on this important aspect of fire safety can be sought from your local fire brigade.

Be Prepared

The fire regulations are designed for the rare occurrence of fire in a building. Being prepared for that event may save lives!

6.12.5 Acoustic

Proposals for internal sound insulation take into consideration the performance required from the partitions which are dependent on the noise levels in the source and receiver rooms, the sensitivity of the spaces to noise and privacy, the practical constraints associated with natural ventilation and the

retained heritage elements. The sound insulation proposals have allowed for the inevitable weaknesses introduced by doors which means that corridor partitions generally have less onerous sound insulation ratings than party walls between spaces.

ACO Rehearsal Space

Musical instruments are particularly sensitive to humidity changes, which affects tuning, and would suffer long term harm if there were significant changes to the environment of the rehearsal room.

For the above reasons, it is recommended that the ACO Rehearsal Space be fully mechanically ventilated. In order to provide the room to room sound insulation to the adjoining spaces (including the plantroom), the Rehearsal Space is likely to have a solid ceiling that will provide good protection against noise intrusion from above. A simple variable acoustic is proposed using drapes to provide variable sound absorption behind a diffusing wall finish. There are critical adjacencies which will require isolated constructions in order to achieve acceptable levels of sound insulation.

The Rehearsal Room is proposed to have an isolated structure with a floating concrete floor.

ACO Auditorium

Sound insulation is particularly critical for this space as meeting acoustic target is critical to its success. The current expectations are for a relatively dry natural acoustic.

The auditorium will be a floated structure (on a floated concrete floor). The extent of the floating floor will need to be carefully evaluated to minimise the costs whilst still achieving the required sound insulation.

ACO Small Practice Rooms

These will require high standards of sound insulation that are only achievable with individually isolated rooms (on separate floating floors).

BELL Rehearsal Rooms

The Concept Design proposes a high-mass raised floor on 200mm concrete topping. Arup have concerns that this may not be practicable theatrically (in terms of being able to fix scenery down etc) and is likely to give rise to issues with impact noise affecting the spaces below. To this end, a floating concrete slab is preferred with timber finish. With the spaces interconnecting, the sound insulation between the spaces becomes critical through the doorway.

ATYP Theatre and Rehearsal rooms

The intention is to provide minimal room acoustic treatment in the rehearsal rooms. A simple acoustic finish to the soffit would suffice, along with the ability to hang theatrical drapes if needed. The ATYP Performance space will have a conventional system which provides air from overhead diffusers. Extract will be provided at high level over the front of the stage. The design of this is being carefully coordinated to ensure that the ductwork does not interfere with the technical theatre systems and to avoid the system being overly noisy.

Offices spaces

Not all office spaces will have a conventional suspended ceiling as some of the heritage ceilings will be left exposed. This will make the offices more reverberant than would typically be the case.

Event Spaces

An allowance is made for some acoustic treatment in workshops where power tools are to be used. A simple acoustic finish to the soffit will help reduce the levels of workplace noise.

6.12.6 Structural

Pier 2/3, Wharf 4/5 and associated shore sheds were built in the early 1900s as an operational cargo wharf and storage shed. Over time the building usage has changed and they are now predominately used or proposed to be used as cultural venues for theatrical and dance groups, commercial, restaurants, and public cultural events.

The existing substructure consists of turpentine piles driven through the seabed down to bedrock. The existing superstructure is a framework of heavy ironbark columns, beams, and floor joists, all sheltered by existing oregon roof truss frames and purlins.

Both substructure and superstructure have been subjected to a number of structural maintenance and upgrading programs over their lifetime. Apart from general repairs to the old structure, other structure changes involved the removal of internal columns with new steel transfer framing, new steel framed stairs and lift shafts, new steel and timber framed mezzanines floors, roof plant platforms, and addition of an external apron slab all round.

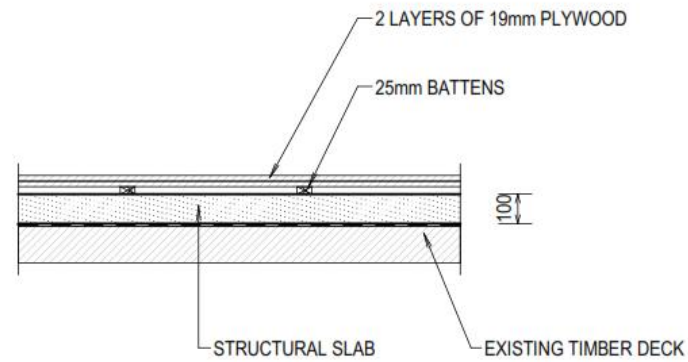
The proposed upgrade and alterations involve removal of additional internal columns, replacement of some columns previously removed, additional stairs, lifts and mezzanine floors throughout, raised roof profile in parts, and some additional roof plant platforms.

The underlying structural design intent is to treat the existing structure and heritage fabric with a high priority and to minimise the structural impact whilst expressing the existing structure where possible. Different structural approaches and systems have been considered, with the least invasive adopted.

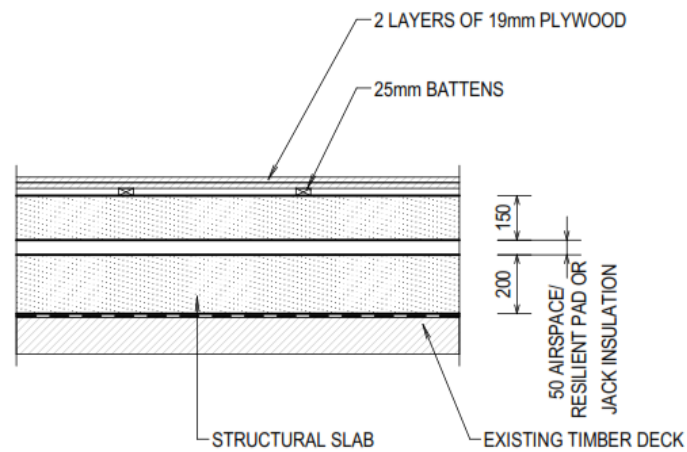
With the proposed upgrade and alterations it is inevitable that loading on the existing structure would increase. At locations where existing structural members become overloaded, where possible the existing structure is utilised by strengthening with steel plates and members in a manner acknowledging their heritage, rather than removing and replacing with new.

For the proposed performance and theatre type building use and increased number of occupants, a number of acoustic and fire safety related design aspects require upgrading. Similar to the structural alterations and strengthening, a number of approaches and systems were considered. Where achievable, the existing timber structure was reviewed and deemed adequate to provide the required insulation and protection. For existing structural elements that require fire protection, intumescent paint is specified for its minimalist impact on the existing form.

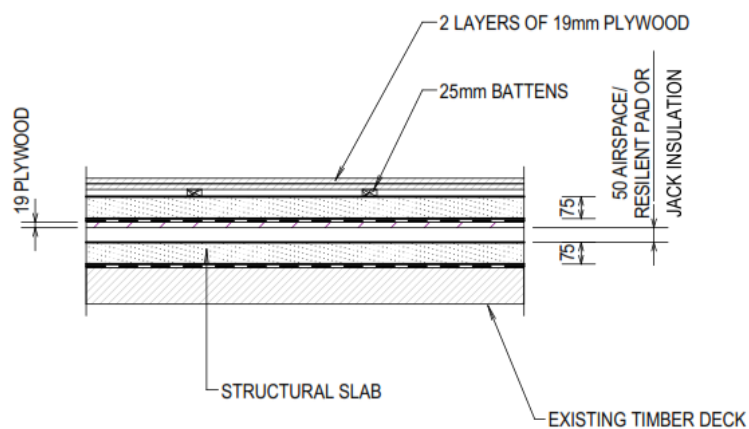
The structural design of the Walsh Bay Arts Precinct and STC50 alterations acknowledges the history and heritage aspects of the existing structure and environment in which it is located. Structural solutions will be considered and adopted based on the most minimalist impact on the existing structure and heritage fabric. Existing structure will be sensitively re-used where possible, and all new structure will be detailed to compliment and express the existing.



ACOUSTIC FLOOR TYPE 1



ACOUSTIC FLOOR TYPE 2



ACOUSTIC FLOOR TYPE 3

Figure 98: Different types of acoustic floor proposed, by TTW.⁴⁰

6.13 Heritage Risks and Opportunities

This is a summary of the Heritage Risk Assessment Workshop prepared for the Phase 1 design process.

Risks Detail	Mitigations
The works proposed require that the base structure is in good order. There are considerable risks in altering or adding loads to heritage buildings and that the materials are either adequate for the load or other needs or possibly decayed. This applies to piling and other structures. Cost can escalate when reconstruction or strengthening of heritage fabric is required to accommodate loads for new openings and heavy finishes required in the tenants fit-outs.	A thorough defects inspection is required especially for termites and pile defects. The interventions to support the new loads must acknowledge the heritage fabric.
The provision of services along and through the fabric is at its most difficult in the long wharf buildings and intervention not immediately obvious may mean that some solutions will require more intense consideration and a higher level of intervention. This may generate a prolongation and additional design costs from the engineers and architects; then swing to a new approval process being required.	Design out issues and keep the engineering designer aware of all the implications. Avoid the use of standard solution templates and specifications which are commonly used by all engineers. Design a gutsy industrial looking method for treating the services and do not be afraid to expose them as design elements in this marine industrial environment.
The piling perimeter is considered as vital in the historic expression of the Wharf apron. Engineering solutions may be required in and around the apron which effect the edge. The most efficient systems may not be appropriate. There is a risk that the heritage values will trigger additional costs and design costs for subfloor systems and piling.	The engineers have only two assigned areas in the apron into which to put major services tanks etc. Highly detailed engineering solutions are required to ensure that the leading edges of the apron are not affected by bulky and unsightly objects. Design a system for addressing the appearance of the items and services.
The individual fit-outs for tenants represent quite intense building methodologies which may obscure key elements of the base building and with the potential for hidden problems to occur. Additional	The heritage values of the spaces are likely to be obscured by the extensive acoustic treatments and the cellular planning. A design theme should be developed which

access space will be required to access the heritage fabric and this will be reflected in reduced areas and additional cost not necessarily accounted for in the cost plan.	acknowledges a process and a formulated design rational rather than ad hoc solutions with each tenant. This can be coordinated with the STC.
There is a risk in gaining approval for the alterations to the existing fabric as it may be considered by some heritage advisors to be too great an intervention. This cost will be reflected in redesigning and reassessing or defending the design. If the interventions are to be approved in a conceptual sense there may be additional information and detailing requested in a SSDA approval to demonstrate the design proposal and this may delay the works programme.	The design will be based on the SSDA discussions with the Heritage Branch and not vary (within reason). There is a need to argue on the grounds of "do no harm" and reversible intervention as a theme for all works.
There may also be a requirement to closely monitor approved works and report or list any items demolished during construction as was the case in the last DA approval. Where all materials were required to be tagged and logged as they left the site and stored or have a reuse assigned them.	Salvage significant demolished elements and incorporate them into the new works whenever possible.

6.14 Storage and Removal Methodology⁴¹

A Conservation Management Action Plan has been developed and added as a separate document to this HIS (Appendix I).

7. Regulatory context and compliance

7.1 Planning Context

The following legislation and environmental planning instruments will apply to the proposed development:

- Environmental Planning and Assessment Act 1979 (“EP&A Act”)
- Heritage Act 1977
- State Environmental Planning Policy (State and Regional Development) 2011 (“State and Regional Development SEPP”)
- State Regional Environmental Plan No 16 – Walsh Bay (“Walsh Bay REP”)
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (“Sydney Harbour Catchment REP”)
- State Environmental Planning Policy No 55 – Remediation of Land (“SEPP 55”)
- Walsh Bay Master Plan 1996

7.1.1 Sydney Regional Environmental Plan No.16 – Walsh Bay

In reviewing the proposed design it is important to understand the planning context and the SREP 16 illustrates the intent of this zone. It is a special area which has a number of key controls and planning objectives.

The SREP16 set of objectives are those which will be used primarily to assess any application and the following are of specific relevance.

The proposed design conforms to the aims and objectives quoted in part below.

"(a) to allow an appropriate range of uses to encourage the adaptive re-use of existing structures while not required for commercial port uses,

(b) to identify and protect the heritage significance of the area by establishing a conservation zone and providing appropriate controls for adaptive re-use, demolition and alteration,

(c) to ensure that development is compatible with the scale and character of existing built structures in the area,

And further

(b) to ensure that development is consistent with the heritage significance, the scale, the built form and the materials of existing structures in the zone and adjoining areas,

(c) to ensure that development is compatible with and does not detract from the financial, commercial and retail functions of the existing city central business district and the Sydney Cove Redevelopment."

The STC is the original adaptive reuse in the Conservation Zone and was in existence at the inception and gazetting of this SREP16. It represents the foundation concepts for the SREP16 and as such the continued use and functions are compatible with the objectives.

The STC therefore represents the model use for the precinct. The changes proposed in the STC Master Plan remain consistent with the objects described in the SREP 16 2009 in its historic context as a planning instrument and in any revised form.

As well, the use of the apron as a public access and the design of new lifts and stairs in compatible materials are also appropriate.

Internal interventions as proposed follow the precedent established by Vivian Fraser's first designs and represent the development and evolution not only of the STC but the maturing and internationalisation of Australian Theatre in general.

7.1.2 Zone 1 Walsh Bay Conservation Zone

The objectives of this zone are:

(a) to allow an appropriate range of uses to encourage the adaptive re-use of existing structures while not required for commercial port uses,

(b) to ensure that development is consistent with the heritage significance, the scale, the built form and the materials of existing structures in the zone and adjoining areas,

(c) to ensure that development is compatible with and does not detract from the financial, commercial and retail functions of the existing city central business district and the Sydney Cove Redevelopment Area, and

(d) to ensure that development is compatible with and does not adversely impact on the residential amenity and function of the adjoining areas.

Without development consent Nil.

Only with development consent any purpose other than a purpose included in item 2 or 4.

Prohibited Bus depots, bus stations, car repair stations, gas holders, generating works, helipads, heliports, industries (other than home industries and light industries), institutions, junk yards, liquid fuel depots, marinas, mines, roadside stalls, road transport terminals, sawmills.

7.2 Compliance with Conservation Management Plan Policies

The following table sets out the compliance of the design proposal with the relevant policies contained in the:

- *Wharf 2/3 Conservation Management Plans* prepared by Tropman & Tropman Architects - 2000
- *Wharf 4/5 Conservation Management Plans* prepared by Graham Brooks and Associated - 2007
- *Heritage Impact Assessment* prepared by Design 5 - 2014

7.2.1 Pier 2/3 Policies

Policy	Compliance Complies Capable of Complying Does Not Comply	Comment
<i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000		
9.2.2 Views and Vistas		
Policy 9.2.2.1 The visual dominance of the site should be conserved.	Complies	No change expected. TZG comment: The visual dominance of the site is conserved and enhanced by the proposed works.
Policy 9.2.2.2 The existing significant views and vistas to and from the site should be conserved.	Complies	No change expected to views and vistas TO the site. Improvement to views and vistas FROM the site are part of the proposal. TZG comment: Significant views and vistas to the site are conserved as demonstrated by the Visual Impact Assessment that accompanies the proposal.
9.2.3 Context		
Policy 9.2.3.1 The existing industrial maritime streetscape character formed in association with the surrounding structures, water areas between the piers and local steep topography should be conserved.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The existing industrial maritime character is conserved. New elements have been designed to respect this highly significant context.
Policy 9.2.3.2 The open water areas around the pier should be conserved.	Complies	The introduction of the new public domain reduces the open area of water by providing an expanded apron for pedestrians. However the new form has open grid mesh and cargo style netting which allows the water to be seen and its extent clearly understood. Refer to the Public Domain drawings and details. TZG comment: The open areas around the pier are generally conserved, however, a new waterfront square is proposed adjacent the Shore Sheds. This will minorly reduce the open areas around the pier at the land end. The waterfront square is

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
		required to provide an outdoor venue for events and is required to activate the Walsh Bay Arts Precinct. The impact of the new waterfront square is reduced by distinguishing the new ground plane from the wharf aprons through the choice of materials and colour. This ensures that there is a clear distinction between old and new fabric and that the infill is reversible. Mesh separates the original wharf aprons from the new waterfront square, reminiscent of the cargo nets once used here.
Policy 9.2.3.3 The historical associations of the site with Bridge 2/3, Pottinger Street, Hickson Road and Port Jackson should be conserved.	Complies	No change expected. TZG comment: Historical associations are conserved.
Policy 9.2.3.4 The two-level circulation & access-ways connecting the site to the steep topography is a feature of the Sydney Harbour Trust development & should be conserved.	Complies	No change expected. TZG comment: The proposal has no impact on the two level circulation and access ways connecting the site, which are outside of the site boundary.
Policy 9.2.3.5 The former associations of the site with the Sydney Harbour Trust, and Maritime Services Board operations, with wharf owners and labourers and generally with the local community should be interpreted.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Associations with the Sydney Harbour Trust, Maritime Services Board, wharf owners, labourers and the local community are interpreted on site.
9.2.4 Interpretation		
Policy 9.2.4.1 Informative and interpretative displays should be considered on the grounds to assist public understanding of the history, development and significance of the subject site and Walsh Bay Precinct. These interpretative techniques are to be well managed in a cohesive manner and to be integrated into the entire Walsh	Complies	There are Informative and interpretative displays already present is situ. They will be kept or improved.

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
Bay Precinct Interpretation Plan.		
9.2.5 New Interventions		
Policy 9.2.5.1 New interventions should be carried out in a sympathetic manner to the existing size, layout, construction technique, materials and detailing.	Complies	This has been addressed in the documents and design proposal by the Consultant Team.
Policy 9.2.5.2 New interventions if required should be organised to minimise any removal or concealment of significant fabric. Interventions should be generally reversible and clearly interpreted by means of introduced interpretative devices or by method of style of construction, as new work. There should be a clear division between new and existing.	Capable of Complying	The removal of the existing fabric is minimal and new interventions are clearly distinguished as new entity, while maintaining the idea and respect for the industrial buildings. This is a design development application and Construction detailing will ensure that this is fully compliant.
9.3.1 Subject Building 9.3.1.1 Generally		
Policy 9.3.1.1 The strong sense of unity of the site as part of the wharf complex, including industrial maritime character, scale, general form, construction technology, roof envelope and treatment of facades should be conserved.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The Walsh Bay Arts Precinct project aims to unify Pier 2/3, Wharf 4/5 and the associated Shore Sheds with the remainder of Walsh Bay.
Policy 9.3.1.2 Significant open exterior spaces including apron, colonnade and open passage between sheds should be conserved.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The wharf apron, colonnade and open passages between the sheds are conserved by the proposal. A raised area is proposed adjacent the eastern façade beneath the colonnade to provide access to the building interior. This will

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
		be detailed in a reversible manner.
Policy 9.3.1.3 Significant interior industrial large spaces and volumes should be conserved.	Complies	Where possible double store large rooms maintain the original open volume. The ground floor of Pier 2/3 is kept in raw state and unobstructed as well as large foyers and commercial areas in both levels. Other rooms like offices and services need to be concealed and fragmented in smaller volumes. TZG comment: The proposal involves adaptive reuse of Pier 2/3 as a new home for three major performing arts companies: Bell Shakespeare, Australian Theatre for Young People and the Australian Chamber Orchestra. A large 'raw' foyer that connects the all levels of the building is proposed at the centre of the pier. A large space at the northern end of the pier is to be retained as a 'raw' event space on the ground floor, whilst in the upper shed a smaller 'raw' event space is proposed at the northern end. These spaces retain the full volume of the original industrial shed.
Policy 9.3.1.4 Significant and/or recorded. These include but are not limited to the following: - timber Shores shed customs office and associated items ie. awning, painted signage at the entrance doors ('H.M. Customs'), etc - timber slatted partition wall and associated timber slatted sliding doors, hardware, etc - timber stair and associated slatted timber stairwell, timber kerbing, protective fence and metal balustrade, - timber gatekeepers office at the entrance of the shoreshed, including	Complies	TZG comment: - The timber Shores shed Customs Office is not part of the subject site. - The timber slatted partition wall and associated sliding doors and hardware located on the ground floor at the northern end of the pier are retained insitu. - The timber stair and associated wall, kerbing, fence and balustrades are non compliant. These are proposed to be retained insitu, capped off at Level 1 and interpreted in the floor of the foyer. The timber gatekeepers office at the entrance of the shoreshed and adjacent early timber offices are not part of the subject site.

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
associated painted 'Gatekeeper and Storeman' signage, timber rack, windows, timber kerbing around office, etc other adjacent early timber offices (first floor) including associated signage, timber kerbing, etc		
Policy 9.3.1.5 Existing special items and design features should be considered as design models and used as a direction for new intervention.	Complies	This has been addressed in the documents and design proposal by the Consultant Team.
9.3.2 Substructure and Ground Floor Deck Apron		
Policy 9.3.2.1 The existing open piling layout should be conserved for the outer two rows, and where possible for the inner rows.	Complies	Only reinforcement is expected. TZG comment: The open piling layout is generally conserved. Lift pits are set behind the second row of piles to minimise their visual impact. Reinforcement will be required in several locations beyond this, however, will be minimised.
Policy 9.3.2.2 The two-level deck detail and truck loading ramp on the north end apron should be conserved.	Complies	No change expected. TZG comment: The two level deck detail and truck loading ramp at the north end of the apron are conserved.
Policy 9.3.2.3 The curved timber shipping fender detail to the north end corners of the pier (round corner detail) should be conserved.	Complies	No change expected. TZG comment: The round corner detail to the north end corners of the pier are retained unchanged.
Policy 9.3.2.4 Significant fabric should be retained in-situ and conserved. This includes but is not limited to the following: Turpentine piles and raking piles,	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Significant fabric is generally retained insitu including: Turpentine piles

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
• headstocks and girders, • fenders and walings, including timber shipping fenders fixed to the north end corners of the pier (round corner detail), • timber kerbing to the edge of the apron, • cast steel mooring bollards bolted to the apron edge, • timber ladders from water, • associated early ironmongery ie. iron spikes and straps and fixings for service lines below deck, etc • associated early signage ie. marker plates fixed to the apron kerb indicating pier lengths, etc • timber internal deck including floor boards and planks, flooring layout, floor hatches for access to substructure, etc		• Headstocks and girders • Fenders and walings including shipping fenders • Timber kerbing to the edge of the apron • Cast steel mooring bollards • Timber ladders from the water • Associated early ironmongery • Associated early signage Timber internal deck including floor boards and planks, flooring layout, floor hatches for access to substructure. On the ground floor wet areas will need to be raised above the existing floor. This will be installed in a reversible manner. The bitumen will be removed from the upper shed floor to reveal the original timber in the foyer and northern function room. Other areas require a new floor build up over the timber, installed in a reversible manner, to achieve acoustic and fire separation between the upper and lower shed.
Policy 9.3.2.5 Any intrusive recent alterations or additions should be removed and replaced with sympathetic materials.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. All the recent alterations additions are removed.
Policy 9.3.2.6 Any required strengthening, repair or replacement will be subject to the structural engineers' requirements after further investigation and analysis and should be carried out in a sympathetic manner to the existing size, layout,	Complies	This has been addressed in the documents and design proposal by the Consultant Team TZG comment: The existing structure requires strengthening in some areas. This

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
construction technique, materials and detailing.		will be carried out in a sympathetic manner. The upper shed has limited head height of 4800mm beneath the trusses requiring the removal of braces and gutters located below this level to insert two new levels.
Policy 9.3.2.7 Any repair or replacement of external (visible) piles (ie. two outer pile rows minimum), should be carried out in matching materials timber, and in a sympathetic manner to the existing size, layout; construction technique and detailing.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Any repair or replacement of external piles will be carried out using matching materials, size, layout, construction technique and detailing.
Policy 9.3.2.8 Any required new structure should be organised to minimise any removal or concealment of significant fabric and any impact on the existing open layout and vistas through the piling grid. New structure should be organised adjacent to the existing structure, be reversible and as independent as possible. New interventions should be clearly identified as such.	Capable of Complying	This has been addressed in the documents and design proposal by the Consultant Team. New walls' structure is detached to the existing walls and it is clearly identifiable such new intervention. TZG comment: A marine archaeology report prepared by Cosmos Archaeology accompanies the proposal.
Policy 9.3.2.9 Any new substructure should be planned and carried out with regard to the maritime archaeology.	Complies	This has been addressed in the documents and design proposal by the Consultant Team.
9.3.3 Superstructure		
Policy 9.3.3.1 The existing storey posts layout should be conserved.	Capable of Complying	The existing posts layout at ground level is entirely conserved. At the first level 6 posts in 2 different locations are removed. TZG comment: All storey posts are conserved in the lower shed whilst in the upper shed 5 storey posts are proposed to be removed. This is required for the ATYP Theatre (2 posts), the ACO Auditorium (2 posts) and the ACO Rehearsal Space (1 post). The posts will be salvaged and stored for future re-use.

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
Policy 9.3.3.2 Significant fabric should be retained in-situ and conserved. This includes but is not limited to the following: • hardwood storey posts and associated items including angle iron fenders, signage, etc • riveted steel strong backs (primary), and steel bar strongbacks with turnbuckles (secondary), • triangular riveted steel web plates connecting the storey posts to the beams (colonnade), • triangular riveted steel web plates with central hole connecting the perimeter storey posts to the beams, • heavy timber framing (first floor) where the floor was raised to fill in the truck loading bay, • timber deck including girders, beams, floor boards, planks, and flooring layout, • timber truck ramps (east and west) built when the floor of the pier was raised, and associated timber kerbing, metal rails, etc • timber roof trusses, • associated early ironmongery, • associated early signage ie. painted bay identification to storey posts and roof trussers, etc	Complies	This has been addressed in the documents and design proposal by the Consultant Team. Existing brace beams under central gutter and diagonal truss braces are removed for height issues. TZG comment: Significant superstructure fabric is generally retained insitu. Exceptions are the existing brace beams under the central gutter and diagonal braces, which are required to be removed to achieve head height. Lifts and stairs will require the localised removal of superstructure. All removed original elements will be salvaged and stored for future use.
Policy 9.3.3.3 Significant associated items if detrimental to significant fabric by encouraging pest and rot should be investigated to take remedial action, including maintenance and monitoring. This includes but is not limited to the following:	Complies	This has been addressed in the documents and design proposal by the Consultant Team.

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
angle iron fenders to storey posts, etc		
Policy 9.3.3.4 Any intrusive alterations or additions should be removed and replaced with sympathetic materials. These include but are not limited to the following: existing bitumen on top of timber floor and truck ramp should be removed and the timber floor should be exposed, etc	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The existing bitumen on top of the timber floor in the upper shed will be removed as part of the proposal. Temporary toilets will be removed from the lower shed.
Policy 9.3.3.5 Any required strengthening, repair or replacement will be subject to the structural engineers requirements after further investigation and analysis and should be carried out in a sympathetic manner to the existing size, layout, construction technique, materials and detailing.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Strengthening of trusses is required where posts are to be removed in the ACO Auditorium and ATYP theatre. Simple steel members are proposed to line either side of the existing timber trusses in these instances.
Policy 9.3.3.6 Any required new structure should be organised to minimise any removal or concealment of significant fabric. It should be organised adjacent to the existing structure, be reversible and as independent as possible. New interventions should be clearly identified as such.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. New walls' structure is detached to the existing walls and posts as independent envelope and it is clearly identifiable such new intervention. TZG comment: New structure will be clearly identifiable and located adjacent existing structure where exposed such as the required truss strengthening in the Auditoria. Structure associated with new mezzanines will be independent and reversible. A new lift and several stairs are required to provide access and egress to the upper shed. New balconies are proposed adjacent the stairs reminiscent of the travelling gantries that once moved along the apron. These elements will all be detailed in a simple contemporary manner, with a sympathetic industrial aesthetic.

Policy	Compliance Complies Capable of Complying Does Not Comply	Comment
<i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000		
9.3.4 External Fabric Facades		
Policy 9.3.4.1 The original modular design, textural pattern and treatment of facades should be conserved.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. The original design of facades is restored removing the existing high level wall panels and restoring the raw of windows. TZG comment: The original modular design, textural pattern and chequerboard treatment of the facades is conserved. New windows and doors on the eastern facade, fitted into original door openings respect this original design, retain the original cargo doors as operable and are installed in a reversible manner. Upper level windows are proposed to replace the existing metal infill panels to the east, to match adjacent windows, based on historic photographs. To the north and west, new openings are proposed in line with those approved as part of the Stage 1 SSDA.
Policy 9.3.4.2 Significant fabric should be retained in-situ and conserved. This includes but is not limited to the following: - external walls protective frame, - timber jetty shed kerbing, - timber weatherboards, - heavy framed timber driveway gates (pier 2), - cargo doors, including cargo door protective frame, sliding doors, sheet metal sleeves fitted over door leaves to protect the edge, door rollers, hardware ie. hasp, staple, lock, etc - steel slatted pedestrian entrance roller door to Hickson Road, - lifting bay door (door with fold down platform held in place with a chain	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Original significant fabric is retained by the proposal including: External walls Timber jetty shed kerbing Timber weatherboards The heavy timber framed driveway gates are not located on the subject site. Cargo doors and associated hardware The steel slatted pedestrian entrance roller door to Hickson Road is not located on the subject site. The lifting bay door is not located on the subject site.

Policy	Compliance Complies Capable of Complying Does Not Comply	Comment
<i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000 on each end) and timber fender to the external wall below (first floor), - metal louvres, - timber framed multi-paned windows, - flag pole and balcony platform used for raising flags (north facade), - associated signage ie. painted pier numbers on the north facade ('2' and '3'), bay identification to external walls, 'Roof' sign to roof truss, etc		Metal louvres Timber framed multi paned windows Flag pole and balcony platform used for raising flags to the north façade. Associated signage including painted pier numbers on the north façade, bay identification etc
Policy 9.3.4.3 Any intrusive alterations or additions should be removed and replaced with sympathetic materials. These include but are not limited to the following: - recent infill and openings to ground floor cargo doors (west), - metal cladding to original window openings, - later concrete kerbing to jetty shed, etc	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Recent infill and openings to the ground floor cargo doors on the west will be removed and replaced with new glazed panels. The metal cladding to the original high level window openings on the eastern elevation will be removed and replaced with windows similar to those in adjacent bays.
9.3.5 Roof		
Policy 9.3.5.1 The existing roof envelope should be conserved.	Complies	Two portions of the roof, in the existing roof valley, are penetrated to raise the ceiling level. TZG comment: The proposed use as theatres requires two roof 'pops' – one for the ACO Auditorium and office and another for the ATYP Theatre.
Policy 9.3.5.2 The existing roof lanterns, including windows and metal louvres should be conserved.	Complies	No change expected. TZG comment: The existing roof lanterns including windows and metal louvres are conserved.

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
Policy 9.3.5.3 Any existing early associated items, including rainwater heads, etc should be conserved or replaced where necessary with matching detail.	Complies	Existing early rainwater heads are conserved or replaced where necessary with matching detail. The existing internal gutter will be replaced with a new stormwater pipe that runs to downpipes located in their original locations.
9.3.6 Industrial Archaeology		
Policy 9.3.6.1 Significant associated industrial items and artefacts should be conserved. Major industrial items and artefacts as identified in the Walsh Bay Precinct Heritage Technology Conservation Management Plan, November 1999, by Tropman & Tropman Architects should be retained in-situ and conserved. These include the following. • Timber slatted Dead houses (Items 52 & 55), originally for storing bonded goods, including any associated items ie. sliding doors, hardware, timber shelves, etc, • Bag Chute (item 89 -53) with door opening to east wall onto the apron, • Gantry rail to first floor jetty shed -east- facade, mounted on large riveted brackets fixed to the outer storey posts, and the gantry rail set into the apron,	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The timber slatted deadhouse, bag chute and gantry rail are all proposed to be conserved in situ.
Policy 9.3.6.2 There is an opportunity to reconstruct the travelling gantries (Item 54, now removed) originally used to move cargo along the apron, as part of the Pier 2/3 redevelopment.	Complies	TZG comment: New balconies on Level 1 interpret the former travelling gantries. These will be detailed in an industrial manner and reference the original gantries.
Policy 9.3.6.3 Suitable examples of smaller industrial items should be retained wherever possible.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Suitable examples of smaller industrial items will be retained

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
		wherever possible
Policy 9.3.6.4 Any significant industrial archaeology to be retained in-situ should be fully incorporated into the design proposal, influencing the layout of the adaptive use of the building and the design of the new fittings. See also 'New Uses'. The design of developments in the vicinity of machinery should also take into account the spatial requirements of the operation of the machinery, the possible need for the installation of additional safety features and the need for viewing access. The design should also retain an appropriate visual setting for these items.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Significant industrial archaeology will be retained in situ and incorporated into the design proposal.
9.5 New Uses		
Policy 9.5.1 Any redevelopment of the site should be for purposes compatible with the retention of the character and the interpretation of the heritage values of the site and precinct. Wharf 2/3 site allowable uses as per the Walsh Bay Precinct Conservation Management Plan, 1998 include the following. • Warehousing • Residential Flat Building • Serviced Apartments • Hotel • Commercial retail • Commercial offices • Cultural (Museum, Art Gallery, etc)	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Adaptive reuse of Pier 2/3 for cultural uses - to provide a home for the Australian Theatre for Young People, Bell Shakespeare Company and Australian Chamber Orchestra as part of the Walsh Bay Arts Precinct – is considered appropriate.

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
Policy 9.5.2 Interpretation of the original use and industrial context should be clearly evident with the new use.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The proposal retains a large unlined 'raw' space on the ground floor that reveals the full volume and workings of the lower shed. The northern function room in the upper shed also reveals the full volume of the original space. Further the foyer allows one to travel between the lower and upper sheds to experience the relationship between the different spaces.
Policy 9.5.3 Any new redevelopment should acknowledge significant fabric and the spatial qualities of the existing structure.	Complies	Where possible double store large rooms maintain the original open volume. The ground floor of Pier 2/3 is kept in raw state and unobstructed as well as large foyers and commercial areas in both levels. TZG comment: As per 9.5.2. The design aims to retain the original fabric of the pier with minimal interventions into the external walls. A strategy of containing new uses within separate free standing 'boxes' has been employed to reduce the need to line the original external walls.
Policy 9.5.4 The specific location of new uses within the buildings should be organised to minimise any concealment, alteration or damage to significant fabric.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: As per 9.5.3
Policy 9.5.5 The specific location of new uses within the site should take advantage of the interpretative potential of the site and contents. Significant fabric is to be conserved and revealed to public view.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: As per 9.5.3

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
Policy 9.5.6 New uses should be compatible with the ongoing conservation of the significant fabric.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The new uses will ensure that the pier is maintained and conserved for future generations.
Policy 9.5.7 Interior partitioning if necessary should allow the maximum amount of significant fabric to be revealed to view and interpretation of the original volumes.	Complies	TZG comment: Refer 9.5.2.
Policy 9.5.8 Vehicular movements are appropriate on the apron and into the Wharf buildings to maintain a level of activity compatible with its port history.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: A Traffic Management Strategy accompanies the proposal. Larger vehicle movements are restricted to the eastern apron, turning at the northern end. (8.8m medium rigid vehicle max) The western apron is narrower and restricted to small vans.
Policy 9.5.9 New uses of the site and building should be compatible with the following: STRUCTURAL LOADING CAPACITY New uses should be compatible with the structural loading capacity of the existing structural elements.	Complies	The new proposal require a reinforcement of the structure. This is a positive achievement for safety matter. TZG comment: The pier was originally designed to take heavy loads.
STATUTORY REQUIREMENTS New uses should allow minimum alteration in relation to the statutory requirements of authorities having jurisdiction over the site.	Complies	No change expected. TZG comment: New egress stairs are required to meet the BCA which require alteration to the fabric.

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
VESTIGATION OF THE SITE New uses should allow for archaeological research orientated to provide information to guide restoration and reconstruction work consistent with the remainder of this policy. Allow for archaeological research only when there are adequate resources to undertake complete and published results of the study and leave the site in a stable condition.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: An Archaeological Report prepared by CRM accompanies the proposal.
SERVICES New uses should minimise any damage to significant fabric caused by the replacement or installation of new services.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: New services will generally be installed in a co-ordinated manner to minimise damage to significant fabric.
USE BY DISABLED PEOPLE Facilitate the use of the site by disable people consistent with the remainder of this policy.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Equitable access underpins the adaptive reused of the pier. A report prepared by Accessibility Solutions accompanies the proposal.
VEHICLE ACCESS Continue use of existing vehicular access.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The existing vehicular access will continue to be used.
PEDESTRIAN ACCESS Continue use of existing pedestrian access.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The existing pedestrian access will continue to be used.

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
MARITIME ACCESS Continue use of existing maritime access.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The existing maritime access to the wharf to the east will continue to be used.
CAR PARKING No long-term car parking will be permitted on the site. Allow for drop off and courier parking areas consistent with the remainder of this policy.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: No long term car parking is permitted on site. Provision for drop off, loading and unloading and courier parking is included.
PUBLIC ACCESS AND INTERPRETATION Arrange the use of the site to facilitate interpretation, for instance in the way it is leased. Allow public access to the site on a regular basis for education and tourism.	Complies	The site is open to the public 24 hours a day and has restrictions based on the Precinct Management Controls. Other controls and regulations may be put in place for security purposes and life safety during the operations from time to time. The site will include large scale static displays of industrial heritage relics suitable curated and restored. With information and story panels placed in all public areas as an adjunct to the existing interpretation plan The public open space and landscape design interprets the harbour foreshores with the figure head lands expressed in a stepped sculptural form at low level. Netting and open grid decking allow the water below to be seen and interpret the cargo nets used on the wharf apron. The harbour front is accessed by a set of sloping steps to allow a physical connection with the harbour. The original line of the wharf apron is defined and celebrated in the paving.

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
RESEARCH Allow investigation of the site for research only when guided by specific and scrutinised research goals and when there are adequate resources to undertake complete and published results of the study and leave the site in a stable condition.	Complies	The site is well researched but is available in request to the Precinct management committee to anyone with a genuine interest in research projects. The site is already safe and secured. Research potential still exists into the building techniques and structural methodologies employed by Hickson and Walsh in constructing these Wharves and Pier structures.
9.6 New Services		
Policy 9.6.1 Any proposed new services or service upgrades should be organised to least interfere with the existing significant fabric, industrial character, general building form, roof envelope and open layout of the substructure and building.	Capable of Complying	3 new lifts are proposed and require penetration through the floor. The external lift box is in transparent glass and it is visible only from elevated view but not from the street level around the precinct. TZG comment: New lifts are required to provide access to the upper levels in an equitable manner. Internally three lifts are required – one to provide back of house access for Bell and ATYP and two central lifts to serve the main foyer spaces. A single external lift is proposed to the northern end of the western apron to service the upper level event space and to provide an alternate means of access to the upper level offices. The architectural language of this lift will match that of those proposed to Wharf 4/5 which are required to provide access to Sydney Theatre Company. The external lifts have been designed to be as transparent as possible, as simple contemporary elements with steel frames and glass walls. In order to provide the required mechanical services to the auditorium spaces two roof ‘pops’ are required – one over the ACO Auditorium and one over the ATYP Theatre. This will have an impact on the overall roof form, however, has been minimised by restricting the raised areas to the valley between the ridges of the original roof. This will not be visible from street level. Sheeted to match the original metal roof, the new roof pops will have minimal impact when viewed from above. Other services including electrical and hydraulic services will be co-ordinated to

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
		minimise their impact on significant fabric. They will be run in concealed spaces wherever possible and in neat runs where visible.
Policy 9.6.2 Any required new services and equipment to be installed within the site should be organised in areas and spaces of no or lower significance in preference to those of higher significance.	Capable of Complying	New water/electrical/air-conditioning ducts are organised to minimise the impact on the existing fabric and positioned in hidden areas and between floors and ceilings. TZG comment: Services will be organised in areas and spaces of no or lower significance in preference to those of higher significance where ever possible.
Policy 9.6.3 Any new services should be planned and carried out with regard to the maritime archaeology.	Complies	TZG comment: New services will be planned and carried out to have minimal impact on archaeology – historic, Aboriginal and marine.
Policy 9.6.4 Any new services should be inconspicuous throughout the building and substructure. The introduction of new services should be consistent and allow the external visible pile rows two outer pile rows minimum breezeway and exterior spaces to be clear of modern services.	Capable of Complying	TZG comment: New services will be installed in an integrated coordinated manner and allow for the two external visible pile rows to be read clear of modern services. A new sea water chiller plant is proposed which complies with this clause.
Policy 9.6.5 Any new elements which may obscure the existing views through the piling system and building should be separated by a minimum of two structural bays.	Complies	TZG comment: Lifts and additional substructure are setback from the wharf edge by a minimum of two piers. In accordance with.
Policy 9.6.6 The use of screens may be appropriate to minimise any unavoidable large modern service intrusion. This may include the use of colour finishes (eg. grey or black finish), timber screens with sympathetic traditional detailing (eg. planking screens), etc	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: New services will generally be concealed, however where this is not possible, in spaces such as the ‘raw’ spaces, they will be painted a recessive colour and co-ordinated in neat runs.

Policy <i>Pier 2/3 Conservation Management Plans</i> by Tropman & Tropman Architects - 2000	Compliance Complies Capable of Complying Does Not Comply	Comment
9.7.9 Conservation Practice		
Policy 9.7.9.5 Preservation of fabric and patina. During any work to an item of the site, including documentation, the maximum amount of significant fabric and patina should be retained consistent with the preservation of the item and in relation to the relative significance of the item. Replacements, no matter how accurate, should be considered of far less heritage value than the original fabric.	Complies	This has been addressed in the documents and design proposal by the Consultant Team that is aligned to the Burra Charter Principles. TZG comment: The works will be carried out using conservation best practice in accordance with the principles of the Australian ICOMOS Burra Charter.

7.2.2 Pier 4/5 Policies

Policy	Compliance	Comment
<i>Wharf 4/5 Conservation Management Plans</i> by Graham Brooks and Associated - 2007	Complies Capable of Complying Does Not Comply	
7.3 Retention and Re-use of Historic Building		
7.3.1 Wharf 4/5 as part of the Walsh Bay cultural precinct should be retained and conserved as part of any future redevelopment on the site.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The proposal retains and expands the role of Wharf 4/5 as a cultural precinct to include it in the Walsh Bay Arts Precinct, which includes Pier 2/3 and the associated Shore Sheds. The proposal involves alterations to the Sydney Dance Company (SDC) and Bangarra tenancies within the lower shed of Wharf 4/5. The proposal also involves the provision of additional stairs and lifts to provide access to Sydney Theatre Company in the upper shed of Wharf 4/5. Internal works associated with STC50 are the subject of a separate SSDA application.
7.3.2 Future changes to fabric, form and associated structural elements should respect its visual significance and architectural integrity and respond accordingly.	Complies	TZG comment: Internal changes proposed to SDC are relatively minor whilst those to Bangarra involve a predominantly new fitout. Changes proposed to the façade adjacent Bangarra involve removal of non original timber framed doors and will improve the relationship between the adjacent piers. New windows and doors are required to address the new stairs and gantries proposed for STC50 at the upper level. These will be detailed to respect the architectural integrity of the Wharf and relate to the existing chequerboard pattern of openings in the elevation. A similar architectural language is proposed for the new lifts, stairs and gantries for

Policy <i>Wharf 4/5 Conservation Management Plans</i> by Graham Brooks and Associated - 2007	Compliance Complies Capable of Complying Does Not Comply	Comment
		both Wharf 4/5 and Pier 2/3 to maintain a close visual relationship. Upgrades are required to the existing curved external stairs and western balcony to comply with the BCA. These works will be detailed in a sympathetic manner. STC50 requires two roof extensions to house mechanical plant associated with the theatre spaces. These extensions will be detailed in a similar manner to those proposed on Pier 2/3 to ensure architectural consistency and minimal visual impact.
Policy 7.3.3 Landmark position as a strong visual element on the foreshores of Sydney Harbour should be maintained.	Complies	No change expected. TZG comment: The works retain and respect the landmark position of the Wharf as a strong visual element within Walsh Bay on the foreshores of Sydney Harbour. Works across the Walsh Bay Arts Precinct will ensure that this position is retained and enhanced.
7.3.4 Conservation of Wharf 4/5 wharf, shored and wharf structure should be in the form of compatible new uses for the buildings, uses that respect and utilise the current scale, form and configuration of the building, with minimal external changes to the structure.	Complies	Uses are compatible to the use as a cultural precinct, already established and approved. The 1998 DA approvals for Walsh Bay and the approval of stage 1 consolidates the use of these relics as cultural facilities. These require some extensive changes to the volumes. TZG comment: Works associated with Wharf 4/5 are to provide better amenity for the existing tenants, all of whom are key to the success of Sydney's cultural scene. Works to the Bangarra and SDC tenancies in the lower shed upgrade their existing fitouts to contemporary standards. STC50, located in the upper shed, requires more extensive alteration to accommodate upgraded theatres. The internal changes are the subject of a separate SSDA, however, the base building works have been included in the WBAP project to ensure consistency of language between the wharfs. These works

Policy <i>Wharf 4/5 Conservation Management Plans</i> by Graham Brooks and Associated - 2007	Compliance Complies Capable of Complying Does Not Comply	Comment
		include two roof pops and their associated structural modifications, new lifts, stairs and gantries. The visual impact of these alterations will be minimised through careful contemporary design that is consistent across the precinct. A new mezzanine level is proposed in the Shore Sheds to provide office space for the choirs. This space is currently ceiling void.
7.4 Principles for Re-use of building		
7.4.1 During preparation of future uses for the buildings, care should be taken to respect the scale and character of the existing interior spaces, external openings and general character of each building.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. The proposed works sensitively conserve and reveal a greater heritage volume, not only for public appreciation but also to enhance the heritage value and narrative of Wharf 4/5. Large workshop spaces are maintained that allows the scale and volume of the original building to be perceived and appreciated. TZG comment: Works associated with SDC involve the subdivision of the existing workshop to create Studio 5 and alterations to the office located on the mezzanine. Bangarra, the Philharmonia Choir, Gondwanna Choir and Song Company currently occupy the northern end of the pier. A separate office tenancy adjacent is currently unoccupied. The proposal involves consolidation of this space for Bangarra. The two existing studio spaces and recording suite are retained. A new foyer gallery runs along the eastern side of the tenancy leading to a new full height function space proposed at the northern end of the wharf. The Choir Offices are to be relocated to a mezzanine level proposed above the existing Choir space in the Shore Sheds. This space is currently ceiling void and is capable of housing the offices with minimal impact on existing significant fabric. New external glazed doors are proposed to replace the existing substandard doors to the western elevation on ground level to Bangarra and to provide access to the

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		new lifts, stairs and gantries required for STC50 on the upper level, consistent in detailing to those proposed on Pier 2/3.
7.4.2 New uses that are selected for any particular internal space should adopt the principle of “loose fit” whereby the functional and spatial requirements of each use are tailored to suit the available space, in contrast to an approach that alters the building to suit the requirements of the new use.	Complies	The current condition of the building with large scale theatres, workshops areas and rehearsal rooms have negated this notion. This statement was written 30 years after the existing works were undertaken so in that sense the author has chosen to ignore the reality that the repurposing of Pier 4/5 was accepted as being an appropriate methodology for sustaining the heritage building and ensuring it remains as a viable and useful object.
7.4.3 Installation of any new enclosures within the larger internal volumes of Wharf 4/5 should recognise the tradition that such enclosures are clearly expressed as new, self contained elements.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. The planning of new spaces as clearly identifiable and separate from the heritage fabric has been a driving principle from the outset of masterplanning. Wherever possible, new spaces pull away from the heritage shell. This is of mutual benefit to the internal program and heritage, allowing the shell to remain unaltered and the internal spaces to be appropriately detailed to perform thermally and acoustically. Inevitably, these insertions will need to connect to the existing structure to transfer loads efficiently. Where junctions with existing roofs and columns are required, these have been carefully considered to preserve the original context of the heritage structure. TZG comment: This policy applies more to the upper shed than the lower shed which is currently detailed in a different way. Existing walls meet columns at their centres and meet the existing external walls. Works to SDC are minor and adopt a similar approach to the existing and major spaces are retained in the Bangarra tenancy which have also set the precedent for new works adjacent. The upper shed has more clearly expressed self contained volumes and the STC50 project has been guided by this philosophy.

Policy <i>Wharf 4/5 Conservation Management Plans</i> by Graham Brooks and Associated - 2007	Compliance Complies Capable of Complying Does Not Comply	Comment
7.4.4 Location and visual presentation of new services within the building should generally remain subservient and respectful to the scale, dignity and presentation of the existing building.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. New services will remain subservient and respectful to the scale, dignity and presentation of the existing building. TZG comment: New services will remain subservient and respectful to the scale, dignity and presentation of the existing building.
7.5 Retention of Visual Curtilage around Building		
7.5.1 The open spaces around Wharf 4/5 should be retained so that the wharf's relationship with the other buildings in the precinct can be identified.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Egress stairs and lifts are required to provide access to STC50. These have been designed to match those required for Pier 2/3 and will therefore share a common architectural language of detailing. These new elements are distinctly contemporary, with a clear distinction between new and old fabric, yet sympathetic, referencing the stairs and gantries that once adorned the sides of the piers.
7.5.2 The design and siting of new works and additions should be sited in such a way that the visual relationship of Wharf 4/5 to the other buildings is not impaired.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. The new public domain space is insignificant in height and it doesn't preclude the visual relationship within the piers. TZG comment: The new lifts, stairs and gantries are designed to have minimal visual impact, respecting the relationship of Wharf 4/5 to the other buildings in Walsh Bay.
7.5.3 Adaptive reuse which respects the integrity of the structure of the building and its curtilage should continue to maintained.	Complies	TZG comment: The current uses of the wharf are retained and improved by the proposal.
7.6 Retention of Significant Spaces		

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7.6.1 There should be no major and permanent partitions introduced on the Upper Deck of Wharf 4/5 that would diminish the building's interpretation as a former commercial goods warehouse.	Complies	The 1983 prize winning and celebrated works have already modified and partitioned the space. This current proposal maintains large areas un-partitioned to comply with this policy. TZG comment: Internal alterations to the Upper Deck are not included in the scope of works for the Walsh Bay Arts Precinct. They are included in the separate STC50 SSDA, which has been lodged concurrently.
7.6.2 There should be no new or permanent development on the wharf apron.	Does not comply	New stairs, lifts and gantries are critical to STC operationally and for accessibility and egress. The new entries are a contemporary interpretation of the heritage gantries that at one point would have moved along the length of the Wharf to facilitate upper level access. The new lifts enable STC to accommodate patrons and staff of varying abilities, and are DDA requirement. They will follow the visual precedent set by the Vivian Fraser refurbishment. Historical documentary, photos and drawings evidence shows how the aprons accommodated gantries and balconies. TZG comment: External lifts and stairs are proposed to provide access to STC50. Locating them external to the building minimises impact on interior significant fabric. Their impact on the wharf apron has been minimised by designing them as contemporary steel and glass elements that are reversible. Further a similar architectural language will be employed to those serving Pier 2/3 unifying the composition across the precinct.
7.7 Conservation of Significant Fabric		
7.7.1 Roof structure Where repairs to the buildings are required, the roof framing including significant roof trusses should be retained where possible.	Complies	The significant heritage asset that the Wharf structure represents has been carefully balanced against the requirements of a reinvigorated STC. The original structure is retained in full, wherever possible. However, the current height restriction that the existing trusses represent is an operational limitation to STC

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		that restricts its ability to continue to meet its world class aspirations. STC manufactures and assembles sets for the Ros Packer Theatre and Opera House Drama Theatre, which requires the ability to assemble sets at full height (8m). This cannot be accommodated with the current roof structure. Through careful planning, the partial alteration of a single roof truss is required in only one internal location. The portion of truss in the public Walk is retained in situ to maintain the full heritage experience and rhythm along the Walk. Where the roof structure is required to support additional load, the existing timber trusses will be strengthened by flat plate of PFC steel structure on either side, bolted through, in keeping with the precedent set elsewhere in Wharf 4/5 and in other Wharf buildings in the Walsh Bay redevelopment.
7.7.2 Roof structure Replacement of corrugated roof panels should match existing corrugated roofing material.	Complies	The STC technical zone above the Theatres permits a fall of five degrees so that the original roof profile can be matched in the cladding to the roof modification. TZG comment: New corrugated metal roof panels will match existing.
7.7.3 Walls - Weatherboard Panelling All identified significant fabric of Wharf 4/5 should continue to undergo regular maintenance. Replacement of weatherboard panelling should match existing panelling. Painted finishes should match existing cladding.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. The recent glazing covering the cargo doors are removed to restore the original looking. TZG comment: Regular maintenance will continue to be carried out. Replacement weatherboard panelling and painted finishes will match existing.
7.7.4 Walls - Face Brickwork Retain significant unpainted face brickwork on the Hickson Road facades of the shored sheds.	Complies	No change expected. TZG comment: No changes are proposed to the unpainted face brickwork to Hickson Road.
7.7.5 Flooring Original timber flooring should be retained in any future use or modifications to the building.	Complies	The original ironbark flooring is a heritage feature of the building. The current proposal will retain the ironbark flooring in full, and where it cannot be exposed, it will be protected and preserved. Where programmatic requirements necessitate a

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		different floor type, such as wet areas, the ironbark will be retained and protected prior to the new floor structure being installed. TZG comment: The original timber flooring is retained. The bitumen will be removed from the Bangarra foyer to reveal the original timber.
7.7.6 Wharf Sub-structure Replacement of timber wharf piles should continue to be part of the cyclical maintenance program arranged in 3 year terms. A detailed pile and structural survey should be undertaken at the commencement of each term to plan the next term of pile and timber replacement due to termite damage and rot above water and teredo damage and erosion below water level.	Complies	TZG comment: Maintenance of the wharf substructure forms part of the scope of works. Timber wharf piles will be replaced as required based on a Condition Audit that is currently being carried out.
7.7.7 Timber Joinery Retain significant timber joinery, including original windows and doors and original internal timber staircase.	Complies	Facade alterations introduce glazing to facilitate the internal program. This will follow the rhythm and precedent of the existing facade. TZG comment: Significant original timber joinery including timber windows and doors are retained. The later windows and doors to Bangarra will be replaced as part of the works.
7.7.8 Building Services Existing functional fire protection, emergency and electrical lighting should be maintained as part of the regular maintenance program.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. The building services are upgraded to satisfy BCA requirements. TZG comment: The proposal includes an upgrade of the existing fire protection, emergency and electrical lighting services to ensure that they comply with current standards.
7.7.9 Wheelchair Access The installation of a wheelchair access lift to the STC Wharf Theatres and Restaurant should respect significant fabric and internal layout of the building. It should be located along the public access to the STC and serve both the main level of the STC and the mezzanine to provide access to all public areas of the	Complies	This has been addressed in the documents and design proposal by the Consultant Team. Already an existent lift is present along the public access to the STC. New lifts are proposed at Mid Wharf and End of Wharf locations to facilitate

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STC. It should be designed and treated as a new element, but one that respects the tradition of externally mounted services infrastructure.		access to both Level 1 and 2. They will be treated as contemporary insertions that follow the precedent of the existing Vivian Fraser lift, but pull away from the heritage facade to minimise impact to the heritage fabric, gutter and crane rail. TZG comment: Two new lifts are proposed externally, on the eastern side of the wharf, to provide public access to the theatres, offices and bar at the end of the wharf. On the western side a new goods lift is also proposed externally. These lifts will be designed to match that proposed to Pier 2/3 to ensure a consistency of architectural language across the precinct. They will be designed to read as distinctly contemporary, free standing elements and be detailed in steel and glass to maximise their transparency and minimise their visual impact.
7.7.10 Air Conditioning The provision of air conditioning units for the Wharf Theatres at roof level should be situated so as to minimise the visual impact from recognised viewpoints such as between the major roof ventilator structures. A visual impact assessment should form part of any proposed works involving the installation of services to the exterior of the building.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. The roof as existing contains plant and exhausts at disparate locations along its length. The new proposal sees the mechanical equipment consolidated and rationalised to the north of the Wharf in its existing valley location, where it is visually screened by the Theatre Roof modification and lanterns. TZG comment: The existing roof contains plant and exhausts at disparate locations along its length. New air conditioning is proposed to Bangarra, SDC and STC50. The proposal seeks to update the mechanical systems utilised in the building and to rationalise and consolidate the associated equipment. This involves packaged units, similar to existing to the lower shed and plantrooms within the new roof pops with consolidated plant platforms located in the northern valley. A Visual Impact Assessment accompanies the proposal.
7.7.11 Environmental Efficiency	Complies	This has been addressed in the documents and design proposal by the Consultant Team. All consultants view the STC50 project holistically, and as part of the broader

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Proposals to upgrade the environmental efficiency of the services infrastructure should take into account a “whole of building” approach and be considered for their physical or visual impact on the spatial and architectural integrity of the buildings in their own right and as components of Walsh Bay as a whole.		Walsh Bay Arts Precinct. Coordination has been undertaken between consultants of the WBAP and the STC50 project to identify opportunities for efficiencies. TZG comment: The roof currently houses a large solar array and STC have a large rainwater reuse tank located under the wharf. A whole of building approach has been adopted for service upgrades which extends across the Walsh Bay Arts Precinct.
7.8 Conservation of Equipment and Machinery		
7.8.1 The Goods Lift within Wharf 4/5 should be retained and an adaptive reuse strategy created.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The goods lift is retained. As it passes between two different tenancies - a commercial tenancy and STC50- it is not possible to use it in the current adaptive reuse. It will however be retained insitu so that it could be used in the future.
7.8.2 Gantry rails on the eastern and western facades should be retained.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Gantry rails on the eastern and western facades are retained. New lifts, stairs and gantries have been designed to be proud of the facades to ensure that the gantry rails are unaffected.
7.9 Principles for Design of new elements		
7.9.1 New or repaired elements should generally adopt the visual characteristics of the surrounding context in order to minimise visual interruption to the original context.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: New elements such as lifts, stairs and gantry balconies adopt a simple contemporary language and are designed to minimise visual interruption to

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		the original context. Changes to the roof are restricted to the central valley to minimise their visual impact. Works to the façades have been designed to respect the chequerboard rhythm of the original facades. The existing curved stairs and western balcony both require upgrades to comply with the BCA. These will be detailed in a simple unobtrusive manner.
7.10 Interpretation		
7.10.1 The current and future re-use of the buildings should include a strong program of interpretation to ensure that the heritage characteristics and layered significance of the place are communicated to visitors.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: A strong program of interpretation is present on the site and will be continued in the new works.
7.10.2 An oral history program should be implemented, participants should include individuals who have been involved in the conversion and maintenance of the wharf and the shoresheds. Rees McKay, Government Architect, who has been responsible for the care and maintenance of Wharf 4/5 through the Department of Commerce is an invaluable source of information regarding the history and use of the site.	Do not Comply	This is not part of the scope. Arts NSW currently lease the site from RMS. No known oral history program has been implemented to date, however, is encouraged in the future. TZG comment: Arts NSW currently lease the site from RMS. No known oral history program has been implemented to date, however, is encouraged in the future.
7.11 Appropriate Conservation Skills and Experience		
7.11.1 Appropriate professional and trade skills should be sourced and employed during the implementation of conservation works and in the design and	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: Appropriate professional and trade skills will be sourced and

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installation of future uses within the buildings.		employed to undertake the works.
7.12 Signage		
7.12.1 Signage on Heritage Items should be: (i) consistent in design to the architectural form of the building to which it is attached; (ii) of a high standard of materials, construction and graphics; (iii) appropriately located on the Heritage Item and of a Compatible design and style with appropriate lettering.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: A Signage and Wayfinding Strategy accompanies the proposal prepared by Urban & Public. It advocates signage that is consistent in design to the architectural form of the building to which it is attached, is of a high standard of materials, construction and graphics and is appropriately located.
7.13 On-going Maintenance Regime		
7.13.1 The current maintenance program should be continued and updated as required.	Complies	This has been addressed in the documents and design proposal by the Consultant Team. TZG comment: The current maintenance program is ongoing. This has recently been reviewed on behalf of Arts NSW by Tropman & Tropman.
7.13.2 Funding should be made available on a cyclical basis for the replacement of wharf piles as part of the regular maintenance program.	Complies	TZG comment: Arts NSW have allocated funds for replacement of wharf piles on a cyclical basis as part of their regular maintenance program.

7.2.3 Review of "Walsh Bay Art precinct Heritage Impact Assessment" by design 5 architects - June 2014

The SSDA requires that this report guides the development of the WBAP. A number of matters may require review as a result of the design development process in Phase 1.

Guidelines <i>Heritage Impact Assessment</i> by Design 5 Architects - 2014	Comments
7.3.1 Waterfront Square	
- The design retains the configuration and reading of the original aprons. - Materiality and character of the space respects the industrial character of the Walsh. - Bay precinct, however, is distinguished from the existing concrete aprons. - The design is flexible to accommodate a range of uses including pop-ups, major events (i.e. New Years Eve, Vivid or Sydney Writers Festival), outdoor cinema and stage performances. - The waterfront square is set lower than the apron of Pier 2/3 and Wharf 4/5 and flush with apron adjacent to the shore sheds to allow on-grade access.	The assessment of the waterfront square is correct and consistent with the current modification of the project. The last modifications have drastically reduced the size of the area.
7.3.2 Proposed Public Domain	
- The structure is to be of exceptional design merit and quality. - The design should be entirely modern and should not copy or confuse itself with the surrounding heritage buildings. - New structure should respect the significance of WBAP. It should be contemporary in design to distinguish it from the earlier work at the same time as being inspired by and reflecting the industrial character of the place. Within these constraints, the structure can also create an "iconic" and "landmark" presence for the site. - The new structure should be visually separate from the surrounding heritage buildings and be self supporting. - The new structure should respect significant views and vistas to and from the site and not impede other significant views that pass through the site. In this respect, it should be open on all sides but can have the ability to be temporarily screened when required for special performances or events.	The current design of the public domain has a strong distinction between the existent Wharfs and the addition, as an independent element but well connected with the surrounding and the original idea of the bay. The modern materials and colours mark the distinction to the heritage buildings. It is at the water level, so it doesn't impede or obstruct any vistas or views of the site, but it creates a new viewpoint to admire the existing Wharfs. It is completely separated from the surrounding building, with a floating self supporting structure just lightly fastened to the apron between Pier 2/3 & 4/5 and anchored with 4 piles on the other extremity to the sea floor.

7.4.5 Roof Top Penetration (ACO)	
• Single breach of the roof in one location only. • It should only occur within the central valley and not impact or alter outer roof slopes. • In accordance with Policy 9.3.5.2 of the Tropman and Tropman CMP, It must not alter any existing roof lanterns “the existing roof lanterns, including windows and metal louvers should be conserved”. • Any additions to the roof should respect the prominence of the roof lanterns. Any alteration to the roof should be setback from the roof lantern and preferably centered between them. • It should not extend higher than the outer roof ridges. • The pair of north-south ridges (over Wharf 2 and Wharf 3) should continue to be a dominant element, and legible as continuing for the full length of the building. • The roof material and colour should match the existing adjacent roofs.	The 2 new roof rises in the existent roof valley do not extend higher than other ridges, do not alter the existing lanterns and being much smaller than the other roofs, they do not dominate.
8.1 Conclusions	
<i>Heritage Impact Assessment by Design 5 Architects - 2014</i>	
Archaeology • It is expected that any proposal for replacement of piles will cause no additional heritage impacts otherwise caused by normal repair and replacement. • Overlays show the proposed square is likely to affect part of an area formally occupied by late nineteenth century wharves, which in 1900 comprised 1no. jetty, as part of Dalton’s complex (late Parbury’s).	Further investigations will demonstrate any issues. See the overlay in this report. TZG comment: An Archaeology Report prepared by CRM and a Marine Archaeology Report prepared by Cosmos Archaeology accompany the proposal.
Industrial Archaeology • The Proposal will retain and conserve items of industrial archaeology in Pier 2/3 and Wharf 4/5 including the dead-house (Pier 2/3), bag chute (Pier 2/3), gantry rails (Pier 2/3 & Wharf 4/5) and goods lift (Wharf 4/5). • Introduction of gantries will have a positive heritage impact on the east façade by adding visual depth and assisting in the interpretation of former uses and first floor cargo doors. The gantries should remain industrial in character, but can be built from modern expressed steel components, welded and bolted.	The current proposal hasn't had any changes regarding the heritage items of industrial archaeology. All the listed items are to be conserved and maintained.
Views and Vistas • Proposed changes to the exterior including opening cargo bay doors, new gantries, balconies and stairs will not alter the scale or mass of the buildings, which are central to their visual dominance.	The new entries are a contemporary interpretation of the heritage gantries that at one point would have moved along the length of the Wharf to facilitate upper level access.

- Centrally located between two important headlands and culturally significant sites; the new Barangaroo Headland Park and Dawes Point Park. The waterfront square has potential to be one of Sydney's major outdoor public spaces and will have a heritage benefit through activation of the wharf. - The design for the cover to the outdoor performance space should be sympathetic and respect the established identity and character of the place. However, within these constraints, there is the opportunity to create a modern structure that reflects current uses and responds to how people interact with historic environments and Sydney Harbour generally as a space for gatherings, events and celebrations.	
Pier 2/3, Elevations - The configuration of the west elevation retains the modular and repetitive character of the façade, including regular bay treatment, semi-flush fenestration and “chequerboard” appearance and accords with Policy 9.3.4.1 of the Tropman and Tropman CMP. - Additional openings are supported on the north elevations of Pier 2/3 and Wharf 4/5. Openings are minimised and centered in the facades with the corners retained as solid. The objective is to retain the wharf as appearing solid at the end. - Opening up of northernmost first floor bay on the east and west elevations by altering existing weatherboards to become adjustable louvres is supported.	Opening up the north facade with additional windows is still a supported idea. It dramatically improves the view to the Harbour Bridge. TZG comment: The opening to the north east corner of Pier 2/3 is consistent with the Stage 1 SSDA. Openings proposed are generally consistent with the approved Stage 1 SSDA.
Wharf 4/5 East elevation - External alterations to ground floor openings on Wharf 4/5 are made to existing glazed openings and will cause no additional heritage impact to significant fabric. - We consider the heritage impact of the additional stair to be moderate but acknowledge the public domain benefits and architectural benefit in mirroring Pier 2/3.	The additional stairs are part of the design idea that relates the Piers 2/3 & 4/5 as a unique organism. The proposal of having 2 sets of stairs mirrored between the two Piers reinforces this idea. TZG comment: These stairs are required to provide egress.
Roof - A photomontage of the roof taken from the Harbour Bridge approach is used to assess the visual impacts of raising the roof. This photomontage shows that if the criteria (outlined in Section 8) are followed, the heritage impacts would be relatively low to moderate. The additions appear to blend in with the existing roof and the lanterns and double ridge retain prominence as an architectural composition. - The addition of the solar array on the inside roof slopes have a minor impact and are deemed acceptable but not on the external slopes.	We agree with this statement. The new roof rises in the existent roof valley, it doesn't extend higher than other ridges, it doesn't alter the existing lanterns and being much smaller than the other roofs, it doesn't dominate.
Surrounding Area	No change.

- The proposals to Pier 2/3 and Wharf 4/5 are mainly confined and centralised around the aprons of Pier 2/3 and Wharf 4/5. Additions to the east elevation of Pier 2/3 will have a positive heritage impact as activating the Pier towards Dawes Point, Pier One and the Harbour Bridge. - No physical changes are proposed to the Hickson Road shore shed elevations or the west elevation of Wharf 4/5. The buildings themselves act as screens to surrounding residential areas. - The proposal reinforces the area as an existing arts precinct and brings a benefit to this diverse community. The facilities will be used by a broad section of the community and considered a positive and “good fit”.	TZG comment: A new goods lift and stair are proposed to the western façade of Wharf 4/5. Further minor alterations are required to the existing curved stairs and western balcony to meet the BCA.
Internal alterations - The internal configuration of spaces have been redesigned following the Master Plan and Final Business Case with an emphasis on improving the relationship and opportunities the heritage building offers each space. With consideration to program and planning matters, we consider the current internal planning arrangement to be the best outcome for the retention and celebration of heritage fabric. Volume, quality and material of original spaces are readily identified and appreciated while new elements are seen as separate and sitting within the heritage envelope. New insertions take on a secondary identity to the primary character of the heritage building. These qualities are fundamental to successful adaptive reuse and consistent with the Tropman and Tropman CMP. - The accommodation of the ACO auditorium will have a high adverse impact, however, these impacts are minimised in terms of the impact to structure and location. The proposal is considered acceptable for the accommodation of the ACO auditorium only. - The retention of a large raw space is a positive attribute to the proposal overall and recognises the important nature of Pier 2/3 as the only unaltered and intact example of large-scale wharfage and goods storage in Sydney Harbour dating from the early 20th Century.	Some improved volumes have been designed by TZG as compared to the stage 1 SSDA. The themed approach has been carried through. TZG comment: This has been further emphasised by separating new volumes from the façade where possible. ATYP also require removal of columns and a roof modifications to accommodate plant and equipment. The upper shed in Pier 2/3 is only 4800mm to the underside of the trusses, which is prohibitive.
Moveable heritage and interpretation The retention of moveable heritage provide opportunities for interpretive displays, however, these displays need to be carefully considered in their context and must not overwhelm or saturate the site.	TZG comment: A Movable Heritage Interpretation Strategy prepared by Tropman & Tropman accompanies the proposal.
Services Introduction of services will need to be done sensitively to avoid potential for adverse impacts.	Services intrusions represent the greatest challenge in the Phase 1 design. TZG comment: Services will be co-ordinated, run in concealed spaces wherever possible and in neat runs where exposed to minimise their impact.

8.2 General Recommendations*Heritage Impact Assessment by Design 5 Architects - 2014***General**

- All policies in the Conservation Management Plans should be adhered to and followed as amended by the recommendations in this report.
- The approach to future conservation and development of the place should be carried out in accordance with the principles of the Australia ICOMOS Burra Charter.
- Detailed designs should be based on drawings prepared by Bates Smart Architects submitted as part of this application. An appropriately experienced conservation architect must be engaged to oversee and advise during detailed design and construction stages.
- Archival recorded of the building must be carried out prior to any works on site.

The proposal is consistent with the general recommendations.

Archaeology

- The location and extent of retained former wharves should be further investigated and mapped prior to any work commencing consistent with Tropman and Tropman CMP 2000 Policy 9.2.1.2 quoted above. The number and location of new piles should be carefully considered in a heritage context to minimize disturbance to archaeological fabric of earlier wharves. Industrial
- Before any commencement of works, a dive team under the supervision of maritime archaeologist should be engaged to undertake an underwater visual survey within the site to locate and record any structural remains and/or cultural deposits associated with the previous wharves (T&T CMP'00, Policy 9.2.1.3).

A Marine Archaeologist is to be appointed.

TZG comment: The proposal is accompanied by a Marine Archaeology Report prepared by Cosmos Archaeology. This involved an underwater visual survey within the site, focusing on the proposed new waterfront square.

Industrial Archaeology

- Industrial archaeology should be retained and respected in accordance with the Conservation Management Plans for the site.
- The structural capacity of existing gantry rails to support new gantries will need to be assessed and if necessary strengthened.

Noted

Views and Vistas

- New stairs, balconies and gantries should be designed and detailed to respect the integrity of the industrial character of Walsh Bay Precinct.

TZG comment: Stairs, balconies and gantries are designed and detailed to respect the integrity of the industrial character of Walsh Bay.

Waterfront Square

The waterfront square will be developed following the Burra Charter

The design must recognise and respect the following principles: • The design must retain the configuration and reading of the original aprons. • Materiality and character of the space must respect the industrial character of the Walsh Bay precinct, however, is distinguished from the existing concrete aprons. • The design must be flexible to accommodate a range of uses including pop-ups, major events (i.e. New Years Eve, Vivid or Sydney Writers Festival), outdoor cinema and stage performances.	guidelines and is consistent with these recommendations.
Waterfront Square Shelter The following principals should be used as guideline for the design of the shelter to the performance space: • The shelter structure is to be of exceptional design merit and quality. • The design should be entirely modern and should not copy or confuse itself with the surrounding heritage buildings. • New structure should respect the significance of WBAP. It should be contemporary in design to distinguish it from the earlier work at the same time as being inspired by and reflecting the industrial character of the place. Within these constraints, the structure can also create an “iconic” and “landmark” presence for the site. • The new structure should be visually separate from the surrounding heritage buildings and be self supporting. • The new structure should respect significant views and vistas to and from the site and not impede other significant views that pass through the site. In this respect, it should be open on all sides but can have the ability to be temporarily screened when required for special performances or events.	The shelter structure proposed is consistent with those recommendations.
Gantry platforms • The reinstatement of gantries is encouraged and should remain industrial in character. • The structural capacity of existing gantry rails to support new gantries will need to be assessed and if necessary strengthened.	The balcony gantry structures will be fixed above the gantry rails. The rails are not functioning.
Roof The following design criteria should be followed for the roof penetration: • Single breach of the roof in one location only. • It should only occur within the central valley and not impact or alter outer roof slopes. • In accordance with Policy 9.3.5.2 of the Tropman and Tropman CMP, It must not alter any existing roof lanterns; “the existing roof lanterns, including windows and metal louvers should be conserved.”	See 7.4.5 Roof Top Penetration (ACO). TZG comment: Two roof breaches are proposed for Pier 2/3 and two for Wharf 4/5. These are required for the theatre spaces and to house associated plant and equipment. Each breach complies with these criteria.

- Any additions to the roof should respect the prominence of the roof lanterns. Any alteration to the roof should be setback from the roof lantern and preferably centered between them. - It should not extend higher than the outer roof ridges. - The pair of north-south ridges (over Wharf 2 and Wharf 3) should continue to be a dominant element, and legible as continuing for the full length of the building. - The roof material and colour should match the existing adjacent roofs. - New solar panels may be added to the inner slopes of Pier 2/3 similar to that of Wharf 4/5. Solar panels should not be extended to outer slopes.	
Moveable heritage - No part of the proposal should prevent the interpretation and display of moveable heritage. - In accordance with City Plan Heritage, Walsh Bay, Wharf 2/3, Moveable Heritage Use & Interpretation Plan, dated June 2011, any future detailed design for WBAP must include a detailed Interpretation Plan to guide the designs of the site specific interpretation and moveable heritage elements. The detailed interpretation plan and strategy for moveable heritage must developed in concert with detailed designs for the WBAP and be an integral part of it.	The items described are not relevant to the WBAP and are the property of Walsh Bay Precinct Committee or RMS. An interpretation plan accompanies the proposal.
Removal of storey posts Removed storey posts should be retained and appropriately tagged to identify the location from which they were removed. Posts should be retained on site as part of the moveable heritage collection and not placed where there may be risk of damage or decay.	Retained storey posts will be salvaged and stored for future se-use.
Archival recording Before any works are carried out, undertake a complete photographic recording of the place in accordance with the NSW Heritage Division Guidelines for Photographic Recoding of Heritage Items Using Film or Digital Capture (Heritage Office 2001, revised 2006). Photographic archival records should include all significant internal and external spaces.	Creation of a complete Archival Record has been completed in draft form for the whole WBAP site and accompanies the SSDA.
8.3 Commercial Arts/Events Space and Foyer Space	
Space Generally	TTA Comment: The existing substructure consists of turpentine piles driven through the seabed down to bedrock. The existing superstructure is a framework of heavy ironbark columns, beams, and floor joists, all

• Retain the reading of the space as predominantly unaltered. • Retain space as full height and open. • Potential to temporarily divide the Commercial Events /Events space using curtain type partitions or screens suspended from the ceiling, installed as required and removed entirely when not required. These may be of flexible or rigid material, transparent or opaque but must not appear to be, nor actually be permanent. • The space should not be modified to accommodate a fully controlled air-conditioned environment. Improvements may be made to draft sealing, space heating and ventilation, however, these interventions must respect the predominant industrial character of the space and the environment in which it is located. • Finishes to remain as existing, with evidence of previous maritime related use retained. • Avoid new structure or services.	sheltered by existing oregon roof truss frames and purlins. Both substructure and superstructure have been subjected to a number of structural maintenance and upgrading programs over their lifetime. Apart from general repairs to the old structure, other structure changes involved the removal of internal columns with new steel transfer framing, new steel framed stairs and lift shafts, new steel and timber framed mezzanines floors, roof plant platforms, and addition of an external apron slab all round. The proposed upgrade and alterations involve removal of additional internal columns, replacement of some columns previously removed, additional stairs, lifts and mezzanine floors throughout, raised roof profile in parts, and some additional roof plant platforms. The underlying structural design intent is to treat the existing structure and heritage fabric with a high priority and to minimise the structural impact whilst expressing the existing structure where possible. Different structural approaches and systems have been considered, with the least invasive adopted. With the proposed upgrade and alterations it is inevitable that loading on the existing structure would increase. At locations where existing structural members become overloaded, where possible the existing structure is utilised by strengthening with steel plates and members in a manner acknowledging their heritage, rather than removing and replacing with new. For the proposed performance and theatre type building use and increased number of occupants, a number of acoustic and fire safety related design aspects require upgrading. Similar to the structural alterations and strengthening, a number of approaches and systems were considered. Where achievable, the existing timber structure was reviewed and deemed adequate to provide the required insulation and protection. For existing structural elements that require fire protection, intumescent paint is specified for its minimalist impact on the existing form. The structural design of the Walsh Bay Arts Precinct and STC50
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	alterations acknowledges the history and heritage aspects of the existing structure and environment in which it is located. Structural solutions will be considered and adopted based on the most minimalist impact on the existing structure and heritage fabric. Existing structure will be sensitively re-used where possible, and all new structure will be detailed to compliment and express the existing. TZG comment: Need new lights, heaters, sprinklers But no air conditioning
Hardwood Storey Posts • Retain hardwood storey post layout and respect their dominance within the space. • To remain exposed and unpainted. • Retain and protect painted column numbers and other markings that give evidence of past uses. • Retain evidence for the original location of external screens (former loggia) along the east side.	The current proposal is aligned with this recommendations. Hardwoods storey posts are generally retained in-situ, exposed and unpainted, complete with their column numbers and other markings.
Floors • Retain and expose existing floor structure and surface including evidence of hatches, penetrations and change of board direction. • Avoid leveling out undulating and uneven boards unless they are a dangerous trip hazard. Only then should careful releveing take place by packing out or shaving the underside of the board. Boards MUST NOT be sanded to create a level surface. • Any loose boards should be appropriately re-fixed. • Timber boards should be left in their raw state and not coated.	The current proposal is aligned to these indications. No major interventions are to be undertaken, impact will be addressed.
Floor Structure Above • Retain, expose and respect the visual dominance of composite timber and steel structure overhead including elements identified in Tropman and Tropman CMP Policy 9.3.3.2: - Riveted steel strong-backs and steel bar turnbuckles. - Triangular riveted steel web plates. - Heavy timber framing (first floor) where the floor was raised to fill in the truck loading bay.	The current proposal is aligned to these indications. Where main interventions are to be undertaken, impact will be addressed. TZG comment: Strongbacks running in the east west require intumescent paint in both Pier 2/3 and Wharf 4/5 in order to achieve the required 1 hour fire rating.

- Timber deck above including beams, floor boards, planks etc. - Conduits and services from pre 1970 uses. • Elements mentioned above must not be painted.	
Cargo Doors • All bay doors should be retained in working order. • Glass screens may be erected to assist with internal comfort and noise. They should sit inside the line of the doors so they are not visible from the outside when doors are closed. The integration and detail of any new glass screens must be carefully considered so that they are not distracting and meet the objectives of the space generally. • Retain existing timber protection barriers to bay doors. • Cargo bay doors should be painted externally as required but not internally.	Cargo doors are to be retained in working order. TZG comment: New glass doors to Pier 2/3 are proposed on the outside of the cargo doors consistent with those to Wharf 4/5.
Windows and external walls • Opportunity to remove the later panel of weatherboard on the east side of the north elevation including the adjacent return panel on east elevation to interpret former loggia opening along the east elevation. • Additional external openings are to be avoided. • Inside face of external walls should be left exposed and unpainted. No linings applied unless temporary and reversible. • Window joinery should be painted externally as required. • Opportunity to reinstate the original configuration of windows and louvres based on documentary evidence if required.	TZG comment: Pier 2/3 generally consistent with Stage 1 SSDA except new windows replace metal infill to upper shed eastern facade to match original. The proposal takes this opportunity by removing the later panelling and reinstating in part the original configuration of the buildings in Pier 2/3 by removing: - The high level metal wall panels to the East facade, - Two middle panels to the North facade and panels at the first level, - One large panel to the East side of the North facade at the Ground level. The asymmetric result on this facade is a fine detail to re-equilibrate the weight of the openings already present on the West side of the same facade but in a remodulated design. This avoids sympathetic mirroring of the existing openings still keeping a regenerated balance. In Pier 4/5 the only panels to be demolished are 2 in the central section of the North facade at ground level. This intervention creates a harmonious rhythmic cadence to the facades and opens up the views allowing natural lighting to the place.

Lighting • Retain early steel high-bay lights in their current locations. • Opportunity to enhance the interior with new lighting design that showcases the interior and significant fabric, ceiling, columns, floor, walls etc. • Location of additional lights should be discrete and respect the repetitive and modular configuration of the space. • Any newly introduced light fittings should comfortably sit within the background and not draw attention to themselves. • Indirect lighting is preferable for all additional lighting. • Fluorescent hanging lights are intrusive and should be removed.	Lighting will be developed in the next phase consistent with this recommendations.
Services • Where services are reticulated within the space, they should be face fixed with clamps or screws and be easily removed without damage. Services must not be chased. Glues must not be used. • Radiant heaters and/or fans may be suspended from the ceiling. Their location should respect the regularity of the grid and earlier policies and they should not dominate the space. • Services should not damage significant fabric. Any new service, including a cable or hydraulic run, must be configured to go around existing fabric rather than cut through it or follow existing services routes. • Service reticulation under the floor is encouraged as opposed to within the space. • New power supply points may be provided by lift up panels within the floors, adjacent to columns or walls or other proven non-intrusive methods. Where possible, they should be fitted in the location of previous repairs.	These listed indications are sensible recommendations that are well followed in the proposal. Where possible the interventions minimise the damage to the existing fabric and choose the least intrusive option instead of the most economic. Radiant heaters are still proposed suspended from the ceiling.

8. Heritage Impact Assessment

8.1 Impact of the Design Proposal

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
GENERAL			
Infrastructure upgrades, demolition, hazmat removal and sub structure works	These operations are essential to improve public safety	We consider there to be nil/minimal negative effect. The Walsh Bay precinct as a whole has undergone massive rejuvenation works over the past 15-20 years. Wharf 4/5 itself underwent major adaptive reuse in 1985. These works respect the heritage significance of the place and will not detrimentally impact upon this significance.	Carefully dismantle the structures and salvage and reuse fabric on site. All original and early fabric must be appropriately protected during construction and subsequently maintained.
Removal of timber columns. - 3 on Ground Level Wharf 4/5 - 7 on First Floor Level Warf 2/3	This is required to obtain completely open areas in the theatres and rehearsal rooms. Three of the columns are proposed to be reinstated in other areas.	This will cause some loss of original elements however the impact is considered to be minimal.	The removed columns must be numbered, tagged and securely stored. The holes in the floors should be covered with a similar type of floorboards but should not be made to mimic the existing in terms of age and patina in order to allow the clear interpretation of the removed column locations. The new patches should be appropriate and clearly interpreted as new reparations.

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
			Removed columns could be re-instated in locations where they were removed during previous alterations.
New flooring	The new flooring will be laid down on top of the existing Ironbark floorboards to protect the heritage fabric in areas requiring acoustic treatments or heavy traffic: - In the rehearsal rooms and theatres this is a requirement for soundproofing. There is no loss of original fabric and this operation is reversible	We consider there to be nil/minimal negative effect.	Minimise fixings where possible. Significant building fabric and elements are to be protected from potential damage during the works, especially demolition works. Protection systems must ensure historic fabric is not damaged or removed.
Restoring of Ironbark floorboards	Large areas of the Ground and First Floor Level in Pier 2/3 expose the original heritage significant rough sawn floorboards.	We consider there to be nil/minimal negative effect.	In areas where the gaps between the floorboards exceed 5mm or there are raised edges that exceed 3mm in height then the floorboards shall be repaired to ensure a more even surface for OHS and equitable access requirements.
Upgrades to meet compliance with current BCA, DDA and fire codes	This is a positive outcome in achieving a better use of the space and upgrade the kitchen to a current quality and safety standards.	We consider there to be nil/minimal negative effect.	Locate all new fixings into non significant fabric where possible. Services such as plumbing, electrical, air-conditioning shall reuse existing service points and reticulation, as much as possible, or be accommodated within existing or new cavities to avoid impact on significant fabric. Do not chase original fabric.

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
New lifts and stairs	This will create better circulation through and around the buildings and also provide equitable access to this state significant site.	We consider there to be minimal negative effect.	Clearly distinguish new elements from original fabric. Salvage removed original structural elements.
Creation of new public toilets	Upgrade and compliance to current and foreseeable future needs of the site as well as compliance with current codes.	N/A	Group toilets where possible to minimise service runs.
Creation of performance venues, rehearsal rooms, production workshops, back of house facilities and offices	This operation will provide for the current and foreseeable future demands of the buildings	The removal of heritage timber columns and steel trusses over will have some impact, however this is mitigated by the overall preservation of the buildings and ongoing adaptive reuse over the next 50 years.	Carefully dismantle the structures and salvage and reuse fabric on site where possible. Tag and store surplus.
Retention of a large proportion of the ground floor in its existing 'raw' heritage state for events and festivals including Sydney Writers' Festival and Biennale including venue and commercial hire.	This is a positive outcome in achieving overall conservation goals by keeping the original raw and empty status of some areas	We consider there to be nil/minimal negative effect.	Any works must allow for the maximum retention of heritage fabric.
Creation of function spaces, bars, cafes and foyers extending onto external gantry platforms (balconies) providing breakout space for internal foyers and allowing views of outdoor	This operation is part of the strategy for a new use of the building. New balconies interpret the former travelling gantries.	We consider there to be nil/minimal negative effect.	Locate all new fixings into non significant fabric where possible.

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
performances			
Restoring of Heritage Items: - Dead House - Bag Shute	This is a positive outcome in achieving overall conservation goals by restoring existing heritage items.	We consider there to be nil/minimal negative effect.	All original and early fabric must be appropriately protected during construction and subsequently maintained.
Creation of dedicated areas for Interpretation of movable heritage items	There is an extensive interpretation display throughout the Walsh Bay Precinct and this is a continuation of that, providing for displays and interpretation of moveable heritage items explaining the past industrial maritime use of the place to the public.	We consider there to be nil/minimal negative effect.	All interpretation should be guided by the Interpretation Plans and Strategies prepared on the place in consultation with the heritage architect. Locate all new fixings into non significant fabric where possible.
EXTERNAL			
External stairs for fire egress	This reconfiguration of external stairs will improve safety and movement for people during major events. In both Pier 2/3 & 4/5 a consistency of contemporary detailing will articulate these new elements across the WBAP.	We consider there to be nil/minimal negative effect.	Locate all new fixings into non significant fabric where possible.

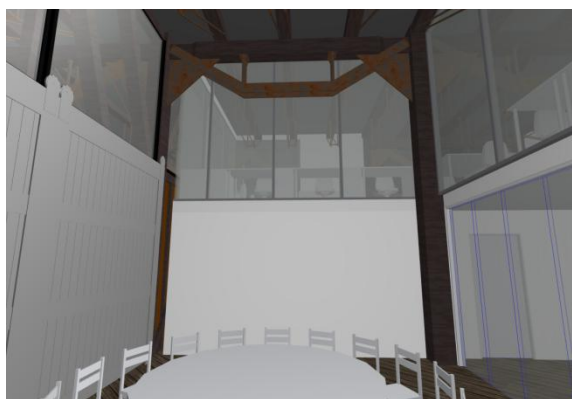
DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
New external lift for access	This is a positive outcome to provide equitable access to this state significant place. By a well considered design placing the lift outside of the building, this reduces the loss of heritage fabric that an internal lift would create.	We consider there to be nil/minimal negative effect.	Locate all new fixings into non significant fabric where possible.
Installation of glazing in existing cargo sliding door openings and other solid panels on the eastern, western and northern elevations to allow for views into and out of the building.	New balconies will improve the view from the Wharfs and lighting into the Piers and interpret the travelling gantries which once moved along the aprons.	We consider there to be nil/minimal negative effect.	All original and early fabric must be appropriately protected during construction and subsequently maintained.
Roof penetrations within the central valley at the southern and northern end to accommodate new performance spaces and associated structural modifications including truss strengthening.	This operation is necessary to create additional space in height, necessary for performance and set accommodation. Roofs of the Walsh Bay Wharves have been modified during the redevelopment that has taken place over the past 15 years, setting a precedent.	We consider there to be minor impact. In context of the size of the structures, this is a small compensation which will adequately accommodate current and foreseeable future demands on the place. This is demonstrated by the visual impact analysis.	All original and early fabric must be appropriately protected during construction and subsequently maintained.
Installation of ESD elements, such as photovoltaic panels and seawater heat exchange systems	This is in line with current best practice in sustainable design.	We consider there to be nil/minimal negative effect.	Locate all new fixings into non significant fabric where possible. Locate PV cells on new roof elements.

DESIGN PROPOSAL	POSITIVE EFFECT	NEGATIVE EFFECT	RECOMMENDATIONS
			Locate chillers past first two rows of columns under the deck.
Raising of the external floor level on the eastern side by introducing a new raised deck and continuous set of stairs beyond the existing column line	This allows level access to both sides of pier 2/3. This deck will be detailed in a reversible manner.	We consider there to be nil/minimal negative effect.	Ensure new work is identifiable as such in accordance with Burra Charter principles.
Proposed Public Domain	The current design of the public domain has a strong distinction between the existent Wharfs and the addition, as an independent element but well connected with the surrounding and the original idea of the bay. The modern materials and colours mark the distinction to the heritage buildings. It is at the water level, so it doesn't impede or obstruct any vistas or views of the site, but it creates a new viewpoint to admire the existing Wharfs.	We consider there to be nil/minimal negative effect.	Ensure new work is identifiable as such in accordance with Burra Charter principles.

8.2 Wharf 2/3: Impact of the Design Proposal by Area⁴²

Ground Level Wharf 2/3

Wardrobes, Workshops, Tech, Reception, Meeting, WCs, Utility, Meeting, Archive, Lift



Bell boardroom. 3D by TZG

WORK DESCRIPTION:

Removal lift and stair of 2003.

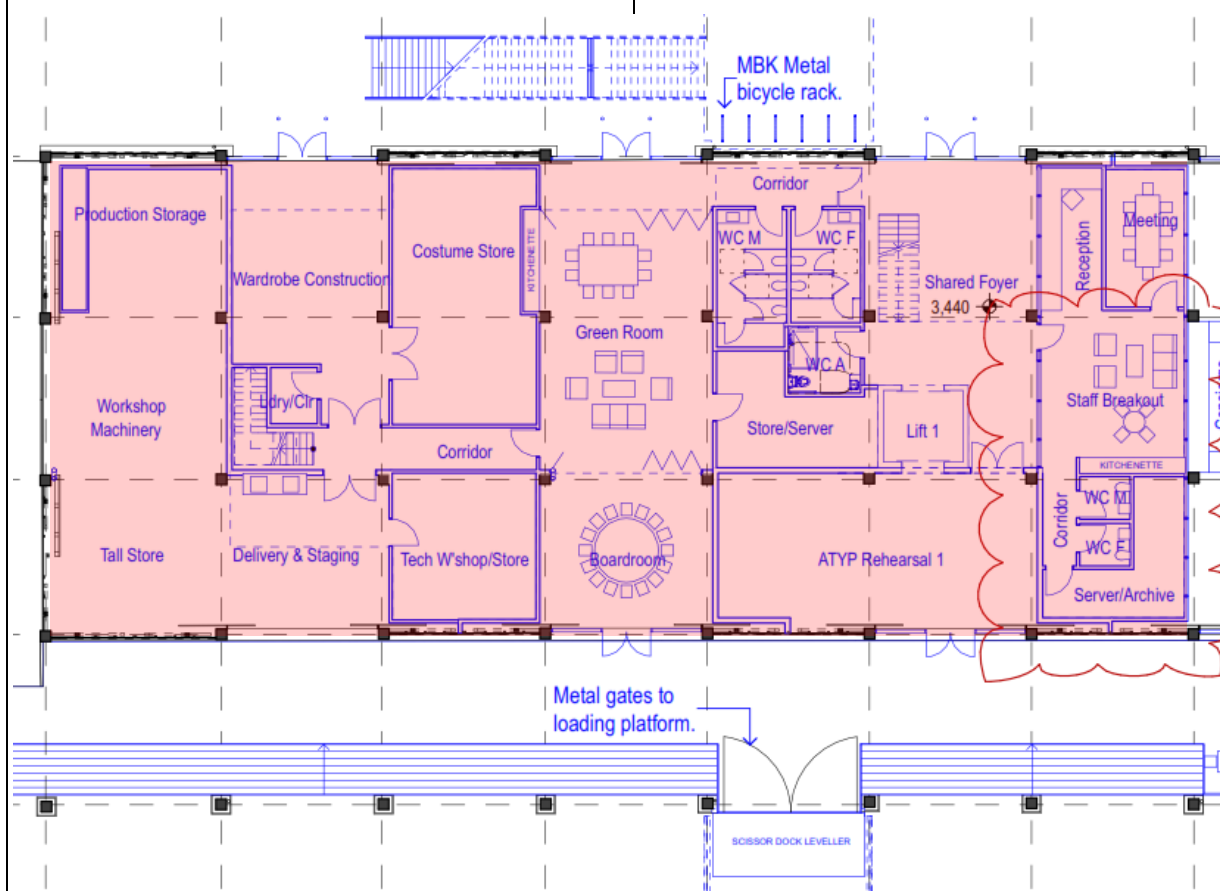
New partition walls.

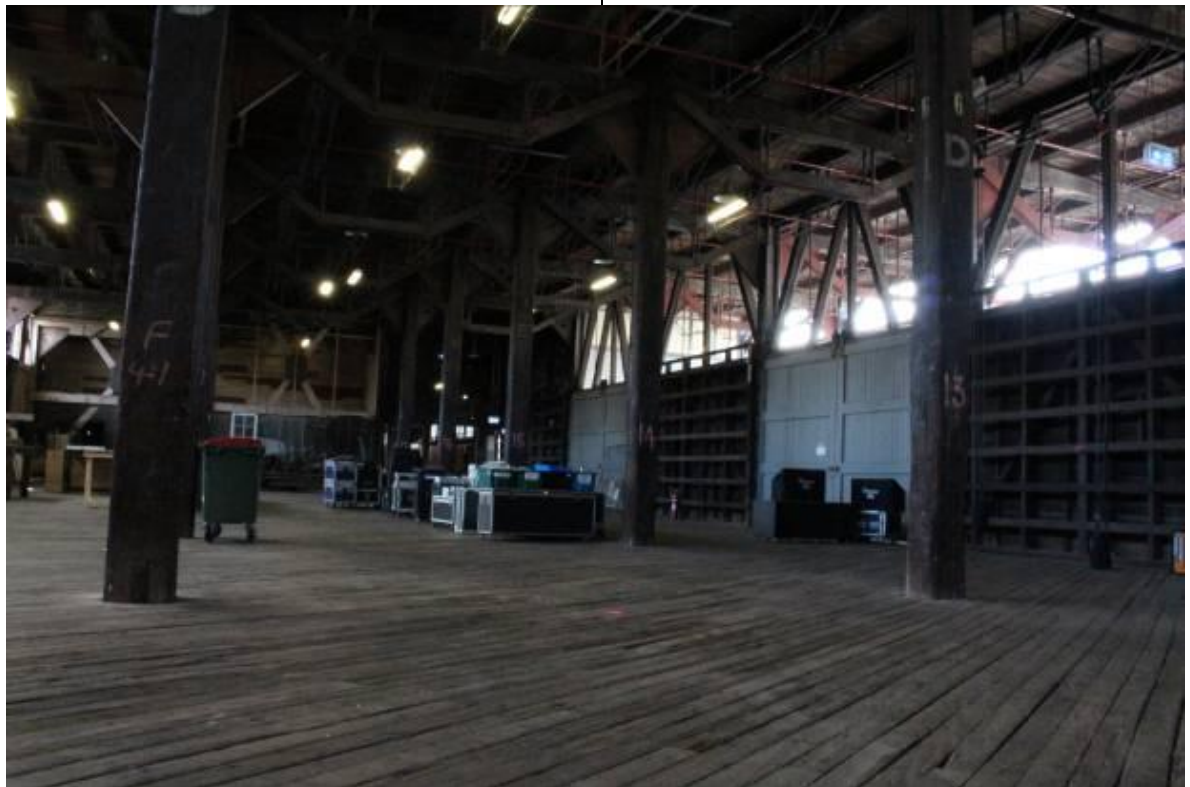
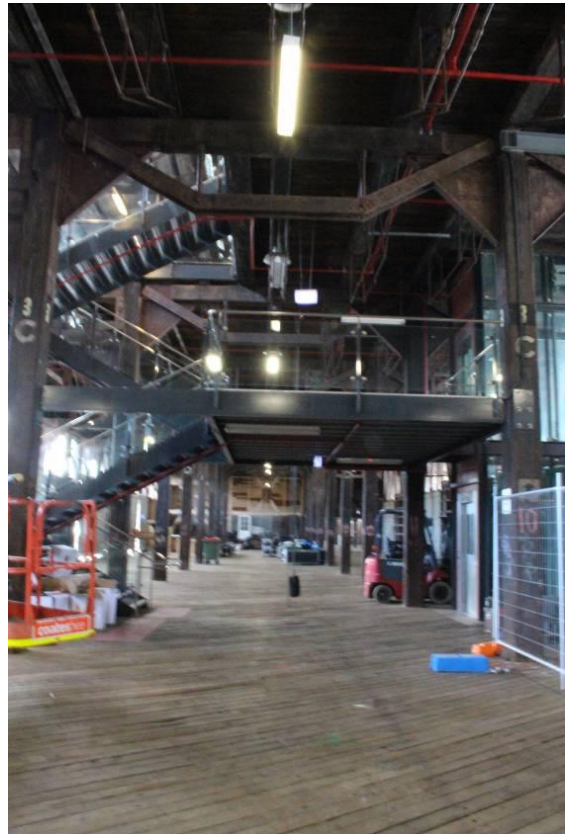
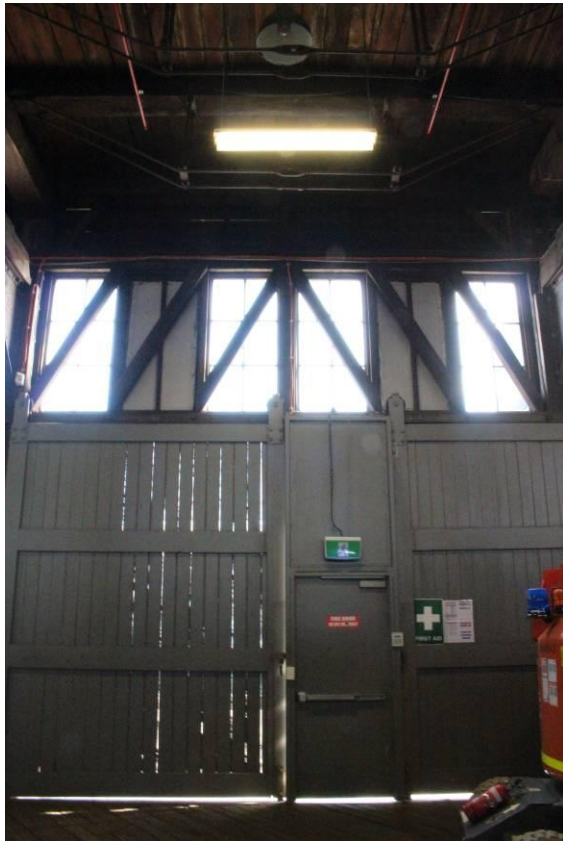
POSITIVE EFFECTS:

New partition walls are set back from external walls and generally following the spacing of the existing strongbacks, reinforcing the heritage volume of the place.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

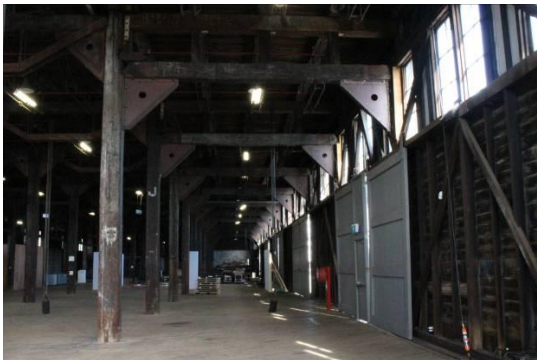




Ground Level Wharf 2/3

Commercial 1

Flexible Open Space



WORK DESCRIPTION:

The brief calls for a large raw space for temporary events. This space has minimal interventions to maintain and celebrate the heritage structure, which spans the full width of the building, and to capture views both into the precinct and toward the Sydney Harbour Bridge. The structure, floor and external walls are to be left largely untouched. The cargo doors will have glazing infill installed and space heating will be provided to provide thermal comfort year round.

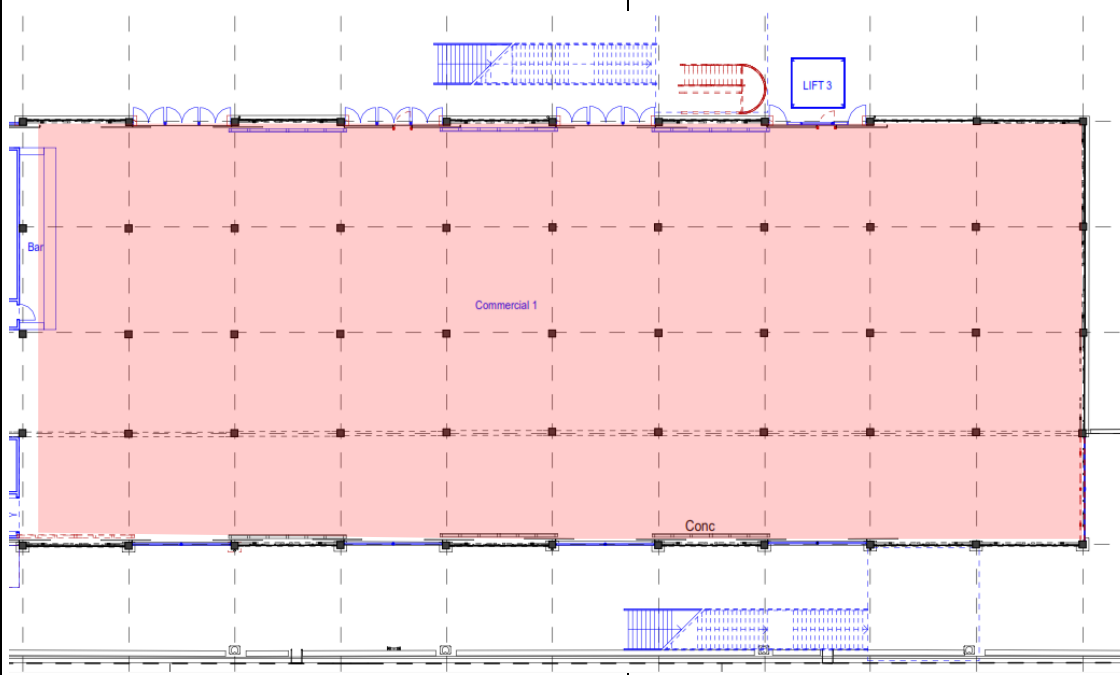
The event space spans the full width of the building, offering views both east and west. A new opening is proposed in the eastern bay of the north wall interpreting the former extend of the colonnade, providing northerly views to the Harbour.

POSITIVE EFFECTS:

A well considered design limiting intervention to heritage fabric and upgrading to current and foreseeable demands for use as a public exhibition space.

NEGATIVE EFFECTS:

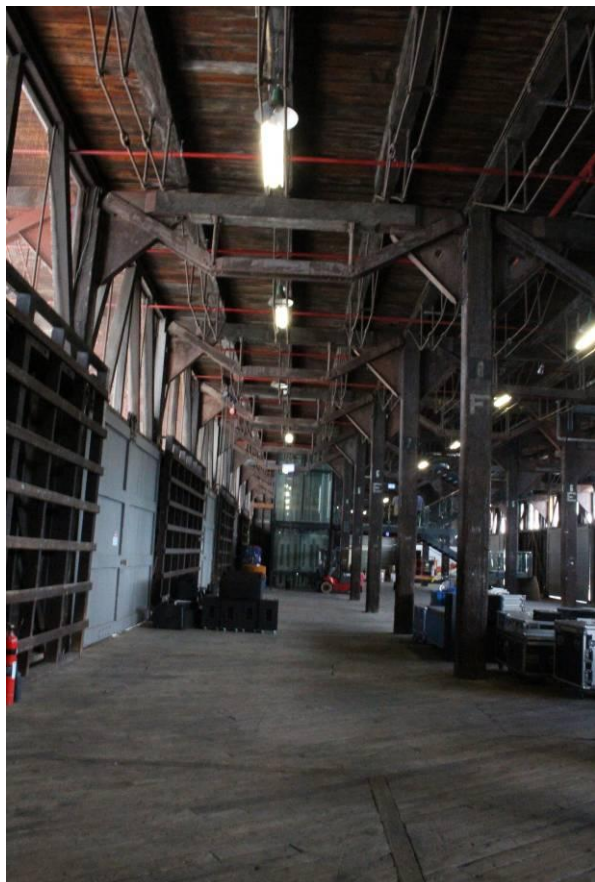
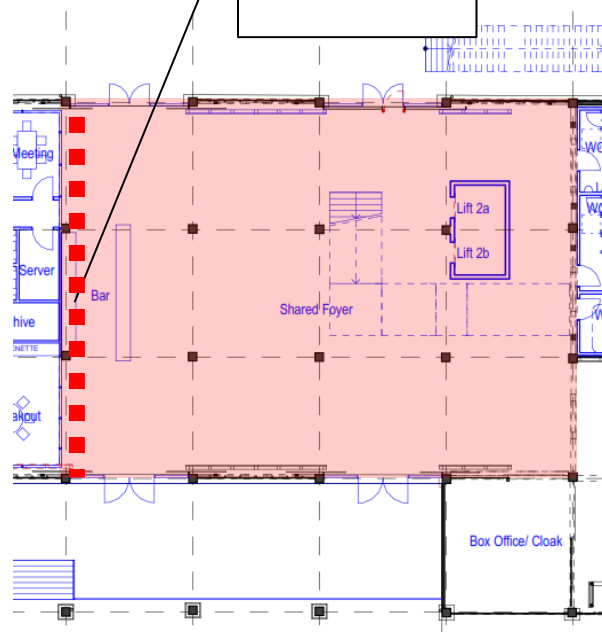
We consider there to be nil/minimal negative effect.



Ground Level Wharf 2/3

Public Foyer

Interpretation wall



WORK DESCRIPTION:

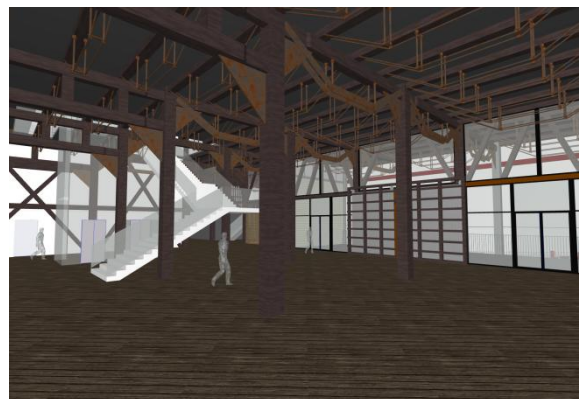
The main lobby is located in the centre of the lower shed providing access to the northern event space and, via a glass lift and stair, to the performance spaces in the upper shed. The lobby has two 6m-wide cargo-door openings to both the eastern colonnade and the western apron, providing public access through the building in addition to views of the Arts Precinct to the West and Sydney Harbour Bridge to the East. The 350m² lobby is designed to operate as a function space, either independently or in conjunction with, the larger Commercial Arts/Events space to the North.

POSITIVE EFFECTS:

Appreciation of heritage structure.
Interpretation wall for Heritage Movable Items.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



3D render by TGZ

Ground Level Wharf 2/3

Kitchen/Bar Block and WCs

WORK DESCRIPTION:

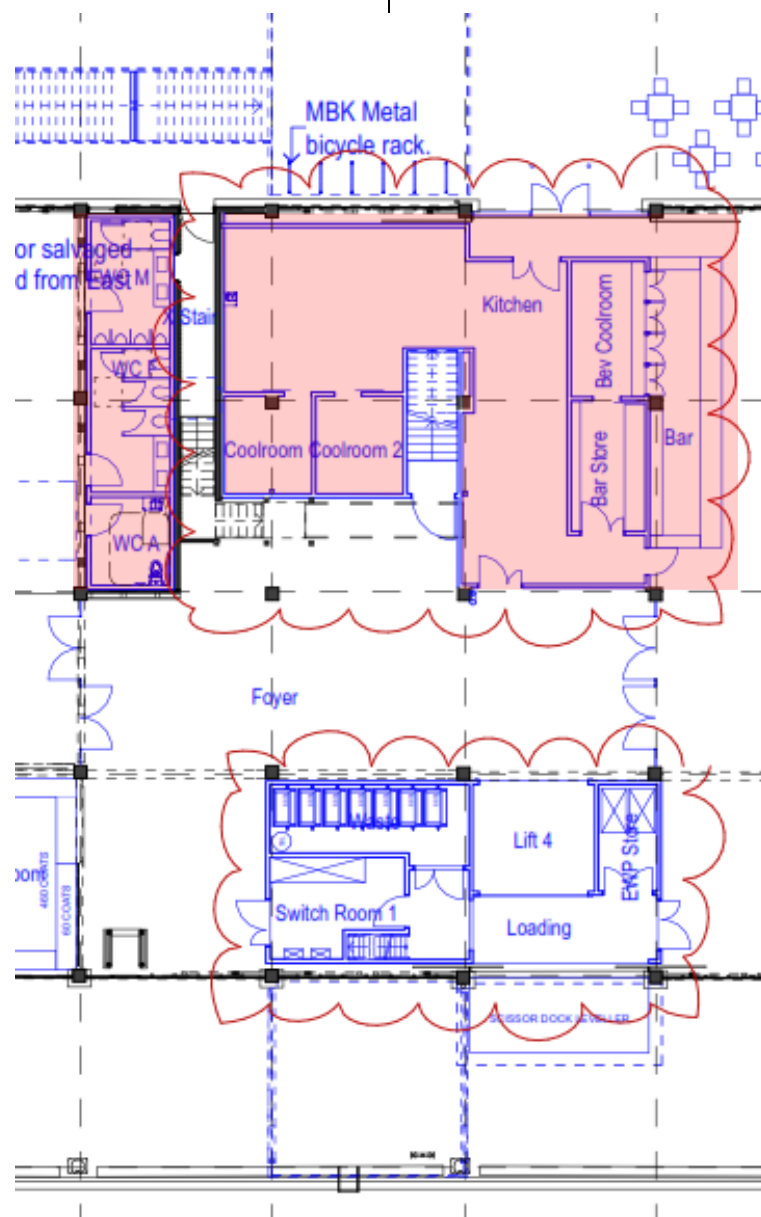
Insertion of kitchen, bar and toilets with relative plumbing.

POSITIVE EFFECTS:

The new use of the Wharf requires amenities, for both the public and staff, to satisfy not only the BCA but also the visitor's experience.

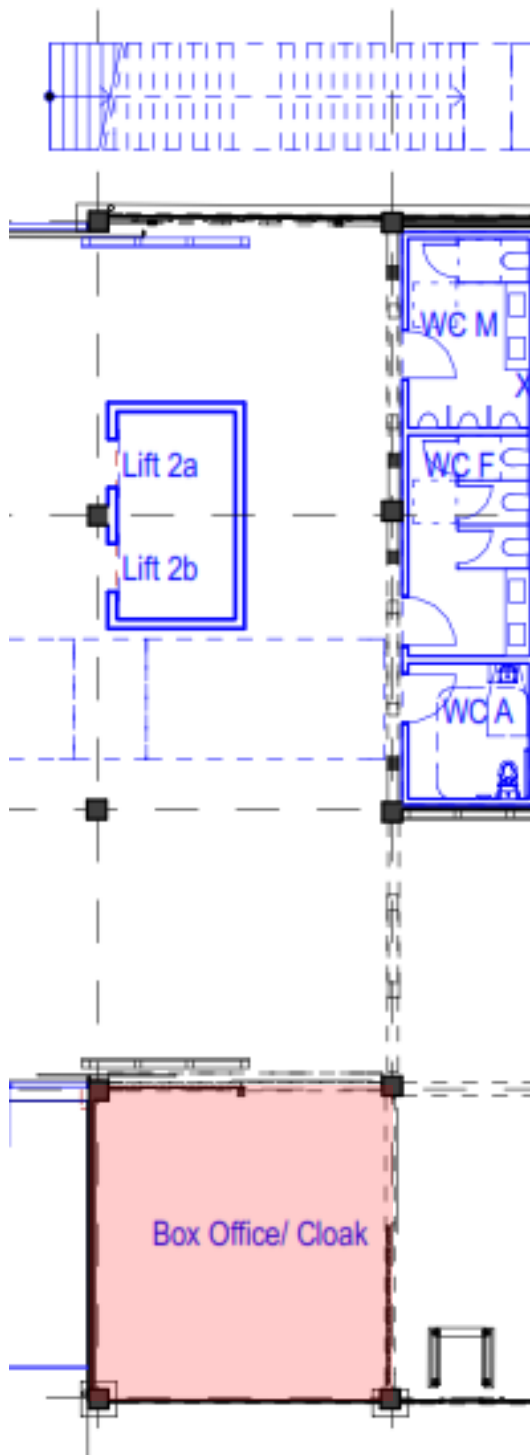
NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



Ground Level Wharf 2/3

Box Office /Cloak, Services



WORK DESCRIPTION:

Restoration of the Heritage significant Dead House and reusing it as box office.

POSITIVE EFFECTS:

This is a clever adaptive reuse of this significant element, ensuring it is an integrated part of the new life of Wharf 2/3.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



Mezzanine Level Wharf 2/3

Open Plan Office ; Offices ; Meeting Rooms



3D by TGZ

WORK DESCRIPTION:

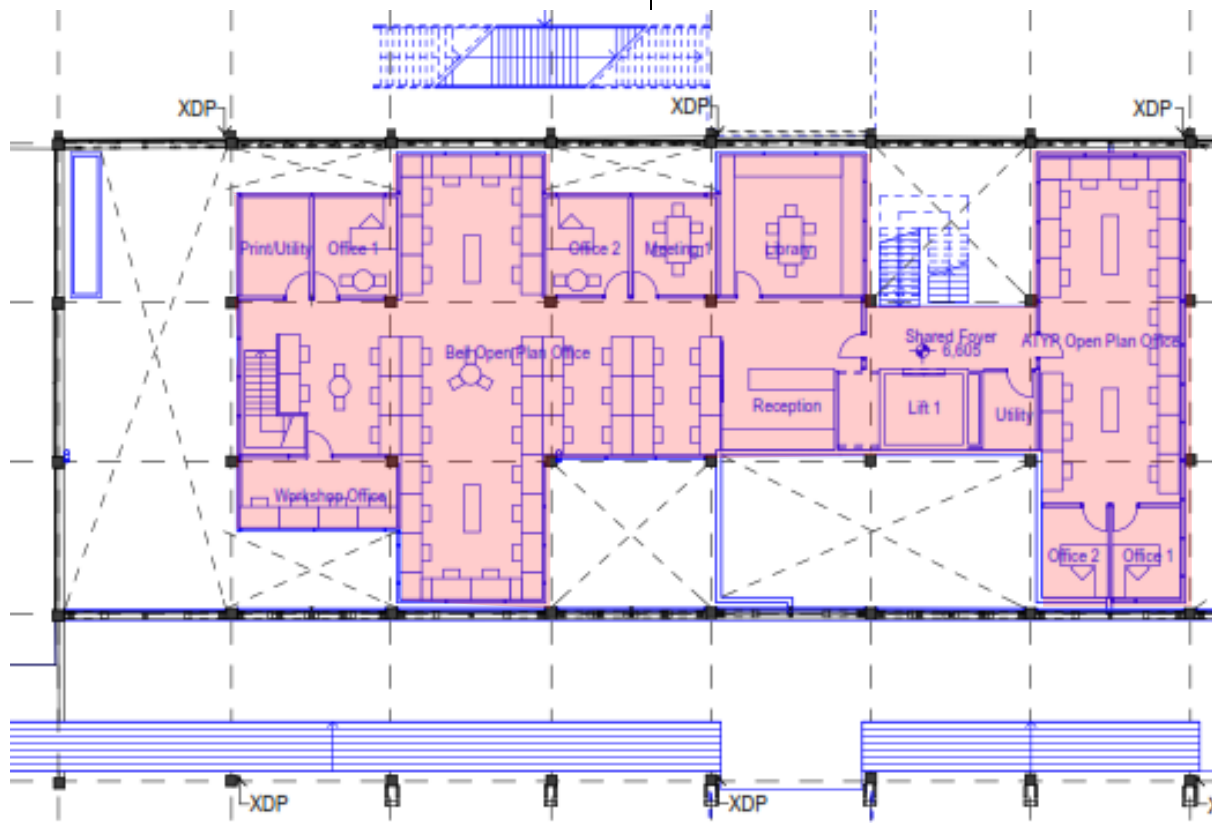
At the south end of the lower shed, mezzanines are carefully located to reveal the full height space immediately inside the cargo doors. Mezzanine floors have been set back from the cargo doors at the facade in order not to interrupt the existing rhythm of the facade and to permit their operation. Mezzanine floors will be designed as inserted contemporary elements, clearly independent of the original fabric.

POSITIVE EFFECTS:

Insertion of mezzanine floors is appropriate to the former uses and scale of the building.

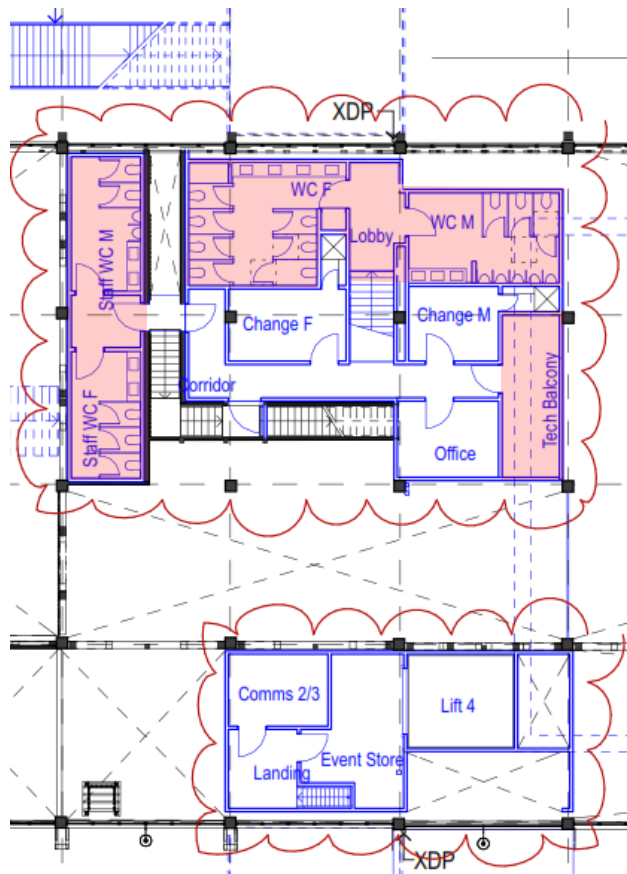
NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



Mezzanine Level Wharf 2/3

WCs and Tech Balcony



WORK DESCRIPTION:

Insertion of a new mezzanine floor

POSITIVE EFFECTS:

Insertion of mezzanine levels for needed space is an accepted design in industrial buildings and is appropriate here.

The new use of the Wharf requires amenities, for both the public and staff, to satisfy not only the BCA but also the visitor's experience.

Toilets are grouped in this new area. Plumbing is located in the new floor and walls which are set back from the heritage fabric, limiting impact.

NEGATIVE EFFECTS:

Downstairs accessible toilet may require removal of top layer of flooring to achieve levels.

Removal of fabric mitigated by improved functionality. Impact is minor.

Level 1 Wharf 2/3

Rehearsal Rooms

POSITIVE EFFECTS:

Works will cater for the current and foreseeable future demands of the place.

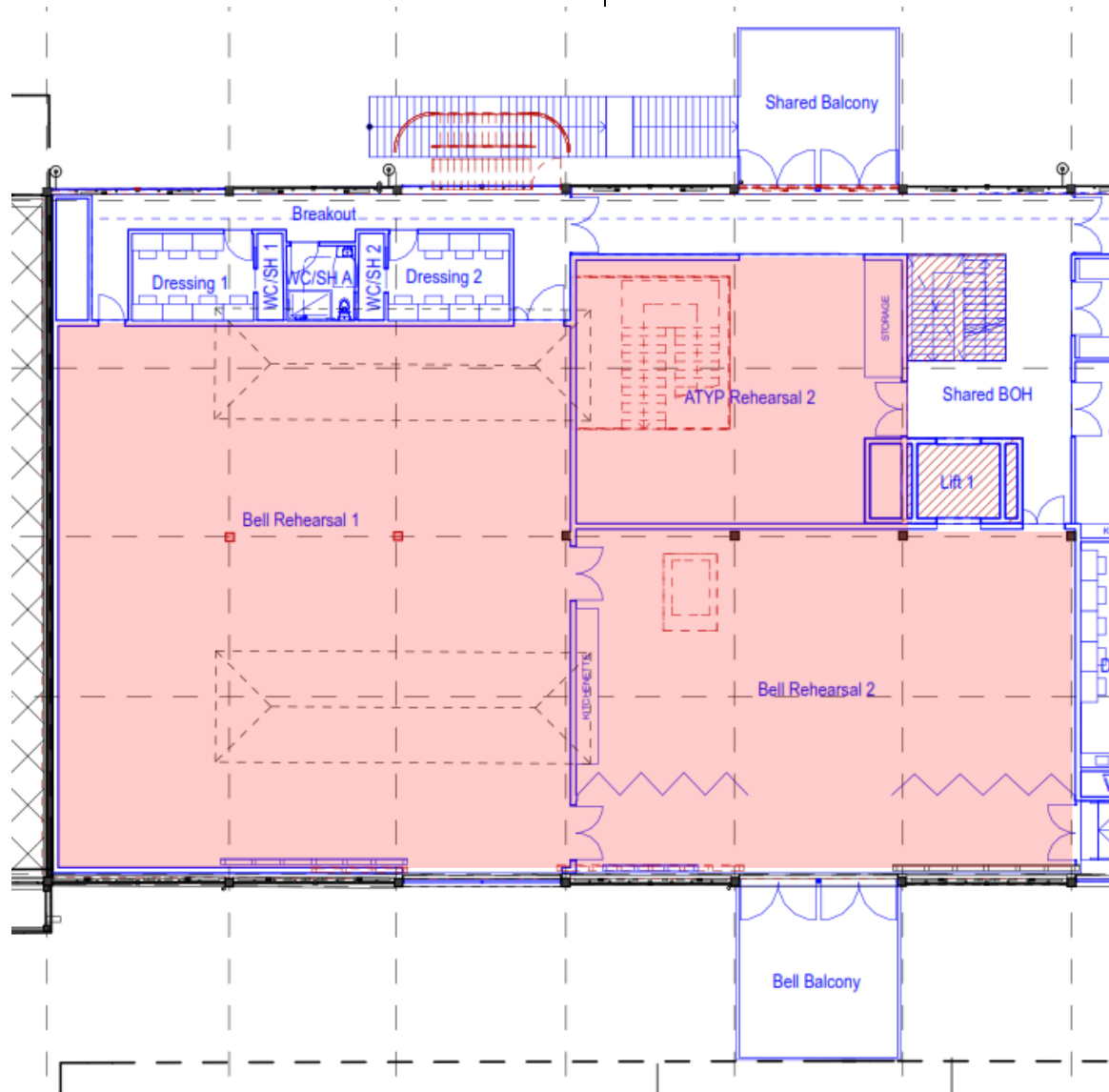
NEGATIVE EFFECTS:

Removal of two timber posts, installation of new beam and truss strengthening. Mitigated by improved functionality. Impact is minor.

WORK DESCRIPTION:

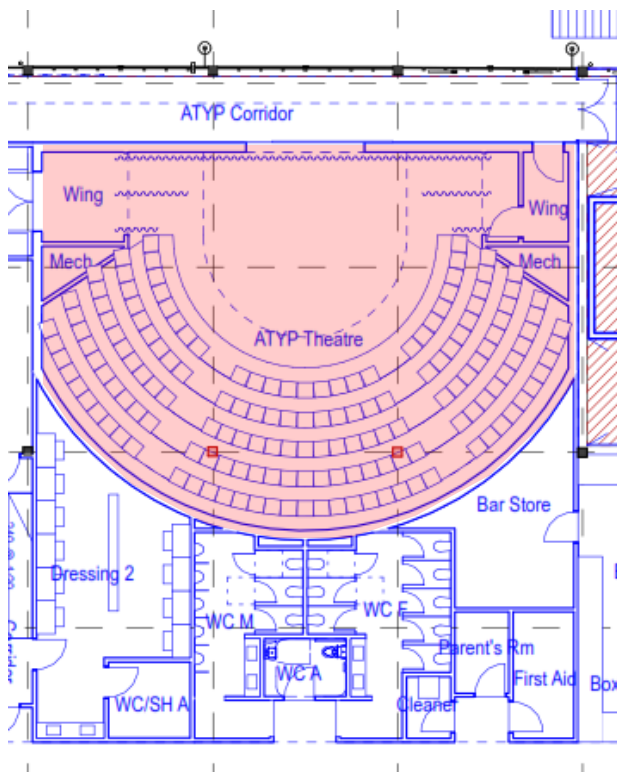
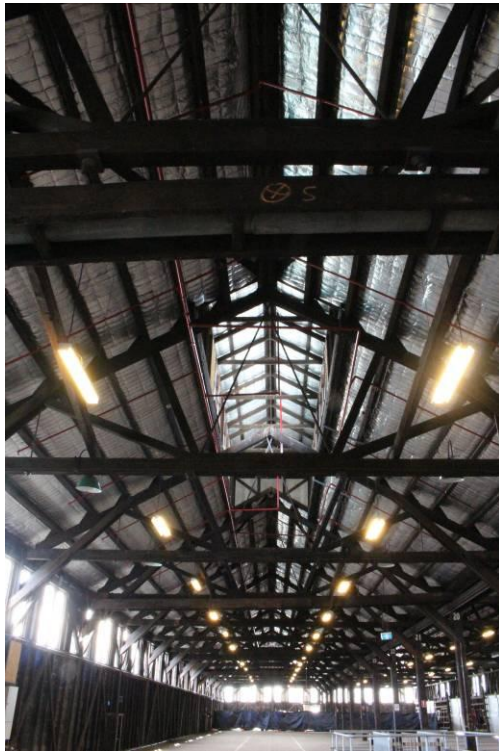
Because of the need to provide a very tightly controlled environment to protect valuable music instruments, the air-conditioning system will need to operate out of normal operational hours. The systems required to control humidity separately from the adjoining auditorium will need careful assessment for noise control.

Mechanical plant is located in the raised section of roof between the valleys.



Level 1 Wharf 2/3

ATYP Theatre



WORK DESCRIPTION:

Auditorium and rehearsal space are required to be column free and are thus located in the upper shed to minimise removal of existing structure. It cannot be avoided to accommodate the arts companies' requirements. New insertions will be expressed as distinct architectural elements that will read as objects independent of the original fabric. This performance space present a raised floor over a concrete topping.

The design of the air-conditioning system ensure that the ductwork does not interfere with the technical theatre systems and to avoid the system being overly noisy.

The southern half of the upper shed accommodates a 200 seat theatre for ATYP and three large rehearsal spaces. These have been arranged to minimize the removal of heritage fabric.

The theatre is arranged in a semi-circular, thrust arrangement with a steep rake. This limits the distance required for children performers to project their voices and maximises a sense of intimacy and audience engagement.

POSITIVE EFFECTS:

Design has been well considered to minimize impact on heritage fabric and removal

NEGATIVE EFFECTS:

Removal of two timber posts, installation of new beam and truss strengthening. Mitigated by improved functionality. Impact is minor.



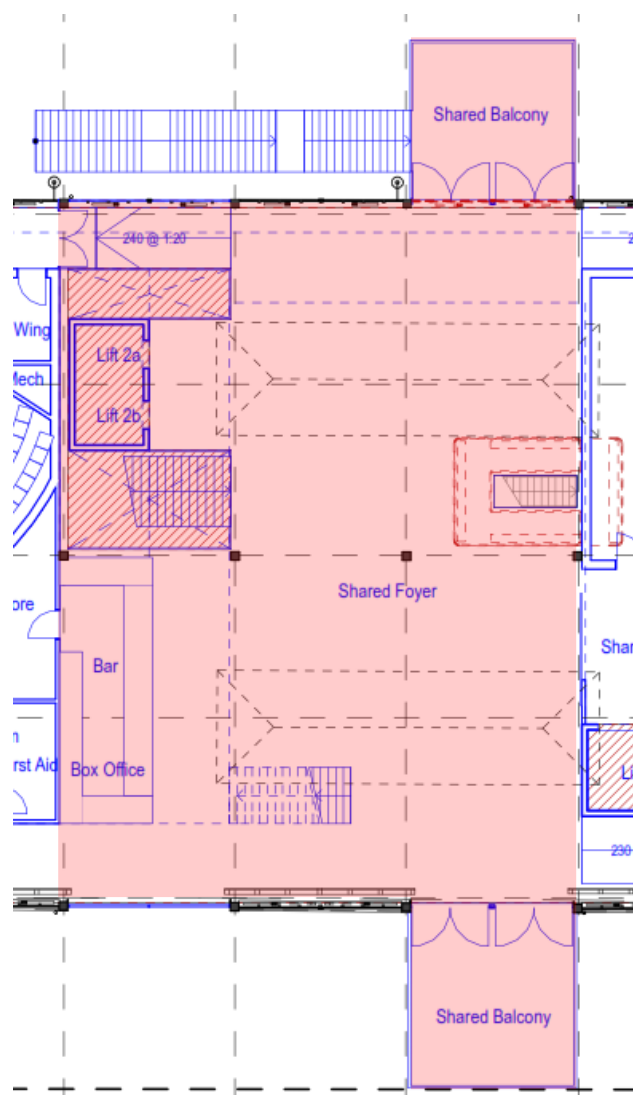
3D by TGZ

Level 1 Wharf 2/3

Shared Foyer



3D by TGZ



WORK DESCRIPTION:

At the centre of Level 1 is a double-height foyer with a mezzanine. The foyer is set over two bays, underneath the existing lanterns and is bounded on either side by new performance spaces. These are expressed as new volumes separate and distinct from the original structure. Both east and west sides of the foyer open onto generous external balconies. The central foyer connects all of the circulation routes in the upper shed. To the south of the foyer, a front of house corridor along the eastern side gives access to public amenities and Bell's rehearsal spaces. To the north of the foyer, a front of house corridor along the western side gives access to ACOs auditorium and other facilities along with the independent function space.

The mezzanine level of the foyer wraps around the east side of the ATYP theatre providing a separate pre-show function area for ATYP with views of the Sydney Harbour Bridge. Access to the ATYP theatre and supplementary access to the ACO auditorium also occurs at the mezzanine level.

POSITIVE EFFECTS:

Improved circulation and functionality of the space. New work is distinct from the heritage fabric.

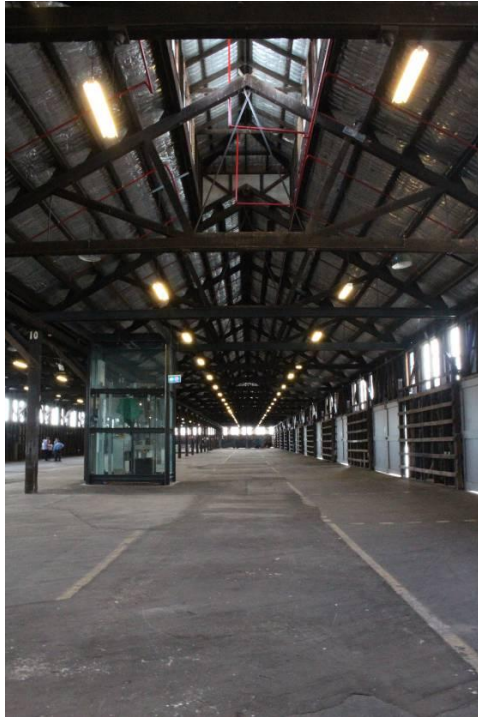
NEGATIVE EFFECTS:

Heritage stairs from lower shed capped at this level. The handrail is removed.

Removal of fabric mitigated by improved functionality. Impact is minor.

Level 1 Wharf 2/3

ACO Auditorium and Rehearsal Room



WORK DESCRIPTION:

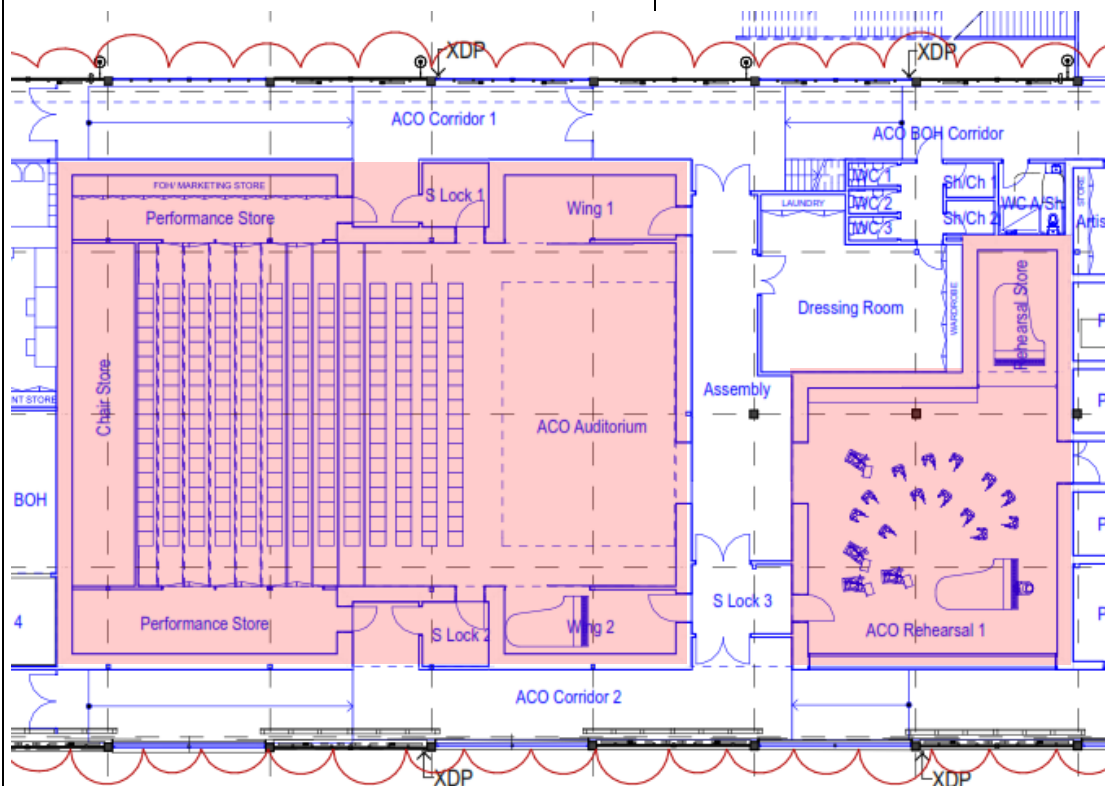
The ACO auditorium is located in the northern half of the upper shed. To achieve the required volume, the central valley will be replaced with a flat roof. Four storey posts are to be removed and the existing trusses are to be reinforced to achieve the required span. The auditorium is proposed to have full height glazing for three bays on the east side providing expansive views of the Sydney Harbour Bridge as the backdrop to the performance. The proposal to reinstate high level glazing along the upper level of the east facade will enhance these views from within the auditorium. Floated floor for main space. Isolated ceiling and lining with rain noise control. Internal walls mounted on floated floor. Secondary glazing to outside.

POSITIVE EFFECTS:

Retention of large spaces.

NEGATIVE EFFECTS:

Removal of five⁴³ timber posts. Mitigated by improved functionality. Impact is minor.

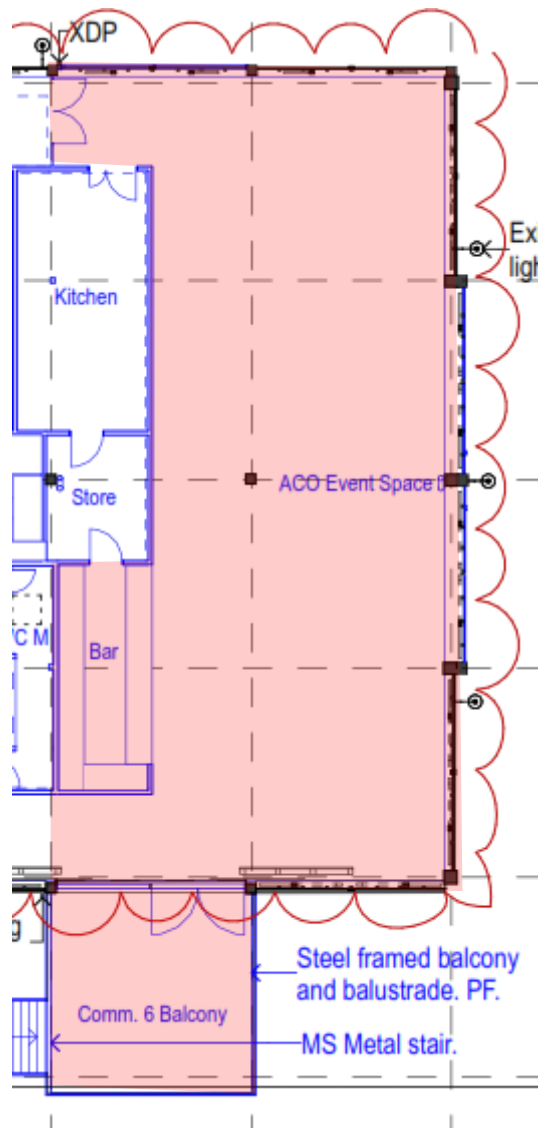


Level 1 Wharf 2/3

WORK DESCRIPTION:

ACO Event Space⁴⁴ and Balcony

Flexible Open Space



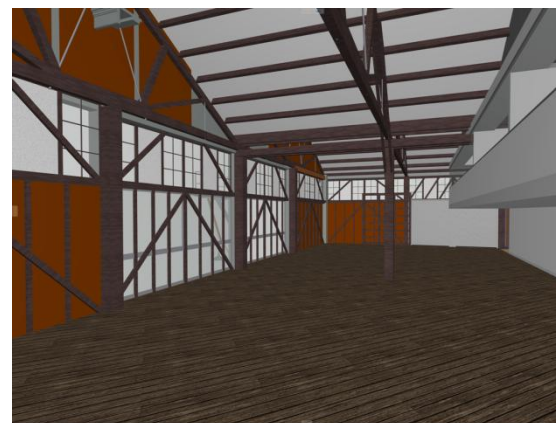
At the north end of the building is a 300m² full height function space with panoramic views of the precinct to the west, the harbour to the north and the Sydney Harbour Bridge to the east. Access to the function space is via an external lift and stair along the eastern facade. The function space has a balcony to the east with stairs accessing the apron of Pier 2/3.

POSITIVE EFFECTS:

The new spatial strategy and logical planning sequence allows for the appreciation of an increased heritage volume that is naturally ventilated and expressed along the eastern and western facade. It also opens the full width of the wharf. This also enables the newly configured spaces beyond to be thermally and acoustically treated in a manner appropriate to their program without compromising the heritage envelope.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



3D by TZG

Level 2 Wharf 2/3

Offices and Meeting Rooms

WORK DESCRIPTION:

ACO's office is located at the northern end of Level 2 accessed via a new external lift and stair

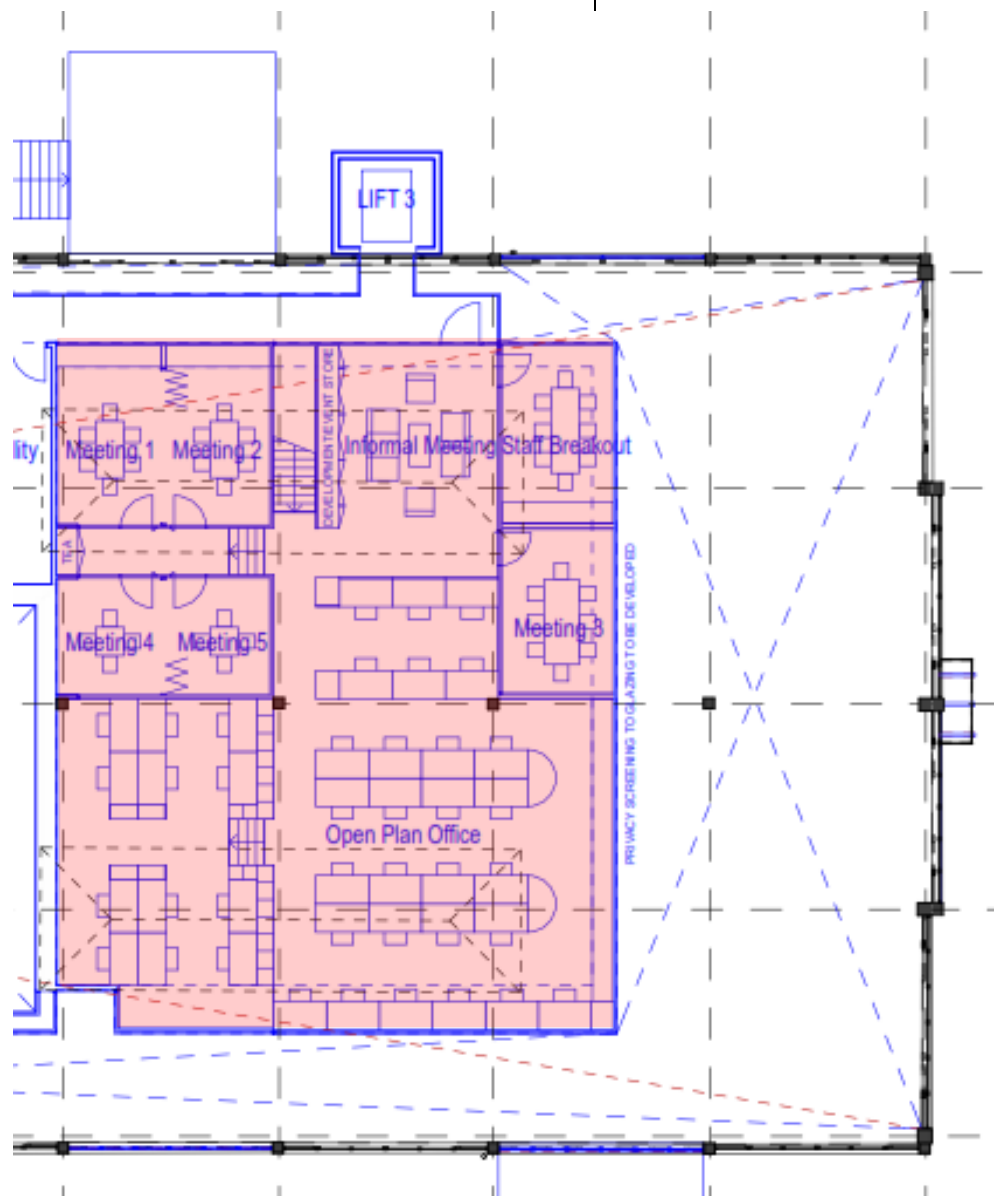
POSITIVE EFFECTS:

The new insertions need to connect back to the existing structure in a carefully considered manner. Following the precedent that exists elsewhere in Walsh Bay, new structure will be readily identifiable as distinct from the heritage fabric. A sensitive approach to detailing will enable the effective transfer of loads, preserve the heritage interpretation of the original elements, and provide a high quality built outcome that enhances the overall character of the project.

on the west facade or internally via a stair from the front of house corridor on the western façade of level 1. The office space overhangs the independent function space and will require acoustic separation to limit disturbance from below during events.

NEGATIVE EFFECTS:

Loss of empty large areas mitigated by improved functionality. Impact is minor.



8.3 Wharf 4/5: Impact of the Design Proposal by Area

Ground Level Shore Shed 4/5

WORK DESCRIPTION:

Waste, Commercial and Office Manager



Removal light weight walls. New layout configuration.

POSITIVE EFFECTS:

Reintroduction of larger areas.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



Ground Level Shore Shed 4/5

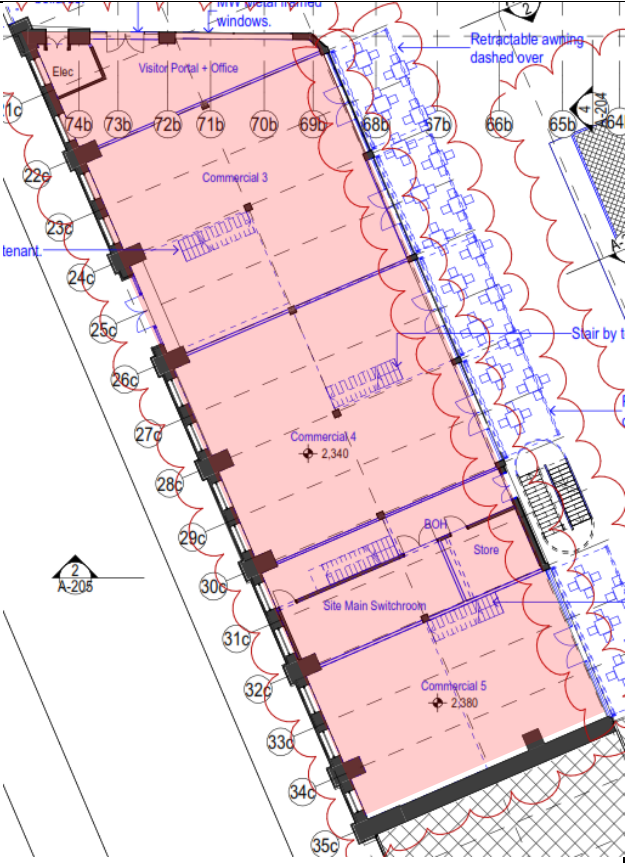
Commercial, Rehearsal and Services

WORK DESCRIPTION:

Removal lightweight walls and ceilings.

Removal of roller shutter on Hickson Road.

Insertion of new mezzanine office level.

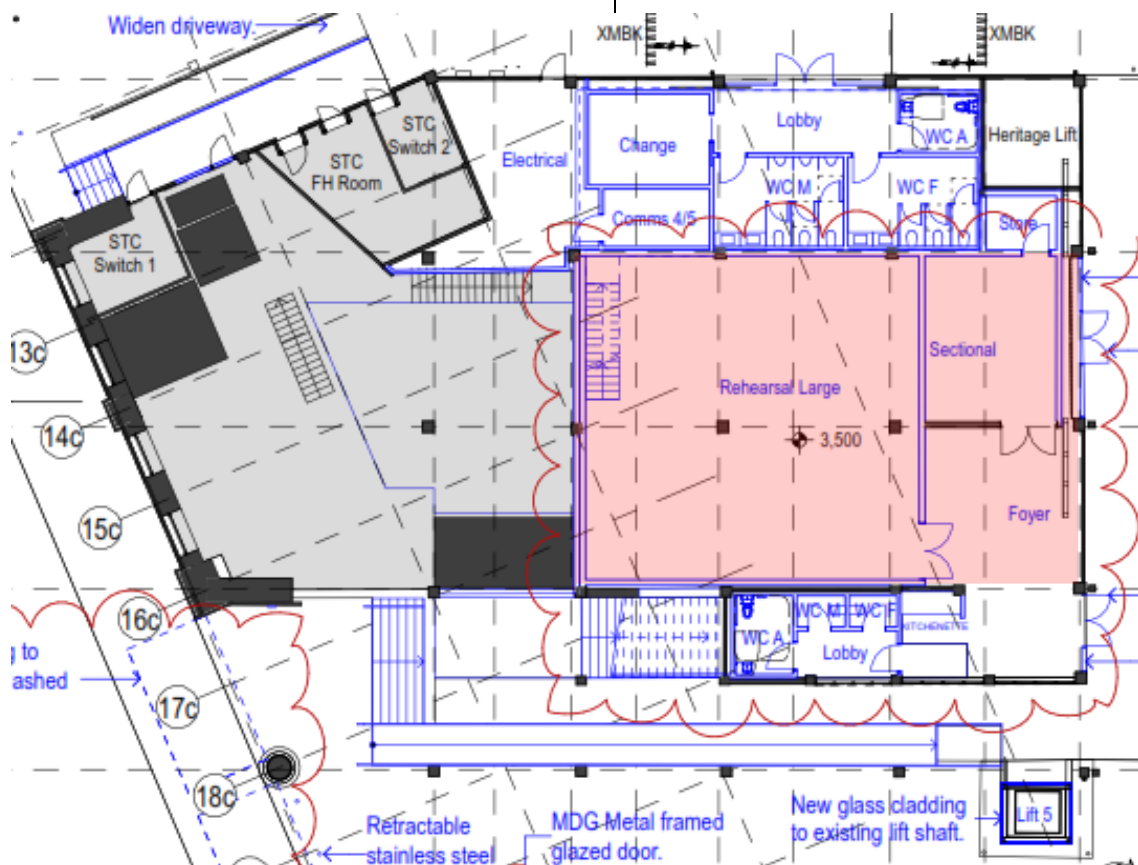
	Introduction of air-conditioning. POSITIVE EFFECTS: Better organised areas. NEGATIVE EFFECTS: We consider there to be nil/minimal negative effect.
	
Ground Level Wharf 4/5 Rehearsal Large and Foyer	WORK DESCRIPTION: Removal of partition walls and recent mezzanine structures.

POSITIVE EFFECTS:

Reintroduction of larger area.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



Ground Level Wharf 4/5

Cafe and Studios

WORK DESCRIPTION:

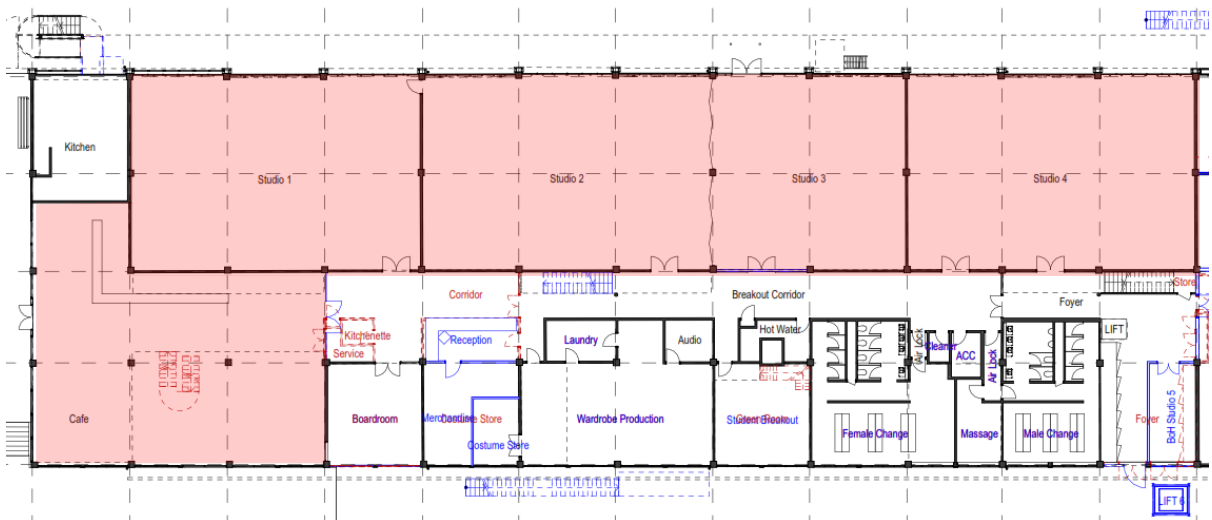
Demolition of stairs.

POSITIVE EFFECTS:

The existent large rooms are kept as they are.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

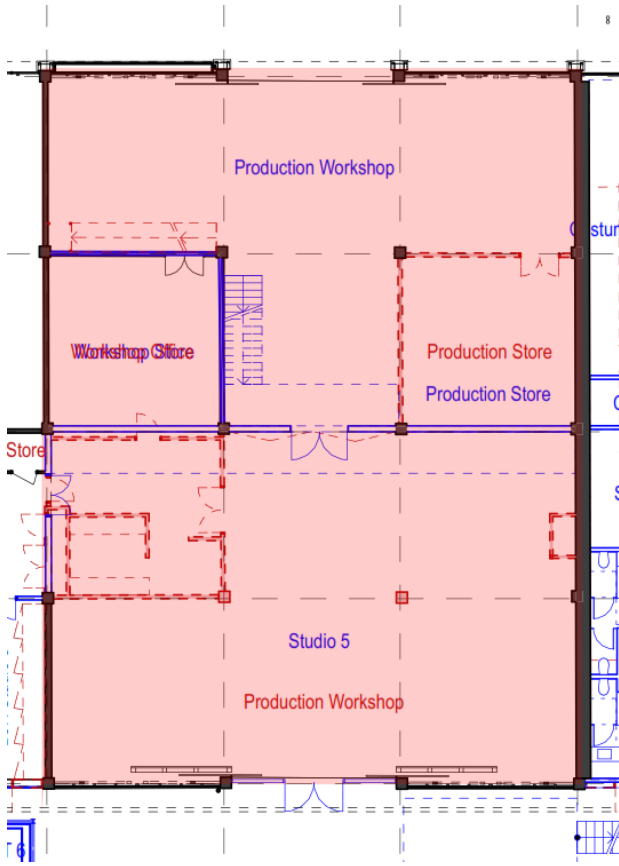


Ground Level Wharf 4/5

Workshops & Studio

WORK DESCRIPTION:

New layout.

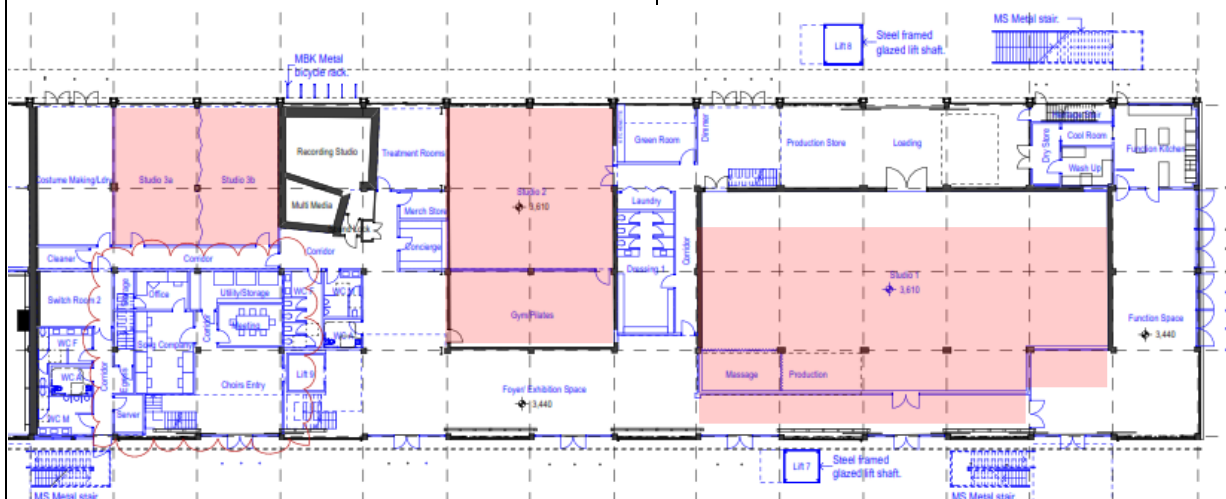
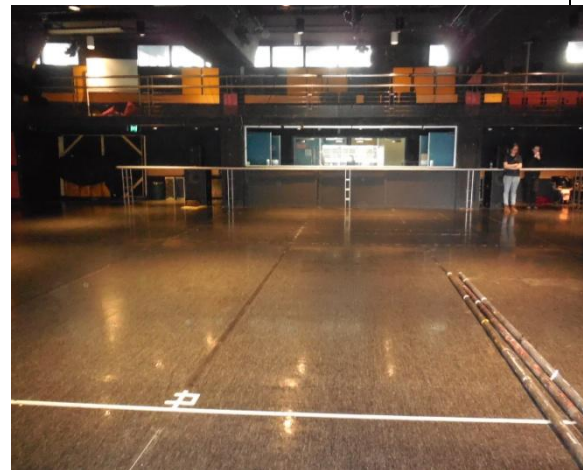
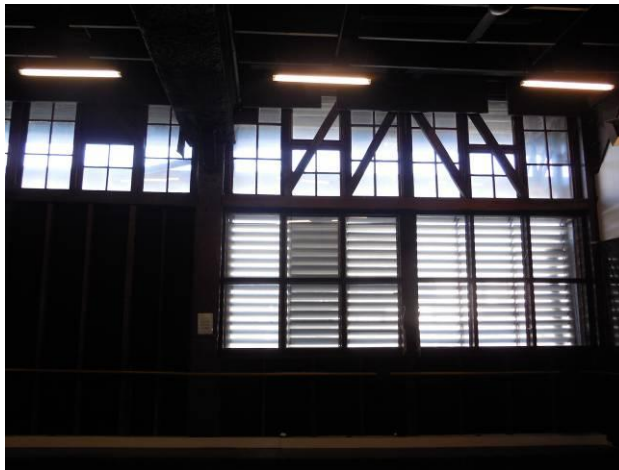
	POSITIVE EFFECTS: Improved configuration of large areas. NEGATIVE EFFECTS: Loss of large open areas mitigated by improved functionality. Impact is minor. 
Ground Level Wharf 4/5 Bangarra	WORK DESCRIPTION: Re-introduction of large open areas.

**POSITIVE EFFECTS:**

Two studios retained. Recent cellular fit-out removed.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.

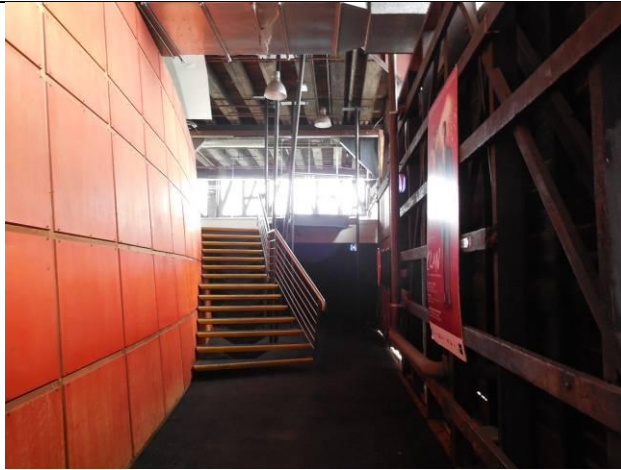


Ground Level Wharf 4/5

Foyer/Exhibition Space/Function Room

WORK DESCRIPTION:

Demolition of partition walls, recent mezzanine, floor tiling and stairs.



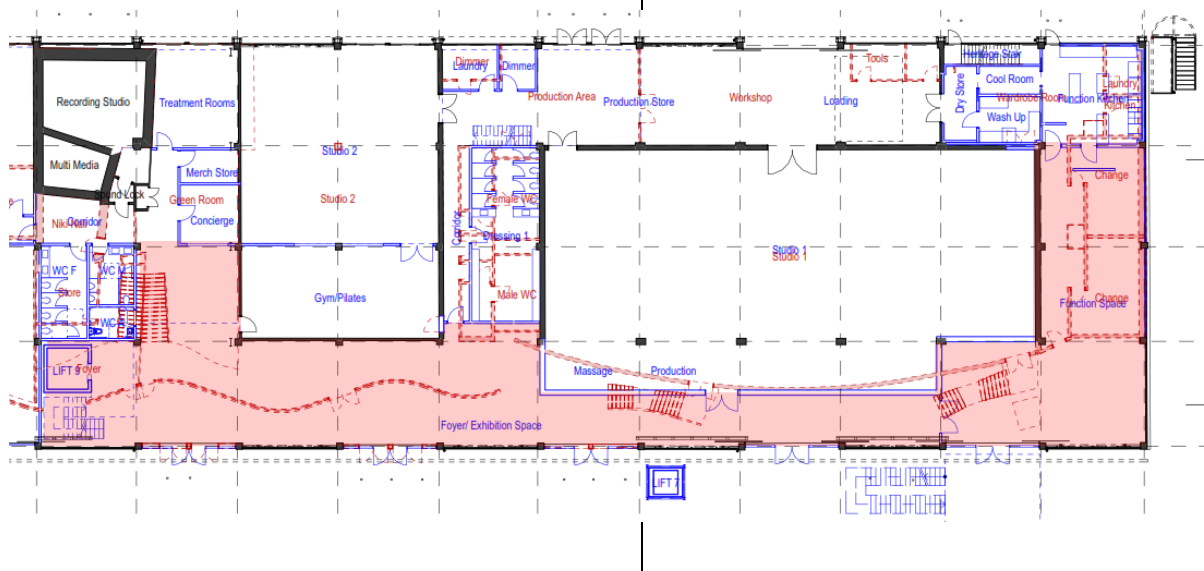
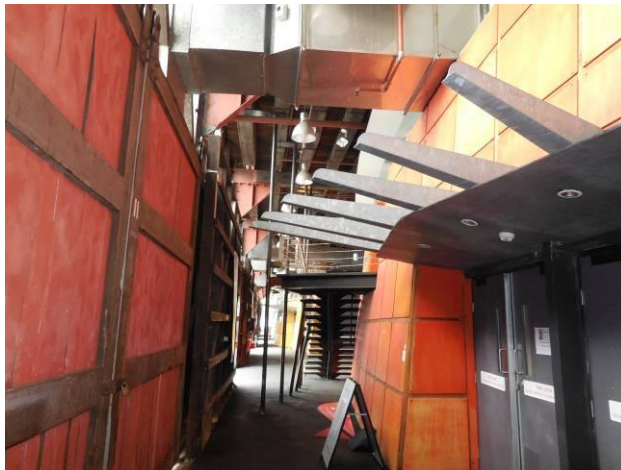
POSITIVE EFFECTS:

Improved configuration of large areas.

New fit-out to create double height foyer exhibition space to the east and function room to the north.

NEGATIVE EFFECTS:

We consider there to be nil/minimal negative effect.



8.5 Conclusions of Impact

This report has examined and reported on the information available as a resource for ongoing restoration and adaptive reuse of the Wharves at Pier 2/3 and 4/5. Throughout the documentation a number of policies and constraints have been incorporated and compiled demonstrating the importance of the Place and to ensure that any use ongoing maintenance or adaptive reuses comply with the Burra Charter and the standards required under the Heritage Act 1977 and Aboriginal heritage legislation in NSW as amended pertaining to items of State Significance.

Wharf 4/5 has a long history as an Arts Pier and as an exemplar has a number of lessons to inform the development of the restored Pier 2/3.

The design for Pier 2/3 and Wharf 4/5 is one which will require alteration to the fabric, and the proposed uses of the buildings will by the nature of the long leasehold, change from an abandoned Port facility to a cultural performance based occupation, for the foreseeable future.

With this in mind the design must address the matters of interpretation of the original fabric in its original context as well as how it the new uses of performance spaces, services and backstage functions are incorporated into without undue damage.

The two Pier structures both include large scale theatres which require alterations to the roof line as well as services interventions and matters of access and fire egress. There will be a constancy in treatments for all areas within the precinct derived from a well considered design philosophy which acknowledges the constraints of building within a state significant site.

The various approvals have instructed the way in which the historical, aboriginal and archaeological research and impacts are to be assessed.

Land and marine based archaeological reports are included.

The design is refined sufficiently to resolve all matters which pertain to the adaptive reuse, the Heritage legislative requirements and the Burra Charter while fulfilling the essential need of providing Performance spaces to international standards.

8.5.1 General

- i **Architectural responses to the need to identify the historic context in the new design** have been considered using the most direct routes and identifying with an industrial aesthetic.

- ii The design has extended the area of **the raised roof section** however it was the conclusion of the Design 5 report that this style of roof was relatively inconspicuous when viewed from key vantage points and vistas.
- iii **Roof plant rooms** on the Pier 4/5 have been historically located to the north between the two pitched roofs.
- iv Pier 4/5 has had an extensive **photovoltaic array installed** on the faces of the roof. This was the subject of a Section 60 approval and shall remain. New PV cells are proposed in a similar manner to the new roof of Pier 2/3.
- v **Services interventions** (note the impact in this document) have been designed to be subservient to the structure. The roof plant has been concealed in Pier 2/3 by the low roof design recommended by Design 5
- vi **Fire rating** Where required by law the structural members have been fire rated in accordance with the code and life safety requirements this may in some instance conceal certain members or be at variance with the Historic Aesthetic. In all cases alternatives have been explored with the final proposal considered to be the most appropriate outcome to comply with all requirements.
- vii **The wharf Apron and performance spaces** are designed in accordance with the original approved proposal and take cognisance of the original wharf layout. These spaces are required to address the life safety needs of the public and comply to those regulations as a priority. The original outline and form of the wharf decks have been interpreted in the design
- viii **The Structural solutions** and removal of heritage fabric have been prepared in a similar manner as described in the Design 5 report.
- ix **The large scale spans** in both wharf buildings are treated similarly and there is a unity in the structural solutions. The impact is acknowledged by Design 5 as being significant to the Exceptional heritage fabric but necessary to achieve the outcomes for the WBAP.
- x The large performance spaces have been reviewed for alternative solutions and the structures have been kept and strengthened rather than removed or replaced. In each large space while the impact is of significance the outcomes comply with the policies in that the form and nature of the building is not lost.
- xi **Minimal material will leave the site** and where possible parts will be dismantled carefully and used in interpretive displays or reused a structural elements **where in the case of Pier 4/5 STC repositioned back three columns where was removed.**
- xii **Architectural responses to the need to identify the historic context in the new design** have been considered using the most direct routes and identifying with an industrial aesthetic.
- xiii **Plant rooms on Pier 2/3** have been generally placed beneath a new low roof system which is below the ridges of the roofs. This is in order to comply with the directives in the Design 5

report. The design has extended the area of the raised roof section however it was the conclusion of the Design 5 report that this style of roof was relatively inconspicuous when viewed from key vantage points and vistas. Roof plant rooms on Pier 4/5 have been historically located to the north between the two pitched roofs.

- xiv Apron fire escapes and access including lifts and stairs have been incorporated to allow adequate access for egress and equitable access under the DDA and BCA and AS1428. These have been designed in **a simple and sympathetic contemporary aesthetic language** which is consistent throughout the precinct. The escape concepts were approved in the Walsh Bay redevelopment.
- xv The planning of the interior fitouts is consistent in both Piers where the exterior walls are kept generally clear of the performance or functional spaces.
- xvi The Architects TZG at Pier 2/3 have **developed a detailing and planning language** which reflects the policies and heritage philosophies and desired outcomes.
- xvii **Tropman and Tropman** as heritage consultants have observed and advised on the techniques which are to be adopted which will ensure that heritage fabric is not lost or obscured and where there has been no alternative but to remove heritage fabric chiefly to allow the approved performance spaces to be adequately designed, the least intrusive technique have been used at TTA instigation. The design teams have in the main acted in accordance with the policies in the endorsed CMPs and the Design 5 report recommendations.

8.5.2 Summary Comments on SEARS – SSDA Conditions

Prepare a Heritage Impact Assessment that:

- describes the heritage significance of all heritage items on the site (including external, internal and moveable heritage features) and those surrounding the site including submerged maritime heritage and all archaeology;

This has been completed and is included and part of the HIS. A number of reports cover this aspect including an extensive site catalogue with recommendations by GML and also a site specific Interpretation Strategy by CHL consultants. Attached to this HIS is a Maritime Archaeological Report prepared by Cosmos Archaeology, an Terrestrial & Aboriginal Archeological Report prepared by CRM.

- describes the potential impact of the proposal on the significance of the site, its components and values;

This has been completed and is included and part of the HIS. Attached to this HIS is a Maritime Archaeological Report prepared by Cosmos Archaeology, an Terrestrial & Aboriginal Archeological Report prepared by CRM.

- assesses potential impacts of the proposal on Aboriginal cultural heritage values and where Aboriginal cultural heritage values are identified include measures to avoid, conserve or mitigate against the impact and consult with the Aboriginal people to identify the significance of the cultural heritage item;

A Terrestrial & Aboriginal Archeological Report prepared by CRM is attached to this HIS.

- addresses the proposal against the policies of the endorsed Conservation Management Plans for Wharves Precinct and specific buildings and the proposed adaptive reuse measures to minimise impacts on the buildings, moveable heritage items and any archaeology;

This has been completed and is included and part of the HIS

- proposes opportunities to interpret the site's heritage significance and archaeology maritime and historical association; and

This has been completed and is included and part of the HIS

- include a framework to manage and fund the maintenance of public domain/common areas through a committee of owners to maintain a consistent visual character throughout the Walsh Bay Precinct;

This is a redundant requirement. The Walsh Bay Precinct Committee has a series of by-laws which bind all strata owners as part of the Walsh Bay Redevelopment. This as an active and ongoing registered strata committee and includes government authorities as well as private owners. The by-laws and regulations are extensive and cover such matters a signage, garbage and waste access, and the preservation of state significant relics in each Startum Lot.

The liability for relics lies with each Strata 99 year lease owners corporation.

ARTS NSW must comply with the by-laws.

- Provide an Archaeological Assessment and Management plan, prepared by a suitably qualified person, to assess the likelihood of significant historical, maritime and aboriginal archaeology on the site, how this may be impacted by the project and measures to mitigate impacts.

This has been completed and is included and part of the HIS

8.5.3 SSDA Conditions not included in the SEARS

- addresses consistency with the Heritage Council's recommended conditions of consent for SSD 6069 dated 16 September 2016 and B2 – B7 of the Development Consent for SSD 6069 dated 15 May 2015;

- Condition B2 - Heritage requirements for future DAs:

- 1) All future DAs shall be accompanied by a Heritage Impact Assessment;
- 2) All future DAs shall demonstrate compliance with:
 - a) The conclusion and recommendations of the Heritage Impact Assessment prepared by Design 5 dated 23 June 2014;

This has been addressed in the HIS

- b) Undertake complete and comprehensive archival recording of the WBAP in accordance with NSW Heritage Division Guidelines, Copy of the archival documentation to be submitted to City of Sydney Archives, Heritage Council and State Library of NSW.

This has been completed and includes all of the WBAP and Pier 4/5 STC

- c) Prepare an Interpretation Plan for movable heritage currently housed at Pier 2/3 in consultation with RMS and Heritage Council. The Interpretation Plan shall take into consideration the recommendations in section 7.7 of Design 5 HIA. Copy of Interpretation Plan to be submitted to DP&E, City of Sydney and Heritage Council.

Walsh Bay has an overall interpretation plan. The Movable heritage is generally unrelated to the Pier 2/3 and 4/5. The Container which stores found archaeological relics has been catalogued by Robert Varmin and copies of his report and historical assessments are lodged with the Mitchell Library and the OEH.

Two reports one by Godden Mackay Logan *Walsh Bay Pier 2/3 Movable Heritage Catalogue and Significance Assessment, December 2010* and the other by City Plan Heritage *Walsh Bay Pier 2/3 Movable Heritage Use & Interpretation Plan, June 2011*, have been prepared specifically covering the Moveable heritage. As well Tropman have in this submission photographed and

identified the objects and compared them to the two previous catalogues and a new Interpretation Strategy has been prepared.

The RMS and the Walsh Bay Precinct Committee are responsible for the relics and Movable heritage found within Pier 2/3. This is so to speak a grave yard of all found objects and Croker notes that excessive use of the items will confuse the interpretation of the spaces.

It is proposed to remove the approved interpretation wall and artifacts in the breezeway of Pier 2/3 and make a new interpretation wall in the foyer of Pier 2/3, including a digital signage. This will require a separate Development Application.

- Condition B7 - Roof penetrations:

1) New penetrations in the roof form of Pier 2/3 shall comply with the design criteria established by Design 5 and included in section 5.4.7 of the Design 5 HIA, including the following:

a) Single breach in the roof in one location only;

IMPACT

The design development has resulted in two upper roof breeches and a smaller roof panel. This is also a method of reducing impact for the services including cooling towers and ducting necessary for the servicing of the theatre. There is a significant impact however the Croker report described the vista as being seen as only a moderate change as the form is modest and the roof materials the same.

Note Pier 4/5 has historically had exposed plant in the roof valley.

b) Should only occur within the central valley;

IMPACT

All roof changes occur in the valley

c) Must not alter any existing roof lanterns and respect prominence of lanterns;

IMPACT

There are no alterations to the Roof lanterns

d) Any alterations should be set back from roof lanterns and preferably centred between them;

IMPACT

The roof alterations are designed to sit below and away from the roof lanterns where they are in the same location. Where the roof extends between the roof spaces they are set back from the lanterns.

There is a significant but moderate impact with the lower roof

The alternative is to expose the plant and equipment

On Pier 4/5 there are two more modest roof extensions which have a lesser impact considering the extensive Photo Voltaic arrays on all roof faces

Also there are a number of plant and equipment platforms

These platforms and the equipment are to be modified to reduce the foot print and thus reduce the impact

8.5.4 City of Sydney agency response not included in the SEARS and SSDA

- SENSITIVE INTRODUCTION OF NEW SERVICES with minimal impact on significant fabric and spaces

IMPACT

The functional requirements for all the theatres rehearsal and production areas where complex services installations are required, have been based on a number of complex factors which include adequate environment and energy efficiency as required by Section J of the BCA Fire restrictions for life safety and preservation of the building, acoustics life safety and egress productions lighting as well as the efficient removal of waste and reticulation of essential services.. The design has been created considering each if these functions but also in the context of the historic structure

There is significant impact redolent in the functions which have been approved and are permitted in the Walsh Bay Arts Precinct. The design has been prepared to ameliorate these impacts as far as is possible.

- THE DESIGN OF THE ACO AUDITORIUM BEING CAREFULLY AND SENSITIVELY CONSIDERED to minimise the impact of removal of columns, on changes to significant fabric, on the Commercial Events/Art Space below and changes to the roof;

IMPACT

The functional requirements for all the theatres rehearsal and production areas where large volumes are required, have been re based on a number of complex factors which include acoustics life safety and egress productions lighting as well as the basics of performance and sight lines. The design has been created considering each if these functions but also in the context of the historic structure

There is significant impact redolent in the functions which have been approved and are permitted in the Walsh Bay Arts Precinct. The design has been prepared to ameliorate these impacts as far as is possible.

- INVESTIGATE THE LEAST-IMPACT OPTION in relation to opening up the northern most bay on the east and west elevations of Pier 2/3 - altering existing weatherboards to become adjustable louvers, which will be open most of the time, will have a high visual impact;

IMPACT

The design responds adequately to the pier chequer board rhythm minor changes are acceptable in the light of the many and varied adaption's to function in the buildings life and use as a wharf. Are currently proposed less louvered panels on the west facade than the approved SSDA. The impact is reduced.

- THE COMMERCIAL EVENTS/ARTS SPACE be designed such that all amenities and ancillary rooms are reversible and the full height and openness of the space being retained, with any partitions or screens to be temporary and not appearing permanent. The space should be not be modified to accommodate a fully controlled air-conditioned environment;

IMPACT

The design has been carefully guided to avoid unnecessary intervention and provides simple and direct solutions which are subservient in the main to the robust wharf character.

- THE DESIGN OF THE WATERFRONT SQUARE being subject to further development and detail to reduce impact. This is to include adequate delineation of aprons and the square through measures such as the use of different materials. The cover needs to be sympathetic and respectful of the industrial character of the place as well as being a design of high quality;

IMPACT

The Public domain complies with these requirements. The introduction of the new public domain reduces the open area of water by providing an expanded apron for pedestrians. However the new form has open grid mesh and cargo style netting which allows the water to be seen and its extent clearly understood. Refer to the Public Domain drawings and details.

- REMOVING THE DETRACTING SKYLIGHT on the external slopes of the south end of Pier 2/3;
IMPACT

Not part of the scope.

- AN EXTERNAL SIGNAGE STRATEGY being prepared that ties in with the signage within the rest of the precinct.

IMPACT AND ACTION

The Walsh Bay Precinct Committee has carriage over all signage.

In the Walsh Bay Redevelopment approval there was a requirement to prepare information, way finding and interpretation signage. This strategy and sign design was jointly prepared by Spatchurst design and Tropman and Tropman. Interpretation signage was approved by the OEH and DUAP and installed with each Phase

The main interrelation node is to be found in the Breezeway of Pier 2/3. This illustrated glass panelled exhibition was approved by the OEH and DUAP It contains important relics in a curated exhibit. It is proposed to be removed and a new interpretation wall is proposed in the foyer of Pier 2/3. This will require a separate Development Application.

Other interpretation exhibits signage and interpretation are spread across the site and comply with the 1999 Interpretation Plan prepared by Tropman and Tropman and HPA architects. This was approved by the OEH and DUAP.

The signs are to be reviewed every 10 years and the WBPC has commenced a programme of review and repair in need of refreshment now.

Interpretation will be incorporated into the new way funding and signage strategy for the Walsh Bay Art Precinct.

8.5.5 Heritage Council conditions not included in the SEARS and SSDA

- HERITAGE IMPACT ASSESSMENT

The recommendations outlined in the Heritage Impact Assessment prepared by Design 5 Architects dated 23 June 2014 shall be implemented.

- This has been addressed in the HIS

- WATERFRONT SQUARE, STAGE AND PUBLIC ROOF

Maintain lightness in the design of the waterfront square and public roof in contrast to the existing industrial buildings. The stage, including the roof and any base platform, are to be designed to be temporary so that if removed will not impact on the waterfront square.

- This has been addressed in the HIS

- PUBLIC SPACE STRATEGY

A strategy shall be developed to ensure that the private and public spaces are cohesive and controlled in a manner whereby:

(a) Public spaces are retained for public use.

(b) Privately leased areas on the aprons adjacent to commercial tenancies do not intrude into the new public space.

(c) Guidelines are prepared to ensure that there will not be a proliferation of furniture and structures in the new public space and adjacent aprons.

(d) Any awnings and furniture along the aprons and public square must be designed having regard to an overall awning and furniture strategy for the Walsh Bay Wharves. The strategy shall be submitted with any future application that is related to the new waterfront square or use of the existing public spaces.

- This is part of the scope.

- BALCONIES AND EXTERNAL STAIRS

(a) All new external stairs must be open and lightweight; not solid as shown in the photomontages.

- The last design comply.

(b) Ensure that stairs do not impinge on openings and that they are lightweight and appear to hang off the gantries (straight or dogleg stairs).

- The last design comply.

(c) Not all stairs and balconies appear to be necessary as some do not lead to public spaces i.e. the Bell's rehearsal room.

-This is a requirement necessary for comply with the BCA and fire egress. More modifications would be required for internal stairs. The language of external stairs were established on Pier 4/5 and followed on Pier 2/3. The use of pier 2/3 was limited in the past decade because for the lack of adequate fire egress. The additional stairs are necessary for safety.

(d) The large balcony on the western elevation of Pier 2/3 may not be appropriate as there were no gantries on this side.

- This theory has been contested in this HIS. Historic drawing by Sydney Harbour Trust show cargo doors and gantry cranes in both eastern and western facades of Pier 2/3. This demonstrates either that those cargo doors have been infilled during the 1920-30's modifications of the Pier or that there was the intention to create them. Gantries are part of the wharf language and were movable along the wharves. Tropman & Tropman CMP agrees to the introduction of gantries. We think Design 5 assumption is a misinterpretation.

(e) No additional marquees, shade structures or enclosures should be fitted on the balconies in the future. These structures and enclosures will not be supported and would diminish the intactness and appearance of the wharf buildings.

- Shade structures are proposed in the public square.

- RETENTION OF SIGNIFICANT FABRIC

All elements proposed to be removed or altered must be reviewed by a heritage professional to assess if the significance of the element has changed and to ensure that significant fabric is not inadvertently removed.

- This is part of the scope.

- ARCHAEOLOGY

The appropriate maritime archaeological assessments must be carried out to inform the detailed design of the project and ensure that there is minimal disturbance to the early wharf fabric.

- This point has been addressed in this HIS and a complete report is attached in the appendix.

A number of potential relics have been identified in this Marine Archaeological Assessment. The detailed engineering subsurface works that is piling and any other services which may affect the sea floor in the area of the proposed extended or existing wharf apron design

should be assessed in accordance with the Heritage Branch Guidelines to determine the potential impact on the relics identified in this report.

Prior to any construction works proceeding an Archaeological Research Design and Method report should be prepared in accordance with the Heritage Branch Guidelines.

8.5.6 Walsh Bay Arts Precinct RTS/PPR Issue - Summary of Changes⁴⁵

A series of design changes have been made in response to the issues raised in the submissions lodged for the Walsh Bay Arts Precinct SSDA. Further, the design has been developed based on additional services information and tenant feedback. The changes to the drawings are bubbled and described below:

Change	Rationale/Commentary	Heritage Response
Pier 2/3		
Ground		
Commercial Kitchen	Minor design amendments to Commercial Kitchen. Improvements to relationship of new elements to heritage structure.	Improvement achieved
Goods lift/services	Minor design amendments related to alterations to ACO over. Improvements to relationship of new elements to heritage structure.	Improvement achieved
Mezzanine		
Staff amenities	Use of heritage stair to serve staff amenities. Minor design amendments. Improvements to relationship of new elements to heritage structure.	Improvement achieved
Goods lift/services	Minor design amendments related to alterations to ACO over. Improvements to relationship of new elements to heritage structure.	Improvement achieved
Level 1		
ACO auditorium	The ACO Auditorium has been rotated to improve its acoustics. This involves the loss of two additional columns. This is discussed further in the Appendix to the SoHI lodged with the submission.	There is additional Heritage impact which can be offset by the improved location of the theatre which now gives a clear understanding of the supporting structure. The removed additional columns will be retained on site and maybe reused as part of an interpretative sculpture.
Commercial 6 =	Commercial 6 has been dedicated to the ACO for use as a function room. This involves the installation of new flooring	Nil effect

Change	Rationale/Commentary	Heritage Response
ACO Function Room	over the original floor for acoustic reasons.	
Level 2		
ACO auditorium	As above	Nil effect
Level 3		
ACO auditorium	As above. Strengthening of two additional trusses above the ACO Auditorium is required.	Structural requirement
Smoke exhaust	A smoke exhaust system has been added in response to Fire and Rescue comments. This requires the automation of some facade elements in fire mode. These will be carefully co-ordinated and have minimal impact on the presentation of the building.	Sensitive design has been achieved necessary for life safety. This is the best solution within the minimum impact.
Bell Studio smoke exhaust	A smoke exhaust system is proposed to the Bell Studio. This comprises of smoke exhaust fans and ductwork concealed within the valley between the two existing roof lanterns. This requires construction of a roof platform, set as low as possible, located in the valley between the Pier 2/3 Shoresheds and the raised roof over the ATYP Theatre. Internally acoustic smoke exhaust hatches are set flush with the new ceiling acoustic lining. The smoke exhaust system has been designed to minimise its heritage and visual impact both externally and internally. An option was considered with the fans located within the roof lanterns however this would have required blocking off the lanterns and was discounted due to its heritage impact.	Sensitive design has been achieved necessary for life safety. This is the best solution within the minimum impact.
ACO smoke exhaust	An unobtrusive smoke exhaust solution has been found with attenuated fans located internally above the control room, within the previously submitted building envelope.	Nil effect on the external appearance. Positive outcome.
Wharf 4/5 Shore Sheds		
Ground/Mezzanine		
Entrance around STC	Arts NSW have worked with STC to improve the entrance adjacent to the STC Box Office. The design aims to create a cohesive, welcoming entry that celebrates the new Walsh Bay Arts Precinct as a whole.	Improvement achieved
Visitor Portal and Office	A new visitor portal and office are proposed adjacent to the entrance to provide information to visitors to the precinct. This involves new glazing and is considered important to the activation of the overall Arts Precinct.	Improvement achieved
Awnings to Hickson Road entry	New awnings are proposed to the three entrance gateways to Hickson Road to signify the Walsh Bay Arts Precinct. These will be important wayfinding devices given the nature of the existing brick façade to Hickson Road. They are designed to read as distinctly contemporary lightweight elements and are reversible.	Contemporary design in according with the Burra Charter necessary for comfort and safety. Removable additions.

Change	Rationale/Commentary	Heritage Response
Demolish existing Lift 5	Lift 5 is proposed to be relocated to further open up the entrance and enhance the vistas of the historic wharves from Hickson Road.	Improvement achieved
Relocation of Choirs tenancy	In response to a submission from the Choirs regarding the acoustics of their space and its proximity to both Hickson Road and the Waterfront Square, their tenancy has been relocated to what were previously indicated as Commercial spaces. The Choirs Rehearsal spaces have been relocated to the central shore shed opposite the SDC Café (ex Commercial 2). This location will enable more appropriate acoustic treatment to their spaces. The Choirs Offices have been relocated to the centre of Wharf 4/5 between SDC and Bangarra (ex Commercial 5). The Choirs have been consulted regarding these changes and have given in principle agreement to the relocation within the precinct subject to design development.	Improvement achieved
Relocation of Commercial spaces to Hickson Road. Retractable awnings to north.	The use of the Wharf 4/5 Shoresheds East has been changed from the Choirs to Commercial. This is seen to be a more appropriate use given the proximity to Hickson Road and the Waterfront Square. This requires additional shopfront glazing to the north and retractable awnings similar to the existing awning on the Pier 2/3 Shoresheds café.	Nil effect
Site Main Switchroom and Precinct Distributor Room	A new site main electrical switch room and precinct distributor room are required to be located at the centre of the Shoresheds to serve the entire precinct.	Heritage impact due to fire regulation. This is a necessary installation and the work is confined and consolidated in one area.
Western shore shed to house consolidated waste and precinct store	Minor replanning has resulted in a consolidation of waste for the precinct in the Wharf 4/5 Shoreshed west. A precinct store is also proposed in this building with the Commercial tenancy reduced in size.	Nil effect
Waterfront Square		
Design development	The waterfront square has been reshaped and developed in response to submissions. Refer Appendix to SoHI for a specific response to the Heritage Council submission. The materiality of the Walsh Bay Arts Precinct Water Square is derived from the surrounding heritage context, yet is distinctly separate in terms of material palette, character and colour, in accordance with the Burra Charter conservation principles. The composition achieves a delicate balance between offering a distinctly contemporary public space which neither copies nor confuses itself with the surrounding heritage structures, whilst still respecting the materiality and industrial context of the Precinct. To achieve this, the project has taken a two-fold	Improvement achieved

Change	Rationale/Commentary	Heritage Response
	approach. The first is a connection to historical narrative, where the use of materials such as timber, netting and catenary structures harks back to the precinct's days as a working dock. The second embraces an industrial and utilitarian approach to space via clearly new and abstract surfaces such as industrial grating, and a clean planar rectangle of lawn, both of which enhance and define the spatial composition of the waterfront. The application of lawn for contexts, such as Walsh Bay is a regularly utilised and highly successful design strategy deployed in many multi-award winning heritage and adaptive reuse projects, including those that sit within an industrial harbour context. Examples in Australia include the Paddington Reservoir Gardens, Ballast Point Park, Cockatoo island, the MCA, and the new Tonsley Main Assembly Building. Well known international projects include The Highline, The Danish National Maritime Museum and Torpedo Hall Apartments. As a material, the lawn is unique for this strategy in that it combines a visual and tactile contrast between hard and soft surfaces whilst still recalling a long tradition of public space design, offering a usable softness and cooling effect. This amelioration of both micro-climate and habitability provides a number of benefits, encouraging increased duration of stay and a reduction of the urban heat island effect. In a heritage setting the lawn therefore acts in two clear ways. Firstly, it distinctly focuses the composition of the contemporary intervention and its heritage industrial context in a sympathetic and appropriate way. Secondly it will combat adverse microclimate effects, balance hard and soft surfaces and increase the usability of the space. As such it is an appropriate and meaningful gesture within the Walsh Bay setting. In response to submissions, two water taxi locations have been removed from the inner wharf aprons and replaced with a single water taxi point at the front of the Waterfront Square to the west.	
Additional ladders and life buoys to wharf aprons	A Risk Assessment has revealed that additional ladders and life buoys are required along the wharf apron to minimize risk to the public. Ladders are required at 60m intervals and life buoys at 30m intervals for public safety.	Nil effect. Necessary for life safety and consistent with approved ladders in Walsh Bay Masterplan approval
Wharf 4/5 - Ground		
Minor amendments to SDC	Minor plan amendments have been made to the Sydney Dance Company in response to tenant feedback. This has involved some amendments to the non-original glazing around the café, relocation of the western gantry stair two bays south to improve access to the workshop and minor	No additional effect to this area which is already compromised

Change	Rationale/Commentary	Heritage Response
	internal alterations. The existing internal lift is substandard and proposed to be relocated.	
Choirs offices to replace Commercial 5	Discussed above.	As above
Removal of Bangarra smoke exhaust	The existing smoke exhaust system to Studio 1 in Bangarra is non-compliant. A fire engineered solution is proposed to remove smoke exhaust from this space by increasing egress door widths and numbers of escapes and modelling egress times.	Positive effect. Reducing impact on existing fabric
Wharf 4/5 Mezzanine		
Minor amendments to SDC	Minor plan amendments have been made to the Sydney Dance Company Office space in response to tenant feedback. The proposal also includes SDC using the adjacent STC lift. This involves localized removal of the gantry rail and a new penetration in the façade. This will be carefully detailed to minimize heritage impact.	No additional effect to this area which is already compromised

9. Conclusions and Recommendations

The works planned for the WBAP must be informed by the relevant controls and legislation and where issues arise these matters should be clearly supported by arguments based on the Australia ICOMOS Burra Charter as well as the recent ICOMOS Charter for THE NIZHNY TAGIL CHARTER FOR THE INDUSTRIAL HERITAGE July 2003 providing best practice for items of industrial heritage.

This report has examined and reported on the information available as a resource for ongoing restoration of the Wharves 2/3 & 4/5. Throughout the documentation a number of policies and constraints have been incorporated and compiled demonstrating the importance of the Place and to ensure that any use and ongoing maintenance complies with the Burra Charter, the standards required under the Heritage Act 1977 and Aboriginal heritage legislation in NSW as amended pertaining to items of State Significance.

The Pier 2/3 structure includes redevelopment of a large scale theatre and rehearsal spaces in the upper shed which requires alterations to the roof line as well as services interventions and matters of acoustics and fire egress. There is a consistency in treatments for all areas within the WBAP derived from a well-considered design philosophy which acknowledges the constraints of building within a state significant site.

The various approvals have instructed the way in which the historical, Aboriginal and archaeological research and impacts are to be assessed.

The Concept and developed design for the WBAP is generally in accordance with the Tropman and Tropman and Graham Brookes CMPs as well acknowledges the directives in the Design 5 HIS.

The adaptive reuse of any structure by its nature will have significant impact upon the place. The impact on the relics is, on occasions, significant in the large performance spaces especially however the language for adaptive reuse of the structure has considered the least interventionist methodology and there has been a striving throughout the precinct to develop the appropriate language in the detailing to allow interpretation of the original fabric and large scale volumes.

The Vivian Fraser “light touch” however has proved to be an excellent basis to take on methodologies for alternative solutions which have the least impact on the buildings and external modifications proposed are sympathetic.

The current Arts and Cultural uses are profoundly significant as a continuum of the intangible cultural heritage which was in fact the well spring of the saving of the relic and its repurposing into the current cultural icon.

The continued sustainability is reliant on the adaptive reuse while the uses themselves very adequately fulfill the visions for the precinct and they are the 1998 Masterplan approval for the eastern half of the site to become an heritage preservation area and cultural facility and the 2014 Walsh Bay Arts Precinct vision now approved in principal which seeks to further develop a world class cultural centre in the heart of Sydney.

This project is considered to suitably address the Heritage Impacts as the requirements of both the SSDA conditions and the SEARS requirements.

The WBAP represents the completion of the vision for a unique cultural precinct, described in the 1999 Master Plan for the Walsh Bay Redevelopment, and it is recommended there should be an Arts Precinct Conservation Management Plan prepared which recognises the new era and future uses of Pier 2/3 and 4/5.

10. References

- *Walsh Bay Masterplan*, APT Peddle Thorp, May 1996
- *Walsh Bay Precinct CMP*, Clive Lucas and Partners, December 1998
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- *Walsh Bay Arts Precinct HIS*, Design 5 Architects, June 2014
- *Heritage Technology CMP Walsh Bay Precinct*, Tropman Architects, May 1999
- *Pier 2/3 & Shoreshed Survey of Industrial Items*, Tropman Architects, 2000
- *Maintenance Plan: Heritage Building Fabric & Heritage Technology Items Pier 2/3*, Tropman Architects, July 2004
- *Walsh Bay Pier 2/3 Movable Heritage Catalogue and Significance Assessment*, Godden Mackay Logan, December 2010
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- *STC50 Heritage Report for Sydney Theatre Company*, Tropman Architects, February 2016
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- *Heritage Study of 19th and Early 20th Century Trading Wharves in Sydney Harbour*, National Trust of Australia, October 1989
- Various original drawings held by Tropman & Tropman
- Archival reports held by Tropman & Tropman
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- Australia ICOMOS 2000, *Australia ICOMOS Charter for the Conservation of Cultural Significance (The Burra Charter) and Guidelines to the Burra Charter: Cultural Significance, Conservation Policy, and Undertaking Studies and Reports*, Australia ICOMOS, ACT.
- Heritage Office 2001, *Assessing Heritage Significance*, Heritage Office, Sydney.
- Heritage Office, *Statements of Heritage Impact Guideline*, Heritage Office, Sydney.

11. Endnotes

¹ Updated HIS

² Added references to changes

³ Comment by Heritage Council

⁴ Note Mitigation measures

⁵ Comment by Heritage Council

⁶ *Traditional, contemporary and living at the same time: intangible cultural heritage does not only represent inherited traditions from the past but also contemporary rural and urban practices in which diverse cultural groups take part;* <http://www.unesco.org/culture/ich/doc/src/01851-EN.pdf>

⁷ (**Curation** is the selection, preservation, maintenance, collection and archiving of assets. **Curation** establishes, maintains and adds value to repositories of data for present and future use. This is often accomplished by archivists, librarians, scientists, historians, and scholars.)

⁸ Drawing updated as per current design.

⁹ Drawing updated as per current design.

¹⁰ All plans updated as per current design.

¹¹ Drawing updated as per current design.

¹² Text added extracted from McGregor Coxall report. Commentary by Tropman

¹³ Text added assessing the “grass over water concept”

¹⁴ New image inserted

¹⁵ New image inserted

¹⁶ New image inserted

¹⁷ New image inserted

¹⁸ New image inserted

¹⁹ New image inserted

²⁰ New image inserted

²¹ Drawings updated as per current design

²² Drawings updated as per current design

²³ New paragraph for proposed lifts inserted (text and drawings)

²⁴ Assessed as in keeping with the Industrial character

²⁵ New images inserted

²⁶ New paragraph to comment proposed awnings assessed as suitable.

²⁷ New comment on lift to be relocated

²⁸ New comment on removal of gantry rail

²⁹ Plans updated as per current design

³⁰ Plans updated as per current design

³¹ All elevation drawings updated as per current design

³² All elevation drawings Pier 2/3 & 4/5 updated as per current design

³³ Mitigation Measures added for Mechanical Services

³⁴ Drawing showing ductworks

³⁵ Mitigation Measures added for Air Conditioning Services

³⁶ Mitigation Measures added for Mechanical Services

³⁷ Drawing as per current design

³⁸ Mitigation Measures added for Fire Services

³⁹ Added information on the Heritage Office NSW Fire and Heritage 8.1

⁴⁰ New details for acoustic flooring

⁴¹ New paragraph refers to the Conservation Management Action Plan that accompanies this HIS.

⁴² Plans updated as per current design

⁴³ Previously 3 timber posts

⁴⁴ Previous Commercial 6

⁴⁵ New paragraph to summarise design changes