

SYDNEY THEATRE COMPANY - INTERNAL FITOUT AND REFURBISHMENT WORKS

**STATE SIGNIFICANT DEVELOPMENT APPLICATION –
SSD 7561**

ENVIRONMENTAL IMPACT STATEMENT



Submitted to NSW Department of Planning and Environment
on behalf of Sydney Theatre Company

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Project Director	Helena Miller		
Project Review	Nicola Gibson		
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MG Planning Pty Ltd
Suite 1.4, 135 Victoria Road, Drummoyne, NSW, 2047
Ph: (02) 9719 3118 Fax: (02) 9719 3166
mail@mgplanning.com.au
ABN 48 098 191 443

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STATEMENT OF VALIDITY

Environmental Impact Statement prepared by

Name	Helena Miller
Qualifications	Bachelor of Urban and Regional Planning Graduate Diploma Natural Resources Law MPIA
Address	MG Planning Pty Ltd Suite 1.4, 135 Victoria Road DRUMMOYNE NSW 2047
In respect of	Sydney Theatre Company

Applicant & Land Details

Applicant name	Sydney Theatre Company
Applicant address	Pier 4, Hickson Road Walsh Bay NSW 2000

Lot No, DP	Lot 65 in DP 1048377
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Environmental Impact Statement	An Environmental Impact Statement (EIS) is attached
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Statement of Validity	I certify that I have prepared the contents of the Environmental Impact Statement and to the best of my knowledge:
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- It is in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979* and Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*
- The information contained in the Environmental Impact Statement is neither false nor misleading.

Signature	
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Name	Helena Miller
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Date	14 November 2016
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ABBREVIATIONS

ATYP	Australian Theatre for Young People
CMP	Conservation Management Plan
Department	Department of Planning and Environment
ECSMP	Environmental, Construction and Site Management Plan
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
LEP	Local Environmental Plan
REP	Regional Environmental Plan
RMS	Roads and Maritime Services
SCCAS	Sydney City Centre Access Strategy
SDC	Sydney Dance Company
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SSD	State Significant Development
SSDA	State Significant Development Application
STC	Sydney Theatre Company
WBAP	Walsh Bay Arts Precinct

EXECUTIVE SUMMARY

This Environmental Impact Statement (EIS) accompanies the Sydney Theatre Company Internal Fitout and Refurbishment Works State Significant Development Application (SSDA) SSD 7561. The proposal comprises new fitout and refurbishment works to the interior of the Levels Ground – 3, Wharf 4/5 at Walsh Bay only. The proposal does not include any external works to the structure although some such works do form part of the related Walsh Bay Arts Precinct SSDA (SSD 7689) which is submitted concurrent with the subject application.

The STC project is State Significant Development under Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011 (“State and Regional Development SEPP”) being works to a cultural facility with a capital investment value of over \$30 million.

The proponent for the SSDA is the Sydney Theatre Company.

The Site

The site comprises:

- Wharf 4/5 which is occupied by the Sydney Theatre Company, Australian Theatre for Young People, Bangarra Dance Theatre and other arts organisations, and
- the adjoining Shore Sheds.

The land owner of Wharf 4/5 and the adjoining Shore Sheds is Roads and Maritime Services (RMS). RMS owner’s consent to the lodgement of this application has been provided. Wharf 4/5 and the Shore Sheds are occupied under a 99 year lease arrangement with Arts NSW and the Department of Trade and Investment, primarily for arts and cultural uses.

The Proposal

The STC internal fitout and refurbishment works comprise the following:

Ground level

- New box office / ticketing area at southern end of wharf and administration / staff areas

Mezzanine

- Additional offices at southern end of wharf

Level 1 (Main Floor)

- the co-location of Wharf 1 and 2 Theatres to create two distinct performance spaces that are flexible in seating configuration and use. The new theatres will comprise:
 - o a new multi-format flexible studio space (Wharf 1 Theatre) with seating for 350 – 450 and additional height over the seating and stage areas for the rigging of technical equipment.
 - o a new studio theatre space (Wharf 2 Theatre auditorium) with retractable or removable seat with a capacity of 150-200 seats in various configurations.
 - o New public display space and formal meeting area to south of Wharf 2 Theatre mid wharf with an atrium over
- Upgrade to existing restaurant and bar area at northern end of wharf and terrace balcony including back of house areas
- Improved rehearsal and dressing room spaces and introduction of more flexible spaces including:
 - o co-located rehearsal spaces with shared back of house area

- o provision for two set up floors at the southern end of the wharf with back of house area to allow transportation of sets to the theatres
- administration, costume and props areas within the shore sheds

Level 2 (mezzanine)

- Administration area and meeting rooms
- provision of a new multi-purpose function room with balcony with capacity for 120 persons at the northern end of the wharf overlooking the restaurant and the harbour

Level 3 (under roof)

- Lighting bridge and technical area

Other works

- The removal of the existing fire tunnel within the building and associated reconfiguration of the space into the new layout as above plus addition of new fire stairs
- Improvements to acoustics, amenities and back of house and plant areas / facilities,
- Relocation, reconfiguration and improvements to administration areas centrally within the wharf
- Upgrade of services and infrastructure; and
- New loading and access arrangements to improve movement arrangements between technical and production areas.

The proposal provides for an increase in theatre capacity from existing 550 persons to a maximum of 650 persons in the combined Wharf 1 and 2 theatres. It also provides for a new multi-purpose public/event space with combined capacity for 200 persons over and above the existing Theatre Bar capacity of 500 persons. Accommodation for administrative staff will also increase from existing to a maximum of 200.

Justification

After 30 years of intensive cultural use, the STC's facilities at Wharf 4/5 are no longer deemed fit for purpose if the STC is able to confidently plan for the next 20 to 30 years of operation and remain successful. The issues that need to be addressed in the current design and layout include:

- Facilities at end of life after 30 years of constant use
- Outdated technology, poor acoustic separation
- Constraint on theatrical innovation and revenue potential
- Inefficient use of space, overcrowded
- Poor accessibility and wayfinding
- Sub-standard working conditions & public amenity
- Sub-standard theatre and back of house facilities
- Does not live up to vision for a world class arts precinct.

Along with STC's intention to improve its facilities at Wharf 4/5, the NSW Government has committed to the creation of the Walsh Bay Arts Precinct (WBAP). The concept provides for an integrated performing arts and cultural precinct within an enhanced public domain at Walsh Bay and includes Wharf 4/5. In May 2015 the Minister for Planning, under delegation, granted 'in principle' (Stage 1) approval to the State Significant Development Application (SSDA) for the WBAP. To further progress the WBAP, Infrastructure NSW and Arts NSW are currently in the process of preparing a Stage 2 SSDA. As a provider of world class content and a highly respected and internationally celebrated brand, STC is well placed to be a key and essential player in the realisation of the WBAP.

Environmental Impact Assessment

This EIS assesses and responds to the environmental impacts of the STC internal fitout and refurbishment works. In particular, it addresses the matters for consideration set out in the requirements issued by the Secretary of the Department of Planning and Environment (“SEARs”) and includes mitigation measures. Key issues that are addressed include:

- heritage impact and conservation of heritage significance
- transport and accessibility impacts including loading
- amenity impacts include noise and vibration
- increased capacity of the venue and associated impacts
- equitable access
- hazardous materials treatment and removal, and
- construction impacts and proposed mitigation measures.

The EIS and supporting specialist reports provide a detailed assessment of the STC proposal in relation to these and other matters set out in the SEARs and demonstrate that the proposal will have minimal adverse environmental impact. Any environmental issues can be effectively managed via the mitigation measures referred to in this report.

1. Introduction

1.1 Overview of State Significant Development Application

This Environmental Impact Statement (EIS) accompanies the Sydney Theatre Company Internal Fitout and Refurbishment Works State Significant Development Application (SSDA) SSD 7561. The STC internal works proposal comprises the internal fitout and refurbishment of the existing STC areas within Wharf 4/5 at Walsh Bay.

Since the repurposing of Wharf 4/5 (The Wharf) for STC more than 30 years ago, the structure hasn't had any significant refurbishment and consequently the existing STC facilities are at the end of their useful life. The lack of proper acoustic treatment in theatre and rehearsal spaces have rendered the spaces inadequate for contemporary theatre operations and the outdated approach to accessibility and workplace conditions do not meet modern day community expectations for public buildings. In summary the original fit out has not kept pace with the Company's changing operations over the past 30 years and accordingly is in need of significant change.

The key aims and objectives of the proposed STC internal fitout and refurbishment works then are to meet STC's current operational needs and strategic goals and to future proof the Company by creating new, distinctive and flexible theatres spaces commensurate with the Company's position as one of the world's leading theatre companies. This will be achieved by:

- Increasing public space and improvements to access and visitor amenities
- Increasing saleable seating inventory and accordingly revenue earning capacity thus ensuring long term sustainability
- Reducing ongoing and recurrent running costs
- Improving the staff and user experience
- Improving back of house and technical facilities by providing modern workspaces which are fit for purpose, safe and efficient
- Respecting and enhancing the heritage and architectural values of the Wharf, and thus
- Creating a world class set of facilities for Australia.

To achieve the stated project objectives, the subject works will be undertaken in conjunction with the Wharf 4/5 external works which form part of the Walsh Bay Arts Precinct SSDA (SSD 7689). Detailed coordination has been undertaken between STC and Infrastructure NSW / Arts NSW in the formulation and documentation of the two projects to ensure consistency and integration.

The proposed internal upgrade of the Sydney Theatre Company's facilities at Wharf 4/5 Walsh Bay will comprise internal alterations and reconfiguration of spaces and uses as outlined below:

Ground level

- New box office / ticketing area at southern end of wharf and administration / staff areas

Mezzanine

- Additional offices at southern end of wharf

Level 1 (Main Floor)

- the co-location of Wharf 1 and 2 Theatres to create two distinct performance spaces that are flexible in seating configuration and use. The new theatres will comprise:
 - o a new multi-format flexible studio space (Wharf 1 Theatre) with seating for 350 – 450 and additional height over the seating and stage areas for the rigging of technical equipment.

- o a new studio theatre space (Wharf 2 Theatre auditorium) with retractable or removable seat with a capacity of 150-200 seats in various configurations.
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- Improved rehearsal and dressing room spaces and introduction of more flexible spaces including:
 - o co-located rehearsal spaces with shared back of house area
 - o provision for two set up floors at the southern end of the wharf with back of house area to allow transportation of sets to the theatres
- administration, costume and props areas within the shore sheds

Level 2 (mezzanine)

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Other works

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- Improvements to acoustics, amenities and back of house and plant areas / facilities,
- Relocation, reconfiguration and improvements to administration areas centrally within the wharf
- Upgrade of services and infrastructure; and
- New loading and access arrangements to improve movement arrangements between technical and production areas.

The proposal provides for an increase in theatre capacity from existing 550 persons to a maximum of 650 persons in the combined Wharf 1 and 2 theatres. It also provides for a new multi-purpose public/event space with combined capacity for 200 persons over and above the existing Theatre Bar capacity of 500 persons. Accommodation for administrative staff will also increase from existing to a maximum of 200.

Works are as illustrated in detail on the architectural plans prepared by HASSELL at Appendix 1.

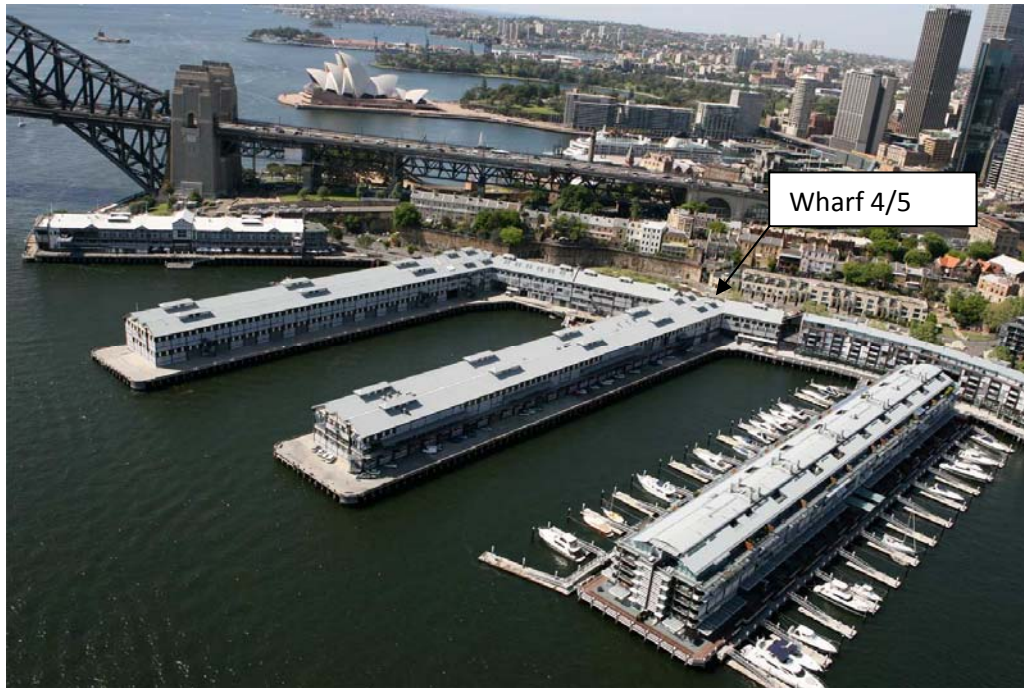


Figure 1: Aerial view (Source: Nearmap, October 2016)

The STC Internal Works project is State Significant Development under Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011 ("State and Regional Development SEPP") as it comprises works to a cultural facility with a capital investment value of over \$30 million.

Under Section 89D of the Environmental Planning and Assessment Act 1979 (the EP&A Act) the Minister for Planning (the Minister) is the consent authority for SSDAs. SSDAs are to be accompanied by an EIS that has been prepared in accordance with requirements issued by the Secretary of the Department of Planning and Environment ("the Department").

This EIS has been prepared on behalf of the Sydney Theatre Company and is in accordance with the requirements that were issued on 15 April 2016 (updated 4 July 2016) by the Secretary of the Department (Refer Appendix 2). This report includes the following information relevant to the application:

- A statement of validity
- An executive summary
- A description of the proposal for which approval is being sought
- The existing planning provisions applying to the site, including the permissibility of the proposal and how it will achieve planning objectives
- Assessment of the environmental impacts and key issues
- Environmental Risk Assessment and summary of proposed mitigation and management measures, and
- Justification for undertaking the project, including consideration of the suitability of the site and whether the proposal is in the public interest.

The project team for the preparation of the EIS has comprised:

Proponent	Sydney Theatre Company
Architecture	HASSELL
Urban Planning	MG Planning
Project Management	Root Projects
Community/Stakeholder Consultation	Sydney Theatre Company
Heritage	Tropman and Tropman
Noise and vibration	ARUP
Traffic and Transport	GTA Consultants
Contamination and Hazardous materials	ARUP
Construction Management	Cadence Australia
Fire Safety	ARUP
Accessibility	Accessibility Solutions
Building Code of Australia	Blackett Maguire and Goldsmith
Utilities and Services	ARUP
ESD	ARUP
Structural Engineering	TTW
Quantity Surveyor	MBM

1.2 Background

Port activities in the Walsh Bay area ceased to operate in the 1970s and from that time the area began to deteriorate and fall into disrepair. In the early 1980s the area was earmarked for a new arts precinct which led to the urban renewal of the area.

In 1985 the Sydney Theatre Company moved to Wharf 4/5, an important piece of maritime heritage infrastructure. The existing Wharf design, by Viv Fraser and Richard Wherret, is a Sulman award-winning example of adaptive re-use that has become an important piece of cultural infrastructure in Sydney, home to other arts organisations, loved by artists, audiences, staff and visitors, and the focal point of the Walsh Bay cultural precinct. Over three decades the precinct has become home to a thriving cultural, residential and business community.

In 2013 the STC secured a 45 year lease from Government for The Wharf and the nearby Roslyn Packer Theatre. This milestone was critical to the future of the Sydney Theatre Company and in conjunction with the development of the Walsh Bay Arts Precinct Concept Plan signalled the need to embark on a Master Plan that defined a clear vision for the future of the STC.

Since the repurposing of Wharf 4/5 (The Wharf) for STC it has not had any significant refurbishment and consequently the existing facilities are at the end of their useful life. The lack of proper acoustic treatment in theatre and rehearsal spaces is inadequate for contemporary theatre operations and the outdated approach to accessibility and workplace conditions do not meet modern day community expectations for public buildings. In summary the original fit out has not kept pace with the Company's changing operations over the past 30 years and accordingly is in need of significant change. Accordingly the key issues to be addressed by the proposed development include:

- Wharf 1 Theatre has sight line issues and lacks flexibility
- The fire tunnel is too small to transport sets and uses valuable space

- Height restrictions in the workshop limit the ability to build sets for the Roslyn Packer Theatre & Drama Theatre
- Acoustic issues existing in relation to the floor, walls and roof in the Rehearsal and Theatre spaces as a result of rain and the operations of other tenants including the Sydney Dance Company and Bangarra Dance Theatre
- There is currently a shared path of travel for public, staff, artists and transportation of sets from workshop to rehearsal to Theatre spaces, and
- Poor accessibility and circulation along the wharf with a poor sense of arrival, way finding and lack of identity from the street and wharf apron.

The proposed redevelopment of the STC facilities at Wharf 4/5 is consistent with broader government initiatives for the precinct. Since 2004, State Government commitments have reinforced Walsh Bay as an arts and cultural focus with the Bell Shakespeare and Australian Theatre for Young People (ATYP) accommodated at Pier 2/3. In late 2011, Arts NSW commissioned a high-level vision for the Walsh Bay Arts Precinct (WBAP). The Walsh Bay Arts Precinct Vision issued in January 2012 acknowledged and built upon the key growth sectors of tourism, events, arts and culture identified as major contributors to Sydney and New South Wales economies. The vision for WBAP was identified as follows:

Create a sustainable and activated arts and culture Precinct that supports and nurtures Sydney's home-grown culture and creativity. As a destination, it will be inclusive and accessible to all. It will be alive at all hours of the day and display a vibrant and accessible night life. As a cluster, Walsh Bay will be an ecosystem for creative production and cultural consumption where innovation and collaboration are a core of the Precinct's operations. This is supported by its design as a visible, networked, hybrid cluster. It is also an open platform for Sydney's artists, creative workers, performers and producers to come together. It will be where audiences meet the magic of theatre, dance, music and creation and have a good time. As an urban Precinct, Walsh Bay will be a place for living and working, supporting contemporary work styles as well as leisure activities in a unique contemplative setting. It will be sticky and connected a decidedly 21st century interpretation of place.

This work was followed by the preparation of the WBAP Master Plan by the NSW Government Architect's Office. The WBAP Master Plan, released in November 2013, considered a range of development options for a revitalised arts and cultural precinct in Walsh Bay. The WBAP Master Plan proposed accommodation of nine resident arts companies, five performance venues, 16 rehearsal/studio spaces, commercial leasing opportunities, and spaces for creative and commercial mixed use. It also proposed a vibrant public domain.

Following the development of the WBAP Master Plan a Concept SSDA was submitted to the Department of Planning and Environment and approved for the Walsh Bay Arts Precinct. The relationship of the current SSDA and the WBAP project is outlined in detail in section 1.3 below.

1.3 Relationship to Walsh Bay Arts Precinct

A Concept SSDA for the Walsh Bay Arts Precinct (SSD 6069) was approved on 21 May 2015. Since that time Infrastructure NSW and Arts NSW have been progressing with the planning for the Precinct in conjunction / concurrent with the subject Sydney Theatre Company proposal. The existing Concept Approval for the Precinct provides for:

- an adaptive re-use of Pier 2/3 providing new arts facilities including performance venues for the ACO, Bell Shakespeare and ATYP; 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, SDC, 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.

Key elements include:

- The introduction of new public domain, comprising a public square between Pier 2/3 and Wharf 4/5 for multipurpose use as well as steps down to the waterway
- A series of stairs and balconies designed as a contemporary interpretation of the original gantries reflecting the precinct's former industrial heritage
- The inclusion of flexible and adaptable spaces in Pier 2/3 and Wharf 4/5 for a large range of arts and cultural activities
- Modification to the roof of Pier 2/3 to provide adequate acoustics for the Australian Chamber Orchestra auditorium, and
- Use of the precinct for arts festivals, events and pop ups as well as a range of activating uses such as restaurants, cafes and bars.

Infrastructure NSW and Arts NSW are currently in the process of preparing a more detailed Stage 2 SSDA for the WBAP(SSD 7689) and notably the application will also include external works to Wharf 4/5 to facilitate the proposed STC internal fitout and refurbishment works. STC and INSW / Arts NSW have entered into a memorandum of understanding in relation to the two projects which provides that the two projects are to be lodged (and assessed) simultaneously given the synergies between the projects.

1.4 Assessment of Alternatives

In the process of arriving at the preferred redevelopment option for the STC works, HASSELL prepared a design options study which outlined the drivers for the proposed redevelopment and the four key objectives against which design options were considered. These key objectives identified were:

- Create distinctive theatre of vision and scale and to continue to help ensure a strong future for theatre in Australia
- Ensure a future for theatre and STC's business operations that considers enhanced revenue generation and sustainable models with respect to operational, technological and environmental efficiency
- Improve work spaces and enhance workplaces that are safe and loved by staff and artists, and
- Create a stronger visitors' experience with improved site access along The Wharf providing clear entry points that provide a variety of experiences via flexible spaces and opportunities for public engagement and the community.

HASSELL identified three design options as outlined below:

1. Option 1A - Administration remains in current location, fire tunnel repurposed. This option was developed to consider the implications of maintaining the existing location of administration and utilise the existing fire tunnel as a 'back of house path of travel' to the east.
2. Option 2A - Administration is relocated to Shore Sheds. This option was developed to consider the implications of re-locating administration to the Shore Sheds as well as improving theatre, rehearsal spaces and workshop. The fire tunnel is proposed to be demolished and the western back of house path of travel is introduced.
3. Option 3A - Preferred: The STC50 Master plan option. This option is the preferred master plan option that satisfies the strategic objectives and functional requirements of STC. The spatial arrangement allows for improved operational efficiency, remains sensitive to heritage and provides the Company with additional revenue streams to sustain its operations for the next 45 years.

Option 1A was discounted for the following reasons:

- No new public spaces
- Limits Administration's future growth
- No stage door therefore staff, artists and the public circulation is along the same path
- Back of House path of travel intersects with patrons entering Wharf 2 Theatre
- The construction work required is approximately 80% of scope of works under the preferred option to ensure essential improvements to theatre, rehearsal, workshop and administration spaces
- No increase to public bathrooms to end of wharf & no mid-wharf bathrooms, and
- No new revenue stream via a public multi-function space.

Further Option 2A was not considered to be a preferred option as concerns were identified including:

- Administration would potentially be disconnected from the theatre experience, both with the performance and the public experiencing the performance
- Risk that the bar would be less frequented by staff and artists, given the separation, which is currently a key attractor and point of difference to the bar offering
- Techworld - Lighting, Sound and Rigging is reduced in size compromising their efficiency, and
- Props Making and Store is reduced in size compromising their efficiency with interruptions with workflow between Workshops and Scenic.

Following consideration of the pros and cons of each option the STC Building Committee and STC Board, ultimately determined Option 3A to be the preferred option as it best met the project objectives and key drivers. The subject application seeks approval for works consistent with Option 3A.

2. Site Analysis

2.1 Site and Surrounds

Wharf 4/5 is part of the Walsh Bay area which is located adjacent to Sydney Harbour within the suburb of Dawes Point. 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 to the south-west.

The location of Wharf 4/5 is shown in Figures 2 and 3.



Figure 2: Site Location (Source: HASSELL, 2016)

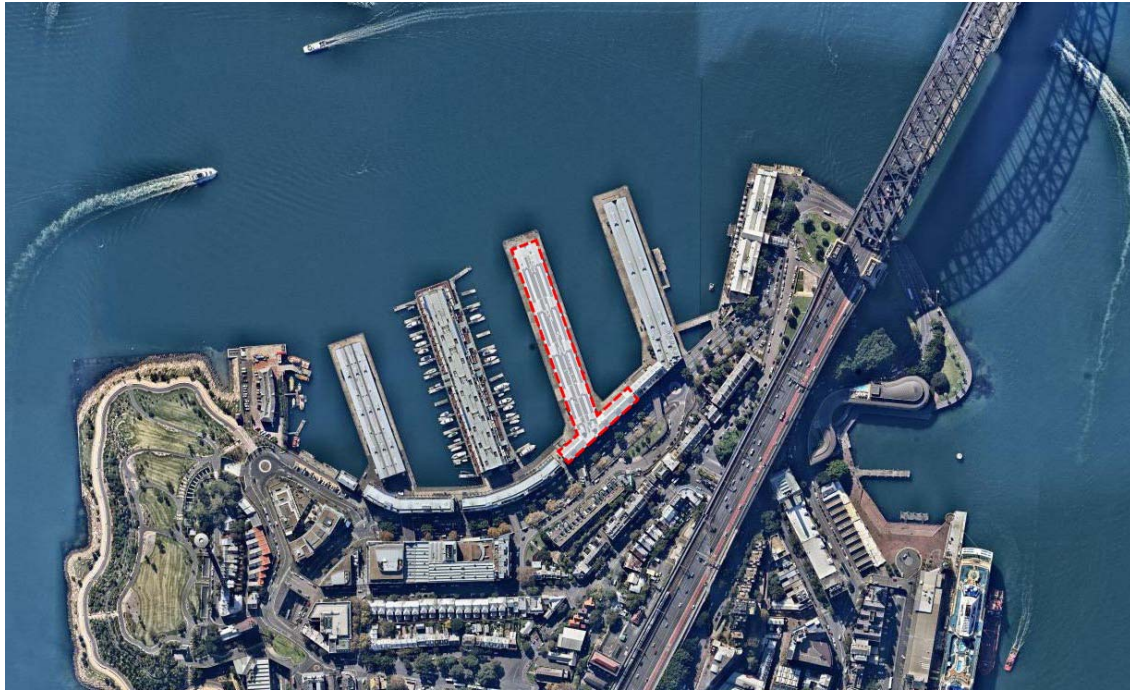


Figure 3: Subject Site (Source: HASSELL, 2016)

Walsh Bay comprises ten berths constructed between 1908 and 1922 for international and inter-state 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.

Much of Walsh Bay (excluding Wharf 4/5 and Pier 2/3) was redeveloped between 1997 and 2004 by the NSW Government in partnership with the Walsh Bay Partnership (Mirvac and Transfield).

The Walsh Bay Wharves comprise the following:

- Pier One which contains the Sebel Pier One Sydney Hotel
- Pier 2/3 is the last remaining undeveloped pier. It has approval for cultural uses, temporary arts events and some commercial events.
- Wharf 4/5 which is occupied by the Sydney Theatre Company, ATYP, Bangarra Dance Theatre and other arts organisations.
- Pier 6/7 which has been redeveloped for residential apartments and associated boat marina
- Pier 8/9 which has been redeveloped for office uses
- Shore Sheds which contain a range of commercial activities, including restaurants, bars, shops and offices.

Given the significant difference in grade between Walsh Bay and Millers Point, there are a number of bridges over Hickson Road which provide pedestrian access between the site and Millers Point. The bridge linking Pottinger Street and Wharf 4/5 is also used for vehicular parking.

To the south-west of the wharves is Hickson Road, which provides the major vehicular access to the site. Hickson Road links the site to Barangaroo to the south-west and Circular Quay and The Rocks to the north-east. Other roads providing access to the site include Pottinger Street which

provides access to Millers Point, and Towns Place which also provides access to Millers Point via Dalgety Road and Argyle Street.

The Barangaroo redevelopment project located to the south of Walsh Bay comprises three redevelopment areas – Barangaroo Reserve, Central Barangaroo and Barangaroo South. Barangaroo Reserve is located immediately to the west of the Walsh Bay Precinct and includes a 300 space car park and cultural facility, known as The Cutaway, below the constructed headland park. Central Barangaroo is intended as a mixed use precinct but is not yet developed. It will include the recently approved Crown Casino. The NSW Government has also indicated that a new underground railway station is being planned for Central Barangaroo as part of the Sydney Metro. Barangaroo South is a major commercial and mixed use centre. Development in this precinct is well advanced.

Photos 1 – 9 below show the site and its surrounds.



Photo 1: Shore sheds along Hickson Road showing entry to STC and Wharf 4/5



Photo 2: View looking south-west with shore sheds to the left of photo and east elevation of Wharf 4/5 to the right.



Photo 3: East elevation of Wharf 4/5



Photo 4: West elevation of Wharf 4/5



Photo 5: North elevation of Wharf 4/5



Photo 6: Hickson Road looking north-east. Note pedestrian bridge over Hickson Road in background.



Photo 7: Pier 2/3 to the east



Photo 8: Residential apartments at Wharf 6/7 to the west



Photo 9: Residential apartments to the south-west of the wharves

Wharf 4/5 is a four storey timber building which was built around 1917 and used as a steamship berthing and cargo storage facility until the mid-1970s. The STC is primarily located on Level 1 within the Wharf and Shore Sheds and above. Some minor areas utilised by STC are located on the ground and mezzanine levels.

2.2 Land Ownership and Legal Description

Wharf 4/5 is legally described as Lot 65 in DP 1048377. The area of the proposed internal works is 8,828m². A land survey is provided in Appendix 3.

The land owner of Wharf 4/5 is the Roads and Maritime Services (RMS). Owner's consent to the lodgement of the SSDA is provided at Appendix 4.

Wharf 4/5 is occupied under a lease arrangement with Arts NSW and the Department of Trade and Investment, primarily for arts and cultural uses.

3. Secretary's Environmental Assessment Requirements

The requirements for the refurbishment of internal areas of the Wharf Theatre at Wharf 4/5, Walsh Bay were issued on 15 July 2016 (amended 4 July 2016) by the Secretary of the Department (refer Appendix 2).

Table 1 below provides a summary of the individual matters listed in the SEAR's and where these are addressed in this report and / or in supplementary material provide as appendices.

Table 1: Director-General's Requirements

Item	EIS Requirement	Section
General Requirements	- Environmental Planning and Assessment Act 1979 - Clause 6 & 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> - Environmental risk assessment to identify potential environmental impacts - Quantity surveyors report	Throughout EIS and Appendices Section 8 Appendix 5
Key Issues	1. Relevant EPIs, Policies and Guidelines - State Environmental Planning Policy (State and Regional Development) 2011 - State Environmental Planning Policy No 55 – Remediation of Land - Sydney Regional Environmental Plan No 16 – Walsh Bay - Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 - Sydney Local Environmental Plan 2012 - NSW State Priorities - A Plan for Growing Sydney - NSW Long Term Transport Master Plan - Guide to Traffic Generating Development (RMS) - NSW Planning Guidelines for Walking and Cycling - Sustainable Sydney 2030 - Sydney Development Control Plan 2012 - Planning Guidelines for Walking and Cycling - Sydney City Centre Access Strategy - Sydney's Cycling Future - Sydney's Walking Future	Section 6
	2. Built Form and Urban Design Address design quality with consideration of the site layout, connectivity, primary elements, gateways, materials and colours	Section 7.1 and Appendix 6
	3. Heritage The EIS shall include 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; - Describes the potential impact of the proposal (including	Section 7.2 and Appendix 7

Item	EIS Requirement	Section
	the adaptive reuse, fit out, operation and Building Code of Australia compliance) on the heritage significance of Pier 4/5, measures to mitigate any impacts and reasons when a more sympathetic solution is not viable; ▪ Considers the structural impact of proposed works on the building; ▪ Assesses how the proposal relates to the wider Arts Precinct proposed by Arts NSW ▪ Considers consistency with the endorsed Conservation Management Plan for the building, addressing the proposed adaptive reuse and measures to minimise impacts on the buildings, including moveable heritage items ▪ Proposes opportunities to interpret the site's heritage significance, and archaeology and historical association.	
	4. Noise and Vibration The EIS shall include a noise and vibration assessment prepared by a suitably qualified acoustic consultant that: ▪ Assesses construction noise and vibration impacts, consistent with the Interim Construction Noise Guideline (Department of Environment, Climate Change and Water 2009), and Assessing Vibration: a technical guideline (Department of Environment and Conservation 2006). This assessment must consider cumulative noise and vibration impacts in the event of concurrent construction associated with other works within the Walsh Bay precinct, where relevant information is available ▪ Assesses operational noise from the use of the theatre and related activities, and any food and drink premises within the building in accordance with the NSW Industrial Noise Policy (Environment Protection Authority 2000) ▪ Assesses any operational vibration from the use of the premises in accordance with Assessing Vibration: a technical guideline. This must include impacts on other tenants within Wharf 4/5 and other Walsh Bay wharves, and external receivers ▪ Discusses available mitigation and management measures The noise and vibration assessment must consider impacts on other tenants within Wharf 4/5 and the Walsh Bay precinct, and noise receivers external to the precinct	Section 7.3 and Appendix 8

Item	EIS Requirement	Section
	5. Traffic, parking and access The EIS shall include a Traffic and Transport Impact Assessment relating to construction and operational impacts that includes: <i>Construction</i> ▪ Details of construction vehicle routes, peak hour and daily truck movements, hours of operation, access arrangements and traffic control measures for all demolition/construction activities ▪ Assessment of impacts of construction vehicles on traffic and transport performance at key intersections and on public transport operations ▪ Assessment of impacts on harbour vessel movements ▪ Details of access arrangements to and from the site for workers, emergency vehicles and service vehicles ▪ Assessment of construction road safety at key intersections and locations subject to pedestrian/vehicle/bicycle conflicts ▪ Details of any required temporary cycling and pedestrian access during construction ▪ Available mitigation and management measures <i>Operation</i> ▪ Details of the current and estimated future daily and peak hour vehicle, public transport, pedestrian and bicycle movements from the site and within the immediately surrounding road network ▪ An assessment of the impact of the proposal on existing traffic and transport performance and safety at key intersections in the area, and likely impact of the proposal on bus operations (stops, routes and parking) and taxi parking in the surrounding streets ▪ An indication of any road/intersection upgrades requires as a result of the development, supported by appropriate modelling and analysis , and any other measures to mitigate impacts of the development ▪ Details of the existing and any proposed vehicle, bicycle, motorcycle, taxi, bus and coach parking, and justification of proposed parking against relevant guidelines/ standards and Australian standards ▪ Details of service vehicle movements and site access arrangements (including types of vehicles and likely access times) ▪ Details of proposed loading docks and service arrangements ▪ Proposals to encourage employees and guests to make sustainable travel choices, such as walking, cycling, public transport and car sharing ▪ Assessment of impacts	Section 7.4 and Appendix 9 Section 7.7 and Appendix 10

Item	EIS Requirement	Section
	6. Construction Management The EIS shall assess construction related impacts (in addition to the noise and vibration and traffic and transport impact requirements detailed above) including: ▪ Details of the quantities and classification of waste and wastewater generated on site and its storage, treatment and transportation ▪ An assessment of other potential impacts of the construction on surrounding buildings and the public domain, including air quality and odour impacts, dust emissions, stormwater runoff, groundwater seepage, and soil pollution, and ▪ Available mitigation and management measures	Section 7.7 and Appendix 10
	7. Fire Safety The EIS shall include a Fire Engineering Report that details alternative fire engineering solutions as a result of the proposed removal of the existing fire tunnel	Section 5.7 and Appendix 11
	8. Ecologically Sustainable Development Identify how the development will incorporate ESD principles in the design, construction and ongoing operation phases of the development, and include innovative and best practice proposals for environmental building performance	Section 5.8 and Appendix 12
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular, you must consult with: ▪ City of Sydney Council ▪ Heritage Council of NSW ▪ EPA ▪ Transport for NSW CBD Coordination Office ▪ Roads and Maritime Services ▪ Fire and Rescue NSW ▪ Local Aboriginal Land Council and stakeholders, if relevant The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.	Section 4 and Appendix 13

Item	EIS Requirement	Section
Plans and Documents	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include the following: ▪ Site survey plan draw to an appropriate scale; ▪ Locality / context plan drawn, including significant local features such as heritage items; ▪ Details plans, sections and elevations including all temporary and permanent structures at A3 illustrating... ▪ Heritage impact statement; ▪ Conservation management plans; ▪ Access impact statement; ▪ ESD report; ▪ Building Code of Australia statement; ▪ Fire engineering report; ▪ Consultation summary report; ▪ Noise impact assessment; ▪ Signage strategy, including commercial signage / building name signage (if proposed); ▪ Traffic and transport impact assessment; ▪ Construction impacts and management plan, including a construction noise and vibration management plan, construction waste management plan and cumulative impact of construction activities on other nearby sites; and ▪ Schedule of materials and finishes.	Appendix 3 Appendix 1 Appendix 1 Appendix 7 Appendix 7 Appendix 14 Appendix 12 Appendix 15 Appendix 11 Appendix 13 Appendix 8 Not applicable Appendix 9 Appendix 10 Appendix 1

4. Consultation

4.1 Overview

The community consultation undertaken to date, and future community engagement proposed, is outlined in the community consultation summary prepared by the Sydney Theatre Company and provided at Appendix 13.

Sydney Theatre Company and its consultants commenced consultation on the project in 2014

Consultation with stakeholders aims to:

- Address the SEARs requirements
- Understand the key features that stakeholders value about the Wharf
- Understand the key issues with the current premises that need to be addressed, and
- Provide information to stakeholders about how STC plans to address these issues and seek feedback on those plans.

Consultation has included:

- Stakeholder survey and consultation workshops led by HASSELL in 2014
- Workshops with staff and creative artists in 2015 and 2016
- Meetings with government authorities, business groups and local community representatives in early 2016
- Meetings with Arts NSW as landlord and Sydney Dance Company and Bangarra Dance Company, the future arts tenants of the lower levels of Wharf 4/5
- Joint meetings with authorities and local community representatives in late 2016 with Infrastructure NSW in connection with the Walsh Bay Arts Precinct Project (SSD 7689), and
- Correspondence with Viv Fraser, the original architect for the STC fit out at the Wharf in 1984.

4.2 Community and Stakeholder Consultation

Targeted community consultation was undertaken including a survey which was distributed to ticket purchasers and subscribers, visitors and school groups.

The following key stakeholders were also consulted in relation to the proposal:

- Walsh Bay Precinct Association
- Walsh Bay Precinct Tenants
- Barangaroo Delivery Authority
- The Star
- Creative Reference Panel
- Committee for Sydney
- Sydney Business Chamber

- STC Board, Staff and Supporters, and
- Viv Fraser (Original architect) through daughter Sharon Fraser (including a written moral rights waiver received October 2016).

4.3 Agency Consultation

The project team also held a series of discussions with relevant government agencies and authorities. Agencies consulted were as follows:

- Arts NSW
- RMS
- Australia Council (C'th)
- City of Sydney
- NSW Office of Environment and Heritage
- Department of Planning

In general feedback on the STC internal works from both stakeholders and government agencies has been positive.

4.4 Findings and Response

The key findings of the consultation are:

- The original features of the Wharf – including the long walk, ironbark floor and The Bar at the End of the Wharf, should be maintained
- The theatres and back of house areas need renovation and are not fit for purpose
- The Wharf should be more accessible with improved visitor experiences
- The unique feature of all of STC being under the one roof should be maintained
- The renovations should occur at the same time as works to the Walsh Bay Arts Precinct to minimise disruption to the neighbourhood and to achieve efficiencies in procurement and project delivery
- There should be a consistent approach to identifying and respecting the heritage values of the Precinct and to the look and feel of the exterior of Wharf 4/5 and Pier 2/3
- The original architect, Viv Fraser, should be consulted
- The introduction of external stairs and lifts should be compatible with the proposed use and access into spaces used by the arts companies and commercial tenants at the ground level of wharf 4/5, and
- Penetrations for building services, whether through the roof or underneath the floor should be kept to a minimum and take into consideration heritage concerns and use of the relevant space into which the relevant service will be located.

These responses were taken into consideration by the design team to inform the design and ongoing considerations. In particular:

- The original features of the Wharf – including the long walk, ironbark floor and The Bar at the End of the Wharf, will be maintained
- The theatres and back of house areas will be renovated and made fit for purpose

- Accessibility will be greatly improved with the introduction of public lifts and accessible paths of travel and additional lifts for back of house areas. Additional ambulant bathroom facilities will be provided mid wharf as well at the end of the wharf and also in dressing rooms and back of house areas
- The unique feature of all of STC being under the one roof will be maintained with all production workshops, facilities, rehearsal, administrative and performance spaces being retained under the one roof
- Subject to funding and DA approval being received in time, STC is working with Infrastructure NSW (INSW) with a view to co-ordinating the works for STC with the works for the Walsh Bay Arts Precinct
- Agreement has been reached between STC, Arts NSW and INSW that the SSDA for the Walsh Bay Arts Precinct will include all external modifications proposed to the facade of Wharf 4/5 by the STC50 Project to ensure that the one architect team and one set of approvals is received for these works - operating under the one set of heritage principles and guidelines as advised by Tropman & Tropman
- The original architect, Viv Fraser, has been invited to participate in the design process but has declined the invitation due to ill health and other personal reasons. He has thanked STC for the invitation and wished STC every success with the project.
- STC is working with the architects for the Walsh Bay Arts Precinct project and with Sydney Dance Company and Bangarra Dance Company to ensure that the placement of external stairs and lifts works for all companies and whether in particular the lifts can be used to service all levels of the building, and
- The designs for building services will be refined during detailed design, the design approach however is to minimise impact on the exterior fabric in particular by making sue of exiting openings, windows and the roof lanterns. New services will be reticulated so as to minimise visual impact on the structure and trusses.

4.5 Proposed Stakeholder Engagement Strategy

In addition to consultation already undertaken in the formulation of the project and preparation of the EIS, STC is committed to engaging with the community and stakeholders throughout all stages of project. To this end a stakeholder engagement strategy has been prepared by Elton & Associates for the WBAP Stage 2 SSDA and STC SSDA. The Strategy identifies proposed future engagement activities.

5. Project Description

5.1 Project Overview

As outline above the key aims and objectives of the proposed STC internal fitout and refurbishment works are to meet STC's current operational needs and strategic goals and to future proof the company by:

- Creating new, distinctive and flexible theatres spaces commensurate with the Company's position as one of the world's leading theatre companies
- Increasing public space, improve access and visitor amenities
- Increasing saleable seating inventory and revenue earning capacity for long term sustainability
- Reducing running costs
- Improving the staff and user experience
- Improving back of house and technical facilities by providing modern workspaces which are fit for purpose, safe and efficient
- Respecting and enhancing the heritage and architectural value; and
- Creating a world class set of facilities for Australia.

To achieve these objectives the subject works will be undertaken in conjunction with the STC external works which form part of the Walsh Bay Arts Precinct SSDA (SSD 7689). The proposed works will comprise internal fitout and reconfiguration of spaces and uses as follows:

Ground level

- New box office / ticketing area at southern end of wharf and administration / staff areas

Mezzanine

- Additional offices at southern end of wharf

Level 1 (Main Floor)

- the co-location of Wharf 1 and 2 Theatres to create two distinct performance spaces that are flexible in seating configuration and use. The new theatres will comprise:
 - o a new multi-format flexible studio space (Wharf 1 Theatre) with seating for 350 – 450 and additional height over the seating and stage areas for the rigging of technical equipment.
 - o a new studio theatre space (Wharf 2 Theatre auditorium) with retractable or removable seat with a capacity of 150-200 seats in various configurations.
 - o New public display space and formal meeting area to south of Wharf 2 Theatre mid wharf with an atrium over
- Upgrade to existing restaurant and bar area at northern end of wharf and terrace balcony including back of house areas
- Improved rehearsal and dressing room spaces and introduction of more flexible spaces including:
 - o co-located rehearsal spaces with shared back of house area
 - o provision for two set up floors at the southern end of the wharf with back of house area to allow transportation of sets to the theatres
- administration, costume and props areas within the shore sheds

Level 2 (mezzanine)

- Administration area and meeting rooms
- provision of a new multi-purpose function room with balcony with capacity for 120 persons at the northern end of the wharf overlooking the restaurant and the harbour

Level 3 (under roof)

- Lighting bridge and technical area

Other works

- The removal of the existing fire tunnel within the building and associated reconfiguration of the space into the new layout as above plus addition of new fire stairs
- Improvements to acoustics, amenities and back of house and plant areas / facilities,
- Relocation, reconfiguration and improvements to administration areas centrally within the wharf
- Upgrade of services and infrastructure; and
- New loading and access arrangements to improve movement arrangements between technical and production areas.

The proposal provides for an increase in theatre capacity from existing 550 persons to a maximum of 650 persons in the combined Wharf 1 and 2 theatres. It also provides for a new multi-purpose public/event space with combined capacity for 200 persons over and above the existing Theatre Bar capacity of 500 persons. Accommodation for administrative staff will also increase from existing to a maximum of 200.

Works are as illustrated in detail on the architectural plans prepared by HASSELL at Appendix 1.

5.2 Architectural Design Philosophy

The architectural design philosophy underpinning the project is outlined in the STC50 Architectural Design Report prepared by HASSELL at Appendix 6. The intention for the project as articulated by HASSELL is that:

‘The new spaces need to be clearly articulated and pulled away from the heritage fabric – to let the timber envelope breathe. This improves our understanding of the Wharf’s grunty warehouse character, scale & materiality.’

The design philosophy for the works is underpinned by three overarching design principles:

- ‘Heritage’ – the heritage philosophy has been used to determine the volumetric layout and articulation of spaces by treating the new volumes as insertions that float or suspend within the external envelope
- ‘All under one roof’ – this principle deals with the linear occupation and the production of theatre ‘all under the one roof’. The occupation is unique to theatre companies around the world and provides for a logical progression and sequence from loading of raw material to making, finishing, rehearsing, performing theatre, celebrating and engaging, and
- ‘Materiality: Distinction between Old and New’ – this principle provides that there is to be a clear distinction between the use and re-use of existing materials and the addition of new materials to articulate the new spatial insertions within the existing wharf. Where possible, timber from the removal of columns will be reused or reinterpreted and waste will be minimised. The interplay between the existing facade and the proposed new materials - ethereal, translucent and layered, shall mediate light conditions and use light to enhance

interior spaces inviting people to look out and up to engage with the exposed trusses, existing lanterns and views beyond.

The detailed design philosophy which has been applied in determining the scope of the proposed works is outlined in further detail at Appendix 6.

5.3 Uses and Wharf Configuration

The proposal provides for an increase in theatre capacity from existing 550 persons to a maximum of 650 persons in the combined Wharf 1 and 2 theatres. It also provides for a new multi-purpose public/event space with combined capacity for 200 persons over and above the existing Theatre Bar capacity of 500 persons. Accommodation for administrative staff will also increase from existing to a maximum of 200.

No change is proposed to the existing use within the STC space within the Wharf structure.

5.4 Structural Engineering

The proposed internal fitout and refurbishment works will include some structural works to the existing wharf structure and as such have been designed in accordance with advice provided by structural engineers, Taylor Thompson Whiting. An iterative process has been adopted to design the works to ensure that the works minimise impact on the heritage fabric whilst at the same time ensuring works (and the existing structure) are structurally sound and fit for purpose. Structural certification will be provided as part of the future construction certificate for the works.

5.5 Transport and Access

No car parking is to be provided on-site, which is consistent with the existing arrangement, although some informal staff car parking currently takes place on the Pottinger Street bridge. Any additional car parking demands associated with the proposed upgrade will therefore need to be accommodated within the surrounding publicly available car parking supply and/or alternative travel modes (public transport/ active travel). In this regard, it is noted that the additional car parking demands could be accommodated within a combination of the following:

- Surrounding on-street car parking supply
- Surrounding off-street car parking stations
- Headland Park off-street car park (approximately 300 spaces).

It is also envisaged that a number of staff and visitors could be driven to and from the site and therefore these users are to be catered for with a safe pick-up/ drop-off facility located in close proximity to the “front door” of the site, integrated with taxi and hire car facilities.

A Green Travel Plan (GTP) has also been prepared for the broader Walsh Bay Arts Precinct which outlines initiatives to minimise the use of private vehicles to access the precinct.

The existing Wharf 4/5 loading dock arrangements via the Pottinger Street bridge and wharf apron are to be maintained. Access to the wharf apron is proposed to be generally restricted to maintain pedestrian amenity and safety.

In terms of end of trip facilities, an additional 25 secure bicycle parking spaces are to be provided adjacent to the site entry (on Hickson Road) as part of the broader Walsh Bay Arts Precinct project. This provision will meet the needs of staff and visitors within the Walsh Bay Arts Precinct (inclusive of STC) and will supplement the existing racks on Hickson Road.

5.6 Accessibility

The proposed works have been designed having regard to the need to increase the accessibility of the STC facility for persons of all abilities. To this end the architect has worked closely with accessibility consultants, Accessibility Solutions, in designing the proposed works. Accessibility Solutions has prepared an access review which considers the proposal having regard to relevant legislation, regulations and standards (and in particular the BCA and Disability Discrimination Act). The report confirms that the project complies or can comply with all relevant requirements.

5.7 Building Code of Australia (BCA) and Fire Safety

A BCA Assessment Report has been prepared by Blackett Maguire & Goldsmith (Appendix 15) which assesses the proposed works against the Deemed-to-Satisfy provisions of the relevant sections of the BCA.

The report concludes that the design is capable of complying with the requirements of the relevant sections of the BCA subject to resolution of the identified areas of non-compliance and compliance with the recommendations provided within the report. Because of the nature of the buildings, a number of BCA issues are proposed to be addressed by 'alternative solutions'. This will be undertaken during the detailed design phase and in consultation with the fire engineer, access consultant and energy efficiency consultant.

The BCA Assessment Report is supplemented by a Fire Engineering Review prepared by ARUP (Appendix 11). The Fire Engineering Review documents the fire safety philosophy for the project and fire safety measures proposed to be provided as part of the strategy. The report concludes that performance based fire engineering can be used to demonstrate compliance with the Performance Requirements of the BCA without major changes to the current design. The Performance Solutions will be documented with detailed supporting assessments in the Fire Engineering Report for the project certification in subsequent design stages, in line with normal design and approvals process.

5.8 Sustainability Measures

An ecological sustainable design report (refer Appendix 12) has been prepared by ARUP which outlines the ESD strategies that are being developed and will be implemented in the design, construction and the ongoing operational phases of the development. Overall the following hierarchy has been used to optimise ESD performance:

1. Fully optimise passive systems to improve natural ventilation, passive heating and good daylight levels. This can be demonstrated by retaining the existing passive strategies for naturally ventilating and daylighting of the Wharfs public gathering spaces and common areas
2. Select energy efficient building services plant that is controlled in response to the passive systems such as daylight response artificial and mixed mode ventilation
3. Fully optimise the solar system to use the harvested energy on site as much as possible and then export, and
4. Monitor operational performance and provide a mechanism for continued improved building tuning and performance.

The Wharf has a complex mix of environments due to the changing functionality of the building over the day and night and the requirement to absorb very high peak energy conditions. The design team has worked directly with STC's operations to develop innovative sustainable infrastructure provisions so as to not require large amplifications to the incoming power supply

and other utility services. For example the power supply to the Wharf would normally need to be increased considerably to accommodate the new proposed peak load conditions however a diversity strategy has been developed which considerably reduces the peak load requirement.

The STC ESD strategies that have been identified are also proposed to be integrated with the broader Walsh Bay Arts Precinct works where possible. Overall the project aims are to achieve high levels of sustainability adopting and improving the Wharf's previous ESD initiatives of optimising the use of the solar panels, recycling rainwater and passive / natural ventilation. The areas that will have to be air conditioned due to function and acoustics will include high efficiency building services systems.

Specific ESD measures are as outlined in section 2 of the ESD report at Appendix 12. The design will achieve best practice performance standards for energy efficiency, water conservation, waste reduction and material efficiency whilst maintaining high levels of indoor environmental quality and occupant comfort.

5.9 Construction

The proposed construction works will be mainly internal and the proposed construction methodology is therefore encapsulated within the Wharf to mitigate impacts to the surrounding environment. The potential however remains for some possible temporary disruption to surrounding areas during the construction phase. An environmental, construction and site management plan (ECSMP) has therefore been prepared to mitigate potential impacts (refer Appendix 10). As detailed in the ECSMP STC and the construction contractor will work closely with the City of Sydney Council, neighbours, existing tenants, occupants, stakeholders and transport authorities to ensure minimal impact and disruption to the surrounding area during the construction phase.

5.10 Utilities and Services

An assessment has been undertaken of the infrastructure loads for the proposed development by ARUP (Appendix 16). The assessment indicates that the existing water supply, gas and sewer utility services are capable of supporting the development. Power load assessments have identified a need to increase the existing two feeders to the wharf from 400A and 250A to two 630A supplies. Negotiations are ongoing with Ausgrid to provide for modifications to the feeders as required.

6. LEGISLATION AND PLANNING POLICIES

This section addresses compliance of the proposed works with relevant legislative requirements and key strategic policies.

6.1 Commonwealth Legislation

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* applies to the subject site. This Act requires approval from the Federal Minister for the Environment to carry out a 'controlled action' where it is likely to have a significant impact on a 'matter of national environmental significance'. Matters of National Environmental Significance include among other matters world heritage properties, national heritage properties, listed threatened species, ecological communities and migratory species.

There are no known matters of National Environmental Significance occurring on or in the vicinity of Walsh Bay. Therefore it is considered that referral of the application to the Commonwealth Minister for the Environment, to determine if it is a 'controlled action', is not required.

6.2 Environmental Planning and Assessment Act

6.2.1 EP&A Act Objects

An assessment of the project in relation to the objects of the EP&A Act is provided in Table 2.

Table 2: Assessment of WBAP Concept against objects of EP&A Act

Object	Assessment
5(a)(i) to encourage the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment	The proposal will contribute to the proper management, development and conservation of the City, promote the social and economic welfare of the community and create a better environment. It will do this through creating a sustainable and exemplar arts facility that provides a unique cultural offering and visitor experience. The works will upgrade the existing cultural and artistic offering of the Sydney Theatre Company and ensure that it is world class. The upgrade works will improve both the visitor and staff experience of the Wharf and will enable the staging of theatre events of significant cultural value to the community.
5(a)(ii) to encourage the promotion and co-ordination of the orderly and economic use and development of land	Wharf 4/5 is a highly significant heritage site which has been adaptively utilised as an arts and cultural facility of wide renown. The proposed redevelopment will provide for the site's continued orderly and economic use by rejuvenating a vital piece of Sydney's waterfront cultural heritage and providing facilities that better enable the Sydney Theatre Company to deliver world class productions.
5(a)(iii) to encourage the protection, provision and co-ordination of communication and utility services	The proposed works will not adversely impact on the provision or coordination of communication and / or utility services. Relevant utility providers have been consulted during the development of the proposal.

5(a)(iv) to encourage the provision of land for public purposes	The proposal will continue to provide for the use of the subject land for public purposes through improving the site facilities and associated improvements to the arts and cultural offering provided by the Sydney Theatre Company.
5(a)(v) to encourage the provision and co-ordination of community services and facilities	The proposed works will provide improved community services and facilities on site.
5(a)(v) to encourage the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats	Given that Walsh Bay is a highly urbanised environment, there will be no adverse impacts arising from the WBAP concept on native animals and plants or their habitats.
5(a)(vii) to encourage ecologically sustainable development	The upgrade works accord with the principles of Ecologically Sustainable Development, as set out in Schedule 2 of the EP&A Regulation 2000, as discussed in Section 5.8 of this EIS and the ESD report at Appendix 12.
5(a)(viii) to encourage the provision and maintenance of affordable housing	N/A
5(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State	Detailed and ongoing discussions regarding the proposed upgrade to the existing STC facilities at Wharf 4/5 have been held with both state government agencies and the City of Sydney (refer discussion in Chapter 4). In particular the works are to be coordinated with concurrent works being undertaken by INSW and Arts NSW in respect of the Walsh Bay Arts Precinct which includes external works to Wharf 4/5.
5(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment	An extensive program of consultation with the community and key stakeholders has been undertaken (refer discussion in Chapter 4) in formulation of the current proposal and the associated WBAP project. Further opportunity for public involvement and participation will occur during public exhibition of the SSDA and EIS. The future program of public engagement is also detailed in the Community Consultation Report at Appendix 13.

6.2.2 State Significant Development

Under Part 4, Division 4.1 of the EP&A Act, an assessment pathway is provided for State Significant Development. The State Significant Development provisions under the EP&A Act are accompanied by the State Environmental Planning Policy (State and Regional Development) 2011 ("the State and Regional Development SEPP") which defines which projects are deemed to be of State Significance.

Under Schedule 1 of the State and Regional Development SEPP, development for cultural, recreation and tourist facilities that have a capital investment value of over \$30 million are declared to be SSD. The proposed STC internal fitout and refurbishment works are valued at over \$30 million and the project is therefore considered to be SSD.

Under Section 89D of the EP&A Act the Minister for Planning (“the Minister”) is the consent authority for SSD.

Under Section 89J of the EP&A Act certain authorisations that would normally be required from other agencies are suspended in relation to SSD. This includes an approval under Part 4 of the *Heritage Act 1977*.

6.3 Environmental Planning Instruments

The SEARs require consideration of the following statutory planning instruments:

- State Environmental Planning Policy (State and Regional Development) 2011 (“State and Regional Development SEPP”)
- State Environmental Planning Policy No 55 – Remediation of Land (“SEPP 55”)
- Sydney Regional Environmental Plan No 16 – Walsh Bay (“Walsh Bay REP”)
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (“Sydney Harbour Catchment REP”)
- Sydney Local Environmental Plan 2012 (“SLEP 2012”)

The proposal’s consistency and compliance with the relevant statutory plans and policies is summarised in Table 3 or discussed in more detail below.

Table 3: Compliance with Environmental Planning Instruments

Planning Instrument	Assessment
State and Regional Development SEPP	Discussed in Section 6.2.2 above.
SEPP 55	The proposed STC works comprise internal works to an existing structure only. According it is not considered that a contamination assessment is required as the existing wharf is not subject to contamination. A Hazardous Materials Survey has however been prepared and is provided at Appendix 17. The report concludes that the existing building accommodates some hazardous materials which will need to be dealt in accordance with relevant legislative requirements (refer section 7.6 below).
Walsh Bay REP	Refer discussion in Section 6.3.1 below.
Sydney Harbour Catchment REP	Refer discussion in Section 6.3.2 below.
SLEP 2012	Refer discussion in Section 6.3.3 below.

6.3.1 Walsh Bay REP

The Walsh Bay REP is the principal environmental planning instrument applying to the site. The REP is a “deemed State Environmental Planning Policy” as legislation enacted on the 1 July 2009 provided that regional environmental plans (REPs) no longer form part of the hierarchy of environmental planning instruments in NSW. Instead all pre-existing REPs were deemed to be State Environmental Planning Policies (SEPPs).

In general, the Walsh Bay REP is a flexible instrument allowing for a wide range of uses within the Walsh Bay Precinct, including commercial, retail, residential and entertainment/recreation uses.

There are two zones under the REP:

- Zone 1 - Walsh Bay Conservation Zone
- Zone 2 - Walsh Bay Waterway Zone.

As shown in Figure 4 below, Zone 1 applies to the wharves and surrounding precinct on land. Zone 2 applies to the harbour area between the wharves.

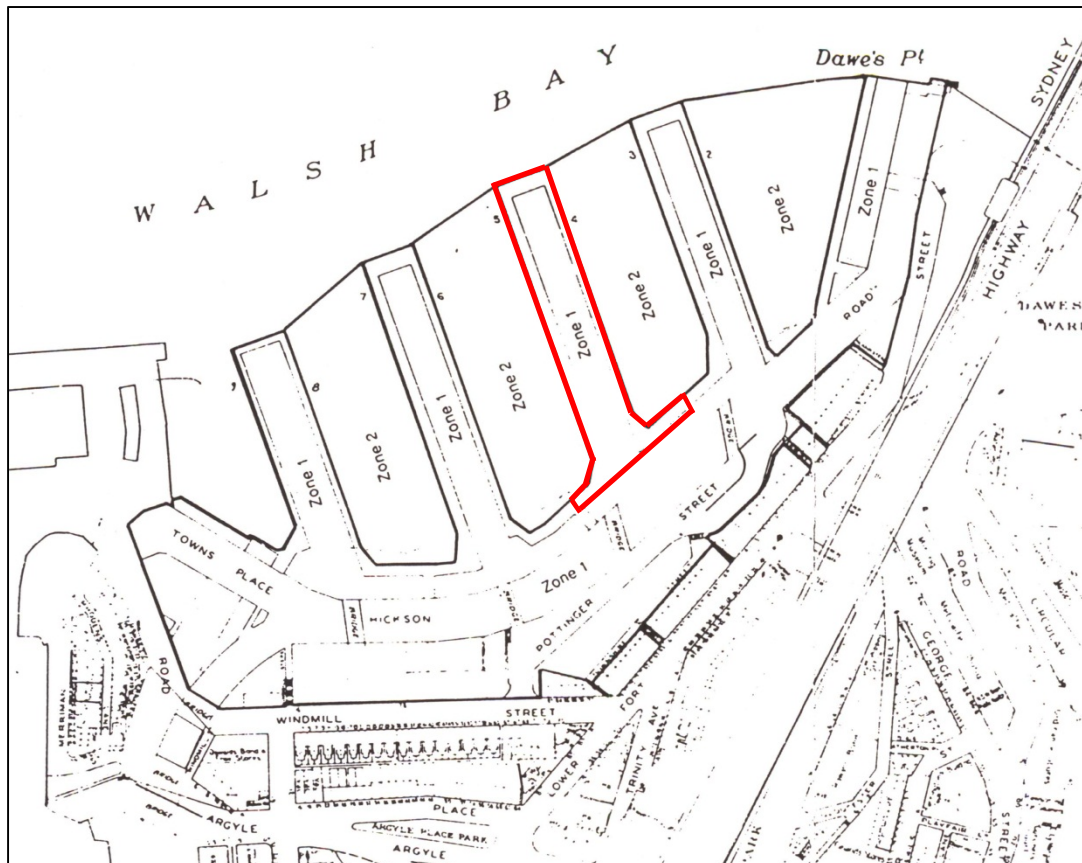


Figure 4: Zoning under Walsh Bay REP

Wharf 4/5 is within Zone 1 Walsh Bay Conservation Zone.

The objectives of the Zone 1 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 Area¹, and*
- (d) *to ensure that development is compatible with and does not adversely impact on the residential amenity and function of the adjoining areas.*

The proposed works are therefore consistent with these objectives in that they will:

- provide for the continued appropriate adaptive re-use of an existing structure wharf for arts and cultural uses in a way that is sensitive to the heritage significance, scale, built form and materials of the existing structure
- contribute to the development of a world class arts and cultural precinct consistent with Sydney's global city status and in a way that complements and does not detract from the functions of Sydney's CBD
- minimise disruption to the existing facilities and services provided on site for theatre goers, and
- minimise any impacts on neighbouring development.

In Zone 1 the REP identifies uses that are prohibited rather than those that are permissible, that is:

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

The proposed works and cultural facility use is therefore permissible with consent in the zone.

Clause 13 of the Walsh Bay REP requires that the consent authority must not grant consent to development unless it has taken into consideration the extent to which the development would affect the heritage significance of the Walsh Bay Conservation Zone (Zone 1). Consideration of the impact of the proposed works on the heritage significance of the Walsh Bay Conservation Zone has been undertaken and is discussed in Section 7.2 below and in the Heritage Impact Statement provided at Appendix 7.

Clause 15 of the REP provides for the preparation of development control codes where the consent authority considers it appropriate to provide more detailed provisions than are contained in the plan. To date no such codes have been prepared.

¹ The Sydney Cove Redevelopment Authority Act 1968 was repealed by the Sydney Harbour Foreshore Authority Act 1998

Clause 16 of the REP requires consideration of a range of issues when determining development applications. These are as follows:

(a) the views of the Central Sydney Planning Committee

The Central Sydney Planning Committee will be briefed by the Sydney Theatre Company following the lodgement of the SSDA. This will enable the Committee to provide a formal response to the Department of Planning and Environment in accordance with clause 16.

(b) any conditions imposed by the Heritage Council under section 63 of the Heritage Act 1977

Section 63 of the Heritage Act does not apply to the proposed works as the works form State Significant Development as defined under the *EP&A Act*. However, the views of the Heritage Council were sought by the Department of Planning and Environment prior to preparation of the SEAR's and are therefore considered to be addressed in this EIS. In addition, STC has had ongoing discussions with the Heritage Branch of the Office of Environment and Heritage regarding the proposal. The Heritage Council will be formally consulted regarding the SSDA during the public exhibition period and will be able to recommend conditions of consent to the Department of Planning and Environment as part of its submission to the exhibition.

(c) Not applicable – relates to development in Zone 2

(d) the Walsh Bay Redevelopment Conservation Guidelines dated February 1988

The Walsh Bay Redevelopment Conservation Guidelines have been addressed in the Heritage Impact Assessment at Appendix 7. The proposed works are considered to be generally consistent with the Guidelines as relevant.

(e) any urban design guidelines

No urban design guidelines exist therefore no consideration is required.

(f) the Walsh Bay Regional Environmental Study 1989

The Walsh Bay Regional Environmental Study (RES) examines the history and heritage of the area and contains certain guidelines in relation to its future redevelopment. Key relevant matters to be addressed are:

Heritage – Development should retain the capacity of the Walsh Bay precinct to document and demonstrate its historic functions and its sense of time and place. There should be no radical introduction of civic works and infrastructures which do not reflect the heritage qualities of the precinct. The adjacent Millers Point area and its distinctive population should not be subject to changes as a result of the development of the Walsh Bay precinct. Industrial artefacts associated with the wharves and bond stores should be retained.

Comment: The heritage impact of the STC internal fitout and refurbishment works is discussed in Section 7.2 below. The proposed changes are modest and sensitive to the unique heritage qualities of the wharf and the broader precinct and reflect the intent as described in the Walsh Bay RES. The works will not adversely impact on the adjacent Millers Point residential precinct and will provide an improved adaptive reuse of existing industrial heritage for arts and cultural uses.

Future Land Use and Waterway Use – A mix of residential, commercial, cultural and leisure/entertainment uses is considered appropriate for the Walsh Bay sites. The capacity of the area to accommodate increased traffic is limited and a mix of uses which spreads the time people enter and leave the area is most appropriate. The number of private vessels mooring at Walsh Bay should be controlled. The scale and intensity of new land uses should not adversely affect existing residents of Millers Point but should encourage access to the area for local people.

Comment: The proposed STC internal fitout and refurbishment works retain the existing use of the site for arts and cultural uses and provides for only a minor increase in the site's capacity. No new land uses are proposed and the scale and intensity of the upgraded STC use will not adversely impact on residents in Millers Point.

Urban Design – Most of the built fabric should be retained, consistent with the Heritage and Conservation Guidelines. The simple lines of the wharves should be maintained and no fixtures added which detract from the visual integrity of the wharves. The introduction of new materials to the outside of the wharves and shore shed buildings should be avoided.

Comment: The proposed STC changes to Wharf 4/5 and the Shore Sheds are internal only and will not result in any impact on the simple lines of the wharves nor their visual integrity. The extent of interventions have been minimised and designed having regard to the Heritage and Conservation Guidelines.

Traffic and Transportation – Public transport provision should be sufficient to reduce pressure on parking and ensure that there is no parking overflow into Millers Point. Traffic and pedestrian safety and amenity need to be addressed. Sufficient provision must be made for service vehicles.

Comment: Significant improvement to public transport in the precinct is expected with the introduction of a high frequency bus service along Hickson Road as identified in the Sydney City Centre Access Strategy (refer 6.4 below). No additional parking is proposed in conjunction with the proposed STC works therefore traffic impacts will be minimal. Upgrading of arrangements for loading and service vehicles will be provided in Wharf 4/5. Further detail regarding traffic and transport arrangements is provided in Section 7.5. Pedestrian access within Wharf 4/5 will also be substantially improved as part of the proposed works.

(g) *the Central Sydney Strategy 1988*

The Central Sydney Strategy 1988 has been superseded by the City of Sydney's *Sustainable Sydney 2030* document which is the City's vision for making the city "green, global and connected" by 2030.

The 2030 vision identifies the establishment of a “cultural ribbon” which will link Sydney's leading cultural landmarks along the harbour's edge, such as The Wharf Theatre, the MCA, the Opera House, Customs House and other cultural attractions. The cultural ribbon is intended to focus on improved directional signage for Sydney's cultural attractions in the City Centre and form links to strengthen and support the cultural life of the city. As part of this initiative, the vision seeks to encourage a focus for cultural activities around Walsh Bay, and a foreshore connection between Circular Quay and Darling Harbour. The proposed STC internal fitout and refurbishment works is therefore consistent with Sustainable Sydney 2030, the Creative City – Cultural Policy and Action Plan 2014 – 2024 (August 2014) and the Draft Cultural Ribbon Strategy (July 2016).



Figure 5: Cultural Ribbon (Source: Draft Cultural Ribbon Strategy, July 2016)

- (h) *the adequacy of public access to the wharf aprons and to the foreshore*
No change is proposed to existing arrangements.
- (i) *where the development is or provides a public transport facility, whether that facility integrates with existing public transport services and provides an adequate level of service*
The development does not involve the provision of a public transport facility.
- (j) *whether the development affects the continued use of Wharf No 4 or 5 as a theatre complex and certain sites for RMS purposes*
The proposal consolidates the use of Wharf 4/5 as an arts and cultural facility and is therefore consistent with this provision.

- (k) *any plan indicating evidence of archaeological material prepared by or to the satisfaction of the Heritage Council*

The proposal provides for internal works to Wharf 4/5 only therefore no archaeological material is likely to be uncovered as part of the works.

- (l) *whether the development generates traffic which adversely impacts on the amenity of the area and surrounds.*

The Transport Impact Assessment at Appendix 9 indicates that the proposal will not result in any adverse traffic impacts, primarily because parking opportunities within and surrounding this site are limited and the proposal represents a modest upgrade to an existing facility which is well known to have limited availability of car parking. Refer also discussion in Section 7.5.

Clause 17 of the REP states that the consent authority may only grant consent to development for commercial purposes if the development would result in a floor area used for the purposes of commercial premises in Zone 1 not greater than 30 per cent of the total floor area used for any purpose within that Zone at the time. The proposed works do not propose commercial uses rather the existing STC areas of Wharf 4/5 will continue to be used for cultural and ancillary uses.

There are no other provisions contained within the Walsh Bay REP relevant to the proposed works.

6.3.2 Sydney Harbour Catchment REP

The site is within the Sydney Harbour Catchment as identified under Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 and is also within a “Strategic Foreshore Site” under Part 4 of the REP. The Sydney Harbour Catchment REP is also a “deemed SEPP”.

Part 3, Division 2 of the Sydney Harbour Catchment REP requires that the consent authority take into account a range of matters before granting consent for development under Part 4 of the *EP&A Act*. An assessment of the proposed STC internal fitout and refurbishment works in relation to these matters, where relevant, is provided in Table 4 below.

Table 4: Assessment Against Sydney Harbour Catchment REP

Relevant matters to be taken into account	Assessment
Cl.22 Public access to, and use of, foreshores and waterways. Development should: ▪ maintain and improve public access to and along the foreshore, ▪ maintain and improve public access to and from the waterways for recreational purposes ▪ provide appropriate tenure and management mechanisms to safeguard public access to, and public use of, that land, ▪ consider the undesirability of boardwalks as a means of access across or along land below the mean high water mark if adequate alternative public access can otherwise be provided, ▪ consider the need to minimise disturbance of contaminated sediments.	The proposed works will not alter existing public access to, or use of the foreshore or waterways however it will provide improved access to Wharf 4/5.

CI 23 Maintenance of a working harbour ▪ foreshore sites should be retained so as to preserve the character and functions of a working harbour ▪ consideration should be given to integrating facilities for maritime activities in any development,	The character and significant features of the Walsh Bay Wharves, as a representative example of the working harbour in the 19th and early 20th century, will continue to be conserved and interpreted through the proposed works.
CI 24 Interrelationship of waterway and foreshore uses Development should: ▪ promote equitable use of the waterway, including use by passive recreation craft, ▪ minimise any adverse impact on the use of the waterway, including the use of the waterway for commercial and recreational uses, ▪ minimise excessive congestion of traffic in the waterways or along the foreshore, ▪ ensure water-dependent land uses should have priority over other uses, ▪ avoid conflict between the various uses in the waterways and along the foreshores.	There will be no adverse impact on the use of the waterway as a result of the proposed works.
CI 25 Foreshore and waterways scenic quality ▪ the scale, form, design and siting of any building should be based on an analysis of: - the land on which it is to be erected, and - the adjoining land, and - the likely future character of the locality, ▪ development should maintain, protect and enhance the unique visual qualities of Sydney Harbour ▪ the cumulative impact of water-based development should not detract from the character of the waterways and adjoining foreshores.	The proposed works involve minimal interventions to the building fabric and comprise internal works only. The proposed changes to the wharf structure have been carefully designed to maintain and celebrate the heritage structure and will not result in any impact on the foreshore or scenic quality of the waterways. No changes are proposed to the public domain as part of the proposed works.
CI 26 Maintenance, protection and enhancement of views. Development should: ▪ maintain, protect and enhance views (including night views) to and from Sydney Harbour, ▪ minimise any adverse impacts on views and vistas to and from public places, landmarks and heritage items, ▪ ensure the cumulative impact of development on views should be minimised.	The proposed works will not result in any impact on views being contained wholly within the existing structure.

The Sydney Harbour Catchment REP generally requires the preparation of a master plan for Strategic Foreshore Sites. However, under clause 41(4) a master plan does not have to be prepared for the “City Foreshores Area” which includes the subject site.

Part 5 of the REP relates to the protection of heritage items. It is however noted that the Walsh Bay wharves are not listed as a heritage item under the REP therefore these provisions do not apply. Notwithstanding the heritage impact of the proposed works has been considered in detail in section 7.2 below.

6.3.3 Sydney Local Environmental Plan 2012

Sydney LEP 2012 does not apply to the subject land rather the LEP maps refer to the Walsh Bay REP as the applicable planning instrument. No assessment against the relevant provisions of SLEP 2012 is therefore required or appropriate.

6.4 Strategic Planning Policies

The proposal's consistency and compliance with the relevant strategic plans and policies is summarised in Table 5 or discussed in more detail below.

Table 5: Compliance with Policies

Policy	Assessment
NSW State Priorities	The proposed works are generally consistent with the NSW State Priorities. The works will provide employment growth during construction and during the operational phase and will build cultural infrastructure within the City in an area well known as a world class cultural hub.
A Plan for Growing Sydney	The proposed works are similarly consistent with A Plan for Growing Sydney and in particular Goal 3: ‘A great place to live with communities that are strong healthy and well connected’. Direction 3.4, targeted at achieving this goal, is to ‘Promote Sydney’s heritage, arts and culture’ and provides action 3.4.1 which is to ‘continue to grow global Sydney’s CBD as an international arts and cultural destination’. This action commits government to investment in venues in the Cultural Ribbon including the Walsh Bay Arts Precinct (of which STC is a part) to provide for the redevelopment of the historic Pier 2/3 and Wharf 4/5 to create an internationally significant working arts precinct for Australia’s leading major performing arts organisations. It notes that: <i>“the redevelopment of the Walsh Bay Arts Precinct will more than double the arts offering at Walsh Bay with new and upgraded production, rehearsal, studio and performance venues. Home to Australia’s pre-eminent performing arts organisations, the Walsh Bay Arts Precinct will offer a rich and varied range of performances, events and experiences complemented by new restaurants, cafes and commercial opportunities. These include Sydney Theatre Company, Sydney Dance Company, Bangarra Dance Theatre, Australian Theatre for Young People. Choir groups and key festivals will also be part of the precinct. A major new public square and opportunities for community engagement and participation will be central to the proposed development.”</i> The proposed STC works will contribute to the successful delivery of the WBAP and reinforce Sydney’s Cultural Ribbon by cementing STC’s place as a world class arts organisation with world class facilities.

Policy	Assessment
NSW Long Term Transport Master Plan	The NSW Long Term Transport Master Plan was released in December 2012 and provides a framework to guide the NSW Government's transport funding priorities over the next 20 years. Key actions in the master plan that may contribute to improving public transport to the STC site at Walsh Bay include: ▪ Redesign of the city-wide bus network with a focus on the Sydney CBD. The redesign of the bus network in the CBD will be accompanied by a high capacity north-south light rail line along George Street (currently under construction). ▪ Major initiatives at Barangaroo including the construction of a new ferry hub at Barangaroo South and new bus services along Hickson Road ▪ Upgrading of ferry facilities at Circular Quay to improve modal integration and way finding, and ▪ Long term investigations into possible extensions to the light rail line to Walsh Bay. The proposed works are therefore considered to be consistent with the intent of the Long Term Transport Master Plan.
Guide to Traffic Generating Development (RMS)	The RMS Guide to Traffic Generating Development outlines all aspects of traffic generation considerations relating to developments. The Guide provides information regarding traffic issues for those submitting Development Applications, and for those involved in the assessment of these applications. The overall objective is that both parties have access to common information relevant to the development approval process. An assessment of the impact of the proposed work in accordance with the Guide is provided in the Transport Impact Assessment at Appendix 9.
NSW Planning Guidelines for Walking and Cycling / NSW Bike Plan / Cycle Strategy and Action Plan 2007-2017/ Sydney's Cycling Future/ Sydney's Walking Future	The NSW Planning Guidelines for Walking and Cycling (2004) aims to improve consideration of walking and cycling noting that planning has an important role to play in influencing urban form and to provide for walkability and cycle ability. It is anticipated that improving practice in planning for walking and cycling provide will create more opportunities for people to live in places with easy walking and cycling access to urban services and public transport. This will help reduce car use and create healthier neighbourhoods and cities. There are existing bicycle shoulder lanes on Hickson Road. The Barangaroo Integrated Transport Plan proposes that these shoulder lanes will be upgraded or replaced with a separated bicycle path to connect to Darling Harbour and Walsh Bay, as an alternative to the foreshore path. In addition to the Barangaroo Integrated Transport Plan the concurrent WBAP project also proposes that on-site bicycle parking facilities and additional on-street bicycle parking will be provided to complement the existing racks on Hickson Road. Shower and change facilities are to be provided within the STC tenancy at Wharf 4/5. Further detail regarding bicycle end-of-trip facilities is provided in the Transport Impact Assessment at Appendix 9. Pedestrian walkability is also addressed in the report. The proposed STC internal works therefore support access to the site via walking or cycling.

Policy	Assessment
Sustainable Sydney 2030	Sustainable Sydney 2030 is a set of goals that the City of Sydney has set for the city to help make it as green, global and connected as possible by 2030. The plan is intended to transform the way people live, work and play. The proposed STC works are consistent with Sustainable Sydney 2030 as they support the strategic directions including in particular the creation of a creative and cultural city encouraging a creative life where people can share traditions and lifestyles – celebrating Aboriginal and Torres Strait Islander culture, diversity and community. Sustainable Sydney 2030 notes that arts and cultural activities are fundamental to liveability, tolerance and quality of life and increasingly to economic development. The proposed works will improve the cultural life of the city.
Sydney Development Control Plan 2012	Sydney Development Control Plan 2012 does not apply to the proposed development as it only applies where the City of Sydney is the consent authority. Notwithstanding the proposal is consistent with relevant provisions of the DCP including provisions relating to heritage conservation.
Sydney City Centre Access Strategy	The Sydney City Centre Access Strategy is intended to deliver a fully integrated transport network in Sydney's city centre that puts the customer first and meets the growing transport task. It is aimed at ensuring more people use public transport to access the city centre and to change the way people move around and within it. The Strategy identifies Hickson Road as a City Centre key bus corridor and notes new bus routes servicing Barangaroo and Walsh Bay. It also identifies a new ferry terminal at Barangaroo in the vicinity of the Walsh bay Precinct. Accordingly the proposed STC works are consistent with and will be supported by the Government's Access Strategy for the Sydney CBD.

7. ENVIRONMENTAL ASSESSMENT

This section provides an assessment of the environmental impacts of the proposed works. It addresses the matters for consideration set out in the SEARs (see Section 3) and includes mitigation measures which are also summarised in Chapter 8.

7.1 Built Form and Urban Design

The proposed works to Wharf 4/5 and the Shore Sheds at Walsh Bay comprise internal works only and accordingly will not have any visible impact on the existing built form or urban design adjacent to the existing wharf structure. As outlined above there are external works being undertaken to the STC tenancy within the Wharf however these do not form part of the subject application and are being addressed as part of the associated Walsh Bay Arts Precinct Stage 2 SSDA (SSD 7689). The proposed external works to Wharf 4/5 contained within the WBAP Stage 2 SSDA include:

- Three new external stairs on the eastern elevation and one new set of stairs on the western elevation to provide fire escape from the upper level;
- Two external lifts on the eastern elevation to provide for accessible travel and one external goods lift on the western elevation;
- Two roof penetrations within the central valley, one above the STC workshop to allow theatre sets to be built at full height and one above STC Theatre 1 to improve sight lines, allow for clear head height to technical zones and enable flexible seating configurations;
- Raising of timber wharf deck adjoining the SDC café and opening of facade with new glazing to activate the waterfront square;
- 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 entries along the wharf located to respect the chequerboard rhythm of the building.

The works the subject of this application have been coordinated with the WBAP Stage 2 SSDA works and according the architectural plans provided at Appendix 1 include these works, separately delineated (shown blue).

No assessment of built form and / or public domain impacts is therefore required as part of the subject assessment.

7.2 Heritage

Tropman and Tropman Architects have been engaged by STC to provide advice to the consultant team during the concept design phase and to prepare an assessment of the heritage impacts of the subject SSDA. The Heritage Impact Statement prepared by Tropman and Tropman is provided at Appendix 7.

7.2.1 Heritage Items and Context

Walsh Bay comprises ten berths constructed between 1908 and 1922 for international and inter-state 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. Walsh Bay is intrinsically linked with the surrounding areas of Millers Point and Dawes Point. Millers Point is a historically mixed residential and industrial maritime precinct containing buildings and spaces dating from early 19th century. Dawes Point is a prominent landmark in Sydney Harbour. This area is of National Cultural Significance for its social and cultural mix and its historic use, architecture and as the site of the first European settlement in Australia.

Wharf 4/5, and the associated Shore Sheds, was constructed in 1922 as a Federation style, two level wharf structure. It consists mainly of timber structure with regular grid layout, altered in the early 1980s to accommodate arts and cultural uses. The Shore Sheds are of similar construction to the wharf sheds but typically irregularly shaped.

Wharf 4/5 is recognised as a highly successful adaptive reuse of a redundant finger wharf and important heritage item. Its redevelopment 30 years ago was the subject of numerous architectural and design awards.

7.2.2 Heritage Significance

The Walsh Bay Wharves Precinct is listed as an item of State heritage significance on the State Heritage register (Item 00559). Wharf 4/5 and the associated Shore Sheds form part of the Precinct. The statement of significance for the Precinct provides as follows:

The Walsh Bay area is of State cultural significance due to its unique combination of steep rocky terrain, early, mid, late-Victorian and Edwardian housing, surviving relatively intact Victorian bond stores, and the results of an early twentieth century urban redevelopment scheme of unique scale: the magnificent timber wharf and shore structures and associated rock cuttings, roads and bridges (Clive Lucas Stapleton & Partners 1999: 75). The Walsh Bay Wharves and associated buildings and works are a virtually intact port and stevedoring facility created by the Sydney Harbour Trust in response to the requirements of maritime trade at the time (1900s-1910s). The precinct documents the workings of a technologically advanced early twentieth century shipping port, developed specifically to accommodate new mechanised transportation technology. (Department of Urban Affairs and Planning 1989:5) 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. (Little, Clarke, Whittaker 1979) The precinct is unified in materials, form and scale and contains structures demonstrating maritime uses. It demonstrates the life of inner Sydney in the early twentieth century. The precinct demonstrates technical and creative excellence of the period 1820-1930. (Department of Urban Affairs and Planning 1989:5)

More specifically in relation to Wharf 4/5 and the Shore Sheds a Draft Conservation Management Plan was prepared for the site by Graham Brooks and Associates in 2007. The CMP includes the following statement of significance for the wharf itself:

"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."

7.2.3 Regulatory and Policy Context

The following statutory heritage listings relate to Wharf 4/5 and the Shore Sheds:

- State Heritage Register, listing number 00559 (Walsh Bay Wharves Precinct)
- Sydney Regional Environmental Plan No 16 – Walsh Bay Conservation Zone listing
- Arts NSW S.170 Register, listing number 3070001 (Wharf 4/5 and Shore Sheds)

While the Walsh Bay Wharves Precinct is listed on the State Heritage Register, section 89J of the EP&A Act states that separate approval under Part 4, or an excavation permit under section 139, of the *Heritage Act 1977* is not required in the case of SSD involving a State heritage item. This is to avoid duplication with the heritage impact assessment process undertaken as part of the SSDA and in consultation with the Heritage Council.

7.2.4 Summary of Heritage Intervention Approach

As outlined in the HIS at Appendix 7, the heritage wharf is intrinsic to STC's identity. From the outset of the project, the architect (HASSELL) has worked closely with Tropman and Tropman to develop an architectural approach that is sensitive to the heritage significance of Wharf 4/5.

The guiding principles of the Draft Conservation Management Plan (Graham Brooks and Associates, 2007) and Burra Charter have formed the fundamental tenets and approach to the proposed works. The spatial strategy and logical planning sequence has determined the volumetric layout and articulation of spaces, by treating the new volumes as contemporary insertions that float or suspend within the external envelope. This approach seeks to demonstrate a sensitive response to the envelope, structure and rationalisation of building services and amenities, in order to minimise impact on the existing heritage fabric.

The new layout presents heritage design opportunities and challenges just as did the original STC planning. The plan sets functions back from most walls and this aids in interpretation as well as protecting the external fabric. This could not be achieved in the original design. With the fire tunnel no longer necessary the vertical spaces can be made from wall to wall and to the underside of the ceiling. Further the introduction of the gantry cranes as interpreted access points allows a central fire egress which was not possible before.

The new layout gives a wider spectrum of performance capacity and audience size as well as allowing the flexibility of moveable seating arrangements. The plan allows for through spaces which give rise to improved interpretation. Interventions including the raised roof areas (subject to separate approval) are as a result of the layout, redefined theatre and workshop, relocating the internal gantry crane and using the space above the original goods lift. Workplace safety will be improved as a result of a new layout and a better work flow will mean more efficient manufacture of sets.

A clear distinction is proposed between the use and re-use of existing materials and the addition of new materials to articulate the new spatial insertions within the existing wharf. Where possible, timber from the removal of columns will be reused or reinterpreted and waste will be minimised.

The interplay between the existing facade and the proposed new materials - ethereal, translucent and layered, will mediate light conditions and use light to enhance interior spaces inviting people to look out and up to engage with the exposed trusses, existing lanterns and views beyond.

7.2.5 Assessment of Heritage Impacts

The Heritage Impact Statement provides a detailed analysis of the potential impact of the impact of the proposed works on the heritage significance of Wharf 4/5 and the Shore Sheds. A summary of the key impacts of the proposal and heritage is provided in Table 6.

Table 6: Assessment of Heritage Impacts

Proposed works	Positive effect	Negative effect	Recommendations
General			
Demolition / construction of separation walls	New layout creates a more organised and fluid space	Nil/ minimal. Wharf subject to previous major adaptive reuse. Works respect significant of the place.	All original and early fabric must be appropriately protected during construction and subsequently maintained
BOH access exposes the western façade	Western service corridor allows permeability and resolves acoustic issues. Heritage fabric revealed and protected	Nil / minimal	Minimise fixings where possible
Removal of 9 timber columns	Required to obtain open areas in theatres and rehearsal rooms. 3 columns to be reinstated elsewhere.	Some loss of original elements however impact minimal.	Columns to be securely stored for reinstatement Holes in floor to be covered with similar flooring not mimic original to allow for interpretation New patches should be appropriate and clearly new reparations
Reinstatement of 3 removed columns	Will reinstate original structure and create visual partition of space. Columns to be adapted	Nil / minimal	Ensure removed columns appropriately tagged and stored for reinstatement
New flooring	To be laid on top of existing Ironbark in areas requiring acoustic	Nil / minimal	Minimise fixings where possible

Proposed works	Positive effect	Negative effect	Recommendations
	treatment or heavy traffic. No loss of original fabric and reversible.		
Restoration of Ironbark floorboards	Level 1 public accessway along eastern side exposes original rough sawn floorboards.	Nil / minimal	Repair areas where gaps exceed 5mm or raised edged exceed 3mm to ensure more even surface for OHS and equitable access requirements
Ground Level			
New box office / ticketing area at southern end of wharf and admin. / staff areas	Improves the function and flow of the tenancy	Nil / minimal	Any works must allow for the maximum retention of heritage fabric
Mezzanine Level			
Additional offices at southern end of wharf	Well considered design approach to achieve maximum usable space without detracting from the large volume of the pier	Nil / minimal	Locate all new fixings into non-significant fabric where possible
Level 1 and 2			
Co-location of Wharf 1 and 2 Theatres to create two distinct performance spaces	Creation of 2 large theatres allows better access and egress through and along the pier and improves visual interpretation of the volume of the space	Removal of heritage timber columns and steel trusses over will have some impact. Acceptable compromise for reinvigorated space.	Carefully dismantle the structures and salvage and reuse fabric on site Design to be most appropriate for foreseeable future demands of the building
Upgrade to existing kitchen at northern end of wharf with goods lift	Positive outcome and achieves better use of space and upgrade to kitchen to meet modern requirements and safety standards	Nil / minimal	Locate all new fixings into non-significant fabric where possible
Improved rehearsal and dressing room spaces with shared support and flexible spaces	Provides for the current and foreseeable future demands of the building	Nil / minimal	
Separate back of house circulation for transportation of sets	Creates a safe corridor not open to the public for heavy vehicle circulation. New flooring to protect heritage floorboards	Nil / minimal	Locate all new fixings into non-significant fabric where possible
Removal of existing fire tunnel and reconfiguration of space plus new fire stairs	Comprises removal of 1985 works that posed severe design constraint. Concrete floor of tunnel covering heritage timber	Nil / minimal	All original and early fabric must be appropriately protected during construction and subsequently maintained.

Proposed works	Positive effect	Negative effect	Recommendations
	floor will be removed. Walkway floor will remain for public use.		
Upgrade of services and infrastructure	Positive outcome in achieving improved comfort and BCA compliance	Nil / minimal	Wherever possible place all new services in areas of lower significance Carefully dismantle the structures and salvage and reuse fabric on site
Restoring heritage items including timber lift, overhead metal travelling gantries and timber stairs	Positive outcome and will achieve overall conservation goals. Relocation of the lift and cranes along the same plane is appropriate and their significance in not retained in just one location.	Nil / minimal	All original and early fabric must be appropriately protected during construction and subsequently maintained.

A detailed assessment of heritage impact by area has also been undertaken (refer Section 8 of the HIS at Appendix 7).

The Heritage Impact Statement summarises the heritage impact as follows:

- *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.*
- *The design has extended the area of the raised roof section however it was the conclusion of the Design 5 report (and consistent with the Graham Brooks and Associates Draft CMP) that this style of roof was relatively inconspicuous when viewed from key vantage points and vistas.*
- *Roof plant rooms on the Pier 4/5 have been historically located to the north between the two pitched roofs.*
- *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.*
- *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 (and the Graham Brooks and Associated Draft CMP).*
- *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 instances 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.*

- *The Structural solutions and removal of heritage fabric have been prepared in a similar manner as described in the Design 5 report (and the Graham Brooks and Associated Draft CMP).*
- *The large scale spans in the wharf building is treated similarly and there is a unity in the structural solutions. The impact is acknowledged by Croker as being significant to the Exceptional heritage fabric but necessary to achieve the outcomes.*
- *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.*

References to the Design 5 report above, refer to the heritage impact assessment submitted with the Walsh Bay Arts Precinct Stage 1 Concept Application. The proposed works are also consistent with the policies set out in the Graham Brooks and Associated Draft CMP (2007)

Key recommendations to be adhered to in undertaking the proposal have been included as mitigation measures below.

7.2.6 Mitigation Measures

The proposed works will be undertaken in accordance with the following heritage recommendations:

- All original and early fabric must be appropriately protected during construction and subsequently maintained
- New fixings are to be minimised and are to be located into non-significant fabric where possible
- In respect of columns to be removed, these are to be securely stored for later reinstatement, holes in the floor are to be covered with similar flooring but not mimic to original to allow for interpretation and new patches are to be clearly identifiable as new reparations.
- Ironbark floorboards are to be repaired in areas where gaps exceed 5mm or raised edged exceed 3mm to ensure more even surface for OHS and equitable access requirements
- Any works must allow for the maximum retention of heritage fabric
- The dismantling of any existing fabric is to be undertaken carefully and is to provide for the salvage and reuse of fabric on site, and
- Wherever possible all new services are to be located in areas of lower significance.

7.3 Noise and Vibration

ARUP has prepared a Noise and Vibration Assessment Report to assess the noise and vibration impacts associated with the proposed works. A copy of the Noise and Vibration Assessment Report is provided at Appendix 8.

7.3.1 Existing Environment

The site is subject to the following existing noise sources:

- Marine traffic (noise from boat engines and occasional horns)
- Rail traffic on the Sydney Harbour Bridge
- Regular civilian helicopter traffic
- Occasional military helicopter traffic
- Distant aircraft noise
- General activity noise from users of the existing facilities

The nearest sensitive receivers are residential apartments in Pier 6/7 (R1) and within the Shore Shed buildings to the west of Wharf 4/5 (R2) as well as the hotel in Pier 1 (R3) to the east. Commercial receivers are also located at Pier 1 (C1) and on the southern side of Hickson Road to the south (C2) (refer Figure 6 below).

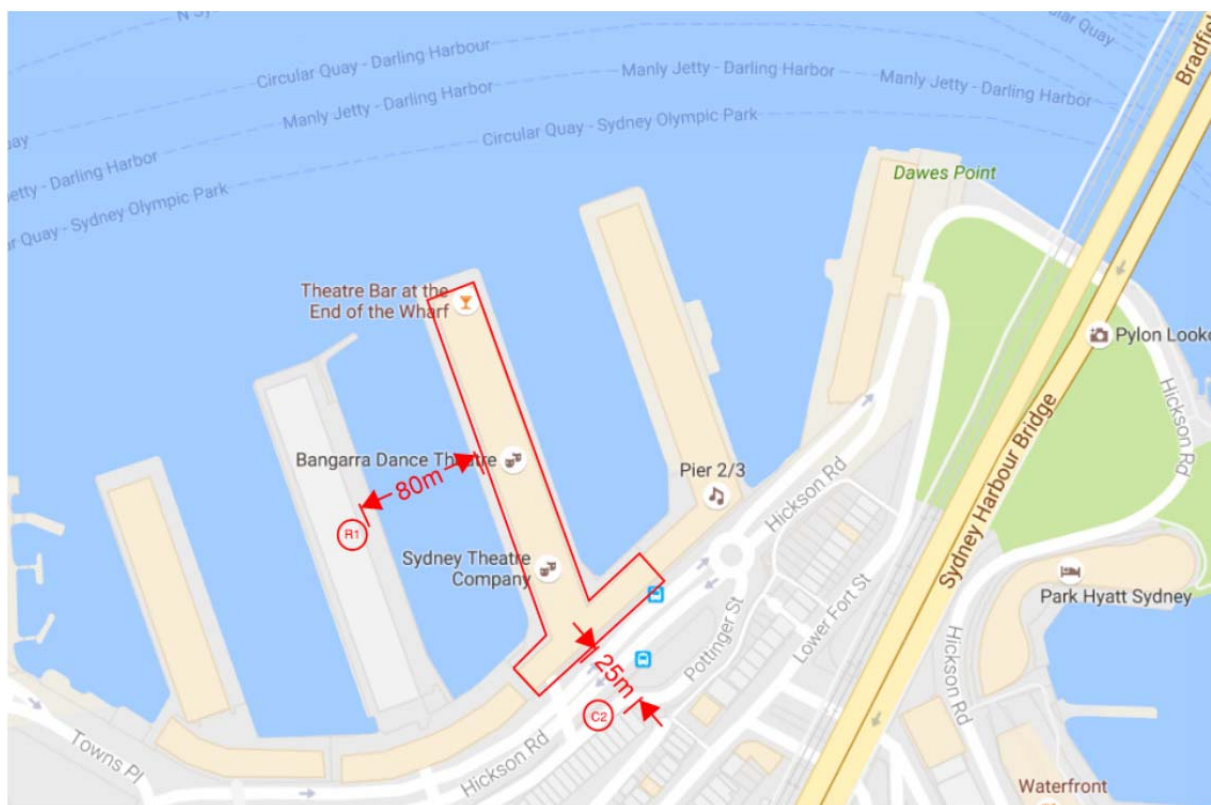


Figure 6: Surrounding Noise Sensitive Receptors (Source: Noise and Vibration Assessment Report)

Noise measurements used in the assessment were taken from the previous WBAP SSDA Stage 1 application WSP report (June 2014).

7.3.2 Noise Impact Assessment

The Noise Assessment and Vibration Report utilises existing noise measurements and the requirements of the NSW Industrial Noise Policy (INP) to identify project specific noise criteria for both residential and commercial receivers. The report also identifies limits for plant noise and noise from performance activities within Wharf 4/5.

Potential impacts as a result of the proposed works have been identified as including:

- Plant noise
- Breakout of internal activity noise (including from performances and set building), and
- Construction noise and vibration.

In term of construction the report notes that the actual noise levels will depend on the final plant selected for the construction works. This will be assessed in detail at a later stage as the construction methodology is developed and specific plant is identified. At this stage the following construction activities are known:

- Demolition and construction works will be limited to daytime hours only.
- A barge crane will be set up on the Wharf 4 side of the building, furthest from the residences located at Wharf 6/7. This will be used to remove and install plant and other materials associated with the development.
- Trucks will be used to remove demolition and construction waste from the site, using the ramp on at the Pottinger Street level for access. Truck movements will be restricted to daytime periods only.
- Some vehicle movements will take place on the side of the Wharf building furthest from other neighbouring wharf residences.
- Much of the construction work will be done internally and will therefore be screened by the existing building envelope. The heritage nature of the development means that many of the existing elements are being retained and the works will primarily involve the construction of new internal partitions and modifications to the roof.
- No piling works are anticipated in this contract.
- Site offices will be accommodated within the existing building structure.

In summary the noise and vibration assessment concludes as follows:

- Criteria based on site measurements have been developed for noise from plant affecting the environment. These criteria comply with the NSW Industrial Noise Policy (EPA 2000). Noise during construction will be assessed based on the requirements set out in the Interim Construction Noise Guideline 2009 (EPA). The control of noise and vibration during construction will be a strict requirement for the future contractor. The requirements to achieve acceptable construction noise and vibration levels in the development are likely to be more onerous than those to achieve acceptable conditions at the nearest noise sensitive receiver. Most of the construction work will take place within the existing building envelope.

- Criteria based on site measurements have been developed for noise from plant affecting the environment. These criteria comply with the NSW Industrial Noise Policy (EPA 2000).

The report identifies further measures to minimise adverse impacts in terms of noise and vibration and it is proposed that these measures would be adhered to in the proposed development. These measures have been identified as mitigation measures at section 7.3.3 below. Subject to compliance with these mitigation measures it is considered that the proposal will not give rise to any adverse noise or vibration impacts.

7.3.3 Mitigation Measures

Project specific noise criteria

- The project will comply with noise criteria outlined at Table 2 of the ARUP Noise and Vibration Report (October 2016)
- Normally operating external plant noise egress is to be limited to 50 dB(A) when measured at any publically accessible location at least 1m from a grille or the façade of the building
- Noise from these types of events would have to comply with the normal City of Sydney requirements for Entertainment Noise. These are based on the existing environmental conditions and require that the peaks in the entertainment noise (L10) be compared with the existing ambient noise spectrum (L90 from 31.5 Hz upwards). For events between 0700h and 2300h, L10 music noise levels will need to be limited to the existing background noise level plus 5 dB. All of these types of event will finish by 2300h

Plant noise

- During the detailed design process, appropriate noise and vibration control treatments will be specified to ensure that the noise limits are maintained. These treatments are likely to include:
 - Specification of maximum sound power levels for all items of plant as part of the project documentation. Preliminary guidance regarding maximum sound power levels for major plant items are provided below.
 - Rectangular and circular attenuators to control fan noise
 - Acoustic louvres to control noise from plantroom ventilation openings
 - Vibration isolators to reduce vibration input to the building structure
 - Acoustic screens around any external plant
 - Incorporation of sound absorptive treatments in plantroom spaces where needed.
 - Kitchen exhausts with discharge attenuators (treated against kitchen grease)
- The maximum sound power levels identified in Table 5 of the ARUP Noise and Vibration Report (October 2016) will be used to provide necessary noise mitigation measures to control operational plant noise to the project specific limits at the nearest noise sensitive receivers.

Construction Noise and Vibration Management Plan

- A detailed Construction Noise and Vibration Management Plan will be prepared by the contractor prior to the commencement of works on site that will comply with the requirements of the ARUP Noise and Vibration Report (October 2016). The CNMP will include measures to be taken to minimise noise on site, including but not limited to:
 - Appointing a named member of the site staff who will act as the Responsible Person with respect to noise and vibration.
 - Ensuring that the Responsible Person keeps the precinct (and local community) advised on expected activities.
 - Ensuring that the Responsible Person checks the conditions of the powered equipment used on site daily to ensure plant is properly maintained and that noise is kept as low as practicable.
 - Managing and monitoring the noise and vibration logging equipment installed around the site. Ensuring that the Responsible Person controls the working hours on site to ensure that work is only done during the acceptable periods as defined in the Interim Construction Noise Guideline for NSW (7am to 6pm on weekdays and 8am to 1pm on Saturdays. No work on Sundays).
 - The impact of noise from construction activity on the precinct may be mitigated by working outside precinct opening hours, provided there are no significant adverse impacts on residential receivers nearby.
 - Ensuring that noise levels are kept as low as is reasonably practicable and providing all “feasible and reasonable” noise mitigation methods following the procedures of the NSW Interim Construction Noise guideline, and reference to relevant standards including AS2436-2010: Guide to noise control on construction, maintenance and demolition sites and BS5228-2009 Code of practice for noise and vibration control on construction and open sites.
 - Maintaining appropriate records of complaints.

7.4 Transport and Access

A Transport Impact Assessment (TIA) for the proposal has been prepared by GTA Consultants and is provided at Appendix 9. The key findings of the TIA are summarised below.

7.4.1 Existing Conditions

The existing transport and traffic conditions for the site include the following:

- The subject site is located at the northern extent of Walsh Bay and occupies Wharf 4/5 of the finger wharves. Wharf 4/5 makes up part of a broader redevelopment zone known as the Walsh Bay Arts Precinct.
- Hickson Road is designated as a regional route (7312) and is classified to its intersection with Lower Fort Street adjacent to Pier 1.
- It is understood that Hickson Road is closed between Pottinger Street and Alfred Street (adjacent to Circular Quay) between 10pm and 3am on Friday and Saturday, with local access only for residents within The Rocks and Dawes Point.

- In the vicinity of the site, Hickson Road functions as a dual carriageway road with three lanes in each direction. There are parking lanes either side of a single traffic lane. From boundary to boundary, there is a corridor of approximately 31 metres.
- There are varying parking restrictions along Hickson Road however on street parking within approximately 250m of the site totals 227 on-street spaces. Hickson Road carries approximately 6,500 vehicles per day
- Three existing commercial car parks are present in the vicinity of the site including Towns Place, Barangaroo Point and the Bond Store One building. All three car parks are located along Hickson Road within 200 metres of STC.
- A limited number of public transport options are available in the vicinity of the site however it is noted that public transport to the site was altered as a consequence of the rerouting of buses in the Sydney CBD following the commencement of the construction of the CBD light rail in October 2015. Substantial changes to public transport provision are expected in the near future.
- An existing loading dock services Wharf 4/5 from Hickson Road and the Pottinger Street overpass.

7.4.2 Transport Strategy

This section outlines the transport strategy proposed for the development to ensure adequate transport and access arrangements are provided to support the proposed works.

Parking

No car parking is to be provided on-site, which is consistent with the existing arrangement, although some informal staff car parking takes place on the Pottinger Street bridge. Therefore, any additional car parking demands associated with the proposed works will need to be accommodated within the surrounding publicly available car parking supply and/or alternative travel modes (public transport/ active travel).

In this regard, it is noted that the additional car parking demands could be accommodated within a combination of the following:

- Surrounding on-street car parking supply
- Surrounding off-street car parking stations
- Headland Park off-street car park (approximately 300 spaces).

It is anticipated that given the limited availability of parking in the vicinity, a number of staff and visitors may be driven (as a passenger) to and from the site. As such, a safe pick-up/ drop-off facility, integrated with taxi and hire car facilities, is proposed located in close proximity to the “front door” of the site.

Green Travel Plan

A Green Travel Plan (GTP) has been prepared which outlined initiatives to be implemented to enable an integrated transport access concept for the Walsh Bay Precinct inclusive of STC, to minimise the use of private vehicles to access the precinct. The Green Travel Plan includes measures (along with supporting actions) in relation to implementation, increasing walking, running and cycling to work and to other destinations, increasing public transport use, increasing consideration of taxis and ride share, increasing car share use and increasing awareness and knowledge of available transport options by residents.

Bicycle End of Trip Facilities

Various NSW bicycle planning guidelines typically outline that bicycle parking provision should be approximately three to five percent of capacity and/or staff numbers. Accordingly, with a workforce of 200 staff and a seating capacity of 650, it might be expected that up to 43 spaces be typically provided for the STC site. Whilst this remains indicative for staff, the anticipated clientele of the precinct (with consideration of time and function type) would not be expected to access the precinct by bicycle. The previous GTA assessment recommended a bicycle parking provision of five per cent for staff and one per cent for visitors and advises that 25 secure bicycle parking spaces be provided on-site for staff of the Walsh Bay Arts Precinct (inclusive of STC), ideally with shower and locker facilities provided within tenancies. Existing visitor bicycle parking provisions on Hickson Road would be expanded as part of the broader precinct upgrade with other opportunities to be investigated within the precinct should demand arise.

Walking and Cycling Network

Whilst the Walsh Bay area is not expected to be subject to further cycleway development, it remains in close proximity to key cycling corridors including the Sydney Harbour Bridge cycleway, and is therefore relatively easy to access from the Kent Street cycleway and areas such as Pyrmont Bridge. Separated cycling infrastructure is probably not required due to the lower volumes of traffic on the peninsular. However, as part of the Sydney City Centre Access Strategy, a cycleway might look to be developed to integrate with Barangaroo (in addition to the existing on-street cycleway on Hickson Road), which would then provide enhanced access to STC.

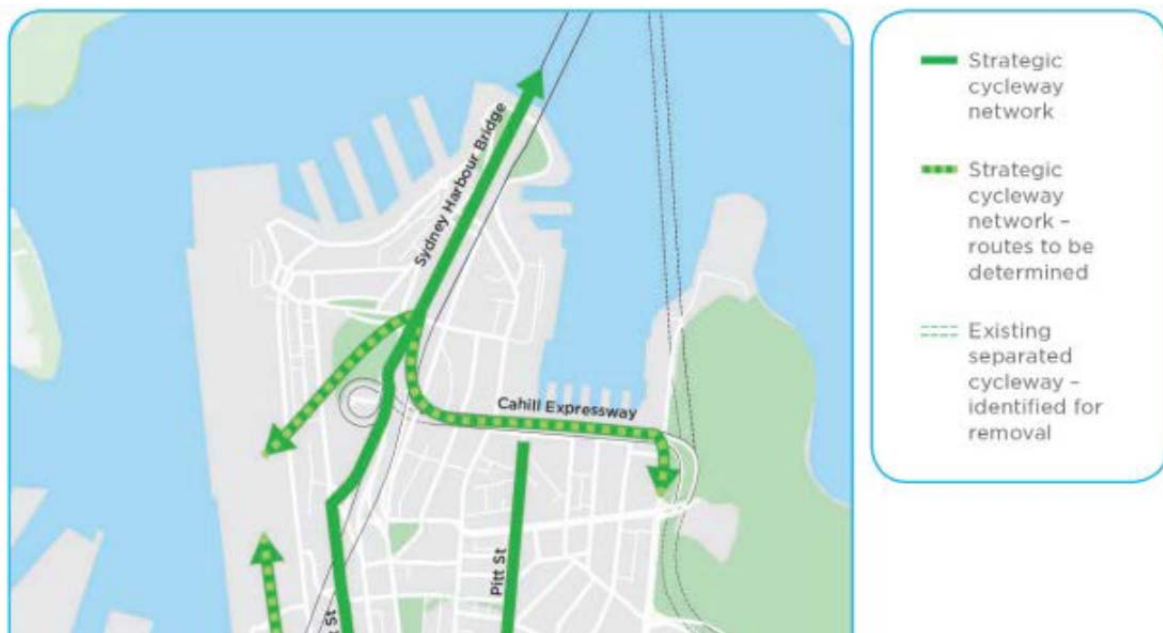


Figure 7: Strategic Cycle Network

Public Transport

The site is broadly accessible by public transport with bus, train and ferry stops located within 1.5 kilometres of the site.

Whilst exact details are not yet known, in the future, it is anticipated that there will be a substantial increase in the provision of public transport further into the future. Light rail, new bus routes, the Sydney South East and CBD Metro (Sydney Metro) and new ferry wharves will all improve accessibility to Walsh Bay.

Such infrastructure projects include the development of the Sydney Metro, which is to have a station at Barangaroo. Based on the indicative station location within the EIS, the precinct will subsequently be located well within the acceptable 800 metres access radius of a train station.

Three new taxi ranks are currently being investigated for implementation surrounding the precinct. Given that taxis are likely to be a primary access mode to the site this is considered appropriate. In the short term, these facilities would be provided through changes to existing signage, but in the longer term, higher quality facilities might be incorporated into the streetscape design as recommended by the Harbour Village North Public Domain Study.

Hickson Road is also to be a 'key bus corridor', such a corridor would be expected to further develop as light rail construction progresses (and is ultimately completed), as well as the development of Barangaroo and the construction of the Sydney Metro.

7.4.3 Loading Facilities

The existing Wharf 4/5 loading dock arrangements via the Pottinger Street bridge and wharf apron will be maintained. Access to the wharf apron will be generally restricted to Wharf 5 to maintain pedestrian amenity and safety. Event mode operation for the wider Walsh Bay Arts Precinct (subject to separate DA approval) would allow vehicles to enter Wharf 4 for bump-in/ bump-out activities.

A swept path analysis has been undertaken for Wharf 4/5, which shows that the maximum vehicle size that can access Wharf 5 is a small rigid vehicle (SRV) with a length of 6.4 metres. Vehicle size restrictions are largely determined by the available manoeuvring area at the northern end for vehicles to be able to enter/ exit in a forward direction.

7.4.4 Traffic Impact

Operational impact

The proposed redevelopment of the STC includes an increase of theatre seats, bar/ event space capacity and employees. Each of the above uses (theatre, staff and bar) produce traffic generation at different periods of the day.

Employees are distributed throughout the day with administration staff working between 9am and 7pm, and rehearsal attendance occurring between 10am and 6pm. Performances at the theatre occur six days a week; matinees at 1pm on Wednesdays and 2pm on Saturdays, night time shows at 6:30pm on Mondays and 8pm on other days. The Theatre Bar is open from 9pm to midnight and available on Sundays for functions.

The bar/ event space contains the largest increase in patronage with the maximum room capacity increased by 200 persons. However, the period of operation of the bar indicates that this space is primarily utilised before and after performances at the theatre room. As such, the bar/ event space is not anticipated to generate a substantial amount of additional traffic to the existing theatre bar space.

The exception is on Sundays during which the space is to be utilised as a function centre and contains its own traffic generating activities. The road network contains the least volume of traffic relative to the remaining week during this period. Thus the operating time of this space is well outside of any traffic peak periods and as such, an increase in its usage is not anticipated to have any adverse impacts to the road network.

In terms of the increase in theatre capacity, pedestrian entry and exit counts to the STC indicate the following peak patronage periods to the site:

- Weekday morning peak period of 10:15am to 11:30am
- Saturday evening peak period of 7pm to 8pm and 8:30pm to 9:30pm.

The survey results indicate that peak patronage to the site occurs at the start of the rehearsal sessions in the day and start of the performances in the evening. It should be noted that both these peaks occur outside Hickson Road peak hours:

- 9am to 10am and 6pm to 7pm on weekdays
- 1pm to 2pm and 6pm to 7pm on Saturdays.

Therefore, there is considered to be sufficient capacity within the existing transport network to support the proposed redevelopment of STC.

The proposal for an additional 35 employees is considered to be a negligible increase in staff. Employees at the STC include both administration staff and performers. While administration staff are expected to travel to work (STC) during the peak traffic periods, most employees are performers who would travel to work (STC) at off-peak times for rehearsals and performances.

Long term parking provisions in the area are limited therefore employees are likely to use alternative transport modes to private vehicle to travel to STC.

Construction Impacts

To mitigate potential construction impacts, truck movements associated with the proposed works will ideally be restricted to designated routes and confined to State roads in the broader road network. Truck routes to/ from the site have been identified with the aim of minimising the impact of construction traffic on local roads in the vicinity of the site.

The directional distribution and assignment of traffic generated by the development will be influenced by a number of factors, most notably the origin/ destination of materials and the configuration of the arterial road network in the immediate vicinity of the site. Ongoing changes to routing may be required due to the impacts from the construction of the CBD light rail and the construction of the Barangaroo development.

In relation to construction traffic volumes the Construction Management Plan (refer Appendix 10) requires that all construction vehicle movements will access the site via the Pottinger Street bridge. During the demolition phase, it is anticipated the site will require approximately 20 vehicles per day. As the development transitions into construction, this is anticipated to increase to approximately 35 vehicles per day. Construction activities are generally anticipated to occur between the hours of 7am and 5pm, for a period of up to 24 months. The proposed construction program for the STC upgrade will be coordinated with the WBAP development such that the cumulative impacts minimise traffic disruption to local road users.

The construction plans have been designed to allow emergency vehicle access to be maintained to the precinct and all surrounding local areas at all times. This is particularly pertinent during events such as New Year's Eve where there is a higher probability of police and ambulance

access required. During and immediately surrounding periods of major category 1 events, it may be appropriate that construction activities are temporarily suspended.

Having regard to the above assessment the TIA concludes that the proposed development will not result in any adverse impact either during the operational or construction stages subject to the implementation of recommended mitigation measures. Specific response to individual items raised in the SEAR's are provided at Section 9 of the TIA (Appendix 9).

7.4.5 Mitigation Measures

Operational

- Adequate bicycle parking and end-of-trip facilities are to be provided as part of the proposed upgrade. For the Walsh Bay Arts Precinct, it has been recommended that 25 secure bicycle parking spaces be provided on-site. The STC would require 17 of these bicycle parking spaces.

Construction

- All construction traffic for the STC upgrade will be restricted to accessing the site via the Pottinger Street bridge, which is currently used by heavy vehicles for deliveries under current operations.
- Pedestrian and cyclist access to the site will be separated from the Pottinger Street bridge to maintain the safety of vulnerable road users.
- For isolated circumstances when construction traffic is required to access Wharf 4/5 from Hickson Road, vehicles will access under traffic control, outside of peak pedestrian and cyclist periods.
- The proposed construction program for the STC upgrade will be coordinated with the Walsh Bay Arts Precinct development such that the cumulative impacts minimise traffic disruption to local road users.

7.5 Amenity

The STC proposal will provide for a high level of amenity within the building, upgrading an existing historic building which is not fit for purpose into a world class cultural facility that will better meet the needs of visitors and employees alike. The proposal will not give rise to any adverse amenity impacts in terms of privacy or the like as the works are all internal. The proposal does have the potential to result in some adverse amenity impacts during construction primarily in relation to construction noise, vibration and/or traffic however a detailed Environmental, Construction and Site Management Plan has been prepared to mitigate potential impacts (refer Appendix 10). Servicing arrangements will be maintained as existing.

The proposal will not result in any other amenity impacts.

7.6 Hazardous Materials

A hazardous materials survey report was undertaken for Wharf 4/5 in July 2007 by Noel Arnold & Associates (refer Appendix 17). As the Wharf has not has any significant works undertaken to it since that time it is considered that the findings of the report remain relevant to the subject proposal.

The report notes that the Wharf contains hazardous materials including Asbestos, Synthetic Mineral Fibre (SMF), Polychlorinated Biphenyls (PCBs) capacitors in light fittings and Lead Containing Paint. The report contains recommendations to mitigate adverse impacts as a result of the hazardous materials on site.

7.6.1 Mitigation Measures

The following mitigation measures will be undertaken in relation to hazardous materials:

Asbestos Materials

- Consider labelling all asbestos containing materials to warn of the dangers of disturbing these materials
- Schedule period reassessment of the asbestos containing material remaining on-site to monitor their adding / deterioration
- When demolition or refurbishment works are required in those areas where suspected asbestos –containing materials were identified, these materials should be sampled and if they contain asbestos, licensed asbestos personnel should remove these materials prior to such works.

Synthetic Mineral Fibre (SMF)

- Confirmed SMF materials should be maintained in good condition and removed under controlled conditions prior to refurbishment works

Polychlorinated Biphenyls (PCBs)

- Nil recommendations

Lead Containing Paint

- If refurbishment works are likely to involve the disturbance of confirmed lead-containing paint, dust suppression techniques should be utilised and a Lead Paint Removal plan should be development by a suitably experienced consultant.

All hazardous materials on site will be managed in accordance with regulatory requirements.

7.7 Accessibility

The proposed works have been designed to ensure equitable access in accordance with the requirements of the relevant requirements of the Australian Standards 1428 series, Building Code of Australia (BCA), the Premises Standards 2010 (including the Access Code 2010), and Commonwealth Disability Discrimination Act (DDA) as far as possible within a heritage building. In this regard an access report has been prepared and is provided at Appendix 14.

The report notes that the development has accessible paths of travel that are continuous throughout and that the development has demonstrated an appropriate degree of accessibility. Statutory requirements pertaining to site access, paths of travel, and access to common and sanitary facilities can readily be achieved. Some items have been identified as requiring demonstration of compliance at construction certificate stage. This is considered appropriate.

7.8 Construction Management

A preliminary environmental, construction and site management plan (ECSMP) has been prepared for the proposal by Cadence Australia (refer Appendix 10). The ECSMP addresses relevant construction requirements including:

- Heritage considerations
- Public amenity, safety, and pedestrian management
- Materials handling
- Traffic management including public transport interfaces
- Environmental management including water and waste management
- Impact on adjoining and surrounding properties, and
- Community consultation, notification and complaints handling.

It is proposed that once a construction contractor has been appointed and further details of the proposed works, construction methods and development staging are available, more detailed environmental, site and construction management plans will be prepared and implemented for the proposed works. Having regard to the measures outlined in the preliminary ECSMP it is considered that the works will be adequately managed to ensure no adverse environmental impacts during construction.

7.9 Cumulative Impact

The proposed works have been designed, and will be coordinated with, works which are proposed to be undertaken concurrently as part of the Walsh Bay Arts Precinct project. The specialist assessments undertaken in respect of the current project, and submitted herein, have taken account of the cumulative impact of these works and propose site specific mitigation measures and works staging to minimise any potential cumulative impacts.

Given the extent of the works proposed as part of the two projects it is anticipated that some cumulative impacts will result particularly in relation to noise and traffic. However these impacts are considered to be acceptable having regard to the limited timeframe of the proposed works (estimated 24 months), the proposed mitigation measures and the positive benefits of the projects overall. It is therefore considered that the proposal is acceptable in this regard.

7.10 Site Suitability

It is considered that the site is suitable for the proposed works as:

- The works will be undertaken in a manner that will minimise impacts to the historic qualities of the existing structure and will provide for the continued use of the Wharf for a cultural and arts facilities for which the surrounding area has become known
- Any impacts to the heritage significance of the structure and site will only be minor and can be appropriately managed and mitigated

- Any other environmental impacts will be minor and can be appropriately managed and mitigated
- The site is strategically located along the 'Cultural Ribbon', as envisaged in the City of Sydney's Sustainable Sydney 2030 document and the Metropolitan Strategy
- The site will be served by a high frequency bus corridor as foreshadowed in the Sydney City Centre Access Strategy, and
- The proposal will consolidate and enhance the WBAPs arts and cultural offerings in an iconic setting.

7.11 Public Interest

The STC internal fitout and refurbishment works are considered to be in the public interest as they will:

- enhance Sydney's reputation as a globally competitive city and as a major arts and cultural destination
- consolidate and enhance the Walsh Bay Arts Precinct as part of the City's 'Arts and Cultural Ribbon' and will improve the cultural offering for the benefit of the local and broader community
- enhance the significance and sustainability of a significant heritage asset
- meet Sydney's arts and cultural needs for the 21st Century by modernising the existing STC facilities at Wharf 4/5 to facilitate the creation of world class performances and experiences, and to ensure one of Australia's pre-eminent companies is able to compete with its national and international peers, and
- stimulate increased public participation and tourism engagement in NSW cultural and heritage attractions, delivering direct and indirect economic benefits to the State.

8. ENVIRONMENTAL RISK ASSESSMENT AND MITIGATION MEASURES

This section provides an environmental risk assessment (ERA) to identify the key environmental impacts associated with construction and operation of the Proposal, as required by the SEAR's. The table below summarises the potential environmental impacts identified in Chapter 7 above and the mitigation measures proposed to ameliorate these impacts. Risks have been categorised as low, minor, moderate, high and/or extreme.

Table 7: Environmental Risk Assessment and Mitigation Measures

RISK TYPE	POTENTIAL IMPACTS AND RISKS	MITIGATION MEASURES
BUILT FORM AND URBAN DESIGN	The proposed works impact on the built form and character of the existing Wharf and its internal spaces Risk: Low	Development is to be undertaken in accordance with the submitted plans and supporting documentation.
HERITAGE	Works impact on the heritage values of Wharf 4/5 and/or the broader Walsh Bay Arts Precinct Risk: Minor - Moderate	- All original and early fabric must be appropriately protected during construction and subsequently maintained - New fixings are to be minimised and are to be located into non-significant fabric where possible - In respect of columns to be removed, these are to be securely stored for later reinstatement, holes in the floor are to be covered with similar flooring but not mimic to original to allow for interpretation and new patches are to be clearly identifiable as new repairs. - Ironbark floorboards are to be repaired in areas where gaps exceed 5mm or raised edges exceed 3mm to ensure more even surface for OHS and equitable access requirements - Any works must allow for the maximum retention of heritage fabric - The dismantling of any existing fabric is to be undertaken carefully and is to provide for the salvage and reuse of fabric on site, and - Wherever possible all new services are to be located in areas of lower significance.
NOISE AND VIBRATION	Construction works impact on the amenity of neighbouring property The operation of the facility impacts on the amenity of neighbouring properties	<u>Project specific noise criteria</u> - The project will comply with noise criteria outlined at Table 2 of the ARUP Noise and Vibration Report (October 2016) - Normally operating external plant noise egress is to be limited to 50 dB(A) when measured at any publically accessible location at least 1m from a grille or the façade of the building

RISK TYPE	POTENTIAL IMPACTS AND RISKS	MITIGATION MEASURES
	Risk: Low - Minor	▪ Noise from these type of events would have to be comply with the normal City of Sydney requirements for Entertainment Noise. These are based on the existing environmental conditions and require that the peaks in the entertainment noise (L10) be compared with the existing ambient noise spectrum (L90 from 31.5 Hz upwards). For events between 0700h and 2300h, L10 music noise levels will need to be limited to the existing background noise level plus 5 dB. All of these types of event will finish by 2300h. <u>Plant noise</u> ▪ During the detailed design process, appropriate noise and vibration control treatments will be specified to ensure that the noise limits are maintained. These treatments are likely to include: - Specification of maximum sound power levels for all items of plant as part of the project documentation. Preliminary guidance regarding maximum sound power levels for major plant items are provided below. - Rectangular and circular attenuators to control fan noise - Acoustic louvres to control noise from plantroom ventilation openings - Vibration isolators to reduce vibration input to the building structure - Acoustic screens around any external plant - Incorporation of sound absorptive treatments in plantroom spaces where needed. - Kitchen exhausts with discharge attenuators (treated against kitchen grease) - The maximum sound power levels identified in Table 5 of the ARUP Noise and Vibration Report (October 2016) will be used to provide necessary noise mitigation measures to control operational plant noise to the project specific limits at the nearest noise sensitive receivers. <u>Construction Noise and Vibration Management Plan</u> ▪ A detailed Construction Noise and Vibration Management Plan will be prepared by the contractor prior to the commencement of works on site that will comply with the requirements of the ARUP Noise and Vibration Report (October 2016). The CNMP will include measures to be taken to minimise noise on site, including but not limited to: - Appointing a named member of the site staff who will act as the Responsible Person with respect to noise and vibration. - Ensuring that the Responsible Person keeps the precinct

RISK TYPE	POTENTIAL IMPACTS AND RISKS	MITIGATION MEASURES
		(and local community) advised on expected activities. - Ensuring that the Responsible Person checks the conditions of the powered equipment used on site daily to ensure plant is properly maintained and that noise is kept as low as practicable. - Managing and monitoring the noise and vibration logging equipment installed around the site. Ensuring that the Responsible Person controls the working hours on site to ensure that work is only done during the acceptable periods as defined in the Interim Construction Noise Guideline for NSW (7am to 6pm on weekdays and 8am to 1pm on Saturdays. No work on Sundays). - The impact of noise from construction activity on the precinct may be mitigated by working outside precinct opening hours, provided there are no significant adverse impacts on residential receivers nearby. - Ensuring that noise levels are kept as low as is reasonably practicable and providing all "feasible and reasonable" noise mitigation methods following the procedures of the NSW Interim Construction Noise guideline, and reference to relevant standards including AS2436-2010: Guide to noise control on construction, maintenance and demolition sites and BS5228-2009 Code of practice for noise and vibration control on construction and open sites. - Maintaining appropriate records of complaints.
TRANSPORT AND ACCESS	Impacts on network efficiency and surrounding amenity and pedestrian circulation Risk: Low	<u>Operational</u> ▪ Adequate bicycle parking and end-of-trip facilities are to be provided as part of the proposed upgrade. For the Walsh Bay Arts Precinct, it has been recommended that 25 secure bicycle parking spaces be provided on-site. The STC would require 17 of these bicycle parking spaces. <u>Construction</u> ▪ The proposed works will be undertaken in accordance with the submitted Construction Environmental Management Plan ▪ All construction traffic for the STC upgrade will be restricted to accessing the site via the Pottinger Street bridge, which is currently used by heavy vehicles for deliveries under current operations. ▪ Pedestrian and cyclist access to the site will be separated from the Pottinger Street bridge to maintain the safety of vulnerable road users. ▪ For isolated circumstances when construction traffic is required to access Wharf 4/5 from Hickson Road, vehicles will access under

RISK TYPE	POTENTIAL IMPACTS AND RISKS	MITIGATION MEASURES
		traffic control, outside of peak pedestrian and cyclist periods. The proposed construction program for the STC upgrade will be coordinated with the Walsh Bay Arts Precinct development such that the cumulative impacts minimise traffic disruption to local road users.
AMENITY	The proposed construction works and operations impact on the amenity of neighbouring properties Risk: Low – Minor	- The proposed works will be undertaken in accordance with the submitted Construction Environmental Management Plan - The proposed operations are in accordance with submitted documentation
HAZARDOUS MATERIALS	Existing hazardous materials impact on the health and safety of construction workers and / or visitors to the site Risk: Low - Minor	- All hazardous materials on site will be managed in accordance with regulatory requirements. <u>Asbestos Materials</u> - Consider labelling all asbestos containing materials to warn of the dangers of disturbing these materials - Schedule period reassessment of the asbestos containing material remaining on-site to monitor their adding / deterioration - When demolition or refurbishment works are required in those areas where suspected asbestos –containing materials were identified, these materials should be sampled and if they contain asbestos, licensed asbestos personnel should remove these materials prior to such works. <u>Synthetic Mineral Fibre (SMF)</u> - Confirmed SMF materials should be maintained in good condition and removed under controlled conditions prior to refurbishment works <u>Polychlorinated Biphenyls (PCBs)</u> - Nil recommendations <u>Lead Containing Paint</u> - If refurbishment works are likely to involve the disturbance of confirmed lead-containing paint, dust suppression techniques should be utilised and a Lead Paint Removal plan should be developed by a suitably experienced consultant.
ACCESSIBILITY	Equitable access is not provided to the facility for persons of all abilities Risk: Low	The proposal will comply with relevant requirements of the BCA and DDA in terms of accessibility.

RISK TYPE	POTENTIAL IMPACTS AND RISKS	MITIGATION MEASURES
CONSTRUCTION MANAGEMENT	The proposed construction works impact on the amenity of neighbouring properties and the surrounding environment Risk: Low – Minor	The proposed works will be undertaken in accordance with the submitted Construction Environmental Management Plan
CUMULATIVE IMPACT	The proposed works and associated WBAP works result in adverse cumulative impacts Risk: Minor - Moderate	The proposed works will be coordinated with the associated WBAP works to minimise the potential for adverse cumulative impacts

9. JUSTIFICATION AND CONCLUSION

9.1 Justification

After 30 years of intensive cultural use, the STC's facilities at Wharf 4/5 are no longer deemed fit for purpose if the STC is able to confidently plan for the next 20 to 30 years of operation and remain successful. The issues that need to be addressed in the current design and layout include:

- Facilities at end of life after 30 years of constant use
- Outdated technology, poor acoustic separation
- Constraint on theatrical innovation and revenue potential
- Inefficient use of space, overcrowded
- Poor accessibility and wayfinding
- Sub-standard working conditions & public amenity
- Sub-standard theatre and back of house facilities, and
- Does not live up to vision for a world class arts precinct.

Along with STC's intention to improve its facilities at Wharf 4/5, the NSW Government has committed to the creation of the Walsh Bay Arts Precinct (WBAP). The concept provides for an integrated performing arts and cultural precinct within an enhanced public domain at Walsh Bay. In May 2015 the Minister for Planning under delegation granted 'in principle' (Stage 1) approval to the State Significant Development Application (SSDA) for the WBAP. To further progress the WBAP Infrastructure NSW and Arts NSW are currently in the process of preparing a Stage 2 SSDA for the WBAP. As a provider of world class content and a highly respected and internationally celebrated brand, STC is well placed to be a key and essential player in the realisation of the WBAP.

9.2 Ecologically Sustainable Development

The EP&A Regulation lists four principles of ecologically sustainable development to be considered in assessing a project. They are:

- The precautionary principle;
- Intergenerational equity;
- Conservation of biological diversity and ecological integrity; and
- Improved valuation and pricing of environmental resources.

9.2.1 Precautionary Principle

The precautionary principle provides that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The precautionary principle requires careful evaluation of potential environmental impacts in order to avoid, wherever practicable, serious or irreversible damage to the environment.

This EIS has not identified any serious threat of irreversible damage to the environment as a result of the STC internal fitout and refurbishment works and therefore the precautionary principle is not relevant to the proposal.

9.2.2 Intergenerational equity

Inter-generational equity seeks to ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.

The proposal has been designed to benefit both the existing and future generations by providing for the long term viable adaptive reuse of Wharf 4/5 which forms part of the broader Walsh Bay Arts Precinct which is identified as having heritage significance for the State. The proposal will also provide a significant upgrade to the existing STC facilities which will greatly enhance public access and enjoyment of the facility by current and future generations.

9.2.3 Conservation of biological diversity and ecological integrity

The principle of biological diversity upholds that the conservation of biological diversity and ecological integrity should be a fundamental consideration. The proposal will not have any effect on biological diversity or ecological integrity. The area is highly urbanised and modified and does not contain any significant biodiversity or ecological elements.

9.2.4 Improved valuation, pricing and incentive mechanisms

The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources which may be affected by a proposal, including air, water, land and living things. As demonstrated throughout this EIS, the project will have significant social, economic and environmental benefits. Mitigation measures will be put in place to ensure environmental resources are protected. Sustainability initiatives will be incorporated into the design and operation of the various elements of the project as well as during the construction phase. Further detail regarding sustainability initiatives will be provided at the construction certificate stage.

9.3 Conclusion

This SSDA seeks approval for fitout and refurbishment works to the interior of Wharf 4/5 at Walsh Bay which forms the existing Sydney Theatre Company facility.

The key aims and objectives of the proposed STC internal fitout and refurbishment works are to meet STC's current operational needs and strategic goals and to future proof the company by:

- Creating new, distinctive and flexible theatres spaces commensurate with the Company's position as one of the world's leading theatre companies
- Increasing public space, improve access and visitor amenities
- Increasing saleable seating inventory and revenue earning capacity to ensure long term sustainability
- Reducing running costs
- Improving the staff and user experience
- Improving back of house and technical facilities by providing modern workspaces which are fit for purpose, safe and efficient
- Respecting and enhancing the heritage and architectural value, and thereby

- Creating a world class set of facilities for Australia.

To achieve these objectives the subject works will be undertaken in conjunction with the STC external works which form part of the Walsh Bay Arts Precinct Stage 2 SSDA (SSD 7689).

The proposed works will create a sustainable and exemplar arts facility that provides a unique cultural offering and visitor experience. The works will upgrade the existing cultural and artistic offering of the Sydney Theatre Company and ensure that it is 'world class'. They will improve both the visitor and staff experience of the Wharf and will enable the staging of theatre events of significant cultural value to the community.

This EIS has demonstrated that the proposed development will have minimal adverse environmental effects and where impacts do occur appropriate measures can be adopted to mitigate these impacts. Given the significant public benefits of the project to both the local and wider community of Sydney as well as visitors to the city, it is requested that the Minister approve the State Significant Development Application under Section 89E of the EP&A Act.

