

# Abbotsford Wharf Upgrade

Submissions report

Roads and Maritime Services | December 2017



## Roads and Maritime Services

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December 2017

Prepared by Roads and Maritime Services


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## Document controls

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### Approval and authorisation

<b>Title</b>	Abbotsford Wharf Upgrade – Submissions Report
<b>Accepted on behalf of Roads and Maritime NSW by</b>	Rosie Majer – Project Manager
<b>Signed</b>	
<b>Dated</b>	1/12/17

### Document status

Document status	Date	Prepared by	Reviewed by
Draft	7/11/17	Jimmy Lam	Rosie Majer
Final	1/12/17	Jimmy Lam	Chris Williams

## Executive summary

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This submissions report relates to the review of environmental factors (REF) prepared for the Abbotsford Wharf Upgrade, and should be read in conjunction with that document.

The Abbotsford Wharf Upgrade is one of the projects within the Ferry Wharf Upgrade Program, being delivered as part of the Transport for New South Wales (TfNSW) Transport Access Program.

The proposal involves the replacement of the existing Abbotsford Wharf. The new wharf will provide access for people with a disability, meeting the standards of the *Disability Discrimination Act (DDA) (1992)* and *Disability Standards for Accessible Public Transport legislation (DSAPT) (2002)*.

The key features of the proposal include:

- Removal of the existing wharf, retaining a three-metre section of the existing jetty.
- Construction of:
  - A new covered steel gangway extending north-west from the retained jetty section
  - A new floating steel covered and glass sided pontoon
  - Four new piles to secure the pontoon
  - Two new pivot piles to help with berthing
- The following landside work:
  - A covered entry portal, of about six metres by three metres
  - New kiss-and-ride parking zone
  - Upgrade of the existing stairs and supporting hand rails

As part of the planning process Roads and Maritime Services (Roads and Maritime) placed the REF on public display for 35 days between 20 September 2017 and 25 October 2017.

A total of 11 submissions were received by Roads and Maritime in response to the display of the REF.

The issues raised in the submissions can be categorised into four main areas:

### **1. The need for the proposal as the existing wharf is in good condition**

The need for the upgrade of Abbotsford Wharf was identified in response to Transport for NSW's Transport Access Program; an initiative to deliver accessible, modern, secure and integrated transport infrastructure. An assessment of Abbotsford Wharf in 2009 identified its lack of accessibility for passengers on and around the wharf.

The option of do nothing was discounted as it would not meet the objectives of the proposal to improve accessibility, passenger comfort, reduce maintenance frequency and vandalism.

The new wharf would be compliant with the standards for DDA and DSAPT. The installation of a new pontoon would also enable ferries to berth more efficiently, with passengers able to embark and disembark from ferries quickly.

### **2. The design and location of the proposed wharf and allowance for seating and queuing**

The design will incorporate a new covered gangway and pontoon with glass weather protection. Seating is provided on the pontoon to encourage wharf users to wait close to the berthing face.

The covered pontoon will provide adequate capacity for ferry users to wait undercover close to the berthing face which will increase the speed of people getting on to ferries and negate the need to queue along a gangway or jetty. This pontoon design is being implemented throughout Sydney Harbour, as part of the wider Wharf Upgrade Program which aims to

increase the efficiency of berthing and disembarking whilst providing a distinctive design to unify and identify all of Sydney Harbour's commuter ferry wharves.

The current design proposes to maintain the existing ferry berthing position. Feedback from local stakeholders who use the waterways surrounding the proposal indicated that any change to ferry movements when using the wharf would impact on safety of their operations; to minimise impact, the design was developed to avoid any operational change.

Although, retaining the existing structure was considered during the project development. It was discounted as it would not be possible to retain the existing structure and provide a DDA compliant design without moving the existing berthing face further north.

### **3. The timing and duration of construction and alternative transport**

It is anticipated that the proposal would be built over a period of four months, with construction starting in early 2018, subject to the determination of the REF.

During construction, the wharf will be closed with a shuttle bus service provided to connect customers to nearby Chiswick Wharf. It is anticipated that ferry services usually starting at Abbotsford, would start at Chiswick to maintain existing frequency during the upgrade.

### **4. Operational impacts within the vicinity of the proposal area**

The new wharf structure would sit within the footprint of the existing structure and the location of the existing berthing face would be retained. Ferry operations and the ferry path of travel would not change therefore there would be no increased impact on maritime businesses and water users from the proposal.

Options to push the berthing face further north into the Parramatta River were previously considered but discounted, due to the impact on existing rowing courses in the area. Reducing the area of navigable waterway and pushing rowing courses further north was regarded as undesirable by the rowing community and local sea scouts.

## **Conclusion**

The REF for the Abbotsford Wharf Upgrade identified a range of environmental outcomes and management measures that would be required to avoid or reduce the environmental impacts.

After consideration of the issues raised in the public submissions, there have been no amendments to the previous environmental management measures. Additional safeguards have been added to include ancillary sites and compounds following a review of lessons learnt from recent wharf upgrades.

# Contents

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<b>Abbotsford Wharf Upgrade .....</b>	<b>1</b>
<b>Executive summary .....</b>	<b>5</b>
<b>Contents .....</b>	<b>7</b>
<b>1 Introduction and background.....</b>	<b>8</b>
1.1 The proposal.....	8
1.2 REF display .....	9
1.3 Purpose of the report .....	10
<b>2 Response to Issues.....</b>	<b>10</b>
2.1 Overview of issues raised .....	11
2.2 The Need for the Proposal .....	11
2.3 Design .....	11
2.4 Construction .....	12
2.5 Operational Impacts.....	13
<b>3 Additional assessment .....</b>	<b>14</b>
3.1 Additional locations for ancillary facilities .....	14
<b>4 Environmental management .....</b>	<b>16</b>
4.1 Environmental management plans (or system) .....	16
4.2 Summary of safeguards and management measures .....	16
4.3 Licensing and approvals .....	33
<b>5 References.....</b>	<b>34</b>

## Appendices

Appendix A – Proposal Drawings

# 1 Introduction and background

## 1.1 The proposal

The Abbotsford Wharf Upgrade is one of the projects within the Ferry Wharf Upgrade Program, being delivered as part of the Transport for New South Wales (TfNSW) Transport Access Program.

The proposal involves the replacement of the existing Abbotsford Wharf. The new wharf will provide access for people with a disability, meeting the standards of the *Disability Discrimination Act (DDA) (1992)* and *Disability Standards for Accessible Public Transport* legislation (DSAPT) (2002).

The key features of the proposal include:

- Removal of the existing wharf, retaining a three-metre section of the existing jetty.
- Construction of:
  - A new covered steel gangway extending north-west from the retained jetty section
  - A new floating steel covered and glass sided pontoon
  - Four new piles to secure the pontoon
  - Two new pivot piles to help with berthing.
- The following landside work:
  - A covered entry portal, of about six metres by three metres
  - New kiss-and-ride parking zone
  - Upgrade of the existing stairs and supporting hand rails.

The wharf is located at the northern end of Great North Road, within the City of Canada Bay local government area (refer to Figure 1). The wharf is part of the F3 Ferry Service that operates between Circular Quay and Parramatta.

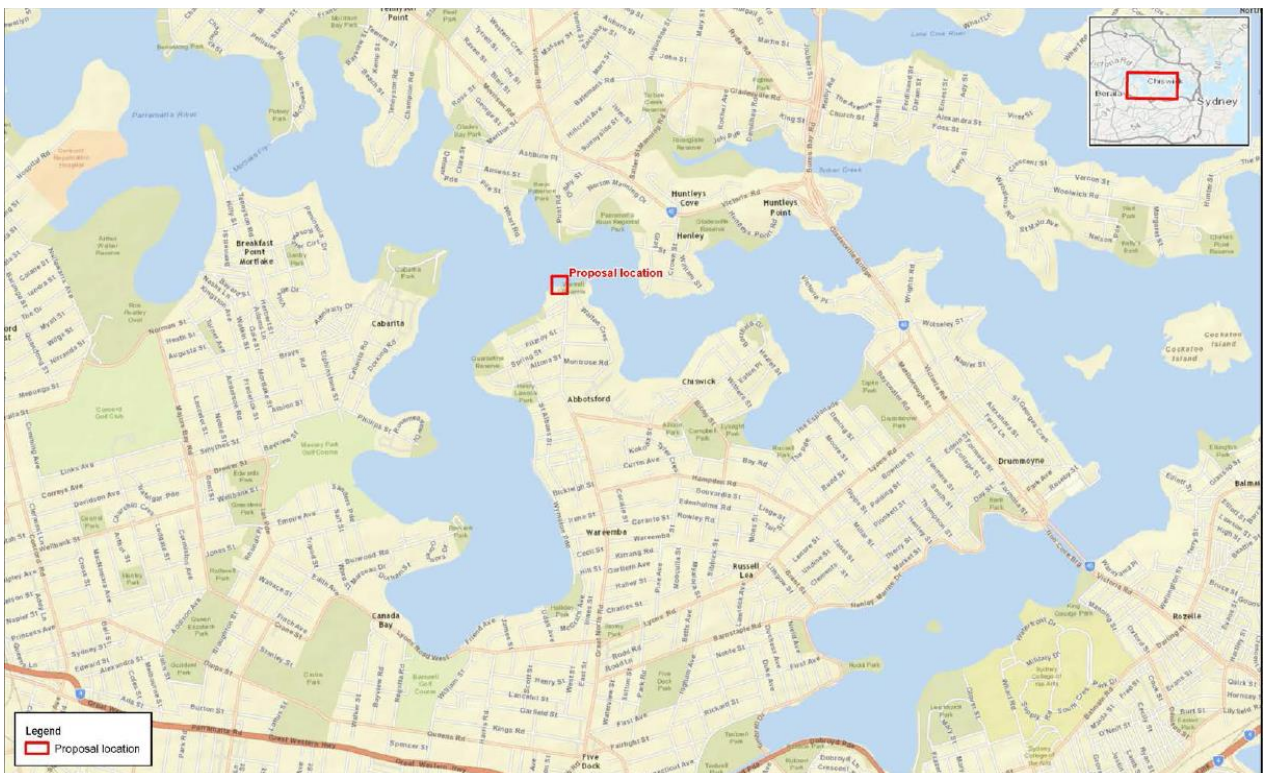


Figure 1 Proposal Location (taken from REF)



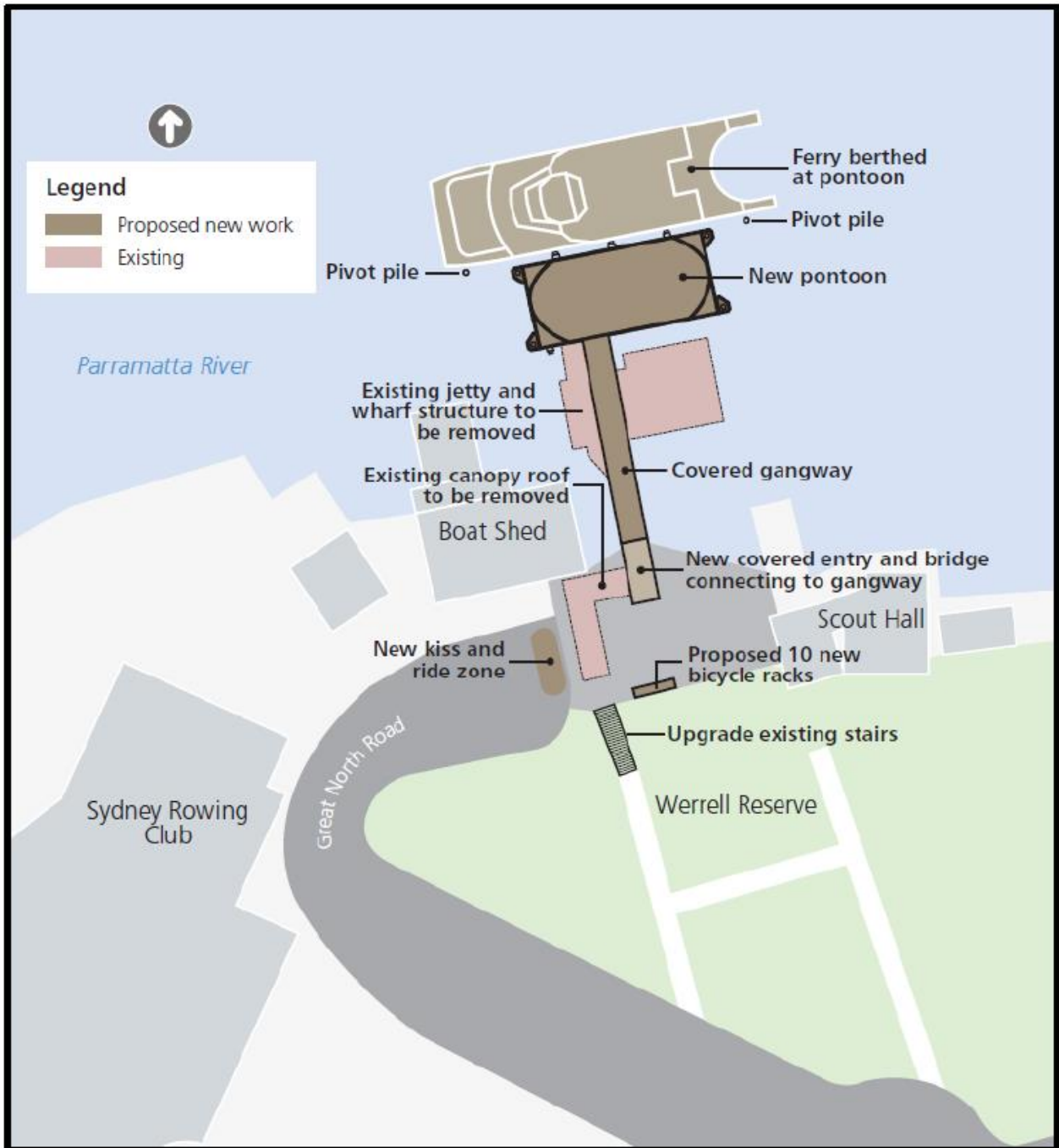


Figure 2 Key features of the proposal

A more detailed description of the Abbotsford Wharf Upgrade is found in the REF prepared by WSP for Roads and Maritime in September 2017.

## 1.2 REF display

Roads and Maritime prepared a REF to assess the environmental impacts of the proposed works. The REF was publically displayed for 35 days between 20 September 2017 and 25 October 2017 at two locations, as detailed in Table 1.1. The REF was placed on the Roads and Maritime project website and made available for download. The display locations and website link were advertised in the Inner West Courier on 28 September 2017 and 5 October 2017.

In addition to the above public display, an invitation to comment and a copy of the Review of Environmental Factors was sent directly to 50 stakeholders.

Posters providing details of the proposal and REF display were displayed at Abbotsford Wharf and locations throughout the ferry network. Details of the proposal and REF display were letter dropped to about 3900 residents in the surrounding area.

Table 1.1: Display locations

Location	Address
Roads and Maritime Office	20-44 Ennis Road, Milsons Point
Five Dock Library	4-12 Garfield Street, Five Dock

## 1.3 Purpose of the report

This submissions report relates to the review of environmental factors (REF) prepared for the Abbotsford Wharf Upgrade and should be read in conjunction with that document.

The REF was placed on public display and submissions relating to the proposal and the REF were received by Roads and Maritime. This submissions report summarises the issues raised and provides responses to each issue (Chapter 2). It also identifies new or revised environmental management measures.

No project changes are proposed that would require the preparation of a preferred infrastructure report. No revisions have been made to the assessment or environmental management measures as described in the environmental impact statement.

## 2 Response to Issues

Roads and Maritime Services received 11 submissions, accepted up until the 25 October 2017. Table 2.1 lists the respondents and each respondent's allocated submission number. The table also indicates where the issues from each submission have been addressed in Chapter 2 of this report.

Table 2.1: Respondents

Respondent	Submission No.	Section number where issues are addressed
Individual 1	1	2.4
Individual 2	2	2.2, 2.5
Individual 2	3	2.2, 2.5
Individual 2	4	2.2, 2.5
Individual 3	5	2.4
Individual 4	6	2.3
Individual 5	7	2.2, 2.3
Individual 6	8	2.4
Individual 7	9	2.3
Individual 8	10	2.3, 2.5
Individual 9	11	2.2, 2.3, 2.5

## 2.1 Overview of issues raised

A total of 11 submissions were received from 9 individuals in response to the display of the REF and were all from the community.

Each submission has been examined individually to understand the issues being raised. The issues raised in each submission have been extracted and collated, and corresponding responses to the issues have been provided. Where similar issues have been raised in different submissions, only one response has been provided. The issues raised and Roads and Maritime response to these issues forms the basis of this chapter.

Of the 11 submissions received, 3 addressed the overall proposal whilst the remainder raised issues about specific aspects relating to the proposal.

1. The need for the proposal, as the existing wharf is in good condition
2. The design and location of the proposed wharf and allowance for seating and queuing
3. The timing and duration of construction and alternative transport
4. Operational impacts within the vicinity of the proposal area

## 2.2 The Need for the Proposal

### ***Submission numbers***

2, 3, 4, 7, 11

### ***Issue description***

- Questions the need for the upgrade due to the good condition of the existing structure
- Questions the budget cost of the upgrade and whether this would be better spent elsewhere
- Questions if DDA accessibility is addressed

### ***Response***

As detailed in Chapter 2.1 of the REF, which reviews the need for the proposal, the need for the upgrade of Abbotsford Wharf was identified in response to Transport for NSW's Transport Access Program; an initiative to deliver accessible, modern, secure and integrated transport infrastructure. An assessment of Abbotsford Wharf in 2009 identified its lack of accessibility for passengers on and around the wharf.

The option of do nothing was discounted as it would not meet the objectives of the proposal to improve accessibility, passenger comfort, reduce maintenance frequency and vandalism.

The new wharf would be compliant with the standards for DDA and DSAPT. The installation of a new pontoon would also enable ferries to berth more efficiently, with passengers able to embark and disembark from ferries quickly.

The Abbotsford Wharf Upgrade forms part of Transport for NSW's Transport Access Program, which will spend \$890 million to improve access to the public transport network.

## 2.3 Design

### ***Submission numbers***

6, 7, 9, 10, 11

### ***Issue description***

- Questions whether seating will be included in the upgrade

- Questions why the existing design has been changed as queuing system along narrow walkway is thought to be better than wide pontoon face
- Questions why the existing fixed structure needs to be removed rather than retained
- Questions why the berthing face of the new wharf could not be situated further north than existing

### **Response**

As detailed in Chapter 3.2 of the REF, the design will incorporate a new covered gangway and pontoon, with glass weather protection and seating provided on the pontoon to encourage wharf users to wait close to the berthing face.

As confirmed in Chapter 5.2 of the REF in response to previous questions about queuing, the covered pontoon will provide adequate capacity for ferry users to wait undercover close to the berthing face which will increase the speed of people getting on to ferries and negate the need to queue along a gangway or jetty. This pontoon design is being implemented throughout Sydney Harbour, as part of the wider Wharf Upgrade Program which aims to increase the efficiency of berthing and disembarking.

The current design proposes removing the existing waiting structure and providing a new gangway and pontoon to maintain the existing berthing face location. Maintaining the existing position of the berthing face whilst redesigning waiting and access spaces will increase the efficiency of ferry berthing and disembarking without changing the path that ferries currently travel, with feedback from local stakeholders indicating that shifting the berthing location from its current position, and changing ferry travel paths, would impact on safety of their operations.

Although retaining the existing structure was considered during the development process, it was discounted as it would not be possible to retain the existing structure and provide a DDA compliant design without moving the existing berthing face further north than the existing footprint, and impacting on existing operation.

Further details of the design, including seating and queuing can also be viewed in Appendix A of the REF, and of this document. Further detail regarding the potential operational impacts of the proposal is detailed in Section 2.5 of this document.

## **2.4 Construction**

### **Submission numbers**

1, 5, 8

### **Issue description**

- Questions the timing of the upgrade work/wharf closure
- Questions how long construction will take
- Questions the alternative transport arrangements made during construction, and whether this will include starting Abbotsford services from Chiswick as the next available wharf, for the duration of construction.

### **Response**

As detailed in Chapter 3.3 of the REF, it is anticipated that the proposal would be built over a period of four months, with construction starting in early 2018, subject to the determination of the Review of Environmental Factors.

During construction the wharf will be closed, with alternative transport provided in the form of a shuttle bus which will run between Abbotsford and Chiswick Wharves. It is anticipated that services which usually start from Abbotsford would start from Chiswick instead to maintain existing timetable; however this would be subject to final change and is outside the scope of

the REF. This submission has therefore been forwarded to the appropriate contact within Transport for NSW who will respond directly.

## 2.5 Operational Impacts

### ***Submission numbers***

3, 4, 9, 10, 11

### ***Issue description***

- The new wharf will restrict access for leisure users of the Parramatta River, including local businesses by reducing navigable space
- The new wharf should be extended further into the river than the existing structure to provide additional clearance between the berthing face and foreshore which would increase operational safety for local businesses operating from the foreshore
- If the new wharf was extended further into the river than the existing structure it would decrease the chance of incidents between ferries, leisure users and private businesses
- Questions whether the design being proposed has been confirmed as “safe”
- Believes the new wharf will result in ferries changing routes and impacting on an area of the water which is privately leased
- Impact of the proposal on existing surroundings and sea scout routes during operation of the new proposal

### ***Response***

As confirmed in Section 2.3 of this document, the new wharf structure would sit within the footprint of the existing structure, and retain the existing berthing face. Ferry operation within the vicinity of the proposal, and navigable space would remain as existing, and therefore any additional impact on aquatic businesses and water users as a result of the proposal is assessed as being negligible.

Options to push the berthing face further north into the Parramatta River were previously considered but discounted, due to the impact on existing rowing courses in the area, which would be pushed further north as a result of this change which was regarded as undesirable by the rowing community and sea scouts. Removing the existing fixed structure will result in a small increase in navigable watercourse to the south of the new pontoon which may provide additional benefit to local businesses although this is considered minor.

# 3 Additional assessment

## 3.1 Additional locations for ancillary facilities

### 3.1.1 Summary

The REF assumed that a site compound, measuring up to 75m<sup>2</sup> in size, would be located within the proposal area to store equipment, machinery and welfare facilities as shown in Figure 3 below.



Figure 3 Proposal Construction footprint taken from REF

Following a review of the indicative location for the construction compound it has been proposed to relocate this away from the foreshore area and into Werrell Reserve, still within the construction footprint assessed in the original REF. This relocation will reduce the impact of construction on local businesses such as the Abbotsford Sea Scouts, retaining an access route from the Great North Road to the Scout Hall as and when required during construction.

As a result of this review an additional safeguard will be added to the REF confirming additional assessment that would need to be undertaken before a different location for the ancillary facilities could be confirmed, as seen in Section 3.2.1.

### 3.1.2 Additional management and mitigation measures

Impact	Environmental safeguard	Responsibility	Timing
Socio-economic	<ul style="list-style-type: none"> <li>• Additional or revised site compounds may be needed following completion of detailed design and construction scheduling. Any additional or revised compound and/or stockpile sites proposed by the contractor would be discussed with Roads and Maritime's Environment Manager, Greater Sydney Project Office to determine if any additional environmental assessment or safeguards are required.</li> </ul>	Contractor	Pre-construction/ Construction
Socio-economic	<ul style="list-style-type: none"> <li>• Any additional or revised compound and/or stockpile sites would ideally meet the following criteria:               <ul style="list-style-type: none"> <li>- On previously disturbed areas</li> <li>- Away from biodiversity and significant heritage values, including outside the drip line of trees</li> <li>- On relatively level ground and up-slope of sediment control barriers</li> <li>- Outside of flood prone land</li> <li>- Have ready access to the road network or direct access to the construction area</li> <li>- At least 5 metres clear of all areas of possible concentrated water flow</li> <li>- More than 100 metres from any residential property</li> </ul> </li> </ul>	Contractor	Pre-construction/ Construction
Socio-economic	<ul style="list-style-type: none"> <li>• Upon completion of work, the contractor would remove the site compound, including any waste materials. Sites would be rehabilitated in consultation with the relevant property owner.</li> </ul>	Contractor	Post -construction

## 4 Environmental management

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The REF for the Abbotsford Wharf Upgrade identified the framework for environmental management, including safeguards and management measures that would be adopted to avoid or reduce environmental impacts (Section 7.2 of the review of environmental factors).

Should the proposal proceed, environmental management will be guided by the framework and measures outlined below.

### 4.1 Environmental management plans (or system)

A number of safeguards and management measures have been identified in order to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the proposal. Should the proposal proceed, these management measures would be incorporated into the detailed design and applied during the construction and operation of the proposal.

A Construction Environmental Management Plan (CEMP) will be prepared to describe safeguards and management measures identified. The CEMP will provide a framework for establishing how these measures will be implemented and who would be responsible for their implementation.

The CEMP will be prepared prior to construction of the proposal and must be reviewed and certified by environment staff prior to the commencement of any on-site works. The CEMP will be a working document, subject to ongoing change and updated as necessary to respond to specific requirements.

### 4.2 Summary of safeguards and management measures

The REF for the Abbotsford Wharf Upgrade identified a range of environmental outcomes and management measures that would be required to avoid or reduce the environmental impacts.

After consideration of the issues raised in the public submissions, there has been no amendments to the previous environmental management measures (refer to Chapter 7.2 of the REF). Should the project proceed, the environmental management measures in Table 4.1 will guide the subsequent phases of the Abbotsford Wharf Upgrade development



Table 4.1: Summary of environmental safeguards and management measures

No	Impact	Environmental safeguards	Responsibility	Timing
1	Soil and water	A Soil and Water Management Plan (SWMP) would be prepared and implemented as part of the CEMP. The SWMP would identify all reasonably foreseeable risks relating to soil erosion and water pollution and describe how these risks would be addressed during construction.	Contractor	Detailed design / pre-construction
2	Soil and water	A site specific Erosion and Sediment Control Plan/s would be prepared and implemented as part of the Soil and Water Management Plan	Contractor	Detailed design / pre-construction
3	Soil and water	Weather forecasts would be regularly checked during construction. Where severe weather is forecast, all equipment and materials would be removed from the construction area, or secured.	Contractor	Construction
4	Water Quality	A spill management plan would be developed and communicated to all staff working on site.  Any aquatic spill (whether spill occurs on water on land and subsequently enters the water) is to be immediately reported to Roads and Maritime and Sydney Ports VTS and VHF Channel 13.  Aquatic spill kits are to be kept on site during construction.	Contractor	Construction
5	Water quality	All machinery and equipment would be maintained in good working order and regularly visually inspected for leaks.	Contractor	Construction
6	Water quality	Any chemicals or fuels stored at the site or equipment barges would be stored in a bunded area to prevent chemical leaks or spills entering the water.	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
7	Water quality	A silt boom and curtain would be installed around the work area. The silt boom and curtain would extend from a minimum of 100 millimetres (mm) above the water line to a minimum of 2.5 metres below the water line before starting work.	Contractor	Construction
8	Water quality	A silt boom and curtain would be used to control the movement of floating debris from the immediate work area, before being collected using a scoop. Debris below the surface would be retrieved via trained divers.  Any debris would be removed from the water immediately.	Contractor	Construction
9	Erosion and scour	The number of jack-ups/anchor points would be minimised where possible. The locations would be selected to avoid areas of sensitive habitat, as discussed further in section 6.2.	Contractor	Construction
10	Erosion and scour	Work positioning barges, drilling and pile driving should occur during calm conditions to prevent excessive scouring and other impacts.	Contractor	Construction
11	Water quality	The silt curtain and boom would be inspected every day after ebbing tides, with an additional inspection to be carried out after storm events. If excessive turbidity of the water is observed during removal of the piles, a second, moveable silt curtain would be installed around the piles being removed during each day of operation. Results of the observations of the integrity of the silt curtain are required to be recorded and maintained specifically for the purpose. Records are required to be kept on the site and to be made available for inspection by persons authorised by Roads and Maritime.	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
12	Aquatic biodiversity	<p>A Marine Ecology Management Plan would be prepared as part of the CEMP. This would include, but not be limited to, measures relating to the following activities to minimise the risk for pollution:</p> <ul style="list-style-type: none"> <li>• Sediment and rock debris control</li> <li>• Spills from concrete pour</li> <li>• Oil/fuel/chemical storage and spill management</li> <li>• Machinery and engine maintenance schedule to reduce oil/fuel leakage</li> <li>• Low impact barge positioning to prevent propeller scouring and thrust wash onto sensitive habitats</li> <li>• Minimise footprint and establish no-go zones in sensitive habitats</li> <li>• Accidental waste/material overboard response (e.g. construction materials dropped into the harbour)</li> <li>• Biological hygiene (e.g. prevent spread of noxious species on and off the site)</li> <li>• Aquatic fauna management.</li> </ul>	Contractor	Pre-construction

No	Impact	Environmental safeguards	Responsibility	Timing
13	Aquatic Biodiversity	Establish no-go zones to avoid damage to all terrestrial and nearby aquatic habitats. No-go zones should be marked on a map and displayed inside the construction barge and office. All staff responsible for manoeuvring the barge should check the map before selecting a new position. For most of the construction period, the no-go zone generally includes the base of the stone seawall in the intertidal zone and nearshore rocky macroalgae habitat. This habitat should be avoided as much as practical but may temporarily exclude those areas for one off drilling or piling when no alternative barge position is feasible. Construction vessels should also avoid beaching on the shallow subtidal sand, rubble and macroalgae habitat area	Contractor	Pre-construction
14	Aquatic Biodiversity	No anchors or mooring blocks/lines should be placed on the shallow rocky macroalgae habitat. All lines should be suspended off the seafloor to minimise drag across benthic communities	Contractor	Pre-construction
15	Biodiversity	If previously unidentified threatened species are observed in the construction area, work would cease and Roads and Maritime would be contacted	Contractor	Construction
16	Aquatic Biodiversity	The silt boom and curtain should be wrapped from shore to shore around the construction area and regularly inspected for entrainment and impingement of aquatic/marine wildlife.	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
17	Biodiversity	<p>Vessel speeds would be minimised within the construction area to minimise wash and risk of injury to aquatic/marine fauna.</p> <p>All staff working on the site would be advised of the location of habitats within the construction footprint.</p> <p>Care should be taken in the placement of jack-ups and/or anchors to avoid areas of aquatic habitat.</p>	Contractor	Construction
18	Biodiversity	Work positioning barges, drilling and pile driving should occur during calm conditions to prevent excessive scouring and other impacts.	Contractor	Construction
19	Biodiversity	Gentle start-up of piling hammering would be completed to allow undetected aquatic fauna to leave the area.	Contractor	Construction
20	Biodiversity	Construction activities would avoid impact to trees within Werrell Reserve, including the use of tree guards where required.	Contractor	Construction
21	Pest species	<p>Regular inspections of all equipment, machinery and materials would be completed to prevent the importation of pests and weeds to the area, including the noxious marine alga <i>Caulerpa taxifolia</i>.</p> <p>Good housekeeping of the aquatic construction area would be maintained.</p>	Contractor	Construction
22	Biodiversity	Work would stop if large aquatic fauna are observed nearby.	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
23	Noise and vibration	<p>A Noise and Vibration Management Plan (NVMP) would be prepared and implemented as part of the CEMP. The NVMP would generally follow the approach in the <i>Interim Construction Noise Guideline</i> (ICNG) (DECC, 2009) and identify:</p> <ul style="list-style-type: none"> <li>• All potential significant noise and vibration generating activities associated with the activity</li> <li>• Feasible and reasonable mitigation measures to be implemented</li> <li>• A monitoring program to assess performance against relevant noise and vibration criteria</li> </ul> <p>Arrangements for consultation with affected neighbours and sensitive receivers, including notification and complaint handling procedures contingency measures to be implemented in the event of non-compliance with noise and vibration criteria.</p>	Contactors	Pre-construction

No	Impact	Environmental safeguards	Responsibility	Timing
24	Noise and vibration	<p>All sensitive receivers (e.g. schools, residents) likely to be affected would be notified at least five days before starting any work with an associated activity that may have an adverse noise or vibration impact. The notification would provide details of:</p> <ul style="list-style-type: none"> <li>• The proposal</li> <li>• The construction period and construction hours</li> <li>• Contact information for project management staff</li> <li>• Details of complaint and incident reporting</li> <li>• How to obtain further information.</li> </ul> <p>Receivers where noise management levels may be exceeded would receive letter notification. Highly noise affected receivers would receive direct notification through a door knock.</p>	Roads and Maritime.	Pre-construction
25	Noise and vibration	<p>The following work schedule would be adopted:</p> <ul style="list-style-type: none"> <li>• Drilling of piles</li> <li>• Setup: 11pm to 12am</li> <li>• Drilling: 12am to 6am</li> <li>• Pack up: generally, 6am to 7am.</li> </ul> <p>Hammering of piles:</p> <ul style="list-style-type: none"> <li>• Setup: 4am to 5am</li> <li>• Hammering: 5am to 7am.</li> </ul> <p>Large prefabricated equipment would be installed by barge between 11pm and 7am and concrete pouring would be carried out over the night period.</p>	Contactor	Pre-construction

No	Impact	Environmental safeguards	Responsibility	Timing
26	Noise and vibration	Other than piling, concrete pouring, and the installation of equipment that needs to take place during periods of calm water, all work would be carried out during standard construction hours identified in the Interim Construction Noise Guideline (DECC, 2009) unless Roads and Maritime approval has been granted.	Contractor	Pre-construction
27	Noise and vibration	All construction personnel would be notified of the location of sensitive receivers, and the need to minimise noise and vibration from the work, during the site induction.	Contractor	Pre-construction
28	Noise and vibration	Plant and equipment would be in good working order to prevent excess noise generation.	Contractor	Pre-construction
29	Noise and vibration	Verification measures would be carried out to confirm background noise level already captured as part of the Noise and Vibration Impact Assessment report, and actual construction noise levels monitored using hand-held devices during periods associated with high noise impacts.	Contractor / Roads and Maritime	Pre-construction/ construction
30	Noise and vibration	All potentially affected receivers would be notified at least five days before starting the nominated activities. The area for this notification is shown in the REF, with properties within the red area receiving letter notification, and properties within the yellow area receiving direct notification in the form of individual briefings undertaken via a door knocking exercise, with contact details provided for properties where contact by a door knock is not possible.	Contractor / Roads and Maritime	Pre-construction/ construction



No	Impact	Environmental safeguards	Responsibility	Timing
31	Noise and vibration	Where possible, high noise generating works shall be completed before 11pm, however due to the location of the Abbotsford Wharf, and the requirement for calm environmental conditions (calm water and minimal wind), some activities are required to be carried out between 11pm and 7am, when the waterway is at its calmest. Respite periods (RP) would be provided for all night-time construction activities, with each activity limited to two consecutive nights in a row.	Contractor / Roads and Maritime	Pre-construction/ construction
32	Noise and vibration	In addition to NV9, respite offers (RO) would also be needed when undertaking the hammering piling (S05). These would prevent continuous blocks of noise from exceeding three hours, with a minimum respite period of one hour between each block.	Contractor / Roads and Maritime	Pre-construction/ construction
33	Vibration	Piling works should be undertaken at the pile located furthest from the Abbotsford Point Boatshed first and progress to the closest.	Contractor	Construction
34	Vibration	A condition survey of the Abbotsford Point Boatshed would be completed both before and after the construction work.	Roads and maritime	Pre and post construction
35	Vibration	A vibration trial should be completed with piling works started at the pile located the furthest distance from the Abbotsford Point Boatshed, before moving to closer piles progressively. Attended monitoring would be completed during this period to confirm safe working distances for the works.	Contractor / Roads and Maritime	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
36	Vibration	<p>Attended vibration monitoring, with set alarm (via flashing light, audible alarm, SMS, etc.), should be carried out at the Abbotsford Point Boatshed proposed construction work are within the safe working distances to ensure that levels remain below the vibration levels.</p> <p>Where vibration levels approach the threshold levels, relevant work would stop and alternative methods and/or mitigation measures would be investigated.</p>	Contractor / Roads and Maritime	Construction
37	Noise and vibration	Any change in methodology would require the process for Out of Hours Work to be followed.	Contractor	Construction
38	Landscape and visual impact	<p>Urban design principles would be integrated throughout the detailed design and construction of the proposal, including:</p> <ul style="list-style-type: none"> <li>• Material selection location of services, and a standardised family of elements.</li> <li>• Gangway is not covered to allow clear views to the shoreline</li> <li>• Covered pontoon and protection screens include transparent elements</li> <li>• Existing landscape elements are retained</li> <li>• Colour of paint and materials are consistent with other recently wharves along Sydney Harbour</li> <li>• No infrastructure would be installed directly on the sea wall.</li> </ul>	Roads and Maritime	Detailed design and pre-construction
39	Light spill impacts	Lighting would be directionally controlled to limit impacts from light spill from surrounding receivers, including residential properties. Lighting direction would also include consideration of any reflective impacts from the harbour.	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
40	Visual impacts	Hoarding would be erected around the construction compound where possible, to reduce visibility.	Contractor	Construction
41	Landscape and Visual impacts	The construction area would be kept clean and clear of rubbish.	Contractor	Construction
42	Unexpected heritage finds	The Standard Management Procedure – Unexpected Heritage Items (Roads and Maritime, 2015) would be followed in the event that (an) unknown or potential Aboriginal object(s), including skeletal remains, is/are found during construction. This applies where Roads and Maritime does not have approval to disturb the object(s) or where a specific safeguard for managing the disturbance (apart from the procedure) is not in place. Work would only restart once the requirements of that procedure have been satisfied.	Contractor	Construction
43	Aboriginal Heritage	Areas of Aboriginal heritage would be included in the CEMP and communicated to site personnel as no-go zones.	Contractor	Construction
44	Unexpected heritage finds	The Standard Management Procedure – Unexpected Heritage Items (Roads and Maritime, 2015) would be followed in the event that (an) unknown or potential Aboriginal object(s), including skeletal remains, is/are found during construction. This applies where Roads and Maritime does not have approval to disturb the object(s) or where a specific safeguard for managing the disturbance (apart from the procedure) is not in place. Work would only restart once the requirements of that procedure have been satisfied.	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
45	Non-Aboriginal heritage	The <i>Standard Management Procedure - Unexpected Heritage Items</i> (Roads and Maritime, 2015) would be followed in the event that any unexpected heritage items, archaeological remains or potential relics of Non-Aboriginal origin are encountered.  Work would only re-commence once the requirements of that Procedure have been satisfied.	Contractor	Detailed design / pre-construction
46	Non-Aboriginal heritage	Detailed design should avoid impacts the heritage listed sandstone kerbing on the northern side of Great North Road.	Roads and Maritime	Construction / Post-construction
47	Non-Aboriginal heritage	The construction footprint would avoid the Abbotsford Point Boatshed lease area. This area would be communicated as a 'no go zone' to site personnel.	Roads and Maritime	Construction / Post-construction
48	Land transport and parking.	A traffic control plan would be prepared and implemented in accordance with the 'Traffic control at work sites manual' (RTA, 2010a) and Australian Standard 1742.3 (Manual of uniform traffic control devices) and would include such things as appropriate wayfinding signage to be installed advising of alternative transport options where necessary.	Contractor	Pre-construction / construction
49	Land transport and parking.	A traffic management plan and parking plan would be developed in consultation with City of Canada Bay Council.	Contractor	Pre-construction / construction
50	Land and water transport	Transport of equipment and materials to site via boat and barge would be utilised over land transport to limit impacts to the local road network.	Contractor	construction
51	Water transport	All services which use the wharf would be notified prior to the closure of the wharf.	Roads and Maritime	Pre-construction

No	Impact	Environmental safeguards	Responsibility	Timing
52	Water transport	A maritime navigation exclusion zone would be established during construction to prevent unauthorised vessels entering the area.	Contractor	Pre-construction / construction
53	Water transport	Access for vessels to the Abbotsford Point Boatshed, 2 <sup>nd</sup> Abbotsford Sea Scouts or the Abbotsford 12ft Sailing Club would be maintained.	Contractor	Pre-construction / construction
54	Water transport	<p>A Maritime Traffic Management Plan would be prepared and implemented during the water based construction work. The Maritime Traffic Management Plan would be prepared consultation with NSW Maritime and approved by the Harbourmaster.</p> <p>In addition, the proposal would:</p> <ul style="list-style-type: none"> <li>• Not interfere with any vessel movements.</li> <li>• Not place buoys in or adjacent to shipping channels</li> <li>• Fit all buoys with lights</li> <li>• Prepare Response Plans for emergencies and spills for all construction vessels</li> <li>• Fit at least one vessel with an Automatic Identification System (AIS)</li> <li>• Retrieve any material associated with the construction of the development that enters the water to prevent the obstruction of vessel movements</li> <li>• Prepare a Communications Plan for implementation during the work which must include 24/7 contact details, protocols for enquiries, complaints and emergencies.</li> </ul> <p>Any variation to the above would be agreed in advance with the Harbourmaster.</p>	Contractor	Pre-construction / construction

No	Impact	Environmental safeguards	Responsibility	Timing
55	Land transport	A temporary shuttle bus between Abbotsford Wharf and Chiswick Wharf would be maintained for the duration of construction. Alternative transport arrangements, including the temporary shuttle bus, would be communicated to ferry passengers.	Roads and Maritime	Construction
56	Waste	Waste management, littering and general tidiness would be monitored during routine site inspections.	Contractor	Construction
57	Waste	Appropriate measures to avoid and minimise waste associated with the project should be investigated and implemented where possible	Contractor	Construction
58	Waste	Waste would be classified before being disposed offsite to an appropriately licenced facility in accordance with Waste Classification Guidelines: Part 1 Classifying Waste (DECCW 2014). Where necessary, this would include sampling and analysis.	Contractor	Construction
59	Resource minimisation	Recycled, durable, and low embodied energy products would be considered to reduce primary resource demand in instances where the materials are cost and performance competitive and comparable in environmental performance (e.g. where quality control specifications allow).	Contractor	Design
60	Hazards and risks	Marine spill kits would be kept within the construction area.	Contractor	Construction
61	Hazards and risks	Appropriate emergency equipment such as flotation devices and first aid kits would be kept within the construction area.	Contractor	Construction
62	Hazards and risks	All utilities within and adjacent to the proposal location would be located prior to the start of the works.	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
63	Hazards and risks	Safe work method statements or similar would be implemented to manage health and safety risks for the works.	Contractor	Construction
64	Hazards and risks	Consent from property owners would be received prior to any works on third party land, e.g. City of Canada Bay Council.	Roads and Maritime	Pre-construction
65	Air quality	Air quality during construction would be considered and addressed within the CEMP and would include methods to manage work during strong winds or other adverse weather conditions as required	Contractor	Detailed design/ pre-construction
66	Cumulative construction impacts	<p>Consultation would include notification prior to the start of the works.</p> <p>Notification would include directions to alternative public transport to be used during the construction period.</p> <p>Updates on any delays or changes to the construction period would also be communicated.</p>	Roads and Maritime	Pre-construction / construction
67	Socio-economic	Additional or revised site compounds may be needed following completion of detailed design and construction scheduling. Any additional or revised compound and/or stockpile sites proposed by the contractor would be discussed with Roads and Maritime's Environment Manager, Greater Sydney Project Office to determine if any additional environmental assessment or safeguards are required.	Contractor	Pre-construction/ Construction

No	Impact	Environmental safeguards	Responsibility	Timing
68	Socio-economic	<p>Any additional or revised compound and/or stockpile sites would ideally meet the following criteria:</p> <ul style="list-style-type: none"> <li>• On previously disturbed areas</li> <li>• Away from biodiversity and significant heritage values, including outside the drip line of trees</li> <li>• On relatively level ground and up-slope of sediment control barriers</li> <li>• Outside of flood prone land</li> <li>• Have ready access to the road network or direct access to the construction area</li> <li>• At least 5 metres clear of all areas of possible concentrated water flow</li> <li>• More than 100 metres from any residential property</li> </ul>	Contractor	Pre-construction/ Construction
69	Socio-economic	<p>Upon completion of work, the contractor would remove the site compound, including any waste materials. Sites would be rehabilitated in consultation with the relevant property owner.</p>	Contractor	Post - construction



## 4.3 Licensing and approvals

Table 4.2: Summary of licensing and approval required

Instrument	Requirement	Timing
Approval from the Deputy Harbour Master	Approval from the Deputy Harbour Master for any work that disturb the seafloor	Prior to commencement of any works that disturbs the seafloor.
Road occupancy permit	Approval from the City of Canada Bay Council required prior to any works impacting Great North Road.	Prior to commencement of any works impacting Great North Road.

## 5 References

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NSW Government 2013, *Sydney's Ferry Future Modernising Sydney's Ferries*

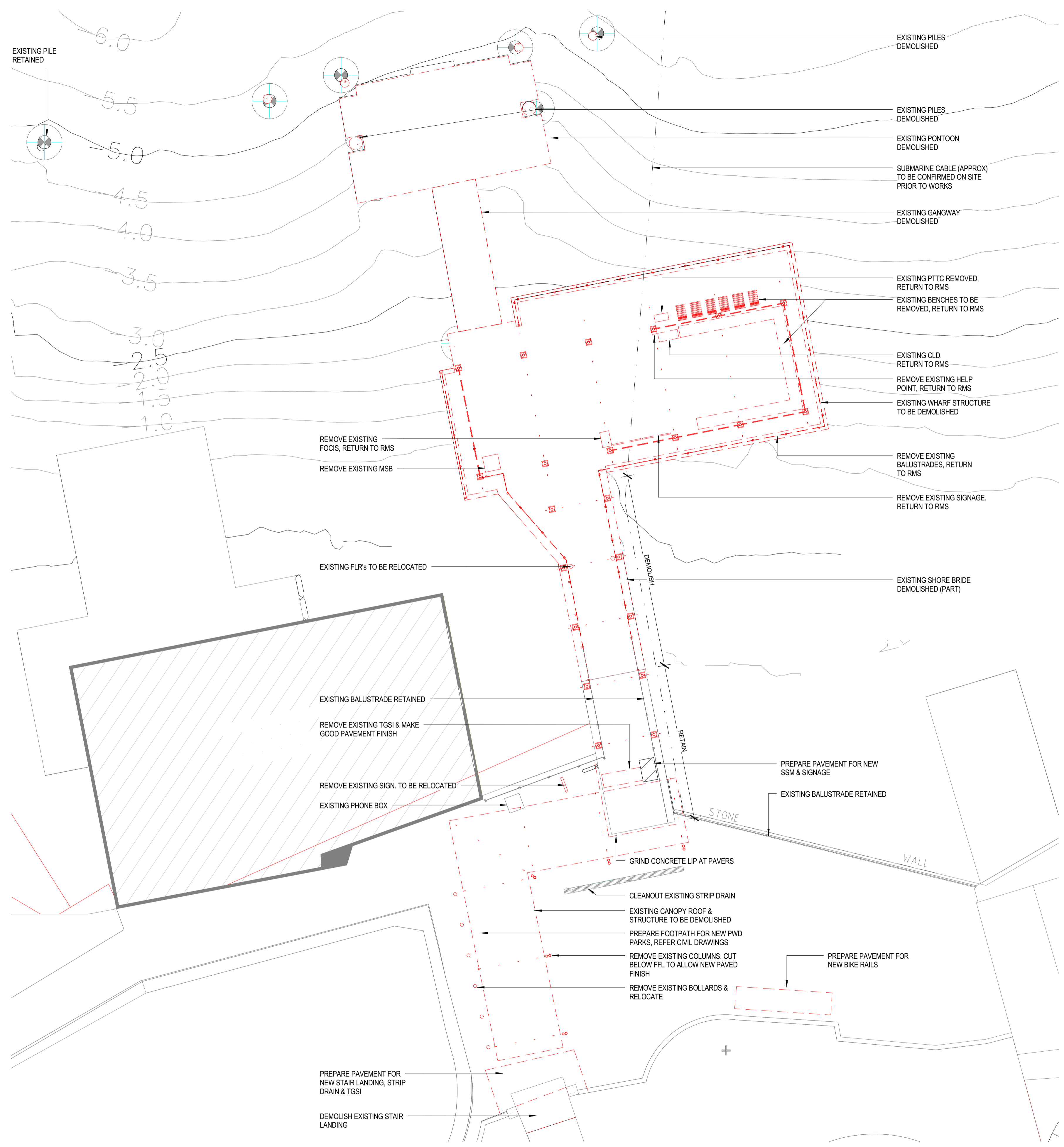
WSP Australia Pty Ltd 2017, *Abbotsford Wharf Upgrade Review of Environmental Factors*, Sydney.

Disability Discrimination Act (DDA) 1992

Disability Standards for Accessible Public Transport (DSAPT) 2002

# Appendix A – Proposal Drawings





SCALE 1:1 @ A1  
 © CONRAD GARGETT ANCHER MORTLOCK WOOLLEY  
 mail@conradgargett.com.au ABN 49 325 121 350  
 NOMINATED ARCHITECT: BRUCE WOLFE NSW Reg 6969  
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 REV DESCRIPTION DATE APPD  
 A Issue for Construction 20/07/17

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TRANSPORT AUTHORITY  
**Transport**  
 Roads & Maritime Services

CLIENT

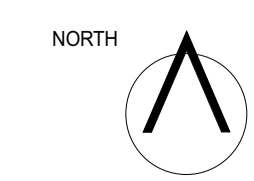
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**Ferry Wharves Upgrade  
 Program 2 -  
 Abbotsford Wharf**

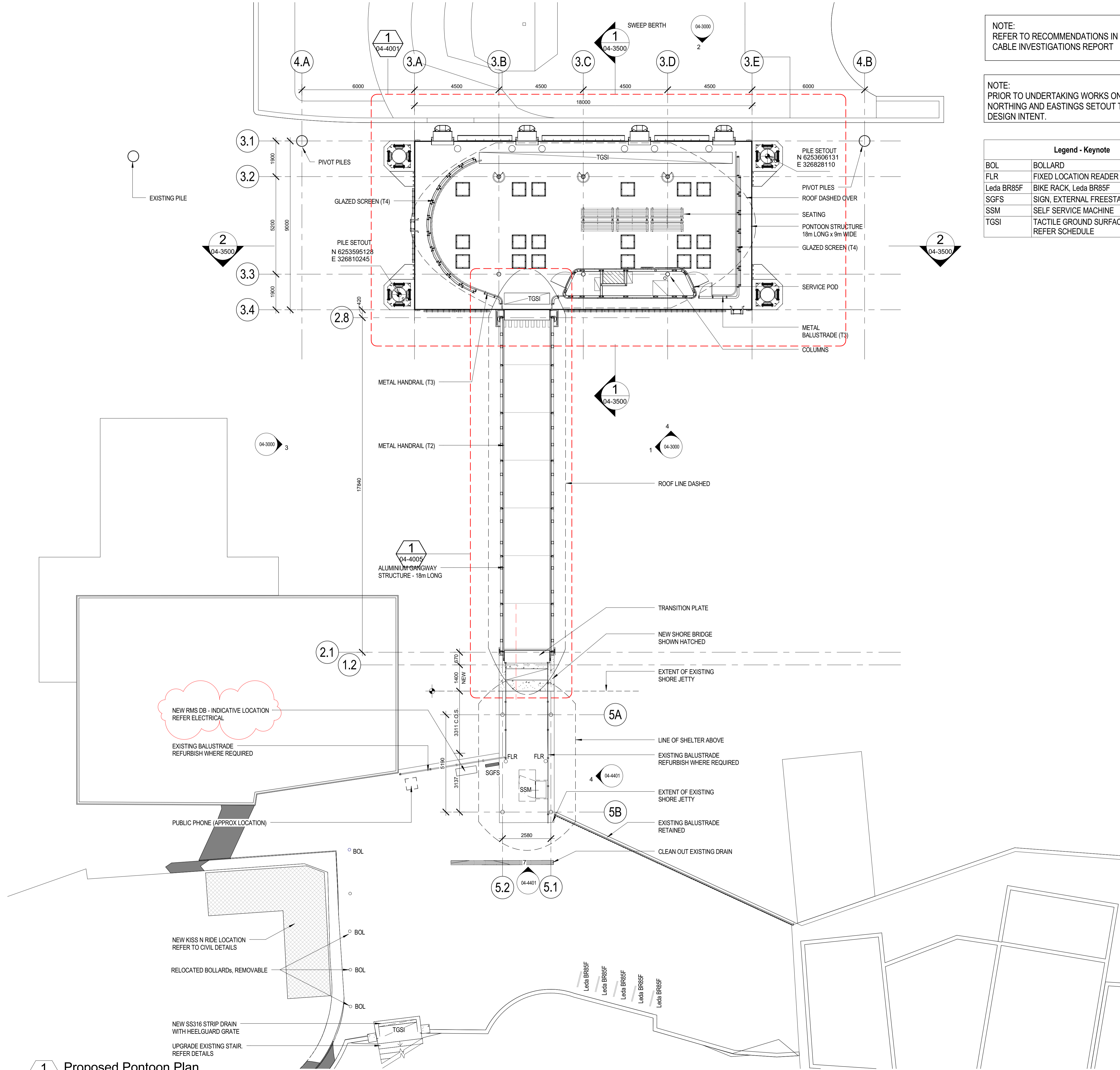
DRAWING  
**Demolition - Floor Plan**

PROJECT No: 14214 STATUS: CDR A1 SCALE: 1:100  
 DRAWING No: AR-04-1011 REV: A

**1** Demolition - Floor Plan  
 04-3000 1:100

**PRELIMINARY**





NOTE:  
REFER TO RECOMMENDATIONS IN SUBMARINE  
CABLE INVESTIGATIONS REPORT

NOTE:  
PRIOR TO UNDERTAKING WORKS ONSITE CONFIRM  
NORTHING AND EASTINGS SETOUT TO ENSURE  
DESIGN INTENT.

**Legend - Keynote**

BOL	BOLLARD
FLR	FIXED LOCATION READER (OPAL)
Leda BR85F	BIKE RACK, Leda BR85F
SGFS	SIGN, EXTERNAL FREESTANDING
SSM	SELF SERVICE MACHINE
TGSI	TACTILE GROUND SURFACE INDICATOR - REFER SCHEDULE

SCALE 1:1 @ A1  
mm  
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REV	DESCRIPTION	DATE	APPD
A	Issue for Construction	20/07/17	
B	Exec Update	04/08/17	

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TRANSPORT AUTHORITY  
**NSW** | Transport Roads & Maritime Services  
GOVERNMENT

CLIENT  
**hansen yuncken**

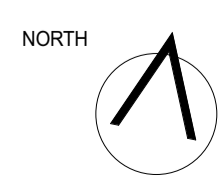
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Ferry Wharves Upgrade Program 2 - Abbotsford Wharf

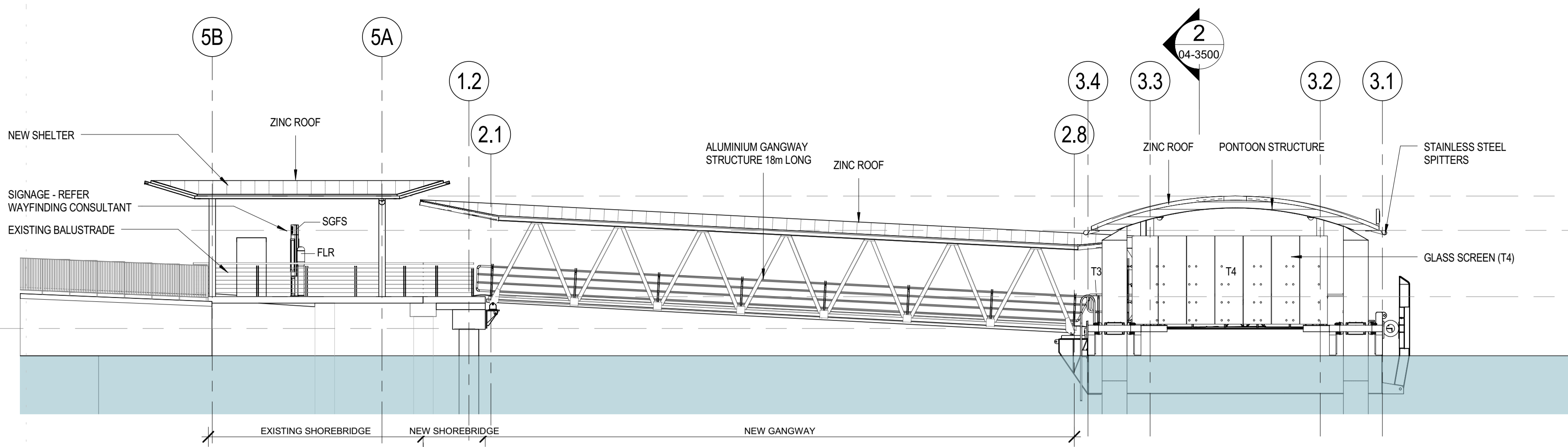
DRAWING  
Proposed Wharf Setout Plan

PROJECT No: 14214 STATUS: CDR A1 SCALE: 1:100  
DRAWING No: AR-04-2100 REV: B

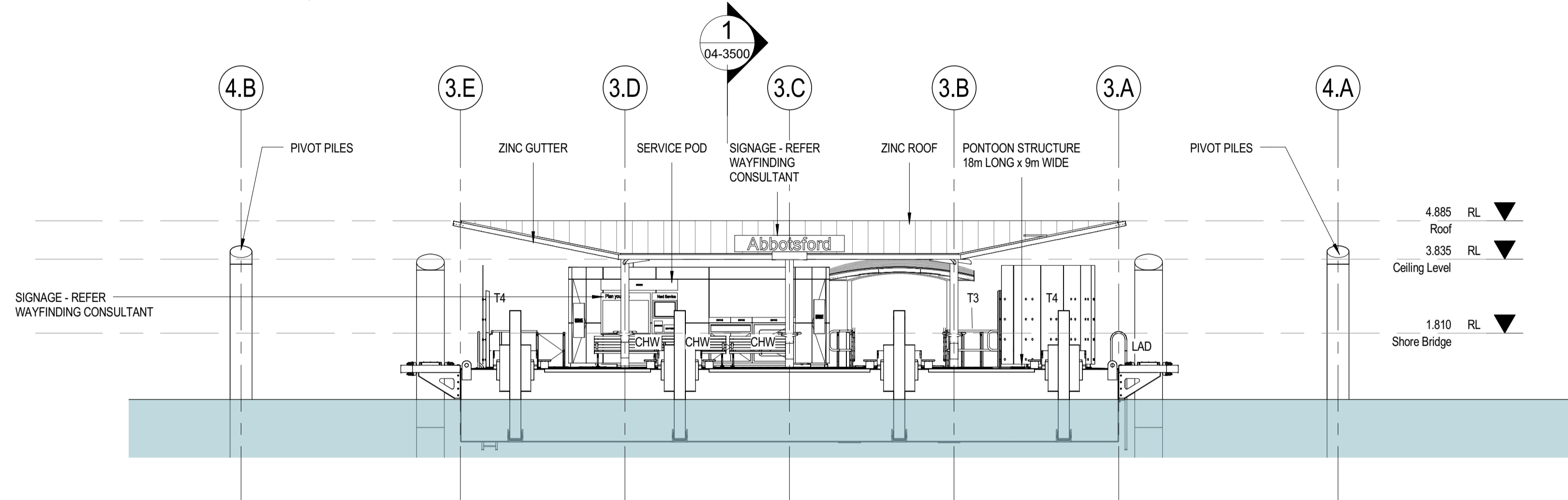
**1** Proposed Pontoon Plan  
04-3000 1:100

**PRELIMINARY**

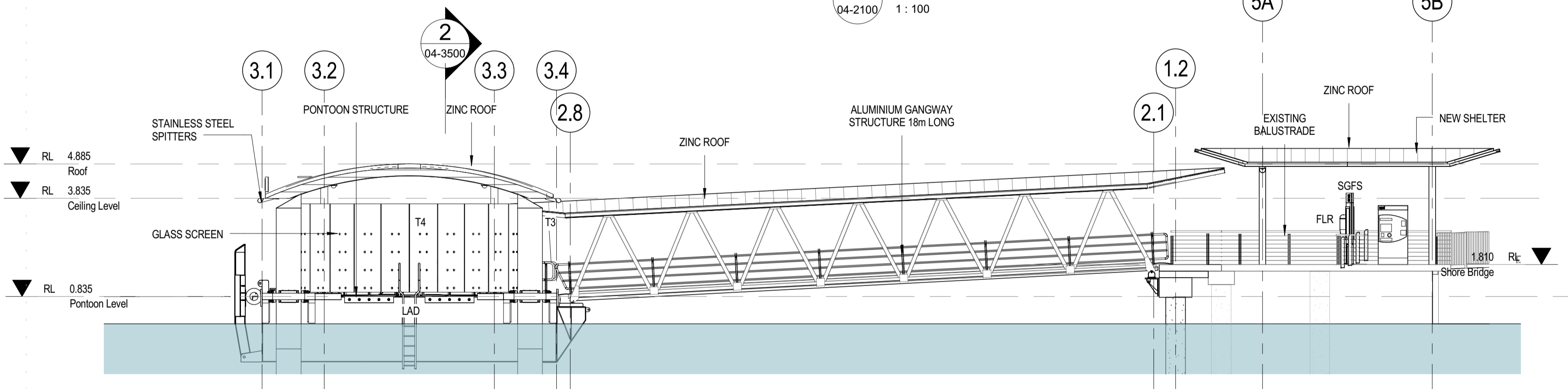




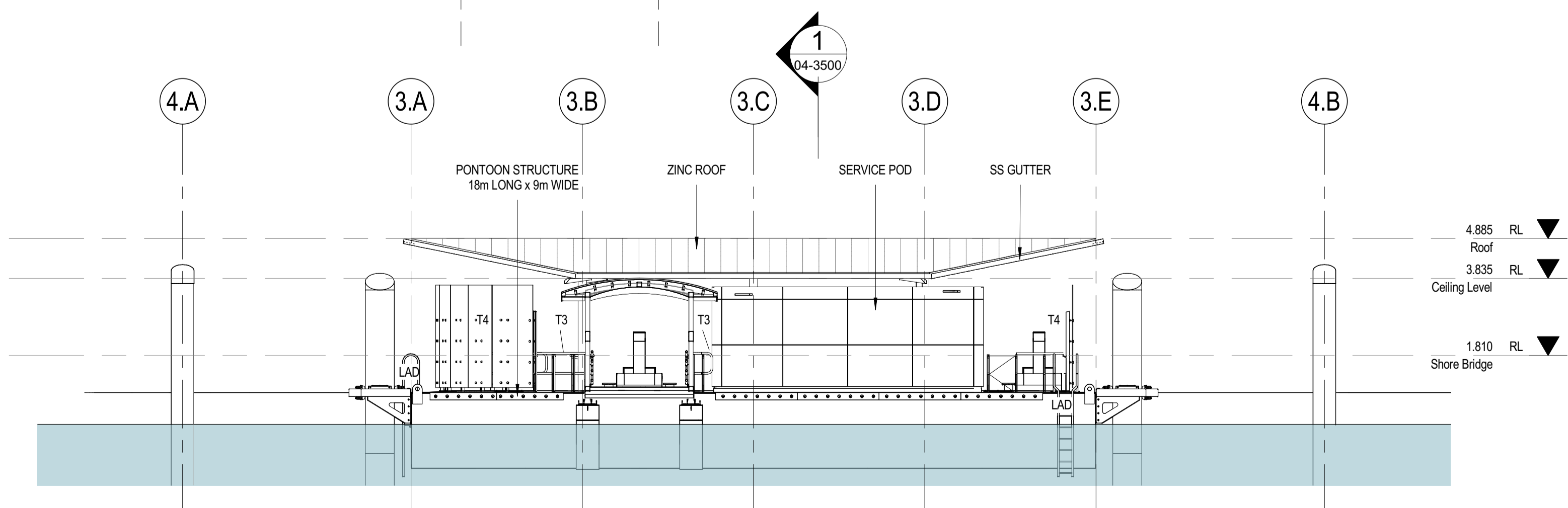
1 East Elevation  
04-2100 1:100



2 North Elevation  
04-2100 1:100



3 West Elevation  
04-2100 1:100



4 South Elevation  
04-2100 1:100

NOTE: SIGNAGE INDICATIVE.  
TO BE CONFIRMED BY  
WAYFINDING CONSULTANT

Legend - Keynote	
CHW	CHAIR, WAITING - REFER SCHEDULE
FLR	FIXED LOCATION READER (OPAL)
LAD	LADDER
SGFS	SIGN, EXTERNAL FREESTANDING
T3	BALUSTRADE TYPE 3 - REFER DETAILS
T4	BALUSTRADE TYPE 4 - REFER DETAILS

SCALE 1:1 @ A1  
mm  
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NSW GOVERNMENT Transport Roads & Maritime Services

CLIENT  
hansen yuncken

PROJECT  
Ferry Wharves Upgrade Program 2 - Abbotsford Wharf

DRAWING  
Elevations

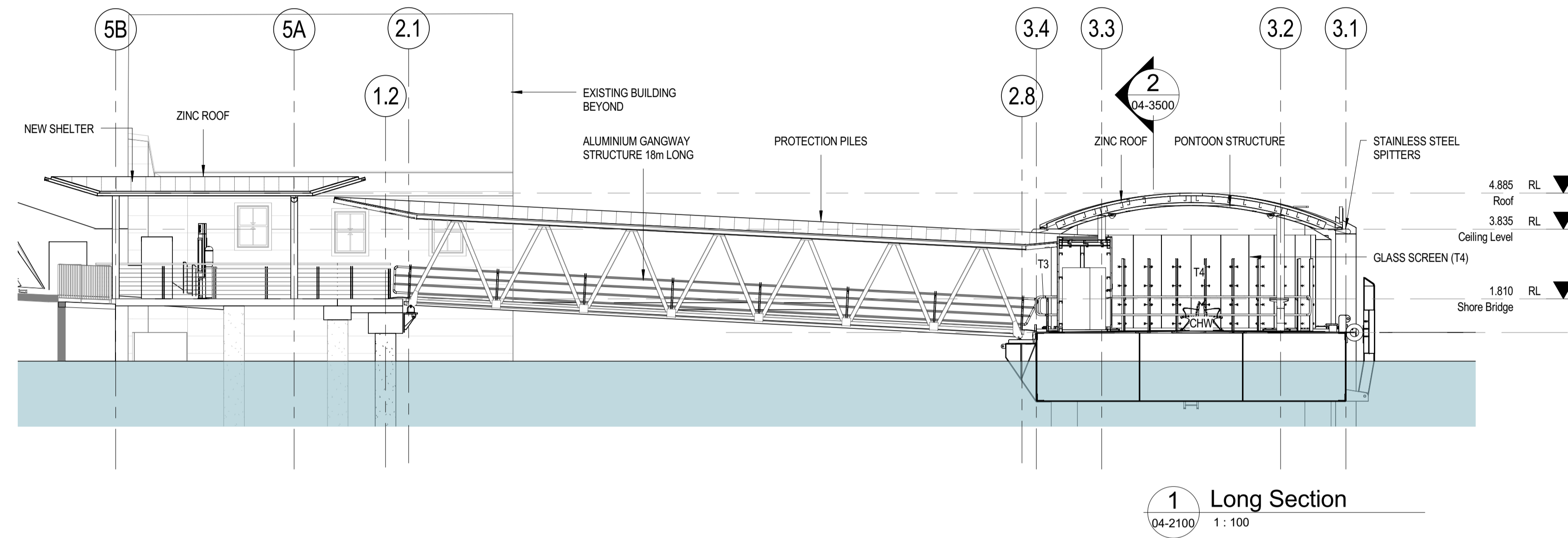
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PRELIMINARY

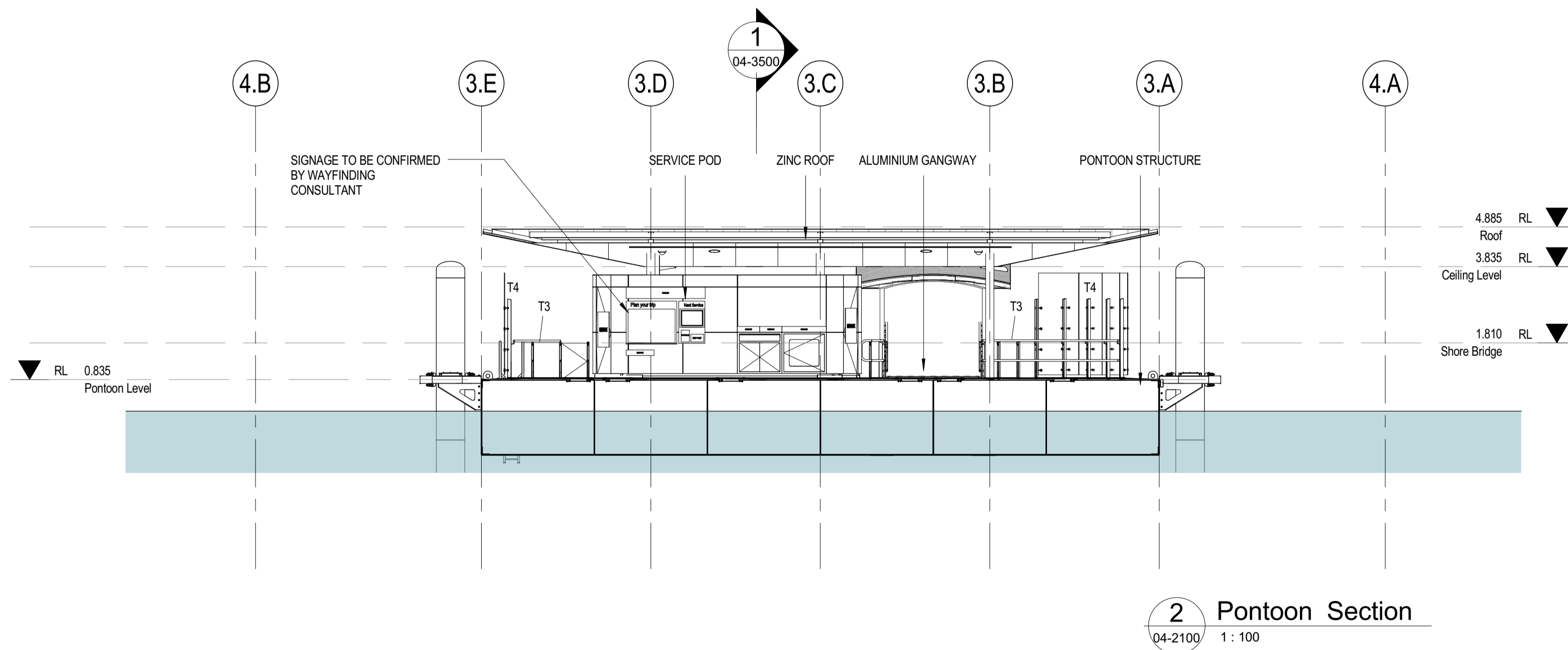
NOTE: SIGNAGE INDICATIVE.  
TO BE CONFIRMED BY  
WAYFINDING CONSULTANT

Legend - Keynote	
CHW	CHAIR, WAITING - REFER SCHEDULE
T3	BALUSTRADE TYPE 3 - REFER DETAILS
T4	BALUSTRADE TYPE 4 - REFER DETAILS

SCALE 1:1 @ A1 mm  
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**1 Long Section**  
04-2100 1:100



**2 Pontoon Section**  
04-2100 1:100

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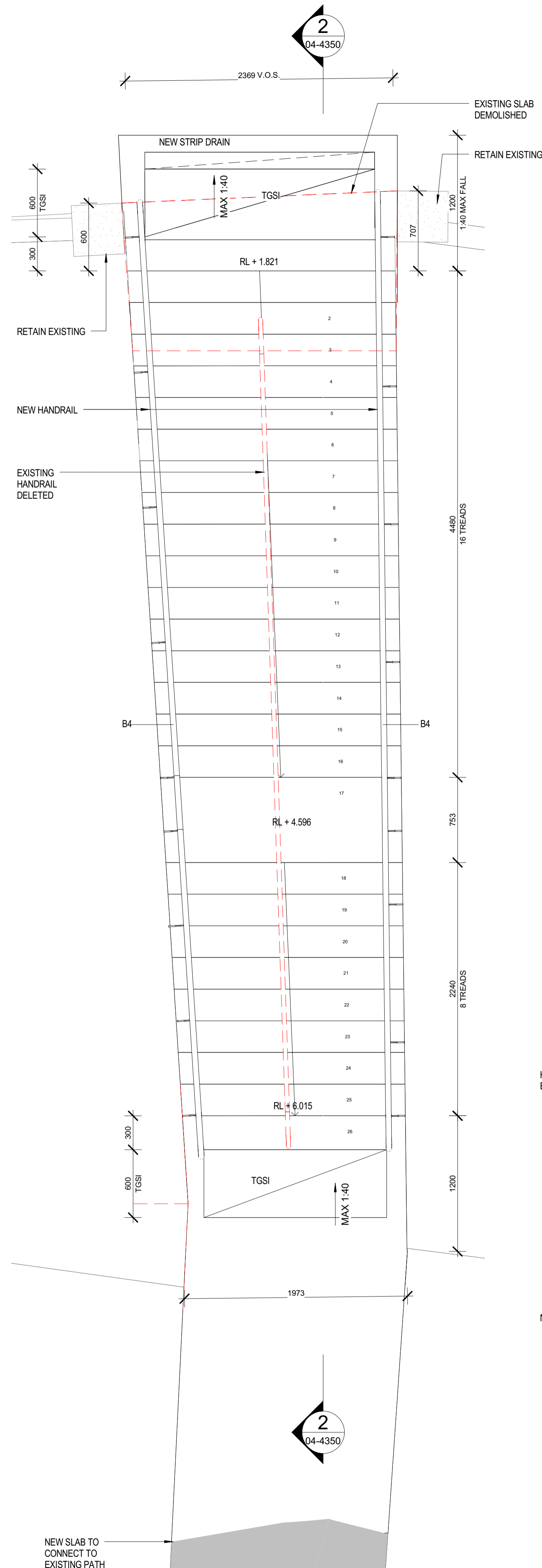

PROJECT  
**Ferry Wharves Upgrade Program 2 - Abbotsford Wharf**

DRAWING  
**Sections**

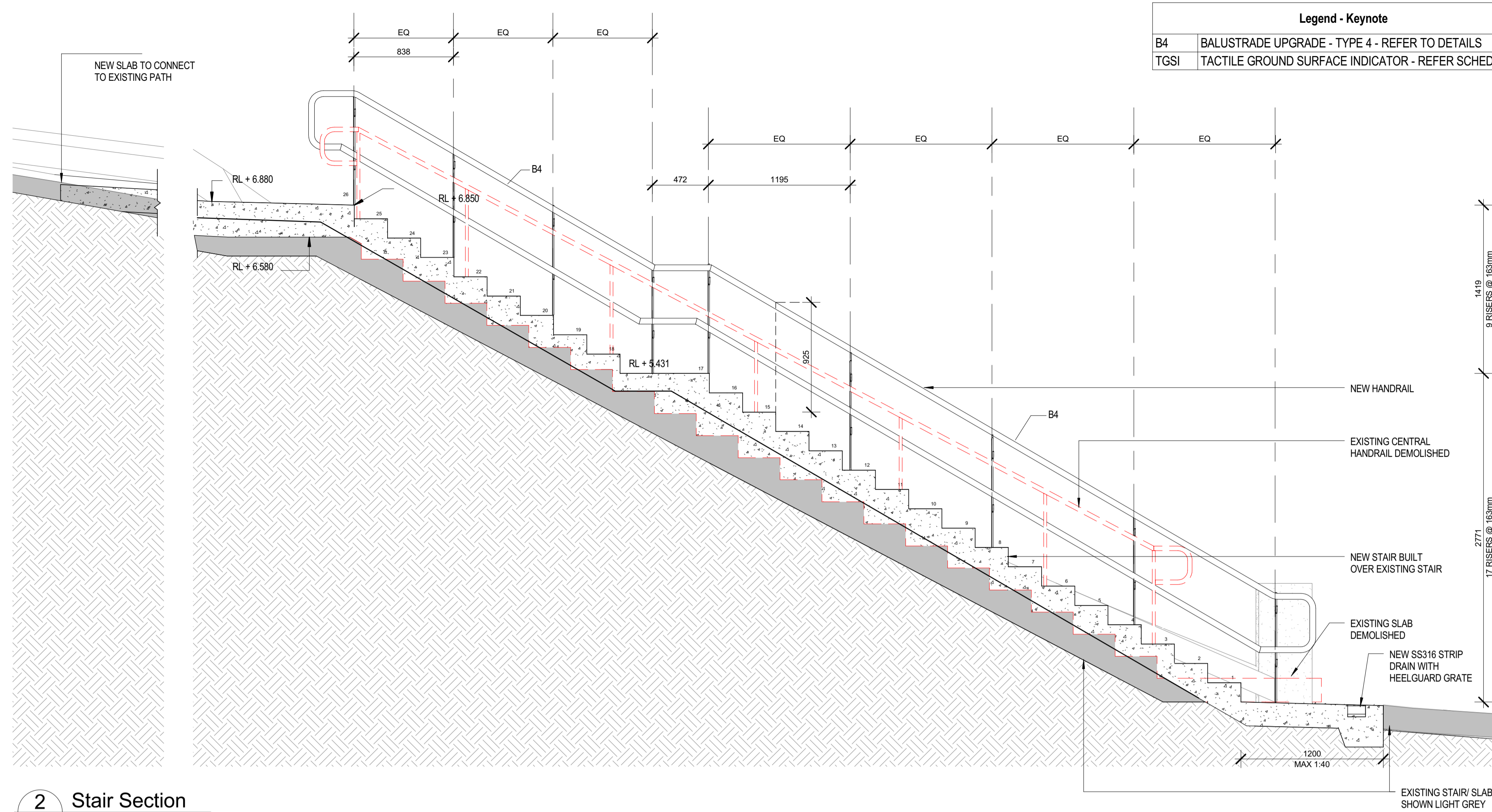
**PRELIMINARY**

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 DRAWING No: AR-04-3500 REV: A

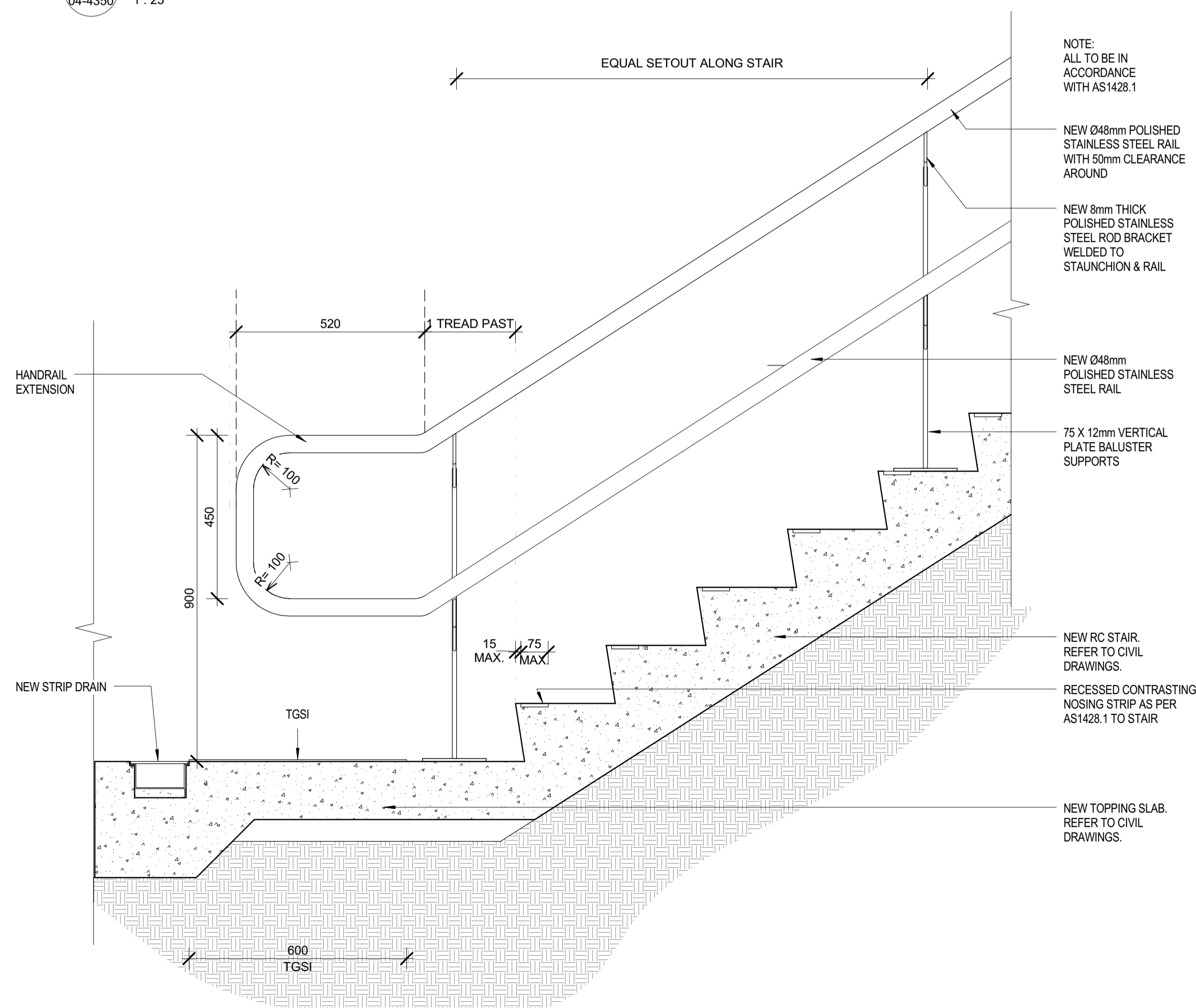




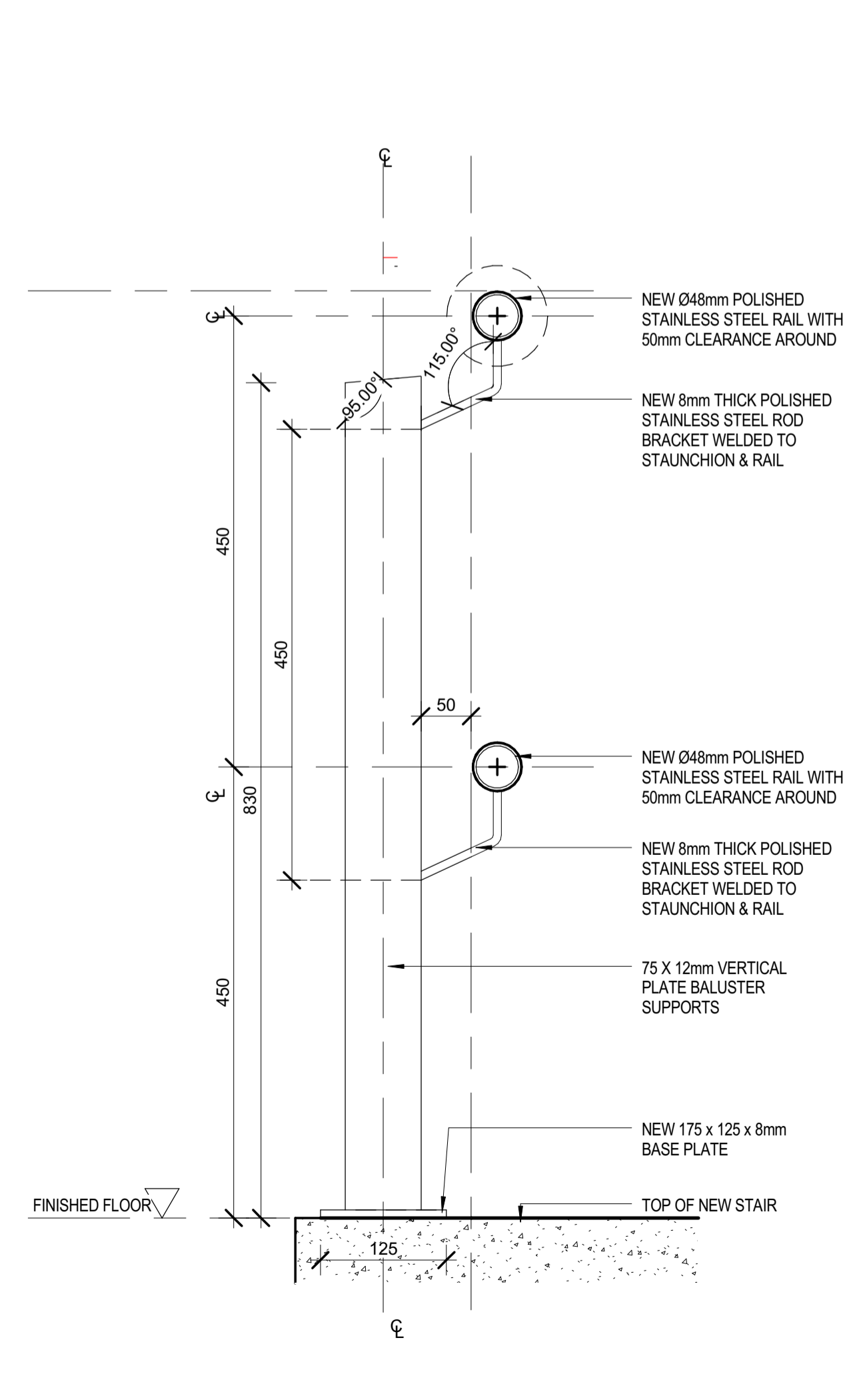
**1** Stair Plan  
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**2** Stair Section  
04-4350 1:25



**3** New Stair Balustrade (B4) - Elevation  
1:10



**4** New Stair Balustrade (B4) - Detail  
1:5

Legend - Keynote	
B4	BALUSTRADE UPGRADE - TYPE 4 - REFER TO DETAILS
TGS	TACTILE GROUND SURFACE INDICATOR - REFER SCHEDULE

SCALE 1:1 @ A1  
mm  
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REV DESCRIPTION DATE APPD  
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TRANSPORT AUTHORITY  
**NSW** GOVERNMENT **Transport** Roads & Maritime Services

CLIENT  
**hansen yuncken**

PROJECT  
**Ferry Wharves Upgrade Program 2 - Abbotsford Wharf**  
DRAWING  
**Stair Details**

**PRELIMINARY**

NORTH  
PROJECT No: 14214 STATUS: CDR A1 SCALE: As indicated  
DRAWING No: AR-04-4350 REV: A