Gray Planning

Solutions for Town Planning & Heritage

Danielle Gray, Principal Consultant

Gray Planning

224 Warwick Street

West Hobart TAS 7000

9 December 2025

Mr Emilio Reale

CEO, Glenorchy City Council

374 Main Road Glenorchy

TAS 7010

Via: gccmail@gcc.tas.gov.au

Dear Mr Reale,

NEW PLANNING APPLICATION FOR: NEW BOAT BUILDING SHED AND FILL/RECLAMATION WORKS FOR INCAT AT 100 DERWENT PARK ROAD AND 300 RISDON ROAD DERWENT PARK OBO INTER CATS TASMANIA PTY LTD

I understand Incat's CEO Mr Stephen Casey has been in recent contact with yourself and Ms Helen Ayers and Mr Paul Garnsey in Council's planning department regarding a proposal at 100 Derwent Park Road (Incat land).

This proposal seeks approval for an extension of boat building activity at Incat in the form of a new boat building shed to be located at 100 Derwent Park Road and associated fill/reclamation works to occur within the River Derwent immediately adjacent to the proposed shed.

The proposed boat building shed will partially encroach out across the extent of the Incat title boundaries into the River Derwent. This is unavoidable and required due to ships having to be launched immediately adjacent to the proposed shed once at an appropriate stage of construction.

The proposal requires Crown consent as well as a licence. A planning application is also required to be submitted to Glenorchy City Council.

Due to time constraints to enable the approval and construction of the shed for Incat as soon as possible, I have prepared all Crown and Council applications concurrently and have been instructed to lodge all at the same time to enable a swift resolution.

I have prepared two applications to Crown on behalf of Incat.

These applications are:

- Licence application for the boat building shed to occupy Crown land (the River Derwent) immediately adjacent to the proposal boat building shed; and

- Crown consent for construction works to occur within land administered by the Crown.

These applications have been lodged currently with the planning application to Council.

Plans for the proposal have been prepared by JMG on behalf of Incat and these plans are submitted as part of the Crown and Council applications.

A planning report prepared by Gray Planning will shortly follow the lodgement of these applications.

In terms of the affected land for the proposal, I provide the following summary:

- 100 Derwent Park Road: The primary and biggest Incat title at Derwent Park. Title reference CT-168298/1. This is where the proposed new shed will be constructed, partially encroaching into the Derwent River (Crown land). Signage will be located on the east facing elevation of the proposed shed.

- 13 Surveyors Drive: The smaller Incat title. Title reference CT123654/2. This title is included in the development site as this title contains existing parking spaces used by the boat building use already in existence. No works are proposed on this title.

- 300 Risdon Road: This is an address applied to all Nyrstar owned titles. The larger of the two CT-130554/1 is currently under a lease arrangement between Incat and Nyrstar and where the bulk of all parking is provided at Incat for staff. This title is included in the development site as this title contains existing parking spaces used by the boat building use already in existence. No works are proposed on this title.

- 300 Risdon Road: The smaller Nyrstar title CT-117774/1 currently encroaches into an Incat shed. An associated boundary adjustment application has been prepared by Gray Planning on behalf of Incat to rectify this boundary issue and to provide no less than 18m clearance to the proposed new boat building shed and also the existing boat building shed. The proposal plans prepared by JMG assume this boundary adjustment is already in place, to confusion. No works are proposed on this title.

- Crown land in the river Derwent, immediately adjacent to 100 Derwent Park Road (CT-168298/1. No PID or title reference available. Fill works and reclamation are proposed in this area immediately adjacent to the proposed boat building shed. The extent, location and area of fill proposed is shown in the JMG plans. Please see the aerial image overleaf showing the location of the shed and associated fill/reclamation works.

Aerial image of 100 Derwent Park Road (CT-168298/1) and an arrow indicating the location of the proposed shed (green) and location of associated fill/reclamation works (orange). Source: TheList, sourced 08.12.2025, no nominated scale. No image modifications.

I attach the following documentation as part of this proposal to Council for planning approval:

- Proposal plans prepared by JMG, Rev P1 and P2, dated 20 November 2025;
- Completed Planning Application form dated 9 December 2025;
- A recently retrieved copy of the Incat title for 100 Derwent Park Road CT-168298/1;
- A recently retrieved copy of the Nyrstar titles for 300 Risdon Road CT-117774/1 and CT-130554/1;
- Associated sealed plans referenced on CT-117774/1 including sealed plan 130552, sealed plan 128861 and 130554;
- A recently retrieved copy of the Incat title for 13 Surveyors Drive CT-123654/2;

- Land owner notification to the owners of both 300 Risdon Road and 100 Derwent Park Road dated 8 December, in accordance with Section 52(1) of the Act; and

- Gray Planning cover letter containing a summary of Incat staffing, hours of operation and parking dated 9 December 2025.

Please note an accompanying town planning report is still being finalised by Gray Planning and will be submitted shortly after lodgement.

It is understood that the planning application is not 'valid' until Crown consent has been received from Property Services.

However, it is requested that Council staff review the submitted application as soon as possible and flag any outstanding items that would be required as part of a Request for Further Information, rather than wait until up to 21 days after the planning application becomes valid.

I would be grateful if an invoice for Council fees for the planning application could be addressed to Incat Tasmania Pty Ltd and emailed to admin@grayplanning.com.au so that I can arrange for planning assessment fees to be paid as soon as possible.

If you wish to discuss the proposal I may be contacted on 0439 342 696.

Yours faithfully

Danielle Gray B.Env.Des. MTP. MPIA

Principal Consultant, Gray Planning

On behalf of Incat Tasmania Pty Ltd

Gray Planning

Solutions for Town Planning & Heritage

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224 Warwick Street

West Hobart TAS 7000

27 March 2026

Mr Emilio Reale

CEO, Glenorchy City Council

374 Main Road Glenorchy

TAS 7010

Via: gccmail@gcc.tas.gov.au

Dear Mr Reale,

RE: PLN-25-367 - BOAT BUILDING SHED, FILL & RECLAMATION WORKS – 18 BENDER DRIVE DERWENT PARK, 300 RISDON ROAD LUTANA & 100 DERWENT PARK ROAD DERWENT PARK

I make reference to Council's Request for Further Information (RFI) dated 15 January 2026 for the proposal seeking approval for an extension of boat building activity at Incat in the form of a new boat building shed to be located at 100 Derwent Park Road and associated fill/reclamation works to occur within the River Derwent immediately adjacent to the proposed shed.

In terms of parking requirements and clarification on the approval of the existing car park at the Nyrstar land under permit 71-98, the amended set of documents submitted in response to the RFI removes 13 Surveyors Drive (CT-123654/2) from the development site as the additional parking originally proposed within this title is not required in order to provide the minimum number of spaces based on staffing numbers. Therefore, 13 Surveyors Drive is no longer part of the development site and has been accordingly removed from updated documentation and the application form.

The property 18 Bender Drive (title reference CT-34138/101) has also been included into the set of amended JMG plans for servicing (see page 1) where a new connection is required within the title boundaries of CT-34138/101. A full copy of title documents for CT-34138/101 has been provided as part of this response package along with CT-34138/101 being referenced on the updated application form and updated town planning report prepared by Gray Planning.

I attach the following documentation to address the Council RFI:

- Updated proposal plans prepared by JMG dated 27 March 2026;
- Concept Services report prepared by JMG dated 16 March 2026;
- Title documents for 18 Bender Drive CT-34138/101 where a proposed new connection is required as per the updated JMG plans dated 27 March 2026. These title documents were retrieved 27 March 2026;
- Updated Planning Application form removing the reference to 13 Surveyors Drive and now including 18 Bender Drive (CT-34138/101) where a service connection is required as per the updated JMG plans dated 27 March 2026;
- Updated Gray Planning town planning report additionally containing a revised summary of Incat staffing, hours of operation and proposed parking details dated 27 March 2025;
- Traffic Impact Assessment prepared by Midson Traffic dated March 2026;
- Marine Ecological Assessment prepared by Marine Solutions dated February 2026; and
- Site Contamination Assessment prepared by Pitt and Sherry dated 25 March 2026.

I make reference to the Council RFI dated 15 January 2026 and make the following comments:

C2.5.1 Car parking numbers

1. Provide a Traffic Impact Assessment (TIA) by a qualified person addressing the parking shortfall against the performance criteria. Parking spaces and access to them, to be assessed in line with the acceptable solution otherwise address the performance criteria.

   Advice: Number of actual parking spaces required, in planning report maximum staff is 510 during shift change and 454 spaces provided.

Response:

Please see submitted TIA from Midson Traffic which confirms a compliant number of parking spaces are to be provided for the development and as demonstrated in the updated JMG plans.

The proposal involves the following:

Proposed total:

348 car spaces in Nyrstar carpark approved under 71-98 (existing)

8 visitor car spaces approved under 71-98 (existing)

4 new disabled car spaces (these replace the 3 spaces approved under 71-98);

16 new car parking spaces

= 376 car parking spaces

Plus 14 new motorcycle parking spaces

Plus 10 new bicycle spaces in rack(s)

These numbers have been based on:

Existing staff: 470

Adding a further 180 new staff:

Minus staff at Inches site (18 Bender Drive): 90

Total proposed staff in this DA working from 100 Derwent Park Road: 560 staff

150 transported by bus to and from the site at 100 Derwent Park Road.

Planning Scheme requires: 2 spaces per 3 staff (this is a greater minimum requirement than spaces per sqm of floor area)

Parking spaces required by development:

373.3 rounded up to 374 spaces

C2.5.3 Motorcycle parking numbers

2. Provide a Traffic Impact Assessment (TIA) by a qualified person addressing the clause. P1, items (a)-(e) must be clearly and separately addressed. If PC is not met, the required number of motorcycles needs to be provided in the plan.

Response:

Please see submitted TIA from Midson Traffic which address the provision of 14 motorcycle spaces shown on the updated JMG plans. The Planning Scheme requires 21 motorcycle spaces to be provided. The development seeks approval for 14 spaces.

The associated Performance Criteria have been addressed in the TIA.

C2.5.4. Loading Bays

3. Provide a Traffic Impact Assessment (TIA) by a qualified person addressing the clause. It is not clear where the loading bay is considered in the plans. This clearly needs to be shown on the plan.

Response:

No loading bay is proposed. The submitted TIA described how loading and unloading occurs within the site.

Light vehicles only will be accessing the shed (small delivers small forklift trucks and utes). This has also been referenced in updated planning report.

JMG have removed heavy vehicle references on plans.

The TIA addresses clause C2.5.4.

C2.6.1 Construction of parking areas

4. Provide a Traffic Impact Assessment (TIA) by a qualified person addressing the clause.

Response:

The proposal seeks approval for 16 new car parking spaces and 4 new DDA compliant car parking spaces (to replace the existing 3 DDA compliant spaces previously approved under 71-98).

The JMG plans show parking construction details of all new spaces to be constructed to durable all weather pavement. The TIA addresses clause C2.6.1.

5. Please provide a stormwater concept plan showing the capture and disposal of all stormwater run-off from the proposed driveway, parking and any new hardstand areas to Council's approved outlet. A concept stormwater plan in accordance with the Stormwater policy is required.

Response:

JMG discussed the requirements with Council's engineers in order to update the proposal plans to address the Council request.

See updated JMG plan which include stormwater management details.

6. Driveway, parking and any new hardstand areas must be constructed and compacted to standards with paved/sealed surface, provide a driveway plan demonstrated the requirement. All runoff must be drained via gravity to the proposed outlet. 1% minimum fall toward the outlet must be achieved. This needs to be clearly demonstrated in the plan.

Response:

The proposal seeks approval for 16 new car parking spaces and 4 new DDA compliant car parking spaces (to replace the existing 3 DDA compliant spaces previously approved under 71-98).

The JMG plans show parking construction details of all new spaces to be constructed to durable all weather pavement with details of runoff management provided.

The driveway into 100 Derwent Park Road is existing and was approved under 71-98 and therefore is not proposed as part of this application.

C2.6.2 Design and layout of parking areas

7. Provide a Traffic Impact Assessment (TIA) by a qualified person addressing the clause.
8. Layout of driveway and parking areas must be in accordance with the Australian Standard, AS2890.1:2004, and the Scheme requirements. Please clearly show on the parking plan details of the proposed driveway, access and parking areas including gradients, parking area, spot levels, retaining walls, manoeuvring area, swept path, materials, finishing surface and drainage details must be submitted to demonstrate compliance with the standards.
9. Provide sight lines at the driveway crossover and internal turning movements of heavy vehicles.

Response:

See TIA prepared by Midson Traffic which addresses clause C2.6.2.

C2.6.5 Pedestrian access

10. In the TIA address the acceptable solution, otherwise the performance criteria.

Response:

The TIA has accordingly addressed the C2.6.5 Performance Criteria.

C2.6.6 Loading bays

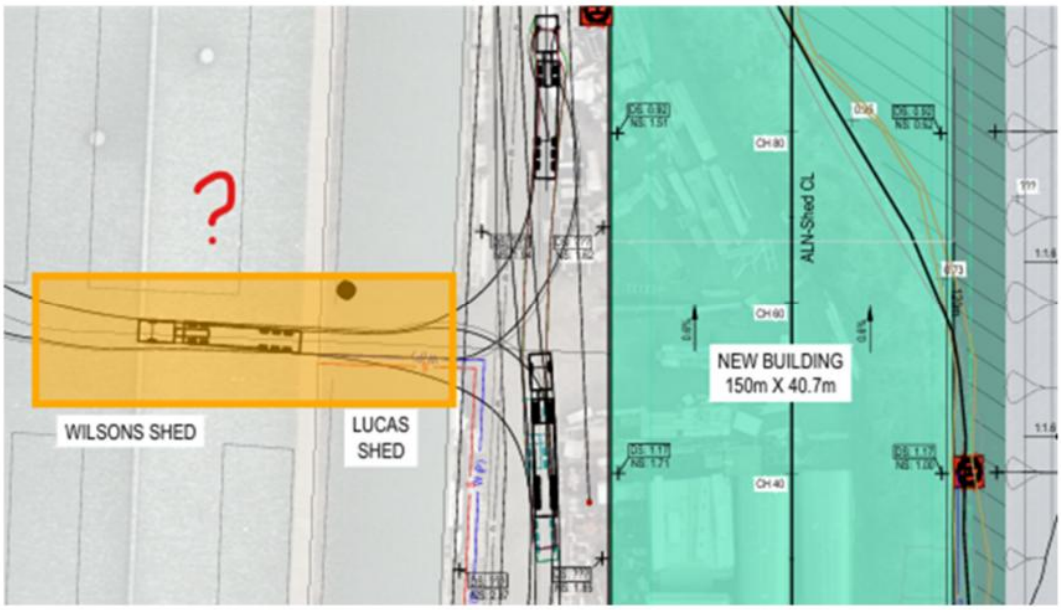
11. A Traffic Impact Assessment (TIA) prepared by a qualified person addressing the code requirements must be submitted. Plans including swept path demonstrating that manoeuvring can be achieved to satisfy the acceptable solution A1 and A2 are required. Alternatively, please address the corresponding performance criteria.

Advice: The submitted AV swept path indicates that vehicles access the new building via the Wilson and Lucas sheds. However, no defined carriageway is shown within the existing sheds, and this requires clarification, including confirmation of details, available widths and clearances etc.

Response:

The TIA addresses clause C2.6.6. The AV swept path originally shown in plans submitted December 2025 doesn't link up to any access through adjacent existing building and therefore has been removed from the updated JMG plans. Likewise, truck manoeuvring has been removed as only light vehicles are proposed to be accessing the new building.

12. In addition, clarify how the AV vehicle is able to turn around without conflicting with existing structures or obstructions.



13. The swept path must separately be submitted for AV and MRV.

Response:

The TIA addresses clause C2.6.6. The AV swept path originally shown in plans submitted December 2025 doesn't link up to any access through adjacent existing building and therefore has been removed from the updated JMG plans. Likewise, truck manoeuvring has been removed as only light vehicles are proposed to be accessing the new building.

The updated JMG plans show the location, manoeuvring and drop off of buses to transport in 150 of the 180 staff. This is also referenced in the TIA.

C3.0 Road and Railway Assets Code

C3.5.1 Traffic Generation at Vehicle Crossings

14. Please address the acceptable solution or performance criteria outlining the details of the increase of use and traffic generation.

    Advice: please address the following

    - *Parking spaces and access to them, to be assessed in line with the acceptable solution otherwise address the performance criteria.*
    - *Impact of the increase in traffic on the road network, such as delays at the Brooker Highway lights and drivers diverting to the local road network.*

    - *Sight lines at the driveway crossover and internal turning movements of heavy vehicles.*

Response:

The submitted TIA addresses clause C3.5.1.

C7.0 Natural Assets Code

C7.6.1 Buildings and works within a waterway and coastal protection area or a future coastal refugia area

15. Demonstrate that works are compliant with in accordance with the provisions of AS3798 Guidelines on Earthworks for Commercial and Residential Developments.
16. The proposed development application was assessed as unsatisfactory in relation to C7.6.1 and more information is needed for the reclamation process (infill) against performance criteria. As such, It Is requested that you provide an ecological assessment must be prepared by a consultant experienced in assessing benthic flora and fauna.

Response:

In regard to Item 15, JMG have discussed with Council that AS3798 is not applicable.

Comments from JMG engineers confirm the following: *Reclamation and backfill material to meet engineers load bearing criteria, this is to be ascertained through plate load tests as agreed with Glenorchy Council engineers. Placement of material under AS 3798 has been deemed inappropriate within a revetment structure.*

Item 16: Please see marine ecology report from Marine Solutions dated February 2026.

C14.0 Potentially Contaminated Land Code

C14.6.1 Development Standards for Building and Works

17. An Environmental Site Assessment, prepared by a certified contaminated site assessment consultant, must be submitted to address the Performance Criteria (P1) for C14.6.1 in the Potentially Contaminated Land Code.

    The assessment is to demonstrate how the site is suitable for the intended development in relation to risks to human health and the environment. To satisfy (P1) C14.6.1, the assessment must include, but not be limited to:

    1. Any specific remediation or protection measures that are required to be implemented at the site prior to the commencement of excavation
    2. Any recommended land reclamation construction methods specific to the site that would eliminate adverse impacts on the aquatic environment within the Derwent Estuary

    A description of proposed fill material including quantity, source and composition analysis is also required.

Response:

Reclamation work using fill ceased as a result of Pitt and Sherry testing results. Incat made the decision to remove the fill referenced in the Pitt and Sherry report which is not to be used.

Please see Site Contamination report prepared by Pitt that Sherry that confirms compliance with clause C14.6.1.

General Manager's Consent for Interference with Public Stormwater Systems

You are required to provide the following information to enable Council to assess stormwater management aspects of the proposal under section 14(1) of the *Urban Drainage Act 2013*.

1. Provide a concept stormwater servicing plan showing the location of services and their connections to public infrastructure. The servicing plan must clearly indicate the following:
    a. How all additional stormwater from the site, including hardstand drainage, driveway, and parking areas, as well as any detention, will be discharged to Council infrastructure with sufficient receiving capacity.
    b. Design of the minor stormwater drainage system to accommodate up to a 5% AEP rain event.
    c. Design of the major stormwater drainage system, including overland flow paths, to safely convey runoff from rain events up to a 1% AEP with a Climate Change loading for 2100.
    d. Clear distinction between existing, proposed, public, and private stormwater infrastructure, with appropriate easements shown for the public infrastructure for the benefit of the Council.
    e. Display all existing and proposed stormwater lines and connections, along with the profiles of the proposed lines.

Advice: The applicant must accurately locate, size, and plot the stormwater infrastructure on the submitted site plans. It is also recommended to provide a stormwater management report with the plans, including all relevant calculations for WSUD design, and the drainage system design.

2. For developments creating a total new impervious surface area over 500m², stormwater treatment measures are required. Please provide a concept design and supporting calculations to demonstrate that the proposed development incorporates the principles of Water Sensitive Urban Design (WSUD) and complies with the Stormwater Quality Management Requirements of the Stormwater Management Policy.

Advice: Supporting calculations should include a MUSIC model or equivalent to show compliance with the stormwater quality targets.

Response

See updated JMG plans.

Additional information required

Additional information is required to process your request. To enable assessment to continue please submit the following:

1. To allow TasWater to determine potential hydraulic service capacity limitations, please provide the following:
   a) The required fire flow rate in L/s and the required residual pressure (kPa) at the point of connection. Detailing the current site's requirements and the post-development requirements, highlighting any additional fire demands for the site if any.
   NOTE: The pressures will need to include losses through the actual connection, the associated pipework and the elevation changes.

   b) The calculation of additional equivalent tenements (ETs) for the development. The document(s) submitted should include the relevant calculations for the proposal, as well as the relevant calculations for determining Developer Charges.
   Advice: Please refer the advice section below for an example table demonstrating calculations of equivalent tenements (ETs) for the development.

   c) Please provide a concept servicing and hydraulic plans for water & sewer services detailing fixtures and services.

Response

See the updated JMG plans and associated report including hydraulic plans provided in conjunction with updated JMG documentation.

Fire flow rate details have been provided by Mr Ross Murphy of Castellan Consulting and incorporated into updated JMG plans.

If you wish to discuss the proposal I may be contacted on 0439 342 696.

Yours faithfully

Danielle Gray B.Env.Des. MTP. MPIA

Principal Consultant, Gray Planning

On behalf of Incat Tasmania Pty Ltd

Town Planning compliance advice re: Proposed New Shed for existing Ship Building use, Signage and associated development including fill (reclamation)

Against the *Glenorchy LPS and Tasmanian Planning Scheme*

For Incat Tasmania Pty Ltd

At 100 Derwent Park Road, Derwent Park 7009, (CT-168298/1) and 300 Risdon Road, Derwent Park 7009 (CT-117774/1 and CT-130554/1) and including a service connection at 18 Bender Drive (CT-34238/101)

27 March 2026

Version 2.0

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27 March 2026

Mr Stephen Casey, CEO
Incat Tasmania Pty Ltd
100 Derwent Park Road
Derwent Park TAS 7009

Dear Stephen,

I refer to recent discussions with you in relation to Incat undertaking the following works:

- New shed to house existing ship building use at 100 Derwent Park Road;
- Signage (on east facing side of new shed) and
- Fill/reclamation.

Gray Planning has been engaged to undertake a compliance review against the Planning Scheme use and development standards that apply to the subject site and proposed development for lodgement of the application to both Crown (as the fill works are located on their land) and to Glenorchy City Council.

Please find attached a town planning compliance report comprising an assessment has been taken against the Glenorchy Local Provisions Schedule and the State Planning Provisions under the Tasmanian Planning Scheme. This report has been prepared against the updated plans prepared by JMG and is intended to assist in addressing Council's RFI dated 15 January 2026.

It is intended that the information contained therein will assist the Crown and Council in making an assessment of the proposed development, demonstrating compliance.

Should you have any questions about the content of the report, please do not hesitate to contact me on 0439 342 696.

Yours faithfully

Danielle Gray B.Env.Des. MTP. MPIA

Principal Consultant, Gray Planning

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1 Introduction

1.1 Purpose

The purpose of this report is to provide planning advice as part of an assessment of the compliance about the proposed development (new boat building shed, signage and associated works including fill/reclamation) at the subject site at 100 Derwent Park Road and 300 Risdon Road at Derwent Park in the Glenorchy City Council municipality (title references CT-168298/1, CT-117774/1 and CT-130554/1). A service connection has also been required within the title boundaries of 18 Bender Drive (CT-34138/101) with this noted on the updated JMG plans dated 27 March 2026.

The following town planning assessment has been undertaken against the updated proposal plans prepared by JMG dated 27 March 2026 (car parking, fill and servicing) and proposed shed plans dated 21 November 2025, Revision P1 to address Council's Request for Further Information under Section 54 of the Act dated 15 January 2026.

1.2 Copyright

Last updated: 27 March 2026

Report Author: Danielle Gray B.Env.Des MTP MPIA

Version 2.0

2 The subject site

2.1 The subject site

The subject site comprised in this application is made up of four titles.

These are summarised as follows, followed by a description of each title from section 2.2 onwards.

- 100 Derwent Park Road: The primary and biggest Incat title at Derwent Park. Title reference CT-168298/1. This is where the proposed new shed will be constructed, partially encroaching into the Derwent River (Crown land). Signage will be located within the east facing elevation of the proposed shed. 8 visitor parking spaces currently existing on the site were approved under planning permit 71-98 issued by Council in 1999. These will be retained as part of the development with no alteration.

- 300 Risdon Road: This is an address applied to all Nyrstar owned titles. The larger of the two CT-130554/1 is currently under a lease arrangement between Incat and Nyrstar and where the bulk of all parking is provided at Incat for staff. This title is included in the development site as this title contains existing parking spaces used by the boat building use already in existence. No works are proposed on this title. The carpark on the site was approved under planning permit 71-98 issued by Council in 1999. This carpark will be retained as part of the development with no alteration.

- 300 Risdon Road: The smaller Nyrstar title CT-117774/1 currently very marginally encroaches into an Incat shed. An associated boundary adjustment application is being discussed between Incat and Nyrstra representatives. No works are proposed on this title.

- 18 Bender Drive (CT-34238/101): owned by Incat and where a new connection only is required within the title boundaries of this site. The works are annotated as 'WATER CONNECTION POINT RISK LEVEL - HIGH NEW WATER BACKFLOW PREVENTION RPZD ON EXISTING TASWATER CONNECTION TO FUTURE DES' on the updated JMG plans dated 27 March 2026.

The proposal also involves works on Crown land, directly adjacent to 100 Derwent Park Road (CT-168298/1). No PID or title reference is available. Fill works and reclamation are proposed in this area immediately adjacent to the proposed boat building shed. The extent, location and area of fill proposed is shown in the JMG plans.

The advice provided within this report providing a summary of applicable planning use and development standards under the *Glenorchy Local Provisions Schedule* and the *State Planning Provisions* under the Tasmanian Planning Scheme.

Figure.1. The subject site at 100 Derwent Park Road and 300 Risdon Road is shown outlined. Source: TheLIST, sourced March 2026. No nominated scale.

The titles which form part of the development site are discussed below.

2.2 100 Derwent Park Road (Incat site)

The subject site primarily comprises 100 Derwent Park Road, Derwent Park in the Glenorchy City Council municipality (title reference CT-168298/1).

100 Derwent Park Road is in private ownership by Incat as Inter Cats (Tasmania) Pty Ltd.

100 Derwent Park Road has a road access strip to Derwent Park Road and waterfront frontage to the Derwent River.

The surrounding area has mixed land use of generally an industrial nature and includes the Nyrstar zinc works site to the immediate south.

100 Derwent Park Road contains in excess of 27,500sqm of roofed industrial scale sheds used for the manufacture of catamarans and fast ferries. Shed areas are shown on the Property Report – see Figure 8.

The date of construction according to the Property Report retrieved as part of title documents is the year of 2000 for the construction of the main shed on site.

The rated use on the Property Report is 'Manufacturing'.

100 Derwent Park Road measures 7.181 hectares in total area.

This title is where most of the proposed works will occur. The proposed works at 100 Derwent Park Road is the new boat building shed.

Figure.2. 100 Derwent Park Road (CT-168298/1) shown outlined. Source: TheLIST, sourced November 2025. No nominated scale.

Figure.3. 100 Derwent Park Road shown outlined with surrounding development of predominantly an industrial nature. Source: TheLIST, sourced November 2025. No nominated scale.

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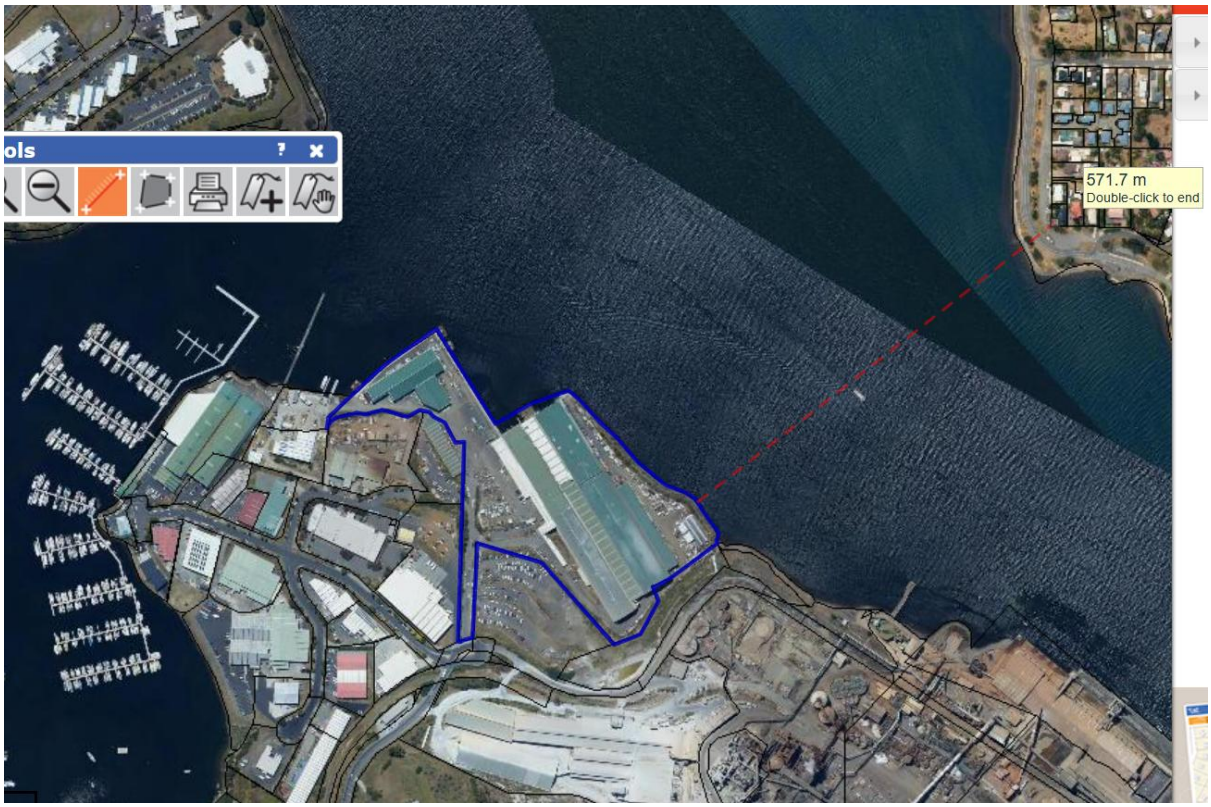

Figure.4. The subject site at 100 Derwent Park Road shown outlined with surrounding development of predominantly an industrial nature. The closest residential use is located approximately 571m to the norther east (measured). Source: TheLIST, sourced November 2025. No nominated scale.

2.3 300 Risdon Road CT-130554/1 (Nyrstar site leased by Incat for parking)

This title is owned by Nyrstar and is held in a lease arrangement between Incat and Nyrstar to provide the bulk of Incat parking for staff.

The land is essentially vacant of buildings but contains a large car parking area with gravel surfacing that contains 348 parking spaces as approved in permit 71-98.

The use of this title is car parking only.

This title has directly frontage to Derwent Park Road but because of the topography only has physical vehicular access to Incat car parking via 100 Derwent Park Road.

The title reference is CT-130554/1 and the total site area is 1.967 hectares.

Like all Nyrstar titles, this land is addressed as 300 Risdon Road. It has been referenced by its title number in this report to avoid confusion.

Figure.5. CT-130554/1 shown outlined with surrounding development of predominantly an industrial nature. Source: TheLIST, sourced December 2025. No nominated scale.

2.4 300 Risdon Road CT-117774/1 (Nyrstar site)

Title CT-117774/1 is addressed as 300 Risdon Road and is in private ownership by Nyrstar Hobart Pty Ltd.

The address 300 Risdon Road is made up of in excess of 20 separate titles that have a single address given as 300 Risdon Road. The boundary adjustment application would only impact CT-117774/1. This title measures approximately 1 hectare and partially encroaches into an existing Incat building. The encroachment of Incat works into this Nyrstar land results in a need to tidy up title boundaries.

The remainder of the title area contains a steep bank area that provides a buffer between Nyrstar and Incat activities and also contains servicing, a small detention dam and informal parking in a gravelled area.

The surrounding area has mixed land use of generally an industrial nature and includes the remainder of the Nyrstar zinc works site to the immediate south and Incat to the north.

300 Risdon Road occupied by Nyrstar as an overall site contains in excess of approximately 20,000 sqm of roofed industrial scale sheds on a site that measures collectively 101.97 hectares.

The rated use on the Property Report for all Nyrstar titles is Industrial 'Manufacturing'.

Figure.6. The affected title CT-117774/1 at 300 Risdon Road Road shown outlined in with surrounding development of predominantly an industrial nature. Source: TheLIST, sourced December 2025. No nominated scale.

3 Title documents for the subject site

3.1 Title for 100 Derwent Park Road

The title reference for Incat's primary land holding is CT-168298/1 with the property measuring 7.181 hectares in total site area.

A check of the title for the property revealed there is an applicable Schedule of Easements attached to the subject title.

The title plan shows easements. None of these easements will be constructed over and will not be adversely affected by the proposal.

The title property report from TheList provides the following property information (which notes it is rated as Industrial manufacturing):

PREMIUM PROPERTY Information Report

PROPERTY DETAILS - 100 DERWENT PARK RD DERWENT PARK

Property Name:		
Land Use:	Industrial - MANUFACTURING (valuation purposes only)	
Improvements:	FACTORY, WORKSHOP & OFFICES	
Improvement Sizes (Top 3 by Size):	**Improvement:**	**Area:**
	FACTORY	9999.0 square metres
	HARD STANDING	9100.0 square metres
	FACTORY	7500.0 square metres
Number of Bedrooms:		
Construction Year of Main Building:	2000	
Roof Material:	Colorbond	
Wall Material:	Metal Cladding	
Land Area:	7.181 hectares	
Title References:	168298/1	
Municipality:	GLENORCHY View Municipality Information Report	
Title owner:	168298/1 : INTER CATS (TASMANIA) PTY LTD	
Interested parties:	INTERCATS (TASMANIA) PTY LTD	
Postal address: (Interested Parties)	100 DERWENT PARK RD DERWENT PARK TAS 7009	

Figure.7. Property report details for 100 Derwent Park Road as attached to the Certificate of Title. Source: TheLIST, sourced July 2025.

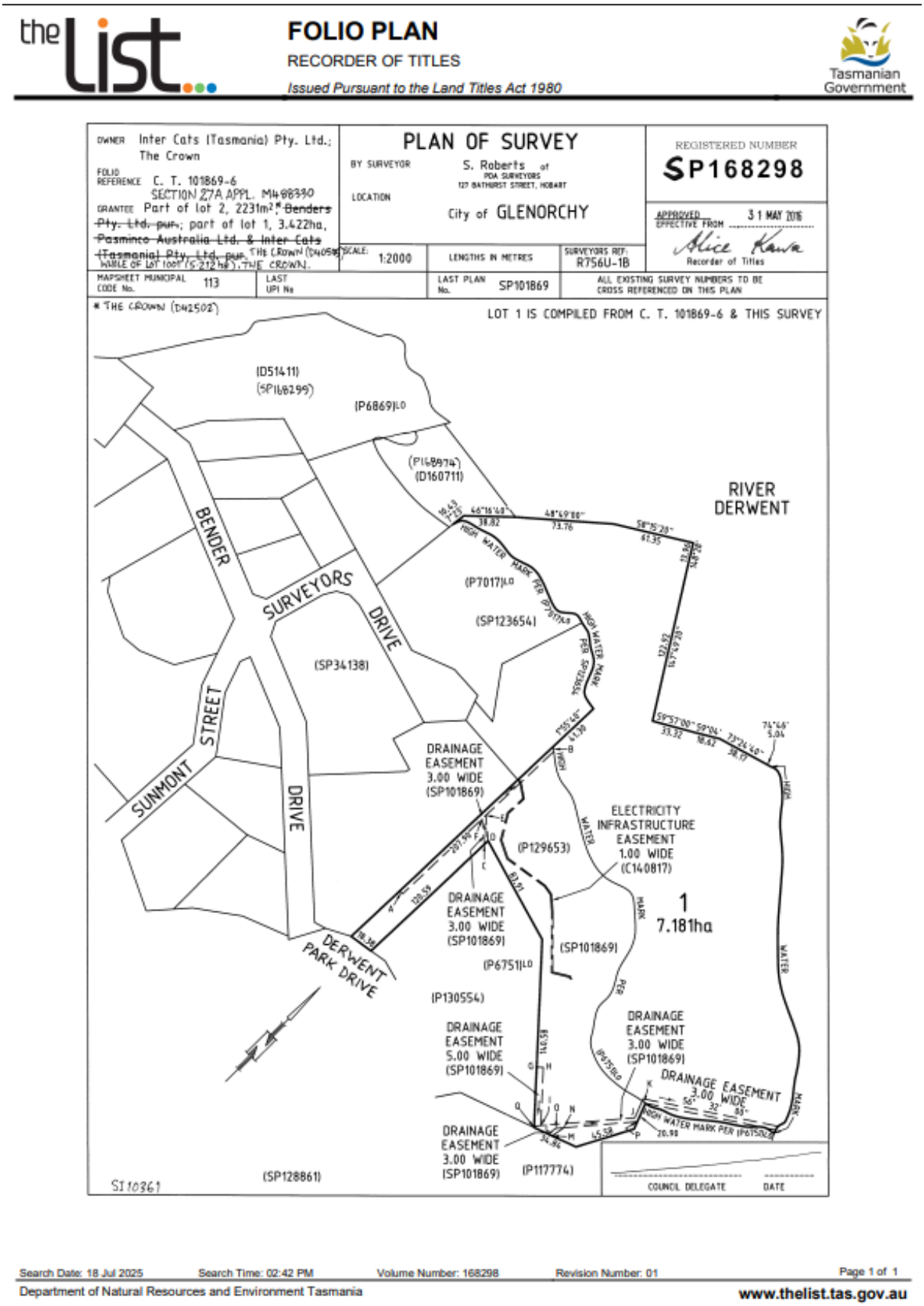

Figure.8. Title plan for 100 Derwent Park Road (lot 1 on the above plan). Source: TheLIST, sourced July 2025. Not to nominated scale.

3.2 Title for 300 Risdon Road – CT-117774/1

A check of the title for the property revealed there is no applicable Schedule of Easements attached to this title.

The title plan shows easements. None of these will be adversely impacted by the proposal.

The title property report from TheList provides the following property information (which notes it is rated as Industrial Manufacturing):

PREMIUM PROPERTY Information Report

PROPERTY DETAILS - 300 RISDON RD LUTANA

Property Name:		
Land Use:	Industrial - MANUFACTURING (valuation purposes only)	
Improvements:	INDUSTRIAL COMPLEX	
Improvement Sizes (Top 3 by Size):	**Improvement:**	**Area:**
	OTHER IMPROVEMENTS	10000.0 square metres
	WAREHOUSE	4517.0 square metres
	SILO	2850.0 square metres
Number of Bedrooms:		
Construction Year of Main Building:	2016	
Roof Material:		
Wall Material:		
Land Area:	101.97 hectares	
Title References:	118892/1 122291/4 168674/1 168677/1 123532/1 148502/1 12592/1 226629/1 249938/1 168677/2 249939/2 149974/1 152199/1 244504/1 122291/5 123530/1 128861/1 198280/1 198336/1 209032/1 245094/1 122291/9 123531/1 130554/1 249938/2 249939/1 122291/3 122291/6 122291/7 198280/2 127361/3 127361/1 117774/1 128862/1 249939/3 127360/1	
Municipality:	GLENORCHY View Municipality Information Report	
Title owner:	118892/1 : NYRSTAR HOBART PTY LTD 122291/4 : NYRSTAR HOBART PTY LTD 168674/1 : NYRSTAR HOBART PTY LTD 168677/1 : NYRSTAR HOBART PTY LTD 123532/1 : NYRSTAR HOBART PTY LTD 148502/1 : NYRSTAR HOBART PTY LTD 12592/1 : NYRSTAR HOBART PTY LTD	

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PREMIUM PROPERTY Information Report

226629/1 : NYRSTAR HOBART PTY LTD
249938/1 : NYRSTAR HOBART PTY LTD
168677/2 : NYRSTAR HOBART PTY LTD
249939/2 : NYRSTAR HOBART PTY LTD
149974/1 : NYRSTAR HOBART PTY LTD
152199/1 : NYRSTAR HOBART PTY LTD
244504/1 : NYRSTAR HOBART PTY LTD
122291/5 : NYRSTAR HOBART PTY LTD
123530/1 : NYRSTAR HOBART PTY LTD
128861/1 : NYRSTAR HOBART PTY LTD
198280/1 : NYRSTAR HOBART PTY LTD
198336/1 : NYRSTAR HOBART PTY LTD
209032/1 : NYRSTAR HOBART PTY LTD
245094/1 : NYRSTAR HOBART PTY LTD
122291/9 : NYRSTAR HOBART PTY LTD
123531/1 : NYRSTAR HOBART PTY LTD
130554/1 : NYRSTAR HOBART PTY LTD
249938/2 : NYRSTAR HOBART PTY LTD
249939/1 : NYRSTAR HOBART PTY LTD
122291/3 : NYRSTAR HOBART PTY LTD
122291/6 : NYRSTAR HOBART PTY LTD
122291/7 : NYRSTAR HOBART PTY LTD
198280/2 : NYRSTAR HOBART PTY LTD
127361/3 : NYRSTAR HOBART PTY LTD
127361/1 : NYRSTAR HOBART PTY LTD
117774/1 : NYRSTAR HOBART PTY LTD
128862/1 : NYRSTAR HOBART PTY LTD
249939/3 : NYRSTAR HOBART PTY LTD
127360/1 : NYRSTAR HOBART PTY LTD

Interested parties:	NYRSTAR HOBART PTY LTD
Postal address: **(Interested Parties)**	RISDON RD LUTANA TAS 7009

OWNERSHIP HISTORY - 300 RISDON RD LUTANA

TYPE	NAME	ADDRESS	FROM	TO
Ownership	NYRSTAR HOBART PTY LTD	RISDON RD LUTANA TAS 7009	19/08/2015	
Ownership	MMG AUSTRALIA LIMITED	PASMINCO HOBART 300 RISDON RD LUTANA TAS 7009	20/11/2014	20/11/2014
Ownership	NYRSTAR HOBART PTY LTD	GPO BOX 377 HOBART TAS 7001	15/11/2007	19/08/2015
Ownership	MMG AUSTRALIA LIMITED	PASMINCO HOBART 300 RISDON RD LUTANA TAS 7009	14/02/2007	15/11/2007
Ownership	MMG AUSTRALIA LIMITED	PASMINCO HOBART 300 RISDON RD LUTANA TAS 7009	19/10/2006	20/11/2014
Ownership	PASMINCO AUSTRALIA LIMITED	PASMINCO HOBART 300 RISDON RD LUTANA TAS 7009	27/03/1993	15/11/2007

Figure.9. Property report details for 300 Risdon Road as attached to the Certificate of Title for CT-117774/1. Source: TheLIST, sourced October 2025.

Overleaf is the title plan for CT-117774/1, showing this title as Lot 1.

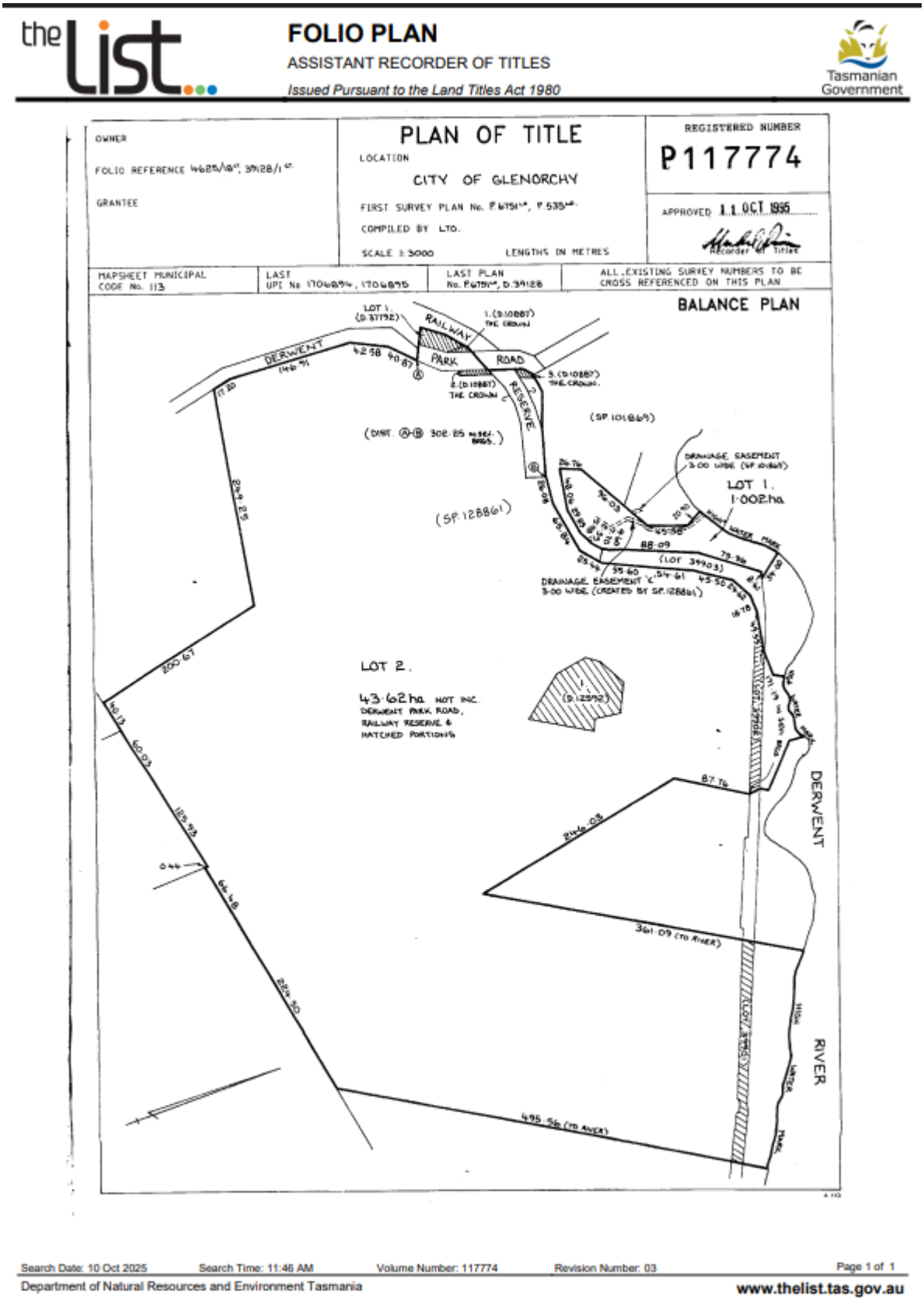


Figure.10. Title plan for CT-117774/1 at 300 Risdon Road (shown as lot 1 on the above plan). Source: TheLIST, sourced October 2025. Not to nominated scale.

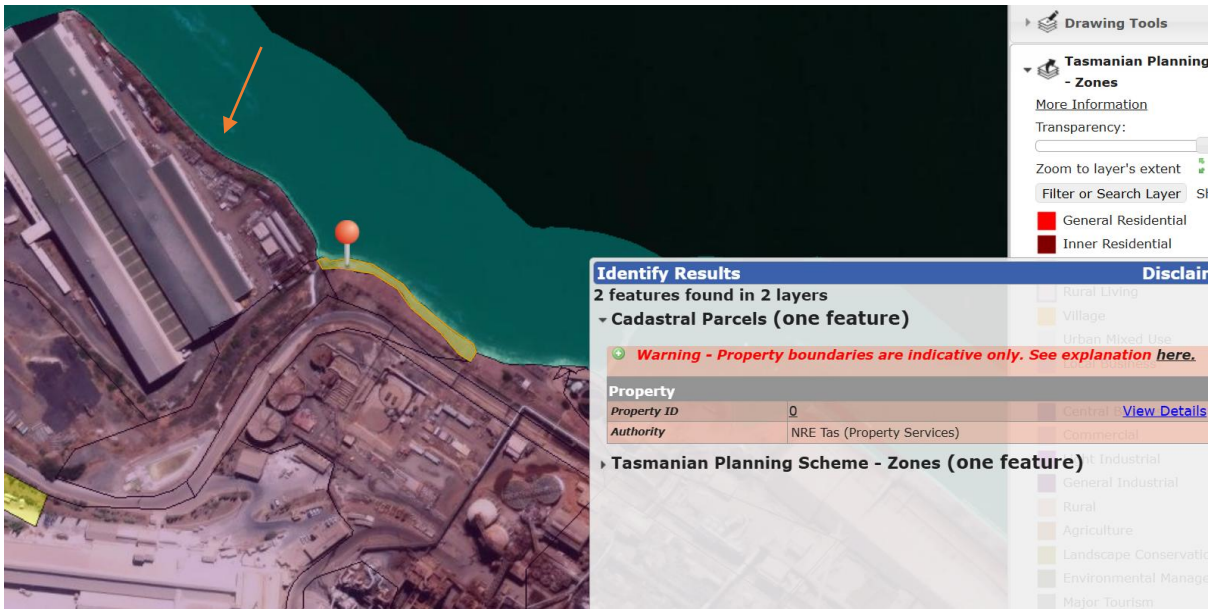


Figure.11. Waterfront Crown land shown highlighted in orange. This land does not have an applicable title reference nor does the River Derwent waterfront area directly adjacent to 100 Derwent Park Road. No works are proposed in the Crown title highlighted in orange in the above image. Works comprising the overhang of the proposed new shed and reclamation/fill is proposed in the River Derwent area indicated with an arrow. Source: TheLIST, sourced November 2025. Not to nominated scale.

3.3 Title for 300 Risdon Road – CT-130554/1

This title contains multiple easements in the form of a right of way and both burdening and benefitting easements. None of these will be adversely affected by the proposed development.

No physical works are to be located on this title. It is part of the development site only because it is where most of the Incat parking is located.

The title plan for CT-130554/1 is shown overleaf.

OWNER PASMINCO AUSTRALIA LTD.
FOLIO REFERENCE CT101869-7
GRANTEE

PLAN OF TITLE
LOCATION
CITY OF GLENORCHY
FIRST SURVEY PLAN No. SP101869
COMPILED BY D.J. MAVOY
SCALE 1:1250 LENGTHS IN METRES

REGISTERED NUMBER
P 130554
APPROVED 12 NOV 1998
Recorder of Titles

MAPSHEET MUNICIPAL CODE No. 113 (5225-22)
LAST UPI No. FQ585
LAST PLAN No. SP101869
ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN

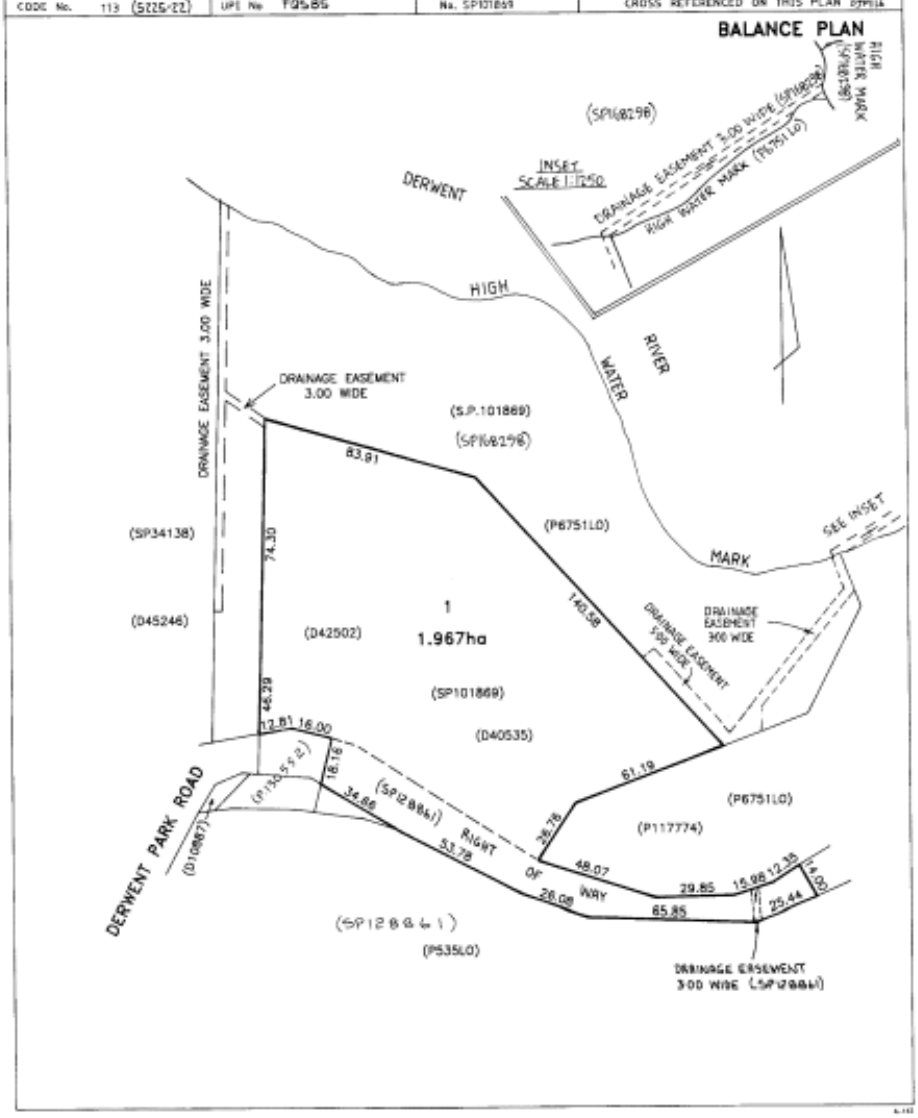


Figure.12. Title plan for CT-130554/1 at 300 Risdon Road (shown as lot 1 on the above plan). Source: TheLIST, sourced November 2025. Not to nominated scale.

4 The proposal

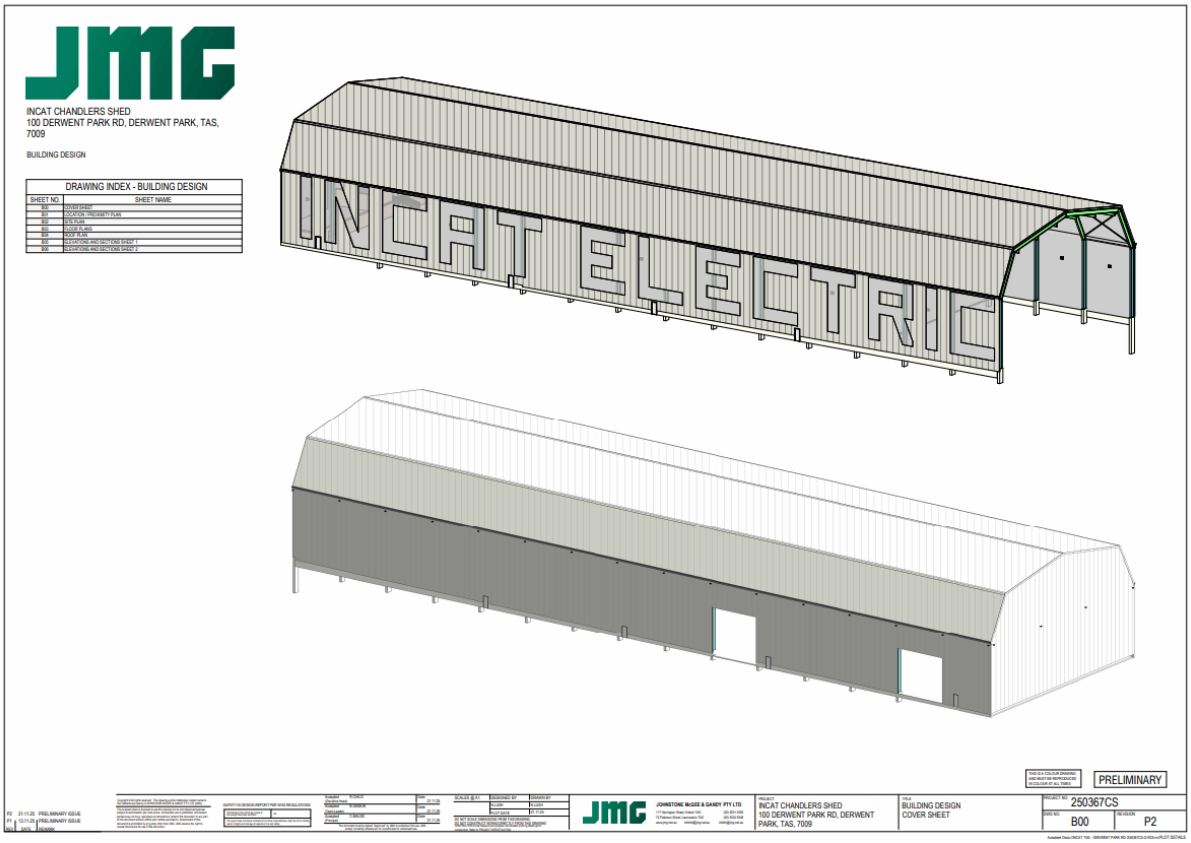
4.1 New boat building shed at Incat HQ

The proposal seeks approval for a new boat building shed at 100 Derwent Park Road (CT0168298/1) which encroaches partially in the Crown land (the River Derwent).

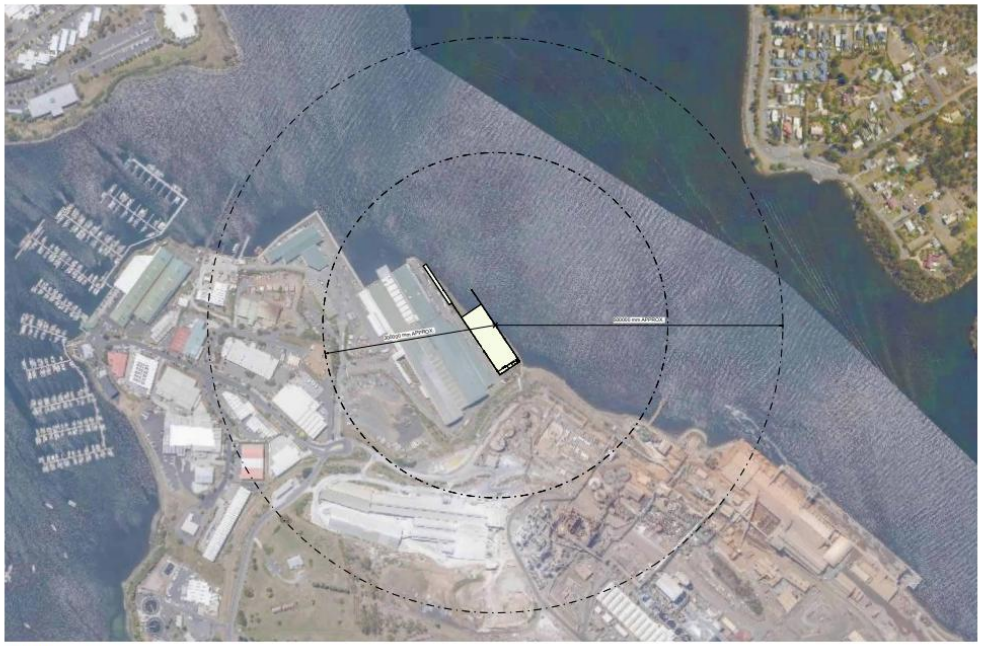
The proposal also seeks approval for fill/reclamation work to be undertaken within Crown land immediately adjacent to the proposed new boat building shed at 100 Derwent Park Road.

This proposed shed measures 120m in length, 40.810m in width and up to 25m above NGL. On the northern end of the shed, the roof extends for a further 30m over the 'wet dock'.

The proposal shed plans (reference P1 dated 20 November 2025) for the proposed Boat Building and fill/reclamation proposal have been provided by JMG and comprise the following plans submitted to both Crown and Council:



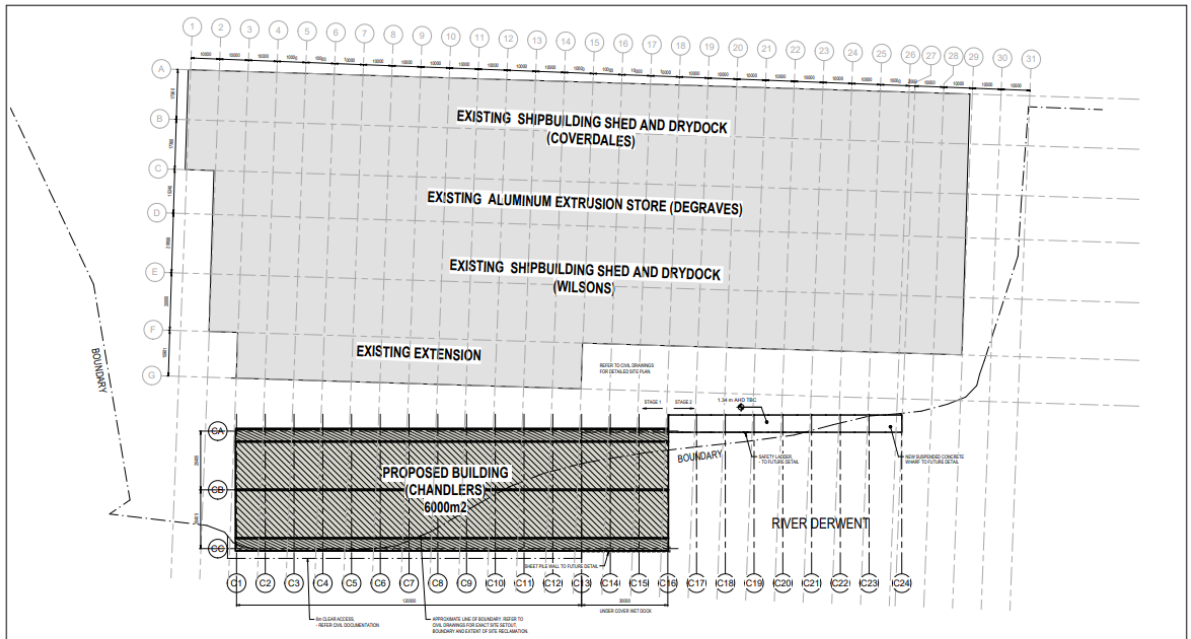
ADDRESS: 100 DERWENT PARK ROAD, DERWENT PARK, TAS. 7009
CERTIFICATE OF TITLE REF (VOLUME / FOLIO): 168298/1
PROPERTY IDENTIFICATION NUMBER: 7671632
BUILDING CLASSIFICATION: 8



SITE PLAN - PROXIMITY RADIUS
SCALE 1 : 2000

PRELIMINARY

JOHNSTONE McGEE & GANDY PTY LTD
INCAT CHANDLERS SHED
100 DERWENT PARK RD, DERWENT PARK, TAS, 7009
BUILDING DESIGN
LOCATION / PROXIMITY PLAN
250367CS
B01
P2



SITE AND LOCALITY PLAN
SCALE 1 : 500

PRELIMINARY

JOHNSTONE McGEE & GANDY PTY LTD
INCAT CHANDLERS SHED
100 DERWENT PARK RD, DERWENT PARK, TAS, 7009
BUILDING DESIGN
SITE PLAN
250367CS
B02
P2

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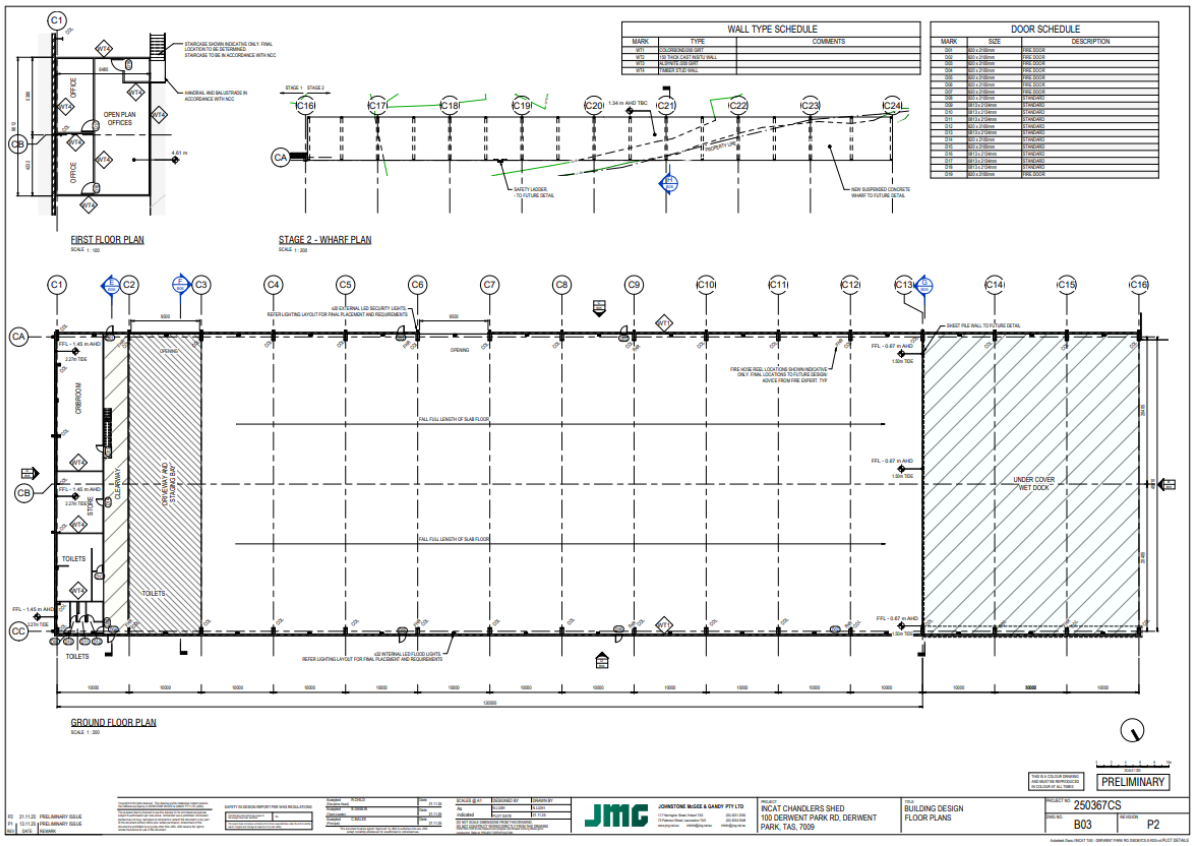

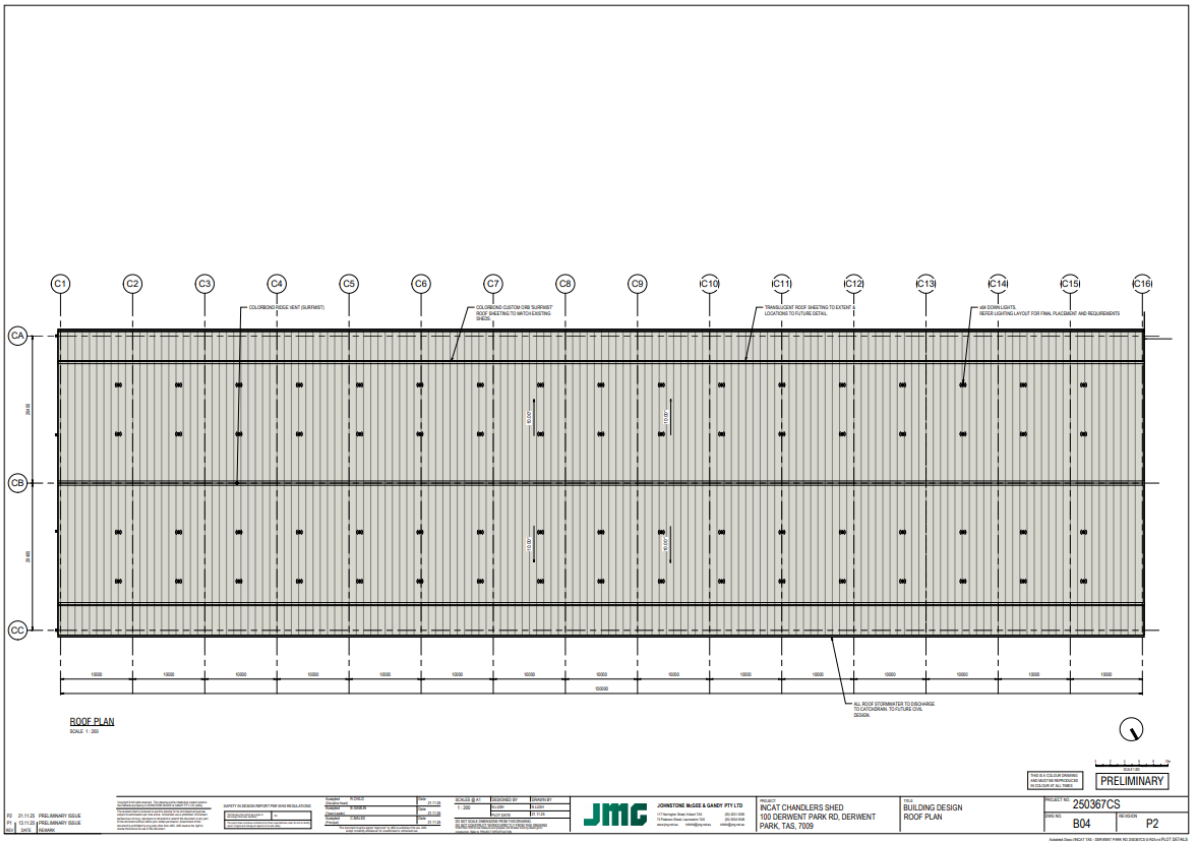

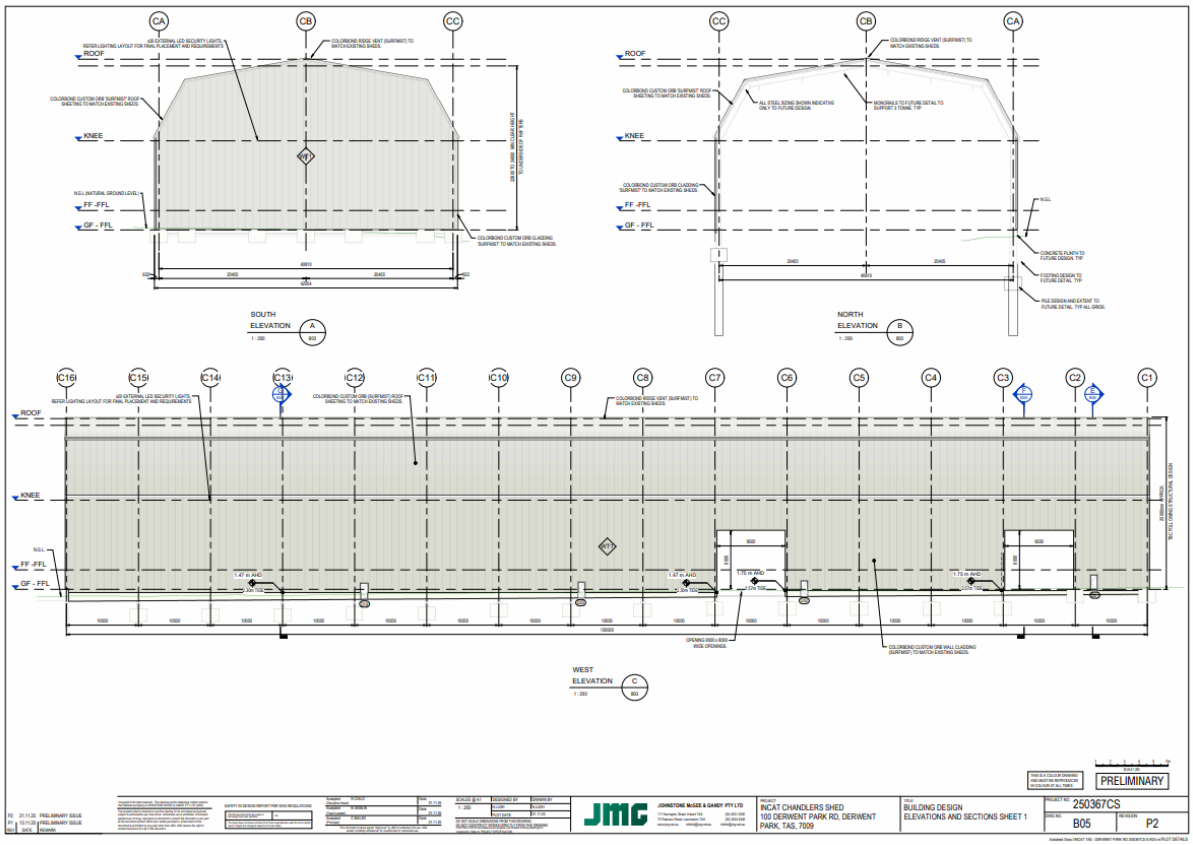

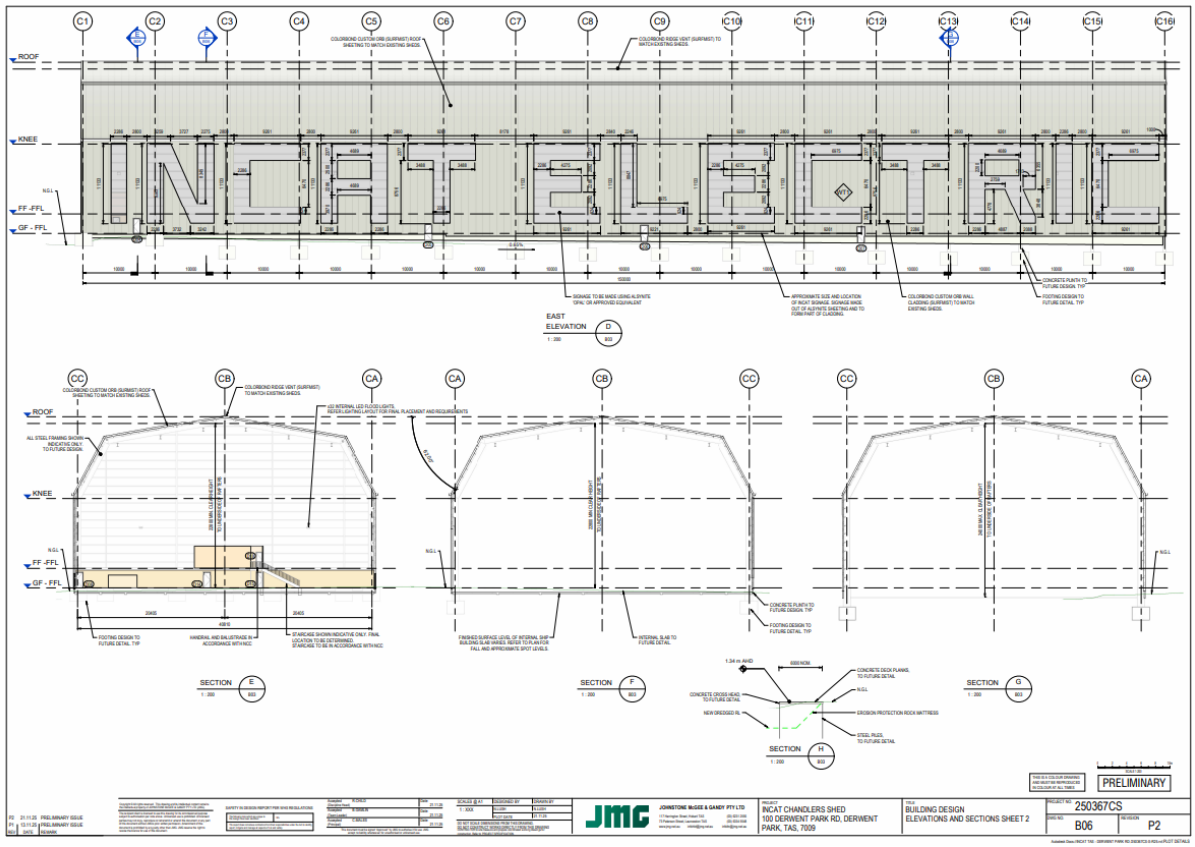

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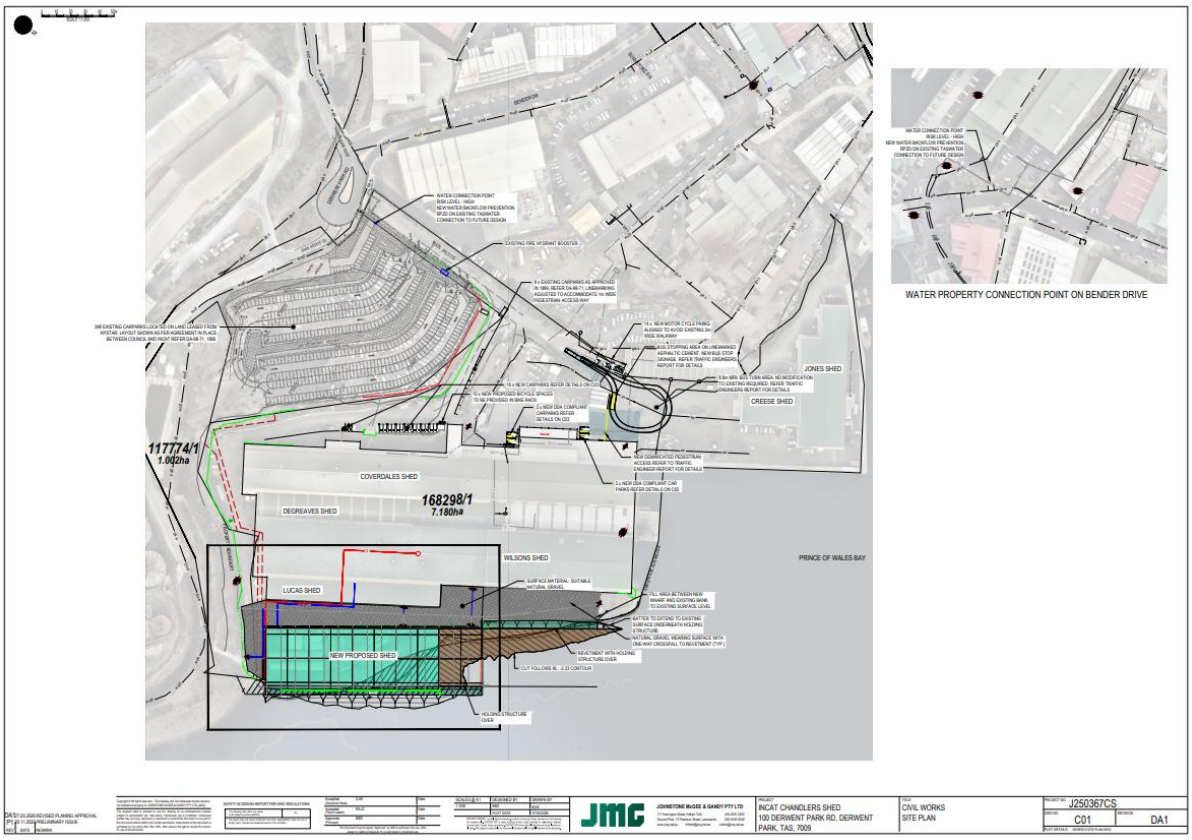
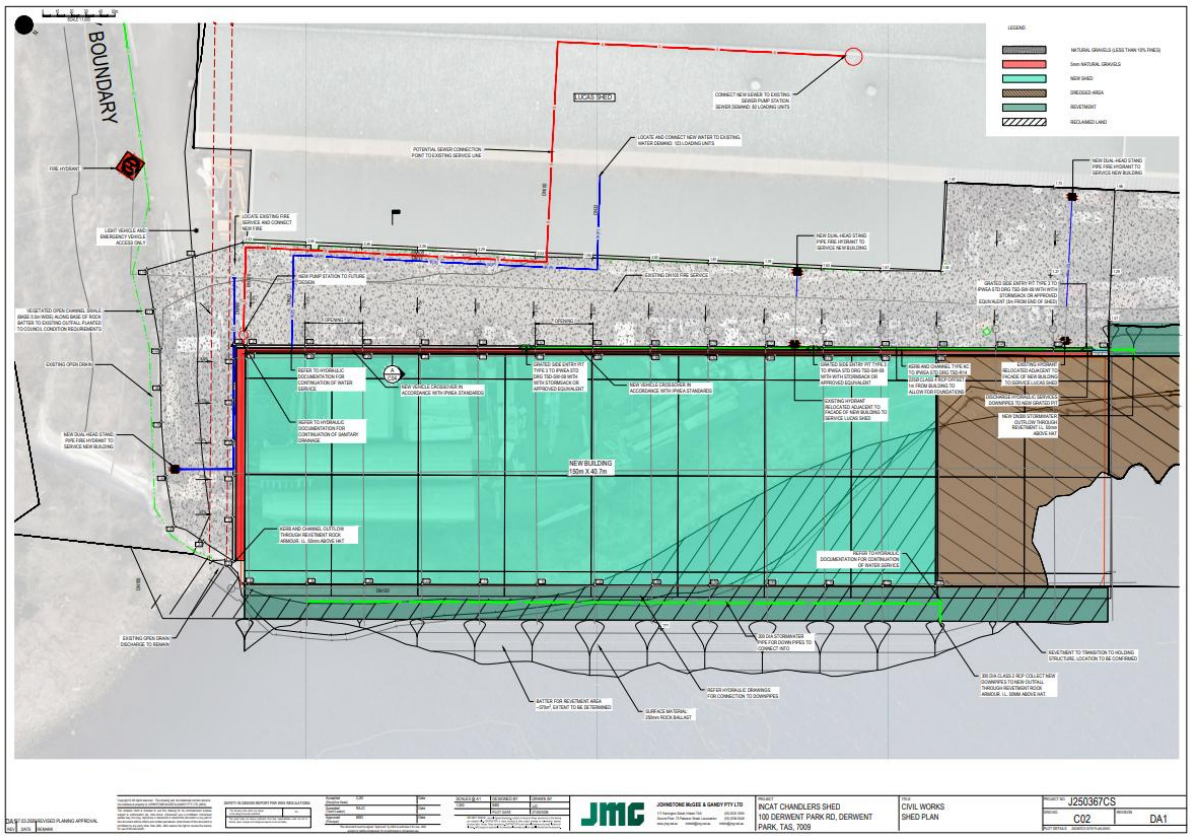
The updated JMG plans dated 27 March 2026 (car parking, fill and servicing) for the proposed Boat Building and fill/reclamation proposal have been provided by JMG and comprise the following plans in response to the Council RFI and also referred to Crown:





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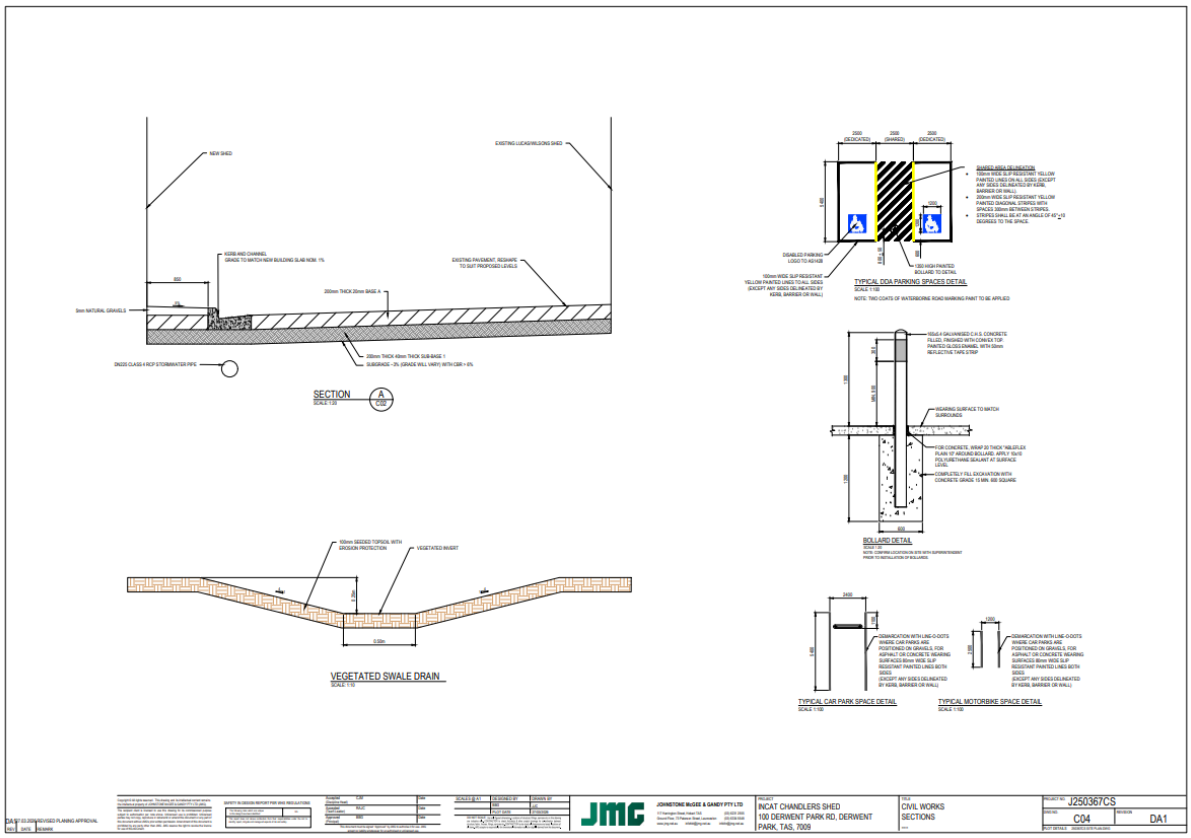

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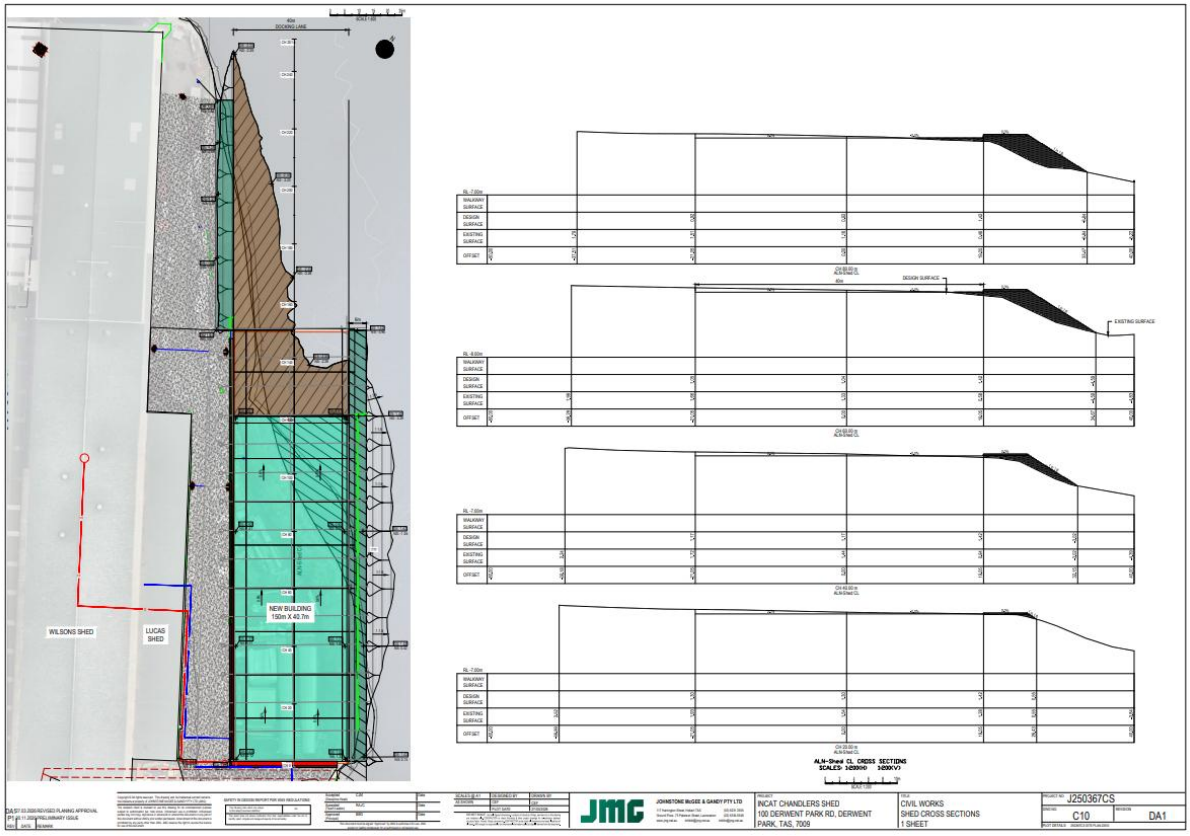
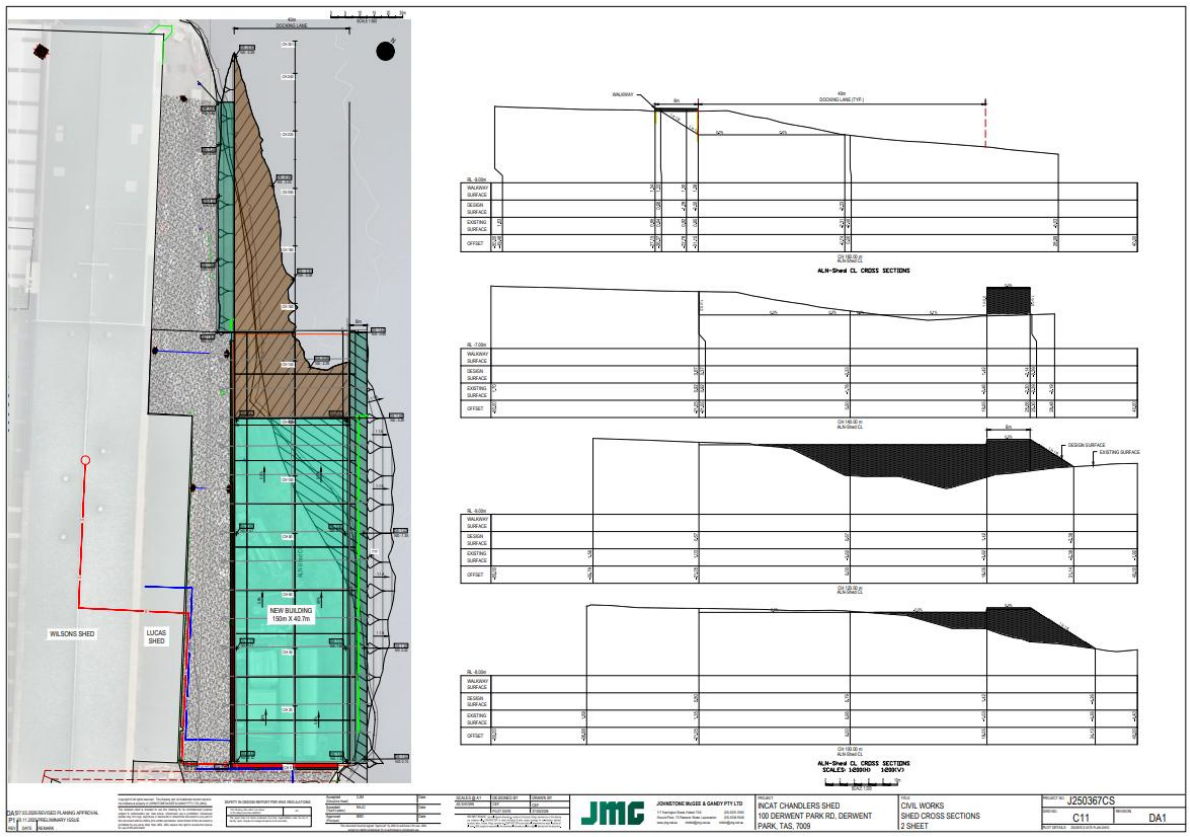
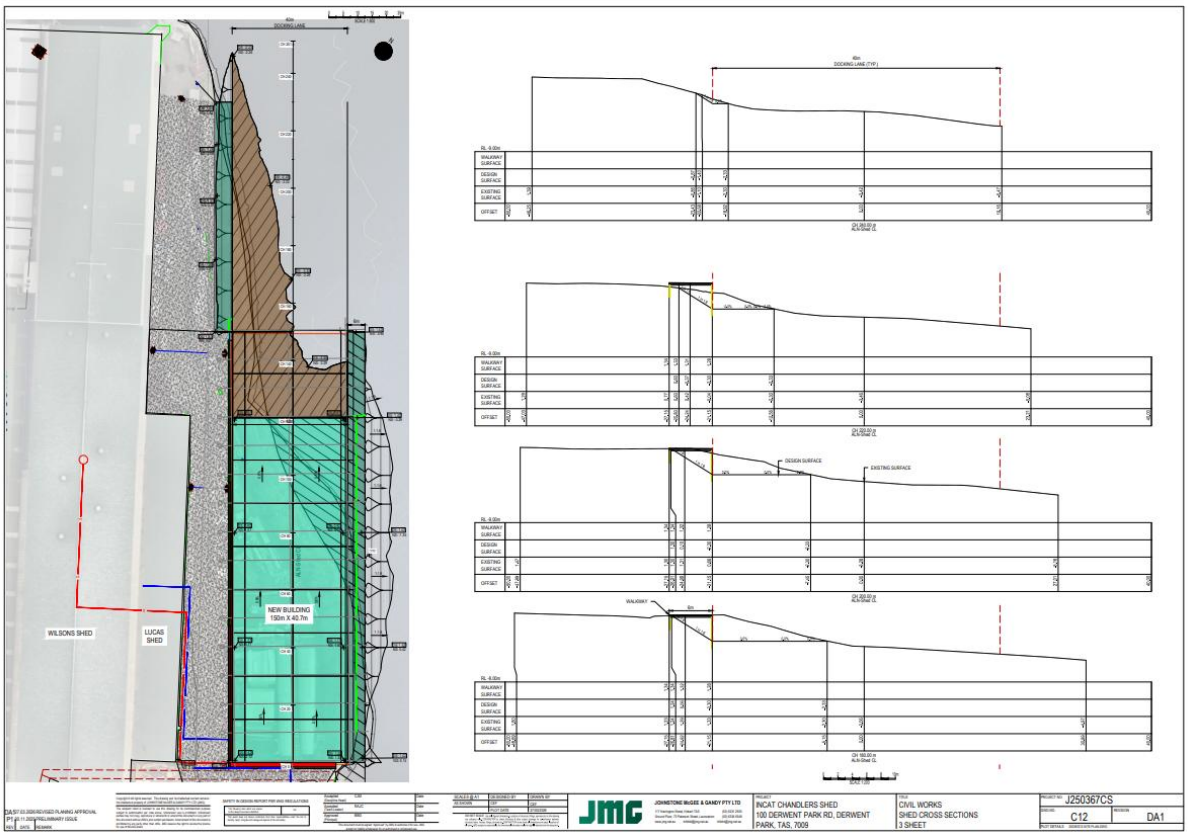






4.2 Summary of existing and proposed staff numbers and hours of operation

Historical staff numbers during busy periods

It is understood that historically, Incat have had up to 1200 staff on site, spread across 2 shifts per day.

Current and proposed staff numbers

Currently the number of staff working at Incat is 470. This proposal for a new boat building shed seeks approval for an additional 180 staff, to be spread across 2 shifts.

The maximum staff across Incat will be 650 staff, spread across 2 shifts. 90 of these staff are located at the Inches site at 18 Bender Drive.

On the 100 Derwent Park Road site this will be up to 560 staff (minus the 90 at the Inches site where there are 106 parking spaces available).

An increase in hours of operation is also being sought as part of the application.

Parking for the development has been based on the following numbers:

Existing staff: 470

Adding a further 180 new staff:

Minus staff at Inches site: 90

Total proposed staff in this DA: 560

150 bussed in to site.

Planning Scheme requirement of: 2 spaces per 3 staff

Parking spaces required by development against Planning Scheme:

373.3 rounded up to 374 car parking spaces

18 motorcycles spaces required

374 minimum spaces required for development based on Planning Scheme requirement

- 348 spaces are in previously approved Nystar carpark in 1999
- Plus 8 visitor previously approved in 1999 and existing
- Plus 3 disabled approved in 1999 and existing

Current Operating Hours

6.00am – 1.30am Monday – Thursday inclusive (for those staff who do 4 day a week)

6.00am – 4.30pm Friday (for those staff who do 5 days per week)

6.00am – 11.30pm Saturday and Sunday

Proposed Operating Hours

6.00am – 1.30am Monday – Sunday inclusive (not Public Holidays as the current EBA does not allow work on Public Holidays)

Shifts

There are 2 shifts per day. There is a morning shift and an afternoon shift. The shift hours depend on whether staff work a 4 or 5 day week.

All morning shifts start 6:00am.

For those who do a 4 day week, the morning shift finishes at 4:20pm.

For those who do a 5 day week, the morning shift finishes at 2:20pm.

Currently, there are up to 430 staff doing the morning shifts total.

The number of people doing morning shifts is proposed to increase to 520.

For afternoon/evening shifts, these start at 3:30pm and finish by 1:30am the following morning.

Currently, there are up to 40 staff doing the afternoon/evening shift in total.

The number of people doing the afternoon/evening shift is proposed to increase to 130.

The morning shift knock off time is staggered so that those who do a 5 day week finish by 2:20pm and do not overlap with the arrival of afternoon shift staff who commence at 3:30pm.

Those who work the 4 day week and do the morning shift have a slight overlap with those arriving for the afternoon shift. Currently, 220 staff who do the 4 day work week finish their morning shift at 4:20pm which is after afternoon shift workers have arrived at 3:30pm.

Where there is an overlap between morning and afternoon shifts, there are up to 260 staff on site between 3:30pm and 4:20pm for less than an hour. This is proposed to increase to 430 staff being on site between 3:30pm and 4:20pm.

This staggering of shifts is shown in the below table provided by Incat.

The staggering of shifts.

Shift	Timing	Current Staff	Proposed Staff	Historical Peak Resourcing
Morning (5 day week)	**0600am – 1420pm**	**Up to 110 staff**	**Up to 140 staff**	**Up to 900 staff**
Morning 4 Day week)	**0600am – 1620pm**	**Up to 220 staff**	**Up to 300 staff**	**Up to 150 staff**
Afternoon/evening	**1530pm – 0130am**	**Up to 40 staff**	**Up to 130 staff**	**Up to 150 staff**

The staggering of shifts is something Incat has long done with its workforce to provide flexible days per week. This also works well with car parking availability to ensure sufficient on site parking spaces available for staff.

Most staff drive by private car with many lift sharing. Some walk or catch public transport, less than half a dozen ride a bike (bicycle) while around 10-12 max ride motorcycles.

Of the 180 new staff to be employed, 150 will live off site in arranged accommodation and will be transported to 100 Derwent Park Road by buses arrange by Incat – JMG to confirm location of bus stop.

Parking

Proposed total:

348 car spaces in Nyrstar carpark approved under 71-98 (existing)

8 visitor car spaces approved under 71-98 (existing)

4 new disabled car spaces (these replace the 3 spaces approved under 71-98);

16 new car parking spaces

= 376 car parking spaces to be provided

Plus 14 new motorcycle parking spaces

Plus 10 new bicycle spaces in rack(s)

Parking is discussed in further detail on the Codes section of this report and in the TIA prepared by Midson Traffic.

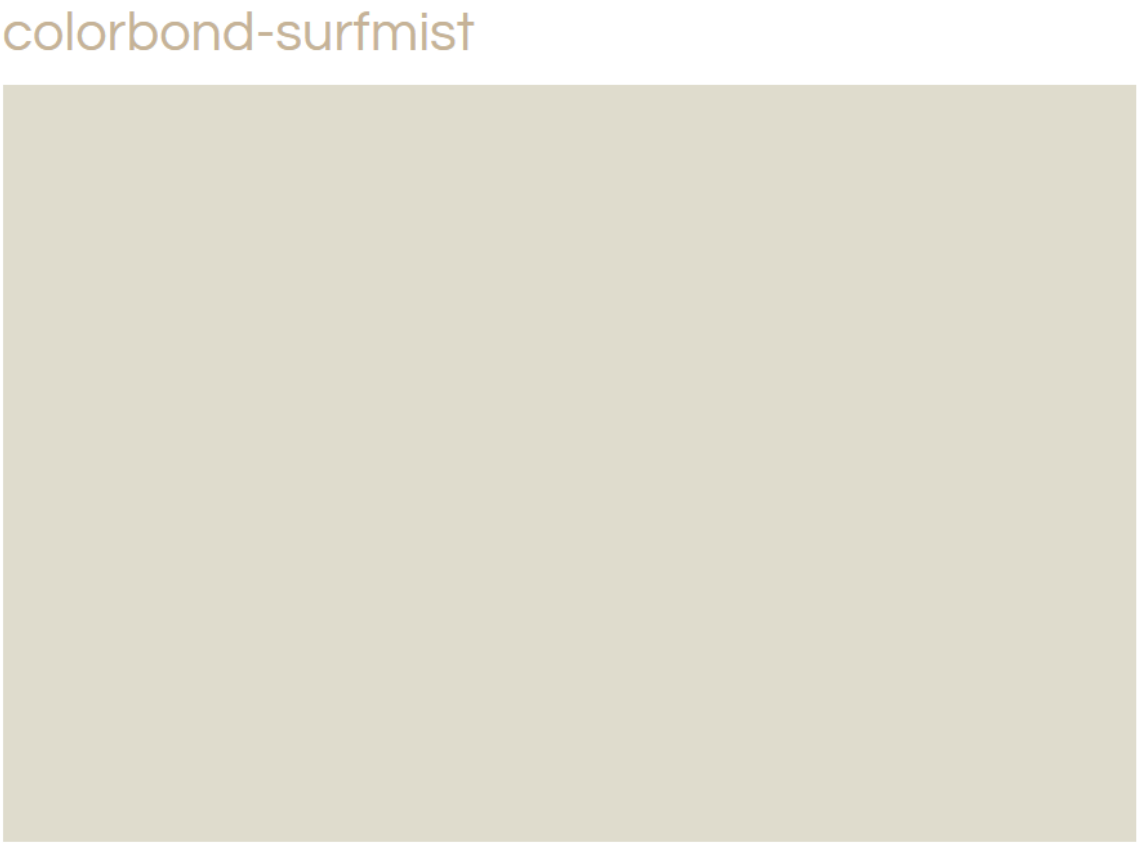
4.3 Signage

Signage is also proposed as part of the development.

The signage comprises the words ‘Incat Electric’ within the eastern elevation of the proposed new shed.

These letters are formed into the eastern building wall by simply using a different building cladding material (SIGNAGE TO BE MADE USING ALSYNITE 'OPAL' OR APPROVED EQUIVALENT as nominated on the JMG elevation plans) that will enable both natural light and internal lighting to highlight this lettering.

The reminder of the shed elevation cladding is Colorbond ‘Surfmist’ which is a mid cream shade:

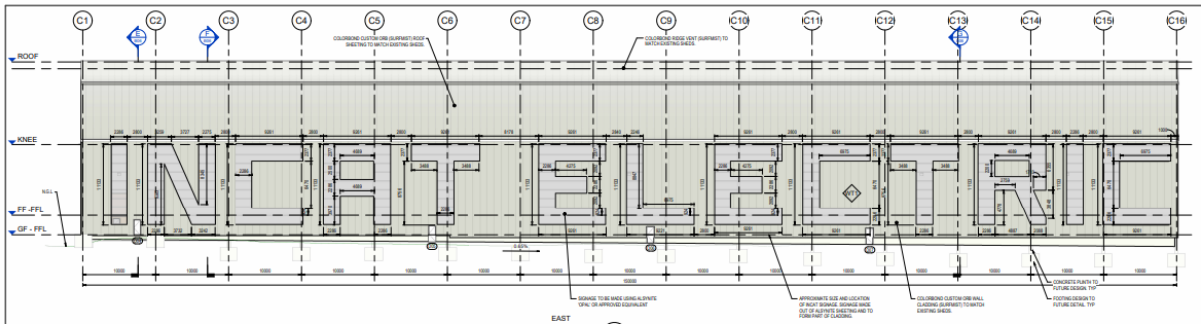


Colorbond Surfmist

The signage is not illuminated per se. It has no flood lights fixed on the lettering and no internal lighting specifically directed at the lettering.

Letters will be 11.mm high and up to 9.261m wide (depending on the actual letter).

Below is a screenshot of the JMG Eastern Elevation drawing showing the proposed wall sign.



Because of the opaque appearance of Alsynite 'OPAL' cladding, most of the time, the words ‘Incat Electric’ will not be visually prominent, particularly against the mid cream colour of the ‘Surfmist’ Colorbond wall cladding.

4.4 The boundary adjustment with Nyrstar

A boundary application plan was prepared in 1999 by surveyor John Medbury. It is unknown if it was approved by Council but if it was, the Final Plan was never sealed. This has resulted in the boundaries of CT-117774/1 very marginally encroaching into an Incat parking area and into an Incat boat building shed.

Incat are currently in talks with Nyrstar to address the boundary encroachment issue to resolve.

4.5 Classifying the ship building use at 100 Derwent Park Road

The proposed extension of the existing boat building use at the subject site continues a long established activity undertaken by Incat at the subject site 100 Derwent Park Road.

The construction of the ferries is considered a ‘Boat Building’ use for the purposes of classifying the use.

Boat Building falls within the Manufacturing and Processing use class under the State Planning Provisions as follows:

Manufacturing and Processing	use of land for manufacturing, assembling or processing products other than Resource Processing. Examples include boat building, brick making, cement works, furniture making, glass manufacturing, metal and wood fabrication, mineral processing and textile manufacturing.

5 Glenorchy LPS Zoning

5.1 Zoning of the subject site

The Tasmanian Planning Scheme came into effect in the Glenorchy City Council municipality on 18 August 2021.

The subject site at 100 Derwent Park Road and 300 Risdon Road is wholly zoned General Industrial under the *Glenorchy Local Provisions Schedule* (LPS).

Figure.13. Tasmanian Planning Scheme zoning of the subject is General Industrial (purple shaded land). The blue shading is Ports and Marine zone which extends 100m beyond the waterfront boundary of the subject site. Source: TheLIST, sourced March 2026. No nominated scale.

5.2 Status of the use in the General Industrial zone

The standards for any use or development including subdivision in the General Industrial zone are contained under Part 19 of the Planning Scheme.

The standards for any use or development in the Ports and Marine zone are contained under the Glenorchy LPS document.

The Manufacturing and Processing use class for a Boat Building use is a Permitted use within the General Industrial zone as per Table 19.2:

19.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Utilities	If for minor utilities.
Permitted	
Emergency Services	
Equipment and Machinery Sales and Hire	
Manufacturing and Processing	
Port and Shipping	
Recycling and Waste Disposal	
Research and Development	
Resource Processing	

5.3 Zoning of the waterfront area

The Crown land administered by the Department of Parks and Wildlife is zoned Port and Marine as shown in the below Figure:

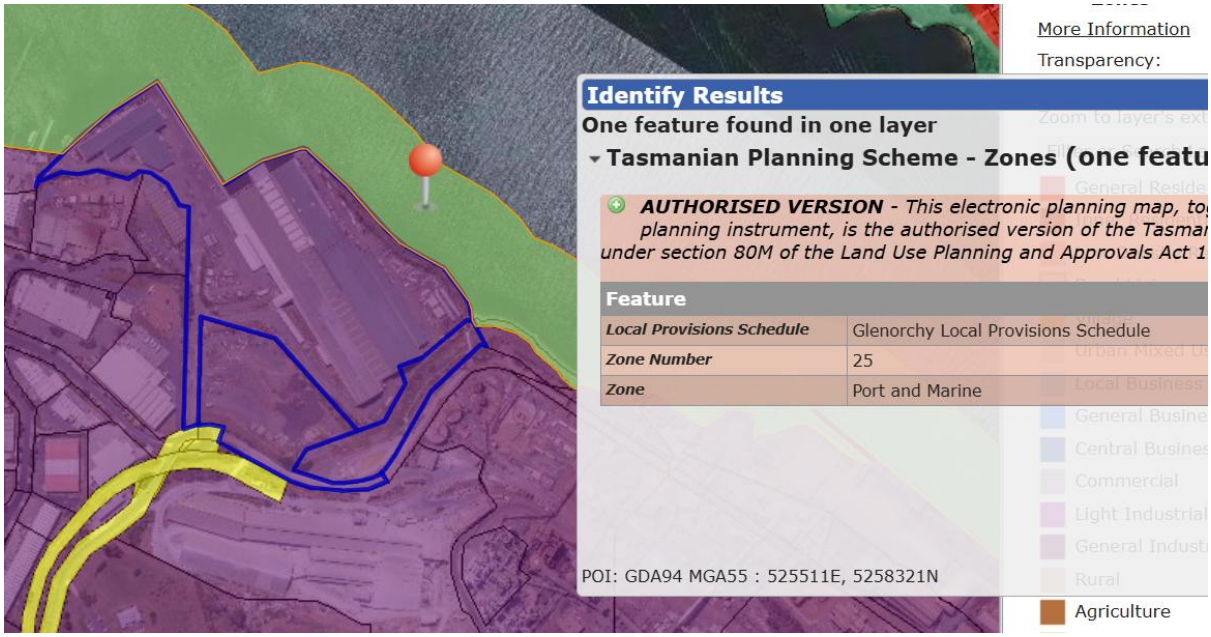


Figure.14. Tasmanian Planning Scheme zoning of riverine area and River Derwent being highlighted in green and noted as being zoned Port and Marine zone. Source: TheLIST, sourced March 2026. No nominated scale.

In the Planning Scheme, the following clause applies where works are located across two different zones:

7.7 Buildings Projecting onto Land in a Different Zone

7.7.1 If an application for use or development includes a building that projects over land in a different zone, the status of the use for the projecting portion of the building is to be determined in accordance with the provisions of the zone in which the main part of the building is located.

Based on this clause, the applicable zone is General Industrial only.

Use and development standards for development in the Port and Marine zone are otherwise contained under Part 25.0 of the State Planning Provisions. There are no use standards for the Port and Marine zone.

This zone will not be triggered for boundary adjustment. It is not considered to be triggered either for the Boat Building and fill/reclamation proposal as the main part of the building is located in the General Industrial zone. However, for assistance, comments are still provided against the Port and Marine zone in this report.

5.4 Status of the use in the Mort and Marine zone

Table 25.2 contains Manufacturing and Processing as a Permitted use subject to being for maritime purposes as follows:

25.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Port and Shipping	
Utilities	If for minor utilities.
Permitted	
Bulky Goods Sales	If for boat sales, shipping supplies or other maritime purposes.
Business and Professional Services	If for marine, port, shipping and transport purposes.
Educational and Occasional Care	If for training in marine, port, shipping and transport purposes.
Emergency Services	
Equipment and Machinery Sales and Hire	If for marine, port, shipping and transport equipment.
General Retail and Hire	If for chandlers and other shipping and transport related goods.
Manufacturing and Processing	If associated with maritime purposes.
Passive Recreation	
Pleasure Boat Facility	

It is considered the boat building would be for 'maritime' purposes and so the use of the shed for boat building is a Permitted use in the Port and Marine zone.

6 Use standards for buildings in the General Industrial zone

The planning application seeking approval for an extension of the boat building use at the subject site at 100 Derwent Park Road has been assessed against the following Use standards which can be found in Part 19.4 in the General Industrial zone of the State Planning Provisions:

19.3 Use Standards

19.3.1 Discretionary uses

Objective:	That uses listed as Discretionary do not compromise the use or development of the land for industrial activities that may have impacts on adjacent uses.

Acceptable Solutions	**Performance Criteria**
A1 No Acceptable Solution.	**P1** A use listed as Discretionary must not compromise the use or development of surrounding properties for industrial activities that may have impacts on adjacent uses, having regard to: (a) the characteristics of the site; (b) the size and scale of the proposed use; and (c) the functions of the industrial area.

Planning Comment:

This clause does not apply as the proposed boat building use is a Permitted use in the General Industrial zone.

7 Development standards for buildings in the General Industrial zone

The proposed development seeking approval for extension to an existing Manufacturing and Processing use at 100 Derwent Park Road is to be contained within a new shed measuring 120m in length, 40.81m in width and up to 25m above NGL (natural ground level), with a further 30m of roof projecting over the 'wet dock' (River Derwent).

The following standards apply to works legally defined as a 'building' under the Act.

The planning application has been assessed against the following Development standards which can be found in Part 19.4 in the General Industrial zone of the State Planning Provisions:

19.4 Development Standards for Buildings and Works

19.4.1 Building height

Objective:	To provide for a building height that: (a) is necessary for the operation of the use; and (b) minimises adverse impacts on adjoining properties.

Acceptable Solutions	Performance Criteria
A1 Building height must be not more than 20m.	**P1** Building height must be necessary for the operation of the use and not cause an unreasonable impact on adjoining properties, having regard to: (a) the bulk and form of the building; (b) separation from existing use on adjoining properties; and (c) any buffers created by natural or other features.

Planning Comment:

The height of the new shed on the submitted plans from JMG measures up to 25m above NGL.

The height of the proposed shed has been designed to ensure that the electric ferries being constructed within are able to fit wholly inside the building when on dry dock, prior to being launched. This height is therefore entirely necessary for the operation of the boat building use. An Acceptable Solution compliant height of 20m would not fit the ferries to be constructed within. Discretion is therefore unavoidable.

The height of the proposed new building is comparable to other ship building buildings on the Incat site in close proximity. There are two similar height buildings immediately west of the proposed development site and these contain two sheds up to 280m in length. The

proposed new shed therefore has a bulk and form that is substantially less than existing sheds at Incat used for the same purpose.

The proposed height of the new shed will not exceed those already existing at Incat. When viewed from within the River Derwent, the new shed will form a foreground element to the backdrop profile of existing boat building sheds. The new shed will not occupy an area of the site where existing views are of open ground. It will sit within a constructed area.

In terms of unreasonable impact, adjoining properties are all industrial sites and include titles in Nyrstar ownership. The proposed height of the new shed will have no impact on any adjacent or adjoining properties as they are all industrial sites with buildings of varying scales, heights and extent.

There are no residential properties within 500m of the proposed new shed as shown on the JMG plans.

It is considered the proposed development complies with the P1 Performance Criteria.

19.4.2 Setback

Objective:	That the building setback is appropriate for the site.
Acceptable Solutions	**Performance Criteria**
A1 Buildings must have setback from a frontage of: (a) not less than 10m; (b) not less than existing buildings on the site; or (c) not more or less than the maximum and minimum setbacks of the buildings on adjoining properties.	**P1** Buildings must have a setback from a frontage that provides adequate space for vehicle access, parking and landscaping, having regard to: (a) the topography of the site; (b) the setback of buildings on adjacent properties; and (c) the safety of road users.

Planning Comment:

The setback of the new shed on the concept plans from JMG is more than 10m to a road but 0m setback from the waterfront which is defined as a 'frontage'.

The JMG plans show vehicular access and manoeuvring paths around the proposed new building.

No additional parking is proposed as part of the application as it considered that there is sufficient parking available to Incat staff to facilitate this proposal. Parking has been discussed in more detail under the Codes section of this report.

The nature of the use to be undertaken in the proposed new shed means that 0m frontage and encroachment into the River Derwent is necessary to ensure launching of ships once the first phase of construction is completed.

It is considered that the proposal is not problematic under any of the P1 Performance Criteria, given that the frontage of relevance is a waterfront frontage and therefore issues of landscape, parking and the safety of road users is not relevant in this proposal.

19.4.3 Landscaping

Objective:	That landscaping enhances the amenity and appearance of the streetscape where buildings are setback from the frontage.

A1	**P1**
If a building is set back from a road, landscaping treatment must be provided along the frontage of the site: (a) to a depth of not less than 6m; or (b) not less than the frontage of an existing building if it is a lesser distance.	If a building is setback from a road, landscaping treatment must be provided along the frontage of the site, having regard to: (a) the width of the setback; (b) the width of the frontage; (c) the topography of the site; (d) existing vegetation on the site; (e) the location, type and growth of the proposed vegetation; and (f) any relevant local area objectives contained within the relevant Local Provisions Schedule.

Planning Comment:

The new boat building is not setback from a road but rather, is located internally within the Incat site and directly adjacent to the waterfront.

This clause is not considered relevant or applicable in this instance, given the characteristics of the subject site and the proposal itself.

8 Use standards for buildings in the Port and Marine zone

There are no Use standards for the Port and Marine zone of the State Planning Provisions as per clause 25.3.1.

9 Development standards for buildings in the Port and Marine zone

The planning application seeking approval for a new shed to accommodate an extension of the boat building use at the subject site has been assessed against the following Development standards which can be found in Part 25.4 in the Port and Marine zone of the State Planning Provisions:

25.4 Development Standards for Buildings and Works

25.4.1 Building height

Objective:	To provide for a building height that: (a) is necessary for the operation of the use; and (b) does not cause unreasonable loss of amenity on adjoining properties.

Acceptable Solutions	Performance Criteria
A1 Building height, excluding for Port and Shipping, and structures such as towers, poles, gantries, cranes or similar, must be not more than 20m.	**P1** Building height, excluding for Port and Shipping, and structures such as towers, poles, gantries, cranes or similar, must: (a) be necessary for the operation of the use; and (b) not cause unreasonable loss of amenity to adjoining properties, having regard to: (i) the bulk and form of the building; (ii) separation from existing use on adjoining sites; and (iii) any buffers created by natural or other features.

Planning Comment:

The height of the new shed on the submitted plans from JMG measures up to 25m.

The height of the proposed shed has been designed to ensure that the electric ferries being constructed within are able to fit inside the building when on dry dock, prior to be launched. This height is therefore entirely necessary for the operation of the boat building use.

The height of the proposed new building is comparable to other ship building buildings on the Incat site in close proximity. There are two similar height buildings immediately west of the proposed development site and these contain two sheds up to 280m in length. The proposed new shed therefore has a bulk and form that is less than existing sheds at Incat used for the same purpose.

In terms of unreasonable impact, adjoining properties are all industrial sites and include titles in Nyrstar ownership. The proposed height of the new shed will have no impact on any

adjacent or adjoining properties as they are all industrial sites with buildings of varying scales, heights and extent.

There are no residential properties within 500m of the proposed new shed as shown on the JMG plans.

It is considered the proposed development complies with the P1 Performance Criteria.

10General Planning Scheme overlays that apply to the subject site

The subject site was checked for Planning Scheme overlays.

There is one General overlay relevant to the subject site and that is the General Industrial Land Objective Overlay Area:

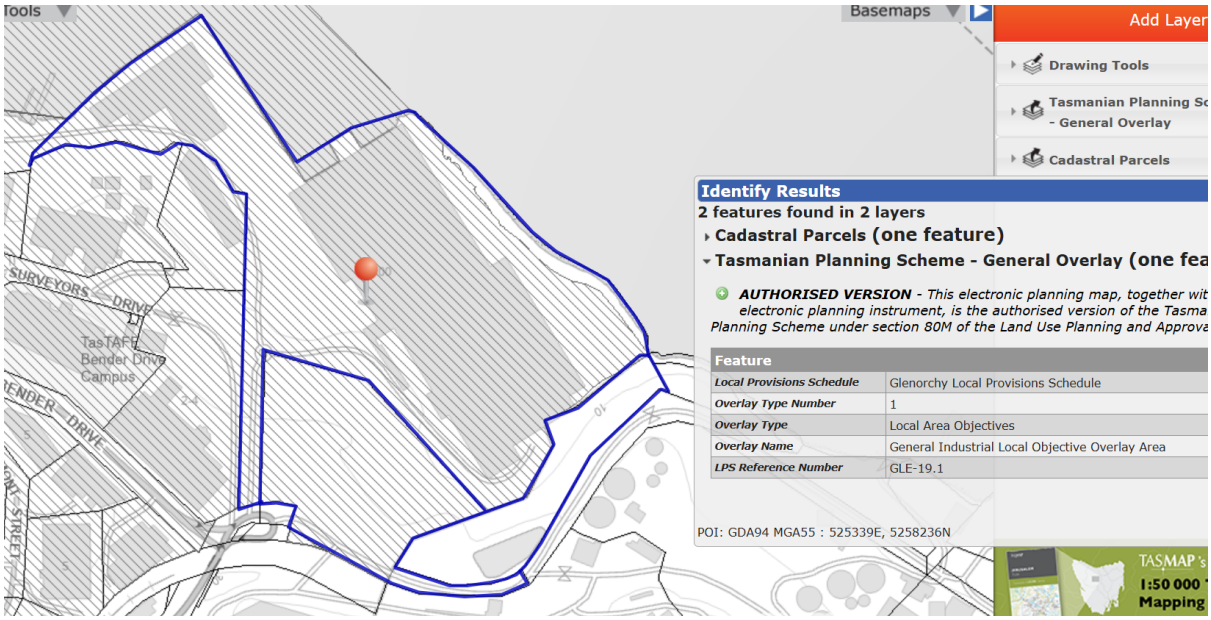


Figure.15. General Planning Scheme overlay applied to the entirety of the subject site and adjacent industrial properties to the north and west. Source: TheLIST, sourced March 2026. No nominated scale.

The implications of this overlay are as follows:

GLE-19.0 General Industrial Zone Local Area Objectives

Reference Number	Area Description	Local Area Objectives
GLE-19.1	Prince of Wales Bay Maritime Industrial Precinct, shown on an overlay map as GLE-19.1	The objectives for this area are to: (a) support the Prince of Wales Bay Maritime Industrial Precinct's role as a regional multi-user marine and industrial precinct and sheltered anchorage; (b) promote the sustainable management of the Precinct's land and waters (including any future land reclamation processes) by supporting uses of appropriate scale and intensity; (c) support uses which protect the amenity and safety of residents abutting and near the waterfront area, and the safety of recreational boat users, through the implementation of appropriate mitigation measures to manage noise, dust, light spill, increased traffic flow and security requirements; and (d) support opportunities to improve public amenity within the Precinct.

Planning Comment:

The following comments are provided against each Local Area Objective:

(a) The Incat site is the primary maritime industrial site at Prince of Wales Bay. Incat has international standing in terms of ferry construction and is an internal leader and innovator of electric ferry transportation. The proposed development further facilitates and strengthens Incat's operations.

(b) The boat building use to be undertaken in the proposed new shed is an intensification of a long established use of an appropriate scale and intensity on the subject site and in the surrounding Precinct. The proposed building neatly fits into an existing vacant area of 100 Derwent Park Road. No additional parking is proposed as there is considered sufficient parking within land owned, occupied and used by Incat for their operations. The scale and extent of the new building is substantially smaller than existing Incat boat building sheds within 100 Derwent Park Road.

(c) The extension of the boat building use at Incat is a use that has been in operation for nearly 30 years at the subject site in Prince of Wales Bay. Incat has employed appropriate mechanisms to manage noise, dust, light spill and security at their property and the proposal will not result in these mitigation measures becoming inadequate.

(d) The proposal does not obstruct Incat's ongoing commitment to public amenity in relation to their boat building activities at the subject site. The new shed has been designed to minimise light spill, avoid visually prominent illuminated signage and will

fully enclose ferries under construction within the proposed shed. Only the latter stages of fit out will see ferries being moved into the partially open ‘wet dock’ area. Once this occurs, fit out works occur within the ferry itself. Therefore, emissions such as dust and noise are minimised due to how and where Incat construct their ferries.

11 Planning Scheme Code overlays that apply to the subject site

The subject site has multiple Planning Scheme Code overlays that affect the subject site in question as well as the surrounding area.

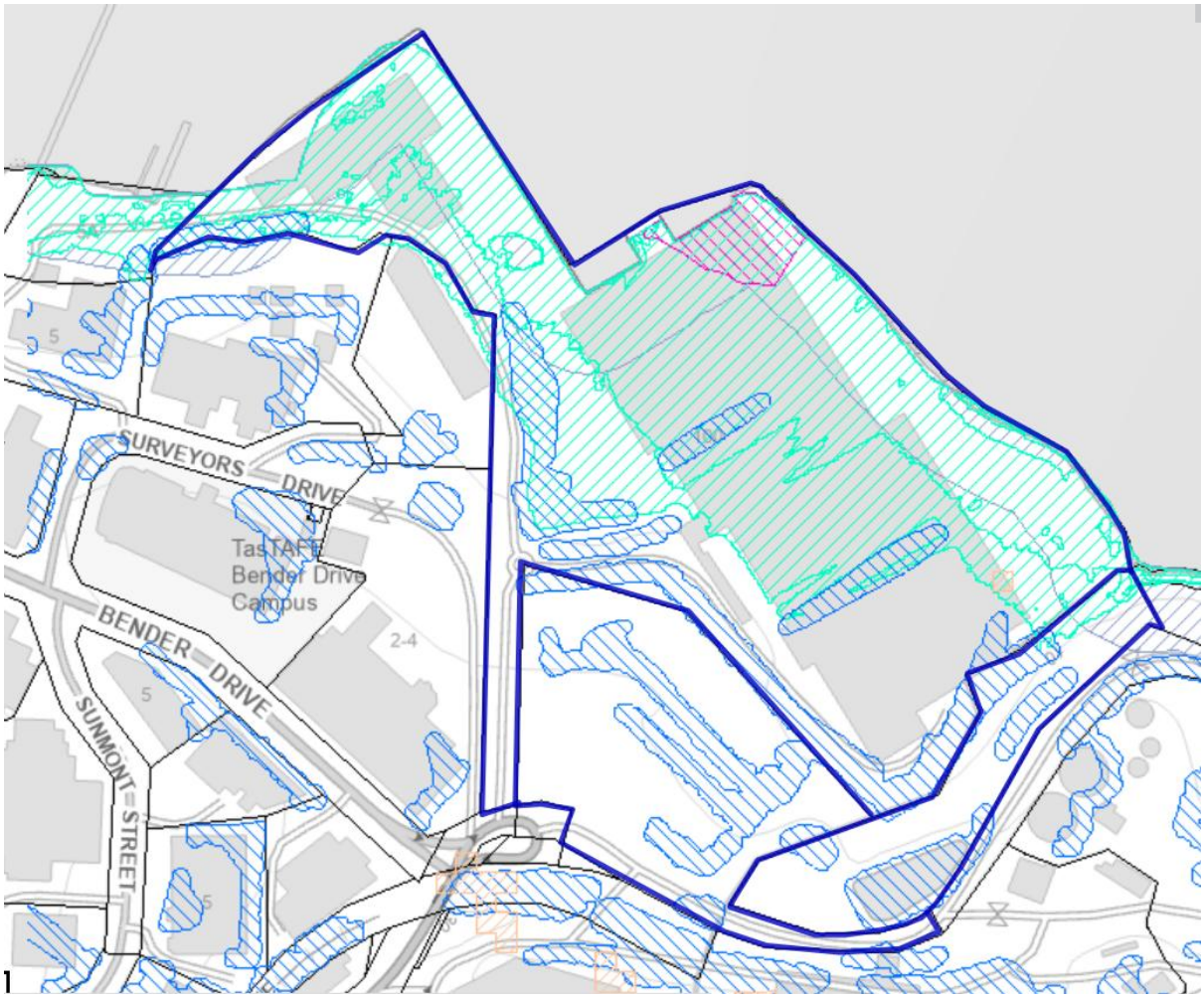


Figure.16. Code overlays affecting the subject site. Source: TheLIST, sourced March 2026. No nominated scale.

These are depicted separately below in the following Figures.

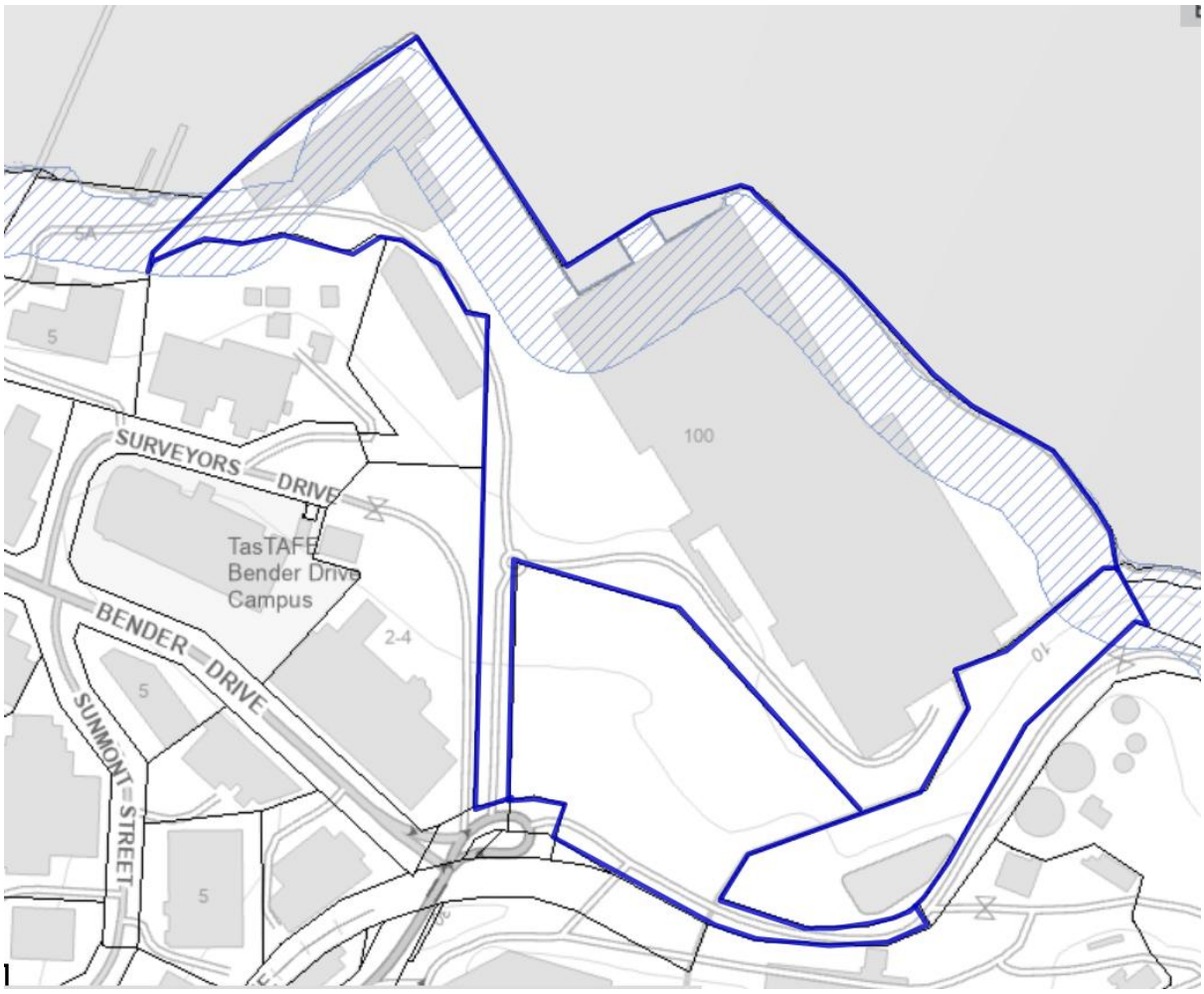


Figure.17. Waterway and Coastal Protection Area overlay that affects the water frontage portion of the subject site shown in blue diagonal stripes. This area is 40m wide. Source: TheLIST, sourced March 2026. No nominated scale.

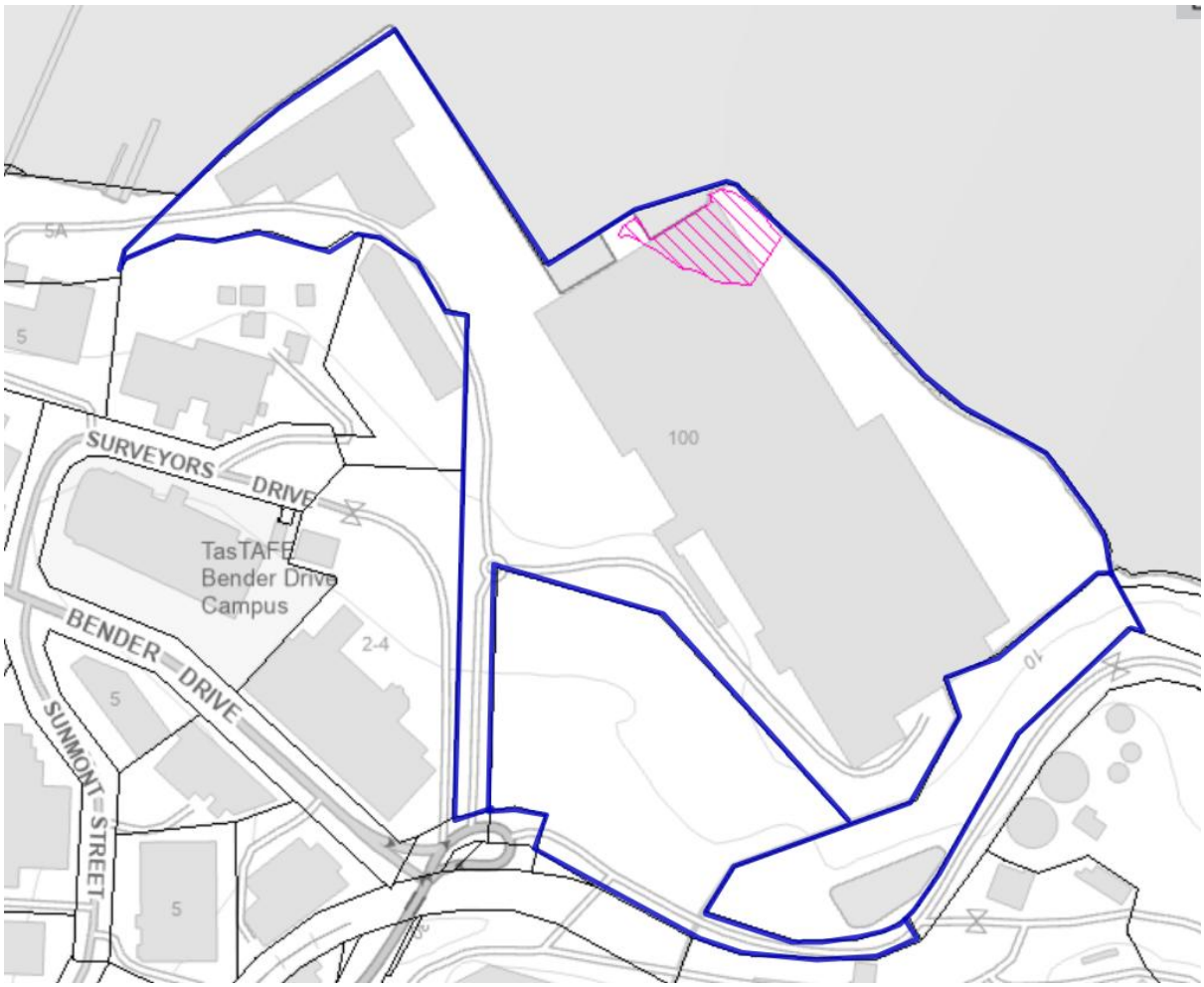


Figure.18. Coastal Erosion Investigation Area overlays in the northern portion of the subject site. All proposed works are located outside this area. Source: TheLIST, sourced March 2026. No nominated scale.

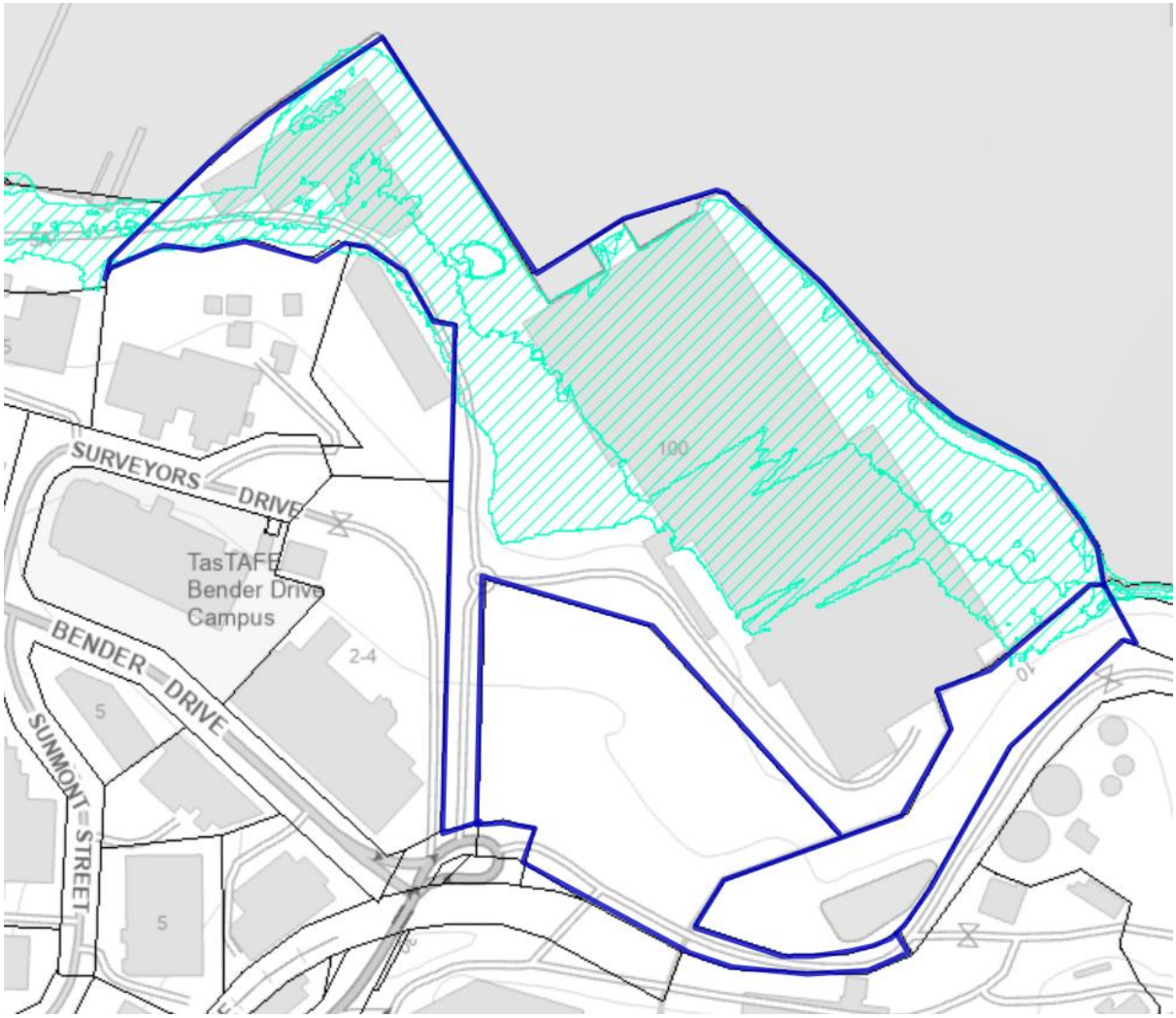


Figure.19. Coastal Inundation Hazard Area overlays that affect the subject site shown in aqua diagonal stripes. There are low and medium bands that affect the subject site along the northern river frontage area. Most of the mapped area is Medium Hazard with smaller pockets of 'Low Hazard'. Low hazard is highlighted in orange while Medium is left aqua.
Source: TheLIST, sourced March 2026. No nominated scale.

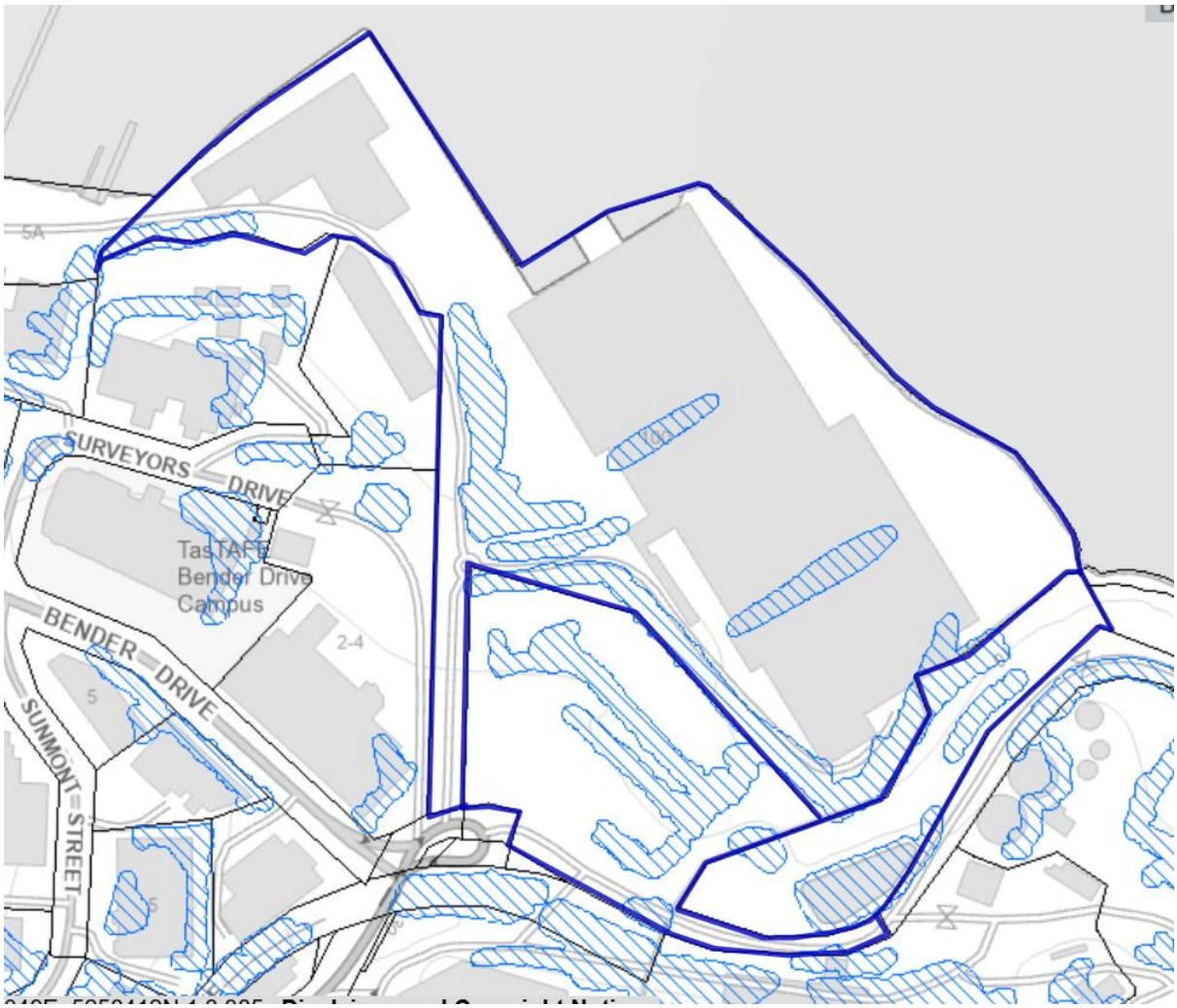
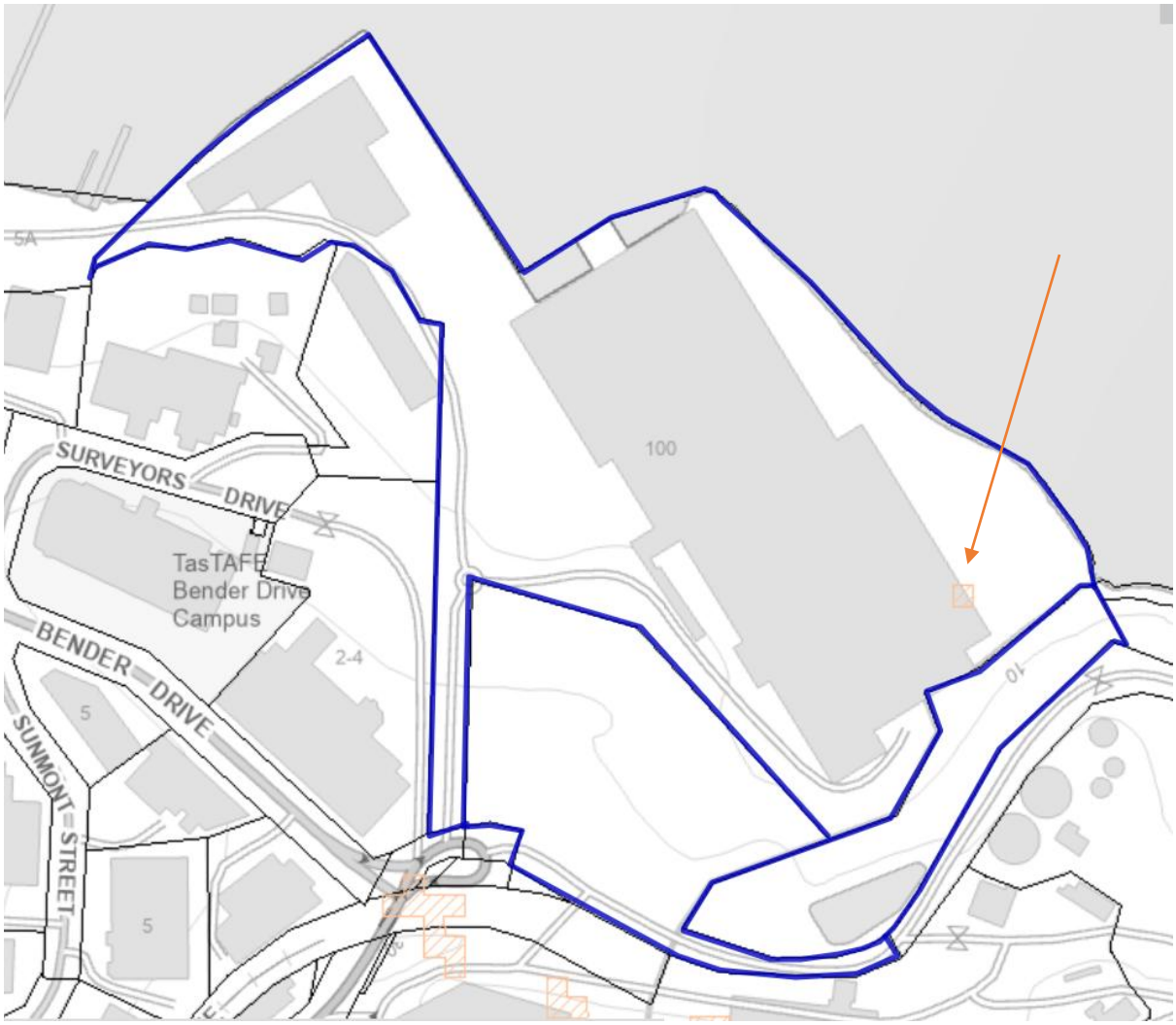


Figure.20. Flood Prone Area overlay that affects the subject site shown in blue diagonal stripes. No portions of the overlay are located in the proposed development site. Source: TheLIST, sourced March 2026. No nominated scale.



<u>Figure.21.</u> A very small portion of Medium risk Landslide Hazard area highlighted in orange. This small area of overlay is not located in the proposed development site. Source: TheLIST, sourced March 2026. No nominated scale.

The implications of the above overlays are discussed in more detail within the Codes section of this report.

12 Planning Scheme Codes to apply to the proposed development, boat building use and subdivision

Comment has been provided under each Planning Scheme Code:

12.1 C1.0 Signs Code

C1.0 Signage Code

This Code applies to new signage. The proposed Eastern Elevation of the new boat building shed has lettering proposed along its entire length. This Code is therefore applicable to the proposed development. This sign is not proposed to be illuminated.

No traffic or directional signage is proposed.

The closest sign type for the proposed sign is a 'wall sign'.

Comments are provided against each of the following applicable clauses.

C1.6.1 Design and siting of signs

Objective:	That: (a) signage is well designed and sited; and (b) signs do not contribute to visual clutter or cause an unreasonable loss of visual amenity to the surrounding area.

Acceptable Solutions	Performance Criteria
A1 A sign must: (a) be located within the applicable zone for the relevant sign type set out in Table C1.6; and (b) meet the sign standards for the relevant sign type set out in Table C1.6, excluding for the following sign types, for which there is no Acceptable Solution: (i) roof sign; (ii) sky sign; and (iii) billboard.	**P1.1** A sign must: (a) be located within an applicable zone for the relevant sign type as set out in Table C1.6; and (b) be compatible with the streetscape or landscape, having regard to: (i) the size and dimensions of the sign; (ii) the size and scale of the building upon which the sign is proposed; (iii) the amenity of surrounding properties; (iv) the repetition of messages or information; (v) the number and density of signs on the site and on adjacent properties; and (vi) the impact on the safe and efficient movement of vehicles and pedestrians. **P1.2** If a roof sign, sky sign or billboard, the sign must: (a) be located within the applicable zone for the relevant sign type set out in Table C1.6; (b) meet the sign standards for the relevant sign type in Table C1.6; and (c) not contribute to visual clutter or cause unreasonable loss of amenity to the surrounding area, having regard to: (i) the size and dimensions of the sign;

Planning Comment:

In terms of the A1 Acceptable Solution, a 'wall sign' is an appropriate sign for the General Industrial zone as per Table C1.6.

The relevant sign provisions for 'wall signs' under Table C1.6 are:

Must: (a) must not extend beyond the wall or above the top of the wall to which it is attached; (b) have a maximum area of 4.5m²; and (c) must not occupy more than 25% of the wall area.

The proposed signage does not occupy more than 25% of the eastern façade wall area, does not extend beyond the wall or above the top of the wall but obvioiusly does exceed 4.5sqm in area.

Comments are provided against the P1.1 Performance Criteria (P1.2 is not applicable):

P1.1

A sign must:

(a) be located within an applicable zone for the relevant sign type as set out in Table C1.6; and

Planning Comment:

The sign is to be located within the wall (as part of the wall cladding) of a building predominantly located within the General Industrial zone which is an applicable zone under Table C1.6.

(b) be compatible with the streetscape or landscape, having regard to:

Planning Comment:

The proposed sign is to be located within a streetscape setting with a landscape (maritime) backdrop.

The sign will predominantly blend into the 'Surfmist' cladding of the proposed new shed due to the opaque material to be used for the sign lettering. Effectively, each letter will behave like a skylight or opaque window, letting in natural light inside the building.

The appearance of the proposed sign will be largely a visually subtle one because of the similarity of materials and colours to be used for both the sign cladding and the surrounding wall cladding.

The sign is to be located within an industrial backdrop and will be a visually subtle inclusion into this setting.

(i) the size and dimensions of the sign;

Planning Comment:

Given the visually subtle appearance the sign will have, the overall large scale of the letters and their extent will not be incompatible in its setting.

(ii) the size and scale of the building upon which the sign is proposed;

Planning Comment:

The sign is consistent and compatible with the size and scale of the building upon which it will be located.

Again, because of the clever design of the sign (which will effectively act as natural skylights into the boat building shed), its visual appearance will be subtle and most of the time will largely blend with the 'Surfmist' cladding surrounding the letters.

(iii) the amenity of surrounding properties;

Planning Comment:

The surrounding properties are all industrial and the sign faces outwards to the River Derwent. There will be no adverse impact whatsoever on surrounding industrial properties.

In terms of residential properties to the east, across the Derwent River there will be no adverse minimal impact on residential amenity due to the distance of these properties to the proposed sign (more than 500m) and due to the sign being predominantly not backlit (as internal lights are not used during daylight hours) and therefore will largely blend into the surrounding 'Surfmist' wall cladding.

The only time the sign would be visually prominent would be when internal lighting is on and outside is dark and this will create an accentuated visual effect in the same manner that lights being on inside a house highlights windows.

The surrounding area is already very well illuminated at all hours, particularly the Nyrstar sites. The proposed signage will not be a noticeable or adverse visual addition to this highly illuminated environment.

(iv) the repetition of messages or information;

Planning Comment:

There are no other signs at the Incat sites with the wording 'Incat Electric'. There is, therefore, no repetition of messaging or information.

(v) the number and density of signs on the site and on adjacent properties; and

Planning Comment:

Incat has very few signs located within the sites is occupies and uses. It is considered that the proposed sign will not lead to visual clutter or a proliferation of any signage within the subject site or adjacent properties.

(vi) the impact on the safe and efficient movement of vehicles and pedestrians.

Planning Comment:

The proposed sign will have no impact on the safe and efficient movement of vehicles and pedestrians as it faces the waterfront of the subject site.

The proposed sign will have no adverse impact on maritime traffic or boat navigation as it will not mimic maritime direction signage or lighting and will not obstruct views of these.

A2 A sign must be not less than 2m from the boundary of any lot in the General Residential Zone, Inner Residential Zone, Low Density Residential Zone, Rural Living Zone or Landscape Conservation Zone.	**P2** A sign must not cause an unreasonable loss of amenity to adjoining residential properties, having regard to: (a) the topography of the site and the surrounding area; (b) the relative location of buildings, habitable rooms of dwellings and private open space; (c) any overshadowing; and (d) the nature and type of the sign.

Planning Comment:

The proposed sign is not located in any of these zones and therefore this clause is not applicable.

A3 The number of signs for each business or tenancy on a road frontage of a building must be no more than: (a) 1 of each sign type, unless otherwise stated in Table C1.6; (b) 1 window sign for each window; (c) 3 if the street frontage is less than 20m in length; and (d) 6 if the street frontage is 20m or more, excluding the following sign types, for which there is no limit: (i) name plate; and (ii) temporary sign.	**P3** The number of signs for each business or tenancy on a street frontage must: (a) not unreasonably increase in the existing level of visual clutter in the streetscape, and where possible, reduce any existing visual clutter in the streetscape by replacing existing signs with fewer, more effective signs; and (b) not involve the repetition of messages or information.

Planning Comment:

No other signs (including wall signs) face the eastern River Derwent frontage. Therefore, this clause is complied with.

Figure.22. View from Saundersons Road at Risdon (adjacent to 52 Saundersons Road) showing no wall signs along the river facing frontage of the Incat site. Source: Instant Streetview, sourced December 2025. No image modification.

C1.6.2 Illuminated signs

Objective:	That: (a) illuminated signs are compatible with the streetscape; (b) the cumulative impact of illuminated signs on the character of the area is managed, including the need to avoid visual disorder or clutter of signs; and (c) any potential negative impacts of illuminated signs on road safety and pedestrian movement are minimised.

Acceptable Solutions	Performance Criteria
A1 No Acceptable Solution.	**P1** An illuminated sign must not cause an unreasonable loss of amenity to adjacent properties or have an unreasonable effect on the safety, appearance or efficiency of a road, and must be compatible with the streetscape, having regard to: (a) the location of the sign; (b) the size of the sign; (c) the intensity of the lighting; (d) the hours of operation of the sign; (e) the purpose of the sign; (f) the sensitivity of the area in terms of view corridors, the natural environment and adjacent residential amenity; (g) the intended purpose of the changing message of the sign; (h) the percentage of the sign that is illuminated with changing messages; (i) proposed dwell time; and (j) whether the sign is visible from the road and if so the proximity to and impact on an electronic traffic control device.

Planning Comment:

While the proposed 'Incat Electric' sign is not illuminated per se, the construction materials will provide for an illuminated effect, much like internal lighting streaming through a window in a house.

The surrounding properties are all industrial and the sign faces outwards to the River Derwent. There will be no adverse impact whatsoever on surrounding industrial properties.

In terms of residential properties to the east, across the Derwent River there will be no adverse minimal impact on residential amenity due to the distance of these properties to

the proposed sign (more than 500m) and due to the sign being predominantly not backlit and therefore blending into the surrounding 'Surfmist' wall cladding.

The only time the sign would be visually prominent would be when internal lighting is on and outside is dark and this will create an accentuated visual affect in the same manner that lights being on inside a house does with windows.

The surrounding area is already very well illuminated at all hours, particularly the Nyrstar sites. The proposed signage will not be a noticeable addition to this highly illuminated environment.

It is considered the proposed sign is not problematic under any of the P1 Performance Criteria.

A2 An illuminated sign visible from public places in adjacent roads must not create the effect of flashing, animation or movement, unless it is providing direction or safety information.	**P2** No Performance Criterion.

Planning Comment:

The proposed sign is visible from public places but does not create any flashing, animation or movement effects. The A2 Acceptable Solution is therefore complied with.

C1.6.3 Third party sign

Planning Comment:

The proposed sign is not a third party sign and therefore this clause does not apply.

C1.6.4 Signs on local heritage places and in local heritage precincts and local historic landscape precincts

Planning Comment:

The proposed sign is not on a local heritage place, local heritage precinct or a local landscape precinct and therefore this clause does not apply.

12.2 C2.0 Parking and Sustainable Transport Code

C2.0 Parking and Sustainable Transport Code

Under Table C2.1, the following is the car parking requirement for Manufacturing and Processing uses:

Manufacturing and Processing	1 space per 200m² of floor area or 2 spaces per 3 employees, whichever is greater	1 space per 5 employees

The above requires 1 space per 200sqm of floor area or 2 spaces per 3 employees whichever is the greater.

On the Incat site, the following building areas are existing and/pr proposed:

Existing sheds at 100 Derwent Park Road:

FACTORY 9999.0sqm

HARD STANDING 9100.0sqm

FACTORY 7500.0sqm

Total spaces required:

26,599sqm = 132.995 spaces rounded up to 133 spaces

Existing shed at 13 Surveyors Road:

WAREHOUSE 1163sqm

Total spaces required:

1163sqm = 5.815 rounded up to 6 spaces

Proposed new shed at 100 Derwent Park Road"

NEW SHED 4897.2sqm plus 1224.3 roof area over wet dock = 6121.5 of new roofed area

Total spaces required:

6121.5sqm = 30.6 spaces rounded up to 31

Total spaces based on existing and proposed floor areas = 170 car parking spaces.

In terms of staff, 2 spaces per 3 employees, there are 380 existing staff (minus staff at the Inches site at 18 Bender Drive) which is proposed to increase by an additional 180 staff.

Existing staff: 470

Adding a further 180 new staff:

Minus staff at Inches site (18 Bender Drive): 90

Total proposed staff in this DA working from 100 Derwent Park Road: 560 staff

150 transported by bus to and from the site at 100 Derwent Park Road.

Planning Scheme requires: 2 spaces per 3 staff (this is a greater minimum requirement than spaces per sqm of floor area)

Parking spaces required by development:

373.3 rounded up to 374 spaces

The updated proposal plans show a total of 374 car parking spaces spread throughout the subject site and this complies with the 374 spaces required.

Comments are provided against each clause in this Code:

C2.5.1 Car parking numbers

Objective:	That an appropriate level of car parking spaces are provided to meet the needs of the use.

Acceptable Solutions	**Performance Criteria**
A1 The number of on-site car parking spaces must be no less than the number specified in Table C2.1, less the number of car parking spaces that cannot be provided due to the site including container refund scheme space, excluding if: (a) the site is subject to a parking plan for the area adopted by council, in which case parking provision (spaces or cash-in-lieu) must be in accordance with that plan; (b) the site is contained within a parking precinct plan and subject to Clause C2.7; (c) the site is subject to Clause C2.5.5; or (d) it relates to an intensification of an existing use or development or a change of use where: (i) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is greater than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case no additional on-site car parking is required; or (ii) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is less than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case on-site car parking must be calculated as follows: N = A + (C- B) N = Number of on-site car parking spaces required A = Number of existing on site car parking spaces B = Number of on-site car parking spaces required for the existing use or development specified in Table C2.1 C= Number of on-site car parking spaces	**P1.1** The number of on-site car parking spaces for uses, excluding dwellings, must meet the reasonable needs of the use, having regard to: (a) the availability of off-street public car parking spaces within reasonable walking distance of the site; (b) the ability of multiple users to share spaces because of: (i) variations in car parking demand over time; or (ii) efficiencies gained by consolidation of car parking spaces; (c) the availability and frequency of public transport within reasonable walking distance of the site; (d) the availability and frequency of other transport alternatives; (e) any site constraints such as existing buildings, slope, drainage, vegetation and landscaping; (f) the availability, accessibility and safety of on-street parking, having regard to the nature of the roads, traffic management and other uses in the vicinity; (g) the effect on streetscape; and (h) any assessment by a suitably qualified person of the actual car parking demand determined having regard to the scale and nature of the use and development. **P1.2** The number of car parking spaces for dwellings must meet the reasonable needs of the use, having regard to: (a) the nature and intensity of the use and car parking required; (b) the size of the dwelling and the number of bedrooms; and (c) the pattern of parking in the surrounding area.

Planning Comment:

The minimum number of car parking spaces has been calculated at 374 spaces. This clause has been address in the submitted TIA prepared by Midson Traffic.

The proposal provides a compliant number of car parking spaces throughout the site, as per the updated JMG plans.

On this basis, the proposal complies with the A1 Acceptable Solution.

C2.5.2 Bicycle parking numbers

Objective:	That an appropriate level of bicycle parking spaces are provided to meet the needs of the use.
Acceptable Solutions	**Performance Criteria**
A1 Bicycle parking spaces must: (a) be provided on the site or within 50m of the site; and (b) be no less than the number specified in Table C2.1.	**P1** Bicycle parking spaces must be provided to meet the reasonable needs of the use, having regard to: (a) the likely number of users of the site and their opportunities and likely need to travel by bicycle; and (b) the availability and accessibility of existing and any planned parking facilities for bicycles in the surrounding area.

Planning Comment:

Table C2.1 requires 1 space per 5 employees for Manufacturing and Processing uses. The proposal seeks approval for up to 650 staff.

This means 130 bicycle spaces are required.

The JMG plans nominate 10 bicycle spaces. Incat undertook a survey of staff and less than half a dozen ever travelled to work using a bicycle.

The provision of 10 bicycle parking spaces is not considered problematic against the P1 Performance Criteria as the site is located within an Industrial area with limited opportunities to travel by bicycle due to a lack of bicycle infrastructure in the area. There is also a lack of connectivity to bicycle infrastructure in the area.

There is more than sufficient car parking spaces provided to meet staff needs. On any given day at any given time, the Incat car parking spaces are not fully occupied.

It is considered that the provisions of 10 bicycle parking spaces is reasonable and acceptable for the nature of the use and its location given the lack of connectivity to cycling infrastructure.

Incat have however flagged that they are happy to provide more spaces by way of a planning permit condition if considered necessary by Council.

This clause has been address in the submitted TIA prepared by Midson Traffic.

C2.5.3 Motorcycle parking numbers

Objective:	That the appropriate level of motorcycle parking is provided to meet the needs of the use.
Acceptable Solutions	**Performance Criteria**
A1 The number of on-site motorcycle parking spaces for all uses must: (a) be no less than the number specified in Table C2.4; and (b) if an existing use or development is extended or intensified, the number of on-site motorcycle parking spaces must be based on the proposed extension or intensification, provided the existing number of motorcycle parking spaces is maintained.	**P1** Motorcycle parking spaces for all uses must be provided to meet the reasonable needs of the use, having regard to: (a) the nature of the proposed use and development; (b) the topography of the site; (c) the location of existing buildings on the site; (d) any constraints imposed by existing development; and (e) the availability and accessibility of motorcycle parking spaces on the street or in the surrounding area.

Planning Comment:

Table C2.4 requires the following:

Table C2.4 Motorcycle Parking Space Requirements

Number of car parking spaces required for a use	Number of motorcycle parking spaces required for a use
0-20	No requirement
21-40	1 space
41 or more	1 space for every additional 20 car parking spaces required

Planning Comment:

For uses requiring more than 41 spaces, 1 space for every additional 20 car parking spaces is required.

The updated JMG plans show a total of 14 motorcycle spaces.

There is no requirement for the first 20 car parking spaces.

The development requires a minimum 374 car parking spaces.

This equates to 17.7 motorcycle spaces, rounded up to 18 spaces.

The proposal must be assessed against the P1 Performance Criteria.

Incat undertook a survey of staff and less than a dozen opt to travel to work using a motorcycle.

The provisions of 14 motorcycle parking spaces is not considered problematic against the P1 Performance Criteria as the site is located within an Industrial area with a majority of staff working shifts that either start at 6am or late at night/early in the morning.

There is more than sufficient can parking spaces provided to meet staff needs.

It is considered that the provisions of 14 motorcycle parking spaces is acceptable for the nature of the use and its location as well as the nature of the work and work hours.

Many staff lift share and this is probably a reason why Incat parking spaces are never fully occupied.

Incat have however flagged that they are happy to provide more motorcycle parking spaces by way of a planning permit condition if considered necessary by Council.

This clause has been address in the submitted TIA prepared by Midson Traffic.

C2.5.4 Loading Bays

Objective:	That adequate access for goods delivery and collection is provided, and to avoid unreasonable loss of amenity and adverse impacts on traffic flows.
Acceptable Solutions	**Performance Criteria**
A1 A loading bay must be provided for uses with a floor area of more than 1000m² in a single occupancy.	**P1** Adequate space for loading and unloading of vehicles must be provided, having regard to: (a) the type of vehicles associated with the use; (b) the nature of the use; (c) the frequency of loading and unloading; (d) the location of the site; (e) the nature of traffic in the surrounding area; (f) the area and dimensions of the site; and (g) the topography of the site; (h) the location of existing buildings on the site; and (i) any constraints imposed by existing development.

Planning Comment:

The updated JMG plans do not include loading bay areas. The building has been designed to enable light vehicle access into the new building. The vehicles accessing the building will be small forklift trucks and utes.

This clause has been address in the submitted TIA prepared by Midson Traffic.

C2.5.5 Number of car parking spaces within the General Residential Zone and Inner Residential Zone

Planning Comment:

Not relevant as the subject site is not a Residential zoning.

C2.6.1 Construction of parking areas

Objective:	That parking areas are constructed to an appropriate standard.
Acceptable Solutions	**Performance Criteria**
A1 All parking, access ways, manoeuvring and circulation spaces must: (a) be constructed with a durable all weather pavement; (b) be drained to the public stormwater system, or contain stormwater on the site; and (c) excluding all uses in the Rural Zone, Agriculture Zone, Landscape Conservation Zone, Environmental Management Zone, Recreation Zone and Open Space Zone, be surfaced by a spray seal, asphalt, concrete, pavers or equivalent material to restrict abrasion from traffic and minimise entry of water to the pavement.	**P1** All parking, access ways, manoeuvring and circulation spaces must be readily identifiable and constructed so that they are useable in all weather conditions, having regard to: (a) the nature of the use; (b) the topography of the land; (c) the drainage system available; (d) the likelihood of transporting sediment or debris from the site onto a road or public place; (e) the likelihood of generating dust; and (f) the nature of the proposed surfacing.

Planning Comment:

The proposal plans by JMG show existing car parking areas and new car parking spaces.

The updated JMG plans show the construction of new parking spaces.

This clause has been address in the submitted TIA prepared by Midson Traffic.

C2.6.2 Design and layout of parking areas

Objective:	That parking areas are designed and laid out to provide convenient, safe and efficient parking.

Acceptable Solutions	**Performance Criteria**
A1.1 Parking, access ways, manoeuvring and circulation spaces must either: (a) comply with the following: (i) have a gradient in accordance with *Australian Standard AS 2890 - Parking facilities, Parts 1-6*; (ii) provide for vehicles to enter and exit the site in a forward direction where providing for more than 4 parking spaces; (iii) have an access width not less than the requirements in Table C2.2; (iv) have car parking space dimensions which satisfy the requirements in Table C2.3; (v) have a combined access and manoeuvring width adjacent to parking spaces not less than the requirements in Table C2.3 where there are 3 or more car parking spaces; (vi) have a vertical clearance of not less than 2.1m above the parking surface level; and (vii) excluding a single dwelling, be delineated by line marking or other clear physical means; or (b) comply with *Australian Standard AS 2890-Parking facilities, Parts 1-6*. **A1.2** Parking spaces provided for use by persons with a disability must satisfy the following: (a) be located as close as practicable to the main entry point to the building; (b) be incorporated into the overall car park design; and (c) be designed and constructed in accordance with *Australian/New Zealand Standard AS/NZS 2890.6:2009 Parking facilities, Off-street parking for people with disabilities*.[1]	**P1** All parking, access ways, manoeuvring and circulation spaces must be designed and readily identifiable to provide convenient, safe and efficient parking, having regard to: (a) the characteristics of the site; (b) the proposed slope, dimensions and layout; (c) useability in all weather conditions; (d) vehicle and pedestrian traffic safety; (e) the nature and use of the development; (f) the expected number and type of vehicles; (g) the likely use of the parking areas by persons with a disability; (h) the nature of traffic in the surrounding area; (i) the proposed means of parking delineation; and (j) the provisions of *Australian Standard AS 2890.1:2004 - Parking facilities, Part 1: Off-street car parking* and *AS 2890.2 -2002 Parking facilities, Part 2: Off-street commercial vehicle facilities*.

Planning Comment:

The proposal plans show the location and number of all existing car parking areas. This clause has been address in the submitted TIA prepared by Midson Traffic.

C2.6.3 Number of accesses for vehicles

Objective:	That: (a) access to land is provided which is safe and efficient for users of the land and all road network users, including but not limited to drivers, passengers, pedestrians and cyclists by minimising the number of vehicle accesses; (b) accesses do not cause an unreasonable loss of amenity of adjoining uses; and (c) the number of accesses minimise impacts on the streetscape.

Acceptable Solutions	**Performance Criteria**
A1 The number of accesses provided for each frontage must: (a) be no more than 1; or (b) no more than the existing number of accesses, whichever is the greater.	**P1** The number of accesses for each frontage must be minimised, having regard to: (a) any loss of on-street parking; and (b) pedestrian safety and amenity; (c) traffic safety; (d) residential amenity on adjoining land; and (e) the impact on the streetscape.
A2 Within the Central Business Zone or in a pedestrian priority street no new access is provided unless an existing access is removed.	**P2** Within the Central Business Zone or in a pedestrian priority street, any new accesses must: (a) not have an adverse impact on: (i) pedestrian safety and amenity; or (ii) traffic safety; and (b) be compatible with the streetscape.

Planning Comment:

Access arrangement will remain unchanged as a result of the boat building proposal and therefore this clause is not relevant. This clause has been address in the submitted TIA prepared by Midson Traffic.

C2.6.4 Lighting of parking areas within the General Business Zone and Central Business Zone

Planning Comment:

Not relevant as the subject sites are not zoned General Business or Central Business.

C2.6.5 Pedestrian access

Objective:	That pedestrian access within parking areas is provided in a safe and convenient manner.
Acceptable Solutions	**Performance Criteria**
A1.1 Uses that require 10 or more car parking spaces must: (a) have a 1m wide footpath that is separated from the access ways or parking aisles, excluding where crossing access ways or parking aisles, by: (i) a horizontal distance of 2.5m between the edge of the footpath and the access way or parking aisle; or (ii) protective devices such as bollards, guard rails or planters between the footpath and the access way or parking aisle; and (b) be signed and line marked at points where pedestrians cross access ways or parking aisles. **A1.2** In parking areas containing accessible car parking spaces for use by persons with a disability, a footpath having a width not less than 1.5m and a gradient not steeper than 1 in 14 is required from those spaces to the main entry point to the building.	**P1** Safe and convenient pedestrian access must be provided within parking areas, having regard to: (a) the characteristics of the site; (b) the nature of the use; (c) the number of parking spaces; (d) the frequency of vehicle movements; (e) the needs of persons with a disability; (f) the location and number of footpath crossings; (g) vehicle and pedestrian traffic safety; (h) the location of any access ways or parking aisles; and (i) any protective devices proposed for pedestrian safety.

Planning Comment:

The proposal plans detail the location and number of all existing and proposed car parking areas across the three titles that make up the development site.

Existing parking areas have large aisle areas to enable safe pedestrian movement.

This clause has been address in the submitted TIA prepared by Midson Traffic.

C2.6.6 Loading bays

Objective:	That the area and dimensions of loading bays are adequate to provide safe and efficient delivery and collection of goods.

Acceptable Solutions	**Performance Criteria**
A1 The area and dimensions of loading bays and access way areas must be designed in accordance with *Australian Standard AS 2890.2–2002, Parking facilities, Part 2: Off-street commercial vehicle facilities*, for the type of vehicles likely to use the site.	**P1** Loading bays must have an area and dimensions suitable for the use, having regard to: (a) the types of vehicles likely to use the site; (b) the nature of the use; (c) the frequency of loading and unloading; (d) the area and dimensions of the site; (e) the topography of the site; (f) the location of existing buildings on the site; and (g) any constraints imposed by existing development.
A2 The type of commercial vehicles likely to use the site must be able to enter, park and exit the site in a forward direction in accordance with *Australian Standard AS 2890.2 – 2002, Parking Facilities, Part 2: Parking facilities - Off-street commercial vehicle facilities.*	**P2** Access for commercial vehicles to and from the site must be safe, having regard to: (a) the types of vehicles associated with the use; (b) the nature of the use; (c) the frequency of loading and unloading; (d) the area and dimensions of the site; (e) the location of the site and nature of traffic in the area of the site; (f) the effectiveness or efficiency of the surrounding road network; and (g) site constraints such as existing buildings, slope, drainage, vegetation, parking and landscaping.

Planning Comment:

The updated JMG proposal plans have been designed to comply with both the A1 and A2 Acceptable Solution.

C2.6.7 Bicycle parking and storage facilities within the General Business Zone and Central Business Zone

Planning Comment:

Not relevant as the subject site is zoned General Industrial.

C2.6.8 Siting of parking and turning areas

Planning Comment:

The proposal plans from JMG show existing car parking areas and proposed new spaces. This clause has been address in the submitted TIA prepared by Midson Traffic.

C2.7.1 Parking precinct plan

Planning Comment:

Not relevant as the subject site is not located within a Parking Precinct plan.

12.3 C3.0 Road and Railway Assets Code

C3.0 Road and Railway Assets Code

This Code will apply in terms of any alteration of the access point into the subject site and will also apply where an entirely new access point is required.

None are proposed.

The Code also applies to traffic generation.

The proposal seeks approval for a further 180 new staff to be added to work in the new boat building shed across the morning and afternoon/evening shifts.

As previously outlined in this report, staff numbers and shifts are staggered to ensure that all staff are not on the site at any one time but rather staff numbers are staggered to avoid an overlap of knockoff with log on for shifts to minimise traffic movements and avoid congestion.

This Code has been address in the submitted TIA prepared by Midson Traffic in terms of traffic movements.

C3.5 Use Standards

C3.5.1 Traffic generation at a vehicle crossing, level crossing or new junction

Objective:	To minimise any adverse effects on the safety and efficiency of the road or rail network from vehicular traffic generated from the site at an existing or new vehicle crossing or level crossing or new junction.

Acceptable Solutions	**Performance Criteria**
A1.1 For a category 1 road or a limited access road, vehicular traffic to and from the site will not require: (a) a new junction; (b) a new vehicle crossing; or (c) a new level crossing. **A1.2** For a road, excluding a category 1 road or a limited access road, written consent for a new junction, vehicle crossing, or level crossing to serve the use and development has been issued by the road authority. **A1.3** For the rail network, written consent for a new private level crossing to serve the use and development has been issued by the rail authority. **A1.4** Vehicular traffic to and from the site, using an existing vehicle crossing or private level crossing, will not increase by more than: (a) the amounts in Table C3.1; or (b) allowed by a licence issued under Part IVA of the *Roads and Jetties Act 1935* in respect to a limited access road. **A1.5** Vehicular traffic must be able to enter and leave a major road in a forward direction.	**P1** Vehicular traffic to and from the site must minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network, having regard to: (a) any increase in traffic caused by the use; (b) the nature of the traffic generated by the use; (c) the nature of the road; (d) the speed limit and traffic flow of the road; (e) any alternative access to a road; (f) the need for the use; (g) any traffic impact assessment; and (h) any advice received from the rail or road authority.

Planning Comment:

Of the above, only A1.4 is relevant to the proposal. A1.5 is met as all exiting parking spaces are able to leave the subject site (not a major road in any case) in a forward direction.

Under Table C3.1, the following increase in traffic cannot be exceeded in order to meet A1.4:

20% or 40 vehicle movements per day, whichever is the greater

The following provides information about proposed staffing numbers, hours of operation and shift staggering:

Current and proposed staff numbers

Currently the number of staff working at Incat is 470. This proposal for a new boat building shed seeks approval for an additional 180 staff, to be spread across 2 shifts.

The maximum staff across Incat will be 650 staff, spread across 2 shifts. 90 of these staff are located at the Inches site at 18 Bender Drive.

On the 100 Derwent Park Road site this will be up to 560 staff (minus the 90 at the Inches site where there are 106 parking spaces available).

An increase in hours of operation is also being sought as part of the application.

Parking for the development has been based on the following numbers:

Existing staff: 470

Adding a further 180 new staff:

Minus staff at Inches site: 90

Total proposed staff in this DA: 560

150 bussed in to site.

Planning Scheme requirement of: 2 spaces per 3 staff

Parking spaces required by development against Planning Scheme:

373.3 rounded up to 374 car parking spaces

18 motorcycles spaces required

374 minimum spaces required for development based on Planning Scheme requirement

- 348 spaces are in previously approved Nystar carpark in 1999
- Plus 8 visitor previously approved in 1999 and existing
- Plus 3 disabled approved in 1999 and existing

Current Operating Hours

6.00am – 1.30am Monday – Thursday inclusive (for those staff who do 4 day a week)

6.00am – 4.30pm Friday (for those staff who do 5 days per week)

6.00am – 11.30pm Saturday and Sunday

Proposed Operating Hours

6.00am – 1.30am Monday – Sunday inclusive (not Public Holidays as the current EBA does not allow work on Public Holidays)

Shifts

There are 2 shifts per day. There is a morning shift and an afternoon shift. The shift hours depend on whether staff work a 4 or 5 day week.

All morning shifts start 6:00am.

For those who do a 4 day week, the morning shift finishes at 4:20pm.

For those who do a 5 day week, the morning shift finishes at 2:20pm.

Currently, there are up to 430 staff doing the morning shifts total.

The number of people doing morning shifts is proposed to increase to 520.

For afternoon/evening shifts, these start at 3:30pm and finish by 1:30am the following morning.

Currently, there are up to 40 staff doing the afternoon/evening shift in total.

The number of people doing the afternoon/evening shift is proposed to increase to 130.

The morning shift knock off time is staggered so that those who do a 5 day week finish by 2:20pm and do not overlap with the arrival of afternoon shift staff who commence at 3:30pm.

Those who work the 4 day week and do the morning shift have a slight overlap with those arriving for the afternoon shift. Currently, 220 staff who do the 4 day work week finish their morning shift at 4:20pm which is after afternoon shift workers have arrived at 3:30pm.

Where there is an overlap between morning and afternoon shifts, there are up to 260 staff on site between 3:30pm and 4:20pm for less than an hour. This is proposed to increase to 430 staff being on site between 3:30pm and 4:20pm.

This staggering of shifts is shown in the below table provided by Incat.

The staggering of shifts is shown in the table below.

Shift	Timing	Current Staff	Proposed Staff	Historical Peak Resourcing

Morning (5 day week)	**0600am – 1420pm**	**Up to 110 staff**	**Up to 140 staff**	**Up to 900 staff**
Morning 4 Day week)	**0600am – 1620pm**	**Up to 220 staff**	**Up to 300 staff**	**Up to 150 staff**
Afternoon/evening	**1530am – 0130pm**	**Up to 40 staff**	**Up to 130 staff**	**Up to 150 staff**

The staggering of shifts is something Incat has long done with its workforce to provide flexible days per week. This also works well with car parking availability to ensure sufficient on site parking spaces available for staff.

Most staff drive by private car with many lift sharing. Some walk or catch public transport, less than half a dozen ride a bike (bicycle) while around 10-12 max ride motorcycles.

Of the 180 new staff to be employed, 150 will live off site in arranged accommodation and will be transported to 100 Derwent Park Road by buses arrange by Incat – JMG to confirm location of bus stop.

Parking

Proposed total:

348 car spaces in Nyrstar carpark approved under 71-98 (existing)

8 visitor car spaces approved under 71-98 (existing)

4 new disabled car spaces (these replace the 3 spaces approved under 71-98);

16 new car parking spaces

= 376 car parking spaces to be provided

Plus 14 new motorcycle parking spaces

Plus 10 new bicycle spaces in rack(s)

The P1 Performance Criteria apply and have been commented against as follows:

P1

Vehicular traffic to and from the site must minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network, having regard to:

Planning Comment:

The proposal seeks approval for an increase of up to 90 additional staff across the morning and afternoon shifts.

The increase in staff for both morning and afternoon shirts each is not expected to have an adverse impact on the safety of the entrance into the site. The entrance into the Incat site is a roundabout approach which acts to slow traffic and regulate entry into the site.

The access into 100 Derwent Park Road is easily navigated and experiences no significant delays at the commencement or end of shifts. The Midson Traffic TIA has addressed staffing numbers versus shift times and staggering of shifts.

(a) any increase in traffic caused by the use;

Planning Comment:

The proposed use will only result in increase traffic numbers from additional staff. No additional deliveries to or from the site are proposed or expected.

(b) the nature of the traffic generated by the use;

Planning Comment:

The nature of traffic generated by the use is predominantly single light vehicles with a substantial number of staff lift sharing.

(c) the nature of the road;

Planning Comment:

The road access to 100 Derwent Park Road is dual carriageway, has generally level gradients and has excellent sight distances along its length.

The timing of the Incat shifts does not coincide with most other uses in the surrounding area which have a more consistent flow of traffic between 8am to 4pm in their timing.

(d) the speed limit and traffic flow of the road;

Planning Comment:

The speed and traffic flow of the traffic when observed by Gray Planning on 5 separate weekdays between 8:15am to 5pm was not congested and typically travelled below the posted speed limit of 60kmph along this section of Derwent Park Road.

The Midson Traffic TIA has provided detailed analysis on traffic flow to and from the site.

(e) any alternative access to a road;

Planning Comment:

There is no alternative access to a road.

(f) the need for the use;

Planning Comment:

The use is already existing and currently does not result in any significant traffic congestion on the connecting road.

(g) any traffic impact assessment; and

Planning Comment:

Midson Traffic have provided a TIA which is submitted along with this V2 planning report in response to the Council RFI dated 15 January 2026.

(h) any advice received from the rail or road authority

Planning Comment:

None has yet been received.

C3.6.1 Habitable buildings for sensitive uses within a road or railway attenuation area

Planning Comment:

Not relevant as the development does not seek approval for any sensitive uses (typically defined as dwellings).

C3.7.1 Subdivision for sensitive uses within a road or railway attenuation area

Planning Comment:

Not relevant as the development does not seek approval for any sensitive uses (typically defined as dwellings) or subdivision.

12.4 C4.0 Electricity Transmission Infrastructure Protection Code

C4.0 Electricity Transmission Infrastructure Protection Code

This Code is not relevant as it is for development and new works in an Electricity Transmission Corridor, a Communications Station Buffer Area or a Substation Facility Buffer Area. The subject site is not mapped on TheList as being affected by any overlay.

12.5 C5.0 Telecommunications Code

C5.0 Telecommunications Code

This Code is not relevant as it is for developments involving telecommunications. This proposal will instead involve a boat building (Manufacturing and Processing use class) use with the second proposal for a boundary adjustment only.

12.6 C6.0 Local Historic Heritage Code

C6.0 Local Historic Heritage Code

This Code does not apply as the subject site is not within a Heritage Precinct and is not an individually listed Heritage Place. The subject site is not affected by any overlay.

12.7 C7.0 Natural Assets Code

C7.0 Natural Assets Code

This Code will apply as the subject site at 100 Derwent Park Road is mapped within the Waterway and Coastal Protection Area overlay which extends 40m into the subject site from high watermark along the eastern boundary adjoining the River Derwent.

The following clauses will be triggered in the Natural Assets Code:

C7.6.1 Buildings and works within a waterway and coastal protection area or a future coastal refugia area

Objective:	That buildings and works within a waterway and coastal protection area or future coastal refugia area will not have an unnecessary or unacceptable impact on natural assets.

Acceptable Solutions	**Performance Criteria**
A1 Buildings and works within a waterway and coastal protection area must: (a) be within a building area on a sealed plan approved under this planning scheme; (b) in relation to a Class 4 watercourse, be for a crossing or bridge not more than 5m in width; or (c) if within the spatial extent of tidal waters, be an extension to an existing boat ramp, car park, jetty, marina, marine farming shore facility or slipway that is not more than 20% of the area of the facility existing at the effective date.	**P1.1** Buildings and works within a waterway and coastal protection area must avoid or minimise adverse impacts on natural assets, having regard to: (a) impacts caused by erosion, siltation, sedimentation and runoff; (b) impacts on riparian or littoral vegetation; (c) maintaining natural streambank and streambed condition, where it exists; (d) impacts on in-stream natural habitat, such as fallen logs, bank overhangs, rocks and trailing vegetation; (e) the need to avoid significantly impeding natural flow and drainage; (f) the need to maintain fish passage, where known to exist; (g) the need to avoid land filling of wetlands; (h) the need to group new facilities with existing facilities, where reasonably practical; (i) minimising cut and fill; (j) building design that responds to the particular size, shape, contours or slope of the land; (k) minimising impacts on coastal processes, including sand movement and wave action; (l) minimising the need for future works for the protection of natural assets, infrastructure and property; (m) the environmental best practice guidelines in the

	Wetlands and Waterways Works Manual; and (n) the guidelines in the *Tasmanian Coastal Works Manual*. **P1.2** Buildings and works within the spatial extent of tidal waters must be for a use that relies upon a coastal location to fulfil its purpose, having regard to: (a) the need to access a specific resource in a coastal location; (b) the need to operate a marine farming shore facility; (c) the need to access infrastructure available in a coastal location; (d) the need to service a marine or coastal related activity; (e) provision of essential utility or marine infrastructure; or (f) provisions of open space or for marine-related educational, research, or recreational facilities.

Planning Comment:

The A1 Acceptable Solution will not be able to be met by the proposal as the boat building shed and any associated slip will be partially and unavoidably located within the Waterway and Coastal Protection Area overlay.

The following comment are provided against the P1.1 Performance Criteria in addition to the marine ecological assessment prepared by Marine Solutions:

P1.1

Buildings and works within a waterway and coastal protection area must avoid or minimise adverse impacts on natural assets, having regard to:

Planning Comment:

The 'natural asset' here is the River Derwent. The proposal avoids adverse impact by minimising the degree of reclamation to the absolute minimum required to facilitate the proposal, as designed and documented in the JMG plans submitted.

All construction works will be inside the building within an entirely managed and enclosed space. Ships will only be floated into the 'wet dock' area to be internally fit out, therefore minimising emissions or impact on the River Derwent.

The proposed wharf has been designed to create a constructed edge like other wharf edges in the surrounding area to avoid erosion and minimise the impact of activity in close proximity to the river's edge with land.

(a) impacts caused by erosion, siltation, sedimentation and runoff;

Planning Comment:

The proposed wharf has been designed by JMG to provide an appropriate constructed edge to the Incat title on the river side to avoid erosion. The proposal will not result in any siltation or sedimentation. Run off from the proposed building is proposed to be discharged to a retention drain for management.

(b) impacts on riparian or littoral vegetation;

Planning Comment:

There is no vegetation existing in the overlay area within 100 Derwent Park Road and therefore this criteria is not applicable.

(c) maintaining natural streambank and streambed condition, where it exists;

Planning Comment:

There is no natural streambank or streambed and therefore this criteria is not relevant. The subject site is within a long established area of industrial development comprising extensive wharf areas along the waterfront as well as slipways, jetties and docks.

(d) impacts on in-stream natural habitat, such as fallen logs, bank overhangs, rocks and trailing vegetation;

Planning Comment:

There is no in-stream natural habitat such as fallen logs, bank overhangs, rocks or trailing vegetation and therefore this criteria is not relevant.

(e) the need to avoid significantly impeding natural flow and drainage;

Planning Comment:

The proposed works within the overlay area will not result in any impediment to the natural flow and drainage of the River Derwent. The portion of the river where the works will be located in around 500m wide.

(f) the need to maintain fish passage, where known to exist;

Planning Comment:

The proposal will not result in any impact on fish passage given the scale of the River Derwent in comparison to the area where the reclamation/fill and building works are proposed. The portion of the River Derwent where works are to be located is more than 500m wide. This clause is more applicable where works will substantially block or impede a stream or river.

(g) the need to avoid land filling of wetlands;

Planning Comment:

There are no wetlands and therefore this criteria is not relevant.

(h) the need to group new facilities with existing facilities, where reasonably practical;

Planning Comment:

The proposal will group the new proposed facilities where there is already existing extensive development and works within the Incat site.

(i) minimising cut and fill;

Planning Comment:

The proposal minimises cut as the plans show very little excavation being required for the proposed building.

Fill has been minimised to the absolute minimum required for the works, as designed by JMG.

(j) building design that responds to the particular size, shape, contours or slope of the land;

Planning Comment:

The proposed building follows the line of the coast and minimises intrusion into the coastal area by running parallel along the coastline.

(k) minimising impacts on coastal processes, including sand movement and wave action;

Planning Comment:

The proposed works will have no noticeable impact on coastal processes such as sand movement or wave action. The works are in a tidal area but wave action is minimised due to the length, width and depth of the River Derwent at the location where the works will occur. The River Derwent at this point is more than 500m wide and in excess of 30m in depth. The works proposed comprise a very minor encroachment into a vast river area.

(l) minimising the need for future works for the protection of natural assets, infrastructure and property;

Planning Comment:

The works including the reclamation and in particular the wharf have been designed by JMG to minimise the future works associated with the protection of natural assets, infrastructure and property. The proposed wharf will form a hard constructed edge to avoid future eroision.

(m) the environmental best practice guidelines in the Wetlands and Waterways Works Manual; and

Planning Comment:

The proposal has been designed by JMG with the guidelines in this manual in mind.

(n) the guidelines in the Tasmanian Coastal Works Manual.

Planning Comment:

The proposal has been designed by JMG with the guidelines in this manual in mind.

P1.2

Buildings and works within the spatial extent of tidal waters must be for a use that relies upon a coastal location to fulfil its purpose, having regard to:

Planning Comment:

The proposal involves a new shed for boat building of boats that are of a substantial size. A waterfront location is required to enable the boats to move from dry dock to wet dock easily and safely.

(a) the need to access a specific resource in a coastal location;

Planning Comment:

There is no specific resource required. The boat building use is entirely dependent on having a coastal location.

(b) the need to operate a marine farming shore facility;

Planning Comment:

The proposal is not for marine farming or a shore facility.

(c) the need to access infrastructure available in a coastal location;

Planning Comment:

There is no specific infrastructure required. The boat building use and associated operations are entirely dependent on having a coastal location.

(d) the need to service a marine or coastal related activity;

Planning Comment:

The boat building use is entirely dependent on having a coastal location.

(e) provision of essential utility or marine infrastructure; or

Planning Comment:

The boat building use is entirely dependent on having a coastal location with a dry dock being directly adjacent to a wet dock. The marine infrastructure being proposed is essential to Incat's operations as a significant Tasmanian employer and international boat manufacturer.

(f) provisions of open space or for marine-related educational, research, or recreational facilities.

Planning Comment:

The proposal does not involve open space, recreational facilities or marine related education or research.

The proposal is considered to be acceptable against all of the P1.1 and P1.2 Performance Criteria.

A marine ecological report prepared by Marine Solutions has been submitted as part of the RFI response package.

A2 Buildings and works within a future coastal refugia area must be located within a building area on a sealed plan approved under this planning scheme.	**P2.1** Buildings and works within a future coastal refugia area must allow for natural coastal processes to continue to occur and avoid or minimise adverse impacts on natural assets, having regard to: (a) allowing for the landward transgression of sand dunes and the landward colonisation of wetlands, saltmarshes and other coastal habitats from adjacent areas; (b) avoiding the creation of barriers or drainage networks that would prevent future tidal inundation; (c) allowing the coastal processes of sand deposition or erosion to continue to occur; (d) the need to group new facilities with existing facilities, where reasonably practical; (e) the impacts on native vegetation; (f) minimising cut and fill; (g) building design that responds to the particular size, shape, contours or slope of the land; (h) the impacts of sea-level rise on natural coastal

	processes and coastal habitat; (i) the environmental best practice guidelines in the *Wetlands and Waterways Works Manual*; and (j) the guidelines in the *Tasmanian Coastal Works Manual*. **P2.2** Buildings and works within a future coastal refugia area must be for a use that relies upon a coastal location to fulfil its purpose, having regard to: (a) the need to access a specific resource in a coastal location; (b) the need to operate a marine farming shore facility; (c) the need to access infrastructure available in a coastal location; (d) the need to service a marine or coastal related activity; (e) provision of essential utility or marine infrastructure; and (f) provision of open space or for marine-related educational, research, or recreational facilities.

Planning Comment:

This clause is not applicable as the subject site is not affected by a future coastal refugia area overlay.

A3 Development within a waterway and coastal protection area or a future coastal refugia area must not involve a new stormwater point discharge into a watercourse, wetland or lake.	**P3** Development within a waterway and coastal protection area or a future coastal refugia area involving a new stormwater point discharge into a watercourse, wetland or lake must avoid or minimise adverse impacts on natural assets, having regard to: (a) the need to minimise impacts on water quality; and (b) the need to mitigate and manage any impacts likely to arise from erosion, sedimentation or runoff.

Planning Comment:

This clause is triggered because the subject site is affected by a Waterway and Coastal Protection Area overlay.

The A3 Acceptable Solution will be met if the development does not involve stormwater discharge into the River Derwent.

The proposal will discharge stormwater into a catch drain, as per the JMG plans.

A4 Dredging or reclamation must not occur within a waterway and coastal protection area or a future coastal refugia area.	**P4.1** Dredging or reclamation within a waterway and coastal protection area or a future coastal refugia area must minimise adverse impacts on natural coastal processes and natural assets, having regard to: (a) impacts caused by erosion, siltation, sedimentation and runoff; (b) impacts on riparian or littoral vegetation; (c) the need to avoid land filling of wetlands; (d) impacts on sand movement and wave action; and (e) the potential for increased risk to inundation of adjacent land. **P4.2** Dredging or reclamation within a waterway and coastal protection area or a future coastal refugia area must be necessary: (a) to continue an existing use or development on adjacent land; or (b) for a use which relies upon a coastal location to fulfil its purpose, having regard to: (i) the need to access a specific resource in a coastal location; (ii) the need to operate a marine farming shore facility; (iii) the need to access infrastructure available in a coastal location; (iv) the need to service a marine or coastal related activity; (v) provision of essential utility or marine infrastructure; and (vi) provision of open space or for marine-related educational, research, or recreational facilities.

Planning Comment:

The A4 Acceptable Solution cannot be met as the proposal will involve reclamation that is partially located within a Waterway and Coastal Protection Area overlay.

The following comments are provided against the P4.1 and P4.2 Criteria:

P4.1

Dredging or reclamation within a waterway and coastal protection area or a future coastal refugia area must minimise adverse impacts on natural coastal processes and natural assets, having regard to:

Planning Comment:

The proposed reclamation has been designed by JMG to be the minimum required to facilitate the proposed works.

No natural coastal process will be adversely affected due to the characteristics (depth, scale and extent of the river where the works are proposed.

No natural assets will be adversely affected. The fill to be used is from a clean authority source.

(a) impacts caused by erosion, siltation, sedimentation and runoff;

Planning Comment:

The proposal also seeks approval for a wharf to form a controlled edge to the waterfront to avoid any resultant erosion. No siltation or sedimentation will result from the reclamation. No run off will be triggered by the reclamation works.

(b) impacts on riparian or littoral vegetation;

Planning Comment:

There is no known riparian or littoral vegetation in the footprint of the proposed reclamation works.

(c) the need to avoid land filling of wetlands;

Planning Comment:

There are no wetlands at the subject site and therefore this criteria is not applicable.

(d) impacts on sand movement and wave action; and

Planning Comment:

The reclamation will have no impact on sand movement outside the footprint of the works and will have no impact on wave movement due to the riverine nature of the river at this point which is tidal but not subject to any significant wave action.

The River Derwent is more than 500m wide at the location where the works will occur. The scale of the works is miniscule compared to the width, depth and extent of the river itself.

(e) the potential for increased risk to inundation of adjacent land.

Planning Comment:

The works have been designed to avoid any inundation risk to any adjacent land. The depth and width of the river where the works will occur will not increase the risk of any inundation risk from the proposed works onto adjacent land.

P4.2

Dredging or reclamation within a waterway and coastal protection area or a future coastal refugia area must be necessary:

Planning Comment:

The proposed reclamation is entirely necessary due to the design and nature of the proposed boat building shed which has been specifically designed to be fit for purpose. The proposal requires a wet dock and dry dock There is no alternative to reclamation.

(a) to continue an existing use or development on adjacent land; or

Planning Comment:

The proposal will continue an existing boat building use and development at 100 Derwent Park Road.

There is no need to comply with (b) below as compliance is either (a) or (b) not both. However, comments have been made in any case.

(b) for a use which relies upon a coastal location to fulfil its purpose, having regard to:

Planning Comment:

The boat building use is entirely dependent on a coastal location to enable large ship building as ships are constructed on a dry dock within an enclosed building to provide for an optimal work environment in all conditions with minimal emissions. The ships must be able to be moved from dry dock to wet dock quickly and easily. The design of the development and the location of the works fully facilitate these operations.

(i) the need to access a specific resource in a coastal location;

Planning Comment:

There is no specific resource.

(ii) the need to operate a marine farming shore facility;

Planning Comment:

The proposal does not seek approval for a marine farming shore facility.

(iii) the need to access infrastructure available in a coastal location;

Planning Comment:

There is no specific infrastructure required. The boat building use is entirely dependent on having a coastal location.

(iv) the need to service a marine or coastal related activity;

Planning Comment:

The boat building operation are entirely dependent on having a coastal location due to the size of the ships being constructed and their need to move easily from dry dock to wet dock.

(v) provision of essential utility or marine infrastructure; and

Planning Comment:

The boat building use is entirely dependent on having a coastal location with a dry dock being directly adjacent to a wet dock. The marine infrastructure being proposed is essential to Incat's operations as a significant Tasmanian employer and international boat manufacturer.

(vi) provision of open space or for marine related educational, research, or recreational facilities.

Planning Comment:

The proposal does not require or need to provide open space or recreational space and does not involve marine related research or education activities.

A marine ecological report prepared by Marine Solutions has been submitted as part of the RFI response package.

A5 Coastal protection works or watercourse erosion or inundation protection works must not occur within a waterway and coastal protection area or a future coastal refugia area.	**P5** Coastal protection works or watercourse erosion or inundation protection works within a waterway and coastal protection area or a future coastal refugia area must be designed by a suitably qualified person and minimise adverse impacts on natural coastal processes, having regard to: (a) impacts on sand movement and wave action; and (b) the potential for increased risk of inundation to adjacent land.

Planning Comment:

The A5 Acceptable Solution will be met if the development does not involve waterfront coastal protection works. Such works typically involve levees, seawalls etc.

A sea wall is proposed as a 'wharf' on the JMG plans.

Comments are provide against the P5 Performance Criteria:

P5

Coastal protection works or watercourse erosion or inundation protection works within a waterway and coastal protection area or a future coastal refugia area must be designed by a suitably qualified person and minimise adverse impacts on natural coastal processes, having regard to:

Planning Comment:

The proposed works involving a wharf that has been designed and located by JMG to avoid any adverse impacts on natural coastal processes such as wave movement.

(a) impacts on sand movement and wave action; and

Planning Comment:

The proposed sea wall (wharf structure) will have no impact on sand movement outside the footprint of the works and will have no impact on wave movement due to the riverine nature of the river at this point which is tidal but not subject to any significant wave action due to the width (500m+) and depth (30m+) of the River where works will occur.

(b) the potential for increased risk of inundation to adjacent land.

Planning Comment:

The wharf structure will not result in any increased risk of inundation to adjacent land due to the physical characteristics of the River Derwent where the works will occur. The River Derwent is of reasonable depth (as shown in the JMG plans for the fill works) and the wharf

has been designed to follow the current shoreline and will not redirect or deflect any inundation into adjacent land.

A marine ecological report prepared by Marine Solutions has been submitted as part of the RFI response package.

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C7.6.2 Clearance within a priority vegetation area

Objective:	That clearance of native vegetation within a priority vegetation area: (a) does not result in unreasonable loss of priority vegetation; (b) is appropriately managed to adequately protect identified priority vegetation; and (c) minimises and appropriately manages impacts from construction and development activities..

Acceptable Solutions	**Performance Criteria**
A1 Clearance of native vegetation within a priority vegetation area must be within a building area on a sealed plan approved under this planning scheme.	**P1.1** Clearance of native vegetation within a priority vegetation area must be for: (a) an existing use on the site, provided any clearance is contained within the minimum area necessary to be cleared to provide adequate bushfire protection, as recommended by the Tasmania Fire Service or an accredited person; (b) buildings and works associated with the construction of a single dwelling or an associated outbuilding; (c) subdivision in the General Residential Zone or Low Density Residential Zone; (d) use or development that will result in significant long term social and economic benefits and there is no feasible alternative location or design; (e) clearance of native vegetation where it is demonstrated that on-going pre-existing management cannot ensure the survival of the priority vegetation and there is little potential for long-term persistence; or (f) the clearance of native vegetation that is of limited scale relative to the extent of priority vegetation on the site. **P1.2** Clearance of native vegetation within a priority vegetation area must minimise adverse impacts on priority vegetation, having regard to: (a) the design and location of buildings and works and any constraints such as topography or land hazards;

	(b) any particular requirements for the buildings and works; (c) minimising impacts resulting from bushfire hazard management measures through siting and fire-resistant design of habitable buildings; (d) any mitigation measures implemented to minimise the residual impacts on priority vegetation; (e) any on-site biodiversity offsets; and (f) any existing cleared areas on the site.

Planning Comment:

The subject site does not include any Priority Vegetation Area overlays and this clause is not applicable.

C7.7.1 Subdivision within a waterway and coastal protection area or a future coastal refugia area

Objective:	That: (a) works associated with subdivision within a waterway and coastal protection area or a future coastal refugia area will not have an unnecessary or unacceptable impact on natural assets; and (b) future development likely to be facilitated by subdivision is unlikely to lead to an unnecessary or unacceptable impact on natural assets.

Acceptable Solutions	**Performance Criteria**
A1 Each lot, or a lot proposed in a plan of subdivision, within a waterway and coastal protection area or a future coastal refugia area, must: (a) be for the creation of separate lots for existing buildings; (b) be required for public use by the Crown, a council, or a State authority; (c) be required for the provision of Utilities; (d) be for the consolidation of a lot; or (e) not include any works (excluding boundary fencing), building area, services, bushfire hazard management area or vehicular access within a waterway and coastal protection area or future coastal refugia area.	**P1** Each lot, or a lot proposed in a plan of subdivision, within a waterway and coastal protection area or a future coastal refugia area, must minimise adverse impacts on natural assets, having regard to: (a) the need to locate building areas and any associated bushfire hazard management area to be outside a waterway and coastal protection area or a future coastal refugia area; and (b) future development likely to be facilitated by the subdivision.

Planning Comment:

No subdivision is proposed as part of this application and therefore this clause is not applicable.

C7.7.2 Subdivision within a priority vegetation area

Objective:	That: (a) works associated with subdivision will not have an unnecessary or unacceptable impact on priority vegetation; and (b) future development likely to be facilitated by subdivision is unlikely to lead to an unnecessary or unacceptable impact on priority vegetation.

Acceptable Solutions	**Performance Criteria**
A1 Each lot, or a lot proposed in a plan of subdivision, within a priority vegetation area must: (a) be for the purposes of creating separate lots for existing buildings; (b) be required for public use by the Crown, a council, or a State authority; (c) be required for the provision of Utilities; (d) be for the consolidation of a lot; or (e) not include any works (excluding boundary fencing), building area, bushfire hazard management area, services or vehicular access within a priority vegetation area.	**P1.1** Each lot, or a lot proposed in a plan of subdivision, within a priority vegetation area must be for: (a) subdivision for an existing use on the site, provided any clearance is contained within the minimum area necessary to be cleared to provide adequate bushfire protection, as recommended by the Tasmania Fire Service or an accredited person; (b) subdivision for the construction of a single dwelling or an associated outbuilding; (c) subdivision in the General Residential Zone or Low Density Residential Zone; (d) use or development that will result in significant long term social and economic benefits and there is no feasible alternative location or design; (e) subdivision involving clearance of native vegetation where it is demonstrated that on-going pre-existing management cannot ensure the survival of the priority vegetation and there is little potential for long-term persistence; or (f) subdivision involving clearance of native vegetation that is of limited scale relative to the extent of priority vegetation on the site. **P1.2** Works association with subdivision within a priority vegetation area must minimise adverse impacts on priority vegetation, having regard to: (a) the design and location of any works, future development likely to be facilitated by the subdivision, and any constraints such as topography or land hazards;

	(b) any particular requirements for the works and future development likely to be facilitated by the subdivision; (c) the need to minimise impacts resulting from bushfire hazard management measures through siting and fire-resistant design of any future habitable buildings; (d) any mitigation measures implemented to minimise the residual impacts on priority vegetation; (e) any on-site biodiversity offsets; and (f) any existing cleared areas on the site.

Planning Comment:

Not applicable as the subject site does not contain any Priority Vegetation Area overlay.

12.8 C8.0 Scenic Protection Code

C8.0 Scenic Protection Code

This Code will not apply as the subject site is not mapped as being within a scenic road corridor.

12.9 C9.0 Attenuation Code

C9.0 Attenuation Code

There is a no mapped attenuation area under Code mapping on TheList affecting the subject site.

The proposal is also for a an existing use involving activity details that are included in Table C9.1 of this Code, those activities being:

- boat building (maritime maintenance and construction works), metal fabrication and surface coating which are the activities that will be undertaken within the proposed shed.

The boat building activity within the new shed will not involve Organotin compounds as confirmed by Incat.

The JMG plans show there are no dwellings (sensitive uses) located within 500m of the proposed development.

As part of their plans, JMG have mapped both 300m and 500m out from the edge of the proposed boat building and marked on a site plan to confirm no dwellings are picked up.

In Table C9.1 of the Attenuation Code, boat building (maritime maintenance and construction works), metal fabrication and surface coating are the activities that will be undertaken within the proposed shed.

These activities have either a 300m or 500m attenuation area.

The JMG plans show both 300m and 500m attenuation areas from the most eastern end of the proposed new shed. No sensitive uses are located within either attenuation area.

It is therefore considered that clause C9.5.1.A1 of the Attenuation Code is complied with due to greater than minimum attenuation areas for the nominated activities being able to be met.

C9.6.1 Lot design

Objective:	To provide for subdivision so that a lot intended for a sensitive use: (a) is located to avoid an activity with potential to cause emissions and enable appropriate levels of amenity; and (b) does not conflict with, interfere with or constrain an existing activity with potential to cause emissions.

Acceptable Solutions	**Performance Criteria**
A1 Each lot, or a lot proposed in a plan of subdivision, within an attenuation area must: (a) be for the creation of separate lots for existing buildings; (b) be for the creation of a lot where a building for a sensitive use can be located entirely outside the attenuation area; or (c) not be for the creation of a lot intended for a sensitive use.	**P1** Each lot, or a lot proposed in a plan of subdivision, within an attenuation area must not result in the potential for a sensitive use to be impacted by emissions, having regard to: (a) the nature of the activity with the potential to cause emissions, including: (i) operational characteristics of the activity; (ii) scale and intensity of the activity; and (iii) degree of emissions from the activity; and (b) the intended use of the lot.

Planning Comment:

No subdivision is proposed as part of this application and therefore this clause is not applicable.

12.10 C10.0 Coastal Erosion Hazard Code

C10.0 Coastal Erosion Hazard Code

The subject site is not in a mapped coastal erosion area. A small portion of 100 Derwent Park Road is located in a mapped Coastal Erosion Investigation Area. However, no works are proposed within this mapped area and therefore this Code is not applicable.

12.11 C11.0 Coastal Inundation Hazard Code

C11.0 Coastal Inundation Hazard Code

The subject site is currently in a mapped coastal inundation area and therefore this Code has been considered.

The subject site contains both low and medium mapped coastal inundation areas.

The General Industrial zone is an 'urban zone' as confirmed in the State Planning Provisions:

urban zone	means land shown on a zone map in the relevant Local Provisions Schedule, as within the following zones: (a) General Residential Zone; (b) Inner Residential Zone; (c) Low Density Residential Zone; (d) Village Zone; (e) Urban Mixed Use Zone; (f) Local Business Zone; (g) General Business Zone; (h) Central Business Zone; (i) Commercial Zone; (j) Light Industrial Zone; (k) General Industrial Zone; (l) Major Tourism Zone; (m) Port and Marine Zone; (n) Community Purpose Zone; (o) Recreation Zone; and (p) any particular purpose zone.

The following clauses are relevant to the Boat Building proposal:

C11.5.2 Uses located within a non-urban zone and within a medium coastal inundation hazard band

Objective:	To ensure that a use located within a non-urban zone and within a medium coastal inundation hazard band: (a) is reliant on a coastal location; and (b) can achieve and maintain a tolerable risk from exposure to coastal inundation.

Acceptable Solutions	**Performance Criteria**
A1 No Acceptable Solution.	**P1.1** A use within a non-urban zone and within a medium coastal inundation hazard band must be for a use which relies upon a coastal location to fulfil its purpose, having regard to: (a) the need to access a specific resource in a coastal location; (b) the need to operate a marine farming shore facility; (c) the need to access infrastructure available in a coastal location; (d) the need to service a marine or coastal related activity; (e) provision of an essential utility or marine infrastructure; (f) provision of open space or for marine-related educational, research, or recreational facilities; (g) any advice from a State authority, regulated entity or a council; and (h) the advice obtained in a coastal inundation hazard report. **P1.2** A coastal inundation hazard report also demonstrates that: (a) any increase in the level of risk from coastal inundation does not require any specific hazard reduction or protection measures; or (b) the use can achieve and maintain a tolerable risk from a 1% annual exceedance probability coastal inundation event in 2100 for the intended life of the use without requiring any specific hazard reduction or protection measures.

Planning Comment:

Not applicable as the Port and Marine zone and the General Industrial zone are both defined as an Urban zone.

C11.5.3 Uses located within a non-urban zone and within a low coastal inundation hazard band

Objective:	That a use located within a non-urban zone and within a low coastal inundation hazard band can achieve and maintain a tolerable risk from coastal inundation.

Acceptable Solutions	**Performance Criteria**
A1 No Acceptable Solution.	**P1** A tolerable risk for a use located within a non-urban zone and within a low coastal inundation hazard band can be achieved and maintained, having regard to: (a) any increase in the level of risk from coastal inundation; (b) any requirement for specific hazard reduction or protection measures; (c) the need to minimise any:
	(i) increase in risk to public infrastructure; and (ii) reliance on coastal protection works; (d) any advice from a State authority, regulated entity or a council; and (e) the advice contained in a coastal inundation hazard report.

Planning Comment:

Not applicable as the Port and Marine zone and the General Industrial zone are both defined as an Urban zone.

C11.5.4 Critical use, hazardous use or vulnerable use

Objective:	That critical, hazardous and vulnerable uses located within a coastal inundation hazard area can achieve and maintain a tolerable risk from coastal inundation.
Acceptable Solutions	**Performance Criteria**
A1 No Acceptable Solution.	**P1.1** If located within a non-urban zone or a high coastal inundation hazard band, the use must be for a use which relies upon a coastal location to fulfil its purpose, having regard to: (a) the need to access a specific resource in a coastal location; (b) the need to access infrastructure available in a coastal location; (c) the need to operate a marine farming shore facility; (d) the need to service a marine or coastal related activity; (e) provision of an essential utility or marine infrastructure; and (f) provision of open space or for marine-related educational, research, or recreational facilities; (g) the advice contained in a coastal inundation hazard report. **P1.2** A coastal inundation hazard report also demonstrates that: (a) an increase in the level of risk from a coastal inundation does not require any specific hazard reduction or protection measures; or (b) the use can achieve and maintain a tolerable risk from a 1% annual exceedance probability
	coastal inundation event in 2100 for the intended life of the use without requiring any specific hazard reduction or protection measures.

Planning Comment:

Not applicable as the Port and Marine zone and the General Industrial zone are both defined as an Urban zone and there is no mapping of High Hazard inundation within the subject site.

A3 No Acceptable Solution.	**P3** In addition to the requirements in clause C11.5.4 P1.2, the impact of coastal inundation on a hazardous use within a coastal inundation hazard area must have a tolerable risk in a 1% annual exceedance probability coastal inundation event in 2100, having regard to: (a) the health and safety of people; (b) any impact on property; (c) any impact on the environment; (d) the advice contained in a coastal inundation hazard report; and (e) any advice from a State authority, regulated entity or a council.

Planning Comment:

A hazardous use is defined as follows:

hazardous use	means a use that is within one of the following Use Classes: (a) Crematoria and Cemeteries; (b) Extractive Industry, if the use involves the storage of a hazardous chemical of a manifest quantity; (c) Hospital Services, if the use involves the storage of a hazardous chemical of a manifest quantity; (d) Manufacturing and Processing, if the use involves the storage of a hazardous chemical of a manifest quantity; (e) Recycling and Waste Disposal; (f) Research and Development, if the use involves the storage of a hazardous chemical of a manifest quantity; (g) Storage, if the use involves the storage of a hazardous chemical of a manifest quantity; (h) Transport Depot and Distribution, if the use involves the storage of a hazardous chemical of a manifest quantity; (i) Utilities, if the use involves the storage of a hazardous chemical of a manifest quantity; or (j) Vehicle Fuel Sales and Service.

Incat have confirmed that no hazardous materials of a manifest quantity are proposed to be stored within the new boat building shed.

Boat building is not a use contained within the definition of 'hazardous uses'.

Therefore, the proposed shed will not be used for a 'hazardous use'.

C11.6 Development Standards for Buildings and Works

C11.6.1 Buildings and works, excluding coastal protection works, within a coastal inundation hazard area

Objective:	That: (a) building and works, excluding coastal protection works, within a coastal inundation hazard area, can achieve and maintain a tolerable risk from coastal inundation; and (b) buildings and works do not increase the risk from coastal inundation to adjacent land and public infrastructure.

Acceptable Solutions	Performance Criteria
A1 No Acceptable Solution.	**P1.1** Buildings and works, excluding coastal protection works, within a coastal inundation hazard area must have a tolerable risk, having regard to: (a) whether any increase in the level of risk from coastal inundation requires any specific hazard reduction or protection measures; (b) any advice from a State authority, regulated entity or a council; and (c) the advice contained in a coastal inundation hazard report. **P1.2** A coastal inundation hazard report also demonstrates that the building or works: (a) do not cause or contribute to coastal inundation on the site, on adjacent land or public infrastructure; and (b) can achieve and maintain a tolerable risk from a 1% annual exceedance probability coastal inundation event in 2100 for the intended life of the use without requiring any specific coastal inundation protection works.

Planning Comment:

The following comments are provided against the P1.1 and P1.2 Performance Criteria:

P1.1

Buildings and works, excluding coastal protection works, within a coastal inundation hazard area must have a tolerable risk, having regard to:

Planning Comment:

The proposed works have been designed by JMG to have a tolerable risk based on projected sea level rises for the subject site and surrounding area.

(a) whether any increase in the level of risk from coastal inundation requires any specific hazard reduction or protection measures;

Planning Comment:

The works have been designed by JMG will not result in an increase in the level of inundation.

No specific hazard reduction or protection measures have been required or nominated as part of the works are none have been considered necessary.

(b) any advice from a State authority, regulated entity or a council; and

Planning Comment:

The proposal has been submitted without any accompanying advice from a state authority or regulated entity or Council.

(c) the advice contained in a coastal inundation hazard report.

Planning Comment:

The application is not accompanied by a coastal inundation report.

P1.2

A coastal inundation hazard report also demonstrates that the building or works: (a) do not cause or contribute to coastal inundation on the site, on adjacent land or public infrastructure; and (b) can achieve and maintain a tolerable risk from a 1% annual exceedance probability coastal inundation event in 2100 for the intended life of the use without requiring any specific coastal inundation protection works.

Planning Comment:

The application is not accompanied by a coastal inundation report.

C11.6.2 Coastal protection works within a coastal inundation hazard area

Objective:	That coastal protection works located within a coastal inundation hazard area are kept to a minimum, appropriately located, fit for purpose and do not increase the likely risks from coastal inundation to adjacent land.

Acceptable Solutions	**Performance Criteria**
A1 No Acceptable Solution.	**P1** Coastal protection works within a coastal inundation hazard area must be appropriately located, fit for purpose and kept to a minimum, having regard to: (a) if within a non-urban zone, the works are for the protection of a use that relies upon a coastal location to fulfil its purpose; (b) the advice contained in a coastal inundation hazard report that: (i) there will not be an increased risk of coastal inundation from a 1% annual exceedance probability coastal inundation event in 2100 on the site, on adjacent land or public infrastructure; and (ii) the risks from coastal inundation in a 1% annual exceedance probability coastal inundation event in 2100 can be mitigated; (c) the need for arrangements to be made, including with the applicant, to meet the cost of construction and ongoing maintenance of the coastal protection works; and (d) any advice from a State authority, regulated entity or a council.

Planning Comment:

The proposal includes a seawall described as a 'wharf' in the JMG plans. The following comments are provided against the P1 Performance Criteria:

P1

Coastal protection works within a coastal inundation hazard area must be appropriately located, fit for purpose and kept to a minimum, having regard to:

Planning Comment:

The proposed wharf has been designed to form a controlled constructed edge (like much of the surrounding area) to avoid any erosion from either the proposed works or the activity that will occur adjacent to the water's edge.

(a) if within a non-urban zone, the works are for the protection of a use that relies upon a coastal location to fulfil its purpose;

Planning Comment:

The subject site is not within a non-urban zone.

(b) the advice contained in a coastal inundation hazard report that: (i) there will not be an increased risk of coastal inundation from a 1% annual exceedance probability coastal inundation event in 2100 on the site, on adjacent land or public infrastructure; and (ii) the risks from coastal inundation in a 1% annual exceedance probability coastal inundation event in 2100 can be mitigated; (c) the need for arrangements to be made, including with the applicant, to meet the cost of construction and ongoing maintenance of the coastal protection works; and (d) any advice from a State authority, regulated entity or a council.

Planning Comment:

The application has been submitted without a coastal inundation hazard report.

C11.7.1 Subdivision within a coastal inundation hazard area

Objective:	That subdivision within a coastal inundation hazard area does not create an opportunity for use or development that cannot achieve and maintain a tolerable risk from coastal inundation.

Acceptable Solutions	**Performance Criteria**
A1 Each lot, or a lot proposed in a plan of subdivision, within a coastal inundation hazard area, must: (a) be able to contain a building area, vehicle access, and services, that are wholly located outside a coastal inundation hazard area; (b) be for the creation of separate lots for existing buildings; (c) be required for public use by the Crown, a council or a State authority; or (d) be required for the provision of Utilities.	**P1** Each lot, or a lot proposed in a plan of subdivision within a coastal inundation hazard area must not create an opportunity for use or development that cannot achieve and maintain a tolerable risk from coastal inundation, having regard to: (a) any increase in risk from coastal inundation for adjacent land; (b) the level of risk to use or development arising from an increased reliance on public infrastructure; (c) the need to minimise future remediation works; (d) any loss or substantial compromise, by coastal inundation, of access to the lot on or off site; (e) the need to locate building areas outside the coastal inundation hazard area; (f) any advice from a State authority, regulated entity or a council; and (g) the advice contained in a coastal inundation hazard report.

Planning Comment:

No subdivision is proposed as part of the application and therefore this clause is not triggered.

12.12 C12.0 Flood Prone Areas Code

C12.0 Flood Prone Areas Code

This Code does not apply as the subject site while mapped with scatters areas of overlay, overlay mapping is not in the proposed footprint of the new Boat Building shed works.

12.13 C13.0 Bushfire Prone Areas Code

C13.0 Bushfire Prone Areas Code

The subject site is not affected by an overlay under the Tasmanian Planning Scheme, nor is the subject site able to meet the definition of 'bushfire prone'.

This Code therefore does not apply.

12.14 C14.0 Potentially Contaminated Land Code

C14.0 Potentially Contaminated Land Code

This Code will apply as the subject site has had at least one of the following activities (boat building) undertaken on it at any point:

Table C14.2 Potentially Contaminating Activities

Potentially Contaminating Activity	Potentially Contaminating Activity
Acid / alkali plant and formulation	Mineral processing
Ammunition manufacture and usage (e.g. shooting ranges)	Mine sites involving waste rock or tailings deposits
Asbestos production, handling or disposal	Oil or gas production or refining
Asphalt/bitumen manufacturing	Paint manufacture and formulation
Battery manufacturing or recycling	Pesticide manufacture and formulation
Boat/ship building, marinas, slip ways and associated boat yards	Petroleum product or oil storage
Boiler or kiln usage	Pharmaceutical manufacture and formulation
Chemical manufacture and formulation (e.g. fertilisers, paints, pesticides, photography, plastics, solvents)	Power stations
Commercial engine and machinery repair sites	Printing
Drum conditioning works	Radio-active material usage (e.g. hospitals)
Dry cleaning establishments	Railway yards
Electrical transformers	Scrap yards and recycling facilities
Ethanol production plants	Sewage treatment plants
Explosives industries	Sheep and cattle dips

Fertiliser manufacturing plants	Sites of fires involving hazardous materials, including firefighting foam use
Fill material imported onto a site from a potentially contaminated source	Sites of incidents involving release of hazardous materials
Foundry operations	Spray painting industries
Gas works	Spray storage and mixing sites (e.g. for orchards)
Herbicide manufacture	Tanning and associated trades
Industrial activities involving hazardous chemicals in significant quantities	Textile operations
Iron and steel works	Tyre manufacturing and retreading works
Landfill sites, including on-site waste disposal and refuse pits	Wood preservation and storage or cutting of treated timber
Metal smelting, refining or finishing	Wool scouring
Metal treatments (e.g. electroplating) and abrasive blasting	

The following clause has been considered:

C14.5.1 Suitability for intended use

Objective:	That potentially contaminated land is suitable for a sensitive use or a Use Class listed in Table C14.1 and is one of the specified uses.
Acceptable solutions	**Performance Criteria**
A1 For a sensitive use, or a specified use listed in Table C14.1, the Director, or a person approved by the Director for the purpose of this code: (a) certifies that land is suitable for the intended use; or (b) certifies a plan to manage contamination and associated risk to human health or the environment, so that the land is suitable for the intended use, or if in relation to redevelopment on land subject to the *Macquarie Point Development Corporation Act 2012*, the intended use must be in accordance with a certificate that has been or will be granted by an accredited environmental auditor.	**P1** For a sensitive use, or a specified use listed in Table C14.1, the land is suitable for the intended use, having regard to: (a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; (b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or (c) an environmental site assessment that includes a plan, to manage contamination and associated risk to human health or the environment that includes: (i) any specific remediation and protection measures required to be implemented before any use commences; and (ii) a statement that the land will be suitable for the intended use.

Planning Comment:

The proposal does not involve a sensitive use or a use specified in table C14.1. This clause is therefore not relevant.

C14.6.1 Excavation works, excluding land subject to the *Macquarie Point Development Corporation Act 2012*

Objective:	That works involving excavation of potentially contaminated land, excluding on land subject to the *Macquarie Point Development Corporation Act 2012,* do not adversely impact on human health or the environment.

Acceptable solutions	**Performance Criteria**
A1 Excavation, excluding on land subject to the *Macquarie Point Development Corporation Act 2012,* must involve less than 250m^3 of site disturbance.	**P1** Excavation, excluding on land subject to the *Macquarie Point Development Corporation Act 2012,* must not have an adverse impact on human health or the environment, having regard to: (a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; (b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or (c) an environmental site assessment, including a plan to manage contamination and associated risk to human health and the environment, that includes: (i) any specific remediation and protection measures required to be implemented before excavation commences; and (ii) a statement that the excavation does not adversely impact on human health or the environment.

Planning Comment:

The proposed works will result in more than 250sqm of site disturbance.

An environmental site assessment dated 25 March 2025 has been prepared by Pitt and Sherry that confirms the proposal complies with clause C14.6.1.

C14.6.2 Redevelopment on land subject to the Macquarie Point Development Corporation Act 2012

Planning Comment:

Not applicable as the subject site is not subject to the Macquarie Point Development Corporation Act.

C14.7.1 Subdivision for sensitive use

Objective:	That subdivision of potentially contaminated land that allows for a sensitive use or a Use Class listed in Table C14.1, and is one of the specified uses, does not adversely impact on human health or the environment.

Acceptable solutions	**Performance Criteria**
A1 For subdivision of land, the Director, or a person approved by the Director for the purpose of this code: (a) certifies that the land is suitable for the intended use or development; or (b) certifies a plan to manage contamination and associated risk to human health or the environment, so that the subdivision does not adversely impact on human health or the environment and is suitable for its intended use or development.	**P1** Subdivision of potentially contaminated land does not adversely impact on human health or the environment and is suitable for its intended use or development, having regard to: (a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; (b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or (c) an environmental site assessment, including a plan to manage contamination and associated risk to human health and the environment, that includes: (i) any specific remediation and protection measures required to be implemented before any use or development commences; and (ii) a statement that the land is suitable for the intended use or development.

Planning Comment:

No subdivision is proposed and therefore this clause is not applicable.

12.15 C15.0 Landslip Hazard Code

C15.0 Landslip Hazard Code

This Code will not apply as the proposed development site within the subject site is not affected by any overlay under the Tasmanian Planning Scheme.

12.16 C16.0 Safeguarding of Airports Code

C16.0 Safeguarding of Airports Code

This Code will not apply as the subject site is not mapped with any overlay.

ENGINEERING AND PROJECT MANAGEMENT

Burbury CONSULTING

PROJECT

Construction Environmental Management Plan – Chandlers Shed, Reclamation and Wharf

CLIENT

Incat Tasmania Pty Ltd

DATE

May 2026

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B	08/05/2026	For Draft submission	NP	JB	JB	JB
Rev	**Date**	**Revision Description**	**Author**	**Checked**	**Approved**	**Principal**

1. Introduction and Purpose

1.1 Introduction

This Construction Environmental Management Plan (CEMP) has been developed for Incat Tasmanian Pty Ltd (Incat) for their new boat building shed, reclamation and wharf facility. This CEMP addresses the required construction and environmental management controls for the request for further information (RFI's) outlined in the Glenorchy City Council (GCC) planning permit PLN–25–367.

Management of identified environmental risks are described within this CEMP along with detailed descriptions of the controls and actions required for potential environmental impact resulting from project reclamation and construction works.

This CEMP is a management tool used to identify and implement the controls and mitigations for potential risk arising from the construction activities, including the following:

- Community Awareness;
- Waste Management;
- Aquatic Environment;
- Reclamation Management;
- Noise Emissions;
- Hazardous Materials;
- Traffic (including navigation);
- Design and Construction;
- Erosion and Sedimentation;
- Air Quality; and
- Cultural Heritage (European & Aboriginal).

The project aims to ensure that environmental management will be appropriately planned, implemented and maintained, following the principles of Best Practice Environmental Management (BPEM) to drive compliance and efficient record keeping throughout all stages of the Project.

The key objectives of the Project are as follows:

- To define the processes for ensuring that the environmental requirements of the project are implemented to the satisfaction of the regulatory authorities including, Local, State and Commonwealth Governments;
- To define the processes for monitoring and reporting conformance with the project environmental requirements;
- To establish processes for assessing effectiveness of environmental controls and providing for continual improvement in environmental performance as the contract works progress;
- To establish the reporting processes for incidents and for routine activities;
- Ensure all works are completed to current accepted standards and practices in respect of design, construction, operations and safety so that the security of Incat and associated assets is assured during the works and in the future;
- In carrying out the works achieve a safety standard for those involved in the works, the ongoing operation and general use at Incat and its surroundings that is equal to today's best practice;

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- Community - reduce and avoid any nuisance to the neighbours and local community as a result of the works; and
- Comply with the GCC request for further information outlined in planning application PLN-25-367.

1.2 Site Location

The Incat site is located at their existing boat manufacturing operations at 100 Derwent Park Road, Derwent Park, in the municipality of the GCC (Figure 1.1). The site, having a waterfront boundary to the River Derwent, has been developed to build catamarans and fast ferries within roofed sheds. The adjacent land and marine waters support a significant amount of recreational, commercial and industrial activities and is a highly modified environment.

The Incat site consists of the following key facilities:

- Ship building sheds and associated infrastructure; and
- Land associated facilities (hard stands, offices, fast ferry museum, parking and amenities).

Figure 1.1 Location Plan

1.3 Proposed Works

The works are to include the construction of a new ship building shed, wet dock and wharf (Figure 1.2). To ensure an adequate construction footprint can be established, some reclamation works are required and will extend into the adjacent waters.

The proposed new shed will be 120 metres (m) long, 40.81m wide and 25m high, above the proposed ground level and of similar form to existing longer ship building sheds (Coverdales and Wilsons Sheds). To ensure safe and efficient access to the adjacent waters a 30m long wet dock is required, with sheet piling installed around three (3) sides of the wet dock perimeter.

In addition to the shed, a 6m wide wharf will also be constructed northwest of the new shed of similar form to the existing wharf extending from Coverdales Shed.

All reclamation edges will be either formed with armour rock or sheet piling on the water side to protect and stabilise the new shoreline.

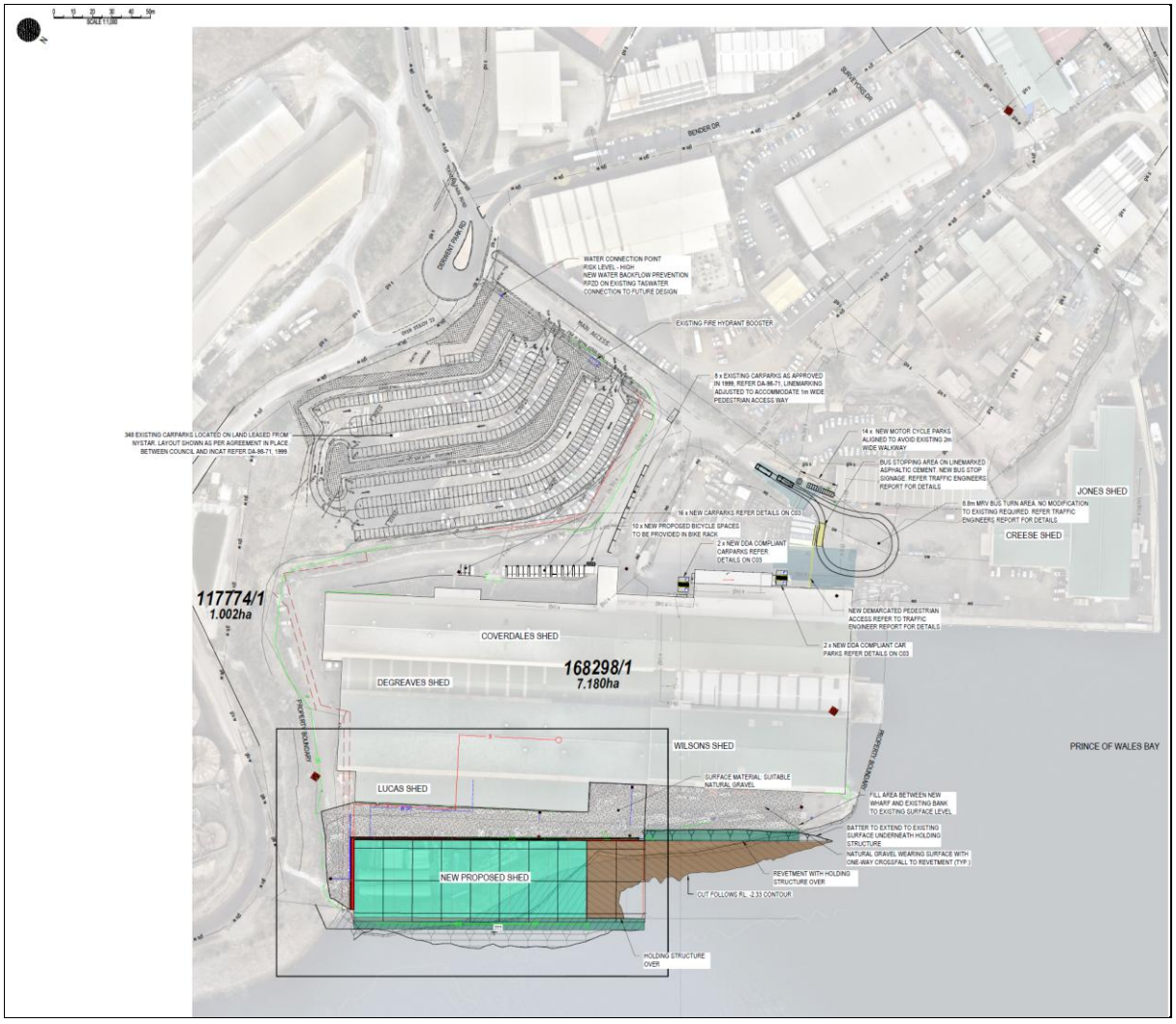

Figure 1.2 Site Plan

Figure 1.2 above outlines the proposed new hardstand and shed platform (green), proposed area for construction of the wet dock (brown) and outline of the seawalls (outer seaward side of new shed and adjacent to Wilsons Shed).

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1.4 The Proponent – Incat Tasmania Pty Ltd

Incat was established in 1977 and has steadily grown into a world leader in the design and construction of high-speed aluminium catamarans. Currently Incat is setting the standard in electric aluminium shipbuilding, delivering the world's largest, most advanced and sustainable ferries.

Incat is the proponent for this activity and its registered address is:

Incat Tasmania Pty Ltd

100 Derwent Park Road

Derwent Park TAS 7009

ABN 93 054 616 410

1.4.1 Nominated Responsible Person - Project Manager

The nominated responsible person for the project will be the Project Manager - John Smith.

The Project Manager will be responsible for:

- Providing leadership and resources to ensure compliance with project legal and other requirements and to oversee the implementation of the CEMP;
- Reviewing and authorise the CEMP prior to the Plan being issued for construction;
- Ensure the CEMP is reviewed in response to changes in environmental legislation, environmental incident, internal or external audit findings or as part of any periodic review process specified by Incat; and
- Delegate certain environmental responsibilities to other staff but remains accountable for the overall management of project environmental aspects and impacts.

2. Planning and Approvals

The project is seeking approval from the Glenorchy City Council (GCC) Planning Authority – Planning Permit (PLN-25-367). As part of this process have issued a further information request. Item #1 under the Request for Information (RFI) from GCC requires a Construction Environmental Management Plan (CEMP) to address items outlined in their letter dated 10 April 2026, issued to Gray Planning.

The RFI is subject to a variety of conditions including (but not limited to):

- Pre-commencement requirements;
- Construction and operational controls and requirements; and
- Environmental controls and requirements;

This CEMP provides the environmental management objectives, strategies and actions to capture this RFI, and how management controls will be applied to on-site activities during the project.

With the approval requirements (planning permit conditions) for the project still being confirmed through the planning process. Relevant approval conditions will be reviewed and updated within the CEMP when received.

3. Construction Methodology and Schedule

The following outlines the methodology and requirements for the construction activities for the project.

The shed, wet dock, wharf and associated works incorporate the following:

- Excavation earthworks and filling on the seaward side of the Lucas and Wilson Shed to form reclaimed building pad with temporary rock protection along mean sea level to minimise erosion during the works.
- Filling of the landside to suitable ground level and temporary drainage and sediment control;
- Completion of the reclamation and rock armouring of the outer seawall with armour rock, secondary rock and filter rock with geofabric from top of new embankment to low water level;
- Sheet piling and piling installation to form the wet dock and foundation support for the building and wharf;
- Services connections (water, electrical, sewage, stormwater, gas etc.)
- Installation and construction of the shed, wet dock and wharf; and
- Hardstand area and car parking.

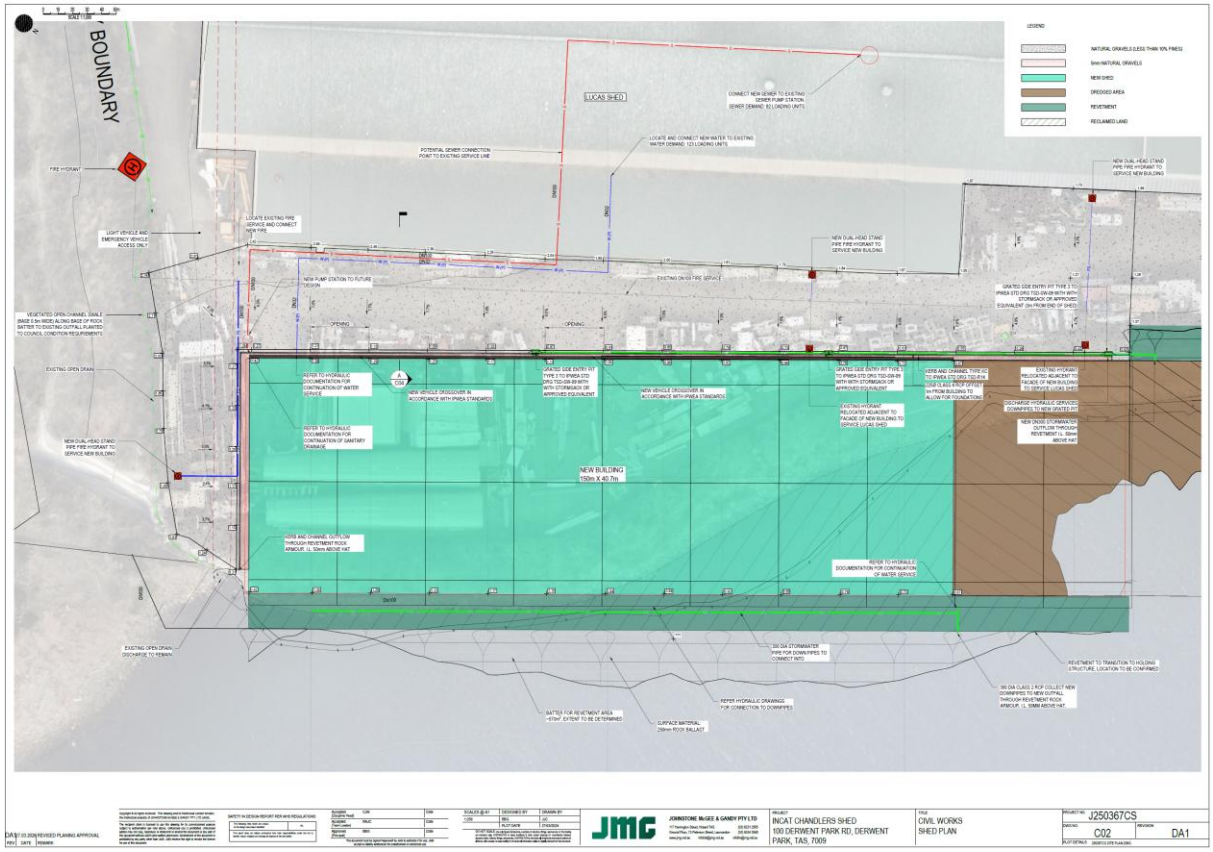


Figure 3.1 Civil Works - Shed Footprint

Figure 3.2 Car Parking

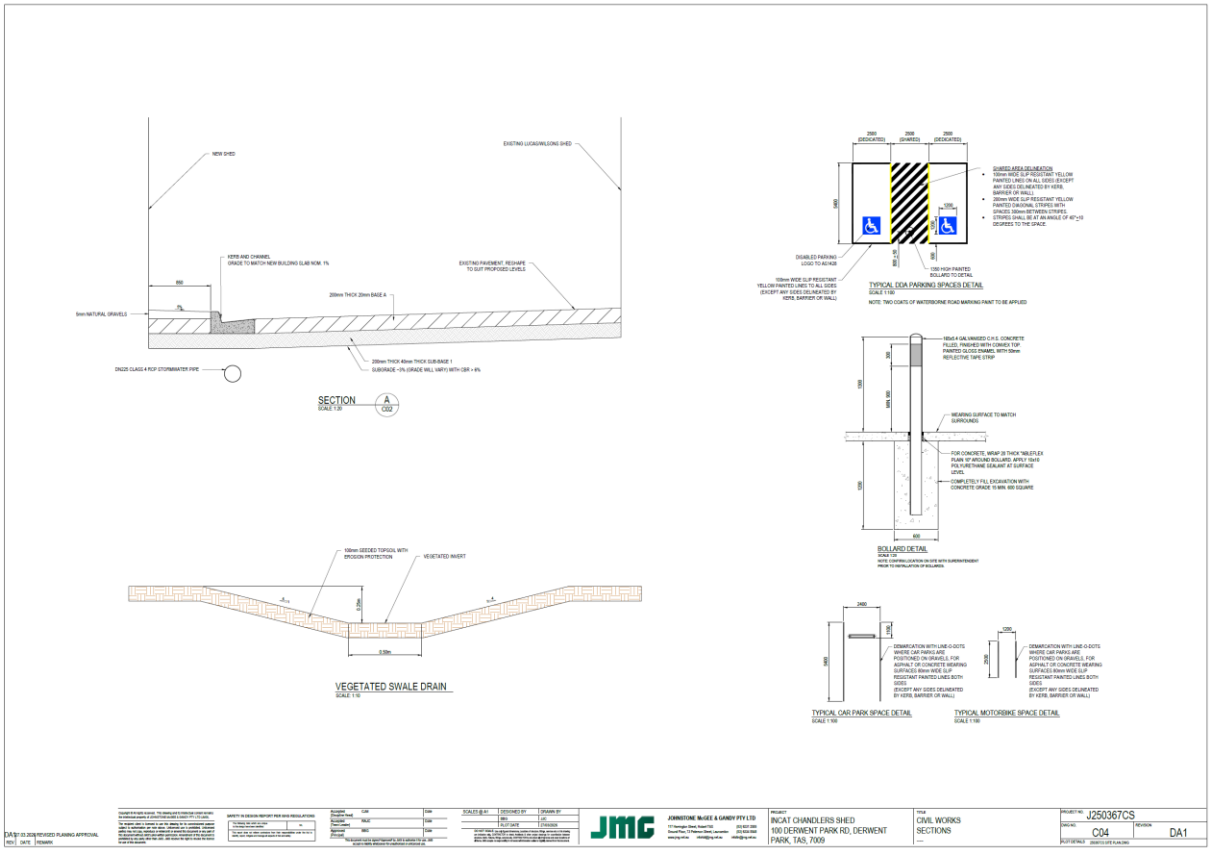


Figure 3.3 Car Parking – Civil Works

3.1 Construction Methodology

The shed steelwork has been designed of similar form to the existing shed but adjusted to suit the proposed ship building requirements for Incat. The building is designed to be constructed off site whilst the reclamation works are completed and the establishment of a landside base level to suit installation of the building piles and base foundations. The proposed building has a footprint of 120m x 40m and will be delivered to site in steel framed components and installed once piling and hardstand activities have been completed. The reclamation, seawall and hardstand are integral to preparing a clean base site for building formation.

The majority of the infrastructure will be manufactured offsite within controlled manufacturing plants and yards.

The on-site construction will involve the following the following tasks:

- Environmental controls (sediment controls, temporary drainage and landside and marine silt curtains in accordance with SWMP - Appendix B) installed to control erosion and sediment during the reclamation works;
- Segregation and adequate management of debris from reclamation fill material stockpiled on site;
- Containment and management of soil materials excavated during the works (refer to Reclamation Management below & in Section 6 for details);
- Fill landside to suitable level and gradient and prepare site for storage of rock for armouring the seawall and revetment including temporary armouring of reclamation as reclamation works progress;

- Formation of finish subgrade levels for building and seawall;
- Geofabric placement (management of fines and erosion & sedimentation from top of bank to low water level);
- Placement of primary and secondary rock armour to suitable toe level to ensure edge stabilisation at the foreshore of the reclamation;
- Construction of gravel hardstand;
- Installation of building base piles;
- Form up and pour shed hardstand (concrete);
- Transport and installation of shed;
- Shed:
  - Nominally 6-18m long steel piles will be driven on the land for the shed, using a crane and excavator and generally cut off at a level based on the drawings (varies in length for each pile);
  - The shed base slab and building will then be constructed on top of the building piles.
  - All cladding and building works will be completed from the base hardstand (concrete).
- Wet Dock and Wharf:
  - Nominally 12- 18m long sheet and steel piles will be vibrated into the ground for the wet dock and wharf areas;
  - The sheet piling will provide edge stabilisation for clean fill material to be placed behind the structure to enable a hardstand area and allow construction elements to proceed; and
  - Precast concrete units for the wharf and wet dock will be fabricated off site and transported to site when required.

3.2 Reclamation Requirements & Controls

3.2.1 No Requirement for Dredging for Seawall or Reclamation

The rock revetment for the reclamation area has been designed to eliminate any requirements for dredging both during installation and maintenance or future works. Marine sediments may be disturbed during rock placement however these will be controlled through the rate of backfilling and placement, and a marine silt curtain protection around the reclamation works.

The rock revetment will have geofabric placed behind the rock armouring (above low water) to ensure the containment of fines and reclamation materials entering the adjacent waterway.

During the initial early works minor reshaping to the landside area will be undertaken to meet the design gradient for temporary access to the shoreline for reclamation plant and equipment and delivery of rock armour and fill material. Sediment controls and temporary drainage will be implemented during these activities to manage the potential of sediment entering the adjacent waterway during rain events.

The revetement will commence south of the proposed shed footprint along the foreshore and will extend and terminate at the wet dock area, where sheet piles will then act as an edge stabilisation and retaining wall for the shed and wet dock area.

The sheet pile design will extend on the landside of the wet dock area (3 sides) to retain and provide stabilisation for the wet dock area and foreshore zone. The sheet piling will then extend a further 90m along the existing foreshore (adjacent current shed) to retain and provide stabilisation for the wharf area and foreshore zone to the north.

3.2.2 Existing Fill

Any soils excavated, extruded or otherwise generated during the construction works, including the slab/shed, wharf and underground services, etc. must either be buried onsite, or placed in a controlled manner within the reclamation. If any site soils are to be taken offsite, they must be tested for offsite disposal in accordance with IB105; any soils which are Level 2 or above are controlled wastes and require EPA approval for disposal to landfill.

None of the onsite soils are permitted for reuse on any other property without testing and prior EPA approval.

While undertaking the civil works for the reclamation, other discrete areas of contamination could be encountered and may require additional management. Works must stop and the potential contamination area segregated and demarcated off and communicated with the Incat project manager, who will need to involve an experienced contaminated land professional if necessary to assist with management measures and controls.

Debris such as plastics, scrap steel, cement sheeting, plastic piping, and other demolition materials unsuitable for reclamation, such as vegetation and wood, will be removed from the imported fill before the fill is used in the new reclamation area. These types of wastes will need to be dispose of to landfill and prevented from being brought to site.

Prior to bulk civil earthworks commencing the control measures outlined in the Stormwater Management Plan (SWMP) need to be installed and implemented; particularly focusing on the following;

- Installation of landside silt fencing to control discharge to waterway;
- Installation of marine silt curtain to control potential sediment discharge into waterway;
- Ensuring stockpiles are located away from drainage lines, stormwater inlets and the adjacent waterway;
- Where applicable, installation of diversion drains or bunding material upgradient of stockpiles to control stormwater flowing through stockpile materials; and
- Undertake regular inspections and maintenance of all stormwater and erosion controls as required, but particularly after high rainfall events.

Excavated soils must be contained to prevent dust generation (using water trucks and/or adequately covered) and managed for erosion (as outlined) and must not be allowed to discharge to the adjacent waterway (River Derwent).

Contractors conducting the civil works on site will need to read and acknowledge (signing onto this CEMP) that they have been informed on the required management controls to be implemented when undertaking activities such as excavation, working around service trenches and ongoing maintenance.

3.2.3 New Fill

Any new fill brought to site (for reclamation or to raise surface levels, etc.) must either be certified clean fill, or fill approved for reuse on the site by the EPA. Confirmation documents and fill transport tracking will need to be obtained to ensure the fill received is acceptable, and that no material is contaminated.

3.2.4 Rock Source

Rock material will be sourced from a disease and weed free registered quarry, that has the capacity to meet the design criteria for the rock and transported to site in trucks.

3.2.5 Rock Placement

Armour rock will initially be placed using excavator with grab. Core rock will then be placed with an excavator, with supply from 10-yard trucks, to achieve and meet the design criteria.

3.2.6 Minimising the disturbance of Potential Acid Sulfate Soils (PASS)

The reclamation will be occurring in an area considered high risk for Potential Acid Sulfate Soils (PASS). These areas are naturally occurring materials containing iron sulfide minerals, which when disturbed or exposed to oxygen, are oxidised and acid is produced causing impacts on water quality and in turn on fauna species and habitats.

As reclamation activities have the potential to expose acid sulfate soils to air depending upon the methods used, it is recommended that the project manager at Incat be made aware of the potential hazard present and reminded of the importance of utilising good management techniques aimed at minimal disturbance of the underwater sediment (as outlined in the DPIPWE guidelines https://dpipwe.tas.gov.au/Documents/ASS-Guidelines-FINAL.pdf).

Given the works include placement of imported armour rock and that the bathymetry at the edge of the reclamation area will be outside and shallow enough so that the risk of disturbance of PASS materials is inherently low (refer to advice from Pitt&Sherry). Notwithstanding, the following mitigations will be undertaken:

- Rock will be placed in a controlled manner to mitigate the risk of disturbance;
- No dredging or excavation of sediments required; and
- Installation of silt curtain during construction of the reclamation area.

3.2.7 Minimising the disturbance of sediments

It is relatively well understood that this section of the Derwent estuary is likely to be highly contaminated with a range of environmental toxicants (particularly a suite of heavy metals including zinc, copper, mercury, lead, cadmium and arsenic). Sediments in the area must be treated as contaminated and control measures must be implemented to manage the risk of significant re-suspension of sediments as a result of construction activities.

Given the rock armouring works include placement of imported armour rock, and no excavation works below waterline, the risk of disturbance of contaminates of concern is inherently low. Notwithstanding, the following mitigations will be observed:

- Rock will be placed in a controlled manner to mitigate the risk of disturbance;
- Visual monitoring of the works to manage potential sediment plumes is recommended, with drone surveys the most effective way to determine the extent.
- Surveys are recommended during the initial stages of infilling, and as the project approaches the peak rate of infilling;
- Excavation works will be limited to shallow excavation above water mark. No excavation will be undertaken below waterline.

3.3 Piling Requirements

3.3.1 Mitigations to piling disturbances to the marine environment

Prior to and during any heavy civil activities adjacent the marine environment that create significant acoustic disturbance (such as pile driving, placing of large rocks and excavating near the foreshore) the following conditions must be applied:

a) Construction activities involving contact with seabed aimed to minimise piling program, sediment disturbance and impact on marine mammals.

b) Each day the immediate area should be scanned for the presence of cetaceans, pinnipeds, turtles, and/or penguins.

c) A 'soft start' technique should also be used at the beginning of each pile installation day to allow any cetaceans, pinniped, turtle, and/or penguin that may be in the immediate area to avoid the area before impact piling reaches full capacity.

d) Installation of silt curtains around landside areas are well secured and cleaned.

e) A Marine Mammal Observer (MMO) will be employed for the works. The key purpose of the MMO role is to visually monitor marine mammals during construction and to identify marine mammals to a species-level, interpret marine mammal behaviour and readily estimate distances between the works area and observed marine mammals. The MMO must be exclusively dedicated to these activities and must not undertake any other works.

3.3.2 Sheet piling of dry dock & wharf

Sheet piling will be undertaken in accordance with the reclamation requirements and controls, outlined above in Section 3.2. The steel sheet pile will provide a clean edge for construction and formation of the wet dock. The steel sheetpile will allow for backfilling of controlled fill up to finished design level and capping with concrete. The building will extend over the proposed wet dock as shown on the drawings.

The wharf will be constructed either by deck on pile or sheetpile land back solution. Both methods require similar controls including maintaining marine silt curtain around the works and utilising the above controls.

3.4 Off-Site Fabrication

Off-site construction and prefabrication will be used to limit the onsite works and construction impacts on the ongoing operations.

This work will include (but not limited to):

- Prefabrication of building shed steelwork;
- Fabrication of steel piles and sheet piles; and
- Prefabrication of concrete reinforcement elements.

3.5 On-site Fabrication

Major offsite construction and prefabrication shall be used to limit the onsite works and construction impacts on the ongoing operations. Works will include the following:

- Reclamation and rock seawalls;
- Piling works for building piles, sheetpiles and support piles for marine structures;
- In-situ concrete pour for the shed base slab, the wharf and wet dock elements; and
- Steel framework for building and cladding.
- Services, hard stands and parking areas.

3.6 Heavy Vehicle Movements

The following heavy vehicle movements are anticipated (leaving and entering the site) for the works.

Plant and equipment float

Large B doubles or similar will be required to float plant and equipment to site to complete the works. It is expected that an excavator in the range of 20-30T will be mobilised to site by contractor for placement of fill and armour rock. A similar size crane will be used for the piling and sheet piling activities.

Select Fill

A combination of 10 and 20-yard truck and dog trailer will be used to transport the select clean fill to site for the site preparation (formation of access road and laydown area) and reclamation works.

- It is expected that nominally 8 weeks will be required to transport clean fill material to site. Any required additional or excess fill will be trucked into and out of site as required.
- During the initial site preparation, a laydown area will be designated and created to handle the excess fill material that can't be placed directly, and this area will also enable the primary and secondary rock armour to be transported and managed onsite prior to its placement.

Primary and Secondary Armour Rock

A combination of 10 & 20-yard truck and dog trailers will be used to transport the primary and secondary armour rock to site and will be placed within the designated laydown area. The civil works will be managed so that the armour rock will be transported when civil works are establishing the fill material in place on the reclamation area. This will enable a staggered timeline for truck movements on site.

- It is expected that armour rock will be stockpiled on site to allow for installation by excavator with appropriate grab. It is expected that once a stockpile of armour rock material is established on site. The remaining required armour will be transported to site, when there is capacity at the laydown area. It is expected that delivery of the primary and secondary armour will require 3-4 weeks of trucking.

In summary the outlined methodology for transporting materials to site requires enough materials to be transported, used, and stored on site to complete the works. It is expected that there will be short intense durations of materials being transported to site, with time breaks in between these movements to place the materials in accordance with the design.

3.7 Underground Services Installation

During the installation of underground services for the works any excavated soils will be required to be contained to prevent them becoming airborne and to prevent human contact. The excavated material will need to be either covered or wet down and demarcated adequately while installation works are being completed. Materials excavated will need to be either reused on site or if any excavated soils are to be taken offsite, they must be tested for offsite disposal in accordance with IB105.

3.8 Construction Work Hours

Construction related activities associated with the project must only be undertaken during the following times.

- Between 7.00 am and 6.00 pm Monday to Saturday; and
- Between 8.00 am to 5.00 pm on Sunday and public holidays.

3.9 Construction Program

Stage & Timeframe	Project Activity
Stage 1 – Landside Reclamation works	• Excavation works on landsite to achieved design gradient. • Placement of armour rocks for reclamation • Construction of hardstand
Stage 2 – Shed construction	• Drive foundation piles from on the land • Concrete works for shed (foundations and slab) • Installation of shed (steel framing and cladding) • Services, hardstand and car parking.
Stage 3 – Wet dock and Wharf construction	• Vibrate sheet piles (on land and marine based installation) • Placement of fill materials behind sheet piles; • Establishment of hardstand • Wharf elements constructed (concrete beams and decking)

3.10 Completion of Construction

On completion of construction works, the site surface areas will be examined for any potential Asbestos-Containing Material (ACM) fragments which should be removed from the site surface. The roadway and all unsealed areas around the site must be covered by clean blue metal gravel or similar to prevent access to soils by site users and fauna, and to prevent erosion and dust generation from site soils.

4. Environmental Management Framework

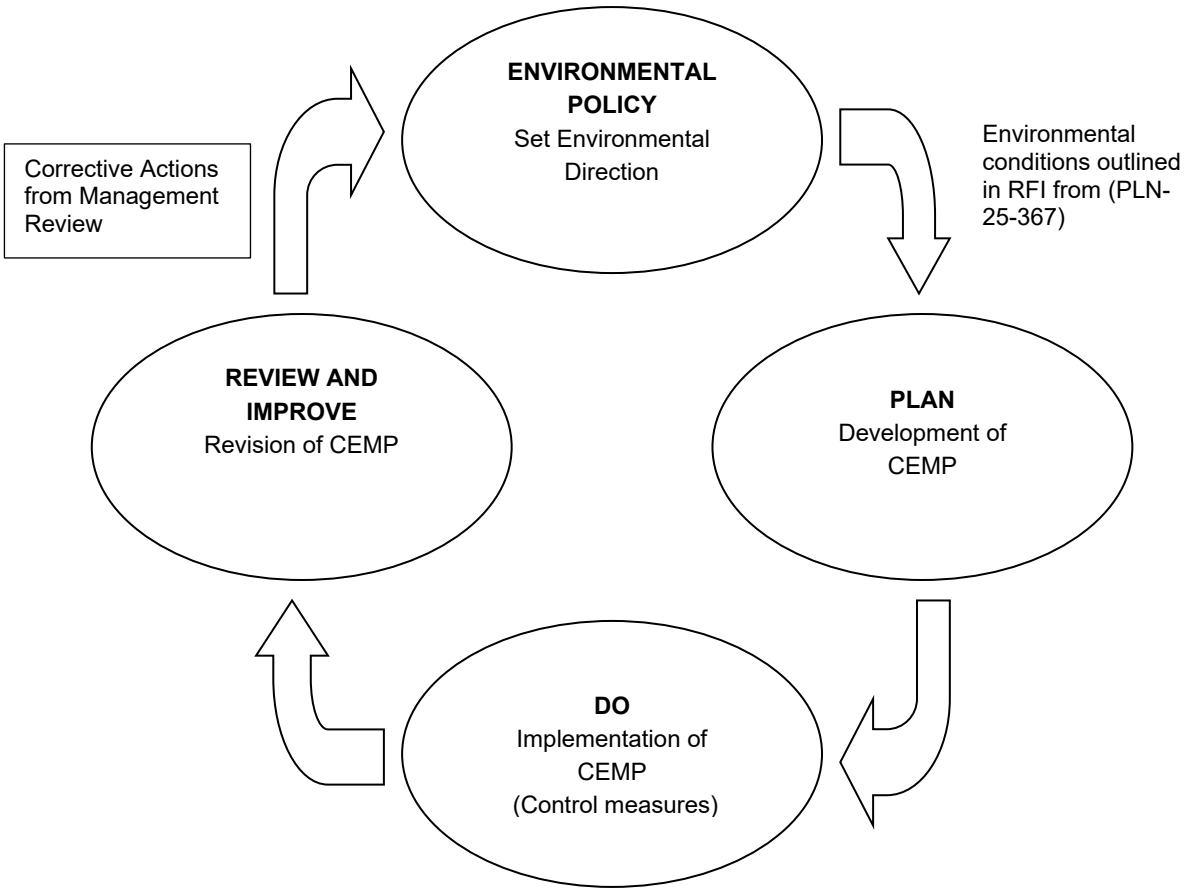
4.1 Environmental Management Process

The development and planning approval process identified the most significant and relevant aspects of the environment to be managed and determined the most effective control measures required to achieve the environmental objectives.

This CEMP must be used as a dynamic document that is reviewed regularly and be flexible enough to enable and facilitate the introduction and adoption of new strategies for improvement of environmental management performance and compliance with approval conditions.

This CEMP will be managed under the structure of the Best Practice Environmental Management (BPEM) ensuring all commitments and approval conditions are efficiently achieved and distributed across the project team and that continual improvement drives the fundamental environmental objectives for the project. Figure 4.1 below highlights this process.

Figure 4.1 Environmental Management Process



4.2 Objectives

This CEMP relates principally to the construction phases of the project. The objectives are to ensure that:

- The commitments made in the CEMP to implement adequate control measures to manage environmental values are incorporated into the design, reclamation and construction of the Incat project;
- Environmental responsibilities, monitoring, reporting and auditing procedures are established and demonstrate due diligence;
- Environmental management is appropriately planned, implemented and maintained throughout the project;
- The principles of Best Practice Environmental Management (BPEM) feature throughout every stage of the project; and
- Any potential environmental impacts of the project works are managed in accordance with legislative requirements, the project permit conditions and site procedures.

All potential environmental impacts associated with this Project can be effectively controlled by the implementation of the mitigation and management procedures described in this CEMP.

The CEMP will be updated at regular intervals to capture the most current and applicable information on the activities and impacts relevant to that stage in the Project.

4.3 Legislation Requirements

The primary environmental protection and pollution control legislative obligation for the Incat project is the Tasmanian Environmental Management and Pollution Control Act (EMPCA).

Tasmania enacts the requirements under EMPCA through a suite of legislation which forms the framework for Tasmania's resource management and planning systems and includes the following:

- Land Use Planning and Approvals Act 1993 (LUPAA);
- Building Act 2000;
- Environmental Management and Pollution Control Act 1994;
- Resource Planning and Development Commission Act 1997;
- Resource Management and Planning Appeal Tribunal Act 1993;
- State Policies and Projects Act 1993;
- Aboriginal Heritage and Relics Act 1975;
- Historic Cultural Heritage Act 1995; and
- Major Infrastructure Development Approvals Act 1999.

Under the State Policies and Projects Act 1993 there has been four (4), State Polices developed including:

- Tasmanian Coastal Policy 1996;
- State Policy on the Protection of Agricultural Land 2009;
- State Policy on Water Quality Management 1997; and
- National Environment Protection Measures (NEPM).

Further legislative requirements for the project include the following:

- The Tasmanian "Threatened Species Protection Act"1995

- Biosecurity Act 2019
- The Commonwealth “Environmental Protection and Biodiversity Act”1999
- Work Health and Safety Act 2012;
- Dangerous Goods (Road and Rail Transport) Act 2010; and
- Maritime Transport Security Act 2003

4.4 Approval Requirements

The approval requirements for the project are being confirmed through the planning process. Relevant approval conditions will be reviewed and updated within the CEMP when received.

Glenorchy City Council (Council) have issued a further information request. Item #1 under of the Request for Information (RFI) from Council requires a Construction Environmental Management Plan (CEMP) to address items outlined in their letter dated 10 April 2026, issued to Gray Planning.

Relevant matters outlined in the RFI and additional mitigations have been addressed in detail in Section 6 below. Detailed management controls that are to be implemented for all matters applicable to the project are outlined.

4.5 Organisational Structure and Responsibility

The overall responsibility for environmental compliance sits with the proponent, Incat (refer to section 1.4). However, the Project Manager will implement all relevant procedures and be responsible for the environmental performance of all the activities and for complying with this CEMP.

The project construction team will be aware of their environmental responsibilities through contract documentation, Project Management Plans, the work site SWMS and/or JSEA’s, and the sign off of this CEMP.

Any sub-contractors engaged for the project will be responsible for environmental management through the agreed conditions of their contract.

The responsibilities of the key stakeholders are detailed in Table 4.1

Table 4.1 Project Roles and Responsibility

Role	Responsibility
Government Authority **EPA**	• Promptly respond to any request from the project construction contractor for advice concerning appropriate responses to any environmental incidents with the potential to cause environmental harm; and • Respond to a significant incident (pollution event) • Provie guidance and regulation for potential contamination
Local Council Authority **Glenorchy City Council**	• Convey to the project developer and project manager any inquiries received, from adjoining residents and local community groups, that concern the project; • Promptly assess any proposed changes to the project and its implementation that may be requested by the construction contractor; and project developers and project managers; and • Liaise with the project developers and project managers, construction contractor and its representatives to ensure that the

Role	Responsibility
	development is carried out in accordance with approved conditions.
Incat Project Manager supported as required by Engineering Consultant	• Overall project management including implementation of the approved CEMP and project documents; • Liaise with the Incat Project Team during construction to ensure works are being implemented in accordance with the CEMP; • Be the principal contact for receiving enquiries concerning project activities; • Works planning, coordination, financial and program management; • Coordinate with the development proponent and the engineer representative for the review of documents for implementation; • Arrange for pre-start meetings prior to the commencement of construction and demolition activities associated with each stage of the project; and • Reporting of all risk related incidents (safety, environment etc.) associated with the project.
Contractors, Principal Contractor and sub-contractors	• Perform contract obligations in accordance with this CEMP and all other relative legislation.

The Project Manager will monitor and review the activities of the construction contractor and sub-contractors to ensure conformance with the requirements of the CEMP. This will in no way relieve contractors and sub-contractors from the appropriate supervision of their employees in the implementation of the CEMP, and any subsequent responsibilities for the remediation and/or rehabilitation of any damage which might be caused.

4.6 Project Environmental Philosophy

The Incat management team understands that managing and mitigating any potential environmental impacts is a key driver in achieving sustainable development outcomes for the project, regulatory authorities and all stakeholders.

This CEMP provides the means for which to achieve these environmental philosophy objectives.

5. Environmental Diligence

5.1 Environmental Induction and Training

All contractors, consultants, sub-contractors and project personnel will receive a site induction into the requirements of this CEMP, prior to starting work on the project. The induction will be appropriate to the level of their involvement in the project.

Site inductions will be developed to induct personnel into the broad aspects of the project. The environmental component of this induction will reinforce that it is the responsibility of all personnel to adhere to all identified environmental requirements and site procedures. The construction contractor or delegate shall provide a site induction for attendance by all contractors and project personnel.

The induction training will cover, but not be limited to, the following issues:

- A general site overview and SWMS/JSEA's;
- Work site safety;
- Contractor site policies;
- Project environmental responsibilities;
- Environmental activities, aspects and impacts;
- Familiarisation with the requirements of this CEMP;
- Legal obligations; and
- Environmental emergency/incident reporting.

Environmental training shall be re-undertaken when changes to procedures and environmental conditions occur.

A register of all environmental training carried out including dates, names of persons trained, and trainer details will be kept and maintained.

5.2 Monitoring

Monitoring of the implementation of the CEMP is necessary to ensure that management control measures and procedures are meeting all the conditions and commitments approved and are being implemented in an effective manner.

The Project Manager is responsible for monitoring environmental performance and condition throughout all stages of the Project.

Site monitoring of the CEMP will:

- Verify contractors' implementation of control measures and to provide management feedback for the initiation of further controls if required; and
- Provide data for ongoing environmental management.

5.3 Environmental Quality Controls

This Incat project shall be subject to inspections to verify that construction works is compliant against all relevant criteria. Any pertinent findings obtained from the inspections will be actioned through the applicable management process.

The Project Manager may undertake audits, to verify that management systems and processes designed to minimise and manage environmental impact have been implemented diligently, are functioning efficiently and can be used to identify where improvements can be made.

5.4 Complaints Procedure

A complaints register will be maintained by the Project Manager throughout the entire project. Responsibility and actions for complaints will be determined on the nature and basis of the complaint. Communication between GCC and the Project Manager will determine the appropriate response and investigations for all complaints. The complaint register must record details in relation to each complaint received, in which it is alleged that environmental harm and/or environmental nuisance has been caused by an activity.

The register must record the following details as a minimum:

- The time the complaint was received;
- Contact details of the complainant;
- The particulars of the complaint;
- Any investigations undertaken in regard to the complaint;
- The method in which the complaint was resolved, including any mitigation measures implemented; and
- Complaint records must be maintained for a period of at least three (3) years.

5.5 Site Contacts

Prior to the commencement of any works associated with the project, information detailing the project team must be distributed to all relevant stakeholders and displayed in site office.

The document must detail the relevant project participants for the works being undertaken on the site, including the contact details for Project Manager to which any inquiries concerning the project should be directed.

5.6 Non-Compliance

Compliance with this CEMP is the responsibility of the Project Manager in coordination with the Construction Contractor, where necessary specialist independent advice will be sought.

Where any activity is found not to conform to the requirements of the CEMP, activities will be suspended until appropriate measures are in place and agreed with by all relevant stakeholders and authorities.

5.7 Corrective Action Requirements

The Project Manager must take responsibility for implementation of this CEMP. When the Project Manager becomes aware of a project and/or operational condition that does not comply, applicable communication is to be completed and reported to the appropriate controlling authority.

The Project Manager or delegate is also required to maintain a register of which demonstrates appropriate actions have been completed within a suitable timeframe.

Any actions or communications recorded in accordance with this CEMP shall be recorded and stored by the Project Manager.

In some circumstances, supplementary investigations or monitoring may be required to establish whether the Construction Contractor has failed to adequately implement the CEMP or has failed to comply with relevant legislation and operational procedures.

5.8 Incident Response

If an incident causing or threatening environmental nuisance, environmental harm or material environmental harm from pollution occurs during the project, the person responsible for the activity must immediately take all responsible and practical action to minimise any adverse environmental impacts from the incident.

All Environmental Spills should be managed in accordance with the controls in this CEMP.

5.9 Environmental Incident Reporting

In an emergency and/or incident the person responsible must immediately notify the appropriate Authorities (EPA and GCC) so as they become aware of the emergency or incident resulting in a release of contaminants not in accordance, or reasonably expected to be in accordance with this CEMP (and conditions of approval).

The notification of any emergency or incident must include, but not limited to the following information:

- The name of the holder of the development approval;
- Maintain notes of key events (including photos as appropriate);
- The location of the emergency or incident;
- The name and contact details of the project manager, or designated contact person;
- The time of the release;
- The time the operator became aware of the release;
- The suspected cause of the release;
- The environmental harm caused, threatened, or suspected to be caused by the release; and
- Actions taken to prevent any additional release and mitigation measures implemented to manage environmental harm.

All incidents must be recorded.

The EPA Director must be notified, in accordance with EMPCA, if the release may or has caused serious or material environmental harm.

CONTACTS

EPA Director - **EPA Tasmanian Pollution Incident Hotline:** – 1800 005 171.

incidentresponse@epa.tas.gov.au

Glenorchy City Council – 6216 6800

The Project Manager will:

- ensure all incidents are identified, reported and thoroughly investigated, and that the appropriate adaptive management measures are implemented. The adaptive measures will be aimed at preventing recurrence of the incident. Corrective actions will also be implemented.

5.10 CEMP Review

This CEMP is a living document. Accordingly, to ensure that environmental management is continually improved during the project, a review of this document by the Project Manager or delegate, in consultation with relevant stakeholders shall occur:

- To incorporate any updated or changed condition requirements or commitments different to current approval;
- Following significant environmental incidents;
- At the completion of any relevant audits; and
- In the instance whereby the objectives of this CEMP are not being achieved.

The adequacy and effectiveness of this CEMP shall be reviewed regularly during the project following the guidelines for continual improvement. The review should consider the following matters:

- Suitability and proficiency of the objectives;
- Inspections findings; and
- Technical reviews.

This CEMP must not be implemented or amended in a way that contravenes any approval conditions or commitments.

5.11 Reporting

An environmental performance reporting procedure will be implemented to capture environmental performance against the CEMP and relevant approval and legislative requirements on a monthly basis within the contractors monthly report. The monthly report will be submitted to the Superintendent and Principal. Regular project meetings will also occur, where environmental compliance will be discussed, and provisions made to manage and respond to any actual or potential environmental events.

5.12 Continual Improvement

All employees involved in the Incat Project shall receive environmental awareness training with regard to the requirements of this CEMP and all other relevant procedures and legislative requirements.

5.13 Emergency Response

When required all employees involved in the Incat Project must implement the Site Emergency Response Procedure. The Incat Project Manager (refer to Section 1.4.1) or delegate must ensure all personnel are competent in activating emergency response procedures.

6. Environmental Management Procedure

The following management procedures apply to the environmental issues relevant to the site. The procedures aim to provide criteria and indicators to measure the environmental performance, as well as mitigation controls to reduce potential impacts.

- Community Awareness;
- Waste Management;
- Aquatic Environment;
- Reclamation Management;
- Noise Emissions;
- Hazardous Materials;
- Traffic (including navigation);
- Design and Construction;
- Erosion and Sedimentation;
- Air Quality; and
- Cultural Heritage (European & Aboriginal).

6.1 Community Awareness

6.1.1 Rationale

Construction activities could potentially have short term impacts on public amenity due to potential noise emissions; therefore, it is important to advise the local community of potential impacts.

6.1.2 Objective

Undertake all reasonable measures to notify the local community of the nature, duration and program of construction works.

6.1.3 Performance indicator

Appropriate management of community complaints received during construction works.

Task	Corrective Actions/ Monitoring	Timing	Responsibility
Provide a point of contact for complaints. The contact details shall be clearly identified on all relevant documentation	Corrective actions shall be undertaken as appropriate to ensure the task is achieved.	Ongoing throughout the project	Incat Project Manager (refer to section 1.4.1) & Construction Contractor
Notification of project commencement	GCC must be notified in writing of the commencement of project	Prior to start of works	Incat Project Manager (refer to section 1.4.1) & Construction Contractor.
Change in responsibly of project	GCC must be notified if the person who is or was responsible for the activity ceases to be responsible for the activity.	Ongoing throughout the project	Incat Project Manager (refer to section 1.4.1) & Construction Contractor.
Liaising with government agencies	Consultation and communication with external bodies including government agencies and other affected stakeholders will be undertaken as required.	Ongoing throughout the project	Incat Project Manager (refer to section 1.4.1) & Construction Contractor.
Traffic control & appropriate signage	All signage, traffic control, barricading and safety measure must be in accordance with statuary requirements.	Applied to the required construction works at all times during the project	Incat Project Manager (refer to section 1.4.1) & Construction Contractor.

6.2 Waste Management

6.2.1 Rationale

Waste management at the Project site must focus on appropriate methods to minimise the generation of wastes, maximise reuse and recycling and appropriately dispose of waste materials generated as a result of the project works.

6.2.2 Objective

Ensure waste materials from the project are managed and disposed of in accordance with the provisions in the EMPCA.

6.2.3 Performance indicator

No waste material is released from the project site in an uncontrolled manner.

Task	Corrective Actions/ Monitoring	Timing	Responsibility
Waste management hierarchy	Waste must be managed in accordance with the following: • Waste must be minimised to the maximum extent that is reasonable and practical, having regard to best practice environmental management; • Waste should be reused or recycled to the maximum extent that is practical; and Waste that must be disposed of must be done in a way that has been approved in writing by the relevant planning authority or the EPA to receive such waste and in accordance with the provisions in the EMPCA or subordinate legislation.	Daily throughout the project	Construction Contractor.
Management of wastes	Project Manager to inspect waste schedule and waste storage areas to ensure management control measures are being enacted.	Daily	Project Manager
Building Waste	A skip bin will be provided on site for the management of waste. This waste must be managed and removed from site and taken to an approved landfill site.	During Construction activities	Project Manager & Construction Contractor
Management of wastes - All infrastructure arising from the Project must be contained and removed from the Derwent River.	Underwater divers must recover any materials that accidently fall into The Derwent River.	Daily	Construction Contractor

Task	Corrective Actions/ Monitoring	Timing	Responsibility
Competent personnel	All workers are to be appropriately qualified, inducted and follow all appropriate control measures to minimise the potential risks associated with the Project. Ensure the requirements of the BPEM and environmental procedures are adhered to throughout the duration of the project. Ensure that all employees associated with the project adhere to the project SWMS and/or JSEA and the site induction procedures to ensure that adverse environmental impacts are minimised	Prior to works commence Weekly during the project	Project Manager & Construction Contractor Project Manager & Construction Contractor
Human Waste	Existing on-site toilets will manage human waste during construction. Induction will address location of these toilets	During construction	Construction Contractor

6.3 Aquatic Environment

6.3.1 Rationale

The Project works will involve construction activities in the adjacent Derwent River marine environment. Unless appropriate management is implemented the works have potential to cause short term impacts on the aquatic environment.

6.3.2 Objective

Implement management control measures to minimise the risk of disturbance and mobilisation of marine sediments, potentially exacerbating turbidity in the water column.

6.3.3 Performance indicator

The adjacent aquatic environment will be visually monitored prior to and periodically during construction and piling activities to confirm the effectiveness of the sediment containment controls and that the works are being adequately undertaken to mitigate disturbance to the receiving aquatic environment.

Task	Corrective Actions/ Monitoring	Timing	Responsibility
Managing marine pests	All marine vessels/equipment to be used for the construction works will be sourced from a southern Hobart based construction contractor. A procedure for hull cleaning including any ballast tanks and hull fittings will be completed to mitigate the risk of spreading any introduced species, using the guidelines developed under the National System for the Prevention and Management of Marine Pest Incursions (DAFF 2009) Visual Inspection of hull prior to mobilisation to identify marine pests. Removal and disposal as required.	Prior to mobilisation to site	Construction Contractor
Managing unexpected impacts on water quality	Development of a briefing sheet, to be distributed to all construction personnel, containing the following information: • Making all personnel working on the Project responsible for the visual detection of mobilised sediments, including education on what to look for and who to report it to.	Observations ongoing at all times during construction	Incat Project Manager & Construction Contractor
Materials entering the Derwent River	Underwater divers must recover any materials that accidently fall into the Derwent River	As required	Construction Contractor
All plant and equipment used for the project must be maintained such that no contaminants are	Leaks from plant and equipment must be repaired immediately. Daily prestart plant and equipment checklist	Daily	Construction Contractor

Task	Corrective Actions/ Monitoring	Timing	Responsibility
released to the receiving environment			
Competent personnel	The principle and contractor must ensure all workers are appropriately qualified, inducted and follow all appropriate control measures to minimise the potential risks associated with the project. Ensure the requirements of the BPEM and environmental procedures are adhered to throughout the duration of the Project. Ensure that all employees associated with the project adhere to SWMS and the site induction procedures to ensure that adverse environmental impacts are minimised.	Ongoing during the project	Incat Project Manager & Construction Contractor
Acoustic disturbance (such as pile driving, reclamation works using large rocks) on marine mammals	Construction activities involving contact with seabed aimed to minimise piling program, sediment disturbance and impact on marine mammals. Each day the immediate area should be scanned for the presence of cetaceans, pinnipeds, turtles, and/or penguins. A 'soft start' technique should also be used at the beginning of each pile installation day to allow any cetaceans, pinniped, turtle, and/or penguin that may be in the immediate area to avoid the area before impact piling reaches full capacity. Installation of silt curtains around landside areas. A Marine Mammal Observer (MMO) will be employed for the works. The key purpose of the MMO role is to visually monitor marine mammals during construction and to identify marine mammals to a species-level, interpret marine mammal behaviour and readily estimate distances between the works area and observed marine mammals. The MMO must be exclusively dedicated to these activities and must not undertake any other works.	Daily during piling activities	Incat Project Manager & Construction Contractor
Uncontrolled hydrocarbon spill	All workers to be appropriately inducted on location of spill kits. Respond to spills using on site spill kits.	Weekly check of spill kit during construction	Incat Project Manager &

Task	Corrective Actions/ Monitoring	Timing	Responsibility
	Report any spills to EPA		Construction Contractor
Sediment disbursement into River Derwent	Establish and maintain sediment controls (Silt fencing/geofabric or similar) on seaward side of construction zone (In accordance with SWMP)	Daily checks of sediment controls	Incat Project Manager & Construction Contractor
Re-suspension of sediments as a result of construction activities.	Sediments in the area must be treated as contaminated and control measures must be implemented		
Minimise sediment disturbance during construction works	Sediment controls (i.e. silt curtains) to be installed to mitigate unavoidable suspension of sediment. Undertake works in favourable weather conditions to limit sediment resuspension. • Rock will be placed in a controlled manner to mitigate the risk of disturbance; • Visual monitoring of the works to manage potential sediment plumes is recommended, with drone surveys the most effective way to determine the extent. • Surveys are recommended during the initial stages of infilling, and as the project approaches the peak rate of infilling; • Excavation works will be limited to shallow excavation above water mark. No excavation will be undertaken below waterline.	During construction	Incat Project Manager & Construction Contractor
Installation of piles/sheet piles and reclamation	A sediment curtain extending from water to seabed must be deployed prior to any reclamation or installation of piles and must surround the entire work area. (in accordance with the SWMP) Silt curtain must be monitored daily to assess their effectiveness. Silt curtain must be cleaned if there is a build-up of materials	During reclamation and installation of pile Daily Checks of sediment controls	Incat Project Manager & Construction Contractor

6.4 Reclamation Management

6.4.1 Rationale

Reclamation works have the potential to impact on the adjacent waterway and site personnel.

6.4.2 Objective

To implement adequate management control measures to mitigate potential impacts to an acceptable level at the receiving water receptors and to human contact during construction works.

6.4.3 Performance indicator

To comply with the management control measures as defined below.

Task	Corrective Actions/ Monitoring	Timing	Responsibility
Rock Revetment	The rock revetment will have geofabric placed behind the rock armouring to ensure the containment of fines and reclamation materials entering the adjacent waterway	During the reclamation works	Incat Project Manager & Construction Contractor
	Marine sediments may be disturbed during rock reclamation placement however these will be controlled through the rate of backfilling and placement and silt curtain protection around the reclamation works.	During the reclamation works	Incat Project Manager & Construction Contractor
Bulk Earthworks	Prior to bulk civil earthworks commencing the control measures outlined in the Stormwater Management Plan (SWMP) need to be installed and implemented; particularly focusing on the following; • Installation of landside silt fencing to control discharge to waterway; • Installation of marine silt curtain to control potential sediment discharge into waterway; • Ensuring stockpiles are located away from drainage lines, stormwater inlets and the adjacent waterway; • Where applicable, installation of diversion drains or bunding material upgradient of stockpiles to control stormwater flowing through stockpile materials; and • Undertake regular inspections and maintenance of all stormwater and erosion controls as required, but	Prior to bulk civil earthworks commencing	Incat Project Manager & Construction Contractor

Task	Corrective Actions/ Monitoring	Timing	Responsibility
	particularly after high rainfall events.		
Excavated Soils	Excavated soils must be contained to prevent dust generation (using water trucks and/or adequately covered) and managed for erosion (as outlined in SWMP) and must not be allowed to discharge to the adjacent waterway (River Derwent).	Ongoing during the project	Incat Project Manager & Construction Contractor
Existing Fill	Any soils excavated, extruded or otherwise generated during the construction works, including the slab/shed, wharf and underground services, etc. must either be buried onsite, or placed in a controlled manner within the reclamation. If any site soils are to be taken offsite, they must be tested for offsite disposal in accordance with IB105; any soils which are Level 2 or above are controlled wastes and require EPA approval for disposal to landfill. None of the onsite soils are permitted for reuse on any other property without EPA approval.	Ongoing during the project	Incat Project Manager & Construction Contractor
Existing Fill	While undertaking the civil works for the reclamation, other discrete areas of contamination could be encountered and may require additional management. Works must stop and the potential contamination area segregated and demarcated off and communicated with the Incat project manager, who will need to involve an experienced contaminated land professional if necessary to assist with management measures and controls.	Ongoing during the project	Incat Project Manager & Construction Contractor
Existing Fill	Debris such as plastics, scrap steel, cement sheeting, plastic piping, and other demolition materials unsuitable for reclamation, such as vegetation and wood, will be removed from the imported fill before the fill is used in the new reclamation area. These types of wastes will need to be dispose of to landfill and prevented from being brought to site.	Ongoing during the project	Incat Project Manager & Construction Contractor
Contractors	Contractors conducting the civil works on site will need to read and acknowledge (signing onto this CEMP) that they have been informed on the required management controls to be	Ongoing during the project	Incat Project Manager & Construction Contractor

Task	Corrective Actions/ Monitoring	Timing	Responsibility
	implemented when undertaking activities such as excavation, working around service trenches and ongoing maintenance.		
Competent personnel	The Construction Contractor must ensure all workers are appropriately qualified, inducted and follow all appropriate control measures to minimise the potential risks associated with the project. Ensure the requirements of the BPEM and environmental procedures are adhered to throughout the duration of the project. Ensure that all employees associated with the project adhere to the project, JSEA's and the site induction procedures to ensure that adverse environmental impacts are minimised.	Ongoing during the project	Construction Contractor

6.5 Noise Emissions

6.5.1 Rationale

Construction works will involve the use of a variety of plant and equipment, including boats (if required) barges (if required), excavators crane and piling rigs. It is considered they present a low risk of noise nuisance occurring to sensitive noise receptors, such as residents, in relation to the noise currently generated from existing operations and adjacent business. Conversely, pile/sheet piling installation and construction activities required for the Project could potentially result in excessive noise nuisance.

6.5.2 Objective

To implement adequate management control measures to mitigate potential impacts to an acceptable level at the closest sensitive noise receptors during construction works.

6.5.3 Performance indicator

To comply with the noise mitigation control measures as defined below.

Task	Corrective Actions/ Monitoring	Timing	Responsibility
Operating hours – Construction related activities associated with the project must only be undertaken between 7.00 am and 6.00 pm Monday to Saturday, and 8.00 am to 5.00 pm on Sundays and statutory holidays	The contractor will adhere to the stipulated working hours for the construction activities for the duration of the project.	Throughout the duration of the Project	Incat Project Manager & Construction Contractor
During Pile Driving works the following noise mitigation measures must be implemented; • The Construction Contractor must ensure that all plant and equipment used is well maintained, including mufflers on plant, assembly of equipment to eliminate unnecessary free movement and lubrication of moving equipment where deemed necessary.	Construction Contractor shall maintain service records for all plant and equipment used for the duration of the project	Daily during piling works	Construction Contractor
Competent personnel	The Construction Contractor must ensure all workers are appropriately qualified, inducted and follow all appropriate control measures to minimise the potential risks associated with the project. Ensure the requirements of the BPEM and environmental procedures are adhered to throughout the duration of the project. Ensure that all	Ongoing during the project	Construction Contractor

Task	Corrective Actions/ Monitoring	Timing	Responsibility
	employees associated with the project adhere to the project, JSEA's and the site induction procedures to ensure that adverse environmental impacts are minimised.		

6.6 Hazardous Materials

6.6.1 Rationale

Construction works for the Project will involve the use of hazardous materials such as, fuels, lubricants and oils. The Project site is required to be effectively managed to prevent impacts on human health and the receiving environment as a consequence of an accidental release or spillage of a hazardous material associated with the Project works.

6.6.2 Objective

To effectively manage the safe storage, handling and disposal of hazardous materials for the duration of the Project.

6.6.3 Performance indicator

No adverse human health and environmental impacts associated with hazardous materials is experienced at any time during the project.

Appropriate storage, handling and disposal of hazardous materials to be evident in all activities undertaken for the project.

Task	Corrective Actions/ Monitoring	Timing	Responsibility
Hazardous material storage for all project works	All hazardous materials that are required throughout the project must be stored at the designated bunded area onsite. Or stored on spill trays which are designed to contain at least 110% of the total volume of material. Spills kits must be stored and maintained within the bunded hazardous materials storage area.	Throughout the duration of the Project	Incat Project Manager & Construction Contractor
Release of hazardous substance to the environment	If any release of a hazardous substances to the environment occurs the Site Emergency Response Procedure must be followed. Spill Kits must be kept in appropriate locations to assist with the containment of spilt environmental hazardous materials. Project Manager to conduct inspections of the bunded hazardous materials storage area, including spill kits, on a regular basis.	Throughout the duration of the Project	Incat Project Manager & Construction Contractor
Barge activities	The construction contractor must ensure sufficient bunding is installed on top of the barge to mitigate potential spills entering the marine environment. The contractor must ensure adequate spill kits are available on the piling barge to aid spill response.	Prior to and during marine construction works	Incat Project Manager & Construction Contractor

Task	Corrective Actions/ Monitoring	Timing	Responsibility
	Refuelling shall only occur when the barge is docked on shore. The Contractor will ensure that an adequate refuelling methodology is adopted to control the risk of fuel spills.		
Material Safety Data Sheets (MSDS) must be located at the Project office for all hazardous materials used during the Project.	The construction contractor will ensure that all materials are handled, stored, used and disposed of in accordance with their MSDS.	Ongoing during the project	Incat Project Manager & Construction Contractor
Competent personnel	The Project Manager must ensure all workers are appropriately qualified, inducted and follow all appropriate control measures to minimise the potential risks associated with the Project. Ensure the requirements of the BPEM and environmental procedures are adhered to throughout the duration of the Project. Ensure that all employees associated with the project adhere to the project SWMS and/or JSEA's and the site induction procedures to ensure that adverse environmental impacts are minimised	Ongoing during the project	Incat Project Manager & Construction Contractor

6.7 Traffic (Including Navigation)

6.7.1 Rationale

Impacts from vehicle movements and barge activities (if applicable) may be experienced at sensitive locations across the area and site operations; these should be managed where practical.

6.7.2 Objective

To provide a safe working environment by minimising disruptions/impacts to operations and the surrounding environment.

6.7.3 Performance indicator

Impacts to the environment and site operations are minimised during the project

Task	Corrective Actions/ Monitoring	Timing	Responsibility
Barge activities	Prior to the commencement of any barge being mobilised to the site, the project manager must liaise with MAST so that a Notice to Mariners can be issued. Any mooring lines and/or buoys left in the shipping channel overnight must be marked with a buoy	Prior to commencement of the use of a barge	Construction Contractor
Maintain two-way traffic flows where possible	If road closures are required, appropriate approvals must be given. Ensure the traffic management procedures for the Incat operations are completed during the works	Prior to any road closures During the project	Incat Project Manager & Construction Contractor
Competent personnel	The Project Manager must ensure all workers are appropriately qualified, inducted and follow all appropriate control measures to minimise the potential risks associated with the Project. Ensure the requirements of the BPEM and environmental procedures are adhered to throughout the duration of the Project. Ensure that all employees associated with the project adhere to the project SWMS and/or JSEA's and the site induction procedures to ensure that adverse environmental impacts are minimised	Ongoing during the project	Incat Project Manager & Construction Contractor

6.8 Design and Construction

6.8.1 Rationale

To ensure all construction works are completed in accordance with the design

6.8.2 Objective

Design and construction details are understood by installation Contractor prior to commencement of construction works.

6.8.3 Performance indicator

All works will be verified by a suitable qualified engineer or delegate.

Task	Corrective Actions/ Monitoring	Timing	Responsibility
Construction activities	A qualified civil engineer must be used to provide design and construction details for the project.	Prior to commencement of construction works	Incat Project Manager supported by Engineering Consultant
Completion of construction works	Supervising engineer must confirm, in writing, that construction has been completed in accordance with the approved drawings.	Completion of construction works	Incat Project Manager supported by Engineering Consultant
Piling activities for the project	Design plans must demonstrate that construction will be undertaken using a piling method where possible, that minimises disturbance to the adjacent seabed	Piling activities	Contractor

6.9 Erosion and Sedimentation Control

6.9.1 Rationale

The programming of works and implementation of control measures has a major influence on how effective erosion and sedimentation controls are in reducing on-site disturbance and any potential impacts to the marine environment.

6.9.2 Objective

Before commencement of site works, implementation of the following will occur:

- Schedule earthworks so that ground disturbance is minimised;
- Avoid stripping and excavating until all necessary approvals have been obtained and works are ready to start;
- Install and maintain erosion and sediment control measures on water side of any excavation activities (in accordance with the SWMP).
- Install sediment fences or fibre rolls at the low end of the site, to manage sediment (in accordance with the SWMP).
- Divert up slope catchment runoff around the site by installing diversion drains (in accordance with the SWMP).
- Designate a location where topsoil and other excavation material will be stockpiled during landside works. Provide suitable controls to prevent erosion (in accordance with the SWMP).
- Protect the nearby stormwater system including any stormwater pits on the site from blocking up with sediment.
- Designate an appropriate location within the site where sediment generating activities can be appropriately managed.

6.9.3 Performance indicator

Minimise on site land disturbance and impacts to the marine environment.

Task	Corrective Actions/ Monitoring	Timing	Responsibility
During Construction works	Installation of sediment controls (silt curtains or similar) throughout works	Prior to start of works	Construction Contractor
Installation of sediment fencing and other erosional control measures	Daily inspections of sediment fencing and erosion controls. Additional inspections of controls during rain events	Daily checks	Construction Contractor
During installation of services	Construct service trenches away from where water is likely to concentrate. Minimise the duration that service trench excavations are exposed.	During installation of services	Construction Contractor
During building works	Ensure roofing, gutter and pipe connection works are completed efficiently, so as not to increase water quantities to the site	Ongoing	Construction contractor

6.10 Air Quality

6.10.1 Rationale

Construction works have the potential to increase local air emissions on nearby receptors and increase dust generation within the surrounding facility.

6.10.2 Objective

To implement effective control measures to minimise emissions of potential air emissions, including dust, associated with the Project.

6.10.3 Performance indicator

No complaints received from nearby receptors due to project activities.

No adverse impacts on operations.

No impacts on staff health.

Task	Corrective Actions/ Monitoring	Timing	Responsibility
Maintenance of Plant & Equipment	All Plant & Equipment must be well maintained and serviced, with standard filters fitted.	Ongoing	Construction Contractor
All Project works - Management of dust	All dust emissions must be controlled to the extent necessary to prevent environmental nuisance and . This will be achieved by: • Watering down using water trucks on dry and windy days • Ensure stockpiles of fill material are adequately covered. • Excavated soils must be contained to prevent dust generation (using water trucks and/or adequately covered)	Daily monitoring	Incat Project Manager (refer to Section 1.4.1) & Construction Contractor
Underground Services installation	During the installation of underground services for the works any excavated soils will be required to be contained to prevent them becoming airborne and to prevent human contact. The excavated material will need to be either covered or wet down and demarcated adequately while installation works are be completed. Materials excavated will need to be either reused on site or if any excavated soils are to be taken offsite, they must be tested for offsite disposal in accordance with IB105.	During underground services works	Incat Project Manager (refer to Section 1.4.1) & Construction Contractor
Competent personnel	The Construction Contractor must ensure all workers are appropriately qualified, inducted and follow all appropriate control measures to minimise the potential risks associated with the Project.	Ongoing during the project	Construction Contractor

Task	Corrective Actions/ Monitoring	Timing	Responsibility
	Ensure the requirements of the BPEM and environmental procedures are adhered to throughout the duration of the Project. Ensure that all employees associated with the project adhere to the SWMS and/or JSEA's and the site induction procedures to ensure that adverse environmental impacts are minimised.		

6.11 Culture Heritage

6.11.1 Rationale

Ensure all Project activities are undertaken so that potential areas of cultural or heritage significance are appropriately managed.

6.11.2 Objective

No disturbance or damage to heritage or cultural sites to occur at any time during the construction works.

The construction and operation of the Development on the Land will be conducted in accordance with the requirements of the Aboriginal Relics Act 1975 (Tasmania)

6.11.3 Performance indicator

No irreparable adverse or unapproved impacts on any areas of cultural or heritage significance to occur at any time during the construction works.

Task	Corrective Actions/ Monitoring	Timing	Responsibility
Excavations	Undertake DBYD	Prior to excavations	Project manager
All construction works	All monitoring and corrective actions to be implemented in accordance with the Aboriginal Relics Act 1975 (Tas) If Aboriginal heritage is suspected, works must cease immediately. The project manager or delegate must contact Aboriginal Heritage Tasmania to inform them of the potential discovery	Throughout the construction works	Project manager & Construction Contractor All site personnel

7. Sign Off

I confirm that I have read and understood the requirements and my responsibilities in implementing and complying with this CEMP.

Name	Date	Name	Date

Appendix A - Planning Permit Conditions

Insert planning permit conditions on approval from Glenorchy City Council.

Appendix B - SWMP

GLENORCHY CITY COUNCIL
PLANNING SERVICES

APPLICATION No. : PLN-25-367

DATE RECEIVED: 8 May 2026

DRAWING LIST

DRAWING	TITLE	REV	DATE
2044-01	LOCALITY PLAN AND NOTES	A	08/05/2026
2044-02	GENERAL ARRANGEMENT	A	08/05/2026
2044-03	SECTION DETAILS	A	08/05/2026

PROJECT NOTES:

GENERAL:

A. TEMPORARY DRAINAGE NOMINATED FOR CONTROL OF SEDIMENTS THROUGH CONSTRUCTION. FLOW SHOULD BE DIVERTED AROUND THE WORK SITE WHERE POSSIBLE.
B. EROSION AND SEDIMENTATION MEASURES INSTALLED SHALL BE MAINTAINED ALONG THE TOP OF SHORELINE ALONG LOW SIDE OF PROPOSED SITE.
C. CONTROL MEASURES MAY BE REMOVED WHEN ON-SITE EROSION IS CONTROLLED AND 70% PERMANENT SOIL COVERAGE IS OBTAINED OVER ALL UPSTREAM DISTURBED LAND.
D. SAFETY ISSUES MUST BE CONSIDERED AT ALL TIMES.
E. SEDIMENT TRAPS TO BE MAINTAINED UNTIL WORKS HAVE BEEN COMPLETED.
F. ALL DIMENSIONS IN MILLIMETRES UNLESS INDICATED OTHERWISE.
G. SOILS TO BE DISTURBED SHALL BE STRIPPED AND STOCKPILED TO AN APPROVED LOCATION AND WITHIN SEDIMENT FENCED AREA TO MINIMISE SOIL AND SEDIMENT LOSS INTO WATERWAYS AND RIVER.

SEDIMENT FENCE:

A. SHALL BE PER NOMINATED SKETCH FOR CONTROLLING FLOWS AND WIND (CONTRACTOR SHALL MONITOR AND MAINTAIN WET AREA FOR DUST CONTROL).
B. FORM DRAINAGE PATHS ON INSIDE OF SEDIMENT FENCE TO CONTROLLED OUTLET STRUCTRE.
C. NOT TO BE LOCATED IN AREAS OF CONCENTRATED FLOW.
D. WOVEN FABRICS ARE PREFERRED, NON-WOVEN FABRICS MAY BE USED ON SMALL WORK SITES, I.E. OPERATIONAL PERIOD LESS THAN 6 MONTHS OR ON SITES WHERE SIGNIFICANT SEDIMENT RUNOFF IS NOT EXPECTED.
E. PROVIDE CONTROLLED OUT LOCATION WITH FORMED SEDIMENT TRAP AND FILTER SOCKS PRIOR TO FORMED OUTLET.

ROCK REVETMENT:

1. THE CONTRACTOR SHALL PROVIDE TEMPORARY ROCK PROTECTION TO RECLAMATION AT 0.5m ABOVE AND BELOW MEAN SEA LEVEL. THROUGHOUT THE DURATION OF THE WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF ALL THE WORK AND THE ROCK REVETMENT AT ALL TIMES.

2. ALL ROCK FILL SHALL MEET THE FOLLOWING CRITERIA:

(A) SHALL BE IGNEOUS ROCK WITH A DRY DENSITY OF AT LEAST 2.200KG/M^3.
(B) ROCK SHALL CONFORM TO THE SIZE GRADING SHOWN ON THE DRAWINGS.
(C) INDIVIDUAL ROCKS SHALL BE HARD, DURABLE, CLEAN AND FRESH OR ONLY SLIGHTLY WEATHERED, NON--FRIABLE AND SHALL BE FREE FROM CRACKS, JOINTS, CLEAVAGE PLANES, JOINTS, SEAMS, CHEMICAL ALTERATION OR WEATHERING AND OTHER DEFECTS WHICH WOULD RESULT IN THE BREAKDOWN OF THE ROCK IN THE MARINE ENVIRONMENT.
(D) SHALL NOT HAVE SIGNIFICANT QUANTITIES OF DELETERIOUS MINERALS SUCH AS ANALCIME, PYRITE, OLIVINE AND EXPANSIVE CLAY MATERIALS, OR UNFAVOURABLE DELINEATIONS.
(E) SHALL EXHIBIT NO SIGNS OF STRESS RELIEF.
(F) SHALL BE ROUGH AND ANGULAR.
(G) TEMPORARY ARMOUR ROCK SHALL BE DN50 = 150mm

3. THE METHOD FOR PLACING ROCK SHALL BE SUCH AS TO MINIMISE ITS BREAKDOWN ON HANDLING AND TO PRODUCE MINIMUM FINES:

(A) ROCKS ARE WEDGED AND LOCKED TOGETHER SUCH THAT THEY ARE NOT FREE TO MOVE WITHOUT DISTURBING ADJACENT ROCKS.
(B) ROCK FILL SHALL BE TAMPED DOWN USING AN EXCAVATOR BUCKET.

LOCALITY PLAN

NTS

BEFORE YOU DIG www.byda.com.au

BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDER GROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT LOCATION SHOULD BE PROVEN ON SITE BY THE RELEVANT AUTHORITIES. NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

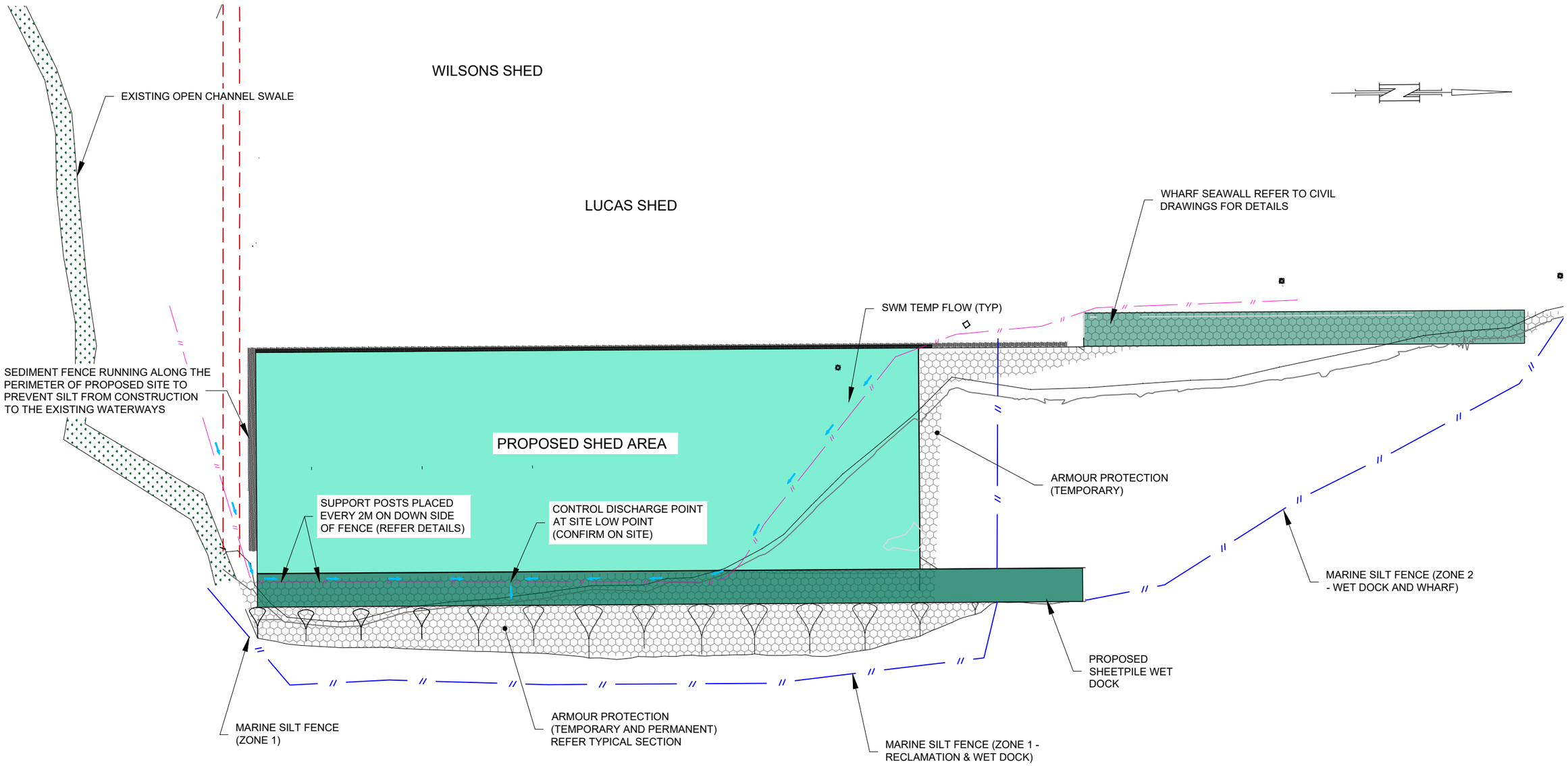
REVISIONS

Rev No	Revision note	Date	Checked	Approved
A	FOR CLIENT REVIEW	08/05/2026	JB	JB

Burbury CONSULTING
Project Management & Engineering

ABN 75 146 719 959
P.O. BOX 354
SOUTH HOBART, TAS 7004
P: (03) 6223 8007
F: (03) 6223 1143
E: admin@burburyconsulting.com.au

Drawn By: SS	Date 08/05/2026	Client	INCAT
Designed By: SS	Date 08/05/2026	Project	INCAT CHANDLERS SHED AND WHARF
Checked By: JB	Date 08/05/2026	Title	LOCALITY PLAN
Approved By: JB	Date 08/05/2026	Scale NTS	A3 25-2044-01 A



LEGEND

1. LANDSLIDE SILT FENCE
2. MARINE SILT FENCE SECURED FOR AREA OF MARINE WORKS(STAGED TO SUIT CONTRACTOR)
3. CONTROLLED FLOW PATHWAY (TYP)

GENERAL ARRANGEMENT - SEDIMENT CONTROL PLAN

SCALE 1:1500

0 15 30 45 60 75m

SCALE 1:1500 A3

REVISIONS

Rev No.	Revision note	Date	Checked	Approved
A	FOR CLIENT REVIEW	08/05/2026	JB	JB

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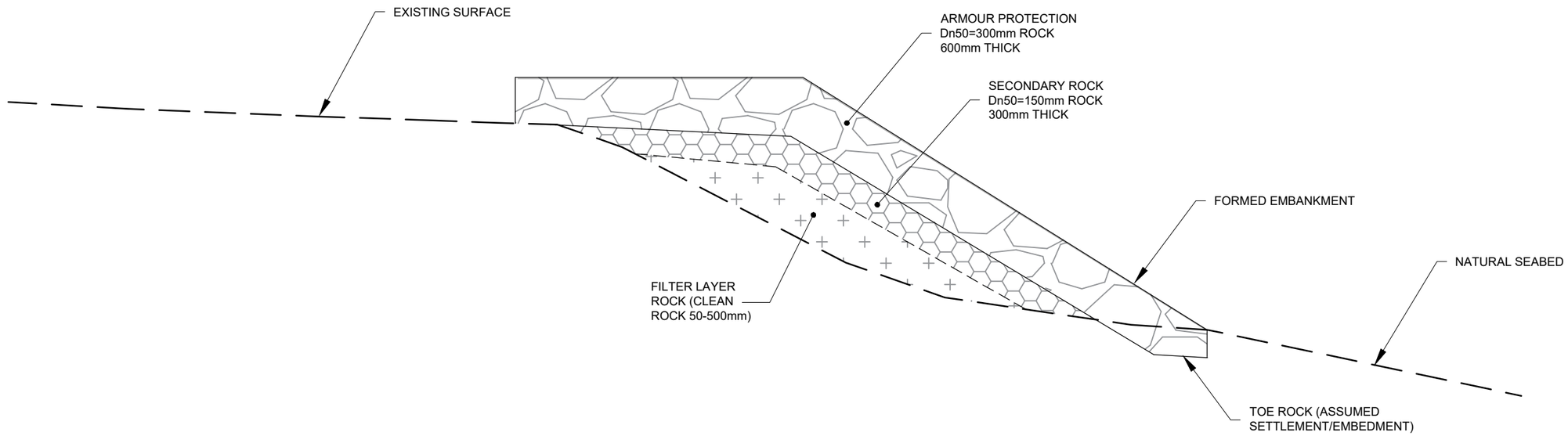
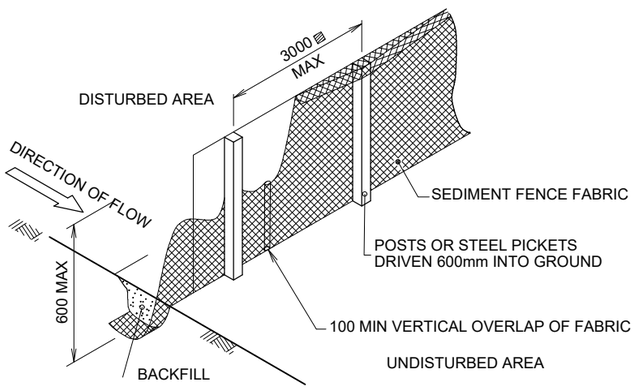
Drawn By: SS	Date 08/05/2026	Client	INCAT
Designed By: SS	Date 08/05/2026	Project	INCAT CHANDLERS SHED AND WHARF
Checked By: JB	Date 08/05/2026	Title	SEDIMENT CONTROL PLAN
Approved By: JB	Date 08/05/2026	Scale	AS SHOWN | A3 | 25-2044-02 | A

REFER CIVIL DRAWINGS FOR FINISHED GRADE LEVELS & DETAILS



TYPICAL SECTION DETAILS - SEAWALL

CHAINAGE 80.00m



SEDIMENT FENCE DETAIL

NOT TO SCALE

REVISIONS

Rev No	Revision note	Date	Checked	Approved
A	FOR CLIENT REVIEW	08/05/2026	JB	JB

Burbury CONSULTING
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Drawn By: SS	Date 08/05/2026	Client	INCAT
Designed By: SS	Date 08/05/2026	Project	INCAT CHANDLERS SHED AND WHARF
Checked By: JB	Date 08/05/2026	Title	TYPICAL SECTION AND DETAILS
Approved By: JB	Date 08/05/2026	Scale 1:500	A3 | 25-2044-03 | A

Pitt & Sherry (Operations) Pty Ltd
ABN 67 140 184 309

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Located nationally —
Melbourne
Sydney
Brisbane
Hobart
Launceston
Newcastle
Devonport

21 April 2026

Danielle Gray obo Incat Pty Ltd
Principal Consultant
Gray Planning
224 Warwick Street
West Hobart Tasmania 7000

Dear Danielle,

P.25.0075: Request for Information PLN-25-367 – Acid Sulfate Soil Assessment

Glenorchy City Council (Council) issued a second request for information (RFI) to Incat Pty Ltd (Incat) on 10 April 2026, regarding the proposed development and use of a new boat building shed, including reclamation works at 100 Derwent Park Road, Derwent Park (Property).

RFI Item 2 states:

> *"**Acid Sulfate Soil (ASS) Assessment***
>
> *An Acid Sulfate Soil (ASS) Assessment must be undertaken by a suitably qualified person to determine whether more than 100 tonnes of ASS is likely to be disturbed during the reclamation works. Where the assessment confirms that disturbance of ASS above this threshold is likely, an ASS Management Plan must also be prepared and submitted. The management plan must demonstrate how potential environmental impacts, including acid generation and impacts on water quality, will be effectively avoided or minimised during and after construction"*

Response:

Rogerson & Birch Surveyors have completed a Contour and Detail Plan (Survey) that includes bathymetric contours for the proposed reclamation area. The survey plan was completed on 29 October 2025; a copy is provided as Attachment A.

The survey contours are in Australian Height Datum (AHD). Zero AHD is mean sea level (MSL). In Hobart, MSL is deemed to be 0.9 m astronomical tide level, based on Hobart tides ranging between 0.2 m and 1.6 m (above the lowest astronomical tide). On that assumption, AHD 0 m is deemed to be 0.9 m astronomical tide level. As the lowest tide is 0.2 m, this would correspond to -0.7 m AHD.

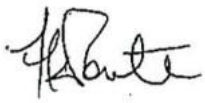
The Survey (Attachment A) suggests, based on the slope angle, that the edge of the reclamation appears to extend to the edge of the green shading, with seabed / estuary bed likely beginning in the turquoise-coloured depths, i.e. around -2.7 to -3.0 AHD, which is deemed to be equivalent to -2.0 to -2.3 tide / water depth.

As the shallowest water column is expected to be a minimum 2 m above the seabed / estuary bed, and to be up to 3.6 m deep during high tides, the sediments are expected to always be water saturated and to remain in an anaerobic condition. Even if ASS were present within the footprint of the proposed reclamation area, and at shallow depths in the sediment column, disturbance of any potential ASS by placement of fill is not expected to cause oxidation and resulting acidification of the ASS (if present) to a level which would cause significant environmental harm. An ASS Management Plan would therefore not be necessary, and consequently, assessing sediments for presence of ASS is not deemed to be required.

It is assumed that the Construction Environmental Management Plan (CEMP) required under item 1 of the RFI will address containment of seabed / estuary bed sediments during reclamation works, which would thereby contain any potential ASS.

Please note the limitations outlined in *Important information about your Letter*, provided at the end of this document.

Yours sincerely,



Fiona Keserue-Ponte
Senior Principal Environmental Consultant CEnvP SC

Enc Important information about your Letter
Attachment A – Rogerson & Birch Surveyors Contour & Detail Plan, 29/10/2025

Important information about your Letter

In some circumstances the scope of services may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints. The Letter may only be used and relied on by the Client for the purpose set out in the Letter. Any use which a third party makes of this document, or any reliance on or decisions to be made based on it, is the responsibility of the Client or such third parties.

The services undertaken by pitt&sherry in connection with preparing the letter were limited to those specifically detailed in the Letter and are subject to the restrictions, limitations and exclusions set out in the Letter. The Letter accuracy is limited to the time period and circumstances existing at the time the Letter was prepared. The opinions, conclusions and any recommendations in the Letter are based on conditions encountered and information reviewed at the date of preparation of the Letter. pitt&sherry has no responsibility or obligation to update the Letter to account for events or changes occurring after the date that the Letter was prepared. If such events or changes occurred after the date that the Letter was prepared render the Letter inaccurate, in whole or in part, pitt&sherry accepts no responsibility, and disclaims any liability whatsoever for any injury, loss or damage suffered by anyone arising from or in connection with their use of, reliance upon, or decisions or actions based on the Letter, in whole or in part, for whatever purpose.

In preparing the Letter, pitt&sherry has relied upon data, surveys, analyses, designs, plans and other information provided by or on behalf of the Client and other individuals and organisations, most of which are referred to in the Letter ("the Data"). Except as otherwise stated in the Letter, pitt&sherry has not verified the accuracy, completeness, usefulness or relevance of the Data.

To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the Letter ("Conclusions") are based in whole or part on the Data, those Conclusions are contingent upon the accuracy, completeness, usefulness or relevance of the Data. pitt&sherry does not warrant the accuracy and will not be liable in relation to Conclusions should any of the Data, be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to pitt&sherry.

The opinions, conclusions and any recommendations in the Letter are based on conditions encountered and information reviewed at the date of the Site visit.

pitt&sherry has no responsibility or obligation to update the Letter to account for events or changes occurring subsequent to the date that the site visit was carries out.

pitt&sherry does not accept responsibility arising from, or in connection with, any change to the Site conditions. pitt&sherry is also not responsible for updating the Letter if the Site conditions change.

Rogerson & Birch Surveyors Contour & Detail Plan, 29/10/2025

Attachment A

pitt&sherry

NOTES:

This plan and associated digital model is prepared for JMG Engineers & Planners from a combination of field survey and existing records for the purpose of designing new constructions on the land and should not be used for any other purpose.

The title boundaries as shown on this plan were not marked at the time of the survey and have been determined by plan dimensions only and not by field survey. No measurements or offsets are to be derived between the features on this plan and the boundary layer. The relationship between the features in this model and the boundary layers cannot be used for any set out purposes or to confirm the position of the title boundaries on site.

Services shown have been located where visible by field survey. Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of further underground services and detailed locations of all services.

This note forms an integral part of the Plan/Data. Any reproduction of this plan/model without this note attached will render the information shown invalid.

LEGEND

- Fire Hydrant
- Stormwater Manhole
- Grated Pit
- Floor Level
- Site Datum
- Unknown Pit
- Property Boundary
- Fence
- Table Drain
- Easement
- Building
- Bitumen

0m 37.5m 75m 112.5m 150m

1:1,500

122.92
41.30
157.78
83.91
74.30
50.00
46.39
18.38
12.80
16.00
18.16
34.66
61.19
88.09
75.96
20.90
8.61
34.00

Proposed bus stop

Proposed DDA parking

168298/1
7.180ha

No parking

Bike racks

DDA parking

Approx. Location of new shed

Drainage Easement 3.00 wide

Drainage Easement 3.00 wide

130554/1
1.967ha

Drainage Easement 5.00 wide

117774/1
1.002ha

-6.0m -3.0m 0.0m

HORIZONTAL DATUM is GDA2020, Coordinate Origin: ST969 RM3
E 525007.160 N 5258184.926 PER SURCOM

REV	AMENDMENTS	DRAWN	DATE	APPR.
E				
D				
C				
B	More parking and bus turning area added to plan	MG	17/02/2026	MG
A	Extents broadened to include car parking	MG	4/02/2026	MG

ROGERSON & BIRCH SURVEYORS
UNIT 1, 2 KENNEDY DRIVE
CAMBRIDGE 7170
PHONE: (03)6248 5898
EMAIL: admin@rbsurveyors.com
WEB: www.rbsurveyors.com

Contour & Detail Plan

FOR: JMG Engineers & Planners

LOCATION: 100 Derwent Park Road
Derwent Park

Date:	Contour interval:	Reference:
29/10/2025	0.250m	JMG152 14624-01
Drawn:	**Scale:**	**Bearing Datum: MGA2020 per**
MG	1:1500 (A3)	RTK GPS
Approved:	**Title Reference:**	**Vertical Datum:**
AB	See plan	AHD83 per ST969 RM3

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MARINE ECOLOGICAL ASSESSMENT FOR CONSTRUCTION AND RECLAMATION WORKS AT INCAT

prepared for

Incat Tasmania

February 2026

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Version	Contributor/s	Date reviewed	Reviewed by	Notes
1	A. Erskine A. Balis	18/02/2026	C. Manicom	

Cover photo: Location of the proposed development at the Incat site, taken during field surveys (Marine Solutions, Feb 2026).

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Executive Summary

Marine Solutions was engaged by Incat to conduct a marine ecological assessment at the site of proposed construction and reclamation at their shipyard, located on the edge of the River Derwent in Derwent Park, Tasmania. The ecological assessment includes a desktop assessment and field surveys.

The desktop assessment identified 12 threatened marine species that may occur or are known to occur within the development area. Targeted surveys for four of these threatened marine species were required based on the Guidelines for Natural Values Surveys – Estuarine & Marine Development Protocols (NCH 2020), including for: the large-fruit seatassel (*Ruppia megacarpa*), the spotted handfish (*Brachionichthys hirsutes* – habitat assessment only), the Derwent River seastar (*Patiriella littoralis*), and the live-bearing seastar (*Parvulastra vivipara*).

Field surveys were conducted on 3 February 2026. At the time of survey, reclamation works were in progress, with trucks and an excavator active for the duration of the survey period. The actual shoreline was located 10 - 15 m further offshore than expected, suggesting at least 10 m of reclamation had already occurred since satellite imagery was recorded in 2025. Field personnel observed significant impacts on water quality, with a plume of high turbidity surrounding the reclamation works due to suspended sediments in the water. Due to safety, access, and visibility constraints from the reclamation works, the field survey design was modified, and components of the survey could not be completed in full. Sufficient information was collected to provide a general summary of marine ecological values at the development location; however, no assessment could be made of areas already reclaimed or of the presence/absence of the rare species the large-fruit seatassel.

The surveyed intertidal area comprised a narrow rocky intertidal zone characterised by angular boulders, cobble, and anthropogenic fill material. Results suggest that the area was the site of previous land reclamation, although substrate was still available for sessile and mobile invertebrates. No threatened seastars were identified during targeted searches. No spotted handfish individuals were identified during surveys. The surveyed subtidal habitat was characterised by

bioturbated silt and a largely unvegetated benthic habitat, with visible suspension of sediments when water was disturbed.

Habitat adjacent to the reclaimed area is likely representative of the habitat within the reclaimed zone footprint, and some inferences can be made about habitat quality and the likelihood of threatened species presence in unsurveyed areas. Given the modified nature of the foreshore surrounding the development, and the absence of threatened species in field observations, it is unlikely that threatened species or ecologically significant habitat would have been present in the unsurveyed zones of the development footprint. The Glenorchy City Council Development Standards for Buildings and Works clause C7.6.1 performance criteria (i.e., works within a waterway and coastal protection area must avoid or minimise adverse impacts on natural assets) are addressed herein, with mitigations to minimise impacts recommended.

As activities associated with construction and land reclamation have the potential to generate impacts beyond the immediate footprint of works, particular consideration should be given to the proximity of ecologically significant areas such as the wetlands of the Risdon Reserve, and other important habitats nearby the study area.

To mitigate risks associated with construction in the River Derwent it is recommended that a silt curtain be installed around active work areas as soon as possible and maintained throughout the construction and reclamation period. Other recommendations are summarised below in Table 1.

Table 1. A summary of findings, potential impacts, and recommended mitigations for the proposed development.

	Summary of findings	Potential impacts	Mitigation methods

Threatened and protected species.	• Desktop assessment revealed 12 threatened marine species may occur in the survey area.
	• No threatened species were identified in field investigations.
	• Mobile and migratory species may utilise study area.
		• Injury or death of marine fauna.
		• Loss of habitat.
		• Acoustic disturbance.
		• Suspended sediments resulting in:
		  ○ Resuspension of historically deposited contaminants (i.e., heavy metals).
		  ○ Deposition of suspended sediment into adjacent habitats.
		• Pest species introduction and/or proliferation.
		• Pollution of waterway with debris.
			• Implement best practice construction methods that minimise benthic disturbance.
			• Implement thorough cleaning protocols to reduce risk of pest species translocation.
			• Silt curtain installation and maintenance.
			• Development of a soil management plan to mitigate impacts of run off.
			• If a sediment plume is observed beyond the silt curtain, additional water quality monitoring may be required.
			• Responsible removal of debris and waste from site.
			• Marine mammal monitoring prior to and during any construction activities that create noise intrusion (e.g., piling) by a trained Marine Mammal Observer (MMO) as per the Underwater Piling and Dredging Noise Guidelines (DIT 2023).
			• A slow start-up of construction works to avoid causing unnecessary shock to animals and to allow them to vacate the area.
			• Implementation of an environmental management plan to manage risk and maintain integrity of mitigations.

Habitat characterisation.	• Desktop assessment highlighted ecologically important habitats in the mid - upper Derwent Estuary. • Several native and introduced marine species were recorded during field investigations. • Evidence of historical land reclamation in the intertidal zone. • Debris recorded throughout the survey area. • Sediment plume observed around active reclamation works.		

1 Introduction

1.1 Proposal Brief

Marine Solutions was engaged by Incat to conduct a marine ecological assessment at the site of proposed construction and reclamation at their shipyard, located on the edge of the River Derwent in Derwent Park, Tasmania (Figure 1). Details of the study area and details on the proposed construction and reclamation are available in Section 1.3 and Section 1.4, respectively.

Figure 1 Map showing the approximate location of the proposed development at 100 Derwent Park Road, positioned on the Derwent River (Google Earth 2026).

Incat submitted a planning application for the proposed construction and reclamation works to both Crown and Glenorchy City Council in December 2025. Council and TasWater requested further information surrounding natural values, which will be addressed herein (pers. comms. D. Gray email to S. Ibbott dated 20 January 2026).

Requests for information (RFI) to be addressed by Marine Solutions included:

- *"The proposed development application was assessed as unsatisfactory in relation to C7.6.1 and more information is needed for the reclamation process (infill) against performance criteria. As such, it Is requested that you provide an ecological assessment must be prepared by a consultant experienced in assessing benthic flora and fauna"* (Item 16, RFI issued by council).
- "*Any recommended land reclamation construction methods specific to the site that would eliminate adverse impacts on the aquatic environment within the Derwent Estuary*." (Item 17.2, RFI issued by council).

1.2 Purpose and Scope

The purpose of this report is to assess the presence of threatened and/or protected marine flora and fauna, and identify potential ecological impacts associated with the proposed construction and land reclamation. The scope of this report includes a detailed summary of available information regarding the natural values and ecology of the area. The scope does not extend to terrestrial or avian ecology.

It is important to note that on the date of field surveys (3 February 2026) personnel noted that significant reclamation had already taken place and therefore a comprehensive baseline ecological assessment was not feasible. As a result, the recommendations contained herein are applicable only to works yet to commence.

Specifically, the project includes the following:

- Preparation, liaison, and desktop research
- Field survey[1]
    - Habitat characterisation:
        - Intertidal surveys
        - Subtidal surveys
    - Targeted surveys for threatened and protected species:

[1] Not all surveys were able to be completed in full. See Section 3.

        - Live bearing seastar
        - Derwent River seastar
        - Large-fruit seatassel
        - Spotted handfish (habitat assessment only)
- Data analysis and reporting.

1.2.1 Other Exclusions

Bathymetric surveying and sediment and water quality analysis were not included in the scope of works. Marine Solutions were informed that a marine bathymetric survey had already been conducted at the development site by Rogerson & Birch Surveyors (pers comms., D. Gray, 20 Jan 2026).

Should a water quality monitoring program be required during construction, baseline water quality data can be obtained from the Derwent Estuary Program's ambient monitoring program in the vicinity of the development (including data from site U3 and U4, DEP 2024), and from the nearby outfall ambient monitoring program conducted at Prince of Wales Bay (TasWater, 2021 - 2025).

Sediment in the Derwent Estuary is known to be contaminated with heavy metals from historical and ongoing major industrial works (DEP et al. 2010). With the proposed development located adjacent to the zinc smelter, a known point source of heavy metal contamination in the Derwent, high sediment contaminant levels are highly likely throughout the survey area. The recommendations within this report take a precautionary approach by assuming high sediment contamination in marine sediments.

1.3 Study Area

The proposed works involve the construction of a new boat-building shed at 100 Derwent Park Road, Derwent Park, in the Glenorchy City Council municipality, and will have a footprint of approximately 6000 m^2 (building area only, see Section 1.4). The structure will extend into the marine environment, with some land reclamation in the Derwent Estuary required as part of the development (Section 1.4).

The Derwent Estuary is a river system in southern Tasmania, opening into Storm Bay, approximately 30 km downstream from the site location. From the river to the sea the River Derwent and estuary support a variety of habitats, species, and human uses (DEP 2024). The Derwent Estuary Program, (DEP) a partnership between governments, industry and the community, have a range of resources that contribute to knowledge and management of the Derwent Estuary. An important resource relevant to this project is the *Dredging and Land Reclamation in the Derwent* guidance document (DEP 2013), which details best practice for projects involving dredging and/ or reclamation.

1.4 Proposed Development Overview

Marine Solutions were provided with the following information relating to the proposed construction and reclamation works. Note that some specifics around construction methods, materials, and timelines were not available at the time of survey, including the area and extent of reclamation work already conducted (however, it was noted that reclamation had already proceeded – pers. comms., D. Gray, 20 Jan 2026).

The proposed construction footprint includes a new shed (6000 m^2), a docking area and walkway, some of which will extend into the intertidal and subtidal estuary environment (Figure 2). Note that some components within the provided drawings (e.g. as in Figure 3) are not included in the current scope of works for which this survey was designed, including the "100m Long 'Stage 2' Building Works" and any excavation or dredging work (pers. comms. S. Casey, 2 February 2026).

Some reclamation will be required as part of the works. Material to be used for reclamation has been classified as clean fill (pers. comms. D. Gray, email dated Feb 11, 2026). No dredging or excavation of material will be involved in any stage of the construction for this project (pers. comms. S. Casey, Incat CEO, email dated 2 February 2026).

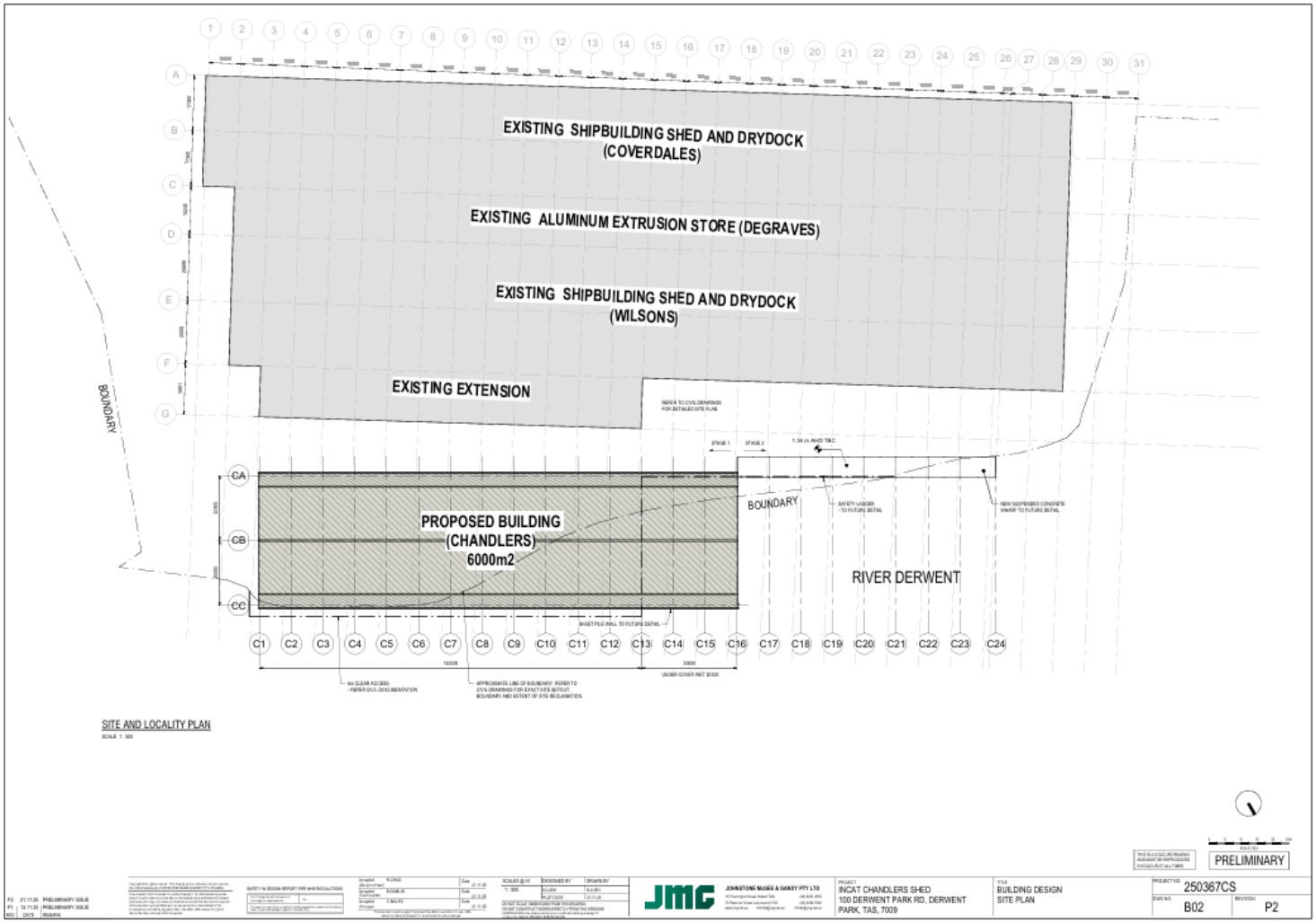

Figure 2 Screenshot of Building Design Site Plan (Site and Locality Plan) from JMG, displaying position of Proposed Building and adjacent walkway (Provided by D. Gray, pers. comms. 10 January 2026).

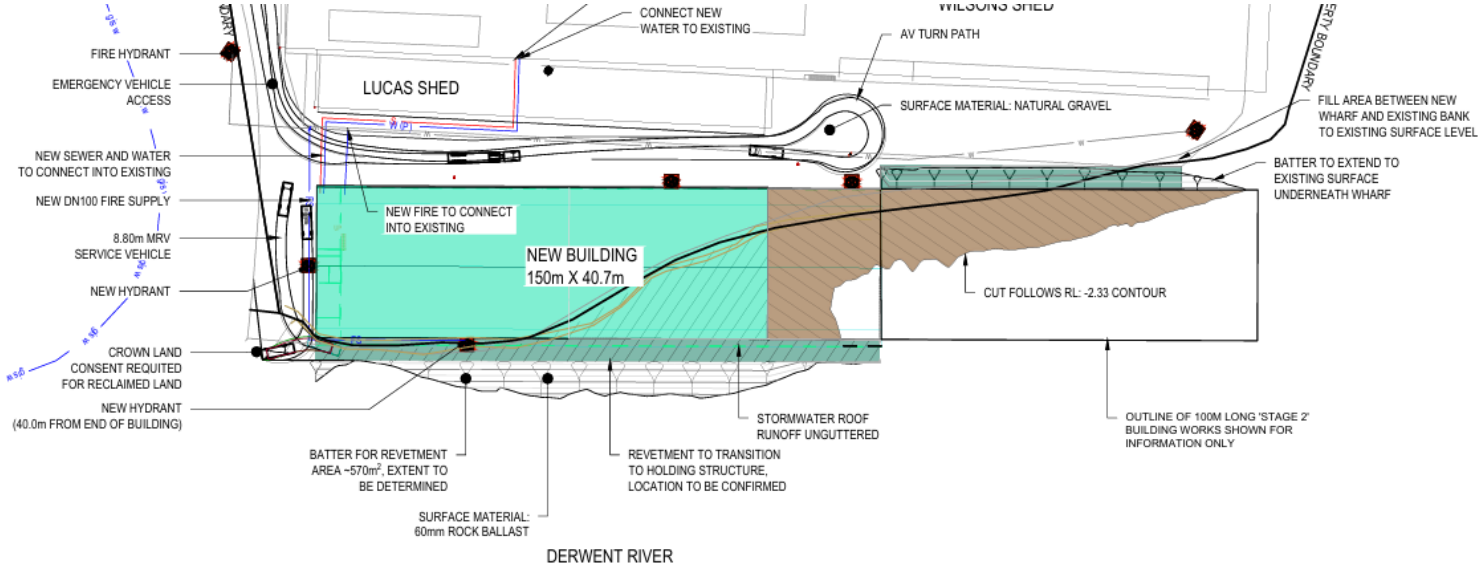

Figure 3 Cropped screengrab from JMG Civil Works Site Plan (provided by D. Gray, pers. comms., 10 January 2026) displaying proposed building and walkway locations (teal). Note that some components in the above plan have been determined irrelevant for the marine ecological assessment, including the "*Stage 2" Building Works* outlined on the right. It was confirmed that no dredging or excavation works are involved in the project for which the ecological assessment herein addresses (i.e., area that indicates CUT in the image above does not imply excavation- at least not for this project) (pers. comms., S. Casey, Incat CEO, email dated 2 February 2026).

2 Desktop-Based Assessment of Aquatic Sensitive Receptors

2.1 Threatened and Protected Species/Ecological Communities

There are a number of marine species listed as threatened that may occur in the vicinity of the proposed development. Threatened species are protected under the *Threatened Species Protection* (*TSP*) *Act 1995* (Tasmanian state legislation) and/or the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* (EPBC) (Australian Government legislation).

Under the *TSP Act*, no listed species may be collected, disturbed, damaged or destroyed without a permit. Under the *EPBC Act*, any action with significant impact on a listed threatened species and/or community is prohibited without approval (Section 18 and 18A).

In addition to threatened species legislation, the *Fisheries (General and Fees) Regulations 2006* under the *Living Marine Resources Management Act 1995* (LMRMA) prohibits the taking/possession of a number of marine species, including Syngnathids (seahorses, seadragons and pipehorses), handfish, threefin blennies, limpets/false limpets of three superfamilies, and five species of shark. Additional species are protected by the schedules of the *Wildlife (General) Regulations 2010* (Regulations under the *Nature Conservation Act 2002*), under which a person must not take, buy, sell or have possession of any protected wildlife or any product of any protected wildlife without a permit.

Threatened species that could potentially occur within the vicinity of the study area are discussed in greater detail in this section.

2.1.1 Methods

The EPBC Protected Matters Search Tool (PMST) is a tool managed by the Department of Climate Change, Energy, Environment and Water (DCCEEW) to help determine whether Matters of National Environmental Significance (MNES) or other matters protected by the *EPBC Act* are likely to occur in a given area of interest. The PMST was used to identify protected matters relating the study area, with a buffer of 500 m and 5000 m (DCCEEW 2026). The summary report is provided in Appendix 1. NRE Tas's Natural Values Atlas (NVA) was then consulted to identify any verified records of threatened species occurring within the proposed development area (NRE Tas 2026).

Findings have then been used to determine species for which targeted field surveys are warranted.

2.1.2 Results

In a search of the Natural Values Atlas (NRE Tas 2026) and EPBC Protected Matters Search Tool (PMST) (DCCEEW 2026), 12 threatened marine species were identified as possibly occurring or being known to occur within the area (see threatened species summaries below). There are verified records of 8 of these species within a 5000 m radius of the study area, of which one (Australian grayling) occurred within 500 m (NRE Tas 2026) (Table 2).

Based on this desktop-based assessment, it has been determined that targeted field surveys are warranted for four species:

- Large-fruit sea tassel (*Ruppia megacarpa*),
- Spotted handfish (*Brachionichthys hirsutus* - habitat assessment only),
- Derwent River seastar (*Patiriella littoralis*), and
- Live-bearing seastar (*Parvulastra vivipara*).

See Section 3 for details on targeted field surveys.

Table 2. Summary of threatened species identified in a desktop-based assessment. Note that the scope does not extend to terrestrial or avian biota.

	Scientific Name	Common Name	Presence likelihood as per EPBC PMST *	Verified record? as per Tasmanian NVA**	Tas TSP Act Threatened Category	EPBC Act Threatened Category	EPBC Listed Migratory?
Macrophyte	*Ruppia megacarpa*	Large-fruit seatassel	*Not EPBC- listed*	Yes – within 5000 m	Rare	*Not listed*	*Not listed*
Invertebrates	*Parvulastra vivipara*	Tasmanian live-bearing seastar	Species or species habitat *may* occur within 5000 m	Yes – within 5000 m	Endangered	Vulnerable	No
	Patiriella littoralis	Derwent river seastar	Species or species habitat *likely to* occur within 5000 m. Species or species habitat *may* occur within 500 m.	Yes – within 5000 m	Endangered	Critically Endangered	No
Fish & Elasmobranchs	*Galeorhinus galeus*	Eastern school shark	Species or species habitat *likely to* occur within 5000 m	No	Not listed	Conservation Dependent	No
	Carcharodon carcharias	Great white shark	Foraging, feeding or related behaviour *known* to occur within 5000 m	No	*Vulnerable*	Vulnerable	Yes
	Brachionichthus hirsutus	Spotted handfish	Species or species habitat *likely to* occur within 5000 m	Yes – within 5000 m	Endangered	Critically Endangered	No
	Prototroctes maraena	Australian grayling	Species or species habitat *known* to occur within 500 m	Yes – within 500 m	Vulnerable	Vulnerable	No
	Thymichthys politus	Red handfish	Species or species habitat *may* occur within 500 m	No	Endangered	Critically Endangered	No
Mammals	*Balaenoptera musculus*	Blue whale	Species or species habitat *likely* to occur within 500 m	No	Endangered	Endangered	Yes
	Eubalaena australis	Southern right whale	Species or species habitat *known* to occur within 500 m	Yes – within 5000 m	Endangered	Endangered	Yes
	Mirounga leonina	Southern elephant seal	Not identified by PMST	Yes – within 5000 m	Endangered	Vulnerable	No

Scientific Name	Common Name	Presence likelihood as per EPBC PMST *	Verified record? as per Tasmanian NVA**	Tas TSP Act Threatened Category	EPBC Act Threatened Category	EPBC Listed Migratory?
Arctocephalus tropicalis	Sub-Antarctic fur seal	Not identified by PMST	Yes – within 5000 m	Endangered	Vulnerable	No

* Notes presence categorization of EPBC PMST (DCCEEW 2026)

** Verified records as per Tasmanian Government Natural Values Atlas (NRE Tas 2026). Note that the NVA does not document records of migratory species that are not threatened.

2.1.2.1 Macrophytes

2.1.2.1.1 Large-fruit Seatassel

Species Background

Large-fruit seatassel (*Ruppia megacarpa*) occurs in coastal estuaries, salt lakes, and lagoons in waters up to 2 m depth along the southern coasts of Australia between Western Australia and New South Wales (Threatened Species Section (TSS) 2026). Largefruit seatassel is a salt tolerant species that has adapted to a wide range of salinities, existing in fresh to hypersaline environments.

In Tasmania, large-fruit seatassel is listed as rare under the *TSP Act*. It is found growing in estuaries and lagoons along the east and southeast coasts, and brackish lagoons in the Midlands. The Derwent Estuary is one of several key sites for large-fruit seatassel (TSS 2026).

Site Occurrence

The Tasmanian NVA records a verified sighting within 5000 m of the proposed development.

Potential Impacts

Direct impact from reclamation and or construction within the development area. Indirect impacts within the development area and beyond from suspended sediments (e.g., causing light attenuation).

Recommended mitigations:

1. Conduct a targeted survey for large-fruit sea tassel as per the Guidelines for Natural Values Surveys – Estuarine & Marine Development Proposals (NCH Tas 2020, see Section 0).
2. Minimise extent of development's marine footprint in the design phase.
3. Choose best practice construction methods that reduce benthic disturbance.
4. Silt curtains should be installed around any construction and reclamation works that may cause sediment disturbance.

2.1.2.2 Invertebrates

2.1.2.2.1 Derwent River Seastar

Species Background

The Derwent River seastar (*Patiriella littoralis*) occurs in the shallow rocky intertidal habitat within a restricted geographic range in the Derwent Estuary and is listed as endangered under the *TSP Act* and critically endangered under the *EPBC Act*. The total recorded range of *P. littoralis* is less than 1 hectare (Materia 1994). The Derwent River seastar is morphologically very similar to the common introduced regular seastar (*Patiriella regularis*), making positive identification difficult (Materia 1994).

Known threats to the Derwent River seastar include interspecific competition and anthropogenic habitat modification/destruction (Materia 1994). Derwent River seastar populations are severely impacted by introduced species that co-occur in super-abundance (e.g. New Zealand Porcelain Crab *Petrolisthes elongata* and the regular seastar) (Barrett et al 2012; Materia 1994). Furthermore, it has been hypothesised that the current lack of Derwent River seastar observations may be attributable to possible hybridisation with regular seastar, resulting in genetic swamping (Materia 1994).

There has been severe human modification to its known habitat, and two targeted surveys in 1993 and 2010 have failed to find the species. It is highly probable that the Derwent River seastar is now extinct (O'Hara et al 2019).

Site Occurrence

Species or species habitat *likely to* occur within 5000 m and *may* occur within 500 m, as per the PMST. Verified record as per the NVA within 5000 m.

Potential Impacts

Given the species has not been seen in its natural state since the early 1990's (NCH 2020) it is highly unlikely that a Derwent River seastar will be impacted by construction activities. However, if any Derwent River seastar individual was present in the survey area, potential impacts could include

habitat modification or removal, death or injury, and/or competition from invasive species that may be introduced by construction activities.

Recommended mitigations:

1. Conduct a targeted threatened seastar survey as per the Guidelines (NCH 2020).
2. Minimise impacts to unmodified intertidal habitat in the vicinity of the development.

2.1.2.2.2 Live-Bearing Seastar

Species Background

The live-bearing seastar (*Parvulastra vivipara*) (formerly *Patiriella vivipara*) is a small (~ 15 mm diameter) pentagonal orange seastar endemic to south-east Tasmania. The population is severely fragmented with thirteen distinct, small and isolated sub-populations known to have occurred in the past (Prestedge 2001). Recognised threats to the species include competition with the introduced regular seastar (*Patiriella regularis*), predation by the introduced Northern Pacific seastar (*Asterias amurensis*), and habitat modification and destruction (e.g. sewage discharge, urban encroachment) (DCCEEW 2026 b).

Site Occurrence

Species or species habitat may occur within 5000 m, as per the PMST. Verified sighting within 5000 m, as per the NVA.

Potential Impacts

If any live-bearing seastar individual was present in the survey area, potential impacts could include habitat modification or removal, death or injury, and/or competition from invasive species that may be introduced by construction activities.

Recommended mitigations:

1. Conduct a targeted threatened seastar survey as per the Guidelines (NCH 2020).
2. Minimise impacts to unmodified intertidal habitat in the vicinity of the development.

2.1.2.3 Fish & Elasmobranchs

2.1.2.3.1 Australian Grayling

Species Background

The Australian grayling (*Prototroctes maraena*) is a medium-sized, slender, silver fish native to Tasmania and southeast mainland Australia. Migrating between fresh and marine waters, the Australian grayling is considered diadromous, though most of their lives are spent in freshwater and adults live and spawn in freshwater. Timing of spawning varies but is typically in late summer in Tasmania, with larvae transported to the sea via stream and river currents, before returning as migrating juveniles approximately 4 to 6 months later (Backhouse et al 2008a, b., Bryant and Jackson 1999).

The Australian grayling is threatened by barriers to movement such as dams, weirs, and unsuitable habitat conditions. Changes to river flows, especially in winter, due to water extraction and dam operations also impact the species. Other threats include the removal of riparian vegetation and in-stream habitat, increased sedimentation from land disturbance, introduction of predators or competitors, and nutrient runoff from agriculture that affects water quality (Backhouse et al 2008a).

Site Occurrence

Species or species habitat are known to occur within 500 m of the development, as per the PMST. Verified sighting within 500 m of the development, as per the NVA.

Potential Impacts

As the development is not expected to introduce any barriers to migration, impacts on the Australian graylings migratory pathway is unlikely to be impacted. However, the species may be impacted by reduced water quality resulting from construction and reclamation activities.

Recommended mitigations:

1. Choose best practice construction methods that reduce benthic disturbance.

2. Silt curtains should be installed around any construction and reclamation works that may cause sediment disturbance.

2.1.2.3.2 Eastern School Shark

Species Background

The eastern school shark (*Galeorhinus galeus*) is primarily a deep-water demersal species found in temperate waters off southern Australia. In Tasmania, inshore bays and estuaries are important as birthing and nursery sites. Threats to school sharks include fishing and habitat degradation of nursery grounds (DCCEEW 2026 c).

Site Occurrence

Species or species habitat likely to occur within 5000 m as per the PMST. No verified sightings as per the NVA.

Potential Impacts

Although unlikely to be present nearby the development area based on site occurrence, it is plausible that eastern school shark habitat, in particular nursery grounds, may be impacted by coastal developments.

Recommended mitigations:

1. Choose best practice construction methods that reduce benthic disturbance.
2. Silt curtains should be installed around any construction and reclamation works that may cause sediment disturbance.

2.1.2.3.3 Red Handfish

Species Background

The red handfish (*Thymichthys politus*) is endemic to south-east Tasmania (Last & Gledhill 2009). Its distribution and population size are small, limited to the coastline of south-eastern Tasmania, with known modern populations restricted to only two small areas in Frederick Henry Bay (Bessel et al

2024). Given the low number of mature individuals and the limited range of the species, areas supporting known populations represent critical habitat to the survival of the species (DoE 2015).

Site Occurrence

Species or species habitat may occur within 500 m as per the PMST. No verified sightings as per the NVA.

Potential Impacts

Given known populations of red handfish are in Frederick Henry Bay, > 20 km from the development site, it is highly unlikely there will be any impact on red handfish populations as a result of the proposed development.

Recommended mitigation: None required.

2.1.2.3.4 Spotted Handfish

Species Background

The spotted handfish (*Brachionichthys hirsutus*) is endemic to south-eastern Tasmania. Once common from the eastern coast to the D'Entrecasteaux Channel (Last et al 1983), the species experienced rapid declines first reported in 1996 (Barrett et al 1996). The spotted handfish is listed as listed as Critically Endangered under the *EPBC Act* and Endangered under the *TSP Act*.

The current known distribution of *B. hirsutus* is restricted to sand, silt and shell-grit environments of the lower Derwent Estuary between approximately 2 and 30 m depth, south of the Tasman Bridge (Spotted Handfish Recovery Team 1998; Bruce et al 1997). Although there are recently observed individuals in Storm Bay and the D'Entrecasteaux Channel (Lynch et al 2020) that are likely members of small, genetically isolated local populations. Spotted handfish breed from mid-July to mid-November, attaching their eggs to stalked ascidians (*Sycozoa* sp.) and occasionally to sponges or seagrass (Spotted Handfish Recovery Team 1998). Availability of suitable spawning substrata is considered critical to their reproductive success (Pogonoski et al 2002). After laying the egg mass, the female guards the eggs until they hatch (6 - 7 weeks). The spotted handfish does not have a

larval dispersal phase; juvenile hatchlings are thought to settle in the immediate vicinity of the hatch-site (Bruce et al 1998).

Populations are now fragmented across the species' historical range (Last & Gledhill 2009). Major threats include loss of spawning substrates, habitat degradation from fishing activities, and predation or competition associated with invasive species such as the northern Pacific seastar, which consumes the stalked ascidians used for egg attachment (Spotted Handfish Recovery Team 1998).

Site Occurrence

Species or species habitat likely to occur within 5000 m, as per the PMST. Verified sightings within 5000 m of the proposed development, as per the NVA.

Potential Impacts

As known spotted handfish populations are limited to south of the Tasman bridge (~ 4.6 km south of the development area), it is considered unlikely that any construction and reclamation activities will impact the spotted handfish. However, as a measure of prudence, benthic surveys will consider spotted handfish and their habitat, recording any suitable habitat (or individuals) if seen in the development footprint.

Recommended mitigation: Conduct a habitat assessment as per the Guidelines (NCH 2020) to determine suitability of location to support spotted handfish (and whether further targeted surveys should be conducted).

2.1.2.3.5 White Shark

Species Background

White sharks (*Carcharodon carcharias*), also known as white pointers and great white sharks, are found throughout temperate and sub-tropical waters. They are a pelagic species, primarily found within continental shelf waters. White sharks are long-lived with low reproductive rates, traits that contribute to their vulnerability and population declines (DCCEEW 2026 d). Threats to great white

sharks include commercial fishing interactions rather than shallow coastal developments (DSEWPC 2013).

Site Occurrence

Foraging, feeding or related behaviour known to occur within 5000 m, as per the PMST. No verified sightings as per the NVA.

Potential Impacts

As major threats to white sharks surround commercial fishing interactions, rather than shallow coastal developments, it is unlikely that white sharks will be impacted by the proposed development.

Recommended mitigation: None required.

2.1.2.4 Mammals

Generally, threats to marine mammals include acoustic pollution, entanglement (e.g., marine debris, fishing equipment), vessel-strike injury and water quality degradation. Marine mammals are known to occur periodically in the vicinity of the proposed project buffer zone and as such, acoustic disturbance during construction may particularly affect marine mammals that rely on acoustic cues for social and reproductive behaviours.

Recommended mitigation:

To mitigate this risk, the zone should be monitored for marine mammals prior to and during any construction activities that pertain noise intrusion by a Marine Mammal Observer (MMO), as per the Underwater Piling and Dredging Noise Guidelines (DIT 2023). A slow start-up of construction works is recommended to avoid causing unnecessary shock to animals and to allow them to vacate the area. If observed, works involving underwater acoustic impacts should cease until the marine mammals are away from the area. Threats and risks are discussed on a species-specific basis below.

2.1.2.4.1 Blue Whale

Background

The blue whale *(Balaenoptera musculus)* is the largest oceanic mammal and migrates between Australian waters, the Antarctic and Sub-Antarctic feeding grounds and tropical breeding grounds (Indonesian and Pacific waters) (DCCEEW 2026 e). Blue whales mature at the age of 7-10 years and can live for up to 90 years (Sears & Perrin 2009). There are still many unknowns about the population size and distribution due to the large areas in which the population aggregates. Blue whales are listed as an endangered species under both relevant federal and state legislation. Major threats to blue whales have stemmed from whaling, overfishing, climate change, noise interference from anthropogenic disturbance and vessel collision (DCCEEW 2026 e).

Site Occurrence

Species or species habitat likely to occur within 500 m, as per the PMST. No verified sightings as per the NVA.

Potential Impacts

It is highly unlikely that a blue whale would be present in the Derwent Estuary, particularly as far north as the proposed development. General precautions should be implemented for marine mammals (Section 2.1.2.4).

2.1.2.4.2 Southern Elephant Seal

Background

The southern elephant seals (*Mirounga leonina*) is an earless seal, easily recognisable by its large trunk-like nose and colossal body that can weigh up to 3600 kg (Bryant & Jackson 1999). They historically bred on King Island, but the sealing industry caused significant declines in the population size in the early 19th century. While the population is recovering, these seals are still rarely seen off Tasmania's coasts. Major breeding colonies remain on Macquarie Island and Heard Island in sub-Antarctic regions. Threats to southern elephant seals include the entanglement of fishing gear, marine pollution, disturbance to breeding colonies, overfishing of their prey stocks, and deliberate hunting (Bryant & Jackson 1999). Under the *TSP Act*, southern elephant seals are listed as endangered.

Site Occurrence

Not identified by PMST. Verified sighting within 5000 m, as per the NVA.

Potential Impacts

Noise pollution from construction activities could impact seals foraging and communication behaviours. General precautions should be implemented for marine mammals (Section 2.1.2.4).

2.1.2.4.3 Southern Right Whale

Background

The southern right whale (*Eubalaena australis)* is one of Tasmania's rarest and largest mammals (NRE Tas 2020). They can be seen between May and November during their northward migration from Tasmania. Some individuals also remain in Tasmanian waters during the breeding season, as these areas were formerly their ancestral breeding grounds before the onset of large-scale whaling (NRE Tas 2020). The population is recovering from the effects of whaling, and significant resources and efforts are being directed at monitoring and conserving this endangered species. They are listed as endangered under both the *EPBC Act* and Tasmania's *TSP Act*. The main threats to the species are climate change, entanglement in fishing gear, aquaculture equipment, habit loss or degradation from coastal and offshore development, prey depletion and underwater noise caused by humans (DCCEEW 2026 f).

Site Occurrence

Species or species habitat known to occur within 500 m, as per the PMST. Verified sighting within 5000 m, as per the NVA.

Potential Impacts

Vessel strike injuries and/ or noise pollution from construction activities could impact species behaviour. General precautions should be implemented for marine mammals (Section 2.1.2.4).

2.1.2.4.4 Sub-Antarctic Fur Seal

Background

The sub-Antarctic fur seal *(Arctocephalus tropicalis*) breeds on Macquarie Island. Historic sealing by early sealers decimated their once large breeding colonies, and the population remains in recovery, largely via immigration from other southern colonies. They favour rocky coasts and rock-platform habitats and feed primarily on krill, fish and squid, and occasionally on penguins (TSS 2026 b, Makhado 2013). Major threats include entanglement in fishing gear and marine debris, disturbance at breeding colonies, overfishing of prey stocks, marine pollution and deliberate human harm (TSS 2026 b). Under Tasmania's *TSP Act*, sub-Antarctic fur seals are listed as endangered, and under the *EPBC Act* they are listed as vulnerable.

Site Occurrence

Not identified by PMST. Verified sighting within 5000 m, as per the NVA.

Potential Impacts

Unlikely to be present in the development area, with only vagrant individuals making their way into the Derwent River. General precautions should be implemented for marine mammals (Section 2.1.2.4).

2.2 Invasive and Pest Species

Introduced marine species are translocated by a variety of vectors (e.g. ballast water, biofouling, aquaculture operations, and ocean current movements). Once introduced, they often thrive as they may lack predators and/or competitors in their new environment (Whitehead 2008).

Introduced species may be classified as invasive if they are having significant impact on human health, fisheries and aquaculture, infrastructure, tourism, biodiversity, and/or ecosystem health.

Pest species, defined as species that pose a significant risk to the state's environment, economy, or agriculture (*Biosecurity Act 2019,* Tasmania), include both introduced (invasive) and native species.

Marine species that have been declared as pests under State legislation[2] include:

- Northern Pacific sea star (*Asterias amurensis*),
- European shore crab (*Carcinus maenas*),
- European fan worm (*Sabella spallanzanii*),
- Japanese wakame (*Undaria pinnatifida*) other than in restricted zone defined in legislation,
- European carp (*Cyprinus carpio*), and
- Black striped mussel (*Mytilopsis sallei*).

Many more are recognised as pests by the National Introduced Marine Pest Information System (NIMPIS) (Commonwealth of Australia 2023). Species listed on NIMPIS that are known to occur, or may occur, in the vicinity of this study include:

- European shore crab,
- Japanese Wakame,
- New Zealand screw shell (*Maoricolpus roseus*), and

[2] *Fisheries (General and Fees) Regulations 1996*, *Part 20: Noxious* fish, outlined in the *Living Marine Resources Management Act 1995*

- Northern Pacific seastar.

There are 70 identified introduced marine species in the Derwent River (Whitehead 2008). Some notable introduced species in the Derwent River (that are not already identified above) include:

- New Zealand seastar (*Patiriella regularis*),
- New Zealand half crab (*Petrolisthes elongatus*), and
- Pacific oyster (*Crassostrea gigas*).

Field surveys will record any relevant introduced, invasive and pest species (See Section 3). It should be ensured that no marine species are translocated because of vessel/equipment movement, by adopting a thorough cleaning protocol.

2.3 Other Sensitive Receptors

2.3.1 Wetlands

An area of high Wetlands Integrated Conversation Value (ICV) lies at Piyura Kitina (Risdon Cove), nearby the proposed construction and reclamation site. The area contains saltmarsh and tidal flat habitats vital to the health of the Derwent Estuary (Visby & Prahalad 2020).

2.3.2 Seagrass

Seagrasses are subtidal and intertidal plants found mainly in shallow waters of protected estuaries and bays, including throughout the Derwent Estuary, with large seagrass meadows present in the upper Derwent (DEP 2024, DEP 2026). They are important contributors to coastal productivity and biodiversity. A range of factors have been linked to seagrass decline; however, the most common cause of decline in the Derwent is the reduction of light (e.g., Ross et al 2011). High levels of nutrients often result in increased epiphytic algal growth that can smother and shade seagrass blades, while higher turbidity reduces that amount of light reaching the beds, with deeper parts of the bed most vulnerable to light reductions.

Although the Derwent River's largest seagrass meadows are in the upper Derwent (e.g., Granton & Bridgewater, > 13 km north of the development site), seagrass may be present at or nearby the development site. Any seagrass meadows near the development site are at risk from the proposed project if water quality is impacted substantially (e.g., increased turbidity, nutrient load) so that light availability is reduced for extended periods of time.

Recommended mitigations for other sensitive receptors:

1. Record presence of seagrass habitat in benthic habitat surveys (see Section 3.2.2).
2. Choose best practice construction methods that reduce benthic disturbance.
3. Silt curtains should be installed around any construction and reclamation works that may cause sediment disturbance.
4. If water quality impacts are present beyond the extent of the silt curtain, water quality monitoring may be required.

3 Field Survey

3.1 Overview

Field surveys were conducted on 3 February 2026. See Appendix 2 for operational summary.

3.1.1 General observations and survey constraints.

When field personnel arrived at the site, reclamation works were in progress, with large trucks and excavators active for the duration of the survey period (Figure 4).

Figure 4 Reclamation works in progress on 3 February 2026, including fill delivery by trucks (top) and sediment placement into the River Derwent (bottom).

The shoreline was 10 - 15 m further offshore than expected, suggesting at least 10 m of reclamation had already occurred at the time of survey[3]. Field personnel observed significant impacts on water quality, with a clear plume of high turbidity surrounding the reclamation works (Figure 5). No obvious mitigations such as silt curtains were in place at the time of surveying. Field personnel also noted substantial debris and litter (plastic, pieces of metal reinforcing, etc.) throughout reclaimed land on the foreshore.

Figure 5 Significant sediment plume surrounding the construction and reclamation site, taken from survey vessel by field personnel on 3 February 2026.

[3] Difference based on distance between in-field waypoints denoting start of video transects and shoreline displayed in Google Earth Pro satellite imagery from April 2025 (Appendix 5).

Because of reasons associated with the active reclamation works, including safety, access, and visibility constraints, the field survey design had to be modified, and the planned components of the field survey were not completed in full. Sections of the intertidal foreshore were inaccessible because of reclamation works (see Figure 6), meaning the intertidal survey and threatened seastar surveys were only conducted in small areas adjacent to the main reclamation works. Disturbance from the reclamation works (wave action disturbing reclamation edge and direct disturbance from sediment dumping) meant that extent of underwater surveying was limited. Footage from the inshore sections of the video transects were unusable due to low to no visibility. Dive surveys were unable to be conducted due to visibility and safety, meaning a targeted search for large-fruit seatassel could not be conducted (Section 3.2.2).

Due to the irreversible nature of reclamation work, natural values in the footprint of the reclamation could not be assessed, and for this reason it was deemed unnecessary to re-attempt any of the incomplete surveys.

3.2 Habitat Characterisation

3.2.1 Intertidal Habitat

3.2.1.1 Methods

An intertidal habitat survey was conducted on 3 February 2026 in the vicinity of the proposed development to characterise the intertidal environment (Figure 6). Due to shoreline operations occurring at the time of sampling (reclamation, see Section 3.1), field personnel could not access part of the intertidal habitat (denoted as red line in Figure 6), and therefore this zone was not able to be assessed.

Intertidal habitat characterisation was conducted in conjunction with targeted surveys for live bearing and Derwent River seastars (see Section 3.3.1). Methods were adapted from the Guidelines (NCH 2020), as a full targeted survey as per the Guidelines was not feasible in the narrow and debris-filled intertidal zone.

Personnel in the field analysed and photographed quadrats placed haphazardly along a transect line that ran parallel to the shore in the intertidal zone at low tide. Quadrats spanned the width of the available intertidal habitat across the survey. Quadrats were thoroughly searched for threatened seastars, including on the underside of rocks and rubble. Notes and photographs were taken regarding substrate type, ecological communities, and the presence of any flora and fauna in quadrats, and in the general area adjacent to the land reclamation site.

Once the quadrat survey was completed and no threatened seastars were located, a full 30-minute search was conducted by field personnel as per the Guidelines (NCH 2020).

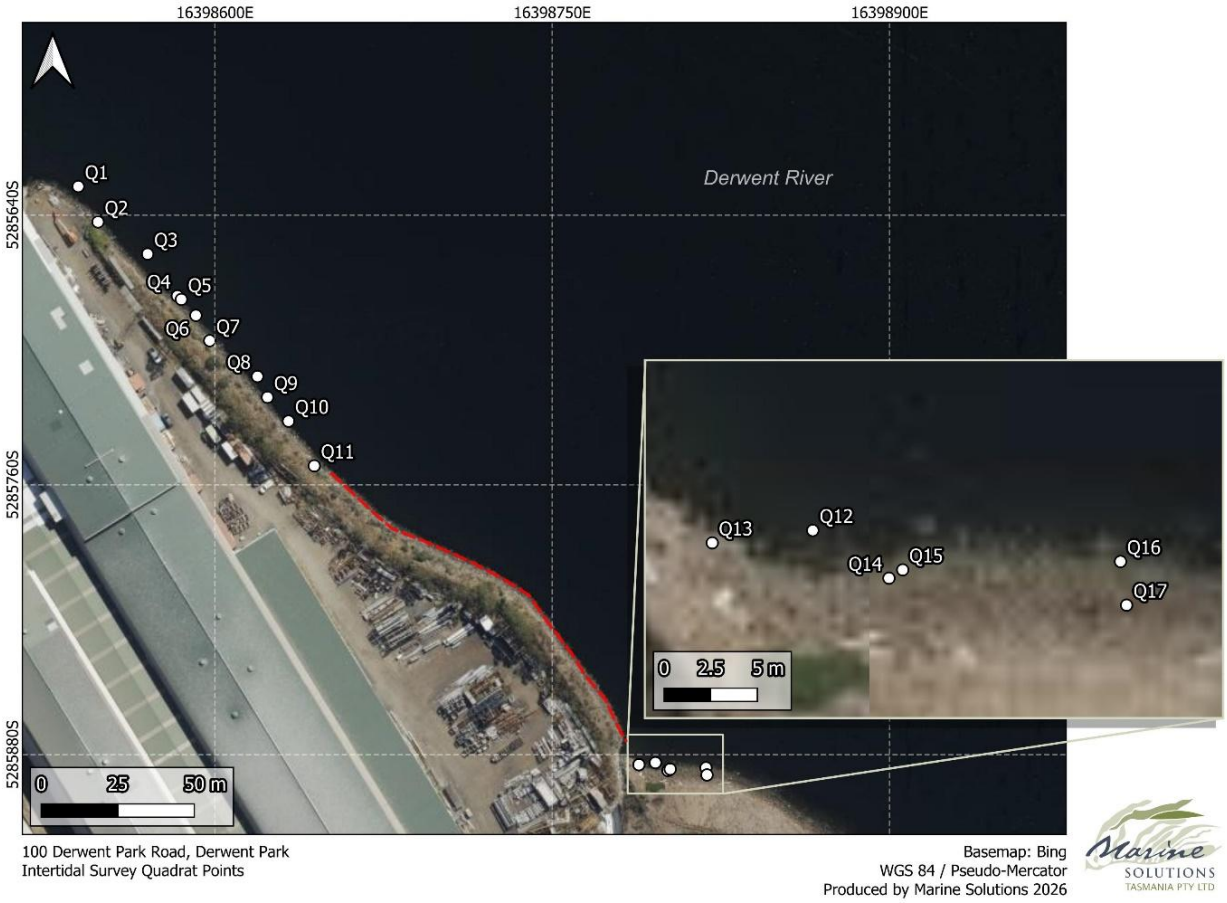

Figure 6. Location of intertidal quadrats in study area. Red line indicates zone unable to be surveyed due to active construction/ reclamation works.

3.2.1.2 Results

The surveyed area comprised a narrow (~3 m wide) rocky intertidal zone characterised by angular boulders, cobble, and anthropogenic fill material, creating a course, structurally heterogeneous but largely artificial shoreline.

Vegetation was sparse, with macroalgal cover limited to patchy turfing, nuisance and filamentous green algae (*Ulva* and *Ectocarpus* spp.) in the shallow water margins. Seagrass wrack was present in several quadrats.

Faunal observations were limited but included juvenile fish utilising the shallow waters, as well as sightings of live blue mussels (*Mytilus galloprovincialis*), honeycomb barnacles (*Chamaesipho tasmanica*) and several spotted smooth shore crabs (*Paragrapsus laevis*).

The area contained drift material including woody debris (dead branches and sticks) as well as anthropogenic debris such as bricks and litter. Clear evidence of industrial debris indicated previous reclamation or shoreline armouring, contributing to the modified shoreline morphology and reduced ecological complexity. Overall, the habitat appeared to be a moderately disturbed industrial foreshore habitat.

Refer to Figure 7 for typical habitats observed during the intertidal survey. Refer to Figure 8 for species observed during the intertidal survey.

Figure 7 Image showing typical intertidal habitats observed during survey: A) presence of drift material and anthropogenic debris B) presence of turbid waters and turfing green algal cover C) angular boulders in vicinity to industrial zones

Figure 8. Species observed during intertidal surveys A) Blue mussel (*Mytilus galloprovincialis*) B) Honeycomb barnacles (*Chamaesipho tasmanica*) C) Spotted Smooth Shore Crab (*Paragrapsus laevis*).

3.2.2 Subtidal Habitat

3.2.2.1 Methods

An underwater video survey was conducted at the construction site and surrounding buffer zone on 3 February 2026 to characterise the subtidal habitat area (Figure 9). Due to the commencement of construction activities at the time of the survey (see Section 3.1), a diver operated video survey was not feasible.

The underwater video survey was therefore conducted using a drop camera to film 10 x ~ 300 m transects of the benthic habitat at a depth of 5 - 10 m, extending Northeast along the site of planned land reclamation. GPS points are available for the location of surveyed transects (Appendix 3). A reference transect (T10) was also taken on the adjacent shore of the Derwent River.

Video footage was reviewed by marine scientists, whereby the subtidal habitat was analysed with reference to seabed characteristics, the presence of marine vertebrates and invertebrates, and algal coverage.

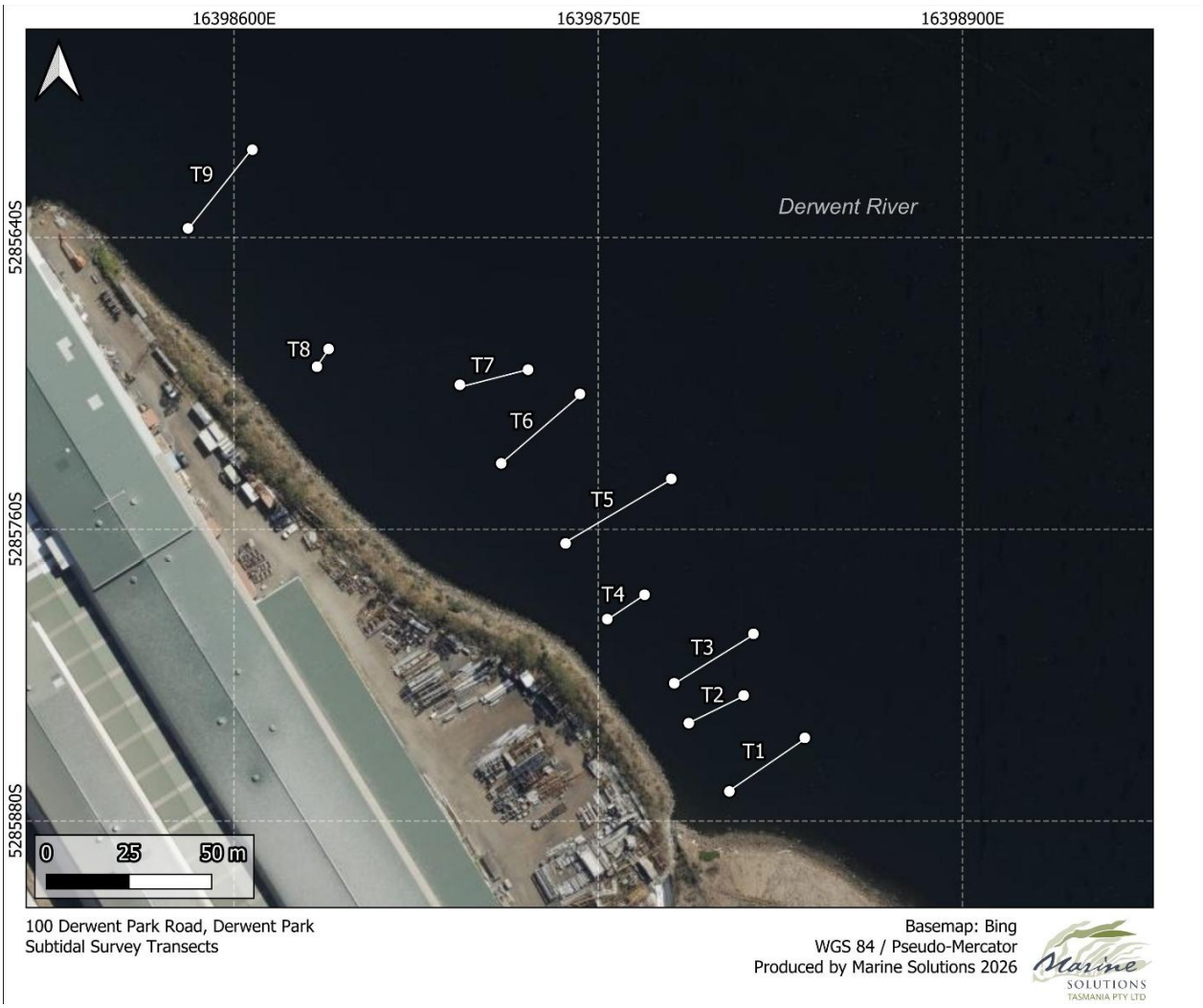

Figure 9 Location of subtidal video transects.

3.2.2.2 Results

The subtidal habitat was dominated by dark to light brown, bioturbated sand and silt substrates, with occasional silt-covered rocky reef, cobble, shell grit, and mixed turf–sediment matrices. Seagrass was largely absent or extremely sparse, with coverage consistently below 5% and often <1%, limited mostly to exposed rhizomes in finer sediments.

Macroalgal cover was generally low, though patchy occurrences of nuisance green algae (primarily *Ulva*) and filamentous brown algae (*Ectocarpus sp.*) were present in some areas, ranging from minimal

to moderate abundance. Red algae were present, occurring in low abundance on silt-covered rocky reef.

The invertebrate community was strongly dominated by the invasive New Zealand cushion star (*Patriella regularis*), which was consistently present in the study area and occurred in high to very high abundances (20–30+ individuals per 300m transect). Other invertebrates were sparse, with ascidians (*Pyura* spp.) present at low abundances (<5 individuals). The invasive Northern Pacific sea star (*Asterias amurensis*) occurred sporadically at low densities (1-3 individuals).

Fish assemblages were limited, reflecting the low structural complexity of the habitat. Observations were dominated by small demersal fish, with occasional presence of sand flathead (*Platycephalus bassensis*) and thornfish (*Bovichtidae*).

At the reference site (opposite shore of Derwent River), silt-covered rocky reef dominated the substrate, with low to moderate abundance of red algae and the presence of some green algae such as *Ulva* spp.

Refer to Figure 10 for images of habitats and species observed, and Appendix 4 for a list of species observed during the subtidal habitat survey. Video footage of subtidal habitat transects is available from Marine Solutions upon request.

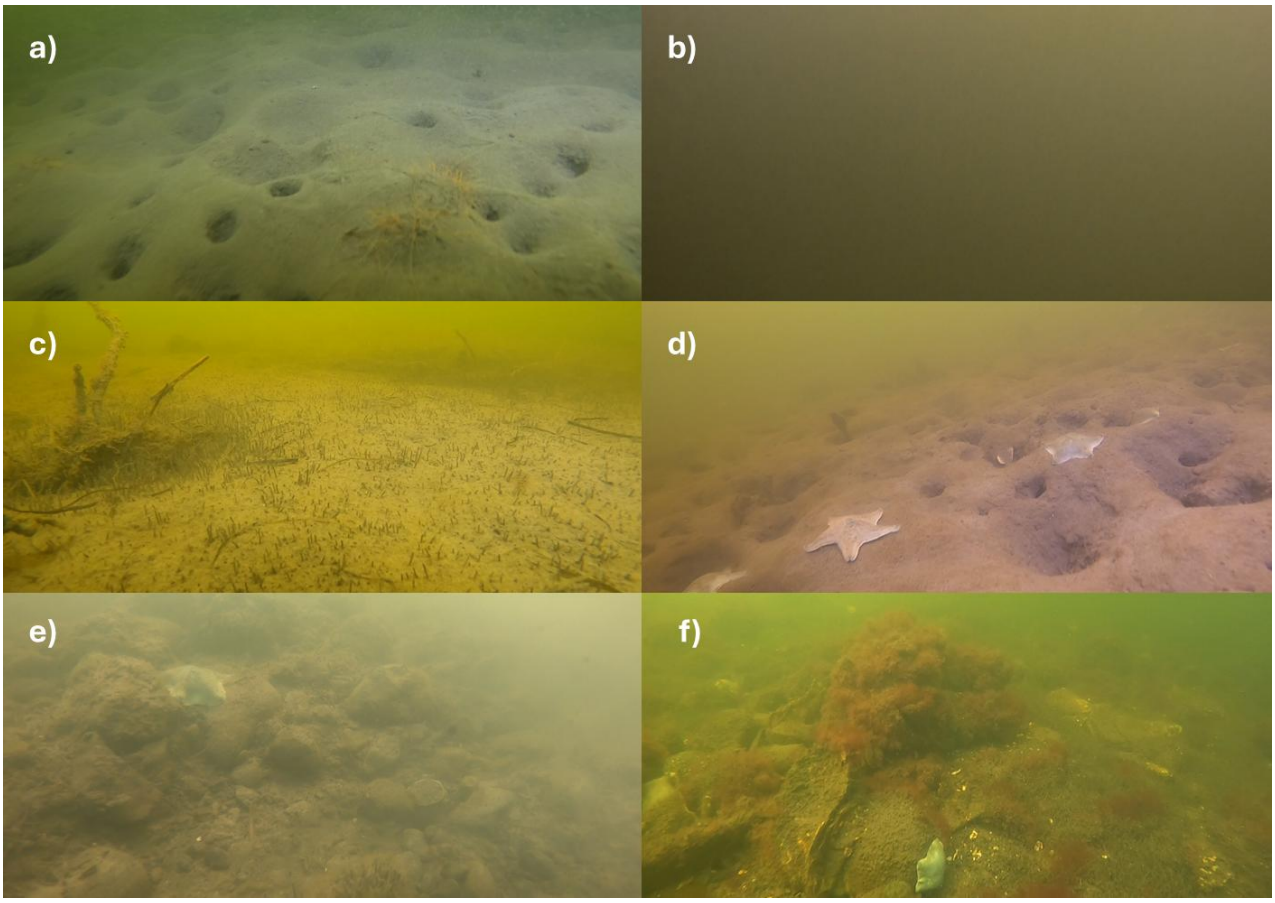

Figure 10 Examples of habitats and species observed throughout the subtidal habitat survey, screengrabs from videos include a) bioturbated silt (T3), b) poor visibility in surface and inshore waters, c) organic material deposited inshore (T1), d) *P. regularis* individuals and stalked ascidian (T1), e) cobble reef and *P. regularis,* and f) reference site, cobbles with red algae (T10).

3.3 Targeted Surveys for Threatened and Protected Species

The desktop-based assessment (refer to Section 2) identified that the following threatened and protected species may occur in the area, and therefore targeted searches were warranted for:

- Live-bearing sea star (*Parvulastra vivipara*),
- Derwent River seastar (*Patiriella littoralis),*
- Large-fruit seatassel (*Ruppia megacarpa*), and
- Spotted handfish (habitat assessment only).

Because of reclamation works occurring at the time of survey and resulting high turbidity in shallow sections of the marine environment (Section 3.1), the large-fruit seatassel survey could not be conducted.

3.3.1 Live-bearing and Derwent River Seastar

3.3.1.1 Methods

Targeted searches for the live-bearing sea star (*Parvulastra vivipara*) and the Derwent River seastar were conducted on 3 February 2026 (Appendix 2) throughout the intertidal zone within the proposed site footprint, in conjunction with the intertidal habitat survey. See 3.2.1.1 for method details.

3.3.1.2 Results

No seastar individuals were observed during the targeted survey for live-bearing sea stars and Derwent River seastars. Refer to Figure 11 for images of typical quadrats placed for the targeted threatened species survey.

Figure 11 A selection of representative quadrats in the targeted survey for threatened seastar species.

3.3.2 Spotted Handfish - Habitat Assessment

Spotted handfish are known to inhabit the Derwent Estuary, with the nearest population located approximately 5 km south of the development site. Although it is unlikely that any spotted handfish will be present within the development footprint and surrounding buffer zone, the subtidal habitat assessment will consider suitability and likelihood of spotted handfish presence in conjunction with characterisation of the subtidal environment.

3.3.2.1 Methods

Spotted handfish habitat suitability was assessed in conjunction with the subtidal habitat survey (see Section 3.2.2.1 for method details). Any spotted handfish habitat, including breeding substratum (e.g., stalked ascidians), and the presence of harmful northern Pacific seastars, will be recorded.

3.3.2.2 Results

No spotted handfish were observed in the surveyed area. Bioturbated sediment provided microhabitat for spotted handfish, but breeding substratum was minimal, with only several stalked ascidians observed over the entire surveyed area.

Due to the location of the development with reference to known spotted handfish populations, it is unlikely that this project poses risk to the species and therefore further surveying was not deemed necessary for this project. General recommendations provided in this report will also minimise risk to any unknown spotted handfish populations located outside of the development footprint.

Recommendations & Conclusions

Due to factors associated with the active reclamation works at the survey site including safety, access, and visibility constraints, the field survey design was modified, and components could not be completed in full. Sufficient information was collected to provide a general summary of marine ecological values at the development location; however, no assessment could be made of areas already reclaimed, or on the presence/absence of the large-fruit seatassel.

No threatened species – including the spotted handfish, the large-fruit seatassel, the Derwent River seastar, and the live bearing seastar - were identified in the surveyed area. Intertidal survey results suggest that the area was the site of previous land reclamation, although refuge and substrate were still available for sessile and mobile invertebrates. The subtidal habitat was characterised by bioturbated silt and a largely unvegetated benthic habitat, with resuspension of sediments visible when water was disturbed.

Habitat adjacent to the reclaimed area is likely representative of habitat through the reclaimed zone, and some inferences can be made about habitat quality and the likelihood of threatened species presence in unsurveyed areas. Given the modified nature of the foreshore surrounding the development, and the absence of threatened species in field observations, it is unlikely that threatened species or ecologically significant habitat would have been present in the unsurveyed zones of the development footprint.

The performance criteria (P1.1) for Clause C7.6.1 (Item 16 in the RFI issued by council) have been addressed with this ecological assessment (see Appendix 6). Given the modified nature of the foreshore in the vicinity of the development, this development is unlikely to adversely impact on natural assets, except for (a) *impacts caused by erosion, siltation, sedimentation and runoff*. The main environmental risk identified from this assessment is uncontrolled sediment suspension in the marine environment, including from both the deposited fill, and the mobilisation of contaminated marine sediments.

Disturbance of sediments presents several risks including:

- Increased turbidity, reducing light penetration and potentially affecting nearby seagrass and macroalgal communities.
- Deposition of suspended sediments onto adjacent habitats.
- Resuspension of historically deposited contaminants within estuarine sediments.
- Degradation of water quality within tidally influenced reaches of the estuary.

Given that construction activities associated with land reclamation have the potential to generate indirect impacts beyond the immediate footprint of works, particular consideration should be given to the proximity of ecologically significant areas such as the wetlands of the Risdon Reserve and other marine natural values. To mitigate risks associated with sediment suspension from construction in the River Derwent, it is recommended that a silt curtain be installed around active work areas. This typically consists of a vertically suspended geotextile barrier that extends toward the seabed and is anchored in place, the function of which is to reduce the dispersion of suspended sediments by physically containing turbidity within the work zone. The effectiveness of the silt curtain should be retained through visual monitoring and maintenance, if required.

Other recommendations to mitigate environmental risks associated with the proposed construction and reclamation, as highlighted in this ecological assessment, include:

1. Minimise extent of development's footprint spanning the marine environment.
2. Choose best practice construction methods that reduce benthic disturbance.
3. Implementation of thorough equipment and machinery cleaning protocols to reduce risk of invasive and pest species translocation.
4. Silt curtains should be installed around any construction and reclamation works that may cause sediment disturbance in the marine environment. Adequate soil management plans should be implemented on site to reduce impacts of run off. If water quality impacts are observed beyond the extent of the silt curtain, water quality monitoring may be required.

5. Debris clean up from marine intertidal and subtidal areas within the development footprint and surrounds.
6. To mitigate the risk to marine mammals, the zone should be monitored for marine mammals prior to and during any construction activities that create noise intrusion (e.g., piling) by a Marine Mammal Observer (MMO) as per the Underwater Piling and Dredging Noise Guidelines (DIT 2023). A slow start-up of construction works is recommended to avoid causing unnecessary shock to animals and to allow them to vacate the area. If observed, works involving underwater acoustic impacts should cease until the marine mammals are away from the area.
7. Implementation of an environmental management plan to manage environmental risk and maintain integrity of the above recommended mitigations.

The scope of this report extends only to the marine and intertidal environment. Relevant experts (e.g. terrestrial, avian) should be consulted to ensure there are no unacceptable impacts to sensitive receptors that are outside the scope of this report.

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Whitehead, J. (2008). Derwent Estuary Introduced Marine & intertidal Species Review of distribution, issues, recent actions & management options. Derwent Estuary Program, Hobart, published October 2008.

5 Appendices

Appendix 1. EPBC Protected Matters Summary

Summary of the *EPBC Act* PMST findings within 5,000 m and 500 m of the project.

	Item	5 km buffer		500 m buffer		Cross-reference Section of this report
		# ID'd by PMST	Incl. # aquatic matters	# ID'd by PMST	Incl. # aquatic matters	
Matters of National Environmental Significance	**World Heritage Properties**	None	None	None	None	
	National Heritage Places	None	None	None	None	
	Wetlands of International Importance	1	1	1	1	Section 2.3.1
	Great Barrier Reef Marine Park	None	None	None	None	
	Commonwealth Marine Area	None	None	None	None	
	Listed Threatened Ecological Communities	3	None	2	None	
	Listed Threatened Species	68	12	62	9	Section 2.1
	Listed Migratory Species	35	-	31	-	NA – Development not expected to impact migratory pathways
	Nuclear actions	*Not listed by PMST – none known.*				
	Water resources	*Not listed by PMST – none known.*				
Other Matters Protected by EPBCA	Commonwealth Land	20	-	4	-	
	Commonwealth Heritage Places	4	-	None	-	
	Listed Marine Species	56	56	51	51	
	Whales and Other Cetaceans	7	7	6	6	
	Critical Habitats	None	None	None	None	
	Commonwealth Reserves Terrestrial	None	None	None	None	
	Commonwealth Reserves Marine	None	None	None	None	
	Habitat critical to survival of marine turtles	None	None	None	None	
Extra Information	State and Territory Reserves	9	-	3	-	
	Regional Forest Agreements	1	-	1	-	
	Nationally Important Wetlands	None	-	None	-	
	EPBC Act Referrals	11	-	2	-	
	Key Ecological Features	None	-	None	-	
	Biologically Important Areas	7	1	7	1	
	Bioregional Assessments	None	-	None	-	
	Geological and Bioregional Assessments	None	-	None	-	

Appendix 2. Operational Summary

Date	Personnel	Time start	Time end	Cloud	Rain	Swell	Wind	Tide	Works conducted
3/02/2026	S. Isles A. Erskine J. Watling	1130	1353	1/8	Nil	Calm	0-5 kts	High at 9:36 am 1.47m. Low at 5:12 pm 0.3m	- Benthic habitat survey - Intertidal survey

Appendix 3. GPS Positions of sampling locations

GDA 2020 MGA Zone 55.

	Name	Easting	Northing	Notes
Subtidal Habitat	T1 Start	525580	5258209	
	T1 End	525602.9	5258225	
	T2 Start	525567.9	5258229	
	T2 End	525584.5	5258238	
	T3 Start	525563.5	5258241	
	T3 End	525587.5	5258256	
	T4 Start	525543.3	5258261	
	T4 End	525554.6	5258268	
	T5 Start	525530.8	5258284	
	T5 End	525562.8	5258303	
	T6 Start	525511.4	5258308	
	T6 End	525535.3	5258329	
	T7 Start	525499	5258331	
	T7 End	525519.6	5258336	
	T8 Start	525455.8	5258337	
	T8 End	525459.3	5258342	
	T9 Start	525416.9	5258379	
	T9 End	525436.5	5258402	
	T10 Start	525915.5	5258626	Reference site
	T10 End	525916.1	5258606	Reference site

Intertidal Habitat	Q1	525386.2	5258385
	Q2	525392.7	5258374
	Q3	525408.8	5258363
	Q4	525418.5	5258350
	Q5	525419.8	5258349
	Q6	525424.5	5258343
	Q7	525429	5258335
	Q8	525444.5	5258323
	Q9	525447.8	5258317
	Q10	525454.6	5258309
	Q11	525463	5258294
	Q12	525574	5258197
	Q13	525568.6	5258197
	Q14	525578.1	5258195
	Q15	525578.8	5258195
	Q16	525590.5	5258195
	Q17	525590.9	5258193

Appendix 4. Species List

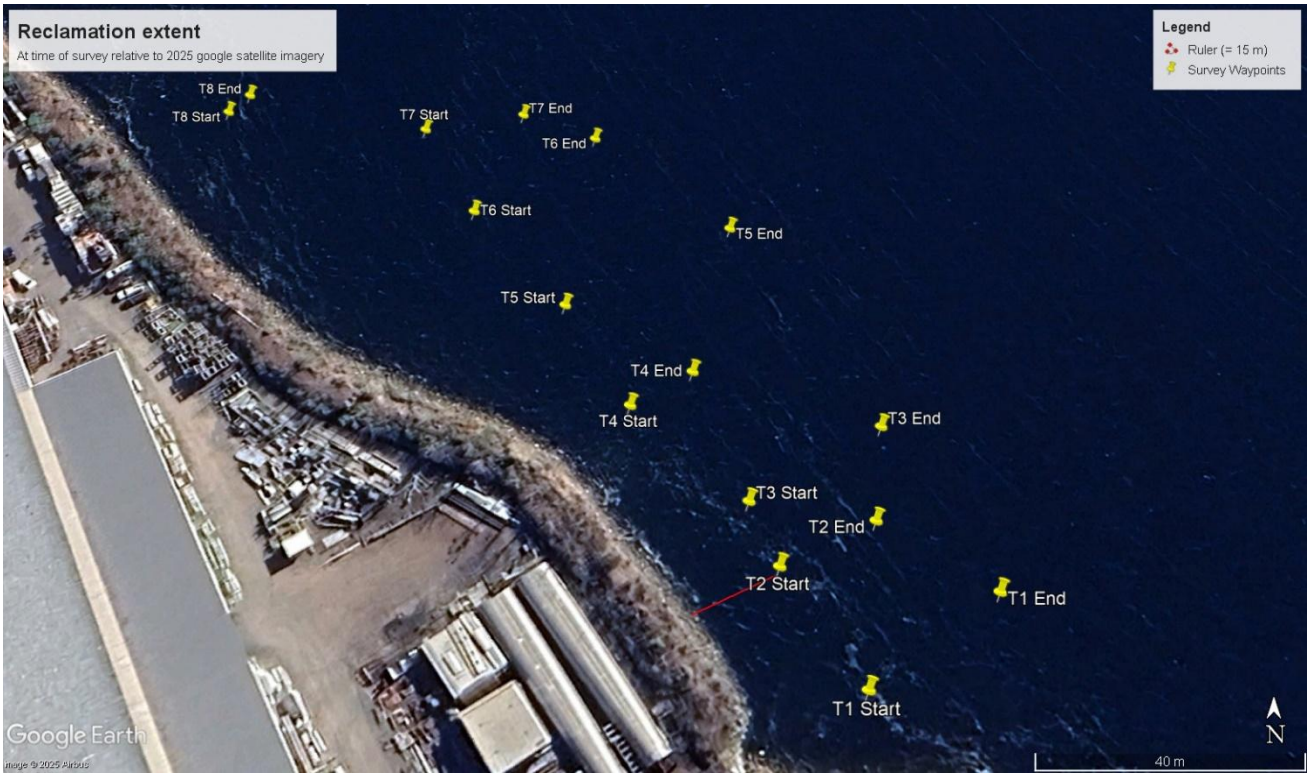
The table below shows all species observed in field investigations on 3/02/2016

		Common Name	Scientific Name	Status notes*
Algae & Seagrasses		Sea lettuce	*Ulva sp.*	Nuisance algae
		Filamentous brown algae	*Ectocarpus sp.*	
		Unidentified reg algae	Rhodophyta	
Invertebrates	Annelids			
	Arthropods	Spotted smooth shore crab	*Paragrapsus laevis*	Native
	Mollu	Blue mussel	*Mytilus galloprovincialis*	Introduced
		Honeycomb barnacles	*Chamaesipho tasmanica*	Native

	Echinoderms	New Zealand common cushion star	*Patiriella regularis*	Invasive
		North Pacific seastar	*Asteria amurensis*	Invasive
	Ascidiansa	Sea tulip	*Pyura sp.*	
Vertebrates		Sand flathead	*Platycephalus bassensis*	Depleted
		Unidentified juvenile fish	-	
		Thornfish	*Bovidae sp.*	

Appendix 5. Map Showing Reclamation Extent

Red line denotes measured distance from 2025 shoreline (Google Earth) to shoreline at time of survey in February 2026 (T2 video transect start point, taken on a handheld GPS next to the shoreline). Line measured approximately 15 m using ruler tool in Google Earth.



Appendix 6. Glenorchy City Council Planning Scheme Requirements: Section 7.6 Development Standards for Buildings and Works

C7.6.1 Buildings and works within a waterway and coastal protection area or a future coastal refugia area

Objective:	That buildings and works within a waterway and coastal protection area or future coastal refugia area will not have an unnecessary or unacceptable impact on natural assets.

Acceptable Solutions	Performance Criteria
A1 Buildings and works within a waterway and coastal protection area must: (a) be within a building area on a sealed plan approved under this planning scheme; (b) in relation to a Class 4 watercourse, be for a crossing or bridge not more than 5m in width; or (c) if within the spatial extent of tidal waters, be an extension to an existing boat ramp, car park, jetty, marina, marine farming shore facility or slipway that is not more than 20% of the area of the facility existing at the effective date.	**P1.1** Buildings and works within a waterway and coastal protection area must avoid or minimise adverse impacts on natural assets, having regard to: (a) impacts caused by erosion, siltation, sedimentation and runoff; (b) impacts on riparian or littoral vegetation; (c) maintaining natural streambank and streambed condition, where it exists; (d) impacts on in-stream natural habitat, such as fallen logs, bank overhangs, rocks and trailing vegetation; (e) the need to avoid significantly impeding natural flow and drainage; (f) the need to maintain fish passage, where known to exist; (g) the need to avoid land filling of wetlands; (h) the need to group new facilities with existing facilities, where reasonably practical; (i) minimising cut and fill; (j) building design that responds to the particular size, shape, contours or slope of the land; (k) minimising impacts on coastal processes, including sand movement and wave action; (l) minimising the need for future works for the protection of natural assets, infrastructure and property; (m) the environmental best practice guidelines in the
	Wetlands and Waterways Works Manual; and (n) the guidelines in the *Tasmanian Coastal Works Manual*. **P1.2** Buildings and works within the spatial extent of tidal waters must be for a use that relies upon a coastal location to fulfil its purpose, having regard to: (a) the need to access a specific resource in a coastal location; (b) the need to operate a marine farming shore facility; (c) the need to access infrastructure available in a coastal location; (d) the need to service a marine or coastal related activity; (e) provision of essential utility or marine infrastructure; or (f) provisions of open space or for marine-related educational, research, or recreational facilities.

CONCEPT SERVICES REPORT

INCAT NEW SHIP FABRICATION SHED (CHANDLERS) – PRINCE OF WALES BAY

INCAT TASMANIA
26 MARCH 2026

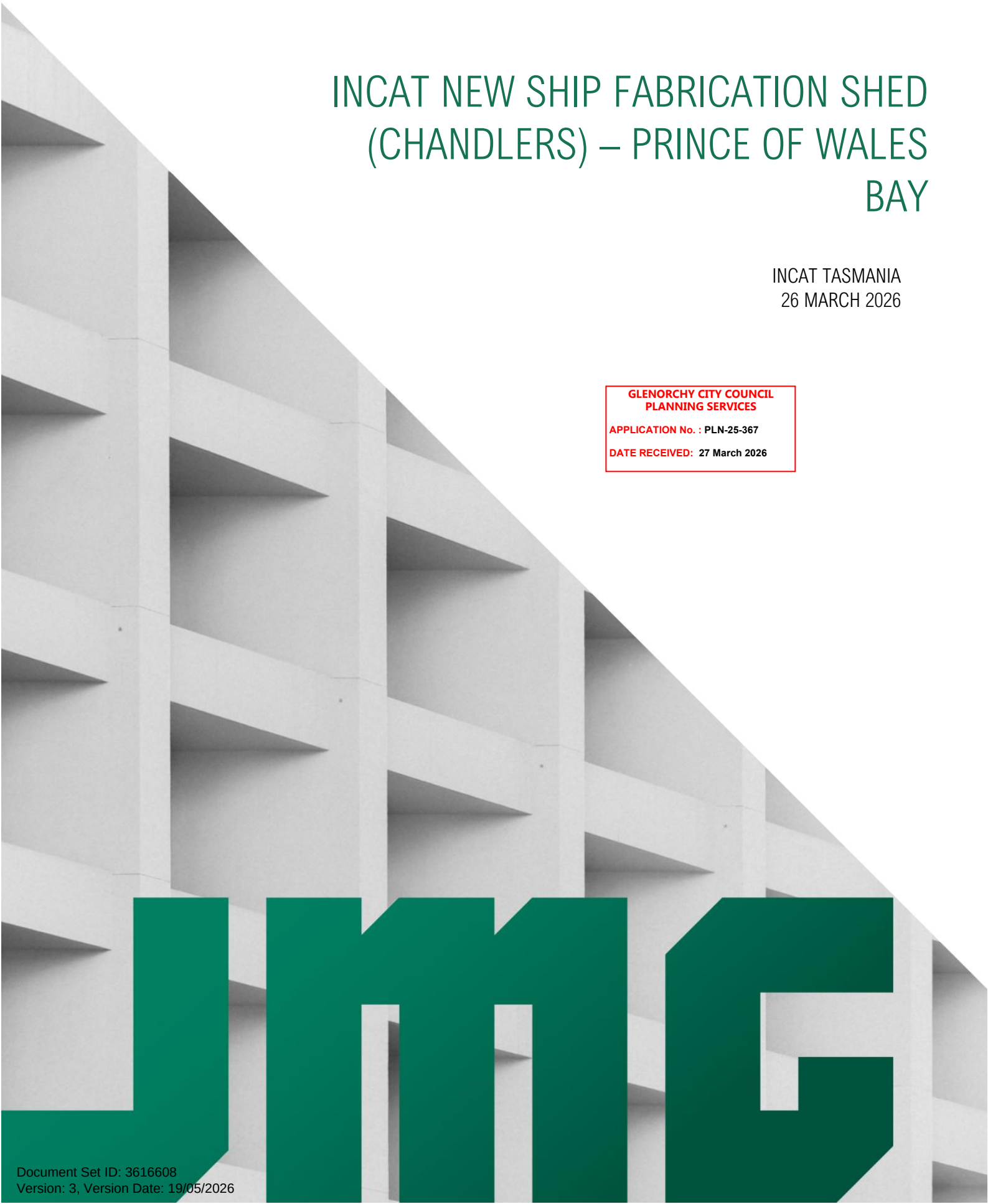


TABLE OF CONTENTS

Issuing Office: 117 Harrington Street, Hobart 7000 **JMG Project No. 250367CS**								
Document Issue Status								
Ver.	**Issue Date**	**Description**	**Originator**		**Checked**		**Approved**	
01	26/3/2026	Issue for Client review	JJC		BBG		CJM	

1. Introduction

JMG has been engaged as the Consulting Civil Engineer for the proposed new INCAT ship fabrication shed at 100 Derwent Park Road, Hobart. The proposal involves the reclamation of land near the Derwent River to construct the new ~150m long x 40m wide shed that will be called the “Chandlers” shed.

This Concept Services Report has been prepared in support of the Development Application (DA) and outlines the proposed servicing strategies for sanitary drainage, water supply, and stormwater management, in accordance with all relevant regulatory requirements and design standards. Documentation associated with the additional parking on the Drawings is covered under a separate report provided by the Traffic Engineer. This separate report covers wheel path analysis, car parks number, paths, cyclists, bus movements, motor cycles and loading bays.

Figure 1: Site Locality Plan

2. Sanitary Drainage System

2.1 *Existing System*

The existing sewer property connection servicing the site is a DN150 gravity reticulation main located off Bender Drive. The internal sewer system comprises of a number of pump stations, connecting to the connection point at Bender Drive via an existing riser main. This system, in its current form caters for up to 1200 workers at one time. Note, this is based on previous employment figures.

Refer to Figure 2 for existing TasWater infrastructure and property connection locations.

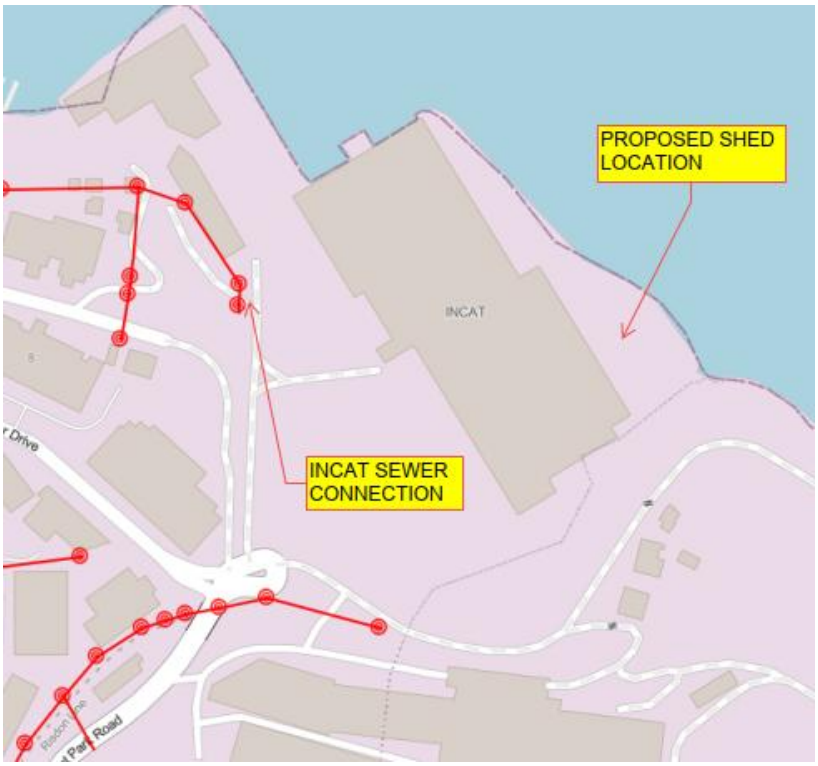


Figure 2: Existing TasWater sewer infrastructure and site sewer connections

2.2 *Applicable Design Standards*

The sanitary drainage system for the proposed development will be designed in accordance with the National Plumbing and Drainage Code – AS 3500.2 (Sanitary Plumbing and Sanitary Drainage) and relevant TasWater design standards.

2.3 *Proposed System*

It is proposed that all new sanitary drainage from the development will discharge via a gravity feed to a new pump station located just outside of the southern façade of the new Chandlers Shed. From this pump station, the sewer will be pumped via a rising main to an existing pump station located within the existing Wilsons Shed as shown on the Drawings. The outflow from this existing pump station is to the TasWater connection point via the existing underground piped network.

The additional site loading from the new shed has been estimated at 82 loading units. The calculations for this can be found in Table 1 overleaf. The capacity of the existing pump station to cater for this additional loading will be reviewed during the detailed design phase of the project.

Table 1: Sewer Loading Units Calculations

Fixture	No.	FU	Tot. FU
Basin	12	1	12
Bath (with or without SHR)		4	0
Cleaners Sink	1	1	1
Dishwasher (domestic)	2	3	6
Shower (single)	1	2	2
Sink (double)		3	0
Sink (single)	2	3	6
Trough (laundry, single/dbl)		5	0
Washing Machine (Domestic)		5	0
Mains Pressure Water Heater	3	0	0
Water Closet (cistern)	12	4	48
Hose Tap (20 mm)	4	0	0
Hose Tap (15 mm)		0	0
Urinal	7	1	7
Total			82

3. Water

3.1 Existing System

There are two water connections for this site as shown in figure 3. The Derwent Park Road service provides domestic via a 40mm connection point, and the Bender Drive is a 100mm service that provides flow to the fire hydrants.

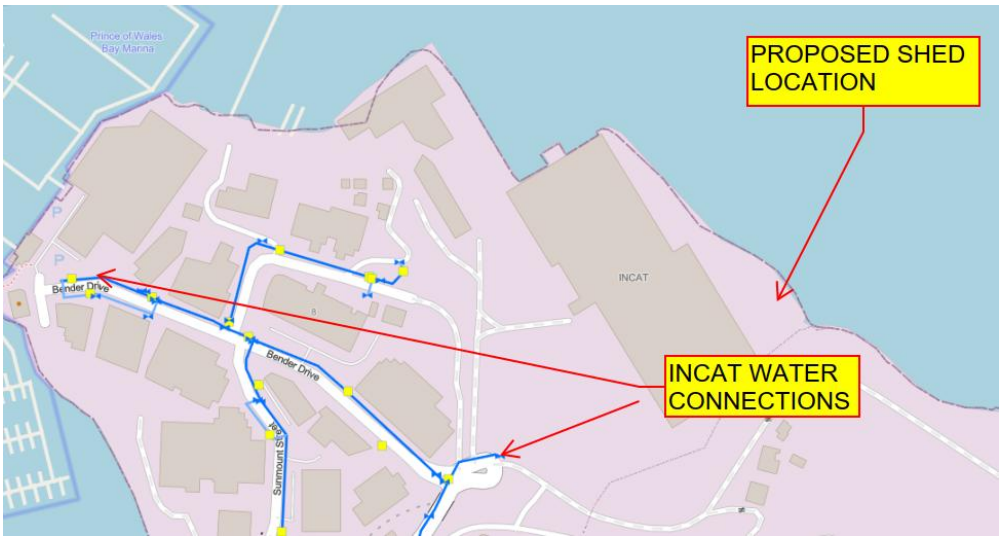


Figure 3: Existing TasWater water infrastructure and site water connections

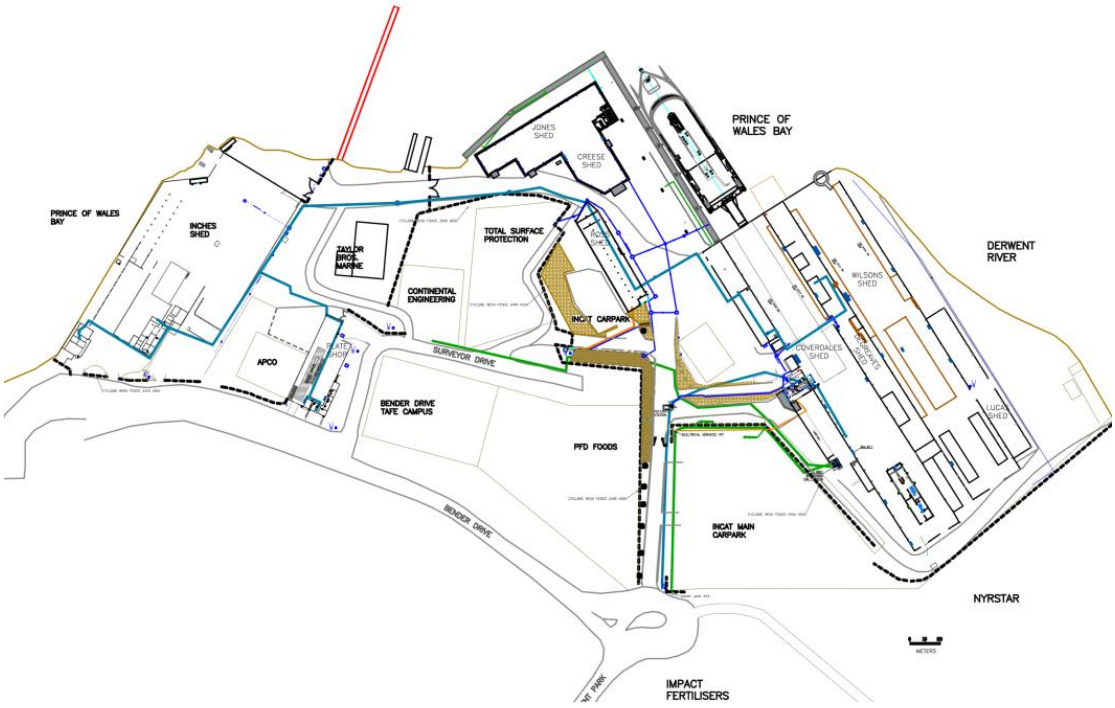


Figure 4: Internal Water network.

3.2 Applicable Design Standards

The water reticulation system for the development will be designed in accordance with the following standards and authority requirements:

- AS 3500.1 – National Plumbing and Drainage Code: Water Supply
- TasWater's Water Metering & Guidelines – for metering requirements
- TasWater's Water Boundary Backflow Containment Selection Guidelines – for backflow prevention
- AS 2419.1 – Fire Hydrant Installations, for fire coverage compliance
- AS 2118.1 – Automatic Fire Sprinkler Systems

3.3 Proposed System

The proposed new shed will be serviced by new internal water supply pipework installed in accordance with AS 3500.1 and tie into the existing water main running through the site from the eastern connection point. Refer to the civil drawings in Appendix B for the location of the new water property connection.

The system has been categorized as high risk and as such a backflow prevention system will be implemented at the existing water connections for the site.

The additional loading for the proposed site has been estimated as 123 loading units. The calculations for this can be found in Table 2 below and overleaf.

Table 2: Water Loading Units Calculations

Fixture	No.	LU	Tot. LU
Basin	12	1	12
Bath (with or without SHR)		8	0
Cleaners Sink	1	3	3
Dishwasher (domestic)	2	3	6
Shower (single)	1	2	2
Sink (double)		3	0
Sink (single)	2	3	6
Trough (laundry, single/dbl)		3	0
Washing Machine (Domestic)		3	0
Mains Pressure Water Heater	3	8	24
Water Closet (cistern)	12	2	24
Hose Tap (20 mm)	4	8	32
Hose Tap (15 mm)		4	0
Urinal	7	2	14
Total			123

3.4 Fire

Fire hydrant protection for the development will be designed in accordance with AS 2419.1, Table 2.2.5(b), which specifies for the proposed development that a single hydrant must be capable of delivering a minimum flow of 10 L/s at a residual pressure of 350 kPa. Given the location of the new shed new hydrants have been proposed 10m away from the extents of the new shed to allow adequate protection. As the laneway between the new shed and the existing shed is less than 20m, attack hydrants have been placed against the adjacent shed, this effectively doubles the number of hydrants.

4. Stormwater

4.1 Existing Systems

The existing site currently discharges directly to the adjacent Derwent River via a natural drainage easement. The catchment is currently mostly gravels and grass with a few smaller structures like shipping containers present.

Figure 5: Existing Stormwater Catchments Plan

4.2 Design Standards

Stormwater drainage for the proposed development will be designed in accordance with the Glenorchy City Council (GCC) design standards, AS 3500.3: Plumbing and Drainage – Stormwater Drainage, the National Construction Code, and the applicable Planning Scheme requirements.

4.3 Proposed Systems

<5% AEP events: Post-development stormwater runoff in the developed section between the new ridge cap of the Chandlers Shed and the existing Wilsons shed will be conveyed in an underground piped system to a new SW outflow through the holding structure as shown on the Drawings. will be collected by a new drainage network. A similar outfall is located on the eastern holding structure to accommodate the roof drainage for the eastern half of the new shed.

The remainder of the existing site will be drained via the existing network, minor upgrades are proposed to the open channel system running along the southern boundary, this is proposed to be upgraded to become a vegetated swale to assist outflow quality of the runoff. This system will outflow to the river via an existing outfall located on the Southeastern side of the proposed shed. The existing drainage easement is to be expunged, its location was partially within the roofed area of the existing sheds and served no purpose.

Figure 6: Post Development Catchments Plan

4.4 Water Sensitive Urban Design Considerations

The proposed site does meet the requirements for WSUD, ref. Stormwater-Management-Policy-Feb-2024-Update, due to the introduction more than 500m^2 impervious area. The Glenorchy City Council engineers have acknowledged the roof-runoff area needn't be treatable as this area was previously going directly to the river, i.e. post development flows are identical to pre-development flows.

The balance of area affected by the development is pervious and post and pre development flows again are not anticipated to be altered by the development.

In acknowledgement of the requirement for WSUD considerations, the development proposes to introduce a vegetated swale drain is also being added to the southern edge of the site which will help reduce gross pollutants, suspended solids, phosphorus and nitrogen in the stormwater being discharged to the river. This swale is likely to offer near compliance with the entire pervious gravel site (including areas developed under previously approved permits) for TSS and Phosphates but possibly not Nitrates. A Music model can be provided at detailed design to calculate reductions through the swale drain.

4.5 Major Events

Overland flow paths for major events (> 5% AEP) will be accommodated by the swale drain along the southern boundary directly to the River Derwent, and between the two sheds. Both open channels have longitudinal grades between 1.0 and 1.6%. No upstream contributories affect the capacity of these flow paths.

Figure 7: Post Development Overland Flow Paths

5. Electrical

No changes are proposed to the electrical connection; the additional load is within the capacity of the existing substation.

6. Argon Gas

There is an existing private gas system within the site that will be extended to the new proposed shed. All connections will be designed to avoid the other services on site as outlined in AS5601.1.

APPENDIX A

Concept Civilworks Plans

0 10 20 30 40 50m
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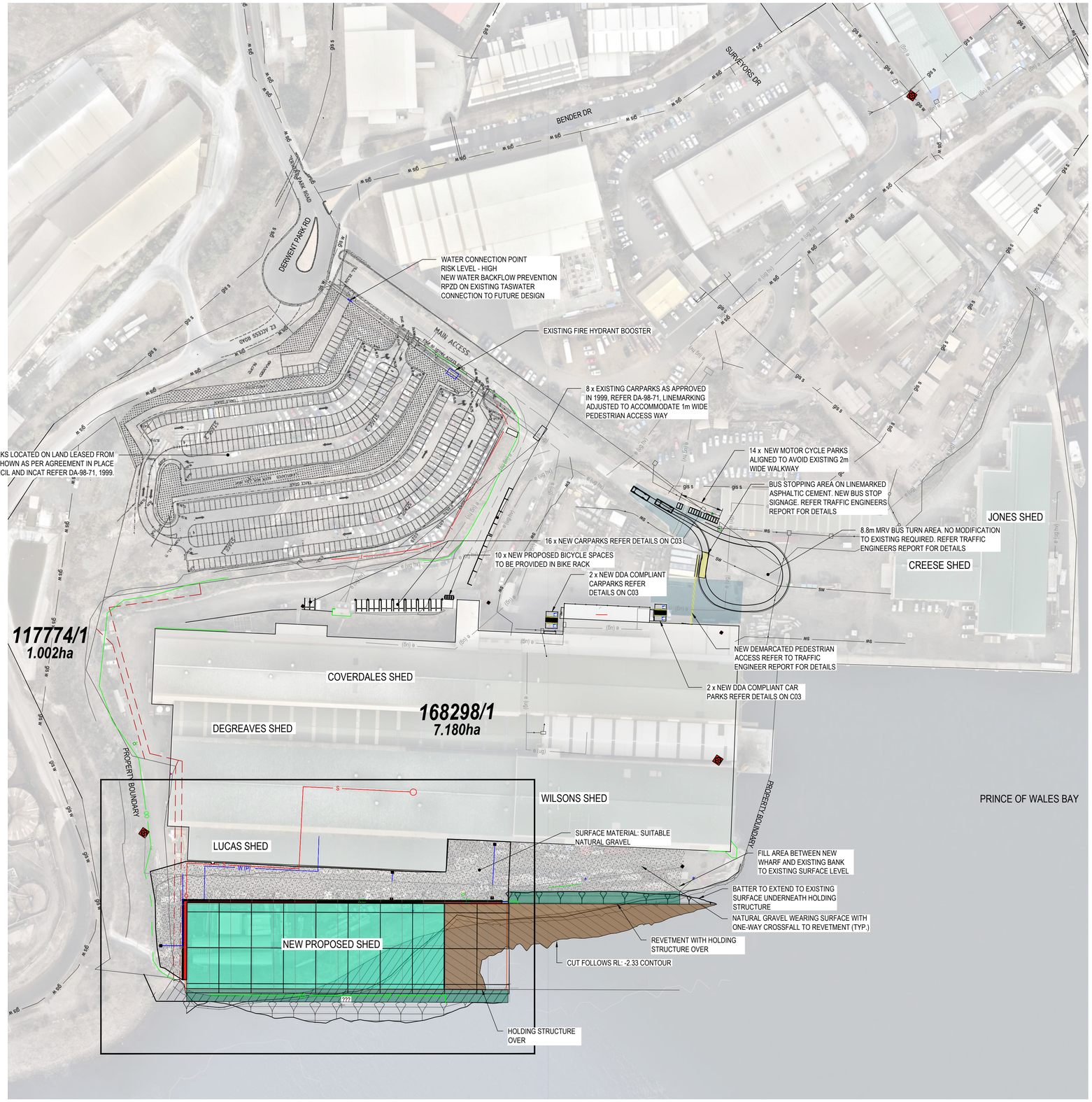

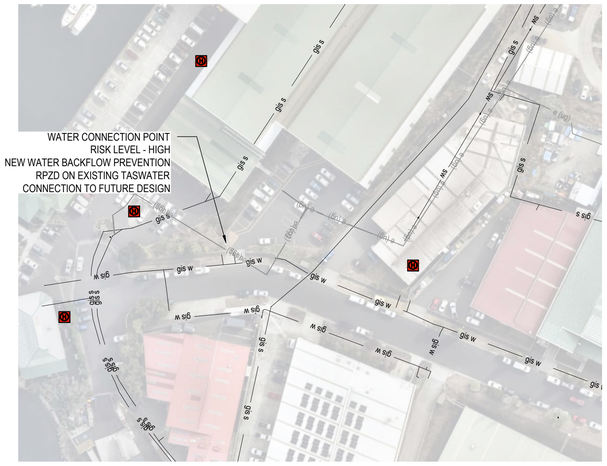

WATER PROPERTY CONNECTION POINT ON BENDER DRIVE

REV	DATE	REMARK
DA1	27.03.2026	REVISED PLANING APPROVAL
P1	20.11.2025	PRELIMINARY ISSUE

SAFETY IN DESIGN REPORT PER WHS REGULATIONS

The following risks which are unique to this design have been identified:	NIL

This report does not relieve contractors from their responsibilities under the Act to identify, report, mitigate and manage all aspects of risk and safety.

Accepted (Discipline Head)	CJM	Date
Accepted (Team Leader)	RAJC	Date
Approved (Principal)	BBG	Date

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1:1000	BBG	BJW
	PLOT DATE	27/03/2026

DO NOT SCALE. Use only figured dimensions. Locations of structure, fittings, services etc on this drawing are indicative only. CONTRACTOR to check Architects & other project drawings for co-ordination between structure, fabric, fixtures, fittings, services etc.,CONTRACTOR to site check all dimensions and exact locations of all items. JMG accepts no responsibility for dimensional information scaled or digitally derived from this document.

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PROJECT
INCAT CHANDLERS SHED
100 DERWENT PARK RD, DERWENT PARK, TAS, 7009

TITLE
CIVIL WORKS
SITE PLAN

PROJECT NO.	J250367CS	
DWG NO.	C01	REVISION DA1
PLOT DETAILS	250367CS SITE PLAN.DWG	

0 10 20 30 40 50m
SCALE 1:1,000

N

BOUNDARY

LEGEND

- NATURAL GRAVELS (LESS THAN 10% FINES)
- 5mm NATURAL GRAVELS
- NEW SHED
- DREDGED AREA
- REVETMENT
- RECLAIMED LAND

LUCAS SHED

CONNECT NEW SEWER TO EXISTING SEWER PUMP STATION. SEWER DEMAND: 82 LOADING UNITS

POTENTIAL SEWER CONNECTION POINT TO EXISTING SERVICE LINE

LOCATE AND CONNECT NEW WATER TO EXISTING. WATER DEMAND: 123 LOADING UNITS

FIRE HYDRANT

LIGHT VEHICLE AND EMERGENCY VEHICLE ACCESS ONLY

LOCATE EXISTING FIRE SERVICE AND CONNECT NEW FIRE

NEW PUMP STATION TO FUTURE DESIGN

EXISTING DN100 FIRE SERVICE

NEW DUAL-HEAD STAND PIPE FIRE HYDRANT TO SERVICE NEW BUILDING

GRATED SIDE ENTRY PIT TYPE 3 TO IPWEA STD DRG TSD-SW-09 WITH WITH STORMSACK OR APPROVED EQUIVALENT (3m FROM END OF SHED)

VEGETATED OPEN CHANNEL SWALE (BASE 0.5m WIDE) ALONG BASE OF ROCK BATTER TO EXISTING OUTFALL PLANTED TO COUNCIL CONDITION REQUIREMENTS

EXISTING OPEN DRAIN

REFER TO HYDRAULIC DOCUMENTATION FOR CONTINUATION OF WATER SERVICE

NEW VEHICLE CROSSOVER IN ACCORDANCE WITH IPWEA STANDARDS

GRATED SIDE ENTRY PIT TYPE 3 TO IPWEA STD DRG TSD-SW-09 WITH WITH STORMSACK OR APPROVED EQUIVALENT

KERB AND CHANNEL TYPE KC TO IPWEA STD DRG TSD-R14

225Ø CLASS 4 RCP OFFSET 1m FROM BUILDING TO ALLOW FOR FOUNDATIONS

EXISTING HYDRANT RELOCATED ADJACENT TO FACADE OF NEW BUILDING TO SERVICE LUCAS SHED

DISCHARGE HYDRAULIC SERVICES DOWNPIPES TO NEW GRATED PIT

NEW DN300 STORMWATER OUTFLOW THROUGH REVETMENT I.L. 50mm ABOVE HAT

NEW DUAL-HEAD STAND PIPE FIRE HYDRANT TO SERVICE NEW BUILDING

REFER TO HYDRAULIC DOCUMENTATION FOR CONTINUATION OF SANITARY DRAINAGE

NEW BUILDING
150m X 40.7m

KERB AND CHANNEL OUTFLOW THROUGH REVETMENT ROCK ARMOUR. I.L. 50mm ABOVE HAT

REFER TO HYDRAULIC DOCUMENTATION FOR CONTINUATION OF WATER SERVICE

EXISTING OPEN DRAIN DISCHARGE TO REMAIN

300 DIA STORMWATER PIPE FOR DOWN PIPES TO CONNECT INTO

REVETMENT TO TRANSITION TO HOLDING STRUCTURE, LOCATION TO BE CONFIRMED

REFER HYDRAULIC DRAWINGS FOR CONNECTION TO DOWNPIPES

300 DIA CLASS 2 RCP COLLECT NEW DOWNPIPES TO NEW OUTFALL THROUGH REVETMENT ROCK ARMOUR. I.L. 50MM ABOVE HAT.

BATTER FOR REVETMENT AREA ~570m², EXTENT TO BE DETERMINED

SURFACE MATERIAL: 250mm ROCK BALLAST

DA1 27.03.2026 REVISED PLANING APPROVAL

REV	DATE	REMARK

SAFETY IN DESIGN REPORT PER WHS REGULATIONS

The following risks which are unique to this design have been identified:	NIL

This report does not relieve contractors from their responsibilities under the Act to identify, report, mitigate and manage all aspects of risk and safety.

Accepted (Discipline Head)	CJM	Date
Accepted (Team Leader)	RAJC	Date
Approved (Principal)	BBG	Date

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1:250	BBG	JJC
	PLOT DATE	27/03/2026

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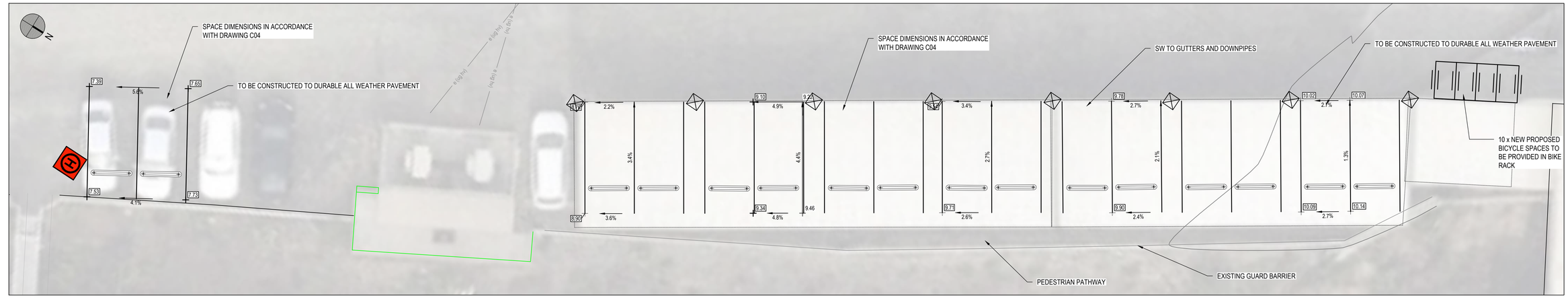
PROJECT
INCAT CHANDLERS SHED
100 DERWENT PARK RD, DERWENT PARK, TAS, 7009

TITLE
CIVIL WORKS
SHED PLAN

PROJECT NO. J250367CS
DWG NO. C02
REVISION DA1
PLOT DETAILS 250367CS SITE PLAN.DWG



16 NEW UNDERCOVER CAR PARKING SPACES

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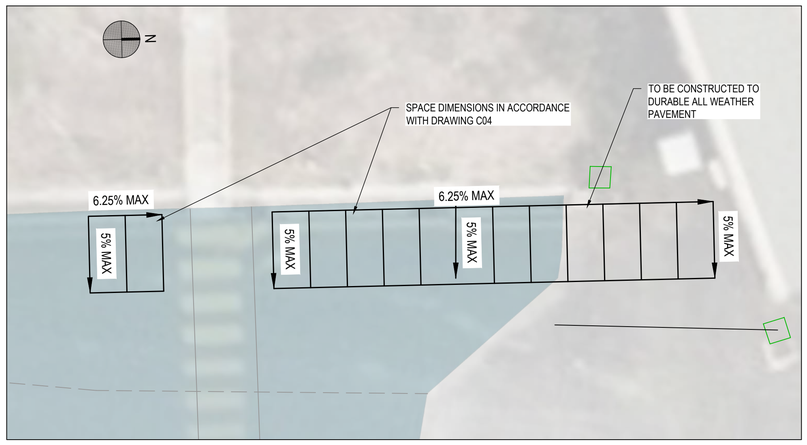

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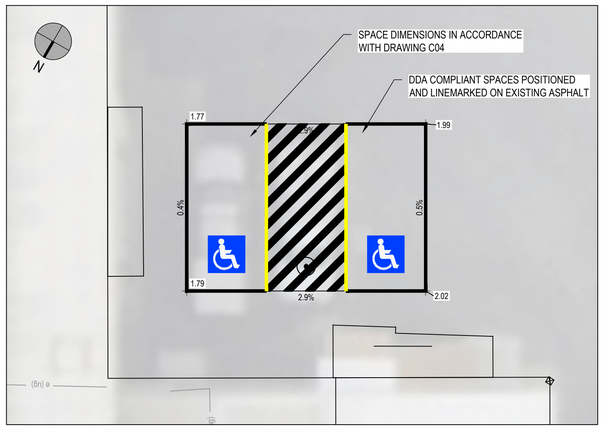
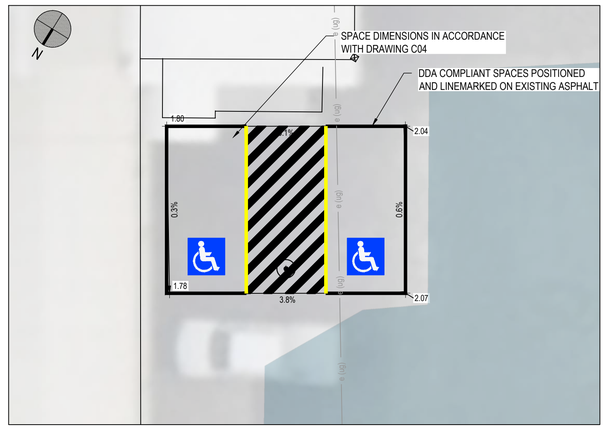


2 DDA COMPLIANT PARKING SPACES NEAR RECEPTION

SCALE: 1:100



2 DDA COMPLIANT PARKING SPACES NEAR BUS STOPPING AREA

SCALE: 1:100

REV	DATE	REMARK
DA1	27.03.2026	REVISED PLANING APPROVAL

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Accepted (Team Leader)	RAJC	Date
Approved (Principal)	BBG	Date

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1:100	BBG	JJC
	PLOT DATE	27/03/2026

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PROJECT
INCAT CHANDLERS SHED
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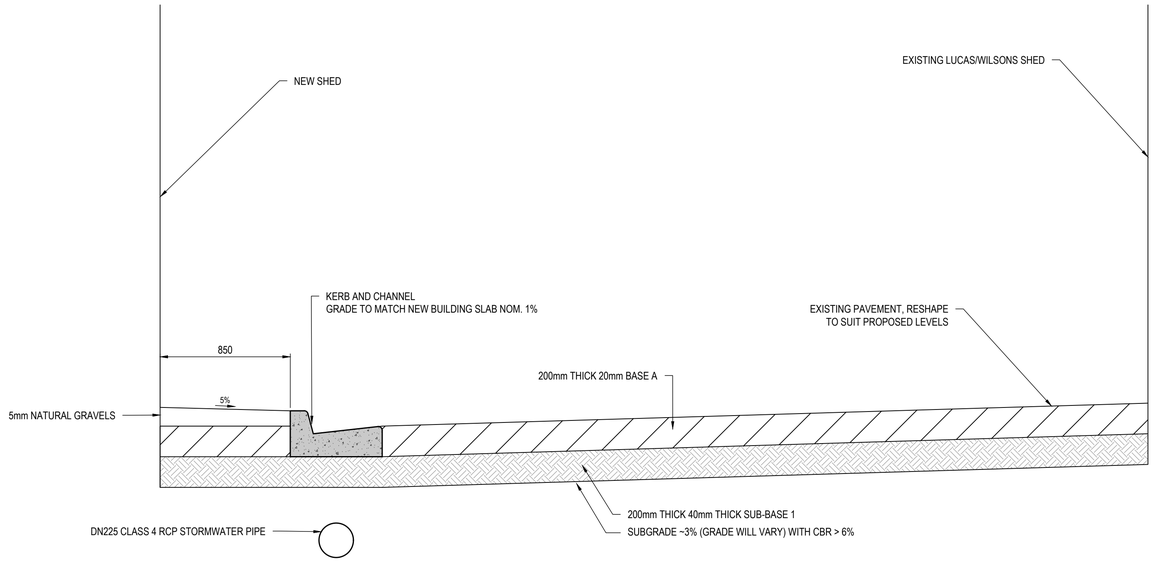
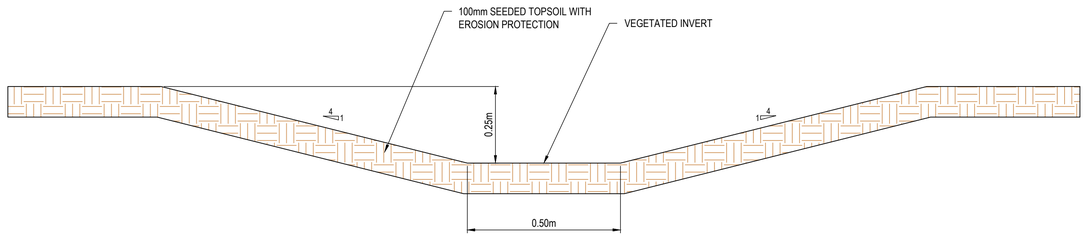
TITLE
CIVIL WORKS
CARPARK PLANS

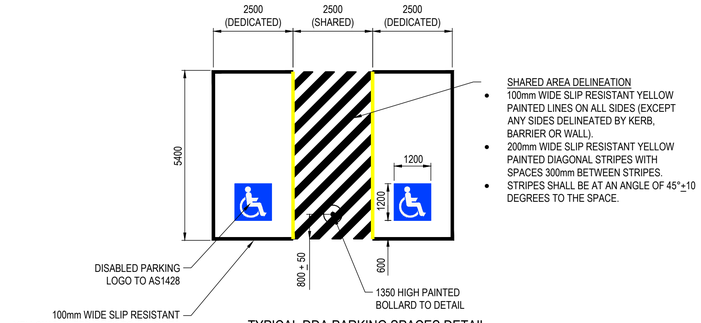
PROJECT NO. J250367CS
DWG NO. C03
REVISION DA1
PLOT DETAILS 250367CS SITE PLAN.DWG



SECTION A
SCALE: 1:20
C02

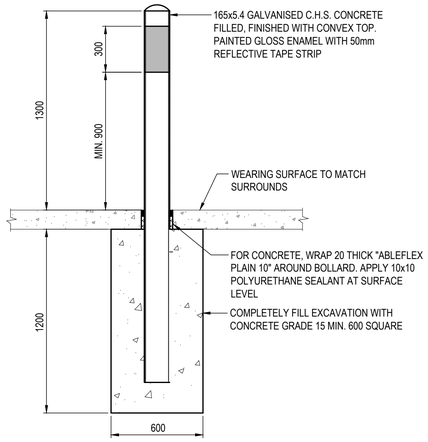


VEGETATED SWALE DRAIN
SCALE: 1:10



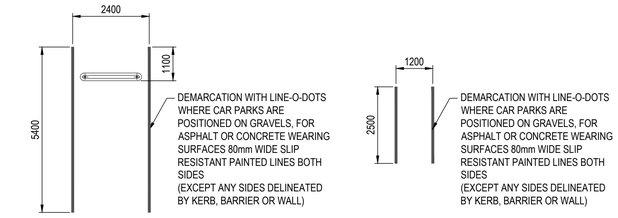
TYPICAL DDA PARKING SPACES DETAIL
SCALE 1:100

NOTE: TWO COATS OF WATERBORNE ROAD MARKING PAINT TO BE APPLIED



BOLLARD DETAIL
SCALE 1:20

NOTE: CONFIRM LOCATION ON SITE WITH SUPERINTENDENT PRIOR TO INSTALLATION OF BOLLARDS.



TYPICAL CAR PARK SPACE DETAIL
SCALE 1:100

TYPICAL MOTORBIKE SPACE DETAIL
SCALE 1:100

REV	DATE	REMARK
DA1	27.03.2026	REVISED PLANING APPROVAL

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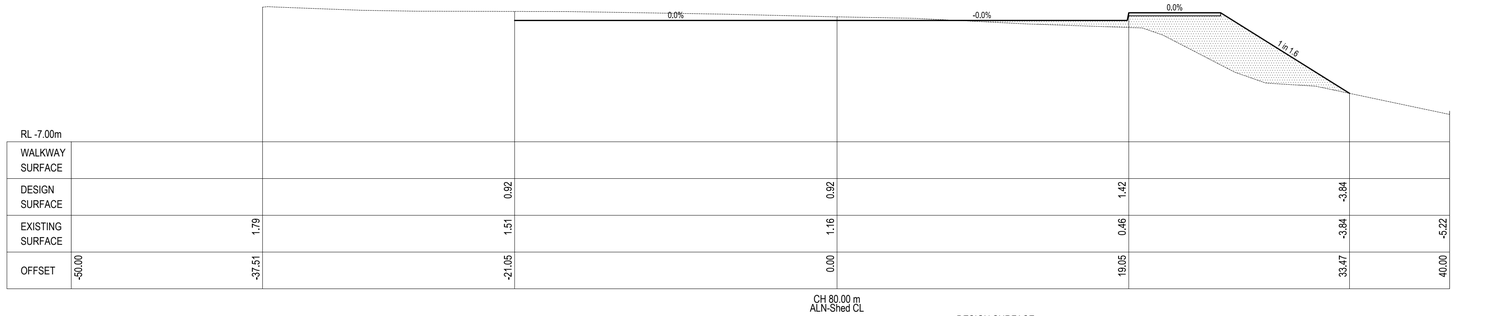
PROJECT
INCAT CHANDLERS SHED
100 DERWENT PARK RD, DERWENT PARK, TAS, 7009

TITLE
CIVIL WORKS
SECTIONS

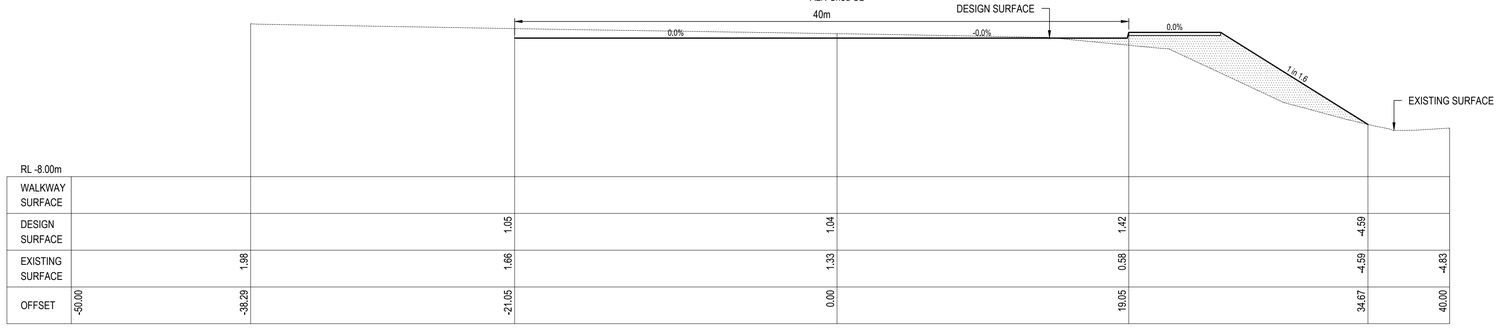
PROJECT NO.	J250367CS
DWG NO.	C04
REVISION	DA1
PLOT DETAILS	250367CS SITE PLAN.DWG



RL -7.00m

WALKWAY SURFACE							
DESIGN SURFACE			0.92	0.92	1.42	-3.84	
EXISTING SURFACE	1.79		1.51	1.16	0.46	-3.84	-5.22
OFFSET	-50.00	-37.51	-21.05	0.00	19.05	33.47	40.00

CH 80.00 m
ALN-Shed CL



RL -8.00m

WALKWAY SURFACE							
DESIGN SURFACE			1.05	1.04	1.42	-4.59	
EXISTING SURFACE	1.98		1.66	1.33	0.58	-4.59	-4.83
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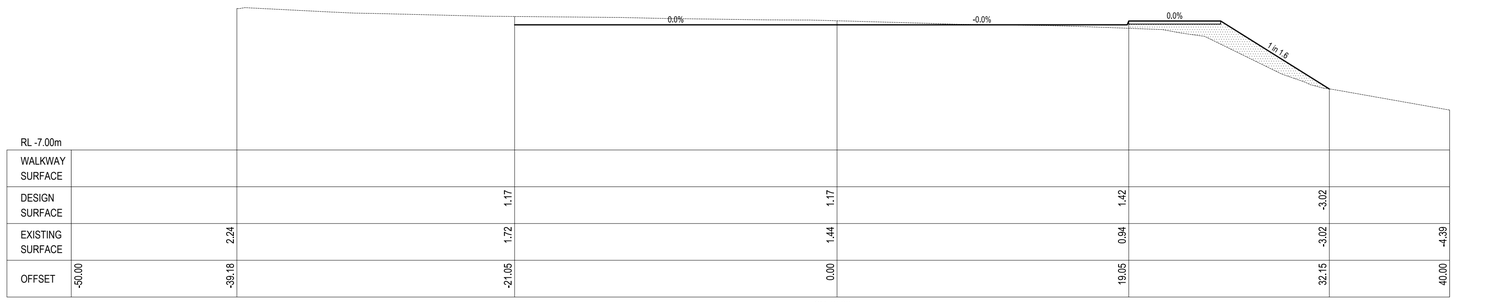
CH 60.00 m
ALN-Shed CL



RL -7.00m

WALKWAY SURFACE							
DESIGN SURFACE			1.17	1.17	1.42	-3.02	
EXISTING SURFACE	2.24		1.72	1.44	0.94	-3.02	-4.39
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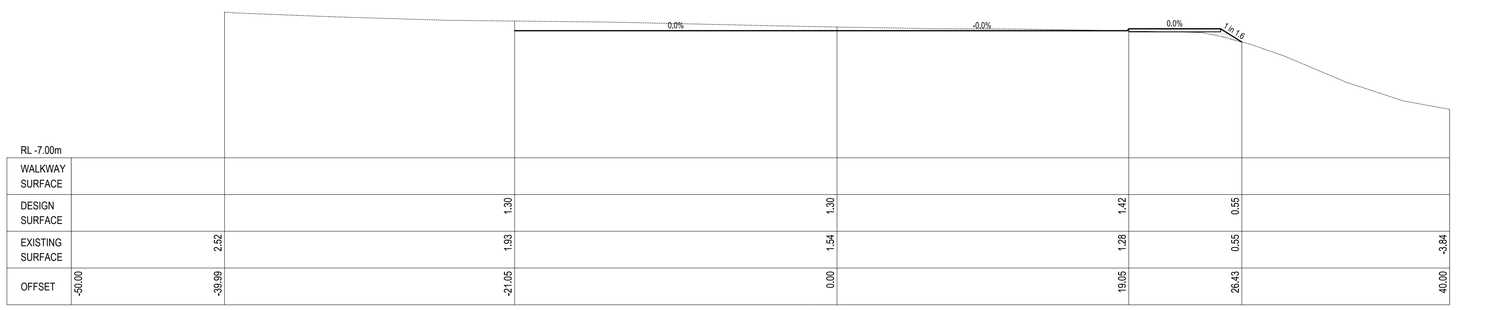
CH 40.00 m
ALN-Shed CL



RL -7.00m

WALKWAY SURFACE							
DESIGN SURFACE			1.30	1.30	1.42	0.55	
EXISTING SURFACE	2.52		1.93	1.54	1.28	0.55	-3.84
OFFSET	-50.00	-39.99	-21.05	0.00	19.05	26.43	40.00

CH 20.00 m
ALN-Shed CL

ALN-Shed CL CROSS SECTIONS
SCALES: 1:200(H) 1:200(V)

0 2 4 6 8 10m
SCALE 1:200

DA1 27.03.2026 REVISED PLANING APPROVAL
P1 20.11.2025 PRELIMINARY ISSUE
REV | DATE | REMARK

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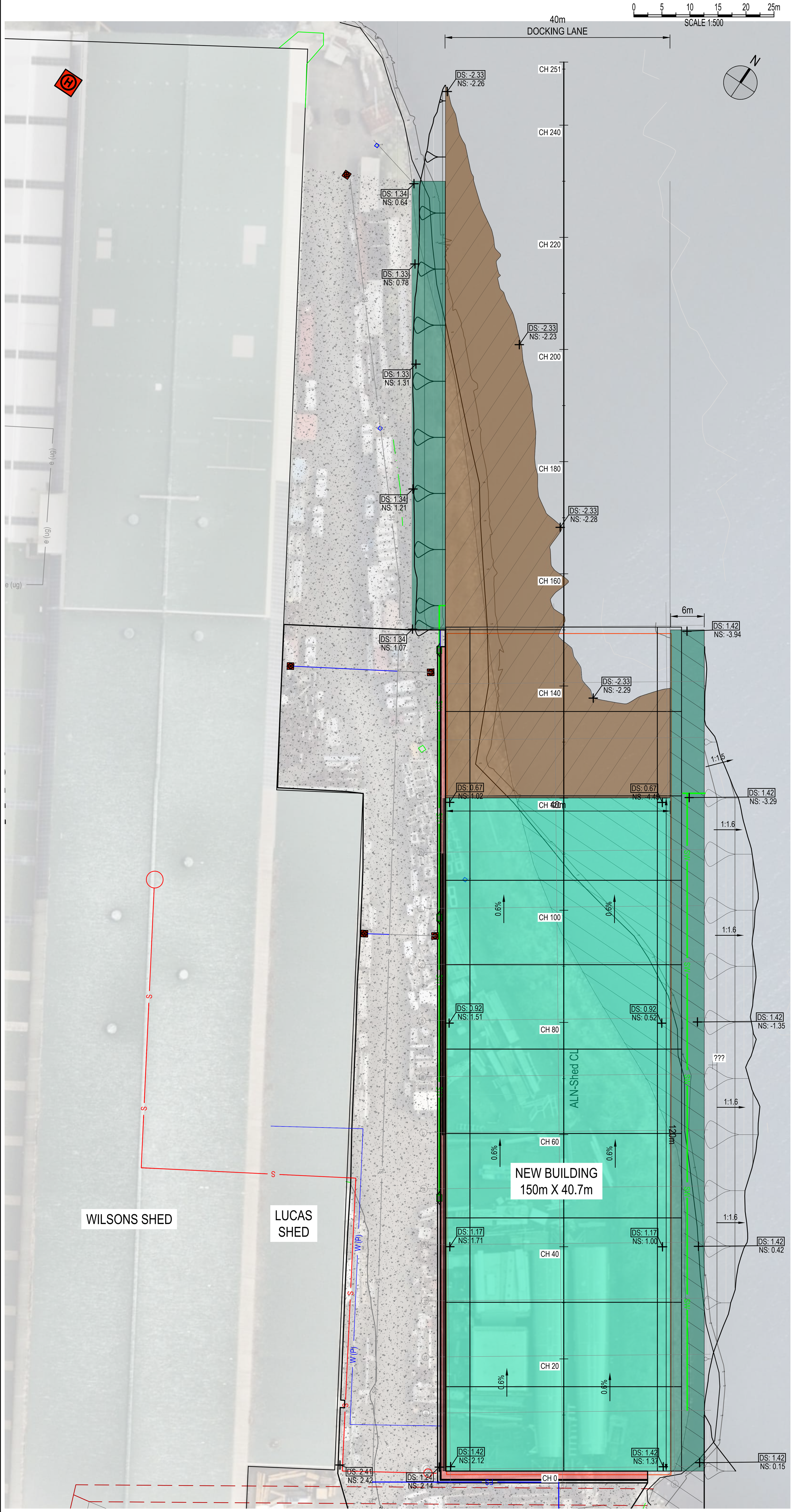
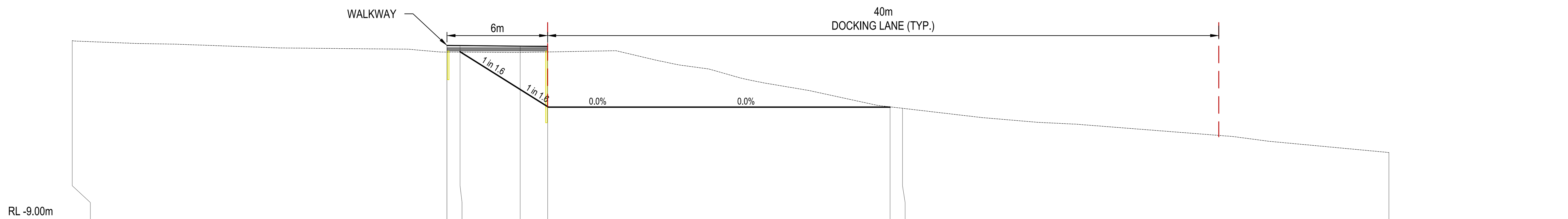
PROJECT
INCAT CHANDLERS SHED
100 DERWENT PARK RD, DERWENT PARK, TAS, 7009

TITLE
CIVIL WORKS
SHED CROSS SECTIONS
1 SHEET

PROJECT NO. J250367CS
DWG NO. C10
REVISION DA1
PLOT DETAILS 250367CS SITE PLAN.DWG

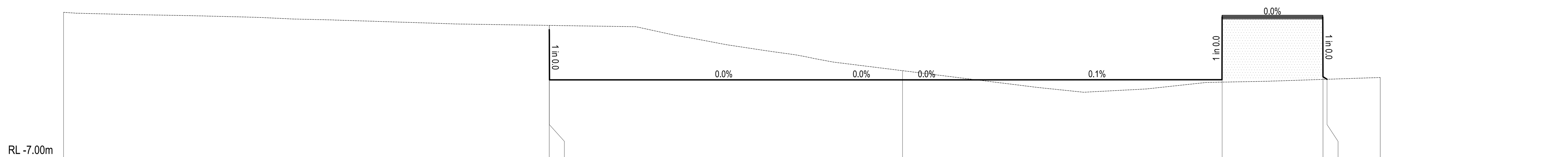




WALKWAY SURFACE			1.34	1.33	1.30	1.28				
DESIGN SURFACE				0.96	-1.28	-2.30	-2.33			
EXISTING SURFACE		1.63	0.95	0.94	0.92	0.95	-2.31	-2.40	-5.03	
OFFSET	-50.00	-49.48	-27.15	-26.37	-22.78	-21.15	-0.74	0.00	28.99	40.00

CH 160.00 m
ALN-Shed CL

ALN-Shed CL CROSS SECTIONS



WALKWAY SURFACE									
DESIGN SURFACE		0.67	0.37	-2.33	1.42	-2.14	-2.29		
EXISTING SURFACE	1.70	0.92	0.92	-1.78	-2.46	-2.30	-2.29	-2.19	
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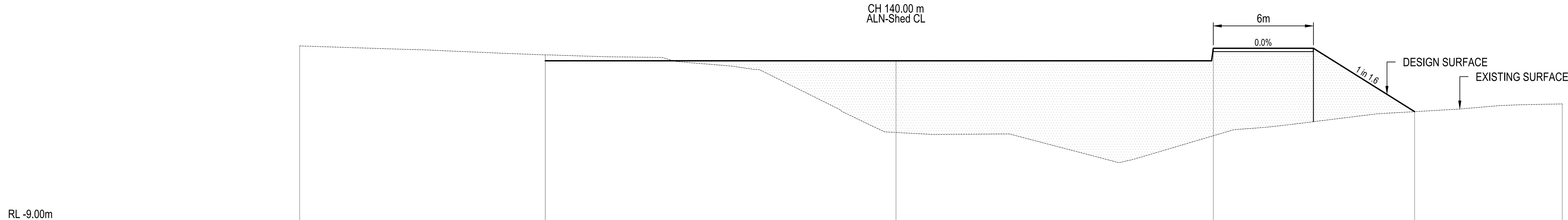
CH 140.00 m
ALN-Shed CL



WALKWAY SURFACE							
DESIGN SURFACE			0.67	0.67	1.42	-2.38	
EXISTING SURFACE		1.56	1.03	-3.62	-3.82	-2.38	-1.92
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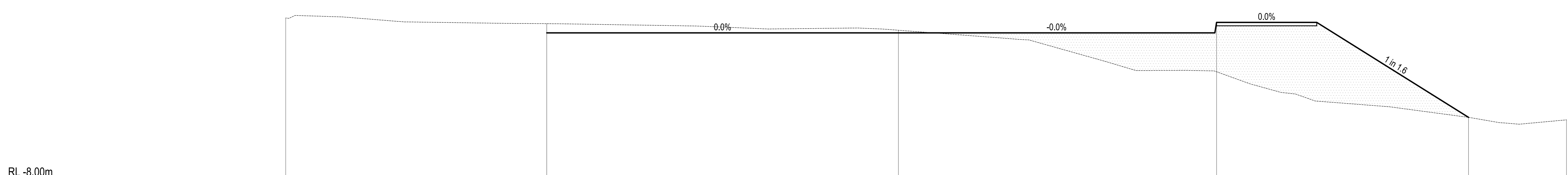
CH 120.00 m
ALN-Shed CL



WALKWAY SURFACE							
DESIGN SURFACE			0.80	0.79	1.42	-4.26	
EXISTING SURFACE		1.69	1.35	0.95	-1.53	-4.26	-4.40
OFFSET	-50.00	-36.68	-21.05	0.00	19.05	34.13	40.00

CH 100.00 m
ALN-Shed CL

ALN-Shed CL CROSS SECTIONS
SCALES: 1:200(H) 1:200(V)

0 2 4 6 8 10m
SCALE 1:200

REV	DATE	REMARK
DA1	27.03.2026	REVISED PLANING APPROVAL
P1	20.11.2025	PRELIMINARY ISSUE

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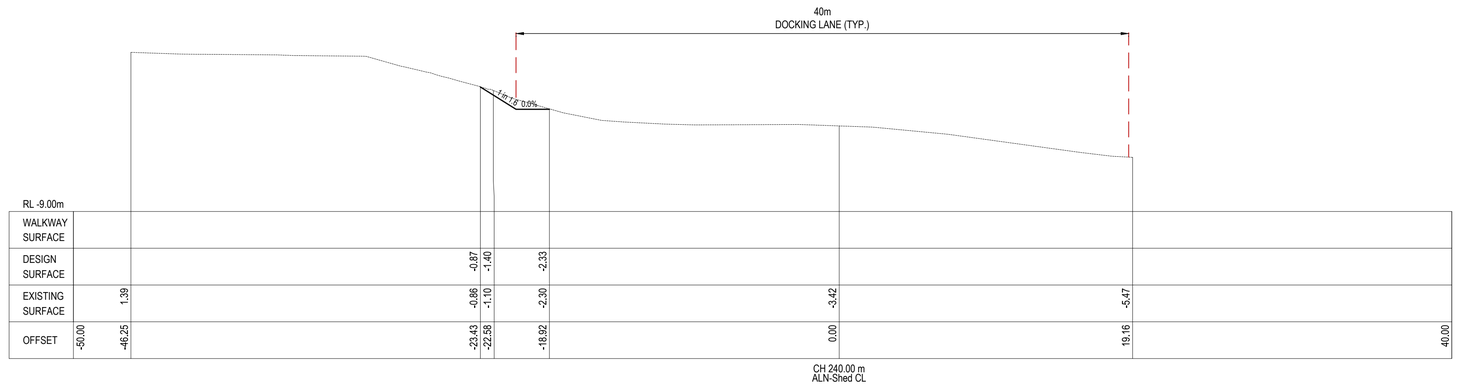
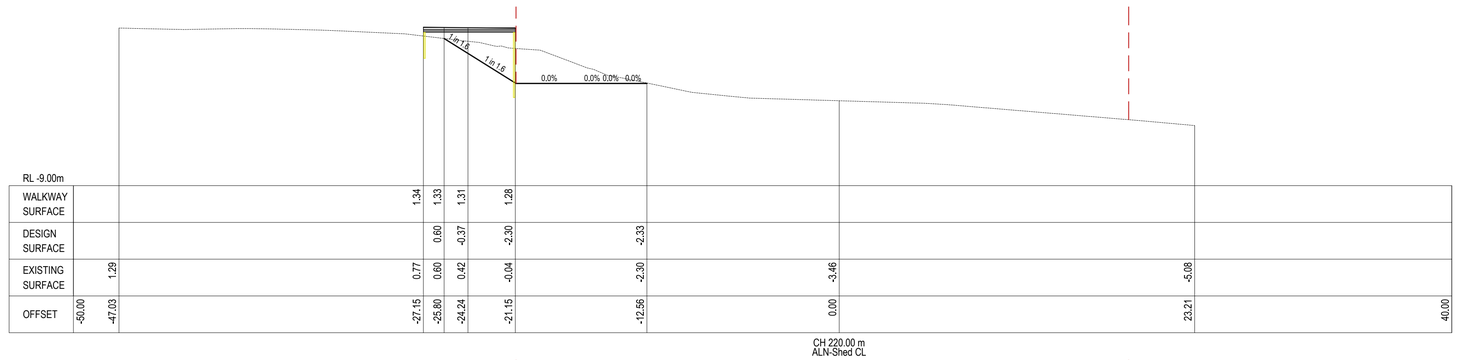
PROJECT
INCAT CHANDLERS SHED
100 DERWENT PARK RD, DERWENT PARK, TAS, 7009

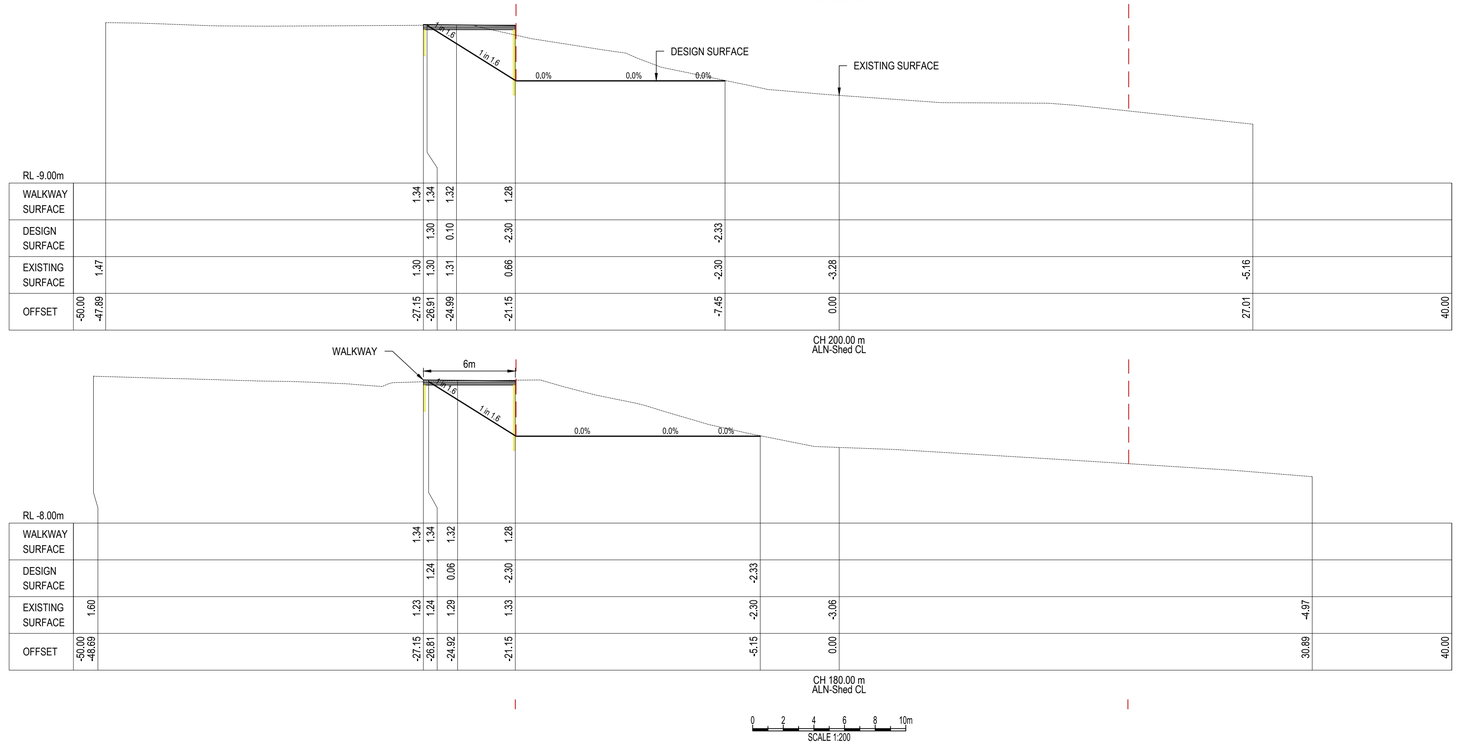
TITLE
CIVIL WORKS
SHED CROSS SECTIONS
2 SHEET

PROJECT NO. J250367CS
DWG NO. C11
REVISION DA1
PLOT DETAILS 250367CS SITE PLAN.DWG

Document Set ID: 3616608
Version: 3, Version Date: 19/05/2026







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P1 20.11.2025 PRELIMINARY ISSUE
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PROJECT
INCAT CHANDLERS SHED
100 DERWENT PARK RD, DERWENT PARK, TAS, 7009

TITLE
CIVIL WORKS
SHED CROSS SECTIONS
3 SHEET

PROJECT NO. J250367CS
DWG NO. C12
REVISION DA1
PLOT DETAILS 250367CS SITE PLAN.DWG

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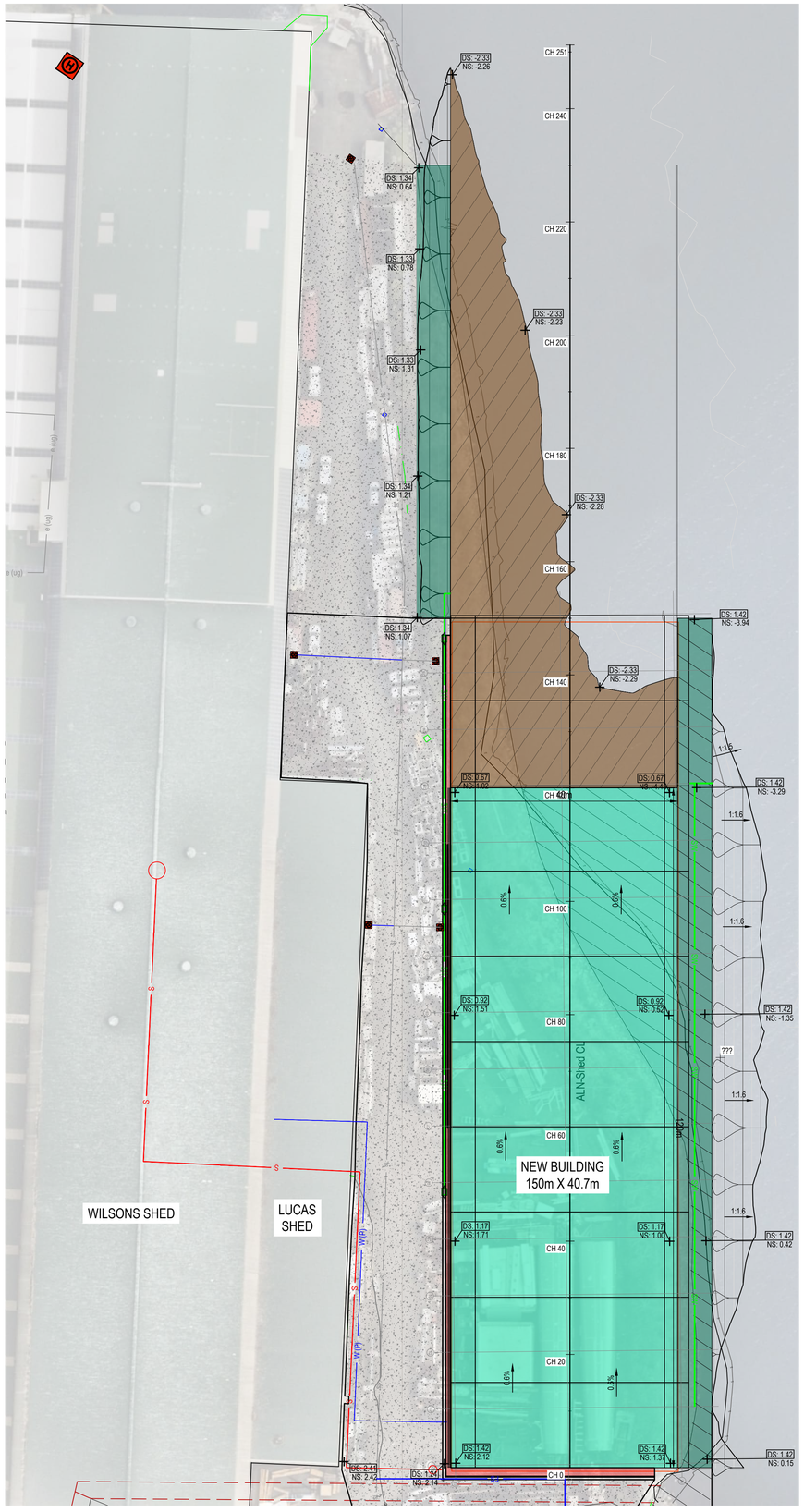

BULK EARTHWORKS VOLUME

CUT - 5470 Cu
FILL - 5227 Cu

EARTHWORKS IS BASED ON EXISTING SURFACE TO FINISHED DESIGN SURFACE AND DOES NOT INCLUDE MATERIAL TO BE REMOVED FOR PAVEMENTS, SLAB AND OTHER IN GROUND ELEMENTS.

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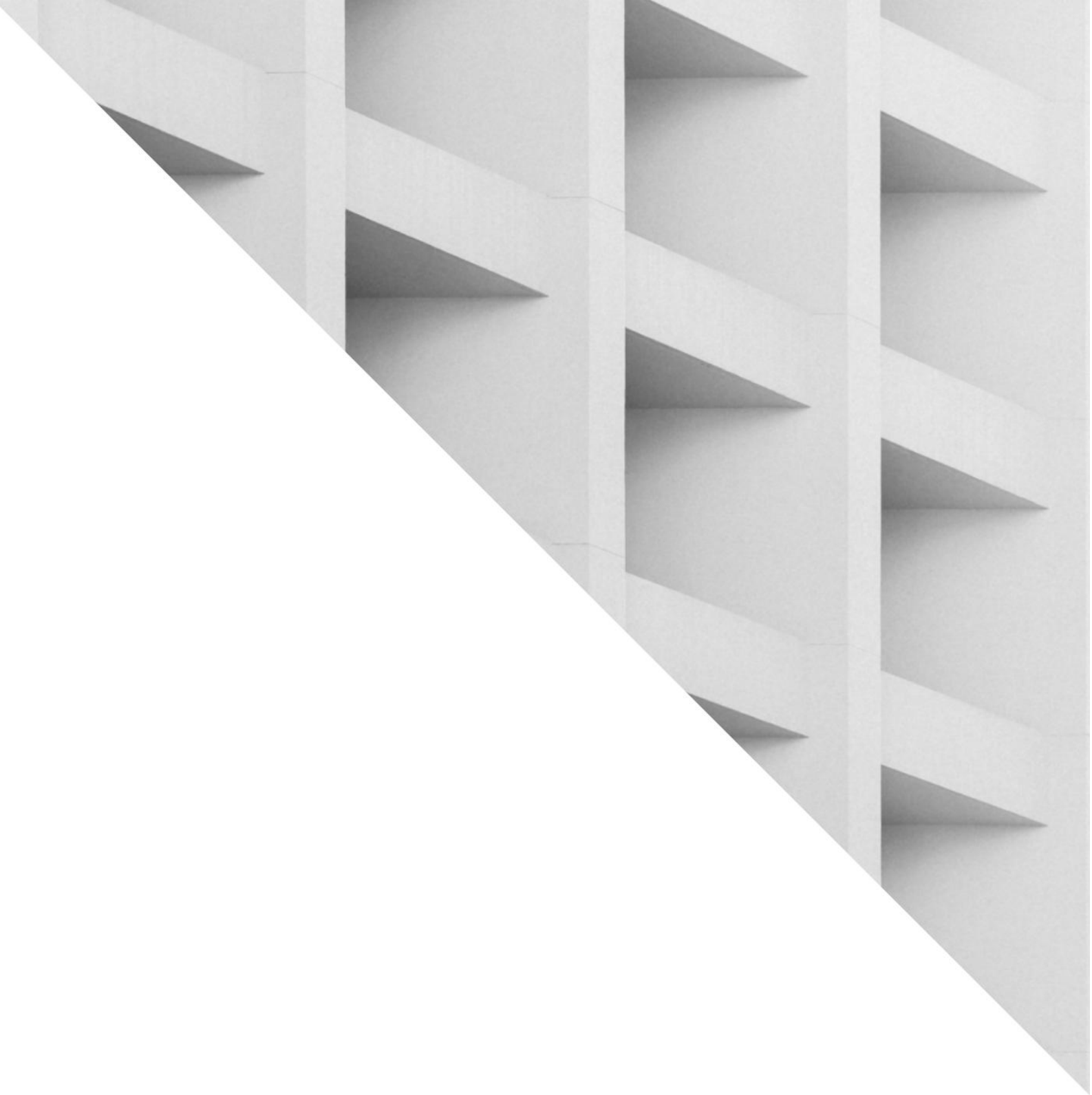
PROJECT
INCAT CHANDLERS SHED
100 DERWENT PARK RD, DERWENT PARK, TAS, 7009

TITLE
CIVIL WORKS
EARTHWORKS

PROJECT NO. J250367CS
DWG NO. C13
REVISION DA1
PLOT DETAILS 250367CS SITE PLAN.DWG



ACN 009 547 139 | ABN 76 473 834 852

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GROUND FLOOR, 73 PATERSON STREET, LAUNCESTON (03) 6334 5548
www.jmg.net.au

MIDSON
traffic
pty ltd

Incat Tasmania

100 Derwent Park Road, Derwent Park
Traffic Impact Assessment

March 2026

CELEBRATING 18 YEARS
2008 - 2026

Contents

Figure Index

Table Index

1. Introduction

1.1 Background

Midson Traffic were engaged by Incat Tasmania Pty Ltd to prepare a Traffic Impact Assessment (TIA) in support of a development application for a proposed new boat building shed at the Incat shipbuilding facility located at 100 Derwent Park Road, Derwent Park.

Incat operates a major shipbuilding facility at this location for the manufacture of aluminium catamarans and high-speed ferries. The site contains several large industrial sheds and associated infrastructure used for vessel construction and assembly.

The proposed development involves the construction of a new boat building shed on land immediately adjacent to the existing facilities. Associated reclamation works are also proposed along the Derwent River foreshore to accommodate the building footprint.

The development will support the continued expansion of Incat's shipbuilding operations and will result in an increase in the workforce at the Derwent Park site. Current staffing levels are approximately 470 staff, with the proposal allowing for an increase of approximately 180 additional employees. After accounting for staff located at other Incat sites, the development application relates to a maximum workforce of approximately 560 staff at the Derwent Park facility.

This Traffic Impact Assessment has been prepared to assess the potential traffic and transport implications of the proposed development and to demonstrate compliance with the relevant provisions of the Tasmanian Planning Scheme, including the Parking and Sustainable Transport Code and the Road and Railway Assets Code.

1.2 Traffic Impact Assessment (TIA)

A traffic impact assessment (TIA) is a process of compiling and analysing information on the impacts that a specific development proposal is likely to have on the operation of roads and transport networks. A TIA should not only include general impacts relating to traffic management, but should also consider specific impacts on all road users, including on-road public transport, pedestrians, cyclists and heavy vehicles.

This TIA has been prepared in accordance with the Department of State Growth (DSG) publication, *Traffic Impact Assessment Guidelines*, August 2020. This TIA has also been prepared with reference to the Austroads publication, *Guide to Traffic Management,* Part 12: *Integrated Transport Assessments for Developments*, 2020.

Land use developments generate traffic movements as people move to, from and within a development. Without a clear understanding of the type of traffic movements (including cars, pedestrians, trucks, etc), the scale of their movements, timing, duration and location, there is a risk that this traffic movement may contribute to safety issues, unforeseen congestion or other problems where the development connects to the road system or elsewhere on the road network. A TIA attempts to forecast these movements and their impact on the surrounding transport network.

A TIA is not a promotional exercise undertaken on behalf of a developer; a TIA must provide an impartial and objective description of the impacts and traffic effects of a proposed development. A full and detailed assessment of how vehicle and person movements to and from a development site might affect existing road and pedestrian networks is required. An objective consideration of the traffic impact of a proposal is vital to enable planning decisions to be based upon the principles of sustainable development.

This TIA also addresses the relevant clauses of C2.0, *Parking and Sustainable Parking Code*, and C3.0, *Road and Railway Assets Code*, of the Tasmanian Planning Scheme – Glenorchy, 2021.

1.3 Statement of Qualification and Experience

This TIA has been prepared by an experienced and qualified traffic engineer in accordance with the requirements of Council's Planning Scheme and The Department of State Growth's, *Traffic Impact Assessment Guidelines*, August 2020, as well as Council's requirements.

The TIA was prepared by Keith Midson. Keith's experience and qualifications are briefly outlined as follows:

- 30 years professional experience in traffic engineering and transport planning.
- Master of Transport, Monash University, 2006
- Master of Traffic, Monash University, 2004
- Bachelor of Civil Engineering, University of Tasmania, 1995
- Engineers Australia: Fellow (FIEAust); Engineering Executive (EngExec)

1.4 Project Scope

The project scope of this TIA is outlined as follows:

- Review of the existing road environment in the vicinity of the site and the traffic conditions on the road network.
- Provision of information on the proposed development with regards to traffic movements and activity.
- Identification of the traffic generation potential of the proposal with respect to the surrounding road network in terms of road network capacity.
- Review of the parking requirements of the proposed development. Assessment of this parking supply with Planning Scheme requirements.
- Traffic implications of the proposal with respect to the external road network in terms of traffic efficiency and road safety.

1.5 Subject Site

The subject site is located at 100 Derwent Park Road, Derwent, within the Glenorchy municipal area. The site is situated on the Derwent River foreshore within a predominantly industrial precinct that includes a range of heavy and light industrial land uses.

The site currently operates as the Incat shipbuilding facility, which has been in continuous operation for many years and is used for the construction and assembly of high-speed aluminium catamarans and ferries. The facility contains several large industrial buildings, associated workshops and operational areas used for vessel construction, together with supporting infrastructure including staff parking areas.

Access to the site is provided via Derwent Park Road, which connects to the Brooker Highway and provides access to surrounding industrial and residential areas.

The subject site and surrounding road network is shown in Figure 1.

Figure 1 Subject Site & Surrounding Road Network

Image Source: LIST Map, DNRE

1.6 Reference Resources

The following references were used in the preparation of this TIA:

- Tasmanian Planning Scheme – Glenorchy, 2021 (Planning Scheme)
- Austroads, *Guide to Traffic Management,* Part 12: *Integrated Transport Assessments for Developments*, 2020
- Austroads, Guide to Road Design, Part 4A: Unsignalised and Signalised Intersections, 2023
- Department of State Growth, *Traffic Impact Assessment Guidelines*, 2020
- Transport NSW, *Guide to Traffic Impact Assessment*, 2024 (TfNSW Guide)
- Australian Standards, AS2890.1, *Off-Street Parking*, 2004 (AS2890.1)
- Australian Standards, AS2890.2, *Off-Street Commercial Vehicle Facilities*, 2018

2. Existing Conditions

2.1 Transport Network

For the purposes of this report, the transport network consists of Derwent Park Road only.

Derwent Park Road connects between Main Road/ Springfield Avenue at its western end, and the subject site at its eastern end. To the east of the Brooker Highway junction it provides a collector road function for commercial and industrial sites along its length, as well as access to the residential areas of Lutana.

It has a posted speed limit of 60-km/h and carries a traffic volume of 4,500 vehicles per day to the east of the Brooker Highway junction.

Derwent Park Road at the Incat access junction is shown in Figure 2.

Figure 2 Derwent Park Road

2.2 Road Safety Performance

Crash data can provide valuable information on the road safety performance of a road network. Existing road safety deficiencies can be highlighted through the examination of crash data, which can assist in determining whether traffic generation from the proposed development may exacerbate any identified issues.

Crash data was obtained from the Department of State Growth for a 5+ year period between 1st January 2019 and 31st January 2026 for Derwent Park Road between the subject site and Cox Avenue.

A total of three crashes were reported at midblock locations during this period:

- 3:22pm, Monday 10th January 2022 – 'right-through' collision resulting in property damage only.
- 3:33pm, Wednesday 13th December 2023 – 'other-on-path' collision resulting in first aid at the scene.

- 12:00pm, Wednesday 18th December 2024 – no crash description provided, property damage only.

The crash data does not provide an indication that there are any pre-existing road safety deficiencies in the network that may be exacerbated by traffic generated by the proposed development.

3. Proposed Development

3.1 Development Proposal

The proposed development involves the construction of a new boat building shed at the Incat shipbuilding facility located at 100 Derwent Park Road, Derwent Park.

The new shed will be located adjacent to the existing Incat manufacturing buildings on the northern waterfront portion of the site. The building will provide additional enclosed space for the construction and assembly of large aluminium vessels and will form part of the ongoing expansion of the Incat shipbuilding operations.

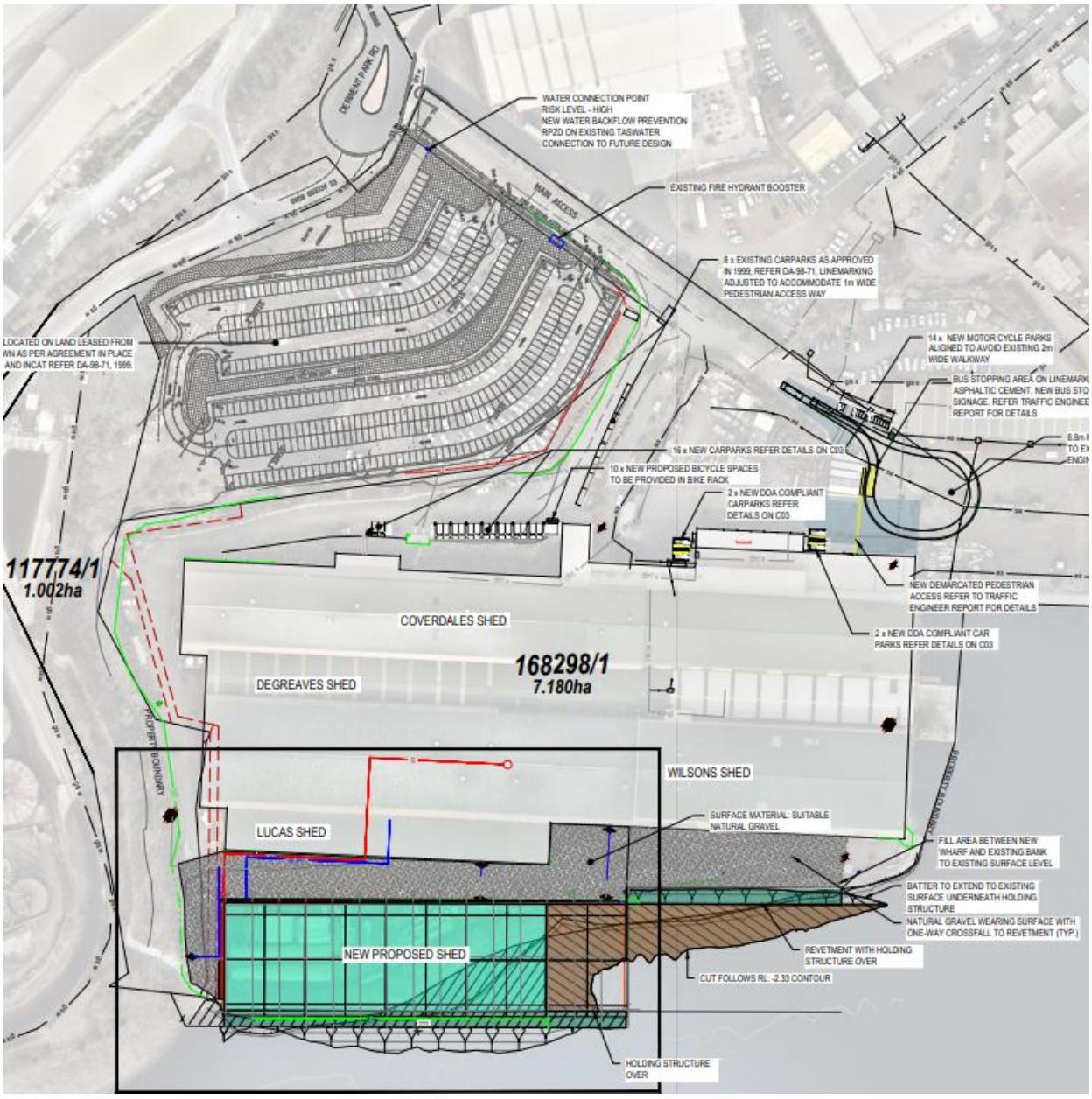
The proposal also includes associated reclamation and fill works along the Derwent River foreshore to accommodate the footprint of the new shed and associated operational areas.

The development will support an increase in workforce numbers associated with the expanded manufacturing capacity of the facility. Current staffing levels are approximately 470 staff, with the proposed development allowing for an increase of approximately 180 additional staff. After accounting for existing Incat staff, the development application relates to a maximum of approximately 560 staff associated with the Derwent Park facility.

Access to the site will continue to be provided via the existing Incat access from Derwent Park Road, and the proposed development does not involve the creation of any new external access points to the surrounding road network.

The proposed development is shown in Figure 3.

Figure 3 Proposed Development Plans



4. Traffic Impacts

4.1 Trip Generation

Conventional trip generation rates published in sources such as the TfNSW Guide or the ITE Trip Generation Manual are not directly applicable to this type of development. Shipbuilding facilities represent a specialised form of heavy industrial activity with travel demand primarily driven by employee shift patterns rather than customer or freight activity. As a result, the use of standard industrial trip rates would not provide a realistic estimate of traffic generation. For this reason, traffic generation for the proposed development has been estimated using known workforce numbers, shift arrangements and the proposed staff transport strategy, which provides a more reliable representation of the expected traffic impacts.

The proposed development will result in an increase of 180 additional staff at the Incat Derwent Park facility. Of these additional employees, approximately 150 workers will be overseas employees accommodated off-site and transported to and from the site by organised bus services provided by Incat.

The remaining 30 staff are expected to travel predominantly by private motor vehicle, with a small proportion travelling by motorcycle or through informal carpooling arrangements.

Based on discussions with Incat, the organised worker transport will utilise buses with an approximate 40-seat capacity. On this basis, the transportation of 150 workers would require approximately four buses per shift ($150 \div 40 \approx 3.75$). This equates to:

- 4 bus arrivals prior to the commencement of a shift; and
- 4 bus departures at the end of the shift.

Accordingly, the proposed development is expected to generate approximately 8 bus movements per shift, or 16 bus movements per day assuming two daily shifts.

For staff travelling by private vehicle, an average vehicle occupancy of 1.2 persons per vehicle has been assumed to reflect some level of carpooling amongst workers. On this basis, the additional 30 staff would generate approximately:

$30 \text{ staff} \div 1.2 \text{ persons per vehicle} \approx 25 \text{ vehicles}$

This equates to approximately:

- 25 vehicle arrivals prior to the start of a shift; and
- 25 vehicle departures at the end of a shift.

Therefore, the total additional traffic generation associated with the proposed development is estimated to be approximately:

- 50 light vehicle movements per day associated with staff vehicles.
- 16 bus movements per day associated with organised worker transport.

- Total 66 vehicle movements per day.

For the purposes of access assessment, bus movements have been included in the total vehicle movements. These movements will occur primarily during staff shift changeover periods and will utilise the existing Incat access from Derwent Park Road.

It is also noted that a small number of staff currently travel to the site by motorcycle or bicycle; however, this represents only a very small proportion of overall travel demand and has not been separately quantified in the traffic generation estimates.

4.2 Trip Assignment

Traffic generated by the proposed development will utilise the existing Incat site access from Derwent Park Road.

The site access is located at the eastern termination of Derwent Park Road, where the road effectively functions as a roundabout/ cul-de-sac serving the Incat facility and associated neighbouring industrial land uses. As a result, all traffic entering and exiting the site will do so via left-in and left-out movements to and from Derwent Park Road, with a circulation traffic island facilitating a clockwise circulation pattern.

Vehicles travelling to and from the site will then disperse via the Derwent Park Road / Brooker Highway junction, which provides the primary connection to the wider road network.

Given the location of the site at the end of Derwent Park Road, all development traffic will therefore travel along Derwent Park Road between the site access and the Brooker Highway intersection, where it will distribute to destinations to the north and south along the Brooker Highway corridor.

4.3 Access Impacts

The Acceptable Solution A1.4 of Clause C3.5.1 of the Planning Scheme states "*Vehicular traffic to and from the site, using an existing vehicle crossing or private level crossing, will not increase by more than the amounts in Table C3.1*".

Table C3.1 specifies a maximum increase of 20% or 40 vehicle movements per day, whichever is greater.

The proposed development will utilise the existing Incat access from Derwent Park Road. Existing traffic generation associated with the site has been estimated using a first-principles approach based on current staffing levels, consistent with the methodology adopted for the proposed development.

The current Incat workforce associated with the Derwent Park facility is approximately 470 staff. Assuming an average vehicle occupancy of 1.2 persons per vehicle, the existing staff travel demand is estimated to generate approximately:

$$470 \div 1.2 = 392 \text{ vehicles}$$

This equates to approximately 392 vehicle arrivals and 392 vehicle departures per day, or a total of approximately 784 vehicle movements per day.

As outlined in Section 4.1, the proposed development is expected to generate an additional 66 vehicle movements per day, comprising approximately 50 light vehicle movements and 16 bus movements.

The percentage increase in traffic using the existing site access is therefore:

$$66 \div 784 \times 100 = 8.4\%$$

Accordingly, the proposed development will increase traffic through the existing access by approximately 8.4%, which is less than the 20% threshold specified in Table C3.1. In numerical terms, 20% of the existing traffic generation equates to approximately 157 vehicle movements per day, which is greater than the alternative threshold of 40 vehicle movements per day.

On this basis, the proposed development satisfies the requirements of Acceptable Solution A1.4 of Clause C3.5.1 of the Planning Scheme.

4.4 Sight Distance

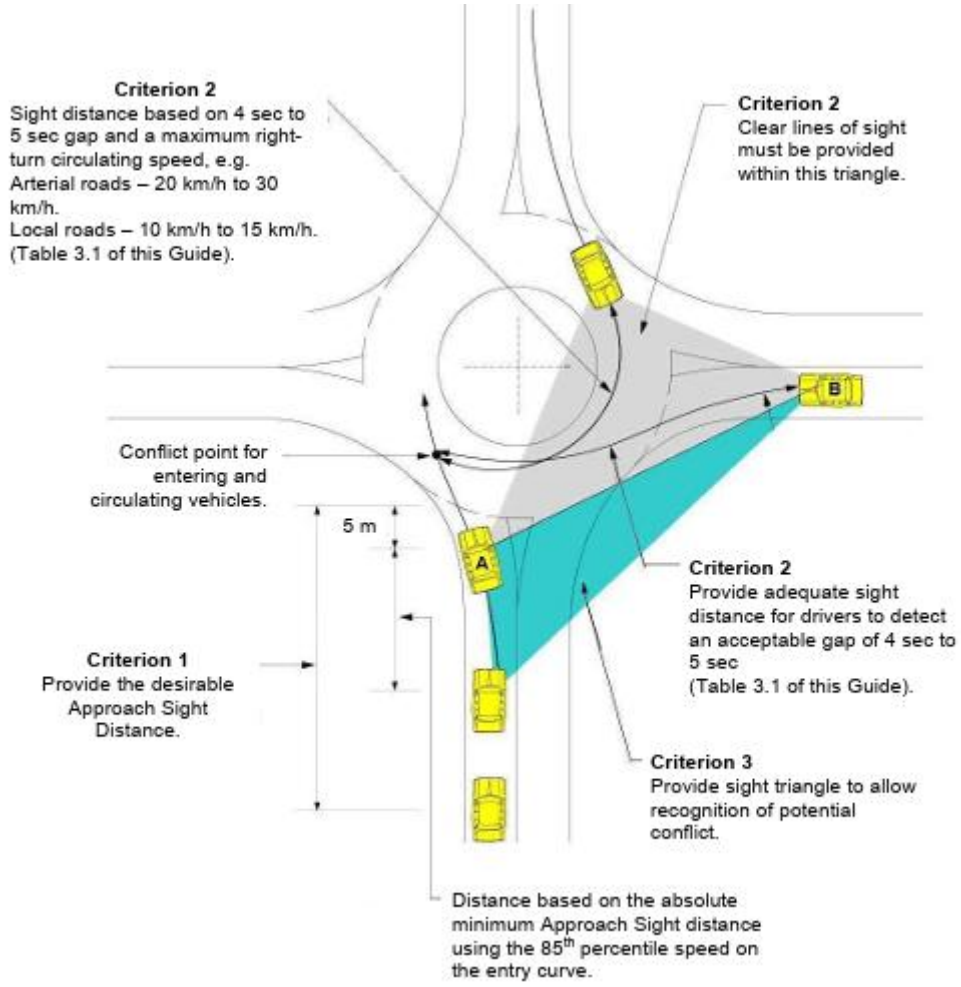
The existing junction of Incat's access with Derwent Park Road is effectively a roundabout, as shown in Figure 4.

Figure 4 Site Access Junction

Sight distance requirements at roundabouts are provided in Austroads Part 4B (Table 3.1). This is reproduced in Figure 5.

The available sight lines comply with Austroads Part 4B requirements, noting that the central island of the roundabout does not obscure sight distance in any direction on any approach.

Figure 5 Austroads Roundabout Sight Distance Requirements



4.5 Pedestrian Impacts

The proposed development will generate some pedestrian activity within the site itself. Minimal pedestrian activity is expected on the external road network. The existing pedestrian infrastructure is considered to be adequate and appropriate for the likely pedestrian generation in the network, noting the footpath on Derwent Park Road connecting to the site's access.

The Acceptable Solution A1.1 of Clause C2.6.5 states:

> *"Uses that require 10 or more car parking spaces must:*
>
> *(a) have a 1m wide footpath that is separated from the access ways or parking aisles, excluding where crossing access ways or parking aisles, by:*

(i) a horizontal distance of 2.5m between the edge of the footpath and the access way or parking aisle; or

(ii) protective devices such as bollards, guard rails or planters between the footpath and the access way or parking aisle; and

(b) be signed and line marked at points where pedestrians cross access ways or parking aisles".

The existing previously approved car park is not the subject of this assessment. This section relates only to the proposed new parking area associated with the development. The proposed parking is located adjacent to the main building entry and the existing shed. While a pedestrian path is provided, it is located immediately adjacent to the parking aisle and no protective devices are proposed between the footpath and vehicle movement areas. On this basis, the proposal does not satisfy the Acceptable Solution A1 of Clause C2.6.5 of the Planning Scheme.

The Performance Criteria P1 of Clause C2.6.5 of the Planning Scheme states:

"Safe and convenient pedestrian access must be provided within parking areas, having regard to:

(a) the characteristics of the site;

(b) the nature of the use;

(c) the number of parking spaces;

(d) the frequency of vehicle movements;

(e) the needs of persons with a disability;

(f) the location and number of footpath crossings;

(g) vehicle and pedestrian traffic safety;

(h) the location of any access ways or parking aisles; and

(i) any protective devices proposed for pedestrian safety".

The following is relevant with respect to the car park design:

a. Characteristics of site. The proposed parking area is internal to an established industrial site and is located immediately adjacent to the main building entry and the existing shed. Pedestrian movements are short, direct and readily apparent.

b. Nature of the use. The use is an existing shipbuilding facility with parking predominantly used by staff and other site users who are familiar with the site layout and internal traffic conditions. This is not a public-facing retail or commercial environment with high pedestrian turnover or unfamiliar users.

c. Number of parking spaces. The proposed new parking area comprises only a relatively small number of spaces. The limited scale of the parking area reduces pedestrian exposure to vehicle movements.

d. Frequency of vehicle movements. Vehicle activity within the proposed parking area will be relatively low and will occur primarily around shift change periods. Outside these periods, vehicle movements within the parking area are expected to be infrequent.

e. Needs of persons with a disability. Accessible parking spaces are provided in close proximity to the building entry. This minimises walking distance for mobility-impaired users and provides convenient access to the development.

f. Location and number of footpath crossings. Pedestrian desire lines are simple and direct, with no crossing points required between the parking area and the building entry. The short walking distances reduce complexity and potential pedestrian-vehicle conflict.

g. Vehicle and pedestrian safety. The parking area is of conventional design and complies with the dimensional and grade requirements of AS2890.1. Vehicle manoeuvring speeds within the parking area will be low, and the small scale of the parking layout allows good inter-visibility between drivers and pedestrians.

h. Location of access ways or parking aisles. The footpath is located immediately adjacent to the parking aisle, but the arrangement is simple, legible and typical of many small employee parking areas. Given the low-speed environment, limited traffic volumes and short pedestrian paths, the layout provides a reasonable and practical pedestrian outcome.

i. Protective devices. No protective devices are proposed between the footpath and vehicle movement area. In this instance, protective devices are not considered necessary having regard to the low-speed, low-volume nature of the parking area, the limited number of spaces, and the fact that the parking area will be used primarily by staff familiar with the site.

Based on the above assessment, the development satisfies the requirements of Performance Criteria P1 of Clause C2.6.5 of the Planning Scheme.

4.6 Road Safety Impacts

An assessment of road safety impacts considers whether the additional traffic generated by the proposed development is likely to result in any deterioration in safety for road users.

As outlined in Section 2.2, the available crash data for Derwent Park Road does not indicate any existing road safety deficiencies in the vicinity of the site. The recorded crashes are low in number, occurred at midblock locations and do not demonstrate any identifiable pattern or systemic safety issue.

The proposed development will result in a relatively modest increase in traffic, estimated at approximately 66 additional vehicle movements per day, comprising light vehicles and bus movements associated with staff transport. This increase represents a small proportion of existing traffic on Derwent Park Road and is well within the capacity of the surrounding road network.

Access to the site will continue to be provided via the existing Incat access at the eastern termination of Derwent Park Road. The access arrangement operates in a low-speed environment and is effectively controlled by a circulating island, which assists in regulating vehicle movements and reducing approach speeds. The available sight distance at the access complies with the relevant Austroads requirements.

The nature of traffic associated with the development is predominantly staff-related, occurring during defined shift change periods. The introduction of organised bus transport for approximately 150 staff will reduce the number of private vehicle trips and consolidate movements into a smaller number of larger vehicles, which is considered beneficial from a traffic management and safety perspective.

Internal vehicle movements within the site are also expected to occur at low speeds within a controlled industrial environment. The proposed parking and access arrangements comply with the relevant requirements of AS2890.1, ensuring appropriate manoeuvring space and visibility for drivers.

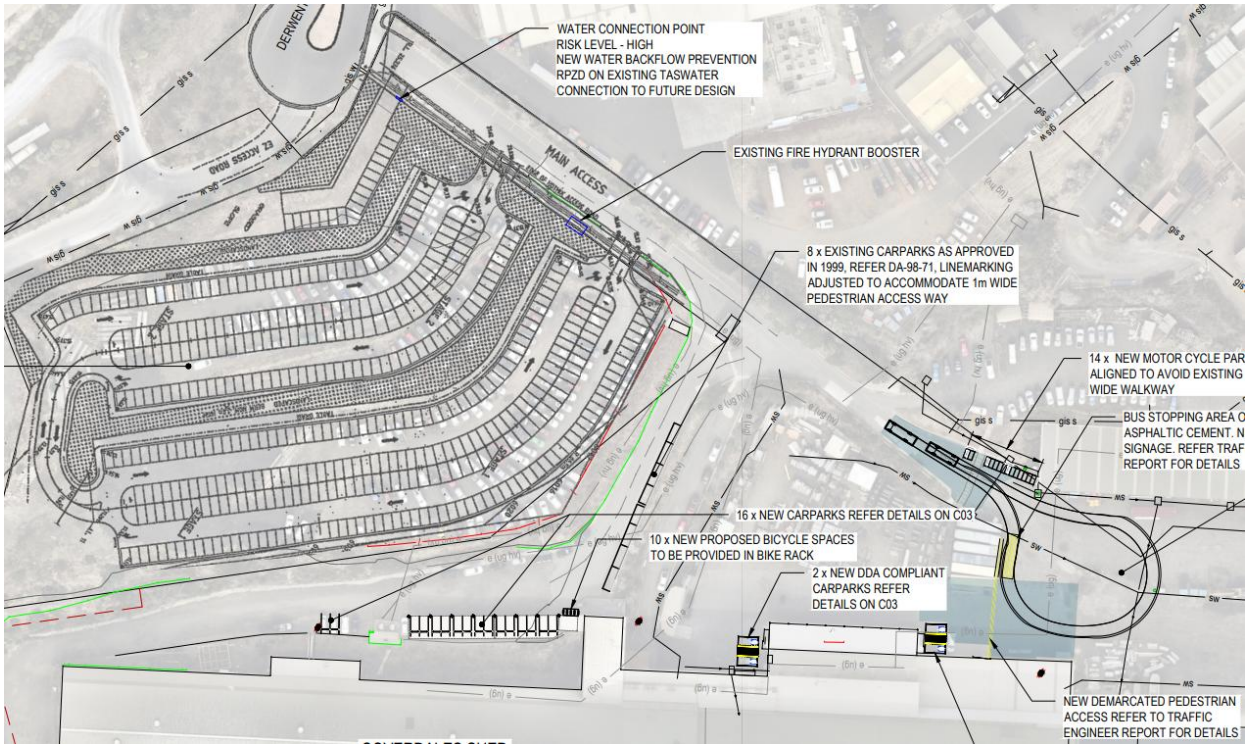
Given the absence of existing safety issues, the modest increase in traffic, the low-speed operating environment and the nature of the site access arrangements, the proposed development is not expected to result in any adverse road safety impacts on the surrounding road network.

5. Parking Assessment

5.1 Parking Provision

The location and general layout of the existing and proposed parking is shown in Figure 6.

Figure 6 Existing and Proposed Parking Locations and Layout

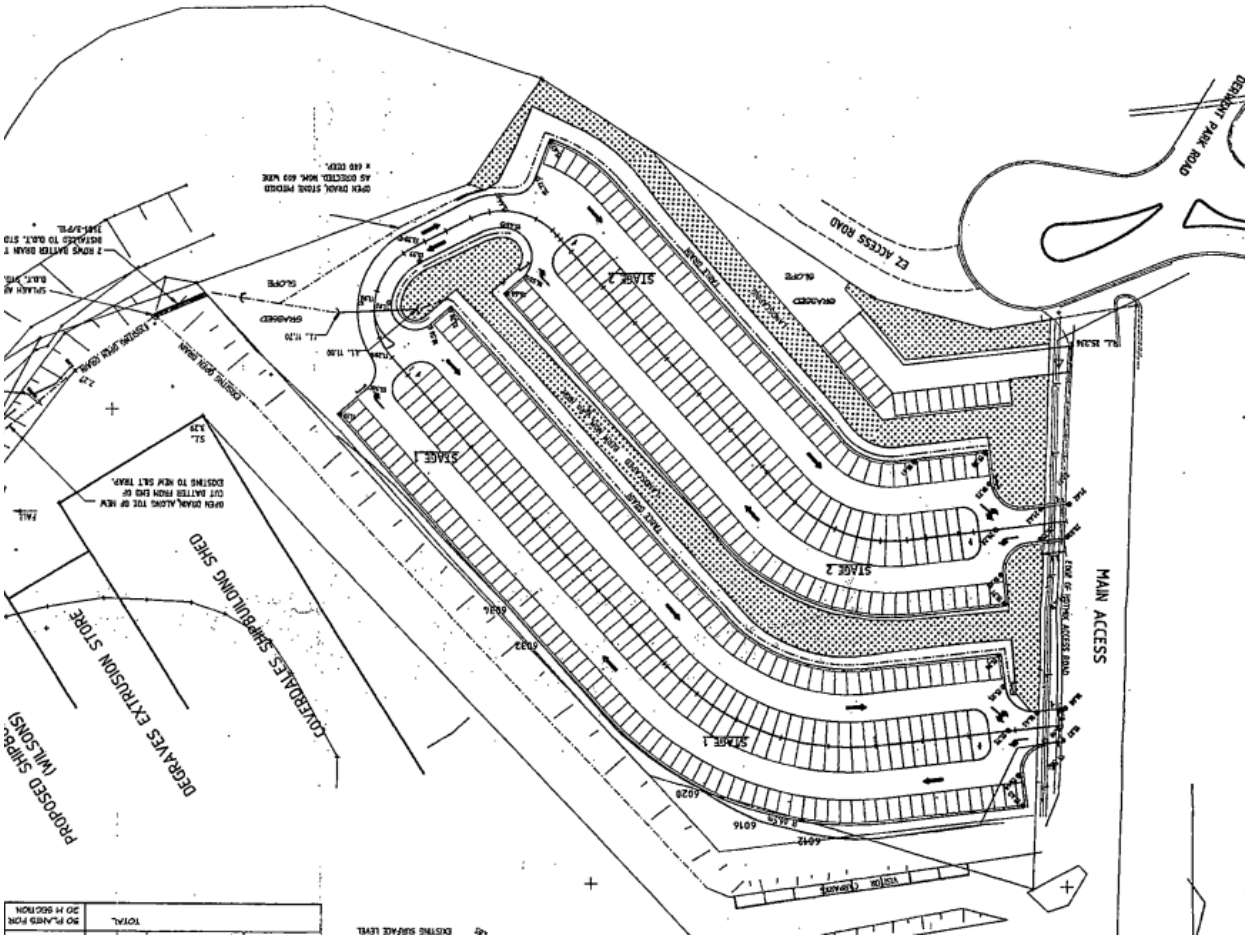


5.1.1 Existing Parking Provision

The existing parking consists of a main car parking area located at the southern end of the site comprising of 348 parking spaces (previously approved Nystar car park in 1999), as well as 8 visitor parking spaces (total of 356 parking spaces).

The existing previously approved car park is shown in Figure 7.

Figure 7 Existing Car Park Layout

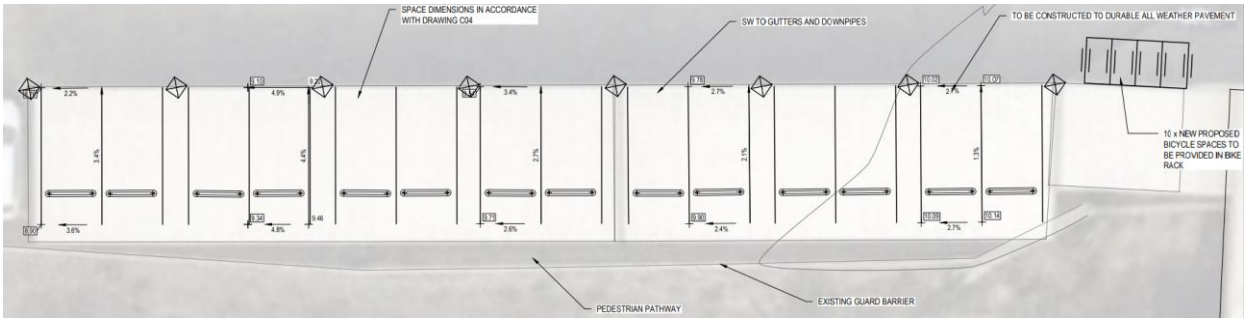


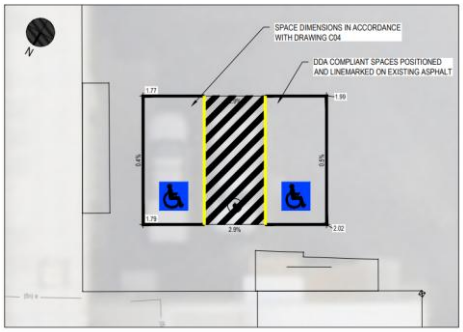
5.1.2 Proposed Parking Provision

The proposed development will provide an additional 20 on-site car parking spaces. This includes provision of 2 new disabled parking spaces. The new parking spaces are shown in Figure 8.

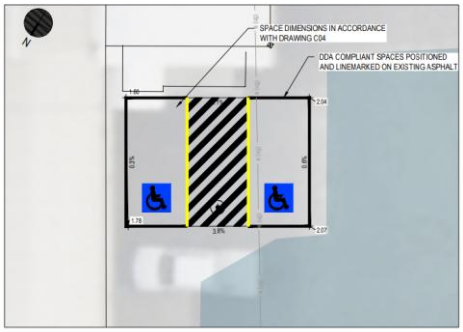
A new motorcycle parking area for 14 motorcycles is also proposed.

Figure 8 Proposed Car Parking Layout





2 DDA COMPLIANT PARKING SPACES NEAR RECEPTION
SCALE: 1:100



2 DDA COMPLIANT PARKING SPACES NEAR BUS STOPPING AREA
SCALE: 1:100

5.2 Parking Surveys

Car parking surveys were undertaken within the main car parking areas outlined in Section 5.1.1 on 11th February 2026 at 11:00am, 1:00pm and 4:00pm. The survey results are summarised in Table 1.

Table 1 Car Parking Surveys

Time	Parking Spaces Occupied	Parking Spaces Available
11:00am	235 cars	124 spaces
1:00pm	239 cars	120 spaces
4:00pm	189 cars	170 spaces

The car parking surveys indicate that:

- A maximum of 239 parking spaces were occupied, with 120 spaces available, representing an approximate 67% utilisation of the available parking supply.
- During the late afternoon period (4:00pm), which is typically outside peak shift change periods, parking demand reduced to 189 occupied spaces, with 170 spaces available.

- Across all survey periods, a substantial number of parking spaces remained available, demonstrating that the existing parking supply is not fully utilised.

These results confirm that the existing parking provision of 356 spaces provides a significant level of spare capacity under current operating conditions.

The available spare capacity is sufficient to accommodate fluctuations in demand associated with shift changes, as well as additional demand generated by the proposed development.

The survey results also support the assumption of some level of carpooling and shared vehicle trips, as the observed parking demand is lower than would be expected if all staff travelled individually by private vehicle.

In addition, the surveys and staff travel data confirm that:

- Motorcycle usage is very low, with only a small number of staff travelling by motorcycle (only two motorcycles observed parked during surveys); and
- Bicycle usage is also minimal, with typically fewer than 5–6 staff per day travelling by bicycle.

These observations demonstrate that theoretical Planning Scheme parking rates are conservative and tend to overestimate actual parking demand for this type of industrial development.

5.3 Planning Scheme Parking Requirements

The Acceptable Solution A1 of Clause C2.5.1 of the Planning Scheme states:

> *"The number of on-site car parking spaces must be no less than the number specified in Table C2.1, excluding if:*
>
> *(a) the site is subject to a parking plan for the area adopted by council, in which case parking provision (spaces or cash-in-lieu) must be in accordance with that plan;*
>
> *(b) the site is contained within a parking precinct plan and subject to Clause C2.7;*
>
> *(c) the site is subject to Clause C2.5.5; or*
>
> *(d) it relates to an intensification of an existing use or development or a change of use where:*
>
> *(i) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is greater than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case no additional on-site car parking is required; or*
>
> *(ii) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is less than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case on-site car parking must be calculated as follows:*

N = A + (C- B)

N = Number of on-site car parking spaces required

A = Number of existing on site car parking spaces

B = Number of on-site car parking spaces required for the existing use or development specified in Table C2.1

C= Number of on-site car parking spaces required for the proposed use or development specified in Table C2.1".

For the purposes of this assessment, the Incat facility is appropriately categorised as a Manufacturing and Processing use. Under Table C2.1, the applicable parking rate for Manufacturing and Processing is: 1 space per 200 m² of floor area or 2 spaces per 3 employees, whichever is the greater.

In the case of the Incat facility, the number of employees provides the governing parking requirement.

The maximum workforce of approximately 560 staff is anticipated for the facility. Based on the employee-based parking rate, the Planning Scheme parking requirement is therefore calculated as follows:

$$560 \times \frac{2}{3} = 373.3$$

Accordingly, the minimum parking requirement is 374 car parking spaces when rounded up to the nearest whole number.

On this basis, the Planning Scheme requires a minimum provision of 374 car parking spaces for the site under the Acceptable Solution of Clause C2.5.1.

It is noted that the Incat facility is an established industrial use that has been operating at the site for many years and the proposed development represents an expansion of the existing operation. A review of the adequacy of the existing and proposed parking provision, including consideration of staff transport arrangements and operational characteristics of the facility, is provided in the following sections of this report.

The provision of 376 spaces (356 existing plus 20 proposed new spaces) therefore satisfies the requirements of Acceptable Solution A1 of Clause C2.5.1 of the Planning Scheme. This demonstrates that the development not only complies with the Acceptable Solution, but does so with a small surplus, providing additional flexibility in parking supply.

5.4 Disabled Parking

The Acceptable Solution A1.2 of Clause C2.6.2 of the Planning Scheme states:

"Parking spaces provided for use by persons with a disability must satisfy the following:

(a) be located as close as practicable to the main entry point to the building;

(b) be incorporated into the overall car park design; and

(c) be designed and constructed in accordance with Australian/New Zealand Standard AS/NZS 2890.6:2009 Parking facilities, Off-street parking for people with disabilities".

The National Construction Code provides the requirements for the number of disabled spaces. The Code classifies the building as a 'Class 8' building. Class 8 buildings require 1 disabled space per 100 parking spaces, which is a requirement for 4 disabled spaces.

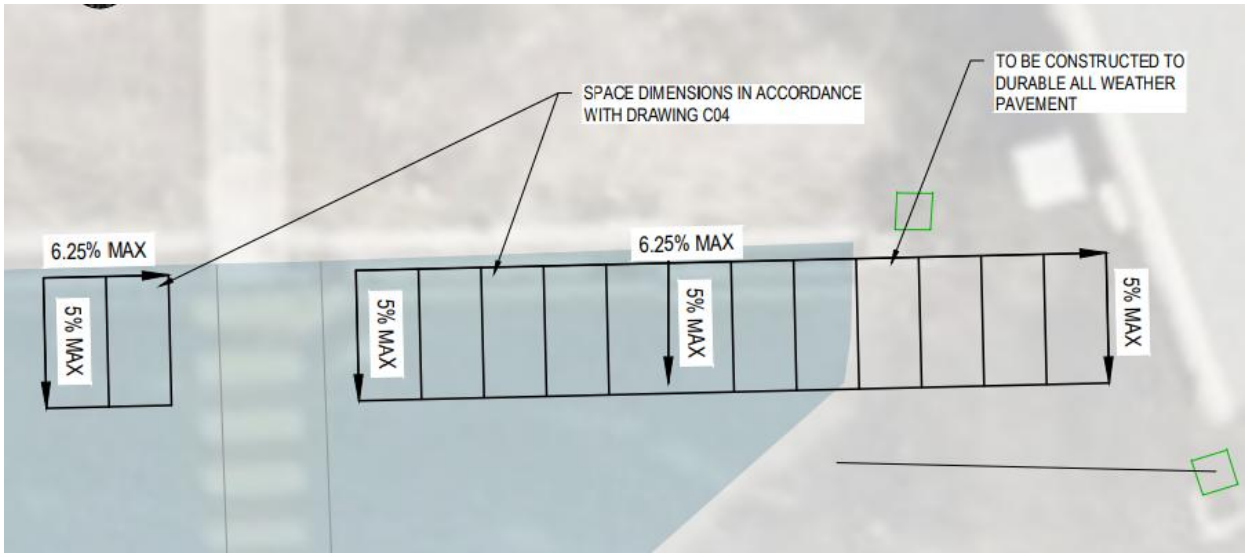
The provision of 4 spaces (two existing and 2 proposed) therefore satisfies the requirements of the BCA. The location of the parking spaces is as close as practicable to the building entrance. The design of the disabled parking spaces complies with the requirements of AS2890.6.

The disabled parking provision therefore satisfies the requirements of Acceptable Solution A1 of Clause C2.6.2 of the Planning Scheme.

5.5 Motorcycle Parking

A total of 14 new motorcycle parking spaces are proposed. These are shown in Figure 9.

Figure 9 Motorcycle Parking



The Acceptable Solution A1 of Clause C2.5.3 of the Planning Scheme states: "*the number of on-site motorcycle parking spaces for all uses must be no less than the number specified in Table C2.4*".

Table C2.4 specifies 1 motorcycle parking space for every additional 20 car parking spaces required for car parks greater than 41 spaces. This is a requirement for 18 motorcycle parking spaces (based on the requirement for 374 car spaces). The provision of 14 motorcycle parking spaces therefore does not satisfy the requirements of Acceptable Solution A1 of Clause C2.5.3 of the Planning Scheme.

The Performance Criteria P1 of Clause C2.5.3 of the Planning Scheme states:

"Motorcycle parking spaces for all uses must be provided to meet the reasonable needs of the use, having regard to:

(a) the nature of the proposed use and development;

(b) the topography of the site;

(c) the location of existing buildings on the site;

(d) any constraints imposed by existing development; and

(e) the availability and accessibility of motorcycle parking spaces on the street or in the surrounding area".

The following is relevant with respect to the proposed development:

a. Nature of the proposed use and development

   The development relates to an existing heavy industrial shipbuilding facility with travel demand primarily associated with staff movements. Existing motorcycle usage at the site is very low, with only a small number of staff currently travelling by motorcycle. This indicates that the theoretical Planning Scheme rate overestimates actual demand for motorcycle parking at this location.

b. Topography of the site

   The site is relatively flat and does not impose any constraints on the provision or use of motorcycle parking.

c. Location of existing buildings on the site

   The site is highly developed with multiple large industrial buildings and established operational areas. The proposed motorcycle parking is located in a practical and accessible location relative to the main building and staff areas.

d. Constraints imposed by existing development

   The existing layout of the site, including established buildings, operational areas and circulation routes, limits the extent to which additional dedicated motorcycle parking can be efficiently provided without impacting on operational functionality.

e. Availability and accessibility of motorcycle parking in the surrounding area

   There is limited demand for motorcycle parking in the surrounding industrial area, and no reliance is placed on external motorcycle parking to service the development.

In addition to the above:

- The site contains a large existing car parking area with spare capacity, which can readily accommodate motorcycles if required.

- Motorcycle parking can be flexibly accommodated within standard car parking spaces if demand increases, without impacting the overall functionality of the car park.
- The introduction of organised bus transport for approximately 150 staff further reduces reliance on private motorised travel modes, including motorcycles.

On this basis, the provision of 14 motorcycle parking spaces is considered sufficient to meet the reasonable needs of the development, and the proposal satisfies the requirements of the Performance Criteria P1 of Clause C2.5.3 of the Planning Scheme.

5.6 Bicycle Parking

The Acceptable Solution A1 of Clause C2.5.2 of the Planning Scheme states:

> *"Bicycle parking spaces must:*
>
> *(a) be provided on the site or within 50m of the site; and*
>
> *(b) be no less than the number specified in Table C2.1".*

For manufacturing and processing, the bicycle parking requirements under Table C2.1 are 1 space per 5 employees. This is a requirement for 112 bicycle parking spaces.

The provision of 10 bicycle parking spaces therefore does not satisfy the requirements of Acceptable Solution A1 of Clause C2.5.2 of the Planning Scheme.

The Performance Criteria P1 of Clause C2.5.2 of the Planning Scheme states:

> *"Bicycle parking spaces must be provided to meet the reasonable needs of the use, having regard to:*
>
> *(a) the likely number of users of the site and their opportunities and likely need to travel by bicycle; and*
>
> *(b) the availability and accessibility of existing and any planned parking facilities for bicycles in the surrounding area".*

The following is relevant with respect to the proposed development:

- The Incat facility is located within an industrial area at the eastern termination of Derwent Park Road, which has limited connectivity to dedicated bicycle infrastructure and is not readily accessible by bicycle from surrounding residential areas.
- Empirical travel data provided by Incat indicates that very few staff currently travel to the site by bicycle, with typically fewer than half a dozen staff choosing this mode of transport. This demonstrates that the theoretical Planning Scheme rate significantly overestimates actual demand for bicycle parking at this location.

- Travel demand to the site is strongly influenced by the nature of the industrial use and shift-based operations, which favour private vehicle use, organised bus transport and carpooling rather than active transport modes.
- The proposed development includes the introduction of organised bus transport for approximately 150 staff, which will further reduce reliance on private vehicle travel but is unlikely to materially increase bicycle usage.
- The provision of bicycle parking spaces on-site ensures that facilities are available for those staff who choose to cycle, while avoiding the oversupply of infrastructure that would remain largely unused.

On this basis, the proposed bicycle parking provision is considered to be appropriate for the operational characteristics of the site and its location, and satisfies the intent of the Performance Criteria of Clause C2.5.2 of the Planning Scheme. The provision of 112 bicycle spaces would represent a significant over-supply relative to observed demand and would not represent an efficient or reasonable use of the site.

5.7 Bus Parking

The proposed development includes the transportation of 150 workers between the site and off-site accommodation via organised bus services.

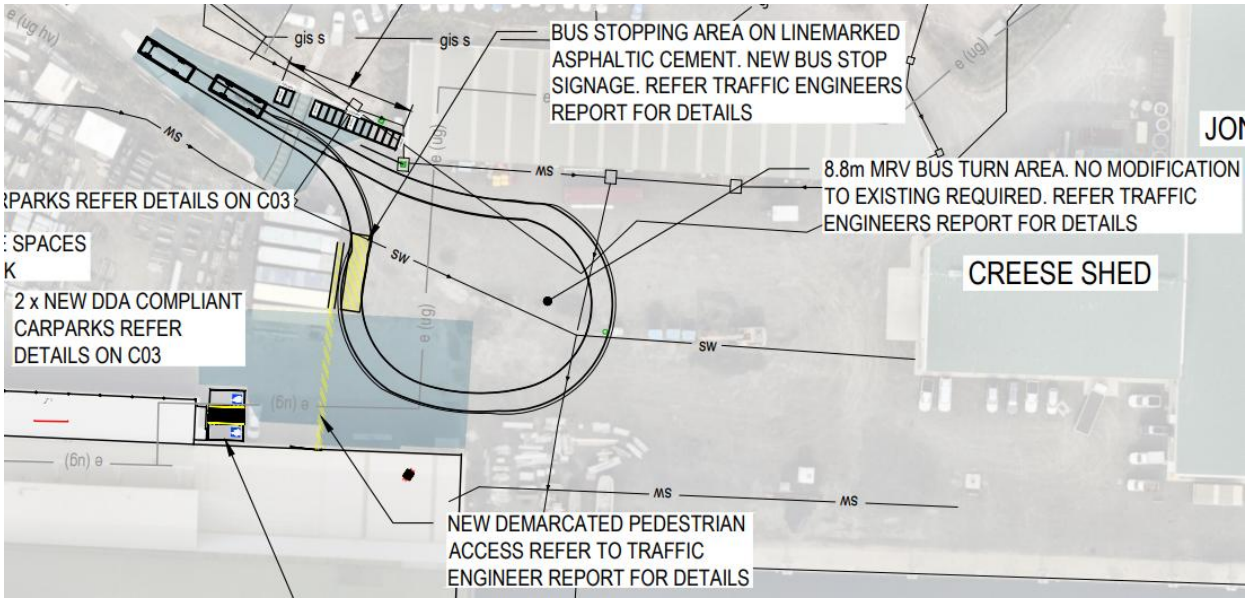
To facilitate this arrangement, a dedicated bus parking area is provided on-site to accommodate the arrival and departure of staff buses associated with shift changes.

A marked pedestrian path is provided between the on-site bus parking area and the building entry to ensure safe and convenient movement of staff between the buses and the facility.

The provision of on-site bus parking and associated pedestrian infrastructure supports the proposed staff transport strategy and reduces reliance on private vehicle travel.

The bus access and parking area is shown in Figure 10.

Figure 10 Bus Access and Parking



5.8 Car Parking Layout

The Acceptable Solution A1.1 of Clause C2.6.2 of the Planning Scheme states:

"Parking, access ways, manoeuvring and circulation spaces must either:

(a) comply with the following:

(i) have a gradient in accordance with Australian Standard AS 2890 - Parking facilities, Parts 1-6;

(ii) provide for vehicles to enter and exit the site in a forward direction where providing for more than 4 parking spaces;

(iii) have an access width not less than the requirements in Table C2.2;

(iv) have car parking space dimensions which satisfy the requirements in Table C2.3;

(v) have a combined access and manoeuvring width adjacent to parking spaces not less than the requirements in Table C2.3 where there are 3 or more car parking spaces;

(vi) have a vertical clearance of not less than 2.1m above the parking surface level; and

(vii) excluding a single dwelling, be delineated by line marking or other clear physical means; or

(b) comply with Australian Standard AS 2890- Parking facilities, Parts 1-6".

The proposed car parking provision (18 spaces) was assessed against the requirements of A1.1(b), using AS2890.1 as detailed in the following sections for the strata title component of the proposed development.

Dimensional Requirements

AS2890.1 classifies the parking as User Class 1A (residential, domestic and employee parking). Class 1A parking requires the following dimensions:

- Space length 5.4 metres
- Space width 2.4 metres
- Aisle width 5.8 metres

All proposed car parking spaces comply with the dimensional requirements of AS2890.1.

Parking Grade

Section 2.4.6 of AS2890.1 states that the maximum grades within a car park shall be:

- Measured parallel to the angle of parking 1 in 20 (5%)
- Measured in any other direction 1 in 16 (6.25%)

The grades of the parking spaces satisfy AS2890.1 parking grade requirements.

Disabled Parking Requirements

The disabled parking spaces comply with the requirements of AS2890.6, including the provision of a shared space adjacent to the parking spaces.

The proposed car parking layout therefore complies with the requirements of Acceptable Solution A1 of Clause C2.6.2 of the Planning Scheme.

5.9 Commercial Vehicles

The Acceptable Solution A1 of Clause C2.6.6 of the Planning Scheme states: "*The area and dimensions of loading bays and access way areas must be designed in accordance with Australian Standard AS 2890.2–2002, Parking facilities, Part 2: Off-street commercial vehicle facilities, for the type of vehicles likely to use the site*".

Commercial vehicles will continue to service the existing sheds, as well as the proposed shed. Construction materials associated with the proposed development will be delivered by trucks of varying sizes, including vehicles up to approximately 25 metre semi-trailers.

These deliveries will be accommodated within the existing Incat shipbuilding facility, which has been designed and operated to accommodate large vehicle movements as part of its established operations. Heavy vehicles will utilise the existing access from Derwent Park Road and manoeuvre within the extensive external hardstand areas, consistent with current site operations.

Materials will be unloaded within the external hardstand areas and subsequently transferred to the proposed shed via smaller vehicles or forklifts, typically through the adjacent existing sheds. This reflects the established operational practice at the site and avoids the need for large heavy vehicles to directly access the internal areas of the proposed building.

The existing site layout provides ample space for heavy vehicle manoeuvring, loading and unloading activities, and no changes to the access or internal circulation arrangements are required to accommodate these movements.

On this basis, heavy vehicle access associated with the proposed development can be safely and efficiently accommodated within the site.

AS2890.2 requires that the loading bay service area is dependent on a combination of:

(a) The maximum size of vehicle likely to use the facility.
(b) The frequency with which vehicles of different classification use the facility; and
(c) Whether the public road from which the facility is accessed is a major or minor road.

The following points are relevant for the site:

- Swept paths of a 25 metre semi-trailer (the design vehicle) were tested through the site, to and from Derwent Park Road. This relates to the operation of the loading areas within the sheds. The ability of a 25 m semi-trailer to manoeuvre within the site is demonstrated by the existing operation of the facility, which routinely accommodates vehicles of this size.
- The frequency of access to the site will be several times per day by vehicles of differing sizes.
- Access into the site is via a major road. This access has been assessed to be appropriate in following sections of AS2890.2

AS2890.2 requirements and recommendations that the use of the service area for regular use of a major road (Derwent Park Road) are as follows:

(a) A service area unobstructed by other vehicles or on-site activities shall be provided.
(b) All manoeuvring associated with parking, loading and unloading shall be able to be confined to the service area.
(c) Both entry and exit at the property boundary shall be in the forward direction.
(d) Circulation roadways shall be provided to connect the access driveway with the service area.
(e) Wherever practicable, separate entry and exit access driveways should be provided.

In this case, the following is applicable:

(a) The service area and access driveway has been tested to enable the swept path of a 25 metre semi-trailer.
(b) All manoeuvring associated loading and unloading are within loading areas contained in the sheds. The service areas are separated from all staff and visitor car parking areas. The manoeuvring area is well clear of all other parking spaces of the site.
(c) Entry and exit at Derwent Park Road is in a forward direction.
(d) Circulation between the site access and loading areas is provided via the internal road network. These areas provide adequate manoeuvring space for the design vehicle.

(e) Separate entry and exit is not provided. A single access is provided at Derwent Park Road that provides entry and exit manoeuvres. AS2890.2 does not mandate separate entry and exit driveways. This situation is unchanged from existing conditions.

The proposed access and manoeuvring arrangements therefore comply with 3.2.3 of AS2890.2. Acceptable Solution A1 of Clause C2.6.6 of the Planning Scheme is met.

6. Conclusions

This Traffic Impact Assessment (TIA) has assessed the traffic and parking impacts of the proposed new boat building shed at the Incat facility located at 100 Derwent Park Road, Derwent Park.

The key findings of the assessment are summarised as follows:

- The proposed development will increase the on-site workforce to approximately 560 staff, including 180 additional staff, of which approximately 150 will be transported by organised bus services.
- Traffic generation associated with the development is estimated to comprise approximately 50 light vehicle movements per day and 16 bus movements per day, representing a modest increase in traffic.
- The increase in traffic via the site access is estimated to be approximately 8.4%, which satisfies the requirements of Acceptable Solution A1.4 of Clause C3.5.1 of the Planning Scheme.
- All traffic will access the site via the existing access at the eastern end of Derwent Park Road, with distribution via the Brooker Highway intersection. No upgrades to the external road network are required.
- The existing access operates in a low-speed environment, with adequate sight distance and no identified road safety concerns.
- The proposed development is not expected to result in any adverse road safety impacts, given the modest increase in traffic and the nature of the surrounding road environment.
- Parking surveys demonstrate that the existing car parking supply is not fully utilised, with a surveyed peak utilisation of approximately 67%, confirming that there is substantial spare capacity within the existing car park.
- The site provides a total of 376 car parking spaces (356 existing and 20 proposed), which exceeds the Planning Scheme requirement of 374 spaces, and therefore satisfies the requirements of Acceptable Solution A1 of Clause C2.5.1.
- The proposed car parking layout complies with the requirements of AS2890.1, providing safe and efficient vehicle manoeuvring.
- The provision of motorcycle parking (14 spaces) does not meet the numerical requirement of the Acceptable Solution; however, it satisfies the Performance Criteria of Clause C2.5.3, having regard to the very low observed demand and the availability of flexible parking within the site.
- The provision of bicycle parking (10 spaces) does not meet the Acceptable Solution; however, it satisfies the Performance Criteria of Clause C2.5.2, given the extremely low existing demand and the industrial location of the site.
- The proposed development includes dedicated on-site bus parking, supporting the transportation of 150 staff by bus, which reduces reliance on private vehicle travel.

- Internal pedestrian movements are limited and occur within a controlled, low-speed environment, with the proposed layout providing safe and convenient access consistent with the Performance Criteria P1 of Clause C2.6.5 of the Planning Scheme.

Based on the findings of this assessment, the proposed development is considered to be acceptable from a traffic and transport perspective and is supported on traffic engineering grounds.

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