DA Form 2 – Building work details

Approved form (version 1.2 effective 7 February 2020) made under Section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving building work**.

For a development application involving **building work only**, use this form (*DA Form 2*) only. The DA Forms Guide provides advice about how to complete this form.

For a development application involving **building work associated and any other type of assessable development** (i.e. material change of use, operational work or reconfiguring a lot), use *DA Form 1 – Development application details* **and** parts 4 to 6 of this form (*DA Form 2*).

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008.* For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

Note: *All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).*

PART 1 – APPLICANT DETAILS

1) Applicant details	
Applicant name(s) (*individual or company full name*)	GJ Building Group
Contact name *(only applicable for companies)*	Gavin Jenkin
Postal address *(PO Box or street address)*	PO Box 646
Suburb	Mossman
State	Qld
Postcode	4873
Country	Australia
Contact number	0414409815
Email address *(non-mandatory)*	Gavin.jenkin1@bigpond.com
Mobile number *(non-mandatory)*	
Fax number *(non-mandatory)*	
Applicant's reference number(s) *(if applicable)*	

PART 2 – LOCATION DETAILS

2) Location of the premises *(complete 2.1 and 2.2 if applicable)*

Note*: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see DA Forms Guide: Relevant plans.*

2.1) Street address and lot on plan

☒ Street address **AND** lot on plan (*all lots must be listed*), **or**

☐ Street address **AND** lot on plan for an adjoining or adjacent property of the premises *(appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).*

Unit No.	Street No.	Street Name and Type	Suburb
		Cape Tribulation Road	Lower Daintree
Postcode	Lot No.	Plan Type and Number *(e.g. RP, SP)*	Local Government Area(s)
4873	1	Rp804943	Douglas Shire Council

2.2) Additional premises

☐ Additional premises are relevant to this development application and the details of these premises have been attached in a schedule to this development application

☒ Not required

3) Are there any existing easements over the premises?

***Note**: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see the DA Forms Guide*

☐ Yes – All easement locations, types and dimensions are included in plans submitted with this development application

☒ No

PART 3 – FURTHER DETAILS

4) Is the application only for building work assessable against the building assessment provisions?

☒ Yes – proceed to 8)

☐ No

5) Identify the assessment manager(s) who will be assessing this development application

6) Has the local government agreed to apply a superseded planning scheme for this development application?

☐ Yes – a copy of the decision notice is attached to this development application

☐ The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached

☒ No

7) Information request under Part 3 of the DA Rules

☒ I agree to receive an information request if determined necessary for this development application

☐ I do not agree to accept an information request for this development application

***Note**: By not agreeing to accept an information request I, the applicant, acknowledge:*

- *that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties.*
- *Part 3 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules.*

Further advice about information requests is contained in the DA Forms Guide.

8) Are there any associated development applications or current approvals?

☐ Yes – provide details below or include details in a schedule to this development application

☒ No

List of approval/development application	Reference	Date	Assessment manager
☐ Approval ☐ Development application			
☐ Approval ☐ Development application			

9) Has the portable long service leave levy been paid?		
☐ Yes – a copy of the receipted QLeave form is attached to this development application ☐ No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid ☒ Not applicable *(e.g. building and construction work is less than $150,000 excluding GST)*		
Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
$		

10) Is this development application in response to a show cause notice or required as a result of an enforcement notice?
☐ Yes – show cause or enforcement notice is attached ☒ No

11) Identify any of the following further legislative requirements that apply to any aspect of this development application			
☐ The proposed development is on a place entered in the **Queensland Heritage Register** or in a local government's **Local Heritage Register**. See the guidance provided at www.des.qld.gov.au about the requirements in relation to the development of a Queensland heritage place			
Name of the heritage place:		Place ID:	

PART 4 – REFERRAL DETAILS

12) Does this development application include any building work aspects that have any referral requirements?
☐ Yes – the *Referral checklist for building work* is attached to this development application ☐ No – proceed to Part 5

13) Has any referral agency provided a referral response for this development application?		
☐ Yes – referral response(s) received and listed below are attached to this development application ☒ No		
Referral requirement	Referral agency	Date referral response
Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application, or include details in a schedule to this development application *(if applicable)*		

PART 5 – BUILDING WORK DETAILS

14) Owner's details	
☐ Tick if the applicant is also the owner and proceed to 15). Otherwise, provide the following information.	
Name(s) (*individual or company full name*)	
Contact name *(applicable for companies)*	
Postal address *(P.O. Box or street address)*	
Suburb	
State	

Postcode	
Country	
Contact number	
Email address *(non-mandatory)*	
Mobile number *(non-mandatory)*	
Fax number *(non-mandatory)*	

15) Builder's details	
☒ Tick if a builder has not yet been engaged to undertake the work and proceed to 16). Otherwise provide the following information.	
Name(s) *(individual or company full name)*	GJ Building Group
Contact name *(applicable for companies)*	Gavin
QBCC licence or owner – builder number	15371367
Postal address *(P.O. Box or street address)*	PO Box 646
Suburb	Mossman
State	Qld
Postcode	4873
Contact number	
Email address *(non-mandatory)*	Gavin.jenkin1@bigpond.com
Mobile number *(non-mandatory)*	0414409815
Fax number *(non-mandatory)*	

16) Provide details about the proposed building work			
What type of approval is being sought?			
☒ Development permit ☐ Preliminary approval			
b) What is the level of assessment?			
☒ Code assessment ☐ Impact assessment *(requires public notification)*			
c) Nature of the proposed building work (tick all applicable boxes)			
☐ New building or structure ☐ Change of building classification *(involving building work)* ☐ Demolition		☒ Repairs, alterations or additions ☐ Swimming pool and/or pool fence ☐ Relocation or removal	
d) Provide a description of the work below or in an attached schedule.			
e) Proposed construction materials			
External walls	☐ Double brick ☐ Brick veneer ☐ Stone/concrete	☐ Steel ☒ Timber ☐ Fibre cement	☐ Curtain glass ☐ Aluminium ☐ Other
Frame	☒ Timber ☐ Other	☐ Steel	☐ Aluminium
Floor	☐ Concrete	☒ Timber	☐ Other
Roof covering	☐ Slate/concrete ☐ Aluminium	☐ Tiles ☒ Steel	☐ Fibre cement ☐ Other
f) Existing building use/classification? *(if applicable)*			

g) New building use/classification? *(if applicable)*

h) Relevant plans

Note: *Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*

☐ Relevant plans of the proposed works are attached to the development application

17) What is the monetary value of the proposed building work?
$123,492.00

18) Has Queensland Home Warranty Scheme Insurance been paid?		
☐ Yes – provide details below ☒ No		
Amount paid	Date paid (dd/mm/yy)	Reference number
$		

PART 6 – CHECKLIST AND APPLICANT DECLARATION

19) Development application checklist	
The relevant parts of *Form 2 – Building work details* have been completed	☒ Yes
This development application includes a material change of use, reconfiguring a lot or operational work and is accompanied by a completed *Form 1 – Development application details*	☐ Yes ☒ Not applicable
Relevant plans of the development are attached to this development application ***Note****: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*	☒ Yes
The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (*see 9*)	☐ Yes ☒ Not applicable

20) Applicant declaration
☒ By making this development application, I declare that all information in this development application is true and correct ☒ Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001* ***Note****: It is unlawful to intentionally provide false or misleading information.*
Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website. Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, Planning Regulation 2017 and the DA Rules except where: • such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the Planning Regulation 2017, and the access rules made under the *Planning Act 2016* and Planning Regulation 2017; or • required by other legislation (including the *Right to Information Act 2009*); or • otherwise required by law. This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002*.

PART 7 – FOR COMPLETION BY THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY

Date received: | Reference numbers:

For completion by the building certifier		
Classification(s) of approved building work		
Name	QBCC Certification Licence number	QBCC Insurance receipt number

Notification of engagement of alternative assessment manager	
Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	
Relevant licence number(s) of chosen assessment manager	

Additional information required by the local government			
Confirm proposed construction materials:			
External walls	☐ Double brick ☐ Brick veneer ☐ Stone/concrete	☐ Steel ☐ Timber ☐ Fibre cement	☐ Curtain glass ☐ Aluminium ☐ Other
Frame	☐ Timber ☐ Other	☐ Steel	☐ Aluminium
Floor	☐ Concrete	☐ Timber	☐ Other
Roof covering	☐ Slate/concrete ☐ Aluminium	☐ Tiles ☐ Steel	☐ Fibre cement ☐ Other

QLeave notification and payment *Note: For completion by assessment manager if applicable*			
Description of the work			
QLeave project number			
Amount paid ($)		Date paid (dd/mm/yy)	
Date receipted form sighted by assessment manager			
Name of officer who sighted the form			

Additional building details required for the Australian Bureau of Statistics			
Existing building use/classification? *(if applicable)*			
New building use/classification?			
Site area *(m^2)*		Floor area *(m^2)*	

BAKER BUILDING CERTIFICATION
clayton@bakerbuildingcert.com.au
m: 0448 377 172 a: Po Box 1083, Tolga 4882

14th April 2025

Douglas Shire Regional Council
PO Box 359
CAIRNS Q 4870

Attention: Planning Section

Dear Sir/Madam,

Re: Proposed new deck extension and water tank/slab at Lot 1 / RP 804943 - 362 Cape Tribulation Road LOWER DAINTREE

Baker Building Certification has been engaged to assess an application for the proposed dwelling additions and tank slab on the abovementioned allotment. A preliminary assessment of the proposal has indicated that the proposed additions trigger assessment against the rural/rural res and flood and storm tide hazard overlay as outlined in the Douglas Shire Planning Scheme 2018.

Applicant: GJ Building Group/ Baker Building Certification.

6.2.10.3 Rural zone code

Performance outcomes	Acceptable outcomes	Applicant response
For self-assessable and assessable development		
Setbacks		
PO1 Buildings are setback to maintain the rural character of the area and achieve separation from buildings on adjoining properties.	**AO1** Buildings are setback not less than: a) 40m from a state controlled road b) 25m from property boundary adjoining cape tribulation road c) 20m from the boundary of any other road d) 6m from a side and rear boundary	**Proposed** The deck and stairs are located 5.7m from the side boundary and 10m from the front boundary, the minor side encroachment will have no impact as it's a minor 300mm and adjoining is vacant land. The front boundary at 10m from the front boundary will have no impact as the deck extension is in line with the existing dwelling/structure on site. In effect the setbacks can be considered to maintain the rural character of the area and achieve separation from buildings on

Performance outcomes	Acceptable outcomes	Applicant response
		adjoining properties. The new tank location 15m from the side and rear again will maintain the rural character of the area.

Flood overlay code: The flood hazard overlay in other councils planning schemes does not capture class 10a non habitable structures such as a patio, deck and tank/slab, the QDC prevails which does not trigger assessment against to flood hazard overlay for non-habitable patios. Additionally, the open deck is 2.8m above the external ground level which is in keeping with existing dwelling floor level.

Recommendation

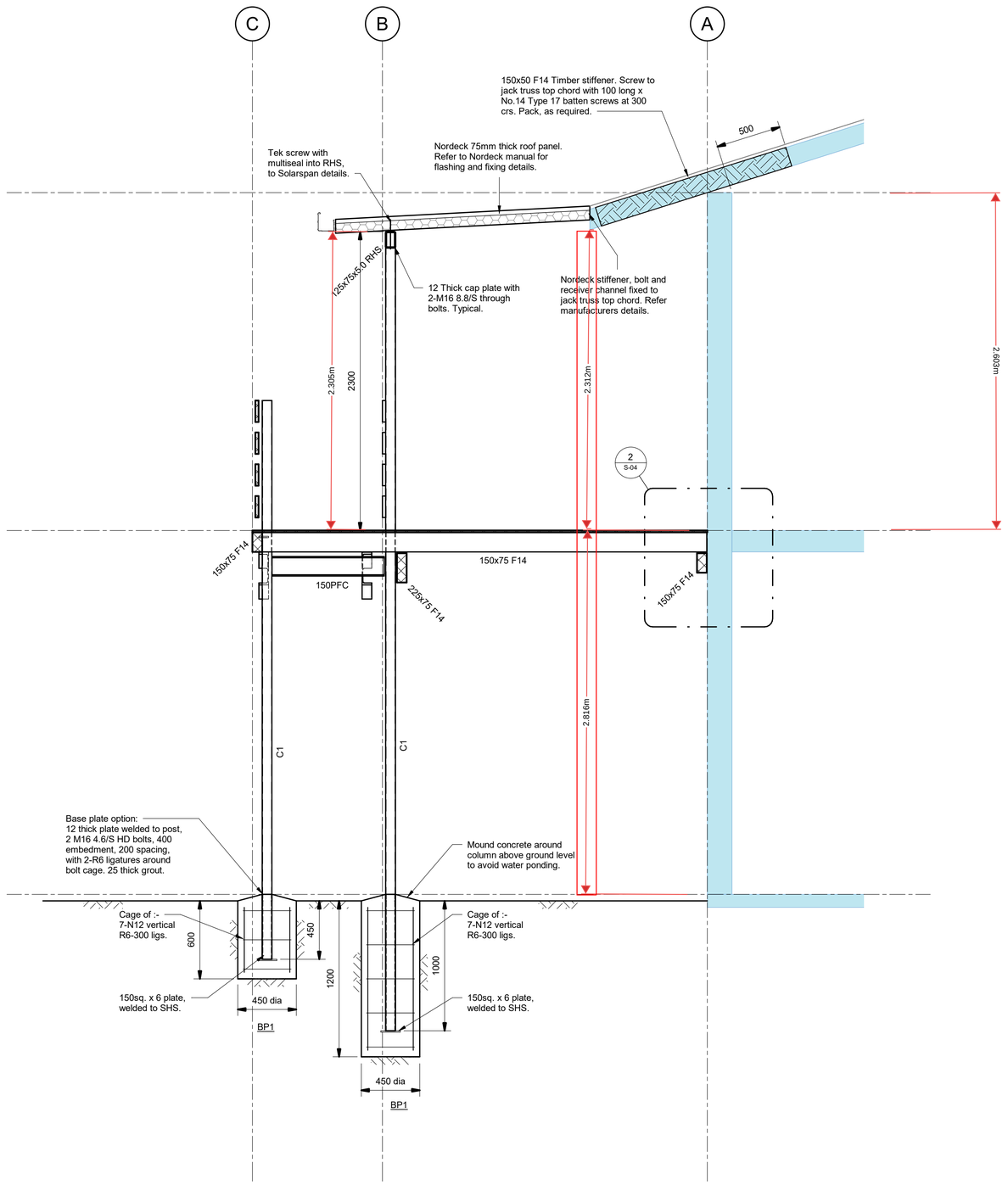
The proposed siting layout request generally appears to satisfy the performance criteria sought from Douglas Shire Planning Scheme; it could be considered acceptable to approve the siting layout request for the proposed additions at 362 Cape Tribulation Road.

Should you have any further queries please do not hesitate to contact the Officer involved Aaron Sweeney on 0437127724 or aaron@bakerbuildingcert.com.au

Yours faithfully.

Prepared by *Aaron Sweeney A1215391*

Baker Building Certification.



Section 5 / S-02

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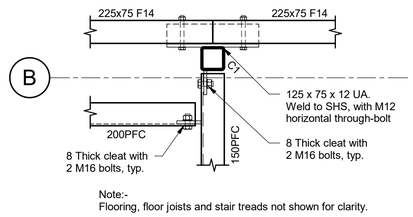
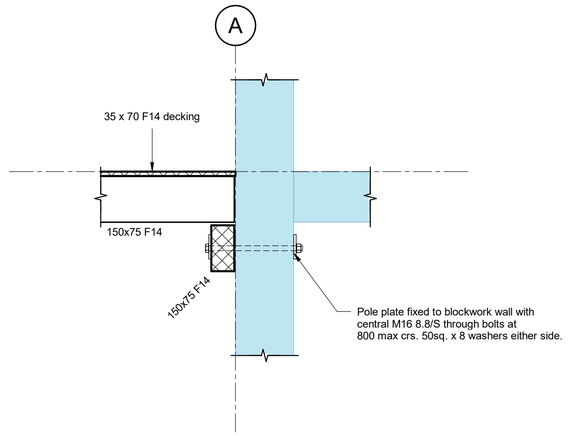


Note:-
Flooring, floor joists and stair treads not shown for clarity.

Detail 1 / S-02

Scale 1 : 10



Detail 2 / S-04

Scale 1 : 10

Foundation Schedule	
Mark	Size
BP1	450 DIA x 1200 deep
BP2	450 DIA x 600 deep

Column Schedule	
Mark	Size
C1	75x75x4.0SHS

NOTES

1. For General Notes refer to drawing SH-S-00 .

Issue	Date	
1	24/06/24	ISSUE FOR TENDER

ARUP
Level 12, 15 Lake Street
Cairns, QLD, 4870, Australia
Tel +61 (7) 4032 6000
www.arup.com

Client: DOUGLAS SHIRE COUNCIL

Project Title: DAINTREE FERRY RESIDENCE BALCONY EXTENSION AND NEW WATER TANK STAND

Drawing Title: BALCONY EXTENSION SECTIONS AND DETAILS

Scale at A1	As indicated	Dsg/Drw/Chkd/Ap	DH/AF/RD/RD
Role	STRUCTURAL	RPEQ:	5254
Status	FOR TENDER		
Arup Job No	278015-06	Rev	1
Drawing No.	SH-S-04		

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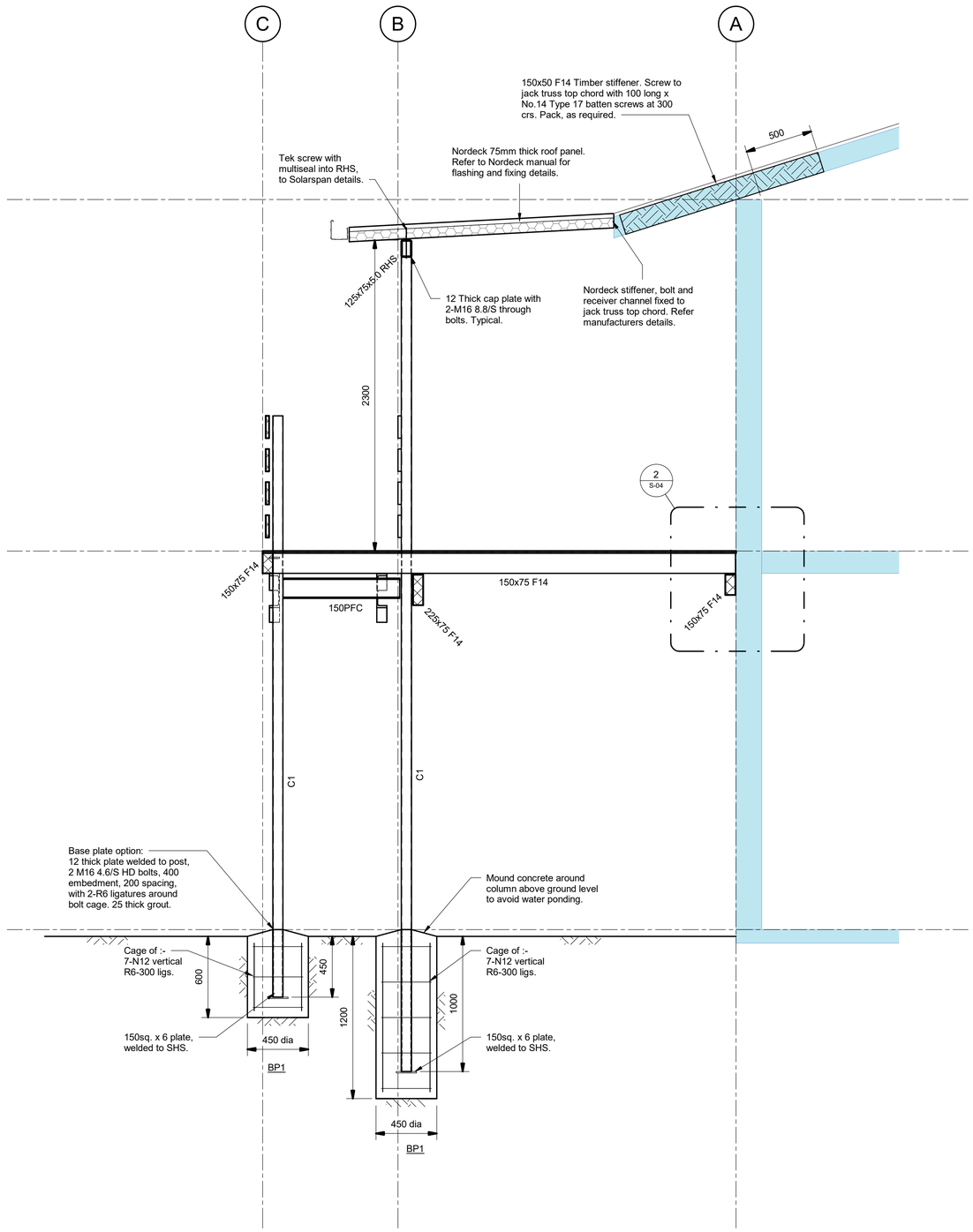
Do not scale



Section 5 / S-02

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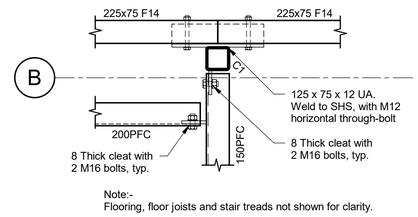
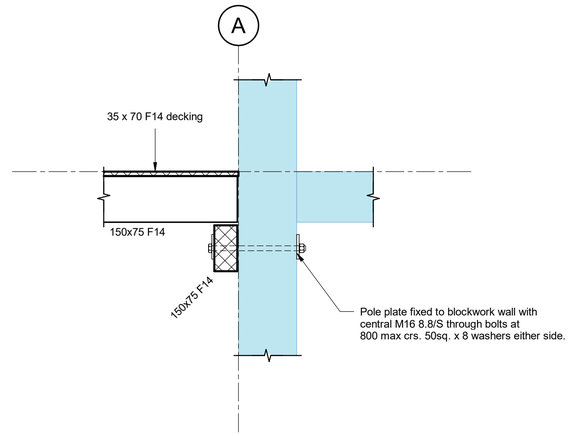


Note:-
Flooring, floor joists and stair treads not shown for clarity.

Detail 1 / S-02

Scale 1 : 10



Detail 2 / S-04

Scale 1 : 10

Foundation Schedule	
Mark	Size
BP1	450 DIA x 1200 deep
BP2	450 DIA x 600 deep

Column Schedule	
Mark	Size
C1	75x75x4.0SHS

NOTES

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1	24/06/24	ISSUE FOR TENDER

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Cairns, QLD, 4870, Australia
Tel +61 (7) 4032 6000
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Client: DOUGLAS SHIRE COUNCIL

Project Title: DAINTREE FERRY RESIDENCE BALCONY EXTENSION AND NEW WATER TANK STAND

Drawing Title: BALCONY EXTENSION SECTIONS AND DETAILS

Scale at A1: As indicated
Dsg/Drw/Chkd/Ap: DH/AF/RD/RD
Role: STRUCTURAL
RPEQ: 5254
Status: FOR TENDER
Arup Job No: **278015-06**
Rev: **1**
Drawing No.: **SH-S-04**

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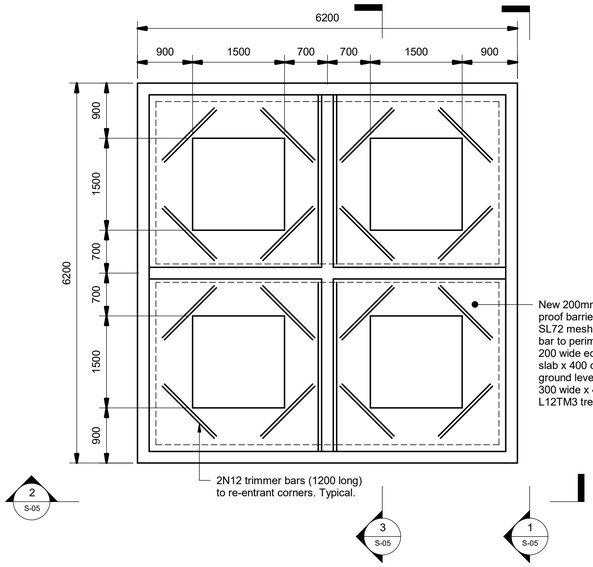

WATER TANK STAND - GROUND LEVEL

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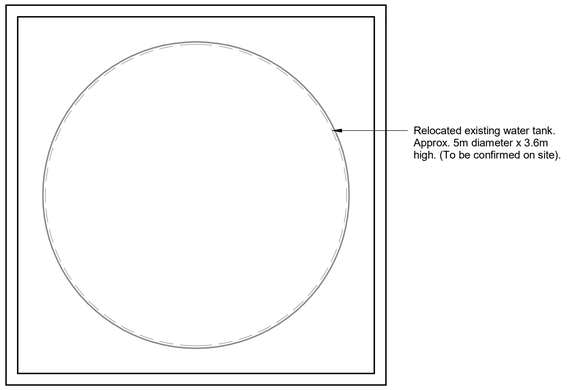

WATER TANK STAND - PLATFORM LEVEL

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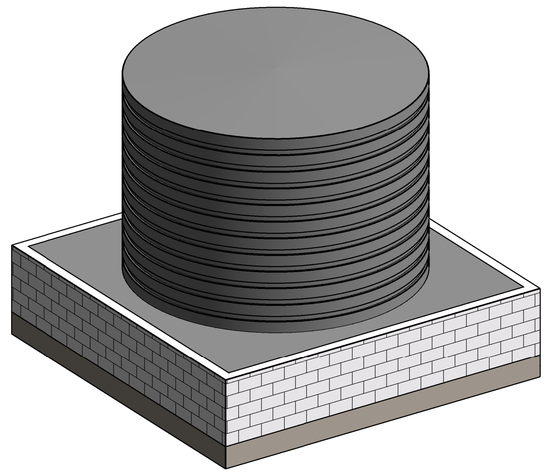
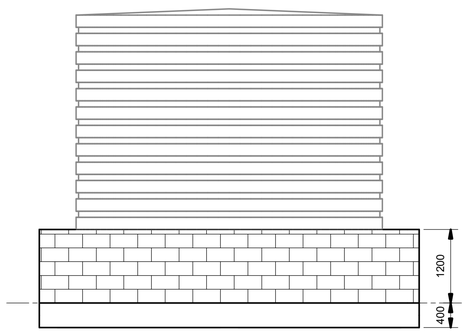


WATER TANK STAND - 3D VIEW



Section 1 S-05

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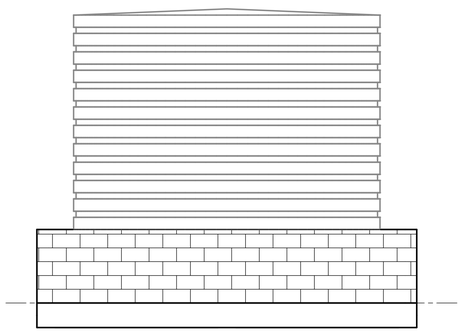

Section 2 S-05

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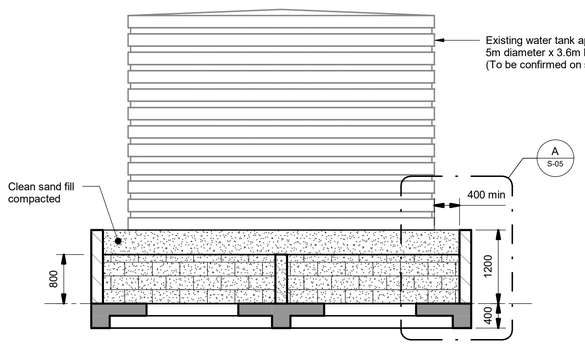

Section 3 S-05

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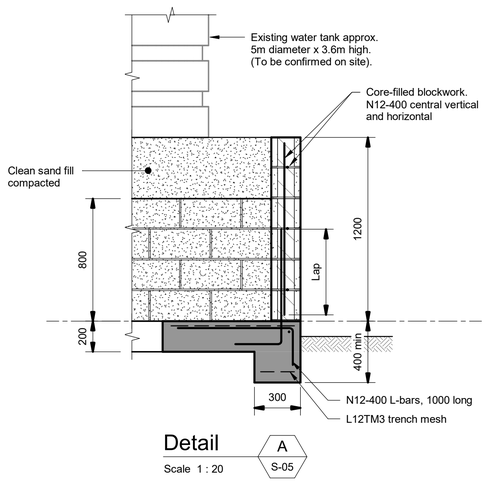

Detail A S-05

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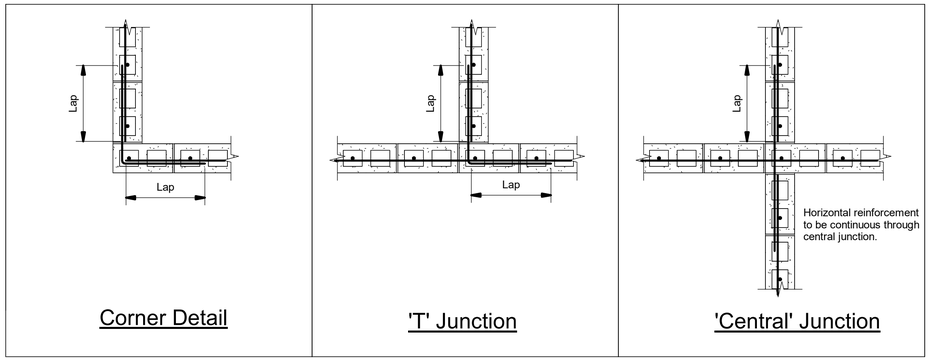

Blockwork Wall Reinforcement Details

Scale 1 : 20

NOTES

1. For General Notes refer to drawing SH-S-00 .

Issue	Date	
1	24/06/24	ISSUE FOR TENDER

ARUP
Level 12, 15 Lake Street
Cairns, QLD, 4870, Australia
Tel +61 (7) 4032 6000
www.arup.com

Client: DOUGLAS SHIRE COUNCIL

Project Title: DAINTREE FERRY RESIDENCE BALCONY EXTENSION AND NEW WATER TANK STAND

Drawing Title: BALCONY EXTENSION SECTIONS AND DETAILS

Scale at A1	As indicated	Dsg/Drw/Chkd/Ap	DH/AF/RD/RD
Role	STRUCTURAL	RPEQ:	5254
Status	FOR TENDER		
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Drawing No.	SH-S-05		

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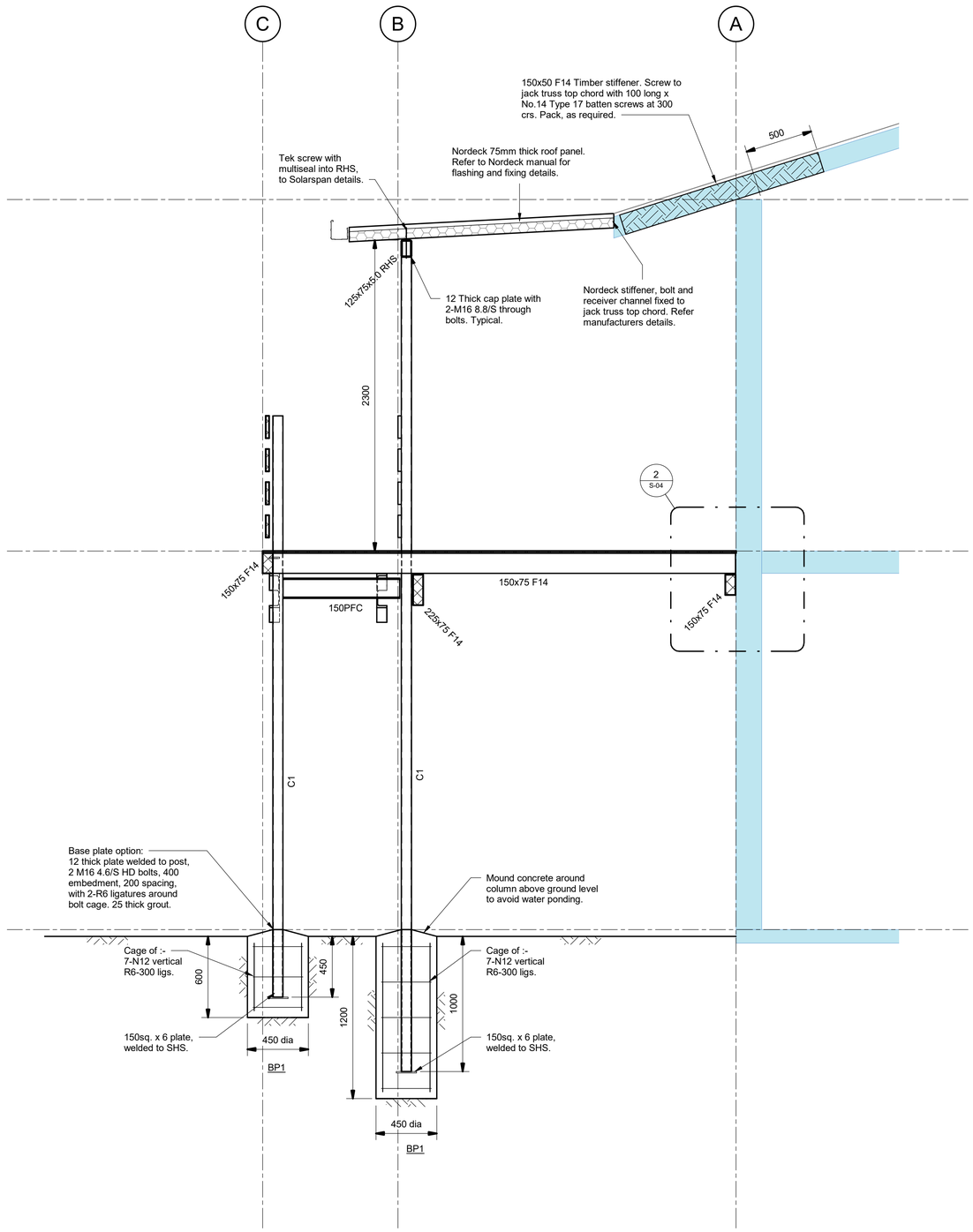

Section 5 / S-02

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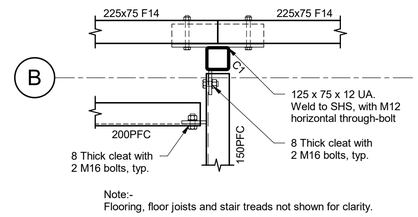
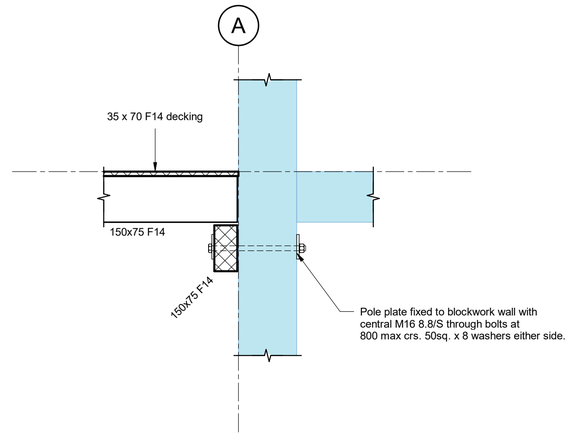


Note:-
Flooring, floor joists and stair treads not shown for clarity.

Detail 1 / S-02

Scale 1 : 10



Detail 2 / S-04

Scale 1 : 10

Foundation Schedule	
Mark	Size
BP1	450 DIA x 1200 deep
BP2	450 DIA x 600 deep

Column Schedule	
Mark	Size
C1	75x75x4.0SHS

NOTES

1. For General Notes refer to drawing SH-S-00 .

Issue	Date	
1	24/06/24	ISSUE FOR TENDER

ARUP
Level 12, 15 Lake Street
Cairns, QLD, 4870, Australia
Tel +61 (7) 4032 6000
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Client: DOUGLAS SHIRE COUNCIL

Project Title: DAINTREE FERRY RESIDENCE BALCONY EXTENSION AND NEW WATER TANK STAND

Drawing Title: BALCONY EXTENSION SECTIONS AND DETAILS

Scale at A1: As indicated
Dsg/Drw/Chkd/Ap: DH/AF/RD/RD
Role: STRUCTURAL
RPEQ: 5254
Status: FOR TENDER
Arup Job No: **278015-06**
Rev: **1**
Drawing No.: **SH-S-04**

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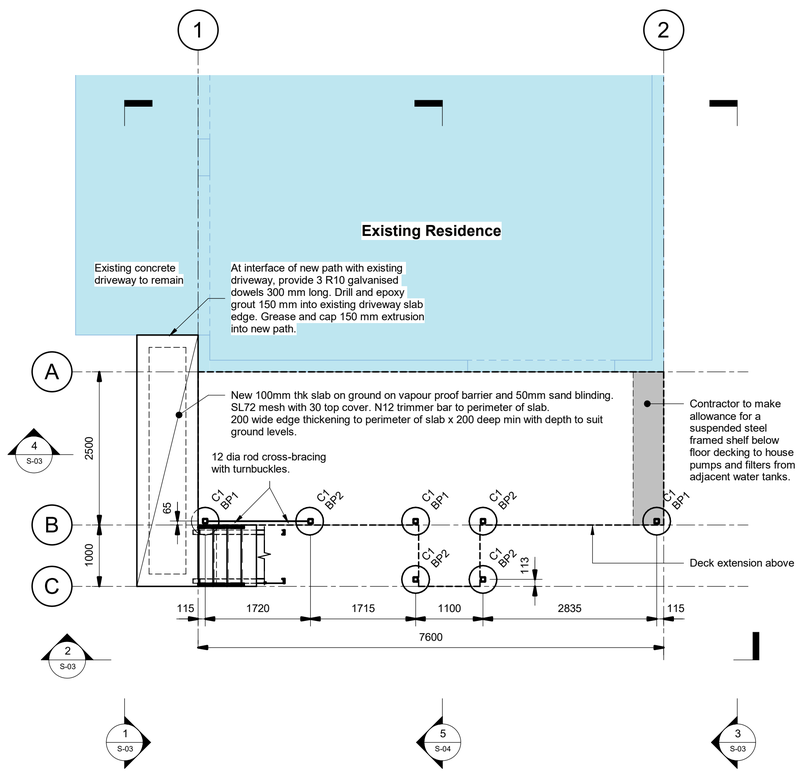

GROUND FLOOR GENERAL ARRANGEMENT

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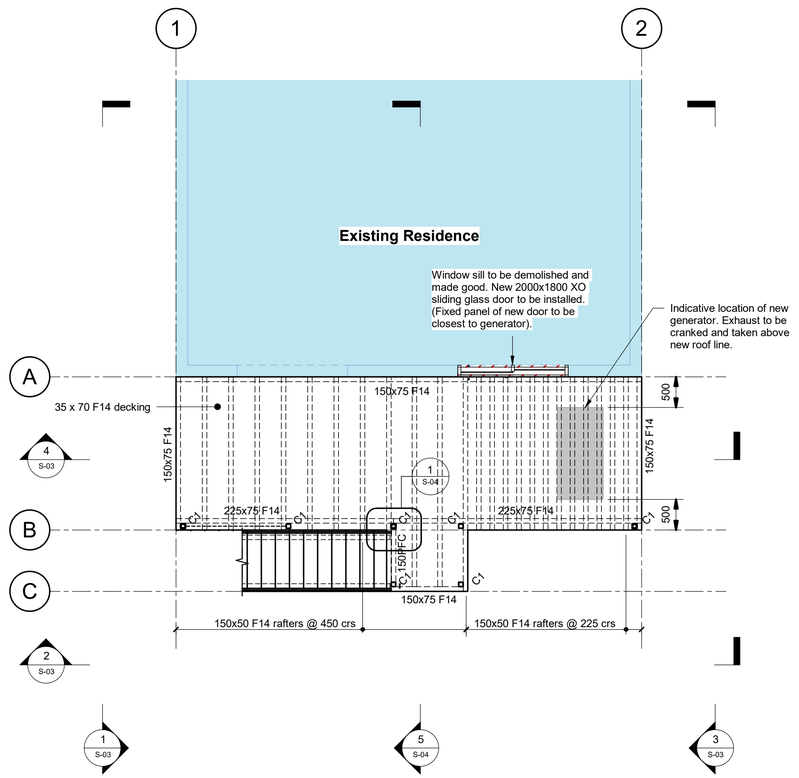

FIRST FLOOR GENERAL ARRANGEMENT

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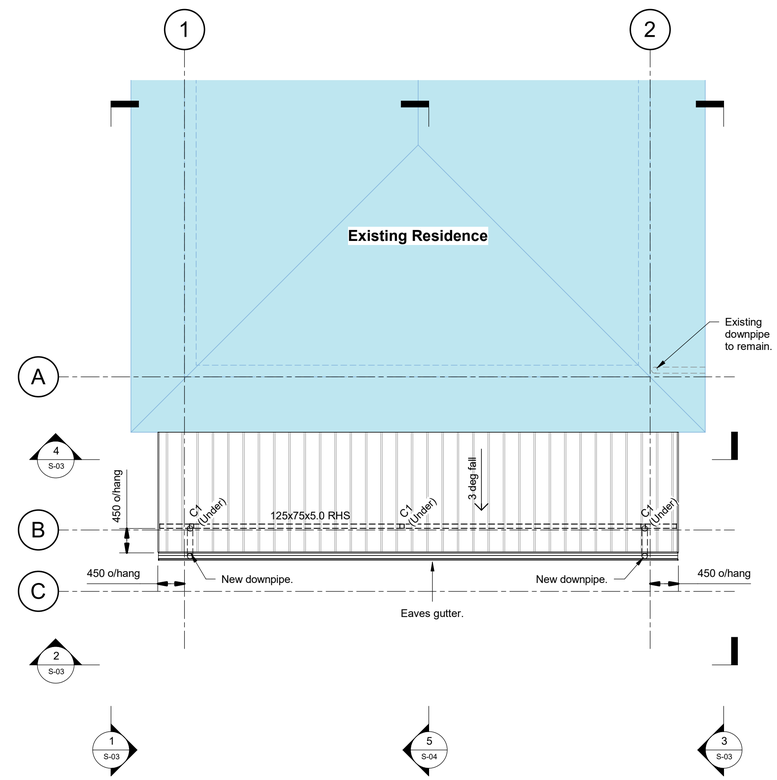

ROOF GENERAL ARRANGEMENT

Scale 1 : 50

Foundation Schedule	
Mark	Size
BP1	450 DIA x 1200 deep
BP2	450 DIA x 600 deep

Column Schedule	
Mark	Size
C1	75x75x4.0SHS

NOTES

1. Sawn timber to be H3 pressure treated OR durability Class 2 (minimum) UNO, Stress grade F14 minimum UNO, Unseasoned, Joint Group JD4 UNO.
2. Framing members exposed to moisture (joists, bearers, etc) are to be malthoid capped and penetrating nails should be constructed to limit moisture penetration along nail shank.
3. Refer to General Notes drawing SH-S-00 for more details

Issue	Date	
1	24/06/24	ISSUE FOR TENDER

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Client: DOUGLAS SHIRE COUNCIL

Project Title: DAINTREE FERRY RESIDENCE BALCONY EXTENSION AND NEW WATER TANK STAND

Drawing Title: BALCONY EXTENSION GENERAL ARRANGEMENT PLANS

Scale at A1	As indicated	Dsg/Drw/Chkd/Ap	DH/AF/RD/RD
Role	STRUCTURAL	RPEQ:	5254
Status	FOR TENDER		
Arup Job No	278015-06	Rev	1
Drawing No.	SH-S-02		

Do not scale

General

G1. These Structural drawings shall be read in conjunction with the specification. These drawings cover the structural aspects of the project only. Refer specification for architectural and services components.

G2. Dimensions shown on these drawings are indicative only. The builder shall undertake the necessary site measurements for all set-out and fabrication. No dimensions are to be obtained from scaling fro the drawings.

G3. Unless noted otherwise, all levels are in metres and all dimensions in millimetres.

G4. The Contractor shall be responsible for maintaining the stability of the structure until its completion and shall ensure that no part of the structure is over-stressed by excessive loading.

G5. All materials and workmanship shall be in accordance with the current version of the following codes of practice and current version of all referenced codes within these codes, except where varied by the specification and/or drawings:

AS 1163 Structural steel hollow sections.
AS 1289 Methods of testing soils for engineering purposes.
AS 1302 Steel reinforcing bars for concrete.
AS 1554.1 Welding of steel structures.
AS 1720 Timber structures code.
AS 2327 Composite construction code.
AS 3600 Concrete structures.
AS 3610 Formwork for concrete.
AS 3700 Masonry code.
AS 3798 Guidelines on earthworks for commercial and residential developments.
AS 3850 Tilt-up concrete code.
AS 4100 Steel structures.
AS/NZS4671 Steel reinforcing materials.

G6. Any discrepancy shall be referred to the Superintendent for a decision before proceeding with the work.

G7. Refer to Architect's drawings for details of all grooves, fillets, hobs, drip grooves and the like.

G8. Give at least 24 hours notice of an inspection being required.

G9. All rooftop plant tiedown to be provided by the contractor.

G10. Abbreviations:

NTS Not to scale
UNO Unless noted otherwise
NSOP Not shown on plan
(U) Member shown under
(O) Member shown over
(H) Hanger framing member
(B) Member behind

Design Criteria

DC1. The structural elements have been designed for the following superimposed live loadsin accordance with AS 1170, part 1 : live load reductions are not applicable.

Element	UDL (kPa)	Concentrated Load (kN)
Balcony General Floor Area	2.0 kPa	1.8 kN
Balcony Roof Area	0.25 kPa	1.1 kN

- Balcony designed for the generator weight noted in the drawings.
- Tank stand designed for the tank size noted in the drawings.

DC2. Wind loading has been determined in accordance with AS/NZS 1170.2:2011 and the BCA, based on :

Structure Importance level	= 2
Region	= C
Terrain category	= 2.5
Shielding multiplier (Ms)	= 1.0
Topographic multiplier (Mt)	= 1.0
Design ultimate wind velocity ($V_{DES, ULS}$)	= 66 m/s
Design serviceability wind velocity ($V_{DES, SLS}$)	= 47 m/s

Demolition

D1. Demolition to be carried out in accordance with AS 2601.

D2. Levels and dimensions of existing structure shown on drawings are to be confirmed by the Contractor by survey prior to any demolition. Report all discrepancies to the Superintendent and await direction before proceeding.

D3. Concrete elements, except in areas where existing reinforcement is to be preserved for connection of new elements, neatly cut back or trim to new alignment with a clean true face using a diamond saw. Where reinforcement is exposed by saw cutting, patch and protect reinforcement and cut surface using an approved priming agent and patching compound.

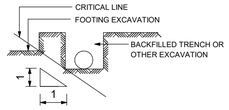
D4. Contractor is to demonstrate that all demolition works will not crack or otherwise damage building fabric that is being kept. Method statements for demolition are to be provided to the Superintendent prior to starting demolition.

Foundation

F1. Foundation material shall be approved by the Contractors Geotechnical Engineer for allowable bearing capacity before construction of footings.

F2 Foundation material shall have a minimum safe bearing capacity (working loads) of 100 kPa or as noted on the drawings. Minimum Class M assumed, Contractor to confirm.

F3. Unless approved otherwise by the Superintendent, the limitations of excavations near footings shall be as shown below.



F4. Excavate to firm, dry ground and maintain the excavation in a dry condition. Remove any soft ground as directed by the Geotechnical Engineer.

F5. Compact the subgrade below slabs and footings to 98% dry density ratio (standard laboratory compaction). Refer AS 3798.

F6. Filling to be general fill material (minimum CBR 15%), spread in maximum 200mm layers (loose) and compacted to 98% STD (AS 1289 5.1.1). Refer specification for general fill requirements.

F7. All walls and columns shall be concentric with supporting foundations unless noted otherwise.

F8. All free draining granular fill material behind retaining walls shall be of strong durable particles conforming to the following gradings:

A.S. Sleeve Size	% Passing
26.5mm	100
9.5mm	45 - 100
2.36mm	20 - 75
600 microns	10 - 15
75 microns	0 - 15

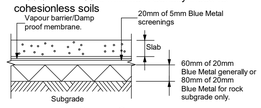
Subgrade

F6.1 Natural subgrades shall be proof-rolled with a roller of 70kN minimum static weight, unless otherwise stated in the geotechnical investigation report, to detect soft or loose areas. Such areas should be treated in accordance with the Geotechnical Engineer's recommendations.

F6.2 Unless otherwise specified the subgrade below base courses for slabs shall be suitable material compacted to 100% std as determined by test AS 1289.5.1.1. or 70% minimum density index for cohesionless soils.

Base

F7. Base shall be approved well graded natural gravel or crushed rock (max. size 40mm) spread and compacted to 98% mod as determined by test AS 1289.5.2.1. or 80% minimum density index for cohesionless soils



Typical Slab on Grade

Cohesive (loamy and clayey) Soils

F8.1 Underside of footings in loamy and clayey soils to be a minimum of 600mm below natural ground level.

F8.2 Excavate to firm, dry ground and maintain the excavation in a dry condition. Remove any soft ground as directed by the Geotechnical Engineer.

F8.3 Where over-excavation in soft ground is required, filling to the correct level shall be with concrete of f'c = 20 MPa.

F8.4 Blinding of 50mm concrete (f'c = 15 MPa) to be placed as soon as the footings have been inspected by the Geotechnical Engineer.

Non Cohesive (sandy) Soils

F9.1 Compaction under footings and slabs to be measured using a Penetrometer in accordance with AS 1289-F3.2 or AS 1289-F3.3. Compaction required under footings and slabs : 10 blows per 300mm measured from 150mm to 750mm deep.Results to be submitted to the Engineer.

F9.2 Penetrometer testing to be carried out as follows:-

Under pad footings: one/10 sqm.
Under strip footings: one/5 m length
Under slabs: one/20 sqm.

Concrete

C1. All concrete work to be in accordance with AS 3600 and formwork to be in accordance with AS 3610.

C2. Concrete mixes: for full details refer to the specification

Cement: Type A

Grade (MPa)	Slump (mm)	Maximum Agg. Size (mm)	Maximum Water/Cement Ratio
32	80	20	0.5

C3. Unless noted otherwise, the characteristic concrete strength and clear cover to the reinforcement (including fitments) shall be as follows :

	Exposed to Weather		Not Exposed to Weather	
Element	Concrete Grade (MPa)	Reinf't Cover (mm)	Concrete Grade (MPa)	Reinf't Cover (mm)
Footing	32	50	32	50
Ground Slab	32	40	32	40
Columns	32	40	32	25
Suspended Slab	32	40	32	25

C4. Sizes of concrete elements do not include thickness of applied finishes. Beam depths are noted first and include thickness of slab if any.

C5. Construction joints where not shown on drawings shall be located to the approval of the superintendent. Tenders shall allow for all such construction joints.

C6. No penetrations, chases or embedments of pipes other than those shown on the structural drawings shall be made in concrete members without the prior approval of the Superintendent.

C7. If plastic shrinkage of the concrete is observed due to rapid drying or other conditions, apply a single spray coat of 'confilm' evaporation retardant or equivalent, immediately after screeding.

C8. The minimum clear spacing between conduits, cables, pipes and bars to be as required by AS 3600 but not less than three diameters. Conduits in slabs to be placed above bottom reinforcement and below top reinforcement.

C9. UNO all re-entrant corners and service holes are to have trimmer bars placed diagonally at corners using two bars (1600 long), one tied to the underside of top reinforcement and the other tied to the top of the bottom reinforcement. Trimmer bars to be N12 for slabs not thicker than 120, N16 for slabs not thicker than 180, N20 otherwise.

C10. For size and location of plinths refer to mechanical Engineers drawings.

C11. Formwork for all external corners of exposed concrete shall incorporate a 20 x 20 fillet UNO.

Load Bearing Masonry

LM1. Concrete masonry blocks shall have a compressive strength of f'uc = 15 MPa.

LM2. Mortar shall have the following proportions:

Cement		Lime		Sand	
1	:	1	:	6	Generally
1	:	0.25	:	3	Retaining Walls

Compressive strength of mortar shall be f'c = 12MPa.

LM3. Grouting of hollow masonry.

(a) Grout shall have the following proportions:

Cement		Sand		Aggregate
1	:	1	:	6

And a slump of 230mm and a compressive strength f'c = 20 MPa unless noted otherwise.

(b) Cleanout openings shall be provided at the bottom course in all cores.

(c) Cores are to be cleaned of all mortar fins and droppings through cleanout openings before placing vertical reinforcement.

(d) Vertical reinforcement is to be placed and tied prior to grouting and cleanout openings are not to be closed prior to inspection by the Superintendent.

(e) Grout is to be rodded to ensure proper filling of cores and the maximum continuous pour height is to be 2600mm.

LM4. Chasing of load bearing masonry shall only be permitted where approved by the Superintendent.

LM5. Only load bearing masonry is indicated on drawings. Refer to Architect's drawings for non load bearing blockwall locations.

LM6. Provide vertical control joints at maximum spacing of 6 metres.

Reinforcement

R1. All reinforcement to be as follows:
Symbol
R Structural grade plain bars to AS 1302 (250MPa).
W Steel wire, plain and deformed to AS 1303 (450 MPa).
RL/SL Welded wire fabric to AS/NZS 4671 (500MPa).
Y Deformed bars to AS 1302 (400 MPa).
N Deformed bars to AS/NZS 4671 (500 MPa).
T Tempcore bars.

Note: The number following R, Y, N and T is the bar diameter in millimetres.

R2. The general conditions used to determine the concrete cover to reinforcement (Note C3) are as follows:
(a) General condition: Exposure class

Interior surfaces
Exterior surfaces
Surfaces in contact with ground

R3. Where top and bottom reinforcement are shown on the same plan:

Top reinforcement is shown thus ——— ——— ———
Bottom reinforcement is shown thus ———————

R4. Distribution bars to main reinforcement in slabs shall be N12 at 300mm centres UNO.

R5. Bars shall be cut or displaced around pipes and openings and all such openings shall have trimmer bars positioned in accordance with Note C9 UNO.

R6. Abbreviations used for reinforcement location:

BB Bottom layer bottom bars (laid first)
B Top layer bottom bars (laid second)
T Bottom layer top bars (laid third)
TT Top layer top bars (laid forth)
EW Each way
EF Each face
NF Near face
CP Centrally placed

R7. Unless shown otherwise in the drawings, minimum lap lengths shall be as follows:
Notes applicable to all tables below:
1. Laps shown are applicable for f'c = 40 MPa or greater.
2. Lapped tension splices not permissable for bars larger than 32mm dia.
3. Lapped compression splices not permissible for bars larger than 40mm dia.
4. Laps shown do not apply to bundled bars.
5. Cover to deformed bars have been determined in accordance with Note C3.
6. Lap splice for welded wire mesh shall be made so that the two outermost transverse wires of one sheet of mesh overlap.

The two outermost transverse wires of the sheet being lapped.

7. Where two bars of different diameters lap, the minimum lap for the smaller bar diameter shall be used.

Slab and Pad Footing Reinforcement Lap Schedule		
Bar dia.	Clear distance between bars less than 150mm	Clear distance between bars equal to or greater than 150mm
N12	400	400
N16	600	500
N20	850	600
N24	1200	850
N28	1500	1100
N32	1900	1350
If there is more than 300mm of concrete cast below horizontal deformed bars in slabs, reinforcements laps should be increased by a factor of 1.25.		

Wall Reinforcement Lap Schedule		
Bar dia.	Clear distance between bars less than 150mm	Clear distance between bars equal to or greater than 150mm
N12	400	400
N16	500	500
N20	750	600
N24	1050	750
N28	1350	1000
N32	1650	1250

Beam Reinforcement Lap Schedule		
Bar dia.	Bottom	Top
N12	400	400
N16	500	500
N20	750	600
N24	1050	750
N28	1350	1000
N32	1650	1250
Laps shown for beams are applicable where at least R10 - 150 ties are present over lap.		

Chemical Anchors

A1. Chemical Anchors shall be installed in accordance with manufacturers printed instructions.

A2. Chemical anchors shall be Hilti HAS-E-F grade 5.8 rods with Hilti HIT-RE 500 chemical adhesive when fixing to concrete or Hilti-HY 150 when fixing to blockwork, or approved equivalent. See drawings for size and embedment.

A3. U.N.O. minimum embedment shall be 110mm for M12, 125mm for M16 and 170mm for M20 studs.

A4. U.N.O. minimum edge distance in concrete shall be 55mm for M12, 65mm for M16 and 85mm for M20 studs. When fixing into the face of blockwork the minimum edge distance shall be 130mm for all anchors and when fixing into the top or end of blockwork the anchor shall be positioned centrally and avoid reinforcement.

Timber

Material & Execution

T1. All structural timber materials and workmanship to be in accordance with AS 1720 and/or AS 1684 as applicable.
T2. All structural sawn timber shall be:
a) Minimum H2 treated to AS1604, OR class 2 natural durability to AS5604. Additional requirements apply for exposed framing below.
b) Stress graded. MGP12 OR F7 minimum UNO.
c) Unseasoned
d) Joint Group JD4 UNO.
T3. Except as approved below, all timber used for structural purposes shall be branded and the brand shall contain the following information:
a) The grade i.e. "F" or "MGP" rating
b) The method of grading if other than visual stress grading (e.g. Machine stress grading "MSG" or machine proof grading "Proof" or "PG" or "MGP")
c) If seasoned, the word "Seasoned" or the letter "S"
d) A name, initials, logo or number which indicates the source of grading
e) The certification trademark of the relevant assurance program
T4. Exposed framing shall meet the following:
(exposed framing refers to all timber framing that may be subject to periodic wetting):
a) Sawn timber to be H3 pressure treated OR durability class 2 (minimum) UNO
b) Manufactured timber products, if specified, are to be minimum H3 treated and protected in accordance with Manufacturer's specification (e.g. Hyne Tech Data sheets 6 and 8).
c) Framing members exposed to moisture (joists, bearers, etc) are to be malthoid capped and penetrating nails should be constructed to limit moisture penetration along nail shank
T5. All timber shall be protected from the elements during fabrication, transportation and construction. If protection is to include the application of an approved waterproof timber preservative, proposals to be submitted to Structural Engineer and Architect.
T6. Termite protection: All construction work should be in accordance with AS 3660.1 Protection of Buildings from Subterranean Termites, Part 1: New Buildings.
T7. All Timber elements shall be free from active and past attack by insects and fungi. All stud framing to be constructed in accordance with AS1684 and P.A.A Plywood Wall Bracing Design Manual.

Fastenings/Blocking

T8. All nails, bolts, nuts, screws, washers and plate fasteners to be hot dip galvanised. All timber washers to be oversized as per AS1720.1.
T9. Unless noted otherwise, nails to be 3.75 mm x 75 mm long minimum.
T10. Fixings shall be installed to the dimensions shown in the details. In any case, all fixings shall be installed within minimum edge distances and spacing as per AS1720.1 (typically 4d and 5d respectively).
T11. All steel bolts, straps, rods, framing anchors, connector plates etc. noted as galvanised shall have a minimum corrosion protection zinc coating of 350 g/m². Post anchor brackets and associated bolts shall be hot dipped galvanised with a minimum coating of 600 g/sq.m. Fitments noted as stainless steel shall be grade 316 UNO.
T12. Bolts to be installed into pre-drilled holes.
a) Pre-drilled holes for the shank shall not be less than the shank diameter and shall not exceed it by more than 1mm.
b) Pre-drilled holes for screws and for the threaded portion of bolts shall not exceed the root diameter of the screw.
T13. All proprietary fixings shall be installed in accordance with the manufacturer's written instructions. All metal fixings shall be compatible with timber glues and preservative treatments.
T14. Blocking rules: applies to bearers/joists with D/B ≥4.
a) Provide blocking over supports at 1800 max centres per AS1684
b) For joists with bottom unrestrained by ceiling diaphragm:
i. Span <3000mm: blocking not required
ii. Span 3000-4200mm: provide 1 row of blocking at midspan
iii. Span >4200mm: provide 2 rows of blocking
Fastenings / Blocking
T15. Framing anchors to have a minimum of 4 no. 2.8mm dia. x 30mm long nails each leg.
T16. In all timber to timber bolted joints each bolt shall be provided with a square washer at each end of a size no less than 8mm thick
T17. All bolted connections into timber rafters and bearers to be staggered to avoid potential splitting of framing members.

Structural Steelwork

S1. Unless specified otherwise steel grades shall be as follows:

Rolled sections	Grade 300
RHS sections	Grade 350
SHS sections	Grade 350
CHS sections	Grade 350
Plate	Grade 350
Rod	Grade 250

S2. All cold formed sections shall be roll-formed from zinc coated high strength steel strip, zinc-hi-ten, minimum yield stress 450MPa 200 g/m² minimum coating mass unless noted otherwise.

S3. Connections between structural members shall have 6mm continuous fillet welds from E48xx electrodes UNO. All welding to be in accordance with AS 1554 category Structural Purpose (SP), using electrode typesE48 or W50 minimum.

S4. At least three weeks prior to the commencement of fabrication submit three copies of shop detail drawings for examination by the Engineer. No steelwork shall be fabricated until final approval of the shop detail drawings has been given.

S5. The ends of all hollow sections shall be sealed, with minimum 3mm plate and a vent hole provided for galvanised elements.

S6. Unless specified otherwise, where fin plate is welded to RHS, provide 6mm plate stiffener of width 15mm less than face of RHS. 6mm continuous fillet weld all round.

S7. Bolt types (and designations, where used) shall be as follows:

4.6/S - Commercial bolts to AS 1111, snug tightened.
8.8/S - High strength structural bolts, nuts and hardened washers to AS 1252, snug tightened only.
8.8/TB - High strength structural bolts as above, fully tensioned to AS 4100 in a bearing type joint.
8.8/TF - High strength structural bolts as above, fullytensioned to AS 4100 in a friction type joint and UNO, with facing surfaces left uncoated.

S8. All bolts shall be M20 high strength (8.8/S) UNO.

S9. All holding down bolts shall be either commercial bolts or be made from bars with minimum FSY 230MPa UNO.

S10. M12 and smaller bolts to be commercial grade (4.6/S), unless shown otherwise.

S11. M16 and larger bolts to be high strength snug tightened (8.8/S), unless shown otherwise.

S12. Ceiling systems, ductwork etc. to be suspended from purlins should be fixed with hook bolts through purlin web. The flanges of the purlins or girts shall not be holed.

S13 All butt welds shall be subject to 100 % testing by ultrasonic or other appropriate methods at the Contractor's cost.

S14. UNO, all fasteners to be galvanised to AS 1214.

S15. Refer to specification for corrosion and fire protection requirements.

S16. All cases of damage to the protective coating of steelwork shall be brought to the attention of the Superintendent. With the Superintendent's approval, minor damage may be repaired as follows :
Mechanically grind surface to achieve smooth and bright metal comparable to class 2.5. Apply zinc rich primer to a dry film thickness as per specification requirements.

S17. All masonry to be tied to abutting steel columns. Ties generally to consist of R10 rod crimped and welded 50mm to columns every 400mm and tied to masonry with 3mm galvanised ties at 400mm CRS maximum.

S18. Exposed RHS columns to be tied to adjacent masonry with 38 x 1.6mm frame straps power fastened to columns at 400mm CRS maximum.

S19. In addition to the finish specified, steelwork in contact with the ground is to be coated with a 2 pack epoxy compatible with other finishes. To a minimum thickness of 0.4mm.

S20. Provide 50x50x3.0 galvanised angle trimmers to carry sheeting as required at purlin and girt ends. Fix with one no. 14 TEK screw per purlin/girt. This will generally require two angles on hips and valleys, one angle on gables and one vertical angle at all corners.

S21. Abbreviations.

CFW Continuous fillet weld
CPBW Complete penetration butt weld
IPBW Incomplete penetration butt weld

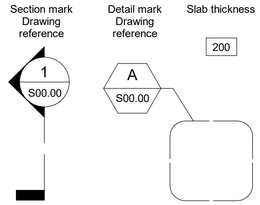
S22. UNO, minimum connection between steel members shall be 2-M16 8.8/S bolts with 8 plate cleat.

S23. Unless shown otherwise, members shall be detailed to intersect on the centroid lines of the sections used.

S24. Where braces require a means of length adjustment either for erection or structural pretensioning, a turnbuckle is to be provided within each brace. All turnbuckles shall have a capacity greater than the tensile capacity of the connected brace. Proprietary turnbuckles shall be 'NATA' certified to carry a load greater than the tensile capacity of the rod connected. For purpose fabricated turnbuckles (for example tapped hex bar tunbuckles to suit threaded rod braces), details demonstrating the adequate capacity shall be submitted to the Engineer for approval.

S25. All steel columns and framing members to be hot dipped galvanised.

Drawing Symbols



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Issue	Date	
1	24/06/24	ISSUE FOR TENDER

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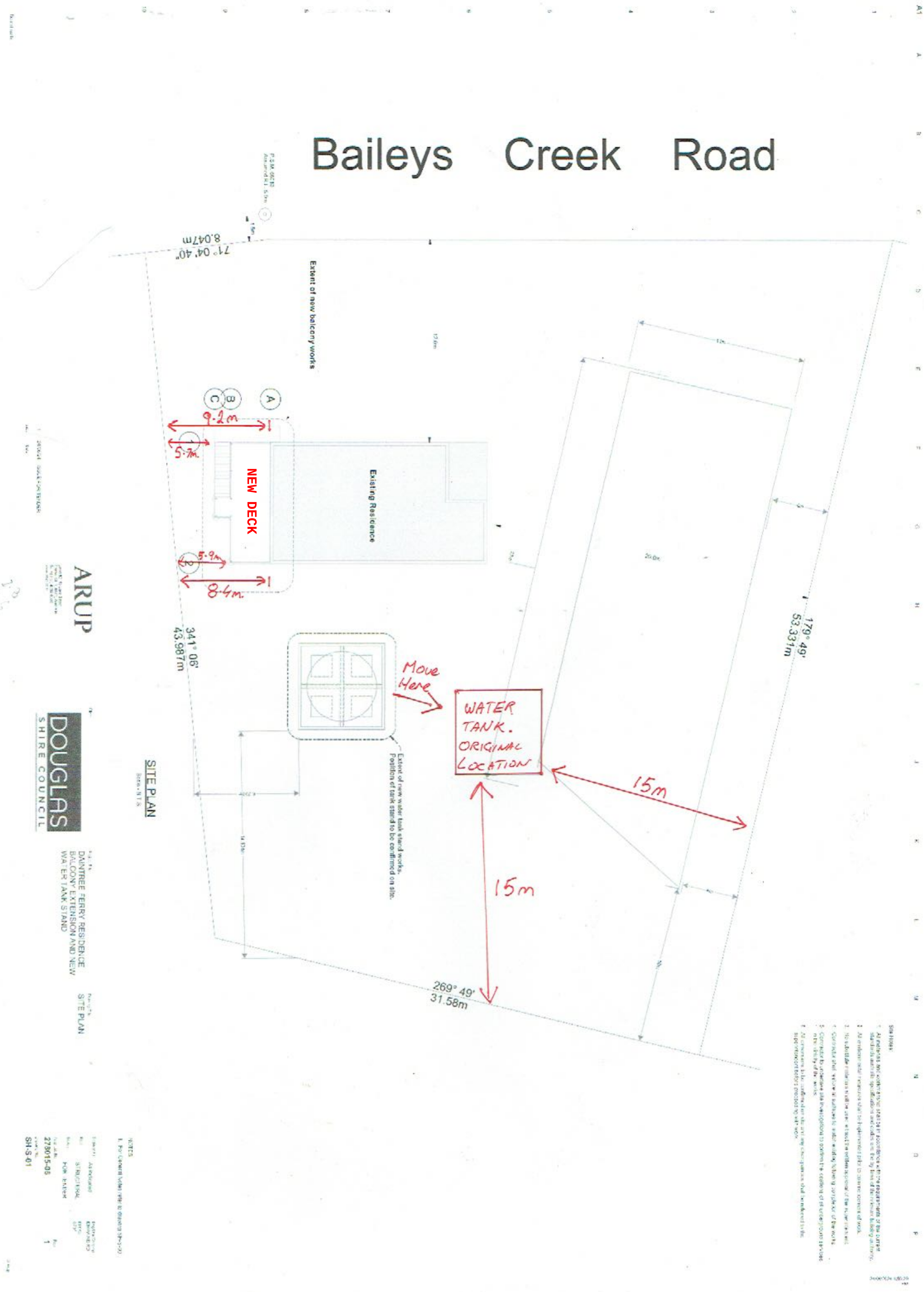
Client: DOUGLAS SHIRE COUNCIL

Project Title: DAINTREE FERRY RESIDENCE BALCONY EXTENSION AND NEW WATER TANK STAND

Drawing Title: GENERAL NOTES

Scale at A1: 1 : 1
Dsg/Drw/Chkd/Ap: DH/AF/RD/RD
Role: STRUCTURAL
RPEQ: 5254
Status: FOR TENDER
Arup Job No: 278015-06
Rev: 1
Drawing No.: SH-S-00



Baileys Creek Road
8.047m
71° 04' 40"
Extent of new balcony works
A
B
C
9.2m
5.7m
NEW DECK
Existing Residence
5.9m
8.4m
341° 06'
43.987m
179° 49'
53.331m
Move Here
WATER TANK. ORIGINAL LOCATION
15m
15m
Extent of new water tank stand works.
Position of tank stand to be confirmed on site.
269° 49'
31.58m
SITE PLAN
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DAINTREE FERRY RESIDENCE
BALCONY EXTENSION AND NEW
WATER TANK STAND
SITE PLAN
278015-05
SH-S-01