

GMA Certification Group

BUILDING SURVEYORS

ACN 150 435 617

Leaders in Building Certification Services

PLANNING DIVISION

P: 0438 755 374 **E:** Patrick.c@gmcert.com.au
P.O. Box 2760, Nerang Qld 4211



Our Ref: 20202963

Date: 10 November 2020

Chief Executive Officer
Douglas Shire Council
Po Box 723
Mossman QLD 4873

Via Email: enquiries@douglas.qld.gov.au

Dear Sir,

**RE: PROPOSED HOUSE EXTENSION ON LAND LOCATED AT
158-164 SOMERSET DR, MIALLO (LOT 10 RP849655)**

GMA Certification are instructed by Robert and Marilynne Akers, to submit an application for Building Works Assessable against the Planning Scheme to facilitate the development of an extension to an existing dwelling house on land located at 158-164 Somerset Drive, Miallo, and described as lot 10 on RP849655.

As part of the application material please find attached the following:

- Development Application Form;
- Proposal Plans; and,
- Benchmark Assessment.

We understand that the application attracts a fee of \$333.00 and it would be appreciated if Council could provide an invoice for prompt payment.

Subject Site

The application single rural residential lifestyle allotment located at 158-164 Somerset Drive, Miallo, and described as lot 10 on RP849665. The site contains an area of 7,759m² and has frontage to Somerset Drive of approximately 81.5 metres.

The site is currently developed with a single dwelling house, which is accessed from a shared crossover located at the eastern end of the site frontage. The existing dwelling house is setback approximately 25 metres from the site frontage and is located in a

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cleared area. The dwelling house currently comprises three bedrooms, living/dining and kitchen area, a double car port, front verandah and utility rooms.

To the rear the site is covered with mature vegetation and the site slopes from the rear to the site frontage with a fall of approximately 30 metres over the depth of the site.

The area containing the site is characterised by single detached dwellings and domestic outbuildings on large residential allotments.



Aerial Photograph of the site (Source: Queensland Globe)

Proposed development

It is proposed to extend the existing dwelling house towards the site frontage. The proposed house extensions would reduce the front setback to approximately 17.018 metres and the eastern side setback to approximately 12.488 metres. A minor extension would be undertaken to the rear of the dwelling to create a new office; however, this would not affect the existing setbacks.

The ultimate development would contain the following:

- Retained double car port;
- Retained and enlarged living/dining and kitchen area with relocated kitchen and new pantry and cupboard;

- Relocated front entrance;
- 4 bedrooms comprising the existing three bedrooms and new master bedroom towards the site frontage;
- New study to the rear of the dwelling; and,
- New front verandah towards the site frontage.



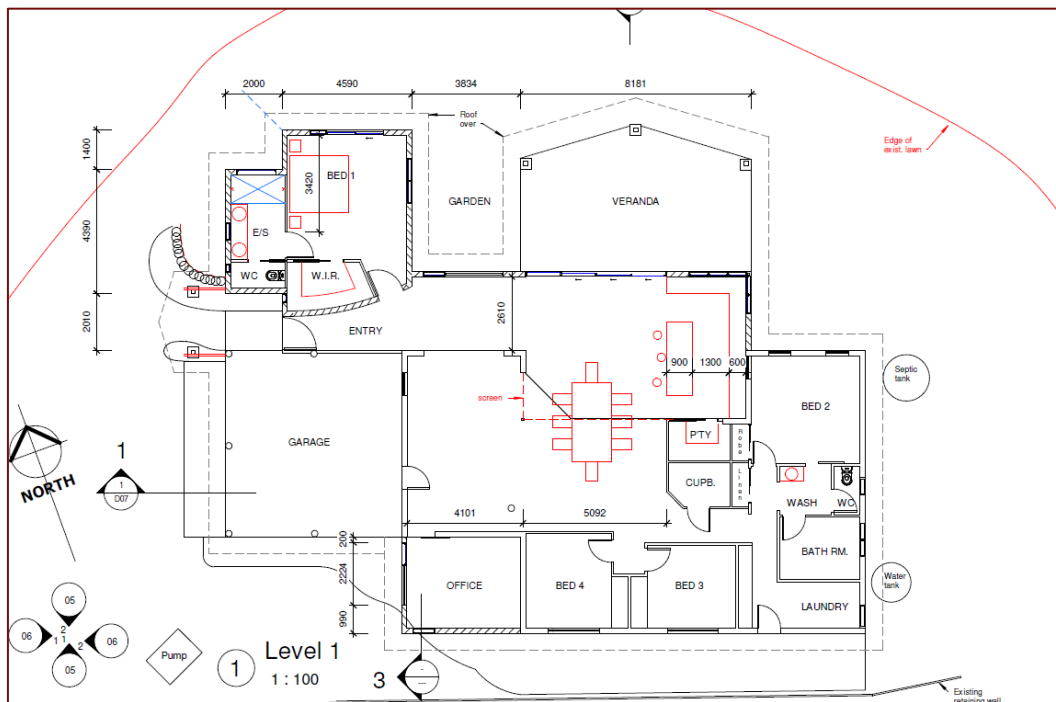
Photograph 1: Existing pad and location of proposed extension.



Photograph 2: Location of proposed office.

The development would be located within the existing cleared and levelled area and the access and parking arrangements would be retained.

As part of the development, it is also proposed to upgrade the on-site effluent disposal system and provide new AES trenches within the front setback area.



Proposed Site Plan

Planning Considerations

The site is within the Douglas Shire Council area and under the Douglas Shire Planning Scheme (2018) (the relevant planning scheme), the site is within the Environmental Management Zone and is affected by the following overlays:

- Bushfire Hazard Overlay;
- Hillslopes Overlay;
- Landscape Values Overlay;
- Potential Landslide Hazard Overlay; and,
- Natural Areas Overlay.

In accordance with the Tables of Assessment, the development is identified as Code Assessable Building Works Assessable against the Planning Scheme. In accordance with the requirements of the *Planning Act 2016*, the Council, as the Assessment Manager can only have regard to the Assessment Benchmarks found in the relevant Planning Scheme Codes.

The Table below identifies the applicable Assessment Benchmarks contained within the Planning Scheme.

| Assessment Benchmark | Applicability | Compliance |
|---|----------------|---|
| Environmental Management Zone Code | Applies | Complies with applicable Acceptable Outcomes. |
| Bushfire Hazard Overlay Code | Not applicable | No applicable Assessment Benchmarks |
| Hillslopes Overlay Code | Applies | Generally complies with Acceptable Outcomes. Consideration is required in respect of Performance Outcome PO1. Refer attached assessment. |
| Natural Areas Overlay Code | Applies | Complies with all applicable Acceptable Outcomes. The house extension would be sited outside of an area of identified environmental significance. |
| Potential Landslide Hazard Overlay Code | Applies | Complies with all applicable Acceptable Outcomes. |
| Access Parking and Servicing Code | Not applicable | No applicable Assessment Benchmarks. The development is for a Dwelling House extension only and would not affect the existing car parking provision or access arrangements. |
| Filling and Excavation Code | Not applicable | No applicable Assessment Benchmarks. No excavation or fill would be undertaken as part of the development. |
| Infrastructure Works Code | Not applicable | Complies with applicable Acceptable Outcomes. |

A detailed assessment against the applicable assessment benchmarks is attached for reference.

State Involvement

Initial assessment indicates that no state agencies will be involved in the assessment of the application.

Conclusion

The application has been assessed against the relevant Planning Scheme codes and is considered to satisfy the relevant Assessment Benchmarks. The application is submitted for approval subject to reasonable and relevant conditions. Should you have queries in relation to this application please do not hesitate to contact Patrick Clifton on 0438 755 374.

Kind Regards,

Patrick Clifton
PLANNING MANAGER
GMA CERTIFICATION GROUP

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) | Robert and Marilynne Akers |
| Contact name (only applicable for companies) | Patrick Clifton GMA Certification |
| Postal address (PO Box or street address) | PO Box 831 |
| Suburb | Port Douglas |
| State | QLD |
| Postcode | 4877 |
| Country | Australia |
| Contact number | 0438 755 374 |
| Email address (non-mandatory) | Patrick.c@gmacert.com.au |
| Mobile number (non-mandatory) | 0438 755 374 |
| Fax number (non-mandatory) | |
| Applicant's reference number(s) (if applicable) | 20202963 |

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 | |
| <input checked="" type="checkbox"/> Street address AND lot on plan (all lots must be listed), or | |
| <input type="checkbox"/> 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 |
| | 158-164 | Somerset Road | Miallo |
| Postcode | Lot No. | Plan Type and Number (e.g. RP, SP) | Local Government Area(s) |
| 4877 | 10 | RP849655 | 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

Douglas Shire Council

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 |
|--|-----------|------|--------------------|
| <input type="checkbox"/> Approval | | | |
| <input type="checkbox"/> Development application | | | |
| <input type="checkbox"/> Approval | | | |
| <input type="checkbox"/> 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 <i>(non-mandatory)</i> | |
| Mobile number <i>(non-mandatory)</i> | |
| Fax number <i>(non-mandatory)</i> | |

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) <i>(individual or company full name)</i> | |
| Contact name <i>(applicable for companies)</i> | |
| QBCC licence or owner – builder number | |
| Postal address <i>(P.O. Box or street address)</i> | |
| Suburb | |
| State | |
| Postcode | |
| Contact number | |
| Email address <i>(non-mandatory)</i> | |
| Mobile number <i>(non-mandatory)</i> | |
| Fax number <i>(non-mandatory)</i> | |

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)

- | | |
|---|---|
| <input type="checkbox"/> New building or structure | <input checked="" type="checkbox"/> Repairs, alterations or additions |
| <input type="checkbox"/> Change of building classification <i>(involving building work)</i> | <input type="checkbox"/> Swimming pool and/or pool fence |
| <input type="checkbox"/> Demolition | <input type="checkbox"/> Relocation or removal |

d) Provide a description of the work below or in an attached schedule.

Dwelling House extension

e) Proposed construction materials

| | | | |
|----------------|--|---|--|
| External walls | <input checked="" type="checkbox"/> Double brick | <input type="checkbox"/> Steel | <input type="checkbox"/> Curtain glass |
| | <input type="checkbox"/> Brick veneer | <input type="checkbox"/> Timber | <input type="checkbox"/> Aluminium |
| | <input type="checkbox"/> Stone/concrete | <input type="checkbox"/> Fibre cement | <input type="checkbox"/> Other |
| Frame | <input type="checkbox"/> Timber | <input checked="" type="checkbox"/> Steel | <input type="checkbox"/> Aluminium |
| | <input type="checkbox"/> Other | | |
| Floor | <input checked="" type="checkbox"/> Concrete | <input type="checkbox"/> Timber | <input type="checkbox"/> Other |
| Roof covering | <input type="checkbox"/> Slate/concrete | <input type="checkbox"/> Tiles | <input type="checkbox"/> Fibre cement |
| | <input type="checkbox"/> Aluminium | <input checked="" type="checkbox"/> Steel | <input type="checkbox"/> Other |

f) Existing building use/classification? *(if applicable)*

1A

| |
|--|
| g) New building use/classification? (if applicable) |
| 1A |
| 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 . |
| <input checked="" type="checkbox"/> Relevant plans of the proposed works are attached to the development application |

| |
|---|
| 17) What is the monetary value of the proposed building work? |
| \$N/A |

| | | |
|--|----------------------|------------------|
| 18) Has Queensland Home Warranty Scheme Insurance been paid? | | |
| <input type="checkbox"/> Yes – provide details below | | |
| <input checked="" type="checkbox"/> No | | |
| Amount paid | Date paid (dd/mm/yy) | Reference number |
| \$ | | |

PART 6 – CHECKLIST AND APPLICANT DECLARATION

| | |
|---|--|
| 19) Development application checklist | |
| The relevant parts of <i>Form 2 – Building work details</i> have been completed | <input checked="" type="checkbox"/> Yes |
| This development application includes a material change of use, reconfiguring a lot or operational work and is accompanied by a completed <i>Form 1 – Development application details</i> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 . | <input checked="" type="checkbox"/> Yes |
| The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (see 9) | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable |

| |
|--|
| 20) Applicant declaration |
| <input checked="" type="checkbox"/> By making this development application, I declare that all information in this development application is true and correct <input checked="" type="checkbox"/> 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 <i>Electronic Transactions Act 2001</i> Note: It is unlawful to intentionally provide false or misleading information. |
| <p>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 <i>Planning Act 2016</i>, <i>Planning Regulation 2017</i> and the <i>DA Rules</i> except where:</p> <ul style="list-style-type: none"> such disclosure is in accordance with the provisions about public access to documents contained in the <i>Planning Act 2016</i> and the <i>Planning Regulation 2017</i>, and the access rules made under the <i>Planning Act 2016</i> and <i>Planning Regulation 2017</i>; or required by other legislation (including the <i>Right to Information Act 2009</i>); or otherwise required by law. <p>This information may be stored in relevant databases. The information collected will be retained as required by the <i>Public Records Act 2002</i>.</p> |

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 |
| | | |

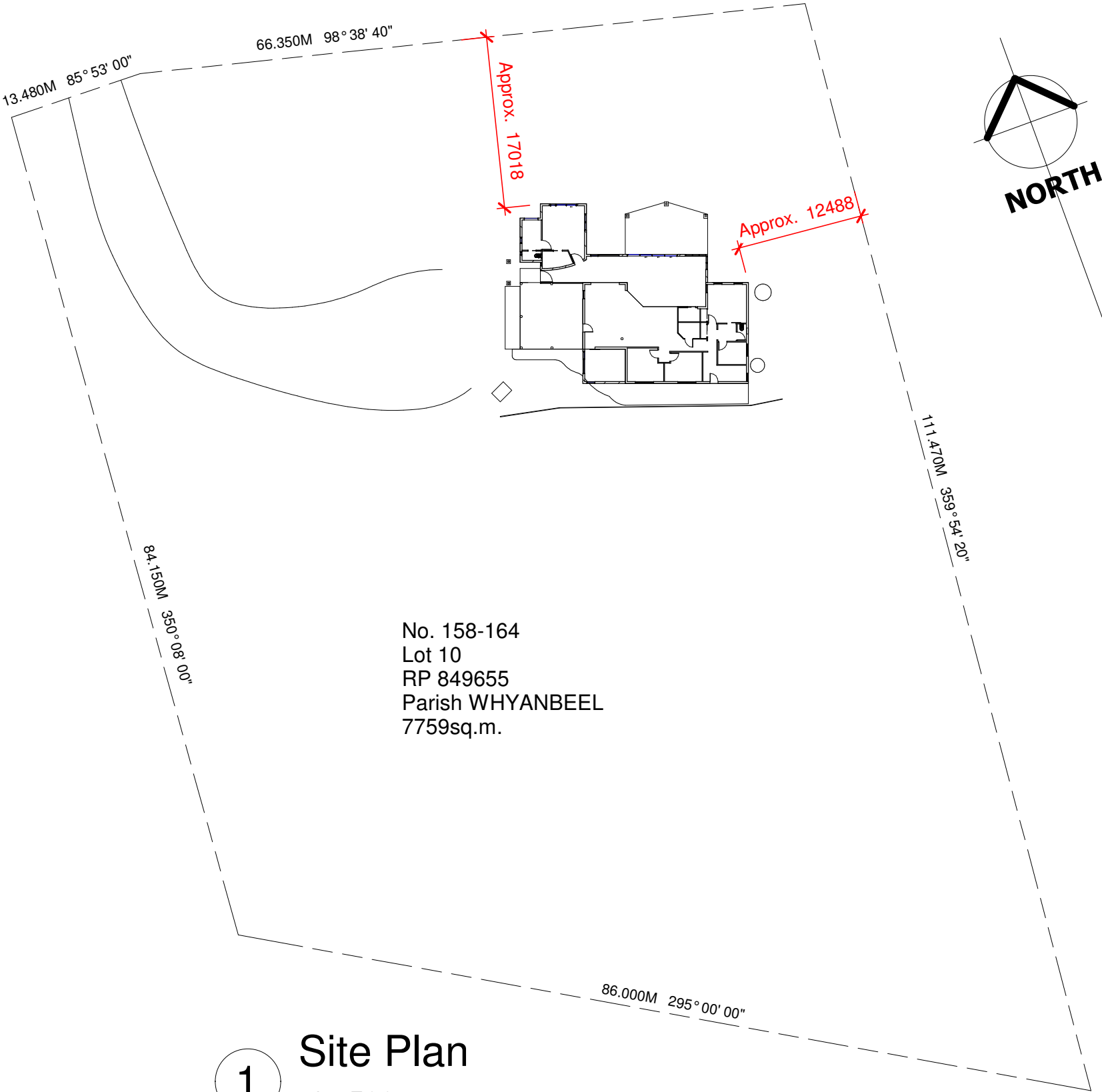
| Notification of engagement of alternative assessment manager | |
|--|--|
| Prescribed assessment manager | |
| Name of chosen assessment manager | |
| Date chosen assessment manager engaged | |
| Contact number of chosen assessment manager | |
| Relevant licence number(s) of chosen assessment manager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

| Additional information required by the local government | | | | |
|---|---|---------------------------------------|--|--|
| Confirm proposed construction materials: | | | | |
| External walls | <input type="checkbox"/> Double brick | <input type="checkbox"/> Steel | <input type="checkbox"/> Curtain glass | |
| | <input type="checkbox"/> Brick veneer | <input type="checkbox"/> Timber | <input type="checkbox"/> Aluminium | |
| | <input type="checkbox"/> Stone/concrete | <input type="checkbox"/> Fibre cement | <input type="checkbox"/> Other | |
| Frame | <input type="checkbox"/> Timber | <input type="checkbox"/> Steel | <input type="checkbox"/> Aluminium | |
| | <input type="checkbox"/> Other | | | |
| Floor | <input type="checkbox"/> Concrete | <input type="checkbox"/> Timber | <input type="checkbox"/> Other | |
| Roof covering | <input type="checkbox"/> Slate/concrete | <input type="checkbox"/> Tiles | <input type="checkbox"/> Fibre cement | |
| | <input type="checkbox"/> Aluminium | <input type="checkbox"/> Steel | <input type="checkbox"/> Other | |

| QLeave notification and payment | | | |
|---|--|----------------------|--|
| <i>Note: For completion by assessment manager if applicable</i> | | | |
| 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) | |

SOMERSET DRIVE



No. 158-164
Lot 10
RP 849655
Parish WHYANBEEL
7759sq.m.

1 Site Plan
1 : 500

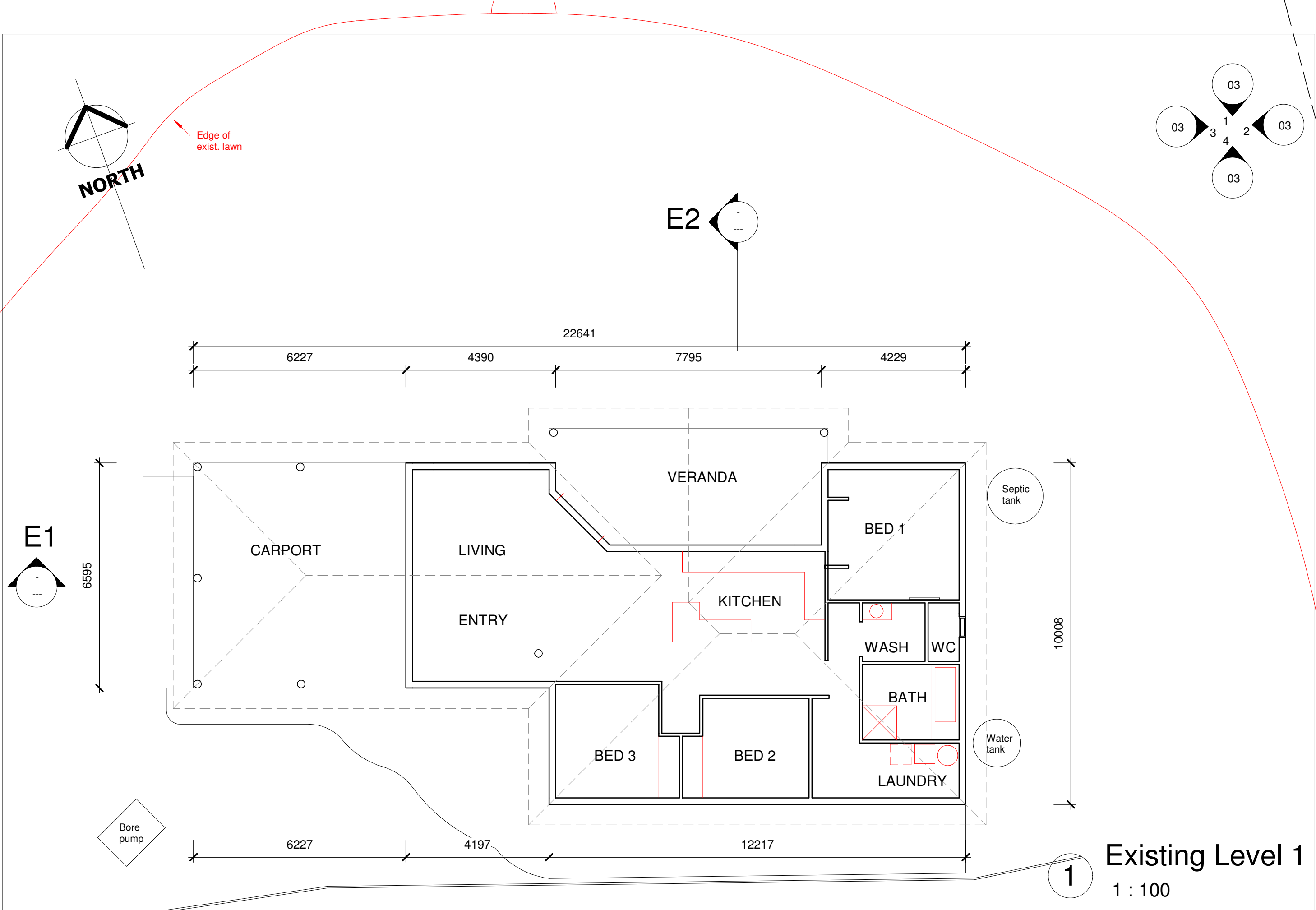
RODGERS
Consulting Engineers
Ph. 40 519 466

These drawings are copyright and must not be copied or retained.
Do not scale from drawings. The contractor & sub-
contractors are to verify all dimensions before commencing
work and bring to the attention of the designer any
discrepancies they may find.

R & L Akers
No. 158-164 Somerset Dr. Miallo
Proposed Renovations

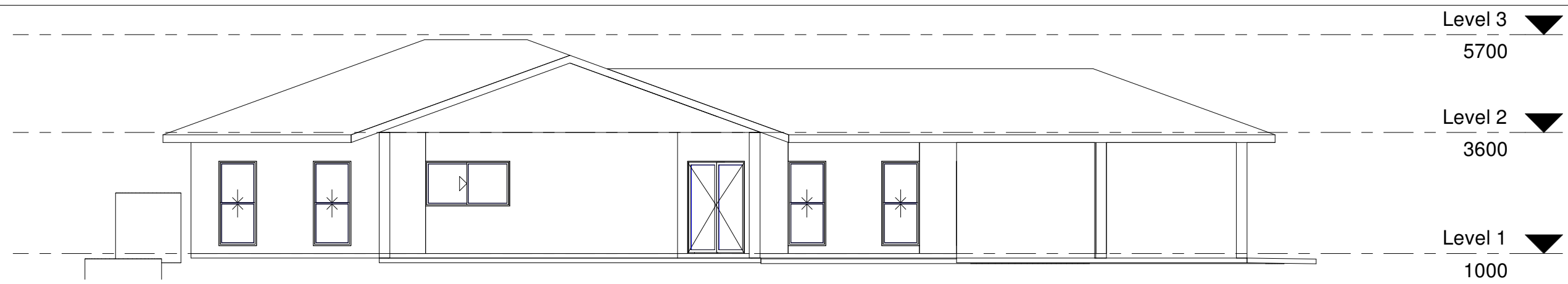
LAWSON DESIGN
PH. 40 532 058 M. 0412 592 900
P.O. Box 349 EDGE HILL 4870
Building Designers Assoc. Qld. QBSA no. 24590

| | | |
|-----------------------------------|------------------------|------------------------|
| Site Classification TBC | Date 17/8/20 | JOB No. 2011 |
| Design Wind Speed C2 | Amendments | DWG. No. 01 |

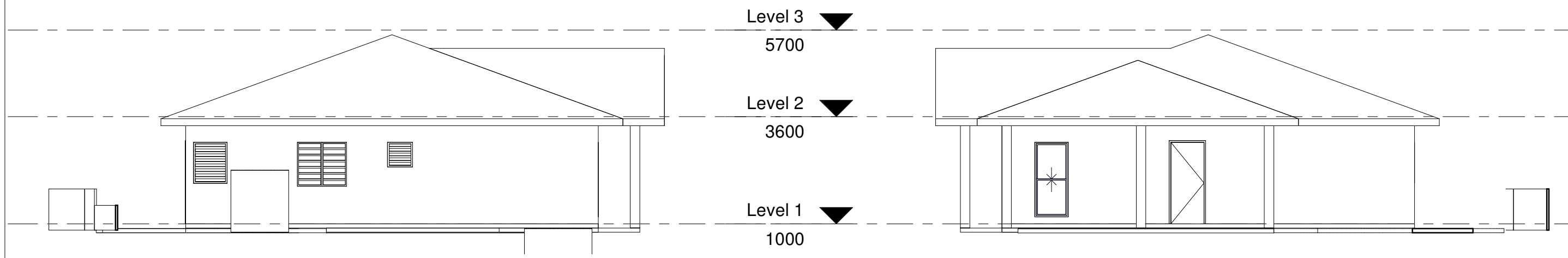


Existing Level 1
1 : 100

| | | | | | | |
|---|--|--|---|----------------------------|-----------------|-----------------|
| RODGERS Consulting Engineers Ph. 40 519 466 | These drawings are copyright and must not be copied or retained. Do not scale from drawings. The contractor & sub- contractors are to verify all dimensions before commencing work and bring to the attention of the designer any discrepancies they may find, | R & L Akers No. 158-164 Somerset Dr. Miallo Proposed Renovations | LAWSON DESIGN PH. 40 532 058 M. 0412 592 900 P.O. Box 349 EDGE HILL 4870 Building Designers Assoc. Qld. QBSA no. 24590 | Site Classification TBC | Date 17/8/20 | JOB No. 2011 |
| | | | Design Wind Speed C2 | Amendments | DWG. No. 02 | |
| | | | | | | |

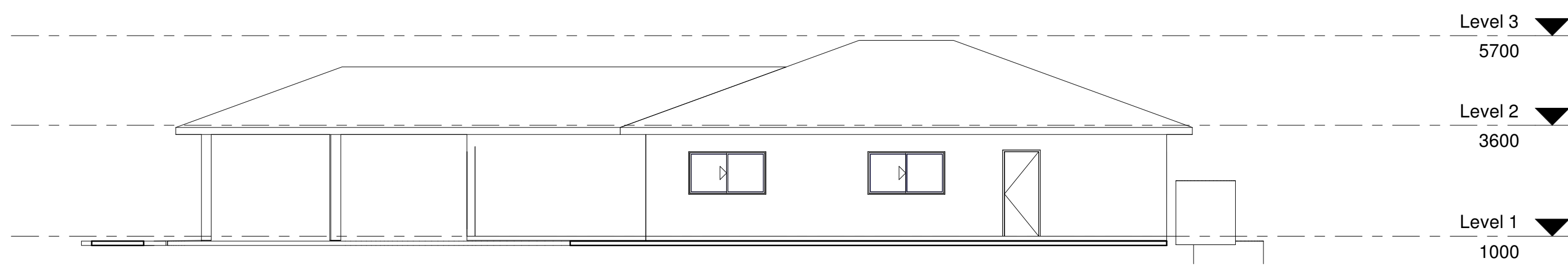


1 Existing Front - North
1 : 100



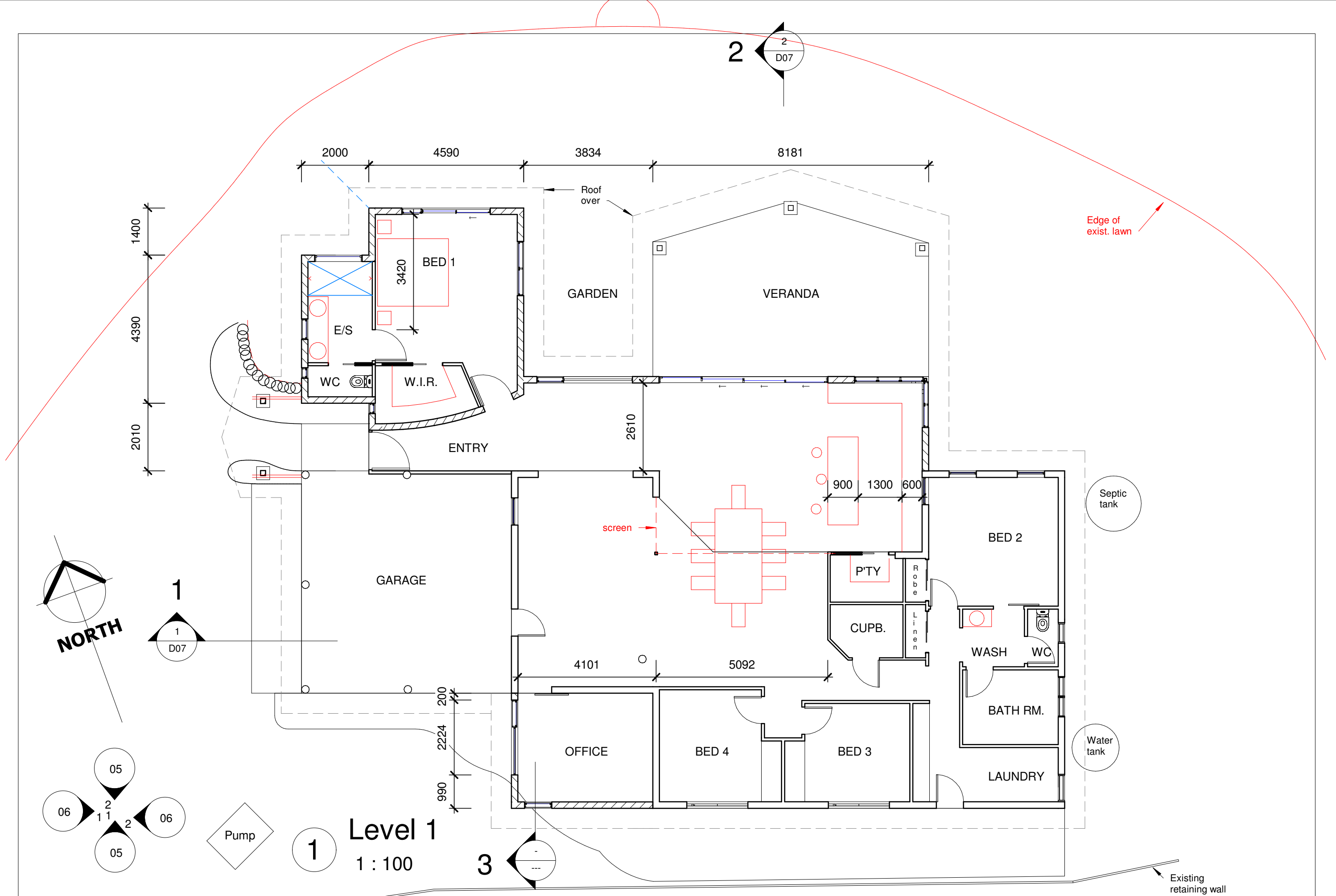
2 Existing Right - East
1 : 100

3 Existing Left - West
1 : 100

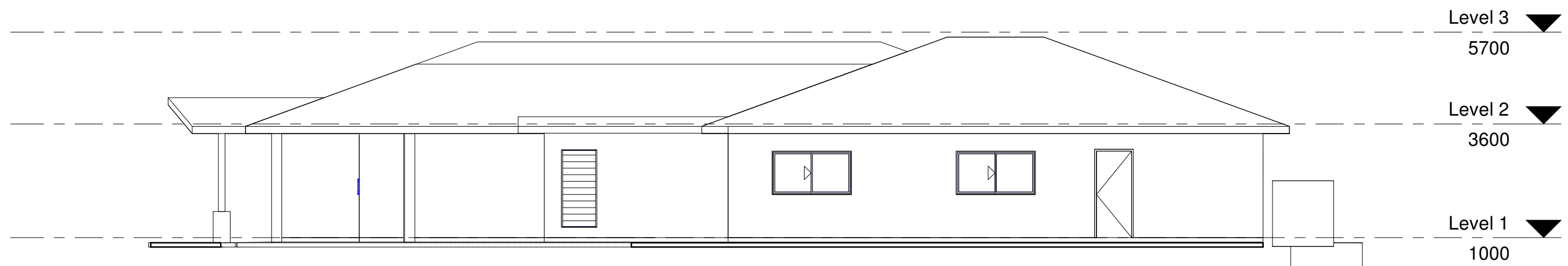


4 Existing Rear - South
1 : 100

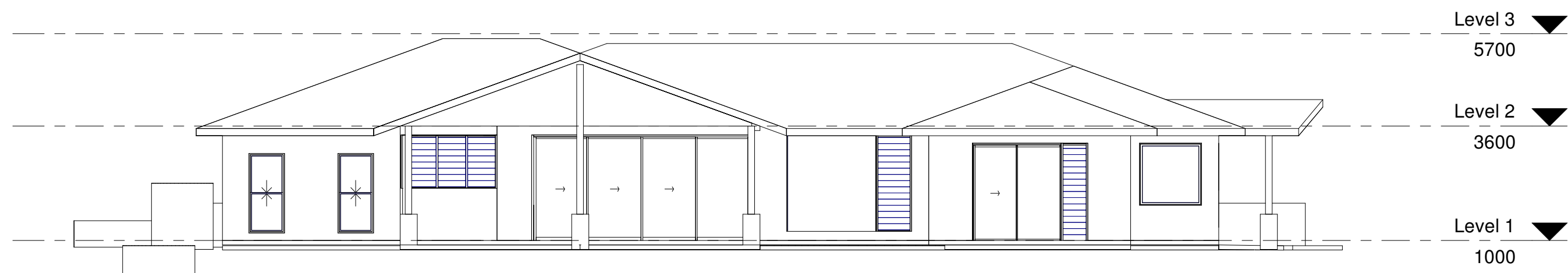
| | | | | | | |
|---|--|--|---|---------------------|---------|----------|
| RODGERS Consulting Engineers Ph. 40 519 466 | These drawings are copyright and must not be copied or retained. Do not scale from drawings. The contractor & sub- contractors are to verify all dimensions before commencing work and bring to the attention of the designer any discrepancies they may find, | R & L Akers No. 158-164 Somerset Dr. Miallo Proposed Renovations | LAWSON DESIGN PH. 40 532 058 M. 0412 592 900 P.O. Box 349 EDGE HILL 4870 Building Designers Assoc. Qld. QBSA no. 24590 | Site Classification | Date | JOB |
| | | | | TBC | 17/8/20 | No. 2011 |
| Design Wind Speed | | | | Amendments | DWG. | |
| C2 | | | | | No. 03 | |



| | | | | | | |
|--|--|---|--|---|--------------------------------------|---|
| RODGERS Consulting Engineers Ph. 40 519 466 | These drawings are copyright and must not be copied or retained. Do not scale from drawings. The contractor & sub-contractors are to verify all dimensions before commencing work and bring to the attention of the designer any discrepancies they may find. | R & L Akers No. 158-164 Somerset Dr. Miallo Proposed Renovations | LAWSON DESIGN Ph. 40 532 058 M. 0412 592 900 P.O. Box 349 EDGE HILL 4870 Building Designers Assoc. Qld. QBSA no. 24590 | Site Classification TBC Design Wind Speed C2 | Date 17/8/20 Amendments | JOB No. 2011 DWG. No. 04 |
|--|--|---|--|---|--------------------------------------|---|

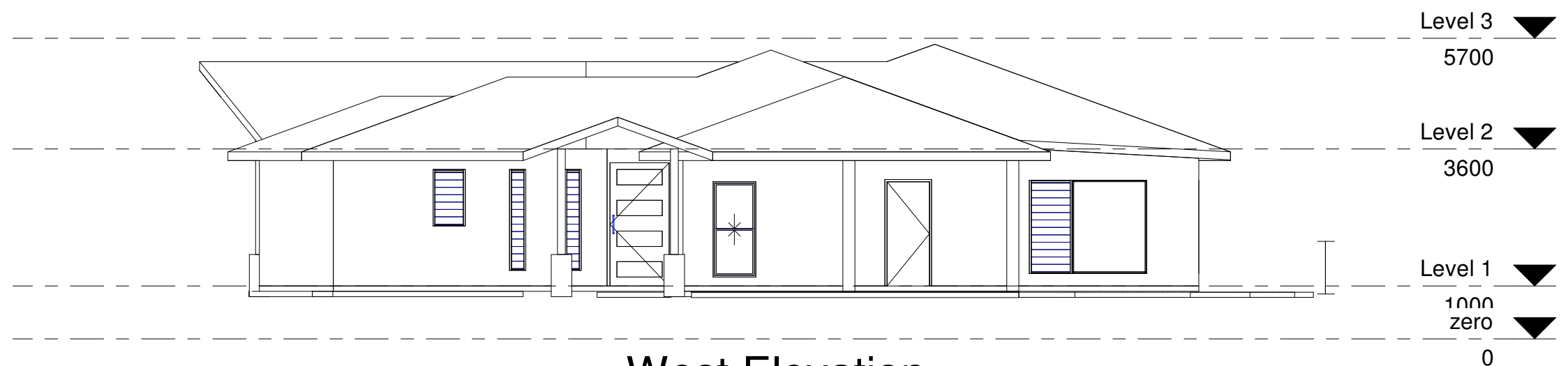


1 South Elevation
1 : 100

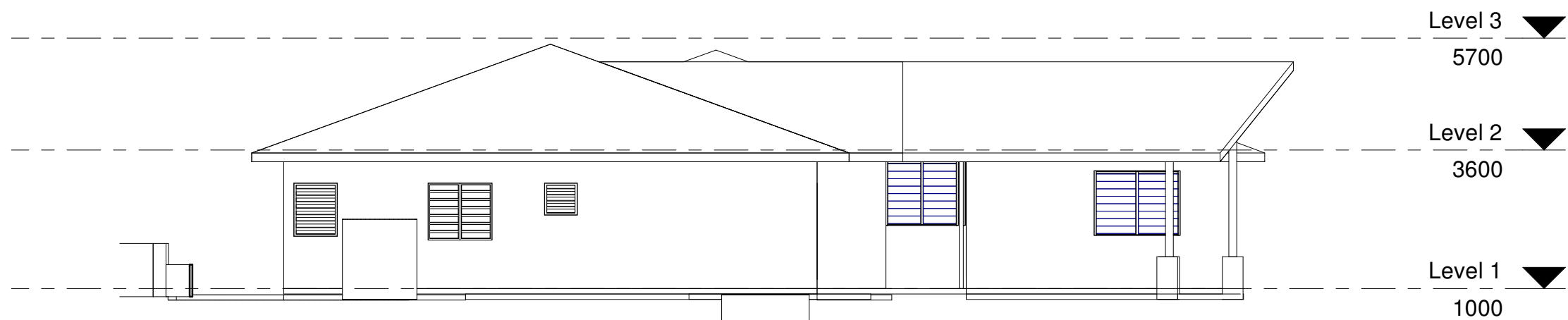


2 North Elevation
1 : 100

| | | | | | | |
|--|--|---|--|-----------------------------------|------------------------|------------------------|
| RODGERS Consulting Engineers Ph. 40 519 466 | These drawings are copyright and must not be copied or retained. Do not scale from drawings. The contractor & sub-contractors are to verify all dimensions before commencing work and bring to the attention of the designer any discrepancies they may find. | R & L Akers No. 158-164 Somerset Dr. Miallo Proposed Renovations | LAWSON DESIGN PH. 40 532 058 M. 0412 592 900 P.O. Box 349 EDGE HILL 4870 Building Designers Assoc. Qld. QBSA no. 24590 | Site Classification TBC | Date 17/8/20 | JOB No. 2011 |
| | | | | Design Wind Speed C2 | Ammendments | DWG. No. 05 |

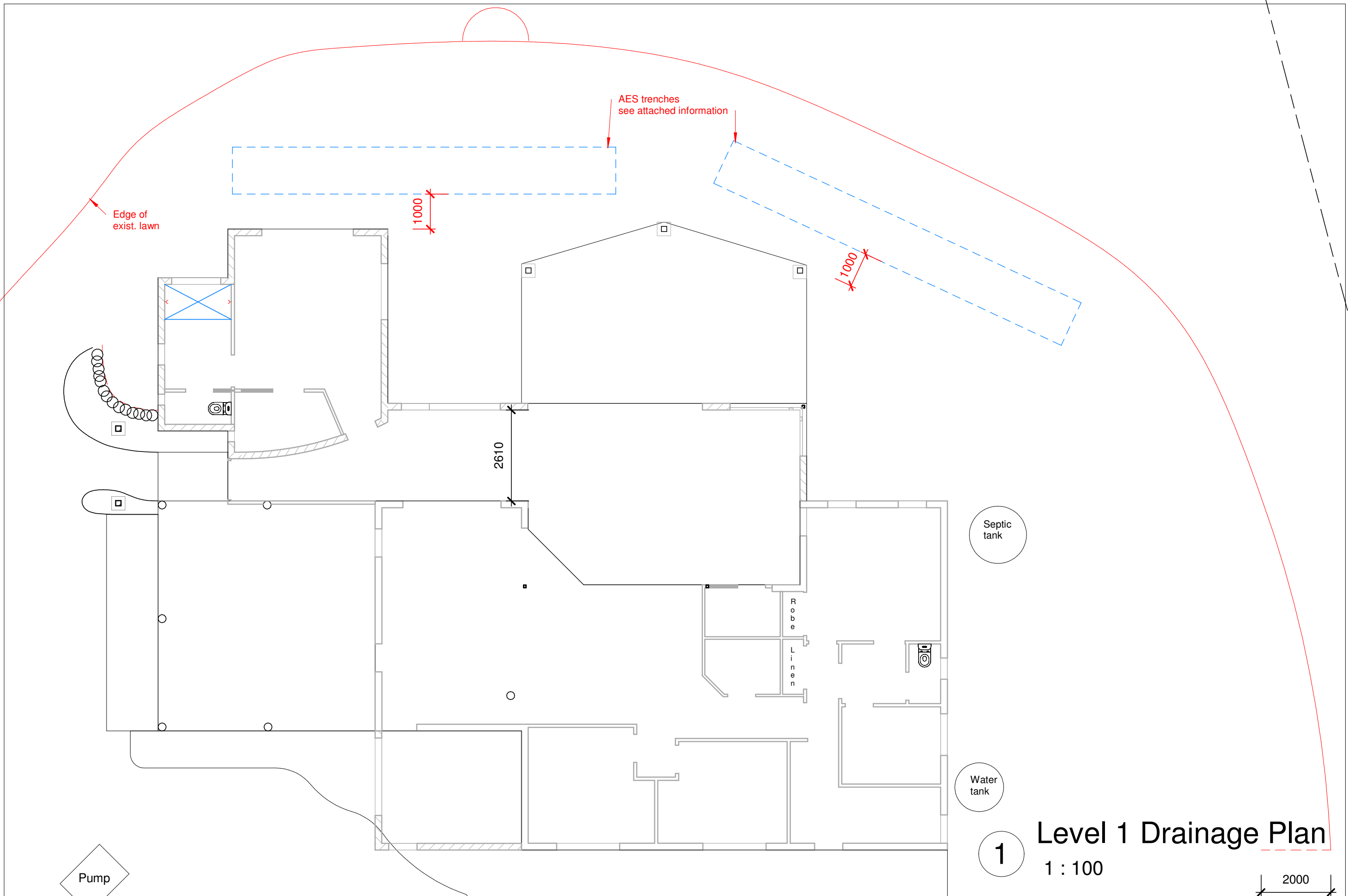


1 West Elevation
1 : 100



2 East Elevation
1 : 100

| | | | | | | |
|--|--|---|--|-----------------------------------|------------------------|---------------------|
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| | | | | Design Wind Speed C2 | Ammendments | DWG. No. 06 |



1 Level 1 Drainage Plan
1 : 100

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6.2.4 Environmental management zone code

6.2.6.1 Application

- (1) This code applies to assessing development in the Environmental management zone.
- (2) When using this code, reference should be made to Part 5.

6.2.4.2 Purpose

- (1) The purpose of the Environmental management zone code is to recognise environmentally sensitive areas and provide for houses on lots and other low impact activities where suitable.

These areas are protected from intrusion of any urban, suburban, centre or industrial land use.

- (2) The local government purpose of the code is to:
 - (a) implement the policy direction set in the Strategic Framework, in particular:
 - (i) Theme 2 : Environment and landscape values, Element 3.5.3 – Biodiversity, Element 3.5.5 – Scenic amenity.
 - (b) protect and buffer areas of environmental significance from inappropriate development.
- (3) The purpose of the code will be achieved through the following overall outcomes:
 - (a) Development is generally restricted to a dwelling house;
 - (b) Adverse impacts on natural systems, both on-site and on adjoining land are minimised through the location, design and management of development;
 - (c) Development reflects and responds to the natural features and environmental values of the area;



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- (d) Visual impacts are minimised through the location and design of development;
- (e) Development does not adversely affect water quality;
- (f) Development responds to land constraints, including but not limited to topography, vegetation, bushfire, landslide and flooding.

6.2.4.3 Criteria for assessment

Table 6.2.4.3.a – Environmental management zone – assessable development

| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|--|
| For self-assessable and assessable development | | |
| PO1 The height of all buildings and structures is in keeping with the natural characteristics of the site. Buildings and structures are low-rise and not unduly visible from external sites | AO1 Buildings and structures are not more than 8.5 metres and two storeys in height. Note – Height is inclusive of the roof height. | Complies with AO1 The proposed Dwelling House extension would be single storey and not more than 8.5 metres in height. |
| | AO1.2 Buildings have a roof height not less than 2 metres | Complies with AO1.2 The roof height would be less than 2 metres. |
| PO2 | AO2 | Complies with AO2 |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|---|
| <p>Buildings and structures are set back to:</p> <ul style="list-style-type: none"> (a) maintain the natural character of the area; (b) achieve separation from neighbouring buildings and from road frontages | <p>Buildings and structures are set back not less than:</p> <ul style="list-style-type: none"> (a) 40 metres from the frontage of a state controlled road; (b) 25 metres from the frontage to Cape Tribulation Road; (c) 6 metres from any other road; (d) 6 metres from the side and rear boundaries of the site. | <p>The Dwelling House extension would be setback 17 metres from the road frontage and 12.5 metres from the side boundary.</p> |
| For assessable development | | |
| <p>PO3</p> <p>Development is consistent with the purpose of the Environmental management zone and protects the zone from the intrusion of inconsistent uses.</p> | <p>AO3</p> <p>Inconsistent uses as identified in Table 6.2.4.3.b are not established in the Environmental management zone.</p> | <p>Not applicable</p> <p>The application is for building works only.</p> |
| <p>PO4</p> <p>The site coverage of all buildings and structures and associated services do not have an adverse</p> | <p>AO4</p> <p>No acceptable outcomes are prescribed.</p> | <p>Complies with PO4</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|---|
| effect on the environmental or scenic values of the site. | | The proposed Dwelling House extension would be located within the existing cleared area and would not require the removal of existing vegetation. |
| PO5 Development is located, designed, operated and managed to respond to the characteristics, features and constraints of the site and its surrounds. Note - Planning scheme policy – Site assessments provides guidance on identifying the characteristics, features and constraints of a site and its surrounds. | AO5.1 Buildings, structures and associated access, infrastructure and private open space are sited: <ul style="list-style-type: none"> (a) within areas of the site which are already cleared; or (b) within areas of the site which are environmentally degraded; (c) to minimise additional vegetation clearing. | Complies with AO5.1 The proposed Dwelling House extension would be located within the existing cleared area that is already environmentally degraded. |
| | AO5.2 Buildings and structures and associated infrastructure are not located on slopes greater than 1 in 6 (16.6%) or on a ridgeline | Complies with AO5.2 The proposed Dwelling House extension would be located on an area with a slope less than 1 in 6. |
| PO6 | AO6.1 | Not applicable |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|---|
| <p>Buildings and structures are responsive to steep slope through innovative construction techniques so as to:</p> <ul style="list-style-type: none"> (a) maintain the geotechnical stability of slopes; (b) minimise cut and/or fill; (c) minimise the overall height of development | <p>Where development on land steeper than 1 in 6 (16.6%) cannot be avoided, development follows the natural contours of the land and single plane concrete slab on-ground methods of construction are not utilised.</p> | <p>The proposed Dwelling House extension would be located on an area with a slope less than 1 in 6.</p> |
| | <p>AO6.2</p> <p>Access and vehicle manoeuvring and parking areas are constructed and maintained to:</p> <ul style="list-style-type: none"> (a) minimise erosion; (b) minimise cut and fill; (c) follow the natural contours of the site. | <p>Not applicable</p> <p>No new vehicle manoeuvring and parking areas would be created.</p> |
| <p>P07</p> <p>The exterior finishes of buildings and structures are consistent with the surrounding natural environment</p> | <p>A07</p> <p>The exterior finishes and colours of buildings and structures are non-reflective and are moderately dark to darker shades of grey, green, blue and brown or the development is not visible external to the site.</p> | <p>Complies with A07</p> <p>The Dwelling House extension would be located behind existing mature vegetation and would not be visible external to the site.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|--|
| PO8 Development does not adversely affect the amenity of the zone and adjoining land uses in terms of traffic, noise, dust, odour, lighting or other physical or environmental impacts. | AO8 No acceptable outcomes are prescribed. | Complies with PO8 The proposed development would not introduce any new uses to the site. |
| PO9 The density of development ensures that the environmental and scenic amenity values of the site and surrounding area are not adversely affected. | AO9 The maximum residential density is one dwelling house per lot. | Complies with AO9 The site would only contain a single dwelling. |
| PO10 Lot reconfiguration results in no additional lots. Note - Boundary realignments to resolve encroachments and lot amalgamation are considered appropriate. | AO10 No acceptable outcomes are prescribed. | Not applicable No lot reconfiguration is proposed. |

Table 6.2.4.3.b — Inconsistent uses within the Environmental management zone.



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Inconsistent uses

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • Adult store • Agricultural supplies store • Air services • Aquaculture • Bar • Brothel • Bulk landscape supplies • Car wash • Caretaker's accommodation • Cemetery • Child care centre • Club • Community care centre • Community residence • Community use • Crematorium • Cropping • Detention facility • Dual occupancy • Dwelling unit • Educational establishment • Food and drink outlet • Function facility • Garden centre | <ul style="list-style-type: none"> • Hardware and trade supplies • Health care services • High impact industry • Hospital • Hotel • Indoor sport and entertainment • Intensive animal industry • Intensive horticulture • Landing • Low impact industry • Major electricity infrastructure • Major sport, recreation and entertainment facility • Marine industry • Market • Motor sport facility • Multiple dwelling • Nightclub entertainment facility • Office • Outdoor sales • Outstation • Parking station • Place of worship • Port services | <ul style="list-style-type: none"> • Renewable energy facility • Relocatable home park • Research and technology industry • Residential care facility • Resort complex • Retirement facility • Rooming accommodation • Rural industry • Rural workers accommodation • Sales office • Service Station • Shop • Shopping centre • Short-term accommodation • Showroom • Special industry • Substation • Theatre • Transport depot • Utility installation • Veterinary services • Warehouse • Wholesale nursery • Winery |
|---|--|---|



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8.2.2 Bushfire hazard overlay code

Note - Land shown on the bushfire hazard overlay map is designated as the bushfire prone area for the purposes of section 12 of the Building Regulations 2006. The bushfire hazard area (bushfire prone area) includes land covered by the high and medium hazard areas as well as the buffer area category on the overlay map.

8.2.2.1 Application

- (1) This code applies to assessing a material change of use, reconfiguring a lot, operational works or building work in the Bushfire hazard overlay, if:
 - (a) self-assessable or assessable where the code is identified as being applicable in the Assessment criteria for the Overlay Codes contained in the Levels of Assessment Tables in section 5.6;
 - (b) impact assessable development.
- (2) Land in the Bushfire hazard overlay is identified on the Bushfire hazard overlay map in Schedule 2 and includes the following sub-categories:
 - (a) Medium bushfire risk sub-category;
 - (b) High bushfire risk sub-category;
 - (c) Very high bushfire risk sub-category;
 - (d) Potential impact buffer sub-category.
- (3) When using this code, reference should be made to Part 5.

8.2.2.2 Purpose

- (1) The purpose of the Bushfire overlay code is to:
 - (a) implement the policy direction in the Strategic Framework, in particular:
 - (i) Theme 1 Settlement pattern: Element 3.4.7 Mitigation of hazards;



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- (ii) Theme 6 Infrastructure and transport: Element 3.9.2 Energy.
 - (b) enable an assessment of whether development is suitable on land within the Bushfire risk overlay sub-categories.
- (2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) development avoids the establishment or intensification of vulnerable activities within or near areas that are subject to bushfire hazard;
 - (b) development is designed and located to minimise risks to people and property from bushfires;
 - (c) bushfire risk mitigation treatments are accommodated in a manner that avoids or minimises impacts on the natural environment and ecological processes;
 - (d) development involving the manufacture or storage of hazardous materials does not increase the risk to public safety or the environment in a bushfire event;
 - (e) development contributes to effective and efficient disaster management response and recovery capabilities.

Note - A site based assessment may ground-truth the extent of hazardous vegetation and extent and nature of the bushfire hazard area (bushfire prone area). Such assessments should be undertaken using the methodology set out in Planning scheme policy SC6.9 - Natural Hazards.



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8.2.2.3 Criteria for assessment

Table 8.2.2.3.a – Bushfire hazard overlay code –assessable development

| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|---|
| For self-assessable and assessable development | | |
| Compatible development | | |
| <p>PO1</p> <p>A vulnerable use is not established or materially intensified within a bushfire hazard area (bushfire prone area) unless there is an overriding need or other exceptional circumstances.</p> <p>Note - See the end of this code for examples of vulnerable uses.</p> | <p>AO1</p> <p>Vulnerable uses are not established or expanded.</p> <p>Note – Where, following site inspection and consultation with Council, it is clear that the mapping is in error in identifying a premises as being subject to a medium, high, very high bushfire hazard or potential impact buffer sub-category, Council may supply a letter exempting the need for a Bushfire Management Plan.</p> <p>Note – Where the assessment manager has not previously approved a Bushfire Management Plan (either by condition of a previous development approval), the development proponent will be expected to prepare such a plan.</p> <p>Note – Planning scheme policy SC6.9 - Natural hazards, provides a guide to the preparation of a</p> | <p>Not applicable</p> <p>The proposal is not a vulnerable use.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|---|
| | Bushfire Management Plan. | |
| P02 Emergency services and uses providing community support services are able to function effectively during and immediately after a bushfire hazard event. | AO2 Emergency Services and uses providing community support services are not located in a bushfire hazard sub-category and have direct access to low hazard evacuation routes. | Not applicable The proposal does not involve a community service. |
| P03 Development involving hazardous materials manufactured or stored in bulk is not located in bushfire hazard sub-category. | AO3 The manufacture or storage of hazardous material in bulk does not occur within bushfire hazard sub-category. | Not applicable The proposal does not involve hazardous materials. |
| Development design and separation from bushfire hazard – reconfiguration of lots | | |
| P04.1 Where reconfiguration is undertaken in an urban area or is for urban purposes or smaller scale rural residential purposes, a separation distance from hazardous vegetation is provided to achieve a radiant heat flux level of 29kW/m ² at the edge of | AO4.1 No new lots are created within a bushfire hazard sub-category. or | Not applicable No reconfiguration is proposed. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|---|
| <p>the proposed lot(s).</p> <p>Note - “Urban purposes” and “urban area” are defined in the <i>Sustainable Planning Regulations 2009</i>.</p> <p>Reconfiguration will be taken to be for rural residential purposes where proposed lots are between 2000m² and 2ha in area. “Smaller scale” rural residential purposes will be taken to be where the average proposed lot size is 6000m² or less.</p> <p>Note - The radiant heat levels and separation distances are to be established in accordance with method 2 set out in AS3959-2009.</p> | | |
| <p>PO4.2</p> <p>Where reconfiguration is undertaken for other purposes, a building envelope of reasonable dimensions is provided on each lot which achieves radiant heat flux level of 29kW/m² at any point.</p> | <p>AO4.2</p> <p>Lots are separated from hazardous vegetation by a distance that:</p> <p>(a) achieves radiant heat flux level of 29kW/m² at all boundaries; and</p> <p>(b) is contained wholly within the development site.</p> <p>Note - Where a separation distance is proposed to be achieved by utilising existing cleared developed areas</p> | <p>Not applicable</p> <p>No reconfiguration is proposed.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|---|
| | <p>external to the site, certainty must be established (through tenure or other means) that the land will remain cleared of hazardous vegetation.</p> <p>For staged developments, temporary separation distances, perimeter roads or fire trails may be absorbed as part of subsequent stages.</p> <p>Note - The achievement of a cleared separation distance may not be achievable where other provisions within the planning scheme require protection of certain ecological, slope, visual or character features or functions.</p> | |
| <p>P05</p> <p>Where reconfiguration is undertaken in an urban area or is for urban purposes, a constructed perimeter road with reticulated water supply is established between the lots and the hazardous vegetation and is readily accessible at all times for urban fire fighting vehicles.</p> <p>The access is available for both fire fighting and maintenance/defensive works.</p> | <p>AO5.1</p> <p>Lot boundaries are separated from hazardous vegetation by a public road which:</p> <ul style="list-style-type: none"> (a) has a two lane sealed carriageway; (b) contains a reticulated water supply; (c) is connected to other public roads at both ends and at intervals of no more than 500m; (d) accommodates geometry and turning radii in accordance with Queensland Fire and | <p>Not applicable</p> <p>No reconfiguration is proposed.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|---|
| | <p>Emergency Services' Fire Hydrant and Vehicle Access Guidelines;</p> <p>(e) has a minimum of 4.8m vertical clearance above the road;</p> <p>(f) is designed to ensure hydrants and water access points are not located within parking bay allocations; and</p> <p>(g) incorporates roll-over kerbing.</p> | |
| | <p>AO5.2</p> <p>Fire hydrants are designed and installed in accordance with AS2419.1 2005, unless otherwise specified by the relevant water entity.</p> <p>Note - Applicants should have regard to the relevant standards set out in the reconfiguration of a lot code and works codes in this planning scheme.</p> | <p>Not applicable</p> <p>No reconfiguration is proposed.</p> |
| <p>PO6</p> <p>Where reconfiguration is undertaken for smaller scale rural residential purposes, either a constructed perimeter road or a formed, all</p> | <p>AO6</p> <p>Lot boundaries are separated from hazardous vegetation by a public road or fire trail which has:</p> <p>(a) a reserve or easement width of at least 20m;</p> | <p>Not applicable</p> <p>No reconfiguration is proposed.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|------------|
| <p>weather fire trail is established between the lots and the hazardous vegetation and is readily accessible at all times for the type of fire fighting vehicles servicing the area.</p> <p>The access is available for both fire fighting and maintenance/hazard reduction works.</p> | <ul style="list-style-type: none"> (b) a minimum trafficable (cleared and formed) width of 4m capable of accommodating a 15 tonne vehicle and which is at least 6m clear of vegetation; (c) no cut or fill embankments or retaining walls adjacent to the 4m wide trafficable path; (d) a minimum of 4.8m vertical clearance; (e) turning areas for fire-fighting appliances in accordance with Queensland Fire and Emergency Services' Fire Hydrant and Vehicle Access Guidelines; (f) a maximum gradient of 12.5%; (g) a cross fall of no greater than 10 degrees; (h) drainage and erosion control devices in accordance with the standards prescribed in a planning scheme policy; (i) vehicular access at each end which is connected to the public road network at intervals of no more than 500m; | |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|---|---|
| | <ul style="list-style-type: none"> (j) designated fire trail signage; (k) if used, has gates locked with a system authorised by Queensland Fire and Emergency Services; and (l) if a fire trail, has an access easement that is granted in favour of Council and Queensland Fire and Emergency Services. | |
| <p>PO7</p> <p>Where reconfiguration is undertaken for other purposes, a formed, all weather fire trail is provided between the hazardous vegetation and either the lot boundary or building envelope, and is readily accessible at all times for the type of fire fighting vehicles servicing the area.</p> <p>However, a fire trail will not be required where it would not serve a practical fire management purpose.</p> | <p>AO7</p> <p>Lot boundaries are separated from hazardous vegetation by a public road or fire trail which has:</p> <ul style="list-style-type: none"> (a) a reserve or easement width of at least 20m; (b) a minimum trafficable (cleared and formed) width of 4m capable of accommodating a 15 tonne vehicle and which is at least 6m clear of vegetation; (c) no cut or fill embankments or retaining walls adjacent to the 4m wide trafficable path; (d) a minimum of 4.8m vertical clearance; (e) turning areas for fire-fighting appliances in | <p>Not applicable</p> <p>No reconfiguration is proposed.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|--|
| | <p>accordance with Queensland Fire and Emergency Services' Fire Hydrant and Vehicle Access Guidelines;</p> <p>(f) a maximum gradient of 12.5%;</p> <p>(g) a cross fall of no greater than 10 degrees;</p> <p>(h) drainage and erosion control devices in accordance with the standards prescribed in a planning scheme policy;</p> <p>(i) vehicular access at each end which is connected to the public road network;</p> <p>(j) designated fire trail signage;</p> <p>(k) if used, has gates locked with a system authorised by Queensland Fire and Emergency Services; and</p> <p>(l) if a fire trail, has an access easement that is granted in favour of Council and Queensland Fire and Emergency Services.</p> | |
| P08 The development design responds to the potential | A08 The lot layout: | Not applicable No reconfiguration is proposed. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|------------|
| threat of bushfire and establishes clear evacuation routes which demonstrate an acceptable or tolerable risk to people. | <p>(a) minimises the length of the development perimeter exposed to, or adjoining hazardous vegetation;</p> <p>(b) avoids the creation of potential bottle-neck points in the movement network;</p> <p>(c) establishes direct access to a safe assembly /evacuation area in the event of an approaching bushfire; and</p> <p>(d) ensures roads likely to be used in the event of a fire are designed to minimise traffic congestion.</p> <p>Note - For example, developments should avoid finger-like or hour-glass subdivision patterns or substantive vegetated corridors between lots.</p> <p>In order to demonstrate compliance with the performance outcome, a bushfire management plan prepared by a suitably qualified person may be required. The bushfire management plan should be developed in accordance with the Public Safety Business Agency (PSBA) guideline entitled "Undertaking a Bushfire Protection Plan.</p> | |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|--|
| | Advice from the Queensland Fire and Emergency Services (QFES) should be sought as appropriate | |
| PO9 Critical infrastructure does not increase the potential bushfire hazard. | AO9 Critical or potentially hazardous infrastructure such as water supply, electricity, gas and telecommunications are placed underground. | Not applicable No reconfiguration is proposed. |
| Development design and separation from bushfire hazard – material change of use | | |
| PO10 Development is located and designed to ensure proposed buildings or building envelopes achieve a radiant heat flux level at any point on the building or envelope respectively, of: (e) 10kW/m ² where involving a vulnerable use; or (f) 29kW/m ² otherwise. The radiant heat flux level is achieved by separation unless this is not practically achievable. Note - The radiant heat levels and separation distances are to be established in accordance with method 2 set | AO10 Buildings or building envelopes are separated from hazardous vegetation by a distance that: (a) achieves a radiant heat flux level of at any point on the building or envelope respectively, of 10kW/m ² for a vulnerable use or 29kW/m ² otherwise; and (b) is contained wholly within the development site. Note - Where a separation distance is proposed to be achieved by utilising existing cleared developed areas external to the site, certainty must be established | Not applicable The development is for Building Works only. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|---|
| out in AS3959-2009. | <p>(through tenure or other means) that the land will remain cleared of hazardous vegetation.</p> <p>For staged developments, temporary separation distances, perimeter roads or fire trails may be absorbed as part of subsequent stages.</p> <p>Note - The achievement of a cleared separation distance may not be achievable where other provisions within the planning scheme require protection of certain ecological, slope, visual or character features or functions.</p> | |
| <p>PO11</p> <p>A formed, all weather fire trail is provided between the hazardous vegetation and the site boundary or building envelope, and is readily accessible at all times for the type of fire fighting vehicles servicing the area.</p> <p>However, a fire trail will not be required where it would not serve a practical fire management purpose.</p> <p>Note - Fire trails are unlikely to be required where a</p> | <p>AO11</p> <p>Development sites are separated from hazardous vegetation by a public road or fire trail which has:</p> <p>(a) a reserve or easement width of at least 20m;</p> <p>(b) a minimum trafficable (cleared and formed) width of 4m capable of accommodating a 15 tonne vehicle and which is at least 6m clear of vegetation;</p> <p>(c) no cut or fill embankments or retaining walls adjacent to the 4m wide trafficable path;</p> | <p>Not applicable</p> <p>The development is for Building Works only.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|------------|
| development site involves less than 2.5ha | <ul style="list-style-type: none"> (d) a minimum of 4.8m vertical clearance; (e) turning areas for fire-fighting appliances in accordance with Queensland Fire and Emergency Services' Fire Hydrant and Vehicle Access Guidelines; (f) a maximum gradient of 12.5%; (g) a cross fall of no greater than 10 degrees; (h) drainage and erosion control devices in accordance with the standards prescribed in a planning scheme policy; (i) vehicular access at each end which is connected to the public road network which is connected to the public road network at intervals of no more than 500m; (j) designated fire trail signage; (k) if used, has gates locked with a system authorised by Queensland Fire and Emergency Services; and (l) if a fire trail, has an access easement that is | |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|---|--|
| | granted in favour of Council and Queensland Fire and Emergency Services. | |
| All development | | |
| PO12 All premises are provided with vehicular access that enables safe evacuation for occupants and easy access by fire fighting appliances. | AO12 Private driveways: (a) do not exceed a length of 60m from the street to the building; (b) do not exceed a gradient of 12.5%; (c) have a minimum width of 3.5m; (d) have a minimum of 4.8m vertical clearance; (e) accommodate turning areas for fire-fighting appliances in accordance with Queensland Fire and Emergency Services' Fire Hydrant and Vehicle Access Guidelines; and (f) serve no more than 3 dwellings or buildings. | Not applicable The proposed development would not alter the existing driveway or access. |
| PO13 Development outside reticulated water supply | AO13 A water tank is provided within 10m of each | Not applicable The development is a class 10 building. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|------------|
| <p>areas includes a dedicated static supply that is available solely for fire fighting purposes and can be accessed by fire fighting appliances.</p> | <p>building (other than a class 10 building) which:</p> <ul style="list-style-type: none"> (a) is either below ground level or of non-flammable construction; (b) has a take off connection at a level that allows the following dedicated, static water supply to be left available for access by fire fighters: <ul style="list-style-type: none"> (i) 10,000l for residential buildings <p>Note – A minimum of 7,500l is required in a tank and the extra 2,500l may be in the form of accessible swimming pools or dams.</p> <ul style="list-style-type: none"> (ii) 45,000l for industrial buildings; and (iii) 20,000l for other buildings; (c) includes shielding of tanks and pumps in accordance with the relevant standards; (d) includes a hardstand area allowing medium rigid vehicle (15 tonne fire appliance) access within 6m of the tank; (e) is provided with fire brigade tank fittings – 50mm ball valve and male camlock coupling and, if underground, an access hole of 200mm | |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|---|--|
| | (minimum) to accommodate suction lines; and (f) is clearly identified by directional signage provided at the street frontage. | |
| PO14 Landscaping does not increase the potential bushfire risk. | AO14 Landscaping uses species that are less likely to exacerbate a bushfire event and does not increase fuel loads within separation areas. | Not applicable No landscaping is proposed. |
| PO15 The risk of bushfire and the need to mitigate that risk is balanced against other factors (such as but not limited to, biodiversity or scenic amenity). | AO15 Bushfire risk mitigation treatments do not have a significant impact on the natural environment or landscape character of the locality where this has value. | Not applicable No bushfire mitigation treatments are proposed. |



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8.2.5 Hillslopes overlay code

8.2.5.1 Application

- (1) This code applies to assessing a material change of use, reconfiguring a lot, operational work or building work within the Hillslopes overlay, if:
 - (a) self assessable or assessable development where the code is identified as being applicable in the Assessment criteria for the Overlay Codes contained in the Levels of Assessment Tables in section 5.6;
 - (b) impact assessable development.
- (2) Land in the Hillslopes overlay is identified on the Hillslopes overlay map in Schedule 2 and includes the following sub-categories:
 - (a) Hillslopes constraint sub-category.
- (3) When using this code, reference should be made to Part 5.

8.2.5.2 Purpose

- (1) The purpose of the Hillslopes overlay code is to:
 - (a) implement the policy direction in the Strategic Framework, in particular:
 - (i) Theme 1 - Settlement pattern: Element 3.4.7 Mitigation of hazards;
 - (ii) Theme 2 – Environment and landscape values: Element 3.5.5 Scenic amenity.
 - (b) enable an assessment of whether development is suitable on land within the Hillslopes sub-categories.
- (2) The purpose of the code will be achieved through the following overall outcomes:



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- (a) development on hillslopes is safe, serviceable and accessible;
- (b) the ecological values, landscape character and visual quality of the hillslopes are protected from development so as to retain the scenic backdrop to the region;
- (c) Development on hillslopes is appropriate, having regard to the topographic constraints and environmental characteristics of the land;
- (d) Development responds to the constraints of the site including gradient and slope stability;
- (e) Works do not involve complex engineering solutions.

8.2.5.3 Criteria for assessment

Table Error! No text of specified style in document..a – Hillslopes overlay code –assessable development

| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|---|
| For self-assessable development | | |
| PO1 The landscape character and visual amenity quality of hillslopes areas is retained to protect the scenic backdrop to the region. | AO1.1 Development is located on parts of the site that are not within the Hillslopes constraint subcategory as shown on the Hillslopes overlay Maps contained in schedule 2. | Complies with PO1 The proposed Dwelling House extension would be located within an existing cleared and levelled area and behind existing mature vegetation. It would not be at a higher elevation than the existing house and would not be visible external to the site. |
| For assessable development | | |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|--|
| PO2 The landscape character and visual amenity quality of hillslopes areas is retained to protect the scenic backdrop to the region | AO2.1 Development does not occur on land with a gradient in excess of 1 in 6 (16.6%) or AO2.2 Where development on land steeper than 1 in 6 (16.6%) cannot be avoided, development follows the natural contours of the site. | Complies with AO2.1 The proposed shed would be located in an existing disturbed area and would not be on land with a slope of greater than 1:6. |
| | AO2.3 Access ways and driveways are: <ul style="list-style-type: none"> (a) constructed with surface materials that blend with the surrounding environment; (b) landscaped with dense planting to minimise the visual impact of the construction; (c) provided with erosion control measures immediately after construction. | Not applicable No additional access or driveway works are proposed. |
| | AO2.4 The clearing or disturbance of vegetation is limited to clearing and disturbance that: <ul style="list-style-type: none"> (a) is necessary for the construction of | Complies with AO2.4 The Dwelling House extension would be located in an existing cleared area. No vegetation would be required to be removed to facilitate the |



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| Performance outcomes | Acceptable outcomes | Compliance |
|----------------------|---|--|
| | driveways; (b) is necessary to contain the proposed development; (c) minimises canopy clearing or disturbance; (d) minimises riparian clearing or disturbance. | development. |
| | AO2.5 On land with slopes greater than 1 in 6 (16.6%) or greater, alternative construction methods to concrete slab on ground are utilised (i.e. split level or post and beam constructed buildings that minimise modification to the natural terrain of the land). | Not applicable The proposed shed would be located in an existing disturbed area and would not be on land with a slope of greater than 1:6. |
| | AO2.6 Development does not alter the sky line. | Complies with AO2.6 The proposed shed would not be higher than the exiting tree line or project above ridgelines. |
| | AO2.7 Buildings and structures: | Complies with PO1 The Dwelling House extension would have |



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| Performance outcomes | Acceptable outcomes | Compliance |
|----------------------|--|---|
| | <p>(a) are finished predominantly in the following exterior colours or surfaces:</p> <ul style="list-style-type: none"> (i) moderately dark to darker shades of olive green, brown, green, blue, or charcoal; or (ii) moderately dark to darker wood stains that blend with the colour and hues of the surrounding vegetation and landscape; <p>(b) are not finished in the following exterior colours or surfaces:</p> <ul style="list-style-type: none"> (i) pastel or terracotta colours, reds, yellows, shades of white or beige, or other bright colours that do not blend with the surrounding vegetation and landscape; (ii) reflective surfaces. | <p>external finishes that complement the existing development on the site, which is not visible external to the site.</p> |
| | <p>AO2.8</p> <p>Exterior colour schemes limit the use of white or</p> | <p>Complies with PO1</p> <p>The Dwelling House extension would have</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|--|
| | other light colours to exterior trim and highlighting of architectural features | external finishes that complement the existing development on the site, which is not visible external to the site. |
| | AO2.9 Areas between the first floor (including outdoor deck areas) and ground level are screened from view. | Not applicable The Dwelling House extension would be constructed on ground. |
| | AO2.10 Recreational or ornamental features (including tennis courts, ponds or swimming pools) do not occur on land: <ul style="list-style-type: none"> (a) with a gradient of 1 in 6 (16.6%) or more; (b) are designed to be sited and respond to the natural constraints of the land and require minimal earthworks. | Not applicable No recreational or ornamental features are proposed. |
| PO3 Excavation or filling does not have an adverse impact on the amenity, safety, stability or function | AO3 Excavation or fill: | Complies with AO3 The proposed Dwelling House extension would be located within an existing disturbed area and set |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|---|
| <p>of the site or adjoining premises through:</p> <ul style="list-style-type: none"> (a) loss of privacy; (b) loss of access to sunlight; (c) intrusion of visual or overbearing impacts; (d) complex engineering solutions. | <ul style="list-style-type: none"> (a) is not more than 1.2 metres in height for each batter or retaining wall; (b) is setback a minimum of 2 metres from property boundaries; (c) is stepped with a minimum 2 metre wide berm to incorporate landscaping in accordance with Planning scheme policy SC6.7 – Landscaping; (d) does not exceed a maximum of 3 batters and 3 berms (i.e. not greater than 3.6 metres in height) on any one lot. | <p>back from all boundaries by greater than 2 metres. Limited excavation or fill would be required to facilitate the development.</p> |
| Lot reconfiguration | | |
| <p>PO4</p> <p>For development that involves reconfiguring a lot, lot layout and design is responsive to the natural constraints of the land and each lot is capable of being used for its intended purpose.</p> | <p>AO4.1</p> <p>The frontage and depth of all lots is of sufficient width to:</p> <ul style="list-style-type: none"> (a) allow driveways to follow the natural contours of the site and not exceed a gradient of 1 in 6 (16.6%); | <p>Not applicable</p> <p>No lot reconfiguration is proposed.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|----------------------|---|--|
| | (b) accommodate any changes in gradient between the road and lot within the lot boundary and not within the road reserve. | |
| | AO4.2 Development does not create new lots containing land of greater than 1 in 6 (16.6%), except where a rectangular area of land of lesser grade is contained within the new lots to accommodate the intended land use, with the balance left in its natural state to the greatest extent possible. Note – The size of rectangular areas is outlined within each zone code. | Not applicable No lot reconfiguration is proposed. |
| | AO4.3 Development does not alter ridgelines. | Not applicable No lot reconfiguration is proposed. |
| | AO4.4 Lots are designed to ensure rooflines of future buildings and structures do not protrude above a ridgeline. | Not applicable No lot reconfiguration is proposed. |



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8.2.7 Natural areas overlay code

8.2.7.1 Application

- (1) This code applies to assessing a material change of use, reconfiguring a lot, operational work or building work within the Natural areas overlay, if:
 - (a) self-assessable or assessable development where the code is identified as being applicable in the Assessment criteria for the Overlay Codes contained in the Levels of Assessment Tables in section 5.6;
 - (b) impact assessable development.
- (2) Land in the Natural areas overlay is identified on the Natural areas overlay map in Schedule 2 and includes the following sub-categories:
 - (a) MSES – Protected area;
 - (b) MSES – Marine park;
 - (c) MSES – Wildlife habitat;
 - (d) MSES – Regulated vegetation;
 - (e) MSES – Regulated vegetation (intersecting a Watercourse);
 - (f) MSES – High ecological significance wetlands;
 - (g) MSES – High ecological value waters (wetlands);
 - (h) MSES – High ecological value waters (watercourse);
 - (i) MSES – Legally secured off set area.

Note – MSES = Matters of State Environmental Significance.



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(3) When using this code, reference should be made to Part 5.

8.2.7.2 Purpose

(1) The purpose of the Natural areas overlay code is to:

- (a) implement the policy direction in the Strategic Framework, in particular:
 - (i) Theme 2: Environment and landscape values, Element 3.5.3 Biodiversity, Element 3.5.4 Coastal zones;
 - (ii) Theme 3: Natural resource management Element 3.6.2 Land and catchment management, Element 3.6.3 Primary production, forestry and fisheries.
- (b) enable an assessment of whether development is suitable on land within the Biodiversity area overlay sub-categories.

(2) The purpose of the code will be achieved through the following overall outcomes:

- (a) development is avoided within:
 - (i) areas containing matters of state environmental significance (MSES);
 - (ii) other natural areas;
 - (iii) wetlands and wetland buffers;
 - (iv) waterways and waterway corridors.
- (b) where development cannot be avoided, development:
 - (i) protects and enhances areas containing matters of state environmental significance;
 - (ii) provides appropriate buffers;
 - (iii) protects the known populations and supporting habitat of rare and threatened flora and fauna species, as listed in the relevant State and Commonwealth legislation;



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- (iv) ensures that adverse direct or indirect impacts on areas of environmental significance are minimised through design, siting, operation, management and mitigation measures;
 - (v) does not cause adverse impacts on the integrity and quality of water in upstream or downstream catchments, including the Great Barrier Reef World Heritage Area;
 - (vi) protects and maintains ecological and hydrological functions of wetlands, waterways and waterway corridors;
 - (vii) enhances connectivity across barriers for aquatic species and habitats;
 - (viii) rehabilitates degraded areas to provide improved habitat condition, connectivity, function and extent;
 - (ix) protects areas of environmental significance from weeds, pests and invasive species.
- (c) strategic rehabilitation is directed to areas on or off site, where it is possible to achieve expanded habitats and increased connectivity.

8.2.7.3 Criteria for assessment

Table 8.2.7.3.a – Natural areas overlay code –assessable development

| Performance outcomes | Acceptable outcomes | Compliance |
|--|---------------------|----------------------------|
| For self-assessable and assessable development | | |
| Protection of matters of environmental significance | | |
| PO1 | AO1.1 | Complies with AO1.2 |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|---|
| Development protects matters of environmental significance. | <p>Development avoids significant impact on the relevant environmental values.</p> <p>or</p> <p>AO1.2</p> <p>A report is prepared by an appropriately qualified person demonstrating to the satisfaction of the assessment manager, that the development site does not contain any matters of state and local environmental significance.</p> <p>or</p> <p>AO1.3</p> <p>Development is located, designed and operated to mitigate significant impacts on environmental values. For example, a report certified by an appropriately qualified person demonstrating to the satisfaction of the assessment manager, how the proposed development mitigates impacts, including on water</p> | <p>The proposed Dwelling House extension would be sited outside of the identified area of environmental significance.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|--|
| | quality, hydrology and biological processes. | |
| Management of impacts on matters of environmental significance | | |
| PO2 Development is located, designed and constructed to avoid significant impacts on matters of environmental significance. | AO2 The design and layout of development minimises adverse impacts on ecologically important areas by: <ul style="list-style-type: none"> (a) focusing development in cleared areas to protect existing habitat; (b) utilising design to consolidate density and preserve existing habitat and native vegetation; (c) aligning new property boundaries to maintain ecologically important areas; (d) ensuring that alterations to natural landforms, hydrology and drainage patterns on the development site do not negatively affect ecologically important areas; | Complies with AO2 The proposed Dwelling House extension would be sited outside of the identified area of environmental significance within an existing disturbed area. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|--|
| | (e) ensuring that significant fauna habitats are protected in their environmental context; and (f) incorporating measures that allow for the safe movement of fauna through the site. | |
| PO3 An adequate buffer to areas of state environmental significance is provided and maintained. | AO3.1 A buffer for an area of state environmental significance (Wetland protection area) has a minimum width of: (a) 100 metres where the area is located outside Urban areas; or (b) 50 metres where the area is located within a Urban areas. or AO3.2 A buffer for an area of state environmental significance is applied and maintained, the width of | Not applicable The site does not contain or adjoin wetlands. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|---|--|
| | which is supported by an evaluation of environmental values, including the function and threats to matters of environmental significance. | |
| PO4 Wetland and wetland buffer areas are maintained, protected and restored. Note – Wetland buffer areas are identified in AO3.1. | AO4.1 Native vegetation within wetlands and wetland buffer areas is retained. | Not applicable The site does not contain or adjoin wetlands. |
| | AO4.2 Degraded sections of wetlands and wetland buffer areas are revegetated with endemic native plants in patterns and densities, which emulate the relevant regional ecosystem. | Not applicable The site does not contain or adjoin wetlands. |
| PO5 Development avoids the introduction of non-native pest species (plant or animal) that pose a | AO5.1 Development avoids the introduction of non-native pest species. | Complies with AO5.1 No ne landscaping is proposed. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|---|--|
| risk to ecological integrity. | AO5.2 The threat of existing pest species is controlled by adopting pest management practices for long-term ecological integrity. | Not applicable No pest species are identified on the site. |
| Ecological connectivity | | |
| PO6 Development protects and enhances ecological connectivity and/or habitat extent. | AO6.1 Development retains native vegetation in areas large enough to maintain ecological values, functions and processes. and AO6.2 Development within an ecological corridor rehabilitates native vegetation. and | Complies with AO6.1 The proposed Dwelling House extension would be sited in an existing disturbed area and limited vegetation is required. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|---|--|
| | <p>AO6.3</p> <p>Development within a conservation corridor mitigates adverse impacts on native fauna, feeding, nesting, breeding and roosting sites and native fauna movements.</p> | |
| <p>PO7</p> <p>Development minimises disturbance to matters of state environmental significance (including existing ecological corridors).</p> | <p>AO7.1</p> <p>Development avoids shading of vegetation by setting back buildings by a distance equivalent to the height of the native vegetation.</p> <p>and</p> <p>AO7.2</p> <p>Development does not encroach within 10 metres of existing riparian vegetation and watercourses.</p> | <p>Not applicable</p> <p>The proposed Dwelling House extension would be sited outside of the identified area of environmental significance within an existing disturbed area.</p> |
| Waterways in an urban area | | |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|--|
| PO8 Development is set back from waterways to protect and maintain: <ul style="list-style-type: none"> (a) water quality; (b) hydrological functions; (c) ecological processes; (d) biodiversity values; (e) riparian and in-stream habitat values and connectivity; (f) in-stream migration. | AO8.1 Where a waterway is contained within an easement or a reserve required for that purpose, development does not occur within the easement or reserve; or AO8.2 Development does not occur on the part of the site affected by the waterway corridor. Note – Waterway corridors are identified within 8. | Not applicable The site does not contain or adjoin a waterway. |
| Waterways in a non-urban area | | |
| PO9 Development is set back from waterways to | AO9 Development does not occur on that part of the site | Not applicable The site does not contain or adjoin a waterway. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|------------|
| protect and maintain: (a) water quality; (b) hydrological functions; (c) ecological processes; (d) biodiversity values; (e) riparian and in-stream habitat values and connectivity; (f) in-stream migration. | affected by a waterway corridor. Note – Waterway corridors are identified within table 8.2.7.3.b. | |



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8.2.9 Potential landslide hazard overlay code

8.2.9.1 Application

- (1) This code applies to assessing a material change of use, reconfiguring a lot, operational work or building work within the Potential landslide hazard overlay; if
 - (a) self-assessable or assessable development where the code is identified as being applicable in the Assessment criteria for the Overlay Codes contained in the Levels of Assessment Tables in section 5.6;
 - (b) impact assessable development.
- (2) Land in the Potential landslip hazard overlay is identified on the Potential landslide hazard overlay maps in Schedule 2 and includes the following sub-categories:
 - (a) Places of potential landslide hazard sub-category.
- (3) When using this code, reference should be made to Part 5.

Note – The Potential landslide hazard overlay shows modelled areas where the factors contributing to landslip potential accumulate to provide a moderate or higher risk if certain factors are exacerbated (e.g. factors include significant vegetation clearing, filling and excavation, changes to soil characteristics, changes to overland water flow, or changes to sub-surface water flow). It shows areas that the Council has identified where landslides may occur and where land may be impacted by a landslide, but does not mean that landslides will occur or that the land will be impacted by a landslide. Other areas not contained within the potential landslide hazard overlay may sustain landslides or be impacted by landslides and consideration should be given to this issue, where appropriate.



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8.2.9.2 Purpose

- (1) The purpose of the Potential landslide hazard overlay code is:
 - (a) implement the policy direction of the Strategic Framework, in particular:
 - (i) Theme 1: Settlement pattern Element 3.4.7 Mitigation of hazards.
 - (b) enable an assessment of whether development is suitable on land within the Potential landslip hazard overlay.
- (2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) development is located, designed and constructed to not put at risk the safety of people, property and the environment;
 - (b) development is not at risk from and does not pose a risk to adjacent and nearby sites from landslides;
 - (c) ensures that community infrastructure is protected from the effects of potential landslides;
 - (d) ensures that vegetation clearing, stormwater management and filling and/or excavation does not create a landslide hazard and/or rectifies potential pre-existing landslide risks;
 - (e) development does not occur where works to provide a solution for safety of people, property or the environment involves complex engineering solutions to overcome the risk, or would result in a built form or outcome that causes an adverse visual impact on the Hillslopes or Landscape values of Douglas Shire.

8.2.9.3 Criteria for assessment

Table 8.2.9.3.a – Potential landslide hazard overlay code –assessable development



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|---|
| For self-assessable and assessable development | | |
| <p>PO1</p> <p>The siting and design of development does not involve complex engineering solutions and does not create or increase the potential landslide hazard risk to the site or adjoining premises through:</p> <ul style="list-style-type: none"> (a) building design; (b) increased slope; (c) removal of vegetation; (d) stability of soil; (e) earthworks; (f) alteration of existing ground water or surface water paths; (g) waste disposal areas. | <p>AO1.1</p> <p>Development is located on that part of the site not affected by the Potential landslide hazard overlay.</p> <p>or</p> <p>AO1.2</p> <p>Development is on an existing stable, benched site and requires no further earthworks</p> <p>or</p> <p>AO1.3</p> <p>A competent person certifies that:</p> <ul style="list-style-type: none"> (a) the stability of the site, including associated buildings and infrastructure, will be maintained during the course of the development and will remain stable for the life of the development; (b) development of the site will not increase the risk of landslide hazard activity on other land, including land above the site; | <p>Complies with AO1.2</p> <p>The proposed Dwelling House extension would be located on an established cleared and stable site and requires no further earthworks.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|----------------------|--|--------------------------|
| | <p>(c) the site is not subject to the risk of landslide activity on other land;</p> <p>(d) any measures identified in a site-specific geotechnical report for stabilising the site or development have been fully implemented;</p> <p>(e) development does not concentrate existing ground water and surface water paths;</p> <p>(f) development does not incorporate on-site waste water disposal.</p> <p>Note – Planning scheme policy SC6.9 – Natural hazards provides guidance on preparing a site specific geo-technical assessment.</p> <p>Note – Development may alter the conditions of ground water and surface water paths in accordance with a site-specific geotechnical report, but should ensure that its final disbursement is as-per pre-developed conditions. Consideration for location, velocity, volume and quality should be given.</p> | |
| PO2 | <p>AO2</p> <p>Excavation or fill:</p> | Complies with AO2 |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|--|
| The siting and design of necessary retaining structures does not cause an adverse visual impact on landscape character or scenic amenity quality of the area. | <ul style="list-style-type: none"> (a) is not more than 1.2 metres in height for each batter or retaining wall; (b) is setback a minimum of 2 metres from property boundaries; (c) is stepped with a minimum 2 metre wide berm to incorporate landscaping in accordance with Planning scheme policy SC6.7 – Landscaping; (d) does not exceed a maximum of 3 batters and 3 berms (i.e. Not greater than 3.6 metres in height) on any one lot. | The proposed Dwelling House extension would be located on an established cleared and stable site and requires no further earthworks. |
| Additional requirements for Community infrastructure | | |
| PO3 Development for community infrastructure: <ul style="list-style-type: none"> (a) is not at risk from the potential landslide hazard areas; (b) will function without impediment from a landslide; | AO3 Development is designed in accordance with the recommendations of a site-specific geotechnical assessment which makes reference to the community infrastructure and its needs and function. | Not applicable The development is for a Dwelling House extension only. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|---|------------|
| (c) provides access to the infrastructure without impediment from the effects of a landslide; (d) does not contribute to an elevated risk of a landslide to adjoining properties. | Note - A site specific geotechnical assessment will detail requirements that will address the Acceptable Outcomes of this Performance Outcome. Planning scheme policy SC6.9 – Natural hazards provides guidance on preparing a site specific geotechnical assessment. | |



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9.4.4 Filling and excavation code

9.4.4.1 Application

- (1) This code applies to assessing:
 - (a) operational work for filling or excavation which is self-assessable or code assessable development if this code is an applicable code identified in the assessment criteria column of a table of assessment; or
 - (b) a material change of use or reconfiguring a lot if:
 - (i) assessable development where this code is identified as a prescribed secondary code in the assessment criteria column of a table of assessment; or
 - (ii) impact assessable development, to the extent relevant.

Note—This code does not apply to building work that is regulated under the Building Code of Australia.

- (2) When using this code, reference should be made to Part 5.

9.4.4.2 Purpose

- (1) The purpose of the Filling and excavation code is to assess the suitability of development for filling or excavation.
- (2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) filling or excavation does not impact on the character or amenity of the site and surrounding areas;
 - (b) filling and excavation does not adversely impact on the environment;
 - (c) filling and excavation does not impact on water quality or drainage of upstream, downstream or adjoining properties;
 - (d) filling and excavation is designed to be fit for purpose and does not create land stability issues;



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- (e) filling and excavation works do not involve complex engineering solutions.

9.4.4.3 Criteria for assessment

Table 9.4.3.3.a – Filling and excavation code – for self-assessable and assessable development

| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|--|
| For self-assessable and assessable development | | |
| Filling and excavation - General | | |
| PO1 All filling and excavation work does not create a detrimental impact on the slope stability, erosion potential or visual amenity of the site or the surrounding area. | AO1.1 The height of cut and/or fill, whether retained or not, does not exceed 2 metres in height. and Cuts in excess of those stated in A1.1 above are separated by benches/ terraces with a minimum width of 1.2 metres that incorporate drainage provisions and screen planting. | Not Applicable No excavation or fill would be undertaken as part of the development. |
| | AO1.2 | Not Applicable |



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| Performance outcomes | Acceptable outcomes | Compliance |
|----------------------|--|--|
| | Cuts are supported by batters, retaining or rock walls and associated benches/terraces are capable of supporting mature vegetation. | No excavation or fill would be undertaken as part of the development. |
| | AO1.3 Cuts are screened from view by the siting of the building/structure, wherever possible. | Not Applicable No excavation or fill would be undertaken as part of the development. |
| | AO1.4 Topsoil from the site is retained from cuttings and reused on benches/terraces. | Not Applicable No excavation or fill would be undertaken as part of the development. |
| | AO1.5 No crest of any cut or toe of any fill, or any part of any retaining wall or structure is closer than 600mm to any boundary of the property, unless the prior written approval of the adjoining landowner has been obtained. | Not Applicable No excavation or fill would be undertaken as part of the development. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|---|
| | <p>AO1.6</p> <p>Non-retained cut and/or fill on slopes are stabilised and protected against scour and erosion by suitable measures, such as grassing, landscaping or other protective/aesthetic measures.</p> | <p>Not Applicable</p> <p>No excavation or fill would be undertaken as part of the development.</p> |
| Visual Impact and Site Stability | | |
| <p>PO2</p> <p>Filling and excavation are carried out in such a manner that the visual/scenic amenity of the area and the privacy and stability of adjoining properties is not compromised.</p> | <p>AO2.1</p> <p>The extent of filling and excavation does not exceed 40% of the site area, or 500m² whichever is the lesser, except that AO2.1 does not apply to reconfiguration of 5 lots or more.</p> | <p>Not Applicable</p> <p>No excavation or fill would be undertaken as part of the development.</p> |
| | <p>AO2.2</p> <p>Filling and excavation does not occur within 2 metres of the site boundary.</p> | <p>Not Applicable</p> <p>No excavation or fill would be undertaken as part of the development.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|--|
| Flooding and drainage | | |
| PO3 Filling and excavation does not result in a change to the run off characteristics of a site which then have a detrimental impact on the site or nearby land or adjacent road reserves. | AO3.1 Filling and excavation does not result in the ponding of water on a site or adjacent land or road reserves. | Not Applicable No excavation or fill would be undertaken as part of the development. |
| | AO3.2 Filling and excavation does not result in an increase in the flow of water across a site or any other land or road reserves. | Not Applicable No excavation or fill would be undertaken as part of the development. |
| | AO3.3 Filling and excavation does not result in an increase in the volume of water or concentration of water in a watercourse and overland flow paths. | Not Applicable No excavation or fill would be undertaken as part of the development. |
| | AO3.4 | Not Applicable |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|--|
| | Filling and excavation complies with the specifications set out in Planning Scheme Policy No SC5 – FNQROC Development Manual. | No excavation or fill would be undertaken as part of the development. |
| Water quality | | |
| PO4 Filling and excavation does not result in a reduction of the water quality of receiving waters. | AO4 Water quality is maintained to comply with the specifications set out in Planning Scheme Policy No SC5 – FNQROC Development Manual. | Not Applicable No excavation or fill would be undertaken as part of the development. |
| Infrastructure | | |
| PO5 Excavation and filling does not impact on Public Utilities. | AO5 Excavation and filling is clear of the zone of influence of public utilities. | Not Applicable No excavation or fill would be undertaken as part of the development. |



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9.4.5 Infrastructure works code

9.4.5.1 Application

- (1) This code applies to assessing:
 - (a) operational work which requires an assessment as a condition of a development permit or is assessable development if this code is identified in the assessment criteria column of a table of assessment;
 - (b) a material change of use or reconfiguring a lot if:
 - (i) assessable development where this code is identified in the assessment criteria column of the table of assessment;
 - (ii) impact assessable development, to the extent relevant.

Note – The Filling and excavation code applies to operational work for filling and excavation.

- (2) When using this code, reference should be made to Part 5.

9.4.5.2 Purpose

- (1) The purpose of the Infrastructure works code is to ensure that development is safely and efficiently serviced by, and connected to, infrastructure.
- (2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) the standards of water supply, waste water treatment and disposal, stormwater drainage, local electricity supply, telecommunications, footpaths and road construction meet the needs of development and are safe and efficient;
 - (b) development maintains high environmental standards;
 - (c) development is located, designed, constructed and managed to avoid or minimise impacts arising from altered stormwater quality or flow, wastewater discharge, and the creation of non-tidal artificial waterways;



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- (d) the integrity of existing infrastructure is maintained;
- (e) development does not detract from environmental values or the desired character and amenity of an area.

9.4.5.3 Criteria for assessment

Table Error! No text of specified style in document..a – Filling and excavation code –assessable development

| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|--|
| For self-assessable and assessable development | | |
| Works on a local government road | | |
| PO1 Works on a local government road do not adversely impact on footpaths or existing infrastructure within the road verge and maintain the flow, safety and efficiency of pedestrians, cyclists and vehicles. | AO1.1 Footpaths/pathways are located in the road verge and are provided for the hierarchy of the road and located and designed and constructed in accordance with Planning scheme policy SC5 – FNQROC Regional Development Manual. | Not applicable No works are proposed on a local government road. |
| | AO1.2 Kerb ramp crossovers are constructed in accordance with Planning scheme policy SC 5 – | Not applicable No works are proposed on a local government |



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| Performance outcomes | Acceptable outcomes | Compliance |
|----------------------|--|--|
| | FNQROC Regional Development Manual. | road. |
| | AO1.3 New pipes, cables, conduits or other similar infrastructure required to cross existing footpaths: (a) are installed via trenchless methods; or (b) where footpath infrastructure is removed to install infrastructure, the new section of footpath is installed to the standard detailed in the Planning scheme policy SC5 – FNQROC Regional Development Manual, and is not less than a 1.2 metre section. | Not applicable No works are proposed on a local government road. |
| | AO1.4 Where existing footpaths are damaged as a result of development, footpaths are reinstated ensuring: (a) similar surface finishes are used; (b) there is no change in level at joins of new | Not applicable No works are proposed on a local government road. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|---|
| | <p>and existing sections;</p> <p>(c) new sections are matched to existing in terms of dimension and reinforcement.</p> <p>Note – Error! Reference source not found. provides guidance on meeting the outcomes.</p> | |
| | <p>AO1.5</p> <p>Decks, verandahs, stairs, posts and other structures located in the road reserve do not restrict or impede pedestrian movement on footpaths or change the level of the road verges.</p> | <p>Not applicable</p> <p>No works are proposed on a local government road.</p> |
| Accessibility structures | | |
| <p>PO2</p> <p>Development is designed to ensure it is accessible for people of all abilities and accessibility features do not impact on the efficient</p> | <p>AO2.1</p> <p>Accessibility structures are not located within the road reserve.</p> | <p>Not applicable</p> <p>No accessibility structures are proposed.</p> |
| | <p>AO2.2</p> | <p>Not applicable</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|---|
| <p>and safe use of footpaths.</p> <p>Note – Accessibility features are those features required to ensure access to premises is provided for people of all abilities and include ramps and lifts.</p> | <p>Accessibility structures are designed in accordance with AS1428.3.</p> | <p>No accessibility structures are proposed.</p> |
| | <p>AO2.3</p> <p>When retrofitting accessibility features in existing buildings, all structures and changes in grade are contained within the boundaries of the lot and not within the road reserve.</p> | <p>Not applicable</p> <p>No accessibility structures are proposed.</p> |
| Water supply | | |
| <p>PO3</p> <p>An adequate, safe and reliable supply of potable, fire fighting and general use water is provided.</p> | <p>AO3.1</p> <p>The premises is connected to Council’s reticulated water supply system in accordance with the Design Guidelines set out in Section D6 of the Planning scheme policy SC5 – FNQROC Regional Development Manual;</p> <p>or</p> | <p>Complies with AO3.2</p> <p>The proposal is for an extension to an existing Dwelling House with existing water supply.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|---|---|
| | <p>AO3.2</p> <p>Where a reticulated water supply system is not available to the premises, on site water storage tank/s with a minimum capacity of 10,000 litres of stored water, with a minimum 7,500 litre tank, with the balance from other sources (e.g. accessible swimming pool, dam etc.) and access to the tank/s for fire trucks is provided for each new house or other development. Tank/s are to be fitted with a 50mm ball valve with a camlock fitting and installed and connected prior to occupation of the house and sited to be visually unobtrusive.</p> | |
| Treatment and disposal of effluent | | |
| <p>PO4</p> <p>Provision is made for the treatment and disposal of effluent to ensure that there are no adverse impacts on water quality and no adverse ecological impacts as a result of the system or as</p> | <p>AO4.1</p> <p>The site is connected to Council's sewerage system and the extension of or connection to the sewerage system is designed and constructed in accordance with the Design Guidelines set out in</p> | <p>Complies with AO4.2</p> <p>The existing dwelling house has an established on-site effluent disposal system that would be upgraded/replaced in association with this application. Refer attached effluent disposal</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|---|
| a result of increasing the cumulative effect of systems in the locality. | <p>Section D7 of the Planning scheme policy SC5 – FNQROC Regional Development Manual;</p> <p>or</p> <p>AO4.2</p> <p>Where not in a sewerage scheme area, the proposed disposal system meets the requirements of Section 33 of the <i>Environmental Protection Policy (Water) 1997</i> and the proposed on site effluent disposal system is designed in accordance with the <i>Plumbing and Drainage Act (2002)</i>.</p> | proposal by 'Dirt Professionals'. |
| Stormwater quality | | |
| <p>PO5</p> <p>Development is planned, designed, constructed and operated to avoid or minimise adverse impacts on stormwater quality in natural and</p> | <p>AO5.1</p> <p>A connection is provided from the premises to Council's drainage system;</p> <p>or</p> | <p>Complies with AO5.1</p> <p>The development is serviced by existing connections.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|--|
| <p>developed catchments by:</p> <ul style="list-style-type: none"> (a) achieving stormwater quality objectives; (b) protecting water environmental values; (c) maintaining waterway hydrology. | <p>AO5.2</p> <p>An underground drainage system is constructed to convey stormwater from the premises to Council's drainage system in accordance with the Design Guidelines set out in Sections D4 and D5 of the Planning scheme policy SC5 – FNQROC Regional Development Manual.</p> | |
| | <p>AO5.3</p> <p>A stormwater quality management plan is prepared, and provides for achievable stormwater quality treatment measures meeting design objectives listed in Error! Reference source not found. and Error! Reference source not found., reflecting land use constraints, such as:</p> <ul style="list-style-type: none"> (a) erosive, dispersive and/or saline soil types; (b) landscape features (including landform); (c) acid sulfate soil and management of nutrients of concern; | <p>Not applicable</p> <p>A stormwater management plan is not considered to be required for a development of this scale.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|----------------------|---|---|
| | (d) rainfall erosivity. | |
| | AO5.4 Erosion and sediment control practices are designed, installed, constructed, monitored, maintained, and carried out in accordance with an erosion and sediment control plan. | Not applicable An Erosion and Sediment Control Plan is not considered to be required for a development of this scale. |
| | AO5.5 Development incorporates stormwater flow control measures to achieve the design objectives set out in Error! Reference source not found. and Error! Reference source not found. , including management of frequent flows, peak flows, and construction phase hydrological impacts. Note – Planning scheme policy SC5 – FNQROC Regional Development Manual provides guidance on soil and water control measures to meet the requirements of the <i>Environmental Protection Act</i> | Complies with AO5.5 The development is serviced by existing connections. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|---|--|
| | <p>1994.</p> <p>Note – During construction phases of development, contractors and builders are to have consideration in their work methods and site preparation for their environmental duty to protect stormwater quality.</p> | |
| Non-tidal artificial waterways | | |
| <p>PO6</p> <p>Development involving non-tidal artificial waterways is planned, designed, constructed and operated to:</p> <p>(a) protect water environmental values;</p> <p>(b) be compatible with the land use constraints for the site for protecting water environmental values;</p> <p>(c) be compatible with existing tidal and non-tidal waterways;</p> | <p>AO6.1</p> <p>Development involving non-tidal artificial waterways ensures:</p> <p>(a) environmental values in downstream waterways are protected;</p> <p>(b) any ground water recharge areas are not affected;</p> <p>(c) the location of the waterway incorporates low lying areas of the catchment connected to an existing waterway;</p> | <p>Not applicable</p> <p>No waterways are proposed.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|---|
| (d) perform a function in addition to stormwater management; (e) achieve water quality objectives. | (d) existing areas of ponded water are included. | |
| | AO6.2 Non-tidal artificial waterways are located: (a) outside natural wetlands and any associated buffer areas; (b) to minimise disturbing soils or sediments; (c) to avoid altering the natural hydrologic regime in acid sulfate soil and nutrient hazardous areas. | Not applicable No waterways are proposed. |
| | AO6.3 Non-tidal artificial waterways located adjacent to, or connected to a tidal waterway by means of a weir, lock, pumping system or similar ensures: (a) there is sufficient flushing or a tidal range of >0.3 m; or (b) any tidal flow alteration does not adversely | Not applicable No waterways are proposed. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|----------------------|--|--|
| | <p>impact on the tidal waterway; or</p> <p>(c) there is no introduction of salt water into freshwater environments.</p> | |
| | <p>AO6.4</p> <p>Non-tidal artificial waterways are designed and managed for any of the following end-use purposes:</p> <p>(a) amenity (including aesthetics), landscaping or recreation; or</p> <p>(b) flood management, in accordance with a drainage catchment management plan; or</p> <p>(c) stormwater harvesting plan as part of an integrated water cycle management plan; or</p> <p>(d) aquatic habitat.</p> | <p>Not applicable</p> <p>No waterways are proposed.</p> |
| | <p>AO6.5</p> <p>The end-use purpose of the non-tidal artificial</p> | <p>Not applicable</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|---|
| | waterway is designed and operated in a way that protects water environmental values. | No waterways are proposed. |
| | AO6.6 Monitoring and maintenance programs adaptively manage water quality to achieve relevant water quality objectives downstream of the waterway. | Not applicable No waterways are proposed. |
| | AO6.7 Aquatic weeds are managed to achieve a low percentage of coverage of the water surface area, and pests and vectors are managed through design and maintenance. | Not applicable No waterways are proposed. |
| Wastewater discharge | | |
| P07 Discharge of wastewater to waterways, or off site: (a) meets best practice environmental | AO7.1 A wastewater management plan is prepared and addresses: | Not applicable No waste water would be discharged off-site. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|---|--|
| <p>management;</p> <p>(b) is treated to:</p> <p>(i) meet water quality objectives for its receiving waters;</p> <p>(ii) avoid adverse impact on ecosystem health or waterway health;</p> <p>(iii) maintain ecological processes, riparian vegetation and waterway integrity;</p> <p>(iv) offset impacts on high ecological value waters.</p> | <p>(a) wastewater type;</p> <p>(b) climatic conditions;</p> <p>(c) water quality objectives;</p> <p>(d) best practice environmental management.</p> | |
| | <p>A07.2</p> <p>The waste water management plan is managed in accordance with a waste management hierarchy that:</p> <p>(a) avoids wastewater discharge to waterways; or</p> <p>(b) if wastewater discharge cannot practicably be avoided, minimises wastewater discharge to waterways by re-use, recycling, recovery and treatment for disposal to sewer, surface water and ground water.</p> | <p>Not applicable</p> <p>No waste water would be discharged off-site.</p> |
| | <p>A07.3</p> <p>Wastewater discharge is managed to avoid or</p> | <p>Not applicable</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|----------------------|--|--|
| | <p>minimise the release of nutrients of concern so as to minimise the occurrence, frequency and intensity of algal blooms.</p> | <p>No waste water would be discharged off-site.</p> |
| | <p>AO7.4</p> <p>Development in coastal catchments avoids or minimises and appropriately manages soil disturbance or altering natural hydrology and:</p> <p>(a) avoids lowering ground water levels where potential or actual acid sulfate soils are present;</p> <p>(b) manages wastewater so that:</p> <p>(i) the pH of any wastewater discharges is maintained between 6.5 and 8.5 to avoid mobilisation of acid, iron, aluminium and other metals;</p> <p>(ii) holding times of neutralised wastewater ensures the flocculation and removal of</p> | <p>Not applicable</p> <p>No waste water would be discharged off-site.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|--|
| | <p>any dissolved iron prior to release;</p> <p>(iii) visible iron floc is not present in any discharge;</p> <p>(iv) precipitated iron floc is contained and disposed of;</p> <p>(v) wastewater and precipitates that cannot be contained and treated for discharge on site are removed and disposed of through trade waste or another lawful method.</p> | |
| Electricity supply | | |
| <p>PO8</p> <p>Development is provided with a source of power that will meet its energy needs.</p> | <p>AO8.1</p> <p>A connection is provided from the premises to the electricity distribution network;</p> <p>or</p> <p>AO8.2</p> <p>The premises is connected to the electricity</p> | <p>Complies with AO8.1</p> <p>The premises is serviced by an existing connection.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|---|
| | <p>distribution network in accordance with the Design Guidelines set out in Section D8 of the Planning scheme policy SC5 – FNQROC Regional Development Manual.</p> <p>Note - Areas north of the Daintree River have a different standard.</p> | |
| <p>PO9</p> <p>Development incorporating pad-mount electricity infrastructure does not cause an adverse impact on amenity.</p> | <p>AO9.1</p> <p>Pad-mount electricity infrastructure is:</p> <ul style="list-style-type: none"> (a) not located in land for open space or sport and recreation purposes; (b) screened from view by landscaping or fencing; (c) accessible for maintenance. | <p>Not applicable</p> <p>No padmount infrastructure is required.</p> |
| | <p>AO9.2</p> <p>Pad-mount electricity infrastructure within a building, in a Town Centre is designed and located to enable an active street frontage.</p> | <p>Not applicable</p> <p>No padmount infrastructure is required.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|---|--|
| | Note – Pad-mounts in buildings in activity centres should not be located on the street frontage. | |
| Telecommunications | | |
| PO10 Development is connected to a telecommunications service approved by the relevant telecommunication regulatory authority. | AO10 The development is connected to telecommunications infrastructure in accordance with the standards of the relevant regulatory authority. | Complies with AO10 The premises is serviced by an existing connection. |
| PO11 Provision is made for future telecommunications services (e.g. fibre optic cable). | AO11 Conduits are provided in accordance with Planning scheme policy SC5 – FNQROC Regional Development Manual. | Complies with AO11 The premises is serviced by an existing connection. |
| Road construction | | |
| PO12 | AO12.1 | Complies with AO12.1 |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|--|
| <p>The road to the frontage of the premises is constructed to provide for the safe and efficient movement of:</p> <p>(a) pedestrians and cyclists to and from the site;</p> <p>(b) pedestrians and cyclists adjacent to the site;</p> <p>(c) vehicles on the road adjacent to the site;</p> <p>(d) vehicles to and from the site;</p> <p>(e) emergency vehicles.</p> | <p>The road to the frontage of the site is constructed in accordance with the Design Guidelines set out in Sections D1 and D3 of the Planning scheme policy SC5 – FNQROC Regional Development Manual, for the particular class of road, as identified in the road hierarchy.</p> | <p>Somerset Drive is an existing constructed and Council maintained road.</p> |
| | <p>AO12.2</p> <p>There is existing road, kerb and channel for the full road frontage of the site.</p> | <p>Complies with AO12.2</p> <p>Somerset Drive is an existing constructed and Council maintained road.</p> |
| | <p>AO12.3</p> <p>Road access minimum clearances of 3.5 metres wide and 4.8 metres high are provided for the safe passage of emergency vehicles.</p> | <p>Complies with AO12.3</p> <p>Somerset Drive is an existing constructed and Council maintained road.</p> |
| Alterations and repairs to public utility services | | |
| PO13 | AO13 | Not applicable |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|--|
| Infrastructure is integrated with, and efficiently extends, existing networks. | Development is designed to allow for efficient connection to existing infrastructure networks. | No alterations to existing services are required. |
| PO14 Development and works do not affect the efficient functioning of public utility mains, services or installations. | AO14.1 Public utility mains, services and installations are not required to be altered or repaired as a result of the development; or AO14.2 Public utility mains, services and installations are altered or repaired in association with the works so that they continue to function and satisfy the relevant Design Guidelines set out in Section D8 of the Planning scheme policy SC5 – FNQROC Regional Development Manual. | Complies with AO14.1 No alterations to existing services are required. |
| Construction management | | |



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| Performance outcomes | Acceptable outcomes | Compliance |
|--|--|--|
| <p>PO15</p> <p>Work is undertaken in a manner which minimises adverse impacts on vegetation that is to be retained.</p> | <p>AO15</p> <p>Works include, at a minimum:</p> <ul style="list-style-type: none"> (a) installation of protective fencing around retained vegetation during construction; (b) erection of advisory signage; (c) no disturbance, due to earthworks or storage of plant, materials and equipment, of ground level and soils below the canopy of any retained vegetation; (d) removal from the site of all declared noxious weeds. | <p>Able to comply with AO15</p> <p>Signage and tree protection is able to be installed if required.</p> |
| <p>PO16</p> <p>Existing infrastructure is not damaged by construction activities.</p> | <p>AO16</p> <p>Construction, alterations and any repairs to infrastructure is undertaken in accordance with the Planning scheme policy SC5 – FNQROC Regional Development Manual.</p> | <p>Complies with AO16</p> <p>Damage to the existing infrastructure is not proposed.</p> |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|---|
| | Note - Construction, alterations and any repairs to State-controlled roads and rail corridors are undertaken in accordance with the Transport Infrastructure Act 1994. | |
| For assessable development | | |
| High speed telecommunication infrastructure | | |
| PO17 Development provides infrastructure to facilitate the roll out of high speed telecommunications infrastructure. | AO17 No acceptable outcomes are prescribed. | Complies with AO17 The site is developed with an existing lawfully constructed house. |
| Trade waste | | |
| PO18 Where relevant, the development is capable of providing for the storage, collection treatment and disposal of trade waste such that: | AO18 No acceptable outcomes are prescribed. | Not applicable No trade waste would be generated by the proposed development. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|--|---|
| (a) off-site releases of contaminants do not occur; (b) the health and safety of people and the environment are protected; (c) the performance of the wastewater system is not put at risk. | | |
| Fire services in developments accessed by common private title | | |
| PO19 Hydrants are located in positions that will enable fire services to access water safely, effectively and efficiently. | AO19.1 Residential streets and common access ways within a common private title places hydrants at intervals of no more than 120 metres and at each intersection. Hydrants may have a single outlet and be situated above or below ground. | Not applicable No common private title is proposed. |
| | AO19.2 Commercial and industrial streets and access ways within a common private title serving commercial properties such as factories and | Not applicable No common private title is proposed. |



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| Performance outcomes | Acceptable outcomes | Compliance |
|---|---|---|
| | warehouses and offices are provided with above or below ground fire hydrants located at not more than 90 metre intervals and at each intersection. Above ground fire hydrants have dual-valved outlets. | |
| PO20 Hydrants are suitable identified so that fire services can locate them at all hours. Note – Hydrants are identified as specified in the Department of Transport and Main Roads Technical Note: 'Identification of street hydrants for fire fighting purposes' available under 'Publications'. | AO20 No acceptable outcomes are prescribed. | Not applicable No common private title is proposed. |

DIRT PROFESSIONALS

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Tandel Investments Pty Ltd
QBCC No. 1173606

28 September 2020

Site Assessment and Design
Lot 10 Somerset Drive
Miallo Qld

Job No 21751

INTRODUCTION

This report presents the results of a site assessment performed at Lot 10 Somerset Drive, Miallo. The assessment is required to determine the method of effluent disposal, as per the Queensland Plumbing and Wastewater Code for on-site sewerage facilities.

EXISTING CONDITIONS

At the time of the assessment the allotment was located in a developed rural residential subdivision. The allotment had an existing dwelling on the site. The site had been excavated to form a level building area for the construction of the extension. The proposed extension is to be located to the North of the existing dwelling, which will consist of a 4 bedroom dwelling. The proposed wastewater area was grassed and level. The location of the building area was shown.

The proposed wastewater is to be situated to the North of the dwelling. This should have sufficient fall to the wastewater area.

FIELD WORK

To investigate subsurface conditions bore holes were excavated to a depth of 1.8 m. The holes were at the proposed wastewater area. A disturbed sample was taken for laboratory testing.

SOIL PROFILE

The bore holes indicate similar soil profiles. There is a layer of clay loams with some sands and gravels to the depth of the bore holes.

SOIL CATEGORY FOR DOMESTIC WASTEWATER

The clay loams with some sands and gravels are regarded as being an imperfectly drained material with a massive structure. The indicative permeability is 0.5 - 1.5 m/d. The soil category on the basis of visual inspection of the materials and AS/NZS 1547:2012, should be classified as a **Soil Category 4**.

It is proposed that a Secondary Treatment System is to be used for the dispersal of wastewater. There were no creeks, bores or drains located in the area. There was no water encountered at the depth of the bore holes.

A design loading rate of 30 mm/d should be used for the sizing of the wastewater area. This shall be designed by a qualified designer based on AS/NZS 1547:2012 and the soil assessment data in this report.

RECOMMENDATIONS

If the building area is to be excavated care should be taken that adequate falls are available to the wastewater system.

Care should be taken that the base of the system is level. This can be obtained by orientating the system to follow contours, ensuring even distribution of the wastewater and avoiding any one part of the system being more heavily loaded. The treatment system is to be installed as per the manufacturers specifications.

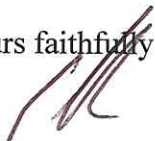
This company is not responsible for the building levels and falls to the wastewater system. These will need to be calculated prior to construction, to determine the building platform heights and allow for sufficient fall to the wastewater area. Consideration should be given as to how the plumber will run the pipes, as this will determine the platform height. If sufficient fall is not available to construct the system as designed, a pump well will need to be installed to distribute the wastewater.

There will be no ponding of water during seasonal rains around the septic tank, pump well and wastewater area. Diversion drains will need to be put in place to divert water from the wastewater area.

VALIDITY

The excavation of a limited number of holes does not preclude the possibility of some conditions on the site being different from those encountered in the holes. Should conditions be found which differ from those described in this report, then the recommendations are not valid and this organisation should be contacted.

Yours faithfully



Angelo Tudini
Director

Tandel Investments Pty Ltd T/as **Dirt Professionals**

Attached:

Site Plan and Site Photo
AES Design Calculator,
AES Pipe Layout
Cross-sectional Details

BORE HOLE LOGS

TEST HOLE 1

0.0 - 1.5m Clay Loams with sands and gravels - Brown

TEST HOLE 2

0.0 - 1.3 m Clay Loams with sands and gravels - Brown

TEST HOLE 3

0.0 - 1.8 m Clay Loams with sands and gravels - Brown

Leader in Passive Solutions

| | | | | | |
|----------------|--|---------------------------|--------------|------------------------------|---------|
| Site Address | Lot 10 Somerset Drive, Miallo TOTAL 2 BEDS | State | QLD | Post Code | 4873 |
| Client Name | Lawson Design | Date of Site Visit | 7/9/20 | | |
| Designers Name | Angelo Tudini | Designers Ph Number | 0417 647 477 | Designers Lic Number | 1173606 |
| Plumber Name | TBA | Plumber Ph Number | TBA | Plumber / Drainer Lic Number | TBA |
| Council Area | Douglas Shire Council | Designers AES Cert Number | 1372 | Date | 9/10/20 |

This Calculator is a guide only, receiving soil classification, surface water, water tables and all other site constraints addressed by the qualified designer.

System Designers site and soil calculation data entry

IMPORTANT NOTES

| | | |
|--|------|---|
| Enter AES L/m loading rate, "30" for ADV Secondary or "38" Secondary | 30 | >> This design is for an ADVANCED SECONDARY system |
| Is this a new installation Y or N | Y | >> Minimum single vent size is 80mm or 2 x 50mm house vents |
| Number of person | 6 | a septic tank outlet filter is NOT RECOMMENDED |
| Daily Design Flow Allowance Litre/Person/Day | 150 | |
| Number of rows required to suit site constraints | 4 | >> Longer AES runs are better than multiple short runs. |
| Infiltration surface Soil Cat as est by site/soil evaluation. CATEGORY | 4 | >> Category may require design considerations. Ref AS1547 |
| Design Loading Rate based on site & soil evaluation DLR (mm/day) | 30 | >> Soil conditioning may be necessary. Ref AS1547 & Comments. |
| Bore log depth below system Basal area | 1800 | >> Min depth below basal area 600mm check water table/restrictive layer |
| AES FOOTPRINT MUST BE LEVEL WITH TRENCH EXTENSION | 0 | |
| Is this design a gravity system with no outlet filter? Y or N | y | >> A House Vent & LOW VENT required on this system |
| PLEASE CHECK YOU HAVE FELL FROM TANK TO AES SYSTEM PIPES | | |

COMMENTS :- "The outcome must be important to everyone."

- Ripping of receiving surface required in clay soil structures in Cat 4,5,6. In addition refer to AS 1547. Always excavate & rip parallel to the site slope/AES pipe.

- Plumbers are reminded to practice good construction techniques as per AS 1547 & as provided on AES installation instructions supplied with components.


| AES System Calculator Outcomes | | | AES dimensions | | |
|--|------|------|----------------|----------------|------|
| Total System load - litres / day (Q). | 900 | l/d | AES System | Extension Area | |
| Min Length of AES pipe rows to treat loading | 7.5 | lm | Lth m : (L) | | |
| Number of FULL AES Pipe lengths per row | 3 | lths | Width m:(W) | | |
| Total Capacity of AES System pipe in Litres | 2544 | ltr. | Sand Depth : | 0.75 | 0.15 |
| | | | Area m2 | 21.6 | 8.4 |

USE CUT LENGTHS OF PIPE IN THIS DESIGN? (ENTER Y) ☐ >> Slope percentage must be 0% & infiltration footprint must be level !

IF YOU WISH TO USE A TRENCH EXTENSION DESIGN OPTION ENTER "Y" ☐ Enter Custom Width in metre

| AES INFILTRATION FOOT PRINT AREA - $L = Q / (DLR \times W)$ | Length | Width | Minimum AES foot print required . |
|---|--------|-------|-----------------------------------|
| The length & width of excavation required for this design is >> | 11.1 | x 2.7 | = 30.0 m2 total |

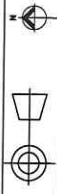
Single rows have 2 parts with a 200mm strait raised connector. The 1st part would contain the extra pipe if number of pipes are not even. IE 3+2, 4+3, 5+4, etc

| Code | AES System Bill of Materials. | | Chankar Environmental Use Only |
|--|-----------------------------------|---------|--|
| AES-PIPE | AES 3 mtr Lths required | 12 lths |  Digitally signed by Steve Dennis DN: cn=Steve Dennis, o=Chankar Environmental, ou=Resign Review, email=designreview@enviro-septic.com.au, c=AU Date: 2020.10.13 07:55:04 +10'00' Designreview@enviro-septic.com.au |
| AESC | AESC Couplings required | 8 ea | |
| AESO | AESO Offset adaptors | 8 ea | |
| AESODV | AES Oxygen demand vent | 2 ea | |
| AES-IPB | AES 100mm Inspection point base | 4 ea | |
| AES Equ | AES Speed Flow Equal 1x T D 4 Kit | 2 ea | |
| AES DESC | Double Offset Adaptors | ea | |
| TOTAL SYSTEM SAND REQUIRED (Guide Only) | | 24 m3 | |
| PLEASE email your AES CALC and Drawings to DESIGNREVIEW@ENVIRO-SEPTIC.COM.AU | | | |

> The AES Calculator is a design aid to allow checking of the AES components and configuration and is a guide only. Site and soil conditions referencing the AS 1547 standard are calculated and designed by a Qualified Designer.

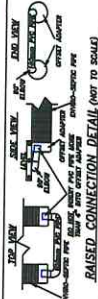
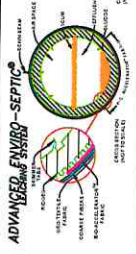
> Chankar Environmental has no responsibility for the soil evaluation, loading calculations or DLR entered by the designer for this calculator.

> AES pipes can be cut to length on site. They are supplied in 3 meter lths only.



REVISIONS

| REV # | DATE | SUBJECT | AUTHORISED |
|-------|------|---------|------------|
| | | | |



CHANKAR ENVIRONMENTAL PTY LTD

T/A



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Email: designview@enviro-septic.com.au

Web: www.enviro-septic.com.au

WASTE WATER TREATMENT & EFFLUENT DISPOSAL SYSTEM SITE PLAN

NAME OF CLIENT

LAWSON DESIGN

DESIGNER

K. Dickson

DATE

09/10/2020

DRAWN

S. Dennis

LOT & PLAN

STREET ADDRESS

LOT 10 SOMERSET DRIVE, MIALLO

COUNCIL

DRAWING DETAILS

SCALE

CLIENT REFERENCE #

JOB NUMBER

21751

REVISION

DWG#

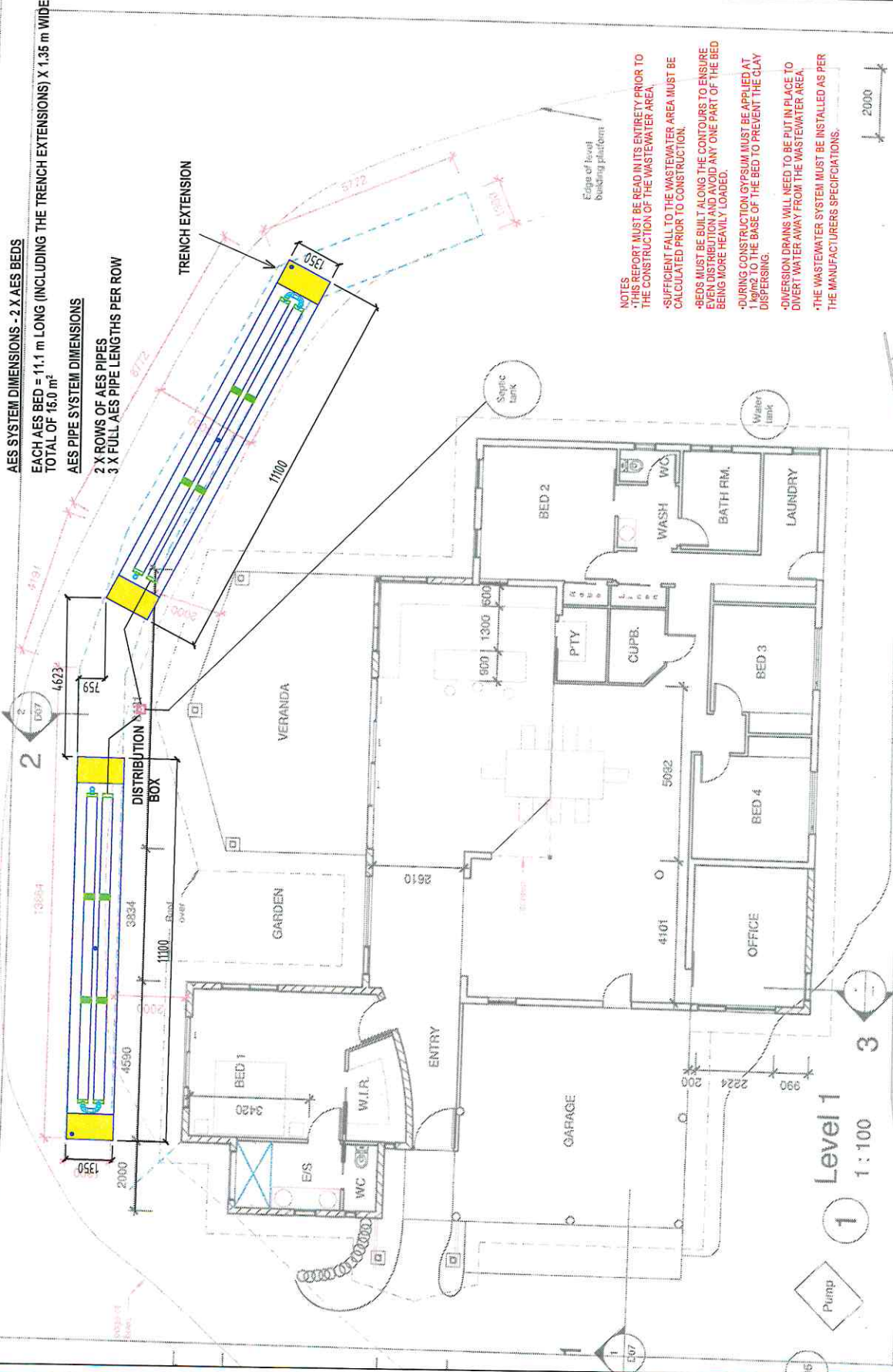
SL2

AES SYSTEM DIMENSIONS - 2 X AES BEDS

EACH AES BED = 11.1 m LONG (INCLUDING THE TRENCH EXTENSIONS) X 1.35 m WIDE
TOTAL OF 15.0 m²

AES PIPE SYSTEM DIMENSIONS

2 X ROWS OF AES PIPES
3 X FULL AES PIPE LENGTHS PER ROW



- NOTES
- THIS REPORT MUST BE READ IN ITS ENTIRETY PRIOR TO THE CONSTRUCTION OF THE WASTEWATER AREA.
 - SUFFICIENT FALL TO THE WASTEWATER AREA MUST BE CALCULATED PRIOR TO CONSTRUCTION.
 - BEDS MUST BE BUILT ALONG THE CONTOURS TO ENSURE EVEN DISTRIBUTION AND AVOID ANY ONE PART OF THE BED BEING MORE HEAVILY LOADED.
 - DURING CONSTRUCTION GYPSUM MUST BE APPLIED AT 1 kg/m² TO THE BASE OF THE BED TO PREVENT THE CLAY DISPERSING.
 - DIVERSION DRAINS WILL NEED TO BE PUT IN PLACE TO DIVERT WATER AWAY FROM THE WASTEWATER AREA.
 - THE WASTEWATER SYSTEM MUST BE INSTALLED AS PER THE MANUFACTURERS SPECIFICATIONS.

Existing retaining wall

LAWSON DESIGN

PH: 47 532 6000 FAX: 47 532 6000

PO BOX 209 ENGELBULL 4870

Building Enquiries: 0800 654 0300

R & L Akers

Lot 10 No. 158-164 Somerset Dr.

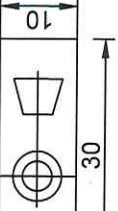

Proposed Renovations

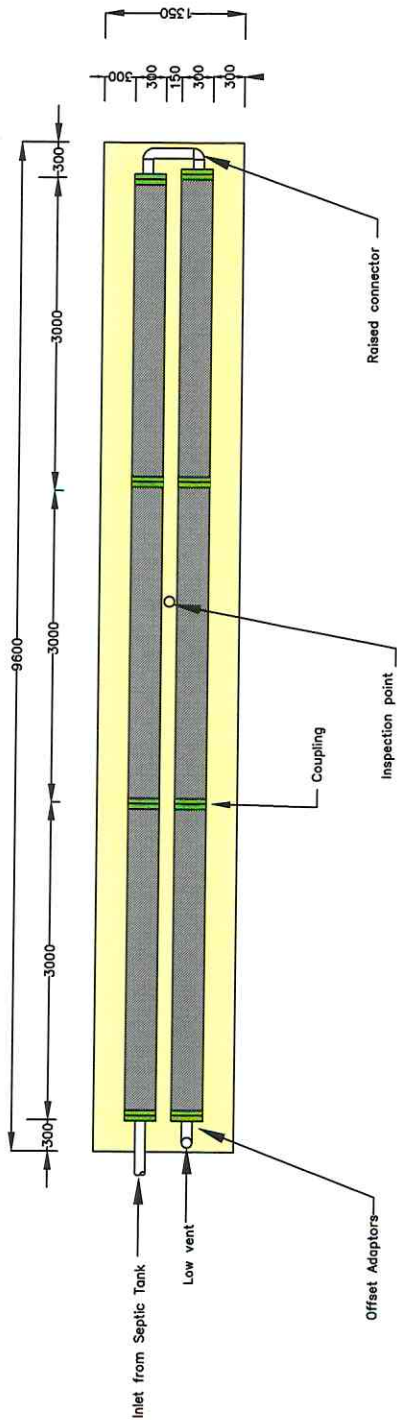
RODGERS Consulting Engineers
Ph. 40 519 466

These drawings are prepared and made not to be copied or utilized in any form without the written consent of the designer. The contractor is to be responsible for the accuracy of the drawings and to ensure that the work is done in accordance with the drawings and specifications only.

17/8/20 2011

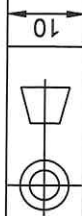
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| | | | |
|---|------|---|----------------------|
| SCALE | | | |
|  | | | |
| ADVANCED ENVIRO - SEPTIC OWNER / ENGAGED BY Lawson Design | | | |
| Site Address Lot 10 Somerset Drive Miallo | | | |
| AMENDMENTS | | | |
| ISSUE | DATE | SUBJECT | AUTHORISED |
| | | | |
| CHANKAR ENVIRONMENTAL PTY LTD T/A  QBCC LICENCE NUMBER 150 238 31 Phone: +61 7 5474 4055 Fax: +61 7 5335 1691 Email : designreview@enviro-septic.com.au www.enviro-septic.com.au | | | |
| ADVANCED ENVIRO-SEPTIC PIPE LAYOUT DETAILS FOR TWO ROWS THREE PIPES | | | |
| SCALE: 1:70 (A4) | | PROJECT JOB NUMBER Job: 21751 | REVISION SHEET NO |
| | | Date: 09/10/2020 | |



AES PIPE LAYOUT DETAILS

SCALE



30

ADVANCED ENVIRO - SEPTIC

OWNER / ENGAGED BY

Lawson Design

Site Address

**Lot 10 Somerset Drive
Miallo**

AMENDMENTS

| ISSUE | DATE | SUBJECT | AUTHORISED |
|-------|------|---------|------------|
| | | | |

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T/A



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Email: designreview@enviro-septic.com.au

www.enviro-septic.com.au

ADVANCED ENVIRO-SEPTIC CROSS
SECTIONAL DETAILS FOR TWO ROWS
GRAVITY SYSTEM

SCALE:

1:30 (A4)

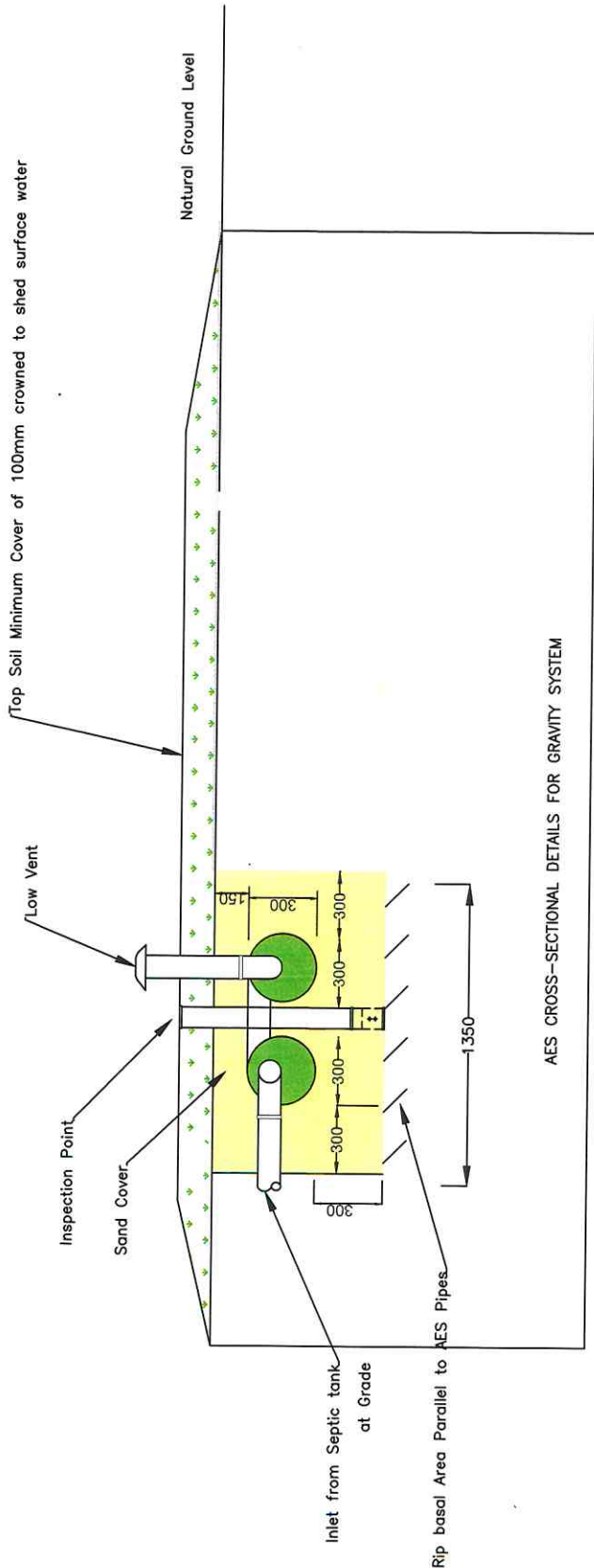
PROJECT JOB NUMBER

Job: 21751

REVISION

SHEET NO

Date: 09/10/2020



AES CROSS-SECTIONAL DETAILS FOR GRAVITY SYSTEM

