

June 3, 2020

The Manager,
Planning Services
Douglas Shire Council
P.O. Box 723
Mossman QLD 4873

DOUGLAS SHIRE COUNCIL	
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Attention	Planning
Information	

Attention – Planning and Develop Services

Dear Sir/Madam

**APPLICATION FOR MATERIAL CHANGE OF USE OF PREMISES, DWELLING/HOUSE
ON LOT 18 RP 738519 THORNTON PEAK DRIVE FOREST CREEK**

Attached is DA form 1 duly completed together with sketches of the proposed 1 bedroom dwelling house, soil classification and wastewater management report.

In addition to the house site the attached site plan shows the extent of proposed vegetation clearing.

No overlays affect the allotment in the general area of house site.

The following report provides supporting information to show compliance or otherwise with the planning scheme and codes within

General details

Applicant	William C Schumann
Contact	William C Schumann 19 Tryal Street Bentley Park Cairns QLD 4869 Ph 0477-445-789 Email bill.schumann@bigpond.com
Registered Land Owner	William C Schumann
Real Property Description	Lot 18 RP 738519
Location	Thornton Peak Drive Forest Creek

General Details continued

Tenure	Freehold
Land Area	1.536 ha
Present Use	Vacant
Easements and Encumbrances	None
Local Government Authority	Douglas Shire Council
Planning Scheme	2020 Douglas Shire Planning Scheme
Planning Area	Environmental Management Zone
Assessment Level	Code Assessable
Applicable Codes	Environmental Management Zone Code

Assessment Against the Douglas Shire Planning Scheme Codes

6.2.4 Environmental management zone code 6.2.4.1 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.

The local government purpose of the code is to:
implement the policy direction set in the Strategic Framework, in particular:

Theme 2 : Environment and landscape values, Element 3.5.3 – Biodiversity, Element 3.5.5 – Scenic amenity.

Protect and buffer areas of environmental significance from inappropriate development.

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

Development is generally restricted to a dwelling house;

Adverse impacts on natural systems, both on-site and on adjoining land are minimised through the location, design and management of development;

Development reflects and responds to the natural features and environmental values of the area;

Visual impacts are minimised through the location and design of development;

Development does not adversely affect water quality;

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	Outcomes
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.	AO1.1 Buildings and structures are not more than 8.5 metres and two storeys in height. Note – Height is inclusive of the roof height. AO1.2 Buildings have a roof height, not less than 2 metres.	The proposed dwelling/house is single story only Roof height of approximately 2.3m

Performance Outcomes	Acceptable Outcomes	Outcomes
For Self-assessable and assessable development		
PO2 Buildings and structures are set back to: (a) maintain the natural character of the area; (b) achieve separation from neighbouring buildings and from road frontages.	AO2 Buildings and structures are set back not less than: (a) 40 metres from the frontage of a state controlled road; (b) 25 metres from the frontage to Cape Tribulation Road; (c) 6metres from any other road; (d) 6 metres from the side and rear boundaries of the site.	The proposed dwelling/house is set back 25m from the frontage of Thornton peak Drive and is also 20m from the West side boundary. This position places the proposed dwelling/house in the best possible position to make use of the natural land fall of 2 degree
PO3 Development is consistent with the purpose of the Environmental management zone and protects the zone from the intrusion of inconsistent uses.	AO3 Inconsistent uses as identified in Table 6.2.4.3.b are not established in the Environmental management zone.	Private dwelling/house only.
PO4 The site coverage of all buildings and structures and associated services do not have an adverse effect on the environmental or scenic values of the site.	PO4 No acceptable outcomes are prescribed.	
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: (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. AO5.2 Buildings and structures and associated infrastructure are not located on slopes greater than 1 in 6 (16.6%) or on a ridgeline.	There are not cleared areas on this lot. The proposed driveway, entrance and dwelling site is situated in the most environmentally degraded location to minimise vegetation clearing and to make use of the natural land fall. Lot 18 Thornton Peak Drive has a 2 degree fall NW to ES.
PO6 Buildings and structures are responsive to steep slope through innovative construction techniques so as to: (a) maintain the geotechnical stability of slopes; (b) minimise cut and/or fill; (c) minimise the overall height	AO6.1 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. AO6.2 Access and vehicle manoeuvring and parking areas are constructed and maintained to: (a) minimise erosion; (b) minimise cut and fill; (c) follow then actual contours of the site.	Lot 18 Thornton Peak Drive has a 2 degree fall NW to ES. No cut and fill is required however it is proposed to have the building elevated on footings 1m above natural land level. Vehicle access, manoeuvring and parking areas will be constructed using 20mm bluestone with a bluestone quarry dust covering.

Performance Outcomes	Acceptable Outcomes	Outcomes
For Self-assessable and assessable development		
PO7 The exterior finishes of buildings and structures are consistent with the surrounding natural environment.	PO7 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.	The proposed dwelling/house is set back as to not be externally visible however the preferred colours of the darker shades of grey, green, blue and brown will be used.
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.	Due care of necessary will be used to minimise the affects to others and the environment.
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.	The proposed dwelling/house is a single dwelling/house only.
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.	There are no lot reconfiguration request

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
<p>Note – This table does not imply that all other uses not listed in the table are automatically consistent uses within the zone. Assessable development must still demonstrate consistency through the assessment process.</p>		

9.3.8 Dwelling house code

9.3.8.1 Application

(1) This code applies to assessing development for a dwelling house if:

- (a) Self-assessable development or assessable development where this code identified in The assessment criteria column of a table of assessment; or**
(b) Impact assessable development.

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

Note—Where the land is identified in an overlay map, additional provisions relating to that overlay also apply. For example, Minimum floor levels for a dwelling house on a site subject to certain types of flooding are identified in the Flood and storm tide Inundation overlay code.

Note – For a proposal to be self-assessable, it must meet all of the self-assessable outcomes of this code and any other

Applicable code. Where is does not meet all the self-assessable outcomes, the proposal becomes assessable development and

A development application is required. Where a development application is triggered, only the specific acceptable outcomes that

The proposal fails to meet need to be assessed against the corresponding performance outcomes. Other self-assessable

Outcomes that are met are not assessed as part of the development application.

9.3.8.2 Purpose

(1) The purpose of the Dwelling house code is to assess the suitability of development to which this code applies.

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

- (a) The dwelling / house, including all habitable buildings on site, is occupied by a single household;**
(b) A dwelling house, including a secondary dwelling or domestic outbuildings; ensures that the secondary dwelling is sub-ordinate to the primary dwelling house;
(c) Development of a dwelling house provides sufficient and safe vehicle access and parking for residents;
(d) The built form, siting, design and use of each dwelling are consistent with the desired neighborhood character and streetscape elements of the area.

9.3.8.3 Criteria for assessment

Table 9.3.8.3.a – Dwelling house code –assessable development

Performance outcomes	Acceptable outcomes	Outcomes
For self-assessable and assessable development		
PO1 Secondary dwellings: (a) Are subordinate, small-scaled dwellings; (b) Contribute to a safe and pleasant living environment; (c) Are established on appropriate sized lots; (d) Do not cause adverse impacts on adjoining properties.	AO1 The secondary dwelling: (a) Has a total gross floor area of not more than 80m2, excluding a single carport or garage; (b) Is occupied by 1 or more members of the same household as the dwelling house.	Single dwelling/house only No second dwelling / house request are submitted

Performance outcomes	Acceptable outcomes	Outcomes
For self-assessable and assessable development		
<p>PO2 Resident's vehicles are accommodated on- site.</p>	<p>AO2 Development provides a minimum number of on site car parking spaces comprising: (a) 2 car parking spaces which may be in tandem for the dwelling house; (b) 1 car parking space for any secondary dwelling on the same site.</p>	<p>The proposed dwelling/house will have 2no. car spaces provided for residents with a further additional car spaces provided for visitors.</p> <p>No second dwelling/house request are submitted</p>
<p>PO3 Development is of a bulk and scale that: (a) Is consistent with and complements the built Form and front boundary setbacks prevailing in the street and local area; (b) Does not create an overbearing development for adjoining dwelling houses and their private Open space; (c) Does not impact on the amenity and privacy of residents in adjoining dwelling houses; (d) Ensures that garages do not dominate the appearance of the street.</p>	<p>AO3 Development meets the acceptable outcome for building height in the applicable Zone code associated with the site.</p>	<p>Environmental management zone Acceptable outcomes</p> <p>Ao1.1 Max 8.5 metres and two storey in height</p> <p>Ao1.2 Have a roof height not less than 2m</p> <p>The proposed dwelling / house has a total building height of 5.9 meters with a roof height of 2.3 metres</p>

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

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.

Land in the Bushfire hazard overlay is identified on the Bushfire hazard overlay map in Schedule 2 and includes the following sub-categories:

- Medium bushfire risk sub-category;
High bushfire risk sub-category;
- Very high bushfire risk sub-category;
- Potential impact buffer sub-category.

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:

- Theme 1 Settlement pattern: Element 3.4.7 Mitigation of hazards;
- 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:

- Development avoids the establishment or intensification of vulnerable activities within or near areas that are subject to bushfire hazard;
- Development is designed and located to minimise risks to people and property from bushfires;
- Bushfire risk mitigation treatments are accommodated in a manner that avoids or minimises impacts on the natural environment and ecological processes;
- Development involving the manufacture or storage of hazardous materials does not increase the risk to public safety or the environment in a bushfire event;
- 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.

8.2.2.3 Criteria for assessment

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

Performance outcomes	Acceptable outcomes	Outcomes
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.	The proposed dwelling/house will have a private driveway, approximately 25 metres in length. Lot 18 Thornton Peak Drive has a 2 degree fall NW to ES. The proposed area requested for material change is 20 metres from the frontage of Thornton Peak Drive and 15 metres from the West side boundary. This gives a 5 metre vertical buffer between the proposed dwelling and forest line Drive way will be constructed using 20mm blue stone screenings with a cover of crushed blue store aggregate to accommodate heavy turning vehicles.
PO13 Development outside reticulated water supply areas includes a dedicated static supply that is available solely for fire fighting purposes and can be accessed by fire fighting appliances.	AO13 A water tank is provided within 10m of each building (other than a class 10 building) which: 10,000l for residential buildings 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. Includes a hardstand area allowing medium rigid vehicle (15 tonne fire appliance) access within 6m of the tank; is provided with fire brigade tank fittings – 50mm ball valve and male camlock coupling	The proposed dwelling/house will collect water from the roof and preserve a minimum of 10,000Lt in a tank fitted with a 50mm ball valve and camlock coupling for access to emergencies services.

Note – 'Vulnerable activities' are those involving:

- (1) the accommodation or congregation of vulnerable sectors of the community such as child care centres, community care centre, educational establishments, detention facilities, hospitals, rooming accommodation, retirement facilities or residential care facilities; or
- (2) the provision of essential services including community uses, emergency services, utility installation, telecommunications facility, substations and major electricity infrastructure.

DA Form 1 – Development application details

Approved form (version 1.0 effective 3 July 2017) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development**, use this form (*DA Form 1*) and parts 4 to 6 of *DA Form 2 – Building work details*.

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)	William Carl Schumann
Contact name (only applicable for companies)	
Postal address (P.O. Box or street address)	19 Tryal Street
Suburb	Bentley Park
State	QLD
Postcode	4869
Country	Australia
Contact number	0477 445 789
Email address (non-mandatory)	Bill.schumann@bigpond.com
Mobile number (non-mandatory)	
Fax number (non-mandatory)	
Applicant's reference number(s) (if applicable)	

2) Owner's consent

2.1) Is written consent of the owner required for this development application?

- ☐ Yes – the written consent of the owner(s) is attached to this development application
- ☒ No – proceed to 3)

PART 2 – LOCATION DETAILS

3) Location of the premises (complete 3.1) or 3.2), and 3.3) as 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.

3.1) Street address and lot on plan

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

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

a)	Unit No.	Street No.	Street Name and Type	Suburb
			Thornton Peak Drive	Forest Creek
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4873	18	RP 738519	Douglas Shire Council
b)	Unit No.	Street No.	Street Name and Type	Suburb
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)

3.2) Coordinates of premises (appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)

Note: Place each set of coordinates in a separate row. Only one set of coordinates is required for this part.

☐ Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other:	

☐ Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> 54 <input type="checkbox"/> 55 <input type="checkbox"/> 56	<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other:	

3.3) Additional premises

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

☒ Not required

4) Identify any of the following that apply to the premises and provide any relevant details

☐ In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:

☐ On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:

Name of port authority for the lot:

☐ In a tidal area

Name of local government for the tidal area (if applicable):

Name of port authority for tidal area (if applicable):

☐ On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*

Name of airport:

☐ Listed on the Environmental Management Register (EMR) under the *Environmental Protection Act 1994*

EMR site identification:

☐ Listed on the Contaminated Land Register (CLR) under the *Environmental Protection Act 1994*

CLR site identification:

5) 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 DA Forms Guide.*☐ Yes – All easement locations, types and dimensions are included in plans submitted with this development application☒ No**PART 3 – DEVELOPMENT DETAILS****Section 1 – Aspects of development****6.1) Provide details about the first development aspect****a) What is the type of development? (tick only one box)**☒ Material change of use☐ Reconfiguring a lot☐ Operational work☐ Building work**b) What is the approval type? (tick only one box)**☐ Development permit☐ Preliminary approval☐ Preliminary approval that includes a variation approval**c) What is the level of assessment?**☒ Code assessment☐ Impact assessment (requires public notification)**d) Provide a brief description of the proposal (e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):**

Requesting a material change of use permit to provide for Dwelling house

e) Relevant plans*Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms guide: Relevant plans.*☒ Relevant plans of the proposed development are attached to the development application**6.2) Provide details about the second development aspect****a) What is the type of development? (tick only one box)**☐ Material change of use☐ Reconfiguring a lot☐ Operational work☒ Building work**b) What is the approval type? (tick only one box)**☐ Development permit☐ Preliminary approval☐ Preliminary approval that includes a variation approval**c) What is the level of assessment?**☒ Code assessment☐ Impact assessment (requires public notification)**d) Provide a brief description of the proposal (e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)**

Dwelling / container house

e) Relevant plans*Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.*☒ Relevant plans of the proposed development are attached to the development application**6.3) Additional aspects of development**

- ☐ Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application
- ☒ Not required

Section 2 – Further development details

7) Does the proposed development application involve any of the following?

- Material change of use ☒ Yes – complete division 1 if assessable against a local planning instrument
- Reconfiguring a lot ☐ Yes – complete division 2
- Operational work ☐ Yes – complete division 3
- Building work ☒ Yes – complete DA Form 2 – Building work details

Division 1 – Material change of use

Note: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.

8.1) Describe the proposed material change of use

Provide a general description of the proposed use	Provide the planning scheme definition (include each definition in a new row)	Number of dwelling units (if applicable)	Gross floor area (m ²) (if applicable)
New house	Dwelling house	1	Approx. 120m

8.2) Does the proposed use involve the use of existing buildings on the premises?

- ☐ Yes
- ☒ No

Division 2 – Reconfiguring a lot

Note: This division is only required to be completed if any part of the development application involves reconfiguring a lot.

9.1) What is the total number of existing lots making up the premises?

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9.2) What is the nature of the lot reconfiguration? (tick all applicable boxes)

- ☐ Subdivision (complete 10)) ☐ Dividing land into parts by agreement (complete 11))
- ☐ Boundary realignment (complete 12)) ☐ Creating or changing an easement giving access to a lot from a construction road (complete 13))

10) Subdivision

10.1) For this development, how many lots are being created and what is the intended use of those lots:

Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:
Number of lots created				

10.2) Will the subdivision be staged?

- ☐ Yes – provide additional details below
- ☐ No

How many stages will the works include?	
What stage(s) will this development application apply to?	

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?

Intended use of parts created	Residential	Commercial	Industrial	Other, please specify:
Number of parts created				

12) Boundary realignment

12.1) What are the current and proposed areas for each lot comprising the premises?

Current lot		Proposed lot	
Lot on plan description	Area (m ²)	Lot on plan description	Area (m ²)

12.2) What is the reason for the boundary realignment?

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13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement? (attach schedule if there are more than two easements)

Existing or proposed?	Width (m)	Length (m)	Purpose of the easement? (e.g. pedestrian access)	Identify the land/lot(s) benefitted by the easement

Division 3 – Operational work

Note: This division is only required to be completed if any part of the development application involves operational work.

14.1) What is the nature of the operational work?

- | | | |
|---|-------------------------------------|--|
| <input type="checkbox"/> Road work | <input type="checkbox"/> Stormwater | <input type="checkbox"/> Water infrastructure |
| <input type="checkbox"/> Drainage work | <input type="checkbox"/> Earthworks | <input type="checkbox"/> Sewage infrastructure |
| <input type="checkbox"/> Landscaping | <input type="checkbox"/> Signage | <input type="checkbox"/> Clearing vegetation |
| <input type="checkbox"/> Other – please specify: <input type="text"/> | | |

14.2) Is the operational work necessary to facilitate the creation of new lots? (e.g. subdivision)

- ☐ Yes – specify number of new lots:
- ☐ No

14.3) What is the monetary value of the proposed operational work? (include GST, materials and labour)

\$

PART 4 – ASSESSMENT MANAGER DETAILS

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

Douglas Shire Council

16) 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
- ☐ Local government is taken to have agreed to the superseded planning scheme request – relevant documents attached
- ☒ No

PART 5 – REFERRAL DETAILS

17) Do any aspects of the proposed development require referral for any referral requirements?

17) Do any aspects of the proposed development require referral for any referral requirements?

Note: A development application will require referral if prescribed by the Planning Regulation 2017.

☒ No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the chief executive of the Planning Regulation 2017:

- ☐ Clearing native vegetation
- ☐ Contaminated land (*unexploded ordnance*)
- ☐ Environmentally relevant activities (ERA) (*only if the ERA have not been devolved to a local government*)
- ☐ Fisheries – aquaculture
- ☐ Fisheries – declared fish habitat area
- ☐ Fisheries – marine plants
- ☐ Fisheries – waterway barrier works
- ☐ Hazardous chemical facilities
- ☐ Queensland heritage place (*on or near a Queensland heritage place*)
- ☐ Infrastructure – designated premises
- ☐ Infrastructure – state transport infrastructure
- ☐ Infrastructure – state transport corridors and future state transport corridors
- ☐ Infrastructure – state-controlled transport tunnels and future state-controlled transport tunnels
- ☐ Infrastructure – state-controlled roads
- ☐ Land within Port of Brisbane's port limits
- ☐ SEQ development area
- ☐ SEQ regional landscape and rural production area or SEQ Rural living area – community activity
- ☐ SEQ regional landscape and rural production area or SEQ Rural living area – indoor recreation
- ☐ SEQ regional landscape and rural production area or SEQ Rural living area – residential development
- ☐ SEQ regional landscape and rural production area or SEQ Rural living area – urban activity
- ☐ Tidal works or works in a coastal management district
- ☐ Urban design
- ☐ Water-related development – taking or interfering with water
- ☐ Water-related development – removing quarry material (*from a watercourse or lake*)
- ☐ Water-related development – referable dams
- ☐ Water-related development – construction of new levees or modification of existing levees (*category 2 or 3 levees only*)
- ☐ Wetland protection area

Matters requiring referral to the local government:

- ☐ Airport land
- ☐ Environmentally relevant activities (ERA) (*only if the ERA have been devolved to local government*)
- ☐ Local heritage places

Matters requiring referral to the chief executive of the distribution entity or transmission entity:

- ☐ Electricity infrastructure

Matters requiring referral to:

- The **chief executive of the holder of the licence**, if not an individual
- The **holder of the licence**, if the holder of the licence is an individual

☐ Oil and gas infrastructure

Matters requiring referral to the **Brisbane City Council**:

☐ Brisbane core port land

Matters requiring referral to the **Minister under the Transport Infrastructure Act 1994**:

☐ Brisbane core port land

☐ Strategic port land

Matters requiring referral to the **relevant port operator**:

☐ Brisbane core port land (below high-water mark and within port limits)

Matters requiring referral to the **chief executive of the relevant port authority**:

☐ Land within limits of another port

Matters requiring referral to the **Gold Coast Waterways Authority**:

☐ Tidal works, or development in a coastal management district in Gold Coast waters

Matters requiring referral to the **Queensland Fire and Emergency Service**:

☐ Tidal works, or development in a coastal management district

18) 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 of referral response

Identify and describe any changes made to the proposed development application that was the subject of the referral response and the development application the subject of this form, or include details in a schedule to this development application *(if applicable)*.

PART 6 – INFORMATION REQUEST

19) 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.

PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals? (e.g. a preliminary approval)

☐ Yes – provide details below or include details in a schedule to this development application☒ No

List of approval/development application references	Reference number	Date	Assessment manager
<input type="checkbox"/> Approval			
<input type="checkbox"/> Development application			
<input type="checkbox"/> Approval			
<input type="checkbox"/> Development application			

21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)

☐ Yes – the yellow local government/private certifier's 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

Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
\$		

22) 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

23) Further legislative requirements

Environmentally relevant activities23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?☐ Yes – the required attachment (form EM941) for an application for an environmental authority accompanies this development application, and details are provided in the table below☒ No**Note:** Application for an environmental authority can be found by searching "EM941" at www.qld.gov.au. An ERA requires an environmental authority to operate. See www.business.qld.gov.au for further information.

Proposed ERA number:		Proposed ERA threshold:	
Proposed ERA name:			

☐ Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.**Hazardous chemical facilities**23.2) Is this development application for a **hazardous chemical facility**?☐ Yes – Form 69: Notification of a facility exceeding 10% of schedule 15 threshold is attached to this development application☒ No**Note:** See www.justice.qld.gov.au for further information.

Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

☐ Yes – this development application is accompanied by written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)

☒ No

Note: See www.qld.gov.au for further information.

Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

☐ Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter

☒ No

Note: The environmental offset section of the Queensland Government's website can be accessed at www.qld.gov.au for further information on environmental offsets.

Koala conservation

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work within an assessable development area under Schedule 10, Part 10 of the Planning Regulation 2017?

☐ Yes

☒ No

Note: See guidance materials at www.ehp.qld.gov.au for further information.

Water resources

23.6) Does this development application involve **taking or interfering with artesian or sub artesian water, taking or interfering with water in a watercourse, lake or spring, taking overland flow water or waterway barrier works?**

☐ Yes – the relevant template is completed and attached to this development application

☒ No

Note: DA templates are available from www.dilgp.qld.gov.au.

23.7) Does this application involve **taking or interfering with artesian or sub artesian water, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water** under the *Water Act 2000*?

☐ Yes – I acknowledge that a relevant water authorisation under the *Water Act 2000* may be required prior to commencing development

☒ No

Note: Contact the Department of Natural Resources and Mines at www.dnrm.qld.gov.au for further information.

Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?**

☐ Yes – an associated resource allocation authority is attached to this development application, if required under the *Fisheries Act 1994*

☒ No

Note: See guidance materials at www.daf.qld.gov.au for further information.

Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake** under the *Water Act 2000*?

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

☒ No

Note: Contact the Department of Natural Resources and Mines at www.dnrm.qld.gov.au for further information.

Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water** under the *Coastal Protection and Management Act 1995*?

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

☒ No

Note: Contact the Department of Environment and Heritage Protection at www.ehp.qld.gov.au for further information.

Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the Water Supply Act)?

☐ Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the Water Supply Act is attached to this development application

☒ No

Note: See guidance materials at www.dews.qld.gov.au for further information.

Tidal work or development within a coastal management district

23.12) Does this development application involve **tidal work or development in a coastal management district**?

☐ Yes – the following is included with this development application:

☐ Evidence the proposal meets the code for assessable development that is prescribed tidal work (*only required if application involves prescribed tidal work*)

☐ A certificate of title

☒ No

Note: See guidance materials at www.ehp.qld.gov.au for further information.

Queensland and local heritage places

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

☐ Yes – details of the heritage place are provided in the table below

☒ No

Note: See guidance materials at www.ehp.qld.gov.au for information requirements regarding development of Queensland heritage places.

Name of the heritage place:		Place ID:	
-----------------------------	--	-----------	--

Brothels

23.14) Does this development application involve a **material change of use for a brothel**?

☐ Yes – this development application demonstrates how the proposal meets the code for a development application for a brothel under Schedule 3 of the *Prostitution Regulation 2014*

☒ No

Decision under section 62 of the *Transport Infrastructure Act 1994*

23.15) Does this development application involve new or changed access to a state-controlled road?

☐ Yes - this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)

☒ No

PART 8 – CHECKLIST AND APPLICANT DECLARATION

24) Development application checklist

I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17

☒ Yes

Note: See the *Planning Regulation 2017* for referral requirements

If building work is associated with the proposed development, Parts 4 to 6 of *Form 2 – Building work details* have been completed and attached to this development application

☐ Yes

☒ Not applicable

Supporting information addressing any applicable assessment benchmarks is with development application

Note: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see DA Forms Guide: Planning Report Template.

☒ Yes

Relevant plans of the development are attached to this development application

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

☒ Yes

The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (see 21))

☐ Yes

☒ Not applicable

25) Applicant declaration

☒ By making this development application, I declare that all information in this development application is true and correct

☒ Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001*

Note: It is unlawful to intentionally provide false or misleading information.

Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website.

Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, *Planning Regulation 2017* and the *DA Rules* except where:

- such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the *Planning Regulation 2017*, and the access rules made under the *Planning Act 2016* and *Planning Regulation 2017*; or
- required by other legislation (including the *Right to Information Act 2009*); or
- otherwise required by law.

This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002*.

PART 9 – FOR OFFICE USE ONLY

Date received:

Reference number(s):

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	

QLeave notification and payment

Note: For completion by assessment manager if applicable

Description of the work	
QLearn project number	
Amount paid (\$)	
Date paid	
Date receipted form sighted by assessment manager	
Name of officer who sighted the form	

The *Planning Act 2016*, the *Planning Regulation 2017* and the *DA Rules* are administered by the Department of Infrastructure, Local Government and Planning. This form and all other required development application materials should be sent to the assessment manager.



Site Classification

And

Wastewater Management System

For

William Schumann

At

Lot 18 Thornton Peak Drive

Forest Creek

Postal address: Earth Test, PO Box 1042, Tolga, Qld 4882. Phone: 4095 4734
e-mail: info@earthtest.com.au

INTRODUCTION:

Earth Test has been engaged by William Schumann to assess, design and report on Site Classification and a Domestic Wastewater Management System at Lot 18 Thornton Peak Drive, Forest Creek.

Real Property Description:-

Lot 18, on RP 738519

Local Authority: Douglas Shire Council.

It is understood the intention is to construct a new dwelling at the site.

A site and soil evaluation was carried out in May 2020.

SITE FACTORS:

The site was identified during a meeting with the owner on-site.

The Lot has an area of 3.84 acres and is predominantly covered with rainforest.

The water supply to the site is onsite roof rainwater.

Occasional surface rocks were noted at the site. An intermittent watercourse flows on the Eastern boundary.

Three Dynamic Cone Penetrometer tests were performed at locations DCP1 through to DCP3 and two boreholes BH1 and BH2 as shown on the site plan.

Atterberg Limits tests were performed on a disturbed sample from Borehole1.



Proposed dwelling location at Lot 18 Thornton Peak Drive, Forest Creek



SITE INVESTIGATION REPORT

BOREHOLE LOG

CLIENT: William Schumann.		DATE SAMPLED: 01/05/2020
PROJECT: Lot 18 Thornton Peak Drive, Forest Creek.		Sampled by: G. Negri
REPORT DATE: 9/05/2020		
BOREHOLE No: BH1		
DEPTH (m)	DESCRIPTION	COMMENTS
0.0-0.5	Yellow-Brown Clay-Silt	Disturbed sample 0.5-0.7m
0.5-0.7	Yellow Orange-Brown Clay-Silt with Gravel	Watertable not encountered
BOREHOLE No: BH2		
DEPTH (m)	DESCRIPTION	COMMENTS
0.0-0.5	Yellow-Brown Clay-Silt	Watertable not encountered
0.5-0.7	Yellow Orange-Brown Clay-Silt with Gravel	



ATTERBERG LIMITS TEST REPORT

CLIENT: William Schumann

SAMPLE No: SI 199-20

PROJECT: Lot 18 Thornton Peak Drive, Forest Creek

DATE SAMPLED: 01/05/2020

SAMPLE DETAILS: BH1 0.5-0.7m

Sampled by: G. Negri

REPORT DATE: 9/05/2020

Tested By: P. Weigand

TEST METHOD	RESULT
Liquid Limit: AS 1289.3.1.2	37%
Plastic Limit: AS 1289.3.2.1	27%
Plasticity Index: AS 1289.3.3.1	10.0%
Linear Shrinkage: AS 1289.3.4.1	5.5%
Length Of Mould:	250.3mm
Cracking, Crumbling, Curling, Number Of Breaks:	One Break
Sample History:	Air Dried
Preparation Method:	Dry Sieved
Insitu Moisture Content:	21.2%
% Passing 0.075mm:	



DYNAMIC CONE PENETROMETER REPORT **AS 1289.6.3.2**

CLIENT: William Schumann

SAMPLE No: SI 199-20

PROJECT: Lot 18 Thornton Peak Drive, Forest Creek.

DATE SAMPLED: 01/05/2020

Tested By: G. Negri

SAMPLE DETAILS: Sites "DCP1, DCP2 & DCP3"
as per site plan.

REPORT DATE: 9/05/2020

DEPTH (Metres)	Site: DCP1	Site: DCP2	Site: DCP3
	No Blows	No Blows	No Blows
0.0 – 0.1	1	2	1
0.1 – 0.2	1	2	2
0.2 – 0.3	2	2	3
0.3 – 0.4	2	3	4
0.4 – 0.5	3	3	5
0.5 – 0.6	4	3	4
0.6 – 0.7	5	3	6
0.7 – 0.8	4	4	6
0.8 – 0.9	3	4	4
0.9 – 1.0	3	3	5
1.0 – 1.1	3	3	4
1.1 – 1.2	4	3	4
1.2 – 1.3	3	4	4
1.3 – 1.4	3	3	4
1.4 – 1.5			
1.5 – 1.6			
1.6 – 1.7			
1.7 – 1.8			
1.8 – 1.9			
1.9 – 2.0			



SITE CLASSIFICATION

Lot 18 Thornton Peak Drive, Forest Creek.

“Abnormal moisture conditions (AS2870-2011 Clause 1.3.3)” exist at the site due to the future removal of trees

The Dynamic Cone Penetrometer test results indicate soft conditions to depths up to 0.4m at DCP1. DCP2 and DCP3 results indicate adequate allowable bearing pressure to 1.5m.

The Atterberg Limits test results indicate a slightly reactive soil.

Due to the soft conditions and “abnormal moisture conditions” the site must be classified **CLASS-“P”**.

To comply with the “Building Services Board Subsidence Policy” advice should be sought from a Registered Professional Engineer for footing design.

All site works must be carried out in accordance with AS 3798-2007 “Guidelines on earthworks for commercial and residential developments”

If the depth of any cut exceeds 0.5m or uncontrolled fill exceeds 0.4m the classification shall be reconsidered.

Because this investigation is limited in scope and extent, it is possible that areas may exist which differ from those shown on the test hole records and used in the site classification. Should any variation from the reported conditions be encountered during excavation work, this office must be notified immediately so that reappraisal of the classification can be made.

Gavin Negri
Earth Test



SITE AND SOIL EVALUATION

Lot 18 Thornton Peak Drive, Forest Creek.

The site and soil evaluation carried out on 01/05/2020 provided the following results.

Site Assessment

<u>Site Factor</u>	<u>Result</u>
Slope	2 degrees
Shape	Linear-Planar
Aspect	South-East
Exposure	Limited
Erosion/land slip	Not noted.
Boulders/rock outcrop	Occasional surface cobbles
Vegetation	Extensive rainforest.
Watercourse/Bores	As shown on site plan.
Water table	Not encountered during investigation.
Fill	Not encountered during investigation.
Flooding	Not likely.
Channelled run-off	Not found
Soil surface conditions	Soft, Moist
Other site specific factors	Nil

Soil Assessment

<u>Soil Property</u>	<u>Result</u>
Colour	Yellow-Brown
Texture	Clay-Loam
Structure	Weak
Coarse Fragments	10%
Measured Permeability Ksat (m/d)	Indicative Permeability 0.05-0.5
Dispersion	Slakes
Soil Category	4
Resultant Design Load Rate, DLR (mm/day)	10



WASTEWATER MANAGEMENT SYSTEM

An “All-Waste” septic tank discharging into an “Advanced Enviro-Septic” bed is considered suitable for this site.

This system has been designed to conform to the requirements of the following codes, acts, regulations and standards. All work to be carried out in accordance with the following codes.

- AS/NZ 1547:2012 On-site domestic-wastewater management.
- Queensland PLUMBING AND DRAINAGE ACT 2018.
- Queensland STANDARD PLUMBING AND DRAINAGE REGULATION 2019.
- Queensland PLUMBING AND WASTEWATER CODE.

SYSTEM SIZING FACTORS.

A population equivalent of three (3) persons has been chosen for the proposed one bedroom dwelling.

The residence will be connected to an onsite roof rain water supply system.

Standard water-reduction fixtures must be used to ensure the integrity of the system. They shall include:-

- Dual flush 6/3 Litre water closets.
- Shower-flow restrictors.
- Aerator faucets (taps).
- Water-conserving automatic washing machines.

Note: - Garbage grinders are not permitted.

As per AS/NZ 1547:2012 Appendix H, Table H1 the “Typical wastewater design flow” for a “Reticulated water supply” gives a flow allowance of 150 L/Person/day.

The daily flow for the dwelling (3 persons @ 150 L/person/day) will be 450 L/day.

From AS/NZ 1547:2012 Table J1 the minimum capacity of the All-Waste septic tank required is 3000 L.

The tank must NOT be fitted with an outlet filter.



LAND-APPLICATION SYSTEM

DISPOSAL AREA SIZING

From AS/NZ 1547:2012 APPENDIX L, L4 DESIGN AREA SIZING, L4.2 Sizing

$$L = Q / (DLR \times W)$$

Where:

L = length in m

Q = design daily flow in L/day

DLR = Design Loading Rate in mm/d

W = Width in m

$$\begin{aligned} L &= 450 / (10 \times 4.5) \\ &= 10.0\text{m.} \end{aligned}$$

Use one 10.0m long by 4.5m wide Advanced Enviro-Septic bed.

See site plan and detail cross-section.

Its recommended that 1kg gypsum per m² be applied to the scarified base before laying the sand

SYSTEM SAND

All configurations of Advanced Enviro-Septic® require a minimum of 150mm of system sand surrounding the circumference of the pipe. This sand, typically gravelly coarse sand, must adhere to the following percentage and quality restrictions.

AS Sieve Size (mm)	Percent Passing %
9.50	100
4.75	95-100
2.36	80-100
1.18	50-85
0.600	25-60
0.300	5-30
0.150	0-10
0.075	0-2

If there is any doubt if the sand media will pass requirements please contact Earth Test for further advice.



SYSTEM INSTALLATION

Avoid compaction by keeping people and machinery off the finished trench or bed floor.
The system shall be installed by a licensed plumber in accordance with the manufacturer's recommendations and the relevant Australian Standards.

Operation and Maintenance

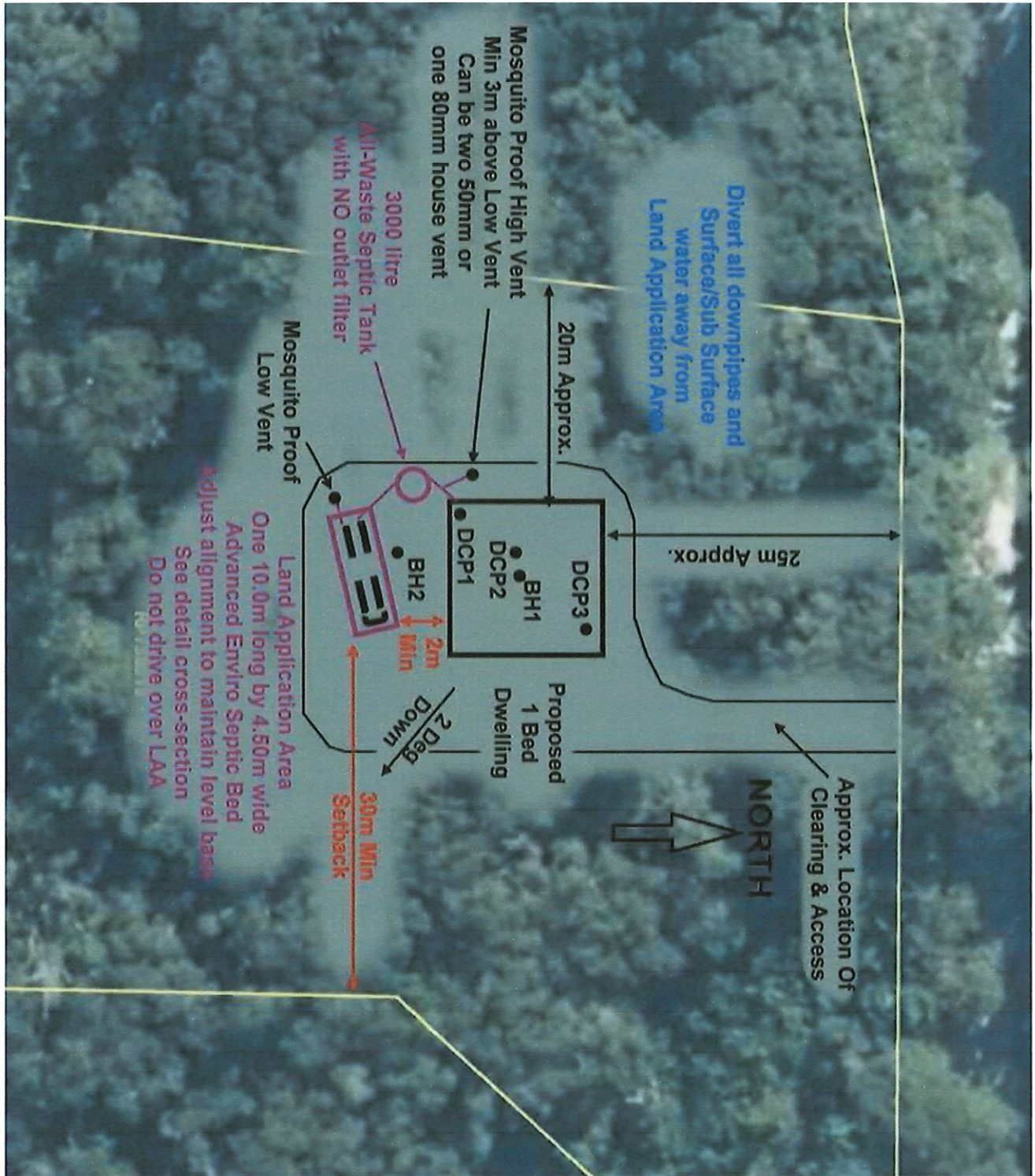
Homeowners should be fully informed of the proper operation and maintenance requirements of the on-site wastewater system.

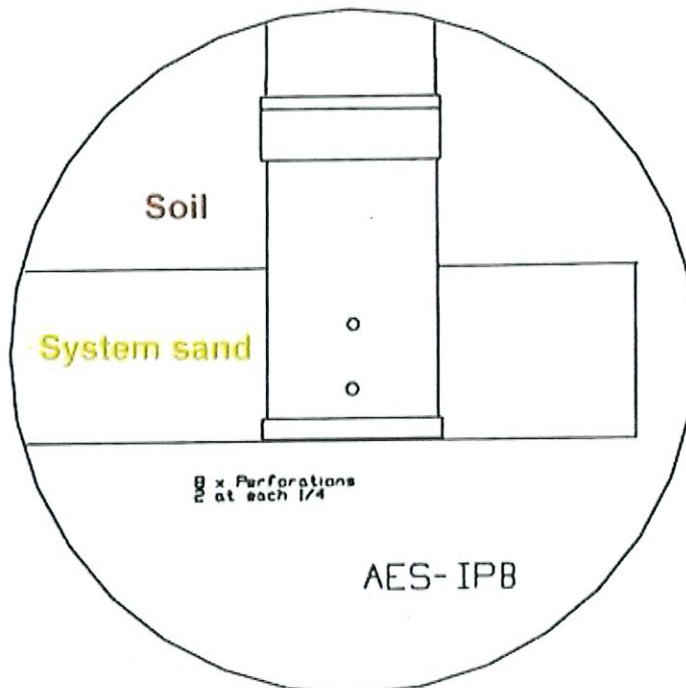
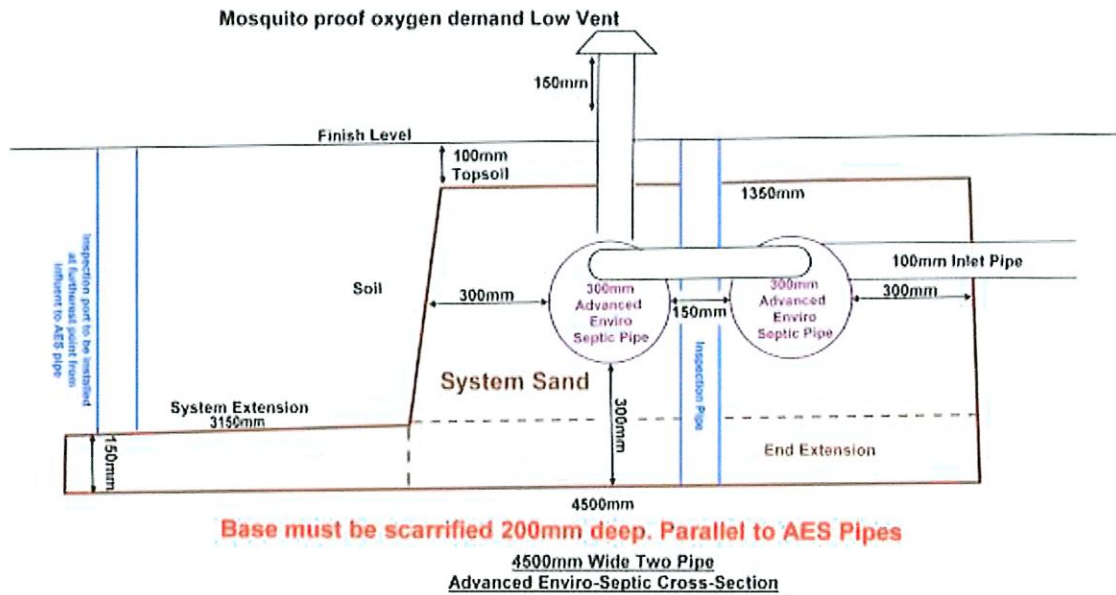
Gavin Negri
Earth Test

SITE PLAN

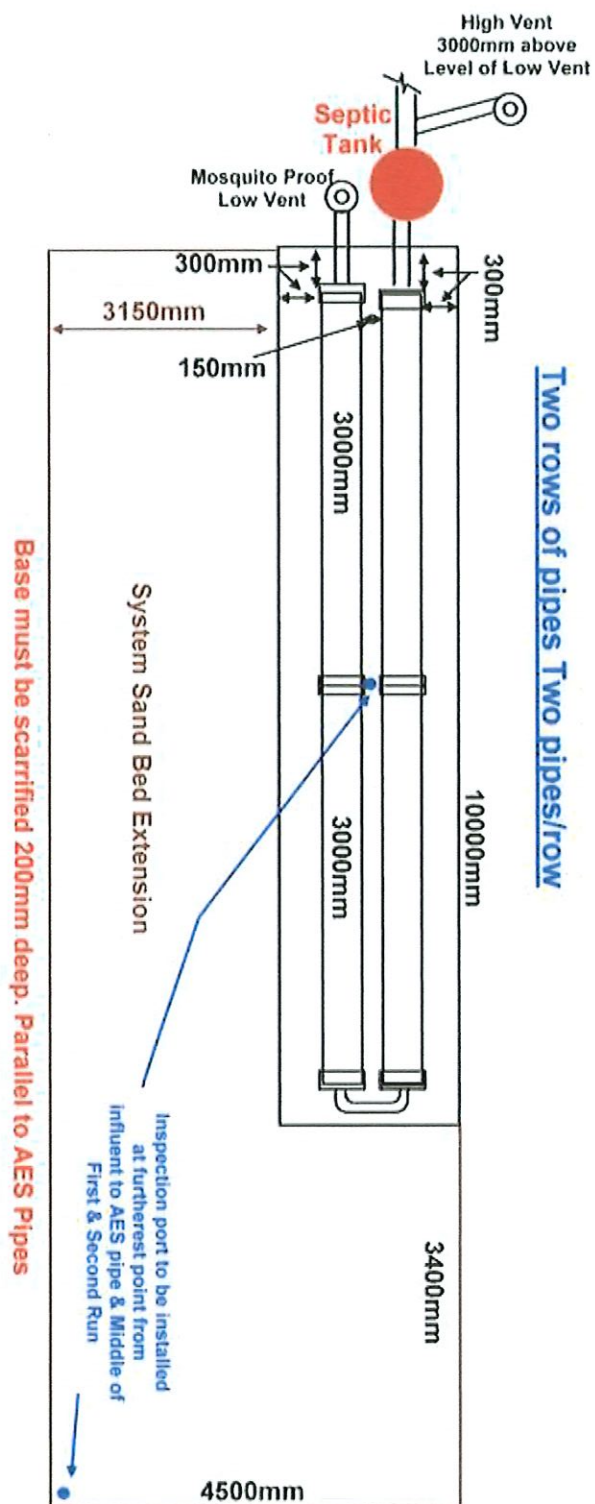
Lot 18 Thornton Peak Drive, Forest Creek.

NOT TO SCALE





AES Inspection point detail



"Always the BEST Option" until site and soil conditions rule it out.

Site Address	Lot 18 Thornton Peak Drive, Forest Creek	State	QLD	Post Code	4873
Client Name	William Schumann				
Designers Name	Earth Test	Designers Ph Number	40954734	Designer Lic Number (or ORCC)	15092731
Plumber Name		Plumber Ph Number		Plumb / Drainer Lic Number	
Council Area	Douglas Shire Council	Designers AES Cert Number		Date	5/5/20

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	
meter loading rate, "30" for Advanced Secondary or "38" Secondary	38	>> This design is for a SECONDARY system.	
Is this a new installation Y or N	y	>> Minimum single vent size is 80mm or 2 x 50mm house vents a septic tank outlet filter is NOT RECOMMENDED	
Number of person	3		
Daily Design Flow Allowance Litre/Person/Day	150		
Number of rows required to suit site constraints	2	>> The maximum lth of a single AES pipe run is 30 meters	
Surface Soil Category as established by site and soil evaluation. CATEGORY	4	>> Catagory may require design considerations. Ref AS1547	
Design Loading Rate based on site & soil evaluation DLR (mm/day)	10	>> Soil conditioning may be necessary. Ref AS1547 & Comments.	
Bore log depth below system Basal area	1400	>> Min depth below basal area is 600 mm to establish water table or re	
AES FOOTPRINT MUST BE LEVEL WITH TRENCH EXTENSION	3.5	>> Consideration required for Sloping sites. Ref AS1547. refer comments	
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 FALL FROM TANK TO AES SYSTEM PIPES			

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


- Ripping of receiving surface is required in clay soil structures in Cat 4,5,6. In addition refer to AS 1547. Always excavate and rip parallel to the site slope/AES pipe
- Specialist soils advice and special design techniques will be required for clay dominated soil having dispersive or shrink/swell behaviour. Refer AS1547
- Designers need to be familiar with special requirements of Local Authorities. IE - Minimum falls from Septic tank outlets to Land application areas. etc
- All Sloping sites require special consideration and management through design of slope percentage, surface water and construction methods as per AS1547.
- Plumbers are reminded that good construction techniques as per AS1547 are especially important in these soil types. Refer AS1547 & AES installation Instructions

AES System Calculator Outcomes			AES dimensions		
Total System load - litres / day (Q).	450	l/d		AES System	Extension Area
Min Length of AES pipe rows to treat loading	5.9	lm	Lth m : (L)		
Number of FULL AES Pipe lengths per row	2	lths	Width m:(W)		
Total Capacity of AES System pipe in Litres	848	ltr.	Sand Depth :	0.75	0.15
			Area m2	8.9	36.1

DO YOU WISH TO 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"	y	Enter Custom Width in m	4.5
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 >>	10.0	x 4.5	= 45.0 m2 total

A trench design has a max of 2 rows of AES pipes located 300mm from up slope side and centered length wise in the trench is better.

Code		AES System Bill of Materials.		Chankar Environmental Use Only	
AES-PIPE	AES 3 mtr Lths required	4	lths	 <p>Digitally signed by Steve Dennis DN: cn=Steve Dennis, o=Chandar Environmental, ou=Resign Review, email=designreview @enviro- septic.com.au, c=AU Date: 2020.05.05 07:48:50 +10'00'</p> <p>Designreview@enviro-septic.com.au</p>	
AESC	AESC Couplings required	2	ea		
AESO	AESO Offset adaptors	4	ea		
AESODV	AES Oxygen demand vent	1	ea		
AES-IPB	AES 100mm Inspection point base	2	ea		
AES Equ	AES Speed Flow Equaliser		ea		
TOTAL SYSTEM SAND REQUIRED (Guide Only)		15	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.

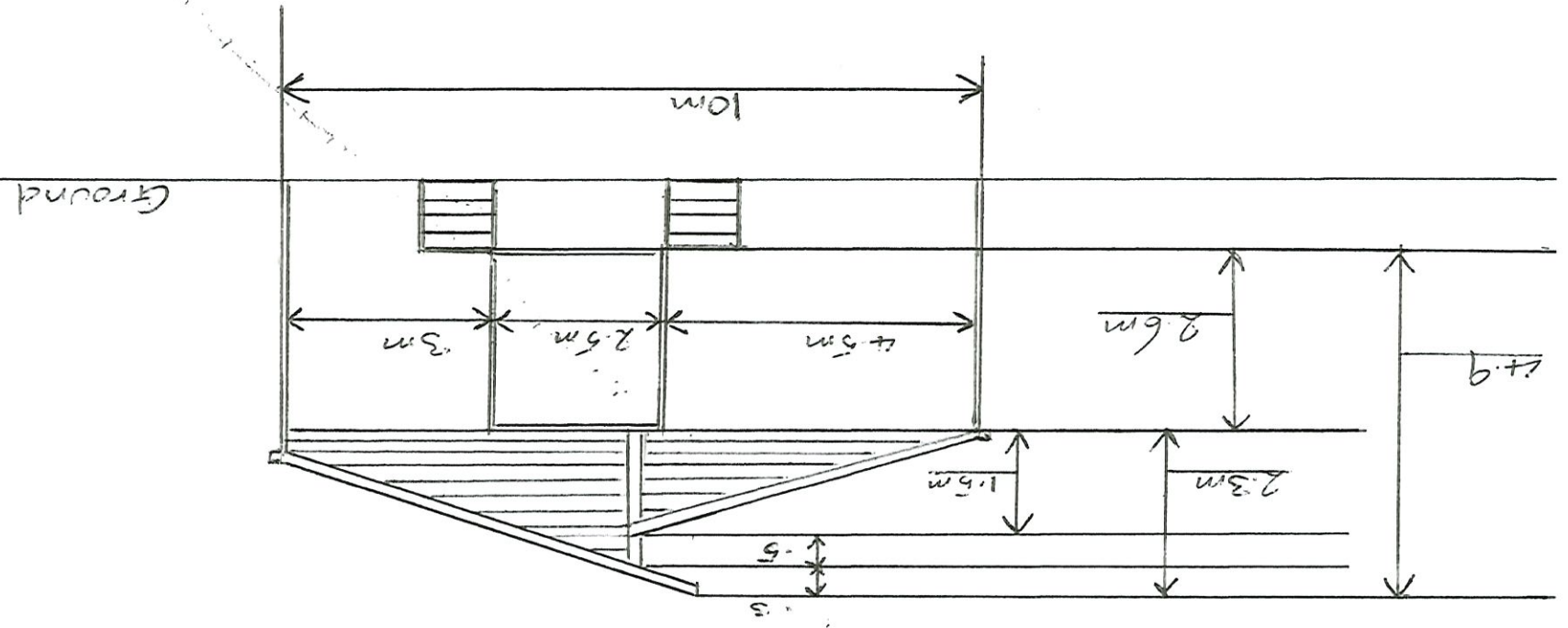
> AES pipes can be cut to length on site. They are supplied in 3 meter lths only.

Lot 18 Thornton Peak Drive Forest Creek

RP 738519 Side Elevation - North

1m, 2m, 3m, 4m, 5m, 6m, 7m, 8m, 9m, 10m

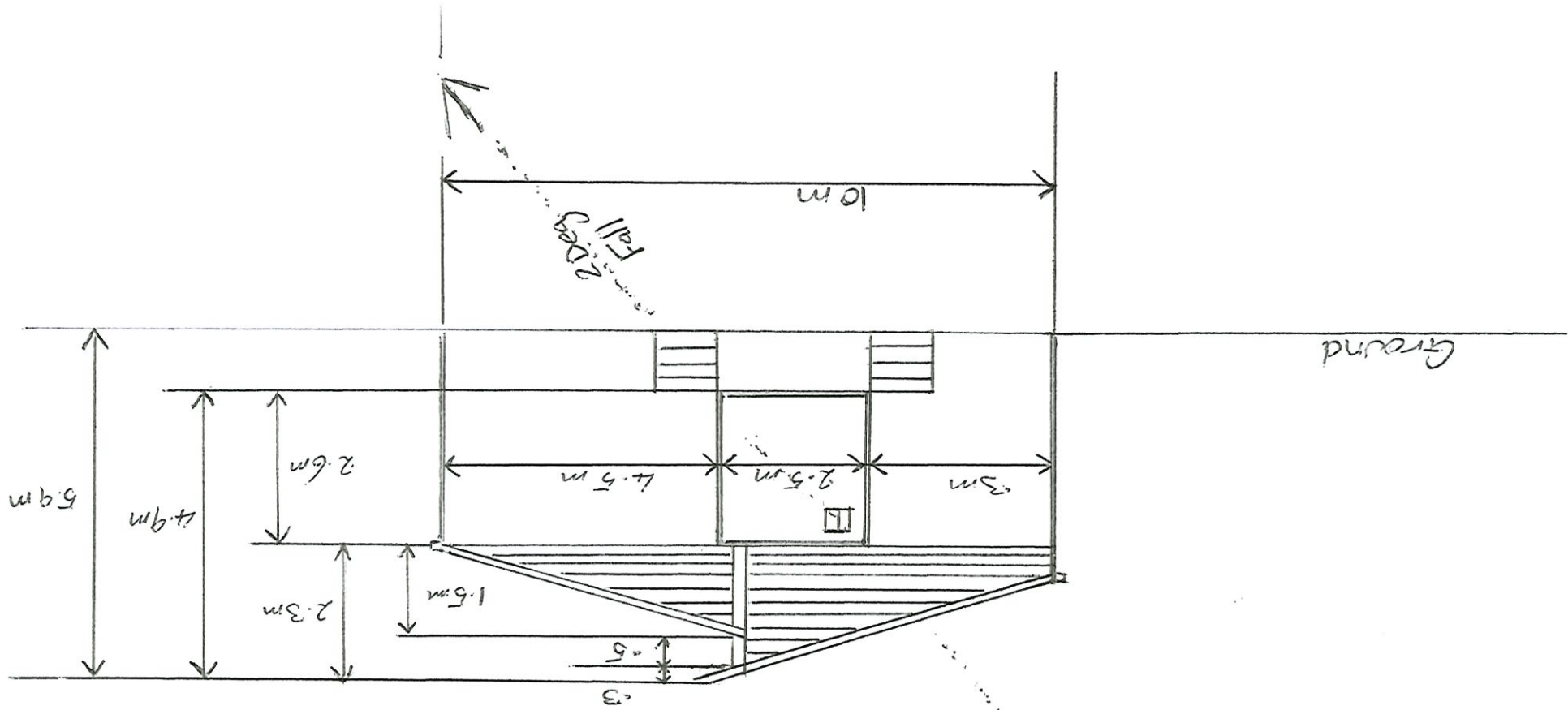
Scale



Lot 18 Thornton Peak Drive Forest Creek

RP 738519 Side Elevation - South

Scale 1m, 2m, 3m, 4m, 5m, 6m, 7m, 8m, 9m, 10m

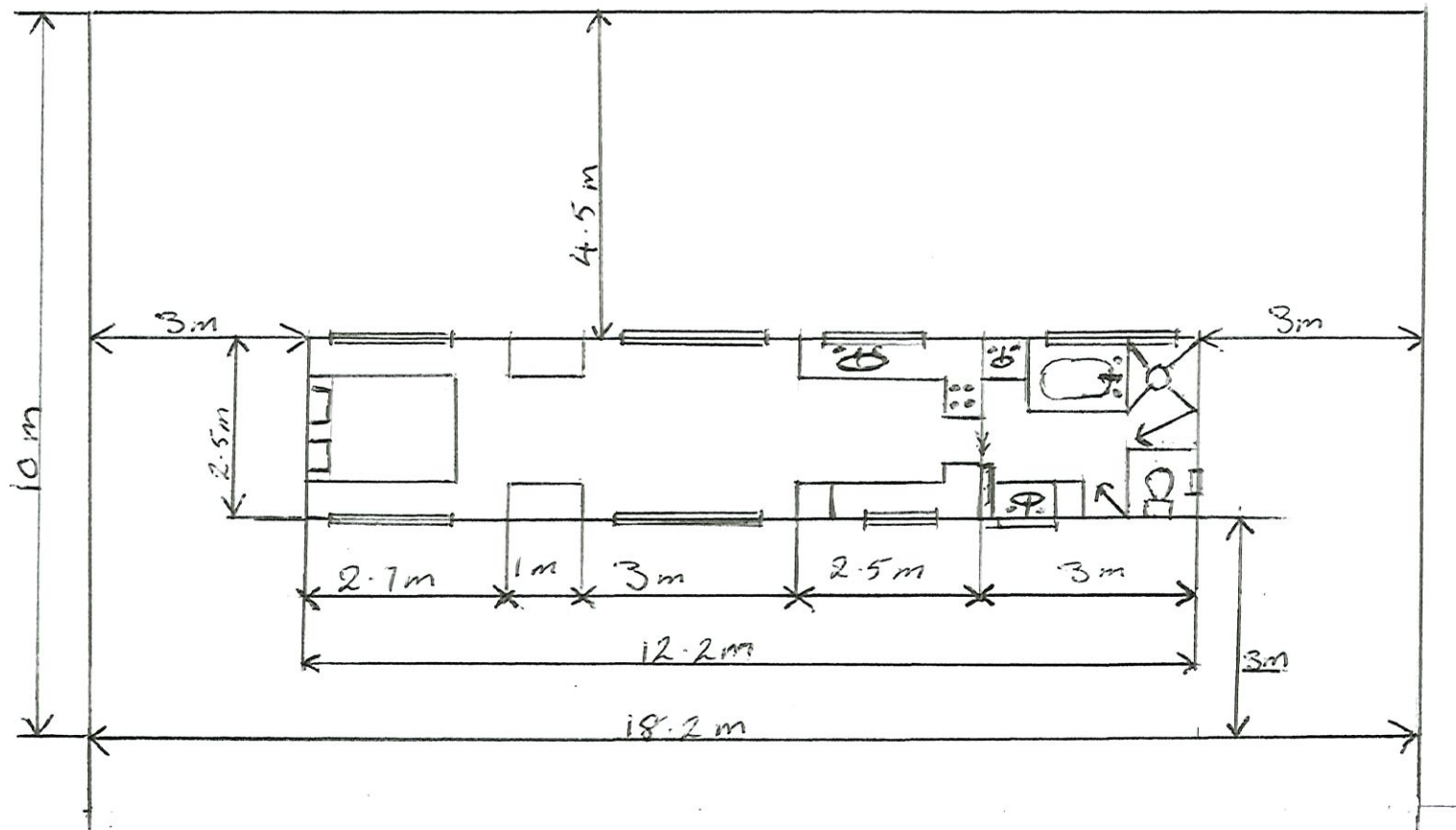


Lot 18 Thornton Peak Drive Forest Creek - Floor Plan

RP 738519

1m, 2m, 3m, 4m, 5m, 6m, 7m, 8m, 9m, 10m

Scale



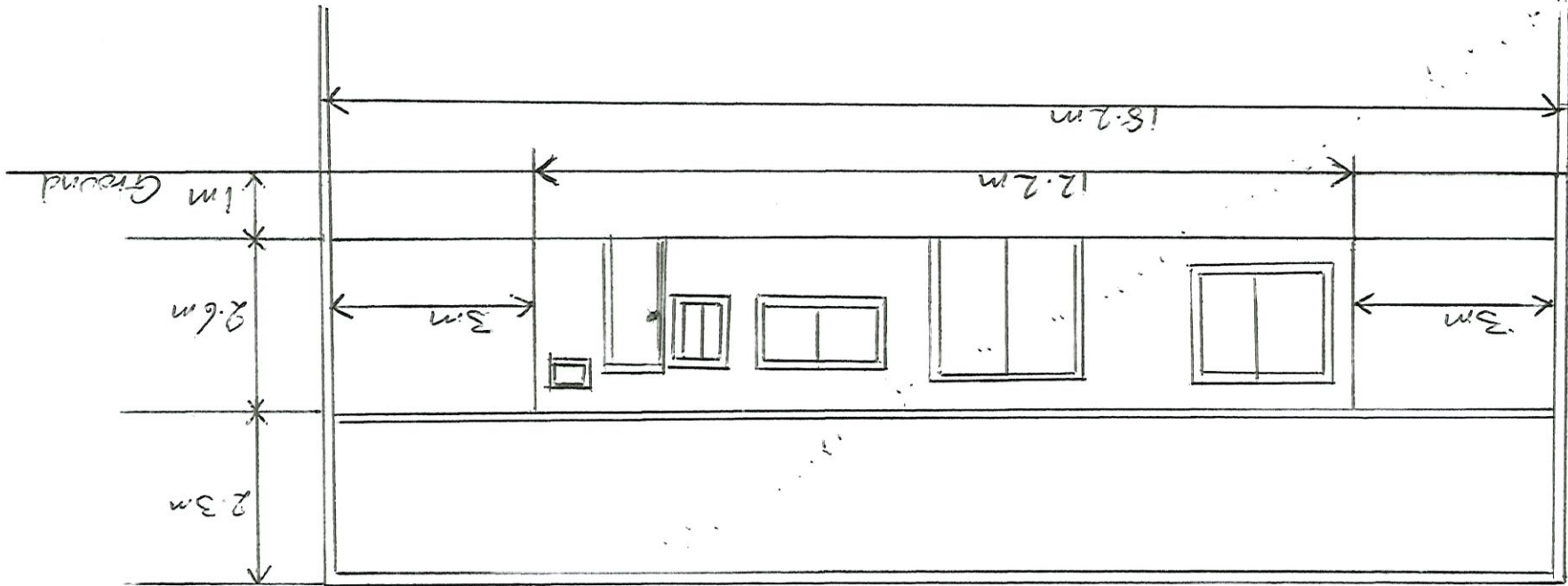
Back
 Lot 18 Thornton Peak Drive Forest Creek — West Elevation

RP 738519

2m, 3m, 4m, 5m, 6m, 7m, 8m, 9m, 10m

Scale

2 Deg Fall
 ↘



East

Lot 18 Thornton Peak Drive Forest Creek - Front elevation

RP 738519

2m 3m 4m 5m 6m 7m 8m 9m 10m

Scale

2 DEG Fall

